FIELD SURVEY DATA

FEASIBILITY STUDY FOR INSTALLATION OF UMCS FORT RILEY, KANSAS

ENERGY ENGINEERING ANALYSIS PROGRAM (EEAP)

Prepared for

U.S. ARMY CORPS OF ENGINEERS
KANSAS CITY DISTRICT
KANSAS CITY, MISSOURI

Under

U.S. ARMY ENGINEER DISTRICT, MOBILE
INDEFINITE DELIVERY A-E CONTRACT
CONTRACT NO. DACA01-94-D-0033
DELIVERY ORDER NO. 0001

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EMC ENGINEERS, INC.

DENVER, COLORADO
ATLANTA, GEORGIA

DEPARTMENT OF THE ARMY
CONSTRUCTION ENGINEERING RESEARCH LABORATORIES, CORPS OF ENGINEERS
P.O. BOX 9005
CHAMPAIGN, ILLINOIS 61826-9005

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FIELD SURVEY DATA

FEASIBILITY STUDY FOR INSTALLATION OF UMCS
FORT RILEY, KANSAS

ENERGY ENGINEERING ANALYSIS PROGRAM (EEAP)

Prepared for

U.S. Army Corps of Engineers
Kansas City District
Kansas City, Missouri

DTIC QUALITY INSPECTED 2

Under

Contract No. DACA01-94-D-0033
Delivery Order 0001
EMC No. 1406-001

19971017 190

July 1995

By

E M C Engineers, Inc.
2750 S. Wadsworth, Suite C-200
Denver, Colorado 80227
303/988-2951

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0003
BLDG NAME: POST CHAPEL

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 4,340

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 40

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0003
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU:
SERVES AREA: ALL
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 4,800
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: COMFORT AIRE
UNIT MODEL: SW90-3BA
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 40
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 60
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0003
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: 2
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,000
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: CLARAGE FAN COMPANY
UNIT MODEL: S: 85454
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 40
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0003
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

% AREA HEATED BY BB RADIATION:

NAMEPLATE

BOILER MFG: KEWANEE
UNIT MODEL: 8656
BLR CAP OUTPUT (BTUH): 600,000
BLR CAP INPUT (BTUH): 750,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 40
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 7 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0003
BLDG NAME: POST CHAPEL

REF. UNIT NUMBER/TAG: CT-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: COOLING TOWER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	MARLEY AQUA TOWER
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.75
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 40
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1.5	PUMP MFG:	BELL & GOSSETT
PUMP SERVICE:	COND WATER PUMP (CNW)			PUMP MODEL:	

EMC ENGINEERS, INC.

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CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: AJN/DEJ/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0006 **BLDG NAME:** POST CHAPEL

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 6,230

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 40

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: AJN/DEJ/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0006
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CT-1
SERVES AREA: NAVE/OFFICES
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,000
CFM-CLG: 4,000
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL: 50BT012500
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 40
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SETBACK
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 76
PRESENT TEMP SUM UNOCC: 80
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

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AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0006
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CT-1
SERVES AREA: NAVE/OFFICES
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,000
CFM-CLG: 4,000
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL: 50BT012500
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 40
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SETBACK
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 76
PRESENT TEMP SUM UNOCC: 80
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

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EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: AJN/DEJ/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0006
AHU NUMBER: AHU-3
AHU LOCATION: NORTH MER
REFRIG SYS # SRVNG AHU: CT-1
SERVES AREA: CLASSROOM
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 900
CFM-CLG: 900
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: COMFORT AIRE BY HEAT CONTROL
UNIT MODEL:
SUPPLY FAN HP: 0.12
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 40
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

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CLIENT CNTRCT #: DACA 01-94-D-0033
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BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0006
BOILER RM LOCATION: NORTH MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 25

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 600,000
BLR CAP INPUT (BTUH): 750,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 40
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 150 DEG F or PSIG
TYPE OF BURNER CONTROLS: OTHER
CONTROLS COMMENTS: 2-STAGE

HW PUMP

PUMP TAG: 1
PUMP HP: 0.12
PUMP MFG: GENERAL
PUMP SERVICE: HW PUMP
PUMP MODEL: 5KH32EG1298X

HW PUMP

PUMP TAG: 2
PUMP HP: 0.12
PUMP MFG: GENERAL
PUMP SERVICE: HW PUMP
PUMP MODEL: 5KH32EG1298X

EMC ENGINEERS, INC.

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CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: AJN/DEJ/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0006
BLDG NAME: POST CHAPEL

REF. UNIT NUMBER/TAG: CT-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU 1-3

UNIT TYPE: WATER COOLING TOWER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	MARLEY
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	1.5
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 40
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	
PUMP SERVICE:	COND WATER PUMP (CNW)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0027 **BLDG NAME:** OFF QTRS MILIT

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 38,146

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

32 HEAT PUMPS HEAT AND COOL THE BUILDING THROUGHOUT. BUILDING IS PREPPPED FOR EMCS.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0027
BOILER RM LOCATION: BASEMENT EAST

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: HALF OF BLDG.

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: TELEDYNE LAARS
UNIT MODEL: VW 0500
BLR CAP OUTPUT (BTUH): 405,000
BLR CAP INPUT (BTUH): 500,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0027
BOILER RM LOCATION: BASEMENT EAST

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: HALF OF BLDG.

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: TELEDYNE LAARS
UNIT MODEL: HH0400CN12HBACX
BLR CAP OUTPUT (BTUH): 329,000
BLR CAP INPUT (BTUH): 400,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL: 1QA48517D717J

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0027
BLDG NAME: OFF QTRS MILIT

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#): MER
AHU'S SERVED: FC

UNIT TYPE: OTHER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	ZVN18TTDR7026DJ

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0027
BLDG NAME: OFF QTRS MILIT

REF. UNIT NUMBER/TAG: CWP-2
LOCATION (MER#): MER
AHU'S SERVED: FC

UNIT TYPE: OTHER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	ZVN184TTDR7026DJ

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0029 **BLDG NAME:** RED CROSS BLDG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 3,000

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 26

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	10	8	8	10
REQ STOP:	0	17	17	17	17	17	12

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0029
AHU NUMBER: AHU-1
AHU LOCATION: BASEMENT
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 60

AHU UNIT TYPE: RESIDENTIAL FURNACE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,250
CFM-CLG: 2,250
MIN %OA: 10
MAX %OA: 10

NAMEPLATE

UNIT MFG: BRYANT CARRIER
UNIT MODEL: 394GAW048150A
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 26
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	10	8	8	10
REQ STOP:	0	17	17	17	17	17	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: DUAL SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0029
AHU NUMBER: AHU-2
AHU LOCATION: BASEMENT
REFRIG SYS # SRVNG AHU: CH-2
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 40

AHU UNIT TYPE: RESIDENTIAL FURNACE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,500
CFM-CLG: 1,500
MIN %OA: 10
MAX %OA: 10

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAW036100
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 26
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	10	8	8	10
REQ STOP:	0	17	17	17	17	17	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SU
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0029 **BLDG NAME:** RED CROSS BLDG

REF. UNIT NUMBER/TAG: CH-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	BRYANT	TOWER MFG:	
CHILLER MODEL:	569E042	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	230
CHILLER V:	230	TOWER FAN AMPS:	1.2
CHILLER AMPS:	22.8	TOWER FAN HP:	0.2
CHILLER PH:	1		
CHILLER CAP (TONS):	6		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 26 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	10	8	8	10
REQ STOP:	0	17	17	17	17	17	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0029
BLDG NAME: RED CROSS BLDG

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	BRYANT	TOWER MFG:	
CHILLER MODEL:	569E030	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	230
CHILLER V:	230	TOWER FAN AMPS:	1.2
CHILLER AMPS:	18.7	TOWER FAN HP:	0.2
CHILLER PH:	1		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 26
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	10	8	8	10
REQ STOP:	0	17	17	17	17	17	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0200 **BLDG NAME:** ADMIN GEN PURP

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 60,690

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0200
AHU NUMBER: HP-1
AHU LOCATION: ZONE PERIMETER
REFRIG SYS # SRVNG AHU:
SERVES AREA: BASEMENT
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: HEAT PUMP
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,270
CFM-CLG: 11,270
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0200
AHU NUMBER: HP-2
AHU LOCATION: ZONE PERIMETER
REFRIG SYS # SRVNG AHU:
SERVES AREA: NORTH WING 1ST FLR
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEAT PUMP
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,660
CFM-CLG: 6,660
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0200
AHU NUMBER: HP-3
AHU LOCATION: ZONE PERIMETER
REFRIG SYS # SRVNG AHU:
SERVES AREA: SOUTHWING 1ST FLR
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEAT PUMP
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,910
CFM-CLG: 5,910
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0200
AHU NUMBER: HP-4
AHU LOCATION: ZONE PERIMETER
REFRIG SYS # SRVNG AHU:
SERVES AREA: NORTHWING 2ND FLR
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEAT PUMP
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,470
CFM-CLG: 8,470
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0200
AHU NUMBER: HP-5 — AHU LOCATION: ZONE PERIMETER
REFRIG SYS # SRVNG AHU: — SERVES AREA: SOUTH WING 2ND FLR
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEAT PUMP — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,480 — CFM-CLG: 7,480
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0200
AHU NUMBER: HP-6
AHU LOCATION: ZONE PERIMETER
REFRIG SYS # SRVNG AHU:
SERVES AREA: AUDITORIUM
% OF BLDG AREA HEATED: 27

AHU UNIT TYPE: HEAT PUMP
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,000
CFM-CLG: 8,000
MIN %OA: 13
MAX %OA: 13

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 4
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0200
BOILER RM LOCATION: MER BASEMENT

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: M-205-KX
BLR CAP OUTPUT (BTUH): 2,050,000
BLR CAP INPUT (BTUH): 2,562,500

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0200
BOILER RM LOCATION: MER BASEMENT

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE:

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: M-205-KX
BLR CAP OUTPUT (BTUH): 2,050,000
BLR CAP INPUT (BTUH): 2,562,500
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0200
BOILER RM LOCATION: MER BASEMENT

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 50
PUMP MFG: MARATHON
PUMP SERVICE: COND. LOOP WATER PUMP
PUMP MODEL: TJ324TSTDR7001DNW

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0200
BOILER RM LOCATION: MER BASEMENT

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 2
PUMP HP: 50
PUMP MFG: MARATHON ELECTRIC
PUMP SERVICE: COND. LOOP WATER PUMP
PUMP MODEL: TJ324TSTDR7001DNW

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0200
BLDG NAME: ADMIN GEN PURP

REF. UNIT NUMBER/TAG: CT-1
LOCATION (MER#): EAST OF BLDG.
AHU'S SERVED: ALL HEAT PUMPS

UNIT TYPE: COOLING TOWER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	AIRCOIL COMPANY
CHILLER MODEL:		# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	480
CHILLER V:	0	TOWER FAN AMPS:	3
CHILLER AMPS:	0	TOWER FAN HP:	30
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	US ELECTRIC
PUMP SERVICE:	COOLING TOWER PUMP			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0200
BLDG NAME: ADMIN GEN PURP

REF. UNIT NUMBER/TAG: CT-2
LOCATION (MER#): NORTH OF BLDG
AHU'S SERVED: ALL HEAT PUMPS

UNIT TYPE: COOLING TOWER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	EVAPCO
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	480
CHILLER V:	0	TOWER FAN AMPS:	3
CHILLER AMPS:	0	TOWER FAN HP:	20
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1	PUMP MFG:	CENTURY
PUMP SERVICE:	COND WATER PUMP (CNW)			PUMP MODEL:	8-135802-21

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/19/94
PREPARED BY: JM.AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0202 **BLDG NAME:** PHYS FITNESS CTR

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 51,307

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 52

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	21	22	22	22	22	22	21

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/19/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM.AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0202
AHU NUMBER: AHU-1 — AHU LOCATION: WEIGHT ROOM
REFRIG SYS # SRVNG AHU: CT-1 — SERVES AREA: WEIGHT ROOM
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,500 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 52 — MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	21	22	22	22	22	22	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/19/94
PREPARED BY: JM.AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0202
AHU NUMBER: AHU-2
AHU LOCATION: SKATE RINK
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: SKATE RINK
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 18,500
CFM-CLG: 18,500
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL: 28CX1428
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 52
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	21	22	22	22	22	22	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/19/94
PREPARED BY: JM.AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0202
AHU NUMBER: UH-1
AHU LOCATION: GYMNASIUM
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: GYM
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,000
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 52
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	21	22	22	22	22	22	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/19/94
PREPARED BY: JM.AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0202
AHU NUMBER: UH-2
AHU LOCATION: GYMNASIUM
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: GYM
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,000
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 52
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	21	22	22	22	22	22	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/19/94
PREPARED BY: JM.AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0202
AHU NUMBER: UH-3
AHU LOCATION:
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: 2ND FLR. OFFICES
% OF BLDG AREA HEATED: 11

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,750
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 52
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	21	22	22	22	22	22	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/19/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM.AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0202
AHU NUMBER: UH-4 — AHU LOCATION: LOCKER ROM
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: LOCKER RM/ RAQUETBALL CO
% OF BLDG AREA HEATED: 21

AHU UNIT TYPE: UNIT HEATER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,000 — CFM-CLG: 8,000
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 52 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	21	22	22	22	22	22	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/19/94
PREPARED BY: JM.AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0202
AHU NUMBER: UH-5
AHU LOCATION: STORAGE
REFRIG SYS # SRVNG AHU:
SERVES AREA: WOMEN'S LOCKERS
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,000
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 52
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	21	22	22	22	22	22	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/19/94
PREPARED BY: JM.AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0202
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: LOW PRESS STEAM (<15#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: KEWANEE
UNIT MODEL: M425-KG
BLR CAP OUTPUT (BTUH): 4,250,000
BLR CAP INPUT (BTUH): 5,313,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 52
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	21	22	22	22	22	22	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/19/94
PREPARED BY: JM.AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0202
BLDG NAME: PHYS FITNESS CTR

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38AE044S10AA	# OF TOWER FANS:	4
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	4.6
CHILLER AMPS:	76	TOWER FAN HP:	0.43
CHILLER PH:	3		
CHILLER CAP (TONS):	45		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 52
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	21	22	22	22	22	22	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/19/94
PREPARED BY: JM.AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0202
BLDG NAME: PHYS FITNESS CTR

REF. UNIT NUMBER/TAG: CT-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: WATER COOLING TOWER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	MARLEY
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS: 10 TON CAPACITY

SCHEDULE

DAYS SCHEDULE NO: 52
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	21	22	22	22	22	22	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	0.75	PUMP MFG:	
PUMP SERVICE:	COND WATER PUMP (CNW)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/7/94
PREPARED BY: JM/AMS/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0203 **BLDG NAME:** CAVALRY MUSEUM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 5,800

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/7/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0203
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: — SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,200 — CFM-CLG: 5,200
MIN %OA: 20 — MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER — UNIT MODEL:
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: LINCOLN — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	STEAM	☒
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 11 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/7/94
PREPARED BY: JM/AMS/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0203
BLDG NAME: CAVALRY MUSEUM

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE WEST
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	FAN MOTORS
CHILLER MODEL:	38AE064510MOD	# OF TOWER FANS:	6
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	4.6
CHILLER AMPS:	119	TOWER FAN HP:	0.43
CHILLER PH:	3		
CHILLER CAP (TONS):	60		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: 1
PUMP HP: 3
PUMP MFG: BALDOR
PUMP SERVICE: CW PUMP (Chilled Water)
PUMP MODEL: JMLL408TM00

CW and CNW PUMPS

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/7/94
PREPARED BY: JM/AMS/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0203
BLDG NAME: CAVALRY MUSEUM

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#): MER
AHU'S SERVED:

UNIT TYPE

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	BALDOR
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	JMLL408TM00

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/7/94
PREPARED BY: JMAJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0205 BLDG NAME: CAVALRY MUSEUM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 16,496

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 21

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	12	9	9	9	9	9	9
REQ STOP:	17	17	17	17	17	17	17

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/7/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0205
AHU NUMBER: AHU-1
AHU LOCATION: 3RD FLOOR
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: ALL
% OF BLDG AREA HEATED: 65

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,400
CFM-CLG: 11,400
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: LINCOLN
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HW	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 21
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	12	9	9	9	9	9	9
REQ STOP:	17	17	17	17	17	17	17

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/7/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0205
AHU NUMBER: AHU-2
AHU LOCATION: 3RD FLOOR
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: ALL
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,200
CFM-CLG: 6,200
MIN %OA: 0
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: LINCOLN
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 21
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	12	9	9	9	9	9	9
REQ STOP:	17	17	17	17	17	17	17

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/7/94
PREPARED BY: JMAJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0205
BOILER RM LOCATION:

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: HWP-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

% AREA HEATED BY BB RADIATION:

NAMEPLATE

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 21
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	12	9	9	9	9	9	9
REQ STOP:	17	17	17	17	17	17	17

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 3
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/7/94
PREPARED BY: JMAJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0205
BLDG NAME: CAVALRY MUSEUM

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#): MER
AHU'S SERVED:

UNIT TYPE: CENTRAL PLANT

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 21
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	12	9	9	9	9	9	9
REQ STOP:	17	17	17	17	17	17	17

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/7/94
PREPARED BY: AJN/DEJ

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0206 **BLDG NAME:** ADMIN GEN PURP

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 10,754

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 60

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	16	16	16	16	16	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/7/94
PREPARED BY: AJN/DEJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0206
AHU NUMBER: AHU-1
AHU LOCATION: BASEMENT MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 13,500
CFM-CLG: 13,500
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 2N9375
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 60
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/7/94
PREPARED BY: AJN/DEJ

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0206
BOILER RM LOCATION: BASEMENT

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: TYPEC 1779

BLR CAP OUTPUT (BTUH): 786,000
BLR CAP INPUT (BTUH): 982,500

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTH SECHDULE NO: 60
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/7/94
PREPARED BY: AJN/DEJ

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0206
BLDG NAME: ADMIN GEN PURP

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	502CD60	# OF TOWER FANS:	6
CHILLER SERIAL NO:	8220	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	102	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	50		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 60
MONTHS SCHEDULE NO: 4
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	16	16	16	16	16	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:**
LOCATION: FT. RILEY, KS **PREPARED BY:**

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0207 **BLDG NAME:** CAVALRY MUSEUM

ELECTRIC METER: N **CONDITIONED SQFT:** 8,278
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 44

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	10	10	10	10	10	10
REQ STOP:	16	16	16	16	16	16	16

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0207
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: BASEMENT & 1ST FLOOR
% OF BLDG AREA HEATED: 17

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 650 — CFM-CLG: 650
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: CCDB03BC0H
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: UVB143TTDR5327 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	HOT WATER	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 44 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	10	10	10	10	10	10
REQ STOP:	16	16	16	16	16	16	16

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0207
AHU NUMBER: AHU-2 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: BASEMENT & 1ST FLOOR
% OF BLDG AREA HEATED: 17

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,515 — CFM-CLG: 1,515
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: CCDB03AEOH
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: UVB143TTDR5327 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	ELECTRIC	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 44 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	10	10	10	10	10	10
REQ STOP:	16	16	16	16	16	16	16

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0207
AHU NUMBER: AHU-3 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: 1ST FLOOR
% OF BLDG AREA HEATED: 17

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,050 — CFM-CLG: 2,050
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: CCDB0GBEOH
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: VVB145TTDR5327 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	ELECTRIC	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 44 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	10	10	10	10	10	10
REQ STOP:	16	16	16	16	16	16	16

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0207
AHU NUMBER: AHU-4 — AHU LOCATION: 1ST FLR MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: SOUTH 1ST FLOOR
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,950 — CFM-CLG: 1,950
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: SNK88C10385
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	ELECTRIC	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 44 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	10	10	10	10	10	10
REQ STOP:	16	16	16	16	16	16	16

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0207
AHU NUMBER: AHU-5
AHU LOCATION: 2ND FLR MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 2ND FLR WEST ZONE
% OF BLDG AREA HEATED: 17

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,180
CFM-CLG: 2,180
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: K88C10386
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	ELECTRIC	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 44
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	10	10	10	10	10	10
REQ STOP:	16	16	16	16	16	16	16

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: HUMIDITY ON SUPPLY AIR (VAPOR MIST) ELECTRIC CONTROLS; ELECTRIC I

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0207
AHU NUMBER: AHU-6 — AHU LOCATION: 2ND FLR MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: 2ND FLR EAST ZONE
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,145 — CFM-CLG: 2,145
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE CLIMATE CHANGER — UNIT MODEL: SN K88C10387
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 44 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	10	10	10	10	10	10
REQ STOP:	16	16	16	16	16	16	16

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: HUMIDITY ON SUPPLY AIR (VAPOR MIST) ELECTRIC CONTROLS; ELECTRIC I

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0207
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 63

BOILER MFG: AJAX
UNIT MODEL: WGF0525
BLR CAP OUTPUT (BTUH): 420,000
BLR CAP INPUT (BTUH): 525,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 44
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	10	10	10	10	10	10
REQ STOP:	16	16	16	16	16	16	16

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 150 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS: POWER BURNER-FUEL/AIR DAMPER

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: BALDOR
PUMP SERVICE:
PUMP MODEL:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0207
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 44
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	10	10	10	10	10	10
REQ STOP:	16	16	16	16	16	16	16

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: BALDOR
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0207
BLDG NAME: CAVALRY MUSEUM

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1 - 6
UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	RAUBC306FE00DBF23	# OF TOWER FANS:	2
CHILLER SERIAL NO:	J88C80830	TOWER FAN V:	200
CHILLER V:	200	TOWER FAN AMPS:	4.1
CHILLER AMPS:	109	TOWER FAN HP:	0
CHILLER PH:	3		
CHILLER CAP (TONS):	30		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 44
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	10	10	10	10	10	10
REQ STOP:	16	16	16	16	16	16	16

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	UVB145TTDR5331AA

CW and CNW PUMPS

PUMP TAG:		PUMP HP:		PUMP MFG:	
PUMP SERVICE:				PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0207
BLDG NAME: CAVALRY MUSEUM

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#): MER
AHU'S SERVED:

UNIT TYPE

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 44
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	10	10	10	10	10	10
REQ STOP:	16	16	16	16	16	16	16

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	UVB145TTDR5331AA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0210 **BLDG NAME:** MILIT PERS BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 58,448

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/6/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0210
AHU NUMBER: AHU-1 — AHU LOCATION:
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: 1ST FLOOR
% OF BLDG AREA HEATED: 25

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 48,000 — CFM-CLG: 48,000
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: CCBB17EE6L0
SUPPLY FAN HP: 10 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: DDC — THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0210
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST FLOOR
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 7

CFM-HTG: 38,400
CFM-CLG: 38,400
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: CCBB21EEE60
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0210
AHU NUMBER: AHU-3
AHU LOCATION:
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 2ND FLOOR
% OF BLDG AREA HEATED: 30

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 27,000
CFM-CLG: 27,000
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0210
AHU NUMBER: AHU-4
AHU LOCATION:
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST FLOOR
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,000
CFM-CLG: 4,000
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRNE
UNIT MODEL: CCDB08BXEM
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: E-PLUS
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 72
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 72
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 72
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 72
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/6/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0210
AHU NUMBER: AHU-5 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: 2ND FLOOR
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,100 — CFM-CLG: 5,100
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: CCDB10AXEM
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/6/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0210
AHU NUMBER: AHU-6 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: 2ND FLOOR
% OF BLDG AREA HEATED: 12

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 7

CFM-HTG: 12,000 — CFM-CLG: 12,000
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: CCBB10CEEC0
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0210
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: HYDROTHERM
UNIT MODEL: RL-1408
BLR CAP OUTPUT (BTUH): 2,033,200
BLR CAP INPUT (BTUH): 2,392,000
COMMENTS: TYPICAL OF 8

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRONIC
RESET CONTROLS: N
OPERATING SETPOINT: 200 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG: 2
PUMP HP: 0
PUMP MFG: 5 HP - STAND-BY
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0210
BLDG NAME: MILIT PERS BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: ALL

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	KTAA1306YC01A0D0ABDEJ	# OF TOWER FANS:	8
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	220	TOWER FAN AMPS:	0
CHILLER AMPS:	383	TOWER FAN HP:	0.5
CHILLER PH:	3		
CHILLER CAP (TONS):	130		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	10	PUMP MFG:	MAGNATEK
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	6-355809-01

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0211 **BLDG NAME:** ADMIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 41,062

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 15

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	7	7	7	7	7	7
REQ STOP:	23	23	23	23	23	23	23

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0211
AHU NUMBER: AHU-1
AHU LOCATION: 3RD FLOOR
REFRIG SYS # SRVNG AHU:
SERVES AREA: AUDITORIUM
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 14,400
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL: 3909104
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: WAGNER
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 15
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	7	7	7	7	7	7
REQ STOP:	23	23	23	23	23	23	23

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 74
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0211
AHU NUMBER: AHU-2
AHU LOCATION: COMPUTER ROOM/BASEMENT
REFRIG SYS # SRVNG AHU:
SERVES AREA: BASEMENT OFFICE AREA
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 2,250
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: LIEBERT SYSTEM
UNIT MODEL: 3
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 15
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	7	7	7	7	7	7
REQ STOP:	23	23	23	23	23	23	23

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS:
THERMOSTAT TYPE: DUAL SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0211
BOILER RM LOCATION: BASEMENT

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 100

BOILER MFG: KEWANEE
UNIT MODEL: C 1775
BLR CAP OUTPUT (BTUH): 1,420,000
BLR CAP INPUT (BTUH): 1,775,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 15
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	7	7	7	7	7	7
REQ STOP:	23	23	23	23	23	23	23

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 5 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0211
BOILER RM LOCATION: BASEMENT

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 100

BOILER MFG: KEWANEE
UNIT MODEL: C 1775
BLR CAP OUTPUT (BTUH): 1,420,000
BLR CAP INPUT (BTUH): 1,775,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 15
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	7	7	7	7	7	7
REQ STOP:	23	23	23	23	23	23	23

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 5 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0211
BLDG NAME: ADMIN
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: ALL
SOURCE OF HEATING: BLR-2
SERVES AREA:
RADIATION UNIT TYPE: STEAM
% AREA HTG: 45

SCHEDULE

DAYS SCHEDULE NO: 15
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	7	7	7	7	7	7
REQ STOP:	23	23	23	23	23	23	23

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: 2-WAY VALVE, MANUAL OR THERMOSTATIC AT BB
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0211
BLDG NAME: ADMIN
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: ALL
SOURCE OF HEATING: BLR-1,2
SERVES AREA:
RADIATION UNIT TYPE: STEAM
% AREA HTG: 45

SCHEDULE

DAYS SCHEDULE NO: 15
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	7	7	7	7	7	7
REQ STOP:	23	23	23	23	23	23	23

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: 2-WAY VALVE, MANUAL OR THERMOSTATIC AT BB
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0211
BLDG NAME: ADMIN

REF. UNIT NUMBER/TAG: ACCU-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	LIEBERT	TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	3		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 15
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	7	7	7	7	7	7
REQ STOP:	23	23	23	23	23	23	23

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0214 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 35,821

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0214
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST AND 2ND EAST
% OF BLDG AREA HEATED: 31

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 10,120
CFM-CLG: 10,120
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0214
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST & 2ND WEST
% OF BLDG AREA HEATED: 31

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 10,039
CFM-CLG: 10,039
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: BALDOR
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: M3218T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0214
AHU NUMBER: AHU-3
AHU LOCATION: MER BASEMENT
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: BASEMENT, 1ST, 2ND - SOUTH
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,100
CFM-CLG: 1,100
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0214
AHU NUMBER: AHU-4 — AHU LOCATION: MER BASEMENT
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: BASEMENT N.W.
% OF BLDG AREA HEATED: 9

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400 — CFM-CLG: 2,400
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0214
AHU NUMBER: AHU-5 — AHU LOCATION: MER BASEMENT
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: BASEMENT - N.E.
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,800 — CFM-CLG: 2,800
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0214
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

◉ ☒ **BOILER**
BOILER TAG: BLR-1
BOILER TYPE: LOW PRESS STEAM (<15#)
FUEL TYPE: NAT. GAS

☐ **CONVERTER**
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ **CENTRAL PLANT DIRECT**

NAMEPLATE

% AREA HEATED BY BB RADIATION: 15

BOILER MFG: KEWANEE
UNIT MODEL: TYPE C
BLR CAP OUTPUT (BTUH): 758,400
BLR CAP INPUT (BTUH): 948,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0214
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE:

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: LOW PRESS STEAM (<15#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 15

BOILER MFG: KEWANEE
UNIT MODEL: TYPE C
BLR CAP OUTPUT (BTUH): 758,400
BLR CAP INPUT (BTUH): 948,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER:	0214	BLDG NAME:	ENL BARRACKS W/AS
PER RAD (SYSTEM TAG) NO:	RAD-1	RAD SYS LOCATION:	
SOURCE OF HEATING:	BLR-1	SERVES AREA:	HALLWAYS AND STAIRS
RADIATION UNIT TYPE:	STEAM	% AREA HTG:	15

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL: 2-WAY VALVE, MANUAL OR THERMOSTATIC AT BB
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0214
BLDG NAME: ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1-5

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	30A0CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:	8-8712488	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	112	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	70		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	EVE182TTDR7627AB

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0222 **BLDG NAME:** ADMIN GEN PURP

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 18,854

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 56

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	11	7	7	7	7	7	10
REQ STOP:	17	17	20	20	20	20	19

REMARKS:

Commissary Administration - North part of building on 1st and 2nd floor. Building contact: Thelma Thompson at Ext 3627. Mobilization Operations - Center part of building. Liquor Store - North central part of building. Cold storage - South part of building. Suspect ACM in MER on HW piping

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0222
AHU NUMBER: AHU-1
AHU LOCATION: ATTIC
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: LIQUOR STORE/OPERATIONS
% OF BLDG AREA HEATED: 60

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 9,800
CFM-CLG: 9,800
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: AMERICAN BLOWER
UNIT MODEL: 2A18
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: BALDOR
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: M3218T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 56
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	11	7	7	7	7	7	10
REQ STOP:	17	17	20	20	20	20	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 72
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 68
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: HW 2-way valve located in MER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0222
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 100

BOILER MFG: BURNHAM
UNIT MODEL: FD/10
BLR CAP OUTPUT (BTUH): 350,000
BLR CAP INPUT (BTUH): 434,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 56
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	11	7	7	7	7	7	10
REQ STOP:	17	17	20	20	20	20	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 165 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.08
PUMP MFG: B & G
PUMP SERVICE: HW PUMP
PUMP MODEL: UQN48517D1088M

HW PUMP

PUMP TAG: 2
PUMP HP: 0.13
PUMP MFG: GE
PUMP SERVICE: HW PUMP
PUMP MODEL: 5KH32E6129AX

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

BOILER AND CONVERTER SURVEY OBSERVATIONS

HW PUMP

PUMP TAG:	3	**PUMP HP:**	0.08	**PUMP MFG:**	TACO
PUMP SERVICE:	HW PUMP			**PUMP MODEL:**	120

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0222
BLDG NAME: ADMIN GEN PURP
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: ADMIN OFFICES
SOURCE OF HEATING: BLR-1
SERVES AREA: 1ST 2ND FLOOR NORTH
RADIATION UNIT TYPE: HW
% AREA HTG: 17

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.08
PUMP MFG: BELL AND GOSSETT
PUMP MODEL: UQN48517D1088M

SCHEDULE

DAYS SCHEDULE NO: 56
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	11	7	7	7	7	7	10
REQ STOP:	17	17	20	20	20	20	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3-way pneumatic control valve in MER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0222
BLDG NAME: ADMIN GEN PURP

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): SOUTH OF BLDG
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	30A0C055	# OF TOWER FANS:	4
CHILLER SERIAL NO:	5-93-A26983	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	84	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	30		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 56
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	11	7	7	7	7	7	10
REQ STOP:	17	17	20	20	20	20	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	ZVC182TTDR8026DJ

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0223 **BLDG NAME:** ENL BARRACKS W/DAS

ELECTRIC METER: N **CONDITIONED SQFT:** 47,794
GAS METER: Y
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0223
AHU NUMBER: AHU-1
AHU LOCATION: 2ND FLR MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST & 2ND FLR WEST
% OF BLDG AREA HEATED: 28

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 7,450
CFM-CLG: 7,450
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: DDC
THERMOSTAT TYPE: SETBACK
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0223
AHU NUMBER: AHU-2
AHU LOCATION: MER 2ND FLR
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST & 2ND FLR EAST
% OF BLDG AREA HEATED: 27

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 7,150
CFM-CLG: 7,150
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: MODULAR SN K94
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: DDC
THERMOSTAT TYPE: SETBACK
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0223
AHU NUMBER: AHU-3
AHU LOCATION: BSMT MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST FLOOR S. WING/ BSMT W
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 5,000
CFM-CLG: 5,000
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: DDC
THERMOSTAT TYPE: SETBACK
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0223
AHU NUMBER: AHU-4
AHU LOCATION:
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: BSMT EAST
% OF BLDG AREA HEATED: 11

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,000
CFM-CLG: 4,000
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: DDC
THERMOSTAT TYPE: SETBACK
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0223
AHU NUMBER: UH-1
AHU LOCATION: N.E. STORAGE BSMT.
REFRIG SYS # SRVNG AHU:
SERVES AREA: STORAGE
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,200
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0223
AHU NUMBER: UH-2 — AHU LOCATION: N.W. STORAGE/S. STORAGE
REFRIG SYS # SRVNG AHU: — SERVES AREA: STORAGE
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: UNIT HEATER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,800 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0223
BOILER RM LOCATION: BSMT MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 6

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 1,860,000
BLR CAP INPUT (BTUH): 2,232,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0223
BLDG NAME: ENL BARRACKS W/DAS
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION:
SOURCE OF HEATING:
SERVES AREA:
RADIATION UNIT TYPE: STEAM
% AREA HTG: 6

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL: 2-WAY VALVE, MANUAL OR THERMOSTATIC AT BB
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0223
BLDG NAME: ENL BARRACKS W/DAS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: ALL

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	CA2CD7O	# OF TOWER FANS:	6
CHILLER SERIAL NO:	10997	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	4.8
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	70		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0227 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 32,303

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0227
AHU NUMBER: AHU-1
AHU LOCATION: MER 2ND FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST AND 2ND FLR-EAST
% OF BLDG AREA HEATED: 40

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 10,120
CFM-CLG: 10,120
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0227
AHU NUMBER: AHU-2
AHU LOCATION: 2ND FLR MER WAST

REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST AND 2ND WEST FLOORS
% OF BLDG AREA HEATED: 40

AHU UNIT TYPE MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 10,039
CFM-CLG: 10,039
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: BALDOR
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: M3218T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: Y
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0227
AHU NUMBER: AHU-3
AHU LOCATION: MER BASEMENT
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST AND 2ND SOUTH BASEME
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,100
CFM-CLG: 1,100
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: Controls are in poor condition

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0227
AHU NUMBER: AHU-4
AHU LOCATION: MER BASEMENT
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST AND 2ND SOUTH BASEME
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,100
CFM-CLG: 1,100
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: Y
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0227
AHU NUMBER: AHU-5
AHU LOCATION: BASEMENT MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: BASEMENT NE
% OF BLDG AREA HEATED: 12

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,800
CFM-CLG: 2,800
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0227
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ **BOILER**
- **BOILER TAG:** BLR-1
- **BOILER TYPE:** MED PRESS STEAM (15# TO 125#)
- **FUEL TYPE:** NAT. GAS

☐ **CONVERTER**
- **CONVERTER TAG:**
- **CONVERTER TYPE:**
- **CONV HT SOURCE:**

( ) **CENTRAL PLANT DIRECT**

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANNEE
UNIT MODEL: TYPE C
BLR CAP OUTPUT (BTUH): 758,400
BLR CAP INPUT (BTUH): 948,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0227
BOILER RM LOCATION: MER-WEST

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: TYPE C
BLR CAP OUTPUT (BTUH): 758,400
BLR CAP INPUT (BTUH): 948,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0227
BLDG NAME: ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1,2,3,4,5

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	BOHN	TOWER MFG:	
CHILLER MODEL:	VRB0655B	# OF TOWER FANS:	2
CHILLER SERIAL NO:	BCI8097	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	16.2
CHILLER AMPS:	118	TOWER FAN HP:	5
CHILLER PH:	3		
CHILLER CAP (TONS):	65		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AMS/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0253 **BLDG NAME:** DRUG ABUSE CTR

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 11,122

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 64

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0253
AHU NUMBER: AHU-1
AHU LOCATION: 103

REFRIG SYS # SRVNG AHU:
SERVES AREA:
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,350
CFM-CLG: 1,350
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: INTERNATIONAL ENV. CORP.
UNIT MODEL: 12HB4
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 56
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 64
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: DUAL SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0253
AHU NUMBER: AHU-2 — AHU LOCATION: 110
REFRIG SYS # SRVNG AHU: — SERVES AREA:
% OF BLDG AREA HEATED: 21

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,060 — CFM-CLG: 3,060
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: INTERNAT'L ENV. CORP. — UNIT MODEL: 30HB4
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: WESTINGHOUSE — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: K-56 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 64 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: DUAL SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: Y — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0253
AHU NUMBER: AHU-3 — AHU LOCATION: 115
REFRIG SYS # SRVNG AHU: — SERVES AREA:
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,505 — CFM-CLG: 2,505
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: INTERNAT'L ENV. CORP. — UNIT MODEL: 20HB4
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 56-70 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 64 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: DUAL SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: Y — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0253
AHU NUMBER: AHU-4
AHU LOCATION: 121
REFRIG SYS # SRVNG AHU:
SERVES AREA:
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,920
CFM-CLG: 1,920
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: INTERNAT'L ENV. CORP.
UNIT MODEL: 20HB4
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 56-70
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 64
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: DUAL SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — **DATE:** 10/18/94
LOCATION: FT. RILEY, KS — **PREPARED BY:** JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0253
AHU NUMBER: AHU-5 — **AHU LOCATION:** 118
REFRIG SYS # SRVNG AHU: — **SERVES AREA:**
% OF BLDG AREA HEATED: 9

AHU UNIT TYPE SINGLE ZONE — **NUMBER OF ZONES IF MZ UNIT:** 0

CFM-HTG: 2,630 — **CFM-CLG:** 2,630
MIN %OA: 15 — **MAX %OA:** 100

NAMEPLATE

UNIT MFG: INTERNAT'L ENV. CORP. — **UNIT MODEL:** 30 HBU
SUPPLY FAN HP: 1.5 — **RET/EXH FAN HP:** 0
SUPPLY FAN MTR MFG: WESTINGHOUSE — **RET/EXH FAN MTR MFG:**
SUPPLY FAN MTR MODEL: K-56 — **RET/EXH FAN MTR MODEL:**
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 64 — **MONTH SCHEDULE NO:** 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — **THERMOSTAT TYPE:**
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — **COLD DECK DEG F:** 0
PRESENT TEMP WINTR UNOCC: 0 — **MIXED AIR DEG F:** 0
PRESENT TEMP SUM OCC: 0 — **OTHER SETPOINT DESCRIP:**
PRESENT TEMP SUM UNOCC: 0 — **OTHER SETPOINT DEG F:** 0

MIN OA DMPR CONTROL: N — **MIXED AIR DMPR CONTROL:** Y — **IMPLEMENT DEMAND LIMIT CNTRLS?** Y
MAX OA DMPR CONTROL: Y — **ECONOMIZER DB CONTROL:** Y — **TIME CLOCK:** Y
RET AIR DMPR CONTROL: Y — **ECONOMIZER WB CONTROL:** N — **TIME CLOCK OPERATIONAL?** Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0253
AHU NUMBER: AHU-6
AHU LOCATION: 120
REFRIG SYS # SRVNG AHU:
SERVES AREA:
% OF BLDG AREA HEATED: 21

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,705
CFM-CLG: 1,705
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: INTERNAT'L
UNIT MODEL: 16HB4
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: WESTINGHOUSE
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: D-56
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 64
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: DUAL SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0253
AHU NUMBER: AHU-7
AHU LOCATION: 122

REFRIG SYS # SRVNG AHU:
SERVES AREA:
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,945
CFM-CLG: 2,945
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: INTERNAT'L ENV. CORP
UNIT MODEL: 30 HB4
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: WESTINGHOUSE
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 64
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: DUAL SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AMS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0253
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 4FL9240GWFB
BLR CAP OUTPUT (BTUH): 770,000
BLR CAP INPUT (BTUH): 963,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 64
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 160 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AMS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0253
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: AHUS 1-7

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 64
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 1.5
PUMP MFG: ARMSTRONG
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 2D4380BF

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AMS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0253
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: AHU'S 1-7

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 64
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 1.5
PUMP MFG: ARMSTRONG
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 2D4380BF

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AMS/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0253 **BLDG NAME:** DRUG ABUSE CTR

REF. UNIT NUMBER/TAG: CH-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED:

UNIT TYPE RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	BOHN	TOWER MFG:	
CHILLER MODEL:	CC40DT	# OF TOWER FANS:	4
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	28
CHILLER AMPS:	62.8	TOWER FAN HP:	1.5
CHILLER PH:	0		
CHILLER CAP (TONS):	32		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 64 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	0.75	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0301 **BLDG NAME:** FINANCE ADMIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 32,947

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 49

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	7	7	7	7	7	8
REQ STOP:	12	16	16	16	16	16	12

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0301
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 3

AHU UNIT TYPE: VAV
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,000
CFM-CLG: 2,000
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: CCDB21D906
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: SVN254TTDR5028
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	HW	☒
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 49
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	7	7	7	7	7	8
REQ STOP:	12	16	16	16	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0301
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-2
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: VAV
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 10,500
CFM-CLG: 10,500
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: CCDB25EB06
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	HW	☒
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 49
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	7	7	7	7	7	8
REQ STOP:	12	16	16	16	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/6/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0301
AHU NUMBER: AHU-3 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-3 — SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: VAV — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,890 — CFM-CLG: 12,890
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: BDP — UNIT MODEL: 517A120
SUPPLY FAN HP: 15 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	HW	☒
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 49 — MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	7	7	7	7	7	8
REQ STOP:	12	16	16	16	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0301
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: LOW PRESS STEAM (<15#)
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 65

BOILER MFG: PEERLESS
UNIT MODEL: 6-710FDA
BLR CAP OUTPUT (BTUH): 919,700
BLR CAP INPUT (BTUH): 1,226,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 49
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	7	7	7	7	7	8
REQ STOP:	12	16	16	16	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0301
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 919,700
BLR CAP INPUT (BTUH): 919,700
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 49
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	7	7	7	7	7	8
REQ STOP:	12	16	16	16	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL: TVC145TTDR5331AA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0301
BLDG NAME: FINANCE ADMIN
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION:
SOURCE OF HEATING: BLR-1
SERVES AREA: ALL
RADIATION UNIT TYPE: HW
% AREA HTG: 65

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: MARATHON
PUMP MODEL: TVC145TTDR5331AA

SCHEDULE

DAYS SCHEDULE NO: 49
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	7	7	7	7	7	8
REQ STOP:	12	16	16	16	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0301
BLDG NAME: FINANCE ADMIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): N. EXTERIOR OF BLDG
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	TRANE
CHILLER MODEL:	RAUBC256BE00B	# OF TOWER FANS:	3
CHILLER SERIAL NO:	J87C80765	TOWER FAN V:	200
CHILLER V:	200	TOWER FAN AMPS:	4.1
CHILLER AMPS:	91.5	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	25		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 49
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	7	7	7	7	7	8
REQ STOP:	12	16	16	16	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0301
BLDG NAME: FINANCE ADMIN

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): E. EXTERIOR OF BLDG
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	TRANE
CHILLER MODEL:	RAUBC306BE00B	# OF TOWER FANS:	3
CHILLER SERIAL NO:	J87C80766	TOWER FAN V:	200
CHILLER V:	200	TOWER FAN AMPS:	4.1
CHILLER AMPS:	109	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	30		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 49
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	7	7	7	7	7	8
REQ STOP:	12	16	16	16	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0301
BLDG NAME: FINANCE ADMIN

REF. UNIT NUMBER/TAG: CH-3
LOCATION (MER#): E. EXTERIOR OF BLDG
AHU'S SERVED: AHU-3

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	BRYANT	TOWER MFG:	
CHILLER MODEL:	566DPX120000AAAA	# OF TOWER FANS:	2
CHILLER SERIAL NO:	3992F19413	TOWER FAN V:	230
CHILLER V:	230	TOWER FAN AMPS:	4.3
CHILLER AMPS:	43.6	TOWER FAN HP:	0.25
CHILLER PH:	3		
CHILLER CAP (TONS):	10		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 49
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	7	7	7	7	7	8
REQ STOP:	12	16	16	16	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0302 **BLDG NAME:** FINANCE ADMIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 16,138

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 1

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

Bldg. Contact: Joyce Murrell @ Ext. 6452

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0302
AHU NUMBER: AHU-1
AHU LOCATION: mer
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 83

AHU UNIT TYPE: VAV
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,000
CFM-CLG: 12,000
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: CCDB17F90G
SUPPLY FAN HP: 15
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	HOT WATER	☒
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 1
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 68
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0302
AHU NUMBER: AHU-2
AHU LOCATION: NE CORNER OF BLDG
REFRIG SYS # SRVNG AHU: ACCU-1
SERVES AREA: OFFICE/STORAGE
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 450
CFM-CLG: 450
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	ELECTRIC	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 1
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 72
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0302
AHU NUMBER: UH-1-4
AHU LOCATION: ATTIC STORAGE AREA
REFRIG SYS # SRVNG AHU: N/A
SERVES AREA: ATTIC STORAG/SUPPLY AREA
% OF BLDG AREA HEATED: 15

