AIR HANDLING UNIT SCHEDULE

No.	SERVICE	SUPPLY FAN NO.	FAN HP	FAN RPM	CFM MAX.	MAX ESP (IN H_2O)	COOLING SYSTEM CONDITIONS TOTAL CAP. (MBH)	SENS. CAP. (MBH)	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	PRE-HEAT SYSTEM CONDITIONS TOTAL CAP. (MBH)	EAT DB (°F)	LAT DB (°F)	EWT (°F)	LWT (°F)	GPM @20°F ΔT	MAX. W.P.D. (FT. H_2O)	FILTER %EFF	OUTSIDE AIR MIN CFM	OUTSIDE AIR MAX CFM	REMARKS
1	BARRACKS BUILDING	1	1.5	1800	1260	1.5"	70.1	40.6	84.7	70.3	55.0	53.0	24.3	10.0	55.0	180	160	2.4	5.0'	30%	500	1260	
2	BARRACKS BUILDING	1	15	1800	9900	2.5"	506.6	302.6	83.3	69.3	55.0	53.0	150.7	10.0	55.0	180	160	15.1	10.0'	30%	3100	9900	

MECHANICAL LEGEND

SYMBOL	ABBREV.	DEFINITION
	S.A.	SUPPLY AIR DUCT UP,DOWN
	R.A.	RETURN AIR DUCT UP,DOWN
	E.A.	EXHAUST AIR DUCT UP,DOWN
	O.A	OUTSIDE AIR DUCT UP,DOWN
		RECT. TO ROUND TRANSITION
		FLEXIBLE CONNECTION (DUCTWORK)
	VD	MANUAL VOLUME DAMPER
	FD	FIRE DAMPER
	MOD	MOTOR OPERATED DAMPER
	SL	ACOUSTICAL DUCT LINING
		DUCT TRANSITION
RISE		CHANGE IN ELEVATION RISE(R),DROP(D)
		GATE VALVE
		GLOBE VALVE
		BALL VALVE
		BALANCING VALVE
		MULTI-PURPOSE VALVE
		CHECK VALVE
		BUTTERFLY VALVE
		3-WAY MODULATING VALVE (ATC)
		2-WAY MODULATING VALVE (ATC)
	PRV	PRESSURE REDUCING VALVE
		NEEDLE VALVE
		PRESSURE RELIEF OR SAFETY VALVE
	HED	HOSE END DRAIN VALVE
		STRAINER W/HOSE END DRAIN VALVE AND CAP
		AUTOMATIC AIR VENT
		FLOW METER FITTING
		COMBINATION SHUT-OFF/BALANCING VALVE
		UNION
		FLEXIBLE CONNECTION (PIPING)
		MANUAL AIR VENT
		THERMOMETER
		PRESSURE GAUGE W/NEEDLE VALVE
		TEMPERATURE SENSOR
T		THERMOSTAT
HS	HS	HEATING WATER SUPPLY
HR	HR	HEATING WATER RETURN
RL	RL	REFRIGERANT LIQUID
RS	RS	REFRIGERANT SUCTION
CW	CW	COLD WATER
HW	HW	DOMESTIC HOT WATER
HWC	HWC	HOT WATER RECIRCULATING
F	F	FIRE LINE
SAN	SAN	SANITARY
V	V	VENT
G	G	PROPANE GAS LINE
		PIPE-TURN DOWN
		PIPE-TURN UP
		END CAP
		DIRECTION OF FLOW
S		WALL MOUNTED FAN SWITCH

SYMBOL	ABBREV.	DEFINITION
	BTU	BRITISH THERMAL UNIT
	MBH	BTU PER HOUR (THOUSAND)
	SENS.	SENSIBLE
	WG	WATER GAUGE
	VEL	VELOCITY
	FPM	FEET PER MINUTE
	LF	LINEAR FOOT
	KW	KILOWATT
	MIN.	MINIMUM
	MAX.	MAXIMUM
	LBS.	POUNDS
	EXH.	EXHAUST
	ΔT	TEMPERATURE DIFFERENCE
	%	PERCENT
	EFF.	EFFICIENCY
	FTR	FINNED-TUBE RADIATION
	CAP	CAPACITY
	FT. H_2O	FEET WATER GAUGE
	IN. H_2O	INCHES WATER GAUGE
	ATC	AUTOMATIC TEMPERATURE CONTROL
	°F	DEGREES FAHRENHEIT
	CFM	CUBIC FEET PER MINUTE
	GPM	GALLONS PER MINUTE
	EAT	ENTERING AIR TEMPERATURE
	LAT	LEAVING AIR TEMPERATURE
	EWT	ENTERING WATER TEMPERATURE
	LWT	LEAVING WATER TEMPERATURE
	DB	DRY BULB
	WB	WET BULB
	PD	PRESSURE DROP
	WPD	WATER PRESSURE DROP
	APD	AIR PRESSURE DROP
	SP	STATIC PRESSURE
	ESP	EXTERNAL STATIC PRESSURE
	HP	HORSEPOWER
	RPM	REVOLUTIONS PER MINUTE
	FPM	FEET PER MINUTE
	V	VOLTS
	HZ	HERTZ
	DIFF.	DIFFUSER
	REG.	REGISTER
	AFF	ABOVE FINISHED FLOOR
	W/	WITH
	DWG.	DRAWING
	No.	NUMBER
	VAV	VARIABLE AIR VOLUME
	FZ	FREEZE STAT
	SD	SMOKE DAMPER
	AHU	AIR HANDLING UNIT
	NO	NORMALLY OPEN
	NC	NORMALLY CLOSED
	DIA.	DIAMETER
	ACCU	AIR-COOLED CONDENSING UNIT
⊠		SUPPLY AIR DEVICE
■		(SHADED AREA = BLANKED-OFF SECTION)
⊠		RETURN AIR DEVICE
⊠		EXHAUST AIR DEVICE
	TPL	1/2" TRAP PRIMER LINE

PIPE CONNECTIONS

GPM RANGE	PIPE SIZE
0-1.5	1/2"
1.6-4.0	3/4"
4.1-8.0	1"
8.1-15.0	1 1/4"
15.1-22.0	1 1/2"
22.1-50.0	2"

MECHANICAL EQUIPMENT LIST

HOT WATER BOILER No. 1 (BARRACKS)
(PROPANE GAS-FIRED)
660 MBH INPUT CAPACITY
550 MBH OUTPUT CAPACITY
60 GALLONS PER MINUTE
160°F. ENTERING WATER TEMPERATURE
180°F. LEAVING WATER TEMPERATURE

DOMESTIC WATER HEATER (BARRACKS)
(PROPANE GAS-FIRED)
90 GALLON STORAGE CAPACITY
140 MBH INPUT
170 GPH AT 80°F. RISE

EXPANSION TANK No. 1 (BARRACKS)
22 GALLON TANK CAPACITY
12 GALLONS ACCEPTANCE VOLUME
125 PSIG PRESSURE RATING
APPROX. 16"ø x 40" HIGH

HOT WATER BOILER No. 2 (GARAGE)
(USED-OIL)
470 MBH INPUT CAPACITY
400 MBH OUTPUT CAPACITY
3.2 GPH OIL CONSUMPTION
40 GALLONS PER MINUTE
2.0 CFM OF COMPRESSED AIR @ 25 PSI
160°F. ENTERING WATER TEMPERATURE
180°F. LEAVING WATER TEMPERATURE

DOMESTIC WATER HEATER: (GARAGE)
(ELECTRIC)
80 GALLON STORAGE CAPACITY
110 GPH RECOVERY AT 100°F. RISE
27 TOTAL KW

EXPANSION TANK No. 2 (GARAGE)
8 GALLON TANK CAPACITY
5 GALLONS ACCEPTANCE VOLUME
125 PSIG PRESSURE RATING
APPROX. 14"ø x 25" HIGH

PUMP SCHEDULE

No.	SERVICE	GPM	FT. OF HEAD	HP	RPM	REMARKS
1	HEATING WATER PUMP	60	75	5	1750	BARRACKS BLDG.
2	HEATING WATER PUMP	60	75	5	1750	BARRACKS BLDG. (STAND-BY)
3	HEATING WATER PUMP	40	40	1	1750	GARAGE BLDG.
4	HEATING WATER PUMP	40	40	1	1750	GARAGE BLDG. (STAND-BY)
5	PRE-HEAT COIL PUMP	3	10	1/4	3250	BARRACKS BLDG. (AHU-1)
6	PRE-HEAT COIL PUMP	15	10	1/4	3250	BARRACKS BLDG. (AHU-2)
7	RECIRCULATING PUMP	10	20	1/4	1750	BARRACKS BLDG.
8	OIL PUMP	3	-	1/4	420	GARAGE BLDG. (OIL SYSTEM SUPPLY)
9	SUMP PUMP	35	15	3/4	1750	FIRE VAULT
10	OIL PUMP	3	-	1/4	420	GARAGE BLDG. (OIL TANK SUPPLY)

UNIT HEATER SCHEDULE

No.	SERVICE	SUPPLY FAN CFM	SUPPLY FAN HP	SUPPLY FAN RPM	HOT WATER SYSTEM CONDITION TOTAL CAP. (MBH)	EAT (°F)	EWT (°F)	LWT (°F)	GPM @20°F ΔT	REMARKS
UH-1	MECH. ROOM	230	1/25	1550	11.0	60	180	160	1.1	BARRACKS BLDG. (1)
UH-2	MECH. ROOM	230	1/25	1550	11.0	60	180	160	1.1	GARAGE BLDG. (1)
UH-3	PARTS STORAGE	230	1/25	1550	11.0	60	180	160	1.1	GARAGE BLDG. (1)
UH-4	STORAGE ROOM	350	1/25	1550	13.5	60	180	160	1.4	GARAGE BLDG. (1)
UH-5	WASH BAY	1600	1/8	1625	77.0	60	180	160	7.7	GARAGE BLDG. (1)
UH-6	MAINT. BAY	1600	1/8	1625	77.0	60	180	160	7.7	GARAGE BLDG. (1)
UH-7	MAINT. BAY	1600	1/8	1625	77.0	60	180	160	7.7	GARAGE BLDG. (1)
UH-8	MAINT. BAY	1600	1/8	1625	77.0	60	180	160	7.7	GARAGE BLDG. (1)
UH-9	STORAGE ROOM	230	1/25	1550	11.0	60	180	160	1.1	GARAGE BLDG. (1)
UH-10	VESTIBULE-100	250	1/30	1050	10.6	60	180	160	1.1	BARRACKS BLDG. (2)
UH-11	VESTIBULE-152	250	1/30	1050	10.6	60	180	160	1.1	BARRACKS BLDG. (2)
UH-12	FIRE VAULT	400	5 KW	-	17.0	60	-	-	-	ELECTRIC (1)

