

PROVIDE AND INSTALL NEW TANK MONITORING SYSTEM AND ALL ASSOCIATED CONDUITS AND WIRING. CONSOLE SHALL BE INSTALLED AT A LOCATION SPECIFIED BY THE OWNER IN THE FACILITIES OFFICE

RELOCATE 6" SDR 35 PVC FOOTING DRAIN PIPING AROUND TANK. MATCH INVERTS AT EITHER END AND RUN PIPE AT A CONSISTENT SLOPE.

INSTALL NEW 2" DRAIN WITH BALL VALVE THROUGH CONTAINMENT CURB, SEE DETAIL SHEET C5.2

1" SCH 40 STEEL SUPPLY AND RETURN PIPING

4" STEEL PIPE SLEEVE

INSTALL HIGH LEVEL ALARM AND ACKNOWLEDGMENT SWITCH MOUNTED TO OUTSIDE BUILDING WALL

MOUNT 1" SCH 40 SUPPLY AND RETURN PIPING TO CONCRETE WALL. PROVIDE SUPPORT BRACKETS A MAXIMUM OF 5' O.C. AND AT CHANGES IN DIRECTION

REMOVE EXISTING STEEL PIPING FROM EXISTING FLEXIBLE PRODUCT PIPING WALL PENETRATION TO TRANSFER PUMPS

REMOVE EXISTING TRANSFER PUMPS AND ASSOCIATED VALVES, GAUGES, SPILL PAN, PIPING TO BURNERS, AND CONTROL PANEL.

REMOVE ALL EXISTING OIL PIPING FROM TRANSFER PUMP TO OIL BURNERS

END NEW INTERNAL 1" SCH 40 PIPING. NEW PIPING TO/ FROM OIL BURNERS BY OTHERS

INSTALL NEW 6" LIQUID TIGHT BERM IN DOORWAY TO WELLHEAD

PROTECT STORM DRAIN INLETS IN THE AREA DURING CONSTRUCTION

SAWCUT PAVEMENT AS NECESSARY AND RESTORE PAVEMENT SEE DETAIL SHEET C5.2

PROPOSED TRAFFIC BOLLARD, TYP OF 9

PROVIDE AND INSTALL 6" CHAINLINK FENCE

PROPOSED 6" CONTAINMENT CURB TOP OF CURB= 200.0'

PROPOSED 8,000 GALLON VERTICAL UL-142 ABOVEGROUND STORAGE TANK TANK PURCHASED BY OWNER AND UNLOADED AND INSTALLED BY CONTRACTOR

2" SCH 40 STEEL PIPE

PROPOSED 12" REINFORCED CONCRETE PAD TOP OF PAD= 199.5'

STEEL LADDER AND LANDING TO ACCESS TOP OF TANK

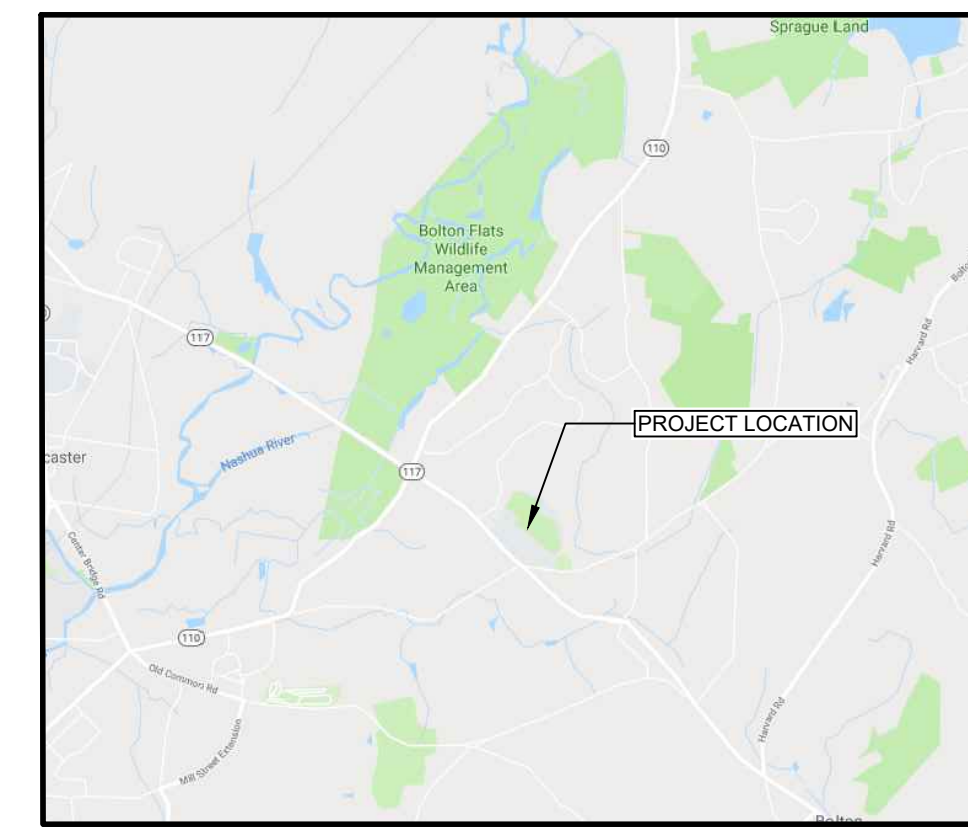
REMOTE FILL BOX SEE SHEET C5.2

6" SWING GATE WITH LOCK

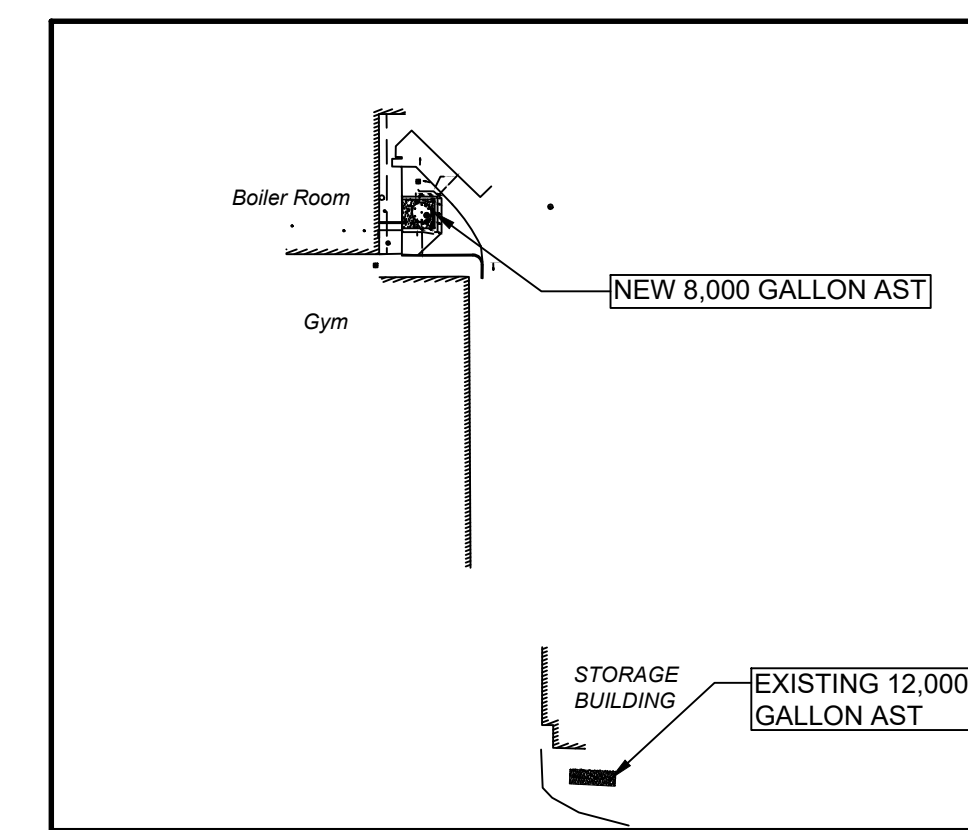
REMOVE EXISTING DRAIN LINE FROM UNDER TANK

PROVIDE OVERHEAD PIPE SUPPORT FROM TANK THROUGH BUILDING WALL

EXISTING FLEXIBLE PRODUCT PIPING TO BE ABANDONED IN PLACE. PRIOR TO ABANDONMENT PIPE SHALL BE DRAINED, PURGED, TIGHTNESS TESTED AND CAPPED.