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT:

CFM-HTG: 2,520
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: MCQUAY
UNIT MODEL: UDH-040B
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 1
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 72
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0302
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: AJAX
UNIT MODEL: V554744
BLR CAP OUTPUT (BTUH): 600,000
BLR CAP INPUT (BTUH): 750,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: Y
OPERATING SETPOINT: 150 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: B & G
PUMP SERVICE: HW PUMP (STAND BY)
PUMP MODEL: M98558

HW PUMP

PUMP TAG: 2
PUMP HP: 0
PUMP MFG: 1.5 HP - B & G
PUMP SERVICE: HW PUMP (STANDBY)
PUMP MODEL: M98558

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/6/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/DEJ

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0302 — BLDG NAME: FINANCE ADMIN

REF. UNIT NUMBER/TAG: ACCU-1 — LOCATION (MER#): EXTERIOR OF BLDG.
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	LIEBERT	TOWER MFG:	
CHILLER MODEL:	3024968	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.25
CHILLER PH:	0		
CHILLER CAP (TONS):	3		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1 — MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0302
BLDG NAME: FINANCE ADMIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): S. EXTERIOR OF BLDG.
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	TRANE
CHILLER MODEL:	RAUBC265BE00B	# OF TOWER FANS:	3
CHILLER SERIAL NO:	J87C80764	TOWER FAN V:	200
CHILLER V:	200	TOWER FAN AMPS:	4.1
CHILLER AMPS:	91.5	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	25		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — **DATE:** 10/6/94
LOCATION: FT. RILEY, KS — **PREPARED BY:** AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0313 **BLDG NAME:** CIV PERS BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 6,222

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

BLDG. CONTACT: KAREN WEBB @ EXT. 2535

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0313
AHU NUMBER: AHU-1
AHU LOCATION: BASEMENT
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,500
CFM-CLG: 4,500
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG: MODINE
UNIT MODEL: DJ3005
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: DUCT FURNANCE: INPUT =300,000 BTUH; OUTPUT: 240,000 BTUH

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SETBACK
PRESENT TEMP WINTR OCC: 74
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 74
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0313
BLDG NAME: CIV PERS BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): S. EXT. OF BLDG
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	BRYANT	TOWER MFG:	
CHILLER MODEL:	566CPX135000AAAA	# OF TOWER FANS:	2
CHILLER SERIAL NO:	4382G9855	TOWER FAN V:	230
CHILLER V:	230	TOWER FAN AMPS:	3.6
CHILLER AMPS:	46	TOWER FAN HP:	0.5
CHILLER PH:	3		
CHILLER CAP (TONS):	13.5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:**
LOCATION: FT. RILEY, KS **PREPARED BY:**

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0319 **BLDG NAME:** GEN INSTR BLDG

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 9,690

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0319
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: ALL
% OF BLDG AREA HEATED: 60

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 14,500 — CFM-CLG: 14,500
MIN %OA: 20 — MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER — UNIT MODEL: 50BA 408 084
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: DUAL SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 45
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0319
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 40

BOILER MFG: AJAX
UNIT MODEL: WG-675-S
BLR CAP OUTPUT (BTUH): 540,000
BLR CAP INPUT (BTUH): 675,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 180 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: GENERAL ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0319
BLDG NAME: GEN INSTR BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: MER
SOURCE OF HEATING: BLR-1
SERVES AREA: ALL
RADIATION UNIT TYPE: HW
% AREA HTG: 40

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: GENERAL ELECTRIC
PUMP MODEL:

RADIATION PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP MODEL:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0319
BLDG NAME: GEN INSTR BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	CARLYLE COMP. CO.	TOWER MFG:	CARRIER
CHILLER MODEL:	8240AC1200	# OF TOWER FANS:	3
CHILLER SERIAL NO:	2488J00888	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	6.6
CHILLER AMPS:	0	TOWER FAN HP:	1.75
CHILLER PH:	3		
CHILLER CAP (TONS):	25		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:	
PRESS LITE LOW:	N	TEMP LITE LOW:	N		
PRESS GAUGES:	N	TEMP GAUGES:	N		

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/6/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/DJ

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0330 **BLDG NAME:** DEH ADMIN

ELECTRIC METER: N **CONDITIONED SQFT:** 14,913
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0330
AHU NUMBER: AHU-1
AHU LOCATION: BASEMENT CENTRAL
REFRIG SYS # SRVNG AHU: CH-6
SERVES AREA: 1ST FLR & BSMT
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,500
CFM-CLG: 2,500
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: ARCO AIR
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SETBACK
PRESENT TEMP WINTR OCC: 72
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 72
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 78
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 78
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/6/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/DJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0330
AHU NUMBER: AHU-2 — AHU LOCATION: E. BASEMENT
REFRIG SYS # SRVNG AHU: CH-5 — SERVES AREA: 1ST FLR & BSMT
% OF BLDG AREA HEATED: 22

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,000 — CFM-CLG: 3,000
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: SNYDER GENERAL — UNIT MODEL: GUF200A032-IN
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SETBACK
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0330
AHU NUMBER: AHU-3
AHU LOCATION: ATTIC
REFRIG SYS # SRVNG AHU: CH-2
SERVES AREA: 2ND FLR S.E.
% OF BLDG AREA HEATED: 17

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,950
CFM-CLG: 2,950
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: SNYDER GENERAL
UNIT MODEL: H804084
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 76
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 78
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/6/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/DJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0330
AHU NUMBER: AHU-4 — AHU LOCATION: ATTIC
REFRIG SYS # SRVNG AHU: CH-3 — SERVES AREA: 2N FLR N.W.
% OF BLDG AREA HEATED: 17

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,950 — CFM-CLG: 2,950
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: SNYDER GENERAL — UNIT MODEL: H804084
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 76 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 78 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0330
AHU NUMBER: AHU-5
AHU LOCATION: BASEMENT
REFRIG SYS # SRVNG AHU: CH-4
SERVES AREA: COMPUTER ROOM
% OF BLDG AREA HEATED: 3

AHU UNIT TYPE: OTHER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 875
CFM-CLG: 875
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: HIROSS
UNIT MODEL: SPACE MAKER III
SUPPLY FAN HP: 0.25
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	ELECTRIC	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0330
AHU NUMBER: AHU-6
AHU LOCATION: BSMT WEST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST FLR & BSMT
% OF BLDG AREA HEATED: 22

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,000
CFM-CLG: 3,000
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: SNYDER GENERAL
UNIT MODEL: GUF200A032-IN
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SETBACK
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DJ

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0330
BLDG NAME: DEH ADMIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): S. EXT OF BLDG
AHU'S SERVED: BSMT FURN NO. 2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	230	TOWER FAN AMPS:	0
CHILLER AMPS:	2.9	TOWER FAN HP:	0.33
CHILLER PH:	1		
CHILLER CAP (TONS):	2		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DJ

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0330 **BLDG NAME:** DEH ADMIN

REF. UNIT NUMBER/TAG: CH-2 **LOCATION (MER#):** EAST EXT. MEZZ
AHU'S SERVED: 2 AHU'S IN ATTIC

UNIT TYPE AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	230	TOWER FAN AMPS:	0
CHILLER AMPS:	2.9	TOWER FAN HP:	0.33
CHILLER PH:	1		
CHILLER CAP (TONS):	2		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DJ

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0330
BLDG NAME: DEH ADMIN

REF. UNIT NUMBER/TAG: CH-3
LOCATION (MER#): EAST EXT. MEZZ
AHU'S SERVED: 2 AHU'S IN ATTIC

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	230	TOWER FAN AMPS:	0
CHILLER AMPS:	29	TOWER FAN HP:	0.33
CHILLER PH:	1		
CHILLER CAP (TONS):	2		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DJ

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0330
BLDG NAME: DEH ADMIN

REF. UNIT NUMBER/TAG: CH-4
LOCATION (MER#): WEST EXT. OF BLDG
AHU'S SERVED: CENTRAL BSMT AHU

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	LARKIN	TOWER MFG:	
CHILLER MODEL:	FCA 8 SM	# OF TOWER FANS:	1
CHILLER SERIAL NO:	8435504100	TOWER FAN V:	0
CHILLER V:	230	TOWER FAN AMPS:	0
CHILLER AMPS:	3.9	TOWER FAN HP:	0.33
CHILLER PH:	1		
CHILLER CAP (TONS):	3		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DJ

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0330
BLDG NAME: DEH ADMIN

REF. UNIT NUMBER/TAG: CH-5
LOCATION (MER#): N.E. EXT. OF BLDG.
AHU'S SERVED: BSMT FURN. NO 1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	
CHILLER V:	230	TOWER FAN AMPS:	
CHILLER AMPS:	2.3	TOWER FAN HP:	0.167
CHILLER PH:	1		
CHILLER CAP (TONS):	2		

COMMENTS: NAME DELUXE HIGH EFFICIENCY AIR CONDITIONER

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/6/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/DJ

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0330 — BLDG NAME: DEH ADMIN

REF. UNIT NUMBER/TAG: CH-6 — LOCATION (MER#): N.E. EXT. OF BLDG.
AHU'S SERVED: BSMT FURN NO 1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	
CHILLER V:	230	TOWER FAN AMPS:	
CHILLER AMPS:	2.3	TOWER FAN HP:	0.167
CHILLER PH:	1		
CHILLER CAP (TONS):	2		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11 — MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0364 **BLDG NAME:** UEMCS HQ

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 744

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 22

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	15	15	15	15	15	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0364
AHU NUMBER: AHU-1 — AHU LOCATION: KITCHEN
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: RESIDENTIAL FURNACE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 950 — CFM-CLG: 950
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: ARCOAIRE — UNIT MODEL: GUF100NDA
SUPPLY FAN HP: 0.25 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 22 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	15	15	15	15	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 71 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 71 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0364
BLDG NAME: UEMCS HQ

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1
UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	ARCOAIRE	TOWER MFG:	ARCOAIRE
CHILLER MODEL:	OUTSIDE	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.25
CHILLER PH:	0		
CHILLER CAP (TONS):	3		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 22
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	15	15	15	15	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0402 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 35,718

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0402
AHU NUMBER: AHU-1
AHU LOCATION: 2ND FLR MER WEST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST AND 2ND WEST
% OF BLDG AREA HEATED: 40

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 9,325
CFM-CLG: 9,325
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: N/A
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: BVD213TTDR7359
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 90
HOT DECK DEG F: 90
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 61
PRESENT TEMP SUM OCC: 61
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0402
AHU NUMBER: AHU-2 — AHU LOCATION: 2ND FLR MER W&E
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: 1ST & 2ND EAST
% OF BLDG AREA HEATED: 50

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 11,800 — CFM-CLG: 11,800
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: N/A — UNIT MODEL:
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 90
PRESENT TEMP WINTR OCC: 90 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 61
PRESENT TEMP SUM OCC: 61 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0402
AHU NUMBER: AHU-3
AHU LOCATION: BASEMENT MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: BASEMENT NORTH
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,300
CFM-CLG: 1,300
MIN %OA: 25
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: Y
MIXED AIR DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0402
BOILER RM LOCATION: BASEMENT

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: EL60GPF
BLR CAP OUTPUT (BTUH): 2,102,000
BLR CAP INPUT (BTUH): 2,627,500

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0402 **BLDG NAME:** ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: AHU-1,2,3

UNIT TYPE AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	BOHN	TOWER MFG:	
CHILLER MODEL:	ACWC47D	# OF TOWER FANS:	2
CHILLER SERIAL NO:	BCH8160	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	100
CHILLER AMPS:	100	TOWER FAN HP:	5
CHILLER PH:	0		
CHILLER CAP (TONS):	65		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: 1 **PUMP HP:** 1.5 **PUMP MFG:** MARATHON
PUMP SERVICE: CW PUMP (Chilled Water) **PUMP MODEL:**

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: CWWAJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0403 **BLDG NAME:** ADMIN GEN PURP

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 18,151

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 1

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: CWWAJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0403
AHU NUMBER: AHU-1
AHU LOCATION: BSMT. AND 1ST FLR
REFRIG SYS # SRVNG AHU:
SERVES AREA: BASMT. AND 1ST FLR.
% OF BLDG AREA HEATED: 50

AHU UNIT TYPE: HEAT PUMP
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,700
CFM-CLG: 8,700
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3.7
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 1
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: CWWAJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0403
AHU NUMBER: AHU-2
AHU LOCATION: 2ND AND ATTIC
REFRIG SYS # SRVNG AHU:
SERVES AREA: 2ND AND ATTIC
% OF BLDG AREA HEATED: 50

AHU UNIT TYPE HEAT PUMP
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,950
CFM-CLG: 12,950
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 1
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: CWWAJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0403
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☒ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

● CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 5
PUMP MFG: ARMSTRONG
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: CWWAJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0403
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 2
PUMP HP: 5
PUMP MFG: ARMSTRONG
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: CWWAJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0403
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☒ BOILER
BOILER TAG: HWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

● CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 3
PUMP HP: 10
PUMP MFG: ARMSTRONG
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: CWWAJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0403
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 4
PUMP HP: 10
PUMP MFG: ARMSTRONG
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AMS/JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0404
BLDG NAME: ENL BARRACKS W/DAS

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 35,718

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — **DATE:** 10/6/94
LOCATION: FT. RILEY, KS — **PREPARED BY:** AMS/JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0404
AHU NUMBER: AHU-1 — **AHU LOCATION:** MER
REFRIG SYS # SRVNG AHU: CH-1 — **SERVES AREA:** 1ST FLRS - N.W.
% OF BLDG AREA HEATED: 43

AHU UNIT TYPE SINGLE ZONE — **NUMBER OF ZONES IF MZ UNIT:** 0

CFM-HTG: 8,570 — **CFM-CLG:** 8,570
MIN %OA: 15 — **MAX %OA:** 100

NAMEPLATE

UNIT MFG: — **UNIT MODEL:**
SUPPLY FAN HP: 15 — **RET/EXH FAN HP:** 0
SUPPLY FAN MTR MFG: MARATHON — **RET/EXH FAN MTR MFG:**
SUPPLY FAN MTR MODEL: EVE143TTDR7350 — **RET/EXH FAN MTR MODEL:**
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10 — **MONTH SCHEDULE NO:** 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — **THERMOSTAT TYPE:** SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — **HOT DECK DEG F:** 0
PRESENT TEMP WINTR UNOCC: 0 — **COLD DECK DEG F:** 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — **OTHER SETPOINT DESCRIP:**
PRESENT TEMP SUM UNOCC: 0 — **OTHER SETPOINT DEG F:** 0

MIN OA DMPR CONTROL: N — **MIXED AIR DMPR CONTROL:** Y — **IMPLEMENT DEMAND LIMIT CNTRLS?** N
MAX OA DMPR CONTROL: Y — **ECONOMIZER DB CONTROL:** N — **TIME CLOCK:** N
RET AIR DMPR CONTROL: Y — **ECONOMIZER WB CONTROL:** N — **TIME CLOCK OPERATIONAL?** N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AMS/JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0404
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST 2ND FLRS S.E.
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,070
CFM-CLG: 7,070
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 15
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: TOSHIBA
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: B0154FLF2US01
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☒
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/6/94
LOCATION: FT. RILEY, KS — PREPARED BY: AMS/JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0404
AHU NUMBER: AHU-3 — AHU LOCATION: BASEMENT
REFRIG SYS # SRVNG AHU: CH-2 — SERVES AREA: BASEMENT- N.W.
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,000 — CFM-CLG: 2,000
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: Y — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AMS/JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0404
AHU NUMBER: AHU-4
AHU LOCATION: 1ST FLLOR MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 2ND FLOOR S.E.
% OF BLDG AREA HEATED: 12

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,360
CFM-CLG: 2,360
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AMS/JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0404
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ **BOILER**
- **BOILER TAG:** BLR-1
- **BOILER TYPE:** MED PRESS STEAM (15# TO 125#)
- **FUEL TYPE:**

☐ **CONVERTER**
- **CONVERTER TAG:**
- **CONVERTER TYPE:**
- **CONV HT SOURCE:**

(○) **CENTRAL PLANT DIRECT**

NAMEPLATE

% AREA HEATED BY BB RADIATION: 15

BOILER MFG: BURNHAM
UNIT MODEL: 4FL-92-40-G-WEB
BLR CAP OUTPUT (BTUH): 770,000
BLR CAP INPUT (BTUH): 963,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 7 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AMS/JM

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0404
BLDG NAME: ENL BARRACKS W/DAS
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION:
SOURCE OF HEATING: STEAM
SERVES AREA: HALLWAYS AND STAIRS
RADIATION UNIT TYPE: STEAM
% AREA HTG: 15

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL: 2-WAY VALVE, MANUAL OR THERMOSTATIC AT BB
OCC HT SPACE SP: 72
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

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CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AMS/JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0404
BLDG NAME: ENL BARRACKS W/DAS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): EXTERIOR
AHU'S SERVED: AHU-1,3,4

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	BOHN	TOWER MFG:	
CHILLER MODEL:	ACWC47D	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	100	TOWER FAN HP:	5
CHILLER PH:	3		
CHILLER CAP (TONS):	45		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: 1
PUMP HP: 3
PUMP MFG:
PUMP SERVICE: CW PUMP (Chilled Water)
PUMP MODEL:

EMC ENGINEERS, INC.

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CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AMS/JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0404
BLDG NAME: ENL BARRACKS W/DAS

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	3
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	20		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
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EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0405 **BLDG NAME:** ADMIN GEN PURP

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 10,778

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0405
AHU NUMBER: AHU-1
AHU LOCATION: BASEMENT
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 65

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,000
CFM-CLG: 4,000
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: MAJIC AISE
UNIT MODEL: VWBC-10
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0405
AHU NUMBER: FC-1
AHU LOCATION: 1ST & 2ND FLOORS
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST & 2ND FLOORS
% OF BLDG AREA HEATED: 19

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,200
CFM-CLG: 3,200
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/6/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0405
AHU NUMBER: FC-2 — AHU LOCATION: BASEMENT
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: BSMT.
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: FAN COILS - 2 PIPE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500 — CFM-CLG: 3,500
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.33 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

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LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0405
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

◉ ☒ **BOILER**
- **BOILER TAG:** BLR-1
- **BOILER TYPE:** HW (UP TO 250 DEG)
- **FUEL TYPE:** NAT. GAS

☐ **CONVERTER**
- **CONVERTER TAG:**
- **CONVERTER TYPE:**
- **CONV HT SOURCE:**

○ **CENTRAL PLANT DIRECT**

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: THERMO PAK
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 800,000
BLR CAP INPUT (BTUH): 960,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 180 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

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BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0405
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: BALDOR
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: JMM3157T

HW PUMP

PUMP TAG: 2
PUMP HP: 2
PUMP MFG: BALDOR (STANDBY)
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: JMM3157T

EMC ENGINEERS, INC.

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CLIENT CNTRCT #: DACA 01-94-D-0033
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EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0405
BLDG NAME: ADMIN GEN PURP

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): PAD MTD - OUTSIDE
AHU'S SERVED: ALL

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TECH. SYST. RAE CORP.	TOWER MFG:	
CHILLER MODEL:	20A0CD60	# OF TOWER FANS:	6
CHILLER SERIAL NO:	6-61-A23064	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	118	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	58		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0406 **BLDG NAME:** CID BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 10,390

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0406
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 9

CFM-HTG: 6,130
CFM-CLG: 6,130
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL: 39EB11
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☒
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0406
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: LOW PRESS STEAM (<15#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: M-55-KX
BLR CAP OUTPUT (BTUH): 550,000
BLR CAP INPUT (BTUH): 688,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC/DDC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0406 **BLDG NAME:** CID BLDG

REF. UNIT NUMBER/TAG: CH-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38AD024520	# OF TOWER FANS:	3
CHILLER SERIAL NO:	N598135	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	76	TOWER FAN HP:	0.25
CHILLER PH:	3		
CHILLER CAP (TONS):	20		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC/DDC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0409 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 32,883

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0409
AHU NUMBER: AHU-1
AHU LOCATION: BASEMENT MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: BASEMENT REC AREA
% OF BLDG AREA HEATED: 11

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 1,950
CFM-CLG: 1,950
MIN %OA: 14
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: E143TTDR7350AK
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 55
PRESENT TEMP WINTR OCC: 70
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0409
AHU NUMBER: AHU-2 — AHU LOCATION: 1ST FLOOR
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: 1ST FOOR S.E. WING
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 3,565 — CFM-CLG: 3,565
MIN %OA: 14 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: DN145TTDR7927A — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0409
AHU NUMBER: AHU-3 — AHU LOCATION: MER 2ND FLOOR
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: 1ST AND 2ND FLOOR N.W. WIN
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 4

CFM-HTG: 6,115 — CFM-CLG: 6,115
MIN %OA: 14 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: EC182TTDR7627A — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 65 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 55
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0409
AHU NUMBER: AHU-4
AHU LOCATION: MER 2ND FLOOR
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: N.E. WING 1ST AND 2ND FLOO
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 8

CFM-HTG: 15,075
CFM-CLG: 15,075
MIN %OA: 14
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: EBD213TTDR7359
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: EP
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 55
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0409
AHU NUMBER: UH-1
AHU LOCATION: BASEMENT
REFRIG SYS # SRVNG AHU:
SERVES AREA: BSMENT N.W. WING
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,260
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.17
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0409
AHU NUMBER: UH-2
AHU LOCATION: BASEMENT
REFRIG SYS # SRVNG AHU:
SERVES AREA: BASEMENT
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,270
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0409
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 25

BOILER MFG: BURNHAM
UNIT MODEL: 4FL20940LB
BLR CAP OUTPUT (BTUH): 1,749,000
BLR CAP INPUT (BTUH): 2,186,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 7.5 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0409
BLDG NAME: ENL BARRACKS W/AS
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: VESTIBULES & LATRINES
SOURCE OF HEATING:
SERVES AREA:
RADIATION UNIT TYPE: STEAM
% AREA HTG: 25

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL: 2-WAY VALVE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0409 — BLDG NAME: ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1,2,3,4

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	SE2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:		TOWER FAN AMPS:	48
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	BALDOR
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	M3211T

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0410 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 32,883

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0410
AHU NUMBER: AHU-1 — AHU LOCATION: BASEMENT
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: BSMT REC AREA
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 1,950 — CFM-CLG: 1,950
MIN %OA: 14 — MAX %OA: 100

NAMEPLATE

UNIT MFG: N/A — UNIT MODEL: N/A
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: E143TTDR7350AK — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 55
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0410
AHU NUMBER: AHU-2
AHU LOCATION:
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST FLR S.E. WING
% OF BLDG AREA HEATED: 29

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 12,375
CFM-CLG: 12,375
MIN %OA: 14
MAX %OA: 100

NAMEPLATE

UNIT MFG: N/A
UNIT MODEL: N/A
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0410
AHU NUMBER: AHU-3 — AHU LOCATION: MER 2ND FLR
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: 1ST AND 2ND FLOR N.W. WING
% OF BLDG AREA HEATED: 29

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 4

CFM-HTG: 12,375 — CFM-CLG: 12,375
MIN %OA: 14 — MAX %OA: 100

NAMEPLATE

UNIT MFG: N/A — UNIT MODEL: N/A
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 65 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 55
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0410
AHU NUMBER: UH-1
AHU LOCATION: BASEMENT
REFRIG SYS # SRVNG AHU: N/A
SERVES AREA: BSMT N.W. WING
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,260
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: N/A
UNIT MODEL: N/A
SUPPLY FAN HP: 0.16
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0410
AHU NUMBER: UH-2 — AHU LOCATION: BASEMENT
REFRIG SYS # SRVNG AHU: — SERVES AREA: BSMT. S.E. WING
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: UNIT HEATER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,270 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: N/A — UNIT MODEL:
SUPPLY FAN HP: 0.33 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0410
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 20

BOILER MFG: BURHAM
UNIT MODEL: 4FL20940LB
BLR CAP OUTPUT (BTUH): 1,749,000
BLR CAP INPUT (BTUH): 2,186,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 7.5 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0410
BLDG NAME: ENL BARRACKS W/AS
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION:
SOURCE OF HEATING: BOILER
SERVES AREA: HALLWAYS/STAIRS
RADIATION UNIT TYPE: STEAM
% AREA HTG: 20

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL: 2-WAY VALVE, MANUAL OR THERMOSTATIC AT BB
OCC HT SPACE SP: 65
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0410
BLDG NAME: ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1, 2, & 3

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	SE2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	0	TOWER FAN AMPS:	48
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	BALDOR
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	M3211T

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0411 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 32,883

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0411
AHU NUMBER: AHU-1
AHU LOCATION: BASEMENT
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: BSMT REC AREA
% OF BLDG AREA HEATED: 11

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 1,950
CFM-CLG: 1,950
MIN %OA: 14
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: E143TDR7350AK
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 55
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0411
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST FLR SE WING
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 3,565
CFM-CLG: 3,565
MIN %OA: 14
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: DN145TTDR7927A
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0411
AHU NUMBER: AHU-3
AHU LOCATION: MER-2ND FLR
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST AND 2ND FLR NW WING
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 4

CFM-HTG: 6,115
CFM-CLG: 6,115
MIN %OA: 14
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: EC182TTDR7627A
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 65
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 55
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0411
AHU NUMBER: AHU-4
AHU LOCATION: MER 2ND FLR
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: NE WING 1ST & 2ND FLR
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 8

CFM-HTG: 15,075
CFM-CLG: 15,075
MIN %OA: 14
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: EBD213TTDR7359
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 55
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0411
AHU NUMBER: UH-1
AHU LOCATION: BSMT
REFRIG SYS # SRVNG AHU: N/A
SERVES AREA: BSMT NW. WING
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: UH
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,260
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.17
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0411
AHU NUMBER: UH-2
AHU LOCATION: BSMT
REFRIG SYS # SRVNG AHU:
SERVES AREA: BSMT SE WING
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,270
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0411
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 4FL20940LB
BLR CAP OUTPUT (BTUH): 1,749,000
BLR CAP INPUT (BTUH): 2,186,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 7.5 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0411 — BLDG NAME: ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1-4

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	SE2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	0	TOWER FAN AMPS:	4.8
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0500 **BLDG NAME:** POST HQ BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 65,453

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0500
AHU NUMBER: HP-1
AHU LOCATION: BSMT SOUTH
REFRIG SYS # SRVNG AHU:
SERVES AREA: BSMT SOUTH
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: HEAT PUMP
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,960
CFM-CLG: 6,960
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0500
AHU NUMBER: HP-2
AHU LOCATION: BSMT NORHT

REFRIG SYS # SRVNG AHU:
SERVES AREA: BSMNT NORTH
% OF BLDG AREA HEATED: 17

AHU UNIT TYPE HEAT PUMP
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,300
CFM-CLG: 8,300
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N

MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N

IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0500
AHU NUMBER: HP-3
AHU LOCATION: 1ST FLR SOUTH
REFRIG SYS # SRVNG AHU:
SERVES AREA: 1ST FLR SOUTH
% OF BLDG AREA HEATED: 15

AHU UNIT TYPE: HEAT PUMP
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,440
CFM-CLG: 8,440
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0500
AHU NUMBER: HP-4
AHU LOCATION: 1ST FLR NORTH
REFRIG SYS # SRVNG AHU:
SERVES AREA: 1ST FLR NORTH
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEAT PUMP
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 13,760
CFM-CLG: 13,760
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0500
AHU NUMBER: HP-5 — AHU LOCATION: 2ND FLR
REFRIG SYS # SRVNG AHU: — SERVES AREA: 2ND FLR
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: HEAT PUMP — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 15,480 — CFM-CLG: 15,480
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0500
AHU NUMBER: HP-6
AHU LOCATION: 3RD FLR
REFRIG SYS # SRVNG AHU:
SERVES AREA: 3RD FLR
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: HEAT PUMP
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 9,750
CFM-CLG: 9,750
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0500
BOILER RM LOCATION: MER BASEMENT

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: LOW PRESS STEAM (<15#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: AJAX
UNIT MODEL: SGXFD-4250
BLR CAP OUTPUT (BTUH): 3,400,000
BLR CAP INPUT (BTUH): 4,250,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 40
PUMP MFG: BALDOR
PUMP SERVICE: CONDENSER WATER PUMP
PUMP MODEL: M2539T

HW PUMP

PUMP TAG: 2
PUMP HP: 40
PUMP MFG: BALDOR
PUMP SERVICE: CONDENSER WATER PUMP
PUMP MODEL: M2539T

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0500
BLDG NAME: POST HQ BLDG

REF. UNIT NUMBER/TAG: CT-1
LOCATION (MER#):
AHU'S SERVED: ALL HEAT PUMPS

UNIT TYPE: OTHER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	BALTIMORE
CHILLER MODEL:		# OF TOWER FANS:	3
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	30
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	GE
PUMP SERVICE:	COOLING TOWER			PUMP MODEL:	5K182JX27A

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0500
BLDG NAME: POST HQ BLDG

REF. UNIT NUMBER/TAG: CT-2
LOCATION (MER#): MER
AHU'S SERVED: ALL HEAT PUMPS

UNIT TYPE: OTHER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	BALTIMORE
CHILLER MODEL:		# OF TOWER FANS:	3
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	30
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	GE
PUMP SERVICE:	COOLING TOWER			PUMP MODEL:	5K182JX27A

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0509 **BLDG NAME:** ADMIN GEN PURPOSE

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 10,108

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0509
AHU NUMBER: HP-1
AHU LOCATION: ZONE PERIMETER
REFRIG SYS # SRVNG AHU:
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: HEAT PUMP
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,440
CFM-CLG: 8,440
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0512 **BLDG NAME:** SR ENL QTRS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 13,619

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — **DATE:** 10/18/94
LOCATION: FT. RILEY, KS — **PREPARED BY:** JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0512
AHU NUMBER: AHU-1 — **AHU LOCATION:** MER
REFRIG SYS # SRVNG AHU: CH-1 — **SERVES AREA:** DINING ROOM
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE SINGLE ZONE — **NUMBER OF ZONES IF MZ UNIT:** 0

CFM-HTG: 1,250 — **CFM-CLG:** 1,250
MIN %OA: 10 — **MAX %OA:** 100

NAMEPLATE

UNIT MFG: MCQUAY — **UNIT MODEL:**
SUPPLY FAN HP: 3 — **RET/EXH FAN HP:** 0
SUPPLY FAN MTR MFG: TOSHIBA — **RET/EXH FAN MTR MFG:**
SUPPLY FAN MTR MODEL: 80034FGF2A4 — **RET/EXH FAN MTR MODEL:**
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 10 — **MONTH SCHEDULE NO:** 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — **THERMOSTAT TYPE:** SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70 — **HOT DECK DEG F:** 0
PRESENT TEMP WINTR UNOCC: 0 — **COLD DECK DEG F:** 0
MIXED AIR DEG F: 58
PRESENT TEMP SUM OCC: 0 — **OTHER SETPOINT DESCRIP:**
PRESENT TEMP SUM UNOCC: 0 — **OTHER SETPOINT DEG F:** 0

MIN OA DMPR CONTROL: Y — **MIXED AIR DMPR CONTROL:** Y — **IMPLEMENT DEMAND LIMIT CNTRLS?** N
MAX OA DMPR CONTROL: Y — **ECONOMIZER DB CONTROL:** Y — **TIME CLOCK:** N
RET AIR DMPR CONTROL: Y — **ECONOMIZER WB CONTROL:** N — **TIME CLOCK OPERATIONAL?** N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0512
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ **BOILER**
- **BOILER TAG:** BLR-1
- **BOILER TYPE:** MED PRESS STEAM (15# TO 125#)
- **FUEL TYPE:** NAT. GAS

☐ **CONVERTER**
- **CONVERTER TAG:**
- **CONVERTER TYPE:**
- **CONV HT SOURCE:**

( ) **CENTRAL PLANT DIRECT**

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 4FL15440GWEB
BLR CAP OUTPUT (BTUH): 1,289,000
BLR CAP INPUT (BTUH): 1,611,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 7.5 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.33
PUMP MFG: COND. PUMP
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0512
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 4FL15440GWEB
BLR CAP OUTPUT (BTUH): 1,289,000
BLR CAP INPUT (BTUH): 1,289,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 7.5 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 2
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: HW PUMP
PUMP MODEL: 8-350322-01

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0512
BLDG NAME: SR ENL QTRS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	INTER-CITY PRODUCTS	TOWER MFG:	
CHILLER MODEL:	C100G0	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	66
CHILLER AMPS:	36.1	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	10		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0512 — BLDG NAME: SR ENL QTRS

REF. UNIT NUMBER/TAG: CH-2 — LOCATION (MER#): OUTSIDE
AHU'S SERVED: FAN COIL UNIT

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	30AOCD45	# OF TOWER FANS:	4
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	4.6
CHILLER AMPS:	74	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	30		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	CW-1	PUMP HP:	2	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	H122

EMC ENGINEERS, INC.

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CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0540
BLDG NAME: OFF QTRS MILIT

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N
CONDITIONED SQFT: 14,528

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0540
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: PGX-2006AWNI
BLR CAP OUTPUT (BTUH): 828,000
BLR CAP INPUT (BTUH): 984,000

COMMENTS: TOTAL FOR 6 MODULAR BOILERS

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.25
PUMP MFG: TACO
PUMP SERVICE: HW PUMP
PUMP MODEL: 007-F4

EMC ENGINEERS, INC.

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EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0540
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: PGX-2006AWNI
BLR CAP OUTPUT (BTUH): 276,000
BLR CAP INPUT (BTUH): 328,000

COMMENTS: TOTAL FOR 2 MODULAR BOILERS

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.08
PUMP MFG: TACO
PUMP SERVICE: HW PUMP
PUMP MODEL: 007-F4

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0540 — BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC — RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1 — PUMP HP: 2 — PUMP MFG: MARATHON
PUMP SERVICE: DUAL TEMP PUMP — PUMP MODEL:

HW PUMP

PUMP TAG: — PUMP HP: — PUMP MFG:
PUMP SERVICE: — PUMP MODEL:

EMC ENGINEERS, INC.

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EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0540
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 2
PUMP MFG: MARATHON
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0540 — BLDG NAME: OFF QTRS MILIT

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): OUTSIDE
AHU'S SERVED: FAN COIL UNITS

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38AE-044-510	# OF TOWER FANS:	4
CHILLER SERIAL NO:	2190F18047	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	4.6
CHILLER AMPS:	76	TOWER FAN HP:	0.43
CHILLER PH:	3		
CHILLER CAP (TONS):	40		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0541
BLDG NAME: OFF QTRS MILIT

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N
CONDITIONED SQFT: 18,083

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0541
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: PGX-2006AWNI
BLR CAP OUTPUT (BTUH): 828,000
BLR CAP INPUT (BTUH): 984,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.25
PUMP MFG: TACO
PUMP SERVICE: HW PUMP
PUMP MODEL: 077-F4

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0541
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: PGX-2006AWNI
BLR CAP OUTPUT (BTUH): 276,000
BLR CAP INPUT (BTUH): 328,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.08
PUMP MFG: TACO
PUMP SERVICE: HW PUMP
PUMP MODEL: 007-F4

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0541 — BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC — RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1 — PUMP HP: 2 — PUMP MFG: MARATHON
PUMP SERVICE: DUAL TEMP PUMP — PUMP MODEL:

HW PUMP

PUMP TAG: — PUMP HP: — PUMP MFG:
PUMP SERVICE: — PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0541
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 2
PUMP MFG: MARATHON
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0541
BLDG NAME: OFF QTRS MILIT

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: FC'S

UNIT TYPE: RECIPROCATING W/AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38AE-044-510	# OF TOWER FANS:	4
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	152	TOWER FAN HP:	0.43
CHILLER PH:	3		
CHILLER CAP (TONS):	40		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0542 **BLDG NAME:** OFF QTRS MILIT

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 14,528

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0542
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: PGX-2006AWNI
BLR CAP OUTPUT (BTUH): 828,000
BLR CAP INPUT (BTUH): 984,000

COMMENTS: TOTAL FOR 6 MODULAR BOILERS

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.25
PUMP MFG: TACO
PUMP SERVICE: HW PUMP
PUMP MODEL: 007-F4

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0542
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

○ ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: PGX-2006AWNI
BLR CAP OUTPUT (BTUH): 276,000
BLR CAP INPUT (BTUH): 328,000

COMMENTS: TOTAL FOR 2 MODULAR BOILERS

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.08
PUMP MFG: TACO
PUMP SERVICE: HW PUMP
PUMP MODEL: 007-F4

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0542
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: MARATHON
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0542
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 2
PUMP MFG: MARATHON
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0542
BLDG NAME: OFF QTRS MILIT

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: FAN COILS

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38AE-044-510	# OF TOWER FANS:	4
CHILLER SERIAL NO:	2190F18047	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	4.6
CHILLER AMPS:	76	TOWER FAN HP:	0.43
CHILLER PH:	3		
CHILLER CAP (TONS):	40		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0602 **BLDG NAME:** DENTAL CLINIC

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 11,557

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 9

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0602
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: ALL
% OF BLDG AREA HEATED: 80

AHU UNIT TYPE: DUAL DUCT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 13,900 — CFM-CLG: 13,900
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: H-25-B
SUPPLY FAN HP: 25 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GOULD — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	STEAM	☒
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 9 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC/ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: Time Clock: 5am-8pm M-W; 5am-9pm Th-F; off Sat & Sun

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0602
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 20

BOILER MFG: IBR
UNIT MODEL: PF506

BLR CAP OUTPUT (BTUH): 506,000
BLR CAP INPUT (BTUH): 607,200

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 9
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0602
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 20

BOILER MFG: BELL AND GOSSETT
UNIT MODEL: SU-64-4
BLR CAP OUTPUT (BTUH): 500,000
BLR CAP INPUT (BTUH): 500,000

COMMENTS: Year Built: 1979

SCHEDULE

DAYS SCHEDULE NO: 9
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.25
PUMP MFG: BELL AND GOSSETT
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0602
BLDG NAME: DENTAL CLINIC
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION:
SOURCE OF HEATING: BLR-1
SERVES AREA: PERIMETER ROOMS
RADIATION UNIT TYPE: HW
% AREA HTG: 20

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.25
PUMP MFG:
PUMP MODEL:

SCHEDULE

DAYS SCHEDULE NO: 9
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0602
BLDG NAME: DENTAL CLINIC

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): EXTERIOR BLDG.
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	CA2CD75	# OF TOWER FANS:	6
CHILLER SERIAL NO:	4-87-12225	TOWER FAN V:	208
CHILLER V:	460	TOWER FAN AMPS:	4.5
CHILLER AMPS:	67.5	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	78.2		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 9
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	52	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	BALDOR
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	M3558T

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY:

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0610 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 29,004

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0610
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 630,000
BLR CAP INPUT (BTUH): 630,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0610
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 10
PUMP MFG: TACO
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: FM3008

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0610
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 10
PUMP MFG: TACO
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: FM3008

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0610
BLDG NAME: ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: FAN COILS
UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	MCQUAY	TOWER MFG:	
CHILLER MODEL:	CDE-14100-1	# OF TOWER FANS:	12
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	533	TOWER FAN HP:	0.33
CHILLER PH:	3		
CHILLER CAP (TONS):	116		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/95
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0620 **BLDG NAME:** OFF QTRS MILIT

ELECTRIC METER: N **CONDITIONED SQFT:** 12,640
GAS METER: N
SUSPECT ACM: Y

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON PIPE FITTINGS AND HW STORAGE TANK

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/95
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0620
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: HW FROM CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 100

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 398,800
BLR CAP INPUT (BTUH): 398,800
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 135 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HP-1
PUMP HP: 2
PUMP MFG: BALDOR INDUSTRIAL
PUMP SERVICE: HW PUMP
PUMP MODEL: 7M3155

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:** 10/17/94
LOCATION: FT. RILEY, KS **PREPARED BY:** AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0621 **BLDG NAME:** OFF QTRS TRANS

ELECTRIC METER: N **CONDITIONED SQFT:** 10,723
GAS METER: N
SUSPECT ACM: Y

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON PIPE FITTINGS AND HW STORAGE TANK.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0621 **BOILER RM LOCATION:** MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ **BOILER**
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ **CONVERTER**
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: STEAM FROM CENTRAL PLANT

● **CENTRAL PLANT DIRECT**

NAMEPLATE

% AREA HEATED BY BB RADIATION: 100

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 398,800
BLR CAP INPUT (BTUH): 398,800
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 20 **MONTH SECHDULE NO:** 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	21	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC **RESET CONTROLS:** N
OPERATING SETPOINT: 145 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1 **PUMP HP:** 1.5 **PUMP MFG:** MAGNETEK
PUMP SERVICE: HW PUMP **PUMP MODEL:**

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0650 **BLDG NAME:** COLD STOR FAC

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 22,331

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0652 BLDG NAME: COLD STOR FAC

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 8,167

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0652
BLDG NAME: COLD STOR FAC

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: NONE

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	COPELAND	TOWER MFG:	
CHILLER MODEL:	GCMH-4000-TMC-104	# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	15		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0652
BLDG NAME: COLD STOR FAC

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): MER
AHU'S SERVED:

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	COPELAND	TOWER MFG:	
CHILLER MODEL:	GSNH-3000TMC-100	# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	15		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0710 **BLDG NAME:** TAC EQUIP SHOP

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 2,173

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 5

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0710
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-1
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 19

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,000
CFM-CLG: 1,000
MIN %OA: 22
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0710
AHU NUMBER: MAU-1
AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU:
SERVES AREA: BAY
% OF BLDG AREA HEATED: 19

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,650
CFM-CLG: 1,650
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0710
AHU NUMBER: UH-1
AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAY
% OF BLDG AREA HEATED: 62

AHU UNIT TYPE UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,260
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: TOTAL FOR 4 UNIT HEATERS

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0710
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: AJAX
UNIT MODEL: WGFD400
BLR CAP OUTPUT (BTUH): 320,000
BLR CAP INPUT (BTUH): 400,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 5
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 155 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: B & G
PUMP SERVICE: HW PUMP
PUMP MODEL: X917283/8DF

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0710 **BLDG NAME:** TAC EQUIP SHOP

REF. UNIT NUMBER/TAG: ACCU-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38ER030300	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	0.9
CHILLER AMPS:	18.7	TOWER FAN HP:	0.5
CHILLER PH:	1		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 5 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:** 10/18/94
LOCATION: FT. RILEY, KS **PREPARED BY:** JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0720 **BLDG NAME:** AF OPS BLDG

ELECTRIC METER: N **CONDITIONED SQFT:** 3,705
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 28

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	6	9	6	9	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0720
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 33.3

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 1,800
MIN %OA: 0
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL: 58GS925-4
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CARRIER
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 28
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	6	9	6	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — **DATE:** 10/18/94
LOCATION: FT. RILEY, KS — **PREPARED BY:** JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0720
AHU NUMBER: AHU-2 — **AHU LOCATION:** MER
REFRIG SYS # SRVNG AHU: CH-2 — **SERVES AREA:** ALL
% OF BLDG AREA HEATED: 33.3

AHU UNIT TYPE SINGLE ZONE — **NUMBER OF ZONES IF MZ UNIT:** 0

CFM-HTG: 1,800 — **CFM-CLG:** 1,800
MIN %OA: 10 — **MAX %OA:** 100

NAMEPLATE

UNIT MFG: CARRIER — **UNIT MODEL:** 58GS125-4
SUPPLY FAN HP: 0.5 — **RET/EXH FAN HP:** 0
SUPPLY FAN MTR MFG: CARRIER — **RET/EXH FAN MTR MFG:**
SUPPLY FAN MTR MODEL: — **RET/EXH FAN MTR MODEL:**
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 28 — **MONTH SCHEDULE NO:** 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	6	9	6	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — **THERMOSTAT TYPE:** SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70 — **HOT DECK DEG F:** 0
PRESENT TEMP WINTR UNOCC: 0 — **COLD DECK DEG F:** 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — **OTHER SETPOINT DESCRIP:**
PRESENT TEMP SUM UNOCC: 0 — **OTHER SETPOINT DEG F:** 0

MIN OA DMPR CONTROL: N — **MIXED AIR DMPR CONTROL:** N — **IMPLEMENT DEMAND LIMIT CNTRLS?** N
MAX OA DMPR CONTROL: Y — **ECONOMIZER DB CONTROL:** N — **TIME CLOCK:** N
RET AIR DMPR CONTROL: Y — **ECONOMIZER WB CONTROL:** N — **TIME CLOCK OPERATIONAL?** N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0720
AHU NUMBER: AHU-3
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-3
SERVES AREA: ALL
% OF BLDG AREA HEATED: 33.3

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 1,800
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL: 58GS125-4
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CARRIER
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 28
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	6	9	6	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0720 **BLDG NAME:** AF OPS BLDG

REF. UNIT NUMBER/TAG: CH-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38EC060500	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	2.4
CHILLER AMPS:	20.4	TOWER FAN HP:	0.4
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 28 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	6	9	6	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0720
BLDG NAME: AF OPS BLDG

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38EC060500	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	2.4
CHILLER AMPS:	20.4	TOWER FAN HP:	0.4
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 28
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	6	9	6	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0720
BLDG NAME: AF OPS BLDG

REF. UNIT NUMBER/TAG: CH-3
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-3

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38EC060500	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	2.4
CHILLER AMPS:	20.4	TOWER FAN HP:	0.4
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 28
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	6	9	6	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0722 **BLDG NAME:** FLIGHT SIMULATOR

