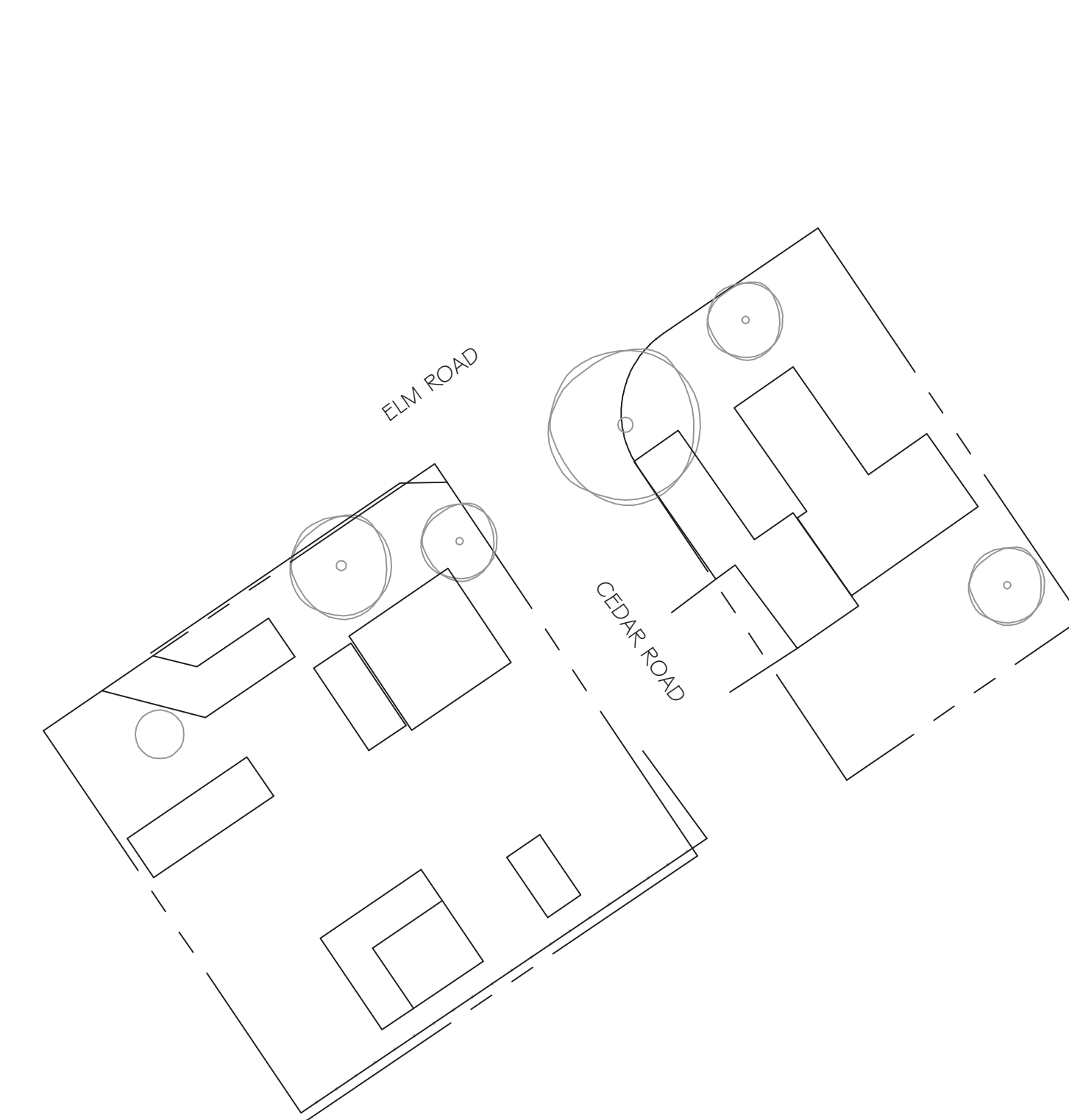


PROPERTY BOUNDARIES (1"=30')