LOCUS  
NOT TO SCALE



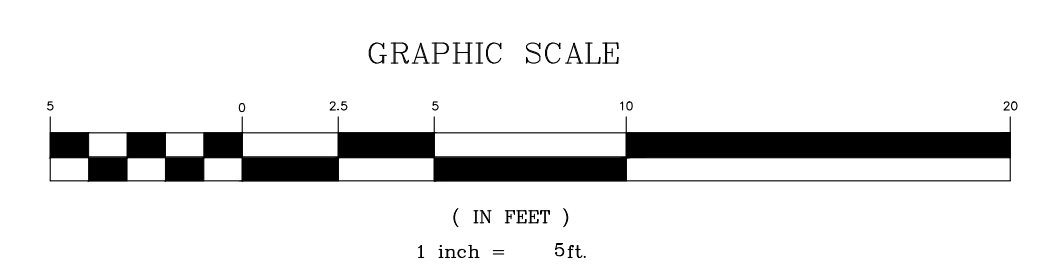
PLOT PLAN  
1" = 100'

**LEGEND**

- BENCHMARK
- SPOT GRADES
- CATCH BASINS
- POTABLE WATER WELLS
- MANHOLE
- BUILDINGS
- BUILDING OVERHANG
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- STORM DRAIN LINE
- UNDERGROUND UTILITY
- OVERHEAD UTILITY
- #2 HEATING OIL PIPING
- CONCRETE PAD

**GENERAL NOTES:**

1. TOPOGRAPHY, AND EXISTING FEATURES FROM SURVEY BY WILCOX & BARTON, INC. ON 05/22/2019
2. THIS DRAWING IS NOT INTENDED TO BE A BOUNDARY SURVEY
3. CONTRACTOR SHALL CONTACT DIG-SAFE PRIOR TO ANY EXCAVATION
4. CONTRACTOR SHALL SCHEDULE DELIVERY AND UNLOADING OF AST PURCHASED BY OWNER.
5. ADD ALTERNATE 1: REMOVAL OF EXISTING 12,000 AST AND CLOSURE PER NFPA 21.7.4 AND 502 CMR 5.



**Wilcox & Barton INC.**  
CIVIL • ENVIRONMENTAL • GEOTECHNICAL  
#1B COMMONS DRIVE, UNIT 12B  
LONDONDERRY, NH 03053  
603-369-4190  
www.wilcoxandbarton.com

REVISION HISTORY  
1.

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Owner  
**Nashoba Regional School District**  
50 Mechanic Street  
Bolton, MA

Site  
**Nashoba Regional High School**  
12 Green Rd.  
Bolton, MA

Drawing Title  
**Site Plan**

Scale	1" = 5'	Date	07/03/2019
Drafted By	GAG	Checked By	DLF
Project Mgr	AJM	Project Number	SIGM0087
Sheet Number	C1.1		

ENGINEER: DAVID L. FROTHINGHAM III  
(MA) P.E. #13592

**C1.1**

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**TANK 1 ALARM AND AUTO SHUTOFF SETTINGS**

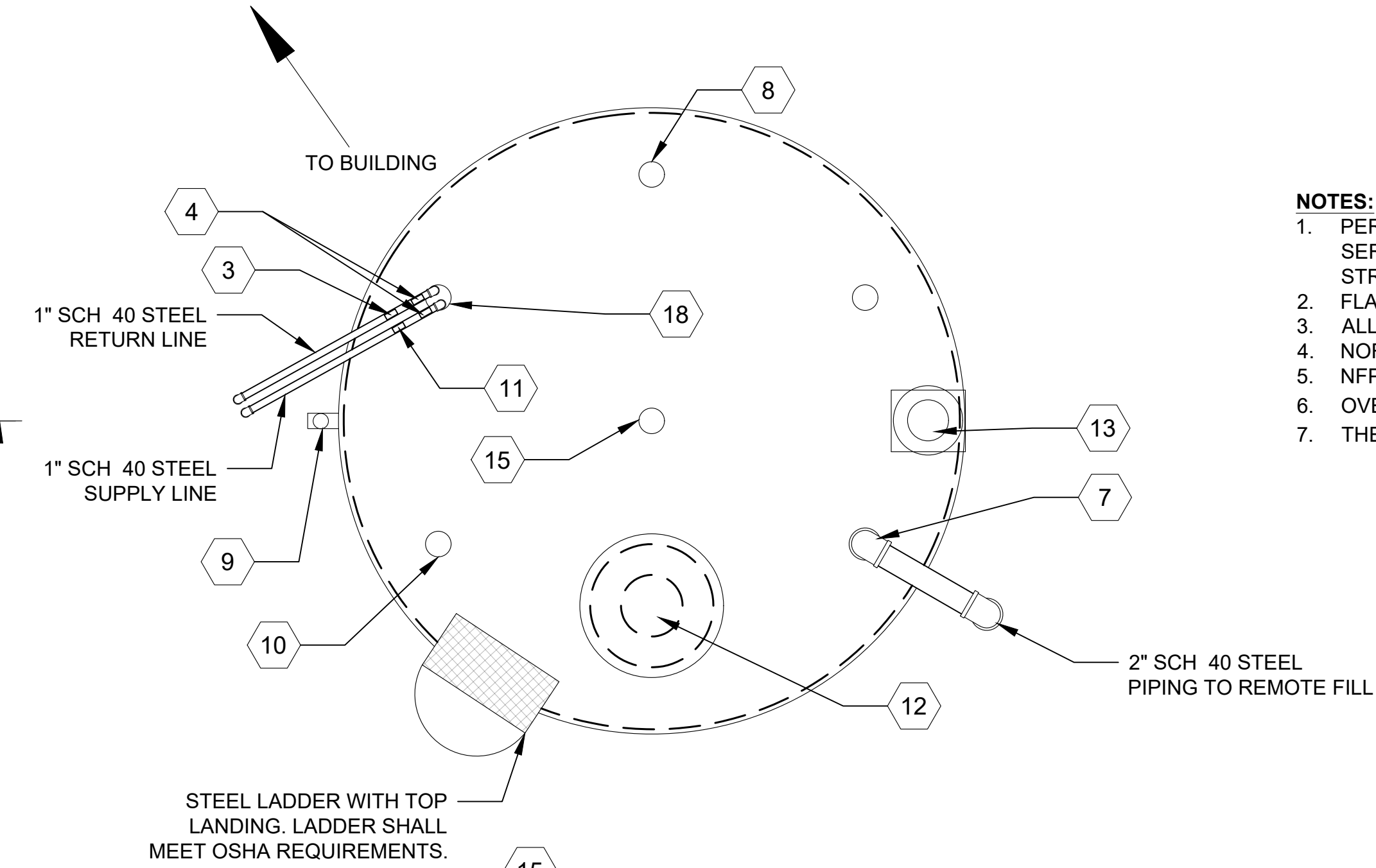
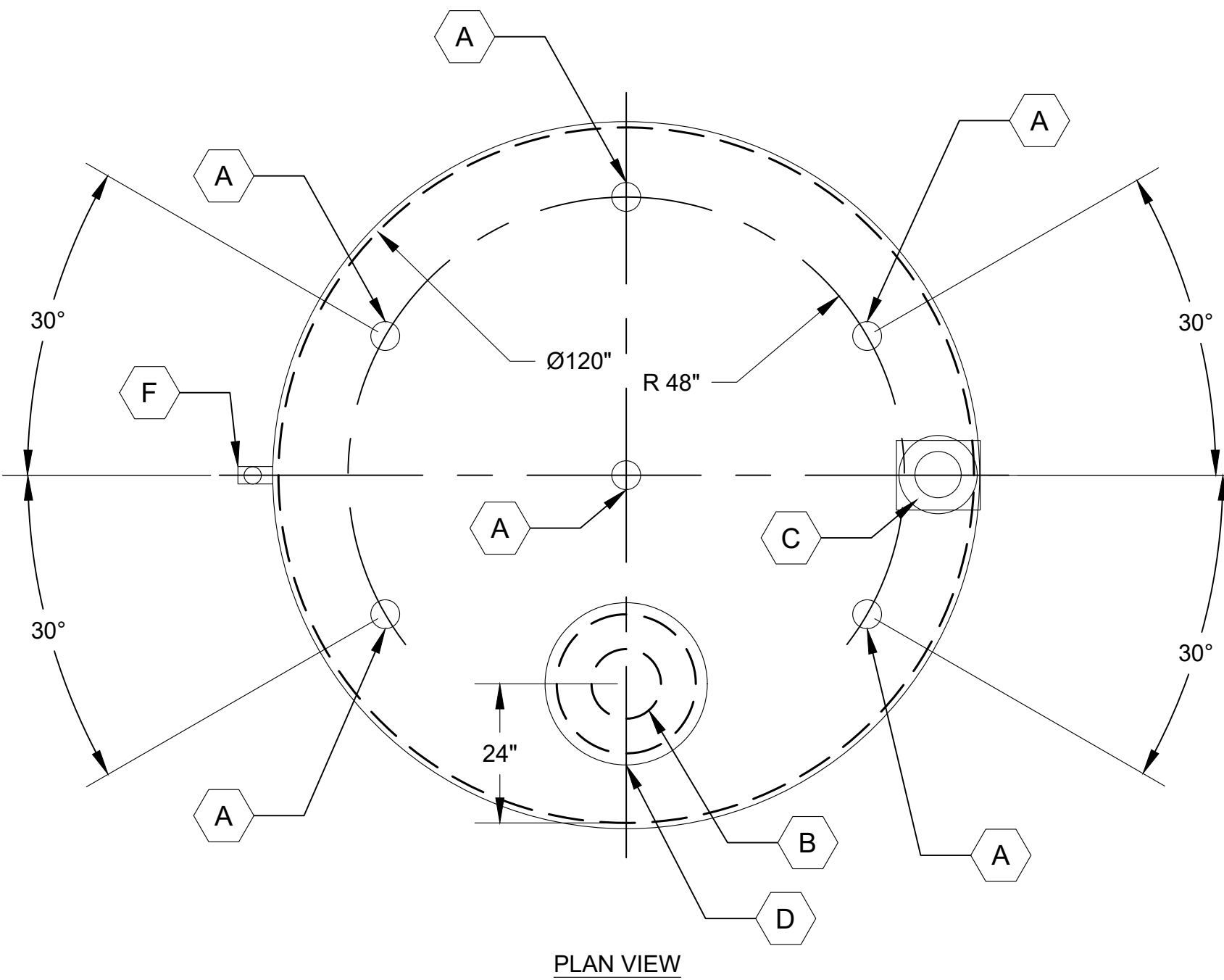
TANK 1  
 NOMINAL CAPACITY 8,000 GAL  
 ACTUAL CAPACITY 8,225 GAL  
 90% VOLUME 7,399 GAL  
 95% VOLUME 7,809 GAL