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 7,000

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 4

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0722
AHU NUMBER: AHU-1
AHU LOCATION: SIMULATOR ROOM
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: SIMULATOR EQUIPMENT RM
% OF BLDG AREA HEATED: 50

AHU UNIT TYPE: VAV
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 15,590
CFM-CLG: 15,590
MIN %OA: 25
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 20
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: FAIRBANKS MOR
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: KZK
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 1
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0722
AHU NUMBER: AHU-2
AHU LOCATION: MEZZANINE MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: SIMULATOR EQUIP. ROOM
% OF BLDG AREA HEATED: 30

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,500
CFM-CLG: 7,500
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GE
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 5K215AD205B
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	ATOMIZERS	☒
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 1
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 65
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0722
AHU NUMBER: AHU-3
AHU LOCATION: MEZZANINE MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ADMIN OFFICES, CLASSROOM
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,050
CFM-CLG: 4,050
MIN %OA: 25
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 5
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 1
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 60
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0722
AHU NUMBER: AHU-4
AHU LOCATION: SIMULATION RM
REFRIG SYS # SRVNG AHU: CH-2
SERVES AREA: COMPUTER RM
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: CRU-COOLING ONLY
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 6,400
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: PAC
UNIT MODEL: CUXC-12
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 72
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0722
BOILER RM LOCATION: 2ND FL. MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: AHU-1,2,3

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: BURNHAM
UNIT MODEL: 4FW92SPLOGP
BLR CAP OUTPUT (BTUH): 480,100
BLR CAP INPUT (BTUH): 602,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 3
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0722
BLDG NAME: FLIGHT SIMULATOR

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1,2,3

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	CA2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:		TOWER FAN V:	480
CHILLER V:	480	TOWER FAN AMPS:	2.3
CHILLER AMPS:	67.5	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	70		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0722 — BLDG NAME: FLIGHT SIMULATOR

REF. UNIT NUMBER/TAG: CH-2 — LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-4

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	LARKIN	TOWER MFG:	
CHILLER MODEL:	PFG16	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	2.2	TOWER FAN HP:	0.5
CHILLER PH:	3		
CHILLER CAP (TONS):	16		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: 1 — PUMP HP: 0.5 — PUMP MFG:
PUMP SERVICE: — PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0723 **BLDG NAME:** MNT HANGAR COMB

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 21,640

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

Suspect ACM located on heating pipe fittings

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0723
AHU NUMBER: HV-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: 1ST FLR. MAINT. SHOPS
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,600 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.25 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0723
AHU NUMBER: UH-1
AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAY
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 740
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: DUNHAM-BUSHCH
UNIT MODEL: VHU-10
SUPPLY FAN HP: 0.25
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 5K907B
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 70
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 70
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0723
AHU NUMBER: UH-2 — AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: BAY
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: UNIT HEATER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 740 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: DUNHAM-BUSCH — UNIT MODEL: VHU-10
SUPPLY FAN HP: 0.25 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 5K907B — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 70 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0723
AHU NUMBER: UH-3 — AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: BAY
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: UNIT HEATER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 740 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: DUNHAM-BUSCH — UNIT MODEL: VHU-10
SUPPLY FAN HP: 0.25 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 5K907B — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0723
AHU NUMBER: UH-4 — AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: BAY
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: UNIT HEATER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 740 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: DUNHAM-BUSH — UNIT MODEL: VHU-10
SUPPLY FAN HP: 0.25 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 5K907B — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0723
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 90

BOILER MFG: BURNHAM
UNIT MODEL: 4FL-311-40-LB
BLR CAP OUTPUT (BTUH): 2,603,000
BLR CAP INPUT (BTUH): 3,254,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
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LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0723
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: BAY FLOOR

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: BLR-1

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 832,960
BLR CAP INPUT (BTUH): 832,960
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0723
BLDG NAME: MNT HANGAR COMB
PER RAD (SYSTEM TAG) NO: RAD-2
RAD SYS LOCATION: 1ST & 2ND FLR. OFFICES
SOURCE OF HEATING: BLR-1
SERVES AREA: 1ST & 2ND FLR. OFFICES
RADIATION UNIT TYPE: STEAM
% AREA HTG: 25

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL: 2-WAY VALVE, MANUAL OR THERMOSTATIC AT BB
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0723
BLDG NAME: MNT HANGAR COMB
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: BAY FLOOR
SOURCE OF HEATING: CV-1
SERVES AREA: BAY FLOOR
RADIATION UNIT TYPE: HW
% AREA HTG: 32

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: BELL & GOSSETT
PUMP MODEL: M80037

RADIATION PUMP

PUMP TAG: 2
PUMP HP: 0.5
PUMP MFG: BELL & GOSSETT
PUMP MODEL: M80037

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL: 2-WAY VALVE, MANUAL OR THERMOSTATIC AT BB
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0724 **BLDG NAME:** FLIGHT SIMULATOR

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 13,188

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 1

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0724
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 60

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 6,200
CFM-CLG: 6,200
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: CCDB14CDCHO
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0724
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-2
SERVES AREA: COMPUTER ROOM
% OF BLDG AREA HEATED: 40

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,000
CFM-CLG: 6,000
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: CCDB12CEMJ
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-35741601
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — **DATE:** 10/18/94
LOCATION: FT. RILEY, KS — **PREPARED BY:** JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0724
AHU NUMBER: CRU-1 — **AHU LOCATION:** COMPUTER ROOM
REFRIG SYS # SRVNG AHU: CH-3,4 — **SERVES AREA:** COMPUTER ROOM
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE OTHER — **NUMBER OF ZONES IF MZ UNIT:** 0

CFM-HTG: 0 — **CFM-CLG:** 8,600
MIN %OA: 0 — **MAX %OA:** 0

NAMEPLATE

UNIT MFG: LIEBERT — **UNIT MODEL:** FE192GVA10
SUPPLY FAN HP: 5 — **RET/EXH FAN HP:** 0
SUPPLY FAN MTR MFG: — **RET/EXH FAN MTR MFG:**
SUPPLY FAN MTR MODEL: — **RET/EXH FAN MTR MODEL:**
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	ELECTRIC	☐
HUMIDIFIER:	ELECTRIC	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 10 — **MONTH SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC — **THERMOSTAT TYPE:** SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — **HOT DECK DEG F:** 0
PRESENT TEMP WINTR UNOCC: 0 — **COLD DECK DEG F:** 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — **OTHER SETPOINT DESCRIP:**
PRESENT TEMP SUM UNOCC: 0 — **OTHER SETPOINT DEG F:** 0

MIN OA DMPR CONTROL: N — **MIXED AIR DMPR CONTROL:** N — **IMPLEMENT DEMAND LIMIT CNTRLS?** N
MAX OA DMPR CONTROL: N — **ECONOMIZER DB CONTROL:** N — **TIME CLOCK:** N
RET AIR DMPR CONTROL: N — **ECONOMIZER WB CONTROL:** N — **TIME CLOCK OPERATIONAL?** N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0724
AHU NUMBER: CRU-2
AHU LOCATION: COMPUTER ROOM
REFRIG SYS # SRVNG AHU: CH-3,4
SERVES AREA: COMPUTER ROOM
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: OTHER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 8,600
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: LIEBERT
UNIT MODEL: FE192GVA10
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	ELECTRIC	☐
HUMIDIFIER:	ELECTRIC	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0724
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: AJAX
UNIT MODEL: WGFD-450
BLR CAP OUTPUT (BTUH): 360,000
BLR CAP INPUT (BTUH): 450,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 3
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL: VBK215TTDR7026HTL

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0724
BLDG NAME: FLIGHT SIMULATOR

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED:

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	CGADC254ABAIGTJWR	# OF TOWER FANS:	3
CHILLER SERIAL NO:		TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	1.8
CHILLER AMPS:	23.5	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	25		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0724
BLDG NAME: FLIGHT SIMULATOR

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	3
CHILLER SERIAL NO:		TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	1.8
CHILLER AMPS:	17.2	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	20		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	VDC182TTDR7026DF

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0724
BLDG NAME: FLIGHT SIMULATOR

REF. UNIT NUMBER/TAG: CH-3
LOCATION (MER#): OUTSIDE
AHU'S SERVED: CRU-1,2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	PRYCODER	TOWER MFG:	
CHILLER MODEL:	DSO419A	# OF TOWER FANS:	4
CHILLER SERIAL NO:		TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.75
CHILLER PH:	3		
CHILLER CAP (TONS):	10		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	64	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0724
BLDG NAME: FLIGHT SIMULATOR

REF. UNIT NUMBER/TAG: CH-4
LOCATION (MER#): OUTSIDE
AHU'S SERVED: CRU-1,2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	PRYCODER	TOWER MFG:	
CHILLER MODEL:	DSO419A	# OF TOWER FANS:	4
CHILLER SERIAL NO:		TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.75
CHILLER PH:	3		
CHILLER CAP (TONS):	10		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	64	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0727 **BLDG NAME:** MNT HANGAR COMB

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 36,152

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0727
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: MAINT. SHOPS/TOOL ROOM
% OF BLDG AREA HEATED: 12

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,160 — CFM-CLG: 5,160
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: CCDV03APBB
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 200V — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0727
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-1
SERVES AREA: SHOPS AND BREAKROOM
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 4

CFM-HTG: 1,175
CFM-CLG: 1,175
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: CCB12BBRBO
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DOERR
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0727
AHU NUMBER: HV-1
AHU LOCATION: PAINT BOOTH
REFRIG SYS # SRVNG AHU:
SERVES AREA: PAINT BOOTH
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0727
AHU NUMBER: UH-1
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAY
% OF BLDG AREA HEATED: 7.5

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,800
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL: 29SD2
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0727
AHU NUMBER: UH-2 — AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: MAINT. BAY
% OF BLDG AREA HEATED: 7.5

AHU UNIT TYPE: UNIT HEATER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,800 — CFM-CLG: 2,800
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: AIRTHERM — UNIT MODEL: 29SD2
SUPPLY FAN HP: 0.33 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0727
AHU NUMBER: UH-3
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAY
% OF BLDG AREA HEATED: 7.5

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,800
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL: 29SD2
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0727
AHU NUMBER: UH-4
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAY
% OF BLDG AREA HEATED: 7.5

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,800
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: AIRHERM
UNIT MODEL: 29SD2
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0727
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 33

BOILER MFG: KEWANEE
UNIT MODEL: M-335-KGO

BLR CAP OUTPUT (BTUH): 3,350,000
BLR CAP INPUT (BTUH): 4,181,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0727
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ADDITION

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: AJAX
UNIT MODEL: WG450D
BLR CAP OUTPUT (BTUH): 360,000
BLR CAP INPUT (BTUH): 450,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 150 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 3
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0727
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: BAY FLOOR RADIATION

(●) ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: BLR-1

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 33

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 1,000,000
BLR CAP INPUT (BTUH): 1,000,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 2
PUMP HP: 1
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0727
BLDG NAME: MNT HANGAR COMB
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: BAY FLOOR
SOURCE OF HEATING: BLR-1
SERVES AREA: BAY FLOOR
RADIATION UNIT TYPE: HW
% AREA HTG: 33

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: CENTURY
PUMP MODEL: SC-1845-FC4-7

RADIATION PUMP

PUMP TAG: 2
PUMP HP: 1.5
PUMP MFG: CENTURY
PUMP MODEL: SC-1845-FC4-7

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0727
BLDG NAME: MNT HANGAR COMB

REF. UNIT NUMBER/TAG: ACCU-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	RAUC-306-B	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	2.5
CHILLER AMPS:	13	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	16		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0727
BLDG NAME: MNT HANGAR COMB

REF. UNIT NUMBER/TAG: ACCU-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	RAUB-C153-A	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	230	TOWER FAN AMPS:	0
CHILLER AMPS:	71.4	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	15		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0741 **BLDG NAME:** MNT HANGAR COMB

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 38,898

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 24

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0741
AHU NUMBER: AHU-1 — AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: ALL
% OF BLDG AREA HEATED: 25

AHU UNIT TYPE: UNIT HEATER — NUMBER OF ZONES IF MZ UNIT:

CFM-HTG: 14,200 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: MCQUAY — UNIT MODEL: 71136-L-1/71136-L
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DOERR — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 30004 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 24 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 65 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0741
AHU NUMBER: AHU-2
AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: ALL
% OF BLDG AREA HEATED: 25

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT:

CFM-HTG: 14,200
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: MCQUAY
UNIT MODEL: 71136-L1/71136-L-
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DOERR
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 30004
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 24
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 65
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/18/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0741
AHU NUMBER: AHU-3 — AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: ALL
% OF BLDG AREA HEATED: 25

AHU UNIT TYPE: UNIT HEATER — NUMBER OF ZONES IF MZ UNIT:

CFM-HTG: 14,200 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: MCQUAY — UNIT MODEL: 71136-L-1/71136-L
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DOERR — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 30004 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 24 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 65 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0741
AHU NUMBER: AHU-4
AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: ALL
% OF BLDG AREA HEATED: 25

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT:

CFM-HTG: 14,200
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: MCQUAY
UNIT MODEL: 71136-L-1/71136-L
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DOERR
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 30004
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 24
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 65
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0741
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 4FL675A40LB
BLR CAP OUTPUT (BTUH): 5,657,000
BLR CAP INPUT (BTUH): 7,071,000

COMMENTS: 5 HP BURNER MOTOR, 2EA 1 HP COND. PUMPS

SCHEDULE

DAYS SCHEDULE NO: 24
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/95
PREPARED BY: JM/AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0751 **BLDG NAME:** AC PTS & TOE ST

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 9,834

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/95
PREPARED BY: JM/AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0751
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ADMIN OFFICES
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: RESIDENTIAL FURNACE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,200
CFM-CLG: 1,200
MIN %OA: 10
MAX %OA: 10

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: SNYDER GENERA
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: GUG141A020N
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/95
PREPARED BY: JM/AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0751
AHU NUMBER: UH-1
AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: STORAGE
% OF BLDG AREA HEATED: 90

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,200
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: TOTAL FOR 9 UNIT HEATERS

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/95
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0751
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 4FW9250LB

BLR CAP OUTPUT (BTUH): 616,000
BLR CAP INPUT (BTUH): 770,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 7.5 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/95
PREPARED BY: JM/AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0751 **BLDG NAME:** AC PTS & TOE ST

REF. UNIT NUMBER/TAG: CH-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: AHU-

UNIT TYPE RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	SNYDER GENERAL	TOWER MFG:	
CHILLER MODEL:	AD036G	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	1.1
CHILLER AMPS:	17.91	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	3		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0760 **BLDG NAME:** BN HQ BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 7,364

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 39

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0760
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 100

BOILER MFG: BURNHAM
UNIT MODEL: FS/15
BLR CAP OUTPUT (BTUH): 558,000
BLR CAP INPUT (BTUH): 672,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 170 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER:	0760	BLDG NAME:	BN HQ BLDG
PER RAD (SYSTEM TAG) NO:	RAD-1	RAD SYS LOCATION:	
SOURCE OF HEATING:	BLR-1	SERVES AREA:	ALL
RADIATION UNIT TYPE:	STEAM	% AREA HTG:	100

SCHEDULE

DAYS SCHEDULE NO: 39
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: OTHER
OCC HT SPACE SP: 72
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0802 **BLDG NAME:** BN ADMIN & CLRM

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 12,526

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 16

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0802
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT — SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 8

CFM-HTG: 7,605 — CFM-CLG: 7,605
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: AMCQUAY — UNIT MODEL: LML117DH
SUPPLY FAN HP: 15 — RET/EXH FAN HP: 15
SUPPLY FAN MTR MFG: AJAX — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: R015105/2A4 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 16 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0802
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☒ BOILER
BOILER TAG: HWP-1
BOILER TYPE: OTHER
FUEL TYPE: OTHER

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 16
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: RM1082190331L2740035

HW PUMP

PUMP TAG: 2
PUMP HP: 0.5
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: RM1082190331L2740035

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0802 — BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CWP-1 — LOCATION (MER#): MER
AHU'S SERVED: AHU-1

UNIT TYPE: OTHER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 16 — MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRONIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	0.5	PUMP MFG:	U.S. ELECTRIC
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	RN1081374-167-L0990309

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:**
LOCATION: FT. RILEY, KS **PREPARED BY:**

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0804 **BLDG NAME:** RGT HQ BUILD

ELECTRIC METER: Y **CONDITIONED SQFT:** 10,241
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 16

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0804
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU:
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 5,575
CFM-CLG: 5,575
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: MCQUAY
UNIT MODEL: LMLIIICH
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: R314
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 16
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0804
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 16
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: US ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: DM1082176-308L2970204

HW PUMP

PUMP TAG: 2
PUMP HP: 0.75
PUMP MFG: US ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: DM1082176-308L2970204

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:**
LOCATION: FT. RILEY, KS **PREPARED BY:**

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0806 **BLDG NAME:** COMB AC-HTG PLANT

ELECTRIC METER: Y **CONDITIONED SQFT:** 1,000
GAS METER: Y
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0806 **BOILER RM LOCATION:** MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ **BOILER**
- **BOILER TAG:** BLR-1
- **BOILER TYPE:** HW (UP TO 250 DEG)
- **FUEL TYPE:** NAT. GAS

☐ **CONVERTER**
- **CONVERTER TAG:**
- **CONVERTER TYPE:**
- **CONV HT SOURCE:**

( ) **CENTRAL PLANT DIRECT**

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: BURNHAM
UNIT MODEL: FS/45
BLR CAP OUTPUT (BTUH): 1,391,000
BLR CAP INPUT (BTUH): 1,600,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 **MONTH SECHDULE NO:** 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC **RESET CONTROLS:** N
OPERATING SETPOINT: 220 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HW-1 **PUMP HP:** 20 **PUMP MFG:** US ELEC
PUMP SERVICE: HW PUMP **PUMP MODEL:** FV048000055K240R056

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0806
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: BURNHAM
UNIT MODEL: FD/45
BLR CAP OUTPUT (BTUH): 1,391,000
BLR CAP INPUT (BTUH): 1,600,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 220 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HW-1
PUMP HP: 20
PUMP MFG: US ELEC
PUMP SERVICE: HW PUMP
PUMP MODEL: FV04800055K240R056

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0806
BLDG NAME: COMB AC-HTG PLANT

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED:

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	MCQUAY	TOWER MFG:	SNYDER GENERAL
CHILLER MODEL:	WHR070DA	# OF TOWER FANS:	6
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	4
CHILLER AMPS:	113	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	70		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: CW-1
PUMP HP: 15
PUMP MFG:
PUMP SERVICE: CW PUMP (Chilled Water)
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0806 — BLDG NAME: COMB AC-HTG PLANT

REF. UNIT NUMBER/TAG: CH-2 — LOCATION (MER#): MER
AHU'S SERVED:

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	MCQUAY	TOWER MFG:	
CHILLER MODEL:	WHR070DA	# OF TOWER FANS:	6
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	6
CHILLER AMPS:	113	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	70		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	CW-1	PUMP HP:	15	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0808
BLDG NAME: BN ADMIN & CLRM

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N
CONDITIONED SQFT: 12,526

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 16

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0808
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT — SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 8

CFM-HTG: 7,605 — CFM-CLG: 7,605
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: MCQUAY — UNIT MODEL: LML117DH
SUPPLY FAN HP: 15 — RET/EXH FAN HP: 15
SUPPLY FAN MTR MFG: AJAX — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: RO15105/2A4 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 16 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0808
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

○ ☒ BOILER
BOILER TAG: HWP-1
BOILER TYPE: OTHER
FUEL TYPE: OTHER

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 16
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: RE1082190331L2740035

HW PUMP

PUMP TAG: 2
PUMP HP: 0.5
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: RM1082190331L2740035

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0808 — BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CWP-1 — LOCATION (MER#): MER
AHU'S SERVED: AHU-1

UNIT TYPE: OTHER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 16 — MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRONIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: 1 — PUMP HP: 0.5 — PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: CW PUMP (Chilled Water) — PUMP MODEL: RN108137-167L0990309

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/AMS/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0810 **BLDG NAME:** ADMIN & SUPPLY BLDG

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 151,520

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 29

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	20	19	20	19	20	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0810
AHU NUMBER: FC-1
AHU LOCATION: ADMIN
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: ADMINISTRATION
% OF BLDG AREA HEATED: 36.8

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,000
CFM-CLG: 8,000
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 29
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	20	19	20	19	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0810
AHU NUMBER: HV-1
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 15.8

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: T6A
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 29
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	20	19	20	19	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0810
AHU NUMBER: HV-2 — AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 15.8

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: T6A
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 29 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	20	19	20	19	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0810
AHU NUMBER: HV-3
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU: NONE\
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 15.8

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: T6A
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 29
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	20	19	20	19	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0810
AHU NUMBER: HV-4
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 15.8

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: T6A
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 29
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	20	19	20	19	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/AMS/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0810
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 29
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	20	19	20	19	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 5
PUMP MFG: UNIMOUNT 125
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 80184JP

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/AMS/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0810
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 29
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	20	19	20	19	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 3
PUMP MFG: UNIMOUNT 125
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 182JP

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/AMS/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0810
BLDG NAME: ADMIN & SUPPLY BLDG

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#):
AHU'S SERVED: FC-1

UNIT TYPE: CENTRAL PLANT

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 29
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	20	19	20	19	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	BELL & GOSSET
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0812 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N **CONDITIONED SQFT:** 23,559
GAS METER: Y
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 33

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0812
AHU NUMBER: FC-1
AHU LOCATION: FC
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 37

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 9,000
CFM-CLG: 1,800
MIN %OA: 10
MAX %OA: 10

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: TOTAL FOR 20 FAN COILS

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 33
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0812
AHU NUMBER: HV-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,820
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 33
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0812
AHU NUMBER: HV-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,820
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 33
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0812
AHU NUMBER: HV-3 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: — SERVES AREA: SUPPLY
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,820 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 33 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0812
AHU NUMBER: HV-4
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,820
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 33
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N

MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N

IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0812
AHU NUMBER: HV-5
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,820
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 33
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0812
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 33
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 3
PUMP MFG: UNIMOUNT 125
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 182JP

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0812
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 33
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 3
PUMP MFG: BALDOR
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: JPM5211T

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0814 **BLDG NAME:** MEDICAL FAC - NEW

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 9,220

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 22

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	15	15	15	15	15	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0814
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 5,000
CFM-CLG: 5,000
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: MCCA010GAE0AB
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 63
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	6	6	6	6	6	0
PRES STOP:	0	15	15	15	15	15	0
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	15	15	15	15	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 70
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR: AHU HAS NITE SET BACK AND VENT./ RECIRC. CONTROL
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0814
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 65

BOILER MFG: PEERLESS
UNIT MODEL: G-JO-9FDA-WUP
BLR CAP OUTPUT (BTUH): 566,000
BLR CAP INPUT (BTUH): 707,500
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 22
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	15	15	15	15	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 210 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: B&G
PUMP SERVICE: HW PUMP
PUMP MODEL: M98559D39

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0814
BLDG NAME: MEDICAL FAC - NEW
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION:
SOURCE OF HEATING: BLR-1
SERVES AREA: PERIMETER ROOMS
RADIATION UNIT TYPE: HW
% AREA HTG: 65

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: B & G
PUMP MODEL: M98559D39

SCHEDULE

DAYS SCHEDULE NO: 22
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	15	15	15	15	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0814
BLDG NAME: MEDICAL FAC - NEW

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	20A0CS25	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	4.6
CHILLER AMPS:	82.2	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	20		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 22
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	15	15	15	15	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: US ELEC
PUMP SERVICE: CW PUMP (Chilled Water)
PUMP MODEL: P63CTD-2931

CW and CNW PUMPS

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/18/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0814
BLDG NAME: MEDICAL FAC - NEW

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#): MER
AHU'S SERVED: CH-1

UNIT TYPE

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 22
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	15	15	15	15	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	CWP-1	PUMP HP:	2	PUMP MFG:	US ELECTRIC
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	P63CTD-2931

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0817 **BLDG NAME:** MNT HANGAR AVUM

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 40,061

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 19

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0817
AHU NUMBER: AHU-1 — AHU LOCATION:
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,330 — CFM-CLG: 1,330
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 19 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: Y — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0817
AHU NUMBER: AHU-2
AHU LOCATION:
REFRIG SYS # SRVNG AHU: CH-2
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,200
CFM-CLG: 1,200
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 19
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: Y
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0817
AHU NUMBER: AHU-3 — AHU LOCATION:
REFRIG SYS # SRVNG AHU: CH-3 — SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 3

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400 — CFM-CLG: 2,400
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 19 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: Y — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0817
AHU NUMBER: H&V-1
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: BAYS/OFFICE
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: HEATING AND VENTILATION
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 14,678
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 19
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0817
AHU NUMBER: H&V-2 — AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU: — SERVES AREA: BAYS/OFFICES
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: HEATING AND VENTILLATION — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 14,678 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 10 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 19 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0817
AHU NUMBER: H&V-3
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: BAYS/OFFICE
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: HEATING AND VENTILLATION
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 14,678
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 19
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0817
AHU NUMBER: H&V-4 — AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU: — SERVES AREA: BAYS/ OFFICE
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: HEATING AND VENTILLATION — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 14,678 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 10 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 19 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0817
AHU NUMBER: H&V-5
AHU LOCATION: ADMIN AREAS
REFRIG SYS # SRVNG AHU:
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: HEATING AND VENTILATION
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,800
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 19
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0817
AHU NUMBER: H&V-6
AHU LOCATION: ADMIN AREAS
REFRIG SYS # SRVNG AHU:
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: HEATING AND VENTILATION
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,800
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 19
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0817 **BOILER RM LOCATION:** MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: BAY FLOORS & MAUS

SOURCE OF BLDG HEAT

(●) ☒ **BOILER**
- **BOILER TAG:** BLR-1
- **BOILER TYPE:** HW (UP TO 250 DEG)
- **FUEL TYPE:** NAT. GAS

☐ **CONVERTER**
- **CONVERTER TAG:**
- **CONVERTER TYPE:**
- **CONV HT SOURCE:**

( ) **CENTRAL PLANT DIRECT**

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 4FW-360A-40-G-PF
BLR CAP OUTPUT (BTUH): 3,015,000
BLR CAP INPUT (BTUH): 3,769,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 19 **MONTH SECHDULE NO:** 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC **RESET CONTROLS:** Y
OPERATING SETPOINT: 160 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1 **PUMP HP:** 2 **PUMP MFG:**
PUMP SERVICE: HW PUMP **PUMP MODEL:**

HW PUMP

PUMP TAG: **PUMP HP:** **PUMP MFG:**
PUMP SERVICE: **PUMP MODEL:**

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0817
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 19
MONTH SECHDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 2
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0817
BLDG NAME: MNT HANGAR AVUM
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: BAYS
SOURCE OF HEATING:
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 60

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 10
PUMP MFG: US ELEC.
PUMP MODEL: 9242C/N09N183R084F

RADIATION PUMP

PUMP TAG: 2
PUMP HP: 0
PUMP MFG: US ELEC. - 10 HP STANDBY
PUMP MODEL: 9242C/N09N183R084F

SCHEDULE

DAYS SCHEDULE NO: 19
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0817 — BLDG NAME: MNT HANGAR AVUM

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	SNYDER GENERAL	TOWER MFG:	
CHILLER MODEL:	ADO48F	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	1.3
CHILLER AMPS:	8.3	TOWER FAN HP:	0.2
CHILLER PH:	0		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 19 — MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:**
LOCATION: FT. RILEY, KS **PREPARED BY:**

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0817 **BLDG NAME:** MNT HANGAR AVUM

REF. UNIT NUMBER/TAG: CH-2 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	SNYDER GENERAL	TOWER MFG:	
CHILLER MODEL:	ADO48F	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	1.3
CHILLER AMPS:	8.3	TOWER FAN HP:	0.2
CHILLER PH:	0		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 19 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0817
BLDG NAME: MNT HANGAR AVUM

REF. UNIT NUMBER/TAG: CH-3
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-3

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	SNYDER GENERAL	TOWER MFG:	
CHILLER MODEL:	CO8001	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	1.5
CHILLER AMPS:	15.8	TOWER FAN HP:	0.75
CHILLER PH:	0		
CHILLER CAP (TONS):	8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 19
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	7	6	7	6	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0820 **BLDG NAME:** TAC EQUIP SHOP

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 20,564

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 39

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0820
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-1 — SERVES AREA: ALL
% OF BLDG AREA HEATED: 45

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,800 — CFM-CLG: 4,800
MIN %OA: 12 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE CLIMATE CHANGER — UNIT MODEL: A85F65042
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 5
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 39 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC/DDC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0820
AHU NUMBER: HV-1
AHU LOCATION: OFFICES
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0820
AHU NUMBER: MAU-1 — AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: — SERVES AREA: MAINT. BAY
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: MAKE-UP AIR UNIT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,100 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0820
AHU NUMBER: MAU-2
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,100
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0820
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

◉ ☒ **BOILER**
- **BOILER TAG:** BLR-1
- **BOILER TYPE:** HW (UP TO 250 DEG)
- **FUEL TYPE:** NAT. GAS

☐ **CONVERTER**
- **CONVERTER TAG:**
- **CONVERTER TYPE:**
- **CONV HT SOURCE:**

○ **CENTRAL PLANT DIRECT**

NAMEPLATE

% AREA HEATED BY BB RADIATION: 15

BOILER MFG: BURNHAM
UNIT MODEL: 4FW-277-40-LB
BLR CAP OUTPUT (BTUH): 2,318,000
BLR CAP INPUT (BTUH): 2,898,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS: JC DSC- 8500 CONTROL PANEL

HW PUMP

PUMP TAG: 1
PUMP HP: 10
PUMP MFG: US ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: E810AU11U253R112F

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0820
BLDG NAME: TAC EQUIP SHOP

REF. UNIT NUMBER/TAG: ACCU-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	RAUC-C124-C	# OF TOWER FANS:	3
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:		TOWER FAN AMPS:	2.7
CHILLER AMPS:	10.7	TOWER FAN HP:	0.75
CHILLER PH:	0		
CHILLER CAP (TONS):	12		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0833 **BLDG NAME:** AIRCRAFT HANGAR

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 52,080

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 4

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0833
AHU NUMBER: AHU-1
AHU LOCATION: RM 13
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 1,800
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0833
AHU NUMBER: AHU-2 — AHU LOCATION: RM 47
REFRIG SYS # SRVNG AHU: CH-2 — SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 1,550
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.75 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 4 — MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0833
AHU NUMBER: H&V-1
AHU LOCATION: RM 7
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 15

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 10,475
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0833
AHU NUMBER: H&V-2 — AHU LOCATION: RM 29
REFRIG SYS # SRVNG AHU: — SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 15

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,485 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0833
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: FLOORS AND MAU'S

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: PVI BOILER
UNIT MODEL: 100WBHE225ATP
BLR CAP OUTPUT (BTUH): 3,320,000
BLR CAP INPUT (BTUH): 4,000,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS: O2 TRIM
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0833
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0833
BLDG NAME: AIRCRAFT HANGAR
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION:
SOURCE OF HEATING:
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 70

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: U.S. ELECTRIC
PUMP MODEL: 65-04173-136L0040134

RADIATION PUMP

PUMP TAG: 2
PUMP HP: 0
PUMP MFG: U.S. ELECTRIC - 2 HP STANDB
PUMP MODEL: 65-041730136L0040134

SCHEDULE

DAYS SCHEDULE NO: 4
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0833
BLDG NAME: AIRCRAFT HANGAR

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	BRYANT	TOWER MFG:	
CHILLER MODEL:	565BE060	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	1.2
CHILLER AMPS:	10.4	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	6		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AMS/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0833
BLDG NAME: AIRCRAFT HANGAR

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	BRYANT	TOWER MFG:	
CHILLER MODEL:	565BE048	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	1.2
CHILLER AMPS:	7	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:**
LOCATION: FT. RILEY, KS **PREPARED BY:**

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0835 **BLDG NAME:** MAF OPS BLDG

ELECTRIC METER: Y **CONDITIONED SQFT:** 19,470
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 4

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0835
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 67

AHU UNIT TYPE VAV
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 18,500
CFM-CLG: 18,500
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CARRIER
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: JOHNSON CONTROLS DSC-8500 SYSTEM CONTROLLER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0835 — BLDG NAME: MAF OPS BLDG
PER RAD (SYSTEM TAG) NO: RAD-1 — RAD SYS LOCATION: STORAGE
SOURCE OF HEATING: — SERVES AREA:
RADIATION UNIT TYPE: HW — % AREA HTG: 33

RADIATION PUMP

PUMP TAG: 1 — PUMP HP: 1.5 — PUMP MFG: SLAB PUMP
PUMP MODEL:

RADIATION PUMP

PUMP TAG: 2 — PUMP HP: 1.5 — PUMP MFG: STANDBY PUMP
PUMP MODEL:

SCHEDULE

DAYS SCHEDULE NO: 4 — MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0 — RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0835 **BLDG NAME:** MAF OPS BLDG

REF. UNIT NUMBER/TAG: CH-1 **LOCATION (MER#):** MER
AHU'S SERVED: AHU-1

UNIT TYPE RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	CARRIER
CHILLER MODEL:	50BABK028500	# OF TOWER FANS:	3
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	6.4
CHILLER AMPS:	55	TOWER FAN HP:	1.75
CHILLER PH:	0		
CHILLER CAP (TONS):	25		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0840 **BLDG NAME:** VEHICLE MNT SHOP ORG

ELECTRIC METER: Y **CONDITIONED SQFT:** 9,152
GAS METER: Y
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0840
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,460
CFM-CLG: 1,460
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0840
AHU NUMBER: HV-1
AHU LOCATION: RM-101
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT SHOP
% OF BLDG AREA HEATED: 50

AHU UNIT TYPE: HEATING AND VENTILLATION
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,370
CFM-CLG: 2,370
MIN %OA: 58
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS:
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0840
AHU NUMBER: MAU-1
AHU LOCATION:
REFRIG SYS # SRVNG AHU:
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: MAKEUP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED @ 215,500 BTUH CAPACITY

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0840
AHU NUMBER: RAD-1 — AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: — SERVES AREA: MAINT. BAY
% OF BLDG AREA HEATED: 25

AHU UNIT TYPE: INFRARED RADIANT HEATERS — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.33 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0840
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: AJAX
UNIT MODEL: WGFD-600
BLR CAP OUTPUT (BTUH): 480,000
BLR CAP INPUT (BTUH): 600,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 180 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: BALDOR
PUMP SERVICE: HW PUMP
PUMP MODEL: M3154T-8

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0840 — BLDG NAME: VEHICLE MNT SHOP ORG

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38EN060630	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	1.6
CHILLER AMPS:	10.4	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	6		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11 — MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 0853 **BLDG NAME:** MNT HANGAR AVUM

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 48,112

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 41

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0853
AHU NUMBER: AHU-1
AHU LOCATION: RM 3
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,000
CFM-CLG: 3,000
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 41
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0853
AHU NUMBER: AHU-2
AHU LOCATION: 17
REFRIG SYS # SRVNG AHU: CH-2
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,700
CFM-CLG: 2,700
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 41
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0853
AHU NUMBER: AHU-3 — AHU LOCATION: RM 29
REFRIG SYS # SRVNG AHU: CH-3 — SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,000 — CFM-CLG: 3,000
MIN %OA: 20 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 41 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0853
AHU NUMBER: HV-1
AHU LOCATION: RM. 14
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,000
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 41
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0853
AHU NUMBER: HV-2 — AHU LOCATION: 39
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,100 — CFM-CLG: 0
MIN %OA: 25 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 41 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0853
AHU NUMBER: MAU-1
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 15

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 41
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0853
AHU NUMBER: MAU-2 — AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 15

AHU UNIT TYPE: MAKE-UP AIR UNIT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,000 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 41 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0853
AHU NUMBER: MAU-3
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 15

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 41
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 0853
AHU NUMBER: MAU-4
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 15

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 41
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 0853
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 70

BOILER MFG: BURNHAM
UNIT MODEL: 4FW34SWOGPF
BLR CAP OUTPUT (BTUH): 2,887,000
BLR CAP INPUT (BTUH): 3,609,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 41
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG: 2
PUMP HP: 0
PUMP MFG: 5 HP - STANDBY
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 0853
BLDG NAME: MNT HANGAR AVUM
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: BAYS
SOURCE OF HEATING: BLR-1
SERVES AREA: BAYS
RADIATION UNIT TYPE: HW
% AREA HTG: 70

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 3
PUMP MFG:
PUMP MODEL:

RADIATION PUMP

PUMP TAG: 2
PUMP HP: 0
PUMP MFG: 3 HP - STANDBY
PUMP MODEL:

SCHEDULE

DAYS SCHEDULE NO: 41
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0853 **BLDG NAME:** MNT HANGAR AVUM

REF. UNIT NUMBER/TAG: CH-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38BA008630	# OF TOWER FANS:	1
CHILLER SERIAL NO:	2587G12310	TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	1.3
CHILLER AMPS:	4	TOWER FAN HP:	0.75
CHILLER PH:	3		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 41 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0853
BLDG NAME: MNT HANGAR AVUM

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38BA008630	# OF TOWER FANS:	1
CHILLER SERIAL NO:	2587G12310	TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	1.3
CHILLER AMPS:	4	TOWER FAN HP:	0.75
CHILLER PH:	3		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 41
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 0853
BLDG NAME: MNT HANGAR AVUM

REF. UNIT NUMBER/TAG: CH-3
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-3

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38BA008630	# OF TOWER FANS:	1
CHILLER SERIAL NO:	2587G12310	TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	1.3
CHILLER AMPS:	4	TOWER FAN HP:	0.75
CHILLER PH:	3		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 41
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 1470 **BLDG NAME:** AR VEH MNT SHOP

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 21,667

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 1470
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-1
SERVES AREA: OFFICES/CLASSROOM
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,500
CFM-CLG: 2,500
MIN %OA: 25
MAX %OA: 25

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: BAUA359C-B
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 1470
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-2
SERVES AREA: ADDITION OFFICES
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,000
CFM-CLG: 2,000
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG: SNYDER GENERAL
UNIT MODEL: GUG141A020IN
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: RESIDENTIAL GAS-FIRED FURNANCE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	GAS	☐
REHEAT COIL:	HOT WATER	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 1470
AHU NUMBER: MAU-1
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT.BAY
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 22,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 20
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	GAS	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 1470
AHU NUMBER: UH-1 — AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: MAINT.BAYS
% OF BLDG AREA HEATED: 55

AHU UNIT TYPE: UNIT HEATER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,320 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 1470
AHU NUMBER: UH-2
AHU LOCATION: WAREHOUSE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: WAREHOUSE
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,800
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: TOTAL OF 4 FAIN COIL UNITS

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 1470
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 8

BOILER MFG: KEWANEE
UNIT MODEL: 3R6-RO
BLR CAP OUTPUT (BTUH): 792,000
BLR CAP INPUT (BTUH): 990,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 145 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL: YYE145TTDR5352AA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 1470
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 8

BOILER MFG: KEWANEE
UNIT MODEL: 3R6-RO
BLR CAP OUTPUT (BTUH): 792,000
BLR CAP INPUT (BTUH): 990,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 145 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL: YYE145TTDR5352AA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 1470
BLDG NAME: AR VEH MNT SHOP

REF. UNIT NUMBER/TAG: ACCU-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	RAUC-256-A	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	2.5
CHILLER AMPS:	9	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 1470
BLDG NAME: AR VEH MNT SHOP

REF. UNIT NUMBER/TAG: ACCU-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	INTERCITY PRODUCTS	TOWER MFG:	
CHILLER MODEL:	AD060H	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	2.3
CHILLER AMPS:	19.6	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 4010 **BLDG NAME:** DENTAL CLINIC

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 15,587

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 4010
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: DUAL DUCT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 17,560
CFM-CLG: 17,560
MIN %OA: 0
MAX %OA: 50

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: BLOW THRU
SUPPLY FAN HP: 30
RET/EXH FAN HP: 5
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG: MARATHON
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL: TB184TTDR7026D
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	HOT WATER	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC/DDC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: Y
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 4010
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: AJAX
UNIT MODEL: WGFD-1750
BLR CAP OUTPUT (BTUH): 1,400,000
BLR CAP INPUT (BTUH): 1,750,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 180 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 4010
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ZONE HEATING

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 1
PUMP MFG: ARMSTRONG
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 4010
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ZONE HEATING

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-2
PUMP HP: 1
PUMP MFG: ARMSTRONG
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 4010
BLDG NAME: DENTAL CLINIC
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: PERIMETER FO BLDG
SOURCE OF HEATING: BLR-1
SERVES AREA: PERIMETER FO BLDG
RADIATION UNIT TYPE: HW BASEBOARD
% AREA HTG: 60

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.25
PUMP MFG: ARMSTRONG
PUMP MODEL: 1B-1000 BF

RADIATION PUMP

PUMP TAG: 2
PUMP HP: 0.25
PUMP MFG: ARMSTRON
PUMP MODEL: 1B-1000 BF

RADIATION PUMP

PUMP TAG: 3
PUMP HP: 0.25
PUMP MFG: ARMSTRONG
PUMP MODEL: 1B-1000 BF

RADIATION PUMP

PUMP TAG: 4
PUMP HP: 0.25
PUMP MFG: ARMSTRONG
PUMP MODEL: 1B-1000 BF

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 4010
BLDG NAME: DENTAL CLINIC

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1
UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	IRC	TOWER MFG:	
CHILLER MODEL:	MALC-9046	# OF TOWER FANS:	6
CHILLER SERIAL NO:	ICO4SA66	TOWER FAN V:	0
CHILLER V:	480	TOWER FAN AMPS:	3.6
CHILLER AMPS:	0	TOWER FAN HP:	1.5
CHILLER PH:	3		
CHILLER CAP (TONS):	80		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	36	CNWS SETPOINT:	0
CWR SETPOINT:	55	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	SVL184TTDR7

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 5000
BLDG NAME: FIRE STATION

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 8,400

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

Two gas-fired infrared heaters in bay, reverber ray 24" x 24"

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 5000
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: COMMUNICATIONS/QUARTER
% OF BLDG AREA HEATED: 60

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 4,155 — CFM-CLG: 4,155
MIN %OA: 20 — MAX %OA: 20

NAMEPLATE

UNIT MFG: DUNHAM BUSH — UNIT MODEL: VMZ32D
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 120
PRESENT TEMP WINTR OCC: 70 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 5000
AHU NUMBER: AHU-2
AHU LOCATION: ABOVE CEILING
REFRIG SYS # SRVNG AHU:
SERVES AREA: VEHICLE MAINT. BAY
% OF BLDG AREA HEATED: 40

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,840
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 5000 — BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

◉ ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: AJAX
UNIT MODEL: WG-750
BLR CAP OUTPUT (BTUH): 600,000
BLR CAP INPUT (BTUH): 750,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC — RESET CONTROLS: Y
OPERATING SETPOINT: 170 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1 — PUMP HP: 0.17 — PUMP MFG:
PUMP SERVICE: HW PUMP — PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 5000
BLDG NAME: FIRE STATION

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	502CS10	# OF TOWER FANS:	1
CHILLER SERIAL NO:	9084-2	TOWER FAN V:	230
CHILLER V:	230	TOWER FAN AMPS:	4.6
CHILLER AMPS:	42.8	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	10		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 5302 **BLDG NAME:** POST OFFICE

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 12,240

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 26

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	10	8	8	10
REQ STOP:	0	17	17	17	17	17	12

REMARKS:

SUSPECT ACM LOCATED ON PIPE FITTINGS

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 5302
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 50

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 4

CFM-HTG: 12,660
CFM-CLG: 12,660
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM - BUSH
UNIT MODEL: MZ-120
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 26
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	10	8	8	10
REQ STOP:	0	17	17	17	17	17	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 68
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F:
PRESENT TEMP SUM OCC: 68
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 5302
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 50

BOILER MFG: BURNHAM
UNIT MODEL: FDO14
BLR CAP OUTPUT (BTUH): 507,000
BLR CAP INPUT (BTUH): 608,400

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 26
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	10	8	8	10
REQ STOP:	0	17	17	17	17	17	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1
PUMP MFG: BALDOR
PUMP SERVICE: HW PUMP
PUMP MODEL: M3116

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 5302
BLDG NAME: POST OFFICE
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION:
SOURCE OF HEATING:
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 50

RADIATION PUMP

PUMP TAG: 2
PUMP HP: 1
PUMP MFG: WAGNER
PUMP MODEL: J56-55376-00

SCHEDULE

DAYS SCHEDULE NO: 26
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	10	8	8	10
REQ STOP:	0	17	17	17	17	17	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 5302 **BLDG NAME:** POST OFFICE

REF. UNIT NUMBER/TAG: CH-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	502CD55	# OF TOWER FANS:	4
CHILLER SERIAL NO:	10656-8	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	4.8
CHILLER AMPS:	88.5	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	54		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 26 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	10	8	8	10
REQ STOP:	0	17	17	17	17	17	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 5309 **BLDG NAME:** GUEST HOUSE

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 23,784

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 5309
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: E30
BLR CAP OUTPUT (BTUH): 1,004,000
BLR CAP INPUT (BTUH): 1,255,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 185 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 3
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: E790A

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 5309
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW CONV.

