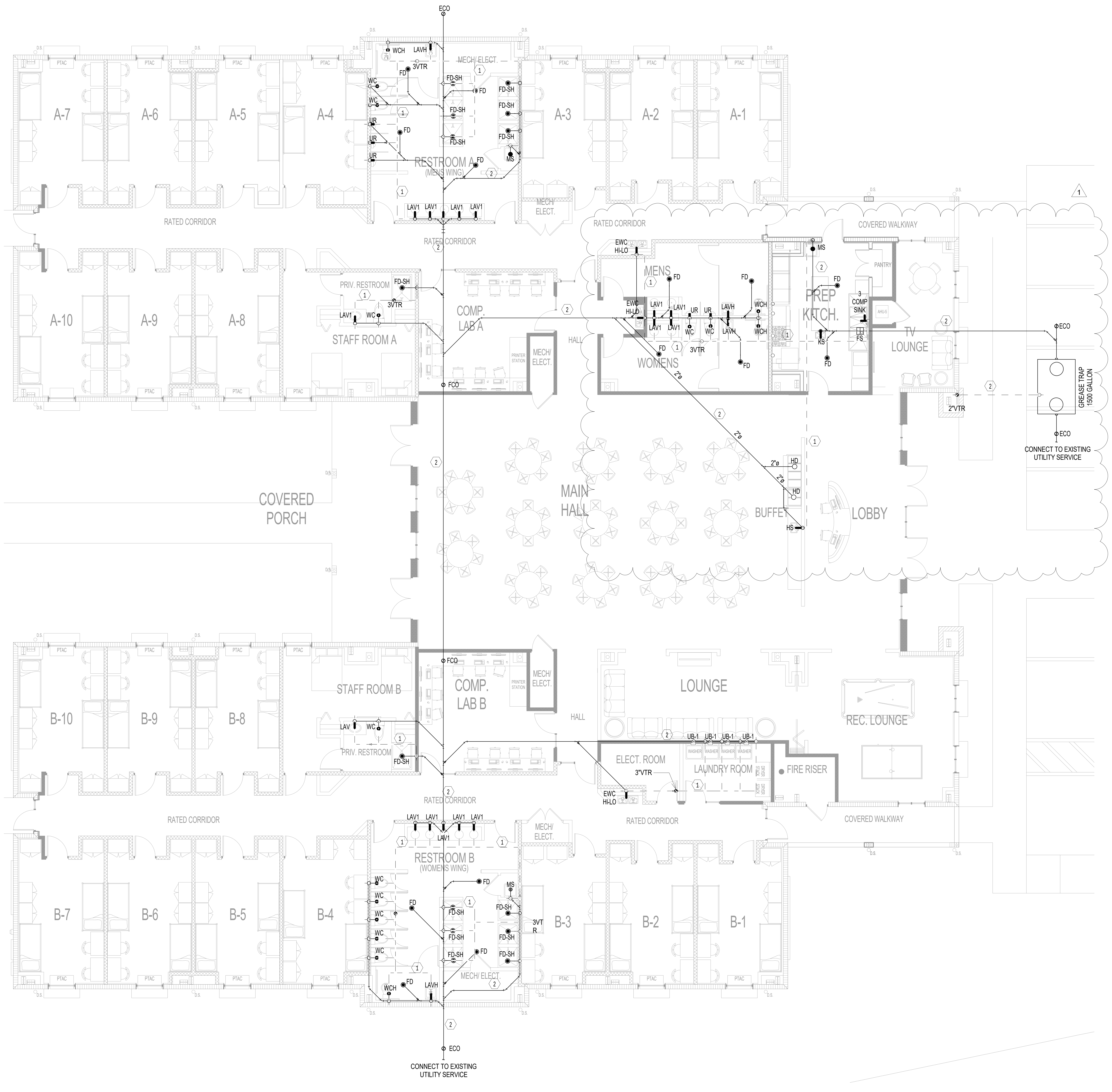

1 / P-1 Plumbing Floor Plan Sewer - Line
1/8" = 1'-0"

Reference Notes

Number	Description
1	PIPING LOCATED AT OR ABOVE CEILING.
2	PIPING LOCATED BELOW FLOOR SLAB.

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE NAME	MANUFACTURER	MODEL	DESCRIPTION
3 COMP SINK	3 COMPARTMENT SINK	SPECIFIED BY OWNER	SPECIFIED BY OWNER	SPECIFIED BY OWNER
CS		Therm-Omega-Tech, Inc.	CS-1/2-110	Self-actuating thermostatic recirculation valve for domestic hot water (DHW) system
ECO		WATTS	CO-300-MF	EPOXY HOUSING WITH ANCHOR FLANGES AND EXTRA HEAVY DUTY DUCTILE IRON COVER
EWC HI-LO	ELECTRIC WATER COOLER	ELKAY	LZSTL8WSLK	BOTTLE FILLING STATION & VERSATILE BI-LEVEL ADA COOLER, SHALL DELIVER 8 GPH OF 50F DRINKING WATER AT 90F AMBIENT AND 80F INLET WATER. COOLER UNITS SHALL HAVE PUSHBAR ACTIVATION. BOTTLE FILLING UNIT SHALL INCLUDE AN ELECTRONIC SENSOR FOR TOUCHLESS ACTIVATION WITH AUTO 20 SECOND SHUT-OFF TIMER. SHALL INCLUDE THE WATERSENTRY PLUS 3000 GALLON CAPACITY FILTER, CERTIFIED TO NSF/ANSI 42 AND 53, WITH VISUAL MONITOR TO INDICATE WHEN REPLACEMENT IS NECESSARY. SHALL INCLUDE INTEGRATED SILVER ION ANTI-MICROBIAL PROTECTION IN KEY AREAS.
FCO	FLOOR CLEAN OUT	WATTS	CO-270	EPOXY FLOOR CLEANOUT WITH 7" ROUND GASKETED TOP, REMOVABLE GAS TIGHT CLEANOUT PLUG
FD		ZURN	Z415B	WITH P-TRAP, TRAP PRIMER AND RECESSED RIM. DURA BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND TYPE "B" POLISHED NICKEL BRONZE, LIGHT DUTY STRAINER. TRAP PRIMER VALVE MODEL: PPP #P-2 OR #P-4 OR EQUAL, FOR DISTRIBUTION TO (1) OR (4) DRAINS.
FD-SH	FLOOR DRAIN SHOWER	JOSAM	30000 A SERIES	FLOOR DRAIN, TWO-PIECE BODY W/ DOUBLE DRAIN FLANGE AND 1/2" PRIME TAP, PER FORAIED SS GRATE.
FS		WATTS	FS-743	WATTS DRAINAGE PRODUCTS FS-740 12 IN. (305MM) SQUARE X 8 IN. (203MM) DEEP SANITARY FLOOR SINK WITH WHITE PORCELAIN ENAMEL COATED INTERIOR, LOOSE SET PORCELAIN ENAMEL, ALUMINUM DOME BOTTOM STRAINER, AND NO HUB (STANDARD) OUTLET
HD		ZURN	Z400E	DURA COATED WITH NIKEL BRONZE TYPE B TOP.
HS		PROVIDE BY OWNER	PROVIDE BY OWNER	PROVIDE MIXING VALVE (MODEL: 104451 MOEN OR SIMILAR)
KS		ELKAY	LRAD-3319	SINK COUNTER TOP: 18GA, 304 SS, DOUBLE COMPARTMENT 4 HOLE PUNCH, SELF RIMMING, ADA COMPLIANT. TOP MOUNT. WITH FAUCET (MODEL: ELKAY LK4000)
LAV	LAVATORY WALL MOUNT	KOHLER	PINOIR K-2035-4	VITREOUS CHINA, WALL-MOUNT, OVAL BASIN WITH OVERFLOW, 22"x18". WITH FAUCET (MODEL: WS84503 MOEN) AND VALVE MODEL: 104451
LAV1	LAVATORY DROP IN OVAL	KOHLER	SERIF K-2075-8	VITREOUS CHINA, DROP-IN, OVAL BASIN WITH OVERFLOW, 22-1/8"x16-1/4"x8-1/4". COLOR BY ARCHITECT. WITH FAUCET (MODEL: 8884 MOEN) WITH MIXING VALVE (MODEL: 104451 MOEN)
LAVH	LAVATORY HANDICAPPED	KOHLER	K-2031-0	WALL MOUNT SINK , 20-3/4"x18-1/4", VITREOUS CHINA, FRONT OVERFLOW FOR CONCEALED ARMS SUPPORT, COLOR SELECTED BY ARCHITECT. MOEN MODEL: 8884 W/MIXING FAUCET, VALVE MODEL: 104451. SINGLE HANDLE, 0.25 GPM AERATOR, VANDAL RESISTANT, ALL CHROME FINISH, 4" COVER PLATE LESS POP-UP. McGUIRE 8902 PERFORATED GRID STRAINER 1 1/4" O.D OFFSET TAILPIECE, 17 GAUGE. 1 1/4"x1 1/2" P-TRAP W/CLEANOUT. ALL OF THE ABOVE SHALL BE CHROME PLATED CAST BRASS, INCLUDING ESCUTCHEON PLATE. TAILPIECE OFFSET ADJUSTED TO A HEIGHT AS RECOMMENDED BY THE MANUFACTURER TO MEET ADA. McGUIRE 158-WC SUPPLY/STOP & WALL MOUNTED CHROME PLATED BRASS WITH SOLID RING ESCUTCHEONS. ZURN ZR-1231 CARRIER. HANDI LAV-GUARD MODEL 101 BY TRUEBO OR TRAPWRAP 500 BY BROCAR PRODUCTS, INC. INSULATE WATER AND WASTE WATER LINES, INCLUDING P-TRAP AND SUPPLY STOPS.
MS		FIAT	MSB-2424	FLOOR MOUNTED, 24"x 24" W/ 830-AA FAUCET & VACUUM BREAKER 1453-BB STRAINER AND 832-AA HOSE BRACKET.
SH	SHOWER	SYMMONS	SAFETYMIX 1-100	PRESSURE-BALANCING MIXING VALVE SHOWER SYSTEM: ADJUSTABLE STOP SCREW, SUPER SHOWER HEAD WITH ARM AND FLANGE, STAINLESS STELL FINISH.
TPV-1	TRAP PRIMER VALVE WITH TRAP PRIMER DISTRIBUTION UNIT	PRECISION PLUMBING PRODUCTS	P-2 OR P-4	TRAP PRIMER VALVE MODEL: PPP #P-2 OR #P-4 OR EQUAL, FOR DISTRIBUTION TO (1) OR (4) DRAINS. PROVIDE WHERE REQUIRED BY LOCAL AUTHORITIES HAVING JURISDICTION.
UB	UTILITY ICE MAKER	OATEY	38688	HIGH IMPACT METAL UTILITY BOX WITH ANGEL STOP AND 1/4" X 36" LONG COILED COPPER TUBING
UB-1	UTILITY BOX WASHING MACHINE	OATEY	38393	HIGH IMPACT PLASTIC UTILITY BOX 1/4" TURN BRASS HAMMER VALVE COPPER SWEAT. STANDARD PACK.
UR	URINAL	AMERICAN STANDARD	TRIMBROOK 6561.017	WALL HUNG, VITREOUS CHINA, TOP SPUD, SIPHON JET WITH SLOAN1.0 GAL PER FLUSH VALVE. MOUNT WITH LIP AT 24" ABOVE FINISHED FLOOR
WC	WATER CLOSET TANK TYPE	AMERICAN STANDARD	2467.100	CADETE FLOWWISE, RIGHT HEIGHT ELONGATED PRESSURE-ASSISTED TOILET, 1.1 GPF. VITREOUS CHINA, ULTRA LOW CONSUPTION. 12" ROUGH IN. COLOR TO BE DETERMINED BY ARCHITECT. UNIVERSAL BOWL. SEAT AMERICAN STANDARD #5901.100 ELONGATED HEAVY DUTY BOWL OPEN FRONT SEAT LESS COVER.
WCH	WATER CLOSET HANDICAPPED TANK TYPE	AMERICAN STANDARD	2467.100	CADETE FLOWWISE, RIGHT HEIGHT ELONGATED PRESSURE-ASSISTED TOILET 1.1 GPF. VITREOUS CHINA, ULTRA LOW CONSUPTION. 12" ROUGH IN. COLOR TO BE DETERMINED BY ARCHITECT. UNIVERSAL BOWL. SEAT AMERICAN STANDARD #5901.100 ELONGATED HEAVY DUTY BOWL OPEN FRON SEAT LESS COVER. ADA COMPLIANT
WHA	WATER HAMMER ARRESTOR	PRECISION PLUMBING	PRODUCT TYPE SC, OR EQUAL BY SIOUX CHIEF # 660	WATER HAMMER ARRESTOR: INSTALL IN STRIC ACCORDANCE WITH PLUMBING DRAINAGE INSTITUTE (P.D.I) STANDARDS AND MANUFACTURER'S RECOMMENDATIONS. LETTER "A", "B", "C" OR "D" INDICATE SIZE

#	REVISIONS	
1	03/05/20	Field Changes

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FARSHAD ANTIKCHI, PE 72998

PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER: OWNER/REP: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL32114 (386)271-3924
PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLYER, 375 FENTRESS BOULEVARD, DAYTONA BEACH FL, 32114, PH:(386)576-7177