(1) HORIZONTAL FLOW UNIT HEATER (2) WALL MOUNTED CABINET UNIT HEATER

AIR-COOLED CONDENSING UNIT SCHEDULE

No.	SERVES	LOCATION	CONDENSER FANS No.	CFM	HP	RPM	COMPRESSOR No.	MBH	EAT	REMARKS
ACCU-1	AHU-1	ON GRADE	1	4700	3/4	1120	1	90.0	95.0	(1)
ACCU-2	AHU-2	ON GRADE	7	15000	3/4	1075	2	600.0	95.0	(2)

(1) BASED ON: YORK MODEL No. HCE090 (2) BASED ON: YORK MODEL No. HCA600

PACKAGED AIR CONDITIONING UNIT SCHEDULE

NO.	AIR SIDE NOM. CFM	ESP	HP	WATTS	COOLING COIL TOTAL MBH	EAT	LAT	HEATING COIL TOTAL MBH	KW	EAT	LAT	REMARKS
1	500	.75"	1/4	-	12.2	72°	52°	15.9	4.7	70°	99°	HORIZONTAL CEILING TYPE (1)
2	200	.50"	-	790	8.8	81°	55°	10.2	3.0	60°	107°	VERTICAL WALL TYPE (2)
3	200	.50"	-	790	8.8	81°	55°	10.2	3.0	60°	107°	VERTICAL WALL TYPE (2)

(1) BASED ON ATS MODEL No. OHS-120AS. (2) BASED ON TRANE MODEL No. PTAC-090.

MECHANICAL GENERAL PROJECT NOTES:

(APPLIES TO ALL MECHANICAL DRAWINGS)

1 IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY AND FAMILIARIZE THEMSELVES WITH ACTUAL FIELD CONDITIONS ASSOCIATED WITH WORK UNDER THIS CONTRACT PRIOR TO COMMENCING WORK. ADDITIONAL COSTS WILL NOT BE PERMITTED FOR CONTRACTOR'S FAILURE TO DO SO.

2 IT IS THE INTENT THAT ALL WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT MATERIAL OR WORK SPECIFICALLY NOT INDICATED ON DRAWINGS BUT NECESSARY TO COMPLETE THE WORK SHALL BE FURNISHED AND INSTALLED.

3 RISES AND DROPS INDICATED ON PLANS ARE ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR MUST COORDINATE MECHANICAL WORK WITH ACTUAL FIELD CONDITIONS AS WELL AS WORK BY OTHER TRADES TO DETERMINE EXACT ROUTING, RISES AND DROPS.

4 EXACT LOCATIONS OF DIFFUSERS, REGISTERS AND GRILLES IN CEILING SHALL BE COORDINATED WITH LIGHT FIXTURES AND ARCHITECTURAL REFLECTED CEILING PLAN. (SEE DRAWINGS A1.5 & A2.4)

5 ALL BRANCH DUCT RUNOUTS TO AIR DEVICES SHALL BE PROVIDED WITH VOLUME DAMPERS.

6 ALL VALVES AND DAMPERS SHALL BE INSTALLED IN PIPING AND DUCTWORK SO THAT THEY ARE FULLY ACCESSIBLE.

7 ALL CONDENSATE PIPING SHALL BE MAINTAIN A SLOPE OF 1/4" PER FOOT TO POINT OF DISCHARGE, AND RUN TO THE NEAREST FLOOR DRAIN.

8 A MINIMUM 6'-8" CLEARANCE SHALL BE MAINTAINED TO UNDERSIDE OF PIPES, DUCTS, CONDUIT, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ALL ACCESS ROUTES.

10 CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL FIRE DAMPERS IN ALL FIRED RATED WALLS AND/OR CEILINGS.

FINNED-TUBE RADIATION SCHEDULE

No.	SERVES	TOTAL CAPACITY (B.T.U.H.)	B.T.U.H. L.F.	E.W.T. °F.	L.W.T. °F.	ACTIVE ELEMENT (L.F.)	G.P.M.	REMARKS
FTR-1	ASST. BARRACKS COMMANDER-103	3500	1000	180	160	3'-6"	0.4	BARRACKS BLDG.
FTR-1A	TOILET ROOM-102	1500	1000	180	160	1'-6"	0.2	BARRACKS BLDG.
FTR-2	BARRACKS COMMANDER-104	2500	1000	180	170	2'-6"	0.5	BARRACKS BLDG.
FTR-3	BARRACKS COMMANDER-104	2500	1000	170	160	2'-6"	0.5	BARRACKS BLDG.
FTR-4	ADMINISTRATIVE SECRETARY-105	1500	1000	170	160	1'-6"	0.2	BARRACKS BLDG.
FTR-5	FIRST SERGEANT-106	1500	1000	180	160	1'-6"	0.2	BARRACKS BLDG.
FTR-6	FILES/CLERICAL-107	2000	1000	180	167	2'-0"	0.3	BARRACKS BLDG.
FTR-7	FILES/CLERICAL-107	1000	1000	167	160	1'-0"	0.3	BARRACKS BLDG.
FTR-8	BARRACKS SECRETARY-108	1500	1000	180	160	1'-6"	0.2	BARRACKS BLDG.
FTR-9	REGIONAL COMMANDER-109	1500	1000	180	172	1'-6"	0.4	BARRACKS BLDG.
FTR-10	REGIONAL COMMANDER-109	2500	1000	172	160	2'-6"	0.4	BARRACKS BLDG.
FTR-11	REGIONAL COMMANDER STAFF-111	2000	1000	180	160	2'-0"	0.2	BARRACKS BLDG.
FTR-12	SERGEANTS-112	2000	1000	180	160	2'-0"	0.2	BARRACKS BLDG.
FTR-13	CORPORALS-113	2000	1000	180	160	2'-0"	0.2	BARRACKS BLDG.
FTR-14	TROOPERS REPORTS-114	1500	1000	180	172	1'-6"	0.4	BARRACKS BLDG.
FTR-15	TROOPERS REPORTS-114	2500	1000	172	160	2'-6"	0.4	BARRACKS BLDG.
FTR-16	BREAK ROOM-154	1500	1000	180	160	1'-6"	0.2	BARRACKS BLDG.
FTR-17	G.R.E.A.T. OFFICE-150	1500	1000	180	160	1'-6"	0.2	BARRACKS BLDG.
FTR-18	FEMALE BEDROOM-145	3000	1000	180	160	3'-0"	0.3	BARRACKS BLDG.
FTR-18A	DORMITORY TOILET-144	1500	1000	180	160	1'-6"	0.2	BARRACKS BLDG.
FTR-19	DORMITORY-143	3000	1000	180	160	3'-0"	0.3	BARRACKS BLDG.
FTR-20	MALE BEDROOM-141	2000	1000	180	160	2'-0"	0.2	BARRACKS BLDG.
FTR-20A	DORMITORY TOILET-142	1500	1000	180	160	1'-6"	0.2	BARRACKS BLDG.
FTR-21	REGIONAL INVEST. SUPERVISOR-140	2000	1000	180	160	2'-0"	0.2	BARRACKS BLDG.
FTR-22	INVESTIGATORS WORKROOM-138	1000	1000	180	175	1'-0"	0.4	BARRACKS BLDG.
FTR-23	INVESTIGATORS WORKROOM-138	2000	1000	175	165	2'-0"	0.4	BARRACKS BLDG.
FTR-24	INVESTIGATORS WORKROOM-138	1000	1000	165	160	1'-0"	0.4	BARRACKS BLDG.
FTR-25	CRIMINAL SECTION SUPERVISOR-137	1500	1000	180	160	1'-6"	0.2	BARRACKS BLDG.
FTR-26	INVESTIGATORS-136	2000	1000	180	160	2'-0'	0.2	BARRACKS BLDG.
FTR-27	FIRE MARSHAL-135	1500	1000	180	160	1'-6"	0.2	BARRACKS BLDG.
FTR-28	FIRE MARSHAL CLERICAL-134	1500	1000	180	160	1'-6"	0.2	BARRACKS BLDG.
FTR-29	FIRE MARSHAL-133	2000	1000	180	160	2'-0"	0.2	BARRACKS BLDG.
FTR-29A	STORAGE ROOM-132	1500	1000	180	160	1'-6"	0.2	BARRACKS BLDG.
FTR-30	ASSEMBLY-130	2500	1000	180	170	2'-6"	0.5	BARRACKS BLDG.
FTR-31	ASSEMBLY-130	2500	1000	170	160	2'-6"	0.5	BARRACKS BLDG.
FTR-32	TOILET ROOM-178	1500	1000	180	160	1'-6"	0.2	GARAGE BLDG.

ALL BASEBOARD RADIATION SHALL HAVE WALL TO WALL CONTINUOUS ENCLOSURES TO CONCEAL PIPING.

