100% CONSTRUCTION DOCUMENTS

HEATING GLYCOL REPLACEMENT

FOR THE

CITY OF VALDEZ
VALDEZ HIGH SCHOOL

PREPARED BY:

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VALDEZ, ALASKA

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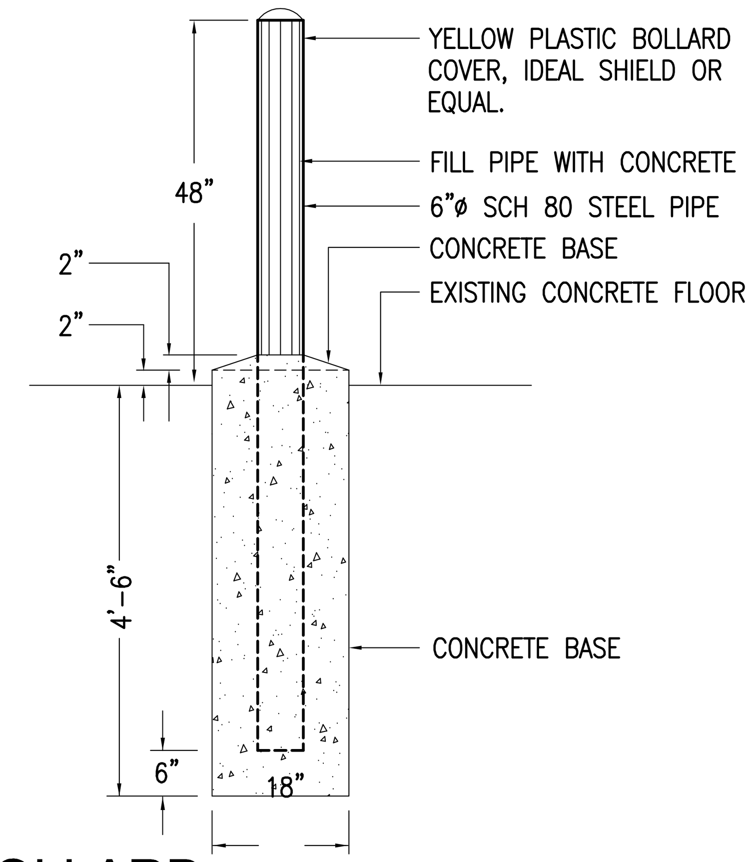
SUMMARY OF WORK:

PROJECT SCOPE INCLUDES A COMPLETE FLUSH, DRAIN AND CLEAN THE ENTIRE EXISTING HYDRONIC HEATING SYSTEM AND REFILL WITH NEW PRE-MIXED PROPYLENE GLYCOL; REPLACEMENT OF EXPANSION TANKS, CABINET UNIT HEATER HEATING COILS, AIR VENTS, FLOW CONTROL VALVE CARTRIDGES AND PROVISION OF A NEW HEATING SYSTEM FILTER.

LEGEND

- - - - - -	DENOTES DEMOLITION	S	DDC SENSOR
—FOS—	FUEL OIL SUPPLY		POINT OF CONNECTION
—FOR—	FUEL OIL RETURN	X / XX	DETAIL NUMBER / SHEET LOCATED ON
- -V- -	FUEL OIL VENT	X / XX	DIRECTION OF VIEW / SECTION NUMBER / SHEET LOCATED ON
- -FILL- -	FUEL OIL FILL	X	SHEET NOTES
—RELIEF—	FUEL OIL RELIEF	FT1 / XX / XX	FINTUBE DESIGNATION / FINTUBE LENGTH / FLOWRATE (GPM)
	PIPE UP		
	PIPE DOWN		
	TEE UP		
	TEE DOWN		
	CAP		
	UNION		
	DIRECTION OF FLOW		
	BALL VALVE		
	CHECK VALVE		



1 PIPE BOLLARD
NO SCALE

2 EXISTING EXPANSION TANKS
NO SCALE

EXPANSION TANK SCHEDULE

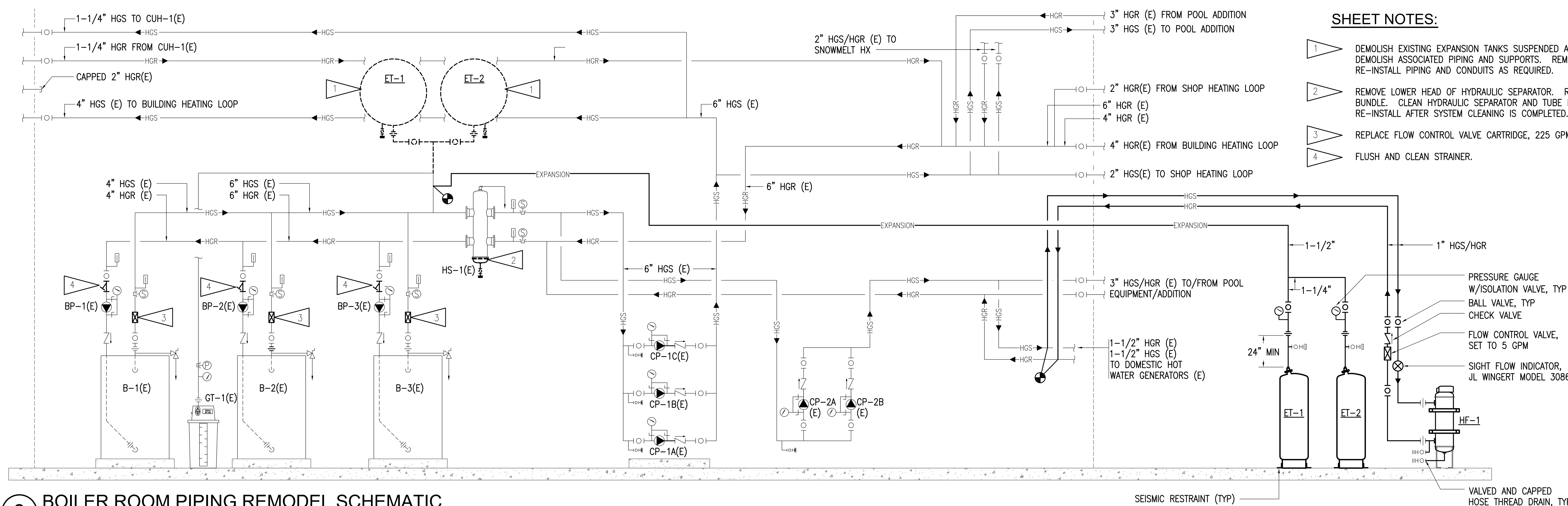
SYMBOL	MANUFACTURER	MODEL	FUNCTION	MEDIUM	MATERIAL	TANK VOLUME TOTAL (GAL)	ACCEPTANCE (GAL)	DIMENSIONS	LABEL	REMARKS
ET-1	AMTROL	EXTROL 800-L-125-SGR	HYDRONIC SYSTEM	35% PG	STEEL/BUTYL	211	84	80"H X 30"DIA	ASME	REPLACEABLE BLADDER, SIGHT GLASS, SEISMIC RESTRAINT TABS.
ET-2	AMTROL	EXTROL 800-L-125-SGR	HYDRONIC SYSTEM	35% PG	STEEL/BUTYL	211	84	80"H X 30"DIA	ASME	REPLACEABLE BLADDER, SIGHT GLASS, SEISMIC RESTRAINT TABS.

HEATING SYSTEM FILTER

SYMBOL	MFGR/MODEL	FUNCTION	MEDIUM	MATERIAL	TANK CAPACITY	DIMENSIONS	REMARKS
HF-1	JL WINGERT/F-DB-5HD	FILTER/FEEDER	WATER	STEEL	5 GAL	10"ø X 31"	COMBINATION SYSTEM FILTER/POT FEEDER WITH FILTERS.

CABINET UNIT HEATER SCHEDULE

SYMBOL	MANUFACTURER	MODEL	CAPACITY* MBH	MEDIUM	GPM	EGT DEG F	LGT DEG F	WPD FT HD	CFM	RPM	MOTOR DATA HP	POWER	REMARKS
CUH-1	MODINE	CW00650ADDL112H00	28.4	35% PG	3	180	150	0.6	430	--	1/20	120/60/1	EXISTING UNIT MOUNTED ABOVE CEILING TO REMAIN, PROVIDE NEW HEATING COIL
CUH-2	MODINE	CW00298ALLL112P00	9.5	35% PG	1.3	180	160	0.2	250	--	1/30	120/60/1	EXISTING UNIT MOUNTED ON WALL, PROVIDE NEW HEATING COIL.
CUH-3	MODINE	CW00450ADDL112H00	18.8	35% PG	2	180	150	0.3	325	--	1/20	120/60/1	EXISTING UNIT MOUNTED ABOVE CEILING TO REMAIN, PROVIDE NEW HEATING COIL
CUH-4	MODINE	CW00258ALLL152P00	9.5	35% PG	1.3	180	160	0.2	250	--	1/30	120/60/1	EXISTING UNIT MOUNTED IN CEILING, PROVIDE NEW HEATING COIL.



3 BOILER ROOM PIPING REMODEL SCHEMATIC
NO SCALE

SHEET NOTES:

1. DEMOLISH EXISTING EXPANSION TANKS SUSPENDED ABOVE BOILERS. DEMOLISH ASSOCIATED PIPING AND SUPPORTS. REMOVE AND RE-INSTALL PIPING AND CONDUITS AS REQUIRED.
2. REMOVE LOWER HEAD OF HYDRAULIC SEPARATOR. REMOVE TUBE BUNDLE. CLEAN HYDRAULIC SEPARATOR AND TUBE BUNDLE. RE-INSTALL AFTER SYSTEM CLEANING IS COMPLETED.
3. REPLACE FLOW CONTROL VALVE CARTRIDGE, 225 GPM, TYP.
4. FLUSH AND CLEAN STRAINER.

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DATE: 10/02/2018
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DWG FILE: L8159_MSERIES

DRAWING TITLE:
LEGEND, SCHEDULES DETAILS AND SCHEMATIC

SHEET:
M001

EXISTING VAV BOX SCHEDULE

SYMBOL	CFM MAX | MIN	HTG COIL SYMBOL	EAT °F	LAT °F	FLOW GPM	MEDIUM	EGT °F	LGT °F	REMARKS
VAV-101	200 | 65	HC-101	65	95	1	30% PG	180	160	
VAV-102	100 | 30	HC-102	65	95	1	30% PG	180	160	
VAV-103	100 | 30	HC-103	65	95	1	30% PG	180	160	
VAV-104	100 | 30	HC-104	65	95	1	30% PG	180	160	
VAV-105	150 | 50	HC-105	65	95	1	30% PG	180	160	
VAV-106	540 | 165	HC-106	65	95	1.5	30% PG	180	160	
VAV-107	250 | 75	HC-107	65	95	1	30% PG	180	160	
VAV-108	315 | 95	HC-108	65	95	2	30% PG	180	160	
VAV-109	410 | 125	HC-109	65	95	1	30% PG	180	160	
VAV-110	75 | 25	HC-110	65	95	1	30% PG	180	160	
VAV-111	470 | 140	HC-111	65	95	1.5	30% PG	180	160	
VAV-112	440 | 135	HC-112	65	95	1.5	30% PG	180	160	
VAV-113	1200 | 360	HC-113	65	95	2	30% PG	180	160	
VAV-114	820 | 245	HC-114	65	95	1.5	30% PG	180	160	
VAV-115	420 | 130	HC-115	65	95	1.5	30% PG	180	160	
VAV-116	1200 | 360	HC-116	65	95	2	30% PG	180	160	
VAV-117	400 | 125	HC-117	65	95	1	30% PG	180	160	
VAV-118	420 | 130	HC-118	65	95	1.5	30% PG	180	160	
VAV-119	1170 | 350	HC-119	65	95	2	30% PG	180	160	
VAV-120	90 | 30	HC-120	65	95	1	30% PG	180	160	
VAV-121	115 | 35	HC-121	65	95	1	30% PG	180	160	
VAV-122	240 | 75	HC-122	65	95	1	30% PG	180	160	
VAV-123	130 | 40	HC-123	65	95	1	30% PG	180	160	
VAV-124	1110 | 335	HC-124	65	95	2	30% PG	180	160	
VAV-125	400 | 130	HC-125	65	95	1	30% PG	180	160	
VAV-126	980 | 305	HC-126	65	95	1.5	30% PG	180	160	
VAV-127	330 | 100	HC-127	65	95	1	30% PG	180	160	
VAV-128	900 | 275	HC-128	65	95	1.5	30% PG	180	160	EXISTING VAV BOXES W/HEATING COILS TO REMAIN. PROVIDE NEW FLOW CONTROL VALVE CARTRIDGE AND AIR VENTS W/ISOLATION VALVE, FLUSH AND CLEAN STRAINER.
VAV-129	1410 | 425	HC-129	65	95	1.5	30% PG	180	160	
VAV-130	170 | 50	HC-130	65	95	1	30% PG	180	160	
VAV-131	800 | 240	HC-131	65	95	1	30% PG	180	160	
VAV-132	900 | 275	HC-132	65	95	3	30% PG	180	160	
VAV-133	620 | 190	HC-133	65	95	3	30% PG	180	160	
VAV-134	940 | 280	HC-134	65	95	3	30% PG	180	160	
VAV-135	180 | 55	HC-135	65	95	3	30% PG	180	160	
VAV-136	650 | 210	HC-136	65	95	1.5	30% PG	180	160	
VAV-137	675 | 210	HC-137	65	95	1.5	30% PG	180	160	
VAV-138	480 | 145	HC-138	65	95	2	30% PG	180	160	
VAV-139	230 | 70	HC-139	65	95	1	30% PG	180	160	
VAV-140	960 | 295	RHC-7(E)	SEE HEATING COIL SCHEDULE FOR COIL DATA						
VAV-141	990 | 300	RHC-9(E)	SEE HEATING COIL SCHEDULE FOR COIL DATA						
VAV-142	960 | 290	RHC-6(E)	SEE HEATING COIL SCHEDULE FOR COIL DATA						
VAV-143	960 | 290	RHC-5(E)	SEE HEATING COIL SCHEDULE FOR COIL DATA						
VAV-144	960 | 290	RHC-4(E)	SEE HEATING COIL SCHEDULE FOR COIL DATA						
VAV-145	920 | 285	RHC-3(E)	SEE HEATING COIL SCHEDULE FOR COIL DATA						
VAV-146	460 | 140	HC-146	65	95	1.5	30% PG	180	160	
VAV-147	440 | 135	HC-147	65	95	1.5	30% PG	180	160	
VAV-148	220 | 70	HC-148	65	95	1	30% PG	180	160	
VAV-149	80 | 25	HC-149	65	95	1	30% PG	180	160	
VAV-150	80 | 25	HC-150	65	95	1	30% PG	180	160	
VAV-151	540 | 170	HC-151	65	95	1.5	30% PG	180	160	
VAV-152	540 | 170	HC-152	65	95	1.5	30% PG	180	160	
VAV-153	80 | 26	HC-153	65	95	1	30% PG	180	160	
VAV-154	540 | 170	HC-154	65	95	1.5	30% PG	180	160	
VAV-155	540 | 170	HC-155	65	95	1.5	30% PG	180	160	
VAV-156	320 | 115	HC-156	65	95	1	30% PG	180	160	
VAV-157	2100 | 630	HC-157	65	95	2.5	30% PG	180	160	
VAV-158	2100 | 630	HC-158	65	95	2.5	30% PG	180	160	
VAV-159	100 | 30	HC-159	65	95	1	30% PG	180	160	

