

DGT Associates
Surveying & Engineering

Framingham
Boston • Worcester • Preston, CT

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508-879-0030

www.DGTassociates.com

APPLICANT:
**WASHINGTON STREET
SHERBORN HOMES, LLC
177 LAKE STREET
SHERBORN, MA 01770**

OWNER:
**AB REALTY TRUST
JANE HAMROCK & MARY
BUNTIN, TRUSTEES
7 JOSEPH STREET
HYANNIS, MA 02601**

PARCEL ID:
MAP 7, LOT 0, BLOCK 49

ISSUED FOR:
**SUBSURFACE SEWAGE
DISPOSAL SYSTEM DESIGN**

DATE: **FEBRUARY 9, 2024**

SCALE: **1" = 30'**

DESIGN: **KMR/JAL** DRAFTED: **KMR/JAL** CHECKED: **JAL/BEC**

PROJECT TITLE:
**WASHINGTON STREET
SHERBORN HOMES**

0 WASHINGTON STREET
SHERBORN, MASSACHUSETTS 01770

SHEET TITLE:
**SUBSURFACE SEWAGE
DISPOSAL SYSTEM
PLAN**

SHEET:
1 OF 5

PROJECT NO.:
F-25902

BOH-1

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SEWAGE DISPOSAL SYSTEM GENERAL PERFORMANCE, INSTALLATION AND STANDARDS NOTES

I. GENERAL CONSTRUCTION REQUIREMENTS FOR SEPTIC TANKS AND PUMP CHAMBER

- A. ALL COMPONENTS SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR APPROVED EQUAL.
- B. ALL COMPONENTS SHALL BE CONSTRUCTED TO THE DIMENSIONAL REQUIREMENTS SHOWN ON THE ACCOMPANYING DETAILS.
- C. ALL CONSTRUCTION MATERIALS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
- (1) CONCRETE STRENGTH: Fc=4,000 PSI AT 28 DAYS, DENSITY 140 PCF.
 - (2) CEMENT: PORTLAND TYPE I OR III PER ASTM C150-81.
 - (3) ADMIXTURES: PER ASTM C233-82.
 - (4) MINIMUM DESIGN LOADING: (SEE DETAILS)
 - (5) MINIMUM WALL THICKNESS: (SEE DETAILS)
- D. COMPONENTS SHALL BE EMBOSSED WITH A SEAL STATING THAT THE QUALITY CONTROL / QUALITY ASSURANCE STANDARD OUTLINED IN ASTM C 1227-93, HAS BEEN MET.
- E. ALL COMPONENTS SHALL BE PLACED ON A LEVEL STABLE BASE THAT HAS BEEN MECHANICALLY COMPACTED AND ONTO WHICH SIX (6) INCHES OF CRUSHED STONE HAS BEEN PLACED. FOR COMPONENTS PLACED IN FILL, THE BASE MATERIAL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR DENSITY, BEFORE PLACEMENT OF CRUSHED STONE.
- F. NO STRUCTURES SHALL BE LOCATED DIRECTLY UPON OR ABOVE ANY COMPONENT ACCESS LOCATIONS WHICH INTERFERE WITH PERFORMANCE, ACCESS, INSPECTION, PUMPING OR REPAIR.
- G. ALL COMPONENTS SHALL BE EITHER:
- (1) WATERTIGHT THROUGH MANUFACTURER'S SPECIFICATIONS AND WARRANTY; OR
 - (2) MADE WATERTIGHT BY THE MANUFACTURER, EQUIPMENT SUPPLIER OF INSTALLER USING ASPHALT OR SYNTHETIC POLYMER SEALER SPECIFIED BY THE CONCRETE OR SYNTHETIC POLYMER MATERIAL MANUFACTURER.
- H. ALL SYSTEM COMPONENTS MUST BE MARKED WITH MAGNETIC TAPE BEFORE BACKFILLING OCCURS.

II.CONSTRUCTION REQUIREMENTS BY SYSTEM COMPONENT

- A. BUILDING SEWER:
1. THE BUILDING SEWER SHALL BE SEPARATED FROM A PRIVATE WATER SUPPLY WELL, OR SUCTION LINE, BY A MINIMUM OF TEN (10) FEET.
 2. THE BUILDING SEWER SHALL BE CONSTRUCTED OF CORROSION RESISTANT MATERIAL AS SPECIFIED ON THE DESIGN PLANS.
 3. THE BUILDING SEWER SHALL BE LAID ON A COMPACTED FIRM BASE AT A CONTINUOUS UNIFORM GRADE AND IN A STRAIGHT LINE, AS NEARLY AS POSSIBLE.
 4. ALL PIPE JOINTS SHALL BE MADE WATERTIGHT AND PROTECTED AGAINST ROOT DAMAGE. POURED-TYPE JOINTS SHALL BE PROPERLY WIRED ON THE INSIDE TO PREVENT OBSTRUCTION OF FLOW.
 5. THE BUILDING SEWER SHALL BE VENTED THROUGH THE MAIN VENT STACK OR MAIN VENT OF THE BUILDING SERVED BY IT. NO TRAP SHALL BE INSTALLED IN THE BUILDING SEWER OR BUILDING DRAIN.
 6. ALL BUILDING SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STATE PLUMBING CODE 248 CMR.
 7. ALL SEWER PIPE SHOWN LABELED AS SCH-40 PVC IS TO CONFORM TO ASTM D 1785 GENERAL PURPOSE SEWER PIPE.
- B. SEPTIC TANKS: (UNLESS OTHERWISE SHOWN ON THE PLAN)
1. A MINIMUM 20-INCH DIAMETER OPENING SHALL BE CAST IN THE CENTER OF THE TANK AND OVER THE INLET AND OUTLET TEES. MANHOLE COVERS SHALL BE RAISED AS REQUIRED BY PROVIDING WATERTIGHT PRECAST 24-INCH I.D. RISERS, OR APPROVED EQUAL. EACH RISER SHALL BE TOPPED WITH A WATERTIGHT FRAME AND COVER (AS SHOWN ON THE DETAILS).
 2. FOR PROPER PERFORMANCE, THE SEPTIC TANKS SHOULD BE INSPECTED ANNUALLY AND PUMPED WHENEVER THE TOP OF THE SLUDGE OR SOLIDS LAYER IS WITHIN 12 INCHES OF THE BOTTOM OF THE OUTLET TEE, OR THE TOP OF THE SCUM LAYER IS WITHIN TWO INCHES OF THE TOP OF THE OUTLET TEE, OR IF THE BOTTOM OF THE SCUM LAYER IS WITHIN 2 INCHES OF THE BOTTOM OF THE OUTLET TEE. MINIMALLY THE TANKS SHOULD BE PUMPED ONCE EVERY TWO YEARS.
 3. THE EFFLUENT FILTER INSTALLED IN THE OUTLET TEE OF THE TANK SHOULD BE INSPECTED ANNUALLY AND CLEANED AS NECESSARY.
 4. THE SEPTIC TANK SHALL HAVE A MINIMUM OF 9" OF COVER.
- C. SOIL ABSORPTION SYSTEM: (UNLESS OTHERWISE SHOWN ON THE PLAN)
1. NO IMPERVIOUS AREA SHALL BE LOCATED ABOVE A SOIL ABSORPTION SYSTEM UNLESS THE SOIL ABSORPTION SYSTEM IS VENTED TO THE ATMOSPHERE IN ACCORDANCE WITH 310 CMR 15.241 AND APPROVED BY THE SHERBORN BOARD OF HEALTH.
 2. THE TOPSOIL AND FILL IS TO BE REMOVED WITHIN THE FOOTPRINT OF THE SOIL ABSORPTION SYSTEM PRIOR TO INSTALLATION.
 3. THE SOIL ABSORPTION SYSTEM SHALL BE COVERED WITH A MINIMUM OF NINE (9) INCHES OF BACKFILL, EXCLUDING TOPSOIL, AND SUFFICIENTLY COMPACTED TO PREVENT DEPRESSIONS. BACKFILL MUST BE CLEAN AND FREE OF STONES AND BOULDERS GREATER THAN SIX (6) INCHES IN SIZE. TAILINGS AND CLAY OR SIMILAR MATERIALS, ARE NOT ACCEPTABLE.
 4. THE FINAL GRADE OVER THE SYSTEM SHALL HAVE A MINIMUM SLOPE OF 2% AND SURFACE DRAINAGE SHALL BE DIRECTED AWAY FROM IT.
 5. CARE SHALL BE TAKEN TO ENSURE THAT THE BOTTOM OF THE SOIL ABSORPTION SYSTEM IS NOT SWEARED DURING EXCAVATION. THE BOTTOM AND SIDES OF THE LEACHING INTERFACES SHALL BE SCARIFIED PRIOR TO CONSTRUCTION. THE BOTTOM OF THE LEACHING FACILITY SHALL BE LEVEL.
 6. AGGREGATE REQUIRED FOR SOIL ABSORPTION SYSTEMS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
 - A. BASE AGGREGATE FROM BELOW THE CROWN OF THE DISTRIBUTION LINES TO THE BOTTOM OF THE SOIL ABSORPTION SYSTEM SHALL CONSIST OF DOUBLE WASHED STONE RANGING FROM 3/4" TO 1-1/2" IN DIAMETER AND SHALL BE FREE OF IRON, FINES AND DUST.
 - B. A MINIMUM TWO (2) INCH LAYER OF DOUBLE WASHED STONE RANGING FROM 1/8"-1/2" IN DIAMETER (FREE OF IRON, FINES AND DUST) SHALL BE PLACED OVER THE BASE AGGREGATE.
 7. FILL REQUIRED FOR THE LEACHING AREA AS SHOWN ON THE DESIGN PLAN, SHALL BE COMPRISED OF CLEAN GRANULAR SAND, FREE FROM ORGANIC MATTER AND DELETERIOUS SUBSTANCES. MIXTURES AND LAYERS OF DIFFERENT MATERIALS SHALL NOT BE USED. THE FILL SHALL MEET THE GRADATION REQUIREMENTS OF 310 CMR 15.253 (3) WHICH IS AS FOLLOWS:

SEIVE	SEIVE	EFFECTIVE PARTICLE SIZE	PERCENT THAT MUST PASS SEIVE
#4		4.75mm	100%
#50		0.30mm	10%-100%
#100		0.15mm	0%-20%
#200		0.075mm	0%-5%

- D. A SIEVE ANALYSIS SHALL BE PERFORMED FROM THE FILL IN PLACE.
8. NO PERMANENT STRUCTURE MAY BE CONSTRUCTED OVER THE 100% EXPANSION AREA.
 9. EXCAVATION TO BE DRY AND SCARIFIED.
 10. FILL TO BE STOCKPILED NEAR THE PROPOSED SOIL ABSORPTION SYSTEM LOCATION SUCH THAT IT CAN BE PUSHED OR CAST INWARD OVER EXCAVATED AREA.
 11. FILL SHALL NOT BE PLACED DURING RAIN OR SNOW STORMS.
 12. DEWATERING IS REQUIRED FOR FILL TO BE PLACED BELOW THE ACTIVE GROUNDWATER TABLE.
 13. ALL SOIL ABSORPTION SYSTEMS SHALL HAVE A MINIMUM OF ONE (1) INSPECTION PORT CONSISTING OF A PERFORATED FOUR (4) INCH PIPE PLACED VERTICALLY DOWN INTO THE STONE TO THE NATURALLY OCCURRING SOIL OR SAND FILL BELOW THE STONE. THE PIPE SHALL BE CAPPED WITH A SCREW TYPE CAP AND ACCESSIBLE TO WITHIN THREE (3) INCHES OF FINISHED GRADE.
 14. SOIL ABSORPTION SYSTEM PIPING
 - A. THE MANIFOLD SHALL BE 4 INCH SCH-40 PVC OR APPROVED EQUAL AND SHALL SLOPE TO DRAIN BACK TO THE FORCEMAIN AT 0.005 FT/FT.
 - B. ALL CONNECTIONS AND JOINTS SHALL BE WATER TIGHT AND MECHANICALLY SOUND.
 - C. EFFLUENT DISTRIBUTION LINES (LATERALS) SHALL BE 2 INCH SDR-21 PVC OR APPROVED EQUAL.
 - D. EFFLUENT DISTRIBUTION LINE ORIFICES SHALL BE EVENLY SPACED ALONG THE BOTTOM OF THE LINE (6 O'CLOCK POSITION) EXCEPT FOR THE LAST ORIFICE (WHICH IS TO BE AT THE 12 O'CLOCK POSITION). ALL ORIFICES SHALL BE COVERED WITH AN ORIFICE SHIELD. THERE SHALL BE 17 ORIFICES IN EACH LATERAL AT 4.5' SPACING.

D. DUPLEX PUMP SYSTEM AND PUMP CHAMBER

1. GENERAL:
 - A. FURNISH AND INSTALL ONE COMPLETE PUMPING SYSTEM CONSISTING OF TWO SUBMERSIBLE SEWAGE EJECTOR PUMPS AND MOTORS, DISCHARGE PIPING AND VALVES, MECHANICAL FLOAT SWITCH LEVEL CONTROLS, HIGH WATER ALARM, DUPLEX CONTROL PANEL AND A PRECAST CONCRETE DOSING CHAMBER (AKA PUMP CHAMBER).
 - B. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND WARRANTED FOR A PERIOD OF AT LEAST ONE YEAR.
 - C. UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL PROVIDE A SUFFICIENT QUANTITY OF CLEAN WATER TO CONDUCT TWO PUMP OPERATION TESTS FOR EACH PUMP UNDER THE DIRECTION AND SUPERVISION OF THE DESIGN ENGINEER AND THE SHERBORN BOARD OF HEALTH.