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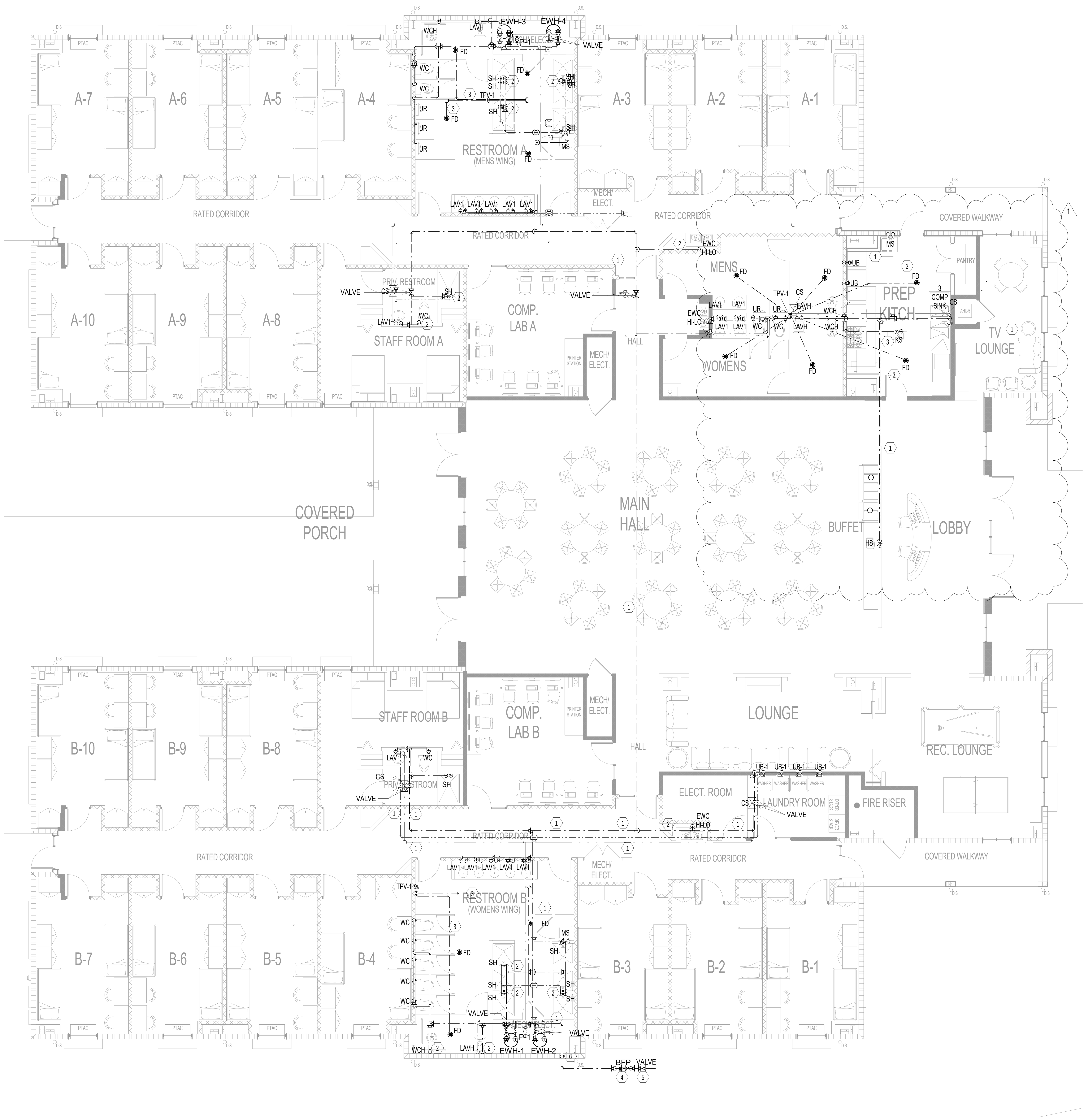
PLUMBING FLOOR PLAN - SEWER

DATE: 05/13/2019
SCALE: AS SHOWN
SHT NO. P-1

ARCHITECT'S / ENGINEER'S SEAL



1
P-2
Plumbing Floor Plan - Water Line
1/8" = 1'-0"

Reference Notes

Number	Description
1	PIPING LOCATED AT OR ABOVE CEILING.
2	PIPING DROP AND RUN IN WALL.
3	PIPING LOCATED BELOW FLOOR SLAB.
4	NEW REDUCED PRESSURE PRINCIPAL BACK-FLOW PREVENTION ASSEMBLY(R.P.)SHALL BE INSTALLED ON WATER PIPE. PER FBCP SECTION 608. FIELD VERIFY LOCATION. SEE CIVL DRAWINGS FOR SPECIFICATIONS.
5	BUILDING SERVICE WATER SHUT-OFF VALVE IN RECESSED VALVE BOX WITH REMOVABLE ACCESS COVER FLUSH WITH GRADE OR PAVEMENT.
6	WATER PIPING RISE FROM BELOW GRADE, OFFSET INTO WALL ABOVE FLOOR SLAB IN WALL, RISE TO ABOVE CEILING.

ELECTRICAL WATER HEATER SCHEDULE

Mark	MANUFACTURER	MODEL	LOCATION	DESCRIPTION	PERFORMANCE	ELECTRIC SPEC.	INPUT [W]	WEIGHT [LB]
EWH-1	RHEEM	ELD80-C	MECH/ELECT	80 Gallon capacity, 0.93 UEF	41 GPH Recovery at 120° rise	208/3/60	12000 W	220
EWH-2	RHEEM	ELD80-C	MECH/ELECT	80 Gallon capacity, 0.93 UEF	41 GPH Recovery at 120° rise	208/3/60	12000 W	220
EWH-4	RHEEM	ELD80-C	MECH/ELECT	80 Gallon capacity, 0.93 UEF	41 GPH Recovery at 120° rise	208/3/60	12000 W	220
EWH-3	RHEEM	ELD80-C	MECH/ELECT	80 Gallon capacity, 0.93 UEF	41 GPH Recovery at 120° rise	208/3/60	12000 W	220

HOT WATER RETURN PUMP

Mark	MANUFACTURER	MODEL	Level	DESCRIPTION	PERFORMANCE	ELECTRIC SPEC.	INPUT [W]	WEIGHT [LB]
P-1	GRUNDFOS	UPS-15-42	Level 1	VersaFlo Multiple Speed In-Line Circulator Pump	10FT Head/5GPM	115/1/60	85 W	6
P-1	GRUNDFOS	UPS-15-42	Level 1	VersaFlo Multiple Speed In-Line Circulator Pump	10FT Head/5GPM	115/1/60	85 W	6
P-2			Level 1					

FIXTURE CALCULATION - DME SPORTS HOUSING COMPLEX
PER TABLE E103.3(2)

FIXTURE	OCCUPANCY	TYPE OF SUPPLY CONTROL	Quantity	LOAD VALUES, IN WATER SUPPLY FIXTURE UNITS (wsfu)			TOTAL LOAD VALUES, IN WATER SUPPLY FIXTURE UNITS (wsfu)		
				Cold	Hot	Total	Cold	Hot	Total
Bathroom group	Private	Flush tank		2.7	1.5	3.6	0	0	0
Bathroom group	Private	Flushometer valve		6	3	8	0	0	0
Bathtub	Private	Faucet		1	1	1.4	0	0	0
Bathtub	Public	Faucet		3	3	4	0	0	0
Bidet	Private	Faucet		1.5	1.5	2	0	0	0
Combination fixture	Private	Faucet		2.25	2.25	3	0	0	0
Dishwashing machine	Private	Automatic		—	1.4	1.4		0	0
Drinking fountain	Offices, etc.	$^3/_8$" valve	3	0.25	—	0.25	0.75		0.75
Kitchen sink	Private	Faucet		1	1	1.4	0	0	0
3 COMP SINK	Private	Faucet	1	3	3	4	3	3	4
Kitchen sink	Hotel, restaurant	Faucet		3	3	4	0	0	0
Laundry trays (1 to 3)	Private	Faucet		1	1	1.4	0	0	0
Lavatory	Private	Faucet	20	0.5	0.5	0.7	10	10	14
Lavatory	Public	Faucet		1.5	1.5	2	0	0	0
Service sink	Offices, etc.	Faucet	2	2.25	2.25	3	4.5	4.5	6
Shower head	Public	Mixing valve		3	3	4	0	0	0
Shower head	Private	Mixing valve	14	1	1	1.4	14	14	19.6
UTILITY BOX	Private	Automatic	2	0.5	-	0.5	1		1
Urinal	Public	1" flushometer valve		10	—	10	0		0
Urinal	Public	$^3/_4$" flushometer valve	5	5	—	5	25		25
Urinal	Public	Flush tank		3	—	3	0		0
Washing machine (8 lb)	Private	Automatic	4	1	1	1.4	4	4	5.6
Washing machine (8 lb)	Public	Automatic		2.25	2.25	3	0	0	0
Washing machine (15 lb)	Public	Automatic		3	3	4	0	0	0
Water closet	Private	Flushometer valve		6	—	6	0		0
Water closet	Private	Flush tank	15	2.2	—	2.2	33		33
			TOTAL				95.25	35.5	108.95
			SIZE						2 1/2"

For SI: 1 inch = 25.4 mm, 1 pound = 0.454 kg.

a. For fixtures not listed , loads should be assumed by comparing the fixture to one listed using water in similar quantities and at similar rates. The assigned loads for fixtures with both hot and cold water supplies are given for separate hot and cold water loads and for total load. The separate hot and cold water loads being three-fourths of the total load for the fixture in each case.

REVISIONS

#	Date	Description
1	03/05/20	Field Changes

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DME SPORTS HOUSING COMPLEX

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PLUMBING FLOOR PLAN - WATER

DATE: 05/13/2019
SCALE: AS SHOWN
SHT NO.P-2

ARCHITECT'S / ENGINEER'S SEAL

TABLE 402.4(28) FBCFG 6TH EDITION (PROPANE TANK)
MAIN PIPE SIZE: 1" Ø
MAX LENGHT: 60 FT
SPECIFIC GRAVITY: 1.50
TOTAL CONNECTION LOAD: 418 MBH
PRESSURE DROP: 0.5 IN. W.C
INLET PRESSURE: 11.0 IN. W.C

1
P-3
Plumbing Floor Plan - Water Line
1/8" = 1'-0"

Reference Notes

#

Number	Description
1	PIPING LOCATED AT OR ABOVE CEILING.
2	PIPING LOCATED BELOW GRADE.
3	GAS PIPING GOING UP.
4	GAS PIPING GOING DOWN.
5	PIPING LOCATED IN WALL AND RUN TO CONNECT TO FIXTURES.

FOOD SERVICE EQUIPMENT SCHEDULE

ITEM NO.	QTY.	EQUIPMENT CATEGORY	MANU/MODEL
1A	1	S/S TABLE 48" X 30"	REGENCY/600WT30X48BS
1B	1	S/S TABLE 96" X 30"	REGENCY/600WT30X60BS
2	1	TRAY WARMER	WIN-HOLT/NHPL-1836-ECO
3	1	UNDERCOUNTER DISHWASHER	NOBEL/UL30
4	1	DBL CONVECTION OVEN	CPG/FGC200L
5	1	HOOD	REFER TO MECH
6	1	6 BURNER STOVE W/RANGE	ROYAL/RR6
7	1	GRIDDLE W/RANGE	ROYAL/RR-G36
8	1	54" W REFRIDGERATOR	AVANTCO/A49RHC
9	1	29" W FREEZER	AVANTCO/A23FHC
10	1	ICE MACHINE	ICE-O-MATIC/U150
11	1	3 COMP. SINK W/ DRAINBOARDS	ADVANCE TABCO/FC2030-24RL
12	1	FREE STANDING HAND SINK	T.B.D.
13	1	IN-COUNTER HAND SINK	T.B.D.
14	1	WARMER TRAYS (4 PAN)	VOLLRATH/38004
15	1	COLD TRAYS (2 PAN)	VOLLRATH/38012
16	1	MOP SINK	FIAT/MSB-2424