FAN SCHEDULE

No.	SERVICE	TYPE	LOCATION	CFM	SP (IN W.C.)	HP	RPM	REMARKS
1	CELLS & BEDROOMS	A	ATTIC	350	.75"	1/3	2500	BARRACKS BLDG.
2	MISCELLANEOUS AREAS	A	ATTIC	1000	1.0"	1/2	2450	BARRACKS BLDG.
3	MECHANICAL ROOM	A	ATTIC	600	.50"	1/6	1830	BARRACKS BLDG.
4	TOILET ROOMS	A	ATTIC	750	.75"	1/3	1950	BARRACKS BLDG.
5	NOT USED	-	-	-	-	-	-	
6	AHU-2 (RETURN AIR)	A	MECH. ROOM	6800	2.0"	5	1160	BARRACKS BLDG.
7	BREAK ROOM	A	ATTIC	200	.50"	1/6	1700	BARRACKS BLDG.
8	EVIDENCE COLLECTION	A	ATTIC	400	.50"	1/6	1500	BARRACKS BLDG.
9	STORAGE	C	ABOVE CEILING	150	.50"	1/6	1700	GARAGE BLDG.
10	TOILET ROOM	C	ABOVE CEILING	100	.50"	1/6	1700	GARAGE BLDG.
11	MECHANICAL ROOM	C	MECHANICAL ROOM	120	.50"	1/6	1700	GARAGE BLDG.
12	WASH BAY	B	WASH BAY	1200	.25"	1/3	1725	GARAGE BLDG.
13	VEHICLE EXHAUST	D	STORAGE ROOM	900	1.25"	1/2	2200	GARAGE BLDG.
14	MAINT. BAYS	A	STORAGE ROOM	3500	1.0"	1.5	1260	GARAGE BLDG.
15	COMPUTER RM.-147	C	SUSPENDED	100	.50"	1/6	1200	BARRACKS BLDG.
16	ELECT. RM.-148	A	ATTIC	150	.50"	1/6	1700	BARRACKS BLDG.
17	PHYS. FITNESS-154	A	ATTIC	150	.50"	1/6	1700	BARRACKS BLDG.
18	TIRE STORAGE-175	C	ABOVE CEILING	150	.50"	1/6	1200	GARAGE BLDG.
19	ELECT. RM.-177	C	ABOVE CEILING	100	.50"	1/6	1200	GARAGE BLDG.
20	FIRE VAULT	A	SUSP. FROM CLG.	650	.75"	1/4	1875	FIRE VAULT

VARIABLE AIR VOLUME BOX SCHEDULE

(#)	RUNOUT DUCT DIA.	SUPPLY CFM MIN.	SUPPLY CFM MAX.	MAX. APD (IN. H_2O)	TERMINAL HEAT COIL CHARACTERISTICS TOTAL (MBH)	EAT DB	LAT DB	EWT	LWT	GPM	REMARKS
1	6	100	210	0.2"	5.7	55.0	80.0	180	160	0.6	BARRACKS AHU-2
2	7	100	240	0.2"	6.5	55.0	80.0	180	160	0.7	BARRACKS AHU-2
3	8	140	320	0.2"	8.6	55.0	80.0	180	160	0.9	BARRACKS AHU-2
4	8	145	350	0.2"	9.5	55.0	80.0	180	160	1.0	BARRACKS AHU-2
5	8	145	390	0.2"	10.5	55.0	80.0	180	160	1.1	BARRACKS AHU-2
6	9	145	420	0.2"	11.3	55.0	80.0	180	160	1.1	BARRACKS AHU-2
7	9	145	470	0.2"	12.7	55.0	80.0	180	160	1.3	BARRACKS AHU-2
8	9	145	480	0.2"	13.0	55.0	80.0	180	160	1.3	BARRACKS AHU-2
9	9	145	490	0.2"	13.2	55.0	80.0	180	160	1.3	BARRACKS AHU-2
10	10	145	570	0.2"	15.4	55.0	80.0	180	160	1.5	BARRACKS AHU-2
11	10	145	580	0.2"	15.7	55.0	80.0	180	160	1.6	BARRACKS AHU-2
12	10	250	580	0.2"	21.0	63.5	88.5	180	160	2.1	BARRACKS AHU-1
13	10	200	640	0.2"	17.3	55.0	80.0	180	160	1.7	BARRACKS AHU-2
14	10	200	650	0.2"	17.6	55.0	80.0	180	160	1.8	BARRACKS AHU-2
15	10	100	150	0.2"	4.1	55.0	80.0	180	160	0.4	BARRACKS AHU-1
16	10	240	720	0.2"	19.4	55.0	80.0	180	160	1.9	BARRACKS AHU-2
17	12	240	800	0.2"	21.6	55.0	80.0	180	160	2.2	BARRACKS AHU-2
18	12	240	820	0.2"	22.1	55.0	80.0	180	160	2.2	BARRACKS AHU-2
19	12	240	860	0.2"	23.2	55.0	80.0	180	160	2.3	BARRACKS AHU-2
20	12	240	890	0.2"	24.0	55.0	80.0	180	160	2.4	BARRACKS AHU-2
21	10	150	530	0.2"	14.3	55.0	80.0	180	160	1.4	BARRACKS AHU-1

FOR REFERENCE ONLY
DGS# PH-582-232-002
HVAC Upgrades, MSP
Barrack -H-
AUGUST 2023

DEPARTMENT OF STATE POLICE
CAPITAL PROJECT OFFICER — DATE 11-4-98

DEPARTMENT OF GENERAL SERVICES APPROVAL
PROJECT ADMINISTRATOR — DATE 10/30/98
DIRECTOR, ENGR. AND CONST. — DATE 11/6/98

NO.	DATE	REVISIONS

Construction of New Police Barrack
Maryland State Police, Barrack H
LaPlata, Maryland
~~D.G.S Project # PH 000-971-001~~

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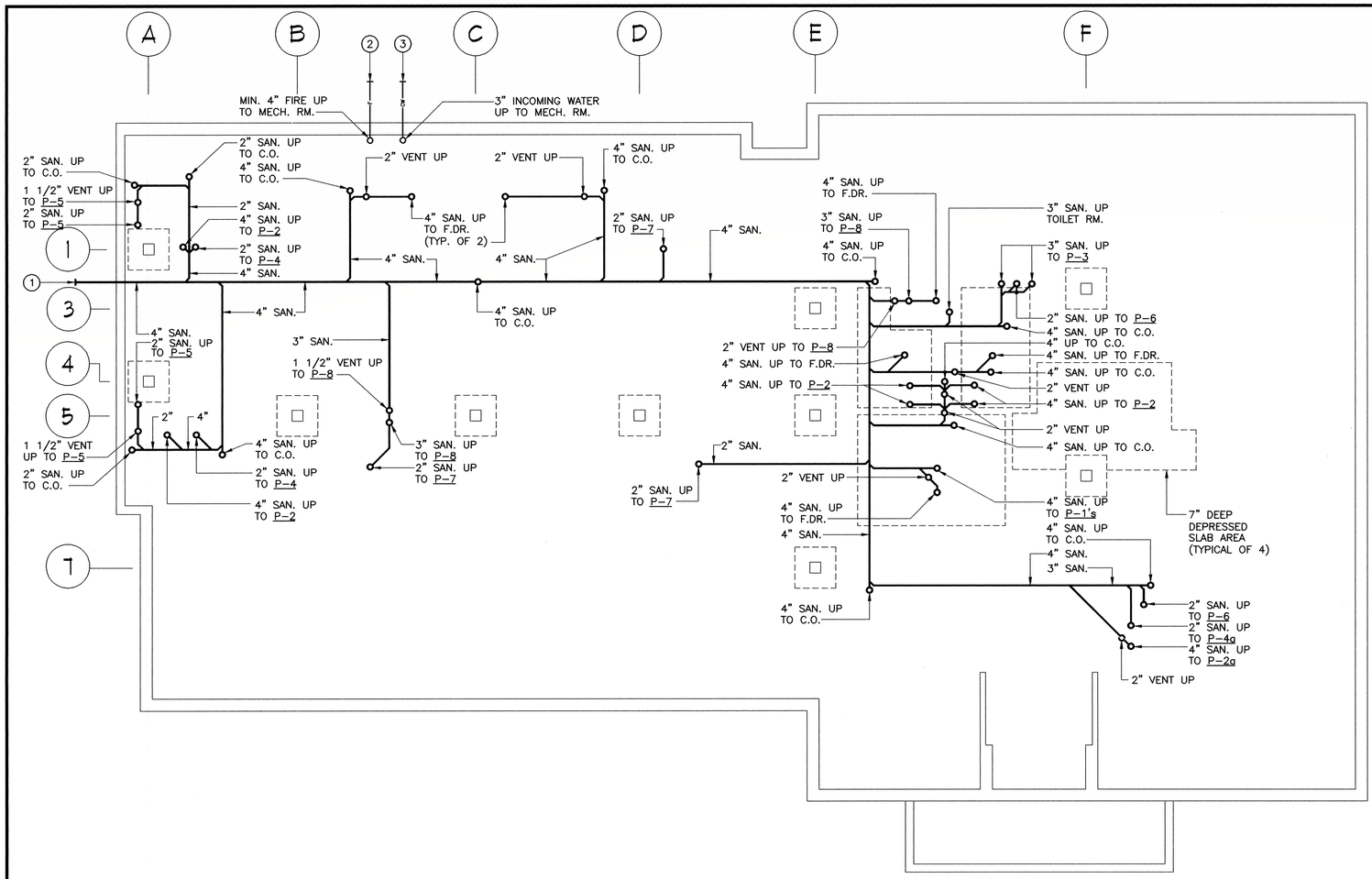
DRAWING TITLE: MECHANICAL LEGEND AND SCHEDULES

STATE OF MARYLAND — MICHAEL JOHN TIMMES — NO. 19558 — REGISTERED PROFESSIONAL ENGINEER

PROJECT NO: 9757
DATE: 10-7-98
REVISIONS:
DRAWING NO: M-1

MJP 97185M1.DWG
PCG 10/03/98
5-2330



DRAWING NOTES:

1. 4" INCOMING SANITARY WASTE (BELOW GRADE) @ INV. ELEV. 203.4'. REFER TO SITE DRAWINGS FOR CONTINUATION.
2. 4" INCOMING FIRE SERVICE (BELOW GRADE) @ INV. ELEV. 206.0'. (CONTRACTOR SHALL COORDINATE ACTUAL LOCATION WITH STRUCTURAL FOOTING). REFER TO SITE DRAWINGS FOR CONTINUATION.
3. 3" INCOMING WATER SERVICE (BELOW GRADE) @ INV. ELEV. 206.0'. (CONTRACTER SHALL COORDINATE ACTUAL LOCATION WITH STRUCTURAL FOOTING). REFER TO SITE DRAWINGS FOR CONTINUATION.