2. DOSING CHAMBER:
- A. DOSING CHAMBER SHALL BE A 10,500 GALLON PRECAST CONCRETE TANK AS MANUFACTURED BY SHAW PUMP CO., OR APPROVED EQUAL.
 - B. CONSTRUCTION JOINTS AND OPENINGS SHALL BE SEALED WITH PROVIDE KOR-N-SEAL OR APPROVED EQUAL EPDM RUBBER SEAL WITH STAINLESS STEEL BAND AND CLAMPS. THE EXTERIOR SURFACES SHALL BE WATERPROOFED WITH TWO COATS OF A WATERPROOFING EPOXY PAINT, OR APPROVED EQUAL.
 - C. A MINIMUM 48"X30" ACCESS DOOR SHALL BE INSTALLED OVER THE PUMPS. THE ACCESS DOOR SHALL BE BROUGHT TO FINISHED GRADE AND EMBEDDED IN A CONCRETE COLLAR TO MAINTAIN AN H-20 LOADING. THE ACCESS DOOR (ALUMINUM, H-20 LOADING, SINGLE LEAF, WATERTIGHT, AIRTIGHT, OR APPROVED EQUAL) SHALL BE SECURED TO PREVENT UNAUTHORIZED ACCESS.
3. PUMPS AND MOTORS:
- A. THE PUMPS AND MOTORS SHALL BE A HEAVY DUTY SEWAGE EJECTOR PUMP WITH A MINIMUM 3 INCH DISCHARGE AND ABLE TO PASS A 2.5 INCH SOLID. THE PUMPS AND MOTORS SHALL BE FULLY SUBMERSIBLE AND SHALL OPERATE AT 1,750 RPM WITH A 230v, SINGLE PHASE AC POWER SOURCE. THE ELECTRICAL CONTRACTOR SHALL VERIFY THAT THE PROPER VOLTAGE IS AVAILABLE AT THE CONTROL PANEL.
 - B. USE TWO GOULDS W52012D3 PUMPS WITH A 7.00 INCH (STANDARD) IMPELLER, OR AN EQUIVALENT APPROVED BY DGT ASSOCIATES. THE PUMP SHALL BE RATED AS FOLLOWS:
 - A) 2.0 HORSEPOWER
 - B) 180 GALLONS PER MINUTE
 - C) 30.5 FEET, TOTAL DYNAMIC HEAD (VELOCITY=8.4 ft/sec IN THE FORCE MAIN)

4. LEVEL CONTROLS:
- A. SEALED MECHANICAL FLOAT SWITCHES SHALL BE SUPPLIED TO CONTROL THE SUMP LEVEL, ALARM SIGNAL, AND LAG PUMP ON. TWO FLOAT SWITCHES SHALL BE USED TO CONTROL THE SUMP LEVEL; ONE FOR PUMP "OFF" AND ONE FOR PUMP "ON". A THIRD SWITCH SHALL BE PROVIDED WITH A POWER SOURCE SEPARATE FROM THE PUMP POWER AND SHALL BE FOR THE ALARM UNIT. A FOURTH SWITCH SHALL BE PROVIDED TO CONTROL THE LAG PUMP "ON" IN THE EVENT THAT THE LEAD PUMP DOES NOT OPERATE. A NEMA-4 JUNCTION BOX FOR THE FLOAT SWITCHES SHALL BE INSTALLED ABOVE THE HIGH WATER LEVEL.
 - B. THE FLOAT LEVEL CONTROLS SHALL BE SET TO OPERATE AT THE ELEVATIONS INDICATED ON THE PLANS.

- (5) CONTROL PANEL:
- (A) THE DUPLEX CONTROL PANEL SHALL BE EQUIPPED WITH A RUN LIGHT FOR EACH PUMP, PROPERLY SIZED CIRCUIT BREAKERS, A TRANSFORMER TO GIVE PROPER VOLTAGE TO THE CONTROL CIRCUITS AND ONE THREE-WAY PUMP CONTROL SWITCH. THE SWITCH POSITIONS ARE AS FOLLOWS: 1) PUMP OFF, 2) AUTOMATIC, 3) MANUAL PUMP ON.
 - (B) AN ALTERNATOR RELAY SHALL BE PROVIDED IN THE DUPLEX CONTROL PANEL TO ALTERNATE THE OPERATION OF THE PUMPS EACH TIME THE "PUMP ON" SWITCH IS ACTIVATED.
 - (C) THE DUPLEX CONTROL PANEL SHALL BE FOR A 230v, SINGLE PHASE AC POWER SUPPLY AND HOUSED IN A NEMA-4 ENCLOSURE. THE PANEL SHALL BE INSTALLED IN A SUITABLE LOCATION OUTSIDE THE BUILDING.
 - (D) THE DUPLEX CONTROL PANEL SHALL BE EQUIPPED WITH A RUN TIME METER AND COUNTER FOR EACH PUMP.
- (6) ALARM:
- (A) A HIGH WATER ALARM SHALL BE SUPPLIED WITH BOTH AN AUDIBLE AND VISUAL ALARM WITH A POWER SUPPLY SEPARATE FROM THE PUMP. THE ALARM SHALL BE MOUNTED IN A NEMA-4 ENCLOSURE. AN ALARM SILENCER BUTTON SHALL BE PROVIDED TO SILENCE THE AUDIBLE ALARM WHILE THE VISUAL REMAINS ILLUMINATED UNTIL MANUALLY RESET.

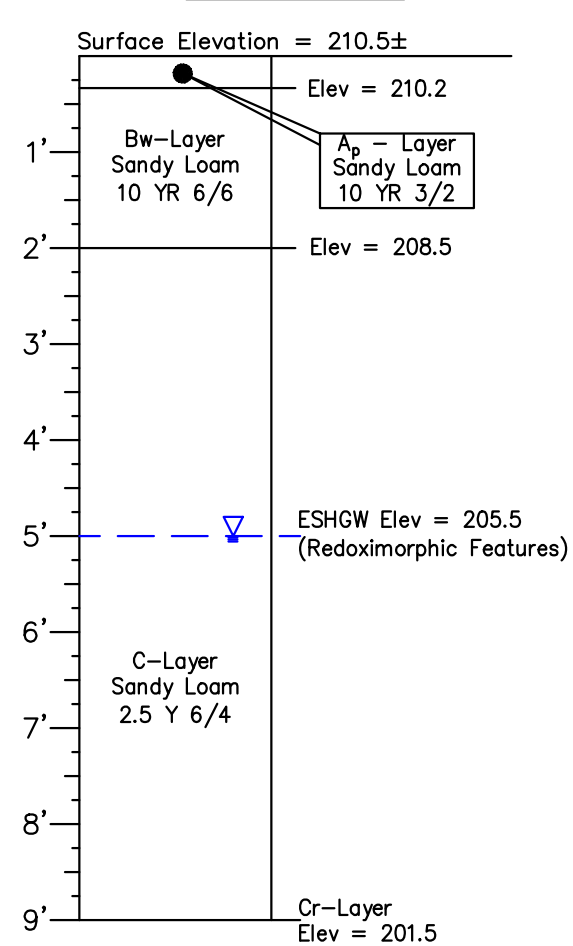
- (7) PIPING:
- A. THE PUMP CHAMBER DISCHARGE PIPING AND FITTINGS SHALL BE 3-INCH SDR-21 PVC WITHIN THE PUMP CHAMBER TO THE VALVE VAULT. THE FOLLOWING SHALL BE INSTALLED WITHIN THE PUMP CHAMBER FOR EACH PUMP. IN THE VERTICAL POSITION: A 3-INCH BALL-TYPE CHECK VALVE; IN THE HORIZONTAL POSITION: A 3-INCH QUICK DISCONNECT UNION. PIPING, VALVES, AND FITTINGS SHALL BE ARRANGED SO THAT THEY ARE EASILY ACCESSIBLE FROM THE PUMP CHAMBER COVER. NOTE: BALL VALVES FOR EACH PUMP AND A CROSS OVER VALVE ARE TO BE LOCATED IN A VALVE MANHOLE.
 - B. THE FORCE MAIN PIPING SHALL BE 3-INCH 200 PSI SDR-21 PVC PIPE WITH BELL AND SPIGOT JOINTS, AND SHALL BE LAID AS SHOWN IN THE BEDDING DETAIL. THE FORCE MAIN SHALL DISCHARGE INTO THE 4-INCH DISTRIBUTION MANIFOLD AT THE SOIL ABSORPTION SYSTEM.
 - C. ALL PIPING OUTSIDE THE PUMP CHAMBER WHICH IS LESS THAN FOUR (4) FEET BELOW FINISHED GRADE SHALL BE SURROUNDED WITH A MINIMUM OF TWO-INCHES OF RIGID STYROFOAM INSULATION.

- (8) DOSING REQUIREMENTS:
- A. PURSUANT TO 310 CMR 15.254, DOSING, THE SYSTEM HAS BEEN DESIGNED TO PROVIDE 6 DOSES PER DAY, EQUAL TO 1,453 GALLONS PER DOSE.
 - B. ADDITIONAL STORAGE PROVIDED IN THE PUMP CHAMBER, ABOVE THE HIGH WATER ALARM LEVEL IS APPROXIMATELY 7,700 GALLONS. IN THE EVENT OF A POWER FAILURE, THERE IS SUFFICIENT CAPACITY TO PROVIDE APPROXIMATELY 24 HOURS OF STORAGE.

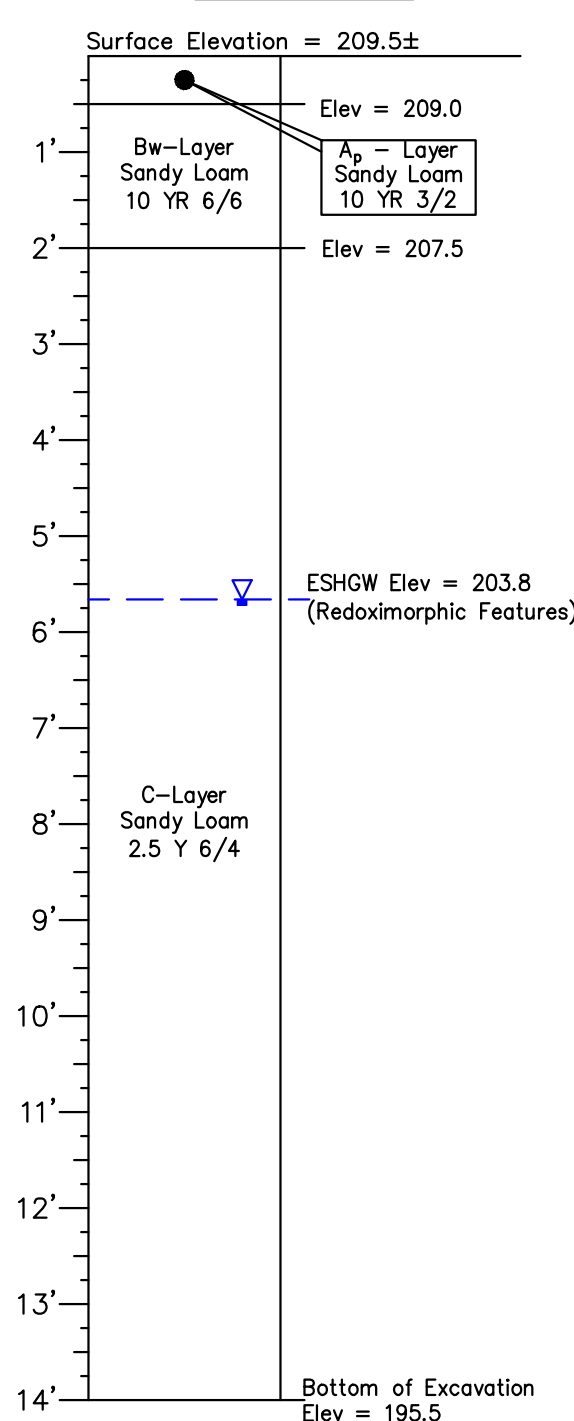
SOIL TEST DATA

DATE: NOVEMBER 14 & 15, 2022
MARKED BY: MARK GRAM
OF THE SHERBORN BOARD OF HEALTH
SOIL EVALUATOR: DESHENG WANG, Ph.D., P.E.
SE 2545