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: LOW PRESS STEAM (<15#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 410B
BLR CAP OUTPUT (BTUH): 245,700
BLR CAP INPUT (BTUH): 315,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 5309
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 3
PUMP MFG: US ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: E790A

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 5309
BLDG NAME: GUEST HOUSE

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: FC-1

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	RAMCC50GPD03DT	# OF TOWER FANS:	6
CHILLER SERIAL NO:	J90C82056	TOWER FAN V:	200
CHILLER V:	200	TOWER FAN AMPS:	4.1
CHILLER AMPS:	60.5	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	50		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	38	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	BALDOR
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	M3218T

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 5315 **BLDG NAME:** MORRIS HILL CHAPEL

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 19,748

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 17

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	7	7	7	7	7	10
REQ STOP:	13	21	21	21	21	21	19

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 5315
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 & CH-2
SERVES AREA: ALL
% OF BLDG AREA HEATED: 40

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 13,500
CFM-CLG: 13,500
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG: GOVERNAIR
UNIT MODEL: VC-H-2-20-LH
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON ELEC
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 2C-256UTDR57CC
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 17
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	7	7	7	7	7	10
REQ STOP:	13	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC/DDC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 60
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 60
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 5315
AHU NUMBER: FC-1
AHU LOCATION: ADMIN OFFICES
REFRIG SYS # SRVNG AHU: CH-1, CH-2, CH-3
SERVES AREA: ADMIN OFFICES
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,200
CFM-CLG: 7,200
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: CHRYSLER
UNIT MODEL: AIR TEMP
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: TOTAL FOR 12 FAN COILS

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 17
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	7	7	7	7	7	10
REQ STOP:	13	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 5315
AHU NUMBER: FC-2
AHU LOCATION: CONF. CENTER
REFRIG SYS # SRVNG AHU: CH-1, CH-2, CH-3
SERVES AREA: CONF. CENTER
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,000
CFM-CLG: 8,000
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: CHRYSLER
UNIT MODEL: AIR TEMP
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: TOTAL FOR 12 FAN COILS

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 17
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	7	7	7	7	7	10
REQ STOP:	13	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 5315
AHU NUMBER: FC-3
AHU LOCATION: CHAPEL OFFICES
REFRIG SYS # SRVNG AHU:
SERVES AREA: CHAPEL OFFICES
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: CHRYSLER
UNIT MODEL: AIR TEMP
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: TOTAL FOR 9 FAN COILS

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 17
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	7	7	7	7	7	10
REQ STOP:	13	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 5315
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 1,516,000
BLR CAP INPUT (BTUH): 1,743,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 17
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	7	7	7	7	7	10
REQ STOP:	13	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG: 2
PUMP HP: 1.5
PUMP MFG: MARATHON ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: WVB56T34D1036BW

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

HW PUMP

PUMP TAG:	3	**PUMP HP:**	0.75	**PUMP MFG:**	US ELECTRIC HIGH EFF.
PUMP SERVICE:	HW PUMP			**PUMP MODEL:**	GT-1005112-631

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 5315
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ZONE HEATING

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 17
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	7	7	7	7	7	10
REQ STOP:	13	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 1.5
PUMP MFG: MARATHON ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: WVB56T34D1036BW

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 5315
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ZONE HEATING

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 17
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	7	7	7	7	7	10
REQ STOP:	13	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-2
PUMP HP: 0.75
PUMP MFG: US ELECTRIC HIGH EFF.
PUMP SERVICE: HW PUMP
PUMP MODEL: GT-1005112-631

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 5315
BLDG NAME: MORRIS HILL CHAPEL

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1, FC-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	G & W ACME	TOWER MFG:	BOHN
CHILLER MODEL:	DHA-64	# OF TOWER FANS:	4
CHILLER SERIAL NO:	JJL0003	TOWER FAN V:	208
CHILLER V:	230	TOWER FAN AMPS:	7.2
CHILLER AMPS:	120.5	TOWER FAN HP:	1.5
CHILLER PH:	3		
CHILLER CAP (TONS):	61		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 17
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	7	7	7	7	7	10
REQ STOP:	13	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC/ELECTRIC

CWS SETPOINT:	46	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: 1
PUMP HP: 5
PUMP MFG: LINCON
PUMP SERVICE: CW PUMP (Chilled Water)
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 5315
BLDG NAME: MORRIS HILL CHAPEL

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): MER
AHU'S SERVED: AHU-1, FC-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	G & W ACME	TOWER MFG:	BOHN
CHILLER MODEL:	DHA-64	# OF TOWER FANS:	4
CHILLER SERIAL NO:	JJL0003	TOWER FAN V:	208
CHILLER V:	230	TOWER FAN AMPS:	7.2
CHILLER AMPS:	120.5	TOWER FAN HP:	1.5
CHILLER PH:	3		
CHILLER CAP (TONS):	61		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 17
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	7	7	7	7	7	10
REQ STOP:	13	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC/ELECTRIC

CWS SETPOINT:	46	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	LINCOLN
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 5315 **BLDG NAME:** MORRIS HILL CHAPEL

REF. UNIT NUMBER/TAG: CH-3 **LOCATION (MER#):** MER
AHU'S SERVED: AHU-1, FC-1

UNIT TYPE RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	WC-2C-510	# OF TOWER FANS:	2
CHILLER SERIAL NO:	9129-1	TOWER FAN V:	230
CHILLER V:	208	TOWER FAN AMPS:	2.2
CHILLER AMPS:	42.8	TOWER FAN HP:	0.5
CHILLER PH:	3		
CHILLER CAP (TONS):	10.5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 17 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	7	7	7	7	7	10
REQ STOP:	13	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC/ELECTRIC

CWS SETPOINT:	45	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1.5	PUMP MFG:	US ELECTRIC
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	F107

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 5800 **BLDG NAME:** YOUTH CTR

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 21,560

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 48

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	5	5	5	8	8
REQ STOP:	0	22	19	19	19	2	19

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 5800
AHU NUMBER: AHU-1
AHU LOCATION: MER MEZZANINE
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: MEZZ AND 1ST FLOOR
% OF BLDG AREA HEATED: 60

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 8

CFM-HTG: 12,300
CFM-CLG: 12,300
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: MCQUAY
UNIT MODEL:
SUPPLY FAN HP: 15
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: BALDOR
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: EM2513T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 48
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	5	5	5	8	8
REQ STOP:	0	22	19	19	19	2	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 5800
AHU NUMBER: AHU-2 — AHU LOCATION: MER MEZZANINIE
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: 1ST FLOOR
% OF BLDG AREA HEATED: 40

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,020 — CFM-CLG: 8,020
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: MCQUAY — UNIT MODEL:
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MAGNETIK — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-355802-01 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 48 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	5	5	5	8	8
REQ STOP:	0	22	19	19	19	2	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 5800
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: AJAX
UNIT MODEL: WGB-600
BLR CAP OUTPUT (BTUH): 480,000
BLR CAP INPUT (BTUH): 600,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 48
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	5	5	5	8	8
REQ STOP:	0	22	19	19	19	2	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 180 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.17
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL: VQA56517D170D

HW PUMP

PUMP TAG: 2
PUMP HP: 2
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 5800
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: AJAX
UNIT MODEL: WGB-600
BLR CAP OUTPUT (BTUH): 480,000
BLR CAP INPUT (BTUH): 600,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 48
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	5	5	5	8	8
REQ STOP:	0	22	19	19	19	2	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 180 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.17
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL: VQA56517D170D

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 5800
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ZONE HEATING

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 48
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	5	5	5	8	8
REQ STOP:	0	22	19	19	19	2	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 2
PUMP MFG: US ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 5800
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ZONE HEATING

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 48
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	5	5	5	8	8
REQ STOP:	0	22	19	19	19	2	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-2
PUMP HP: 2
PUMP MFG: US ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 5800
BLDG NAME: YOUTH CTR

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1,2

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	MCQUAY	TOWER MFG:	AIRCON
CHILLER MODEL:	WHR060DA	# OF TOWER FANS:	4
CHILLER SERIAL NO:	SVE0186600	TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	2
CHILLER AMPS:	53	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	53.7		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 48
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	5	5	5	8	8
REQ STOP:	0	22	19	19	19	2	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	WASAU
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	VN182TTDR5326AA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 6620 **BLDG NAME:** COMMUN ACT CTR

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 31,740

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

BLDG. CONTACT: MACK MCMULLEN @ 239-9532 OR 9533

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6620
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: WEST WING
% OF BLDG AREA HEATED: 32

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 7

CFM-HTG: 12,910
CFM-CLG: 12,910
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: RELIANCE
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: Y149924A1LL
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 60
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	16	16	16	16	16	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6620
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: BALL ROOM
% OF BLDG AREA HEATED: 23

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 9,600
CFM-CLG: 9,600
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: TYPE 21
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GENERAL MOTOR
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: B-2222A
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 60
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	16	16	16	16	16	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SETBACK
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6620
AHU NUMBER: AHU-3
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: KITCHEN
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 10,500
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: 21
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 1AS15TVR26BDW
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 60
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	16	16	16	16	16	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6620
AHU NUMBER: AHU-4
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: DINNING ROOM
% OF BLDG AREA HEATED: 23

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,800
CFM-CLG: 8,800
MIN %OA: 34
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: 21
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DOER
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 60
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	16	16	16	16	16	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: Y
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 6620
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

◉ ☒ **BOILER**
- **BOILER TAG:** BLR-1
- **BOILER TYPE:** LOW PRESS STEAM (<15#)
- **FUEL TYPE:** NAT. GAS

☐ **CONVERTER**
- **CONVERTER TAG:**
- **CONVERTER TYPE:**
- **CONV HT SOURCE:**

○ **CENTRAL PLANT DIRECT**

NAMEPLATE

% AREA HEATED BY BB RADIATION: 8

BOILER MFG: CLEAVER BROOKS
UNIT MODEL: I53-700-4520
BLR CAP OUTPUT (BTUH): 4,520,000
BLR CAP INPUT (BTUH): 5,736,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC/ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 6620
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: BLR-1

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 8

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 4,520,000
BLR CAP INPUT (BTUH): 4,520,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG: 2
PUMP HP: 0.5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 6620
BLDG NAME: COMMUN ACT CTR
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: RMS-103,106,109,11,114,115,116
SOURCE OF HEATING: BLR-1
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 8

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG:
PUMP MODEL:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 6620
BLDG NAME: COMMUN ACT CTR

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1,2,4

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	SC2CM130SP	# OF TOWER FANS:	12
CHILLER SERIAL NO:	8723-2	TOWER FAN V:	0
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	237	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	130		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	42	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: 1
PUMP HP: 7.5
PUMP MFG: GOULD
PUMP SERVICE: CW PUMP (Chilled Water)
PUMP MODEL: 6330778-03

CW and CNW PUMPS

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 6620
BLDG NAME: COMMUN ACT CTR

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#): MER
AHU'S SERVED: CH-1

UNIT TYPE

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	CWP-1	PUMP HP:	7.5	PUMP MFG:	GOULD
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	6330778-03

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 6910 **BLDG NAME:** EXC SP ST FAC

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 2,525

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 43

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	11	11	11	11	11	10
REQ STOP:	0	22	22	22	22	22	22

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6910
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: AHU-1 NORTH, AHU-2 SOUTH
% OF BLDG AREA HEATED: 50

AHU UNIT TYPE: OTHER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,360
CFM-CLG: 1,360
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL: 58GP125
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE: 125,000 BTUH

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 43
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	11	11	11	11	11	10
REQ STOP:	0	22	22	22	22	22	22

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 75
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 75
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6910
AHU NUMBER: AHU-2 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: AHU-1 NORTH, AHU-2 SOUTH
% OF BLDG AREA HEATED: 50

AHU UNIT TYPE: OTHER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,360 — CFM-CLG: 1,360
MIN %OA: 15 — MAX %OA: 15

NAMEPLATE

UNIT MFG: CARRIER — UNIT MODEL: 58GR125
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 43 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	11	11	11	11	11	10
REQ STOP:	0	22	22	22	22	22	22

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 75 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 75 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 6910 **BLDG NAME:** EXC SP ST FAC

REF. UNIT NUMBER/TAG: CH-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38TG060510	# OF TOWER FANS:	1
CHILLER SERIAL NO:	3891E38107	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	1.6
CHILLER AMPS:	20.1	TOWER FAN HP:	0.25
CHILLER PH:	3		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 43 MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	11	11	11	11	11	10
REQ STOP:	0	22	22	22	22	22	22

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 6910
BLDG NAME: EXC SP ST FAC

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38TG060510	# OF TOWER FANS:	1
CHILLER SERIAL NO:	3891E38107	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	1.6
CHILLER AMPS:	20.1	TOWER FAN HP:	0.25
CHILLER PH:	3		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 43
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	11	11	11	11	11	10
REQ STOP:	0	22	22	22	22	22	22

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/AMS/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 6914
BLDG NAME: EXC MAIN RETL

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N
CONDITIONED SQFT: 63,930

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 54

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6914
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1, CH-2 — SERVES AREA: MAIN SALES AREA
% OF BLDG AREA HEATED: 51

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 28,100 — CFM-CLG: 28,100
MIN %OA: 57 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 20 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	HOT WATER	☒
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 54 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 60 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6914
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1, CH-2
SERVES AREA: OFFICE AREA
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 17
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTEMP
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: BALDOR
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 54
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6914
AHU NUMBER: AHU-3
AHU LOCATION: MEZZ ABOVE OFFICES
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: WAREHOUSE
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,380
CFM-CLG: 0
MIN %OA: 25
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 54
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 60
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6914
AHU NUMBER: AHU-4
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1, CH-2
SERVES AREA: SOUTH SHOPS
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 9,620
CFM-CLG: 9,620
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 54
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6914
AHU NUMBER: AHU-5 — AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: CH-1, CH-2 — SERVES AREA: NORTH SERVICES SHOPS
% OF BLDG AREA HEATED: 12

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 6,790 — CFM-CLG: 6,790
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTEMP — UNIT MODEL: BD15
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: CF213TTDR702 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 54 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/AMS/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 6914
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: OSAGE
UNIT MODEL: 3-5-350
BLR CAP OUTPUT (BTUH): 1,600,000
BLR CAP INPUT (BTUH): 2,000,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 54
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 5
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL: CVH184TTDR2026

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/AMS/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 6914
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 54
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 5
PUMP MFG: LEESON
PUMP SERVICE: HW PUMP
PUMP MODEL: N184117DBIA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/AMS/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 6914
BLDG NAME: EXC MAIN RETL

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1,2,4,5

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	COPELAMETIC	TOWER MFG:	
CHILLER MODEL:	6DK1-3500-TSK	# OF TOWER FANS:	16
CHILLER SERIAL NO:	88H75879	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	125	TOWER FAN HP:	0.33
CHILLER PH:	3		
CHILLER CAP (TONS):	127		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 54
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	7.5	PUMP MFG:	LINCOLN
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	TV-2996

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/AMS/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 6914
BLDG NAME: EXC MAIN RETL

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1,2,4,5

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	COPELAMETIC	TOWER MFG:	
CHILLER MODEL:	6DK1-3500-TSK	# OF TOWER FANS:	16
CHILLER SERIAL NO:	88H75879	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	125	TOWER FAN HP:	0.33
CHILLER PH:	3		
CHILLER CAP (TONS):	127		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 54
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	7.5	PUMP MFG:	LINCOLN
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	TV-2996

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 6918 **BLDG NAME:** SKILL DEV CTR

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 11,507

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 20

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	21	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6918
AHU NUMBER: AHU-1 — AHU LOCATION: WOODSHOP MER
REFRIG SYS # SRVNG AHU: — SERVES AREA: WOOD SHOP
% OF BLDG AREA HEATED: 17

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,000 — CFM-CLG: 4,000
MIN %OA: 20 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 20 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	21	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6918
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU:
SERVES AREA: TRAVEL CENTER
% OF BLDG AREA HEATED: 5.5

AHU UNIT TYPE: RESIDENTIAL FURNACE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,400
CFM-CLG: 1,400
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 20
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	21	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6918
AHU NUMBER: AHU-3 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: — SERVES AREA: TRAVEL CENTER
% OF BLDG AREA HEATED: 5.5

AHU UNIT TYPE: RESIDENTIAL FURNACE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,400 — CFM-CLG: 1,400
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 20 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	21	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6918
AHU NUMBER: MUA-1
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU:
SERVES AREA: WOOD SHOP
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: STERLING
UNIT MODEL: RT-350-BM
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: WESTINGHOUSE
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: SH311P414
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 20
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	21	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6918
AHU NUMBER: RTU-1 — AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: — SERVES AREA:
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: CHILLER/FURNACE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,000 — CFM-CLG: 4,000
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: LENNOX — UNIT MODEL: GCS11-1353-230A
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 20 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	21	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6918
AHU NUMBER: RTU-2
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU:
SERVES AREA:
% OF BLDG AREA HEATED: 12

AHU UNIT TYPE: CHILLER/FURNACE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,920
CFM-CLG: 1,920
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: LENNOX
UNIT MODEL: GCS9-513-120A-Z
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0.25
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 20
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	21	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6918
AHU NUMBER: RTU-3
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU:
SERVES AREA:
% OF BLDG AREA HEATED: 12

AHU UNIT TYPE: CHILLER/FURNACE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,920
CFM-CLG: 1,920
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: LENNOX
UNIT MODEL: GCS9-513-120A-Z
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0.25
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 20
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	21	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6918
AHU NUMBER: RTU-4
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU:
SERVES AREA:
% OF BLDG AREA HEATED: 12

AHU UNIT TYPE: CHILLER/FURNACE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,920
CFM-CLG: 1,920
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: LENNOX
UNIT MODEL: GCS9-513-120A-Z
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0.25
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 20
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	21	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6918
AHU NUMBER: RTU-5 — AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: — SERVES AREA:
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: CHILLER/FURNACE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,000 — CFM-CLG: 4,000
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: LENNOX — UNIT MODEL: GCS11-1353-230A
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 20 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	21	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 6940 **BLDG NAME:** INDOOR SWIM POOL

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 23,347

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 59

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	11	11	11	11	11	11	11
REQ STOP:	20	20	20	20	20	20	20

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6940
AHU NUMBER: HRU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SWIMMING POOL
% OF BLDG AREA HEATED: 77

AHU UNIT TYPE: HEAT RECOVERY UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 24,800
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 15
RET/EXH FAN HP: 15
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 59
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	11	11	11	11	11	11	11
REQ STOP:	20	20	20	20	20	20	20

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 74
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: HUMIDITY SENSORS ON OA AND RA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 6940
AHU NUMBER: HV-2
AHU LOCATION: LOCKER RMS/STORAGE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: LOCKER ROOMS/ STORAGE
% OF BLDG AREA HEATED: 23

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 59
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	11	11	11	11	11	11	11
REQ STOP:	20	20	20	20	20	20	20

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 75
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: CONTROLS IN POOR CONDITION

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 6940
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 3-5-350
BLR CAP OUTPUT (BTUH): 2,240,000
BLR CAP INPUT (BTUH): 2,800,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 59
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	11	11	11	11	11	11	11
REQ STOP:	20	20	20	20	20	20	20

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: BALDOR
PUMP SERVICE: HW PUMP
PUMP MODEL: M3155T

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 6940
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ZONE HEATING

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 59
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	11	11	11	11	11	11	11
REQ STOP:	20	20	20	20	20	20	20

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 1
PUMP MFG: BELL & GOSSETT
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7017 **BLDG NAME:** BN HQ BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 2,604

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 30

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7017
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,250
CFM-CLG: 3,250
MIN %OA: 25
MAX %OA: 25

NAMEPLATE

UNIT MFG: YORK STELLAR
UNIT MODEL: G/UA0605A
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: P3UCD2QN09101
RET/EXH FAN MTR MODEL:
COMMENTS: GAS - FIRED FURNANCE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NAT GAS	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 30
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: DUAL SETPOINT
PRESENT TEMP WINTR OCC: 72
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 72
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7017
BLDG NAME: BN HQ BLDG

REF. UNIT NUMBER/TAG: ACCU-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	YORK	TOWER MFG:	
CHILLER MODEL:	HIDA06050613	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.25
CHILLER PH:	1		
CHILLER CAP (TONS):	8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 30
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7024 **BLDG NAME:** GYMNASIUM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 20,619

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 42

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

REMARKS:

SUSPECT ACEM LOCATED ON PIPEFITTINGS AND HW STORAGE TANK

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7024
AHU NUMBER: FC-1
AHU LOCATION: WOMEN AND MENS SHOWER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SHOWERS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,250
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.12
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 62
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7024
AHU NUMBER: FC-2
AHU LOCATION: WOMEN AND MENS SHOWER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SHOWER
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,250
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.12
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 62
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7024
AHU NUMBER: HV-1
AHU LOCATION: CEILING
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,300
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7024
AHU NUMBER: HV-2
AHU LOCATION: CEILING
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,300
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7024
AHU NUMBER: HV-3 — AHU LOCATION: CEILING
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,300 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7024
AHU NUMBER: HV-4
AHU LOCATION: CEILING
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,300
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7024
AHU NUMBER: HV-5
AHU LOCATION: CEILING
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,300
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7024
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: BURNHAM
UNIT MODEL: 4FL-277-40-G-PF-LB
BLR CAP OUTPUT (BTUH): 2,318,000
BLR CAP INPUT (BTUH): 2,898,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 42
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 12 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7024
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: LOW PRESS STEAM (<15#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: AMERICAN STD.
UNIT MODEL: G-66
BLR CAP OUTPUT (BTUH): 520,000
BLR CAP INPUT (BTUH): 650,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 42
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 9 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7028 **BLDG NAME:** BN CLASSROOMS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 3,733

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 27

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7028
AHU NUMBER: FC-1 — AHU LOCATION: THROUGHOUT BLDG.
REFRIG SYS # SRVNG AHU: CENTRAL PLANT — SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: FAN COILS - 2 PIPE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,400 — CFM-CLG: 4,400
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: TOTAL FOR 11 FAN COILS

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	DUAL TEMP WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 27 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 70 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7028
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: BURNHAM
UNIT MODEL: 4FL-63-40-LB
BLR CAP OUTPUT (BTUH): 527,000
BLR CAP INPUT (BTUH): 659,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 27
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.16
PUMP MFG: ARMSTRONG
PUMP SERVICE: HW PUMP
PUMP MODEL: 8-350320-01

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7028
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 27
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 1.5
PUMP MFG:
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7031 **BLDG NAME:** BN HQ BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 3,733

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 27

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7031
AHU NUMBER: FC-1 — AHU LOCATION: THROUGHOUT BLDG.
REFRIG SYS # SRVNG AHU: CENTRAL PLANT — SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: FAN COILS - 2 PIPE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,400 — CFM-CLG: 4,400
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: UNITRANE
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GE — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: TOTAL FOR 11 FAN COILS

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 27 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7031
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: FD/12
BLR CAP OUTPUT (BTUH): 381,000
BLR CAP INPUT (BTUH): 528,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 27
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7031
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 27
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 0.75
PUMP MFG: BALDOR
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7033 **BLDG NAME:** BN HQ BLDG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 4,083

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 38

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

REMARKS:

SUSPECT ACM LOCATED ON PIPE FITTINGS

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7033
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT — SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,400 — CFM-CLG: 4,400
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM/BUSH — UNIT MODEL: HAH040
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: BALDOR — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: M3157T — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	STEAM	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 38 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: DUAL SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 75 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 55 — MIXED AIR DEG F: 55
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7033
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: HB SMITH
UNIT MODEL: G300-S/W-5 CON
BLR CAP OUTPUT (BTUH): 229,000
BLR CAP INPUT (BTUH): 299,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 38
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.16
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG: 2
PUMP HP: 0.16
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7034
BLDG NAME: CLINIC W/O BEDS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 3,842

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7034
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT — SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 3,720 — CFM-CLG: 3,720
MIN %OA: 20 — MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER — UNIT MODEL: 39EB08
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7034
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: K-5007BI
BLR CAP OUTPUT (BTUH): 281,000
BLR CAP INPUT (BTUH): 468,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 15 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7036 **BLDG NAME:** REGIMENTAL HQ BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 10,010

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 27

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7036
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT — SERVES AREA: BASEMENT
% OF BLDG AREA HEATED: 28

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,787 — CFM-CLG: 1,787
MIN %OA: 0 — MAX %OA: 50

NAMEPLATE

UNIT MFG: TEMTROL — UNIT MODEL: DV6S
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 27 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F:
PRESENT TEMP WINTR OCC: — COLD DECK DEG F:
PRESENT TEMP WINTR UNOCC: — MIXED AIR DEG F:
PRESENT TEMP SUM OCC: — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: — OTHER SETPOINT DEG F:

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7036
AHU NUMBER: FC-1
AHU LOCATION: ALL
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: 1ST FLOOR
% OF BLDG AREA HEATED: 36

AHU UNIT TYPE: FAN COILS - 4 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 10,100
CFM-CLG: 10,100
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 27
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC:
HOT DECK DEG F:
PRESENT TEMP WINTR UNOCC:
COLD DECK DEG F:
MIXED AIR DEG F:
PRESENT TEMP SUM OCC:
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC:
OTHER SETPOINT DEG F:

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7036
AHU NUMBER: FC-2
AHU LOCATION: ALL
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: 2NF FLOORS
% OF BLDG AREA HEATED: 36

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 10,100
CFM-CLG: 10,100
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 27
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F:
COLD DECK DEG F:
MIXED AIR DEG F:
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F:
PRESENT TEMP WINTR OCC:
PRESENT TEMP WINTR UNOCC:
PRESENT TEMP SUM OCC:
PRESENT TEMP SUM UNOCC:

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7036
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: FD119
BLR CAP OUTPUT (BTUH): 591,000
BLR CAP INPUT (BTUH): 864,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 27
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: LEESON
PUMP SERVICE: HW PUMP
PUMP MODEL: C6T17FK5B

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:** 10/13/94
LOCATION: FT. RILEY, KS **PREPARED BY:** AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7046 **BLDG NAME:** BN CLASSROOMS

ELECTRIC METER: N **CONDITIONED SQFT:** 3,733
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 27

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7046
AHU NUMBER: FC-1
AHU LOCATION: TROUGHOUT BLDG.
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,400
CFM-CLG: 4,400
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: UNITRANE
SUPPLY FAN HP: 0.18
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GE
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 27
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7046
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: BURNHAM
UNIT MODEL: FD/12
BLR CAP OUTPUT (BTUH): 381,000
BLR CAP INPUT (BTUH): 528,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 27
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 135 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.08
PUMP MFG: ARMSTRONG
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7046
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: FC'S

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 27
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG:
PUMP SERVICE: DTW PUMP (DUAL TEMP WATER)
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7047
BLDG NAME: BN HQ BLDG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N
CONDITIONED SQFT: 3,733

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 38

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7047
AHU NUMBER: FC-1
AHU LOCATION: THROUGHOUT BLDG.
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,400
CFM-CLG: 4,400
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: UNITRANE
SUPPLY FAN HP: 0.18
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GE
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 38
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 70
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7047
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: FD/12
BLR CAP OUTPUT (BTUH): 381,000
BLR CAP INPUT (BTUH): 528,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 38
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7047
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 38
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: DAYTON
PUMP SERVICE: DTW PUMP
PUMP MODEL: 5K342G

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7048
BLDG NAME: BN HQ BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 2,604

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 30

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7048
AHU NUMBER: FC-1
AHU LOCATION: THROUGHOUT BLDG
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,600
CFM-CLG: 3,600
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: RB12A008
SUPPLY FAN HP: 0.67
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MAGNETEK
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: HE4E004N
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 30
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7048
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: BURNHAM
UNIT MODEL: 806B-W
BLR CAP OUTPUT (BTUH): 257,400
BLR CAP INPUT (BTUH): 330,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 30
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7048
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 30
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 0.75
PUMP MFG: MARATHON
PUMP SERVICE: DTW PUMP
PUMP MODEL: VQJ56B17079D

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7050 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 39,675

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 23

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7050
AHU NUMBER: AHU-1
AHU LOCATION: KITCHEN
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: DINING HALL
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,330
CFM-CLG: 7,330
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: BALDOR
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 57
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 57
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7050
AHU NUMBER: HV-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: N/A
SERVES AREA: KITCHEN
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7050
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: SPACE HEAT

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 8

BOILER MFG: KEWANEE
UNIT MODEL: KW-40-192-G
BLR CAP OUTPUT (BTUH): 1,749,000
BLR CAP INPUT (BTUH): 2,186,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 185 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7050
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: SPACE HEAT

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 8

BOILER MFG: KEWANEE
UNIT MODEL: KW-40-192-G
BLR CAP OUTPUT (BTUH): 1,749,000
BLR CAP INPUT (BTUH): 2,186,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 185 DEG F or PSIG
TYPE OF BURNER CONTROLS: ALL

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7050
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: KITCHEN

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-3
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: KS-40-166-G

BLR CAP OUTPUT (BTUH): 1,204,800
BLR CAP INPUT (BTUH): 1,506,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 23
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7050
BOILER RM LOCATION: DHW

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-4
BOILER TYPE:
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: TELEDYNE
UNIT MODEL: PW1200IN09CIA
BLR CAP OUTPUT (BTUH): 972,000
BLR CAP INPUT (BTUH): 1,200,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DHW-1
PUMP HP: 0.167
PUMP MFG: MARATHON ELECTRIC
PUMP SERVICE: DHW
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7050
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: KITCHEN

(●) ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HTHW
CONV HT SOURCE: BLR-3

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 900,000
BLR CAP INPUT (BTUH): 900,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 23
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
RESET CONTROLS: N
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7050
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: OTHER

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE: BLR-1 & BLR-2

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: UNIMOUNT 1;25
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: F040 TYPE: UT

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7050
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 2
PUMP MFG: UNIMOUNT
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7050
BLDG NAME: ENL BARRACKS W/AS
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: VESTIBULES, LATRINES
SOURCE OF HEATING:
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 8

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: UNIMOUNT
PUMP MODEL: F012A TYPE UT

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3 WAY VALVE IN MER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7053 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 39,675

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7053
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 8

BOILER MFG: KEWANEE
UNIT MODEL: KW-40-192-G
BLR CAP OUTPUT (BTUH): 1,749,000
BLR CAP INPUT (BTUH): 2,186,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 185 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7053
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 8

BOILER MFG: KEWANEE
UNIT MODEL: KW-40-192-G
BLR CAP OUTPUT (BTUH): 1,749,000
BLR CAP INPUT (BTUH): 2,186,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 185 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7053
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG: BLR-3
BOILER TYPE:
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: TELEDYNE LAARS
UNIT MODEL: PW075 IN09CIA
BLR CAP OUTPUT (BTUH): 579,150
BLR CAP INPUT (BTUH):

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DHW-1
PUMP HP: 0.17
PUMP MFG: MARATHON
PUMP SERVICE: DHW
PUMP MODEL:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 0.33
PUMP MFG: BOILER PUMP
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7053
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE:

(●) ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE: BLR-1, BLR-2

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: UNIMOUNT 1;25
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: F040 TYPE: UT

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7053
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 2
PUMP MFG: UNIMOUNT
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: F040 TYPE: UT

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7053
BLDG NAME: ENL BARRACKS W/AS
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: VESTIBULES/LATRINES
SOURCE OF HEATING:
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 8

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: UNIMOUNT
PUMP MODEL: F012A TYPE: UT

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3 WAY VALVE IN MER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7086 **BLDG NAME:** UNIT CHAPEL

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 8,696

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 35

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	0	0	0	0	0	10
REQ STOP:	14	0	0	0	0	0	13

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7086
AHU NUMBER: AHU-1
AHU LOCATION: MER BASEMENT
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: SANCTUARY
% OF BLDG AREA HEATED: 67

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,400
CFM-CLG: 5,400
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GE
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 35
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	0	0	0	0	0	10
REQ STOP:	14	0	0	0	0	0	13

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: Face & Bypass dampers

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7086
AHU NUMBER: FC-1 — AHU LOCATION: THROUGHOUT OFFICE AREA
REFRIG SYS # SRVNG AHU: — SERVES AREA: ADMIN OFFICE
% OF BLDG AREA HEATED: 33

AHU UNIT TYPE: FAN COILS - 2 PIPE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,300 — CFM-CLG: 3,300
MIN %OA: 20 — MAX %OA: 20

NAMEPLATE

UNIT MFG: MODINE — UNIT MODEL: CS90
SUPPLY FAN HP: 0.75 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 34 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	9	9	9	9	9	10
REQ STOP:	14	17	17	17	17	17	13

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: 3 speed fan switch on FCs.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7086
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: EW-30-G-PF
BLR CAP OUTPUT (BTUH): 907,000
BLR CAP INPUT (BTUH): 1,308,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 34
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	9	9	9	9	9	10
REQ STOP:	14	17	17	17	17	17	13

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 172 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7086 — BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 34 — MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	9	9	9	9	9	10
REQ STOP:	14	17	17	17	17	17	13

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC — RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1 — PUMP HP: 1.5 — PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP — PUMP MODEL: 8-164733-20

HW PUMP

PUMP TAG: — PUMP HP: — PUMP MFG:
PUMP SERVICE: — PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7086
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 34
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	9	9	9	9	9	10
REQ STOP:	14	17	17	17	17	17	13

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 0.75
PUMP MFG: BELL & GOSSETT
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: MOT 148-8

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7086
BLDG NAME: UNIT CHAPEL

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	502CD20S	# OF TOWER FANS:	4
CHILLER SERIAL NO:	6-86-11606-1	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	2.4
CHILLER AMPS:	44.8	TOWER FAN HP:	0.5
CHILLER PH:	3		
CHILLER CAP (TONS):	20		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 35
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	0	0	0	0	0	10
REQ STOP:	14	0	0	0	0	0	13

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7086
BLDG NAME: UNIT CHAPEL

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): MER
AHU'S SERVED: FC-1
UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	COPELAMETIC	TOWER MFG:	TSI
CHILLER MODEL:	9RC1-1010	# OF TOWER FANS:	1
CHILLER SERIAL NO:	STC 82A -01421	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	2.4
CHILLER AMPS:	42.8	TOWER FAN HP:	0.5
CHILLER PH:	3		
CHILLER CAP (TONS):	10		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 34
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	9	9	9	9	9	10
REQ STOP:	14	17	17	17	17	17	13

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	40	CNWS SETPOINT:	0
CWR SETPOINT:	50	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7108 **BLDG NAME:** BN ADMIN & CLRM

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 12,527

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 3

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	17	17	17	17	17	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7108
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: C. PLANT
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 8

CFM-HTG: 7,820
CFM-CLG: 7,820
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL: 39EB17
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 3
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	17	17	17	17	17	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: DUAL SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7108
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: HWP-1
BOILER TYPE: OTHER
FUEL TYPE: OTHER

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 3
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	17	17	17	17	17	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1
PUMP MFG: MARATHON ELEC.
PUMP SERVICE: HW PUMP
PUMP MODEL: RVW143TTDR5326AA

HW PUMP

PUMP TAG: 2
PUMP HP: 1
PUMP MFG: MARATHON ELEC.
PUMP SERVICE: HW PUMP
PUMP MODEL: RVN143TTDR5326AA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7108 **BLDG NAME:** BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CWP-1 **LOCATION (MER#):** MER
AHU'S SERVED: AHU-1

UNIT TYPE OTHER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 3 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	17	17	17	17	17	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: 1 **PUMP HP:** 1 **PUMP MFG:** MARATHON
PUMP SERVICE: CW PUMP (Chilled Water) **PUMP MODEL:** RV143TT0R5326AA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7109
BLDG NAME: BN ADMIN & CLRM

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N
CONDITIONED SQFT: 13,535

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 30

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7109
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: VAV W/ REHEAT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 16,950
CFM-CLG: 16,950
MIN %OA: 0
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL: 39ED17
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-330779-04
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 30
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRONIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7109
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: AJAX
UNIT MODEL: WGFD-2750
BLR CAP OUTPUT (BTUH): 2,750,000
BLR CAP INPUT (BTUH): 3,437,500

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 30
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 170 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: MARARHTON
PUMP SERVICE: HW PUMP
PUMP MODEL: SVE145TTDR4653AA

HW PUMP

PUMP TAG: 2
PUMP HP: 0
PUMP MFG: 1.5 HP - MARATHON
PUMP SERVICE: HW PUMP - STANDBY
PUMP MODEL: SVE145TTDR4653AA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7109
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 30
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 1
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL: SVC143TTDR5326AA

HW PUMP

PUMP TAG: HWP-2
PUMP HP: 1
PUMP MFG: 1 HP - MARATHON
PUMP SERVICE: HW PUMP - STANDBY
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7109
BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	CARRIER
CHILLER MODEL:	30HS080D500	# OF TOWER FANS:	6
CHILLER SERIAL NO:	S634597	TOWER FAN V:	200
CHILLER V:	108	TOWER FAN AMPS:	4.6
CHILLER AMPS:	334	TOWER FAN HP:	0.5
CHILLER PH:	3		
CHILLER CAP (TONS):	80		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 30
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	CWP-1	PUMP HP:	2	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	SVE145TTDR5331AA

CW and CNW PUMPS

PUMP TAG:		PUMP HP:		PUMP MFG:	
PUMP SERVICE:				PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7109
BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#): MER
AHU'S SERVED: ALL

UNIT TYPE

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 30
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	CWP-1	PUMP HP:	7.5	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	SVC213TTDR7026GPL

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7109
BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CWP-2
LOCATION (MER#): MER
AHU'S SERVED: ALL

UNIT TYPE

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 30
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	CWP-2	PUMP HP:	7.5	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	SVC213TTDR7026GPL

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/9/94
PREPARED BY: CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7176 **BLDG NAME:** MOTOR POOL MNT SHOP

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 4,880

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 7

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	8	9	12	9	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

SUSPECT ACM LOCATED ON ALL STEAM AND CONDENSATE PIPE

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/9/94
PREPARED BY: CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7176
AHU NUMBER: UH-1
AHU LOCATION: CEILING MOUNTED
REFRIG SYS # SRVNG AHU:
SERVES AREA: ALL
% OF BLDG AREA HEATED: 22

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,250
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: MODINE
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: TOTAL FOR 5 UHS

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 7
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	8	9	12	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/9/94
PREPARED BY: CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7176
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: LOW PRESS STEAM (<15#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: NATIONAL RADIATOR
UNIT MODEL: 6-66
BLR CAP OUTPUT (BTUH): 1,000,000
BLR CAP INPUT (BTUH): 1,250,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 7
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	8	9	12	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/09/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7178
BLDG NAME: MOTOR POOL ADMIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N
CONDITIONED SQFT: 2,480

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 7

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	8	9	12	9	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/09/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7178
AHU NUMBER: UH-1
AHU LOCATION: CEILING MOUNTED
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICES/SHOP
% OF BLDG AREA HEATED: 50

AHU UNIT TYPE: GAS FIRED UH
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 600
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: DAYTON FUEL TRIMMER
UNIT MODEL: 3E368A
SUPPLY FAN HP: 0.08
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: BTUH INPUT: 75,000; BTU OUTPUT: 60750

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 7
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	8	9	12	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 11/09/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7178
AHU NUMBER: UH-2
AHU LOCATION: CEILING MOUNTED
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICES/SHOP
% OF BLDG AREA HEATED: 50

AHU UNIT TYPE: GAS FIRED UH
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 600
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: EM
UNIT MODEL: UH-1100-1-FSP
SUPPLY FAN HP: 0.08
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 7
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	8	9	12	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 74
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7210 **BLDG NAME:** CH CHILLER PLANT

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 4,320

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7210 — BLDG NAME: CH CHILLER PLANT

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): MER
AHU'S SERVED:

UNIT TYPE: CENTRIFUGAL WITH COOLING TOWER-CHW

NAMEPLATE

CHILLER MFG:	TRANE CENTRAVAC	TOWER MFG:	
CHILLER MODEL:	PCV-SF-CIDI	# OF TOWER FANS:	2
CHILLER SERIAL NO:	L4E17783	TOWER FAN V:	460
CHILLER V:	0	TOWER FAN AMPS:	48.5
CHILLER AMPS:	0	TOWER FAN HP:	40
CHILLER PH:	0		
CHILLER CAP (TONS):	504		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	Y	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	Y	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: CW-1 — PUMP HP: 125 — PUMP MFG: MARATHON
PUMP SERVICE: CW PUMP (Chilled Water) — PUMP MODEL: 405TSTDS7026DDW

CW and CNW PUMPS

PUMP TAG: CNW-1 — PUMP HP: 50 — PUMP MFG: GE
PUMP SERVICE: COND WATER PUMP (CNW) — PUMP MODEL: 5K6248XH4A

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7210 **BLDG NAME:** CH CHILLER PLANT

REF. UNIT NUMBER/TAG: CH-2 **LOCATION (MER#):** MER

AHU'S SERVED:

UNIT TYPE CENTRIFUGAL WITH COOLING TOWER- CHW

NAMEPLATE

CHILLER MFG:	YORK	TOWER MFG:	
CHILLER MODEL:	YTJ3K3E2-CS-FS	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	2300	TOWER FAN AMPS:	0
CHILLER AMPS:	120	TOWER FAN HP:	40
CHILLER PH:	3		
CHILLER CAP (TONS):	504		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 **MONTHS SCHEDULE NO:** 3

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: CNW-1 **PUMP HP:** 50 **PUMP MFG:** GE

PUMP SERVICE: COND WATER PUMP (CNW) **PUMP MODEL:** 5K6248XH4A

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7210 **BLDG NAME:** CH CHILLER PLANT

REF. UNIT NUMBER/TAG: CNWP-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: CH-I

UNIT TYPE

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: 1 **PUMP HP:** 75 **PUMP MFG:** GE
PUMP SERVICE: COND WATER PUMP (CNW) **PUMP MODEL:** 5K6248XH4A

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7212 **BLDG NAME:** CO HQ BLDG

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 19,320

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 14

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	19	19	19	19	19	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7212
AHU NUMBER: FC-1
AHU LOCATION: ABOVE CEILING
REFRIG SYS # SRVNG AHU:
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 37

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,200
CFM-CLG: 7,200
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 14
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	19	19	19	19	19	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7212
AHU NUMBER: HV-1
AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: STORAGE
% OF BLDG AREA HEATED: 15.8

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HW	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 14
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	19	19	19	19	19	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7212
AHU NUMBER: HV-2
AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: STORAGE
% OF BLDG AREA HEATED: 15.8

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HW	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 17
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	7	7	7	7	7	10
REQ STOP:	13	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7212
AHU NUMBER: HV-3
AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: STORAGE
% OF BLDG AREA HEATED: 15.8

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 14
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	19	19	19	19	19	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7212
AHU NUMBER: HV-4
AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: STORAGE
% OF BLDG AREA HEATED: 15.8

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 14
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	19	19	19	19	19	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7212
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: OTHER

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 14
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	19	19	19	19	19	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 5
PUMP MFG: MARATHON ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: PVD184TTDP762ACL

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7212
BLDG NAME: CO HQ BLDG

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#): MER
AHU'S SERVED: FAN COILS

UNIT TYPE: CENTRAL PLANT

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 14
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	19	19	19	19	19	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	US ELECTRIC
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	A DP DESIGN B CODE K

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: ajn/cww

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7215 **BLDG NAME:** BN HQ BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 2,604

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 4

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: ajn/cww

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7215
AHU NUMBER: AHU-1
AHU LOCATION: MEDICAL SUPPLY
REFRIG SYS # SRVNG AHU: 1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 3,250
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: HEATWAVE
UNIT MODEL: AH-75
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: PAKCAGE UNIT
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 70
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: ajn/cww

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7215
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: CRANE
UNIT MODEL: 257NS
BLR CAP OUTPUT (BTUH): 206,400
BLR CAP INPUT (BTUH): 258,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 170 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: ajn/cww

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7215 — BLDG NAME: BN HQ BLDG
PER RAD (SYSTEM TAG) NO: RAD-1 — RAD SYS LOCATION: ENTIRE BUILDING
SOURCE OF HEATING: — SERVES AREA: ALL
RADIATION UNIT TYPE: HW — % AREA HTG: 100

RADIATION PUMP

PUMP TAG: 1 — PUMP HP: 0.08 — PUMP MFG:
PUMP MODEL:

SCHEDULE

DAYS SCHEDULE NO: 4 — MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0 — RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: ajn/cww

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7215
BLDG NAME: BN HQ BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	HEATWAVE	TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	230
CHILLER V:	230	TOWER FAN AMPS:	2.3
CHILLER AMPS:	33.5	TOWER FAN HP:	0.33
CHILLER PH:	3		
CHILLER CAP (TONS):	8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS/DEJ

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7218 **BLDG NAME:** BN HQ BLDG

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 12,625

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS/DEJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7218
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 8

CFM-HTG: 7,820
CFM-CLG: 7,820
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: BOHN
UNIT MODEL: HMZ17ACF
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: TVL21377OR7026
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS/DEJ

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7218
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: AJAX
UNIT MODEL: WGED-525
BLR CAP OUTPUT (BTUH): 420,000
BLR CAP INPUT (BTUH): 525,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: BALDOR
PUMP SERVICE: HW PUMP
PUMP MODEL: 35E816-72

HW PUMP

PUMP TAG: 2
PUMP HP: 0.5
PUMP MFG: BALDOR
PUMP SERVICE: HW PUMP
PUMP MODEL: 35E816-72

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/AMS/DEJ

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7218 BLDG NAME: BN HQ BLDG

REF. UNIT NUMBER/TAG: CH-1 LOCATION (MER#): MER
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	LMC
CHILLER MODEL:	33ADC530	# OF TOWER FANS:	4
CHILLER SERIAL NO:	12-87-12594	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	96	TOWER FAN HP:	0.5
CHILLER PH:	3		
CHILLER CAP (TONS):	30		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11 MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1	PUMP MFG:	US ELEC.
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	8020/PC2N329R088F

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/31*94
PREPARED BY: DJ/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7220 **BLDG NAME:** CO HQ BLDG

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 18,870

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 5

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/31*94
PREPARED BY: DJ/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7220
AHU NUMBER: FC-1
AHU LOCATION: ABOVE CEILING
REFRIG SYS # SRVNG AHU:
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 37

AHU UNIT TYPE: 2 PIPE FC
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,200
CFM-CLG: 7,200
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/31*94
LOCATION: FT. RILEY, KS — PREPARED BY: DJ/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7220
AHU NUMBER: HV-1 — AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU: CENTRAL PLANT — SERVES AREA: STORAGE
% OF BLDG AREA HEATED: 15.8

AHU UNIT TYPE: HEATING AND VENTILLATION — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 5 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/31*94
PREPARED BY: DJ/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7220
AHU NUMBER: HV-2
AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: STORAGE
% OF BLDG AREA HEATED: 15.8

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/31*94
LOCATION: FT. RILEY, KS — PREPARED BY: DJ/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7220
AHU NUMBER: HV-3 — AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU: CENTRAL PLANT — SERVES AREA: STORAGE
% OF BLDG AREA HEATED: 15.8

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 5 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/31*94
PREPARED BY: DJ/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7220
AHU NUMBER: HV-4
AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: STORAGE
% OF BLDG AREA HEATED: 15.8

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N

MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N

IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/31*94
PREPARED BY: DJ/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7220
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HIGH TEMP HW (ABOVE 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: FS/30
BLR CAP OUTPUT (BTUH): 1,062,000
BLR CAP INPUT (BTUH): 1,327,500

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 5
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 150 DEG F or PSIG
TYPE OF BURNER CONTROLS: OTHER

CONTROLS COMMENTS: FD

HW PUMP

PUMP TAG: 2
PUMP HP: 5
PUMP MFG: US ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: F-B030-00-001

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/31*94
PREPARED BY: DJ/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7220
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 5
MONTH SECHDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF BLR CONTROLS:
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
RESET CONTROLS: N
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-2
PUMP HP: 3
PUMP MFG: US ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: F-B028-01-288

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/31*94
PREPARED BY: DJ/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7220
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 5
MONTH SECHDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 3
PUMP MFG: US ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: F-B028-01-288

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/31*94
PREPARED BY: DJ/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7220 BLDG NAME: CO HQ BLDG

REF. UNIT NUMBER/TAG: CH-1 LOCATION (MER#): OUTSIDE

AHU'S SERVED: FC

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	SNYDER GENERAL	TOWER MFG:	
CHILLER MODEL:	ALP070C	# OF TOWER FANS:	4
CHILLER SERIAL NO:	5XB0185700	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	278	TOWER FAN HP:	0.33
CHILLER PH:	3		
CHILLER CAP (TONS):	65		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 5 MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	40	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	US ELECTRIC
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	F-B028-01-288

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7243 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 17,829

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

Suspect ACM on pipe fittings for chilled water; HW piping has fiberglass insulation. At least one person in each of 6 Admin Support areas 24hr a day. 15 Friedrich AC units "Power Miser". In original building each stroage area has one exhaust fan for ventilation. Perimeter radiation througout original building. Addition building: storage area has large fan coil, Htg. only, no control valve, fan control only.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7243
AHU NUMBER: EF-1
AHU LOCATION: SUPPORT AREA
REFRIG SYS # SRVNG AHU: N/A
SERVES AREA: SUPORT AREA
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE EXH. FAN
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 14,975
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: Supply Fan HP represents 5 Exhaust Fans, one for each area.