#	REVISIONS
1	03/05/20 Field Changes

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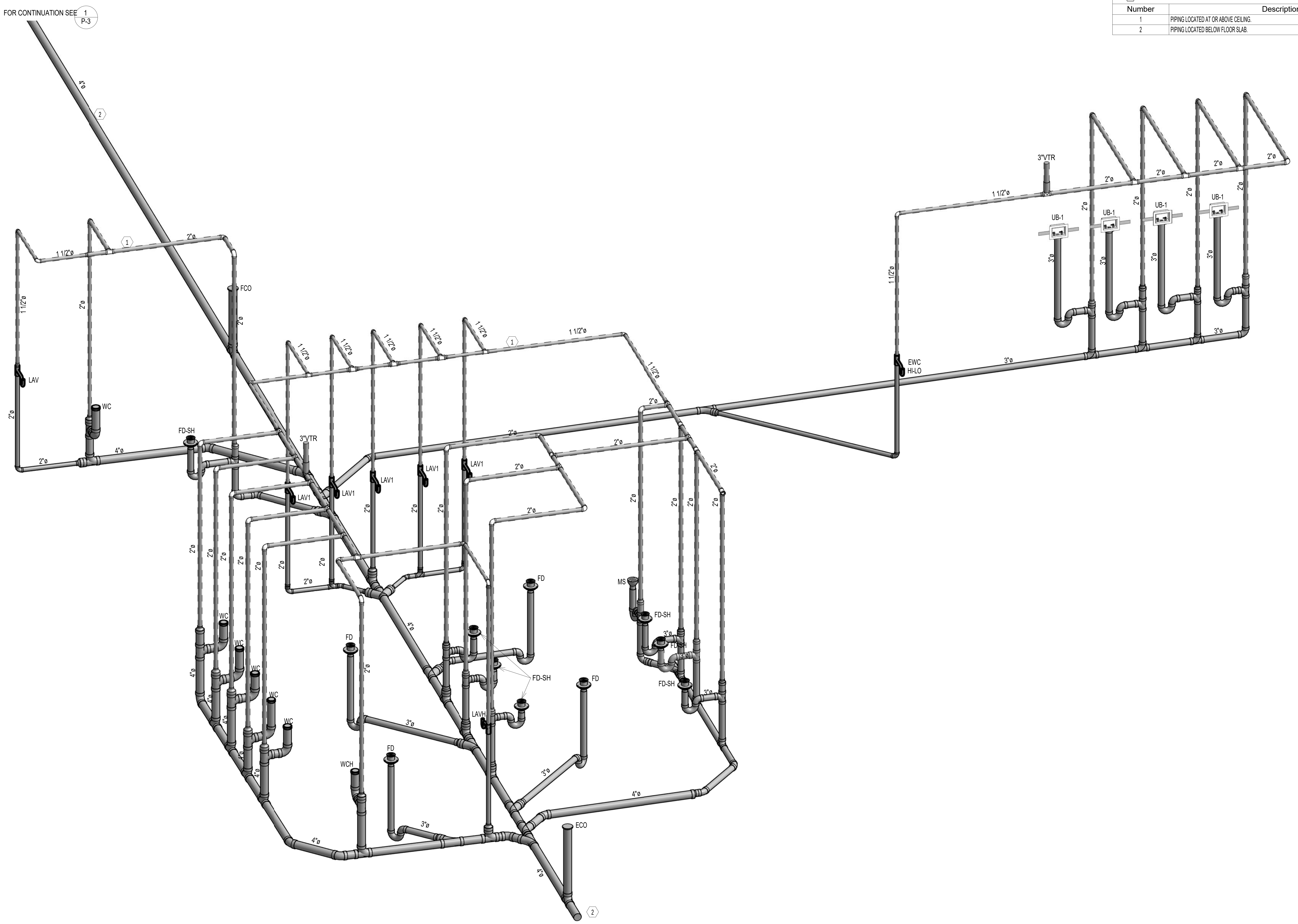
PLUMBING FLOOR PLAN - GAS

DATE: 05/13/2019
SCALE: AS SHOWN
SHT NO.P-3

ARCHITECT'S / ENGINEER'S SEAL



Reference Notes

⬡#

Number	Description
1	PIPING LOCATED AT OR ABOVE CEILING.
2	PIPING LOCATED BELOW FLOOR SLAB.

1
P-4
Plumbing Riser Diagram -Sewer.

#	REVISIONS

ENGINEERING

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PLUMBING RISER DIAGRAM - SEWER

DATE: 05/13/2019
SCALE: AS SHOWN
SHT NO.P-4

ARCHITECT'S / ENGINEER'S SEAL

Reference Notes

#

Number	Description
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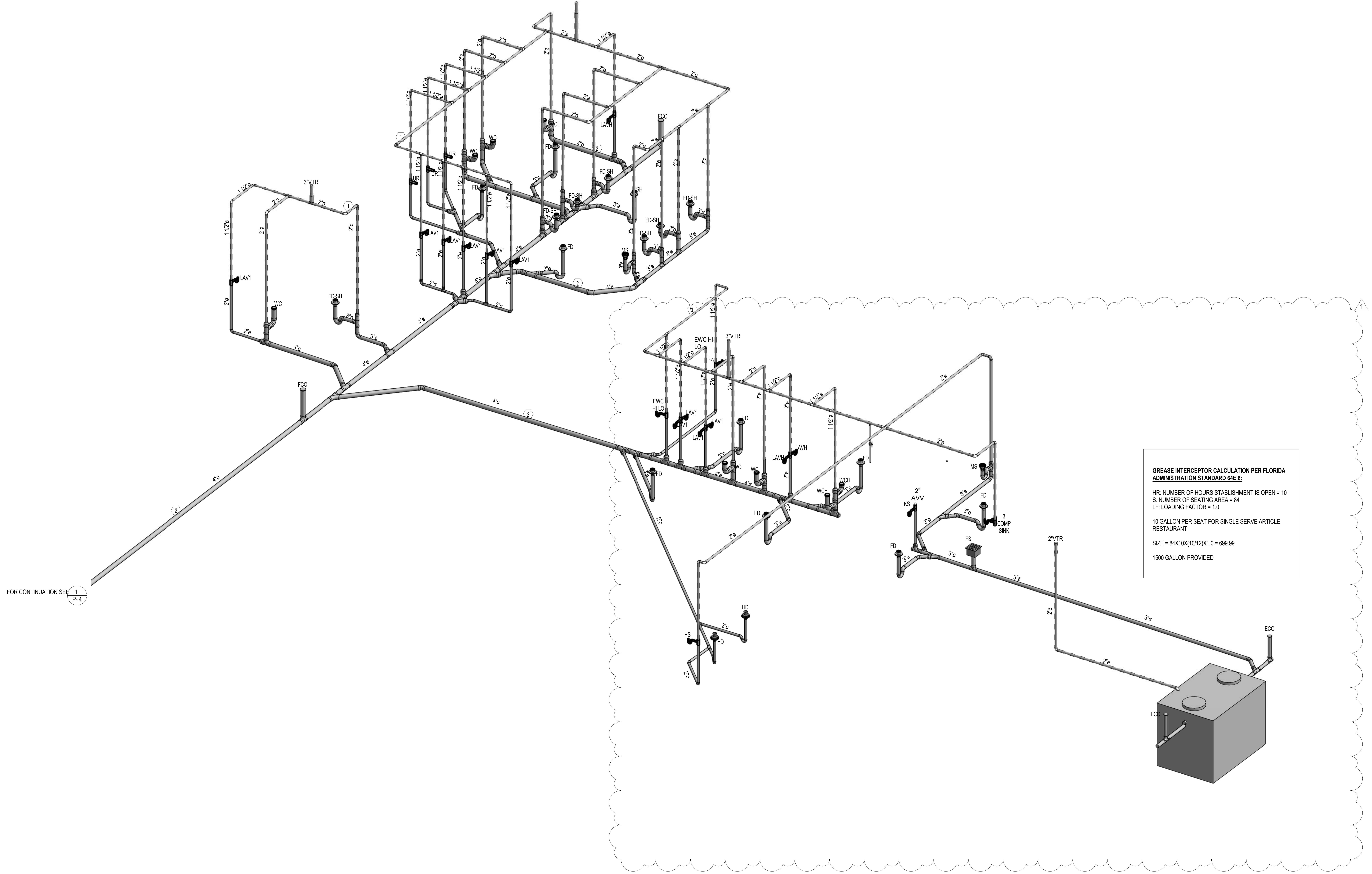
2	PIPING LOCATED BELOW FLOOR SLAB.



GREASE INTERCEPTOR CALCULATION PER FLORIDA ADMINISTRATION STANDARD 64E.6:

HR: NUMBER OF HOURS STABLISHMENT IS OPEN = 10
S: NUMBER OF SEATING AREA = 84
LF: LOADING FACTOR = 1.0

10 GALLON PER SEAT FOR SINGLE SERVE ARTICLE RESTAURANT

SIZE = 84X10X(10/12)X1.0 = 699.99

1500 GALLON PROVIDED

1 P-5 Plumbing Riser Diagram -Sewer

REVISIONS

1 03/05/20 Field Changes

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PLUMBING RISER DIAGRAM - SEWER

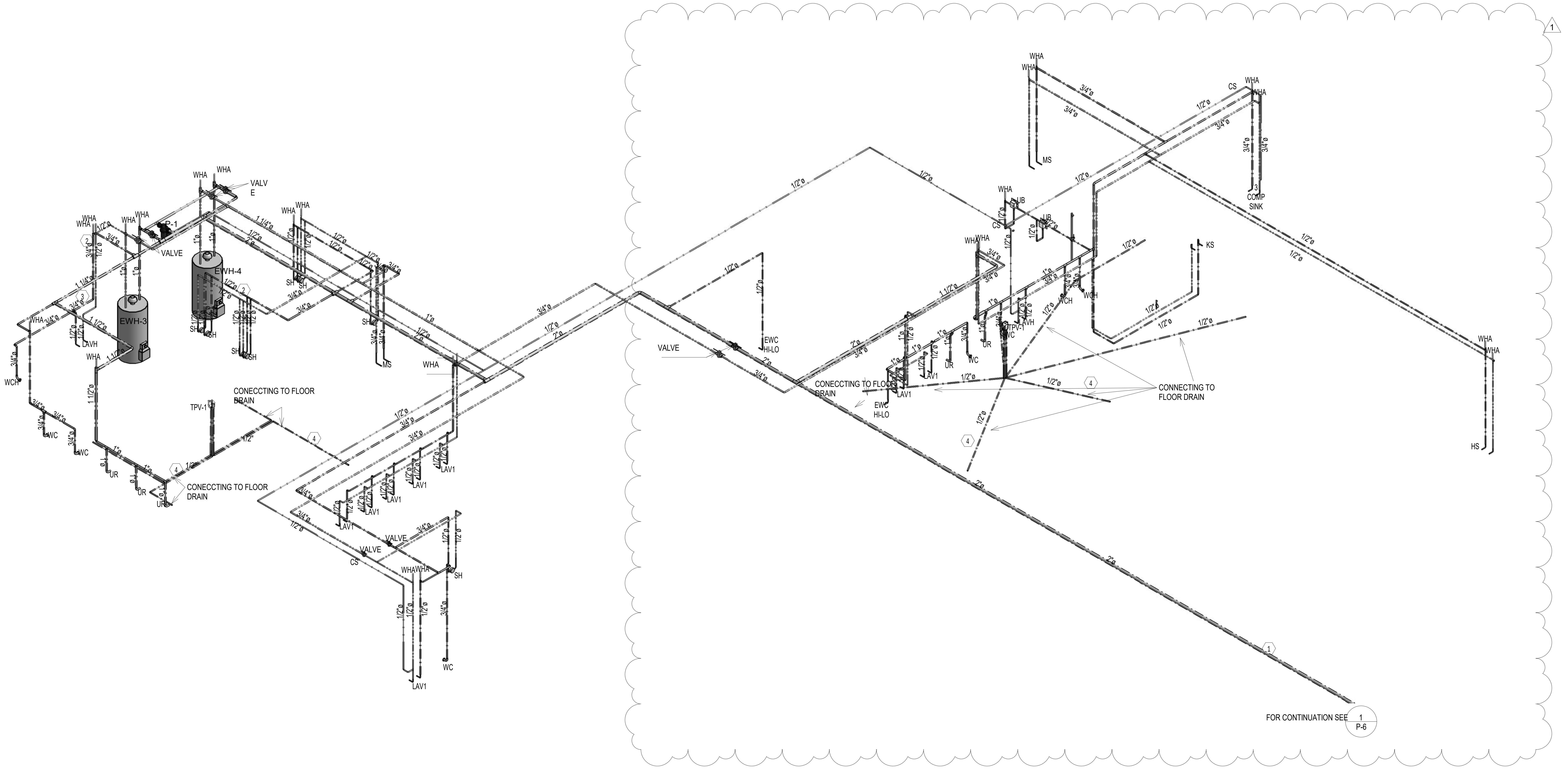
DATE: 05/13/2019
SCALE: AS SHOWN

SHT NO.P-5

ARCHITECT'S / ENGINEER'S SEAL

Reference Notes

Number	Description
1	PIPING LOCATED AT OR ABOVE CEILING.
2	PIPING DROP AND RUN IN WALL.
3	PIPING LOCATED IN WALL AND RUN TO CONNECT TO FIXTURES.
4	PIPING LOCATED BELOW FLOOR SLAB.



1 P-6 Plumbing Riser Diagram - Water

REVISIONS

#	Date	Description
1	03/05/20	Field Changes

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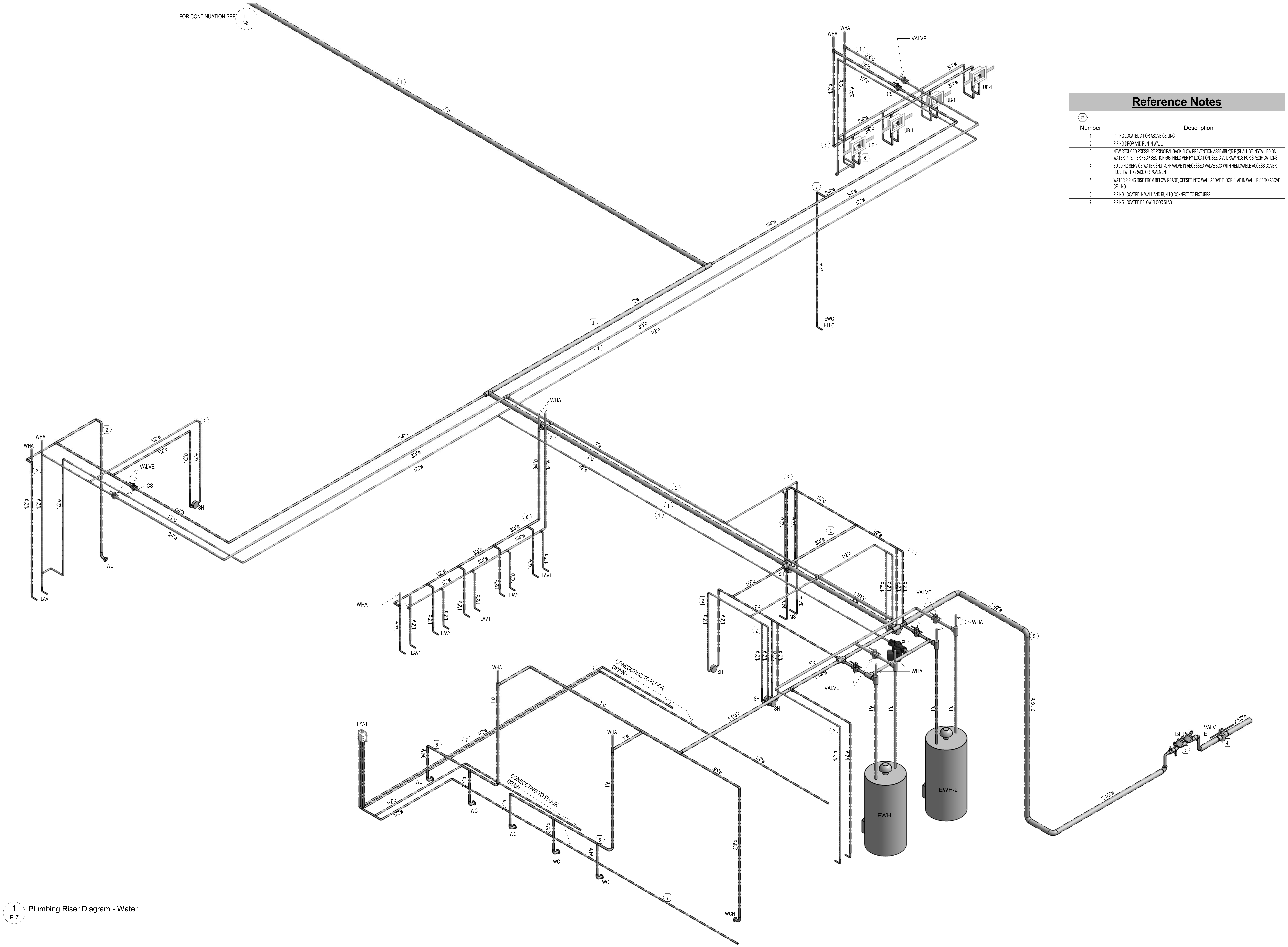
PLUMBING RISER DIAGRAM - WATER