TANK FULL LEVEL 168"  
 90% TANK LEVEL 151 1/8"  
 95% TANK LEVEL 159 1/2"

DESIGN DATA	
CAPACITY:	8,000- GALLON #2 FUEL OIL
NO. REQ.:	- 1
TYPE: VERTICAL DOUBLE WALL	
OPERATING PRESSURE - ATMOSPHERIC	
SPECIFIC GRAVITY = 1.0	
TANK MATERIAL - MILD CARBON STEEL	
THICKNESS - TOP - 7 GA - SHALLOW SLOPE SINGLE WALL	
THICKNESS - INNER - SHELL: 1/4" BOTTOM: 1/4"	
THICKNESS - OUTER - SHELL: 7GA BOTTOM: 1/4"	
MIN. GAUGE OR THICKNESS (PER U.L. 142)	
CONSTRUCTION - LAP WELD OUTSIDE ONLY - INNER & OUTER	
TANK TEST - INNER: 2 PSIG, OUTER: -2 PSIG & FULL VACUUM	
INT. FINISH - NONE	
EXT. FINISH - SHOP PRIMER	
LABEL - U.L. 142	

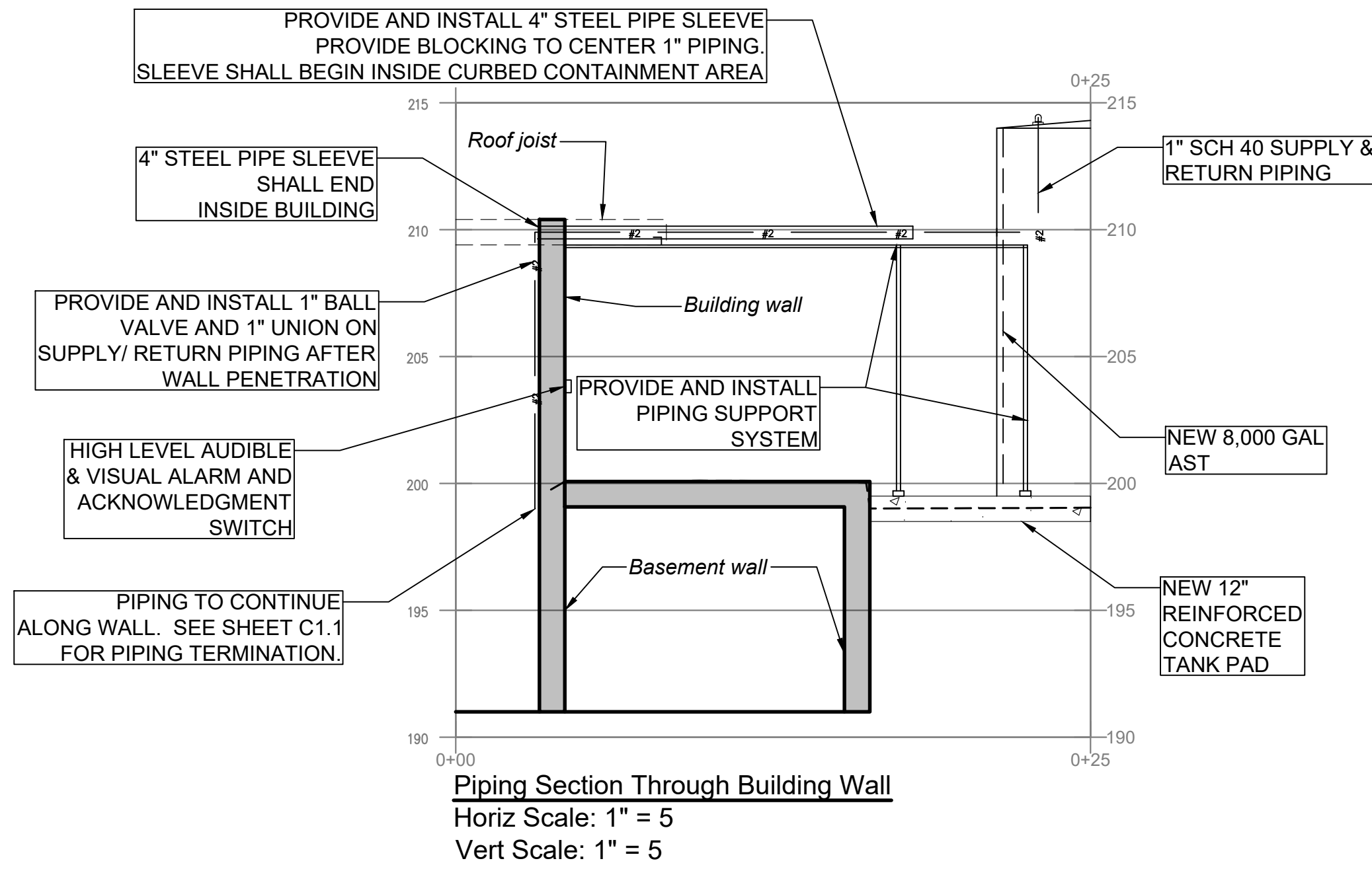
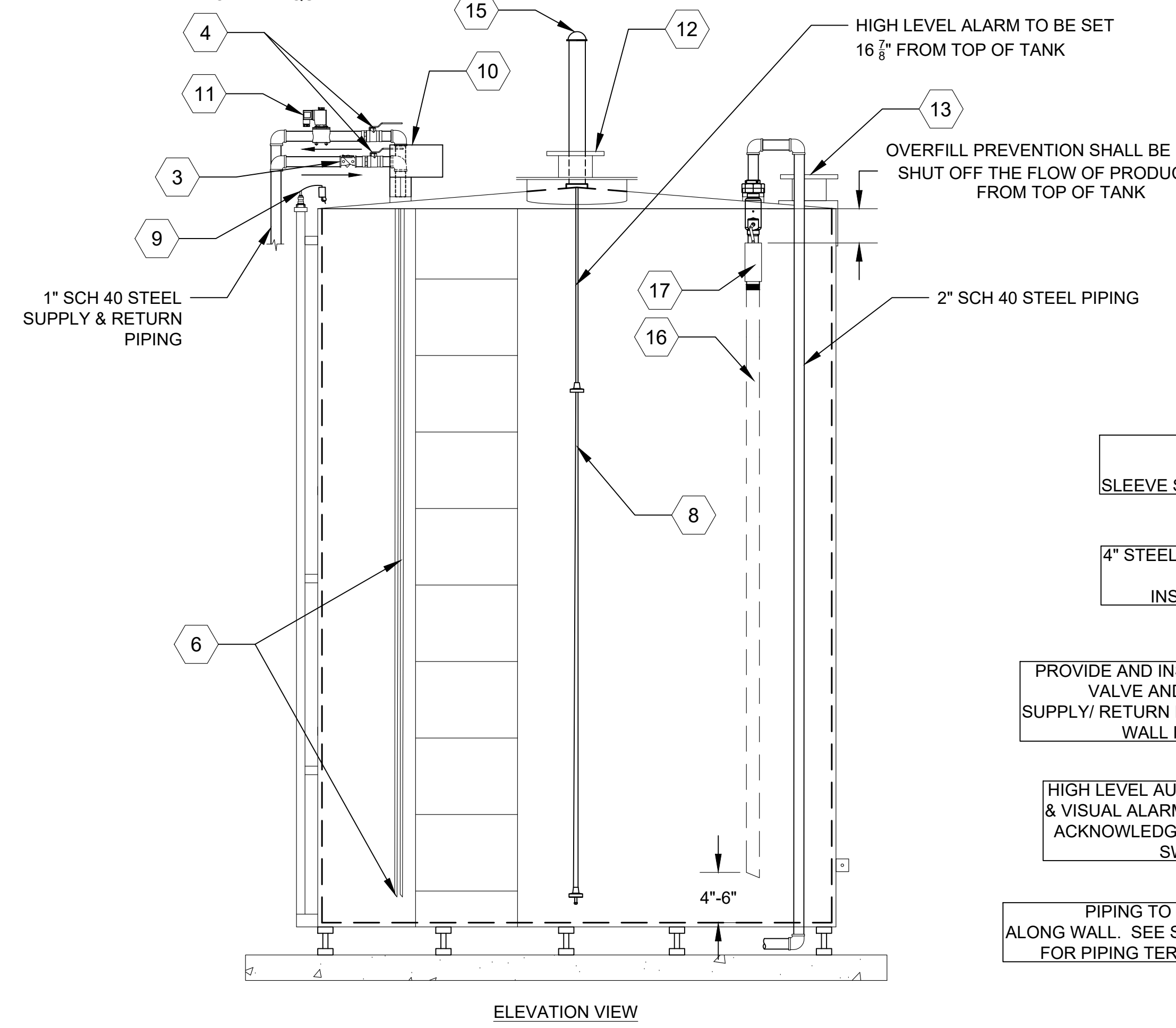
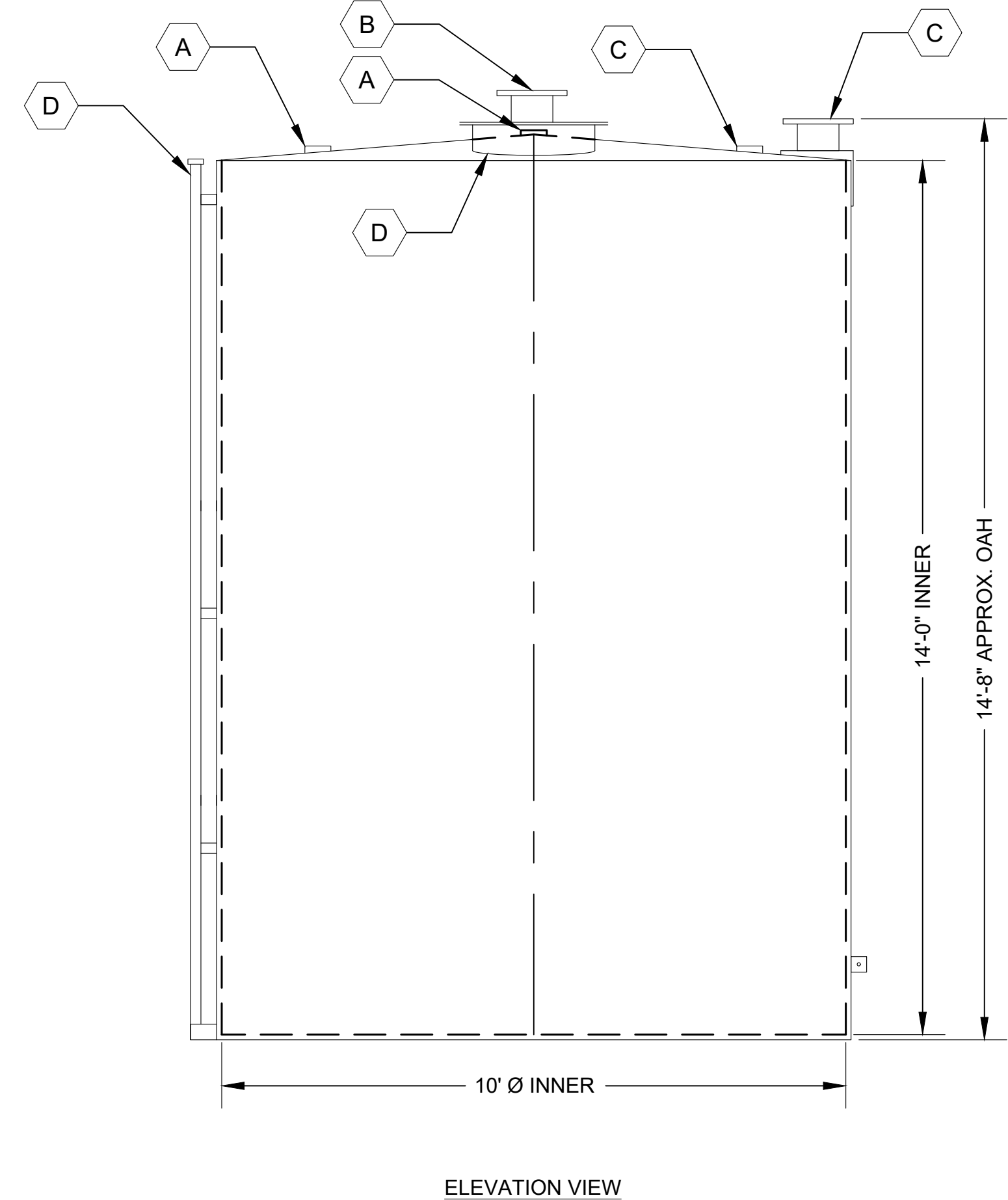
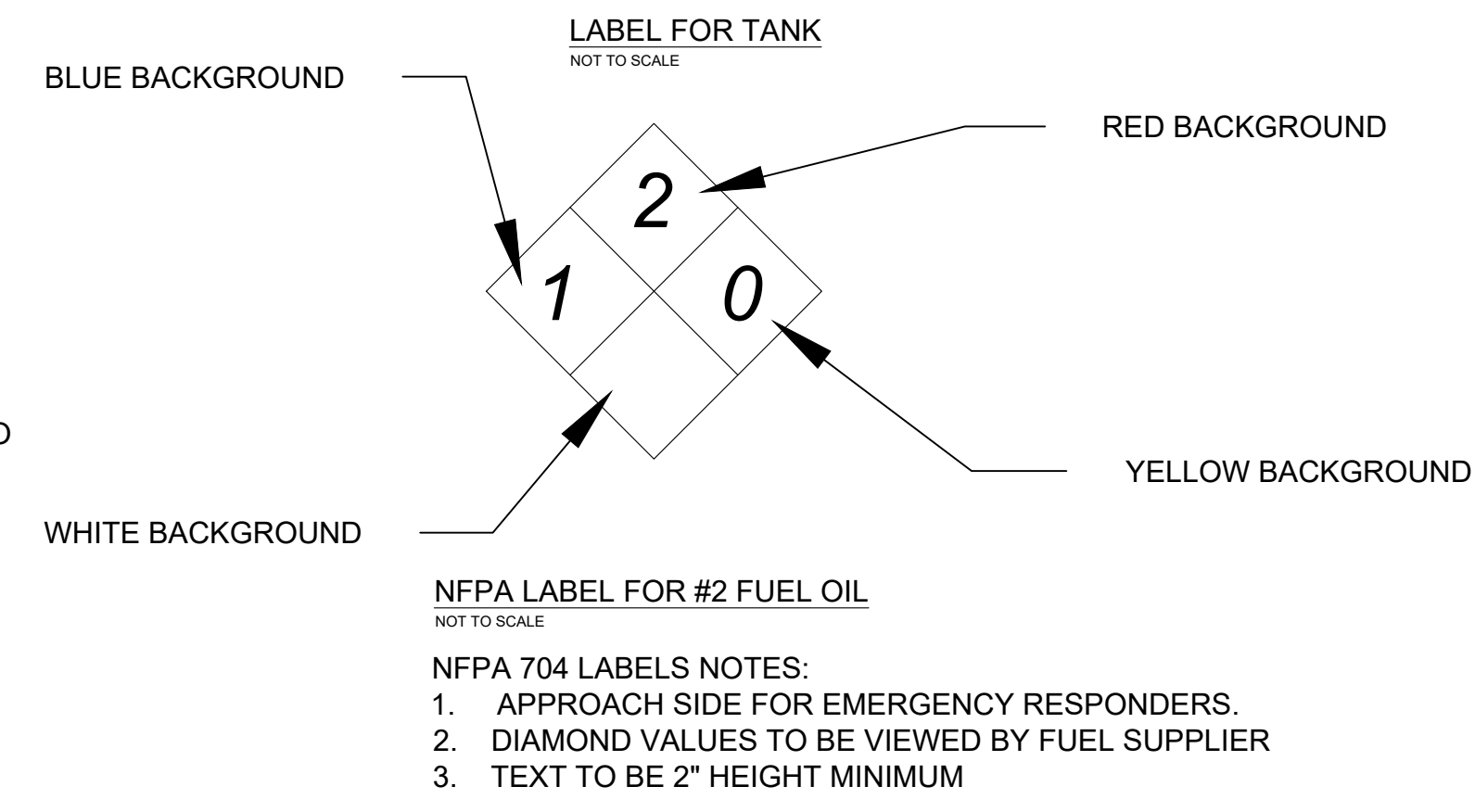