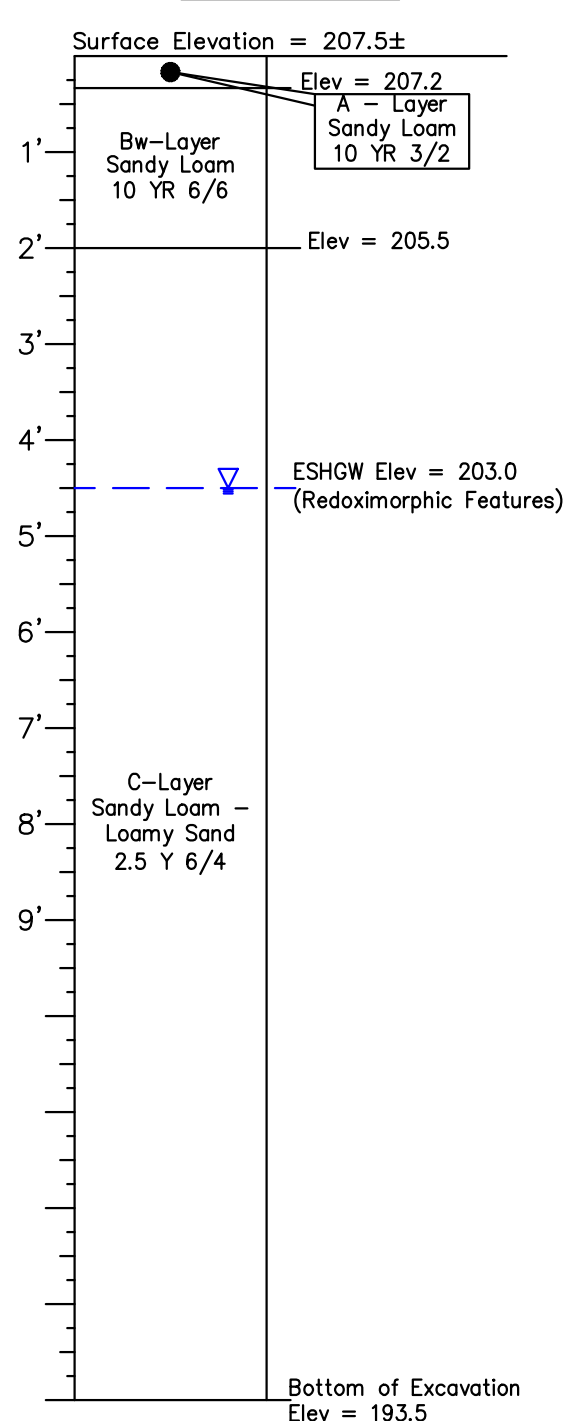
TEST PIT DHTP-1



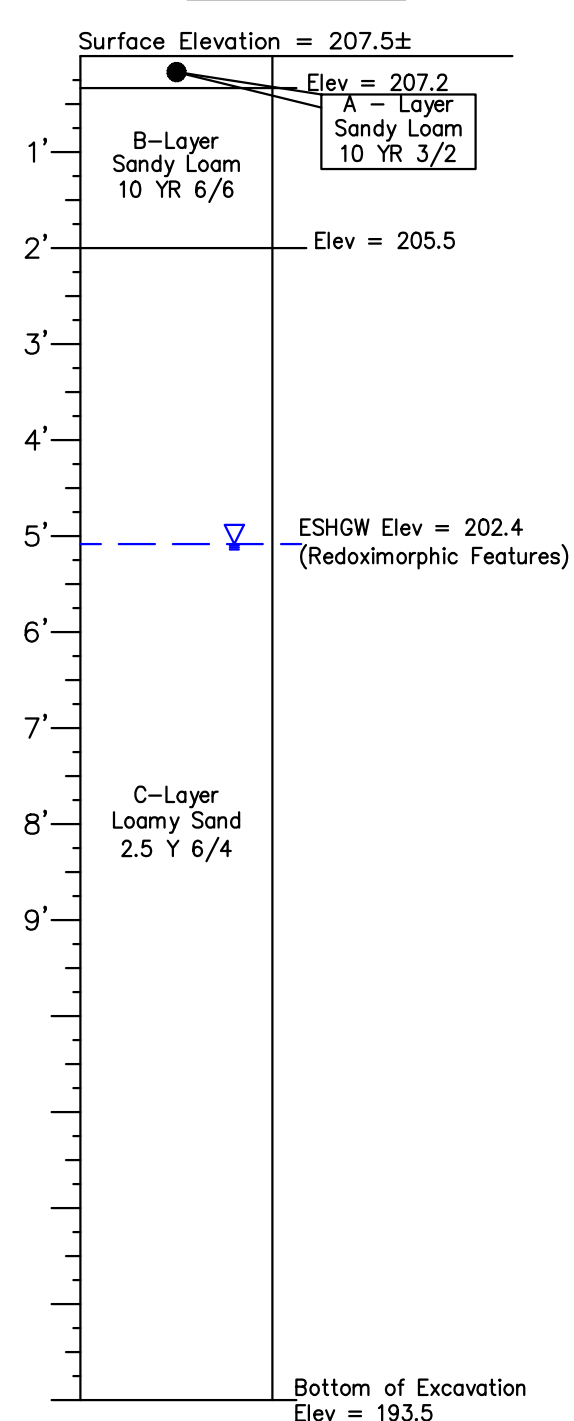
TEST PIT DHTP-2



TEST PIT DHTP-5

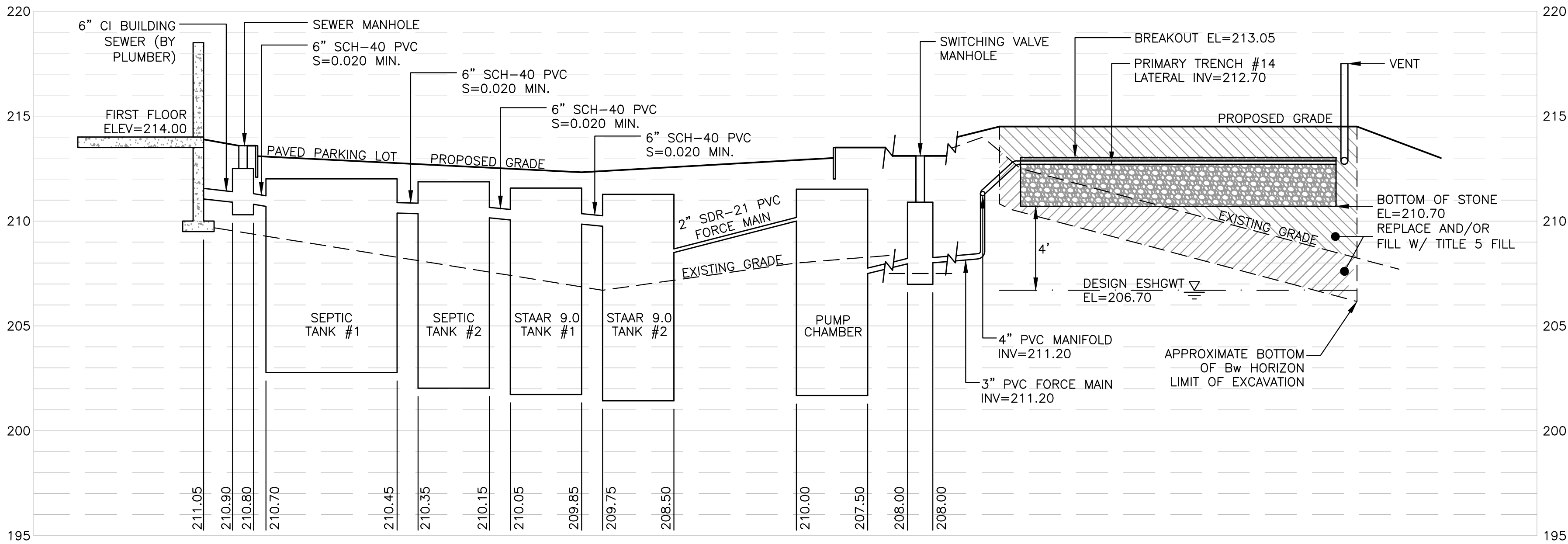


TEST PIT DHTP-6

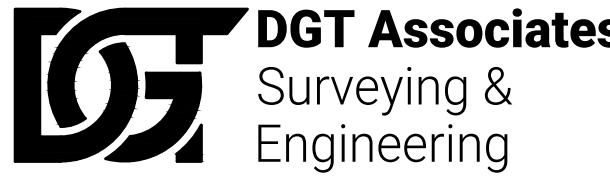
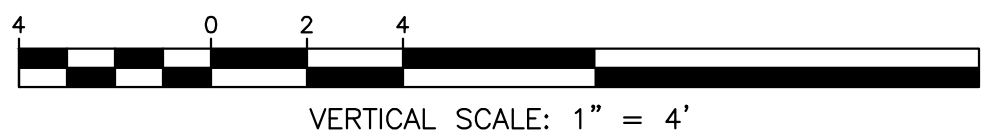


PERCOLATION TEST DATA

TEST PIT NO.	DATE	SURFACE ELEVATION	TOP OF 12" OF WATER		INTERVAL TIME (MINUTES)		RATE: MINUTES/INCH
			DEPTH FROM TOP OF PIT	ELEVATION	12" - 9"	9" - 6"	
DHTP-1	11/14/2022	209.5	48"	205.5	23	30	10 MPI
DHTP-2	11/14/2022	209.5	54"	205.0	34	38	13 MPI
DHTP-5	11/15/2022	207.5	48"	203.5	13	13	5 MPI



SUBSURFACE SEWAGE DISPOSAL SYSTEM PROFILE



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OWNER:

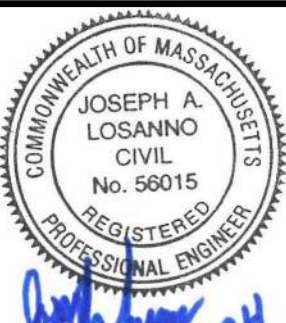
AB REALTY TRUST
JANE HAMROCK & MARY
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7 JOSEPH STREET
HYANNIS, MA 02601

PARCEL ID:

MAP 7, LOT 0, BLOCK 49

ISSUED FOR:

SUBSURFACE SEWAGE
DISPOSAL SYSTEM DESIGN



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DESIGN: KMR/JAL

DRAFTED: KMR/JAL

CHECKED: JAL/BEC

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WASHINGTON
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SHERBORN
HOMES

0 WASHINGTON STREET
SHERBORN, MASSACHUSETTS 01770

SHEET TITLE:

SEWAGE DISPOSAL
SYSTEM COMPONENT
PROFILE & NOTES &
SOILS INFO.

SHEET:

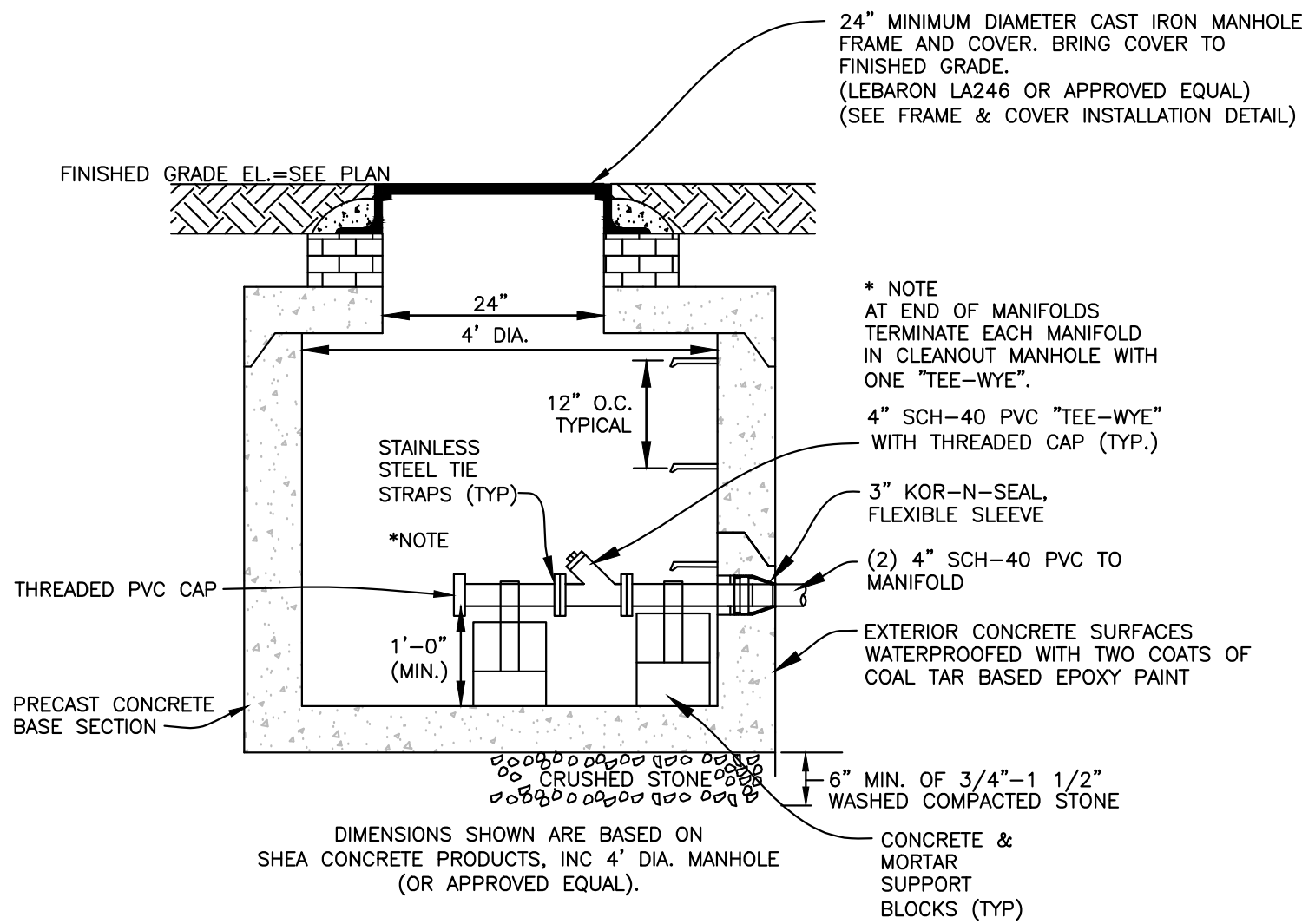
2 OF 5

PROJECT NO.:

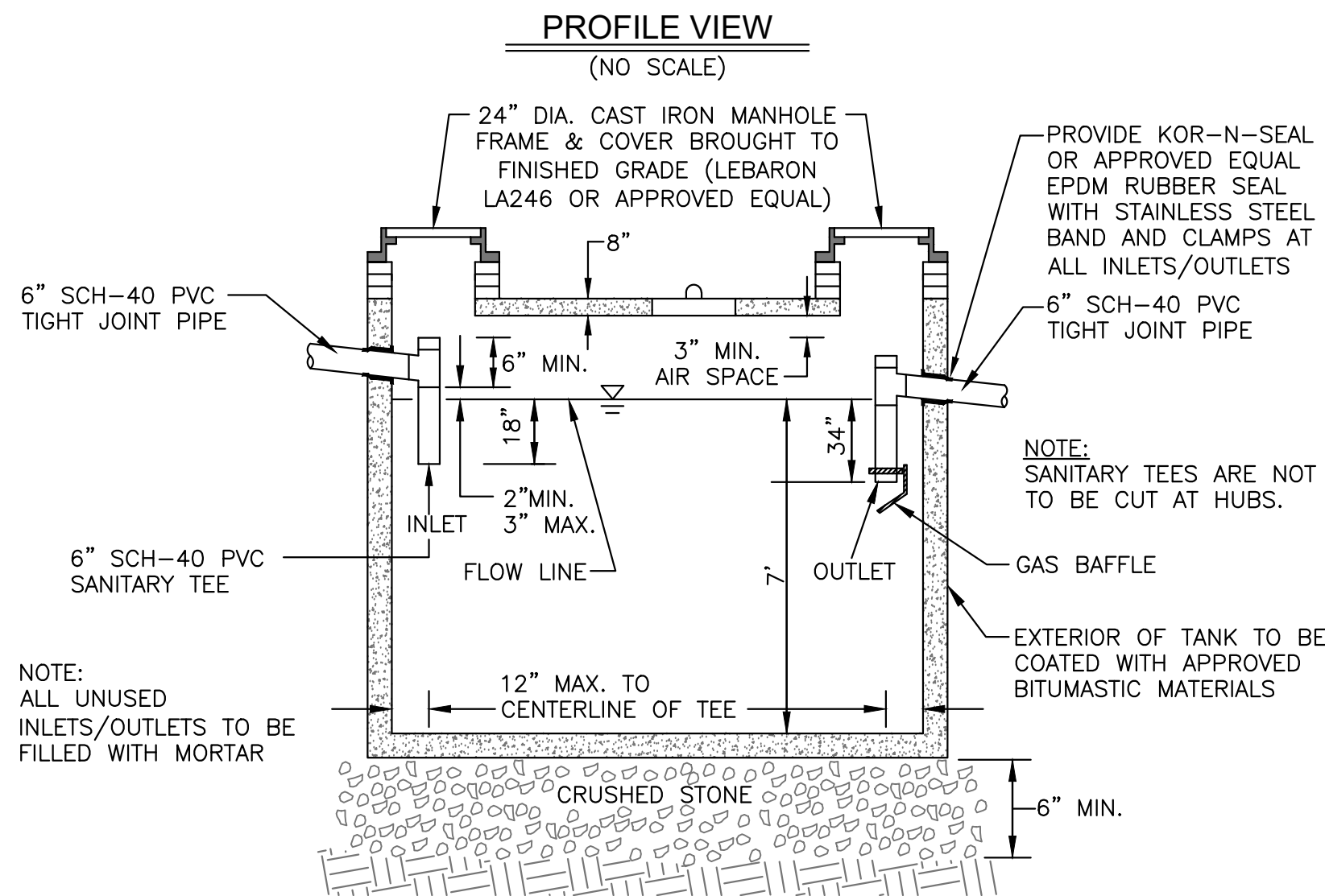
F-25902

BOH-2

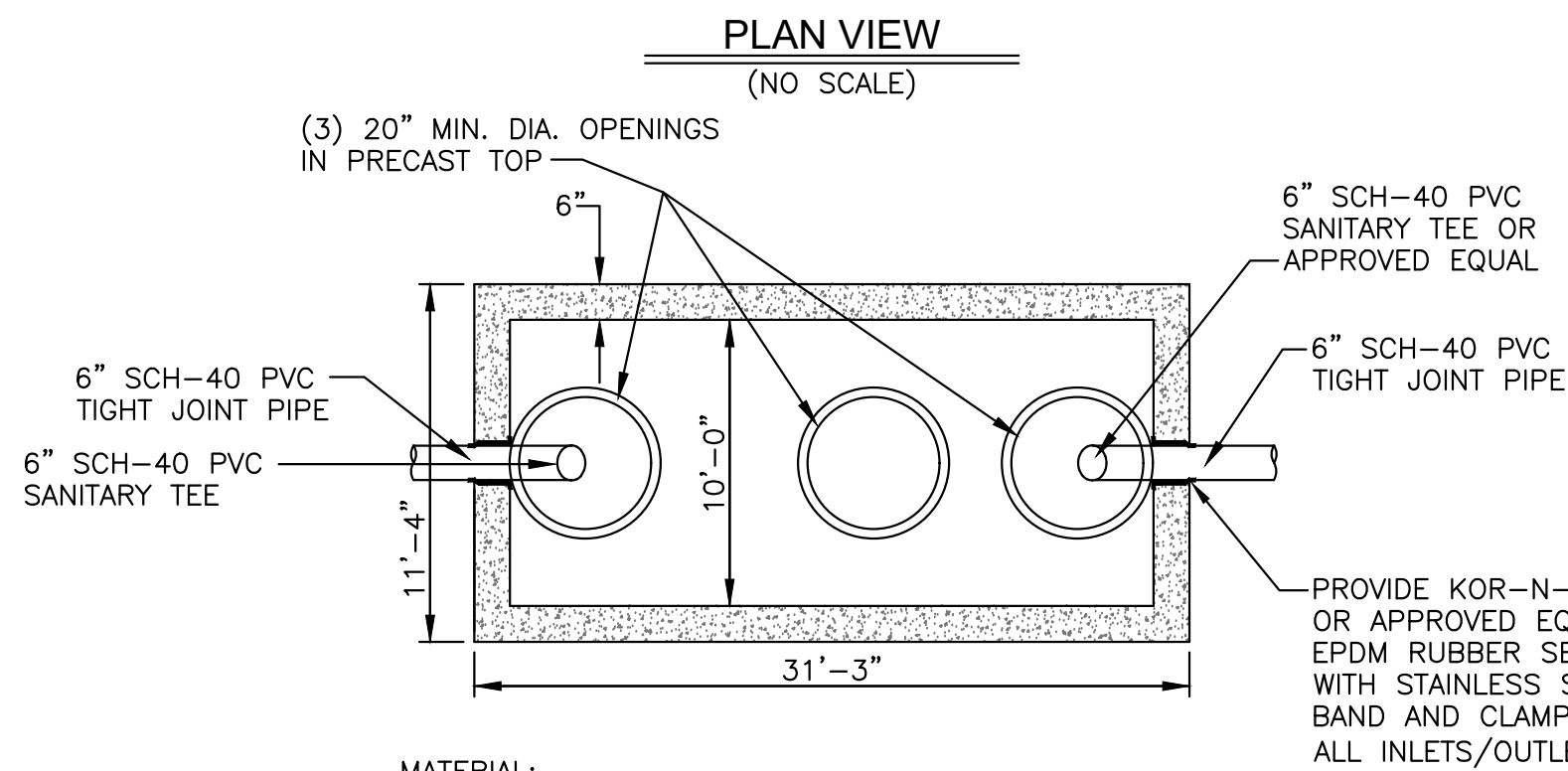
© 2024 BY DGT ASSOCIATES



MANIFOLD CLEANOUT MANHOLE
(NO SCALE)



NOTE:
IF SIDE INLETS OR OUTLETS ARE USED, SANITARY TEES MUST BE BROUGHT TO THE CENTERLINE OF THE TANK AND LOCATED WITHIN 12" OF THE ENDWALL. TEE(S) SHALL BE SECURED TO TOP OF TANK WITH STAINLESS STEEL STRAPS AND 1/4" LAG BOLTS OR EQUAL UNUSED OUTLETS TO BE PLUGGED WITH MORTAR.



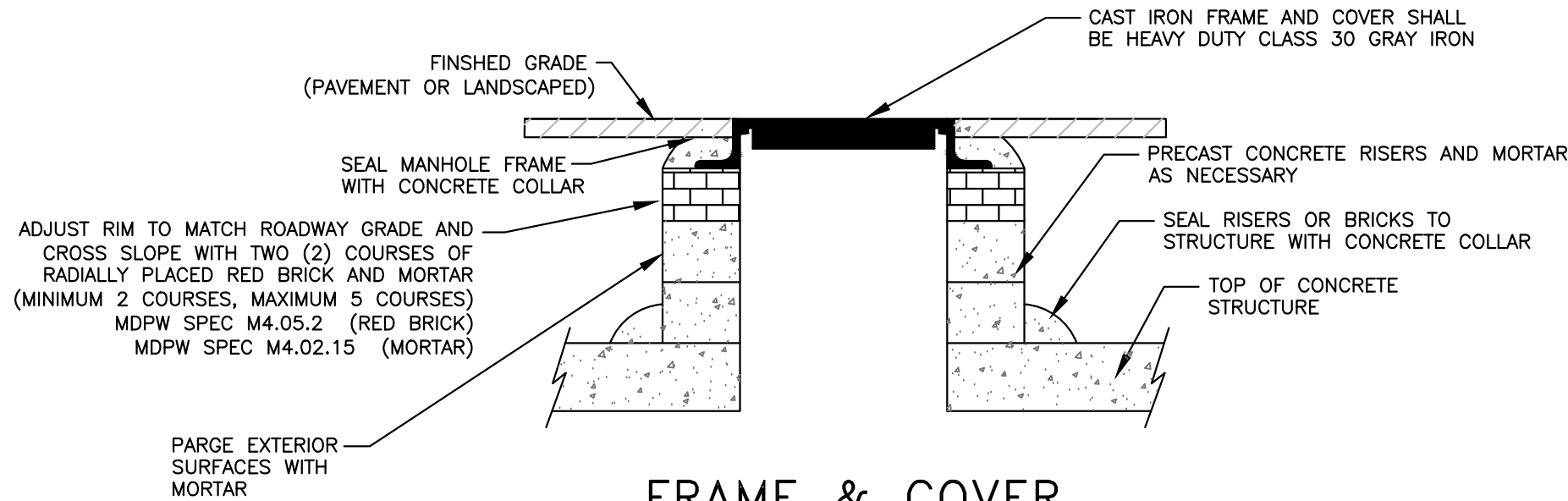
MATERIAL:
PRECAST REINFORCED CONCRETE (OR APPROVED EQUAL).

CAPACITY = 15,500 GALLONS
H=20' LOADING (MINIMUM)

DIMENSIONS SHOWN ARE BASED ON SHEA CONCRETE PRODUCTS,
INC. TUNNEL TANK (OR APPROVED EQUAL).

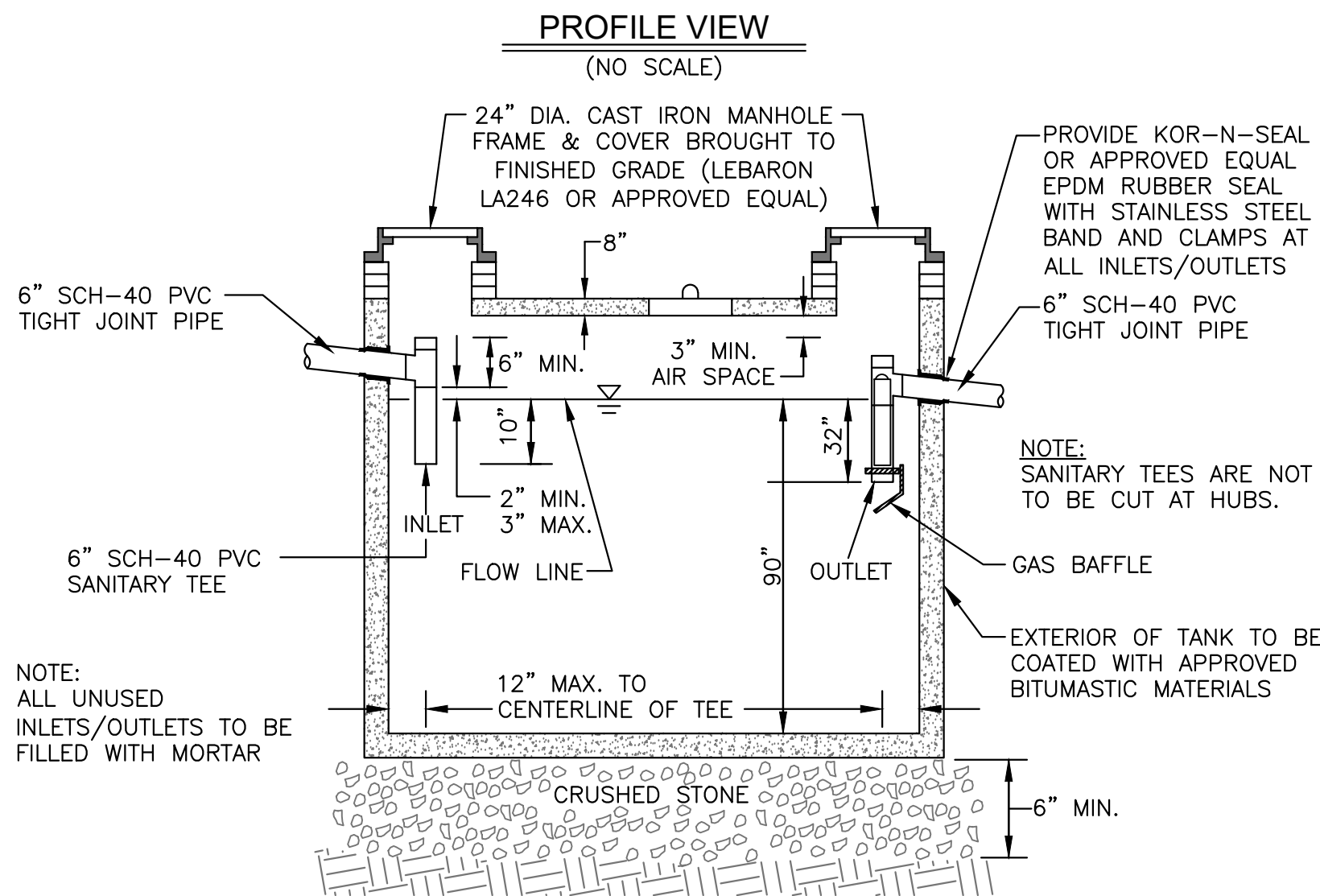
SINGLE COMPARTMENT SEPTIC TANK #1

(310 CMR 15.223-15.229)
(NO SCALE)