EXISTING VAV BOX SCHEDULE

SYMBOL	CFM MAX | MIN	HTG COIL SYMBOL	EAT °F	LAT °F	FLOW GPM	MEDIUM	EGT °F	LGT °F	REMARKS
VAV-201	720 | 220	HC-201	65	95	1.5	30% PG	180	160	
VAV-202	720 | 220	HC-202	65	95	1.5	30% PG	180	160	
VAV-203	800 | 245	HC-203	65	95	1.5	30% PG	180	160	
VAV-204	330 | 100	HC-204	65	95	1	30% PG	180	160	
VAV-205	1040 | 315	HC-205	65	95	1.5	30% PG	180	160	
VAV-206	775 | 235	HC-206	65	95	1.5	30% PG	180	160	
VAV-207	750 | 230	HC-207	65	95	1.5	30% PG	180	160	
VAV-208	740 | 220	HC-208	65	95	1.5	30% PG	180	160	
VAV-209	570 | 175	HC-209	65	95	1.5	30% PG	180	160	
VAV-210	1200 | 365	HC-210	65	95	2	30% PG	180	160	
VAV-211	540 | 165	HC-211	65	95	1.5	30% PG	180	160	
VAV-212	1100 | 355	HC-212	65	95	2	30% PG	180	160	EXISTING VAV BOXES W/HEATING COILS TO REMAIN. PROVIDE NEW FLOW CONTROL VALVE CARTRIDGE AND AIR VENTS W/ISOLATION VALVE, FLUSH AND CLEAN STRAINER.
VAV-213	330 | 100	HC-213	65	95	1	30% PG	180	160	
VAV-214	600 | 185	HC-214	65	95	2	30% PG	180	160	
VAV-215	780 | 235	HC-215	65	95	1.5	30% PG	180	160	
VAV-216	960 | 290	HC-216	65	95	1.5	30% PG	180	160	
VAV-217	630 | 195	HC-217	65	95	2	30% PG	180	160	
VAV-218	800 | 240	HC-218	65	95	1.5	30% PG	180	160	
VAV-219	810 | 240	HC-219	65	95	1.5	30% PG	180	160	
VAV-220	800 | 240	HC-220	65	95	1.5	30% PG	180	160	
VAV-221	810 | 240	HC-221	65	95	1.5	30% PG	180	160	
VAV-222	360 | 110	HC-222	65	95	1	30% PG	180	160	
VAV-223	420 | 130	HC-223	65	95	1.5	30% PG	180	160	
VAV-224	935 | 280	HC-224	65	95	1.5	30% PG	180	160	
VAV-225	920 | 280	HC-225	65	95	1.5	30% PG	180	160	
VAV-226	180 | 55	HC-226	65	95	1	30% PG	180	160	

EXISTING HEATING COIL SCHEDULE

SYMBOL	LOCATION	CFM	EAT DEG F	LAT DEG F	GPM	MEDIUM	EGT DEG F	LGT DEG F	REMARKS
HC-1(E)	CORRIDOR 162	430	70	120	2.8	30% PG	180	160	
HC-4(E)	CEILING CORRIDOR 235	500	70	75	0.3	30% PG	180	160	
HC-5(E)	CEILING MULTIPURPOSE	420	70	100	1.6	30% PG	180	160	
RHC-3(E)	CEILING MULTIPURPOSE	940	55	75	1.5	30% PG	180	160	EXISTING HEATING COILS TO REMAIN. PROVIDE NEW FLOW CONTROL VALVE CARTRIDGE AND AIR VENTS W/ISOLATION VALVE, FLUSH AND CLEAN STRAINER.
RHC-4(E)	CEILING MULTIPURPOSE	959	55	75	1.5	30% PG	180	160	
RHC-5(E)	CEILING MULTIPURPOSE	968	55	75	1.5	30% PG	180	160	
RHC-6(E)	CEILING MULTIPURPOSE	958	55	75	1.5	30% PG	180	160	
RHC-7(E)	CEILING MULTIPURPOSE	988	55	75	1.6	30% PG	180	160	
RHC-9(E)	CEILING MULTIPURPOSE	995	55	75	1.6	30% PG	180	160	

EXISTING AIR HANDLER SCHEDULE

SYMBOL	LOCATION | SERVICE	COIL	CFM	HEATING COIL EGT	HEATING COIL LGT	HEATING COIL GPM	MEDIUM	AIR EAT	AIR LAT	REMARKS
AHU-3(E)	MECH ROOM 231 | POOL	HC-3(E)	20,200	180	150	64.5	30%PG	55	82	
AHU-4(E)	MECH ROOM 231 | RIFLE RANGE	HC-4(E)	4,480	180	150	45	30%PG	-10	75	
AHU-5(E)	MECH ROOM 231 | POOL VIEWING	HC-5(E)	3,050	180	150	8.8	30%PG	55	80	
AHU-6(E)	MECH ROOM 231 | GYMNASIUM	HC-6(E)	22,000	180	150	64.6	30%PG	55	80	EXISTING HEATING COILS TO REMAIN. PROVIDE NEW FLOW CONTROL VALVE CARTRIDGE AND AIR VENTS W/ISOLATION VALVE, FLUSH AND CLEAN STRAINER.
AHU-7(E)	KITCHEN CEILING | MAKE UP AIR	HC-7(E)	5,000	180	150	50.1	30%PG	-10	75	
AHU-11(E)	MECH ROOM 231 | LOCKER ROOM	HC-8(E)	4,230	180	150	45	30%PG	-10	85	
AHU-12(E)	MECH ROOM 239 | NATATORIUM	PHC-12(E)	9,000	180	150	37	30%PG	-10	35	
		HC-12(E)	9,000	180	150	42	30%PG	35	90	
AHU-13(E)	MECH ROOM 239 | RECEPTION/LOCKER ROOMS	PHC-13(E)	1,350	180	150	8	30%PG	-10	35	
		HC-13(E)	1,350	180	150	12	30%PG	35	90	

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319 Robe River Dr
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REVISIONS:

DRAWN BY: MEM
CHECKED BY: BPP
DATE: 10/02/2018
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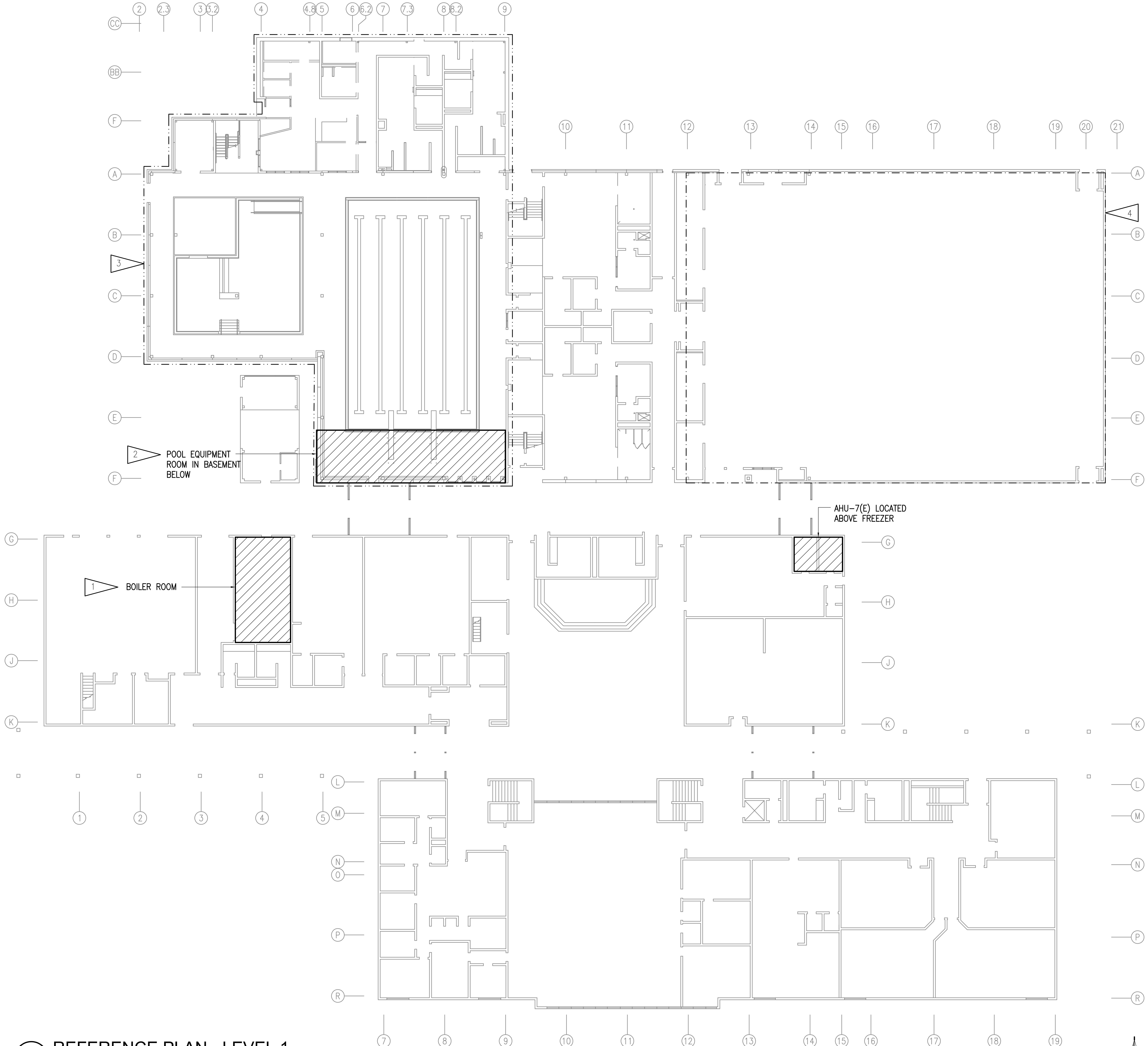
DWG FILE: L8159_MSERIES

DRAWING TITLE:
MECHANICAL SCHEDULES

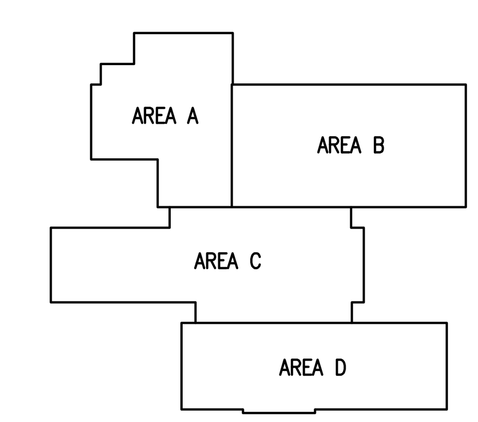
SHEET:
M002



1 REFERENCE PLAN - LEVEL 1
1/16"=1'-0"

SHEET NOTES:

1. THE SCHOOL AND KITCHEN DOMESTIC HOT WATER HEATING SYSTEM IS CONNECTED TO THE HYDRONIC HEATING SYSTEM. HOT WATER GENERATORS FOR DOMESTIC WATER HEATING FOR SCHOOL AND KITCHEN ARE LOCATED IN THE BOILER ROOM. FOR ENLARGED BOILER ROOM PLAN, SEE-1/M301.
2. THE POOL HEATING SYSTEM IS CONNECTED TO THE HYDRONIC HEATING SYSTEM. THE HEAT EXCHANGERS FOR HEATING POOL WATER ARE LOCATED IN POOL EQUIPMENT ROOM. COORDINATE SHUTDOWN OF POOL HEATING SYSTEM WITH POOL UPGRADE CONTRACTOR AND OWNER. FOR ENLARGED POOL EQUIPMENT ROOM PLAN, SEE-2/M302.
3. AREA OF WORK FOR POOL UPGRADE PROJECT. COORDINATE ALL WORK ACTIVITIES IN POOL UPGRADE PROJECT AREA WITH POOL UPGRADE CONTRACTOR AND OWNER.
4. GYMNASIUM, AREA B IS HEATED BY AHU-6(E), NO EXISTING HEATING PIPING IN THIS AREA.