LEGEND	
A	4" FEMALE COUPLING
B	8" PRIMARY EMERGENCY VENT USE ONLY
C	8" FLANGE THROUGH OUTER SHELL ONLY. MARK WITH SPECIAL WARNING LABEL INTERSTITIAL EMERGENCY VENT USE ONLY
D	24" X 3 1/2" PLATE TIGHT BOLT MANWAY WITH 3/8" THICK NEO-CORK GASKET AND "C" MARKED IN COVER
F	2" INTERSTITIAL MONITOR PIPE WITH MALE NPT END
G	DANGER NO SMOKING - 10"X14" VINYL ADHESIVE WARNING SIGN - FOUR REQ'D, ONE ON EACH SIDE OF TANK
H	#2 FUEL OIL - 4" VINYL LETTERING LABEL (RED OR BLACK LETTERING) - FOUR REQ'D, ONE ON EACH SIDE OF TANK
I	TANK 1 AND SAFE FILL HEIGHT LABEL - 2" VINYL LETTERING (RED OR BLACK). ONE REQ'D - FILL SIDE OF THE TANK.
J	NFPA 704 FIRE RATING SYMBOL, FLAM (RED) 2, HEALTH (BLUE) 1, REACT (YELLOW) 0, SPECIAL (WHITE) 0, 2 REQ'D - ONE EACH SIDE OF TANK