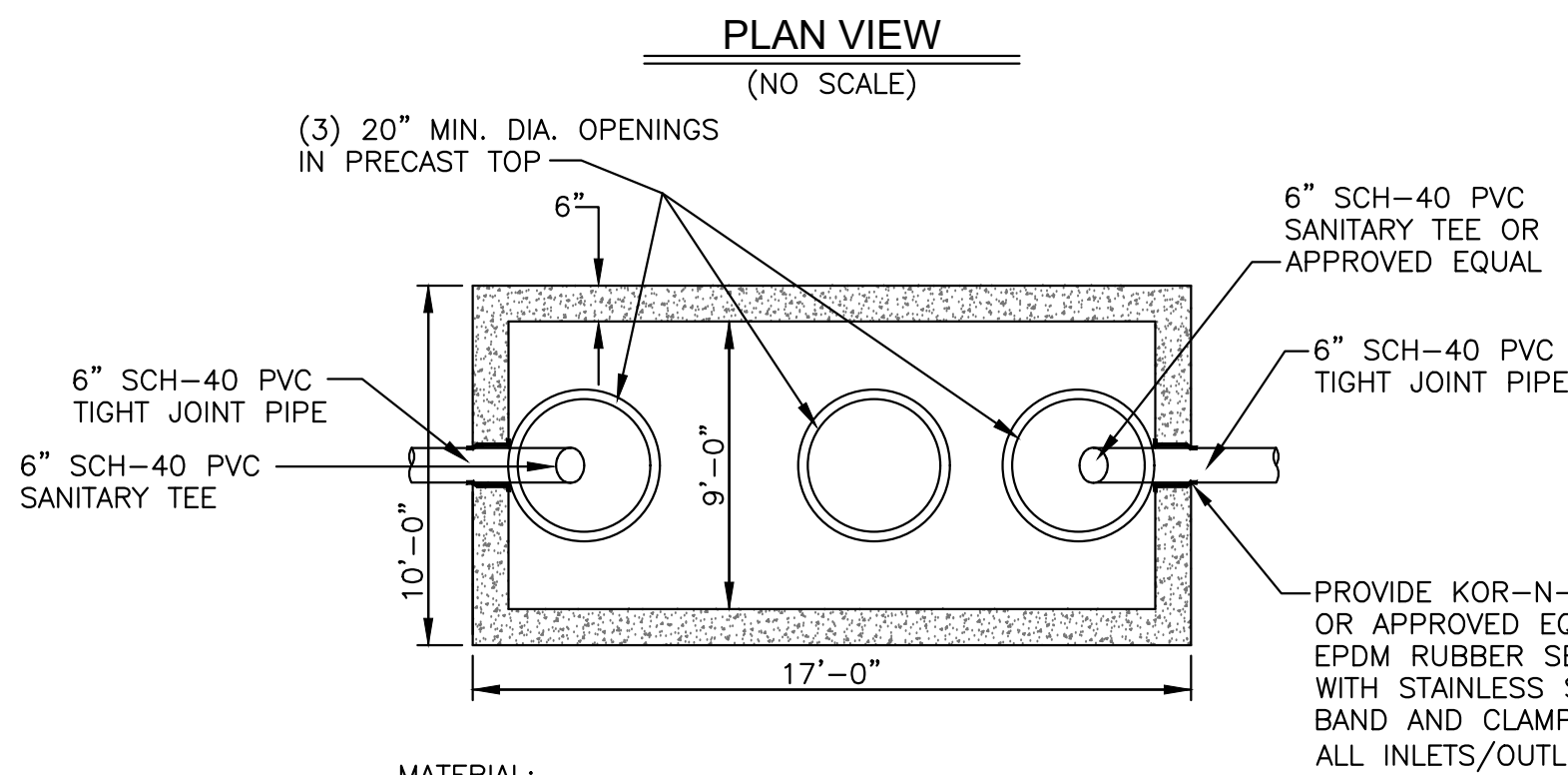


FRAME & COVER INSTALLATION DETAIL

(NO SCALE)



NOTE:
IF SIDE INLETS OR OUTLETS ARE USED, SANITARY TEES MUST BE BROUGHT TO THE CENTERLINE OF THE TANK AND LOCATED WITHIN 12" OF THE ENDWALL. TEE(S) SHALL BE SECURED TO TOP OF TANK WITH STAINLESS STEEL STRAPS AND 1/4" LAG BOLTS OR EQUAL UNUSED OUTLETS TO BE PLUGGED WITH MORTAR.



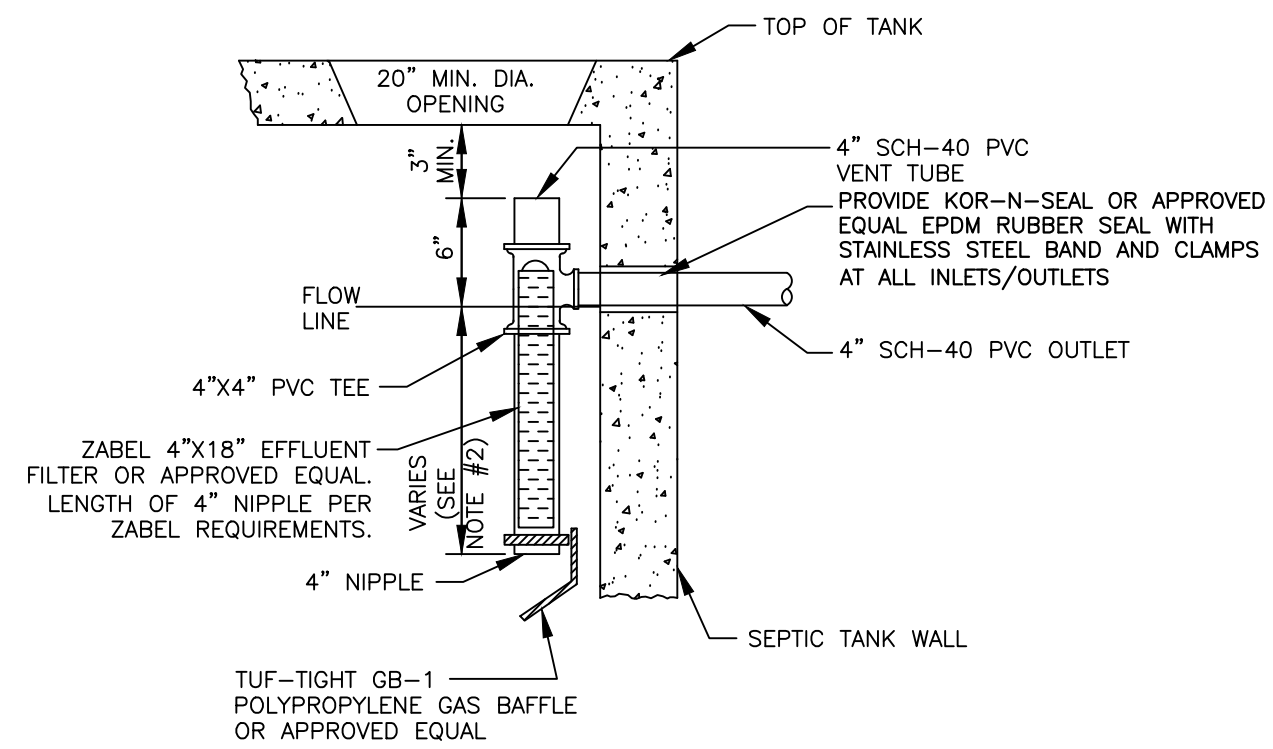
MATERIAL:
PRECAST REINFORCED CONCRETE (OR APPROVED EQUAL).

CAPACITY = 8,000 GALLONS
H=20' LOADING (MINIMUM)

DIMENSIONS SHOWN ARE BASED ON SHEA CONCRETE PRODUCTS,
INC. ITEM NO. 10X17-802C (OR APPROVED EQUAL).

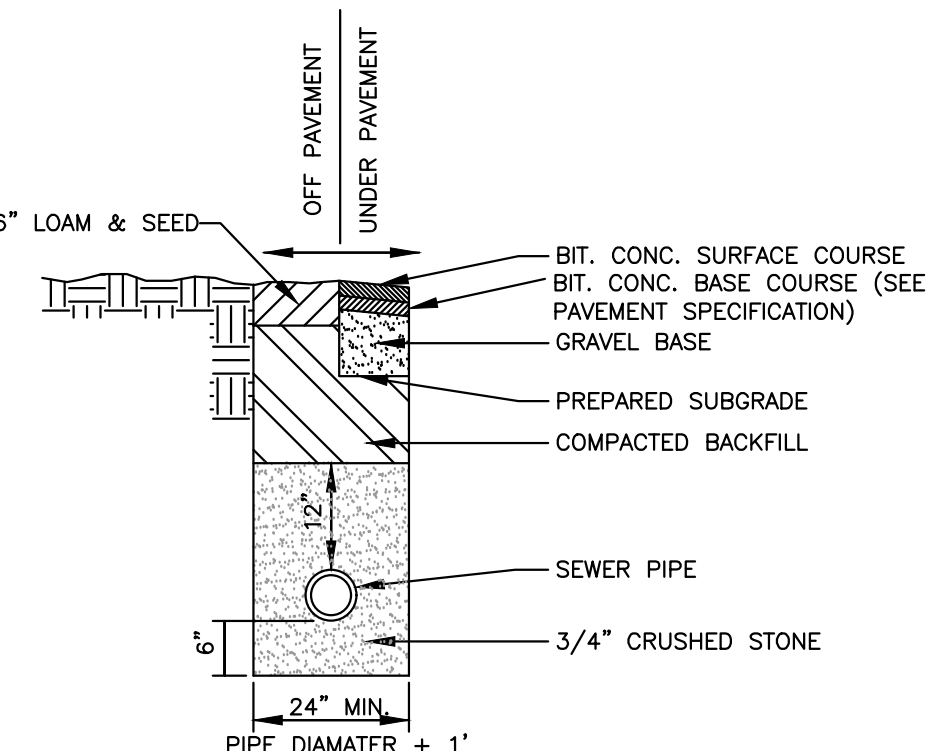
SINGLE COMPARTMENT SEPTIC TANK #2

(310 CMR 15.223-15.229)
(NO SCALE)



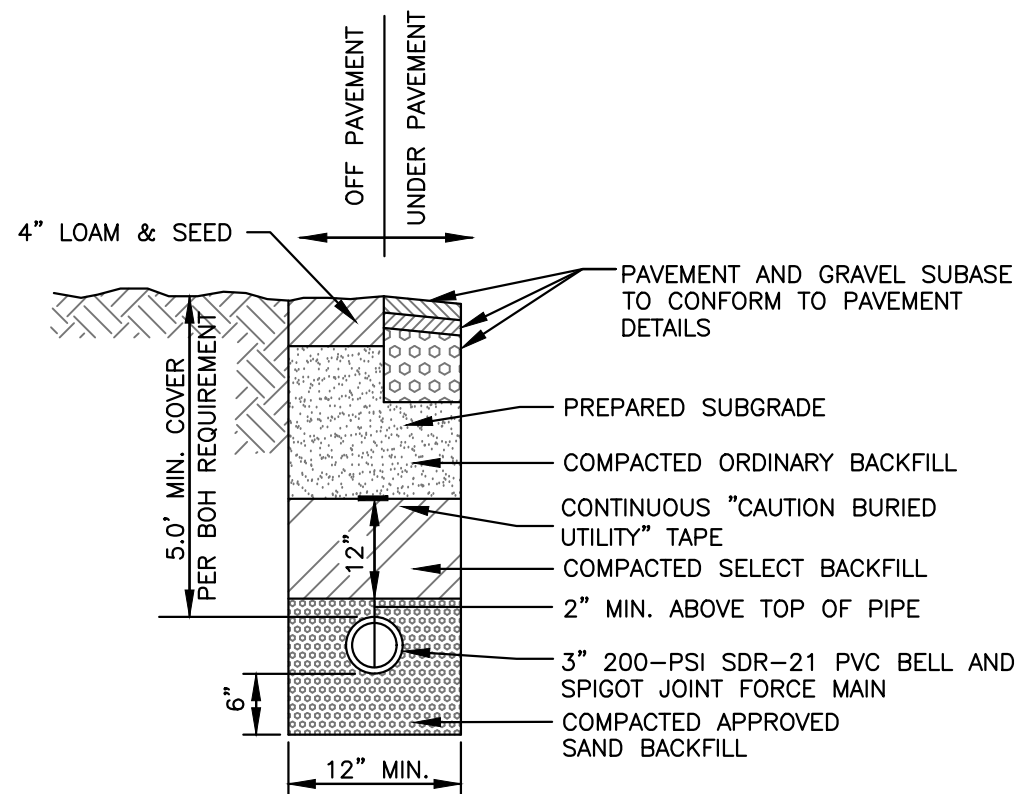
OUTLET TEE WITH EFFLUENT FILTER

(NO SCALE)



TYPICAL SEWER PIPE BEDDING

(NO SCALE)



- NOTES:
- TRENCH BACKFILL SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS AS CONTAINED IN MASSACHUSETTS HIGHWAY DEPARTMENT STANDARDS AND SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
 - SAND BACKFILL FOR FORCE MAIN BEDDING SHALL CONFORM WITH M1.04.0 TYPE B 'SAND BORROW'.
 - SELECT BACKFILL SHALL BE ON-SITE SOIL OR IMPORTED BACKFILL CONFORMING WITH M1.02.0 (a) 'SPECIAL BORROW' WITH NO STONES LARGER THAN 3 INCHES.
 - ORDINARY BACKFILL SHALL CONSIST OF ON-SITE OR IMPORTED BACKFILL MEETING M1.01.0 WITH NO STONES LARGER THAN 6 INCHES.

