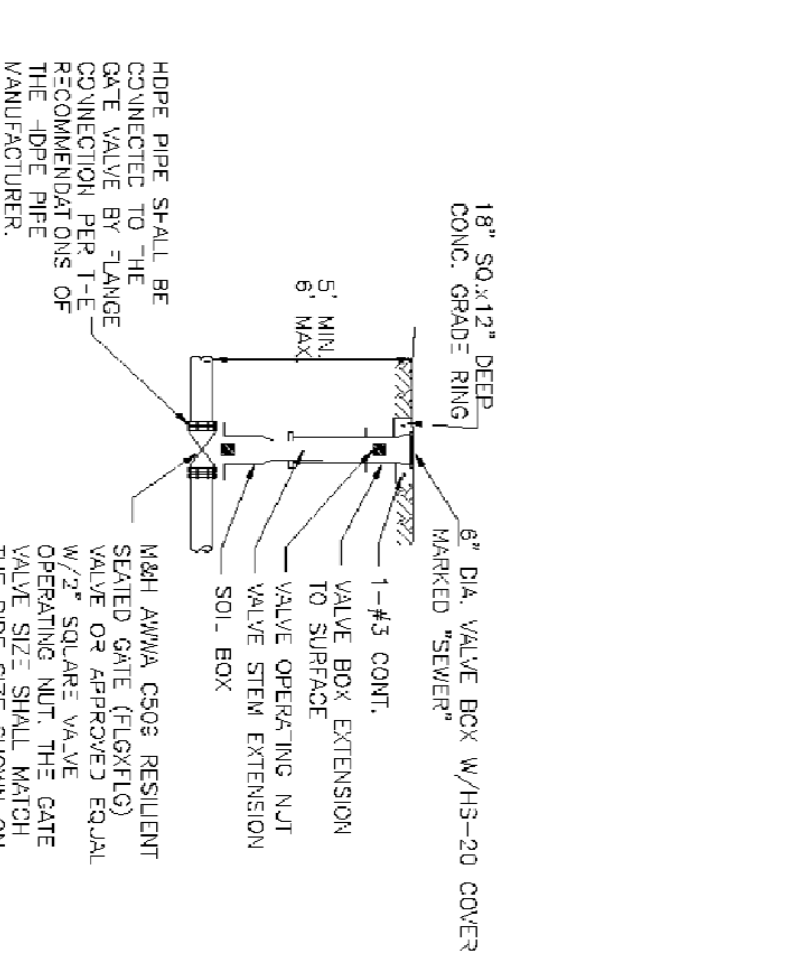


- SPECIAL NOTES:**
1. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 16 FEET HORIZONTAL AND 18 INCHES VERTICAL SEPARATION BETWEEN WATER AND SEWER FACILITIES. IF MAJOR VERTICAL SEPARATION CANNOT BE MAINTAINED, THE CONTRACTOR SHALL PROVIDE A 1/2\"/>
 - 2. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 16 FEET HORIZONTAL AND 18 INCHES VERTICAL SEPARATION BETWEEN WATER AND SEWER FACILITIES. IF MAJOR VERTICAL SEPARATION CANNOT BE MAINTAINED, THE CONTRACTOR SHALL PROVIDE A 1/2\"/>
 - 3. SEWER FORCE MAIN PIPE MATERIAL SHALL BE HIGH-DENSITY POLYETHYLENE (HDPE) FOR THE 1.5\"/>
 - 4. FOR A SPECIFIC INSTALLATION, THE FORCE MAIN (FORCE MAIN) CAN BE Laid ON TOP OF THE EXISTING PRESSURE MAIN PIPE WITH A MINIMUM OF 18\"/>