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: Exhaust fans have gravity dampers

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7243
AHU NUMBER: FC-1
AHU LOCATION: ABOVE CEILING
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: ADDITION ADMIN AREA
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 1,800
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: Total for 4 FC Units; Dual Temp.

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 70
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 70
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR: 3-way control valves in MER
CONTROLS COMMENTS: Manual Occupied/ Unoccupied Switch

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7243
AHU NUMBER: H&V-1
AHU LOCATION: SUPPORT AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPORT AREA ADDITION
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7243
AHU NUMBER: UH-1 — AHU LOCATION: ADDITION STORAGE ROOM
REFRIG SYS # SRVNG AHU: — SERVES AREA: STORAGE ROOM
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: UNIT HEATER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 220 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.04 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7243
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 4FW-127-50-16
BLR CAP OUTPUT (BTUH): 850,000
BLR CAP INPUT (BTUH): 1,063,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 105 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: ARMSTRONG
PUMP SERVICE: HW PUMP
PUMP MODEL: 1QA56B17D77H

HW PUMP

PUMP TAG: 2
PUMP HP: 0.5
PUMP MFG: ARMSTRON
PUMP SERVICE: HW PUMP
PUMP MODEL: 1QA56B17D77H

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7243
BLDG NAME: ADMIN & SUPPORT BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: PERIMETER BLDG
SOURCE OF HEATING: BLR-1
SERVES AREA: ORIG BLDG
RADIATION UNIT TYPE: HW
% AREA HTG: 78

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: BELL & GOSSETT
PUMP MODEL:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: ELECTRIC CONTROL ON PUMPS

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7243
BLDG NAME: ADMIN & SUPPORT BLDG

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#): MER
AHU'S SERVED: FC-1

UNIT TYPE: CENTRAL PLANT

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	0.5	PUMP MFG:	ARMSTRONG
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	1QA56B17D77H

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/9/94
PREPARED BY: CWW/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7245
BLDG NAME: ENL PERS DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N
CONDITIONED SQFT: 13,998

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 23

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/9/94
PREPARED BY: CWW/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7245
AHU NUMBER: AHU-1
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: DINNING
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: VAV
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,000
CFM-CLG: 7,000
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/9/94
PREPARED BY: CWW/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7245
AHU NUMBER: AHU-2
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: DINNING
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: VAV
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,250
CFM-CLG: 7,250
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/9/94
PREPARED BY: CWW/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7245
AHU NUMBER: HRU-1
AHU LOCATION: LATRINE MEZZ
REFRIG SYS # SRVNG AHU:
SERVES AREA: KITCHEN
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: HEAT RECOVERY UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 3
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☒

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/9/94
PREPARED BY: CWW/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7245
AHU NUMBER: HRU-2
AHU LOCATION: KITCHEN MEZZ
REFRIG SYS # SRVNG AHU:
SERVES AREA: KITCHEN & DISHWASHER
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEAT RECOVERY UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,600
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 2
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☒

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/9/94
PREPARED BY: CWW/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7245
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: SPACE HEAT & DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 66

BOILER MFG: BURNHAM
UNIT MODEL: 4FL-675A-40-G-PE

BLR CAP OUTPUT (BTUH): 5,657,000
BLR CAP INPUT (BTUH): 7,071,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 23
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/9/94
PREPARED BY: CWW/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7245
BOILER RM LOCATION: MEZZ

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: PERIMETER RADIATION

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HTHW
CONV HT SOURCE: BLR-1

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 66

BOILER MFG: OLD DOMINION
UNIT MODEL: 50254
BLR CAP OUTPUT (BTUH): 2,000,000
BLR CAP INPUT (BTUH): 2,000,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 23
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/9/94
PREPARED BY: CWW/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7245
BLDG NAME: ENL PERS DIN

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1, 2

UNIT TYPE: OTHER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 25
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	6-349906-01

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7264
BLDG NAME: LIBRARY MAIN

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N
CONDITIONED SQFT: 31,240

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 46

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	0	11	0	11	9	9
REQ STOP:	17	0	19	0	19	17	17

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7264
AHU NUMBER: AHU-1
AHU LOCATION: CEILING SPACE
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: STAGE/LIBRARY
% OF BLDG AREA HEATED: 17

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,200
CFM-CLG: 7,200
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 46
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	0	11	0	11	9	9
REQ STOP:	17	0	19	0	19	17	17

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7264
AHU NUMBER: AHU-2 — AHU LOCATION: CEILING SPACE
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: LIBRARY
% OF BLDG AREA HEATED: 17

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,200 — CFM-CLG: 7,200
MIN %OA: 20 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 46 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	0	11	0	11	9	9
REQ STOP:	17	0	19	0	19	17	17

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7264
AHU NUMBER: AHU-3
AHU LOCATION: GAME ROOM FLOOR
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: GAME ROOM
% OF BLDG AREA HEATED: 17

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,916
CFM-CLG: 6,916
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 45
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	11	7	7	7	7	7	11
REQ STOP:	22	22	22	22	22	22	22

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7264
AHU NUMBER: AHU-4 — AHU LOCATION: MER NEAR COMM. CENTER O
REFRIG SYS # SRVNG AHU: CH-2 — SERVES AREA: SOUTH WING
% OF BLDG AREA HEATED: 41

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 13,650 — CFM-CLG: 13,650
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: ELECTRA — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: B-32426-2 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 46 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	0	11	0	11	9	9
REQ STOP:	17	0	19	0	19	17	17

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 70 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7264
AHU NUMBER: AHU-5
AHU LOCATION: QUICK SNACK
REFRIG SYS # SRVNG AHU: SELF CONTAINED
SERVES AREA: QUICK SNACK
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,200
CFM-CLG: 1,200
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: LENNOX
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	ELECTRIC	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7264
BOILER RM LOCATION: BASEMENT

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: LOW PRESS STEAM (<15#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 15

BOILER MFG: BURNHAM
UNIT MODEL: 4FL-360A3-4501B
BLR CAP OUTPUT (BTUH): 2,953,000
BLR CAP INPUT (BTUH): 3,691,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 45
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	11	7	7	7	7	7	11
REQ STOP:	22	22	22	22	22	22	22

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7264
BLDG NAME: LIBRARY MAIN
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: LIBRARY
SOURCE OF HEATING: BLR-1
SERVES AREA: LIBRARY
RADIATION UNIT TYPE: STEAM
% AREA HTG: 15

SCHEDULE

DAYS SCHEDULE NO: 46
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	0	11	0	11	9	9
REQ STOP:	17	0	19	0	19	17	17

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL: 2-WAY VALVE, MANUAL OR THERMOSTATIC AT BB
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7264
BLDG NAME: LIBRARY MAIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): BASEMENT
AHU'S SERVED: AHU-1,2,3

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	CARRIER
CHILLER MODEL:	30HS160D600	# OF TOWER FANS:	6
CHILLER SERIAL NO:	U228512	TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	3.3
CHILLER AMPS:	68	TOWER FAN HP:	0.5
CHILLER PH:	3		
CHILLER CAP (TONS):	60		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 46
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	0	11	0	11	9	9
REQ STOP:	17	0	19	0	19	17	17

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	10	PUMP MFG:	LINCON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	FRAME 215T

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7264
BLDG NAME: LIBRARY MAIN

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): KITCHEN
AHU'S SERVED: AHU-4

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	LENNOX	TOWER MFG:	LENNOX
CHILLER MODEL:	SPGH17951	# OF TOWER FANS:	1
CHILLER SERIAL NO:	5193G75642	TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.75
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 46
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	13	0	11	0	11	9	9
REQ STOP:	17	0	19	0	19	17	17

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: JM/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7270 **BLDG NAME:** BN HQ BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 6,130

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 37

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	7	6	0
REQ STOP:	0	17	17	17	16	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7270
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA:
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 6,310
CFM-CLG: 6,310
MIN %OA: 40
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 37
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	7	6	0
REQ STOP:	0	17	17	17	16	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 65
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: JM/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7270
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 20

BOILER MFG: AJAX
UNIT MODEL: WG-450
BLR CAP OUTPUT (BTUH): 360,000
BLR CAP INPUT (BTUH): 450,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 37
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	7	6	0
REQ STOP:	0	17	17	17	16	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 160 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: RELIANCE
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: JM/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7270
BLDG NAME: BN HQ BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: CLERICAL/OFFICES
SOURCE OF HEATING: BLR-1
SERVES AREA: CLERICAL/OFFICES
RADIATION UNIT TYPE: HW
% AREA HTG: 20

SCHEDULE

DAYS SCHEDULE NO: 37
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	7	6	0
REQ STOP:	0	17	17	17	16	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/6/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7270 — BLDG NAME: BN HQ BLDG

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	20AOC525	# OF TOWER FANS:	2
CHILLER SERIAL NO:	7-93-A26713-2	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	82.2	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	25		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 37 — MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	7	6	0
REQ STOP:	0	17	17	17	16	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10-11-94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7285 **BLDG NAME:** CLOTHING SALES

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 17,042

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 18

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	11	9	10
REQ STOP:	0	18	18	18	19	18	16

REMARKS:

SUSPECT ACM LOCATED ON PIPING AND PIPE FITTINGS

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10-11-94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7285
AHU NUMBER: AHU-1 — AHU LOCATION: 2ND FLOOR
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 18,700 — CFM-CLG: 18,700
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: MCQUAY — UNIT MODEL: 2G323V-X
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	HOT WATER	☒
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 18 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	11	9	10
REQ STOP:	0	18	18	18	19	18	16

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10-11-94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7285
BOILER RM LOCATION: MER-1

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: THERMO-PAK
UNIT MODEL: 3WFG-2000
BLR CAP OUTPUT (BTUH): 1,600,000
BLR CAP INPUT (BTUH): 2,000,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 18
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	11	9	10
REQ STOP:	0	18	18	18	19	18	16

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: WAGNER
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG: 2
PUMP HP: 0.25
PUMP MFG: B &G
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10-11-94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7285
BLDG NAME: CLOTHING SALES

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER-1
AHU'S SERVED: AHU-1

UNIT TYPE: CENTRIFUGAL WITH COOLING TOWER

NAMEPLATE

CHILLER MFG:	COPELAMETIC	TOWER MFG:	HALSTED & MITCHELL
CHILLER MODEL:	GRR2-4000-4SN	# OF TOWER FANS:	2
CHILLER SERIAL NO:	ETC-82C-00042-S	TOWER FAN V:	230
CHILLER V:	200	TOWER FAN AMPS:	10
CHILLER AMPS:	142	TOWER FAN HP:	1.5
CHILLER PH:	3		
CHILLER CAP (TONS):	40		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 18
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	11	9	10
REQ STOP:	0	18	18	18	19	18	16

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:	
PRESS LITE LOW:	N	TEMP LITE LOW:	N		
PRESS GAUGES:	N	TEMP GAUGES:	N		

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	7.5	PUMP MFG:	GOULD
PUMP SERVICE:	COND WATER PUMP (CNW)			PUMP MODEL:	6-330778-03

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/AMS/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7305 **BLDG NAME:** APP INSTR BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 9,872

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 13

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	22	22	22	22	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7305
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-1 — SERVES AREA: CLASSROOM
% OF BLDG AREA HEATED: 22

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800 — CFM-CLG: 1,800
MIN %OA: 30 — MAX %OA: 100

NAMEPLATE

UNIT MFG: LENNOX — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 13 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	22	22	22	22	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 70 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 70 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: Y — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7305
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-2
SERVES AREA: CLASSROOM
% OF BLDG AREA HEATED: 22

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 1,800
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: LENNOX
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 13
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	22	22	22	22	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 70
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 70
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7305
AHU NUMBER: AHU-3
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-3
SERVES AREA: CLASSROOM
% OF BLDG AREA HEATED: 22

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 1,800
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: LENNOX
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 13
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	22	22	22	22	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 70
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 70
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/AMS/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7305
AHU NUMBER: AHU-4
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: 4
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 12

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,200
CFM-CLG: 1,200
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: LENNOX
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 13
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	22	22	22	22	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
PRESENT TEMP WINTR UNOCC: 70
PRESENT TEMP SUM OCC: 70
PRESENT TEMP SUM UNOCC: 70
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: Y
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/AMS/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7305 **BLDG NAME:** APP INSTR BLDG

REF. UNIT NUMBER/TAG: ACCU-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	LENNOX	TOWER MFG:	
CHILLER MODEL:	HS16-553V-2Y	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	17.3	TOWER FAN HP:	0.25
CHILLER PH:	3		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 13 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	22	22	22	22	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/AMS/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7305
BLDG NAME: APP INSTR BLDG

REF. UNIT NUMBER/TAG: ACCU-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	LENNOX	TOWER MFG:	
CHILLER MODEL:	HS16-553V-2Y	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	17.3	TOWER FAN HP:	0.25
CHILLER PH:	3		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 13
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	22	22	22	22	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/AMS/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7305
BLDG NAME: APP INSTR BLDG

REF. UNIT NUMBER/TAG: ACCU-3
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-3

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	LENNOX	TOWER MFG:	
CHILLER MODEL:	HS16-553V-2Y	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	17.3	TOWER FAN HP:	0.25
CHILLER PH:	3		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 13
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	22	22	22	22	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/AMS/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7305
BLDG NAME: APP INSTR BLDG

REF. UNIT NUMBER/TAG: ACCU-4
LOCATION (MER#): EXT. BLDG SOUTH
AHU'S SERVED: AHU-4

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	LENNOX	TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:	5182204459	TOWER FAN V:	230
CHILLER V:	230	TOWER FAN AMPS:	1.2
CHILLER AMPS:	11.8	TOWER FAN HP:	0.16
CHILLER PH:	3		
CHILLER CAP (TONS):	2.7		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 13
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	22	22	22	22	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7350 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 21,345

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7350
AHU NUMBER: AHU-1
AHU LOCATION: RM#1 MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7350
AHU NUMBER: AHU-2
AHU LOCATION: RM#7 MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7350
AHU NUMBER: AHU-3
AHU LOCATION: RM#7 MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7350
AHU NUMBER: AHU-4
AHU LOCATION: RM#7 MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GASIFIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7350
AHU NUMBER: AHU-5 — AHU LOCATION: ROOM 15
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: OFFICES/ADMIN
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,200 — CFM-CLG: 0
MIN %OA: 15 — MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7350
AHU NUMBER: AHU-6 — AHU LOCATION: ROOM 15
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 15

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,600 — CFM-CLG: 0
MIN %OA: 15 — MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7350
AHU NUMBER: MAU-1
AHU LOCATION: MEZZANINE MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAY
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7350
AHU NUMBER: MAU-2
AHU LOCATION: MEZZANINE MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAY
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7350
AHU NUMBER: MAU-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAY
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,200
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM125CRH
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7350
AHU NUMBER: RAD-1
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7350
AHU NUMBER: RAD-2
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJNCWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7404 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 50,967

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

Suspect ACM located on AHU duct flex joints.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJNCWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7404
AHU NUMBER: AHU-1
AHU LOCATION: BSMT MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: SOUTH HALF OF BLDG
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 0
CFM-CLG: 29,135
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: MZ-320-D
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR: NO CONTROL VALVE ON CHILLED WATER
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJNCWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7404
AHU NUMBER: AHU-2
AHU LOCATION: AHU ROOM N. BSMT
REFRIG SYS # SRVNG AHU:
SERVES AREA: NORTH HALF OF BLDG
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 0
CFM-CLG: 28,225
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: MZ-320-D
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR: NO CONTROL VALVE ON CHILLED WATER
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJNCWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7404
BOILER RM LOCATION: NORTH MER EAST

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 100

BOILER MFG: BURNHAM
UNIT MODEL: 4FL-345-45-LB
BLR CAP OUTPUT (BTUH): 2,568,000
BLR CAP INPUT (BTUH): 3,210,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJNCWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7404
BOILER RM LOCATION: NORTH MER WEST

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: M-65-KG
BLR CAP OUTPUT (BTUH): 650,000
BLR CAP INPUT (BTUH): 813,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 12 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJNCWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7404
BLDG NAME: ENL BARRACKS W/O DIN
PER RAD (SYSTEM TAG) NO: RAD-2
RAD SYS LOCATION: NORTH MER
SOURCE OF HEATING: BLR-1
SERVES AREA: ALL
RADIATION UNIT TYPE: HW
% AREA HTG: 50

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: MARATHON
PUMP MODEL: PC56T

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL: 3-WAY VALVE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJNCWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7404
BLDG NAME: ENL BARRACKS W/O DIN
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: NORTH MER SOUTH
SOURCE OF HEATING: BLR-1
SERVES AREA: ALL
RADIATION UNIT TYPE: HW
% AREA HTG: 50

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: MARATHON ELECTRIC
PUMP MODEL: YVD 145...

RADIATION PUMP

PUMP TAG: 2
PUMP HP: 2
PUMP MFG: MARATHON ELECTRIC
PUMP MODEL: PC56T

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL: 3-WAY VALVE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7410
BLDG NAME: BN ADMIN & CLRM

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 12,599

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 12

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	8	8	8	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/5/94
LOCATION: FT. RILEY, KS — PREPARED BY: CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7410
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA:
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: VAV — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,150 — CFM-CLG: 6,150
MIN %OA: 20 — MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER — UNIT MODEL: 39ED11
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-330778-04 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	HW	☒
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 12 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	8	8	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7410
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: AJAX
UNIT MODEL: WG-450D
BLR CAP OUTPUT (BTUH): 360,000
BLR CAP INPUT (BTUH): 450,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS: O2 TRIM
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG: 2
PUMP HP: 0.75
PUMP MFG: MARATHON
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7410
BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1
UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	CARRIER
CHILLER MODEL:	30HL030530	# OF TOWER FANS:	3
CHILLER SERIAL NO:	Y594606	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	112	TOWER FAN HP:	0.48
CHILLER PH:	3		
CHILLER CAP (TONS):	30		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 12
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	8	8	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1.5	PUMP MFG:	ALLIS
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	RVN145TTDR5326AA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7424 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 50,967

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7424
AHU NUMBER: AHU-1
AHU LOCATION: AHU ROOM SOUTH

REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: HALF OF FLOORS 1, 2, 3
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 0
CFM-CLG: 29,135
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7424
AHU NUMBER: AHU-2
AHU LOCATION: AHU ROOM NORTH
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: HALF OF FLOORS 1, 2, 3
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 0
CFM-CLG: 28,225
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: MZ-320-D
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7424
BOILER RM LOCATION: MER EAST

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: PERIMETER RADIATION

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 100

BOILER MFG: BURNHAM
UNIT MODEL: EW-70-6-PF
BLR CAP OUTPUT (BTUH): 2,140,000
BLR CAP INPUT (BTUH): 3,050,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7424.
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: DHW SYSTEM

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: M-65-KG
BLR CAP OUTPUT (BTUH): 650,000
BLR CAP INPUT (BTUH): 813,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 12 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7424
BLDG NAME: ENL BARRACKS W/O DIN
PER RAD (SYSTEM TAG) NO: RAD-2
RAD SYS LOCATION: MER SOUTH
SOURCE OF HEATING: BLR-1
SERVES AREA: ALL
RADIATION UNIT TYPE: HW
% AREA HTG: 0

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: MARATHON
PUMP MODEL: UVD56T

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL: 3-WAY VALVE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7424
BLDG NAME: ENL BARRACKS W/O DIN
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: MER SOUTH
SOURCE OF HEATING: BLR-1
SERVES AREA: ALL
RADIATION UNIT TYPE: HW
% AREA HTG: 50

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: MARATHON
PUMP MODEL: ZVB145TT

RADIATION PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP MODEL:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL: 3-WAY VALVE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7432 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N **CONDITIONED SQFT:** 13,500
GAS METER: Y
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 3

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	17	17	17	17	17	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7432
AHU NUMBER: FC-1
AHU LOCATION: ABOVE CEILING
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ADMIN AREA
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,000
CFM-CLG: 12,000
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: UNITRANE
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: Total of 20 FCs in Admin. Area

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 3
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	17	17	17	17	17	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: DUAL SETPOINT
PRESENT TEMP WINTR OCC: 68
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 73
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7432
AHU NUMBER: HV-1 — AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU: — SERVES AREA: SUPPLY AREA 1
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7432
AHU NUMBER: HV-2
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA 2
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7432
AHU NUMBER: HV-3
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA 3
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7432
AHU NUMBER: HV-4
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA 4
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7432
AHU NUMBER: HV-5 — AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU: — SERVES AREA: SUPPLY AREA 5
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7432
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 4FW-107-40-1B
BLR CAP OUTPUT (BTUH): 895,000
BLR CAP INPUT (BTUH): 1,119,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 160 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 5
PUMP MFG: BALDOR
PUMP SERVICE: HW PUMP
PUMP MODEL: M3613T

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7432
BLDG NAME: ADMIN & SUPPORT BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: FC-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	CGABC206AF013	# OF TOWER FANS:	2
CHILLER SERIAL NO:	J87A80095	TOWER FAN V:	0
CHILLER V:	200	TOWER FAN AMPS:	0
CHILLER AMPS:	98	TOWER FAN HP:	0.5
CHILLER PH:	3		
CHILLER CAP (TONS):	20		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	ARMSTRONG
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7450 **BLDG NAME:** REGIMENTAL HQ BLDG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 9,850

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 4

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7450
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 825
CFM-CLG: 825
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: HAH-12-C
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GE
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	DTW	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7450
AHU NUMBER: FC-1
AHU LOCATION: THROUGHOUT BLDG.
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 80

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,600
CFM-CLG: 8,600
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: CR-4-FC-4-1
SUPPLY FAN HP: 1.7
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: TOTAL FOR ALL FAN COILS

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7450
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 10

BOILER MFG: AJAX
UNIT MODEL: WG-450
BLR CAP OUTPUT (BTUH): 360,000
BLR CAP INPUT (BTUH): 450,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 135 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: BELL & GOSSETT
PUMP SERVICE:
PUMP MODEL: M80027K48

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7450
BLDG NAME: REGIMENTAL HQ BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: MER
SOURCE OF HEATING: BLR-1
SERVES AREA: STAIRWAY, HALLWAYS
RADIATION UNIT TYPE: HW
% AREA HTG: 10

SCHEDULE

DAYS SCHEDULE NO: 4
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL: 2-WAY VALVE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7450 **BLDG NAME:** REGIMENTAL HQ BLDG

REF. UNIT NUMBER/TAG: CH-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: FC-1, AHU-1

UNIT TYPE RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	30A0CD30	# OF TOWER FANS:	4
CHILLER SERIAL NO:	5-88-13126	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	53	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	29.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: 1 **PUMP HP:** 5 **PUMP MFG:** CENTURY
PUMP SERVICE: CW PUMP (Chilled Water) **PUMP MODEL:** 6333484-01

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7485 **BLDG NAME:** BOWLING ALLEY

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 36,966

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 53

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	12	9	9	9	9	9	9
REQ STOP:	22	24	24	24	24	2	2

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7485
AHU NUMBER: AHU-1
AHU LOCATION: ORIG. BLDG MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ORIG. BLDG.
% OF BLDG AREA HEATED: 46

AHU UNIT TYPE: DUAL DUCT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 16,000
CFM-CLG: 16,000
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG: WORTHINGTON CORP
UNIT MODEL: CM-40.00
SUPPLY FAN HP: 20
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 53
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	12	9	9	9	9	9	9
REQ STOP:	22	24	24	24	24	2	2

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7485
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-2
SERVES AREA: NEW ADDITION
% OF BLDG AREA HEATED: 46

AHU UNIT TYPE: VAV
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 10,000
CFM-CLG: 10,000
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL: 34ED23
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	HOT WATER	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 53
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	12	9	9	9	9	9	9
REQ STOP:	22	24	24	24	24	2	2

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
PRESENT TEMP WINTR UNOCC: 70
PRESENT TEMP SUM OCC: 70
PRESENT TEMP SUM UNOCC: 70
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7485
AHU NUMBER: UH-1 — AHU LOCATION: STORAGE/ MAINTENANCE
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: ORIG. BLDG
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: UNIT HEATER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,200 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.25 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 53 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	12	9	9	9	9	9	9
REQ STOP:	22	24	24	24	24	2	2

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7485
AHU NUMBER: UH-2
AHU LOCATION: STORAGE/ MAINTENANCE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: NEW ADDITION
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,630
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.25
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 53
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	12	9	9	9	9	9	9
REQ STOP:	22	24	24	24	24	2	2

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7485
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: AHU-1,2 & UH-1,2

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: AJAX
UNIT MODEL: WGFD-2000
BLR CAP OUTPUT (BTUH): 1,600,000
BLR CAP INPUT (BTUH): 2,000,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 53
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	12	9	9	9	9	9	9
REQ STOP:	22	24	24	24	24	2	2

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 3
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL: UVE 182TTDR7627ACL

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7485
BLDG NAME: BOWLING ALLEY

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	502CD60	# OF TOWER FANS:	6
CHILLER SERIAL NO:	9692	TOWER FAN V:	0
CHILLER V:	230	TOWER FAN AMPS:	4.6
CHILLER AMPS:	250	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	60		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 53
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	12	9	9	9	9	9	9
REQ STOP:	22	24	24	24	24	2	2

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7485
BLDG NAME: BOWLING ALLEY

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38AD-028-530	# OF TOWER FANS:	3
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	28		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 53
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	12	9	9	9	9	9	9
REQ STOP:	22	24	24	24	24	2	2

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7500
BLDG NAME: VEH MNT SHOP ORG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 22,325

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 32

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7500
AHU NUMBER: AHU-1
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7500
AHU NUMBER: AHU-2
AHU LOCATION: MEZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7500
AHU NUMBER: AHU-3 — AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800 — CFM-CLG: 0
MIN %OA: 15 — MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT — UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7500
AHU NUMBER: AHU-4
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7500
AHU NUMBER: AHU-5
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,200
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7500
AHU NUMBER: AHU-6
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7500
AHU NUMBER: MAU-1 — AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS — UNIT MODEL: GTDM400
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7500
AHU NUMBER: MAU-2
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7500
AHU NUMBER: MAU-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7500
AHU NUMBER: RAD-1
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7500
AHU NUMBER: RAD-2
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JMAJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7520 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 27,112

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 32

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7520
AHU NUMBER: AHU-1 — AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,600 — CFM-CLG: 0
MIN %OA: 30 — MAX %OA: 30

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7520
AHU NUMBER: AHU-2
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GA2048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7520
AHU NUMBER: AHU-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GA2048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7520
AHU NUMBER: AHU-4
AHU LOCATION: NEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GA2048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7520
AHU NUMBER: AHU-5 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,200 — CFM-CLG: 0
MIN %OA: 30 — MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT — UNIT MODEL: 394GA2048100
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS - FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7520
AHU NUMBER: AHU-6
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,600
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GA2048100
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7520
AHU NUMBER: MAU-1 — AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: MAKE-UP AIR UNIT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS — UNIT MODEL: GTDM400
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7520
AHU NUMBER: MAU-2
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7520
AHU NUMBER: MAU-3
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7520
AHU NUMBER: RAD-1
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7520
AHU NUMBER: RAD-2 — AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU: — SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: INFRARED RADIANT HEATERS — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.33 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7602 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 13,520

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

Locations of Suspect ACM: Pipe fittings, boiler

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7602
AHU NUMBER: AHU-1
AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICE AREA 1
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: GC1921146
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7602
AHU NUMBER: AHU-2
AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICE AREA 2
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: GC1921146
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7602
AHU NUMBER: AHU-3 — AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: OFFICE AREA 3
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 940
MIN %OA: 20 — MAX %OA: 20

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: GC1921146 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7602
AHU NUMBER: AHU-4
AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICE AREA 4
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: GC1021146
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7602
AHU NUMBER: AHU-5 — AHU LOCATION: STORAGE AREA
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: OFFICE AREA 5
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 940
MIN %OA: 20 — MAX %OA: 20

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: GC1921146 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7602
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: SPACE HEAT

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 100

BOILER MFG: OSAGE
UNIT MODEL: 40-5-201
BLR CAP OUTPUT (BTUH): 800,000
BLR CAP INPUT (BTUH): 1,000,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7602
BLDG NAME: ADMIN & SUPPORT BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: PERIMETER OF BLDG.
SOURCE OF HEATING: BLR-1
SERVES AREA: ALL
RADIATION UNIT TYPE: HW
% AREA HTG: 100

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: CENTURY
PUMP MODEL: SC-18262-KCA-6

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3-WAY PNEUMATIC CONTROL VALVE LOCATED IN MER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7602 **BLDG NAME:** ADMIN & SUPPORT BLDG

REF. UNIT NUMBER/TAG: CH-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: AHU-1, 2, 3, 4, & 5

UNIT TYPE RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	LARKIN
CHILLER MODEL:	SC2C515	# OF TOWER FANS:	2
CHILLER SERIAL NO:	9129-1	TOWER FAN V:	208
CHILLER V:	230	TOWER FAN AMPS:	9.2
CHILLER AMPS:	62	TOWER FAN HP:	0.5
CHILLER PH:	3		
CHILLER CAP (TONS):	15		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	SC-182-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7604 **BLDG NAME:** GEN INST BLDG

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 13,493

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 61

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	23	23	23	23	23	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	23	23	23	23	23	0

REMARKS:

BLDG. contact: Ms Foreman @ ext. 9475

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7604
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: WEST HALF OF BLDG.
% OF BLDG AREA HEATED: 45

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 6,000 — CFM-CLG: 6,000
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: MODULAR
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 62 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	23	23	23	23	15	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	23	23	23	23	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC/ELECTRIC — THERMOSTAT TYPE: OTHER
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: Y — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7604
AHU NUMBER: AHU-2 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: EAST HALF OF BLDG.
% OF BLDG AREA HEATED: 45

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 6,000 — CFM-CLG: 6,000
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 62 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	23	23	23	23	15	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	23	23	23	23	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC/ELECTRIC — THERMOSTAT TYPE: OTHER
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: Y — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7604
AHU NUMBER: AHU-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: SOUTH ADMIN OFFICES
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,000
CFM-CLG: 2,000
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: MCCA006MADOE
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 62
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	23	23	23	23	15	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	23	23	23	23	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 76
COLD DECK DEG F: 60
MIXED AIR DEG F: 65
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7604
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: EW20GPF
BLR CAP OUTPUT (BTUH): 648,000
BLR CAP INPUT (BTUH): 877,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 61
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	23	23	23	23	23	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	23	23	23	23	23	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: US ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: F108

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7604
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 61
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	23	23	23	23	23	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	23	23	23	23	23	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 2
PUMP MFG: US ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: F108UVD56T

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7604
BLDG NAME: GEN INST BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1,2,3

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TRANE
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	8
CHILLER SERIAL NO:	9225-2	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	4.1
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	70		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 62
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	23	23	23	23	15	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	23	23	23	23	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	U S ELECTRIC
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7606 **BLDG NAME:** ENL PERS DIN

ELECTRIC METER: N **CONDITIONED SQFT:** 13,493
GAS METER: Y
SUSPECT ACM: Y

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 23

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON PIPE FITTINGS AND BOILER FLUE

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7606
AHU NUMBER: AHU-1 — AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: DINNING
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: VAV — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,000 — CFM-CLG: 7,000
MIN %OA: 30 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 23 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7606
AHU NUMBER: AHU-2
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: DINNING
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: VAV
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,250
CFM-CLG: 7,250
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	STEAM	☒
HEATING COIL:	STEAM	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7606
AHU NUMBER: HRU-1
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU:
SERVES AREA: KITCHEN
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: HEAT RECOVERY UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 3
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7606
AHU NUMBER: HRU-2
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU:
SERVES AREA: KITCHEN
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEAT RECOVERY UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,600
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 1
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7606
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: SPACE HEAT & DHW

SOURCE OF BLDG HEAT

◉ ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 17

BOILER MFG: PAWNEE
UNIT MODEL: A-250
BLR CAP OUTPUT (BTUH): 6,900,000
BLR CAP INPUT (BTUH): 8,625,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 8 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7606
BOILER RM LOCATION: MEZZ

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: BB RADIATION

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HTHW
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 17

BOILER MFG: DUNHAM BUSH
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 2,000,000
BLR CAP INPUT (BTUH): 2,000,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 23
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: BALDOR
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7606
BLDG NAME: ENL PERS DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1, 2

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:	9225-5	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	70		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 23
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	SC-215-FMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7608 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 13,520

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 4

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

Suspect ACM is located on pipe fittings and boiler.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7608
AHU NUMBER: AHU-1
AHU LOCATION: STORAGE ROOM

REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICE AREA 1
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GENERAL ELECT
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 5K42HG2571
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7608
AHU NUMBER: AHU-2
AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICE AREA 2
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GENERAL ELECT
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 5K42HG2571
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7608
AHU NUMBER: AHU-3
AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICE AREA 3
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GENERAL ELECT
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 5K42HG2571
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7608
AHU NUMBER: AHU-4
AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICE AREA 4
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GENERAL ELECT
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 5K42HG2571
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7608
AHU NUMBER: AHU-5 — AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU: — SERVES AREA: OFFICE AREA 5
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 940
MIN %OA: 20 — MAX %OA: 20

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GENERAL ELECT — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 5K42HG2571 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 4 — MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7608
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: PERIMETER RADIATION

SOURCE OF BLDG HEAT

(●) ☒ **BOILER**
- **BOILER TAG:** BLR-1
- **BOILER TYPE:** HW (UP TO 250 DEG)
- **FUEL TYPE:** NAT. GAS

☐ **CONVERTER**
- **CONVERTER TAG:**
- **CONVERTER TYPE:**
- **CONV HT SOURCE:**

( ) **CENTRAL PLANT DIRECT**

NAMEPLATE

% AREA HEATED BY BB RADIATION: 100

BOILER MFG: OSAGE
UNIT MODEL: 40-5-201
BLR CAP OUTPUT (BTUH): 800,000
BLR CAP INPUT (BTUH): 1,000,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7608
BLDG NAME: ADMIN & SUPPORT BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: PERIMETER OF BLDG
SOURCE OF HEATING: BLR-1
SERVES AREA: ALL
RADIATION UNIT TYPE: HW
% AREA HTG: 100

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: RELIANCE
PUMP MODEL: Y214669A5

SCHEDULE

DAYS SCHEDULE NO: 4
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3-WAY PNEUMATIC CONTROL VALVE LOCATED IN MER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7608
BLDG NAME: ADMIN & SUPPORT BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1, 2, 3, 4, & 5

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	LARKIN
CHILLER MODEL:	SC2CS15	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	0	TOWER FAN AMPS:	9.2
CHILLER AMPS:	0	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	15		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	SC-182-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7610
BLDG NAME: ENL BARRACKS W/AS

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N
CONDITIONED SQFT: 41,892

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7610
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU:
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-331260-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7610
AHU NUMBER: AHU-2 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: — SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500 — CFM-CLG: 3,500
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM — UNIT MODEL:
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-331260-03 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: OTHER
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7610
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 15

BOILER MFG: KEWANEE
UNIT MODEL: M-235-KX

BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 200 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7610
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 15

BOILER MFG: OSAGE
UNIT MODEL: 60-15
BLR CAP OUTPUT (BTUH): 1,939,200
BLR CAP INPUT (BTUH): 2,424,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7610
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: SC-184-KMA

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7610
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 1.5
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: SC-184-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7610
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3
PUMP HP: 1.5
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: SC-164-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7610
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7610
BLDG NAME: ENL BARRACKS W/AS
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: LATRINES & FOYERS
SOURCE OF HEATING: BR
SERVES AREA: LATRINES & FOYERS
RADIATION UNIT TYPE: HW
% AREA HTG: 15

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: RELIANCE DUTY
PUMP MODEL: Y21 4669A10

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL: 3-WAY VALVE HW RESET AT BOILER/CONVERTER
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: Y
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7610
BLDG NAME: ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	BOHN
CHILLER MODEL:	CRHM300A-2JMA	# OF TOWER FANS:	3
CHILLER SERIAL NO:	090D2926	TOWER FAN V:	208
CHILLER V:	200	TOWER FAN AMPS:	7.2
CHILLER AMPS:	0	TOWER FAN HP:	1.5
CHILLER PH:	3		
CHILLER CAP (TONS):	60		

COMMENTS: 3 HP - OTHER THREE DUAL TEMPS UNREADABLE LOOKS SIMILAR TO OTHER BLDGS.