TYPICAL FORCE MAIN BEDDING

(NO SCALE)

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OWNER:

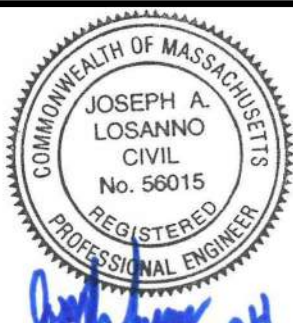
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SHEET TITLE:

DETAILS #1

SHEET:

3 OF 5

PROJECT NO.:

F-25902

BOH-3

APPLICANT:

WASHINGTON STREET
SHERBORN HOMES, LLC
177 LAKE STREET
SHERBORN, MA 01770

OWNER:

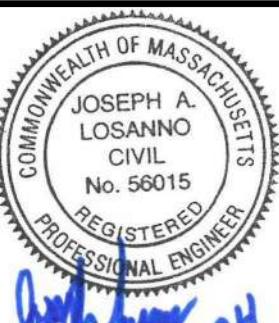
AB REALTY TRUST
JANE HAMROCK & MARY
BUNTIN, TRUSTEES
7 JOSEPH STREET
HYANNIS, MA 02601

PARCEL ID:

MAP 7, LOT 0, BLOCK 49

ISSUED FOR:

SUBSURFACE SEWAGE
DISPOSAL SYSTEM DESIGN



NO.	APP	DATE	DESCRIPTION

DATE: FEBRUARY 9, 2024

SCALE: 1" = 30'

DESIGN:	DRAFTED:	CHECKED:
KMR/JAL	KMR/JAL	JAL/BEC

PROJECT TITLE:

WASHINGTON
STREET
SHERBORN
HOMES

0 WASHINGTON STREET
SHERBORN, MASSACHUSETTS 01770

SHEET TITLE:

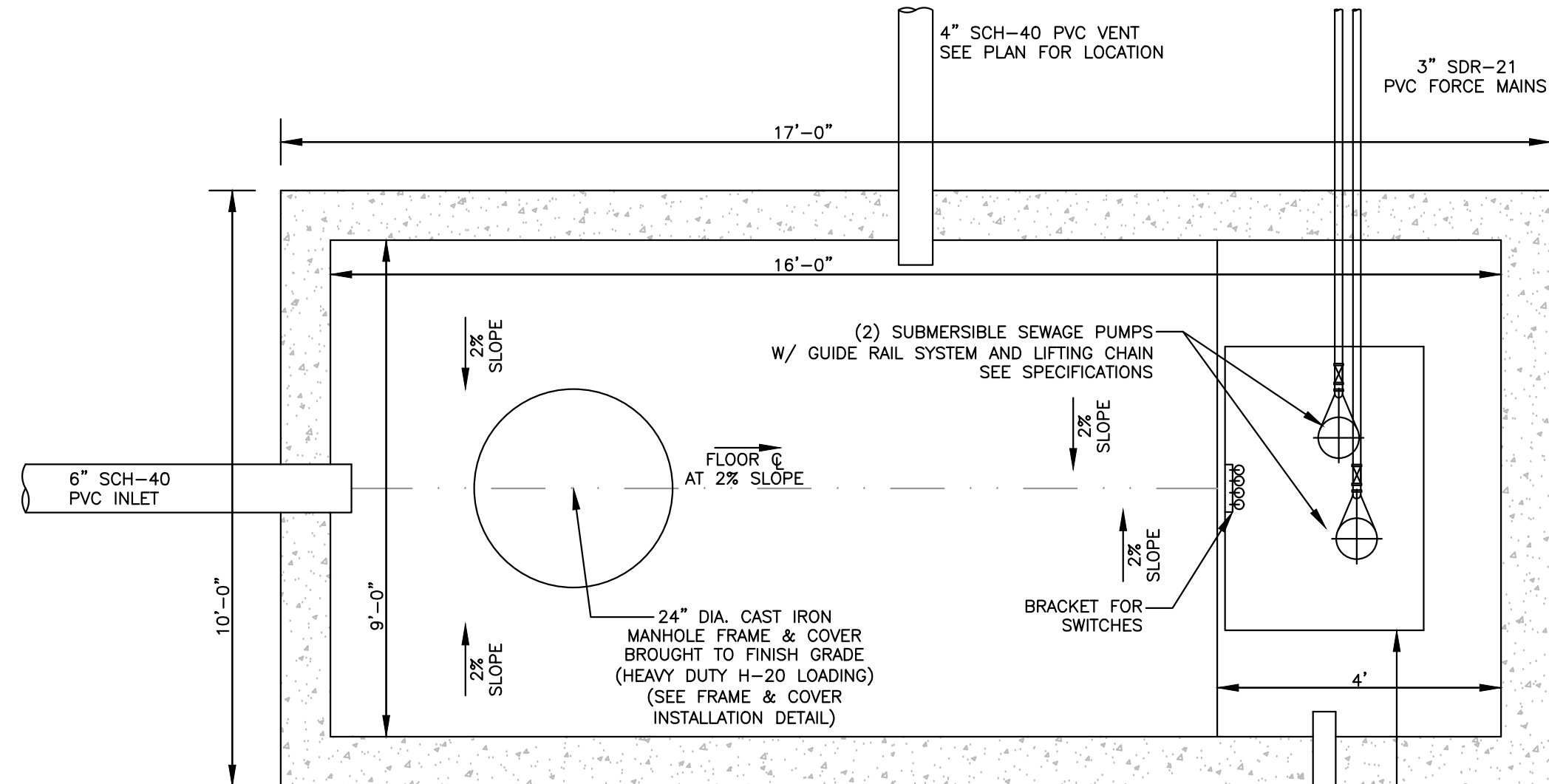
DETAILS #2

SHEET:
4 OF 5

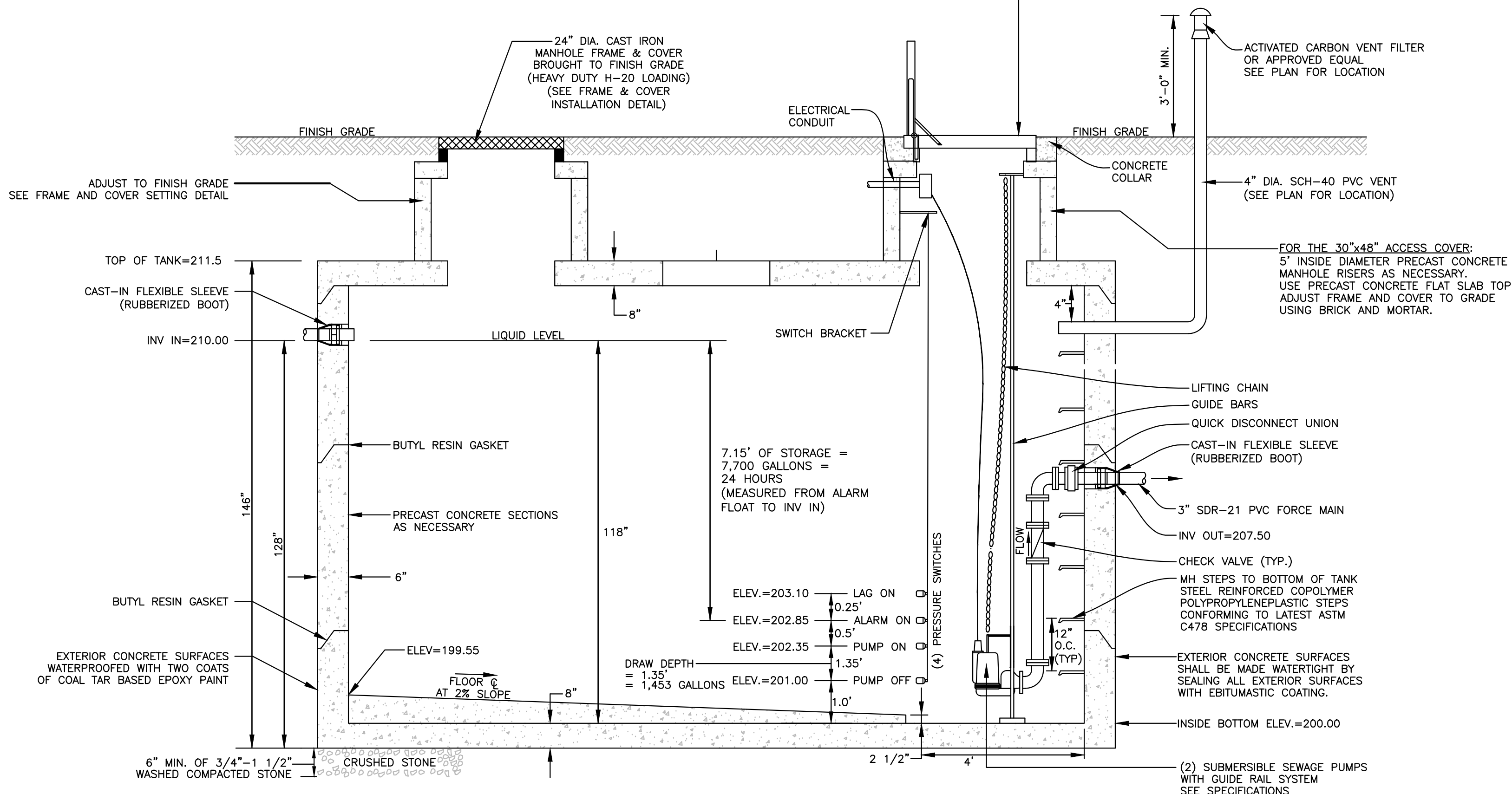
PROJECT NO.:
F-25902

BOH-4

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PLAN VIEW

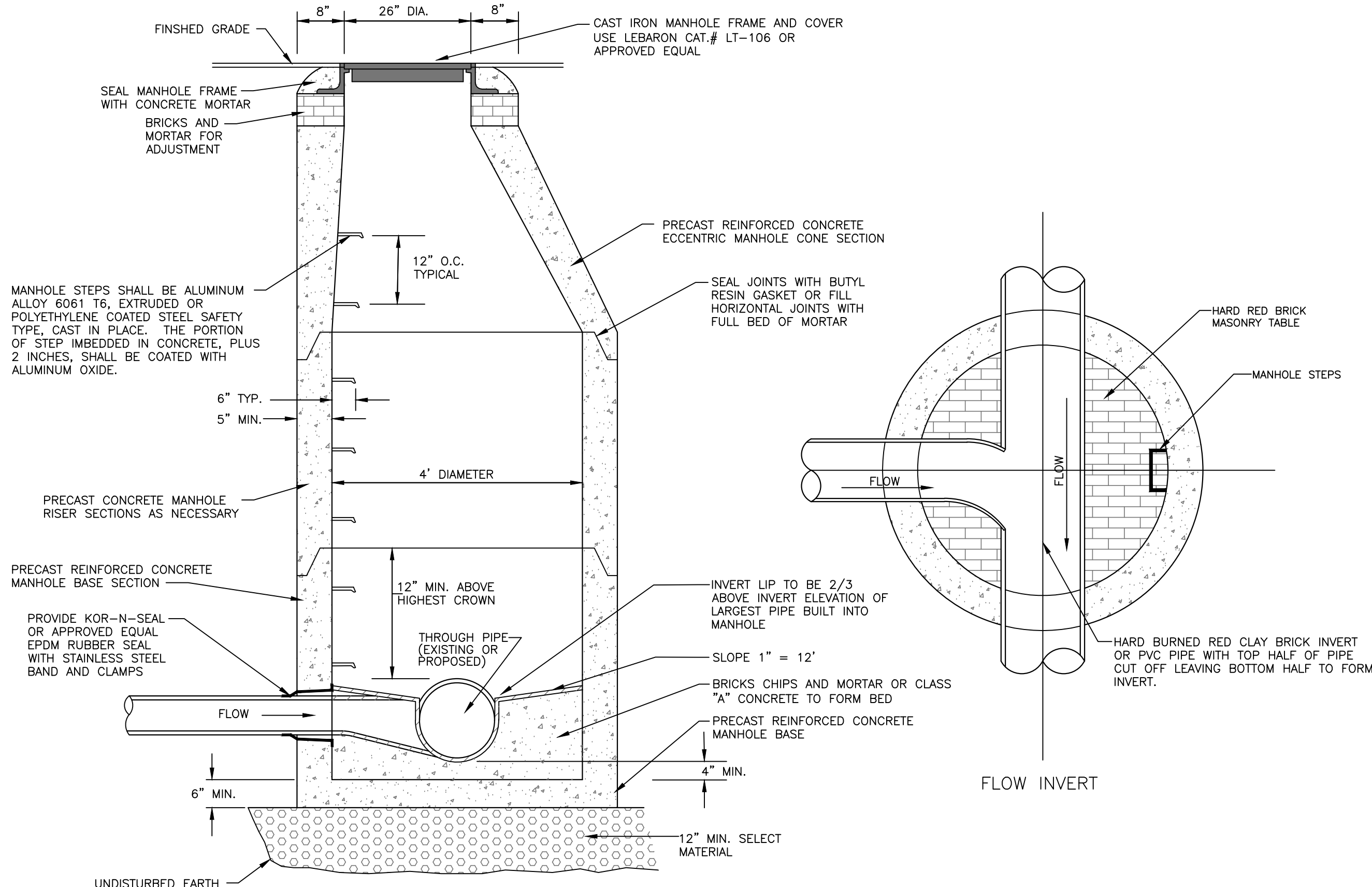


SECTION VIEW

DIMENSIONS SHOWN ARE BASED ON
SHEA CONCRETE PRODUCTS 10,500 GALLON COMMERCIAL LINE TANK
ITEM NO. 10X17-105 (OR APPROVED EQUAL)