KEYPLAN
NO SCALE

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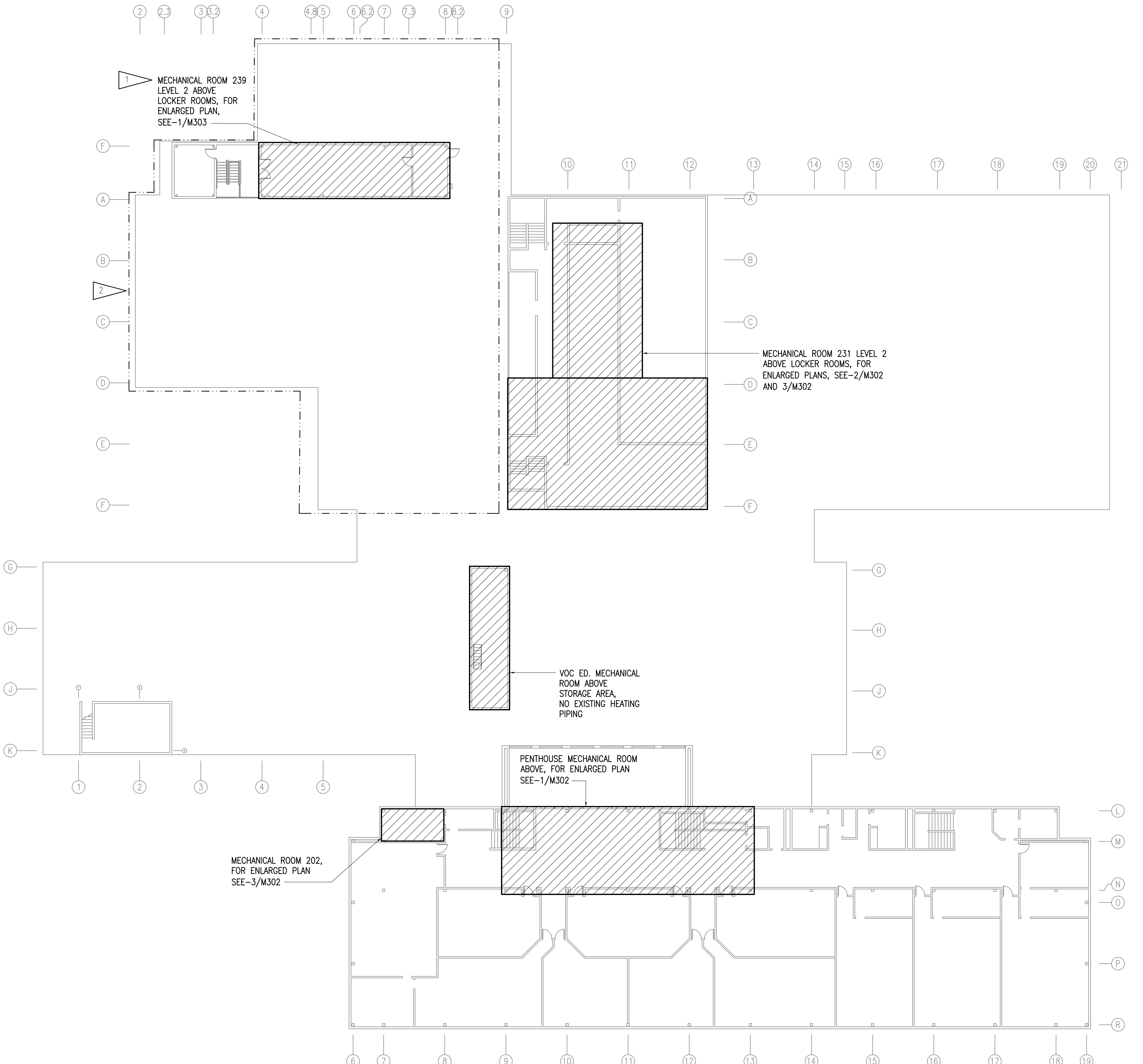
DRAWING TITLE:
REFERENCE PLAN
LEVEL 1

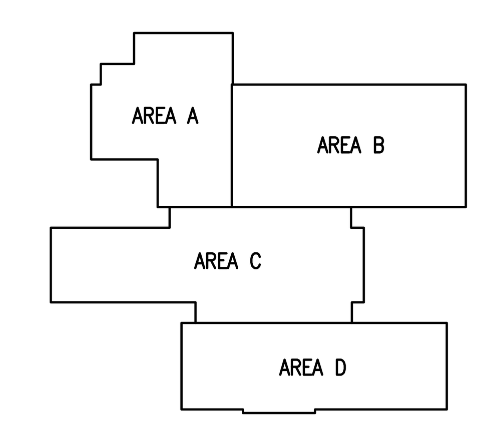
SHEET:
M003



1 REFERENCE PLAN - LEVEL 2
1/16"=1'-0"

SHEET NOTES:

1. THE POOL LOCKER ROOM DOMESTIC HOT WATER HEATING SYSTEM IS CONNECTED TO THE HYDRONIC HEATING SYSTEM. HOT WATER GENERATORS FOR DOMESTIC WATER HEATING LOCATED IN MECHANICAL ROOM 239 ON LEVEL 2. COORDINATE SHUTDOWN OF POOL HEATING SYSTEM WITH POOL UPGRADE CONTRACTOR AND OWNER.
2. AREA OF WORK FOR POOL UPGRADE PROJECT. COORDINATE ALL WORK ACTIVITIES IN POOL UPGRADE PROJECT AREA WITH POOL UPGRADE CONTRACTOR AND OWNER.



KEYPLAN
NO SCALE

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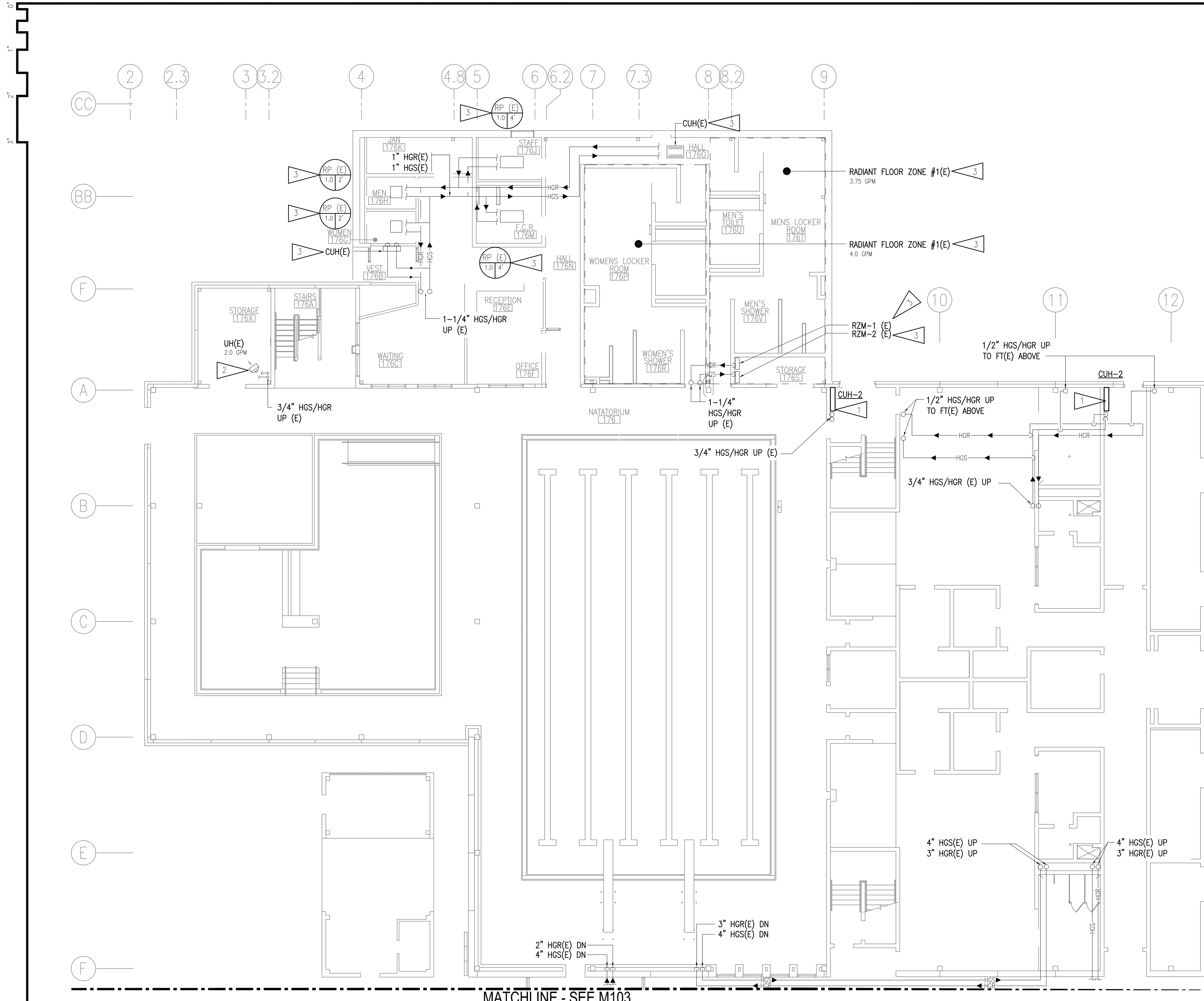
DRAWING TITLE:
REFERENCE PLAN
LEVEL 2

SHEET:
M004



1 LEVEL 1 HEATING PLAN - AREA A
1/8"=1'-0"

GENERAL NOTES:

A. FLUSH, DRAIN AND CLEAN ALL HGS/HGR PIPING AND HEATING EQUIPMENT THROUGHOUT THE SCHOOL. REFILL WITH NEW PRE-MIXED PROPYLENE GLYCOL AFTER SYSTEM CLEANING PROCEDURE IS COMPLETED IN ACCORDANCE WITH SPECIFICATION SECTION 23 21 16.

C. ALL EXISTING BRANCH PIPING 3/4" UNLESS OTHERWISE NOTED.

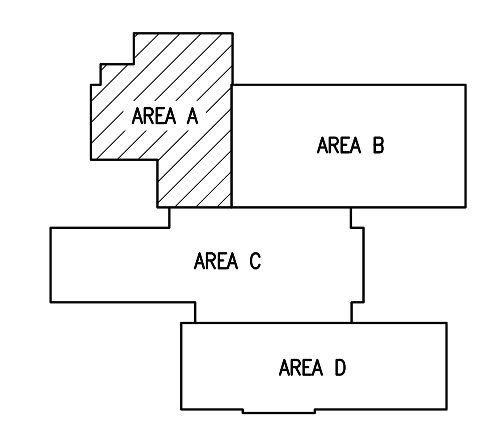
D. COORDINATE WORK WITH CONTRACTOR WORKING ON POOL UPGRADES PROJECT.