BARRACKS – FOUNDATION PLAN

SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"

8 0 8 16

FOR REFERENCE ONLY
DGS# PH-582-232-002
HVAC Upgrades, MSP
Barrack -H-
AUGUST 2023

DEPARTMENT OF STATE POLICE

Wm S Eblen 11-4-98
CAPITAL PROJECT OFFICER DATE

DEPARTMENT OF GENERAL SERVICES APPROVAL

Robert A Townsend 10/30/98
PROJECT ADMINISTRATOR DATE

William R Dever 11/6/98
DIRECTOR, ENGR. AND CONST. DATE

NO.	DATE	REVISIONS

Construction of New Police Barrack
Maryland State Police, Barrack H
LaPlata, Maryland
~~D.G.S Project # PH-080-971-001~~

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DRAWING TITLE

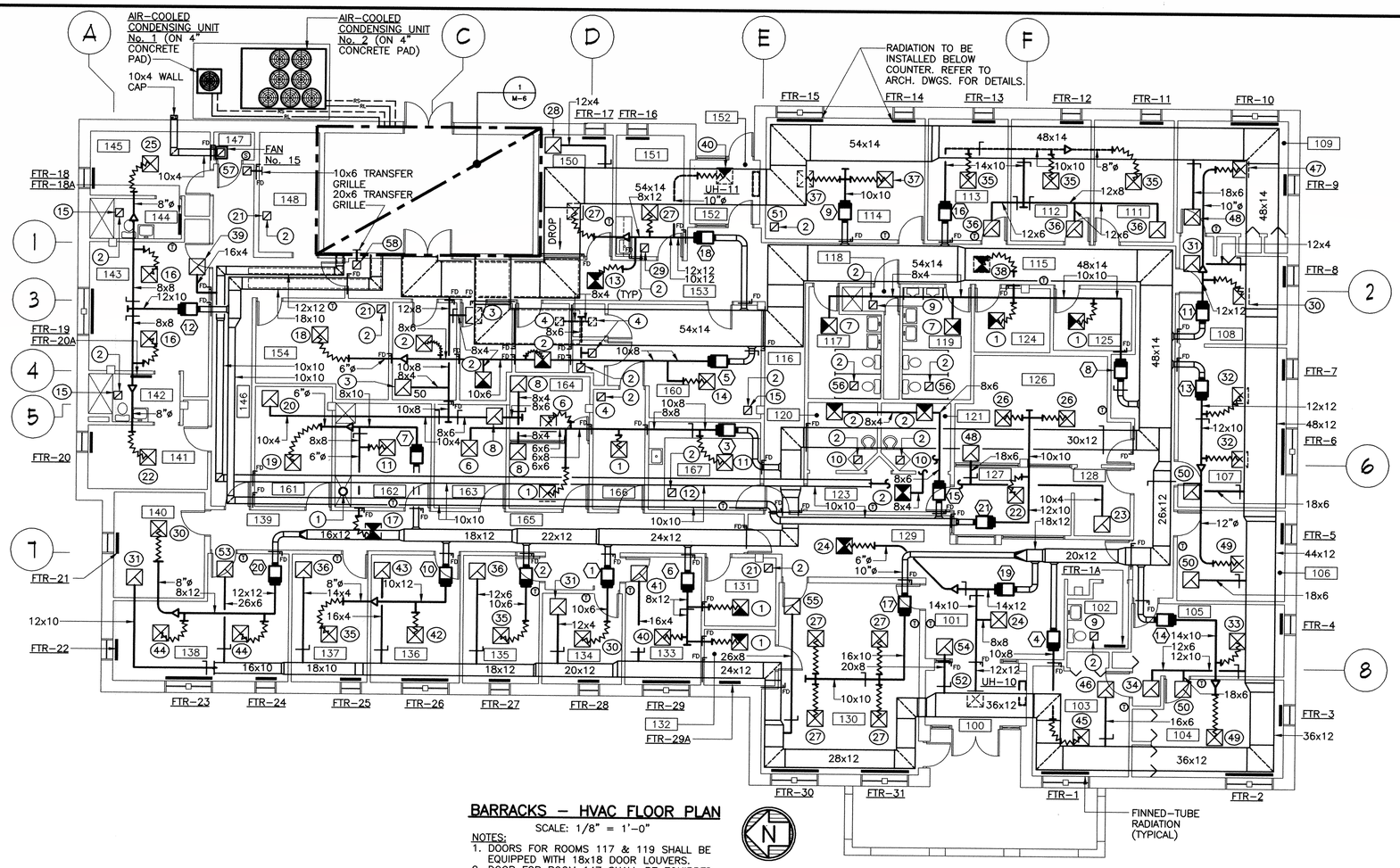
BARRACKS FOUNDATION PLAN

STATE OF MARYLAND — MICHAEL JOHN FURNELL — NO. 19604 — REGISTERED PROFESSIONAL ENGINEER

PROJECT NO: 9757
DATE: 10-7-98
REVISIONS:
DRAWING NO: M-2

MJP 97185M2.DWG
PCG 10/03/98

5-2331



BARRACKS – HVAC FLOOR PLAN

SCALE: 1/8" = 1'-0"

NOTES:
1. DOORS FOR ROOMS 117 & 119 SHALL BE EQUIPPED WITH 18x18 DOOR LOUVERS.
2. DOOR FOR ROOM 147 SHALL BE EQUIPPED WITH 12x6 DOOR LOUVER.
3. DOORS FOR ROOMS 102 & 118 SHALL BE EQUIPPED WITH 1" UNDERCUT.
4. FOR HEATING WATER PIPING, REFER TO DWG. M-4.

ROOM SCHEDULE

MARK	ROOMNAME	MARK	ROOMNAME
100	VESTIBULE	134	FIRE MARSHALL CLERICAL
101	LOBBY & WAITING	135	FIRE MARSHALL
102	TOILET	136	INVESTIGATORS
103	ASSISTANT BARRACK COMMANDER	137	CRIMINAL SECTION SUPERVISOR
104	BARRACK COMMANDER	138	INVESTIGATORS' WORKROOM
105	ADMINISTRATIVE SECRETARY	139	CORRIDOR
106	FIRST SERGEANT	140	REGIONAL INVESTIGATIVE SUPERVISOR
107	FILES & CLERICAL	141	MALE BEDROOM
108	BARRACK SECRETARY	142	BATHROOM
109	REGION COMMANDER	143	TROOPER DORMITORY
110	CORRIDOR	144	BATHROOM
111	REGION COMMANDER STAFF	145	FEMALE BEDROOM
112	SERGEANTS	146	CORRIDOR
113	CORPORALS	147	COMPUTER
114	TROOPER REPORTS	148	ELECTRICAL ROOM
115	CORRIDOR	149	MECHANICAL ROOM
116	CORRIDOR	150	G.R.E.A.T. OFFICE
117	WOMEN	151	BREAK ROOM
118	JANITOR	152	VESTIBULE
119	MEN	153	CORRIDOR
120	CELL 1	154	PHYSICAL FITNESS
121	CELL 2	155	ARCHIVES
122	CLOSET	156	STORAGE
123	ANTEROOM	157	TACT. STOR.
124	FORMS	158	–
125	SUPPLIES	159	–
126	COMMUNICATIONS	160	PROPERTY STORAGE
127	DUTY OFFICER	161	FIELD UNIT OFFICE
128	TROOPER ASSIGN.	162	EVIDENCE COLLECTION
129	WAITING	163	INTERVIEW
130	ASSEMBLY	164	POLYGRAPH
131	FIRE MARSHALL STORAGE	165	INTERVIEW
132	STORAGE	166	EVIDENCE STORAGE
133	FIRE MARSHALL	167	PROCESSING

DRAWING NOTES:

1. 10"ø EXHAUST AIR DUCT CONNECTED TO FUME HOOD (UNDER ANOTHER DIVISION). 10"ø EXHAUST AIR DUCT UP TO FAN No. 8 IN ATTIC.
2. EXTEND EXHAUST UP TO ATTIC. REFER TO DRAWING No. M-5, FOR CONTINUATION.

AIR DEVICE SCHEDULE

#	CFM	TYPE	DUTY	NECK SIZE	MODULE SIZE	REMARKS
1	50	A	SUPPLY AIR DIFFUSER	6"ø	24x24	
2	50	D	SUPPLY AIR DIFFUSER	6"ø	24x24	
3	50	B	RETURN AIR REGISTER	6x6	–	
4	50	C	EXHAUST AIR REGISTER	6x6	–	
5	–	–	–	–	–	NOT USED
6	60	A	SUPPLY AIR DIFFUSER	6x6	24x24	
7	60	A	SUPPLY AIR DIFFUSER	6x6	24x24	
8	60	B	RETURN AIR REGISTER	6x6	–	
9	75	C	EXHAUST AIR REGISTER	6x6	–	
10	75	E	EXHAUST AIR REGISTER	6x6	–	
11	90	A	SUPPLY AIR DIFFUSER	6"ø	24x24	
12	90	C	EXHAUST AIR REGISTER	6x6	–	
13	100	A	SUPPLY AIR DIFFUSER	6"ø	24x24	
14	100	A	SUPPLY AIR DIFFUSER	6"ø	24x24	
15	100	C	EXHAUST AIR REGISTER	6x6	–	
16	120	A	SUPPLY AIR DIFFUSER	6"ø	24x24	
17	130	A	SUPPLY AIR DIFFUSER	6"ø	24x24	
18	140	A	SUPPLY AIR DIFFUSER	6"ø	24x24	
19	150	A	SUPPLY AIR DIFFUSER	6"ø	24x24	
20	150	B	RETURN AIR REGISTER	8x8	–	
21	150	C	EXHAUST AIR REGISTER	8x8	–	
22	160	A	SUPPLY AIR DIFFUSER	6"ø	24x24	
23	160	B	RETURN AIR REGISTER	8x8	–	
24	170	A	SUPPLY AIR DIFFUSER	8x8	24x24	
25	180	A	SUPPLY AIR DIFFUSER	8"ø	24x24	
26	185	A	SUPPLY AIR DIFFUSER	8"ø	24x24	
27	200	A	SUPPLY AIR DIFFUSER	8"ø	24x24	
28	200	B	RETURN AIR REGISTER	10x10	–	
29	200	C	EXHAUST AIR REGISTER	10x10	–	