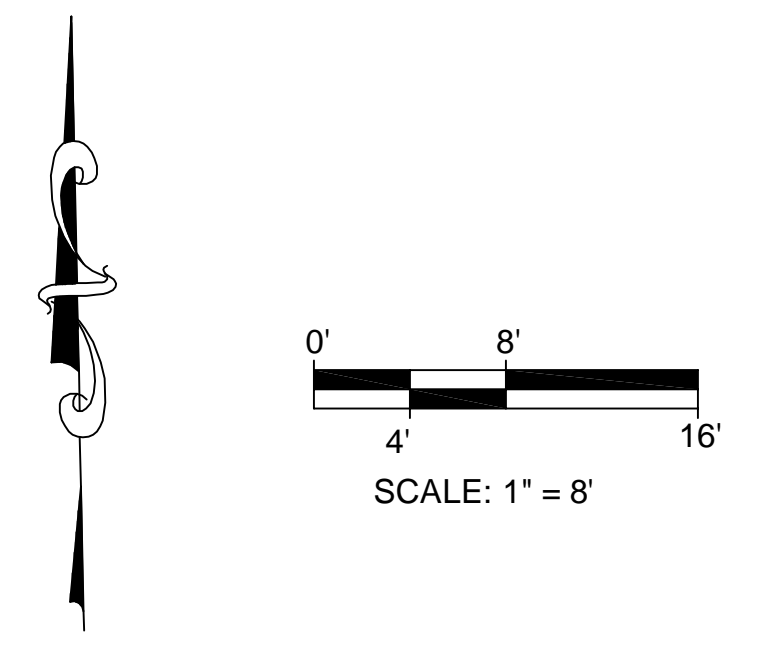
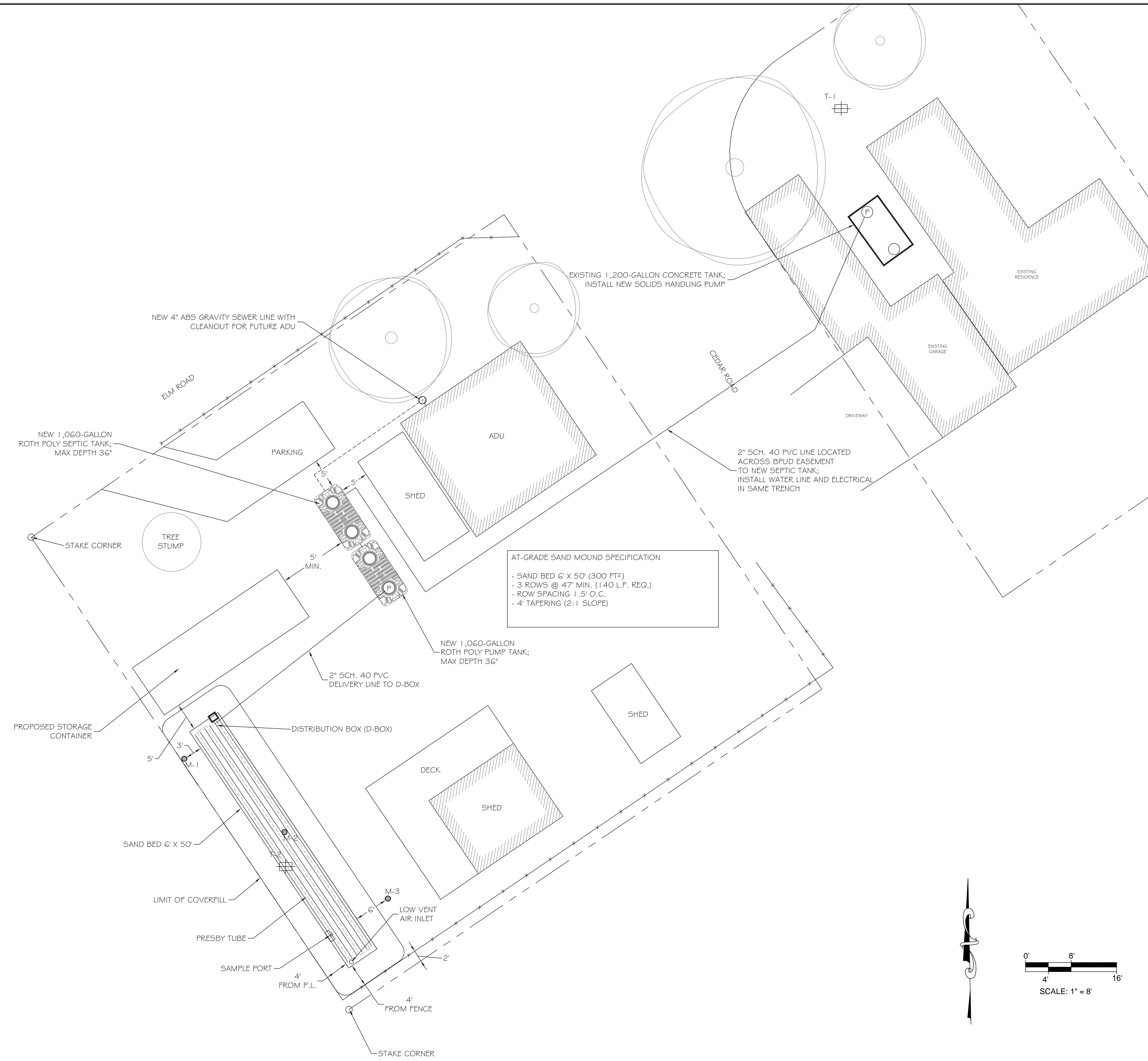