DATE: 05/13/2019
SCALE: AS SHOWN
SHT NO.P-6

ARCHITECT'S / ENGINEER'S SEAL



1
P-7
Plumbing Riser Diagram - Water.

Reference Notes

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Number	Description
1	PIPING LOCATED AT OR ABOVE CEILING.
2	PIPING DROP AND RUN IN WALL.
3	NEW REDUCED PRESSURE PRINCIPAL BACK-FLOW PREVENTION ASSEMBLY(R.P.)SHALL BE INSTALLED ON WATER PIPE. PER FBCP SECTION 608. FIELD VERIFY LOCATION. SEE CIVL DRAWINGS FOR SPECIFICATIONS.
4	BUILDING SERVICE WATER SHUT-OFF VALVE IN RECESSED VALVE BOX WITH REMOVABLE ACCESS COVER FLUSH WITH GRADE OR PAVEMENT.
5	WATER PIPING RISE FROM BELOW GRADE, OFFSET INTO WALL ABOVE FLOOR SLAB IN WALL, RISE TO ABOVE CEILING.
6	PIPING LOCATED IN WALL AND RUN TO CONNECT TO FIXTURES.
7	PIPING LOCATED BELOW FLOOR SLAB.

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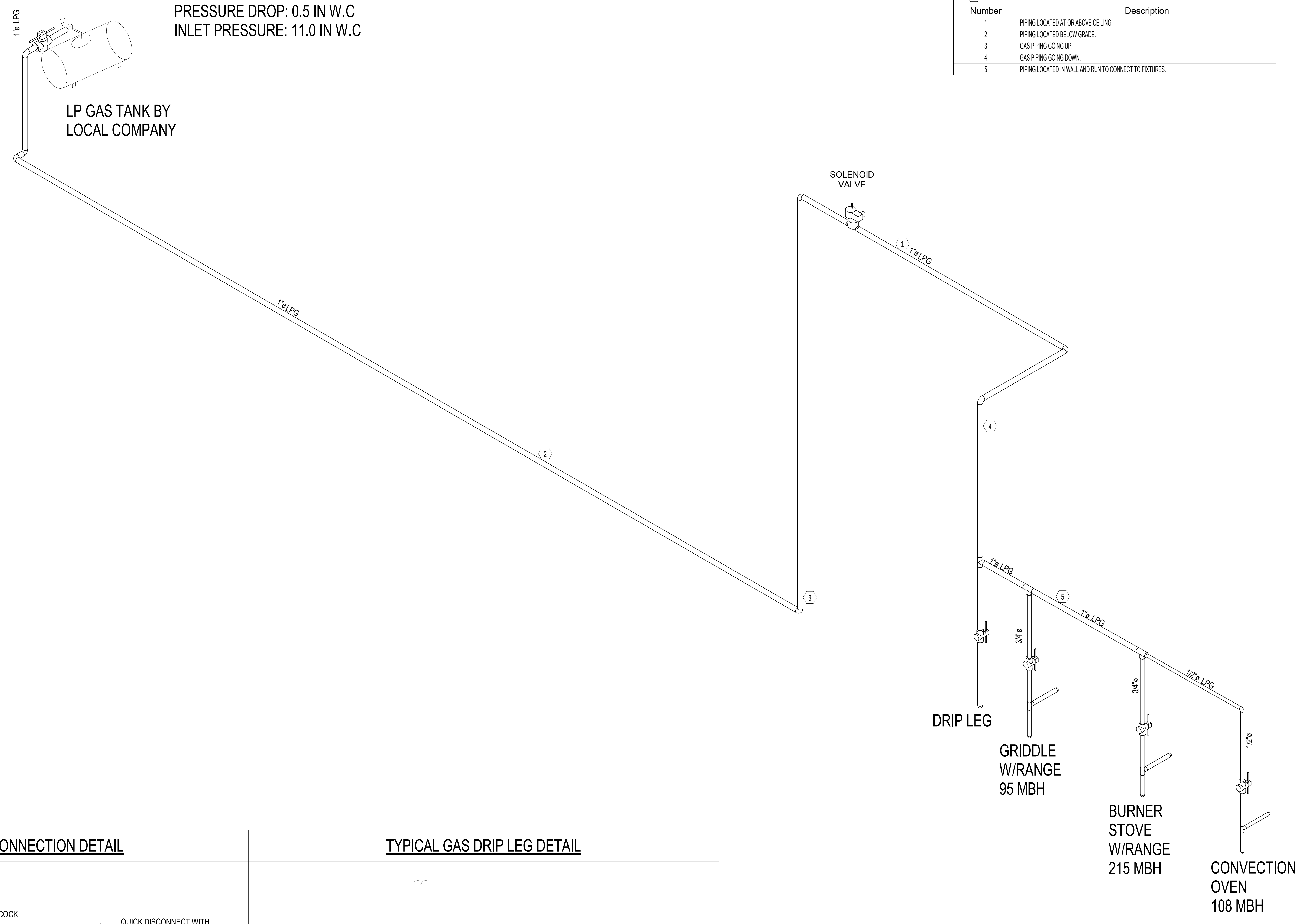
PLUMBING RISER DIAGRAM - WATER

DATE: 05/13/2019
SCALE: AS SHOWN

SHT NO.P-7

ARCHITECT'S / ENGINEER'S SEAL

TABLE 402.4(28) FBCFG 6TH EDITION (PROPANE TANK)
MAIN PIPE SIZE: 1"Ø
MAX LENGTH: 60 FT
SPECIFIC GRAVITY: 1.50
TOTAL CONNECTION LOAD: 418 MBH
PRESSURE DROP: 0.5 IN W.C
INLET PRESSURE: 11.0 IN W.C



1 P-8 Plumbing- Riser Diagram Gas

Reference Notes

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Number	Description
1	PIPING LOCATED AT OR ABOVE CEILING.
2	PIPING LOCATED BELOW GRADE.
3	GAS PIPING GOING UP.
4	GAS PIPING GOING DOWN.
5	PIPING LOCATED IN WALL AND RUN TO CONNECT TO FIXTURES.

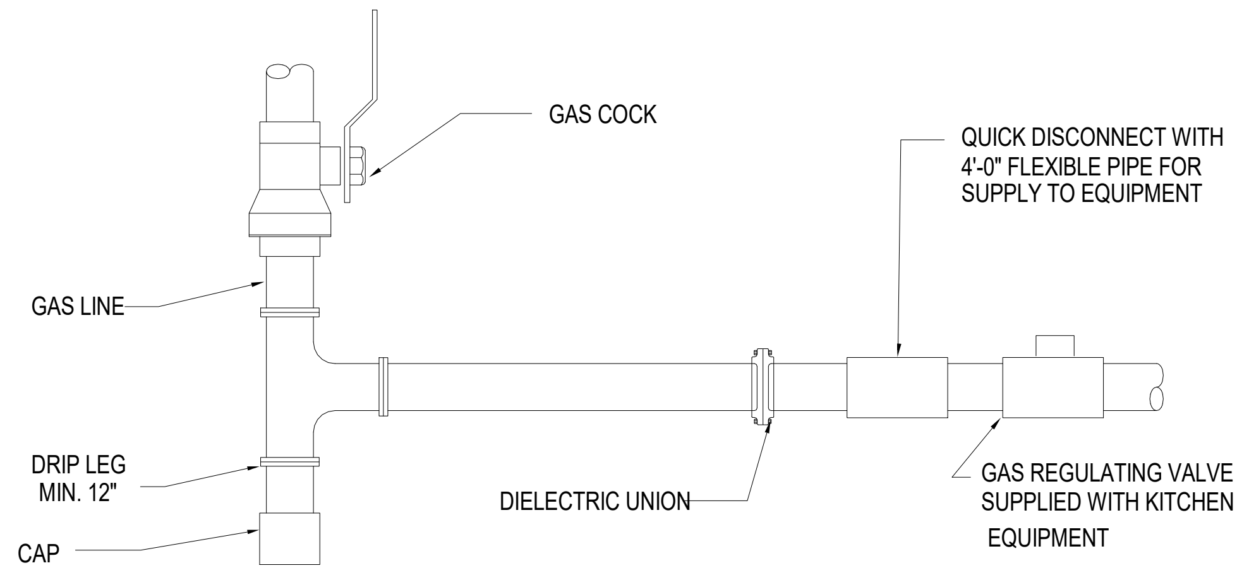
GAS NOTES

- ALL GAS PIPING SHALL BE LOCATED IN THE WALL CAVITY SPACE. COORDINATE LOCATION W/ PLUMBER, LIGHTING & FIRE PROTECTION TO AVOID CONFLICTS.
- ALL GAS PIPING IS SIZED BASED ON TABLE 402.4(28) SCHEDULE 40 METALLIC PIPE ON FBC-FG (6TH EDITION).
- PROVIDE SHUT-OFF VALVES AT ALL EQUIPMENT SUPPLIED WITH PROPANE GAS.
- ALL GAS INSTALLATIONS WILL COMPLY WITH:

(1) AMERICAN GAS ASSOCIATION (A.G.A.) STANDARDS,
(2) 6TH EDITION 2017 FLORIDA BUILDING CODE - FUEL GAS
(3) REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION, AND
(4) EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS RECOMMENDATIONS.

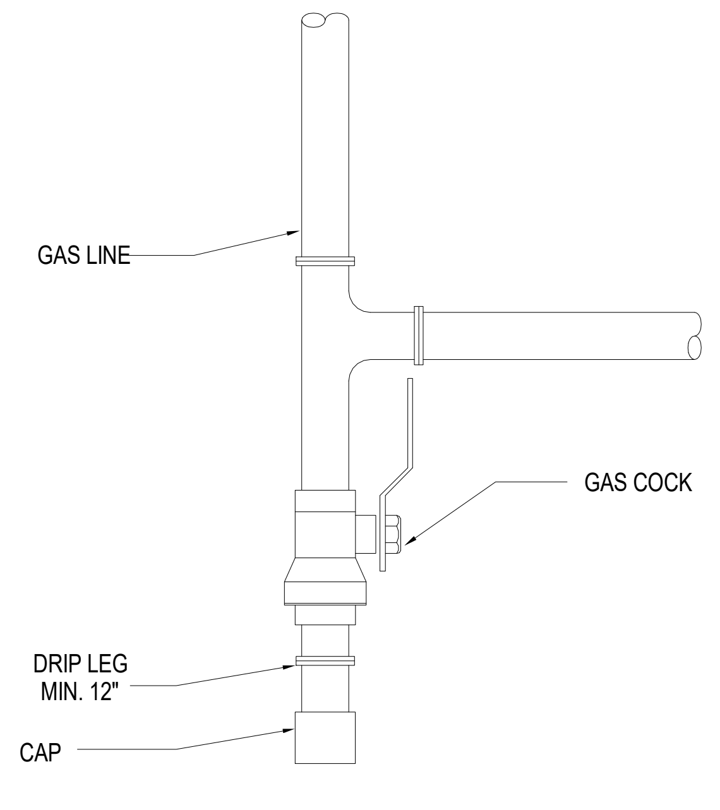
- SUPPORT ALL PIPING SYSTEMS IN ACCORDANCE WITH APPLICABLE CODES AND WITH INDUSTRY STANDARDS FOR HANGER AND WALL MOUNTED SUPPORT SYSTEMS.
- ALL SUPPORTS SHALL BE PIPING SHALL BE PROVIDED WITH SUPPORT IN ACCORDANCE WITH SECTION 407 AND 415 FLORIDA BUILDING CODE 6TH EDITION 2017 F.G..
- EACH ABOVE-GROUND PORTION OF A GAS PIPING SYSTEM THAT IS LIKELY TO BECOME ENERGIZED SHALL BE ELECTRICALLY CONTINUOUS AND BONDED TO AN EFFECTIVE GROUND-FAULT CURRENT PATH. GAS PIPING SHALL BE CONSIDERED TO BE BONDED WHERE IT IS CONNECTED TO APPLIANCES THAT ARE CONNECTED TO THE EQUIPMENT GROUNDING CONDUCTOR OF THE CIRCUIT SUPPLYING THAT APPLIANCE.