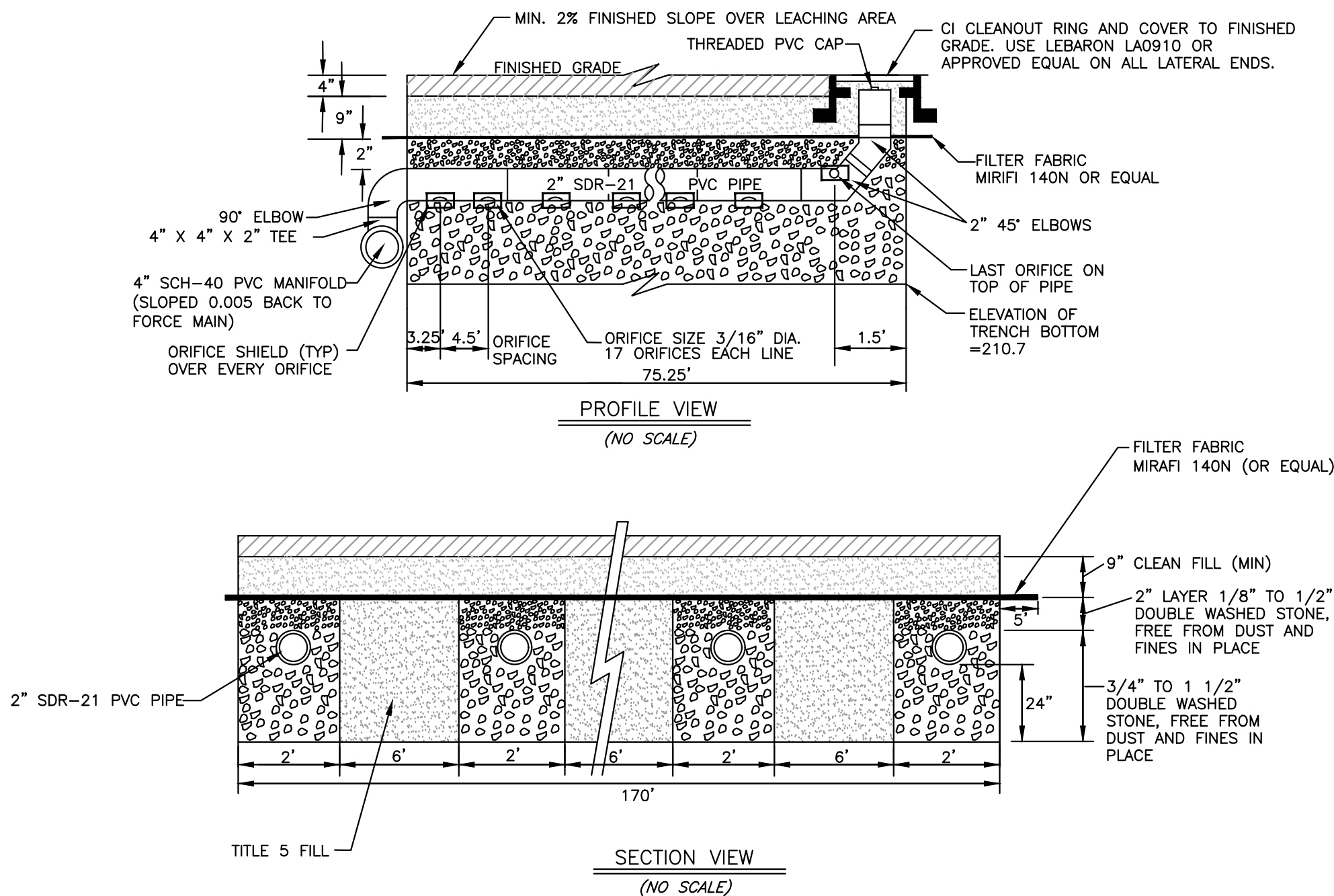
PUMP CHAMBER DETAIL

(NO SCALE)



SEWER MANHOLE DETAIL

(NO SCALE)



SOIL ABSORPTION SYSTEM

(NO SCALE)

GENERAL NOTES

Tank(s) shall not be installed at a depth any greater than 24-inches. Tank installations requiring a depth greater than 24-inches shall do so with prior approval by SeptiTech only. Any risers required to bring the aluminum hatches to grade are the responsibility of the contractor.

Tank(s) shall be installed with a minimum of 12-inches of compacted crushed stone bedding. Select fill shall be used for backfilling around tanks. Native material may be used if approved by the design engineer.

Water Testing: Contractor is responsible for water testing the concrete tank(s) once the tank(s) installation has been completed and allowed to set overnight. Water testing shall be conducted in accordance with ASTM C1227.9.2. Installing contractor shall be responsible for providing clean water for the testing, filling the tanks, and pumping the tanks dry once testing is completed.

Exterior Piping: Contractor is responsible for supplying and installing all exterior piping per SeptiTech installation drawings.

Air Intake Piping: Air intake snorkel shall be installed within 100 feet of the processor tank. Air intake piping shall be installed such that a positive pitch is provided back towards the processor tank such that any condensation build up is free to drain.

Pipe Insulation: Contractor is responsible for insulating all piping exterior to the SeptiTech processor including the discharge line from the processor to the disposal field.

Tank Insulation: After concrete tanks have been installed and water testing is completed, contractor shall insulate the top and sides of the processor tank below frost depth (4-feet minimum) down the sides of the tank with 2" rigid foam (blue) board insulation and then complete backfilling. Contractor is also responsible for installing insulation over the top of the forcemain from the SeptiTech system to the disposal field if not buried below frost level in order to prevent freezing.

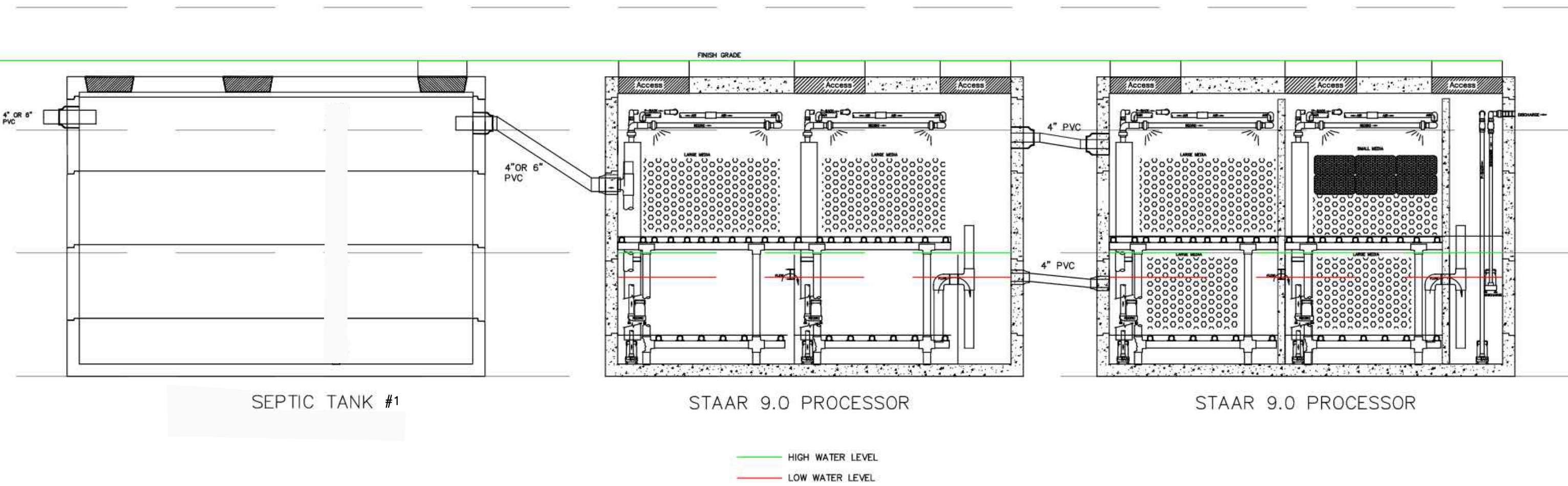
Electrical: All electrical work is the responsibility of the contractor's licensed electrician and is not provided by SeptiTech. System Controller should be installed in a heated building where an ambient temperature range of 60 to 90 degrees F is maintained. If the control panel must be located outside, please notify SeptiTech, Inc. so a heater may be installed within the enclosure.

SeptiTech processors can also be built to 3-phase power requirements. If 3-phase is required, please notify SeptiTech at the time of contract signing.

Internet: Contractor is responsible for installing an internet line to the processor control panel for the Telemetry. Any work performed on the system without the installation of the internet line shall be at the expense of the owner.

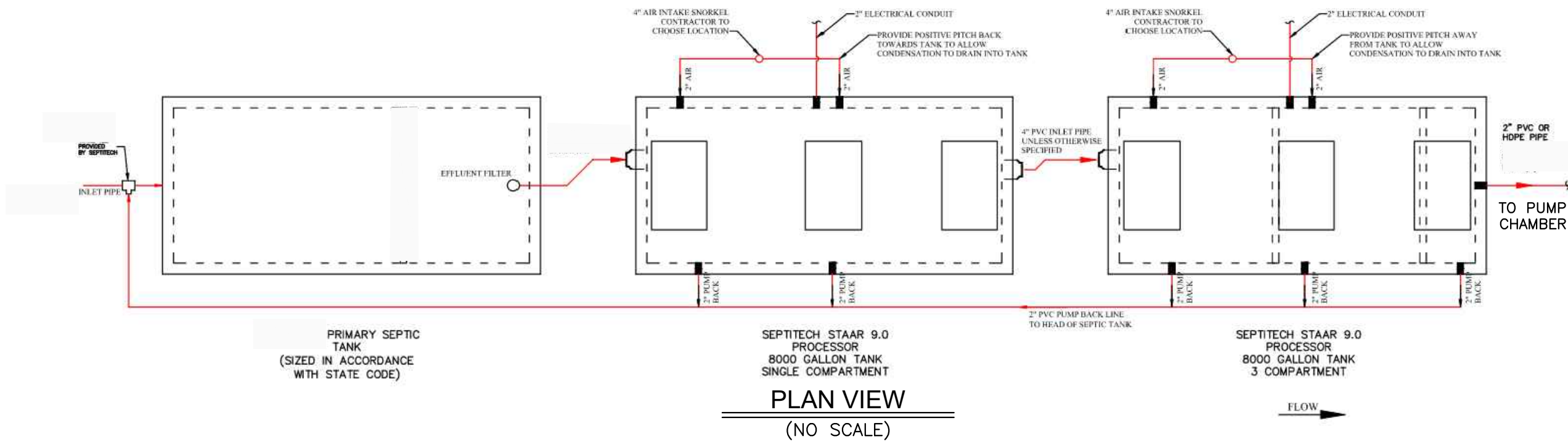


PROJECT NO.:	
STAAR 9.0 PROCESSOR INSTALLATION PLAN	
DATE: 07/09/15	DWG. NO.:
SCALE: 3/16"=1'-0"	REV.: 1



STAAR 9.0 SERIES ELEVATIONAL PLAN

PROFILE VIEW (NO SCALE)