TYPICAL PRESSURE SEWER CONNECTION DETAIL
PUBLISHED STANDARD PLAN PSS-02
 NOT TO SCALE

LAKEHAVEN UTILITY DISTRICT
STANDARD NOTES FOR PRESSURE SEWER CONSTRUCTION

1. All work and materials shall conform to the Washington State Department of Transportation/Washington State Chapter American Public Works Association (WSDOT/APWA) "Standard Plans for Road, Bridges and Municipal Construction" November 1996 Edition, and the standards of Lakehaven Utility District.
2. Contractor shall verify the location of all utilities before starting any excavation. In accordance with RCW 19.122, connections to field-located facilities shall be temporarily sealed off until after upstream construction is tested, cleaned, and accepted. All construction debris and water shall be removed prior to opening the seal without flushing the debris downstream.
3. Pressure sewer pipe material shall be as shown on the Plans, which will be one of the following and not necessarily interchangeable.
 - High Density Polyethylene (HDPE) ASTM D-148, thermal-but fused joints, minimum DR 11
 - Ductile Iron ANSI A 21.51/APWA C-151, minimum Class 52, epoxy-lined with Precast 401 Ceramic Epoxy Crushed surfacing top course (i.e., a 5/8\"/>
4. All trench backfill shall be compacted to 95% of relative density, or greater if so shown on the Plans or otherwise required by the local agency having jurisdiction, from the bottom of the excavation to the surface. Developer shall be responsible for all costs incurred for compaction testing.
5. Unless otherwise shown on the Plans, pressure sewer mains shall be installed with cover over the pipe between five feet (5') and six feet (6').
6. Pressure sewer mains shall not have any single bend that exceeds forty-five degrees (45°). For spallite deflections that exceed 45°, a spool is required between multiple bends. The spool length between bends shall be a minimum of four (4) times the diameter of the pipe.
7. Pressure sewer mains shall be hydraulically pressure tested at one and one-half (1 1/2) times the working pressure of the pipe. The test shall be conducted in accordance with the applicable code and shall be performed in the presence of the engineer. Side sewer stubs shall be tested at the same time as the pressure sewer mains.
8. All Isolation Valves, Cleanouts / Pig Ports, and Pressure Side Sewer Stubs shall conform to Lakehaven Standard Plans.
9. Pressure sewer mains shall be installed with tracer wires, and Tracer Wire Location Stations shall conform to Lakehaven Standard Plans.
10. Connecting manholes shall conform to WSDOT/APWA Standard Plan B-23a, Type 1 or Type 2, with eccentric cover, and include 1-inch galvanized drop safety steps or polypropylene safety steps (Lane International Corp. Part No. P-1639) and at least one (1) and no more than five (5) four-inch (4") high adjustment rings below the frame and one (1) four-inch (4") high adjustment ring above the frame and one (1) four-inch (4") high adjustment ring below the frame and one (1) four-inch (4") high adjustment ring above the frame of 50 mils, applied at the factory. Where noted on the Plans, manhole interior surfaces shall receive a corrosion protective epoxy coating of Polyshield SS-100 (by Specialty Products, Inc. of Tacoma, 50 mils minimum thickness) in accordance with the manufacturer's instructions. All coatings shall be applied in accordance with the manufacturer's instructions.
11. Connecting manhole frames and covers shall be cast iron, with the word "SEWER" cast in the top, shall weigh 140 to 150 pounds, and shall have a single 1-inch lift hole fitted with one 3/4\"/>
- 12. Concrete collars reinforced with wire mesh shall be installed per Lakehaven Standard Plan where shown on the Plans. The standard diameter of the associated pipe and no more than 1/4\"/>
- 13. Connecting manhole frames shall be produced to the full depth of the associated pipe diameter, and to a width no less than the outside diameter of the associated pipe and no more than 1/4\"/>
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- 16. Connecting manhole frames shall be produced to the full depth of the associated pipe diameter, and to a width no less than the outside diameter of the associated pipe and no more than 1/4\"/>
- 17. Pipe ends of all inlet and outlet pipelines shall not extend more than 2 inches inside the connecting manhole, and all connections to the connecting manhole shall be within 10 feet of the connecting manhole, and all connections to the connecting manhole shall be within 10 feet of the connecting manhole, and all connections to the connecting manhole shall be within 10 feet of the connecting manhole.
- 18. No pipe for flexible sleeve joints shall be within 10 feet of the connecting manhole, and all connections to the connecting manhole shall be within 10 feet of the connecting manhole, and all connections to the connecting manhole shall be within 10 feet of the connecting manhole.
- 19. The termini of pressure sewer stubs shall be capped and marked by a white 3x3 post labeled "Sanitary Side Sewer" (April 26, 2005)