AIR DEVICE SCHEDULE

#	CFM	TYPE	DUTY	NECK SIZE	MODULE SIZE	REMARKS
30	210	A	SUPPLY AIR DIFFUSER	8"ø	24x24	
31	210	B	RETURN AIR REGISTER	10x10	–	
32	215	A	SUPPLY AIR DIFFUSER	8"ø	24x24	
33	220	A	SUPPLY AIR DIFFUSER	8"ø	24x24	
34	220	B	RETURN AIR REGISTER	10x10	–	
35	240	A	SUPPLY AIR DIFFUSER	8"ø	24x24	
36	240	B	RETURN AIR REGISTER	10x10	–	
37	245	A	SUPPLY AIR DIFFUSER	8"ø	24x24	
38	260	A	SUPPLY AIR DIFFUSER	8"ø	24x24	
39	280	B	RETURN AIR REGISTER	14x14	–	
40	320	A	SUPPLY AIR DIFFUSER	10"ø	24x24	
41	320	B	RETURN AIR REGISTER	14x14	–	
42	330	A	SUPPLY AIR DIFFUSER	10"ø	24x24	
43	330	B	RETURN AIR REGISTER	14x14	–	
44	340	A	SUPPLY AIR DIFFUSER	10"ø	24x24	
45	350	A	SUPPLY AIR DIFFUSER	10"ø	24x24	
46	350	B	RETURN AIR REGISTER	14x14	–	
47	370	A	SUPPLY AIR DIFFUSER	10"ø	24x24	
48	370	B	RETURN AIR REGISTER	16x16	–	
49	430	A	SUPPLY AIR DIFFUSER	12"ø	24x24	
50	430	B	RETURN AIR REGISTER	16x16	–	
51	460	C	EXHAUST AIR REGISTER	16x16	–	
52	520	A	SUPPLY AIR DIFFUSER	12x12	24x24	
53	680	B	RETURN AIR REGISTER	20x20	–	
54	790	B	RETURN AIR REGISTER	22x22	–	
55	800	B	RETURN AIR REGISTER	22x22	–	
56	300	C	EXHAUST AIR REGISTER	14x14	–	
57	150	B	TRANSFER AIR REGISTER	8x8	–	
58	600	B	TRANSFER AIR REGISTER	18x18	–	

SCALE: 1/8" = 1'-0"

8 0 8 16

FOR REFERENCE ONLY
DGS# PH-582-232-002
HVAC Upgrades, MSP
Barrack -H-
AUGUST 2023

DEPARTMENT OF STATE POLICE

CAPITAL PROJECT OFFICER — DATE 11-4-98

DEPARTMENT OF GENERAL SERVICES APPROVAL

PROJECT ADMINISTRATOR — DATE 11/5/98

DIRECTOR, ENGR. AND CONST. — DATE 11/6/98

NO.	DATE	REVISIONS

Construction of New Police Barrack
Maryland State Police, Barrack H
LaPlata, Maryland
~~DGS Project # PH 000-971-001~~

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DRAWING TITLE:

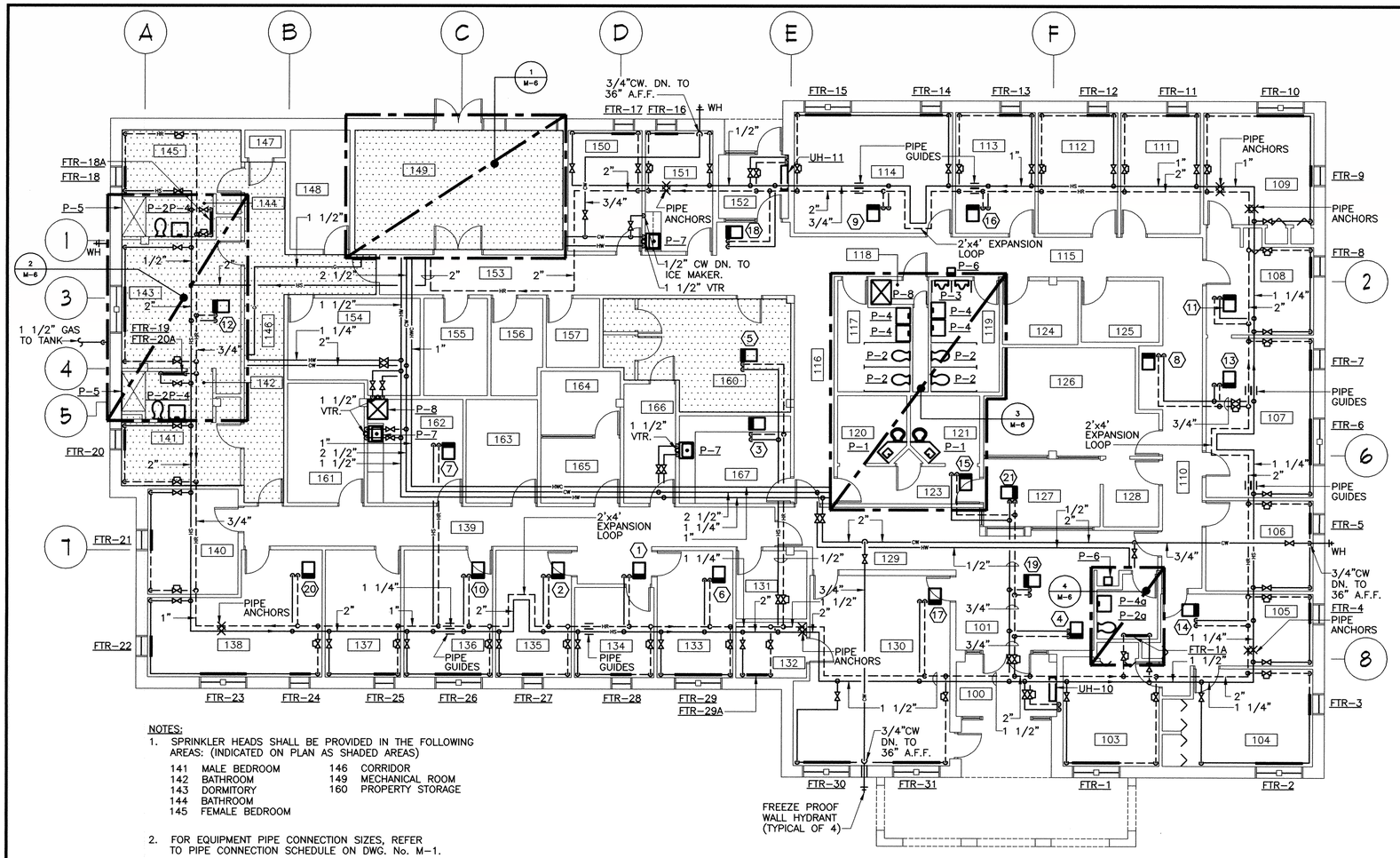
BARRACKS HVAC FLOOR PLAN

STATE OF MARYLAND — MICHAEL JOHN POWERS — NO. 19564 — REGISTERED PROFESSIONAL ENGINEER

PROJECT NO: 9757
DATE: 10-7-98
REVISIONS:
DRAWING NO: M-3

MJP 97185M3.DWG
PCG 10/03/98

5-2332



NOTES:

1. SPRINKLER HEADS SHALL BE PROVIDED IN THE FOLLOWING AREAS: (INDICATED ON PLAN AS SHADED AREAS)

141	MALE BEDROOM	146	CORRIDOR
142	BATHROOM	149	MECHANICAL ROOM
143	DORMITORY	160	PROPERTY STORAGE
144	BATHROOM		
145	FEMALE BEDROOM		

2. FOR EQUIPMENT PIPE CONNECTION SIZES, REFER TO PIPE CONNECTION SCHEDULE ON DWG. No. M-1.
3. FOR PLUMBING FIXTURE PIPE CONNECTION SIZES, REFER TO PLUMBING FIXTURE SCHEDULE ON THIS DWG.
4. ALL PIPE DROPS FOR BASEBOARD RADIATION & UNIT HEATERS SHALL BE INSTALLED INSIDE OF FURRED OUT WALLS.

BARRACKS – PLUMBING & HEATING PIPING FLOOR PLAN

SCALE: 1/8" = 1'-0"

PLUMBING FIXTURE CONNECTION SCHEDULE (BARRACKS)

DESIG.	FIXTURE	ROUGH-IN CONNECTION C.W.	H.W.	SAN.	VENT	REMARKS
P-1	COMBINATION WATER CLOSET/LAVATORY	1 1/4"	1/2"	4"	2"	SECURITY TYPE FIXTURE
P-2	WATER CLOSET	1"	–	4"	2"	FLOOR MOUNTED
P-2a	WATER CLOSET	1"	–	4"	2"	FLOOR MOUNTED (HANDICAPPED)
P-3	URINAL	1"	–	3"	2"	WALL-HUNG
P-4	LAVATORY	1/2"	1/2"	1 1/2"	1 1/2"	WALL-HUNG
P-4a	LAVATORY	1/2"	1/2"	1 1/2"	1 1/2"	WALL-HUNG (HANDICAPPED)
P-5	SHOWER	1/2"	1/2"	2"	1 1/2"	
P-6	ELECTRIC WATER COOLER	1/2"	–	1 1/2"	1 1/2"	(HANDICAPPED)
P-7	COUNTER SINK	1/2"	1/2"	1 1/2"	1 1/2"	
P-8	SERVICE SINK	3/4"	3/4"	3"	1 1/2"	FLOOR MOUNTED