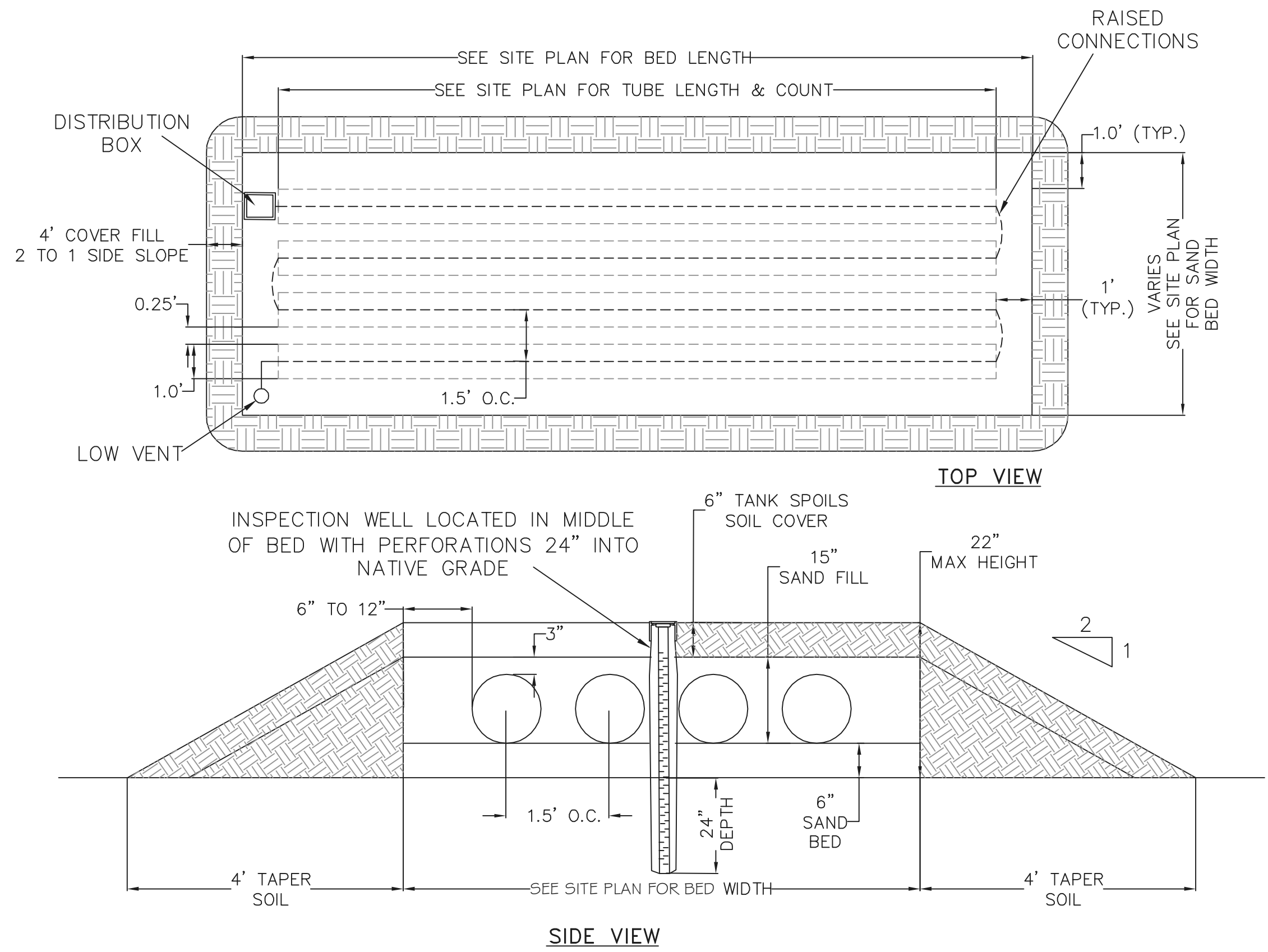
**LEGEND**

	Soil Profile Trench		Monitoring Well
	Percolation Test		Clean Out

**NOTES**

- \* Survey provided by owner. EED assumes no responsibility.