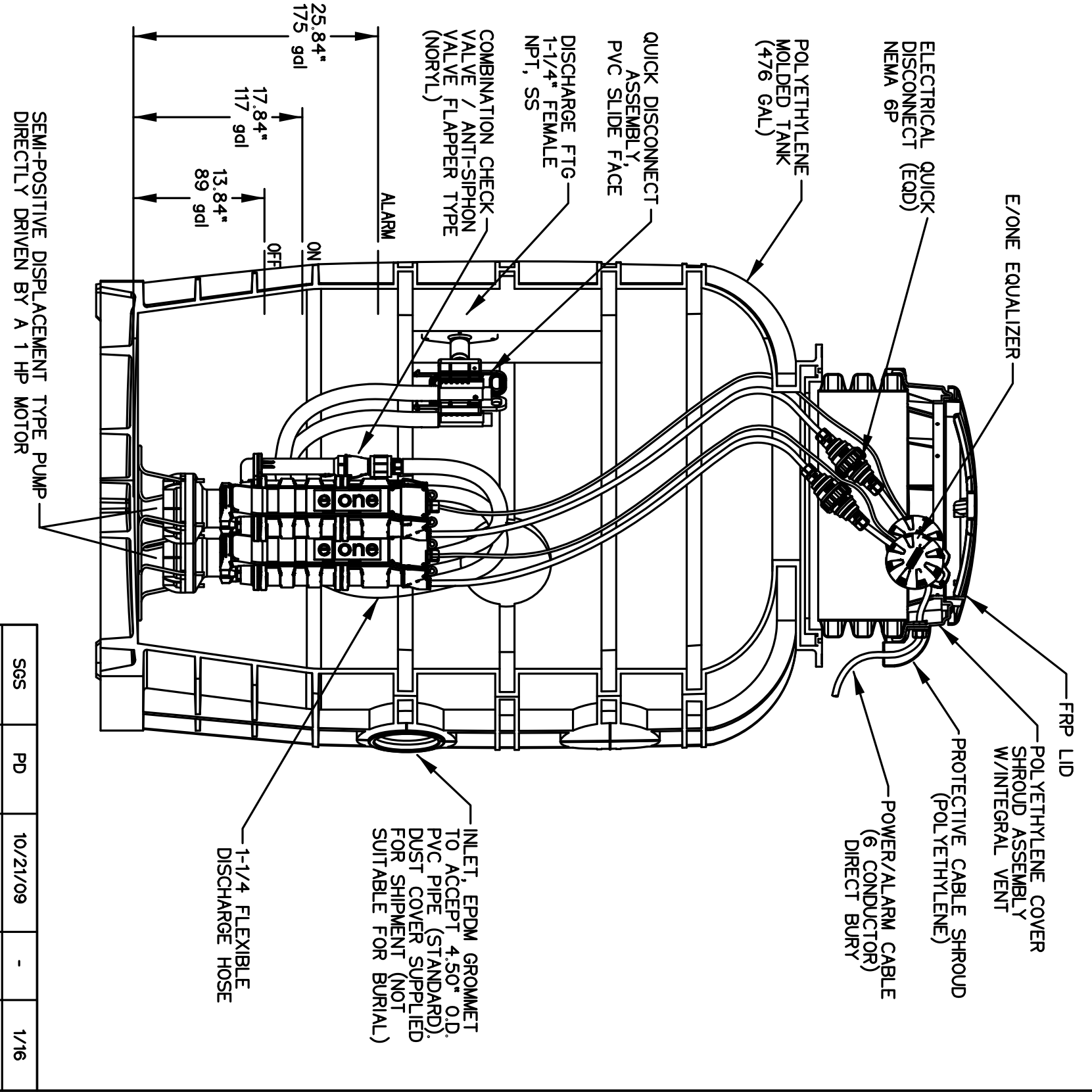


- NOTES:**
1. ISOLATION VALVE BOX WILL ALSO BE Labeled AS A TRACER WIRE STATION.

ISOLATION VALVE
PUBLISHED STANDARD PLAN PSS-03
 NOT TO SCALE

OPTIONS :

- WH472 (HAND WIRED LEVEL CONTROLS)
- WR472 (WIRELESS LEVEL CONTROLS)

