

### GENERAL PLUMBING NOTES

- THE PLUMBING CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL REQUIRED FEES OR HIS PORTION OF THE WORK.
- THE PLUMBING CONTRACTOR SHALL INSTALL THE SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES.
- IF THE PLUMBING CONTRACTOR WISHES TO SUBSTITUTE FIXTURES, TRIM, PIPING OR EQUIPMENT BY A MANUFACTURER OTHER THAN THOSE SPECIFIED ON THESE DRAWINGS, HE MUST SUBMIT SHOP DRAWINGS OR CUT SHEETS FOR THE ARCHITECT'S, AND/OR OWNER'S APPROVAL.
- ALL PIPING SYSTEMS SHALL BE INSTALLED BY WORKMAN SKILLED IN THIS TRADE AND SHALL BE PROPERLY SUPPORTED HORIZONTALLY AND VERTICALLY.
- ALL WORK SHALL BE SUBJECT TO ARCHITECTS AND/OR THE ENGINEERS INSPECTION, AND ANY FAULTY WORK, BROKEN FIXTURES, LEAKING PIPES, ETC. SHALL BE REPAIRED OR REPLACE AT THE PLUMBING CONTRACTORS EXPENSE.
- THE PLUMBING CONTRACTOR SHALL REMOVE ALL DEBRIS RESULTING FROM HIS WORK AND CLEAN ALL FIXTURES AND EQUIPMENT UPON COMPLETION OF HIS WORK AND PRIOR TO FINAL INSPECTION BY THE ARCHITECT AND/OR ENGINEER.
- THE PLUMBING CONTRACTOR SHALL CLOSELY COORDINATE HIS WORK WITH THE OTHER TRADES TO AVOID CONFLICTS OR OBSTRUCTIONS AND SHALL NOTIFY THE ARCHITECT AND/OR ENGINEER OF SAME.
- ALL HOSE BIBBS SHALL BE EQUIPPED WITH VACUUM BREAKERS.
- FURNISH AND INSTALL 3/4" GLASS FIBER PIPE INSULATION WITH VAPOR BARRIER JACKET ON ALL COLD AND HOT WATER PIPING.
- THE DIMENSIONS, OR ROUGH-IN DIMENSIONS INDICATED SHALL BE VERIFIED BY CONTRACTOR AND ADJUSTED IF REQUIRED BY EQUIPMENT, AND/OR FIELD CONDITIONS.
- SANITARY SEWER SHALL BE LAYED AT SLOPE PER CITY CODE.
- VISITING THE SITE: EACH BIDDER SHALL VISIT THE SITE OF THE PROPOSED WORK AND SHALL FULLY INFORM HIMSELF REGARDING THE FACILITIES. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR WORK OR MATERIALS OMITTED FROM THE BIDDER'S CONTRACT PROPOSAL DUE TO HIS FAILURE TO SO INFORM HIMSELF BY SUCH INVESTIGATION.
- GUARANTEE ALL WORK AND MATERIALS FURNISHED UNDER THIS CONTRACT FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER AND THE ARCHITECT.
- INSULATE ALL EXPOSED PIPING UNDER LAVATORY WITH TRUEBRO INC. HANDILAV-GUARD INSULATION KIT. INSTALL LAVATORY PER HANDICAP REQUIREMENT.
- PROVIDE UNISTRUT CHANNELS FASTENED TO BUILDING STRUCTURE AND PIPE CLAMPS FOR PIPE SUPPORTS NOT TO EXCEED 6 FT. SPACING.
- CLEANOUTS:
  - FINISHED FLOOR: SMITH FIG.4020-U, CAST IRON WITH ADJUSTABLE POLISHED BRONZE TOP.
  - FINISHED WALL: SMITH FIG.4403-U, CAST IRON WITH 6" x 6" NICKEL BRONZE ACCESS DOOR.
  - EXTERIOR: SMITH FIG.4220, CAST IRON WITH SECURED CAST IRON COVER SET IN 24" X 24" X 6" THICK CONCRETE PAD AT FINISHED GRADE.
- PROVIDE SHUT OFF VALVES FOR ALL WATER LINES AT PLUMBING FIXTURES AND EQUIPMENT CONNECTIONS.