- \* 300 GPD System
- \* Contours less than 2%





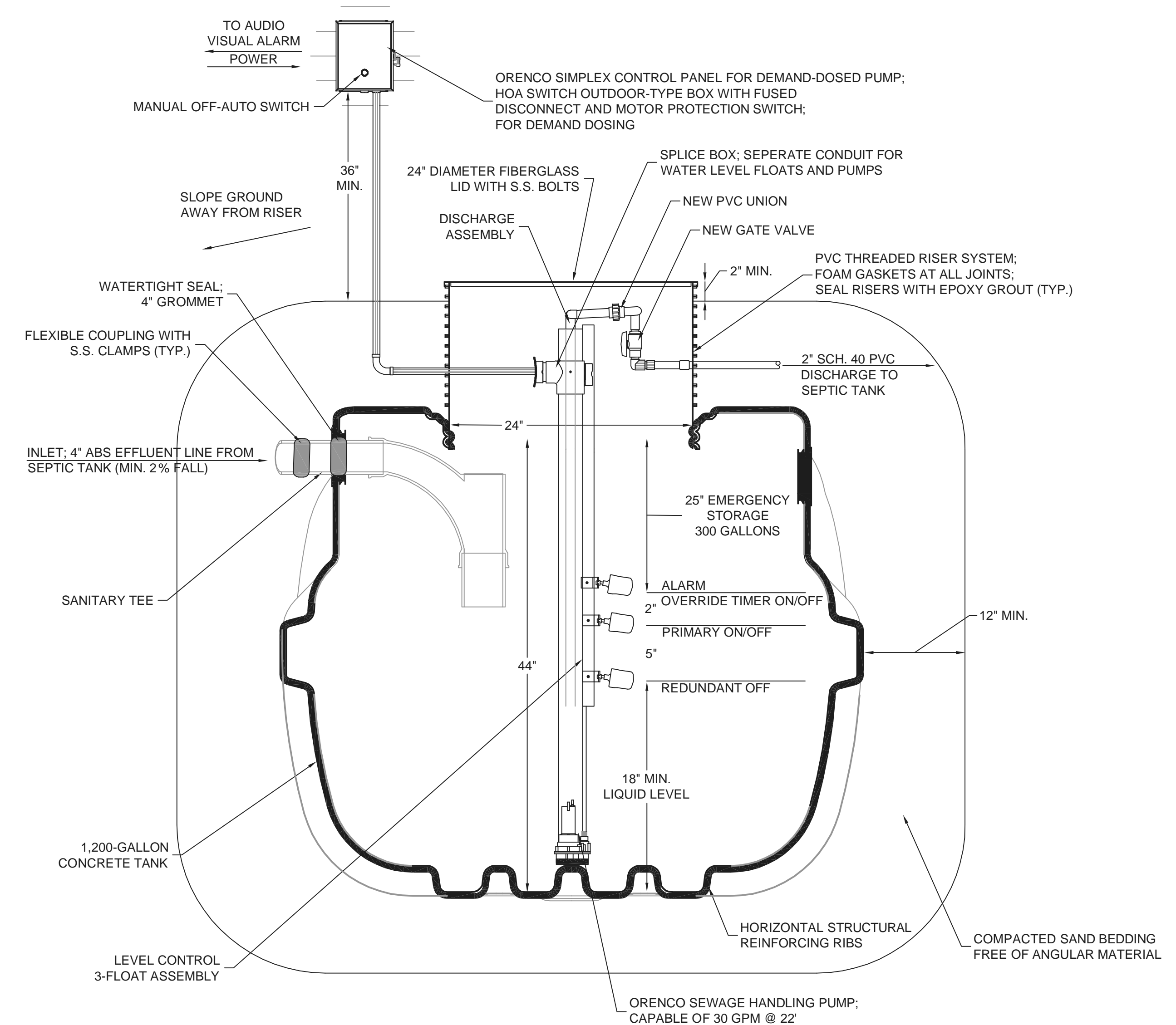
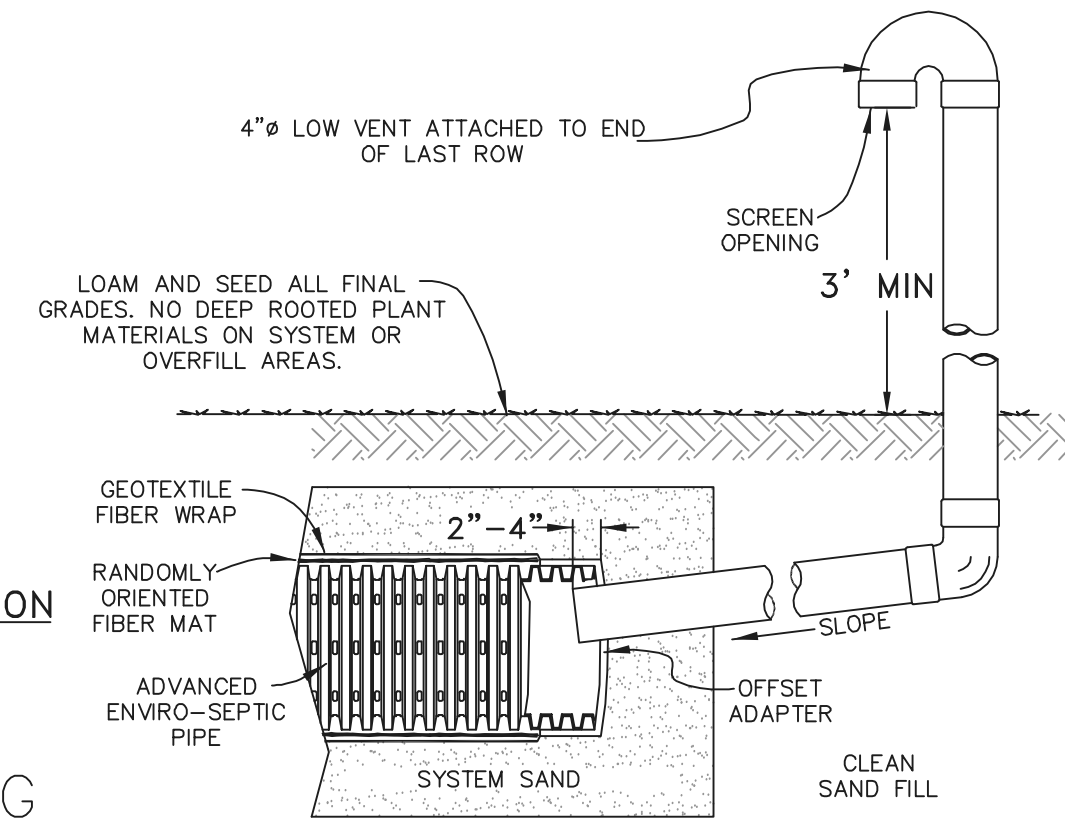
**NOTES:**