SHEET NOTES:

1. EXISTING CUH TO REMAIN, REPLACE CUH HEATING COIL, FLOW CONTROL CARTRIDGE AND AIR VENT. FLUSH AND CLEAN STRAINER.

2. EXISTING UNIT HEATER TO REMAIN. PROVIDE NEW FLOW CONTROL VALVE AND AIR VENT W/ISOLATION VALVE.

3. EXISTING HEATING EQUIPMENT, FLOW CONTROL CARTRIDGE AND AIR TO REMAIN. HEATING EQUIPMENT INSTALLED BY POOL UPGRADES CONTRACTOR. FLUSH AND CLEAN STRAINER.



KEYPLAN
NO SCALE

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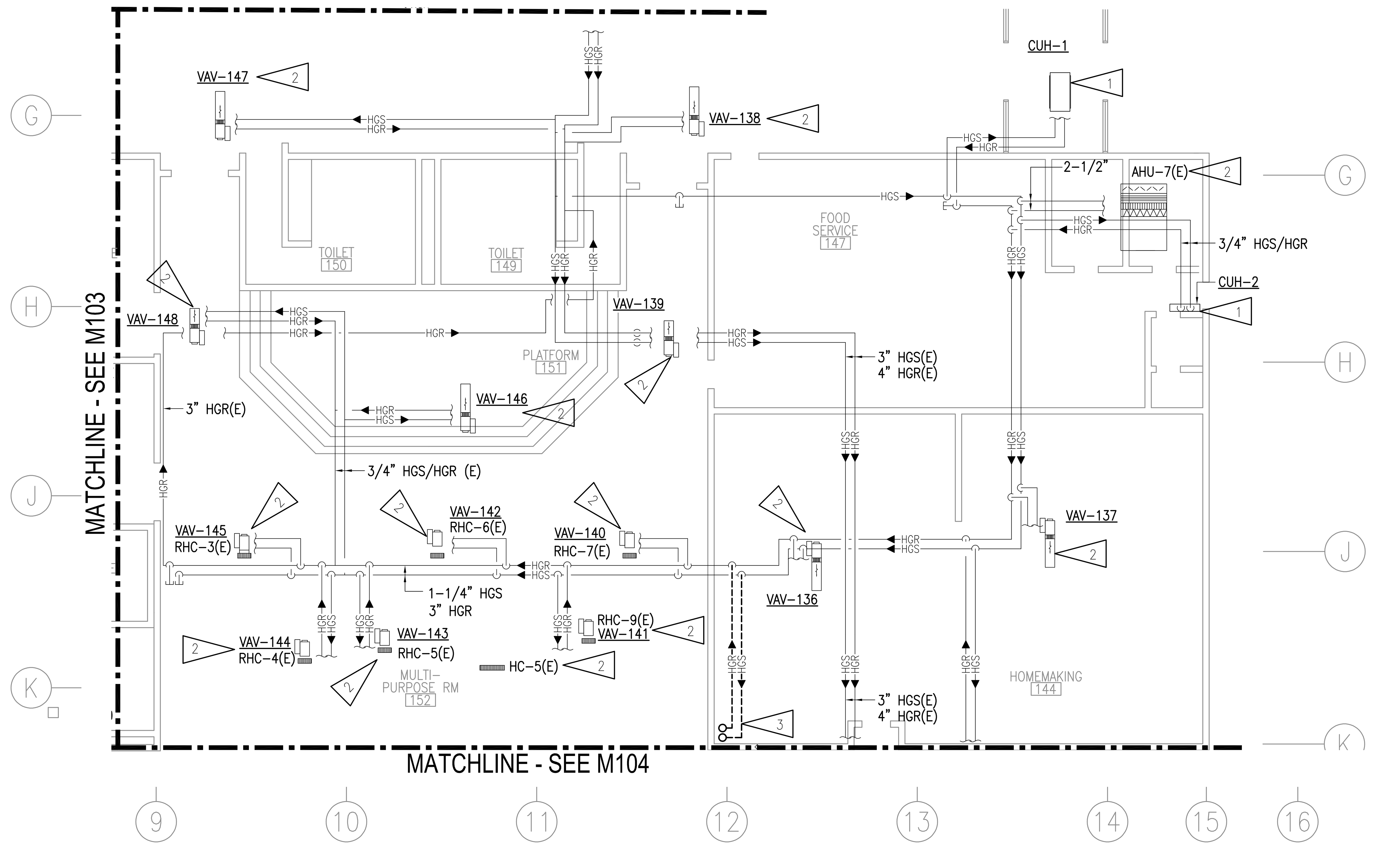
DRAWING TITLE:
LEVEL 1
HEATING PLAN
AREA A

SHEET:
M101



1 LEVEL 1 HEATING PLAN - AREA C EAST
1/8"=1'-0"

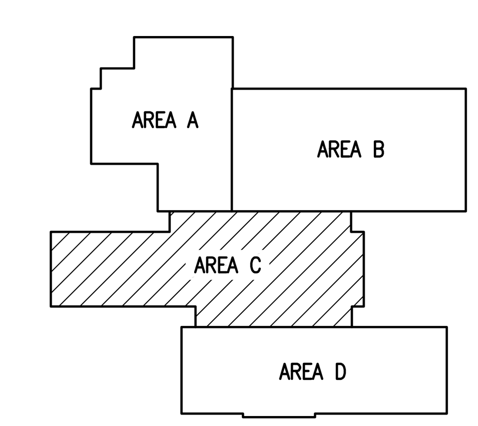
GENERAL NOTES:

A. FLUSH, DRAIN AND CLEAN ALL HGS/HGR PIPING AND HEATING EQUIPMENT THROUGHOUT THE SCHOOL. REFILL WITH NEW PRE-MIXED PROPYLENE GLYCOL AFTER SYSTEM CLEANING PROCEDURE IS COMPLETED IN ACCORDANCE WITH SPECIFICATION SECTION 23 21 16.

B. ALL EXISTING BRANCH PIPING 3/4" UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. EXISTING CUH TO REMAIN, REPLACE CUH HEATING COIL, FLOW CONTROL CARTRIDGE AND AIR VENT. FLUSH AND CLEAN STRAINER.
2. EXISTING HEATING COIL TO REMAIN. PROVIDE NEW FLOW CONTROL CARTRIDGE AND AIR VENT ON COIL PIPING. FLUSH AND CLEAN STRAINER.
3. DEMOLISH 3/4" HGS/HGR PIPING FROM HEATING MAIN UP TO CLERESTORY. CAP PIPING AT HEATING MAIN.



KEYPLAN
NO SCALE

RSA Engineering, Inc.
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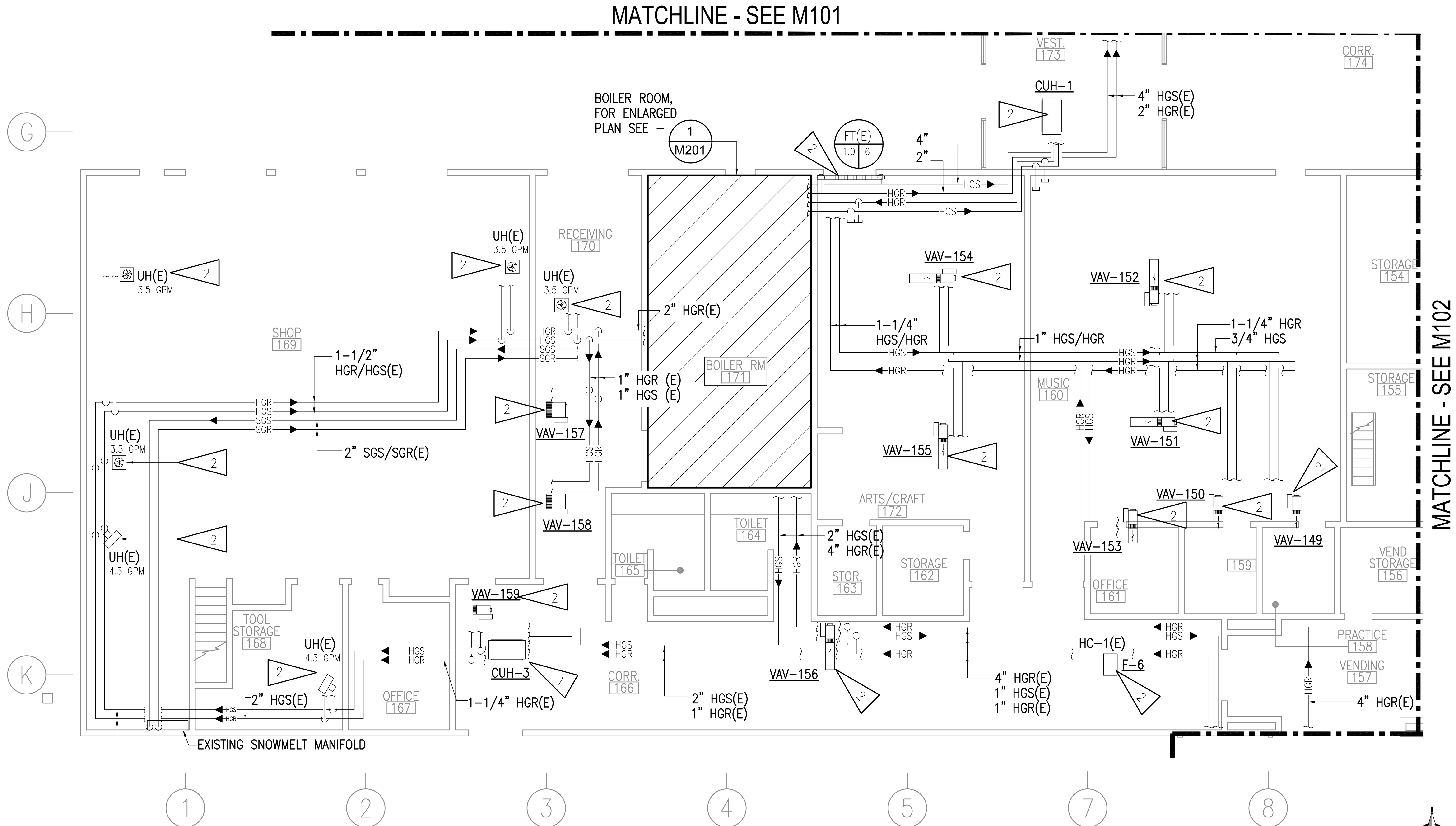
HEATING GLYCOL REPLACEMENT
VALDEZ HIGH SCHOOL
319 Robe River Dr
Valdez, Alaska

REVISIONS:

DRAWN BY:	MEM
CHECKED BY:	BPP
DATE:	10/02/2018
JOB NUMBER:	L8159
DWG FILE:	L8159_MSERIES

DRAWING TITLE:
LEVEL 1
HEATING PLAN
AREA C EAST

SHEET:
M102



1 LEVEL 1 HEATING PLAN - AREA C WEST
1/8"=1'-0"

GENERAL NOTES:

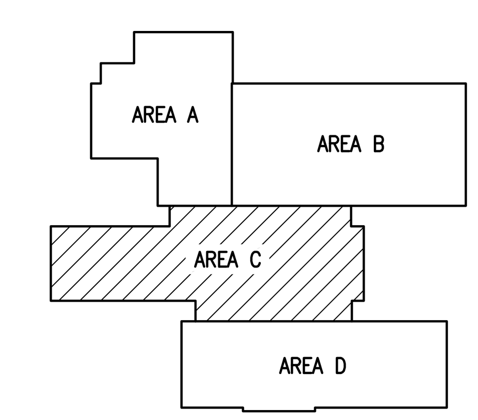
A. FLUSH, DRAIN AND CLEAN ALL HGS/HGR PIPING AND HEATING EQUIPMENT THROUGHOUT THE SCHOOL. REFILL WITH NEW PRE-MIXED PROPYLENE GLYCOL AFTER SYSTEM CLEANING PROCEDURE IS COMPLETED IN ACCORDANCE WITH SPECIFICATION SECTION 23 21 16.

B. ALL EXISTING BRANCH PIPING 3/4" UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. EXISTING CUH TO REMAIN, REPLACE CUH HEATING COIL, FLOW CONTROL CARTRIDGE AND AIR VENT. FLUSH AND CLEAN STRAINER.

2. EXISTING HEATING COIL/HEATING TERMINAL UNIT TO REMAIN. PROVIDE NEW FLOW CONTROL CARTRIDGE AND AIR VENT ON PIPING. FLUSH AND CLEAN STRAINER.