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	37	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATORS:	
PRESS LITE LOW:	N	TEMP LITE LOW:	N		
PRESS GAUGES:	N	TEMP GAUGES:	N		

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1	PUMP MFG:	AURORA
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	FA5613415558

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7612 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 41,892

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

Suspect ACM located on pipe fittings

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7612
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500 — CFM-CLG: 3,500
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-331260-03 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	DUAL TEMP WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7612
AHU NUMBER: AHU-2
AHU LOCATION: MER 1ST FLR
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 3N450
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	DUAL TEMP WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7612
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 20

BOILER MFG: KEWNNEE
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7612
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 60-15
BLR CAP OUTPUT (BTUH): 1,939,200
BLR CAP INPUT (BTUH): 2,424,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7612
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: SC-184-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7612
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
RESET CONTROLS: N
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 1.5
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: SC-164-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7612
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3
PUMP HP: 1.5
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: SC-164 KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7612
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

○ ☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-4
PUMP HP: 3
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: SC-213-FMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7612
BLDG NAME: ENL BARRACKS W/AS
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: VESTIBULES, TOILETS
SOURCE OF HEATING: BLR-1
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 20

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: RELIANCE
PUMP MODEL: 442775-GT

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3 WAY PNEUMATIC CONTROL VALVE IN MER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7612
BLDG NAME: ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: ALL
UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	70		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	55	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1.5	PUMP MFG:	AURORA
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7614 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 41,892

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

Bldg. Contact @ Ext. 5367 Suspect ACM located on boiler flue and DHW storage tanks

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7614
AHU NUMBER: AHU-1
AHU LOCATION: MER. NORTH
REFRIG SYS # SRVNG AHU: ch-1
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL: L0815
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-331260-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	DUAL TEMP WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7614
AHU NUMBER: AHU-2
AHU LOCATION: MER SOUTH
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL: L0815
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-331260-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	DUAL TEMP WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7614
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 20

BOILER MFG: KEWANEE
UNIT MODEL: M-235-KX

BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7614
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 60-15
BLR CAP OUTPUT (BTUH): 1,939,200
BLR CAP INPUT (BTUH): 2,424,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7614
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7614
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7614
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: A11

○ ☐ BOILER
BOILER TAG: DTWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7614
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-4
PUMP HP: 3
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7614
BLDG NAME: ENL BARRACKS W/AS
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: VESTIBULES, TOILETS
SOURCE OF HEATING: BLR-1
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 20

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: RELIANCE
PUMP MODEL: 442775-GT

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3 WAY PNEUMATIC CONTROL VALVE IN MER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7614 — BLDG NAME: ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): MER
AHU'S SERVED: AHU'S & FC'S

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	BOHN
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	4
CHILLER SERIAL NO:	9836-1	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	7.2
CHILLER AMPS:	300	TOWER FAN HP:	1.5
CHILLER PH:	0		
CHILLER CAP (TONS):	70		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:	
PRESS LITE LOW:	N	TEMP LITE LOW:	N		
PRESS GAUGES:	N	TEMP GAUGES:	N		

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1.5	PUMP MFG:	AURORA
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7616 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 41,892

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

Suspect ACM located on boiler flues and DHW storage tanks.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7616
AHU NUMBER: AHU-1
AHU LOCATION: MER 1ST FLOOR EAST
REFRIG SYS # SRVNG AHU: ch-1
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-331260-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	DUAL TEMP WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7616
AHU NUMBER: AHU-2
AHU LOCATION: MER 1ST FLOOR WEST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-331260-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	DUAL TEMP WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7616
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: SPACE HEAT

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 20

BOILER MFG: KEWANEE
UNIT MODEL: CAT. M-235-KX

BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7616
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: DHW

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: OSAGE
UNIT MODEL: 6015
BLR CAP OUTPUT (BTUH): 1,939,200
BLR CAP INPUT (BTUH): 2,424,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7616
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: SC-148-KMA

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7616
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: SC-148-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7616
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3
PUMP HP: 5
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: SC-215-FMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7616
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-4
PUMP HP: 3
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: SC-213-FMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7616
BLDG NAME: ENL BARRACKS W/AS
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: VESTIBULES, TOILETS
SOURCE OF HEATING: BLR-1
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 20

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: RELIANCE
PUMP MODEL: 442775-ET

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3 WAY PNEUMATIC CONTROL VALVE IN MER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7616
BLDG NAME: ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: FC'S AND AHU'S

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	BOHN
CHILLER MODEL:	SC2C070	# OF TOWER FANS:	4
CHILLER SERIAL NO:	9836-2	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	135	TOWER FAN HP:	1.5
CHILLER PH:	0		
CHILLER CAP (TONS):	70		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	45	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:	
PRESS LITE LOW:	N	TEMP LITE LOW:	N		
PRESS GAUGES:	N	TEMP GAUGES:	N		

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1.5	PUMP MFG:	AURORA
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7618 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 41,892

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON BOILER FLUES AND HW STORAGE TANKS

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7618
AHU NUMBER: AHU-1
AHU LOCATION: MER 1ST FLR WEST
REFRIG SYS # SRVNG AHU:
SERVES AREA: HALF OF 1ST FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BX135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U.S. ELECTRIC
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7618
AHU NUMBER: AHU-2
AHU LOCATION: MER 1ST FLR. EAST
REFRIG SYS # SRVNG AHU:
SERVES AREA: HALF OF 1ST FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BX135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U.S. ELECTRIC
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7618
AHU NUMBER: AHU-3
AHU LOCATION: MER 2ND FLR. EAST
REFRIG SYS # SRVNG AHU:
SERVES AREA: HALF OF 2ND FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: RL184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7618
AHU NUMBER: AHU-4 — AHU LOCATION: MER 2ND FLR. WEST
REFRIG SYS # SRVNG AHU: — SERVES AREA: HALF OF 2ND FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044 — CFM-CLG: 5,044
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL — UNIT MODEL: BZ135
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: RL184T — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7618
AHU NUMBER: AHU-5
AHU LOCATION: MER 3RD FLR. EAST
REFRIG SYS # SRVNG AHU:
SERVES AREA: HAFL OF 3RD FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 6,900
CFM-CLG: 6,900
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ155
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-350192-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7618
AHU NUMBER: AHU-6
AHU LOCATION: MER 3RD FLR. WEST
REFRIG SYS # SRVNG AHU:
SERVES AREA: HALF OF 3RD FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 6,900
CFM-CLG: 6,900
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ155
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-350192-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7618
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: CAT. M-235-KX
BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: GE
PUMP SERVICE: HW PUMP
PUMP MODEL: 5K37PN70

HW PUMP

PUMP TAG: 2
PUMP HP: 0.75
PUMP MFG: GE
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

HW PUMP

PUMP TAG:	3	**PUMP HP:**	0.75	**PUMP MFG:**	GE
PUMP SERVICE:	HW PUMP			**PUMP MODEL:**	

HW PUMP

PUMP TAG:	4	**PUMP HP:**	0.75	**PUMP MFG:**	GE
PUMP SERVICE:	HW PUMP			**PUMP MODEL:**	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7618
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 60-15
BLR CAP OUTPUT (BTUH): 1,939,200
BLR CAP INPUT (BTUH): 2,424,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7618
BLDG NAME: ENL BARRACKS W/O DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHUS 1-6

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:	9488-1	TOWER FAN V:	208
CHILLER V:	0	TOWER FAN AMPS:	30
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	4250	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:	
PRESS LITE LOW:	N	TEMP LITE LOW:	N		
PRESS GAUGES:	N	TEMP GAUGES:	N		

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	SC-213-FMA-6-310206-01

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7620 **BLDG NAME:** BN ADMIN & CLRM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 6,340

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 16

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

SUSPECT ACM ON PIPE FITTINGS

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7620
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 6,310 — CFM-CLG: 6,310
MIN %OA: 40 — MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM BUSH — UNIT MODEL: MZ-64-D
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 16 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 72 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 72 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 72 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 72 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7620
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: AJAX
UNIT MODEL: WG-450
BLR CAP OUTPUT (BTUH): 360,000
BLR CAP INPUT (BTUH): 450,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 16
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7620
BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED:

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	502CS25	# OF TOWER FANS:	2
CHILLER SERIAL NO:	10656-2	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	4.8
CHILLER AMPS:	88.5	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	20.5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 16
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7622 **BLDG NAME:** BN ADMIN & CLRM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 12,380

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 5

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

SUSPECT ACM LOCATED ON PIPE FITTINGS

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/5/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7622
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: NW CLASSROOMS
% OF BLDG AREA HEATED: 23

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 3,880 — CFM-CLG: 3,880
MIN %OA: 20 — MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM BUSCH — UNIT MODEL:
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 5 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7622
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: SE. OFFICES/ CLASSROOMS
% OF BLDG AREA HEATED: 23

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 3,780
CFM-CLG: 3,780
MIN %OA: 25
MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM - BUSH
UNIT MODEL: MZ-32
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7622
AHU NUMBER: AHU-3
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: SW OFFICES/CLASSROOMS
% OF BLDG AREA HEATED: 27

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 6,155
CFM-CLG: 6,155
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM - BUSCH
UNIT MODEL: MZ-64
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: INSIDE UNIT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7622
BOILER RM LOCATION: BOILER ROOM MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

◉ ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 27

BOILER MFG: AJAX
UNIT MODEL: WG-900
BLR CAP OUTPUT (BTUH): 720,000
BLR CAP INPUT (BTUH): 900,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 5
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: HW PUMP
PUMP MODEL: H712

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/5/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7622
BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1,2,3

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	502CD55	# OF TOWER FANS:	4
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	45		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 5
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	CW-1	PUMP HP:	3	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	6-333483-02

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7624 **BLDG NAME:** BN ADMIN & CLRM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 6,158

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/6/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/DEJ

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7624
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: ALL
% OF BLDG AREA HEATED: 72

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 10,353 — CFM-CLG: 10,353
MIN %OA: 13 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7624
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 28

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 310,000
BLR CAP INPUT (BTUH): 387,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 110 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: B&G
PUMP SERVICE: HW PUMP
PUMP MODEL: GT-1008071-118

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/6/94
PREPARED BY: AJN/DEJ

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7624
BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED:

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	502C830	# OF TOWER FANS:	0
CHILLER SERIAL NO:	9129-3	TOWER FAN V:	0
CHILLER V:	230	TOWER FAN AMPS:	0
CHILLER AMPS:	102	TOWER FAN HP:	0
CHILLER PH:	3		
CHILLER CAP (TONS):	30		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7626 **BLDG NAME:** CLINIC W/O BEDS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 3,604

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 12

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	8	8	8	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

SUSPECT ACM LOCATED ON BOILER AND AHU DUCTWORK

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7626
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: CLINIC ROOMS AND LOUNGE
% OF BLDG AREA HEATED: 80

AHU UNIT TYPE: MZ
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 3,230
CFM-CLG: 3,230
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG: DANHAM-BUSH
UNIT MODEL: MZ-32-CO
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: SF184TDB26W
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 12
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	8	8	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 70
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 70
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7626
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 20

BOILER MFG: THERMO-PAK
UNIT MODEL: GWA-258X
BLR CAP OUTPUT (BTUH): 206,000
BLR CAP INPUT (BTUH): 258,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 12
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	8	8	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 120 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: RELIANCE
PUMP SERVICE: HW PUMP
PUMP MODEL: Y214669A15DT

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7626
BLDG NAME: CLINIC W/O BEDS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	502CS10	# OF TOWER FANS:	1
CHILLER SERIAL NO:	106565	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	4.8
CHILLER AMPS:	4.8	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	10.6		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 12
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	8	8	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7630
BLDG NAME: BN ADMIN & CLRM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y
CONDITIONED SQFT: 6,158

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7630
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: ADMIN & CLASSROOM
% OF BLDG AREA HEATED: 72

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 10,353 — CFM-CLG: 10,353
MIN %OA: 13 — MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM/BUSH — UNIT MODEL: MZ-100-CQ
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: TOSHIBA — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: BY75FL2UCTEFC — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 72 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 72 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 72 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 72 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7630
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 28

BOILER MFG: THERMOPAK
UNIT MODEL: GWA-387X
BLR CAP OUTPUT (BTUH): 310,000
BLR CAP INPUT (BTUH): 387,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: UT-4

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7630
BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	502CS30	# OF TOWER FANS:	2
CHILLER SERIAL NO:	9129-4	TOWER FAN V:	230
CHILLER V:	230	TOWER FAN AMPS:	4.6
CHILLER AMPS:	102	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	30		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7632 **BLDG NAME:** GYMNASIUM

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 20,694

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 42

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7632
AHU NUMBER: FC-1
AHU LOCATION: WOMEN AND MENS SHOWER

REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SHOWERS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,250
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.12
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 62
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7632
AHU NUMBER: FC-2
AHU LOCATION: WOMEN AND MENS SHOWER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SHOWERS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,250
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.12
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 62
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7632
AHU NUMBER: HV-1
AHU LOCATION: CEILING
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,300
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7632
AHU NUMBER: HV-2
AHU LOCATION: CEILING
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,300
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7632
AHU NUMBER: HV-3 — AHU LOCATION: CEILING
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,300 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7632
AHU NUMBER: HV-4
AHU LOCATION: CEILING
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,300
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7632
AHU NUMBER: HV-5 — AHU LOCATION: CEILING
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,300 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7632
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: OSAGE
UNIT MODEL: 5-751.1
BLR CAP OUTPUT (BTUH): 2,503,000
BLR CAP INPUT (BTUH): 3,128,750

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 42
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7632
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: LOW PRESS STEAM (<15#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

% AREA HEATED BY BB RADIATION:

NAMEPLATE

BOILER MFG: AMERICAN STD
UNIT MODEL: G-66
BLR CAP OUTPUT (BTUH): 520,000
BLR CAP INPUT (BTUH): 650,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 42
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 9 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/93
PREPARED BY: AJN./CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7636 **BLDG NAME:** REGIMENTAL HQ BLDG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 9,850

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 9

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

Suspect ACM located on pipe fittings

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/93
LOCATION: FT. RILEY, KS — PREPARED BY: AJN./CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7636
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: 1 — SERVES AREA: ALL
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 825 — CFM-CLG: 825
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM BUSH — UNIT MODEL: HAH-12-C
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GE — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 9 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/93
PREPARED BY: AJN./CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7636
AHU NUMBER: FC-1
AHU LOCATION:
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 80

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,600
CFM-CLG: 8,600
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: CR-4-FC-4-1
SUPPLY FAN HP: 1.7
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 9
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/93
PREPARED BY: AJN./CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7636
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 10

BOILER MFG: AJAX
UNIT MODEL: WG-450
BLR CAP OUTPUT (BTUH): 360,000
BLR CAP INPUT (BTUH): 450,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 9
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 135 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: B&G
PUMP SERVICE: HW PUMP
PUMP MODEL: M80027K48

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/93
PREPARED BY: AJN./CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7636
BLDG NAME: REGIMENTAL HQ BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: MER
SOURCE OF HEATING: BLR-1
SERVES AREA: STAIRWAY, HALLWAYS
RADIATION UNIT TYPE: HW
% AREA HTG: 10

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: BELL & GOSSETT
PUMP MODEL: M80027K48

SCHEDULE

DAYS SCHEDULE NO: 4
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/93
PREPARED BY: AJN./CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7636
BLDG NAME: REGIMENTAL HQ BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: FC-1, AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	30A0CD30	# OF TOWER FANS:	4
CHILLER SERIAL NO:	5-88-13126	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	53	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	29.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 9
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	6333484-01

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7638 **BLDG NAME:** BN ADMIN & CLRM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 6,158

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7638
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: — SERVES AREA: ADMIN AND CLASSRM
% OF BLDG AREA HEATED: 72

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 10,353 — CFM-CLG: 10,353
MIN %OA: 13 — MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM/BUSH — UNIT MODEL: MZ-100-CQ
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: TOSHIBA — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: BY754FLF2UCTEF — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 72 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 72 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 72 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 72 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7638
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 28

BOILER MFG: THERMOPAK
UNIT MODEL: GWA-387X
BLR CAP OUTPUT (BTUH): 310,000
BLR CAP INPUT (BTUH): 387,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: RELIANCE
PUMP SERVICE: HW PUMP
PUMP MODEL: Y214669A12T

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7638 — BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): OUTSIDE
AHU'S SERVED:

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	502CS30	# OF TOWER FANS:	2
CHILLER SERIAL NO:	9129-4	TOWER FAN V:	230
CHILLER V:	230	TOWER FAN AMPS:	4.6
CHILLER AMPS:	102	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	30		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2 — MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7642 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 41,892

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON BOILER FLUE AND HW STORAGE TANK

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7642
AHU NUMBER: AHU-1 — AHU LOCATION: MER 1ST FLR EAST
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: 1/2 OF 1ST FLR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044 — CFM-CLG: 5,044
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL — UNIT MODEL: BX135
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U.S. ELECTRIC — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 184T — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7642
AHU NUMBER: AHU-2
AHU LOCATION: MER 1ST FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1/2 OF 1ST FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BX135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U.S. ELECTRIC
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7642
AHU NUMBER: AHU-3
AHU LOCATION: MER 2ND FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1/2 OF 2ND FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: BL 184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7642
AHU NUMBER: AHU-4
AHU LOCATION: MER 2ND FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1/2 OF 2ND FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: BL 184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7642
AHU NUMBER: AHU-5 — AHU LOCATION: MER 3RD FLR EAST
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: 1/2 OF 3RD FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 6,900 — CFM-CLG: 6,900
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL — UNIT MODEL: BZ 155
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-350192-03 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7642
AHU NUMBER: AHU-6
AHU LOCATION: MER 3RD FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1/2 OF 3RD FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 6,900
CFM-CLG: 6,900
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ155
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-350192-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7642
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: M-235-KX
BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 4
PUMP HP: 0.75
PUMP MFG: GENERAL ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: 5K37PN70

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: GE
PUMP SERVICE: HW PUMP
PUMP MODEL: 5K37PN70

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

HW PUMP

PUMP TAG:	2	**PUMP HP:**	0.75	**PUMP MFG:**	GE
PUMP SERVICE:	HW PUMP			**PUMP MODEL:**	5K37PN70

HW PUMP

PUMP TAG:	3	**PUMP HP:**	0.75	**PUMP MFG:**	GE
PUMP SERVICE:	HW PUMP			**PUMP MODEL:**	5K37PN70

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7642.
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 60-15
BLR CAP OUTPUT (BTUH): 1,939,200
BLR CAP INPUT (BTUH): 2,424,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7642
BLDG NAME: ENL BARRACKS W/O DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1-6

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	SC1CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:	9488-1	TOWER FAN V:	208
CHILLER V:	0	TOWER FAN AMPS:	30
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	45	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7644 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 41,892

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON BOILER FLUE AND HW STORAGE TANK

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7644
AHU NUMBER: AHU-1
AHU LOCATION: MER 1ST FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 1ST FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BX135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U.S. ELECTRIC
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7644
AHU NUMBER: AHU-2 — AHU LOCATION: MER 1ST FLR EAST
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: HALF OF 1ST FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044 — CFM-CLG: 5,044
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL — UNIT MODEL: BX135
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U.S. ELCTRIC — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 184T — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7644
AHU NUMBER: AHU-3
AHU LOCATION: MER 2ND FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 2ND FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: BL184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7644
AHU NUMBER: AHU-4 — AHU LOCATION: MER 2ND FLOR EAST
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: HALF OF 2ND FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044 — CFM-CLG: 5,044
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL — UNIT MODEL: BZ135
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: BL184T — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7644
AHU NUMBER: AHU-5
AHU LOCATION: MER 3RD FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 3RD FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 6,900
CFM-CLG: 6,900
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ155
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-350192-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7644
AHU NUMBER: AHU-6 — AHU LOCATION: MER 3RD FLR
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: HALF OF 3RD FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 6,900 — CFM-CLG: 6,900
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL — UNIT MODEL: BZ155
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-350192-03 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7644
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: CAT. M-235-KX
BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: GE
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG: 2
PUMP HP: 0.75
PUMP MFG: GE
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

HW PUMP

PUMP TAG:	3	**PUMP HP:**	0.75	**PUMP MFG:**	GE
PUMP SERVICE:	HW PUMP			**PUMP MODEL:**	

HW PUMP

PUMP TAG:	4	**PUMP HP:**	0.75	**PUMP MFG:**	GE
PUMP SERVICE:	HW PUMP			**PUMP MODEL:**	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7644
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 60-15
BLR CAP OUTPUT (BTUH): 1,939,000
BLR CAP INPUT (BTUH): 2,424,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7644 — BLDG NAME: ENL BARRACKS W/O DIN

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): OUTSIDE
AHU'S SERVED:

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:	9488-1	TOWER FAN V:	208
CHILLER V:	0	TOWER FAN AMPS:	30
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	4250	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:	
PRESS LITE LOW:	N	TEMP LITE LOW:	N		
PRESS GAUGES:	N	TEMP GAUGES:	N		

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7646 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 41,892

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON BOILER FLUE AND HW STORAGE TANK

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7646
AHU NUMBER: AHU-1 — AHU LOCATION: MER 1ST FLR EAST
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: HALF OF 1ST FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044 — CFM-CLG: 5,044
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL — UNIT MODEL: BX135
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U.S. ELECTRIC — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 184T — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7646
AHU NUMBER: AHU-2
AHU LOCATION: MER 1ST FLR. EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 1ST FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BX135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U.S. ELECTRIC
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7646
AHU NUMBER: AHU-3
AHU LOCATION: MER 2ND FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 2ND FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: BL184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7646
AHU NUMBER: AHU-4 — AHU LOCATION: MER 2ND FLR. EAST
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: HALF OF 2ND FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044 — CFM-CLG: 5,044
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL — UNIT MODEL: BZ135
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: BL184T — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7646
AHU NUMBER: AHU-5
AHU LOCATION: MER 3RD FLR. EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 3RD FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 6,900
CFM-CLG: 6,900
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ155
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-350192-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7646
AHU NUMBER: AHU-6
AHU LOCATION: MER 3RD FLR. EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 3RD FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 6,900
CFM-CLG: 6,900
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ155
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-350192-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7646
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: CAT. M-235-KX
BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: GE
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG: 2
PUMP HP: 0.75
PUMP MFG: GE
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

HW PUMP

PUMP TAG:	3	**PUMP HP:**	0.75	**PUMP MFG:**	GE
PUMP SERVICE:	HW PUMP			**PUMP MODEL:**	

HW PUMP

PUMP TAG:	4	**PUMP HP:**	0.75	**PUMP MFG:**	GE
PUMP SERVICE:	HW PUMP			**PUMP MODEL:**	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7646
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 60-15
BLR CAP OUTPUT (BTUH): 1,939,000
BLR CAP INPUT (BTUH): 2,424,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7646
BLDG NAME: ENL BARRACKS W/O DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: ALL

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	BOHN
CHILLER MODEL:	SC2CD805	# OF TOWER FANS:	4
CHILLER SERIAL NO:	2 STAGES 135A ea.	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	135	TOWER FAN HP:	1.5
CHILLER PH:	3		
CHILLER CAP (TONS):	84		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7648 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 41,892

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7648
AHU NUMBER: AHU-1
AHU LOCATION: MER 1ST FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 1ST FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BX135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U.S. ELECTRIC
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7648
AHU NUMBER: AHU-2 — AHU LOCATION: MER 1ST FLR EAST
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: HALF OF 1ST FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044 — CFM-CLG: 5,044
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL — UNIT MODEL: BX135
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U.S. ELECTRIC — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 184T — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7648
AHU NUMBER: AHU-3
AHU LOCATION: MER 2ND FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 2ND GLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: BL 184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7648
AHU NUMBER: AHU-4
AHU LOCATION: MER 2ND FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 2ND FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: BL184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7648
AHU NUMBER: AHU-5
AHU LOCATION: MER 3RD FLR. EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 3RD FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 6,900
CFM-CLG: 6,900
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ155
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7648
AHU NUMBER: AHU-6
AHU LOCATION: MER 3RD FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 3RD FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 6,900
CFM-CLG: 6,900
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ155
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7648
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: CAT. M-235-KX
BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7648
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 60-15
BLR CAP OUTPUT (BTUH): 1,606,400
BLR CAP INPUT (BTUH): 2,008,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7648
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 2
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7648
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-2
PUMP HP: 2
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7648
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-3
PUMP HP: 2
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7648
BLDG NAME: ENL BARRACKS W/O DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: ALL
UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	BOHN
CHILLER MODEL:	SC2CD805	# OF TOWER FANS:	3
CHILLER SERIAL NO:	7995-2	TOWER FAN V:	230
CHILLER V:	208	TOWER FAN AMPS:	7.2
CHILLER AMPS:	135	TOWER FAN HP:	1.5
CHILLER PH:	3		
CHILLER CAP (TONS):	84		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7650 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 41,892

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7650
AHU NUMBER: AHU-1 — AHU LOCATION: MER 1ST FLR EAST
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: HALF OF 1ST FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044 — CFM-CLG: 5,044
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL — UNIT MODEL: BX135
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U.S. ELECTRIC — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 184T — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7650
AHU NUMBER: AHU-2
AHU LOCATION: MER 1ST FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 1ST FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BX135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U.S. ELECTRIC
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7650
AHU NUMBER: AHU-3
AHU LOCATION: MER 2ND FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 2ND FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: RL184T
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7650
AHU NUMBER: AHU-4
AHU LOCATION: MER 2ND FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 2ND FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 5,044
CFM-CLG: 5,044
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: BZ135
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: BZ135
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7650
AHU NUMBER: AHU-5
AHU LOCATION: MER 3RD FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 3RD FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 6,900
CFM-CLG: 6,900
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: MZ155
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-350192-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7650
AHU NUMBER: AHU-6
AHU LOCATION: MER 3RD FLR EAST
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALF OF 3RD FLOOR
% OF BLDG AREA HEATED: 16.7

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 6,900
CFM-CLG: 6,900
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TEMTROL
UNIT MODEL: MZ155
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-350192-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7650
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: CHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: CAT. M-235-KX
BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: GE
PUMP SERVICE: HW PUMP
PUMP MODEL: 5K37PN70

HW PUMP

PUMP TAG: 2
PUMP HP: 0.75
PUMP MFG: GE
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

HW PUMP

PUMP TAG:	3	**PUMP HP:**	0.75	**PUMP MFG:**	GE
PUMP SERVICE:	HW PUMP			**PUMP MODEL:**	

HW PUMP

PUMP TAG:	4	**PUMP HP:**	0.75	**PUMP MFG:**	GE
PUMP SERVICE:	HW PUMP			**PUMP MODEL:**	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7650
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 60-15
BLR CAP OUTPUT (BTUH): 1,939,000
BLR CAP INPUT (BTUH): 2,424,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7650
BLDG NAME: ENL BARRACKS W/O DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: ALL

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:	9488-1	TOWER FAN V:	208
CHILLER V:	0	TOWER FAN AMPS:	30
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	45	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	SC-213-FMA-6-310206-01

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7652 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y
CONDITIONED SQFT: 13,520

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 5

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

Suspect ACM is located on pipe fittings and boiler.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7652
AHU NUMBER: AHU-1
AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICE AREA 1
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: VAH-22
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6C`92M47
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7652
AHU NUMBER: AHU-2 — AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU: — SERVES AREA: OFFICE AREA 2
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 940
MIN %OA: 20 — MAX %OA: 20

NAMEPLATE

UNIT MFG: DUNHAM BUSH — UNIT MODEL: VAH-22
SUPPLY FAN HP: 0.75 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6C'92M47 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 5 — MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7652
AHU NUMBER: AHU-3
AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICE AREA 3
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: VAH-22
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6C'92M47
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7652
AHU NUMBER: AHU-4
AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICE AREA 4
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: VAH-22
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6C'92M47
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7652
AHU NUMBER: AHU-5
AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICE AREA
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: VAH-22
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6C'92M47
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7652
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

% AREA HEATED BY BB RADIATION: 100

NAMEPLATE

BOILER MFG: OSAGE
UNIT MODEL: 40-5-201
BLR CAP OUTPUT (BTUH): 800,000
BLR CAP INPUT (BTUH): 1,000,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 5
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 130 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7652
BLDG NAME: ADMIN & SUPPORT BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: PERIMETER OF BLDG
SOURCE OF HEATING: BLR-1
SERVES AREA: ALL
RADIATION UNIT TYPE: HW
% AREA HTG: 100

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: MAGNETEK
PUMP MODEL: 8-165775-01

SCHEDULE

DAYS SCHEDULE NO: 5
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3-WAY PNEUMATIC CONTROL VALVE LOCATED IN MER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7652
BLDG NAME: ADMIN & SUPPORT BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1, 2, 3, 4, & 5

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	SC2CS15	# OF TOWER FANS:	2
CHILLER SERIAL NO:	9129-7	TOWER FAN V:	230
CHILLER V:	230	TOWER FAN AMPS:	2.2
CHILLER AMPS:	62	TOWER FAN HP:	0.5
CHILLER PH:	3		
CHILLER CAP (TONS):	15		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 5
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1.5	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7654 **BLDG NAME:** ENL PERS DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 13,493

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 23

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON BOILER FLUE AND PIPE FITTINGS.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7654
AHU NUMBER: AHU-1
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: DINNING
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,000
CFM-CLG: 7,000
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	STEAM	☒
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 70
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 70
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7654
AHU NUMBER: AHU-2
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: DINNING
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,250
CFM-CLG: 7,250
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	STEAM	☒
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 60
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7654
AHU NUMBER: HRU-1 — AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: — SERVES AREA: KITCHEN
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: HEAT RECOVERY UNIT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,400 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 3
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 23 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 60 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7654
AHU NUMBER: HRU-2 — AHU LOCATION: ABOVE CEILING KITCHEN
REFRIG SYS # SRVNG AHU: — SERVES AREA: KITCHEN
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEAT RECOVERY UNIT — NUMBER OF ZONES IF MZ UNIT:

CFM-HTG: 3,600 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 1
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 23 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7654
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: SPACE HEAT & DHW

SOURCE OF BLDG HEAT

(●) ☒ **BOILER**
- **BOILER TAG:** BLR-1
- **BOILER TYPE:** MED PRESS STEAM (15# TO 125#)
- **FUEL TYPE:**

☐ **CONVERTER**
- **CONVERTER TAG:**
- **CONVERTER TYPE:**
- **CONV HT SOURCE:**

( ) **CENTRAL PLANT DIRECT**

NAMEPLATE

% AREA HEATED BY BB RADIATION: 17

BOILER MFG: PAWNEE
UNIT MODEL: A-250
BLR CAP OUTPUT (BTUH): 6,900,000
BLR CAP INPUT (BTUH): 8,625,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7654
BOILER RM LOCATION: MEZZ

BOILER UNIT

SOURCE OF BLDG HEAT

BLR/CONVERTER SERVES AREA OR SERVICE: BB RADIATION

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HTHW
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 17

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 23
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: U.S. ELECTRICAL
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7654 — BLDG NAME: ENL PERS DIN

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): AHU-1, 2
AHU'S SERVED:

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	SC2CD805	# OF TOWER FANS:	6
CHILLER SERIAL NO:	7995-4	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	25
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	71		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 23 — MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	DAYTON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	2N937-H

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7656 **BLDG NAME:** GEN INST BLDG

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 13,493

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 61

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	23	23	23	23	23	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	23	23	23	23	23	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7656
AHU NUMBER: AHU-1 — AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: WEST HALF OF BLDG.
% OF BLDG AREA HEATED: 50

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 7,000 — CFM-CLG: 7,000
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HW	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 62 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	23	23	23	23	15	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	23	23	23	23	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: Y — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7656
AHU NUMBER: AHU-2
AHU LOCATION: MEZZANINE MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: EAST HALF OF BLDG.
% OF BLDG AREA HEATED: 50

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 7,000
CFM-CLG: 7,000
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: MCQUAY
UNIT MODEL: LML114EH
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MAGNETEK
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-3556253-02
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 62
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	23	23	23	23	15	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	23	23	23	23	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 70
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 60
MIXED AIR DEG F: 69
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? Y
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7656
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

◉ ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: PAWNEE
UNIT MODEL: A-250
BLR CAP OUTPUT (BTUH): 6,900,000
BLR CAP INPUT (BTUH): 8,265,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 61
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	23	23	23	23	23	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	23	23	23	23	23	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 207 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7656
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 61
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	23	23	23	23	23	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	23	23	23	23	23	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 2
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7656 — BLDG NAME: GEN INST BLDG

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): MER
AHU'S SERVED: AHU-1,2

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	4.8
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 62 — MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	7	7	7	7	7	0
PRES STOP:	0	23	23	23	23	15	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	23	23	23	23	15	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	YJ182TTDR5326AB

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7658 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 13,520

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 5

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

Building Contact: Sgt. Thornton @ Ext. 5213. suspect ACM is located on pipe fittings and boiler.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7658
AHU NUMBER: AHU-1
AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICE AREA 1
% OF BLDG AREA HEATED: 37

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: VAH-22
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6C192M47
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: Thermostat modulates control valve.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7658
AHU NUMBER: AHU-2
AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICE AREA 2
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: BAH-22
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6C192M47
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC:
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: Thermostat modulates control valve.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7658
AHU NUMBER: AHU-3
AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICE AREA 3
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: VAH-22
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6C192M47
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: Thermostat modulates control valve.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7658
AHU NUMBER: AHU-4
AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICE AREA 4
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: VAH-22
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6C192M47
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: Thermostat modulates control valve.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7658
AHU NUMBER: AHU-5
AHU LOCATION: STORAGE ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICE AREA 5
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 940
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG: DUNHAM BUSH
UNIT MODEL: VAH-22
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6C192M47
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 5
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: Thermostat modulates control valve.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7658
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 100

BOILER MFG: OSAGE
UNIT MODEL: 40-5-201
BLR CAP OUTPUT (BTUH): 800,000
BLR CAP INPUT (BTUH): 1,000,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 5
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 130 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7658
BLDG NAME: ADMIN & SUPPORT BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: PERMIETER OF BLDG.
SOURCE OF HEATING: BLR-1
SERVES AREA: ALL
RADIATION UNIT TYPE: HW
% AREA HTG: 100

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: RELIANCE
PUMP MODEL: P14G3161M-FT

SCHEDULE

DAYS SCHEDULE NO: 5
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3-WAY PNEUMATIC CONTROL VALVE LOCATED IN MER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7658
BLDG NAME: ADMIN & SUPPORT BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1, 2, 3, 4, & 5

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	COPELAMETIC	TOWER MFG:	AIRCON MCQUAY
CHILLER MODEL:	9RS1-1500-THC	# OF TOWER FANS:	3
CHILLER SERIAL NO:	CTC821-01206	TOWER FAN V:	0
CHILLER V:	230	TOWER FAN AMPS:	0
CHILLER AMPS:	62	TOWER FAN HP:	0.75
CHILLER PH:	3		
CHILLER CAP (TONS):	15		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 5
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	45	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1.5	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	SC-184-KMH-6-302053

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7665 **BLDG NAME:** DENTAL CLINIC

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 11,076

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 1

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

Building was remodeled in 1990. Building contact: Michelle Brethour @ Ext: 4332

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7665
AHU NUMBER: AHU-1
AHU LOCATION: BASEMENT MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 19,500
CFM-CLG: 19,500
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: U.S. AIR CO
UNIT MODEL: BMZ-224
SUPPLY FAN HP: 15
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	STEAM	☒
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 1
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 72
PRESENT TEMP WINTR UNOCC: 72
PRESENT TEMP SUM OCC: 72
PRESENT TEMP SUM UNOCC: 72
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7665
BOILER RM LOCATION: BASEMENT AREA

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: LOW PRESS STEAM (<15#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: KEWANEE
UNIT MODEL: 3R51G
BLR CAP OUTPUT (BTUH): 648,000
BLR CAP INPUT (BTUH): 810,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7665
BLDG NAME: DENTAL CLINIC

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): BASEMENT MER
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH COOLING TOWER

NAMEPLATE

CHILLER MFG:	COPELAMETIC	TOWER MFG:	MARLEY AQUATOWER
CHILLER MODEL:	4RH1-2500-TSK	# OF TOWER FANS:	1
CHILLER SERIAL NO:	CTC82B01746	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	88.5	TOWER FAN HP:	5
CHILLER PH:	3		
CHILLER CAP (TONS):	50		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC/ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	MARATHON
PUMP SERVICE:	COND WATER PUMP (CNW)			PUMP MODEL:	KVD184-FL7027ACW

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/8/94
PREPARED BY: AJNCWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7670 **BLDG NAME:** DENTAL CLINIC

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 14,960

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 1

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/8/94
PREPARED BY: AJNCWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7670
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: DOUBLE DUCT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 25,405
CFM-CLG: 25,405
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: JOHN ZINK CO
UNIT MODEL: 76-155-1
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	STEAM	☒
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 1
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: DUAL SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: TIME CLOCK NON OPERABLE

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/8/94
PREPARED BY: AJNCWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7670
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: EL-30-G-WEB
BLR CAP OUTPUT (BTUH): 782,000
BLR CAP INPUT (BTUH): 1,308,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/8/94
PREPARED BY: AJNCWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7670
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HTHW
CONV HT SOURCE: BLR-1

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: NOT AVAILABLE
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/8/94
PREPARED BY: AJNCWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7670
BLDG NAME: DENTAL CLINIC

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED:

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	30GB090	# OF TOWER FANS:	8
CHILLER SERIAL NO:	Q794171	TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	3
CHILLER AMPS:	45	TOWER FAN HP:	1.5
CHILLER PH:	3		
CHILLER CAP (TONS):	83		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7720 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 22,325

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 32

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7720
AHU NUMBER: AHU-1
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394G-AZ048100
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7720
AHU NUMBER: AHU-2
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7720
AHU NUMBER: AHU-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7720
AHU NUMBER: AHU-4
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7720
AHU NUMBER: AHU-5 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: OFFICES./BAYS
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,200 — CFM-CLG: 0
MIN %OA: 15 — MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT — UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7720
AHU NUMBER: AHU-6
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7720
AHU NUMBER: MAU-1
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7720
AHU NUMBER: MAU-2
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7720
AHU NUMBER: MAU-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7720
AHU NUMBER: RAD-1
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7720
AHU NUMBER: RAD-2 — AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU: — SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: INFRARED RADIANT HEATERS — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.33 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: CWW/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7739 **BLDG NAME:** MVNG TRGT SIM BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 4,074

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: CWW/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7739
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 80

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 7,064
CFM-CLG: 7,064
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: CLIMATE CHANG
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U.S. ELCTRICAL
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: A907
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: CWW/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7739
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 20

BOILER MFG: CRANE CO.
UNIT MODEL: 200-385
BLR CAP OUTPUT (BTUH): 308,000
BLR CAP INPUT (BTUH): 385,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.08
PUMP MFG: MARATHON
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: CWW/AJN

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7739
BLDG NAME: MVNG TRGT SIM BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: MAINT. STORAGE ROOM, OFFIC
SOURCE OF HEATING:
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 20

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.08
PUMP MFG:
PUMP MODEL:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: CWW/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7739
BLDG NAME: MVNG TRGT SIM BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): EAST EXTERIOR OF BL
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	RAUA-2006MA	# OF TOWER FANS:	3
CHILLER SERIAL NO:	3H-16081	TOWER FAN V:	200
CHILLER V:	200	TOWER FAN AMPS:	5.8
CHILLER AMPS:	89	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	20		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/10/94
PREPARED BY: AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7760 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 17,163

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 30

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/10/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7760
AHU NUMBER: AHU-1
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,600
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 30
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/10/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7760
AHU NUMBER: AHU-2
AHU LOCATION: MEZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 30
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/10/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7760
AHU NUMBER: AHU-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURANCE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 30
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: R
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 11/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7760
AHU NUMBER: AHU-4 — AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800 — CFM-CLG: 0
MIN %OA: 30 — MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT — UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 30 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/10/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7760
AHU NUMBER: AHU-5
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,200
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394FAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 30
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/10/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7760
AHU NUMBER: AHU-6
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,600
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 30
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/10/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7760
AHU NUMBER: MAU-1
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 30
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/10/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7760
AHU NUMBER: MAU-2
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT:

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 30
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/10/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7760
AHU NUMBER: MAU-3
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 30
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/10/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7760
AHU NUMBER: RAD-1
AHU LOCATION: MAINT. BAYS

REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 30
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/10/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7760
AHU NUMBER: RAD-2
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 30
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7780 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 17,163

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 32

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7780
AHU NUMBER: AHU-1
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7780
AHU NUMBER: AHU-2
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7780
AHU NUMBER: AHU-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7780
AHU NUMBER: AHU-4
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7780
AHU NUMBER: AHU-5
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,200
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 39GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7780
AHU NUMBER: AHU-6
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7780
AHU NUMBER: MAU-1
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7780
AHU NUMBER: MAU-2
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KILNG AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NINE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7780
AHU NUMBER: MAU-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7780
AHU NUMBER: RAD-1
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7780
AHU NUMBER: RAD-2
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:**
LOCATION: FT. RILEY, KS **PREPARED BY:**

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7802 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N **CONDITIONED SQFT:** 13,280
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7802
AHU NUMBER: FC-1
AHU LOCATION: ADMIN
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 37

AHU UNIT TYPE: 2 PIPE FC
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,500
CFM-CLG: 6,500
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7802 — BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: MER

SOURCE OF BLDG HEAT

(●) ☒ BOILER
- BOILER TAG: BLR
- BOILER TYPE: HW (UP TO 250 DEG)
- FUEL TYPE: NAT. GAS

☐ CONVERTER
- CONVERTER TAG:
- CONVERTER TYPE:
- CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BUNHAM — BLR CAP OUTPUT (BTUH): 770
UNIT MODEL: 4FL9240GWEB — BLR CAP INPUT (BTUH): 963

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11 — MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC — RESET CONTROLS: N
OPERATING SETPOINT: 135 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7802
BLDG NAME: ADMIN & SUPPORT BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: STORAGE
SOURCE OF HEATING:
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG:

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: CENTURY
PUMP MODEL: 5K43KG4497

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3 WAY CONTROL VALVE CONTROLS HW TEMP.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7802 — BLDG NAME: ADMIN & SUPPORT BLDG

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): MER
AHU'S SERVED:

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	30AOCSI5	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	0	TOWER FAN AMPS:	52.5
CHILLER AMPS:	0	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	14.4		

COMMENTS: DUAL TEMP SYSTEM

SCHEDULE

DAYS SCHEDULE NO: 11 — MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7804
BLDG NAME: ENL PERS DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y
CONDITIONED SQFT: 13,493

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 23

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON BOILER FLUE

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7804
AHU NUMBER: AHU-1
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: DINNING
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,000
CFM-CLG: 7,000
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM/BUSH
UNIT MODEL: HAH-80
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-322465-01
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	STEAM	☒
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 70
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 70
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7804
AHU NUMBER: AHU-2
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: DINNING
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,250
CFM-CLG: 7,250
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM/BUSH
UNIT MODEL: HAH-80
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: BALDOR
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	STEAM	☒
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 60
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7804
AHU NUMBER: HV-1
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU:
SERVES AREA: KITCHEN
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM/BUSH
UNIT MODEL: HAH-80
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 60
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7804
AHU NUMBER: HV-2
AHU LOCATION: ABOVE CEILING KITCHEN
REFRIG SYS # SRVNG AHU:
SERVES AREA: KITCHEN
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,600
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM/BUSH
UNIT MODEL: HAH-32
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6C145TTDR7033B
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7804
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: SPACE HEAT & DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 17

BOILER MFG: PAWNEE
UNIT MODEL: A-250
BLR CAP OUTPUT (BTUH): 6,900,000
BLR CAP INPUT (BTUH): 8,625,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7804
BOILER RM LOCATION: MEZZ

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: BB RADIATION

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HTHW
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 17

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 2,200,000
BLR CAP INPUT (BTUH): 2,200,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 23
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7804
BLDG NAME: ENL PERS DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1, 2
UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	MCQUAY PERTEX
CHILLER MODEL:	SC2CD80S	# OF TOWER FANS:	6
CHILLER SERIAL NO:	7995-4	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	3
CHILLER AMPS:	25	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 23
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	DAYTON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	2N937-H

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7806 **BLDG NAME:** BN HQ BLDG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 13,493

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 25

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7806
AHU NUMBER: AHU-1
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ADMINISTRATIVE
% OF BLDG AREA HEATED: 32

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,400
CFM-CLG: 6,400
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE CLIMATE CHANGER
UNIT MODEL: L-14
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON ELEC
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 7D182TTFS7028A
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 25
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 90
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7806
AHU NUMBER: AHU-2
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ADMINISTRATIVE
% OF BLDG AREA HEATED: 32

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,600
CFM-CLG: 6,600
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE CIMATE CHANGER
UNIT MODEL: L-14
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 7E182TTFS7028A
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 25
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 90
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7806
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 36

BOILER MFG: OSAGE
UNIT MODEL: 3-5-1023
BLR CAP OUTPUT (BTUH): 818,400
BLR CAP INPUT (BTUH): 1,023,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 25
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 7.5 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7806
BOILER RM LOCATION: MEZZ

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: BLR-1

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 36

BOILER MFG: BUNHAM/BUSH
UNIT MODEL: SCA-63-2-1
BLR CAP OUTPUT (BTUH): 830,000
BLR CAP INPUT (BTUH): 830,000
COMMENTS: Year built: May 1969

SCHEDULE

DAYS SCHEDULE NO: 25
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS: 2-Way control valve

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7806
BLDG NAME: BN HQ BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: BLDG PERIMETER
SOURCE OF HEATING: BLR-1
SERVES AREA: ALL
RADIATION UNIT TYPE: HW
% AREA HTG: 36

RADIATION PUMP

PUMP TAG: HP-1
PUMP HP: 0.75
PUMP MFG: BALDOR
PUMP MODEL:

SCHEDULE

DAYS SCHEDULE NO: 25
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL: 3-WAY VALVE HW RESET AT BOILER/CONVERTER
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: Perimeter radiation under windows with manual control valves

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7806
BLDG NAME: BN HQ BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1, AHU-2

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:	9836-3	TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	270	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 25
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	6-322801-01

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM-AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7808 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 13,280

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 33

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM-AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7808
AHU NUMBER: FC-1
AHU LOCATION: ADMIN
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 37

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,500
CFM-CLG: 6,500
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 33
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM-AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7808
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 809BWI
BLR CAP OUTPUT (BTUH): 411,000
BLR CAP INPUT (BTUH): 528,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 33
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 125 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM-AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7808
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: FC'S

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 33
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
RESET CONTROLS: N
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM-AMS

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7808
BLDG NAME: ADMIN & SUPPORT BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: STORAGE
SOURCE OF HEATING:
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 63

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG:
PUMP MODEL:

SCHEDULE

DAYS SCHEDULE NO: 33
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM-AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7808
BLDG NAME: ADMIN & SUPPORT BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: FC-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	30A0CS15	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	52.5	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	14.4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 33
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7810
BLDG NAME: ENL BARRACKS W/O DIN

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: Y
CONDITIONED SQFT: 41,843

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

Suspect ACM located on DHW storage tanks

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7810
AHU NUMBER: AHU-1
AHU LOCATION: MER NORTH
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL: L0815
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-33-1260-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	DUAL TEMP WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7810
AHU NUMBER: AHU-2
AHU LOCATION: MER SOUTH
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL: L0815
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-331260-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	DUAL TEMP WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7810
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 20

BOILER MFG: KEWANEE
UNIT MODEL: M-235-KX
BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7810
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 60-15
BLR CAP OUTPUT (BTUH): 1,939,200
BLR CAP INPUT (BTUH): 2,424,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7810
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

HW PUMP

PUMP TAG:		**PUMP HP:**		**PUMP MFG:**	
PUMP SERVICE:				**PUMP MODEL:**	

HW PUMP

PUMP TAG:		**PUMP HP:**		**PUMP MFG:**	
PUMP SERVICE:				**PUMP MODEL:**	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7810
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7810
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7810
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

○ ☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-4
PUMP HP: 3
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7810
BLDG NAME: ENL BARRACKS W/O DIN
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: VESTIBULES, TOILETS
SOURCE OF HEATING: BLR-1
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 20

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: RELIANCE
PUMP MODEL: 442775-GT

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3 WAY PNEUMATIC CONTROL VALVE IM MER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7810
BLDG NAME: ENL BARRACKS W/O DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU'S & FC'S

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	BOHN
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	4
CHILLER SERIAL NO:	9836-1	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	7.2
CHILLER AMPS:	300	TOWER FAN HP:	1.5
CHILLER PH:	0		
CHILLER CAP (TONS):	70		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1.5	PUMP MFG:	AURORA
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7812 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 41,843

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON HW STORAGE TANKS.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7812
AHU NUMBER: AHU-1
AHU LOCATION: MER NORTH
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL: L0815
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-33-1260-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7812
AHU NUMBER: AHU-2 — AHU LOCATION: MER SOUTH
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500 — CFM-CLG: 3,500
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM — UNIT MODEL: L0815
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-331260-03 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: OTHER
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7812
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HIGH PRESS STEAM (ABOVE 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 20

BOILER MFG: KEWANEE
UNIT MODEL: M-235-KX

BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7812 — BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE — BLR CAP OUTPUT (BTUH): 242,400
UNIT MODEL: 60-15 — BLR CAP INPUT (BTUH): 290,880

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC — RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7812
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7812
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
RESET CONTROLS: N
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7812
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7812
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-4
PUMP HP: 3
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7812
BLDG NAME: ENL BARRACKS W/O DIN
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: VESTIBULES, TOILETS
SOURCE OF HEATING: BLR-1
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 20

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: RELIANCE
PUMP MODEL: 442775-GT

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3 WAY PNEUMATIC CONTROL VALVE IN MER FOR HW

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7812
BLDG NAME: ENL BARRACKS W/O DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU & FC

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	BOHN
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	4
CHILLER SERIAL NO:	9836-1	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	7.2
CHILLER AMPS:	300	TOWER FAN HP:	3
CHILLER PH:	0		
CHILLER CAP (TONS):	73.5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1.5	PUMP MFG:	AURORA
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7814 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 41,843

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

ACM abatement has been completed.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7814
AHU NUMBER: AHU-1
AHU LOCATION: MER NORTH
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL: L0815
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-33-1260-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	DUAL TEMP. WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7814
AHU NUMBER: AHU-2
AHU LOCATION: MER SOUTH
REFRIG SYS # SRVNG AHU: CH-2
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL: L0815
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-331260-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	DUAL TEMP WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7814
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 20

BOILER MFG: KEWANEE
UNIT MODEL: M-235-KX

BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7814
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 60-15
BLR CAP OUTPUT (BTUH): 1,939,200
BLR CAP INPUT (BTUH): 2,424,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7814
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7814
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7814
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7814
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-4
PUMP HP: 3
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7814
BLDG NAME: ENL BARRACKS W/O DIN
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: VESTIBULES, TOILETS
SOURCE OF HEATING: BLR-1
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 20

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: RELIANCE
PUMP MODEL: 442775-GT

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3 WAY PNEUMATIC CONTROL VALVE IN MER

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7814
BLDG NAME: ENL BARRACKS W/O DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU'S & FC'S