ROOM SCHEDULE

MARK	ROOMNAME	MARK	ROOMNAME
100	VESTIBULE	134	FIRE MARSHALL CLERICAL
101	LOBBY & WAITING	135	FIRE MARSHALL
102	TOILET	136	INVESTIGATORS
103	ASSISTANT BARRACK COMMANDER	137	CRIMINAL SECTION SUPERVISOR
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106	FIRST SERGEANT	140	REGIONAL INVESTIGATIVE SUPERVISOR
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108	BARRACK SECRETARY	142	BATHROOM
109	REGION COMMANDER	143	TROOPER DORMITORY
110	CORRIDOR	144	BATHROOM
111	REGION COMMANDER STAFF	145	FEMALE BEDROOM
112	SERGEANTS	146	CORRIDOR
113	CORPORALS	147	COMPUTER
114	TROOPER REPORTS	148	ELECTRICAL ROOM
115	CORRIDOR	149	MECHANICAL ROOM
116	CORRIDOR	150	G.R.E.A.T. OFFICE
117	WOMEN	151	BREAK ROOM
118	JANITOR	152	VESTIBULE
119	MEN	153	CORRIDOR
120	CELL 1	154	PHYSICAL FITNESS
121	CELL 2	155	ARCHIVES
122	CLOSET	156	STORAGE
123	ANTEROOM	157	TACT. STOR.
124	FORMS	158	–
125	SUPPLIES	159	–
126	COMMUNICATIONS	160	PROPERTY STORAGE
127	DUTY OFFICER	161	FIELD UNIT OFFICE
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129	WAITING	163	INTERVIEW
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131	FIRE MARSHALL STORAGE	165	INTERVIEW
132	STORAGE	166	EVIDENCE STORAGE
133	FIRE MARSHALL	167	PROCESSING

FIRE PROTECTION NOTES:

1. THE FIRE PROTECTION SYSTEM (OUTSIDE BUILDING) SHALL BE DESIGNED AND INSTALLED BY THE SPRINKLER CONTRACTOR. THE SYSTEM SHALL INCLUDE AN UNDERGROUND CONCRETE VAULT THAT INCLUDES THE FOLLOWING:
   A. A HYDRO-PNEUMATIC STORAGE TANK.
   B. A CHARGE PUMP.
   C. AN AIR COMPRESSOR WITH CONTROL PANEL
   D. ALL ASSOCIATED PIPING, VALVING, ETC.
   E. PROPER VENTILATION.
   F. DOMESTIC WATER PRESSURIZATION TANKS.
2. THE FIRE PROTECTION SYSTEM (WITHIN BUILDING) SHALL BE A HYDRAULICALLY DESIGNED WET-PIPE SYSTEM, INSTALLED BY THE SPRINKLER CONTRACTOR. SYSTEM SHALL BE COMPLETE WITH ALL PIPE, FITTINGS, VALVES, SPRINKLER HEADS, HANGERS AND SUPPORTS, ALARMS AS WELL AS MISCELLANEOUS ITEMS SUCH AS SIGNS (IF REQUIRED), VALVE TAGS; ETC. AND ALL OTHER RELATED EQUIPMENT, APPARATUS, AND MATERIAL ITEMS NECESSARY FOR SATISFACTORY OPERATION OF THE SYSTEM.
3. THE SPRINKLER CONTRACTOR SHALL BE A LICENSED, AUTHORIZED INSTALLER OF SPRINKLER SYSTEMS AND SHALL HAVE HAD A MINIMUM OF THREE YEARS EXPERIENCE IN THE INSTALLATION OF SPRINKLER SYSTEMS IN THE STATE OF MARYLAND.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE DESIGN OF THE SPRINKLER SYSTEM. THE SPRINKLER SYSTEM SHALL BE:
   A. A DESIGNED SYSTEM IN ACCORDANCE WITH THE STANDARDS OF THE NATIONAL FIRE PROTECTION ASSOCIATION 13 & 22.
   B. DESIGNED TO CONFORM WITH BUILDING STRUCTURAL, MECHANICAL AND ELECTRICAL SYSTEMS, AS DESIGNED.
   C. ACCEPTABLE TO THE STATE FIRE MARSHAL AND/OR ALL LOCAL AUTHORITIES, HAVING JURISDICTION.
5. THE SPRINKLER SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA-13 & 22. THE SPRINKLER CONTRACTOR SHALL COORDINATE HIS WORK WITHTHE WORK OF ALL OTHER TRADES.
6. IN ACCORDANCE WITH THE SPECIFICATIONS, THE CONTRACTOR SHALL SUBMIT, FOR APPROVAL TO THE AUTHORITIES HAVING JURISDICTION, FULLY COORDINATED SHOP DRAWINGS, CAPACITY DATA, CALCULATIONS, AND CATALOG CUTS OF PIPE, FITTINGS, SPRINKLER HEADS, HANGERS AND SUPPORTS, VALVES, SPRINKLER AND PIPING LAYOUT.
7. THE SPRINKLER SYSTEM SHALL BE INSPECTED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL FIRE PROTECTION CODE, AND ALL LOCAL AUTHORITIES HAVING JURISDICTION.
8. THE CONTRACTOR SHALL ARRANGE FOR INSPECTION AND TESTS OF ANY OR ALL PARTS OF THE WORK AS REQUIRED BY AUTHORITIES HAVING JURISDICTION AND PAY ALL CHARGES FOR SAME.
9. PROVIDE AND INSTALL EXPOSED SPRINKLER PIPING, COMPLETE WITH UPRIGHT QUICK RESPONSE TYPE SPRINKLER HEADS.
10. ALL SIZES & CRITERIA ARE MINIMUM REQUIREMENTS. ALL EQUIPMENT, TANKS, PIPES, ETC. SHALL BE SIZED BY THE SPRINKLER CONTRACTOR.

DESIGN CRITERIA:

1. THE PROPERTY STORAGE ROOM – 160 IS CONSIDERED ORDINARY HAZARD, GROUP II.
2. THE MECHANICAL ROOM – 149 IS CONSIDERED ORDINARY HAZARD, GROUP I.
3. THE FOLLOWING AREAS ARE CONSIDERED LIGH HAZARD OCCUPANCIES:
   A. HOLDING CELLS – 120 & 121
   B. ANTEROOM – 123
   C. DORMITORY AREAS – 141 THRU 145
   D. CORRIDOR – 146
4. THE SYSTEM SHALL BE DESIGNED FOR A 30 MINUTE DURATION OF THE MOST CRITICAL AREA.

SCALE: 1/8" = 1'-0"

8 0 8 16

FOR REFERENCE ONLY
DGS# PH-582-232-002
HVAC Upgrades, MSP
Barrack -H-
AUGUST 2023

DEPARTMENT OF STATE POLICE

CAPITAL PROJECT OFFICER — DATE 11-4-98

DEPARTMENT OF GENERAL SERVICES APPROVAL

PROJECT ADMINISTRATOR — DATE 10/20/98

DIRECTOR, ENGR. AND CONST. — DATE 11/6/98

NO.	DATE	REVISIONS

Construction of New Police Barrack
Maryland State Police, Barrack H
LaPlata, Maryland
~~D.G.S Project # PH-000-971-001~~

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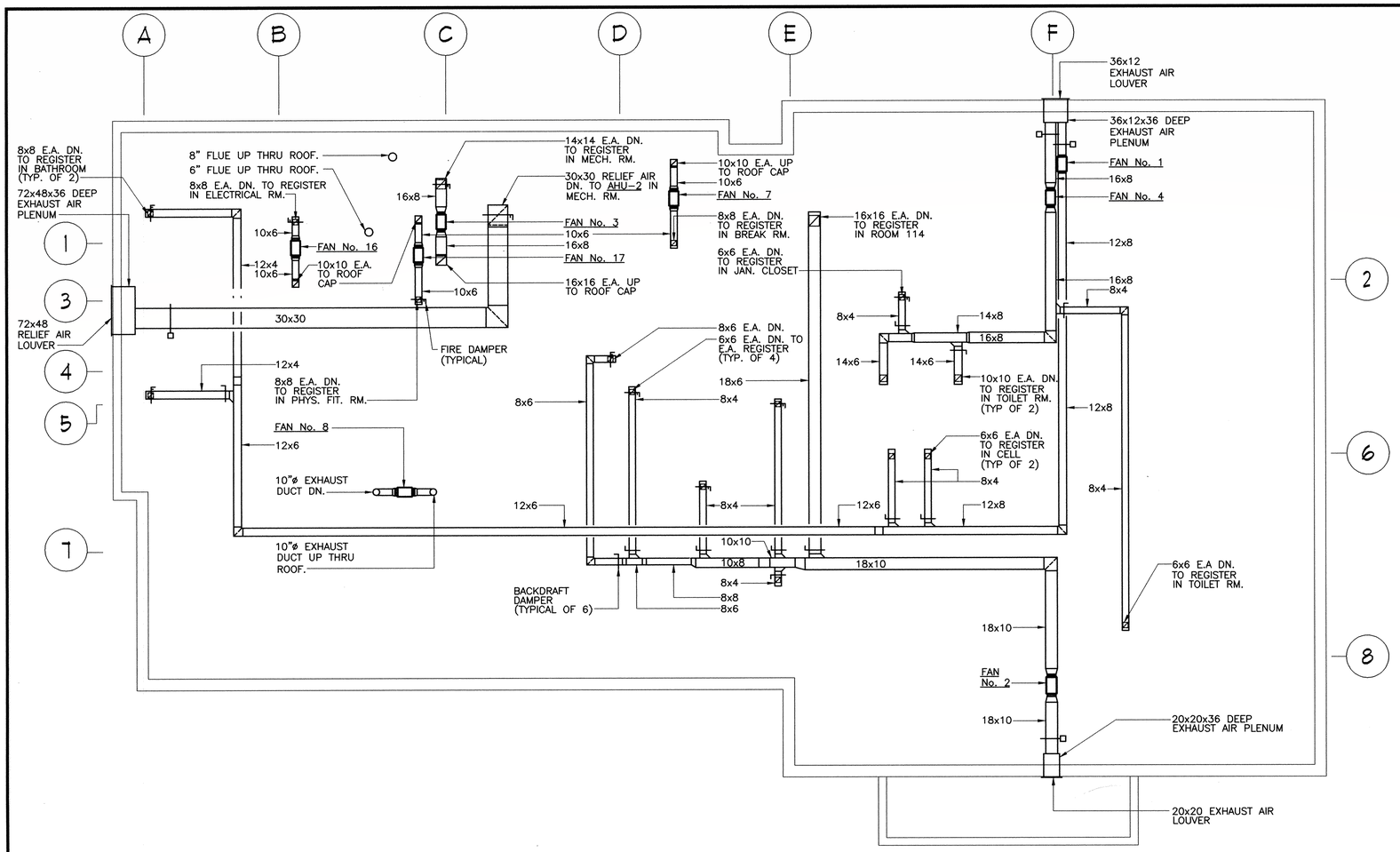
DRAWING TITLE:
BARRACKS PLUMBING & HEATING PIPING FLOOR PLAN