KEYPLAN
NO SCALE

STATE OF ALASKA 49TH BRIAN P. PEKAR ME-11249 REGISTERED PROFESSIONAL ENGINEER

CITY OF VALDEZ, ALASKA GATEWAY TO THE INTERIOR

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HEATING GLYCOL REPLACEMENT
VALDEZ HIGH SCHOOL
319 Robe River Dr
Valdez, Alaska

REVISIONS:

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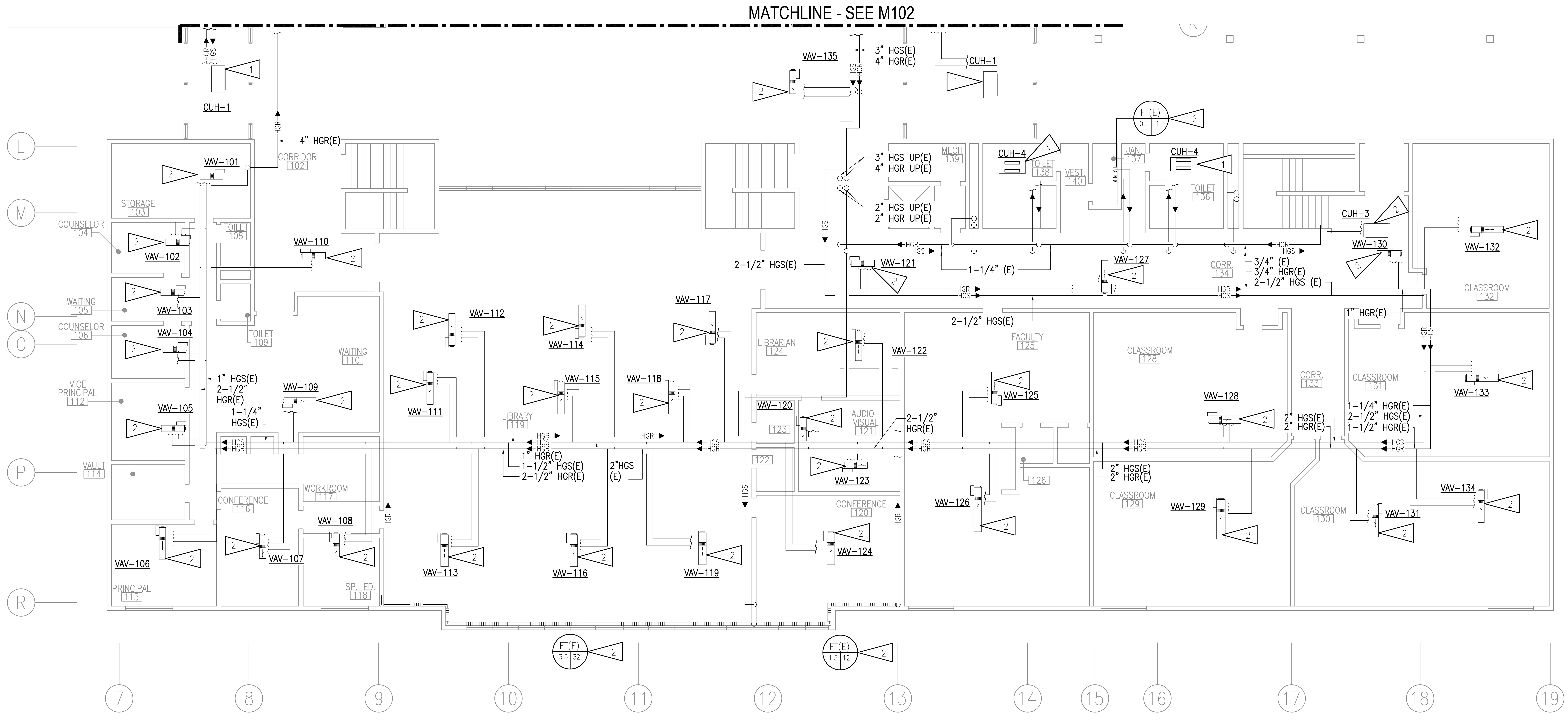
CHECKED BY:	BPP
DATE:	10/02/2018
JOB NUMBER:	L8159
DWG FILE:	L8159_MSERIES

DRAWING TITLE:
LEVEL 1
HEATING PLAN
AREA C WEST

SHEET:
M103



1 LEVEL 1 HEATING PLAN - AREA D

1/8"=1'-0"

GENERAL NOTES:

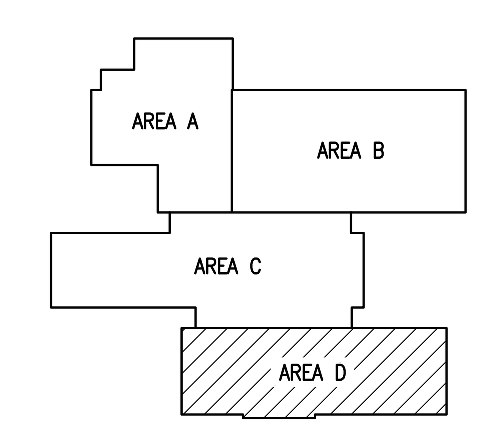
A. FLUSH, DRAIN AND CLEAN ALL HGS/HGR PIPING AND HEATING EQUIPMENT THROUGHOUT THE SCHOOL. REFILL WITH NEW PRE-MIXED PROPYLENE GLYCOL AFTER SYSTEM CLEANING PROCEDURE IS COMPLETED IN ACCORDANCE WITH SPECIFICATION SECTION 23 21 16.

B. ALL EXISTING BRANCH PIPING 3/4" UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. EXISTING CUH TO REMAIN, REPLACE CUH HEATING COIL, FLOW CONTROL CARTRIDGE AND AIR VENT. FLUSH AND CLEAN STRAINER.

2. EXISTING HEATING COIL/HEATING TERMINAL UNIT TO REMAIN. PROVIDE NEW FLOW CONTROL CARTRIDGE AND AIR VENT ON PIPING. FLUSH AND CLEAN STRAINER.



KEYPLAN

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HEATING GLYCOL REPLACEMENT

VALDEZ HIGH SCHOOL

319 Robe River Dr
Valdez, Alaska

REVISIONS:

DRAWN BY:	MEM
CHECKED BY:	BPP
DATE:	10/02/2018
JOB NUMBER:	L8159
DWG FILE:	L8159_MSERIES

DRAWING TITLE:
LEVEL 1
HEATING PLAN
AREA D

SHEET:
M104

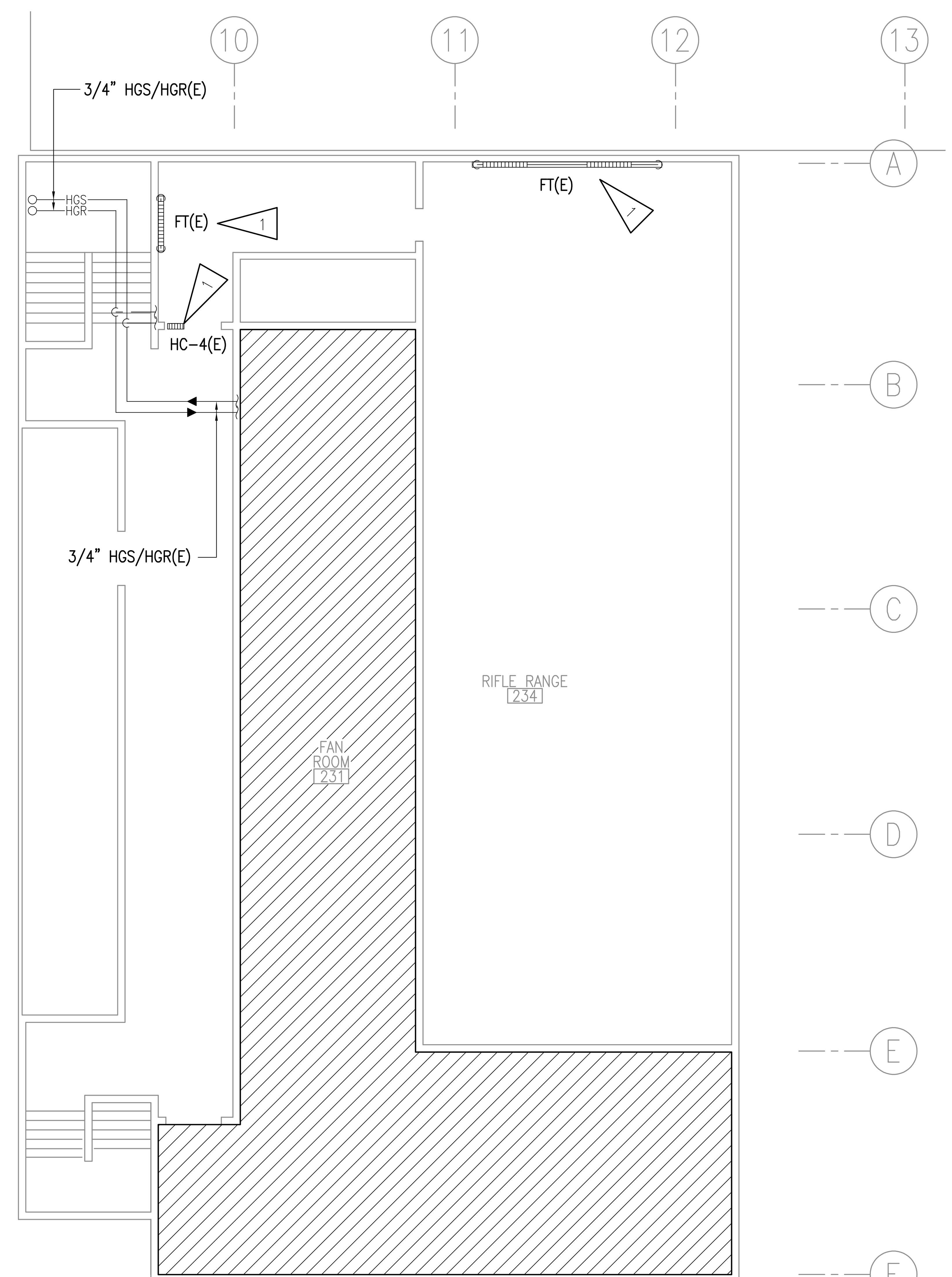
GENERAL NOTES:

A. FLUSH, DRAIN AND CLEAN ALL HGS/HGR PIPING AND HEATING EQUIPMENT THROUGHOUT THE SCHOOL. REFILL WITH NEW PRE-MIXED PROPYLENE GLYCOL AFTER SYSTEM CLEANING PROCEDURE IS COMPLETED IN ACCORDANCE WITH SPECIFICATION SECTION 23 21 16.

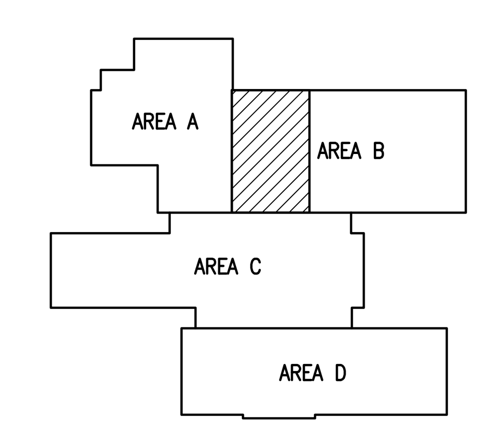
B. ALL EXISTING BRANCH PIPING 3/4" UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. EXISTING HEATING COIL/HEATING TERMINAL UNIT TO REMAIN. PROVIDE NEW FLOW CONTROL CARTRIDGE AND AIR VENT ON PIPING. FLUSH AND CLEAN STRAINER.