TYPICAL GAS CONNECTION DETAIL



FOR ALL KITCHEN EQUIPMENT REQUIRING GAS PIPING

TYPICAL GAS DRIP LEG DETAIL



FOR ALL KITCHEN EQUIPMENT REQUIRING GAS PIPING

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1	03/05/20 Field Changes

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ARCHITECT'S / ENGINEER'S SEAL

SECTION 15400 - PLUMBING

1. SCOPE OF WORK

A. FURNISHING OF ALL LABOR, MATERIALS, TOOLS, TRANSPORTATION SERVICES, ETC. NECESSARY TO COMPLETE THE INSTALLATION OF THE PLUMBING SYSTEM AND AS DESCRIBED IN THESE SPECIFICATIONS, AS ILLUSTRATED ON THE ACCOMPANYING DRAWINGS, OR AS DIRECTED BY THE ARCHITECT.
B. ALL HOT AND COLD WATER SYSTEMS WITH COMPLETE CONNECTIONS FROM THE WATER METER TO ALL PLUMBING FIXTURES AND EQUIPMENT REQUIRING WATER CONNECTIONS. THESE SYSTEMS WILL BE COMPLETE WITH CONTROLS, VALVES, EQUIPMENT, DEVICES AND INSULATION.
C. ALL SOIL, WASTE, AND VENT SYSTEMS OUTSIDE AND INSIDE THE BUILDING AND SEWER CONNECTIONS TO MUNICIPAL SYSTEM AS INDICATED ON DRAWINGS.
D. FURNISH AND SET PLUMBING FIXTURES, INCLUDING ALL THE REQUIRED TRIM AND SUPPORTS.
E. TRENCHING, PIPE BEDDING, BACKFILLING, COMPACTION AND SOIL TREATMENT.
F. ALL ROUGH-IN AND FINAL CONNECTION TO EQUIPMENT, FIXTURES AND SERVICE AREAS IF INDICATED ON THE DRAWINGS, INCLUDING NECESSARY TRAPS AND MISCELLANEOUS ITEMS AS REQUIRED. COORDINATE W/OWNER.
G. FURNISH ALL FINAL PLUMBING CONNECTIONS TO HEATING AND AIR CONDITIONING EQUIPMENT INCLUDING CONDENSATE DRAINS, INDIRECT WASTE AND GAS PIPING.
H. METERS AND UTILITY CONNECTIONS:
  a. WATER: COORDINATE WORK WITH THE LOCAL WATER COMPANY. FURNISH ALL LABOR AND/OR MATERIAL (NOT FURNISHED BY THE WATER COMPANY) WHICH IS REQUIRED TO CONNECT TO EXISTING LINE AND/OR SET METER. INSTALL ALL PERMANENT WATER SUPPLY LINES FROM THE POINT OF CONNECTION AND COMPLETE THE WORK AS SHOWN, ALL IN LINES FROM THE POINT OF CONNECTION AND COMPLETE THE WORK AS SHOWN, ALL IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL WATER COMPANY. TAP FEES SHALL BE PAID BY OWNER. (IF REQUIRED) PLUMBING CONTRACTOR SHALL PAY ALL WORK RELATED INSPECTION FEES BY AUTHORITY HAVING JURISDICTION.
  b. SEWER CONNECTIONS: COORDINATE WORK WITH THE LANDLORD AND/OR LOCAL UTILITY COMPANY. ALL WORK AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL GOVERNING AUTHORITY. TAP FEES SHALL BE PAID BY OWNER (IF REQUIRED). PLUMBING CONTRACTOR SHALL PAY ALL WORK RELATED INSPECTION FEES BY AUTHORITY HAVING JURISDICTION (IF REQUIRED).
  c. GAS: COORDINATE WORK WITH LOCAL UTILITY AND FURNISH ALL LABOR AND/OR MATERIALS (NOT FURNISHED BY UTILITY WHICH IS REQUIRED TO PROVIDE A WORKING UTILITY FOR OWNER, INCLUSIVE OF METER AND/OR REGULATOR. FURNISH SYSTEM FROM TAPPING POINT TO AND IN THE BUILDING AS REQUIRED AND SHOWN ON DRAWINGS. TAP FEES SHALL BE PAID BY OWNER. PLUMBING CONTRACTOR SHALL PAY ALL WORK RELATED INSPECTION FEES.
I. GAS PIPING TO HEATING, VENTILATING AND AIR CONDITIONING EQUIPMENT, AND WATER HEATER.

2. SHOP DRAWINGS

A. WITHIN 15 DAYS AFTER AWARD OF CONTRACT, AND BEFORE ANY PLUMBING MATERIALS ARE DELIVERED TO THE JOB SITE, SUBMIT TO THE OWNER THREE (3) COMPLETE SHOP DRAWINGS IN ACCORDANCE WITH THE PROVISIONS OF SECTION 01300 OF THESE SPECIFICATIONS, INCLUDING ALL PLUMBING FIXTURES, TRIM, DRAINS, CLEANOUTS, PIPING, VALVES, INSULATION, HANGERS, SUPPORTS, EQUIPMENT AND DEVICES PROPOSED TO BE FURNISHED AND INSTALLED. SHOP DRAWINGS SHALL NOT BE REVIEWED UNLESS THEY BEAR THE REVIEW STAMP OF THE GENERAL CONTRACTOR.

3. PRODUCT HANDLING

A. IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE APPROVAL OF, AND AT NO ADDITIONAL COST TO THE OWNER.

4. EXAMINATION OF THE SITE

A. ALL CONTRACTORS SUBMITTING PROPOSALS FOR THIS WORK SHALL FIRST EXAMINE THE SITE AND ALL CONDITIONS, INCLUDING LOCAL RULES & REGULATIONS, THEREON AND/OR THEREIN. ALL PROPOSALS SHALL HAVE TAKEN INTO CONSIDERATION ALL CONDITIONS THAT MAY AFFECT THE WORK UNDER THIS CONTRACT. LACK OF THIS INFORMATION WILL NOT BE CONSIDERED AS JUSTIFICATION FOR EXTRA COST OR ALLOWANCES TO THE CONTRACT PRICE.

5. GUARANTEE

A. ALL WORK PERFORMED UNDER THIS SECTION SHALL BE GUARANTEED TO BE FREE OF DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF THE WORK BY THE OWNER.
B. UPON NOTICE RECEIVED FROM THE OWNER, ARCHITECT OR ENGINEER, OF FAILURE OF ANY PART OF THE GUARANTEED EQUIPMENT DURING THE GUARANTY PERIODS, THE AFFECTED PART OR PARTS SHALL BE PROMPTLY REPLACED WITH NEW PARTS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL LABOR REQUIRED TO PERFORM GUARANTEED SHALL BE INCLUDED AS PART OF THE COMPLETE WARRANTY.

6. PRODUCTS

A. DESCRIPTION
  a. SOIL, WASTE AND VENT PIPING: BELOW FLOOR TO 5'0" OUTSIDE BUILDING AND YARD PIPING SHALL BE A.B.S. OR P.V.C. SCHEDULE 40 PIPE AND FITTINGS IF APPROVED BY LOCAL AUTHORITY, OR STANDARD WEIGHT COATED CAST IRON SOIL PIPE AND CAST IRON/NEOPRENE GASKET FITTINGS CONFORM TO ONE OF THE STANDARDS LISTED IN TABLE 702.2 OF FPCP (6th EDITION). YARD PIPING, WHERE UNDER A SUPERIMPOSED LOAD CONDITION SUCH AS A DRIVEWAY OR PARKING AREA, SHALL BE SERVICE WEIGHT CAST IRON SOIL PIPE AND CAST IRON/NEOPRENE GASKET FITTINGS.
  b. ABOVE FLOOR SHALL BE A.B.S. OR P.V.C. SCHEDULE 40 IF APPROVED BY LOCAL AUTHORITY, OR STANDARD WEIGHT COATED CAST IRON PIPE WITH NEOPRENE RUBBER GASKETS, OR HUBLESS CAST IRON PIPE WITH NEOPRENE RUBBER GASKETS AND STAINLESS STEEL CLAMPS (CLAMPS ALL OR EQUAL) CONFORM TO ONE OF THE STANDARDS LISTED IN TABLE 702.1 OF FPCP (6th EDITION).
  c. HOT AND COLD WATER PIPING: ABOVE THE FLOOR SHALL BE TYPE "L" COPPER WITH 95/5 SWEAT SOLDERED AND WROUGHT COPPER FITTINGS. UNDER BUILDING SLABS SHALL BE TYPE "K" SOFT DRAWN COPPER TUBING WITHOUT JOINTS UNDER FLOOR. LOOP FROM WALL TO WALL. OR CPVC MATERIAL PIPING; CONFORM TO ONE OF THE STANDARDS LISTED IN TABLE 605.3 AND 605.4 OF FPCP (6th EDITION) BASED ON INTENDED USE OF PIPING. ALL HOT WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE MINIMUM PRESSURE RATING OF 100 PSI AT 180°F.
  d. CONDENSATE DRAIN PIPING:
    - CONDENSATE DRAIN PIPING SHALL BE GALVANIZED SCHEDULE 40 OR P.V.C. FROM HVAC ON ROOF AND OTHER EQUIPMENT UNLESS STATED OTHERWISE.
    - CONTRACTOR SHALL FURNISH AND INSTALL MIN. 1" COPPER CONDENSATE DRAINS ON COOLER/FREEZER EVAPORATOR COILS, WITH TRAP ASSEMBLY AND 2" AIR GAP ABOVE DRAIN AS SHOWN ON THE DRAWINGS. FREEZER CONDENSATE PIPING SHALL BE WRAPPED WITH HEAT TAPE WITH A MINIMUM RATING OF 10 WATTS PER LINEAL FOOT FOR ITS ENTIRE LENGTH WITHIN THE FREEZER COMPARTMENT.
  e. INDIRECT WASTE PIPING: SHALL BE TYPE "L" COPPER WITH 95/5 SWEAT SOLDER AND WROUGHT COPPER FITTINGS (SEE PLUMBING PLAN FOR REQUIREMENTS) UNLESS OTHERWISE INDICATED.
  f. NATURAL GAS PIPING:
    - GAS PIPING INCLUDING TAP AND SERVICE SHALL BE INCLUDED. COORDINATE METER LOCATION WITH LOCAL AUTHORITY.
    - UNDERGROUND GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE WITH LONG RADIUS STEEL WELDING FITTINGS. PROTECT PIPE AND FITTINGS WITH TRANTEX WRAPPING TAPE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. OTHER TYPE OF PIPE PROTECTION OF EQUIVALENT QUALITY WILL BE OPTIONAL WITH THIS CONTRACTOR. INSTALLATION OF GAS SERVICE PIPING AND MATERIAL SHALL MEET WITH LOCAL GAS COMPANY'S APPROVAL.
    - GAS PIPING ABOVE GROUND SHALL BE SCHEDULE 40 BLACK STEEL WITH 125 LB. BLACK MALLEABLE IRON SCREWED FITTINGS AND SUPPORTED AT INTERVALS NOT TO EXCEED 8'-0" AND AT EACH CHANGE IN HORIZONTAL OR VERTICAL DIRECTION. GAS PIPING COMPOUND AT JOINTS SHALL BE IN COMPLIANCE WITH NFPA BULLETIN NO. 54 AND LOCAL APPLICABLE CODES AND SUITABLE FOR NATURAL GAS SERVICE.
    - GAS PIPING SHALL SUPPLY, WATER HEATER AND KITCHEN EQUIPMENT IF INDICATED ON DRAWINGS BY THIS CONTRACTOR.
    - MOISTURE TRAPS SHALL BE INSTALLED ON EACH PIPING DROP FOR WATER HEATER AND KITCHEN EQUIPMENT.
    - ALL SUPPORTS SHALL BE PIPING SHALL BE PROVIDED WITH SUPPORT IN ACCORDANCE WITH SECTION 407 AND 415 FBCFG (6th EDITION).
  g. STORM DRAIN LEADER: SAME AS SOIL, WASTE & VENT PIPING.
  h. INSULATION : ALL WATER PIPES, RAIN LEADERS AND ETC., SHALL BE INSULATED. PIPING SHALL BE INSULATED TO PREVENT EXCESSIVE HEAT LOSS, CONDENSATION AND SWEATING. ALL PIPES RUNNING IN UNCONDITIONED SPACE SHALL BE PROTECTED AGAINST FREEZING. ALL PIPING SHALL BE INSULATED WITH AT LEAST 1" THICK FOAM INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.28 BTU PER INCH/H xSQ.FT PER FBCEC (6th EDITION) SECTION C404.4 AND FBCP (6th EDITION) SECTION 607.5. AS MANUFACTURED BY ARMSTRONG ARMAFLEX OR APPROVED EQUAL AS INDICATED ON PLANS AND NOTES. AS MUCH OF THE INSULATION AS POSSIBLE SHALL BE SLIPPED ON TO THE PIPING AS THE PIPING IS BEING CONNECTED IN ORDER TO AVOID CUTTING THE INSULATION. ALL BUTT ENDS AND ANY NECESSARY LONGITUDINAL JOINTS SHALL BE SEALED WITH RUBBER BASED ADHESIVE.