1. 140 L.F. OF TUBE.
2. 300 FT<sup>2</sup> OF SAND BED.
3. 1'- SECTION OF TUBE WITH SAMPLE TRAY.

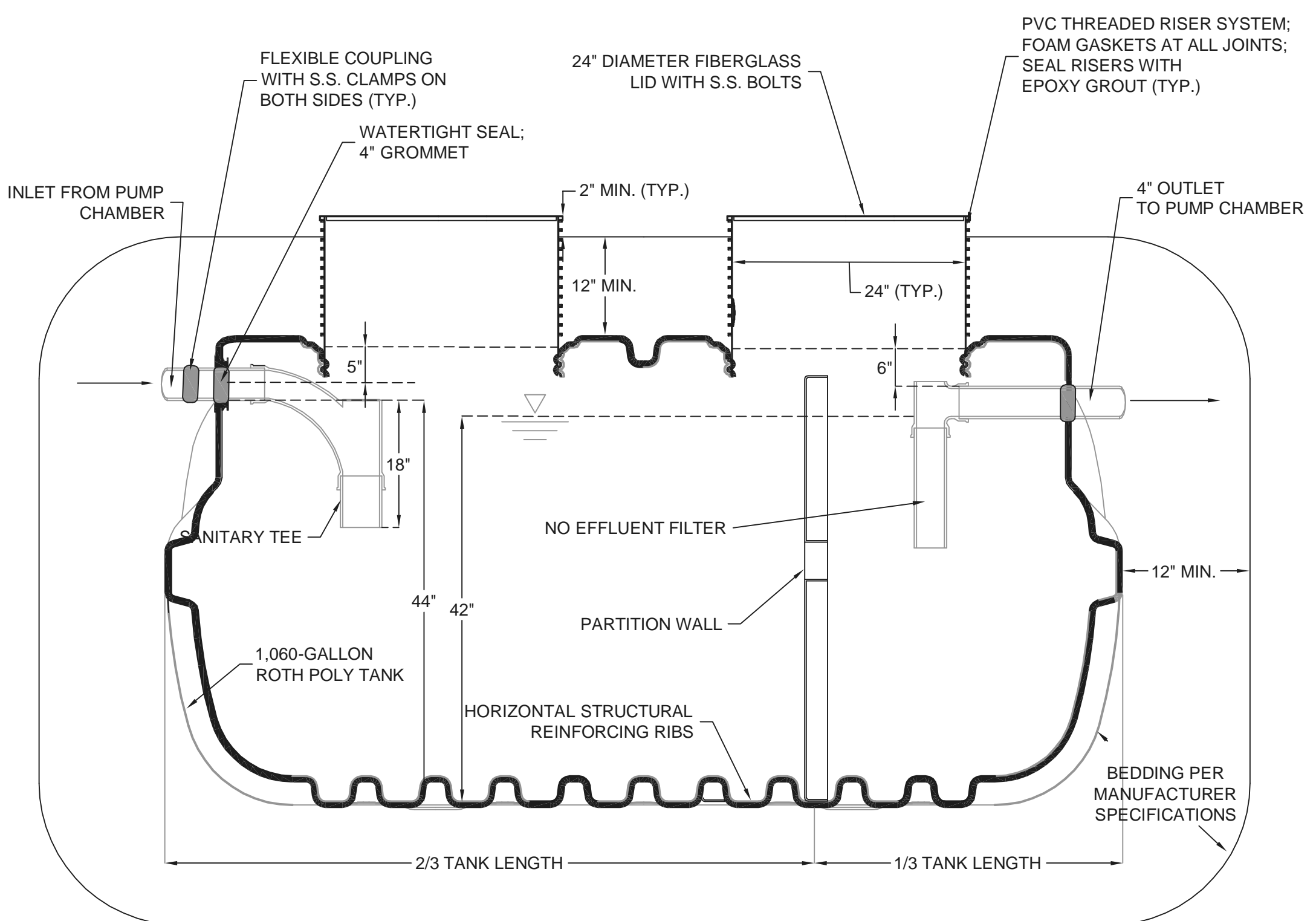
**PRESBY MOUND SYSTEM** 3

**TYPICAL LOW VENT CONNECTION FOR SERIAL DISTRIBUTION**

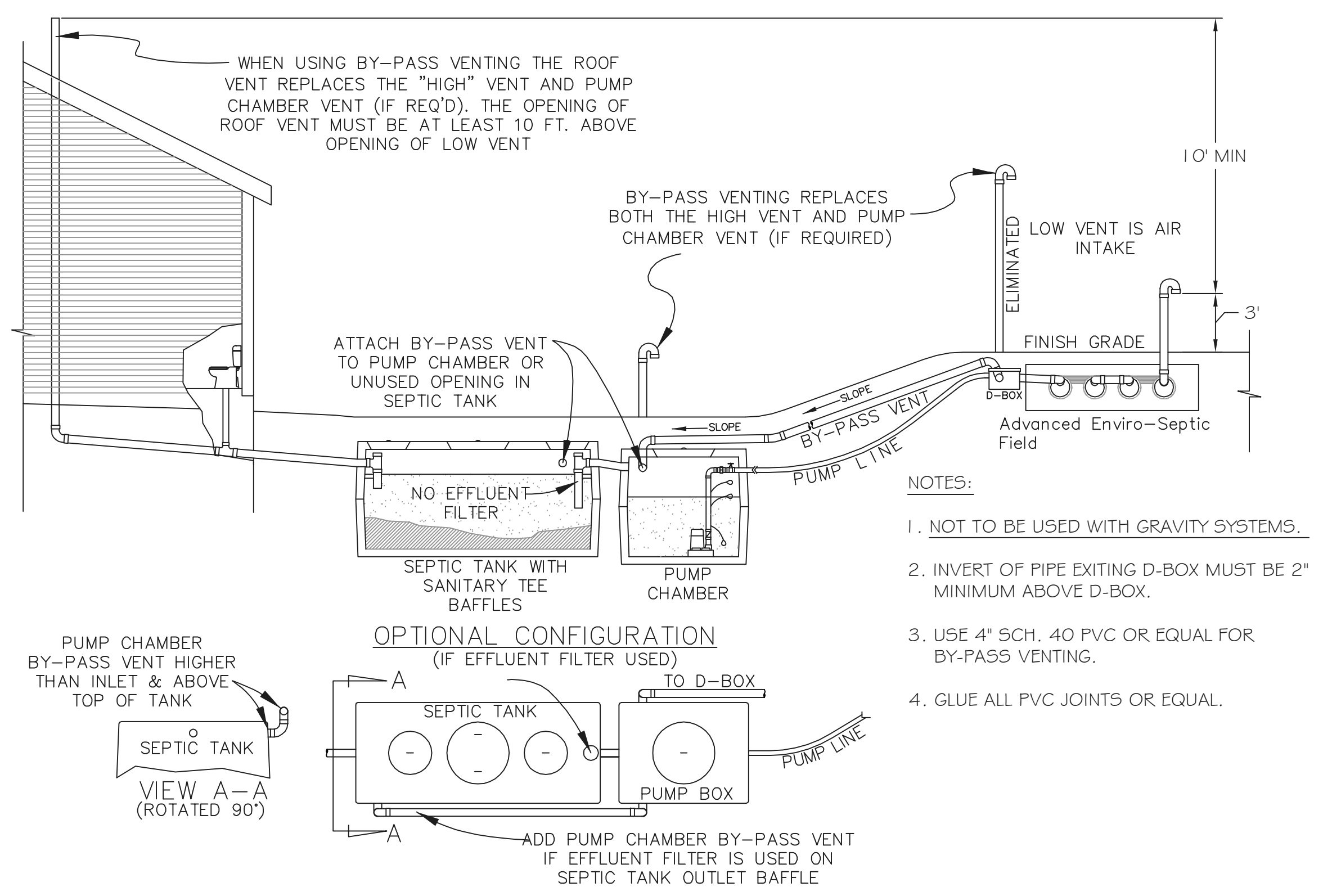
**BY-PASS VENTING**



**1,200-GALLON CONCRETE SEPTIC TANK WITH SEWAGE HANDLING PUMPING SYSTEM** 1



**NEW ROTH POLY 1,060-GALLON SEPTIC TANK** 2

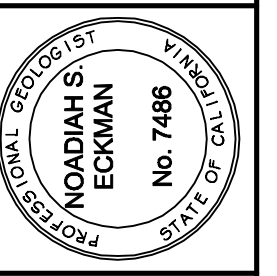


- NOTES:**
1. NOT TO BE USED WITH GRAVITY SYSTEMS.
  2. INVERT OF PIPE EXITING D-BOX MUST BE 2" MINIMUM ABOVE D-BOX.
  3. USE 4" SCH. 40 PVC OR EQUAL FOR BY-PASS VENTING.
  4. GLUE ALL PVC JOINTS OR EQUAL.