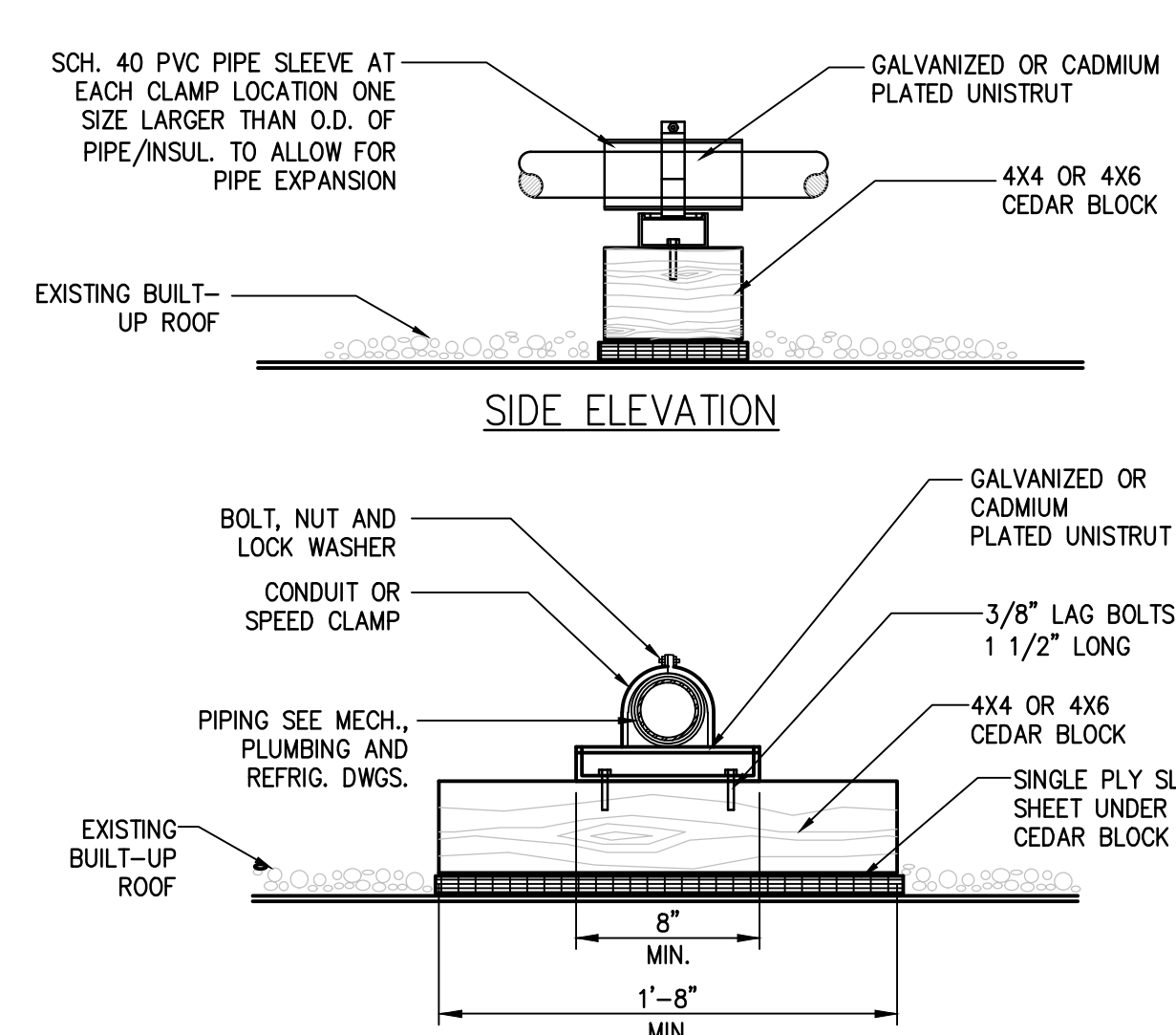
### PIPING SPECIFICATIONS

**HOT AND COLD WATER:** TYPE "L" COPPER WITH WROUGHT COPPER FITTING AND SILVABRITE 100 SOLDER OR SILFOS SILVER BRAZED JOINTS. UNDERGROUND WATER LINES SHALL BE TYPE "K" COPPER WITH NO JOINTS.

**SANITARY WASTE AND VENT:** SCHEDULE 40 PVC.

**STORM SEWER:** SCHEDULE 40 PVC.

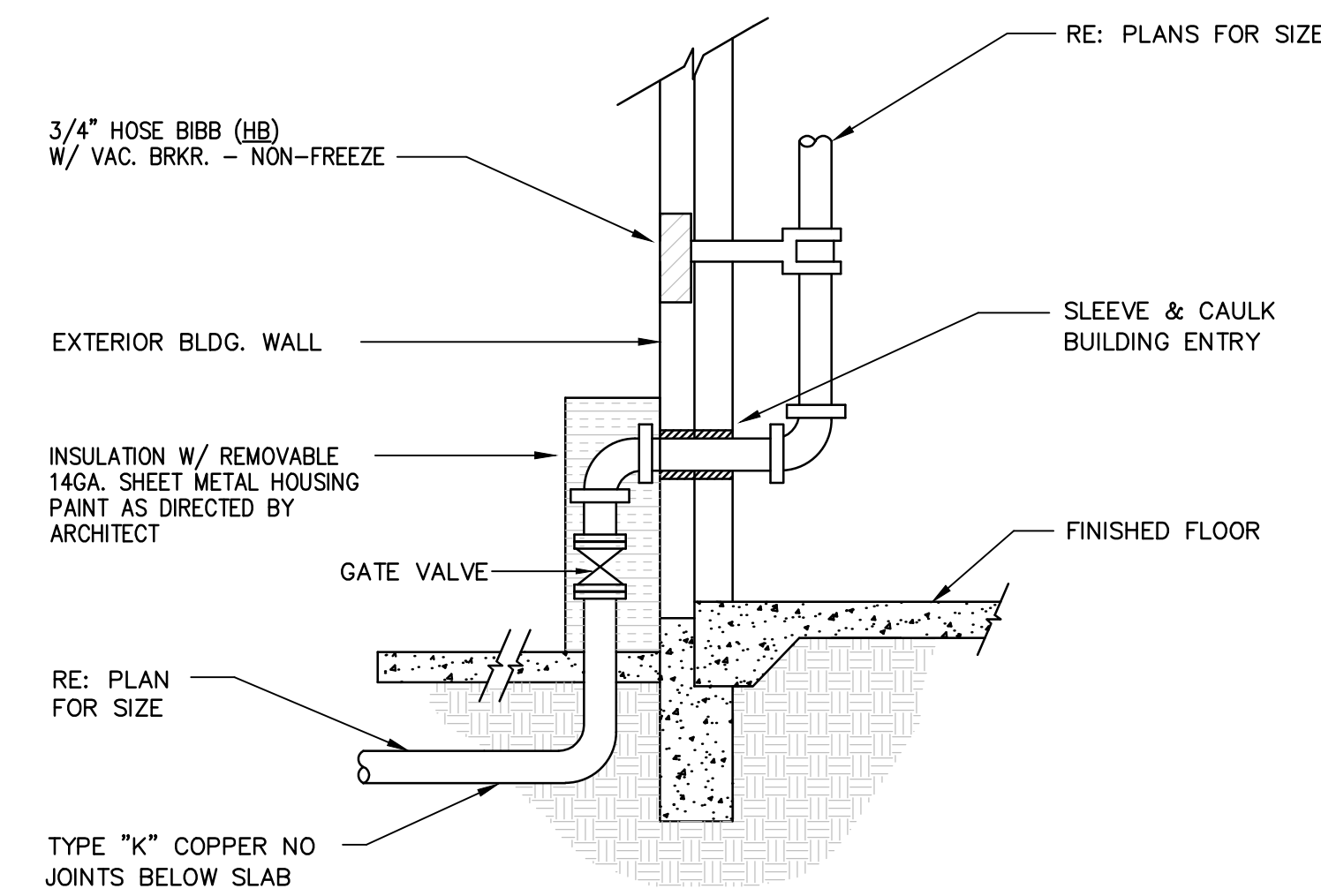
**NATURAL GAS:** SEAMLESS BLACK STEEL WITH MALLEABLE IRON FITTINGS. JOINTS CAN BE EITHER SCREWED OR WELDED.



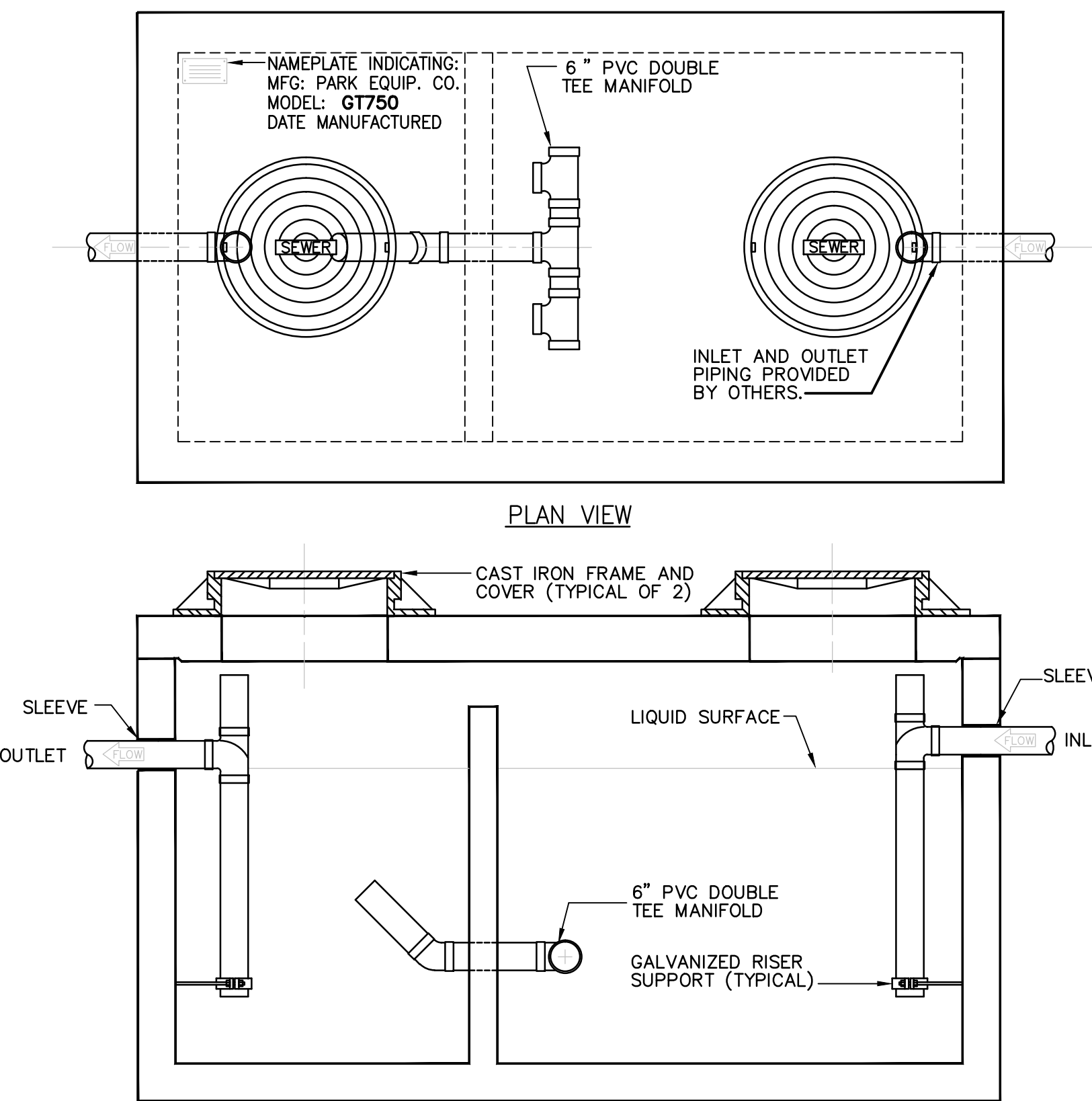
**ROOF GAS PIPE SUPPORT DETAIL**  
NO SCALE

### PLUMBING FIXTURE SCHEDULE

- P-1:** SELF RIMMING OVAL COUNTERTOP LAVATORY, VITREOUS CHINA WITH FAUCET, THERMOSTATIC MIXING VALVE, SUPPLIES, TRAP, TAILPIECE AND SUPPORT. INSULATE ALL EXPOSED PIPING UNDER LAVATORY WITH TRUEBRO INC. HANDILAV-GUARD INSULATION KIT. INSTALL LAVATORY PER HANDICAP REQUIREMENT. PROVIDE LEONARD MODEL #170 THERMOSTATIC MIXING VALVE AND ASSOCIATED PIPING FOR ALL P-1 FIXTURES.
- P-2:** ADA SINK, STAINLESS STEEL, SINGLE COMPARTMENT SINK WITH FAUCET, GRID DRAIN, P-TRAP, TAILPIECE AND SUPPLIES. PROVIDE LEONARD MODEL #170 THERMOSTATIC MIXING VALVE AND ASSOCIATED PIPING FOR ALL P-2 FIXTURES.
- P-3:** ADA WATER CLOSET, VITREOUS CHINA, ELONGATED, 16.5" HIGH BOWL. COMPLETE WITH OPEN FRONT WHITE SEAT-LESS COVER, MANUALLY OPERATED FLUSH VALVE, 1.28 GPF.
- P-4:** WATER CLOSET, VITREOUS CHINA, ELONGATED, 15" HIGH BOWL. COMPLETE WITH OPEN FRONT WHITE SEAT-LESS COVER, MANUALLY OPERATED FLUSH VALVE, 1.28 GPF.
- P-5:** ADA SINK, STAINLESS STEEL, SINGLE COMPARTMENT SINK W/FAUCET, GRID DRAIN, P-TRAP, TAILPIECE AND SUPPLIES.
- P-6:** WATER CLOSET, VITREOUS CHINA, ELONGATED, 10" HIGH BOWL. COMPLETE WITH OPEN FRONT WHITE SEAT-LESS COVER, MANUALLY OPERATED FLUSH VALVE, 1.28 GPF.
- SS:** SERVICE SINK, FIAT PRODUCTS MODEL "TSB200", 24"x24" PRECAST TERRAZO 12" HIGH WALL, INTEGRAL CAST IRON DRAIN BODY, FIAT E-77-AA VINYL GUARD ON ALL EXPOSED SIDES, AMERICAN STANDARD 8344.111 WALL-MOUNTED FAUCET SET WITH VACUUM BREAKER, HOSE THREADS, BUCKET HOOK, WALL BRACE AND STOPS IN SHANKS, WILLIAM PRODUCT NO. 7-35 3/8" HOSE WITH S.S. HOSE BRACKET.
- FD:** 3" FLOOR DRAIN, JOSAM 30000-A SERIES, CAST IRON BODY, WITH WADE V-2400, 1/2" BRONZE TRAP PRIMER VALVE WITH VACUUM BREAKER AND ASSOCIATED WATER PIPING.
- ES:** 3" FLOOR SINK, 12" BY 12" SQUARE CAST IRON, 10" DEEP WITH DOUBLE DRAINAGE FLANGE, INTERNAL DOME STRAINER, NICKEL-BRONZE SLOPED RIM AND 1/2" ANTITILTING GRATE.
- SA:** SHOCK ABSORBERS, JAY R. SMITH FIG. NOS. 5005 THRU 5050, OR EQUIVALENT, AND SIZED AS RECOMMENDED BY MANUFACTURER.
- BP:** BACKFLOW PREVENTER, REDUCED PRESSURE PRINCIPLE, WATTS #909 COMPLETE WITH STRAINER, TEST COCKS AND GATE VALVES.
- DF:** ELECTRIC DRINKING FOUNTAIN, HALSEY TAYLOR MODEL HACFBSL-Q, ADA BI-LEVEL, 8 GPH, 1/5 HP, 120 VOLT, 1-PHASE, 4 FLA.
- DF-1:** OUTDOOR DRINKING FOUNTAIN, HALSEY TAYLOR MODEL 7633008883, ADA BI-LEVEL, FREEZE RESISTANT, STAINLESS STEEL.
- WH:** GAS WATER HEATER, A.D. SMITH MODEL BTH-199, 100 GALLON TANK, 199,000 BTUH GAS INPUT, 227 GPH RECOVERY AT 100°F RISE.