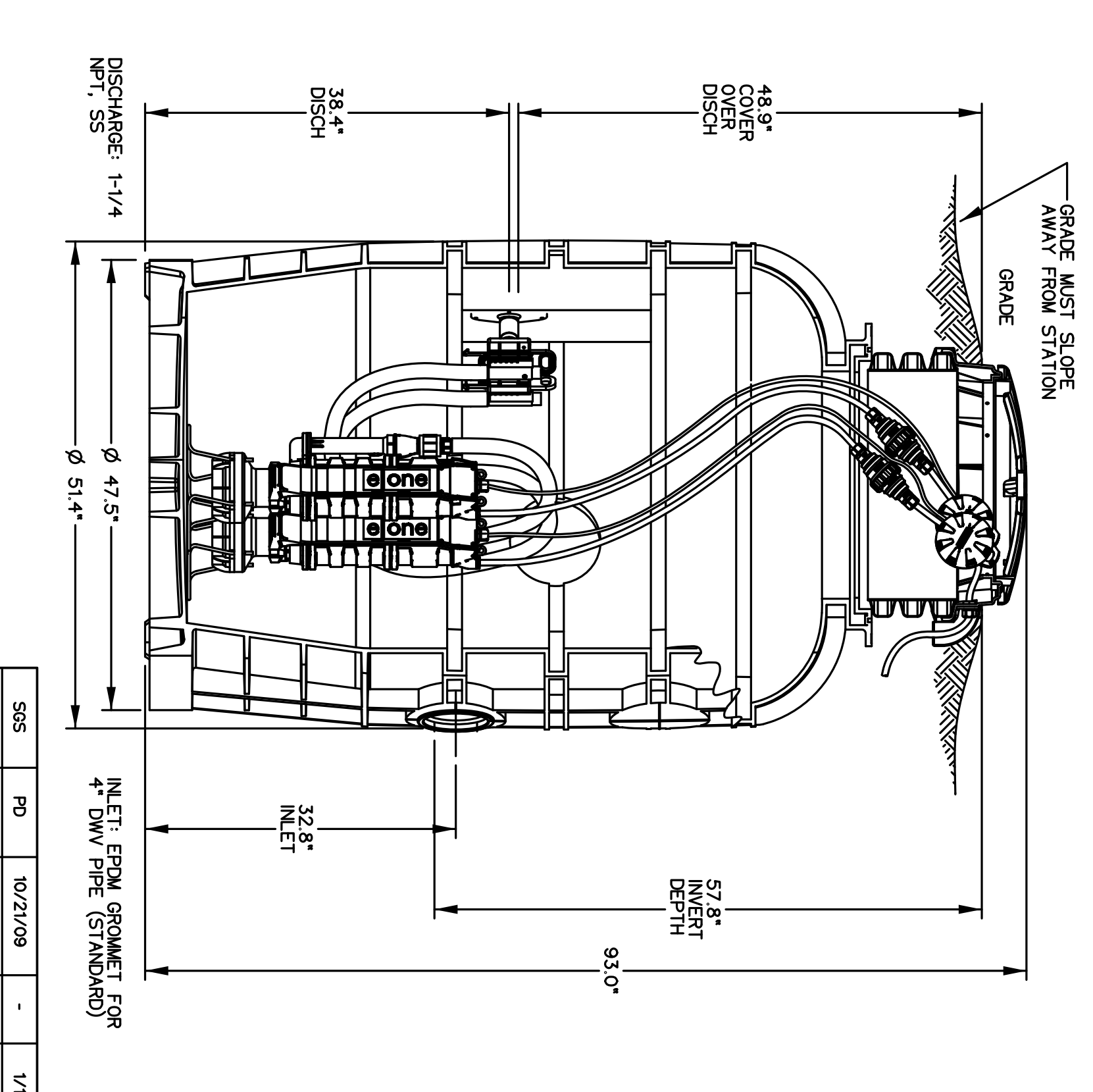


NOTE: DIMENSIONS ARE FOR REFERENCE ONLY

SSS	PD	10/21/09	-	1/6
DR BR	GK/D	DATE	ISSUE	SCALE
ewone SEWER SYSTEMS				
MODEL WH472 / WR472 DETAIL SHEET				
NAO223P02				

OPTIONS :

- WH472-92 (HAND WIRED LEVEL CONTROLS)
- WR472-92 (WIRELESS LEVEL CONTROLS)



NOTE: DIMENSIONS ARE FOR REFERENCE ONLY

SSS	PD	10/21/09	-	1/6
DR BR	GK/D	DATE	ISSUE	SCALE
ewone SEWER SYSTEMS				
MODEL WH472-92 / WR472-92 DETAIL SHEET				
NAO223P04				

LAKEHAVEN UTILITY DISTRICT

0 Water Plan 6 Sewer Plan

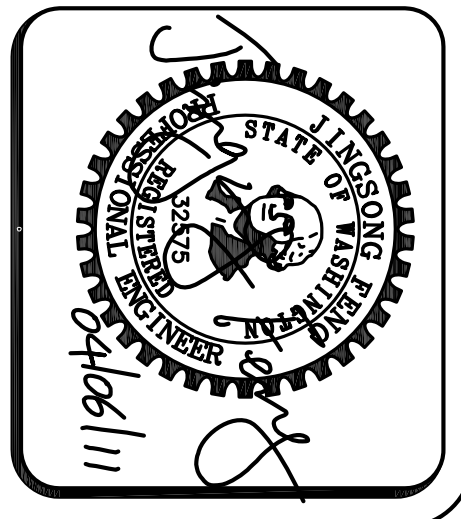
Dated _____

APPROVED FOR CONSTRUCTION
SUBJECT TO CHANGES NOTED

The District's review is not a check of any dimension or quantity and will not relieve the Developer from responsibility for errors of any sort. No changes shall be made in the plans except by the consent of the District.

General Manager/District Engineer Date _____

This construction plan will expire one year from plan approval date, if construction has not commenced.



Pacific Engineering Design, LLC

Civil Engineering and Planning Consultants

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 FAX: (206) 388-1648
 WEB SITE: PACENG.COM

LAKEHAVEN UTILITY DISTRICT PROJECT No. 6308021
RAM NIWAS CHURCH

KING COUNTY, WA.

PROJECT NO.: 10021
 DRAWN BY: CJB
 ISSUE DATE: 7-23-2010
 SHEET REV.: 8-24-2010

FOR: SATGURU RAM SINGH STANG
 15701 138TH PLACE SE
 RENTON, WA 98050
 PHONE: (206) 304-1911

SANITARY SEWER DETAILS

SS07

10021.DWG