7. FIXTURES

A. SEE DRAWINGS FOR SPECIFICATIONS.

8. FLASHINGS

A. ALL PIPING AND VENTS PASSING THROUGH ROOF SHALL BE FLASHED WATERTIGHT WITH SIX POUND TO THE SQUARE FOOT LEAD USING SLEEVE FLASHING WITH BASE EXTENDING AT LEAST 12 INCHES IN EACH DIRECTION BEYOND THE OUTSIDE DIAPHRAGM OF THE PIPE. TURN SLEEVE DOWN A MINIMUM OF 1-1/2" INTO TOP OF VENT PIPE WITH LEAD FITTING SNUGLY INSIDE OF PIPE. ALL GAS VENT CAPS SHALL BE FITTED WITH LEAD FITTING SNUGLY INSIDE OF PIPE. ALL VENT CAPS SHALL BE VANDAL PROOF. VERIFY APPROVED FLASHING MATERIAL AND METHODS WITH ROOFING CONTRACTOR TO ENSURE A COMPLETE JOB. SEE DETAILS ON ARCH. SHEETS.

9. CLEANOUTS

A. SEE DRAWINGS FOR SPECIFICATIONS.

10. EQUIPMENT

A. WATER HEATER: FURNISHED, INSTALLED BY PLUMBING CONTRACTOR.
  a. SIZE, CAPACITY, TYPE AND MANUFACTURER AS INDICATED BY DRAWINGS.
  b. N/A
  c. THE WATER HEATER, GAS OR ELECTRIC, SHALL BE PROVIDED WITH ALL TEMPERATURE AND SAFETY CONTROLS INCLUDING ASME AND ANSI Z21.22 RATED TEMPERATURE CONFORM TO ASSE1070 AND PRESSURE RELIEF VALVE, GAS PRESSURE REGULATOR (IF REQUIRED), DRAIN VALVE, EXPANSION TANK, ETC.
  d. PLUMBER SHALL MAKE WATER, GAS AND RELIEF LINE CONNECTIONS WITH CUTOFF VALVES AND DIELECTRIC UNIONS IN WATER AND GAS LINES.
B. VALVES, COCKS AND FAUCETS
  a. UNLESS SPECIFICALLY INDICATED ELSEWHERE, THE VALVES SHALL BE DESIGNED FOR NOT LESS THAN 160 LBS. WORKING PRESSURE AND SHALL COMPLY WITH SECTION 606 OF FBCP (6th EDITION) 2017. THE VALVES SHALL HAVE SUITABLE VALVE BODY PATTERNS FOR CONNECTION TO THE PIPE FOR WHICH THEY WILL OPERATE. ALL VALVES WITH RISING STEMS SHALL HAVE BACK SEATS FOR PACKING UNDER PRESSURE. ALL VALVES AND CONNECTIONS SHALL BE CONSTRUCTED WITH MATERIAL COMPLY WITH LEAD CONTENT STANDARD PER SECTION 605.7 OF FBCP (6th EDITION) 2017. APPROVED EQUAL GATE VALVES AND CHECK VALVES AS MANUFACTURED BY STOCKHAM, WALWORTH, LUNKENHEIMER, SCOTT, HAMMOND, CRANE OR WATTS WILL BE ACCEPTABLE.
  b. GATE VALVES SHALL BE OF AN APPROVED TYPE AND COMPATIBLE WITH THE TYPE OF PIPING MATERIAL INSTALLED IN THE SYSTEM. ALL VALVES INTENDED TO SUPPLY DRINKING WATER SHALL MEET THE REQUIREMENTS OF NSF 61.
  c. CUTOFF VALVES UNDERNEATH LAVATORIES, TANK TYPE WATER CLOSETS, SANITARY SINKS AND WATER COOLERS SHALL BE CHROME PLATED ANGLE STOP VALVES WITH SOFT ANNEALED CHROME PLATED COPPER CONNECTION PIPES AND CHROME PLATED ESCUTCHEON PLATES.
  d. GAS COCKS FOR ALL EQUIPMENT: SEE DRAWINGS FOR REQUIREMENTS.
  e. WATER CUTOFF VALVE SHALL BE OF AN APPROVED TYPE AND COMPATIBLE WITH THE TYPE OF PIPING MATERIAL INSTALLED IN SYSTEM. ALL VALVES INTENDED TO SUPPLY DRINKING WATER SHALL MEET THE REQUIREMENTS OF NSF61.
  f. EXTERIOR HOSE COCKS AND VALVE FIXTURES TO BE NON-FREEZE TYPE. SUPPLY SHUT-OFF VALVES IF INDICATED ON PLANS.

11. EXECUTION

A. PIPING
  a. ALL PIPING SHALL BE RUN CONCEALED EXCEPT WHERE SHOWN OTHERWISE ON DRAWINGS.
  b. VALVES, TRAPS, CLEANOUTS AND OTHER APPARATUS SHALL BE INSTALLED IN AN EASILY ACCESSIBLE LOCATION.
  c. SOIL, WASTE LINES 2-1/2" AND SMALLER SHALL SLOPE 1/4 INCH PER LINEAL FOOT AND 3" to 6" SHALL SLOPE 1/8 INCH PER LINEAL FOOT IN DIRECTION OF FLOW PER FBCP TABLE 704.1, UNLESS OTHERWISE INDICATED OR REQUIRED BY LOCAL CODES.
  d. HOT AND COLD WATER LINES SHALL BE AT LEAST 6" APART WHERE PIPING IS PARALLEL.
  e. ALL WATER LINES SHALL BE RUN OVERHEAD AND DOWN PARTITION WALLS UNLESS NO WALL IS PROVIDED; THEN RUN LINES UNDER SLAB TO POINT OF TERMINATION. ALL LINES SHALL BE CONCEALED UNLESS NOTED OTHERWISE ON PLANS.
B. HANGERS AND SUPPORTS
  a. COPPER PIPING SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED 7'-0" AND AT EACH CHANGE IN HORIZONTAL OR VERTICAL DIRECTION. HANGERS SHALL BE FEE & MASON PLASTIC COATED HANGER, FIG. 381 OR APPROVED EQUAL BY GRINNELL. HANGER ATTACHMENT TO STRUCTURE SHALL BE AS REQUIRED. HORIZONTAL SUPPORTS FOR PIPING SHALL WILL BE IN ACCORDANCE TO SECTION 308 OF THE FBCP (6TH EDITION).
  b. GAS PIPING SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED 8'-0" AND AT EACH CHANGE IN HORIZONTAL OR VERTICAL DIRECTION. STEEL PIPE HANGERS SHALL BE GRINNELL FIG. 104 OR FEE & MASON FIG. 199. ATTACHMENT TO STRUCTURE TO BE AS REQUIRED. HORIZONTAL SUPPORT FOR PIPING WILL BE IN ACCORDANCE TO SECTION 407 AND 415 OF FBCFG (6TH EDITION).
  c. HANGER RODS SHALL BE STANDARD BOLT STEEL WITH MACHINE SCREW THREADS, 3/8" DIAMETER MINIMUM.
  d. ALL PIPING UNDERGROUND SHALL BE FIRMLY BEDDED ON THE BODY OF THE PIPE, AND BELL HOLES PROVIDED AT EACH BELL. ALL PIPING SHALL BE INSTALLED IN GRADED TRENCH. EXCAVATE, BACKFILL AND SUPPORT PIPING AS HEREIN BEFORE SPECIFIED.
  e. FINISHED
    - INDOOR FINISHES
      -HANGERS AND CLAMPS FOR SUPPORT OF BARE COPPER PIPING SHALL BE COATED WITH COPPER COLORED EPOXY PAINT, B-LINE DURA-COPPER ®. ADDITIONAL PVC COATING OF THE EPOXY PAINTED HANGER SHALL BE USED WHERE NECESSARY.
      -HANGERS FOR OTHER THAN BARE COPPER PIPE SHALL BE ZINC PLATED IN ACCORDANCE WITH ASTM B633 OR SHALL HAVE AN ELECTRO-DEPOSITED GREEN EPOXY FINISH, B-LINE DURA-GREEN ®.
      -STRUT CHANNELS SHALL BE PRE-GALVANIZED IN ACCORDANCE WITH ASTM A653 SS GRADE 33 G90 OR HAVE AN ELECTRO-DEPOSITED GREEN EPOXY FINISH, B-LINE DURA-GREEN ®.
    - OUTDOOR AND CORROSIVE AREA FINISHES
      -HANGERS AND STRUT LOCATED OUTDOORS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123. ALL HANGER HARDWARE SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL. ZINC PLATED HARDWARE IS NOT ACCEPTABLE FOR OUTDOOR OR CORROSIVE USE.
      -HANGERS AND STRUT LOCATED IN CORROSIVE AREAS SHALL BE TYPE 304 [316] STAINLESS STEEL WITH STAINLESS STEEL HARDWARE.
C. PLUMBING FIXTURES
  a. FURNISH AND INSTALL ALL PLUMBING FIXTURES COMPLETE WITH ALL EQUIPMENT FITTINGS, TRIMMINGS AND ACCESSORIES, AS SPECIFIED. OPEN FRONT SEATS WITH NO COVERS AS MANUFACTURED BY CHURCH WILL BE ACCEPTABLE.
  b. ALL FIXTURES SHALL BE GRADE A. THE NAME OR TRADE MARK OF THE MANUFACTURER SHALL BE PRINTED OR PRESSED ON ALL CLOSETS AND LAVATORIES, AND A LABEL, WHICH CANNOT BE REMOVED WITHOUT DESTROYING IT, CONTAINING THE MANUFACTURER'S NAME OR TRADEMARK AND THE QUALITY OR CLASS OF THE FIXTURES, SHALL BE AFFIXED TO ALL FIXTURES AND NOT REMOVED UNTIL AFTER THE WORK HAS BEEN ACCEPTED.
  c. EXPOSED PIPING TO FIXTURES SHALL BE A PRODUCT OF THE FIXTURE MANUFACTURER OR APPROVED EQUAL AND SHALL BE:
    - WATER: CHROMIUM PLATED IRON PIPE SIZE RED BRASS.
    - WASTE: CHROMIUM PLATED TUBING, EXCEPT WASTE CONNECTIONS TO KITCHEN OR SCULLERY SINKS AS NECESSARY.
  d. STOPS AS MANUFACTURED BY THE FIXTURE MANUFACTURER, WITH METAL-TO-METAL SEAT, SHALL BE PROVIDED FOR ALL FIXTURES AND EQUIPMENT. REFER TO SCHEDULE ON DRAWINGS FOR MANUFACTURER'S AND MODEL NUMBERS USED AS GUIDE SPECIFICATIONS. NUMBERS AS LISTED REPRESENT THE COMPLETE WORKABLE OUTFITS WITH ALL BRASS TRIM AS
  e. FIXTURES SHALL BE WHITE UNLESS OTHERWISE NOTED.
  f. FIXTURES FURNISHED BY THIS CONTRACTOR OR BY THE OWNER SHALL BE FITTED WITH NECESSARY WATER SUPPLIES, STOPS AND TRAPS WITH CLEANOUT PLUGS UNDER THIS SECTION OF THE SPECIFICATIONS.
D. TESTS
  THE PERMIT HOLDER SHALL MAKE THE APPLICABLE TEST PRESCRIBE IN SECTIONS 312.2 THROUGH 312.10 TO DETERMINE COMPLIANCE WITH THE PROVISIONS OF FBCP (6th EDITION). ALL PLUMBING SYSTEM PIPING SHALL BE TESTED WITH EITHER WATER OR, FOR PIPING SYSTEM OTHER THAN PLASTIC, BY AIR.
E. CLEANING AND PROTECTION
  a. THE CONTRACTOR SHALL REMOVE FROM THE JOB SITE ALL DEBRIS AND LEFTOVER MATERIALS FOR WHICH HE IS RESPONSIBLE, CLEAN ALL FIXTURES AND EQUIPMENT AND REPAIR ANY BLEMISHES IN THE FINISH. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REPLACING FIXTURES WHERE DAMAGE RESULTS FROM FAILURE TO PROVIDE PROTECTION DURING INSTALLATION.
  b. FLUSH OUT PIPES: AFTER THE PLUMBING PIPING HAS BEEN INSTALLED, INSPECTED AND APPROVED, THE PIPING SYSTEM SHALL BE FLUSHED TO REMOVE ANY FOREIGN MATTER FROM THE PIPES WITH CHLORINE OR HTH SOLUTION TO SANITIZE THE NEW PIPING OR AS REQUIRED BY THE LOCAL AUTHORITIES PER SECTION 610 FBCP (6th EDITION).
F. MAINTENANCE
  a. ALL PARTS OF THE PLUMBING FIXTURES AND ASSOCIATED EQUIPMENT SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE GUARANTEE PERIOD. ONE MONTH AFTER FINAL ACCEPTANCE OF THE BUILDING BY THE OWNER, THE CONTRACTOR SHALL GO OVER ALL THE FIXTURES AND TEST ALL WORKING PARTS AND PUT EVERYTHING IN GOOD WORKING ORDER. ALL FIXTURES, INCLUDING TRAPS, SHALL BE THOROUGHLY CLEANED AND ALL PARTS PUT IN GOOD WORKING ORDER.
  b. PLUMBING CONTRACTOR IS REQUIRED TO CLEAN THE DRAIN LINES PRIOR TO TURN OVER.
  c. PLUMBING CONTRACTOR SHALL PROVIDE REDUCED PRESSURE BACK FLOW PREVENTION DEVICE ON THE MAIN DOMESTIC PIPING CONFORM TO SECTION 608 FBCP (6th EDITION).
  d. CONTRACTOR SHALL PROVIDE BACK FLOW PREVENTION DEVICE FOR DISHWASHER, ICE MAKER AND SODA MACHINE PER FBCP (6th EDITION) SECTION 608. FOR D.W. APPROVED BY ASSE 1001, FOR ICE MAKER APPROVED BY ASSE 1024 AND FOR SODA MACHINE SHALL BE APPROVED BY ASSE 1022.