1 LEVEL 2 HEATING PLAN - AREA B
1/8"=1'-0"



KEYPLAN
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STATE OF ALASKA 49TH BRIAN P. PEKAR ME-11249 REGISTERED PROFESSIONAL ENGINEER

CITY OF VALDEZ, ALASKA GATEWAY TO THE INTERIOR

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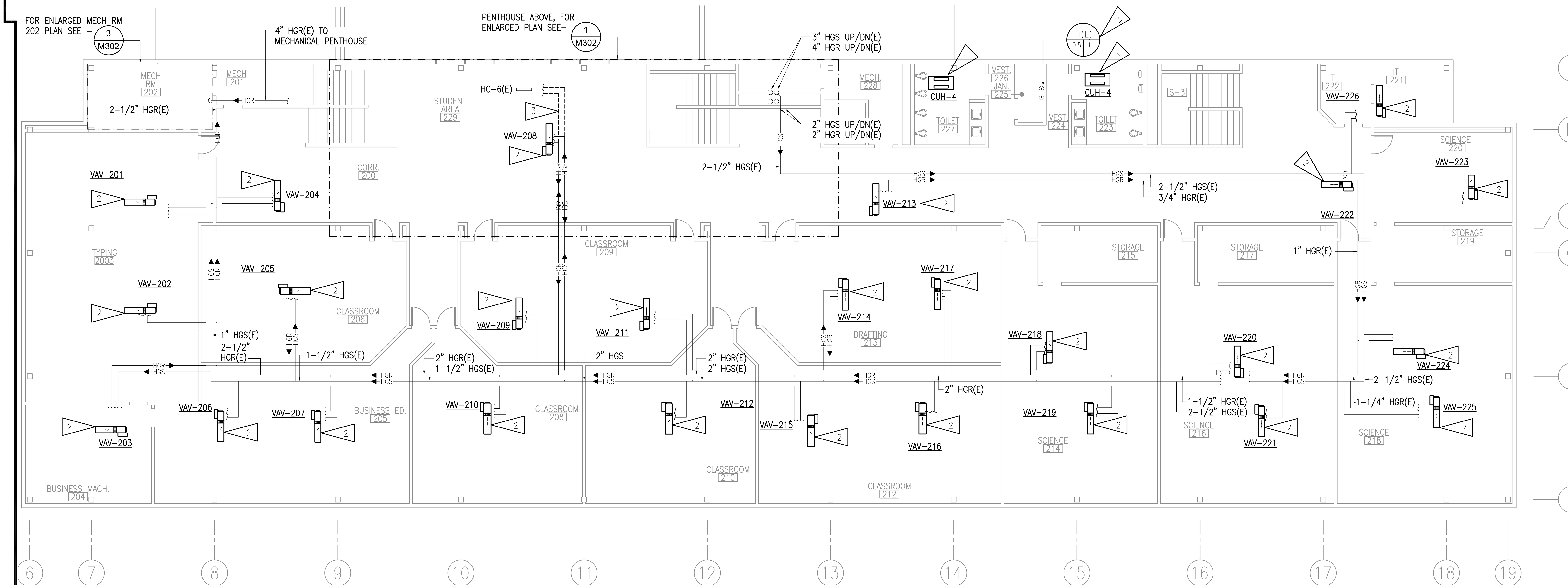
HEATING GLYCOL REPLACEMENT
VALDEZ HIGH SCHOOL
319 Robe River Dr
Valdez, Alaska

REVISIONS:

DRAWN BY:	MEM
CHECKED BY:	BPP
DATE:	10/02/2018
JOB NUMBER:	L8159
DWG FILE:	L8159_MSERIES

DRAWING TITLE:
LEVEL 2
HEATING PLAN
AREA B

SHEET:
M201



1 LEVEL 2 HEATING PLAN - AREA D

1/8"=1'-0"

GENERAL NOTES:

A. FLUSH, DRAIN AND CLEAN ALL HGS/HGR PIPING AND HEATING EQUIPMENT THROUGHOUT THE SCHOOL. REFILL WITH NEW PRE-MIXED PROPYLENE GLYCOL AFTER SYSTEM CLEANING PROCEDURE IS COMPLETED IN ACCORDANCE WITH SPECIFICATION SECTION 23 21 16.

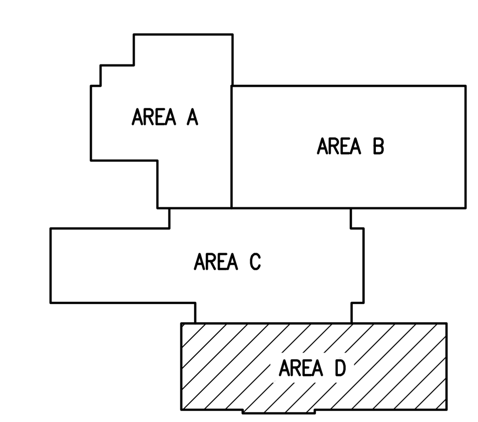
B. ALL EXISTING BRANCH PIPING 3/4" UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. EXISTING CUH TO REMAIN, REPLACE CUH HEATING COIL, FLOW CONTROL CARTRIDGE AND AIR VENT. FLUSH AND CLEAN STRAINER.

2. EXISTING HEATING COIL/HEATING TERMINAL UNIT TO REMAIN. PROVIDE NEW FLOW CONTROL CARTRIDGE AND AIR VENT ON PIPING. FLUSH AND CLEAN STRAINER.

3. DEMOLISH HGS/HGR PIPING TO HC-6. CAP PIPING AT MAINS, HC-6 TO BE ABANDONED IN PLACE.



KEYPLAN

NO SCALE

STATE OF ALASKA 49TH BRIAN P. PEKAR ME-11249 REGISTERED PROFESSIONAL ENGINEER

CITY OF VALDEZ, ALASKA GATEWAY TO THE INTERIOR

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HEATING GLYCOL REPLACEMENT
VALDEZ HIGH SCHOOL
319 Robe River Dr
Valdez, Alaska

REVISIONS:

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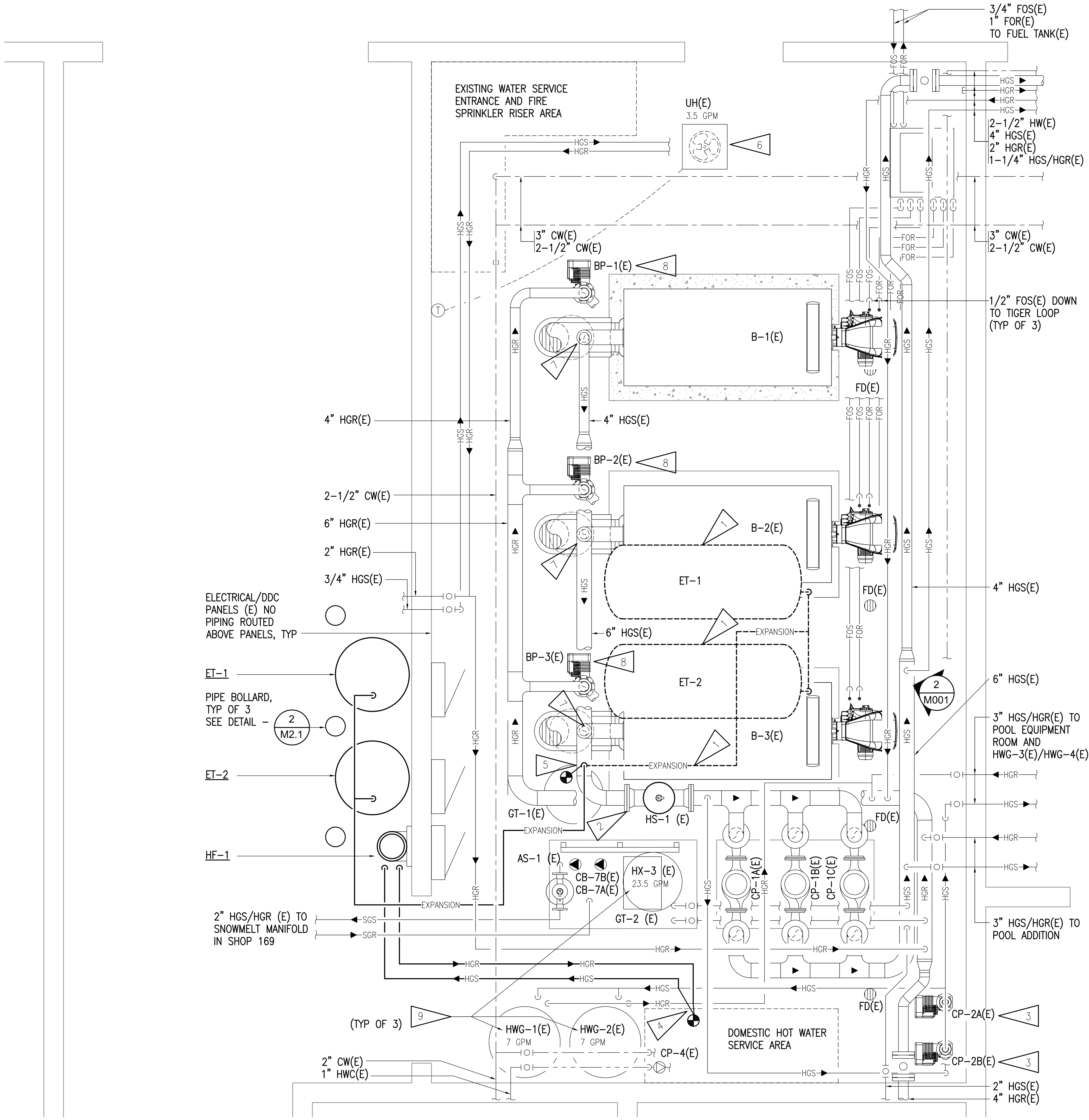
CHECKED BY:	BPP
DATE:	10/02/2018
JOB NUMBER:	L8159
DWG FILE:	L8159_MSERIES

DRAWING TITLE:
LEVEL 2
HEATING PLAN
AREA D

SHEET:
M202



1 ENLARGED BOILER ROOM PLAN
1/2"=1'-0"

GENERAL NOTES:

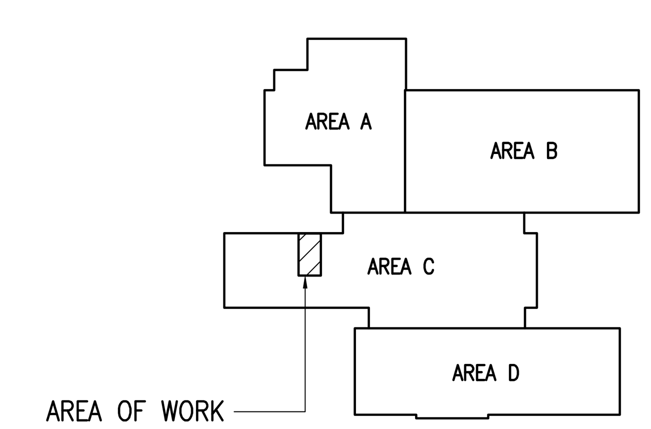
A. FLUSH, DRAIN AND CLEAN ALL HGS/HGR PIPING AND HEATING EQUIPMENT THROUGHOUT THE SCHOOL. REFILL WITH NEW PRE-MIXED PROPYLENE GLYCOL AFTER SYSTEM CLEANING PROCEDURE IS COMPLETED IN ACCORDANCE WITH SPECIFICATION SECTION 23 21 16.

B. COORDINATE WORK WITH CONTRACTOR WORKING ON POOL UPGRADES PROJECT.

C. FOR BOILER PIPING SCHEMATIC, SEE -3/M001.

SHEET NOTES:

1. DEMOLISH EXISTING EXPANSION TANKS SUSPENDED ABOVE BOILERS. DEMOLISH ASSOCIATED PIPING AND SUPPORTS. REMOVE AND RE-INSTALL PIPING AND CONDUITS AS REQUIRED.
2. REMOVE LOWER HEAD OF HYDRAULIC SEPARATOR. REMOVE TUBE BUNDLE. CLEAN HYDRAULIC SEPARATOR AND TUBE BUNDLE. RE-INSTALL AFTER SYSTEM CLEANING IS COMPLETED.
3. CIRCULATION PUMPS CP-2A, CP-2B SERVE THE POOL HEATING SYSTEM, SCHOOL AND KITCHEN DOMESTIC HOT WATER HEATING SYSTEMS. COORDINATE SHUTDOWN WITH OWNER/POOL UPGRADE CONTRACTOR.
4. CONNECT NEW 1" HGS/HGR TO HF-1 ON 1-1/2" BRANCH PIPING TO HOT WATER GENERATORS. EXISTING PIPING IS AQUATHERM POLYPROPYLENE AT POINT OF CONNECTION. RE-INSULATE EXISTING PIPING AT CONNECTION POINT.
5. CONNECT NEW 1-1/2" TO NEW EXPANSION TANKS TO EXISTING AQUATHERM POLYPROPYLENE PIPING.
6. EXISTING UNIT HEATER TO REMAIN. PROVIDE NEW FLOW CONTROL CARTRIDGE AND AIR VENT ON PIPING. FLUSH AND CLEAN STRAINER.
7. REPLACE FLOW CONTROL VALVE CARTRIDGE FOR EACH BOILER, 225 GPM, TYP OF 3.
8. FLUSH AND CLEAN STRAINER ON INLET OF PUMP.
9. FLUSH AND CLEAN STRAINER FOR HX/HWG. REPLACE FLOW CONTROL VALVE CARTRIDGE.