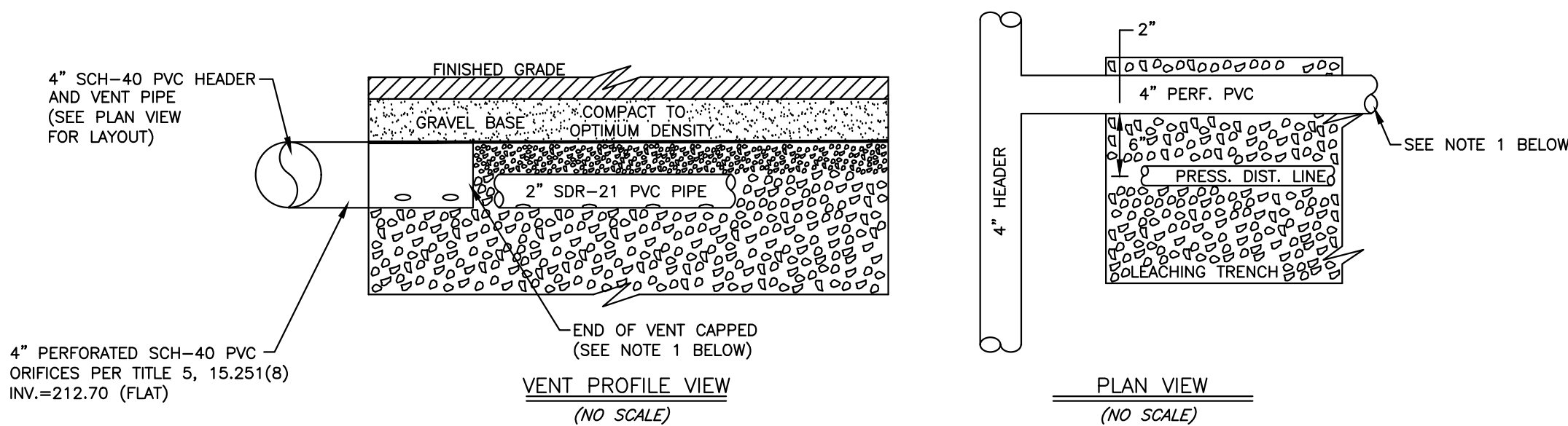


PLAN VIEW (NO SCALE)

BIO-MICROBICS, INC. - SEPTITECH STAAR 9.0

(SOURCE: SEPTITECH A SUBSIDIARY OF BIOMICROBIC, INC EDITED BY DGT ASSOCIATES FOR USE)

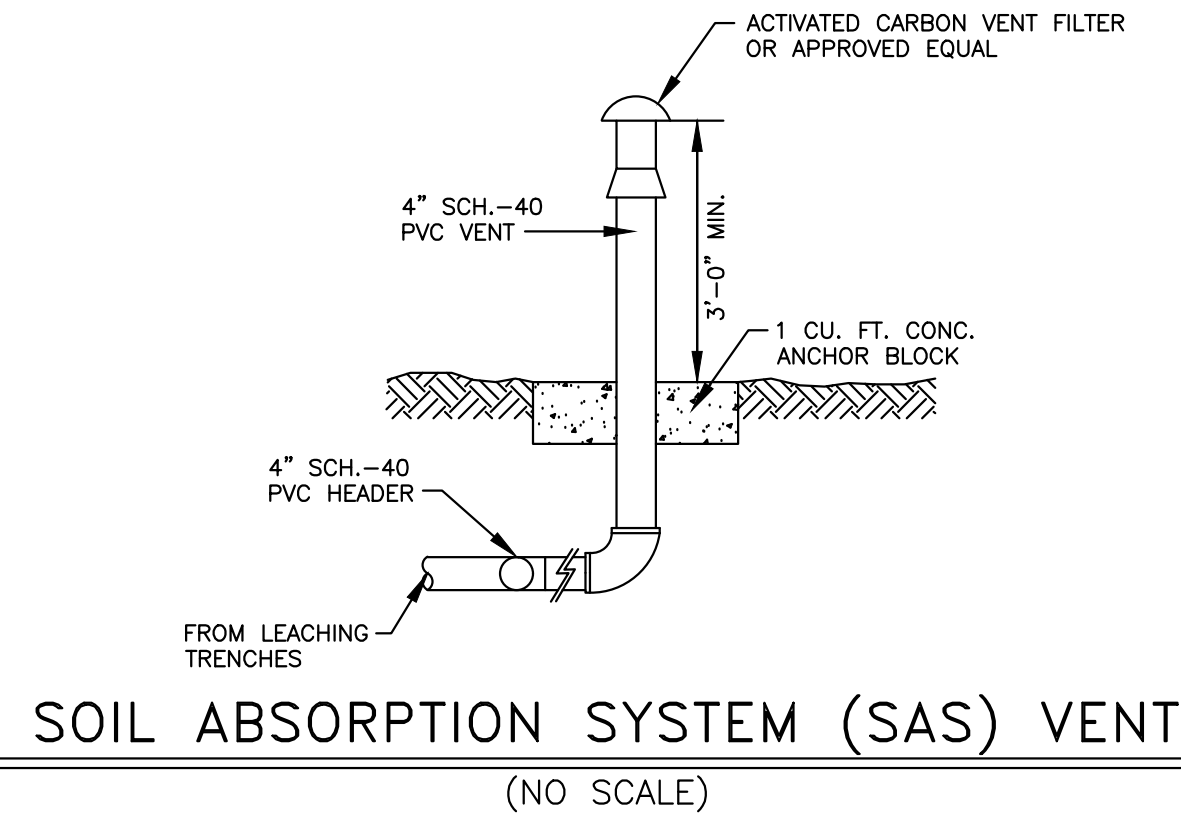
(NO SCALE)



NOTES:
1. VENT TO EXTEND ALONG THE ENTIRE TRENCH LENGTH AND THROUGH TO THE OPPOSITE END OF THE FIELD.

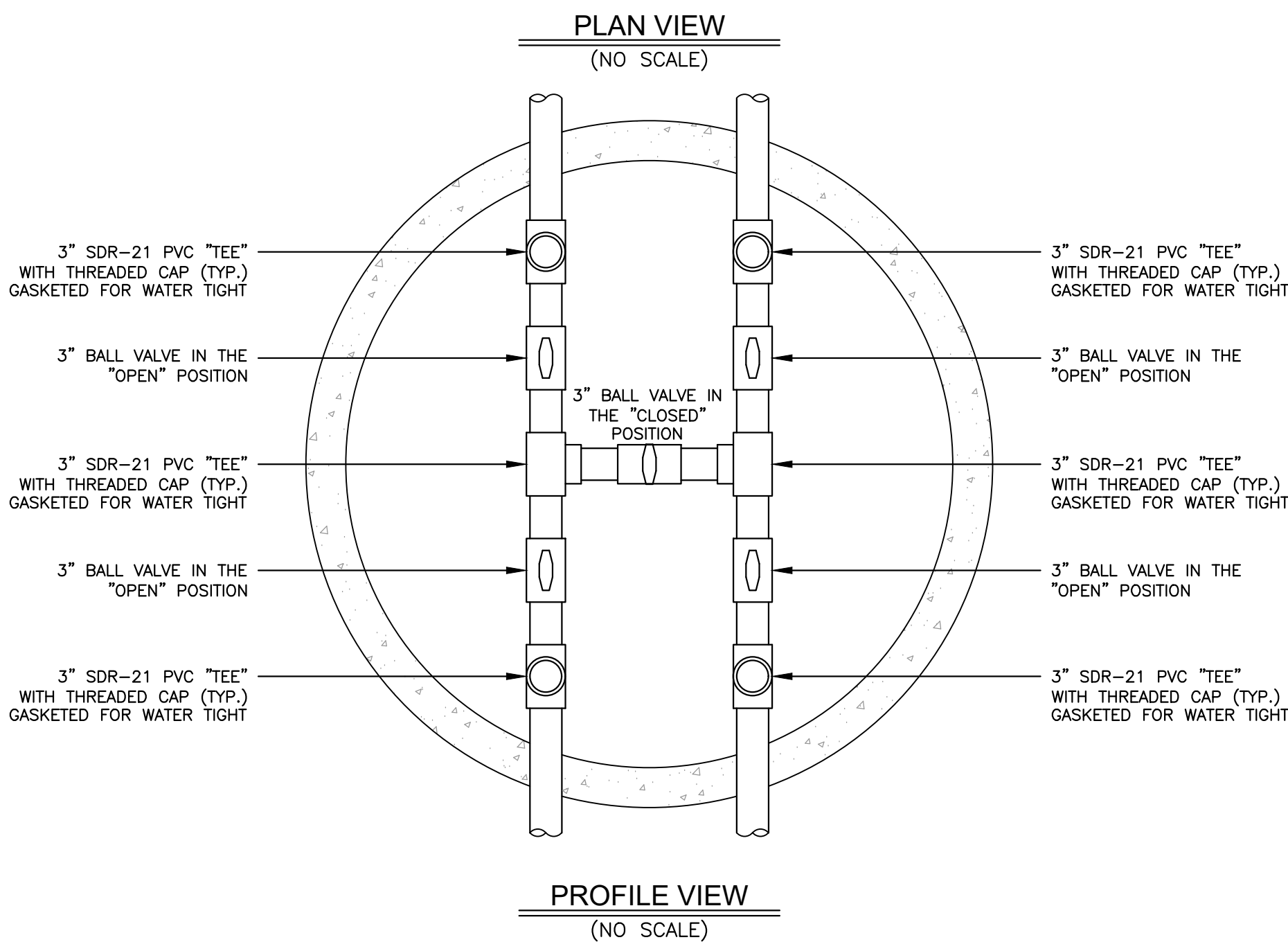
SOIL ABSORPTION SYSTEM VENT INSTALLATION

(NO SCALE)

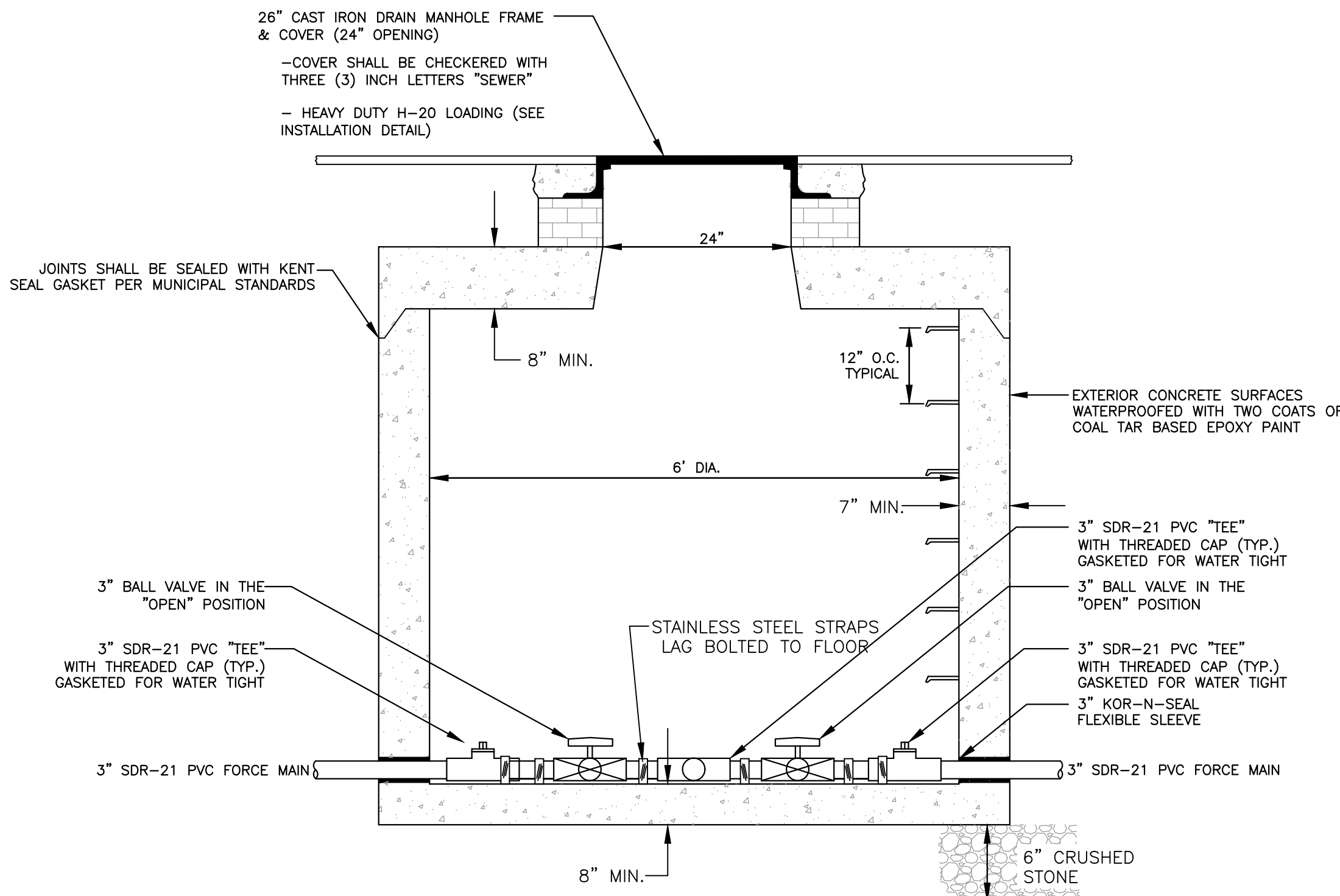


SOIL ABSORPTION SYSTEM (SAS) VENT

(NO SCALE)

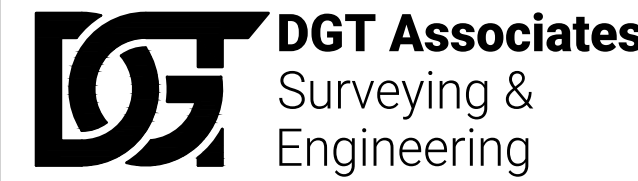


PROFILE VIEW (NO SCALE)



SWITCHING VALVE MANHOLE

(NO SCALE)



Framingham
Boston • Worcester • Preston, CT

1071 Worcester Road
Framingham, MA 01701
508-879-0030

www.DGTassociates.com

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SHERBORN, MASSACHUSETTS 01770

SHEET TITLE:

DETAILS #3

SHEET:
5 OF 5

PROJECT NO.:
F-25902

BOH-5

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