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	BOHN
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	4
CHILLER SERIAL NO:	9836-1	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	7.2
CHILLER AMPS:	300	TOWER FAN HP:	1.5
CHILLER PH:	0		
CHILLER CAP (TONS):	70		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1.5	PUMP MFG:	AURORA
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:**
LOCATION: FT. RILEY, KS **PREPARED BY:**

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7816 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N **CONDITIONED SQFT:** 41,843
GAS METER: Y
SUSPECT ACM: Y

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON STEAM PIPING

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7816
AHU NUMBER: AHU-1
AHU LOCATION: MER NORTH
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHUM
UNIT MODEL: L0815
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-33-1260-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7816
AHU NUMBER: AHU-2
AHU LOCATION: MER SOUTH
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL: L0815
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-331260-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7816
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 20

BOILER MFG: KEWANEE
UNIT MODEL: M-235-KX
BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7816
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 60-15
BLR CAP OUTPUT (BTUH): 242,400
BLR CAP INPUT (BTUH): 290,880

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7816
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7816
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7816
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7816
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-4
PUMP HP: 3
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7816
BLDG NAME: ENL BARRACKS W/O DIN
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: VESTIBULES, TOILETS
SOURCE OF HEATING: BLR-1
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 20

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: RELIANCE
PUMP MODEL: 442775-GT

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS: 3 WAY PNEUMATIC CONTROL VALVE IN MER FOR HW

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7816
BLDG NAME: ENL BARRACKS W/O DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU & FC

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	BOHN
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	4
CHILLER SERIAL NO:	9836-1	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	7.2
CHILLER AMPS:	300	TOWER FAN HP:	1.5
CHILLER PH:	0		
CHILLER CAP (TONS):	73.5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS: GAS METER

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1.5	PUMP MFG:	AURORA
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7818 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 41,843

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7818
AHU NUMBER: AHU-1 — AHU LOCATION: MER NORTH
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500 — CFM-CLG: 3,500
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: K164838
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-331260-03 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: OTHER
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7818
AHU NUMBER: AHU-2
AHU LOCATION: MER SOUTH
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: HALLWAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,500
CFM-CLG: 3,500
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: AIRTHERM
UNIT MODEL: L0815
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-331260-03
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 10
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: OTHER
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7818
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: KEWANEE
UNIT MODEL: 3-5-508
BLR CAP OUTPUT (BTUH): 2,350,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 180 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7818
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: OSAGE
UNIT MODEL: 3-5-265
BLR CAP OUTPUT (BTUH): 212,000
BLR CAP INPUT (BTUH): 254,400

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 7.5 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7818
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 5C-184-KMA

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7818
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 3
PUMP MFG: PACER
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 0941716004

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7818
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3
PUMP HP: 3
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: 6-312509-01

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7818
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

○ ☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-4
PUMP HP: 3
PUMP MFG: PACER
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7818
BLDG NAME: ENL BARRACKS W/O DIN
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: VESTIBULES, TOILETS
SOURCE OF HEATING: BLR-1
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 20

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: RELIANCE
PUMP MODEL: 442775-GT

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF RAD. CONTROLS:
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7818 BLDG NAME: ENL BARRACKS W/O DIN

REF. UNIT NUMBER/TAG: CH-1 LOCATION (MER#): MER

AHU'S SERVED: FAN COILS

UNIT TYPE AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:	9836-1	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	0.46
CHILLER AMPS:	112	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	38	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	CW-1	PUMP HP:	1.5	PUMP MFG:	
PUMP SERVICE:				PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:**
LOCATION: FT. RILEY, KS **PREPARED BY:**

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7820 **BLDG NAME:** BN ADMIN & CLRM

ELECTRIC METER: N **CONDITIONED SQFT:** 6,673
GAS METER: N
SUSPECT ACM: Y

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 24

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

SUSPECT ACM ON PIPING AND FITTINGS

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE:
LOCATION: FT. RILEY, KS — PREPARED BY:

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7820
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 6,490 — CFM-CLG: 6,490
MIN %OA: 30 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 24 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7820
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: AJAX
UNIT MODEL: WG450
BLR CAP OUTPUT (BTUH): 360,000
BLR CAP INPUT (BTUH): 450,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 24
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: CENTURY
PUMP SERVICE: HW PUMP
PUMP MODEL: 8-332736-GR

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7820 **BLDG NAME:** BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CH-1 **LOCATION (MER#):** OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	502CS25	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	4.8
CHILLER AMPS:	0	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	20.5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 24 **MONTHS SCHEDULE NO:** 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 101194
LOCATION: FT. RILEY, KS — PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7824 **BLDG NAME:** BN ADMIN & CLRM

ELECTRIC METER: N **CONDITIONED SQFT:** 12,246
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 101194
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7824
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICES/CLASSROOMS
% OF BLDG AREA HEATED: 28

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 4,818
CFM-CLG: 4,818
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: MZ-10
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: LINCOLN
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: TV2547
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 101194
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7824
AHU NUMBER: AHU-2 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 44

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 7,155 — CFM-CLG: 7,155
MIN %OA: 15 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: MZ-14
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 101194
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7824
AHU NUMBER: AHU-3
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICES/CLASSROOMS
% OF BLDG AREA HEATED: 28

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 4,818
CFM-CLG: 4,818
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: MZ-10
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: LINCOLN
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: TV2547
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 101194
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7824
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: THERMO-PAK
UNIT MODEL: GW-1125X
BLR CAP OUTPUT (BTUH): 900,000
BLR CAP INPUT (BTUH): 1,125,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 130 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1
PUMP MFG: CENTURY
PUMP SERVICE: HW PUMP
PUMP MODEL: 6-312500-05

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 101194
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7824
BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1,2,3

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	CGACC806RLNJJ423ADGPWM	# OF TOWER FANS:	8
CHILLER SERIAL NO:	J92A80193	TOWER FAN V:	200
CHILLER V:	200	TOWER FAN AMPS:	3
CHILLER AMPS:	162	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	71.3		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	PACER
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	0041716025

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7826 **BLDG NAME:** CLINIC W/O BEDS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 3,841

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 12

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	8	8	8	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

SUSPECT ACM LOCATED ON BOILER AND AHU DUCTWORK

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7826
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 86

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 3,230
CFM-CLG: 3,230
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: MZ-8
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON ELEC
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 2L184TSR27BBW
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 12
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	8	8	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 55
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7826
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 14

BOILER MFG: THERMO-PAK
UNIT MODEL: GWA-344X
BLR CAP OUTPUT (BTUH): 275,000
BLR CAP INPUT (BTUH): 344,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 12
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	8	8	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 130 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7826
BLDG NAME: CLINIC W/O BEDS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:		TOWER MFG:	TSI
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	4.8
CHILLER AMPS:	42.8	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	10		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 12
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	8	8	8	8	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7832 **BLDG NAME:** GYMNASIUM

ELECTRIC METER: N **CONDITIONED SQFT:** 20,694
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 42

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7832
AHU NUMBER: FC-1
AHU LOCATION: WOMEN AND MENS SHOWER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SHOWERS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,250
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.12
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 62
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7832
AHU NUMBER: FC-2
AHU LOCATION: WOMENS AND MENS SHOWER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SHOWERS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,250
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.12
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 62
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7832
AHU NUMBER: HV-1
AHU LOCATION: GYMNASIUM CEILING
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,500
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7832
AHU NUMBER: HV-2
AHU LOCATION: GYMNASIUM CEILING
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,500
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7832
AHU NUMBER: HV-3
AHU LOCATION: GYMNASIUM CEILING
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,500
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7832
AHU NUMBER: HV-4 — AHU LOCATION: GYMNASIUM CEILING
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,500 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7832
AHU NUMBER: HV-5 — AHU LOCATION: GYMNASIUM CEILING
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: GYMNASIUM
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,500 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 42 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7832
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: LOCHINVAR
UNIT MODEL: PBN0250
BLR CAP OUTPUT (BTUH): 220,000
BLR CAP INPUT (BTUH): 250,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 42
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7832
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: BLDG. HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: BURNHAM
UNIT MODEL: 4FL-563A-40-G-PF
BLR CAP OUTPUT (BTUH): 4,720,000
BLR CAP INPUT (BTUH): 5,900,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 42
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	6	6	9
REQ STOP:	19	21	21	21	21	21	19

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 10 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AMS/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7834 **BLDG NAME:** REGIMENTAL HQ BLDG

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 9,904

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AMS/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7834
AHU NUMBER: FC-1
AHU LOCATION: THROUGHOUT BLDG.
REFRIG SYS # SRVNG AHU:
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,200
CFM-CLG: 11,200
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AMS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7834
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

◉ ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: AJAX
UNIT MODEL: WGFD-700
BLR CAP OUTPUT (BTUH): 560,000
BLR CAP INPUT (BTUH): 700,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 170 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AMS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7834
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: BALDOR
PUMP SERVICE: DTW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AMS/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7834
BLDG NAME: REGIMENTAL HQ BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED:

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	TRANE
CHILLER MODEL:	CG30E	# OF TOWER FANS:	1
CHILLER SERIAL NO:	591568	TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	3
CHILLER PH:	0		
CHILLER CAP (TONS):	30		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	52	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	US ELEC.
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	C533

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7836 **BLDG NAME:** BN ADMIN & CLRM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 12,246

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7836
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: OFFICES/CLASSROOMS
% OF BLDG AREA HEATED: 28

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 4,818 — CFM-CLG: 4,818
MIN %OA: 20 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: MZ-10
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7836
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 44

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 7,155
CFM-CLG: 7,155
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: MZ-14
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7836
AHU NUMBER: AHU-3 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: OFFICES/ CLASS ROOMS
% OF BLDG AREA HEATED: 28

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 4,818 — CFM-CLG: 4,818
MIN %OA: 20 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: MZ-10
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: LINCOLN — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: TV2547 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 2 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7836
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: THERMO PACK
UNIT MODEL: GW-1125X
BLR CAP OUTPUT (BTUH): 900,000
BLR CAP INPUT (BTUH): 1,125,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 130 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1
PUMP MFG: CENTURY
PUMP SERVICE: HW PUMP
PUMP MODEL: 6-312500-05

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7836
BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1,2,3

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	CGACC806RLNJJ423ADGPWM	# OF TOWER FANS:	8
CHILLER SERIAL NO:		TOWER FAN V:	200
CHILLER V:	200	TOWER FAN AMPS:	0
CHILLER AMPS:	162	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	71.3		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	3	PUMP MFG:	PACER
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	OOR17160HS

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7842 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 41,843

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON STEAM PIPING

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7842
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: 3-5-508
BLR CAP OUTPUT (BTUH): 2,340,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 180 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS: 1 HP FORCED DRAFT FAN MOTOR ON BURNER

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: F133

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7842
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: DHW

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 3-5-265
BLR CAP OUTPUT (BTUH): 212,000
BLR CAP INPUT (BTUH): 254,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 7.5 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS: COND PUMP 1/2 HP

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7842
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS: RESET CONTROL DISABLED

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 1.5
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: DAB0309

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7842
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 1
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: P63DAA3038

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7842
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3
PUMP HP: 5
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: U032/R10R259R073F

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7842
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-4
PUMP HP: 5
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: U032/R10R259R073F

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7842
BLDG NAME: ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: FAN COILS

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:		TOWER MFG:	SNYDER GENERAL
CHILLER MODEL:		# OF TOWER FANS:	10
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	0	TOWER FAN AMPS:	4
CHILLER AMPS:	0	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	72.5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	U.S. ELECTRIC
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7844 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 41,843

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON STEAM PIPING

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7844
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

◉ ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 3-5-508
BLR CAP OUTPUT (BTUH): 2,340,000
BLR CAP INPUT (BTUH): 2,938,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 180 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS: 1HP FORCED DRAFTG FAN MOTOR

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7844
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 4FL-240-40-LB

BLR CAP OUTPUT (BTUH): 407,100
BLR CAP INPUT (BTUH): 488,520

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 9 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS: 3/4 HP FAN MOTOR

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7844
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 1.5
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: DAB0309

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7844
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 1
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: P63DAA3038

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7844
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3
PUMP HP: 5
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: U032/R10R259R073F

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7844
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-4
PUMP HP: 5
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: U032/R10R259RO73F

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7844
BLDG NAME: ENL BARRACKS W/O DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: FAN COILS
UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	SC2CB70	# OF TOWER FANS:	6
CHILLER SERIAL NO:	58712223	TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7846 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 41,843

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON STEAM PIPING

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7846
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: 3-5-508
BLR CAP OUTPUT (BTUH): 2,340,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 180 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS: 1 HP FORCED DRAFT FAN MOTOR OLN BURNER

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: F133

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7846
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 3-5-265
BLR CAP OUTPUT (BTUH): 212,000
BLR CAP INPUT (BTUH): 254,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 7.5 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7846
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 1.5
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: DAB0309

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7846
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 1
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: P63DAA3038

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/10/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7846 — BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3 — PUMP HP: 5 — PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP — PUMP MODEL: U632/R10R259R073F

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7846
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-4
PUMP HP: 5
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: U632/R10R259R073F

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7846
BLDG NAME: ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: FAN COILS

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	MCQUAY	TOWER MFG:	SNYDER GENERAL
CHILLER MODEL:	WHR080D	# OF TOWER FANS:	10
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	0	TOWER FAN AMPS:	4
CHILLER AMPS:	153	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	72.5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
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CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	U.S. ELECTRIP
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	P63DAC3040

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7848 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 41,843

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7848
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: 3-5-508
BLR CAP OUTPUT (BTUH): 2,340,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 180 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7848
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 3-5-265
BLR CAP OUTPUT (BTUH): 212,000
BLR CAP INPUT (BTUH): 254,400
COMMENTS: DHW BOILER

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 7.5 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7848
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 1.5
PUMP MFG:
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7848
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 1
PUMP MFG:
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7848
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3
PUMP HP: 5
PUMP MFG:
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7848
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-4
PUMP HP: 5
PUMP MFG:
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AS/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7848
BLDG NAME: ENL BARRACKS W/O DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: FAN COILS

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TDI
CHILLER MODEL:	SE2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:	1-89-13965-3	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	0.46
CHILLER AMPS:	112	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	38	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7850 **BLDG NAME:** ENL BARRACKS W/AS

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: Y

CONDITIONED SQFT: 41,843

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON STEAM PIPING

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7850
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: KEWANEE
UNIT MODEL: 3-5-508

BLR CAP OUTPUT (BTUH): 2,340,000
BLR CAP INPUT (BTUH): 2,938,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 180 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS: 1 HP FORCED DRAFT BURNER FAN MOTORS ON EACH

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: F133

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7850
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: DHW

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: OSAGE
UNIT MODEL: 3-5-265
BLR CAP OUTPUT (BTUH): 212,000
BLR CAP INPUT (BTUH): 254,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 7.5 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS: CONDENSATE PUMP 1/2 HP LEAKING

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7850
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 1.5
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: DAB0309

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7850
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-3
PUMP HP: 5
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: V032/R10R259R073F

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7850
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-2
PUMP HP: 1
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: P63DAA3038

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7850
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE: ALL

○ ☐ BOILER
BOILER TAG: DTWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-4
PUMP HP: 5
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: V032/R10R259R073F

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7850
BLDG NAME: ENL BARRACKS W/AS

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: FAN COILS
UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	MCQUAY	TOWER MFG:	SNYDER GENERAL
CHILLER MODEL:	WHR080D	# OF TOWER FANS:	10
CHILLER SERIAL NO:	5PF0189100	TOWER FAN V:	208
CHILLER V:	0	TOWER FAN AMPS:	4
CHILLER AMPS:	153	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	72.5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	U.S. ELECTRIC
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	P63DAC3040

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7852 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 13,280

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7852
AHU NUMBER: FC-1
AHU LOCATION: ADMIN
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 37

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,500
CFM-CLG: 6,500
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7852
BOILER RM LOCATION:

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 4FL-63-45-LB

BLR CAP OUTPUT (BTUH): 469,000
BLR CAP INPUT (BTUH): 586,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 120 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7852
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7852
BLDG NAME: ADMIN & SUPPORT BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: STORAGE
SOURCE OF HEATING:
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 63

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: CENTURY
PUMP MODEL: 8-129386-0

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7852
BLDG NAME: ADMIN & SUPPORT BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE SOUTH
AHU'S SERVED: FC'S

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	30A0CS15	# OF TOWER FANS:	2
CHILLER SERIAL NO:	S-91-A22974	TOWER FAN V:	
CHILLER V:	208	TOWER FAN AMPS:	
CHILLER AMPS:	52.5	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	14.4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: NONE

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7852
BLDG NAME: ADMIN & SUPPORT BLDG

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED:

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	HAMC-40485V	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	24.4	TOWER FAN HP:	0.25
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7854
BLDG NAME: BN HQ BLDG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N
CONDITIONED SQFT: 13,493

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 25

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7854
AHU NUMBER: AHU-1
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 32

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,400
CFM-CLG: 6,400
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE CLIMATE CHANGER
UNIT MODEL: L-14
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON ELEC
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 7D182HGS7028AA
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 25
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 90
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7854
AHU NUMBER: AHU-2
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU:
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 32

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,600
CFM-CLG: 6,600
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE CLIMATE CHARGER
UNIT MODEL: L-14
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 7E182TTFS7028A
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 25
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 90
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7854
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 36

BOILER MFG: OSAGE
UNIT MODEL: 3-5-1023
BLR CAP OUTPUT (BTUH): 818,400
BLR CAP INPUT (BTUH): 1,023,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 25
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 7.5 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7854
BLDG NAME: BN HQ BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: BLDG PERIMETER
SOURCE OF HEATING: BLR-1
SERVES AREA: ALL
RADIATION UNIT TYPE: HW
% AREA HTG: 36

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: BALDOR
PUMP MODEL:

SCHEDULE

DAYS SCHEDULE NO: 25
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL: 3-WAY VALVE HW RESET AT BOILER/CONVERTER
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW/AJN

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7854
BLDG NAME: BN HQ BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU 1&2
UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	TSI
CHILLER MODEL:	SC2CD70	# OF TOWER FANS:	6
CHILLER SERIAL NO:	9836-3	TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	270	TOWER FAN HP:	1
CHILLER PH:	0		
CHILLER CAP (TONS):	73.8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 25
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	5	5	5	5	5	0
REQ STOP:	0	20	20	20	20	20	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	Y	TEMP LITE LOW:	Y	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	CENTURY
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	6-322801-01

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7856
BLDG NAME: ENL PERS DIN

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: Y
CONDITIONED SQFT: 13,493

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 23

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

SUSPECT ACM LOCATED ON BOILER FLUE.

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7856
AHU NUMBER: AHU-1
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: DINNING
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,000
CFM-CLG: 7,000
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM/BUSH
UNIT MODEL: HAH-80
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-322465-01
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	STEAM	☒
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 70
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 70
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 70
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 70
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7856
AHU NUMBER: AHU-2
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: DINNING
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,250
CFM-CLG: 7,250
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAMN/BUSH
UNIT MODEL: HAH-80
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: BALDOR
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	STEAM	☒
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 60
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7856
AHU NUMBER: HV-1
AHU LOCATION: MEZZ
REFRIG SYS # SRVNG AHU:
SERVES AREA: KITCHEN
% OF BLDG AREA HEATED: 20

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: 11400
UNIT MODEL: 0
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 60
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7856
AHU NUMBER: HV-2
AHU LOCATION: ABOVE CEILING KITCHEN
REFRIG SYS # SRVNG AHU:
SERVES AREA: KITCHEN
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,600
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: DUNHAM/BUSH
UNIT MODEL: HAH-32
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6C145TTDR7033B
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 23
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7856
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT
BLR/CONVERTER SERVES AREA OR SERVICE:

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

(○) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 17

BOILER MFG: PAWNEE
UNIT MODEL: A-250
BLR CAP OUTPUT (BTUH): 6,900,000
BLR CAP INPUT (BTUH): 8,625,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7856
BOILER RM LOCATION: MEZZ

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: BB RADIATION

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HTHW
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 17

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 2,200,000
BLR CAP INPUT (BTUH): 2,200,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 23
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: U.S. ELECTRICAL
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7856
BLDG NAME: ENL PERS DIN

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1, 2

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	MCQUAY PERTEX
CHILLER MODEL:	SC2CD80S	# OF TOWER FANS:	6
CHILLER SERIAL NO:	7995-4	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	25
CHILLER AMPS:	135	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	71		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 23
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	6	5	5	5	5	5	6
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	5	PUMP MFG:	DAYTON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	2N937-H

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7858
BLDG NAME: ADMIN & SUPPORT BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y
CONDITIONED SQFT: 13,280

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

SUSPECT ACM LOCATED ON HW EXPANSION TANK

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7858
AHU NUMBER: FC-1
AHU LOCATION: ADMIN
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ADMIN
% OF BLDG AREA HEATED: 37

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,500
CFM-CLG: 6,500
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 7858
BLDG NAME: ADMIN & SUPPORT BLDG
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: STORAGE
SOURCE OF HEATING:
SERVES AREA:
RADIATION UNIT TYPE: HW
% AREA HTG: 63

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: GE
PUMP MODEL: 5K43KG4497

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7858
BLDG NAME: ADMIN & SUPPORT BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: FC-1
UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TSI	TOWER MFG:	
CHILLER MODEL:	30A0CS15	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	
CHILLER V:	208	TOWER FAN AMPS:	
CHILLER AMPS:	52.5	TOWER FAN HP:	11
CHILLER PH:	0		
CHILLER CAP (TONS):	14.4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7865 **BLDG NAME:** UNIT CHAPEL

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 8,718

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 40

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7865
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-2
SERVES AREA: NAVE
% OF BLDG AREA HEATED: 55

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 10,000
CFM-CLG: 10,000
MIN %OA: 22
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: U S ELECTRIC
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: A907/S07S125R01
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 40
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7865
AHU NUMBER: FC-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICES/ ACTIVITY ROOM
% OF BLDG AREA HEATED: 45

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,390
CFM-CLG: 4,390
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.75
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HW	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 40
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7865
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: THERMO-PAK
UNIT MODEL: GW-11-25X
BLR CAP OUTPUT (BTUH): 900,000
BLR CAP INPUT (BTUH): 1,125,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 40
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 145 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG: CENTURY
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7865
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

(●) ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 40
MONTH SECHDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: CENTURY
PUMP SERVICE: DUAL TEMP WATER
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7865
BLDG NAME: UNIT CHAPEL

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): MER
AHU'S SERVED: FC-1
UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	BOHN
CHILLER MODEL:	CG150	# OF TOWER FANS:	3
CHILLER SERIAL NO:	591571	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	4.6
CHILLER AMPS:	56	TOWER FAN HP:	1
CHILLER PH:	3		
CHILLER CAP (TONS):	12		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 40
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	Y	TEMP GAUGES:	Y	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/4/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7865
BLDG NAME: UNIT CHAPEL

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:		TOWER MFG:	TRANE
CHILLER MODEL:		# OF TOWER FANS:	3
CHILLER SERIAL NO:		TOWER FAN V:	208
CHILLER V:	0	TOWER FAN AMPS:	2.3
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	30		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 40
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	8	9	9	9	9	9	9
REQ STOP:	22	16	16	22	16	16	12

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7866 **BLDG NAME:** THEATER W/DRESS RM

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 11,098

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 50

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	18	0	0	0	18	18	18
REQ STOP:	24	0	0	0	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7866
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: AUDITORIUM/STAGE
% OF BLDG AREA HEATED: 90

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 14,500 — CFM-CLG: 14,500
MIN %OA: 20 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: TYPE 25
SUPPLY FAN HP: 10 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GE — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 5K215AD205B — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☒

SCHEDULE

DAY SCHEDULE NO: 50 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	18	0	0	0	18	18	18
REQ STOP:	24	0	0	0	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: Y — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7866
AHU NUMBER: AHU-2
AHU LOCATION: PROJECTION ROOM
REFRIG SYS # SRVNG AHU: ACCU-1
SERVES AREA: PROJECTION ROOM
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 1,800
MIN %OA: 15
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 50
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	18	0	0	0	18	18	18
REQ STOP:	24	0	0	0	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7866
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: AMERICAN STD.
UNIT MODEL: PFA505
BLR CAP OUTPUT (BTUH): 786,000
BLR CAP INPUT (BTUH): 982,500

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 50
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	18	0	0	0	18	18	18
REQ STOP:	24	0	0	0	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 125 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.25
PUMP MFG: B & G
PUMP SERVICE: HW PUMP
PUMP MODEL: M95171

HW PUMP

PUMP TAG: 2
PUMP HP: 0.25
PUMP MFG: ARMSTRONG
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7866
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 50
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	18	0	0	0	18	18	18
REQ STOP:	24	0	0	0	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-1
PUMP HP: 1
PUMP MFG: U. S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: F443200202

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 7866
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 50
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	18	0	0	0	18	18	18
REQ STOP:	24	0	0	0	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: HWP-2
PUMP HP: 1
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: F443200201

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7866
BLDG NAME: THEATER W/DRESS RM

REF. UNIT NUMBER/TAG: ACCU-1
LOCATION (MER#): OUTSIDE/ROOF
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 50
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	18	0	0	0	18	18	18
REQ STOP:	24	0	0	0	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7866 — BLDG NAME: THEATER W/DRESS RM

REF. UNIT NUMBER/TAG: CH-1 — LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	TRANE
CHILLER MODEL:		# OF TOWER FANS:	4
CHILLER SERIAL NO:	3H16170	TOWER FAN V:	208
CHILLER V:	208	TOWER FAN AMPS:	7.3
CHILLER AMPS:	144	TOWER FAN HP:	1.5
CHILLER PH:	0		
CHILLER CAP (TONS):	30		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 50 — MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	18	0	0	0	18	18	18
REQ STOP:	24	0	0	0	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7900 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 20,943

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 32

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7900
AHU NUMBER: AHU-1 — AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,600 — CFM-CLG: 0
MIN %OA: 15 — MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT — UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7900
AHU NUMBER: AHU-2
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICE/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7900
AHU NUMBER: AHU-3
AHU LOCATION: NEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7900
AHU NUMBER: AHU-4
AHU LOCATION: NEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICE/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7900
AHU NUMBER: AHU-5 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: OFFICES/BAY
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,200 — CFM-CLG: 0
MIN %OA: 15 — MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT — UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7900
AHU NUMBER: AHU-6
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7900
AHU NUMBER: MAU-1
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7900
AHU NUMBER: MAU-2
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEM
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7900
AHU NUMBER: MAU-3
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7900
AHU NUMBER: RAD-1 — AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU: — SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: INFRARED RADIANT HEATERS — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7900
AHU NUMBER: RAD-2 — AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU: — SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: INFRARED RADIANT HEATERS — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.33 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7920 **BLDG NAME:** VEH MNT SHOP DS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 124,553

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 55

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-1 — SERVES AREA: OFFICES - WING A
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,200 — CFM-CLG: 1,200
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS - FIRES; 27,000 BTUH INPUT; 21,600 BTUH OUTPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 55 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-2
SERVES AREA: OFFICES WING B
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,575
CFM-CLG: 1,575
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED; 45,000 BTUH INPUT; 36,700 BTUH OUTPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	GAS	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: AHU-3
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-3
SERVES AREA: OFFICES - WING C
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,200
CFM-CLG: 1,200
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED; 27,000 BTUH INPUT; 21,600 BTUH OUTPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: AHU-4
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-4
SERVES AREA: OFFICES - WING D
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,200
CFM-CLG: 1,200
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS - FIRED; 27,000 BTUH INPUT; 21,600 OUTPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: AHU-5 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-5 — SERVES AREA: OFFICES - WING E
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,200 — CFM-CLG: 1,200
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED; 27,000 BTUH INPUT; 21,600 BTUH OUTPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 55 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: AHU-6
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-6
SERVES AREA: OFFICES - WING A
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,200
CFM-CLG: 1,200
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED; 27,000 BTUH INPUT; 21,600 BTUH OUTPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: AHU-7
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: ACCU-7
SERVES AREA: OFFICES - CENTRAL
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,700
CFM-CLG: 3,700
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: HV-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SUPPLY - WING A
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED; 439,000 BTUH INPUT; 352,000 BTUH OUTPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: HV-2 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: SUPPLY - WING B
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,000 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: HV-3
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SUPPLY - WING C
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED; 395,000 BTUH INPUT; 316,000 BTUH OUTPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: HV-4
AHU LOCATION: MEZZANINE

REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SUPPLY - WING D
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED; 395,000 BTUH INPUT; 316,000 BTUH OUTPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N

MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N

IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: HV-5
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SUPPLY - WING E
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: MAU-1 — AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: WING A
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: MAKE-UP AIR UNIT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 20,250 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED; 1,541,000 BTUH INPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: MAU-2
AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: WING B
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 19,625
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: RELIANCE
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED; 1,493,000 BTUH INPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: MAU-3 — AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: WING C
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: MAKE-UP AIR UNIT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 20,900 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED; 1,590,000 BTUH

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: MAU-4
AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: WING D
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 20,900
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED; 1,590,000 BTUH INPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: MAU-5
AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: WING E
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 20,900
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED; 1,590,000 BTUH INPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: MAU-6 — AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: CENTRAL
% OF BLDG AREA HEATED: 2.5

AHU UNIT TYPE: MAKE-UP AIR UNIT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 14,500 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL: 5
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED; 1,101,000 BRHU INPUT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: RAD-1
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 7.6

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: RAD-2
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 7.6

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: RAD-3
AHU LOCATION: MAINT. BAYS

REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 7.6

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: RAD-4
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 7.6

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: RAD-5
AHU LOCATION: MAINT. BAYS

REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 7.6

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7920
AHU NUMBER: UH-1
AHU LOCATION: CEILING MOUNTED
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: CENTRAL
% OF BLDG AREA HEATED: 18

AHU UNIT TYPE: GAS-FIRED UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 20,240
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: TOT. FOR 11 UHS; BTUH INPUT: 1,650,000; BTUH OUTPUT: 1,320,000

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 55
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7920
BLDG NAME: VEH MNT SHOP DS

REF. UNIT NUMBER/TAG: ACCU-1
LOCATION (MER#): ROOF
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	OAUA-252-B	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	230
CHILLER V:	0	TOWER FAN AMPS:	2.2
CHILLER AMPS:	0	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 55
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7920
BLDG NAME: VEH MNT SHOP DS

REF. UNIT NUMBER/TAG: ACCU-2
LOCATION (MER#): ROOF
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	OAUA-252-B	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	230
CHILLER V:	0	TOWER FAN AMPS:	2.2
CHILLER AMPS:	0	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 55
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7920
BLDG NAME: VEH MNT SHOP DS

REF. UNIT NUMBER/TAG: ACCU-3
LOCATION (MER#): ROOF
AHU'S SERVED: AHU-3

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38FGA30500	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.25
CHILLER PH:	0		
CHILLER CAP (TONS):	3		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 55
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7920
BLDG NAME: VEH MNT SHOP DS

REF. UNIT NUMBER/TAG: ACCU-4
LOCATION (MER#): ROOF
AHU'S SERVED: AHU-4

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	HEAT WAVE	TOWER MFG:	
CHILLER MODEL:	CTD 904	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 55
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7920
BLDG NAME: VEH MNT SHOP DS

REF. UNIT NUMBER/TAG: ACCU-5
LOCATION (MER#): ROOF
AHU'S SERVED: AHU-5

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	OAUA-252-B	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	230
CHILLER V:	0	TOWER FAN AMPS:	2.2
CHILLER AMPS:	0	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 55
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7920
BLDG NAME: VEH MNT SHOP DS

REF. UNIT NUMBER/TAG: ACCU-6
LOCATION (MER#): ROOF
AHU'S SERVED: AHU-6

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	OAUA-252-B	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	230
CHILLER V:	0	TOWER FAN AMPS:	2.2
CHILLER AMPS:	0	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 55
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/17/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 7920 — BLDG NAME: VEH MNT SHOP DS

REF. UNIT NUMBER/TAG: ACCU-7 — LOCATION (MER#): ROOF
AHU'S SERVED: AHU-7

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	230
CHILLER V:	0	TOWER FAN AMPS:	2.2
CHILLER AMPS:	0	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 55 — MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7940 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: Y

CONDITIONED SQFT: 22,405

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 32

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7940
AHU NUMBER: AHU-1
AHU LOCATION: MEZZANINE

REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,600
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7940
AHU NUMBER: AHU-2
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7940
AHU NUMBER: AHU-3
AHU LOCATION: NEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7940
AHU NUMBER: AHU-4
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7940
AHU NUMBER: AHU-5
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,200
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7940
AHU NUMBER: AHU-6
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,600
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 30

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED RESIDENTIAL FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7940
AHU NUMBER: MAU-1
AHU LOCATION: BAYS

REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7940
AHU NUMBER: MAU-2
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7940
AHU NUMBER: MAU-3 — AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: BAYS
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,200 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS — UNIT MODEL:
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7940
AHU NUMBER: RAD-1
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7940
AHU NUMBER: RAD-2
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 7960 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 20,245

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 32

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7960
AHU NUMBER: AHU-1
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7960
AHU NUMBER: AHU-2
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7960
AHU NUMBER: AHU-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7960
AHU NUMBER: AHU-4
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7960
AHU NUMBER: AHU-5
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,200
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7960
AHU NUMBER: AHU-6
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7960
AHU NUMBER: MAU-1
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7960
AHU NUMBER: MAU-2 — AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEM — UNIT MODEL: GTDM400
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7960
AHU NUMBER: MAU-3 — AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: BAYS
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,200 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS — UNIT MODEL:
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7960
AHU NUMBER: RAD-1
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 7960
AHU NUMBER: RAD-2
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8002 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 22,700

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8006 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N **CONDITIONED SQFT:** 22,700
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8006
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: STEAM FROM CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 650,000
BLR CAP INPUT (BTUH): 650,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8006
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 0
BLR CAP INPUT (BTUH): 0
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 5
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: F8074-01239L154R033

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8008
BLDG NAME: ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 11,549

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8008
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 325,000
BLR CAP INPUT (BTUH): 325,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8008
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: SPACE HEAT

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC/ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: F8074-01239L154R033

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8010 **BLDG NAME:** DET DAY ROOM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 2,100

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 6

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	8
REQ STOP:	0	21	21	21	21	21	11

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8010
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: PLANT
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,770
CFM-CLG: 2,770
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: L-6
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 2N934K
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 6
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	8
REQ STOP:	0	21	21	21	21	21	11

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8012
BLDG NAME: ENL BARRACKS W/O DIN

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N
CONDITIONED SQFT: 22,700

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8012
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 650,000
BLR CAP INPUT (BTUH): 650,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8012
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 3
PUMP MFG: GOULD
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8014 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 11,549

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8014
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 325,000
BLR CAP INPUT (BTUH): 325,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8014
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 1.5
PUMP MFG:
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:** 10/11/94
LOCATION: FT. RILEY, KS **PREPARED BY:** JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8020 **BLDG NAME:** DET DAY ROOM

ELECTRIC METER: N **CONDITIONED SQFT:** 2,100
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 6

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	8
REQ STOP:	0	21	21	21	21	21	11

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8020
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,770
CFM-CLG: 2,770
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: L-6
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 2N934R
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 6
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	8
REQ STOP:	0	21	21	21	21	21	11

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8021 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 23,676

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 9

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8021
AHU NUMBER: FC-1
AHU LOCATION: ABOVE CEILING
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: ADMINISTRATIVE OFFICES
% OF BLDG AREA HEATED: 37

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 18,000
CFM-CLG: 18,000
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 9
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8021
AHU NUMBER: HV-1
AHU LOCATION: SUPPLY ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY ROOM
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 9
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8021
AHU NUMBER: HV-2
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 9
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8021
AHU NUMBER: HV-3
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 9
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8021
AHU NUMBER: HV-4
AHU LOCATION: SUPPLY ROOM
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY ROOM
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 9
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8021
AHU NUMBER: HV-5
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 9
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8021
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HTHW
CONV HT SOURCE: STEAM FROM CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 450,000
BLR CAP INPUT (BTUH): 450,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 9
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: 160 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS: O.A. TEMP HW RESET

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8021
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 9
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	9	9	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 2
PUMP MFG: MARATHON
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: WVM143TTDR5336AA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8023 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 23,676

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 4

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8023
AHU NUMBER: FC-1
AHU LOCATION: ABOVE CEILING
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: ADMIN OFFICES
% OF BLDG AREA HEATED: 37

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 18,000
CFM-CLG: 18,000
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8023
AHU NUMBER: HV-1
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8023
AHU NUMBER: HV-2 — AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU: — SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8023
AHU NUMBER: HV-3 — AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU: — SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8023
AHU NUMBER: HV-4
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8023
AHU NUMBER: HV-5
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8023
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HTHW
CONV HT SOURCE: STEAM FROM CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 586,000
BLR CAP INPUT (BTUH): 586,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: 160 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8023
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1
PUMP MFG: MARATHON
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/05/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8025 **BLDG NAME:** BN ADMIN & CLRM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 12,000

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 31

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	18	18	18	18	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/05/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8025
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: N.W. CLASSROOMS
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 0
CFM-CLG: 2,610
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: MZ-43
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: EB145TTDR79227
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 31
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: CW control valve serves all 3 AHU's

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/05/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8025
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: CENTRAL CLASSROOMS
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 5

CFM-HTG: 0
CFM-CLG: 4,850
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 31
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: CW control valve serves all 3 AHU's

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/05/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8025
AHU NUMBER: AHU-3
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: EAST ADMIN & CLASSROOMS
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 0
CFM-CLG: 2,610
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: MZ-6
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: EB145TTDR7927A
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 31
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? Y
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS: CW control valve serves all 3 AHU's

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/05/94
PREPARED BY: AJN/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8025
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 100

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 780,000
BLR CAP INPUT (BTUH): 780,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 31
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/05/94
PREPARED BY: AJN/CWW

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 8025
BLDG NAME: BN ADMIN & CLRM
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: ALL
SOURCE OF HEATING: CV-1
SERVES AREA: ALL
RADIATION UNIT TYPE: HW
% AREA HTG: 0

RADIATION PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: GOULD
PUMP MODEL: 179260

SCHEDULE

DAYS SCHEDULE NO: 31
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: PNEUMATIC
RADIATION CONTROL: NONE
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/05/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8025 BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CWP-1 LOCATION (MER#):

AHU'S SERVED: AHU'S 1,2 & 3

UNIT TYPE CENTRAL PLANT

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 31 MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1	PUMP MFG:	MARATHON
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JMAJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8037 **BLDG NAME:** BN ADMIN & CLRM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 12,000

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 38

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8037
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: NW CLASSROOMS
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 0
CFM-CLG: 2,610
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: MZ-6
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: EB245TTDR7927A
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 38
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8037
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: OFFICES/CLASSROOMS
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 0
CFM-CLG: 4,850
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: MZ-10
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: EC182TTDR767AB
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 38
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8037
AHU NUMBER: AHU-3
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: N.W. CLASSROOMS
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 3

CFM-HTG: 0
CFM-CLG: 2,610
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: MZ-6
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: EB145TTDR7927A
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 38
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JMAJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8037
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: STEAM FROM CENTRAL PLANT

● CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 100

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 780,000
BLR CAP INPUT (BTUH): 780,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 38
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1.5
PUMP MFG: GOULD
PUMP SERVICE:
PUMP MODEL: 179260

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JMAJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8037
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☒ BOILER
BOILER TAG: HWP-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

% AREA HEATED BY BB RADIATION: 100

NAMEPLATE

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 38
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.75
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: 6001292-763

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JMAJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8037 BLDG NAME: BN ADMIN & CLRM

REF. UNIT NUMBER/TAG: CWP-1 LOCATION (MER#): MER

AHU'S SERVED: AHU'S 1,2 & 3

UNIT TYPE CENTRAL PLANT

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 38 MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1	PUMP MFG:	BELL AND GOSSETT
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	178028CP

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8038 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 22,700

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8038
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 650,000
BLR CAP INPUT (BTUH): 650,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8038
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 5
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8040 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 11,549

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 0

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	6	6	6	6	6	0
PRES STOP:	0	15	15	15	15	15	0
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	15	15	15	15	15	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8040
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: STEAM FROM CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 325,000
BLR CAP INPUT (BTUH): 325,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8040
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

● CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 1.5
PUMP MFG:
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8042 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 22,700

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8042
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 650,000
BLR CAP INPUT (BTUH): 650,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: AJN/JM

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8042
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 5
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8044 **BLDG NAME:** APP INSTR BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 2,470

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 15

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	7	7	7	7	7	7
REQ STOP:	23	23	23	23	23	23	23

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8044
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: RESIDENTIAL FURNACE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,500
CFM-CLG: 1,500
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: CARRIER SUPER SAVER
UNIT MODEL: 5888B080-CC-SER
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 15
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	7	7	7	7	7	7
REQ STOP:	23	23	23	23	23	23	23

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: DUAL SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8044
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: RESIDENTIAL FURNACE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,500
CFM-CLG: 1,500
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: CARRIER SUPER SAVER
UNIT MODEL: 5888B080-CC
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED FURNACE

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 15
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	7	7	7	7	7	7
REQ STOP:	23	23	23	23	23	23	23

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: DUAL SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/10/94
PREPARED BY: JM/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8044
BLDG NAME: APP INSTR BLDG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU 1 & 2

UNIT TYPE: RECIPROCATING WITH AIR COOLED CONDENSING UNIT

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38BA009550	# OF TOWER FANS:	1
CHILLER SERIAL NO:	0788C00291	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	3.6
CHILLER AMPS:	39.6	TOWER FAN HP:	0.31
CHILLER PH:	0		
CHILLER CAP (TONS):	8.5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 15
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	7	7	7	7	7	7
REQ STOP:	23	23	23	23	23	23	23

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8046 **BLDG NAME:** DET DAY ROOM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 2,100

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 6

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	8
REQ STOP:	0	21	21	21	21	21	11

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8046
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT — SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,770 — CFM-CLG: 2,770
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: L-6
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 2N934R — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 6 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	8
REQ STOP:	0	21	21	21	21	21	11

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8048
BLDG NAME: ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N
CONDITIONED SQFT: 11,549

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8048 — BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 325,000
BLR CAP INPUT (BTUH): 325,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 — MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC — RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: — PUMP HP: — PUMP MFG:
PUMP SERVICE: — PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8048
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 1.5
PUMP MFG:
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8050 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 11,549

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8050
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 325,000
BLR CAP INPUT (BTUH): 325,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8050
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

% AREA HEATED BY BB RADIATION:

NAMEPLATE

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 1.5
PUMP MFG:
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8052 **BLDG NAME:** SR ENL QTRS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 22,700

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8052
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 650,000
BLR CAP INPUT (BTUH): 650,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8052
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 5
PUMP MFG: US ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8054 **BLDG NAME:** ENL BARRACKS W/O DIN

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 11,549

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8054
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: STEAM FROM CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 325,000
BLR CAP INPUT (BTUH): 325,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8054
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 1
PUMP MFG: U.S. ELECTRIC
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: F8074-01239L154R033

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8056 **BLDG NAME:** DET DAY ROOM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 2,100

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 6

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	8
REQ STOP:	0	21	21	21	21	21	11

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8056
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,770
CFM-CLG: 2,770
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: L-6-SR-76E00435
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: DAYTON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 2N934K
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 6
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	8
REQ STOP:	0	21	21	21	21	21	11

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8057 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 23,676

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 4

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8057
AHU NUMBER: FC-1 — AHU LOCATION: ABOVE CEILING
REFRIG SYS # SRVNG AHU: CENTRAL PLANT — SERVES AREA: ADMIN OFFICES
% OF BLDG AREA HEATED: 37

AHU UNIT TYPE: FAN COILS - 2 PIPE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 18,000 — CFM-CLG: 18,000
MIN %OA: 20 — MAX %OA: 20

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 4 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8057
AHU NUMBER: HV-1
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8057
AHU NUMBER: HV-2
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8057
AHU NUMBER: HV-3
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8057
AHU NUMBER: HV-4
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8057
AHU NUMBER: HV-5
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8057
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: STEAM FROM CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 450,000
BLR CAP INPUT (BTUH): 450,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: 160 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8057
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: DTWP-1
PUMP HP: 1
PUMP MFG: MARATHON
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL: WVM143TTDR5336AA

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8059 **BLDG NAME:** ADMIN & SUPPORT BLDG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 23,676

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 4

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8059
AHU NUMBER: FC-1
AHU LOCATION: ABOVE CEILING
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: ADMIN OFFICES
% OF BLDG AREA HEATED: 37

AHU UNIT TYPE: FAN COILS - 2 PIPE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 18,000
CFM-CLG: 18,000
MIN %OA: 20
MAX %OA: 20

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8059
AHU NUMBER: HV-1
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8059
AHU NUMBER: HV-2
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/11/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8059
AHU NUMBER: HV-3
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8059
AHU NUMBER: HV-4
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8059
AHU NUMBER: HV-5
AHU LOCATION: SUPPLY AREA
REFRIG SYS # SRVNG AHU:
SERVES AREA: SUPPLY AREA
% OF BLDG AREA HEATED: 12.6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 4
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8059
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: STEAM FROM CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 586,000
BLR CAP INPUT (BTUH): 586,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: 160 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/11/94
PREPARED BY: JM/AJN

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8059
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: DTWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 4
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS:
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 1
PUMP MFG: MARATHON
PUMP SERVICE: DUAL TEMP PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8063
BLDG NAME: ENL PERS DIN

ELECTRIC METER: Y
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 18,313

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 47

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	5	5	5	5	5	7
REQ STOP:	18	18	18	18	18	18	18

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8063
AHU NUMBER: AHU-1 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: C. PLANT — SERVES AREA: KITCHEN/DINING
% OF BLDG AREA HEATED: 75