STATE OF MARYLAND — MICHAEL JOHN PURTELL — NO. 19331 — REGISTERED PROFESSIONAL ENGINEER

PROJECT NO: 9757
REVISIONS:
DATE: 10-7-98
DRAWING NO: M-4

MJP 97185M4.DWG
PCG 10/03/98

5-2333



BARRACKS – MECHANICAL ATTIC FLOOR PLAN

SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"

8 0 8 16

FOR REFERENCE ONLY
DGS# PH-582-232-002
HVAC Upgrades, MSP
Barrack -H-
AUGUST 2023

DEPARTMENT OF STATE POLICE

CAPITAL PROJECT OFFICER — DATE 11-4-98

DEPARTMENT OF GENERAL SERVICES APPROVAL

PROJECT ADMINISTRATOR — DATE 10/30/98

DIRECTOR, ENGR. AND CONST. — DATE 11/6/98

NO.	DATE	REVISIONS

Construction of New Police Barrack
Maryland State Police, Barrack H
LaPlata, Maryland
~~D.G.S Project # PH 080-971-001~~

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923 N. Calvert Street
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TEL 410.752.3720
FAX 410.752.4823

DRAWING TITLE

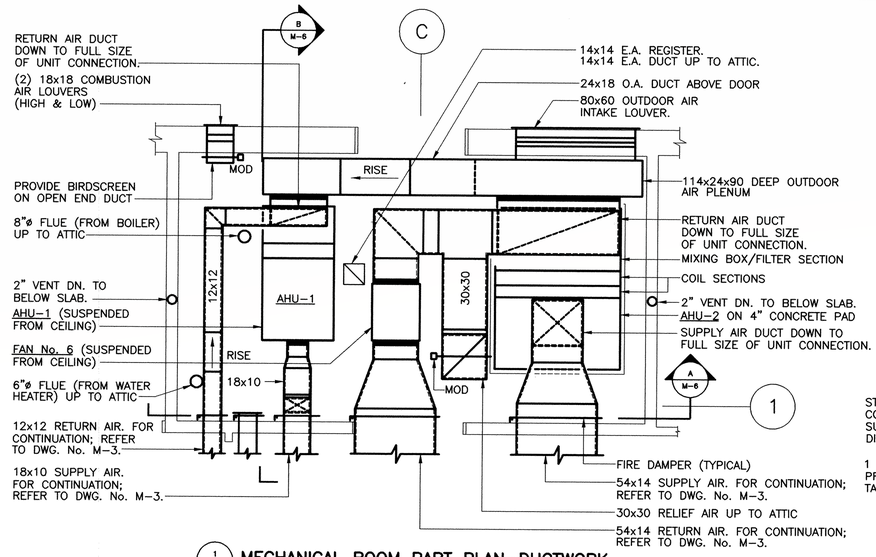
BARRACKS MECHANICAL ATTIC FLOOR PLAN

STATE OF MARYLAND — MICHAEL JOHN PURNELL — NO. 19564 — REGISTERED PROFESSIONAL ENGINEER

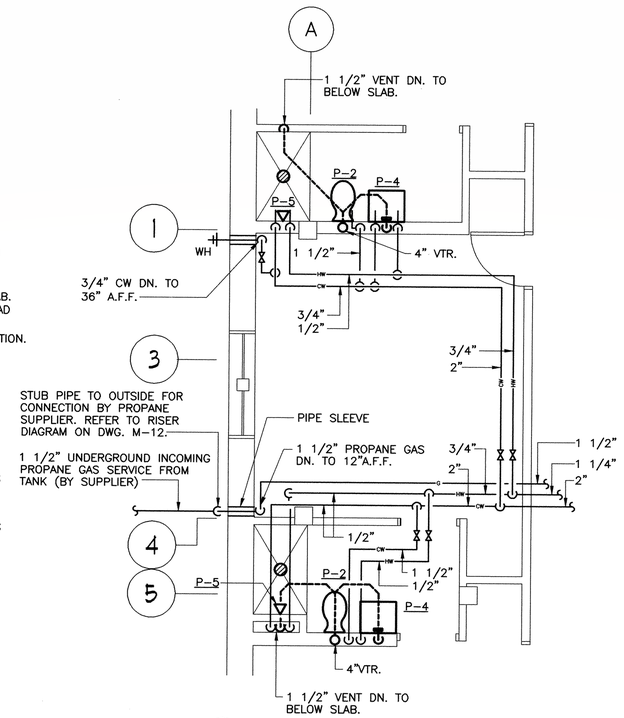
PROJECT NO: 9757
DATE: 10-7-98
REVISIONS:
DRAWING NO: M-5

MJP 97185M5.DWG
PCG 10/03/98

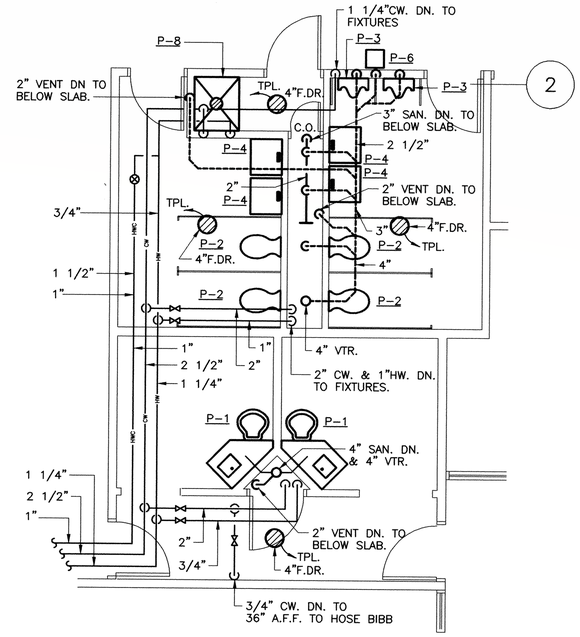
5-2334



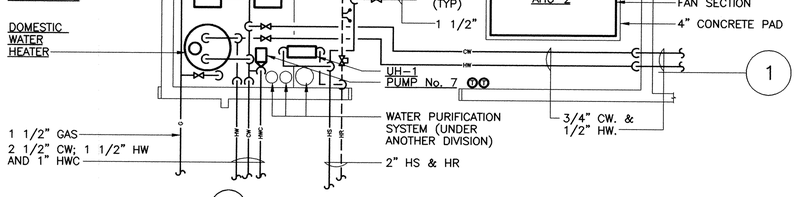
1 M-3 M-4 **MECHANICAL ROOM PART PLAN–DUCTWORK**
SCALE: 1/4"=1'-0"



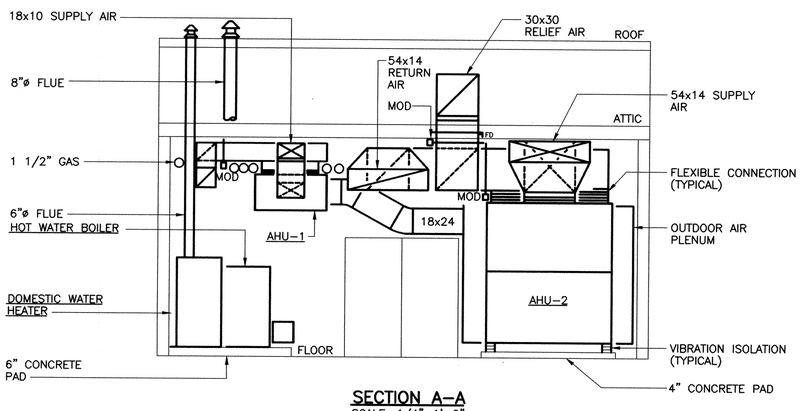
2 M-4 **DORMITORY PLUMBING PART PLAN**
SCALE: 1/4"=1'-0"



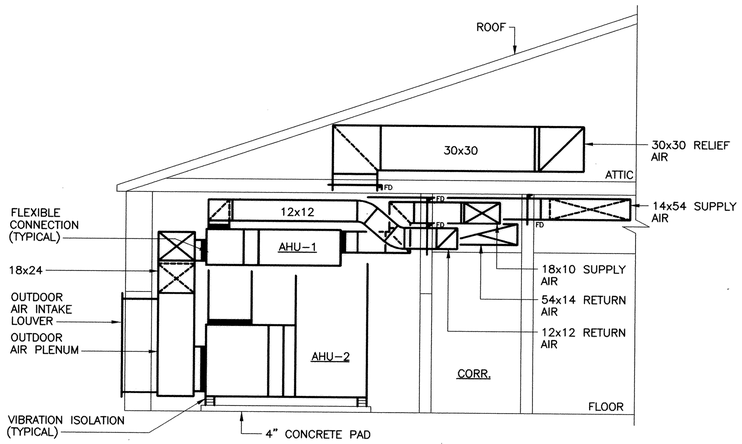
3 M-4 **TOILET ROOM PART PLAN**
SCALE: 1/4"=1'-0"



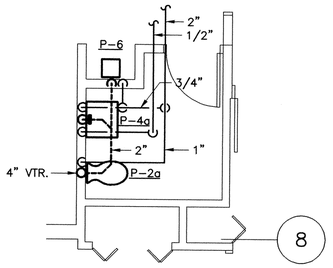
1 M-3 M-4 **MECHANICAL ROOM PART PLAN–PIPING**
SCALE: 1/4"=1'-0"
FOR ADDITIONAL PIPE SIZES AND FITTINGS REQUIRED; REFER TO HEATING WATER PIPING SCHEMATIC ON DWG. No. M-11.