GENERAL NOTES

1. IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO REVIEW THE PLUMBING PLANS AND WRITTEN SPECIFICATIONS TO BECOME FAMILIAR WITH THE FULL SCOPE OF WORK. IN ADDITION, THIS CONTRACTOR SHALL COORDINATE WITH AN OWNER PRESENTATIVE TO FULLY UNDERSTAND ANY REQUIREMENTS NOT SPECIFIED HEREIN WHICH MAY CONSIDER PART OF THIS CONTRACT. THE PLUMBING CONTRACTOR SHALL VISIT THE SITE AND NOTE ALL EXISTING

2. CONDITIONS, AS WELL AS ALL CONDITIONS TO BE MET. LACK OF THOROUGH UNDERSTANDING SHALL NOT CONSTITUTE AN EXCUSE FOR ERRORS OR OMISSIONS, NOR FOR A REQUEST FOR EXTRA COMPENSATION.

3. THE CONTRACTOR FOR THIS WORK SHALL CAREFULLY INSPECT AND ACQUAINT HIMSELF WITH EXISTING CONDITIONS IN ORDER THAT HE FULLY UNDERSTANDS THE WORK REQUIRED. HE SHALL FIELD MEASURE AND VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE PROCEEDING WITH THE WORK.

4. ALL PLUMBING AND GAS INSTALLATIONS SHALL CONFORM WITH THE FOLLOWING CODES AND STANDARDS:
a. FLORIDA BUILDING CODE - BUILDING (6TH EDITION) 2017.
b. FLORIDA BUILDING CODE - MECHANICAL (6TH EDITION) 2017.
c. FLORIDA BUILDING CODE - PLUMBING (6TH EDITION) 2017.
d. FLORIDA BUILDING CODE - ENERGY CONSERVATION (6TH EDITION) 2017.
e. FLORIDA BUILDING CODE - FUEL GAS (6TH EDITION) 2017.
f. FLORIDA FIRE PREVENTION CODE (6TH EDITION).
g. NFPA LATEST EDITION.
h. ASHRAE STANDARD 62.1 (2013)
i. NATIONAL ELECTRIC CODE (2014)

5. PIPING LAYOUTS ARE DIAGRAMMATIC AND INTEND TO SHOW GENERAL ARRANGEMENT, SIZE AND CAPACITY. ALL OFFSETS ARE NOT NECESSARILY SHOWN. CONTRACTOR SHALL ARRANGE AND COORDINATE THE WORK, FURNISH NECESSARY OFFSETS, VALVES, VENTS AND FITTINGS TO AVOID CONFLICTS WITH OTHER MECHANICAL AND ELECTRICAL SERVICES AND WITH STRUCTURAL AND ARCHITECTURAL ELEMENTS.

6. PLUMBING CONTRACTOR'S WORK SHALL INCLUDE ALL WORK AS INDICATED ON THESE DRAWINGS.

7. ALL TEMPERD WATER PIPING SHALL MAINTAIN A MINIMUM TEMPERATURE OF 110°F. HOT WATER OF 140°F FOR DISHWASHER AND (3) COMP.SINKS.

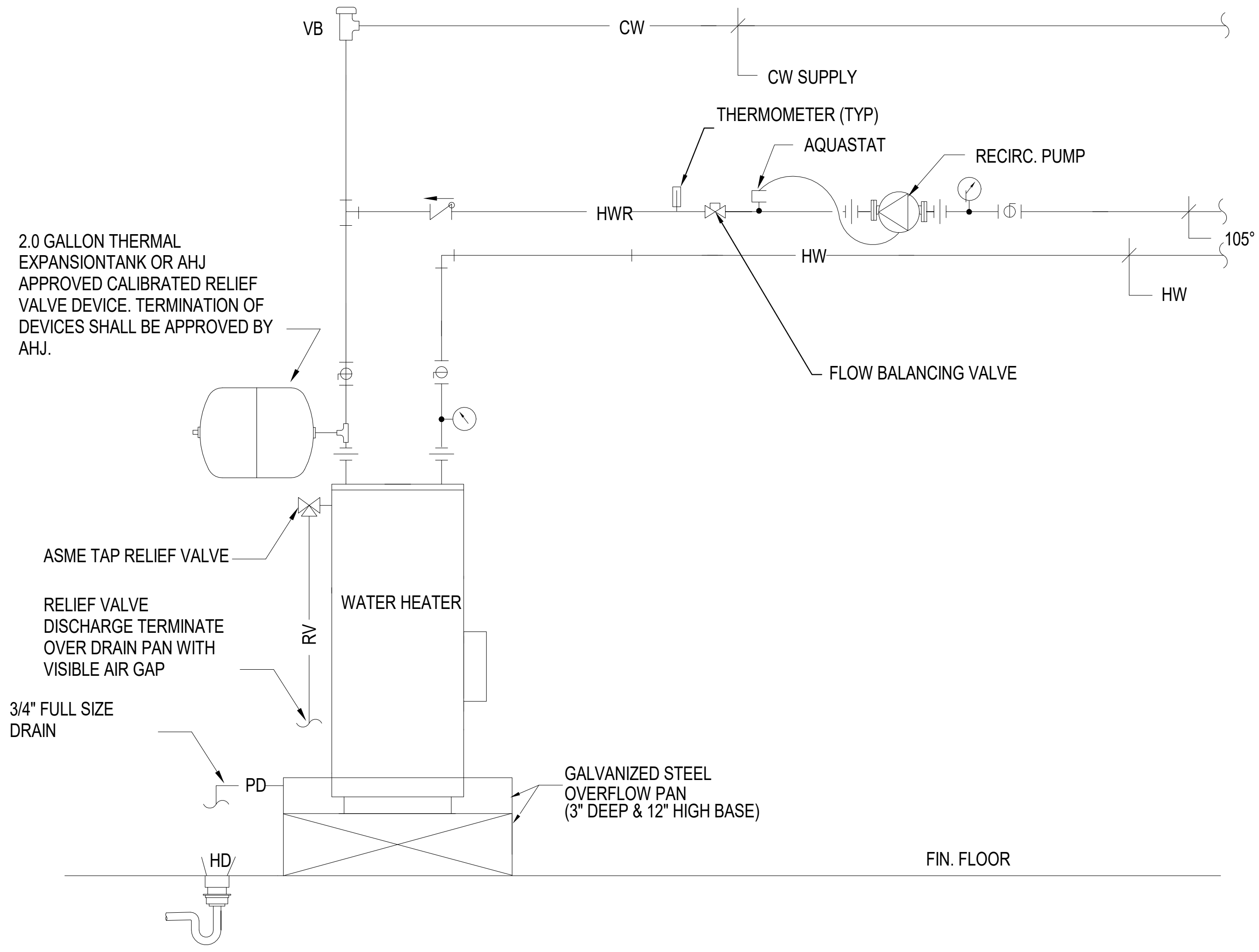
8. COORDINATE ALL PIPING ROUTING WITH WORK OF OTHER TRADES PRIOR TO INSTALLATION.

9. VERIFY INVERT ELEVATIONS AND EXACT LOCATIONS OF SEWERS TO WHICH NEW SEWER LINES ARE TO BE CONNECTED BEFORE INSTALLATION.

10. INSTALL ISOLATION VALVES AT EACH DOMESTIC WATER BRANCH TAKEOFF AND INSTALL UNION AT EACH PIECE OF EQUIPMENT, FIXTURE AND APPLIANCE SERVICE POINT CONNECTION. PER FBCP (6th EDITION) SECTION 606.1 AND 606.2.

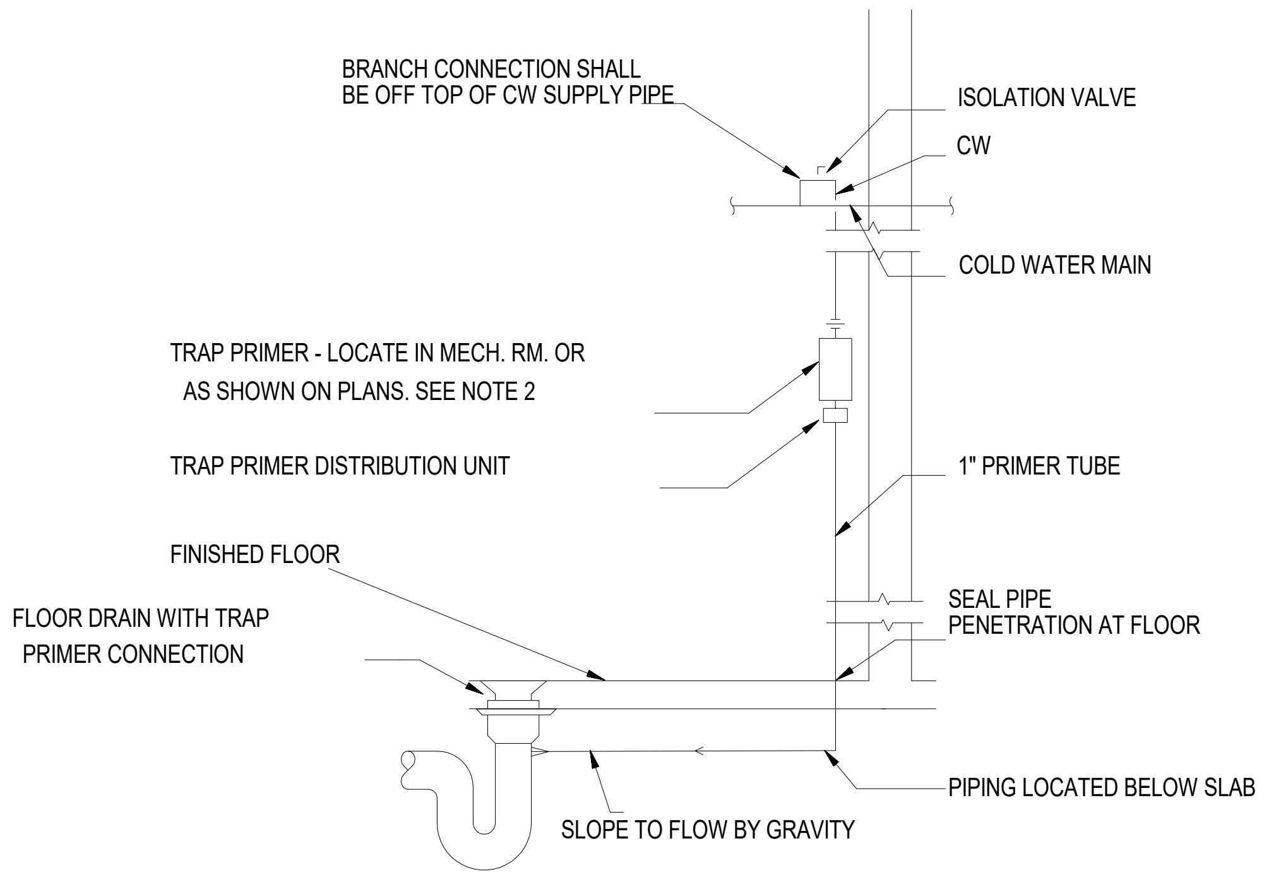
11. INSTALL PRESSURE REDUCING VALVES ON BRANCH LINES SERVING FIXTURES AND/OR EQUIPMENT, WHEN WATER PRESSURE EXCEEDS 60 PSI.

12. INSTALLATION OF MEDICAL GAS SYSTEMS SHALL BE COVERED BY NFPA 99. MEDICAL GAS PIPING AND SYSTEM DESIGN IS NOT IN SCOPE OF WORK.