AHU UNIT TYPE: MULTI ZONE — NUMBER OF ZONES IF MZ UNIT: 6

CFM-HTG: 21,700 — CFM-CLG: 21,700
MIN %OA: 20 — MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL: N/A
SUPPLY FAN HP: 10 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	STEAM	☒
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 47 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	5	5	5	5	5	7
REQ STOP:	18	18	18	18	18	18	18

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: Y

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8063
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: C. PLANT
SERVES AREA: DINING ROOM
% OF BLDG AREA HEATED: 25

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 41,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: L63
SUPPLY FAN HP: 15
RET/EXH FAN HP: 15
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: N/A
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 47
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	5	5	5	5	5	7
REQ STOP:	18	18	18	18	18	18	18

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8063 — BLDG NAME: ENL PERS DIN

REF. UNIT NUMBER/TAG: CWP-1 — LOCATION (MER#): MER
AHU'S SERVED: AHU-1

UNIT TYPE: CENTRAL PLANT

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 47 — MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	7	5	5	5	5	5	7
REQ STOP:	18	18	18	18	18	18	18

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8065 **BLDG NAME:** CLINIC W/O BEDS

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 3,848

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 1

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8065
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: C. PLANT
SERVES AREA: ALL
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 2

CFM-HTG: 3,000
CFM-CLG: 3,000
MIN %OA: 32
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: MZ-6
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: EC182TTDR7627A
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 1
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8065
BOILER RM LOCATION: MER

BOILER UNIT

SOURCE OF BLDG HEAT

BLR/CONVERTER SERVES AREA OR SERVICE: AHU-1

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: STEAM FROM CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 450,000
BLR CAP INPUT (BTUH): 450,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 2
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8065
BLDG NAME: CLINIC W/O BEDS

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1
UNIT TYPE: CENTRAL PLANT

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 1
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	6	6	6	6	6	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JMAJN.AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8069 **BLDG NAME:** IN SW POOL/GYM

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 25,620

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 58

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	12	6	9
REQ STOP:	20	22	22	22	22	22	20

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JMAJN.AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8069
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: EXERCISE ROOM
% OF BLDG AREA HEATED: 9

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,190
CFM-CLG: 5,190
MIN %OA: 5
MAX %OA: 100

NAMEPLATE

UNIT MFG: CENTRAL AIRE
UNIT MODEL: L1016
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-322466-02
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 54
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JMAJN.AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8069
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CENTRAL PLANT
SERVES AREA: RACQUETBALL COURTS
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,125
CFM-CLG: 2,125
MIN %OA: 5
MAX %OA: 100

NAMEPLATE

UNIT MFG: CENTRAL AIRE
UNIT MODEL: L0613
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-33257702
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 54
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN.AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8069
AHU NUMBER: HRU-1
AHU LOCATION: SWIMMING POOL
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SWIMMING POOL
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: HEAT RECOVERY UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 9,000
CFM-CLG: 0
MIN %OA: 50
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 5
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 58
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	12	6	9
REQ STOP:	20	22	22	22	22	22	20

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JMAJN.AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8069
AHU NUMBER: HRU-2
AHU LOCATION: SWIMMING POOL
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: SWIMMING POOL
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: HEAT RECOVERY UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 9,000
CFM-CLG: 0
MIN %OA: 50
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 5
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 58
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	12	6	9
REQ STOP:	20	22	22	22	22	22	20

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN.AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8069
AHU NUMBER: HV-1 — AHU LOCATION: BASKETBALL GYM
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: BASKETBALL GYM
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,750 — CFM-CLG: 0
MIN %OA: 20 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL: L1420
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-322466-02 — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 54 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JMAJN.AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8069
AHU NUMBER: HV-2
AHU LOCATION: BASKETBALL GYM
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BASKETBALL GYM
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,750
CFM-CLG: 0
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL: L1420
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-322466-02
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 54
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JMAJN.AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8069
AHU NUMBER: HV-3
AHU LOCATION: BASKETBALL GYM
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BASKETBALL GYM
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,750
CFM-CLG: 0
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL: L1420
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: B-322466-02
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 54
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JMAJN.AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8069
AHU NUMBER: HV-4
AHU LOCATION: BASKETBALL GYM
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BASKETBALL GYM
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,750
CFM-CLG: 0
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL: L1420
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 6-322466-02
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 54
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN.AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8069
AHU NUMBER: HV-9 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: 1ST FLOOR LOCKER ROOMS
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: HEATING AND VENTILATING — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,000 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: CENTRAL AIRE — UNIT MODEL: L1715
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 1.5
SUPPLY FAN MTR MFG: BALDOR — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: M3218T — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 54 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JMAJN.AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8069
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 1,000,000
BLR CAP INPUT (BTUH): 1,000,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 58
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	9	6	6	6	12	6	9
REQ STOP:	20	22	22	22	22	22	20

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 7.5
PUMP MFG: DOERR
PUMP SERVICE: HW PUMP
PUMP MODEL: 91720AE78T

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JMAJN.AMS

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 8069
BLDG NAME: IN SW POOL/GYM
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: SWIMMING POOL
SOURCE OF HEATING: CENTRAL PLANT DIRECT
SERVES AREA: SWIMMING POOL
RADIATION UNIT TYPE: HW
% AREA HTG: 6

SCHEDULE

DAYS SCHEDULE NO: 54
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JMAJN.AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8069
BLDG NAME: IN SW POOL/GYM

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#): MER
AHU'S SERVED: AHU-1,2

UNIT TYPE: OTHER

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 54
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: 1
PUMP HP: 7.5
PUMP MFG:
PUMP SERVICE: CW PUMP (Chilled Water)
PUMP MODEL:

CW and CNW PUMPS

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/12/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN.AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8069 — BLDG NAME: IN SW POOL/GYM

REF. UNIT NUMBER/TAG: CWP-2 — LOCATION (MER#): MER
AHU'S SERVED:

UNIT TYPE

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 54 — MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	CWP-2	PUMP HP:	0.5	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: JMAJN.AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8069
BLDG NAME: IN SW POOL/GYM

REF. UNIT NUMBER/TAG: CWP-3
LOCATION (MER#): MER
AHU'S SERVED:

UNIT TYPE

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 54
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	10	9	9	9	9	9	9
REQ STOP:	19	21	21	21	21	21	21

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	CWP-3	PUMP HP:	0.5	PUMP MFG:	
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/14/94
PREPARED BY: AJN/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8071 **BLDG NAME:** RGT HQ BUILD

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 9,963

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 2

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/14/94
PREPARED BY: AJN/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8071
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: PLANT
SERVES AREA:
% OF BLDG AREA HEATED: 100

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 10

CFM-HTG: 12,450
CFM-CLG: 12,450
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE CLIMATE CHANGER
UNIT MODEL: MZ-17
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: MARATHON
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: EB215TTDR7359B
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	STEAM	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☒

SCHEDULE

DAY SCHEDULE NO: 2
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 68
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 68
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 11/14/94
PREPARED BY: AJN/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8071
BLDG NAME: RGT HQ BUILD

REF. UNIT NUMBER/TAG: CWP-1
LOCATION (MER#): MER
AHU'S SERVED:

UNIT TYPE

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	0
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	0		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 2
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	17	17	17	17	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	1	PUMP MFG:	B&G
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	M98550-E48

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS **EMC NO:** 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 **DATE:**
LOCATION: FT. RILEY, KS **PREPARED BY:**

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8073 **BLDG NAME:** CH ENERGY PLANT

ELECTRIC METER: N **CONDITIONED SQFT:** 4,070
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 10

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8073
BOILER RM LOCATION:

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: MOHAWK
UNIT MODEL: 4-5-2502
BLR CAP OUTPUT (BTUH): 17,250,000
BLR CAP INPUT (BTUH): 21,562,500
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 100 DEG F or PSIG
TYPE OF BURNER CONTROLS: O2 TRIM
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8073
BOILER RM LOCATION:

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE:

SOURCE OF BLDG HEAT

○ ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: MED PRESS STEAM (15# TO 125#)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: MOHAWK
UNIT MODEL: 4-5-2502
BLR CAP OUTPUT (BTUH): 17,250,000
BLR CAP INPUT (BTUH): 21,562,500
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTH SECHDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 100 DEG F or PSIG
TYPE OF BURNER CONTROLS: O2 TRIM
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8073 BLDG NAME: CH ENERGY PLANT

REF. UNIT NUMBER/TAG: CH-1 LOCATION (MER#): MER

AHU'S SERVED:

UNIT TYPE ABSORPTION W/ WATER SIDE COOLING TOWER

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	MARLEY
CHILLER MODEL:	ABSCO4F4S2C	# OF TOWER FANS:	2
CHILLER SERIAL NO:	L6C6175	TOWER FAN V:	460
CHILLER V:	0	TOWER FAN AMPS:	48.5
CHILLER AMPS:	0	TOWER FAN HP:	40
CHILLER PH:	0		
CHILLER CAP (TONS):	200		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10 MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	CW-1	PUMP HP:	125	PUMP MFG:	AURORA
PUMP SERVICE:	CW PUMP (Chilled Water)			PUMP MODEL:	449560

CW and CNW PUMPS

PUMP TAG:	CNW-1	PUMP HP:	50	PUMP MFG:	
PUMP SERVICE:	COND WATER PUMP (CNW)			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE:
PREPARED BY:

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8073
BLDG NAME: CH ENERGY PLANT

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): MER
AHU'S SERVED:

UNIT TYPE: ABSORPTION W/ WATER SIDE COOLING TOWER

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	MARLEY
CHILLER MODEL:	ABSCO4FWS2C	# OF TOWER FANS:	1
CHILLER SERIAL NO:	L6C6175	TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	48.5
CHILLER AMPS:	0	TOWER FAN HP:	40
CHILLER PH:	0		
CHILLER CAP (TONS):	200		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 10
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	0	0	0	0	0	0
REQ STOP:	24	24	24	24	24	24	24

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: PNEUMATIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG: CW-1
PUMP HP: 125
PUMP MFG: AURORA
PUMP SERVICE: CW PUMP (Chilled Water)
PUMP MODEL:

CW and CNW PUMPS

PUMP TAG: CNW-1
PUMP HP: 50
PUMP MFG:
PUMP SERVICE: COND WATER PUMP (CNW)
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8100 **BLDG NAME:** CONSOLIDATED MNT

ELECTRIC METER: N **CONDITIONED SQFT:** 224,927
GAS METER: Y
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 11

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-1
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: AREA 1
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 795
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.16
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: TRANE
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: RAUA-3004-MD
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-10
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 2
% OF BLDG AREA HEATED: 1

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,500
CFM-CLG: 0
MIN %OA: 40
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 64
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-11
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 5
% OF BLDG AREA HEATED: 1

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,350
CFM-CLG: 0
MIN %OA: 30
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: PCCA-0704-1C-A
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GOULD
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 64
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-12
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 6
% OF BLDG AREA HEATED: 1

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,000
CFM-CLG: 0
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: PCCA-0704-1C-AB
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: GOULD
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: 8-32578-01
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 64
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-13
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 7
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 19,760
CFM-CLG: 0
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: PCCA 33041CEAH
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: TRANE
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-14 — AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: AREA 7
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 14,780 — CFM-CLG: 0
MIN %OA: 35 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 10 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: Y — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-15
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 1
% OF BLDG AREA HEATED: 3

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 23,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: EXTHERMICS
UNIT MODEL:
SUPPLY FAN HP: 20
RET/EXH FAN HP: 15
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: HEAT RECOVERY UNIT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-16
AHU LOCATION:
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 4
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: EXOTHERMICS
UNIT MODEL: 1-8000 AL74
SUPPLY FAN HP: 5
RET/EXH FAN HP: 3
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: HEAT RECOVERY UNIT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-17
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 1
% OF BLDG AREA HEATED: 3

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 23,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 20
RET/EXH FAN HP: 15
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: HEAT RECOVERY UNIT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-18
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU:
SERVES AREA: AREA 2
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,420
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 10
RET/EXH FAN HP: 7.5
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: HEAT RECOVERY UNIT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-19
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 3
% OF BLDG AREA HEATED: 3

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 23,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 20
RET/EXH FAN HP: 15
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: HEAT RECOVERY UNIT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-2
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: AREA 2
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 600
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.16
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-20
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 3
% OF BLDG AREA HEATED: 3

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 23,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 20
RET/EXH FAN HP: 15
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: HEAT RECOVERY UNIT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-21
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 4
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 15
RET/EXH FAN HP: 3
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: HEAT RECOVERY UNIT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-22
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 5
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 15,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 15
RET/EXH FAN HP: 10
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: HEAT RECOVERY UNIT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-23
AHU LOCATION: ROOF

REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 5
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 25,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 20
RET/EXH FAN HP: 15
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: HEAT RECOVERY UNIT

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-24
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 2
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 35,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 20
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: KING NATIONAL A
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: MNGTDM 300/275
RET/EXH FAN MTR MODEL:
COMMENTS: OIL-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-24(2)
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 2
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 35,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 20
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: KING NATIONA AI
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: MNGTDM300/275
RET/EXH FAN MTR MODEL:
COMMENTS: OIL-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-25
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 7
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 10,500
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: MNGTDM85CRH
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: CENTURY
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: OIL-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-26
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 1
% OF BLDG AREA HEATED: 3

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 19,600
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 15
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: OIL-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-27
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 1
% OF BLDG AREA HEATED: 1

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: OIL-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-3 — AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: CH-3 — SERVES AREA: AREA 3
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 600
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.16 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11 — MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-4
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: CH-4
SERVES AREA: AREA 4
% OF BLDG AREA HEATED: 0

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 1,000
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.16
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-5
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: CH-5
SERVES AREA: AREA 5
% OF BLDG AREA HEATED: 1

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 725
CFM-CLG: 725
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.16
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-6
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: CH-6
SERVES AREA: AREA 6
% OF BLDG AREA HEATED: 3

AHU UNIT TYPE: VAV
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,045
CFM-CLG: 12,045
MIN %OA: 40
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL: CLIMATE CHANG
SUPPLY FAN HP: 15
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 64
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-7
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: CH-7
SERVES AREA: AREA 7
% OF BLDG AREA HEATED: 1

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,790
CFM-CLG: 3,790
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 64
MONTH SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-8
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU:
SERVES AREA: AREA 7
% OF BLDG AREA HEATED: 1

AHU UNIT TYPE: VAV
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,295
CFM-CLG: 6,295
MIN %OA: 50
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	CW	☐

SCHEDULE

DAY SCHEDULE NO: 64
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: AHU-9
AHU LOCATION: ROOF
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 1
% OF BLDG AREA HEATED: 1

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,000
CFM-CLG: 0
MIN %OA: 40
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 64
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	5	5	5	5	5	0
PRES STOP:	0	19	19	19	19	19	0
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: UH-1
AHU LOCATION: AREA 1
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 1
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: HW UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,440
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL:
SUPPLY FAN HP: 0.9
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: UH-2
AHU LOCATION: AREA 2
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 2
% OF BLDG AREA HEATED: 8

AHU UNIT TYPE: HW UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 38,674
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: UH-3 — AHU LOCATION: AREA 3
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: AREA 3
% OF BLDG AREA HEATED: 12

AHU UNIT TYPE: HW UNIT HEATER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 76,800 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL:
SUPPLY FAN HP: 6 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: UH-4
AHU LOCATION: AREA 4
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 4
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: HW UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 32,212
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL:
SUPPLY FAN HP: 0.9
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: UH-5
AHU LOCATION: AREA 5
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 5
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: HW UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 20,600
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL:
SUPPLY FAN HP: 1.8
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: UH-6
AHU LOCATION: AREA 6
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 6
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: HW UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 7,730
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL:
SUPPLY FAN HP: 2.4
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: UH-7 — AHU LOCATION: AREA 7
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: AREA 7
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: HW UNIT HEATER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 8,650 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE — UNIT MODEL:
SUPPLY FAN HP: 0.75 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
AHU NUMBER: UH-8
AHU LOCATION: AREA 8
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: AREA 8
% OF BLDG AREA HEATED: 1

AHU UNIT TYPE: HW UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,324
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL:
SUPPLY FAN HP: 0.25
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 11
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: KEWANEE
UNIT MODEL: L3W-150-KGO
BLR CAP OUTPUT (BTUH): 5,021,000
BLR CAP INPUT (BTUH): 6,278,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC/ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 160 DEG F or PSIG
TYPE OF BURNER CONTROLS: O2 TRIM

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-2
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG: KEWANEE
UNIT MODEL: L3W-150-KGO
BLR CAP OUTPUT (BTUH): 5,021,000
BLR CAP INPUT (BTUH): 6,278,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC/ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 160 DEG F or PSIG
TYPE OF BURNER CONTROLS: O2 TRIM
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 0.5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ZONE 1

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 10
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ZONE 2

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-2
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 2
PUMP HP: 10
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ZONE 3

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-3
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 3
PUMP HP: 7.5
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ZONE 4

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-4
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 4
PUMP HP: 15
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8100
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: MER

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-5
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 5
PUMP HP: 15
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8100
BLDG NAME: CONSOLIDATED MNT

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): ROOF
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	RAUA-3004-MD	# OF TOWER FANS:	2
CHILLER SERIAL NO:	J81C-0505-03A	TOWER FAN V:	115
CHILLER V:	208	TOWER FAN AMPS:	2.6
CHILLER AMPS:	19.5	TOWER FAN HP:	0.33
CHILLER PH:	1		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8100
BLDG NAME: CONSOLIDATED MNT

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): ROOF
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	19.5	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8100
BLDG NAME: CONSOLIDATED MNT

REF. UNIT NUMBER/TAG: CH-3
LOCATION (MER#): ZONE 3 NORTH
AHU'S SERVED: AHU-3

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	SAHB-B202-A	# OF TOWER FANS:	1
CHILLER SERIAL NO:	C81C-31524	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	19.5	TOWER FAN HP:	0.25
CHILLER PH:	1		
CHILLER CAP (TONS):	3		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8100
BLDG NAME: CONSOLIDATED MNT

REF. UNIT NUMBER/TAG: CH-4
LOCATION (MER#): ROOF
AHU'S SERVED: AHU-4

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	SAHB-B256-A	# OF TOWER FANS:	2
CHILLER SERIAL NO:	C81C-31529	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	15.1	TOWER FAN HP:	0.33
CHILLER PH:	3		
CHILLER CAP (TONS):	3		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8100
BLDG NAME: CONSOLIDATED MNT

REF. UNIT NUMBER/TAG: CH-5
LOCATION (MER#): ROOF
AHU'S SERVED: AHU-5

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	0
CHILLER AMPS:	15.1	TOWER FAN HP:	0.25
CHILLER PH:	3		
CHILLER CAP (TONS):	3		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8100
BLDG NAME: CONSOLIDATED MNT

REF. UNIT NUMBER/TAG: CH-6
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-6

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	4
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	30		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	
PUMP SERVICE:	CHILLED WATER			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8100
BLDG NAME: CONSOLIDATED MNT

REF. UNIT NUMBER/TAG: CH-7
LOCATION (MER#): ROOF
AHU'S SERVED: AHU-7

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	
CHILLER MODEL:	SACC-C104A	# OF TOWER FANS:	3
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	480	TOWER FAN AMPS:	0
CHILLER AMPS:	33.1	TOWER FAN HP:	0.5
CHILLER PH:	3		
CHILLER CAP (TONS):	15		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/CWW

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8100
BLDG NAME: CONSOLIDATED MNT

REF. UNIT NUMBER/TAG: CH-8
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-8

UNIT TYPE: AIR COOLED CONDENSING UNIT W/ CHW

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	4
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	24		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 11
MONTHS SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	16	16	16	16	16	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

CW and CNW PUMPS

PUMP TAG:	1	PUMP HP:	2	PUMP MFG:	
PUMP SERVICE:	CHILLED WATER			PUMP MODEL:	

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/JM/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8300 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: N **CONDITIONED SQFT:** 20,240
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 32

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/JM/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8300
AHU NUMBER: AHU-1
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SETBACK
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/JM/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8300
AHU NUMBER: AHU-2
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: RYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/JM/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8300
AHU NUMBER: AHU-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/JM/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8300
AHU NUMBER: AHU-4
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/JM/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8300
AHU NUMBER: AHU-5
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,200
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/JM/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8300
AHU NUMBER: AHU-6
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/ BAYS
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/JM/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8300
AHU NUMBER: MAU-1
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/JM/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8300
AHU NUMBER: MAU-2
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTSEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/JM/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8300
AHU NUMBER: MAU-3
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/JM/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8300
AHU NUMBER: RAD-1
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/12/94
PREPARED BY: AJN/JM/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8300
AHU NUMBER: RAD-2
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8320 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: N **CONDITIONED SQFT:** 20,240
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 32

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8320
AHU NUMBER: AHU-1
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICE/BAYS
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8320
AHU NUMBER: AHU-2 — AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800 — CFM-CLG: 0
MIN %OA: 15 — MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT — UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8320
AHU NUMBER: AHU-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8320
AHU NUMBER: AHU-4 — AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800 — CFM-CLG: 0
MIN %OA: 15 — MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT — UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8320
AHU NUMBER: AHU-5 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: — SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,200 — CFM-CLG: 0
MIN %OA: 15 — MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT — UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8320
AHU NUMBER: AHU-6 — AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,600 — CFM-CLG: 0
MIN %OA: 15 — MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT — UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8320
AHU NUMBER: MAU-1 — AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS — UNIT MODEL: GTDM400
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8320
AHU NUMBER: MAU-2 — AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS — UNIT MODEL: GTDM400
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8320
AHU NUMBER: MAU-3
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8320
AHU NUMBER: RAD-1 — AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU: — SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: INFRARED RADIANT HEATERS — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8320
AHU NUMBER: RAD-2
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8330 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: N **CONDITIONED SQFT:** 39,256
GAS METER: N
SUSPECT ACM: N

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 39

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8330
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 15

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,445
CFM-CLG: 3,455
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: CARRIER
UNIT MODEL: 40RR012550
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8330
AHU NUMBER: HV-1
AHU LOCATION: RM 120
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,420
CFM-CLG: 0
MIN %OA: 32
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8330
AHU NUMBER: MAU-1
AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAY
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,960
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8330
AHU NUMBER: MAU-2
AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,755
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8330
AHU NUMBER: UH-1
AHU LOCATION: MAINT-BAY EAST
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MINT. BAY EAST
% OF BLDG AREA HEATED: 30

AHU UNIT TYPE: HW UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 22,000
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.7
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8330
AHU NUMBER: UH-2
AHU LOCATION: MAINT. BAY WEST
REFRIG SYS # SRVNG AHU: NONT
SERVES AREA: MAINT BAY WEST
% OF BLDG AREA HEATED: 35

AHU UNIT TYPE: HW UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 26,400
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8330
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG: BURNHAM
UNIT MODEL: 4FW-277-40-G
BLR CAP OUTPUT (BTUH): 2,318,000
BLR CAP INPUT (BTUH): 2,898,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:

CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 20
PUMP MFG: BALDOR
PUMP SERVICE: HW PUMP
PUMP MODEL: ME514T

HW PUMP

PUMP TAG:
PUMP HP:
PUMP MFG:
PUMP SERVICE:
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8330
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: MAINT. BAYS

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG: HWP-1
BOILER TYPE:
FUEL TYPE:

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

○ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION:

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH):
BLR CAP INPUT (BTUH):
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 7.5
PUMP MFG: BALDOR
PUMP SERVICE: HW PUMP
PUMP MODEL: 103311T

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8330
BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: ACCU-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38AE012600	# OF TOWER FANS:	2
CHILLER SERIAL NO:	7696091	TOWER FAN V:	460
CHILLER V:	460	TOWER FAN AMPS:	2.3
CHILLER AMPS:	20	TOWER FAN HP:	0
CHILLER PH:	0		
CHILLER CAP (TONS):	8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8340
BLDG NAME: VEH MNT SHOP ORG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N
CONDITIONED SQFT: 20,240

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 32

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8340
AHU NUMBER: AHU-1
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 7

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8340
AHU NUMBER: AHU-2 — AHU LOCATION: MEZZNINE
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800 — CFM-CLG: 0
MIN %OA: 15 — MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT — UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8340
AHU NUMBER: AHU-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	GASN	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8340
AHU NUMBER: AHU-4
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,800
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8340
AHU NUMBER: AHU-5
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,200
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8340
AHU NUMBER: AHU-6
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU:
SERVES AREA: OFFICES/BAYS
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,600
CFM-CLG: 0
MIN %OA: 15
MAX %OA: 15

NAMEPLATE

UNIT MFG: BRYANT
UNIT MODEL: 394GAZ048100
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8340
AHU NUMBER: MAU-1
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8340
AHU NUMBER: MAU-2
AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAYS
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,120
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS
UNIT MODEL: GTDM400
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: Y
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8340
AHU NUMBER: MAU-3 — AHU LOCATION: BAYS
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: BAYS
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 12,200 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: KING AIR SYSTEMS — UNIT MODEL:
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/16/94
LOCATION: FT. RILEY, KS — PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8340
AHU NUMBER: RAD-1 — AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU: — SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: INFRARED RADIANT HEATERS — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/16/94
PREPARED BY: AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8340
AHU NUMBER: RAD-2
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 16

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 32
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	18	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	9	9	7	9	0
REQ STOP:	0	18	18	18	15	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8360 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: N
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 39,428

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 24

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8360
AHU NUMBER: AHU-1
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: MULTI ZONE
NUMBER OF ZONES IF MZ UNIT: 4

CFM-HTG: 2,460
CFM-CLG: 2,460
MIN %OA: 20
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 24
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8360
AHU NUMBER: HV-1
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAY
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,270
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 24
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8360
AHU NUMBER: HV-2
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAY
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,660
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 24
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8360
AHU NUMBER: HV-3
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAY
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,490
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 24
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8360
AHU NUMBER: HV-4
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAY
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,870
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 24
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8360
AHU NUMBER: HV-5
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAY
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 5,360
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 24
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8360
AHU NUMBER: HV-6
AHU LOCATION: MEZZANINE
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAY
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 9,540
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 24
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N

MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N

IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8360
AHU NUMBER: RAD-1
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 36

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 24
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8360
AHU NUMBER: RAD-2
AHU LOCATION: MAINT. BAYS
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAYS
% OF BLDG AREA HEATED: 24

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 24
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8360
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NO. 2 OIL

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 4,430,000
BLR CAP INPUT (BTUH): 5,537,500
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 24
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 10
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8360
BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: ACCU-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:		TOWER MFG:	
CHILLER MODEL:		# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	0	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	7		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 24
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	8	7	8	7	8	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8370 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 26,876

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 39

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8370
AHU NUMBER: AHU-1
AHU LOCATION: MER ON CEILING
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,180
CFM-CLG: 2,180
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: STERLING
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8370
AHU NUMBER: AHU-2
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-2
SERVES AREA: OFFICES/ STORAGE
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,750
CFM-CLG: 1,750
MIN %OA: 28
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8370
AHU NUMBER: HV-1
AHU LOCATION: 108
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES
% OF BLDG AREA HEATED: 15

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,900
CFM-CLG: 0
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8370
AHU NUMBER: HV-2
AHU LOCATION: 109
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: OFFICES/STORAGE
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,000
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8370
AHU NUMBER: MAU-1
AHU LOCATION: MAY CEILING
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: BAY
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,240
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8370
AHU NUMBER: RAD-1
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAY
% OF BLDG AREA HEATED: 40

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8370
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

○ ☐ BOILER
BOILER TAG:
BOILER TYPE:
FUEL TYPE:

☒ CONVERTER
CONVERTER TAG: CV-1
CONVERTER TYPE: STM TO HW
CONV HT SOURCE: STEAM FROM CENTRAL PLANT

◉ CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 0

BOILER MFG:
UNIT MODEL:
BLR CAP OUTPUT (BTUH): 400,000
BLR CAP INPUT (BTUH): 400,000
COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: PNEUMATIC
RESET CONTROLS: N
OPERATING SETPOINT: 0 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 3
PUMP MFG:
PUMP SERVICE: HW PUMP
PUMP MODEL:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8370
BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38EN048320	# OF TOWER FANS:	1
CHILLER SERIAL NO:	P607501	TOWER FAN V:	0
CHILLER V:	230	TOWER FAN AMPS:	2.5
CHILLER AMPS:	25	TOWER FAN HP:	0.25
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/17/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8370
BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	08AFP007500	# OF TOWER FANS:	1
CHILLER SERIAL NO:	3386G70589	TOWER FAN V:	0
CHILLER V:	208	TOWER FAN AMPS:	2.9
CHILLER AMPS:	26.7	TOWER FAN HP:	0.5
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8380 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: N
GAS METER: N
SUSPECT ACM: N

CONDITIONED SQFT: 73,400

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 39

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: AHU-1
AHU LOCATION: 202
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 2ND FLOOR SHOPS
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,100
CFM-CLG: 2,100
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: AHU-2 — AHU LOCATION: SPEC SHOP
REFRIG SYS # SRVNG AHU: CH-2 — SERVES AREA: 1ST FLOOR AREA A
% OF BLDG AREA HEATED: 1

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,520 — CFM-CLG: 1,520
MIN %OA: 5 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 2 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	ELECTRIC	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 39 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: AHU-3
AHU LOCATION: 202
REFRIG SYS # SRVNG AHU: CH-3
SERVES AREA: 2ND FLOOR SHOPS
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,100
CFM-CLG: 2,100
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: Y
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: AHU-4 — AHU LOCATION: 127
REFRIG SYS # SRVNG AHU: CH-4 — SERVES AREA: 1ST FLOOR AREA B
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,245 — CFM-CLG: 2,245
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 39 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: Y — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: AHU-5
AHU LOCATION: AREA C OFFICES
REFRIG SYS # SRVNG AHU: CH-5
SERVES AREA: AREA C OFFICES
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,305
CFM-CLG: 2,305
MIN %OA: 5
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: Y
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: AHU-6 — AHU LOCATION: 103
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: 1ST FLOOR AREA A
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 15,650 — CFM-CLG: 0
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 15 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: AHU-7
AHU LOCATION: 114
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: 1ST FLOOR AREA B
% OF BLDG AREA HEATED: 5

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 13,980
CFM-CLG: 0
MIN %OA: 5
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	GAS	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: MAU-1
AHU LOCATION: MAINT. BAY AREA
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: MAU-2
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: MAU-3 — AHU LOCATION: MAINT. BAY AREA
REFRIG SYS # SRVNG AHU: — SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: MAKE-UP AIR UNIT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,800 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 3 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: MAU-4
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,800
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: MAU-5
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 9,600
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: MAU-6
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 9,600
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: MAU-7
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: MAU-8
AHU LOCATION: BAY
REFRIG SYS # SRVNG AHU:
SERVES AREA: BAY AREA
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: RAD-1 — AHU LOCATION: MAINT. BAY - A
REFRIG SYS # SRVNG AHU: — SERVES AREA: MAINT. BAY - A
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: INFRARED RADIANT HEATERS — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 0.33 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: Y
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: RAD-2
AHU LOCATION: MAINT. BAY - B
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAY - B
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: RAD-3
AHU LOCATION: MAINT. BAY - C
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAY - C
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: Y
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8380
AHU NUMBER: RAD-4
AHU LOCATION: MAINT. BAY - D
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAY - D
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: N
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: Y
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8380
BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38N060630DL	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8380
BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: CH-2
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38N060630DL	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	3		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8380
BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: CH-3
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-3

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38N060630DL	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	5.5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8380
BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: CH-4
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-4

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38N060630DL	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8380
BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: CH-5
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-5

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38N0G0630DL	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8390
BLDG NAME: TAC EQUIP SHOP

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N
CONDITIONED SQFT: 24,755

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 51

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8390
AHU NUMBER: AHU-1
AHU LOCATION: MER
REFRIG SYS # SRVNG AHU: CH-1
SERVES AREA: 1ST 2ND FLOOR OFFICES
% OF BLDG AREA HEATED: 12

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,475
CFM-CLG: 3,475
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG: TRANE
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 51
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: PNEUMATIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8390
AHU NUMBER: HV-1
AHU LOCATION: 102
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: 1ST FLR OFFICES
% OF BLDG AREA HEATED: 12

AHU UNIT TYPE: HEATING AND VENTILATING
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 3,345
CFM-CLG: 0
MIN %OA: 33
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 51
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: Y
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8390
AHU NUMBER: MAU-1
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAY
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,700
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 51
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8390
AHU NUMBER: MAU-2
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAY
% OF BLDG AREA HEATED: 10

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,700
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☒
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 51
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/13/94
LOCATION: FT. RILEY, KS — PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8390
AHU NUMBER: UH-1 — AHU LOCATION: MAINT. BAY NORTH
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: MAINT. BAY NORTH
% OF BLDG AREA HEATED: 23

AHU UNIT TYPE: UNIT HEATER — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,200 — CFM-CLG: 0
MIN %OA: 0 — MAX %OA: 0

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 51 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8390
AHU NUMBER: UH-2
AHU LOCATION: MAINT. BAY SOUTH
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT BAY SOUTH
% OF BLDG AREA HEATED: 23

AHU UNIT TYPE: UNIT HEATER
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,200
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	HOT WATER	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 51
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

BOILER AND CONVERTER SURVEY OBSERVATIONS

BUILDING NUMBER: 8390
BOILER RM LOCATION: MER

BOILER UNIT

BLR/CONVERTER SERVES AREA OR SERVICE: ALL

SOURCE OF BLDG HEAT

(●) ☒ BOILER
BOILER TAG: BLR-1
BOILER TYPE: HW (UP TO 250 DEG)
FUEL TYPE: NAT. GAS

☐ CONVERTER
CONVERTER TAG:
CONVERTER TYPE:
CONV HT SOURCE:

( ) CENTRAL PLANT DIRECT

NAMEPLATE

% AREA HEATED BY BB RADIATION: 10

BOILER MFG: AJAX
UNIT MODEL: WGFD3250
BLR CAP OUTPUT (BTUH): 2,600,000
BLR CAP INPUT (BTUH): 3,250,000

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 51
MONTH SECHDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF BLR CONTROLS: ELECTRIC
RESET CONTROLS: Y
OPERATING SETPOINT: 190 DEG F or PSIG
TYPE OF BURNER CONTROLS:
CONTROLS COMMENTS:

HW PUMP

PUMP TAG: 1
PUMP HP: 15
PUMP MFG: U S ELECTRIC
PUMP SERVICE: HW PUMP
PUMP MODEL: GB06200151L021R060

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

PERIMETER RADIATION SURVEY OBSERVATIONS

BLDG NUMBER: 8390
BLDG NAME: TAC EQUIP SHOP
PER RAD (SYSTEM TAG) NO: RAD-1
RAD SYS LOCATION: PERIMETER OFFICES
SOURCE OF HEATING:
SERVES AREA: 1ST 2ND FLOORS
RADIATION UNIT TYPE: HW
% AREA HTG: 10

SCHEDULE

DAYS SCHEDULE NO: 51
MONTHS SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF RAD. CONTROLS: ELECTRIC
RADIATION CONTROL:
OCC HT SPACE SP: 0
UNOCC HT SPACE SP: 0
RESET CONTROL: N
CONTROL COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/13/94
PREPARED BY: JM/AJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8390
BLDG NAME: TAC EQUIP SHOP

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	TRANE	TOWER MFG:	COMPRESSOR
CHILLER MODEL:	RAUCB754B	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	480	TOWER FAN AMPS:	2.7
CHILLER AMPS:	12.3	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	8		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 51
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	7	7	7	7	7	0
REQ STOP:	0	18	18	18	18	18	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

BUILDING DATA SURVEY OBSERVATIONS

BLDG NUMBER: 8410 **BLDG NAME:** VEH MNT SHOP ORG

ELECTRIC METER: Y
GAS METER: Y
SUSPECT ACM: N

CONDITIONED SQFT: 73,233

BUILDING OCCUPANCY SCHEDULE

BUILDING SCHDULE NO: 39

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

REMARKS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: AHU-1 — AHU LOCATION: 202
REFRIG SYS # SRVNG AHU: CH-1 — SERVES AREA: 2ND FLOOR SHOPS
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,100 — CFM-CLG: 2,100
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 39 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0 — HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: AHU-2
AHU LOCATION: SPEC SHOP
REFRIG SYS # SRVNG AHU: CH-2
SERVES AREA: 1ST FOOR AREA A
% OF BLDG AREA HEATED: 1

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 1,520
CFM-CLG: 1,520
MIN %OA: 5
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 2
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: AHU-3 — AHU LOCATION: 2.02
REFRIG SYS # SRVNG AHU: CH-3 — SERVES AREA: 2ND FLOOR SHOPS
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,100 — CFM-CLG: 2,100
MIN %OA: 10 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 1.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 39 — MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: Y — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: AHU-4
AHU LOCATION: 127
REFRIG SYS # SRVNG AHU: CH-4
SERVES AREA: 1ST FLOOR AREA B
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,245
CFM-CLG: 2,245
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: AHU-5
AHU LOCATION: AREA C OFFICES
REFRIG SYS # SRVNG AHU: CH-5
SERVES AREA: AREA C OFFICES
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 2,305
CFM-CLG: 2,305
MIN %OA: 5
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 1.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	DX	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 3
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: AHU-6
AHU LOCATION: 103
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: 1ST FLOOR AREA A
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 15,650
CFM-CLG: 0
MIN %OA: 10
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.15
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: Y
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: AHU-7
AHU LOCATION: 114
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: 1ST FLOOR AREA B
% OF BLDG AREA HEATED: 13

AHU UNIT TYPE: SINGLE ZONE
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 13,980
CFM-CLG: 0
MIN %OA: 5
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 10
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: Y
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: MAU-1
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,200
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: MAU-2 — AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: MAKE-UP AIR UNIT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 11,200 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 7.5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: MAU-3
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,800
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: MAU-4
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 4,800
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 3
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: MAU-5
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 9,600
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: MAU-6
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 4

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 9,600
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 7.5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0

MIN OA DMPR CONTROL: N
MAX OA DMPR CONTROL: Y
RET AIR DMPR CONTROL: N
EXH AIR DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
ECONOMIZER WB CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
TIME CLOCK: N
TIME CLOCK OPERATIONAL? N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: MAU-7
AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE
SERVES AREA: MAINT. BAY AREA
% OF BLDG AREA HEATED: 6

AHU UNIT TYPE: MAKE-UP AIR UNIT
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,400
CFM-CLG: 0
MIN %OA: 100
MAX %OA: 100

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 5
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE:
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: MAU-8 — AHU LOCATION: MAINT. BAY
REFRIG SYS # SRVNG AHU: NONE — SERVES AREA: MAINT.BAY AREA
% OF BLDG AREA HEATED: 2

AHU UNIT TYPE: MAKE-UP AIR UNIT — NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 6,400 — CFM-CLG: 0
MIN %OA: 100 — MAX %OA: 100

NAMEPLATE

UNIT MFG: — UNIT MODEL:
SUPPLY FAN HP: 5 — RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG: — RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL: — RET/EXH FAN MTR MODEL:
COMMENTS: GAS-FIRED

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39 — MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC — THERMOSTAT TYPE:
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0 — COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0 — MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0 — OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0 — OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N — MIXED AIR DMPR CONTROL: N — IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: Y — ECONOMIZER DB CONTROL: N — TIME CLOCK: N
RET AIR DMPR CONTROL: N — ECONOMIZER WB CONTROL: N — TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: RAD-1
AHU LOCATION: MAINT. BAY - A
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAY - A
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: RAD-2
AHU LOCATION: MAINT. BAY - B
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAY - B
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP WINTR OCC: 0
PRESENT TEMP WINTR UNOCC: 0
PRESENT TEMP SUM OCC: 0
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DESCRIP:
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: RAD-3
AHU LOCATION: MAINT. BAY - C
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAY - C
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
PRESENT TEMP WINTR OCC: 0
HOT DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
COLD DECK DEG F: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

AIR HANDLING UNIT SURVEY OBSERVATIONS

BUILDING NUMBER: 8410
AHU NUMBER: RAD-4
AHU LOCATION: MAINT. BAY - D
REFRIG SYS # SRVNG AHU:
SERVES AREA: MAINT. BAY - D
% OF BLDG AREA HEATED: 14

AHU UNIT TYPE: INFRARED RADIANT HEATERS
NUMBER OF ZONES IF MZ UNIT: 0

CFM-HTG: 0
CFM-CLG: 0
MIN %OA: 0
MAX %OA: 0

NAMEPLATE

UNIT MFG:
UNIT MODEL:
SUPPLY FAN HP: 0.33
RET/EXH FAN HP: 0
SUPPLY FAN MTR MFG:
RET/EXH FAN MTR MFG:
SUPPLY FAN MTR MODEL:
RET/EXH FAN MTR MODEL:
COMMENTS:

COILS

Coil	Coil Type	Modulating Valve?
PREHEAT COIL:	NONE	☐
HEATING COIL:	NONE	☐
REHEAT COIL:	NONE	☐
HUMIDIFIER:	NONE	☐
COOLING COIL:	NONE	☐

SCHEDULE

DAY SCHEDULE NO: 39
MONTH SCHEDULE NO: 1
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒

CONTROLS

TYPE OF CONTROLS: ELECTRIC
THERMOSTAT TYPE: SINGLE SETPOINT
HOT DECK DEG F: 0
PRESENT TEMP WINTR OCC: 0
COLD DECK DEG F: 0
PRESENT TEMP WINTR UNOCC: 0
MIXED AIR DEG F: 0
PRESENT TEMP SUM OCC: 0
OTHER SETPOINT DESCRIP:
PRESENT TEMP SUM UNOCC: 0
OTHER SETPOINT DEG F: 0

MIN OA DMPR CONTROL: N
MIXED AIR DMPR CONTROL: N
IMPLEMENT DEMAND LIMIT CNTRLS? N
MAX OA DMPR CONTROL: N
ECONOMIZER DB CONTROL: N
TIME CLOCK: N
RET AIR DMPR CONTROL: N
ECONOMIZER WB CONTROL: N
TIME CLOCK OPERATIONAL? N
EXH AIR DMPR CONTROL: N

OTHER CONTROLS DESCR:
CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8410
BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: CH-1
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-1

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38EN060630DL	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI.	N	TEMP LITE HI:	N	OTHER INDICATIONS:	
PRESS LITE LOW:	N	TEMP LITE LOW:	N		
PRESS GAUGES:	N	TEMP GAUGES:	N		

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS — EMC NO: 1406-001
CLIENT CNTRCT #: DACA 01-94-D-0033 — DATE: 10/14/94
LOCATION: FT. RILEY, KS — PREPARED BY: JMAJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8410 — BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: CH-2 — LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38EN060630DL	# OF TOWER FANS:	1
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	3		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39 — MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1409-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8410
BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: CH-3
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-2

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38EN060630DL	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	5.5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATORS:	
PRESS LITE LOW:	N	TEMP LITE LOW:	N		
PRESS GAUGES:	N	TEMP GAUGES:	N		

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8410
BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: CH-4
LOCATION (MER#): OUTSIDE
AHU'S SERVED: AHU-4

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38EN060630DL	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	5		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39
MONTHS SCHEDULE NO: 2
SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:
PRESS LITE LOW:	N	TEMP LITE LOW:	N	
PRESS GAUGES:	N	TEMP GAUGES:	N	

CONTROLS COMMENTS:

EMC ENGINEERS, INC.

PROJECT NAME: EEAP, FEASIBILITY STUDY FOR INSTALLATION OF UMCS
CLIENT CNTRCT #: DACA 01-94-D-0033
LOCATION: FT. RILEY, KS

EMC NO: 1406-001
DATE: 10/14/94
PREPARED BY: JMAJN/AMS

REFRIGERATION EQUIPMENT SURVERY OBSERVATIONS

BLDG NUMBER: 8410 BLDG NAME: VEH MNT SHOP ORG

REF. UNIT NUMBER/TAG: CH-5 LOCATION (MER#): OUTSIDE

AHU'S SERVED: AHU-5

UNIT TYPE: AIR COOLED CONDENSING UNIT, DX

NAMEPLATE

CHILLER MFG:	CARRIER	TOWER MFG:	
CHILLER MODEL:	38EN060630DL	# OF TOWER FANS:	2
CHILLER SERIAL NO:		TOWER FAN V:	0
CHILLER V:	460	TOWER FAN AMPS:	0
CHILLER AMPS:	0	TOWER FAN HP:	0.33
CHILLER PH:	0		
CHILLER CAP (TONS):	4		

COMMENTS:

SCHEDULE

DAYS SCHEDULE NO: 39 MONTHS SCHEDULE NO: 2

SCHEDULE COMMENTS:

	SUN:	MON:	TUE:	WED:	THUR:	FRI:	SAT:
PRES START:	0	0	0	0	0	0	0
PRES STOP:	24	24	24	24	24	24	24
REQ START:	0	9	7	9	7	9	0
REQ STOP:	0	17	17	17	15	17	0

MONTHS ON:	JAN:	FEB:	MAR:	APR:	MAY:	JUN:	JUL:	AUG:	SEP:	OCT:	NOV:	DEC:
	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐

CONTROLS

TYPE OF CONTROLS: ELECTRIC

CWS SETPOINT:	0	CNWS SETPOINT:	0
CWR SETPOINT:	0	CNWR SETPOINT:	0

PRESS LITE HI:	N	TEMP LITE HI:	N	OTHER INDICATIORS:	
PRESS LITE LOW:	N	TEMP LITE LOW:	N		
PRESS GAUGES:	N	TEMP GAUGES:	N		

CONTROLS COMMENTS: