

Woodland Oaks

Low Pressure Sewer System (LPSS)

Overview & Equipment

The Woodland Oaks Residential Subdivision contains 42 single family lots numbered 1 - 42. The development utilizes a combined gravity and LPSS to provide sanitary sewer service. There are two LPSS forcemains (FM) in the development. FM 1 is located on the west side of the development and shall service lots 9 – 23. FM 2 is located on the east side of the development and shall service lots 35 – 41. The sanitary sewer general layout has been attached for reference. The Woodland Oaks LPSS design is based on E-ONE design software and equipment. Other manufacturers equipment may be substituted in lieu of E-One however the selected equipment should meet or exceed the E-One specifications outlined in this document.

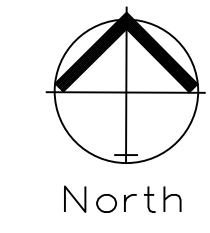
The builder/homeowner shall be responsible for connecting to the capped service line as depicted in the general layout. The service line ball shutoff and integral check valve (lateral assembly) along with a segment of 1.25" service line will be installed by the developer to provide a complete and working system with the capability of users connecting to the system without system shutdowns and interruption to the travelled way. The builder/homeowner shall be responsible for the purchase and installation of the following; minimum 4" gravity line, simplex grinder station, control panel (Interior or Exterior), 1.25" SDR 11 HDPE service line and connection to existing system. Line lengths and grinder station depth are dependent on placement on the lot. The builder/homeowner shall own and be responsible for the lateral assembly and all system components upstream to the residence including but not limited to the service line, grinder station including pump and internal piping and appurtenances, control panel and gravity service line. A detail of the typical service (lateral) installation is attached along with a detail of the standard 1.25" stainless steel (SST) lateral assembly.

Both standard and walkout lots will be served by the LPSS requiring different depth grinder stations depending on the service elevation required. The goal is to maintain a minimum 42" bury depth on the discharge line while providing the minimum storage capacity (70 gallons) required for a single family residence. The standard simplex grinder station for a walkout basement is typically a model DH071-93, see cut sheet attached. The standard simplex grinder station for a standard basement is typically a model DH071-158, see cut sheet attached. The builder/homeowner shall select the basin depth necessary to meet their goals while meeting all applicable plumbing codes. Regardless of basin depth the grinder pump shall have a standard duty point of 11 gpm @ 40 psi and operate over a total dynamic head range of 0 to 175'. The standard pump unit shall be rated 1 horsepower and operate on 120 volt single phase power. See standard pump curve attached.

The lateral assembly consisting of a ball valve and integral swing check shall be E-One P/N: NC0193G01.

The service line shall be 1.25" SDR 11 HDPE installed with 12 gauge tracer wire for locating purposes.

The control panel shall be the standard E-One simplex controller hard wired for interior or exterior placement as preferred by the end user.



GENERAL NOTE:
 1 - ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.
 2 - TRENCH CHECKS SHALL BE INSTALL AT ALL SANITARY WYES LOCATION.



Professional Registration
 Missouri
 Engineering 2005002186-D
 Surveying 2005008319-D
 Kansas
 Engineering E-1685
 Surveying LS-218
 Oklahoma
 Engineering 5254
 Nebraska
 Engineering CA2821

Project: WOODLAND OAKS
 LSHO
 Issue Date: February 25, 2021
 Part of the Southeast 1
 Section 27, Township 48 North, Range 31 West
 Lee's Summit, Jackson County, Missouri

Sanitary Sewer General Layout
 Construction Plans for:
 WOODLAND OAKS
 Lots 1 thru 42
 Lee's Summit, Jackson County, Missouri

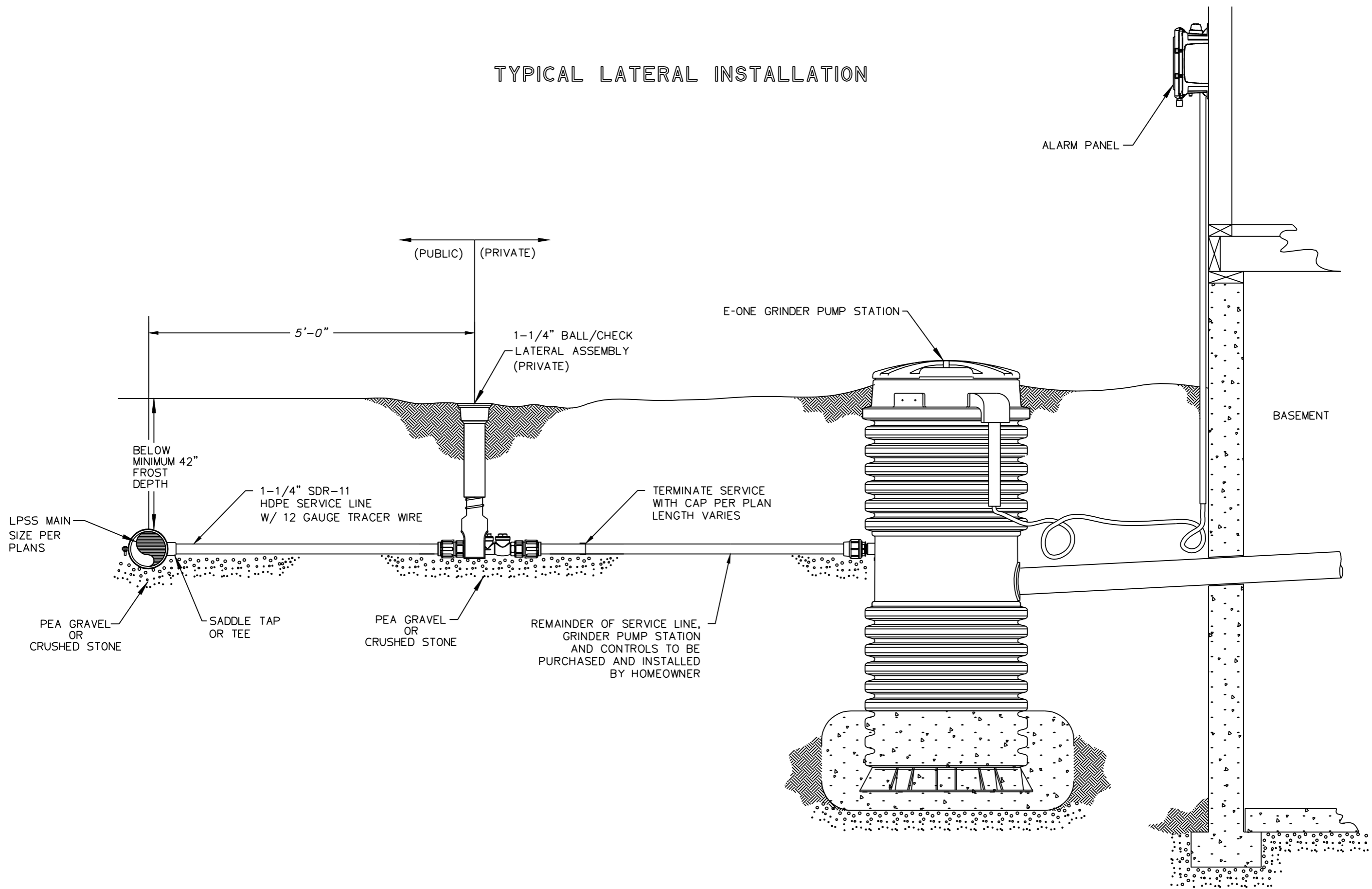


Matthew J. Schlitt
 MO PE 2006019708
 KS PE 19071
 OK PE 25226
 NE PE E-14335

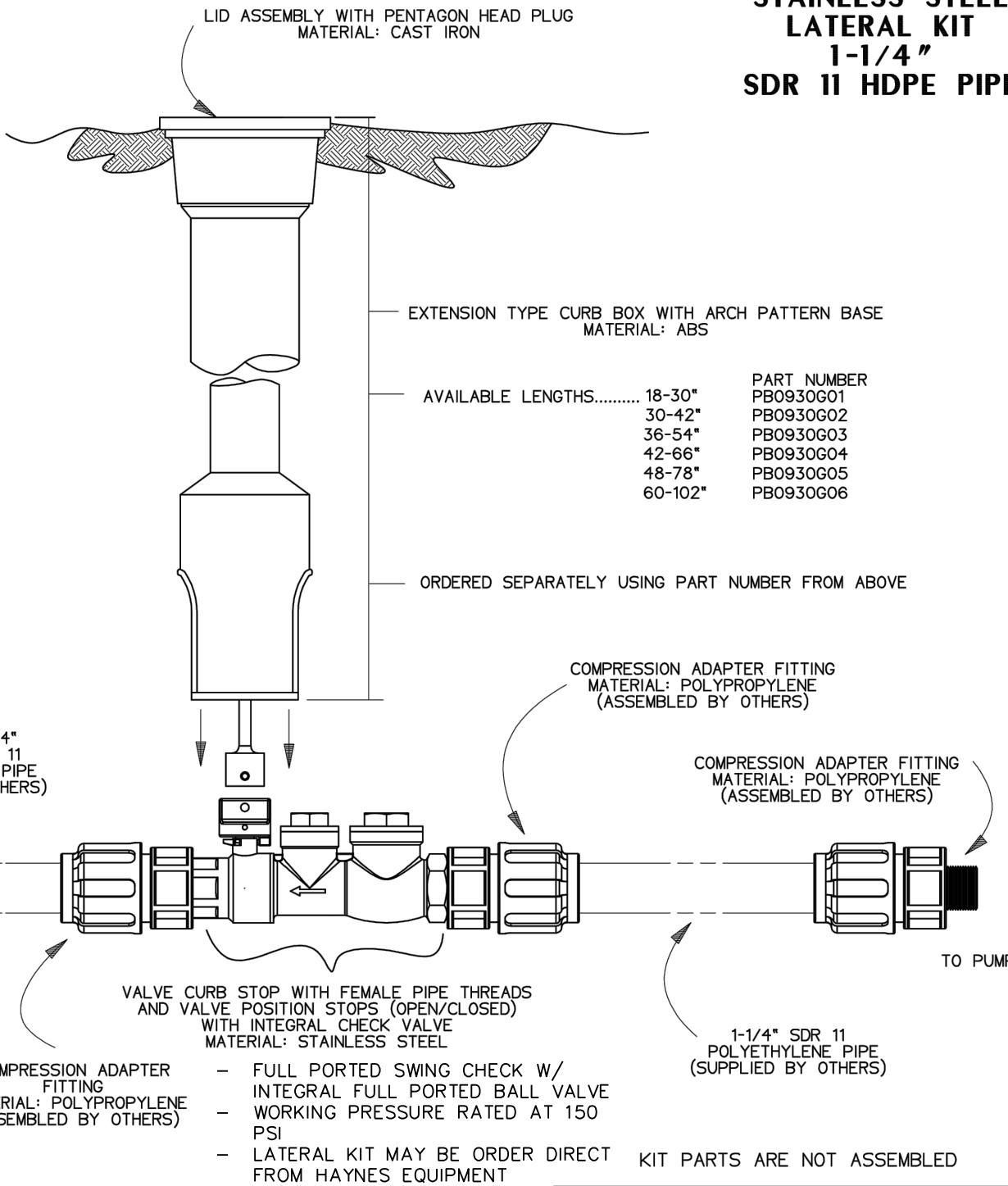
REVISIONS

REV. 4/27/2021	

TYPICAL LATERAL INSTALLATION



**STAINLESS STEEL
LATERAL KIT
1-1/4" SDR 11 HDPE PIPE**



NOTES:

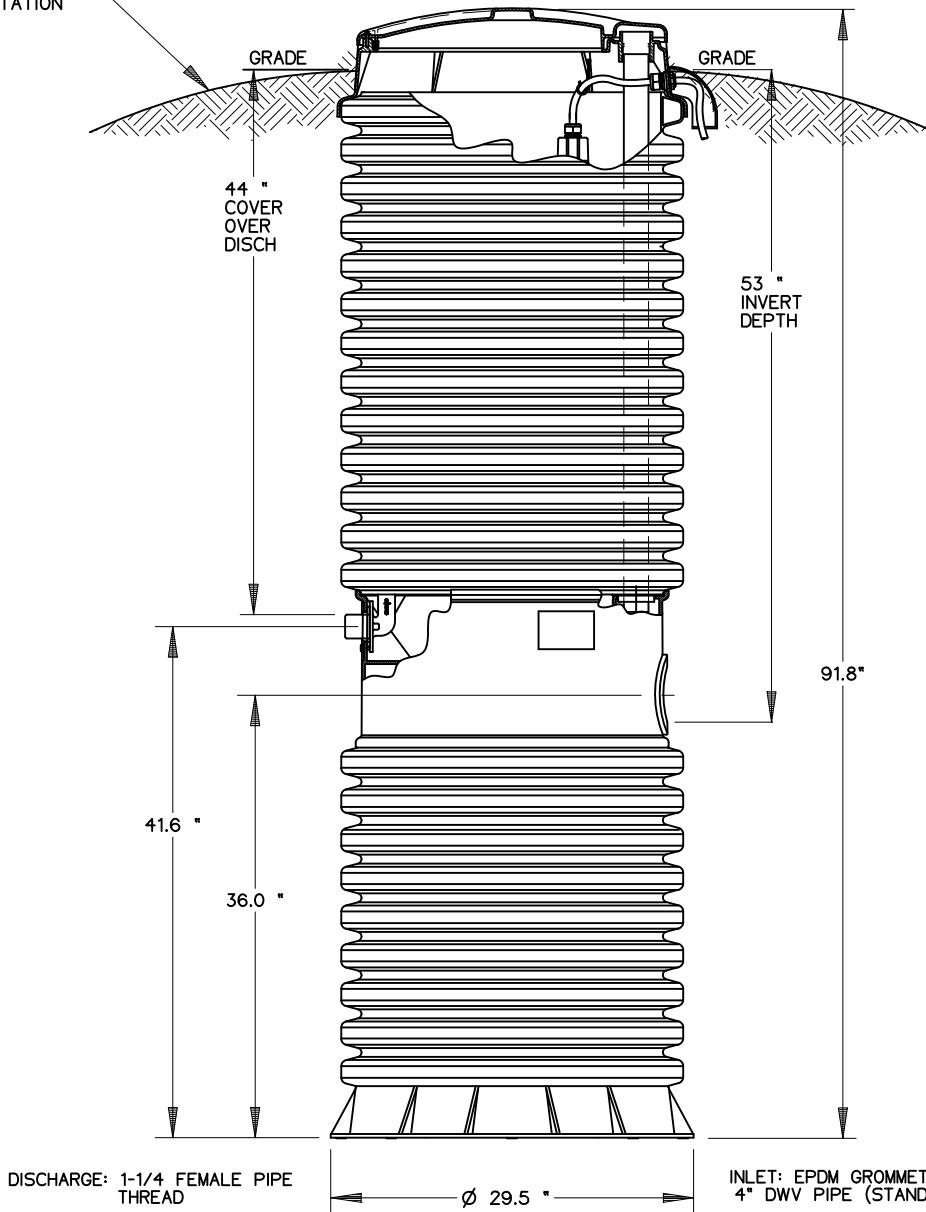
1. SS CURB STOP/CHECK VALVE AND FITTINGS ARE PROVIDED SEPARATELY, TO BE ASSEMBLED BY OTHERS
2. TO ASSEMBLE, APPLY A DOUBLE LAYER OF TEFLON TAPE, AND A LAYER OF PIPE DOPE (SUPPLIED BY OTHERS) TO THE THREADS ON THE PLASTIC FITTINGS AND INSTALL PER THE MANUFACTURER'S INSTRUCTIONS
*FOR SS FITTING INTO SS THREAD, USE PIPE DOPE OR TEFLON TAPE, NOT BOTH
3. ASSEMBLY IS TO BE PRESSURE TESTED (BY OTHERS)
4. ASSEMBLY IS TO BE USED WITH SDR11 HDPE PIPE
5. TO ORDER SS LATERAL KIT, USE PART NUMBER NC0193G01
6. CURB BOX IS TO BE ORDERED SEPARATELY, SEE ABOVE

KIT PARTS ARE NOT ASSEMBLED

SGS	DN	11/02/11	B	3/16
DR BY	CHK'D	DATE	ISSUE	SCALE
				
STAINLESS STEEL LATERAL KIT 1-1/4" SDR 11 HDPE PIPE				
NA0330P02				

OPTIONS : **DH071-93** (HARD WIRED LEVEL CONTROLS)
 DR071-93 (WIRELESS LEVEL CONTROLS)