**COLD WATER ENTRY DETAIL**  
NO SCALE



### ELEVATION

#### Specifications

##### CONCRETE:

Class 1 concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth. Gross empty weight of approximately 9,000 pounds.

##### REINFORCEMENT:

Grade 60 reinforced with steel rebar conforming to ASTM A615 on required centers or equal.

##### C.I. CASTINGS:

Manhole frames, covers or grates are manufactured of grey cast iron conforming to ASTM A48-76 Class 35. Manhole shall have 24 inch inside diameter and be traffic duty.

#### Engineering Data

Interceptor is structurally and hydraulically engineered conforming to Uniform Plumbing Code. Liquid capacity is 750 gallons with solids retention capacity of approximately 2,004 pounds. Recommended for flow rates up to 21 gallons per minute.

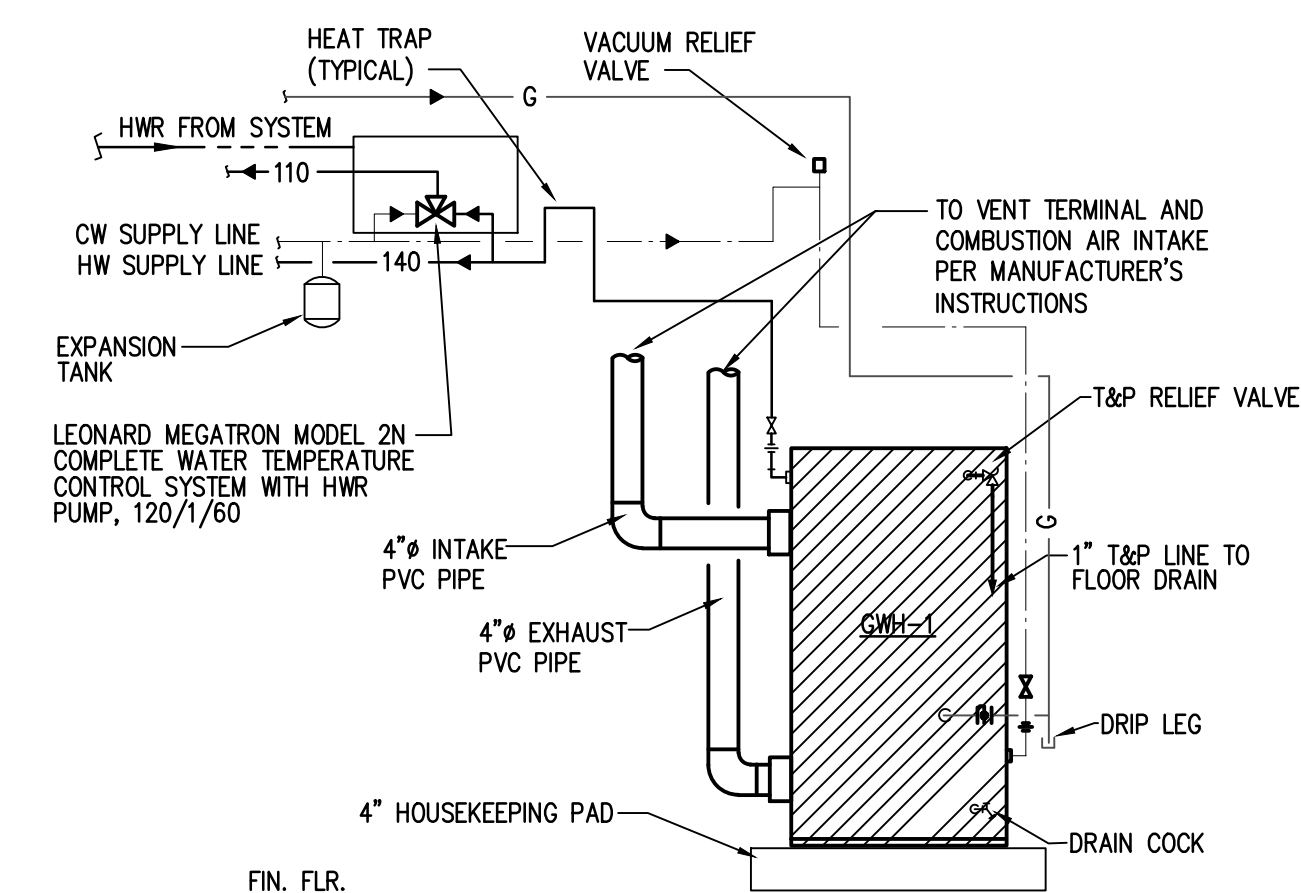
Field excavation and preparation shall be completed prior to delivery of interceptor. Use dimensional data as shown.