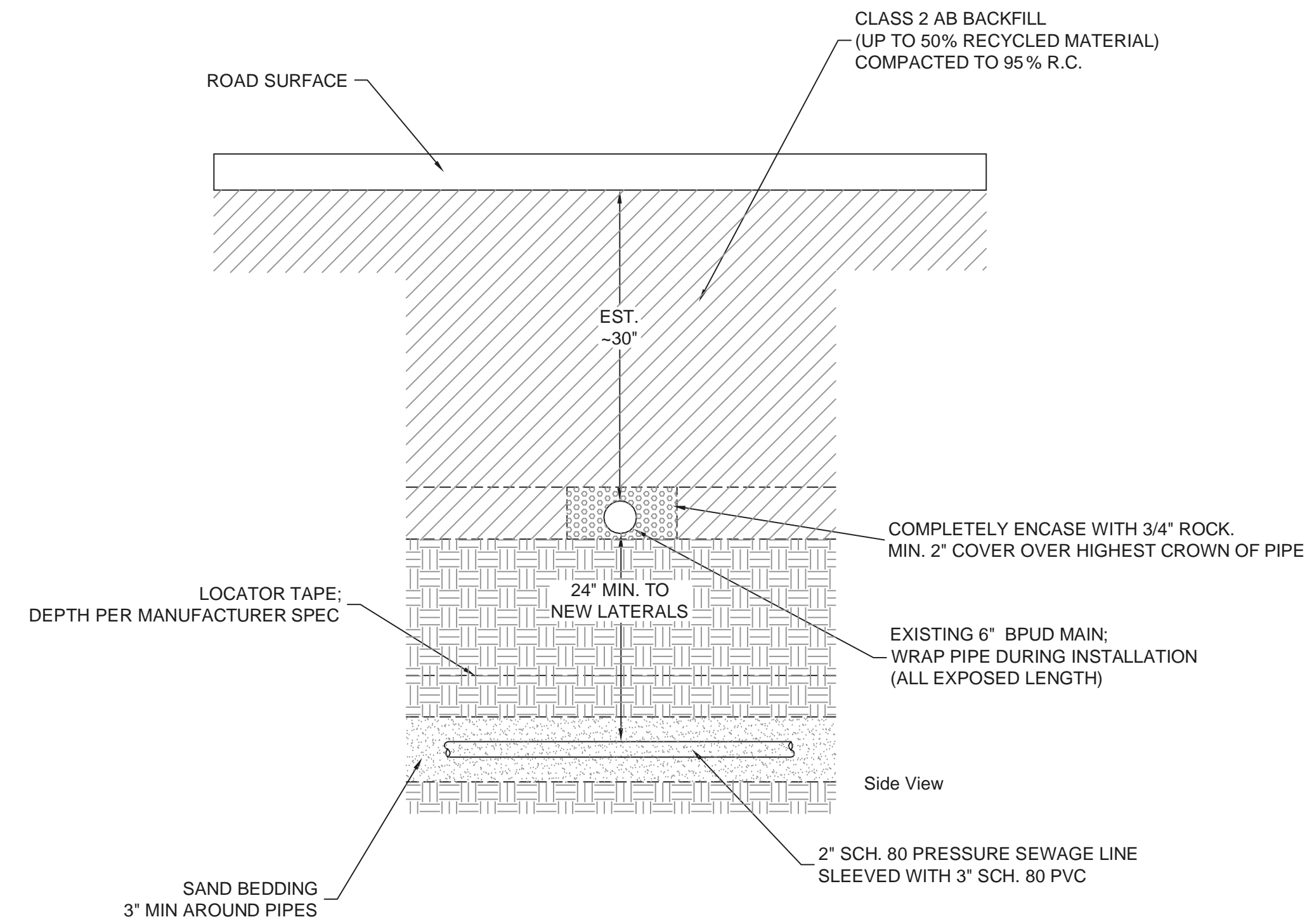
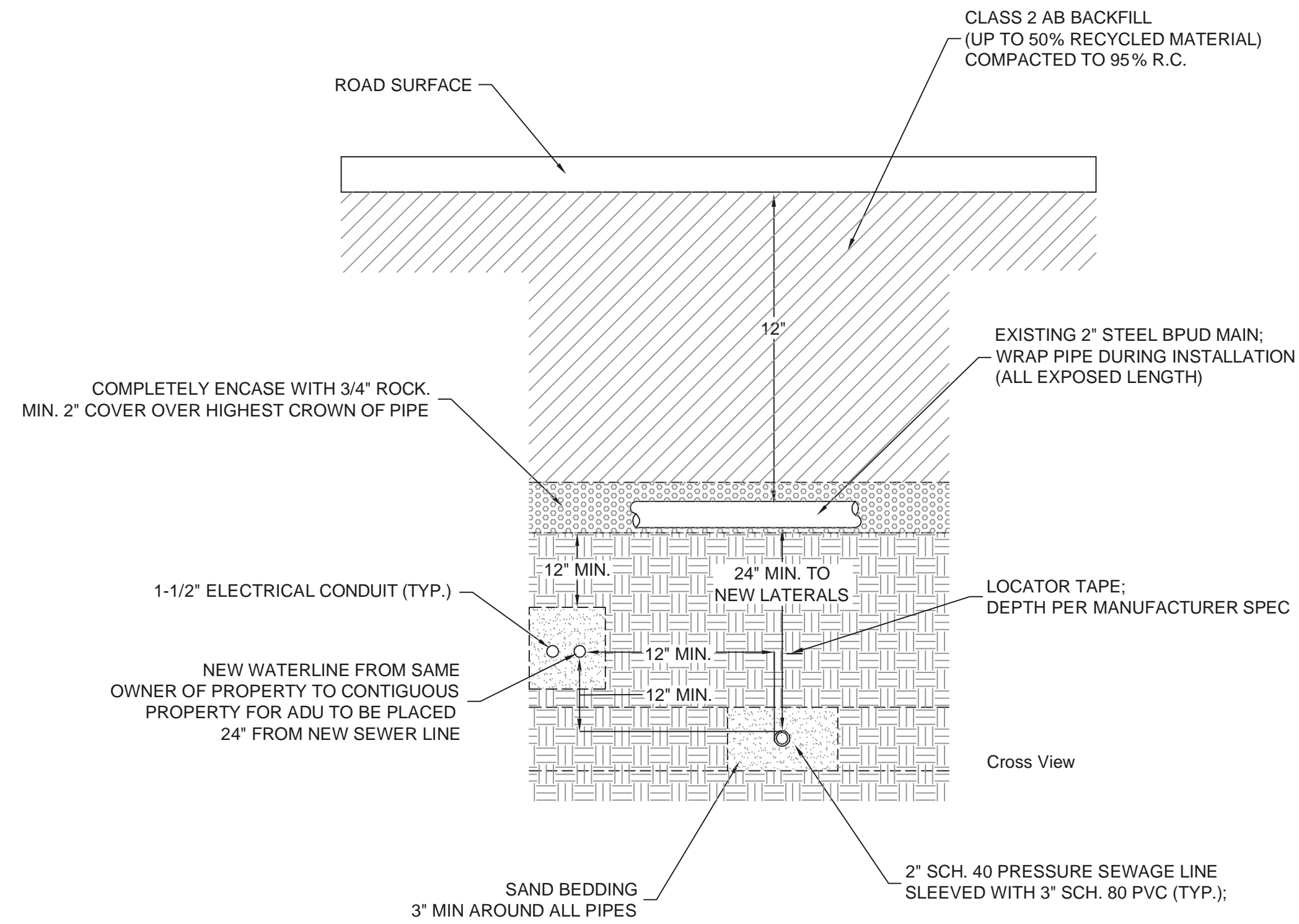
SEE PG1	08 - 10 - 2023	NONE / ARCHD	2 OF 3
APN	DATE / REV.	SCALE/SIZE	SHEET