ID (FROM DETAIL)	DESCRIPTION
1	TANK MONITORING SYSTEM (VEEDER ROOT TCS-350 OR EQUAL WITH REMOTE MONITORING MODULE)
2	1" SCH 40 STEEL PIPING
3	1" STEEL CHECK VALVE
4	1" STEEL BALL VALVE
5	1" STEEL UNION
6	1" DROP TUBE
7	2" TIGHT FIT CONNECT AND COVER
8	FUEL LEVEL & HIGH LEVEL PROBE
9	INTERSTITIAL PROBE
10	MECHANICAL TANK GAUGE
11	1" STAINLESS STEEL ELECTRONIC SOLENOID VALVE
12	8" FLANGED PRIMARY EMERGENCY VENT
13	8" FLANGED INTERSTITIAL EMERGENCY VENT
14	7.5 GALLON REMOTE SPILL BUCKET
15	2" VENT STACK CAP & 2" SCH 40 RISER
16	2" FILL DROP TUBE
17	OVERFILL PROTECTION VALVE
18	4" X (#2) 1" FITTING ADAPTER
19	2" STEEL BALL VALVE
20	2" STEEL CHECK VALVE



- NOTES:**
- PER NFPA 30 27.4 ALL PIPING, VALVES, AND FITTINGS SHALL BE OF STAINLESS STEEL OR CARBON STEEL, SUITABLE FOR FUEL SERVICE AND DESIGNED FOR THE WORKING PRESSURE AND MECHANICALLY AND THERMALLY PRODUCED STRUCTURAL STRESSES TO WHICH THEY COULD BE SUBJECTED AND SHALL COMPLY WITH ASME B31.3
  - FLANGES AND THEIR ASSOCIATED BOLTS SHALL BE CARBON STEEL OR STAINLESS STEEL.
  - ALL PIPE 2" AND GREATER SHALL BE WELDED OR WELDED FLANGE.
  - NORMAL VENT SHALL EXTEND 3 FEET ABOVE TOP OF TANK.
  - NFPA 704 SYMBOL HAZARD NUMBERING SHALL BE VERIFIED BY FUEL SUPPLIER
  - OVERFILL PREVENTION VALVE SHALL BE SET TO STOP FUEL DELIVERY TO THE TANK AT 8 1/2" BELOW THE INSIDE TOP OF TANK.
  - THE HIGH LEVEL SENSOR SHALL BE SET 16 3/4" BELOW THE INSIDE TOP OF TANK.

**TANK NO. 1  
 #2 FUEL OIL  
 SAFE FILL  
 HEIGHT 151 1/8"**



REVISION HISTORY

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Site  
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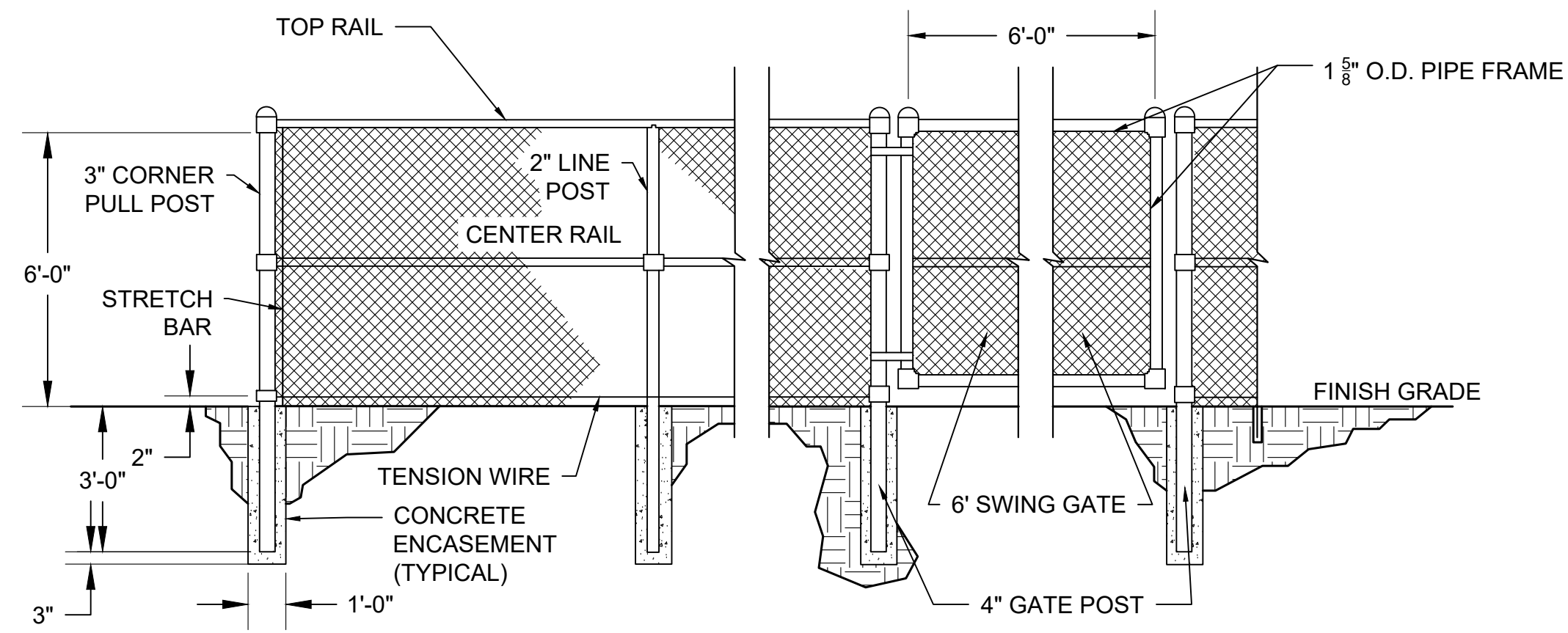
Drawing Title  
**Tank Details**

Scale	N.T.S.	Date	07/03/2019
Drafted By	GAG	Project Mgr	AJM
Checked By	DLF	Project Number	SIGM0087
Sheet Number			

