

\\PHILIPS-SERVER\Projects\171125.dwg\Permit Plans\DETAILS - PRIVATE.dwg LogOut:NYLOPLAST Jan 27, 2020 - 2:55pm Kyle Deters

Section 2723  
Engineered Surface Drainage Products

**GENERAL**

PVC surface drainage inlets shall be of the curb inlet structure type as indicated on the contract drawings and referenced within the contract specifications. The **ductile iron frame, grate and hood** for each of these structures are to be considered an integral part of the surface drainage inlet and shall be furnished by the same manufacturer. The curb inlet structure shall be as manufactured by Nyloplast a division of Advanced Drainage Systems, Inc. or prior approved equal.

**MATERIALS**

The curb inlet structure required for this contract shall be manufactured from PVC pipe stock, utilizing a thermo-molding process to reform the pipe stock to the specified configuration. The drainage pipe connection stubs shall be manufactured from PVC pipe stock and formed to provide a watertight connection with the specified pipe system. This joint tightness shall conform to **ASTM D3212 for joints for drain and sewer plastic pipe using flexible elastomeric seals**. The flexible elastomeric seals shall conform to **ASTM F477**. The pipe bell spigot shall be joined to the main body of the structure. The raw material used to manufacture the pipe stock that is used to manufacture the main body and pipe stubs of the surface drainage inlets shall conform to **ASTM D1784 cell class 12454**.

The grate, frame and hood for all curb inlet structures shall be ductile iron and shall be made specifically for each so as to provide a round bottom flange that closely matches the diameter of the PVC structure body. The grate, frame and hood shall be capable of supporting H-20 wheel loading for traffic areas. The hood section will have a solid back and be adjustable by use of three (3) locking hex head bolts. The metal used in the manufacture of the castings shall conform to **ASTM A536 grade 70-50-05 for ductile iron**.

**INSTALLATION**

The specified PVC surface drainage inlet shall be installed using conventional flexible pipe backfill materials and procedures. The backfill material shall be crushed stone or other granular material meeting the requirements of class I, class 2, or class 3 material as defined in **ASTM D2321**. Bedding and backfill for the curb inlet structure shall be placed and compacted uniformly in accordance with **ASTM D2321**. The curb inlet structure body will be cut at the time of the final grade. No brick, stone or concrete block will be required to set the grate to the final grade height. For H-20 load rated installations, a concrete ring will be poured under the frame, grate, and hood. The concrete slab must be designed taking into consideration local soil conditions, traffic loading, and other applicable design factors. For other installation considerations such as migration of fines, ground water, and soft foundations refer to **ASTM D2321** guidelines.

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TITLE: 2 FT X 2 FT X 3 FT CURB INLET STRUCTURE SPECIFICATIONS		DWG NO.: 7003-110-005	REV: H

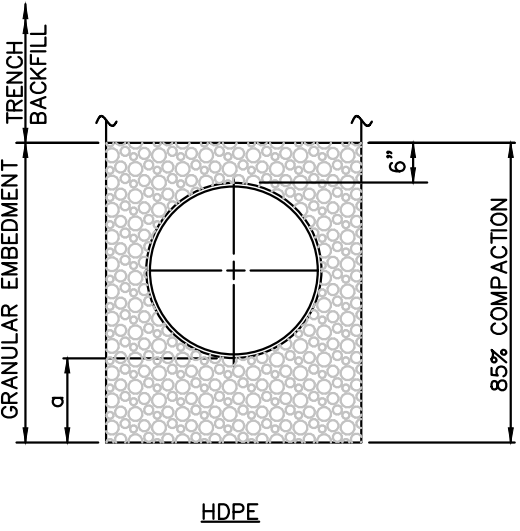
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TITLE: 2 FT X 3 FT INSTALLATION - 4 PIECE ASSEMBLY DETAIL		DWG NO.: 7003-110-026	REV: B

ALL ADS-N12 PIPE INSTALLATIONS SHALL CONFORM TO MANUFACTURER'S INSTALLATIONS REQUIREMENTS, WHICH MAY BE FOUND AT <http://www.ads-pipe.com/en/documentlisting.aspxdocumenttypeID=682>

NYLOPLAST DRAIN BASIN WITH STANDARD GRATE

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TITLE: DRAIN BASIN WITH STANDARD GRATE QUICK SPEC INSTALLATION DETAIL		DWG NO.: 7003-110-104	REV: H



NOTES:  
1. GRANULAR EMBEDMENT SHALL BE KDOT STD. SPEC. SECT. 1100, PB-2 COURSE AGGREGATE FOR CONCRETE, WASHED STONE OR GRAVEL, MEETING THE FOLLOWING CONDITIONS:

SIEVE SIZE	PERCENT RETAINED
1-INCH	0
3/4-INCH	0-20
3/8-INCH	40-70
No. 8	95-100

GRANULAR EMBEDMENT FROM THE TOP OF PIPE DOWN SHALL BE COMPACTED TO 85% MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.

GRANULAR EMBEDMENT ABOVE TOP OF PIPE SHALL BE AN UN-COMPACTED LAYER FOR ALL INSTALLATIONS.

2. TRENCH OUTLINES DO NOT INDICATE ACTUAL TRENCH EXCAVATION SHAPE, SOIL CONDITIONS, OR PRESENCE OF SHEETING LEFT IN PLACE. EMBEDMENT MATERIAL SHALL EXTEND THE FULL WIDTH OF THE ACTUAL TRENCH EXCAVATION.

3. TRENCH WIDTHS SHALL BE LIMITED BELOW AN ELEVATION OF ONE (1) FOOT ABOVE THE TOP OF THE INSTALLED PIPE AS FOLLOWS: NOT LESS THAN FIFTEEN (15) INCHES NOR MORE THAN TWENTY-FOUR (24) INCHES GREATER THAN THE NOMINAL OUTSIDE DIAMETER OF THE PIPE.

LEGEND

D NOMINAL PIPE SIZE

o EMBEDMENT BELOW PIPE

GRANULAR EMBEDMENT

SELECT BACKFILL MATERIAL

TABLE OF EMBEDMENT DEPTH BELOW PIPE		
D	MIN. SOIL	3 MIN. ROCK
LESS THAN 60"	4"	6"
60" OR LARGER	6"	12"

EMBEDMENTS FOR STORM SEWER PIPE  
SCALE: N.T.S.



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PLANNING  
ENGINEERING  
IMPLEMENTATION



STORM SEWER DETAILS  
DOWNTOWN LEE'S SUMMIT APARTMENTS  
114 S.E. DOUGLAS STREET  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

PROJECT NO.	171125	No.	Date	Revisions:	By	App.
DATE: 01-28-20	DRAWN: SNH					
CHECKED: DAF	APPROVED: DEH					
CORPORATE AUTHORIZATION						
LAND SURVEYING - LS-82						
ENGINEERING - E-361						
CERTIFICATE OF AUTHORIZATION						
LAND SURVEYING-200701028						
LAND SURVEYING-20070028						

SHEET

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