GRADE MUST SLOPE AWAY FROM STATION



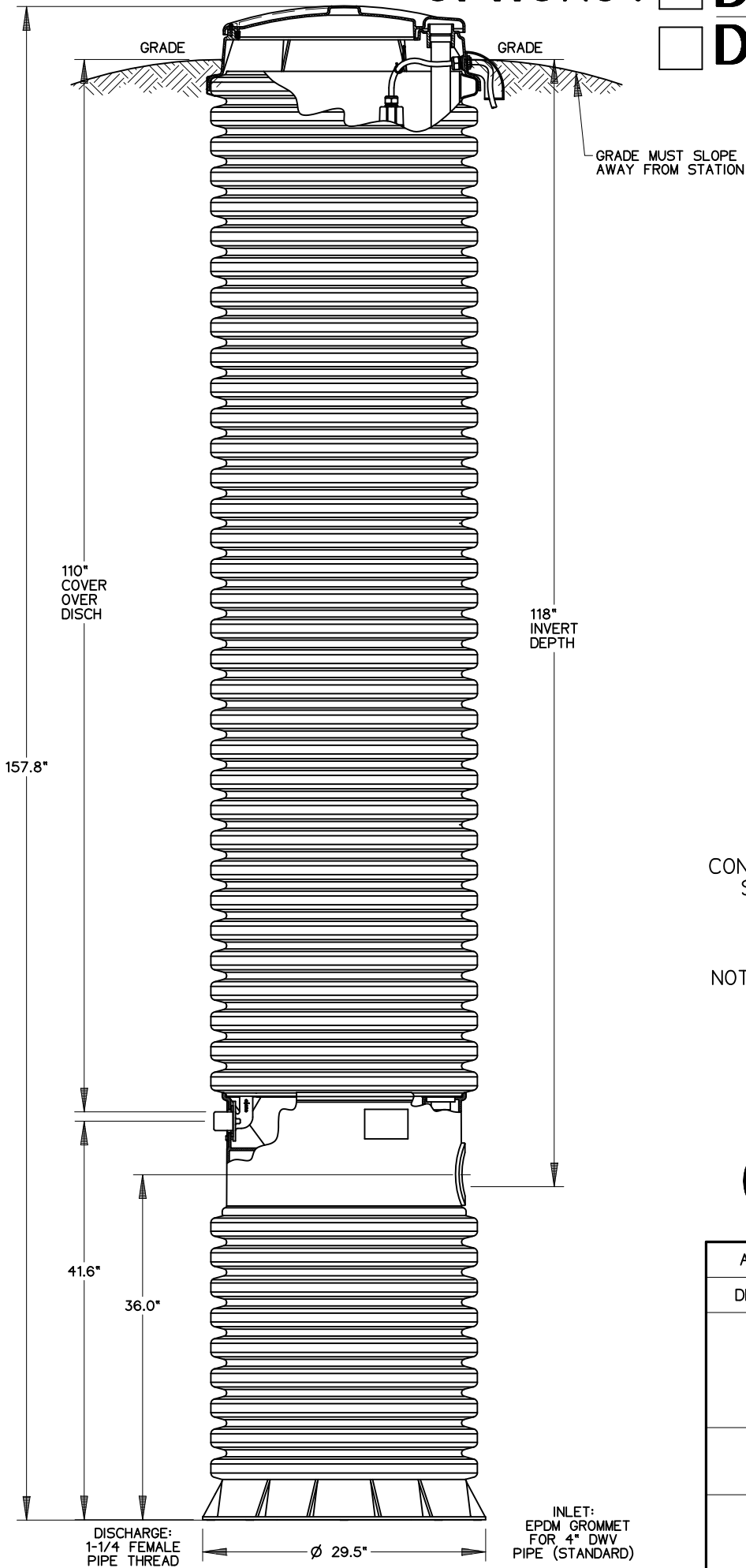
CONCRETE BALLAST MAY BE REQUIRED
 SEE INSTALLATION INSTRUCTIONS
 FOR DETAILS

NOTE: DIMENSIONS ARE FOR REF ONLY



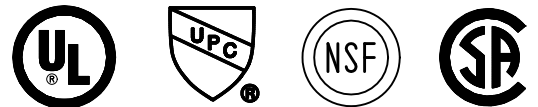
AD	CAH	07/12/07	B	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE
MODEL DH071-93 / DR071-93				
NA0050P06				


OPTIONS : **DH071-158** (HARD WIRED LEVEL CONTROLS)
 DR071-158 (WIRELESS LEVEL CONTROLS)



CONCRETE BALLAST MAY BE REQUIRED
 SEE INSTALLATION INSTRUCTIONS
 FOR DETAILS

NOTE: DIMENSIONS ARE FOR REF ONLY



AD	CAH	07/13/07	C	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE
				
MODEL DH071-158 / DR071-158				
NA0050P09				

DISCHARGE:
 1-1/4 FEMALE
 PIPE THREAD

∅ 29.5"

INLET:
 EPDM GROMMET
 FOR 4" DWV
 PIPE (STANDARD)

E|ONE SPD PUMP PERFORMANCE CURVE

GRINDER PUMP, 1HP, 1725 RPM