SECTION A–A
SCALE: 1/4"=1'-0"



SECTION B–B
SCALE: 1/4"=1'-0"



4 M-4 **LOBBY TOILET ROOM PART PLAN**
SCALE: 1/4"=1'-0"

SCALE: 1/4" = 1'-0"
4 0 4 8

FOR REFERENCE ONLY
DGS# PH-582-232-002
HVAC Upgrades, MSP
Barrack -H-
AUGUST 2023

DEPARTMENT OF STATE POLICE
CAPITAL PROJECT OFFICER — DATE 11-4-98

DEPARTMENT OF GENERAL SERVICES APPROVAL
PROJECT ADMINISTRATOR — DATE 10/30/98
DIRECTOR, ENGR. AND CONST. — DATE 11/6/98

NO.	DATE	REVISIONS

Construction of New Police Barrack
Maryland State Police, Barrack H
LaPlata, Maryland
~~D.G.S Project # PH 000 971 001~~

S.C. Burdette & Associates — Public Safety Consultant
2123 Maryland Avenue
Baltimore, Maryland 21218
(410) 547-6636

Carroll Engineering, Inc. — Civil Structural Engineers
61 Padonia Road, East, Suite C
Timonium, Maryland 21093
(410) 252-6211

Gipe Associates — Mechanical Electrical Engineers
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849 Fairmount Avenue
Baltimore, Maryland 21286
(410) 832-2420

Mahan Rykiel Associates — Landscape Architects
1330 Smith Avenue
Baltimore, Maryland 21209
(410) 435-1700

CHRISTMAN CLARKE ASSOCIATES ARCHITECTS
923 N. Calvert Street
Baltimore, Maryland 21202
TEL 410.752.3720
FAX 410.752.4823

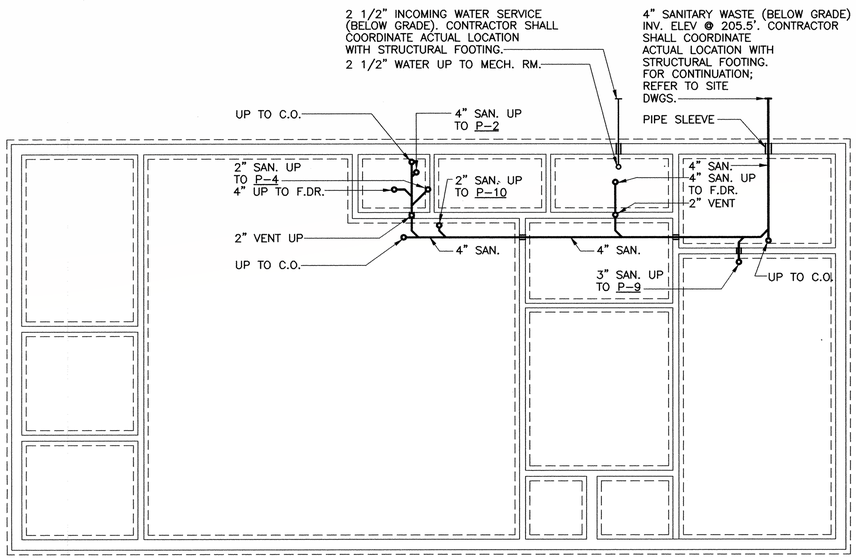
DRAWING TITLE:
MECHANICAL PART PLANS & SECTIONS

STATE OF MARYLAND — MICHAEL JOHN PURTELL — NO. 19584 — REGISTERED PROFESSIONAL ENGINEER

PROJECT NO:	REVISIONS:
9757	
DATE: 10-7-98	
DRAWING NO: M-6	

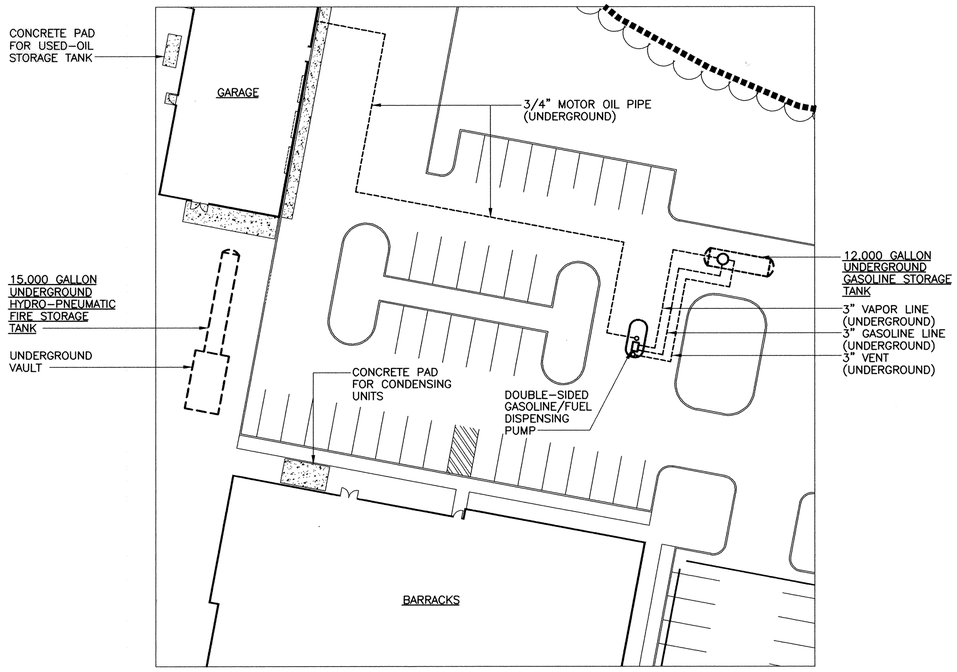
MJP 97185M6.DWG
PCG 10/03/98

5-2335



GARAGE – FOUNDATION PLAN

SCALE: 1/8" = 1'-0"

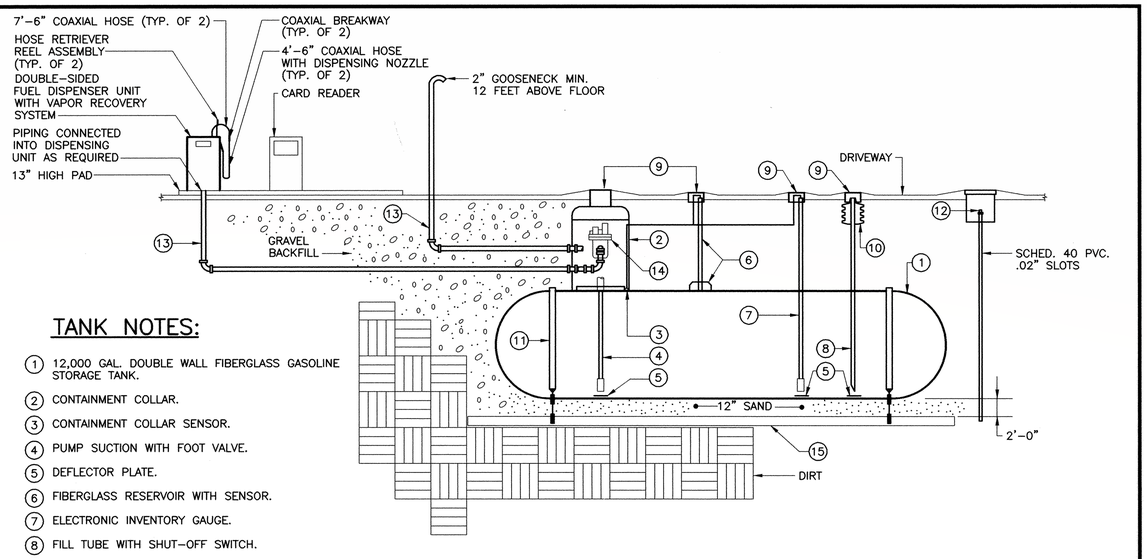


PARTIAL SITE PLAN

SCALE: 1" = 30'-0"

NOTES:

1. FOR DETAILS OF UNDERGROUND VAULT; REFER TO DRAWING No. M-11.



TANK NOTES:

1. 12,000 GAL. DOUBLE WALL FIBERGLASS GASOLINE STORAGE TANK.
2. CONTAINMENT COLLAR.
3. CONTAINMENT COLLAR SENSOR.
4. PUMP SUCTION WITH FOOT VALVE.
5. DEFLECTOR PLATE.
6. FIBERGLASS RESERVOIR WITH SENSOR.
7. ELECTRONIC INVENTORY GAUGE.
8. FILL TUBE WITH SHUT-OFF SWITCH.
9. WATERTIGHT MANHOLE.
10. OVERFILL SPILL CONTAINER.
11. HOLD DOWN STRIP WITH TURNBUCKLE.
12. VAPOR MONITORING WELL (TYP. OF 2)
13. DOUBLE WALL, FIBERGLASS PIPE AND FITTINGS BY "EMERON" MIN. 18" BURIAL DEPTH OR AS RECOMMENDED BY MFR.
14. SUBMERSIBLE PUMP RATED FOR 10 GPM. AT 65 FT. HD., 1/3 HP., 120V. 1ø.
15. 30 FT. x 10 FT. x 20" DEEP CONCRETE PAD WITH #6 REBARS AT 12" CENTERS EACHWAY, PAD DESIGN AND SIZE MAY VARY AS RECOMMENDED BY TANK MANUFACTURER.

GASOLINE PRODUCT PUMPING STATION AND STORAGE TANK

NOT TO SCALE:

SCALE: 1" = 30'-0"

30 0 30 60

SCALE: 1/8" = 1'-0"

8 0 8 16

FOR REFERENCE ONLY
DGS# PH-582-232-002
HVAC Upgrades, MSP
Barrack -H-
AUGUST 2023

DEPARTMENT OF STATE POLICE

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LaPlata, Maryland
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Columbia Clarke Associates
923 N. Calvert Street
Baltimore, Maryland 21202
TEL 410.752.3720
FAX 410.752.4823

DRAWING TITLE:
GARAGE FOUNDATION PLAN AND PARTIAL SITE PLAN

STATE OF MARYLAND — MICHAEL JOHN PIRRUNG — NO. 19584 — REGISTERED PROFESSIONAL ENGINEER

PROJECT NO: 9757
DATE: 10-7-98
REVISIONS:
DRAWING NO: M-7

MJP 97185M7.DWG
PCG 10/05/98

5-2336