1 / P-9 ELECTRICAL WATER HEATER W/RETURN DETAIL

NTS

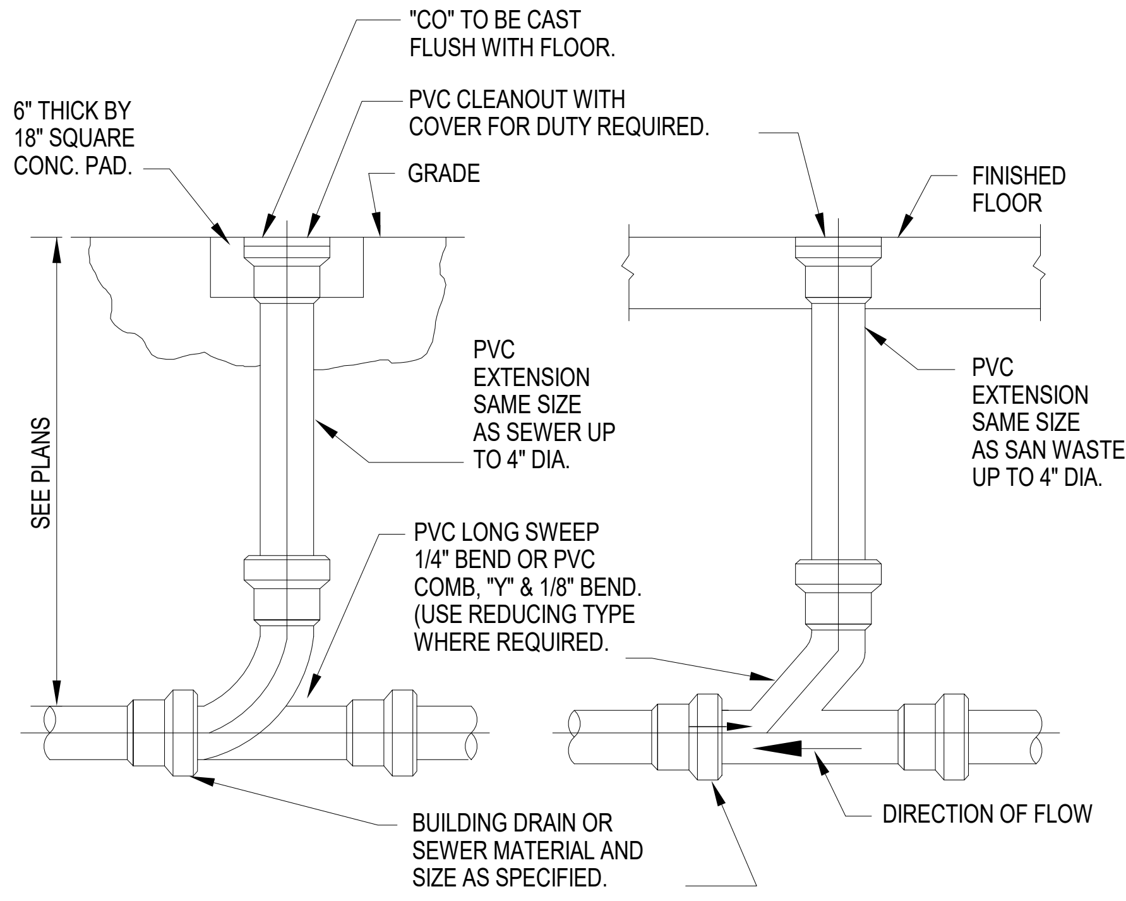


NOTES:

1. TRAP PRIMER SHALL ONLY BE USED TO SERVE SINGLE TRAP. PROVIDE DISTRIBUTION UNIT WHERE MORE THAN ONE TRAP IS SERVED BY TRAP PRIMER.
2. IN FINISHED AREA, ROUTE PIPING WITHIN WALL AND LOCATE TRAP PRIMER ABOVE ACCESSIBLE CEILING.
3. ALL INACCESSIBLE PIPING, SUCH AS PIPING BELOW FLOOR, SHALL BE SOFT COPPER WITHOUT JOINTS.
4. ALL OTHER PIPING SHALL BE HARD COPPER WITH SOLDER JOINTS.

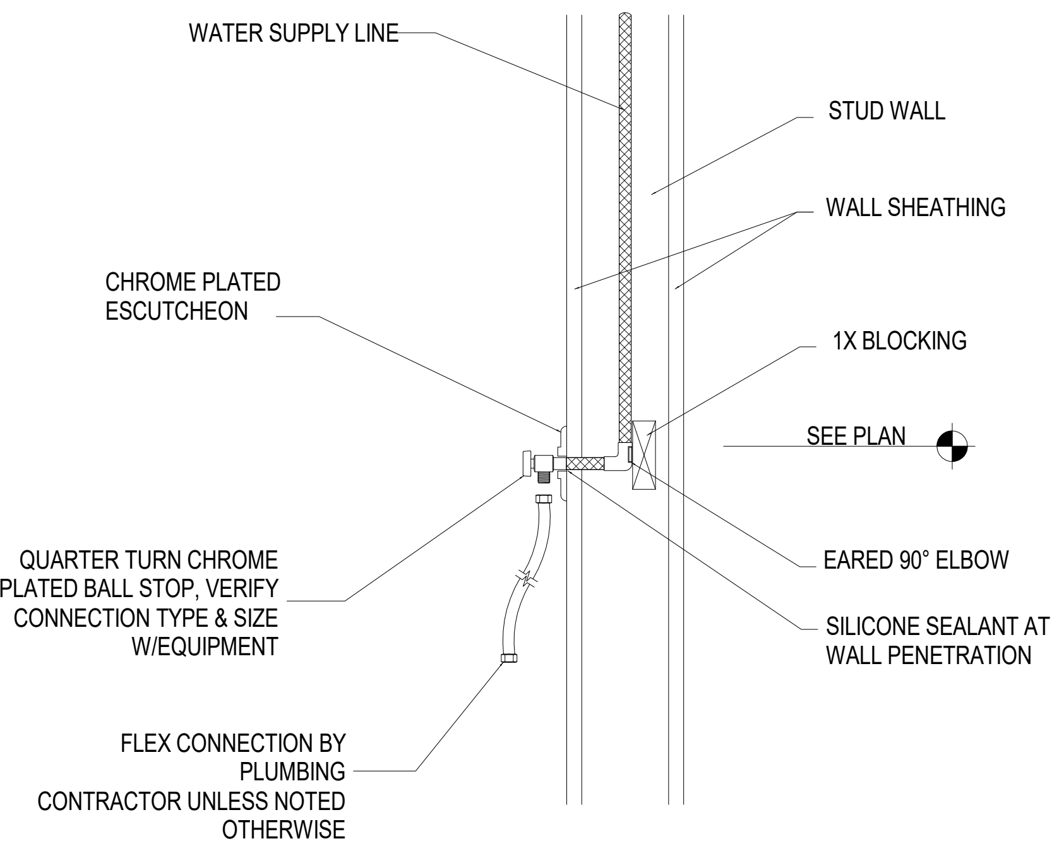
2 / P-9 FLOOR DRAIN WITH TRAP PRIMER DETAIL

NTS



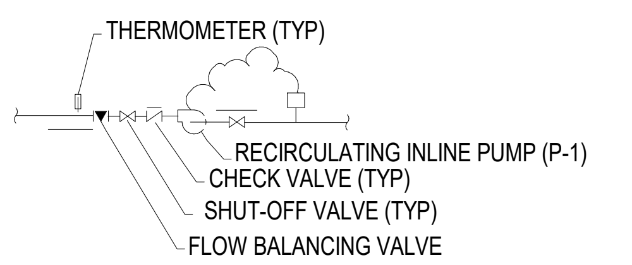
3 / P-9 ONE WAY CLEANOUT DETAIL (ECO-FCO)

NTS



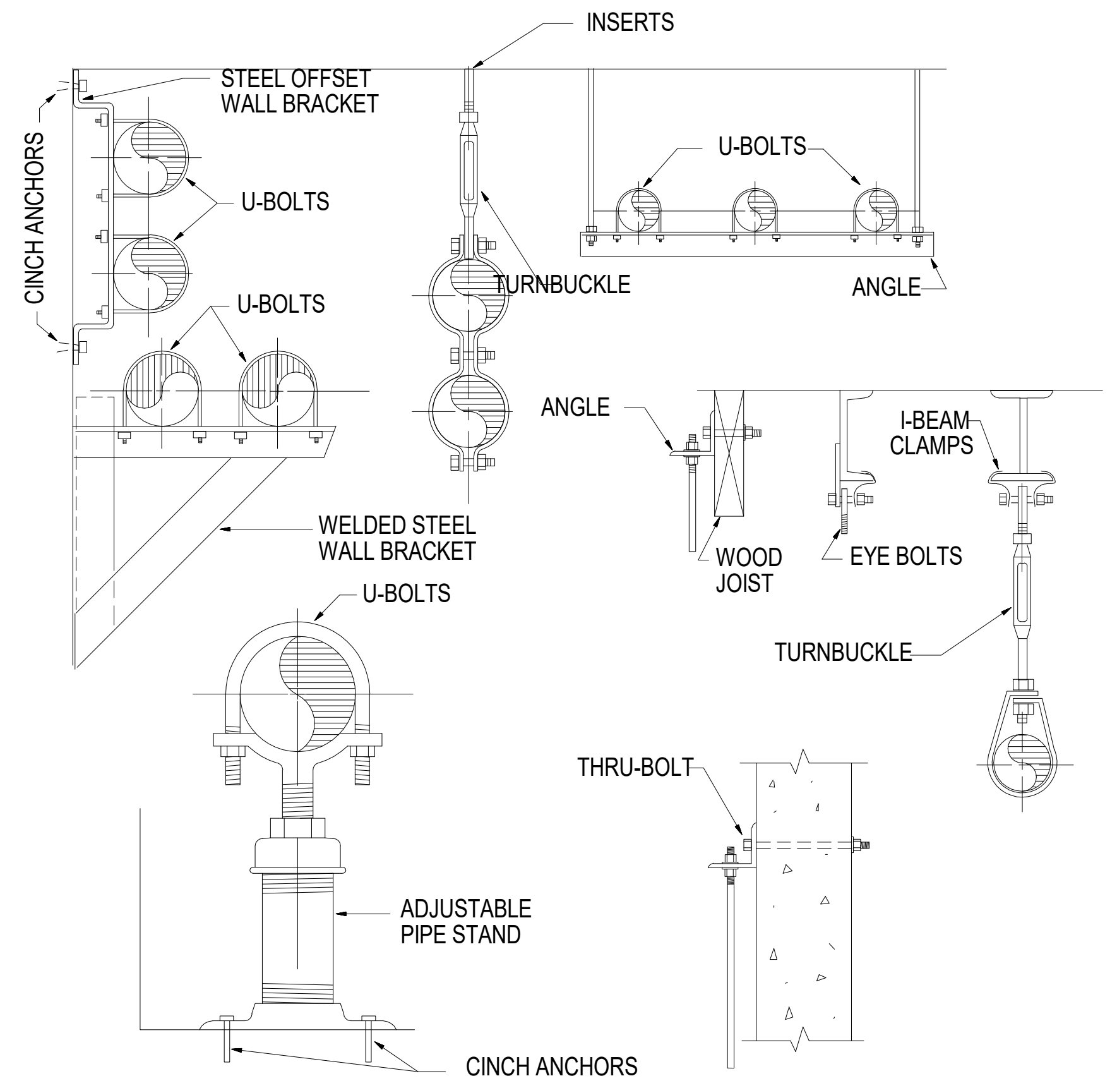
4 / P-9 TYP. WATER SUPPLY CONNECTION DETAIL

NTS



5 / P-9 HWR PUMP DETAIL

NTS



6 / P-9 TYPICAL PIPE SUPPORT DETAIL

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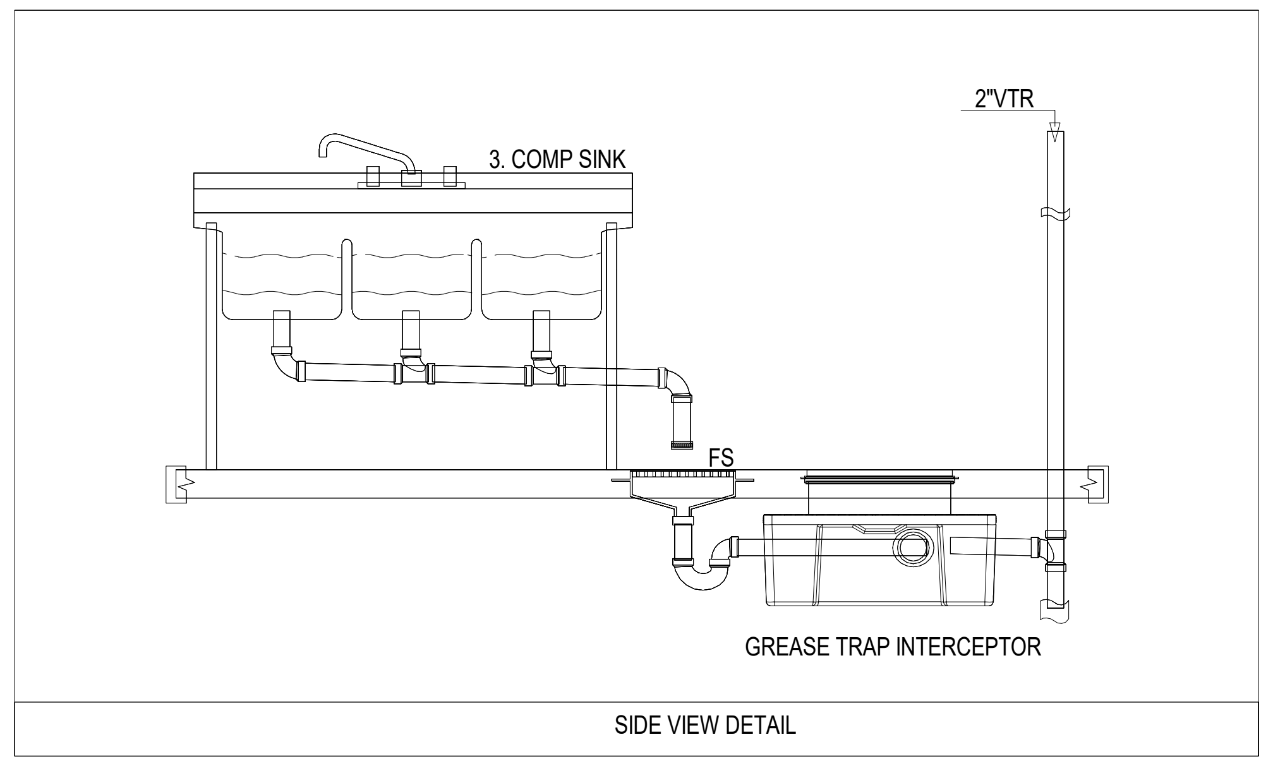
GREASE INTERCEPTOR CALCULATION:

3 COMP SINK: 18"X18"X10"(QTY.=3)=9720 CU.INCH

GALLON: 9720 / 231= 42 GALLON

FOR 2 MINUTE FLOW : 42 / 2= 21 GPM

PROVIDED 25 GALLON WATTS MODEL WD-25 ABOVE FLOOR



SIDE VIEW DETAIL

7 / P-9 GREASE TRAP CALCULATION AND DETAILS

NTS

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PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

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PLUMBING DETAILS & NOTES

DATE: 05/13/2019
SCALE: AS SHOWN
SHT NO. P-9

ARCHITECT'S / ENGINEER'S SEAL