Professional Engineer  
 ENGINEER: DAVID L. FROTHINGHAM III  
 (MA) P.E. #53592

**C5.1**

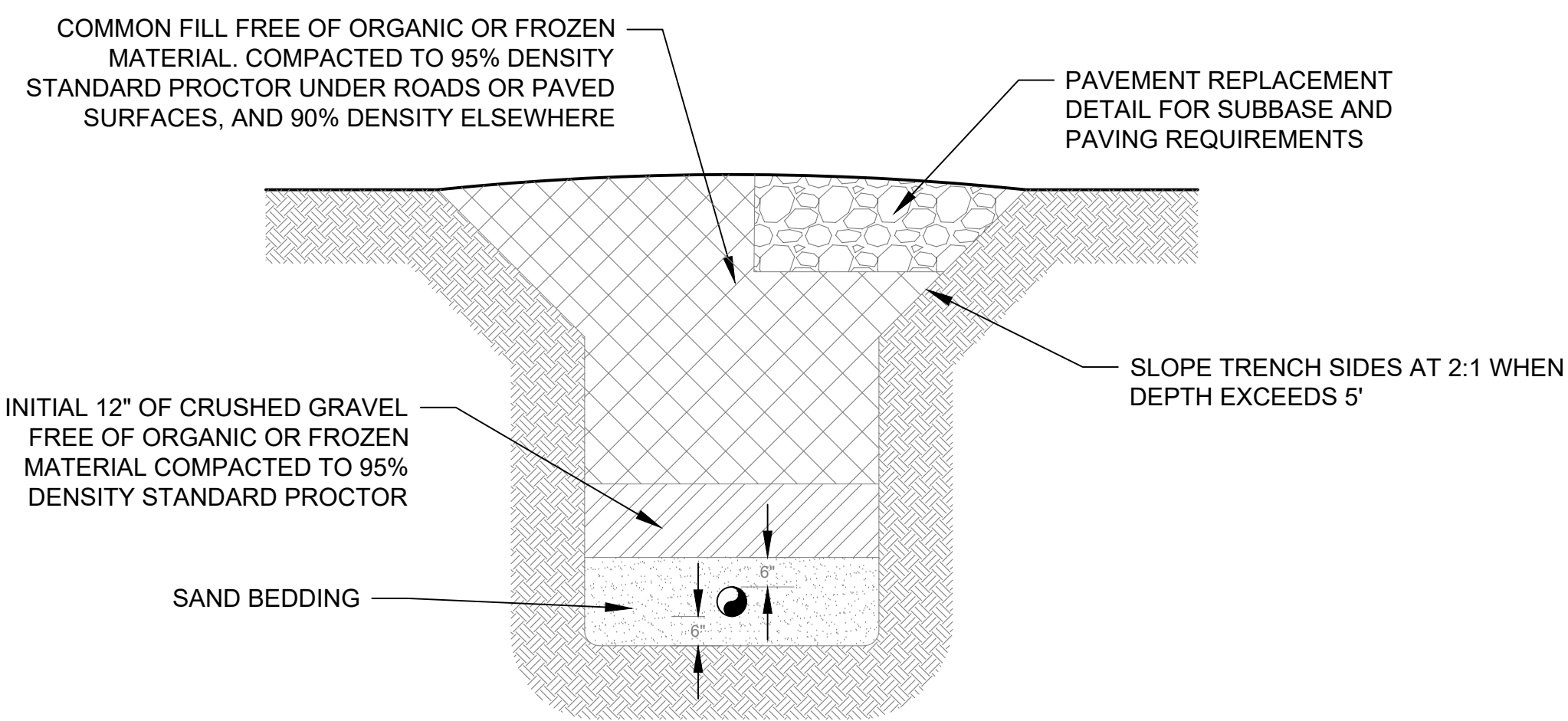
2 of 4



- NOTES:**
- GATE SHALL HAVE A LOCKING MECHANISM.
  - ALL FENCE COMPONENT MATERIAL SHALL BE HOT DIPPED GALVANIZED STEEL.