**ON-SITE WASTEWATER SYSTEM PLAN  
CONSTRUCTION DETAILS**

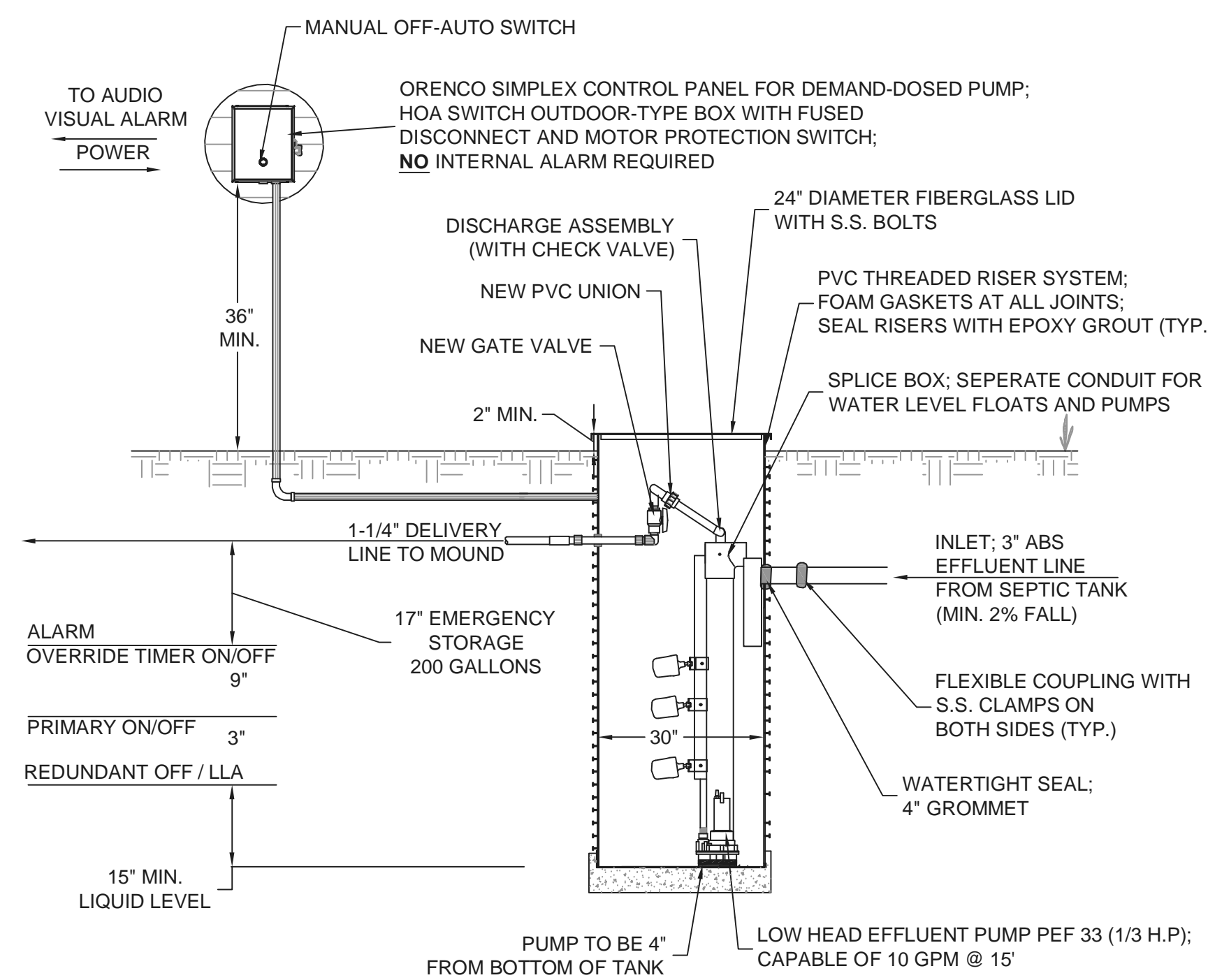
BOLINAS LAND TRUST  
BOLINAS, CALIFORNIA



eckman environmental designs, inc  
100 Shoreline Highway  
Mill Valley, CA 94041  
415.895.0364



## ROAD TRENCH FOR CEDAR STREET CROSSING 4



## 30" X 60" PUMP VAULT 5

**INSPECTION #1**  
 - Onsite pre-construction conference to discuss project with Contractor.  
 - Staking of all elements of system including venting, manifold, and distribution.

**INSPECTION #2**  
 - Tank leak test.  
 - Leach field & sand placement.

**INSPECTION #3**  
 - Testing of leachfield distribution.  
 - Vent installation.

**INSPECTION #4**  
 - Final grading for drainage and erosion control.  
 - General site clean up.

### CONSTRUCTION SPECIFICATIONS

#### GENERAL

Changes to plans or specifications shall be made only after consultation with and approval of the Designer.