KEYPLAN
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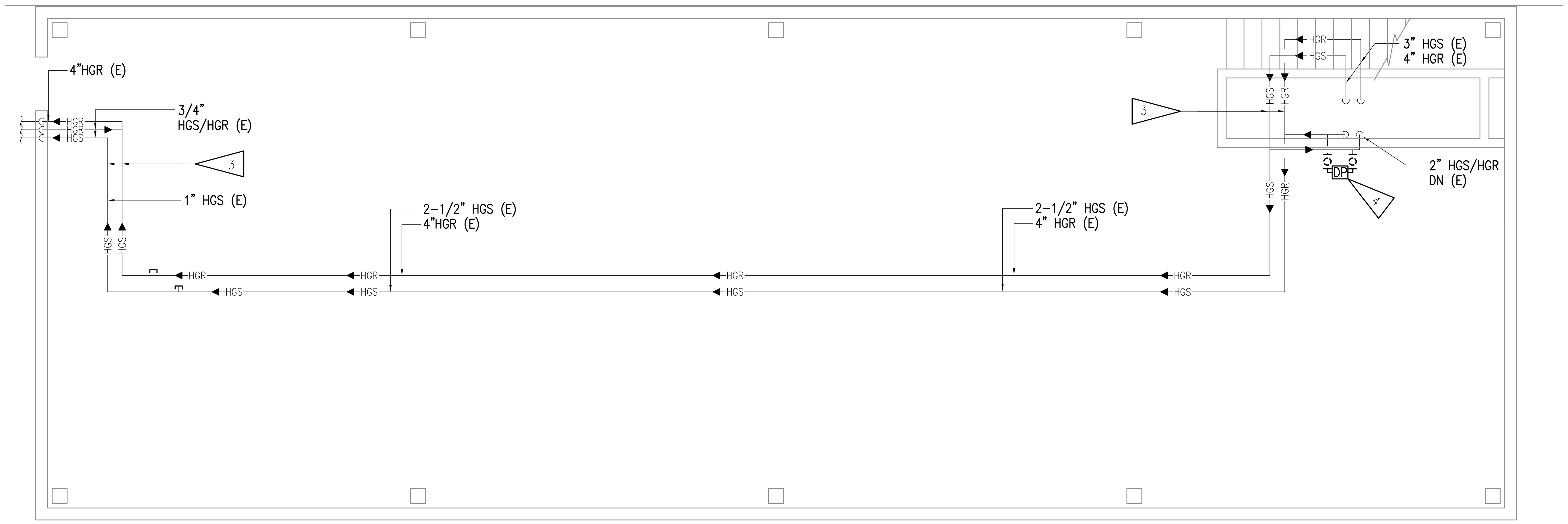
HEATING GLYCOL REPLACEMENT
VALDEZ HIGH SCHOOL
319 Robe River Dr
Valdez, Alaska

REVISIONS:

DRAWN BY:	MEM
CHECKED BY:	BPP
DATE:	10/02/2018
JOB NUMBER:	L8159
DWG FILE:	L8159_MSERIES

DRAWING TITLE:
ENLARGED BOILER ROOM PLAN

SHEET:
M301



1 ENLARGED MECHANICAL ROOM REMODEL PLAN - PENTHOUSE
1/4"=1'-0"

GENERAL NOTES:

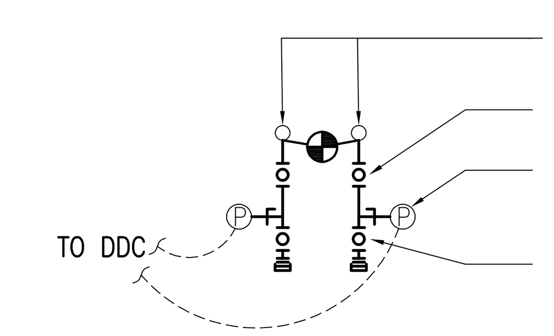
A. FLUSH, DRAIN AND CLEAN ALL HGS/HGR PIPING AND HEATING EQUIPMENT THROUGHOUT THE SCHOOL. REFILL WITH NEW PRE-MIXED PROPYLENE GLYCOL AFTER SYSTEM CLEANING PROCEDURE IS COMPLETED IN ACCORDANCE WITH SPECIFICATION SECTION 23 21 16.

B. ALL EXISTING BRANCH PIPING 3/4" UNLESS OTHERWISE NOTED.

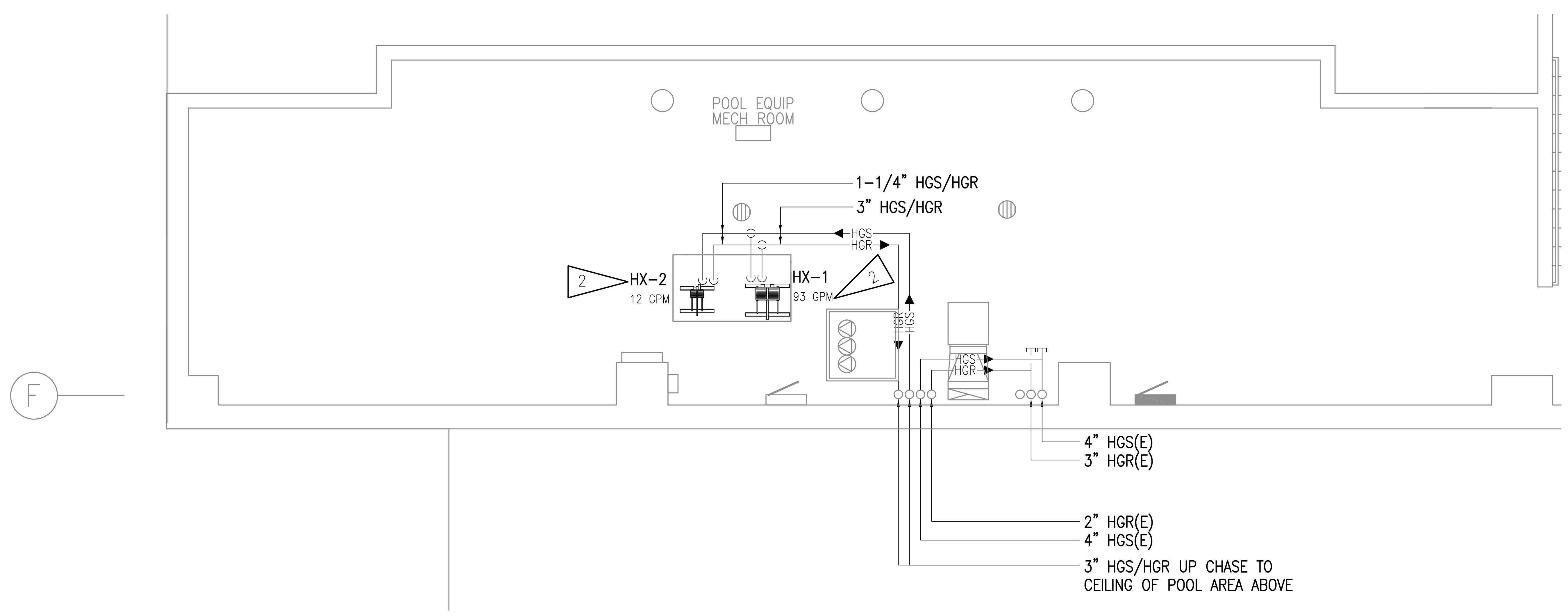
C. COORDINATE WORK WITH CONTRACTOR WORKING ON POOL UPGRADES PROJECT.

SHEET NOTES:

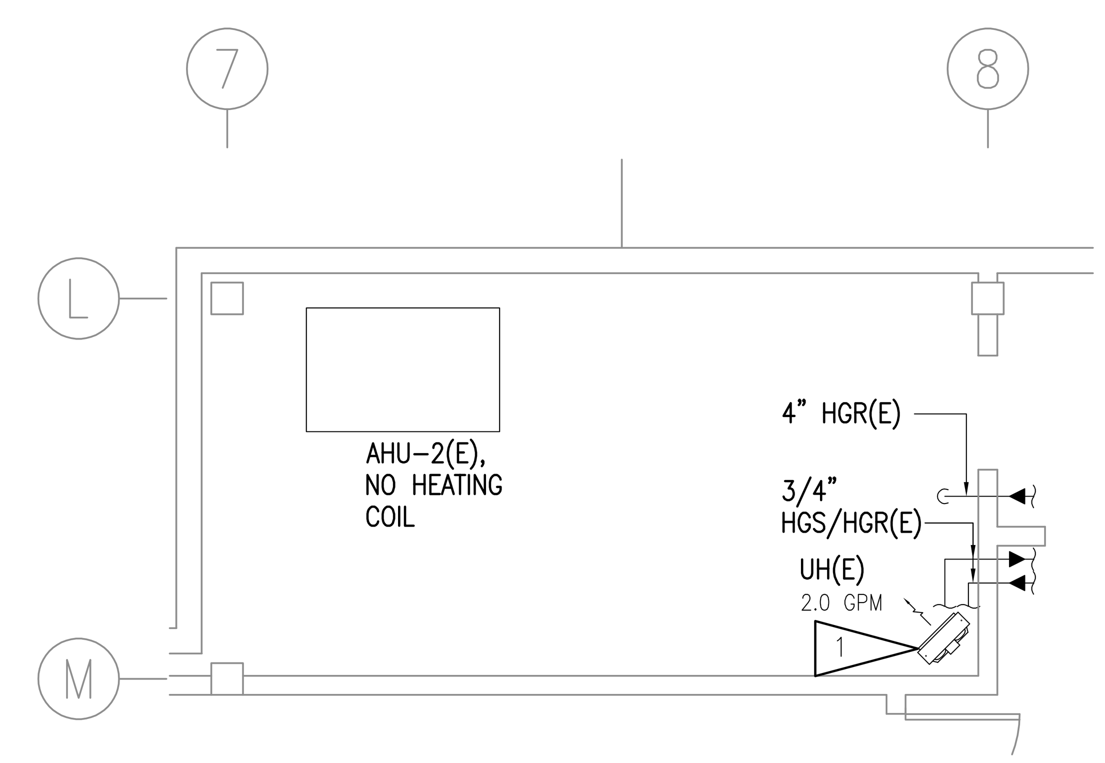
1. EXISTING UNIT HEATER TO REMAIN. PROVIDE NEW FLOW CONTROL VALVE AND AIR VENT W/ISOLATION VALVE, FLUSH AND CLEAN STRAINER.
2. EXISTING POOL HEATING HEAT EXCHANGERS TO REMAIN. CLEAN STRAINERS AND PROVIDE NEW FLOW CONTROL CARTRIDGES. COORDINATE SHUTDOWN OF POOL HEATING SYSTEM WITH OWNER/POOL UPGRADE CONTRACTOR.
3. REPLACE HIGH CAPACITY HIGH POINT AUTO AIR VENTS ON HGS/HGR PIPING WHERE INDICATED. PROVIDE NEW HIGH CAPACITY AUTO AIR VENTS WITH ISOLATION VALVES.
4. REMOVE DDC PRESSURE SENSOR, ADD ISOLATION VALVES AND HOSE THREAD DRAIN AND REINSTALL SENSOR. FOR PIPING DETAIL, SEE-4/M302.



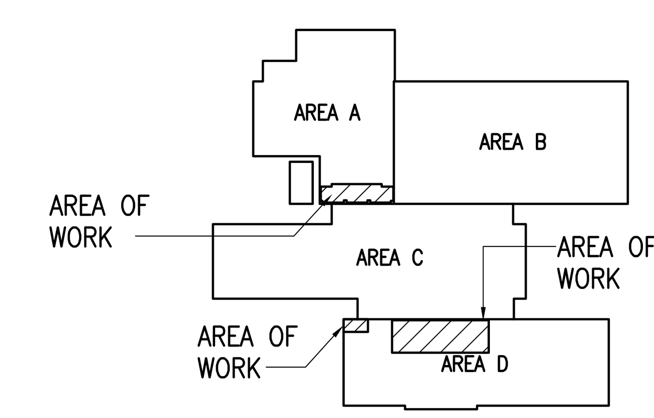
4 PRESSURE SENSOR PIPING DETAIL
NO SCALE



2 POOL EQUIPMENT ROOM REMODEL PLAN
1/4"=1'-0"



3 ENLARGED MECH ROOM 202 HEATING PLAN
1/4"=1'-0"



KEYPLAN
NO SCALE

BRIAN P. PEKAR
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STATE OF ALASKA

CITY OF VALDEZ, ALASKA
GATEWAY TO THE INTERIOR

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HEATING GLYCOL REPLACEMENT
VALDEZ HIGH SCHOOL
319 Robe River Dr
Valdez, Alaska

REVISIONS:

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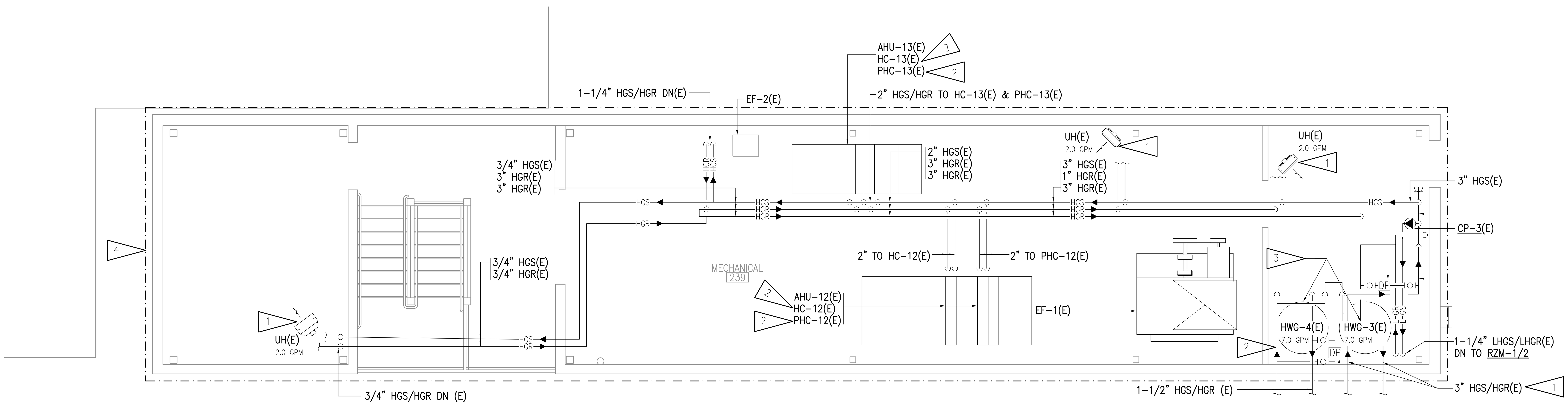
CHECKED BY:	BPP
DATE:	10/02/2018
JOB NUMBER:	L8159
DWG FILE:	L8159_MSERIES