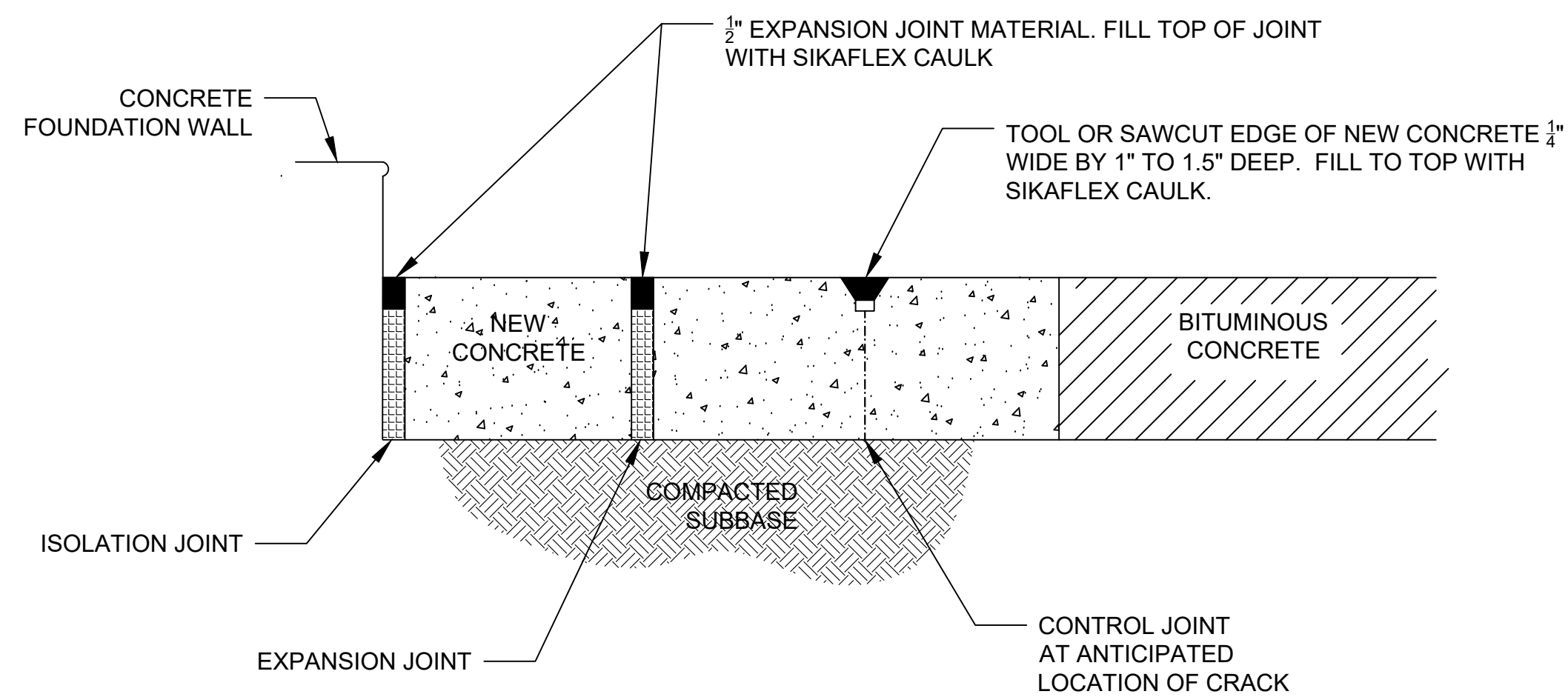
**CHAIN LINK FENCE & GATE**

NOT TO SCALE



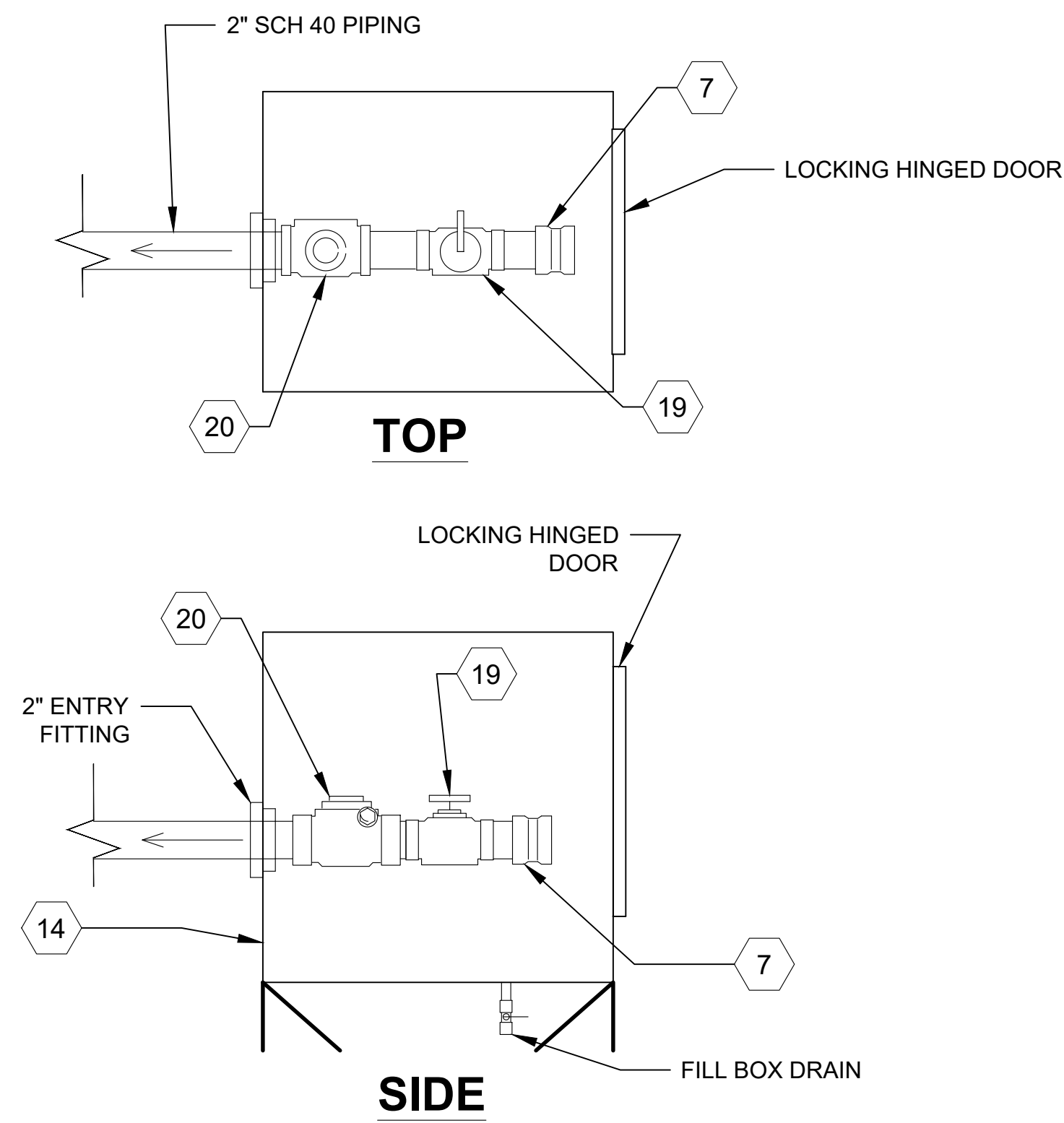
**TYPICAL TRENCH DETAIL**

NOT TO SCALE



**CONCRETE JOINT DETAIL**

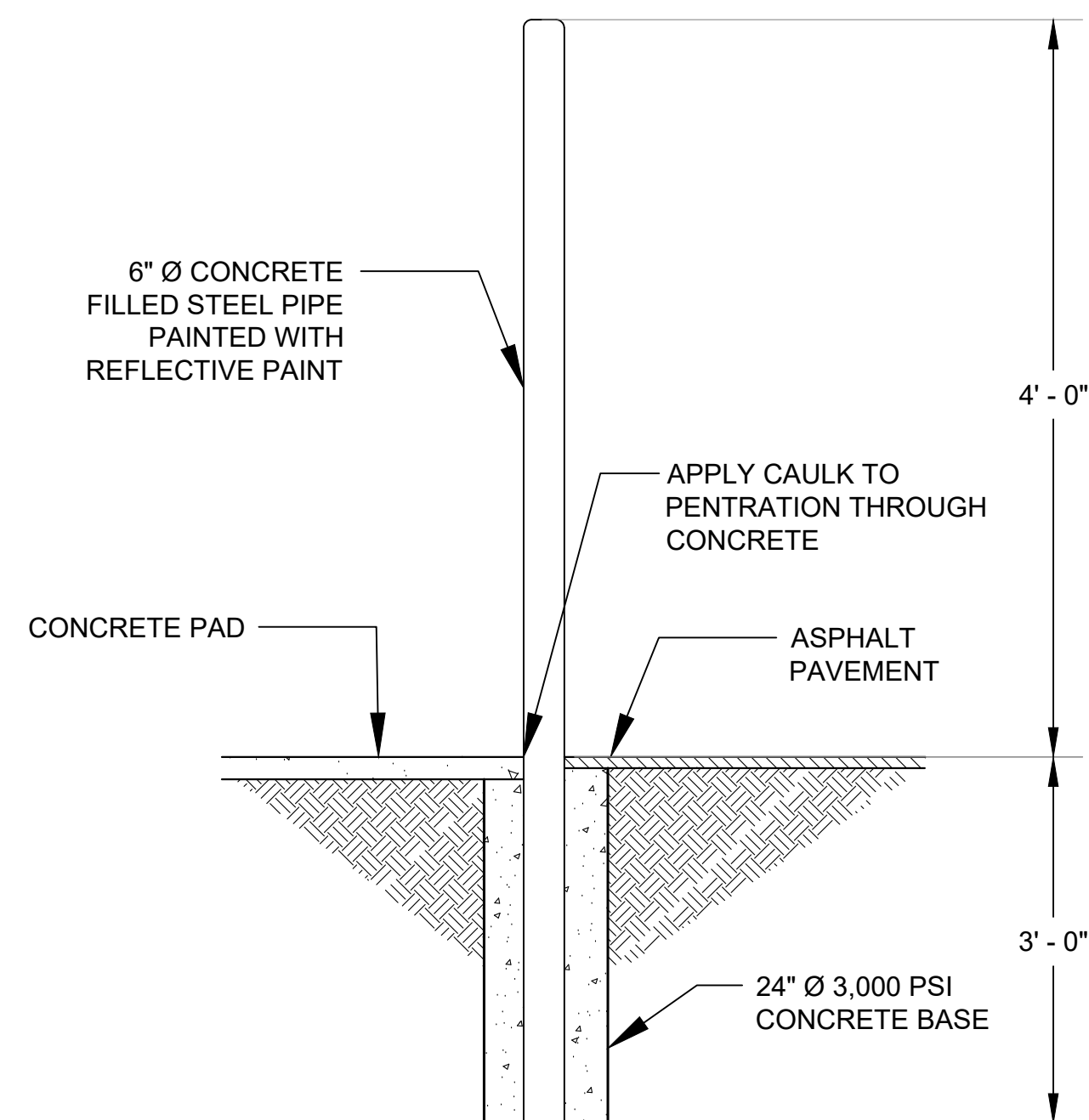
NTS



- NOTES:**
- ALL VALVES SHALL BE STAINLESS STEEL OR CARBON STEEL CONSTRUCTION.
  - REMOTE FILL BOX SHALL BE OF STAINLESS STEEL CONSTRUCTION, PAINTED WHITE, AND LABELED "#2 FUEL OIL ONLY".
  - SEE SHEET C5.1 FOR PARTS LEGEND

**#2 FUEL OIL REMOTE FILL BOX DETAIL**

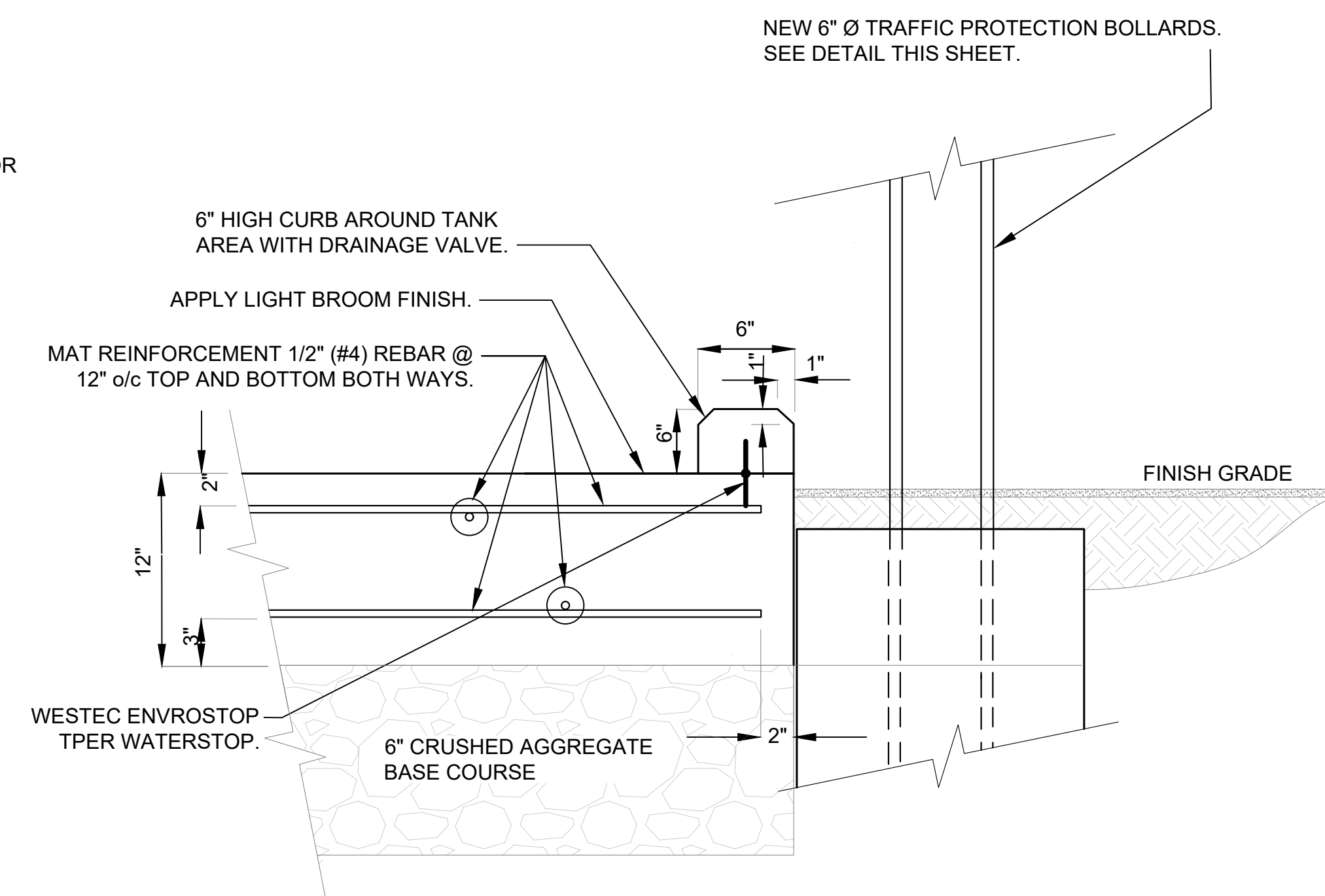
NTS



- NOTES:**
- CAULK SHALL BE SIKAFLEX 1C SELF LEVELING CAULKING OR APPROVED EQUAL
  - A PRECAST BOLLARD WHICH MEETS THE SPECIFIED DIMENSIONS MAY ALSO BE USED.