### GREASE TRAP 750 GAL. - DETAIL

SCALE: NONE

### FIXTURE ROUGH-IN SCHEDULE:

FIXTURE TYPE	WASTE	VENT	COLD WATER	HOT WATER
WATER CLOSET	4'	2'	1'	--
LAVATORY	2'	2'	1/2'	1/2'
SERVICE SINK	3'	2'	3/4'	3/4'
FLOOR DRAIN	3'	2'	--	--
FLOOR SINK	3'	2'	--	--



**GAS WATER HEATER DETAIL**  
NO SCALE

### REVISIONS AND ISSUANCE

NO.	DATE	DESCRIPTION
08/13/2018	PRICING	
10-17-17	COUNTY COMMENTS	

**IVY KIDS EARLY LEARNING CENTER**  
**4434 CR 94**  
**Manvel, Tx 77578**

MEP Consultants  
 BLK Engineering & Consulting Co.  
 3423 Spring Arbor Ln.  
 Sugar Land, TX 77479  
 (1) 832 563 3127  
 TBPE Firm #12672

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND NOT FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

RESPONSIBLE ENGINEER:  
 CHH-TAI KENG  
 79201  
 08-13-2018

DRAWING TITLE

**PLUMBING NOTES & DETAIL**

DRAWN BY: FK  
 CHECKED BY: CK

DATE: 03/30/2017  
 JOB NO.: sedona lakes

DRAWING NO.

**P-4.0**