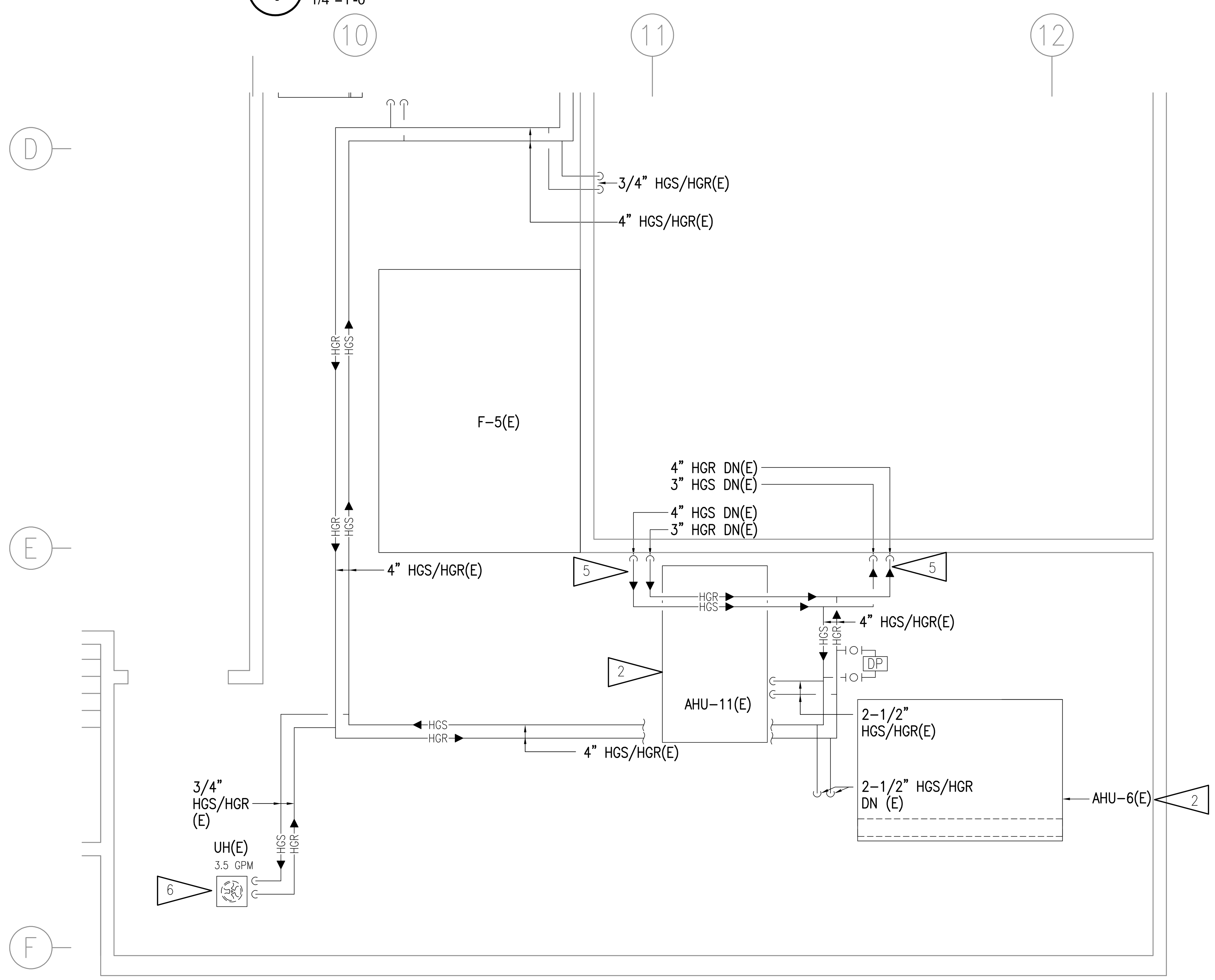
DRAWING TITLE:
ENLARGED
MECHANICAL ROOM
PLANS

SHEET:
M302



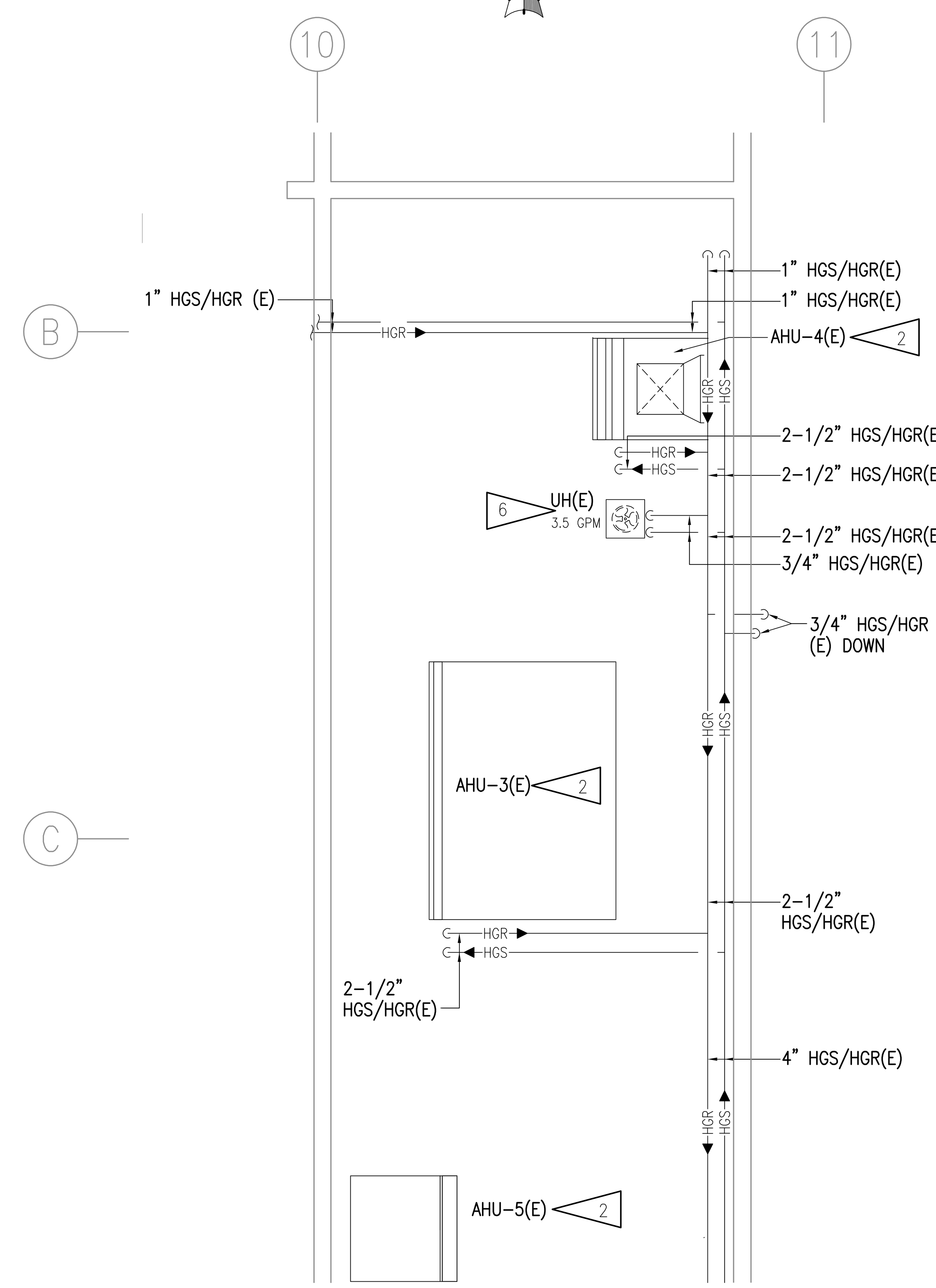
1 ENLARGED POOL ADDITION MECHANICAL ROOM HEATING PLAN

1/4"=1'-0"



2 ENLARGED FAN ROOM MECHANICAL REMODEL PLAN - PHYSICAL ED.

1/4"=1'-0"



3 ENLARGED FAN ROOM MECHANICAL REMODEL PLAN PHYSICAL ED.

1/4"=1'-0"

GENERAL NOTES:

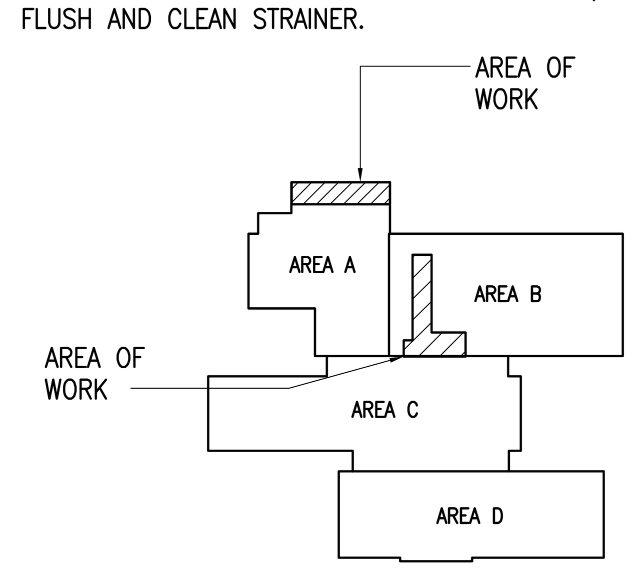
A. FLUSH, DRAIN AND CLEAN ALL HGS/HGR PIPING AND HEATING EQUIPMENT THROUGHOUT THE SCHOOL. REFILL WITH NEW PRE-MIXED PROPYLENE GLYCOL AFTER SYSTEM CLEANING PROCEDURE IS COMPLETED IN ACCORDANCE WITH SPECIFICATION SECTION 23 21 16.

B. ALL EXISTING BRANCH PIPING 3/4" UNLESS OTHERWISE NOTED.

C. COORDINATE WORK WITH CONTRACTOR WORKING ON POOL UPGRADES PROJECT.

SHEET NOTES:

1. EXISTING UNIT HEATER TO REMAIN. PROVIDE NEW FLOW CONTROL VALVE AND AIR VENT W/ISOLATION VALVE, FLUSH AND CLEAN STRAINER.
2. EXISTING HEATING COILS TO REMAIN. PROVIDE NEW FLOW CONTROL VALVE AND AIR VENT W/ISOLATION VALVE, FLUSH AND CLEAN STRAINER.
3. FLUSH AND CLEAN STRAINER FOR HWG. REPLACE FLOW CONTROL VALVE CARTRIDGE. POOL LOCKER ROOM DOMESTIC HOT WATER HEATING GENERATORS ARE CONNECTED TO THE HYDRONIC HEATING SYSTEM. COORDINATE SHUTDOWN OF POOL HEATING SYSTEM WITH OWNER/POOL UPGRADE CONTRACTOR.
4. AREA OF WORK FOR POOL UPGRADE PROJECT. WORK TO BE ON-GOING DURING SUMMER OF 2019. COORDINATE ALL WORK ACTIVITIES IN POOL UPGRADE PROJECT AREA WITH POOL UPGRADE CONTRACTOR AND OWNER.
5. PROVIDE NEW HIGH CAPACITY HIGH POINT AUTO AIR VENTS ON HGS/HGR PIPING WHERE INDICATED. PROVIDE NEW HIGH CAPACITY AUTO AIR VENTS WITH ISOLATION VALVES.
6. EXISTING UNIT HEATER TO REMAIN. PROVIDE NEW FLOW CONTROL VALVE CARTRIDGE AND AIR VENT, FLUSH AND CLEAN STRAINER.



KEYPLAN

NO SCALE

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HEATING GLYCOL REPLACEMENT

VALDEZ HIGH SCHOOL

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Valdez, Alaska

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DWG FILE:	L8159_MSERIES

DRAWING TITLE:
ENLARGED MECHANICAL ROOM PLANS

SHEET:
M303