**BOLLARD CONCRETE INSTALLATION**

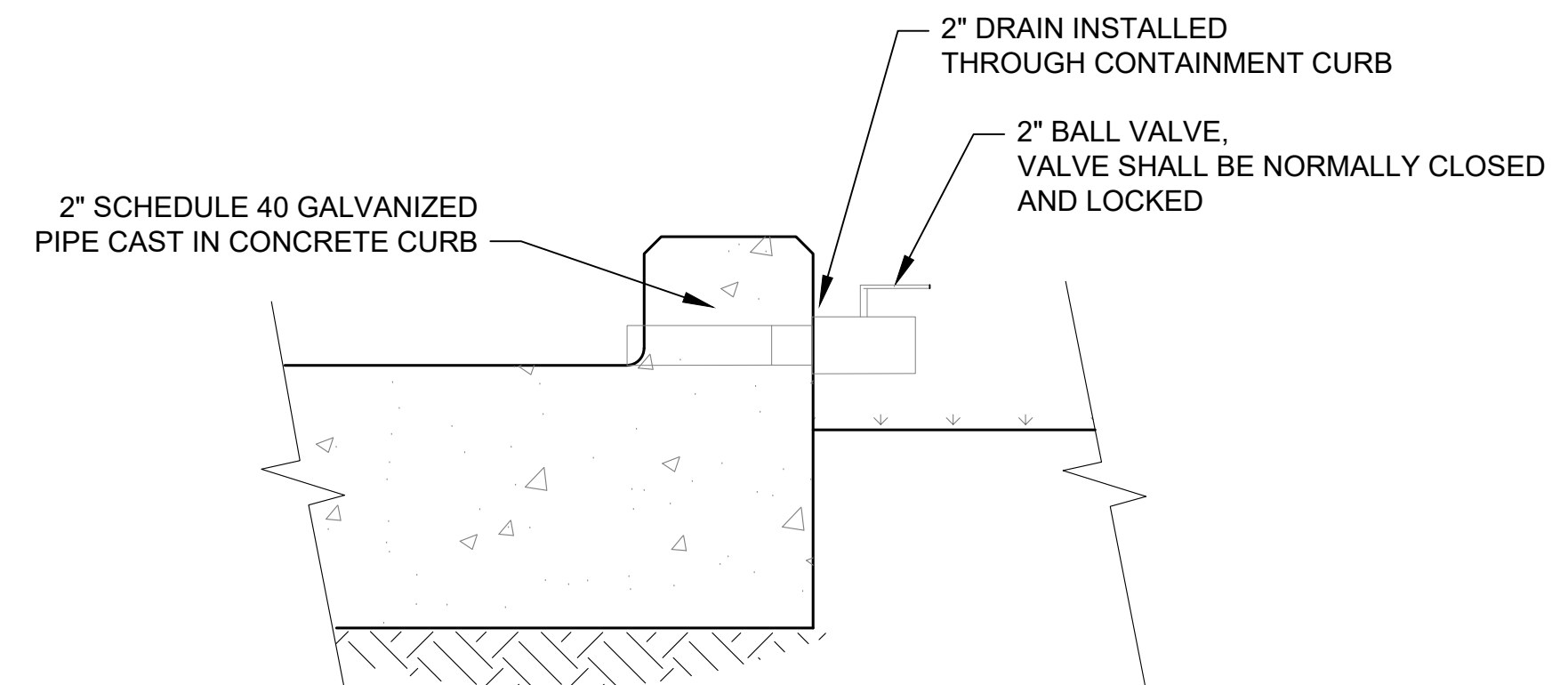
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**CONCRETE TANK PAD SECTION**

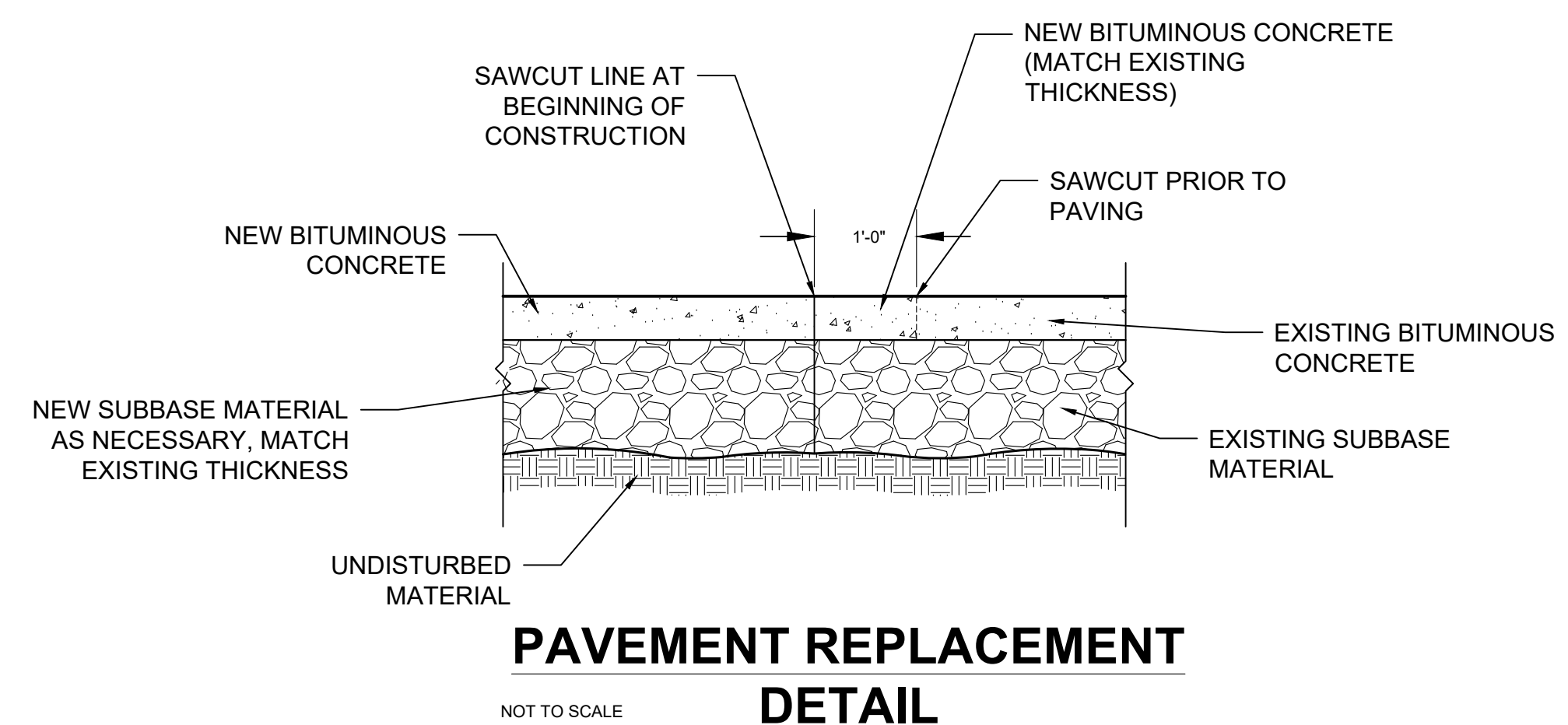
NTS

- NOTES:**
- CAULK SHALL BE SIKAFLEX 1C SELF LEVELING CAULKING OR APPROVED EQUAL
  - CONTAINMENT BERM SHOULD BE A MONOLITHIC POUR WITH THE AST SUPPORT PAD.



**DRAIN VALVE**

NTS



**PAVEMENT REPLACEMENT DETAIL**

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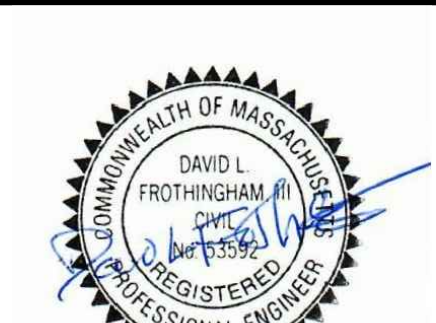
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Project Mgr	AJM	Project Number	SIGM0087



ENGINEER: DAVID L. FROTHINGHAM III  
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**C5.2**