At all times during the work, keep the premises clean and orderly, and upon completion of the work, repair all damage caused by equipment. Stockpile excavated material in a manner that will cause the least damage to native vegetation and landscaping. Leave the project site free of rubbish or excess materials of any kind.

Construction inspection by the Designer shall be required at points outlined in the attached Construction Inspection Schedule. It shall be the responsibility of the contractor to call for the required inspections, and to provide at least 48-hours advance notification of the Designer and Sinson Beach Water District.

All installation shall be in accordance with Marin County regulations and Building Codes. Marin County Building Division Electrical Permit Required.

#### MATERIALS

Eckman Environmental Designs, Inc. to approve construction material prior to placement.

- Septic Tank.** New 1,060-gallon Roth Poly septic tank to be utilized located near ADU.
- Presby Tubes.** Each system to have 10' length with sampling tray assembly. Distributed by Infiltrator Water Technologies.
- Access Risers.** Shall be made of PVC, watertight, and shall be installed over the inlet and outlet openings of the septic tank, three (3) treatment tanks and pump tank with fiberglass lids. The riser must be watertight at all points and have a watertight seal at the top of the tank. Manufactured by Orenco Systems Inc. Distributed by Pace Supply (415) 454-8282.
- Gravel.** Shall be cleaned and double washed.
- Filter Fabric.** Filter fabric shall be Mirafri 140N or approved equal. Filter fabric shall be handled and installed in accordance with manufacturer's recommendations. Borders of fabric shall be overlapped 12 to 18 inches. Any torn or damaged sections of fabric shall be covered with additional pieces of filter fabric sufficient to meet the above overlapping requirement.
- Pump Chamber.** A 1,060-gallon Roth Poly tank or 30" x 60" pump vault as shown on the plans. A 20" x 60" PVC Pump Vault as shown on the plans. The pump chamber shall be of watertight construction and certified as such. Field-testing of the all tanks shall be required.
- Pump.** Sewage handling pump capable of 30 gpm @ 15' t.d.h. The pump is to be PEF33 (1/3 hp) 10 gpm for leach field. Distributed by Pace Supply.
- Control Panel.** Contractor shall use two Simplex control panels, or equal, to control pump.

#### GENERAL CONSTRUCTION

- Installation.** All installation work shall be in accordance with applicable Marin County Building and Health Code.
- Leachfield Locations.** Location for the leachfield is approximate, subject to adjustment in the field by the contractor according to building constraints and any noted setback requirements.
- Erosion Protection.** Re-seed leachfield area for erosion protection following final cover placement. Use Jute Netting and Waddles per Marin County Building Code.
- Clearing and Grubbing Limits.** All disposal sites will be cleared and grubbed. These areas will be cleared and grubbed only after the Designer has observed and approved the Contractors staking of the clearing limits, to ensure that no more clearing and grubbing is done than necessary.
- Sand Fill.** Sand fill for the trench shall be a medium to coarse textured sand conforming to the following specifications:

Sieve Size	Percent Passing
3/8	100
#4	95 - 100
#8	80 - 100
#16	50 - 85
#30	25 - 60
#50	5 - 30
#100	0 - 10
#200	0 - 3

- Rip Procedures.** Follow rip procedure for mound systems per MCEHS regulations.
- Septic Tank/Pump Chamber Leak Test.** The existing septic tank and new pump chamber shall be required to be certified as watertight. Field testing of tanks shall be required and conducted as follows:

Designer to visually inspect tank prior to conducting leak test. Fill tank and pump chamber so water level is 2 inches ± above tank/access riser joints. Note depth of water and re-measure not less than one hour later. Any water level drop shall be considered to be an indicator of a leaking tank; a tank shall be repaired or replaced to the satisfaction of the engineer.

- Electrical.**
  - High water audio and visual alarm NOT required within the house.
  - All electrical work shall conform to procedures and codes of Marin County Building Department.

Effluent Pump: The pump shall be of the size and type to accommodate the intended use and shall include the following:

- A "Hand-off-auto" (HOA) switch.
- An audio and visible alarm and necessary sump water sensing device to indicate a "high water" condition.
- Float switches shall be anchored to a suitable float tree for controlling the starting and stopping of pump operation.
- The pump intake shall be set a minimum of 4 inches above the sump bottom.

Sump:

- Access shall be provided by a minimum 24-inch diameter opening;
- All pipes and/or electrical conduits through the sump shall be either precast into the sump or sealed with gas-tight compression connectors.

Electrical Features: The following electrical features shall be provided:

- An outdoor-type control box containing fused disconnect and motor protection switch.
- The control box may be mounted on the building served if located within 30 feet and within direct view of the sump, otherwise the control box shall be mounted on a pipe stand or wooden post.
- Electrical conduit shall be PVC. Separate conduits shall be provided for control wire and power supply. Separate circuits with individual breakers at the main panel shall be provided for the control panel/ alarm and pump.

#### 17. Pressure Pipe Network.

- All pressure pipe shall be Schedule 40 PVC or approved equal.
- All joints shall be glued with solvent cement.
- Hydraulic testing shall be conducted in the presence of the Designer to determine any leaks in the system and pump operation.
- A concrete thrust block shall be installed at all pipe bends of 45° or greater in all pressure lines.

#### 18. Pressure Pipe Network.

- All pressure pipe shall be Schedule 40 PVC or approved equal.
- All joints shall be glued with solvent cement.
- Distribution pipe shall be laid level with a maximum permissible slope of three (3) inches in 100 feet.
- Hydraulic testing shall be conducted in the presence of the Designer to determine any leaks in the system and to check the discharge head and pump operation.
- A concrete thrust block shall be installed at all pipe bends of 45° or greater in all pressure lines from the pump to leachfield.

#### PRESBY INSTALLATION

See detailed manual provided by manufacturer.