

Section 2724

Engineered Surface Drainage Products

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

MATERIALS
The road and highway 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 gasket 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.

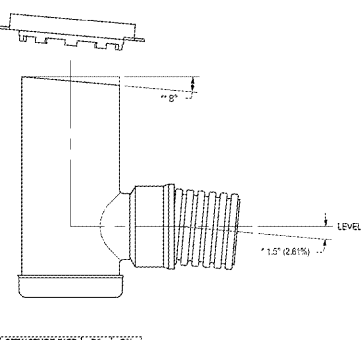
The grate and frame for all road and highway structures shall be ductile iron and shall be made specifically for each so as to provide a round bottom flange that closely matches the diameter of the PVC basin body. The grate and frame shall be capable of supporting H-20 wheel loading for traffic areas. 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 road and highway structure 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 1, class 2, or class 3 material as defined in ASTM D2321. Bedding and backfill for the road and highway structure shall be placed and compacted uniformly in accordance with ASTM D2321. The road and highway 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 and around the grate and frame. 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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DRAWN BY: JUC	MATERIAL: DUCTILE IRON	TITLE
DATE: 03-08-11	PROJECT NO.: 700-110-07	REV. F
DWG NO. A	SCALE: 1/4" = 1'-0"	SHEET: 1 OF 1

ROAD & HIGHWAY

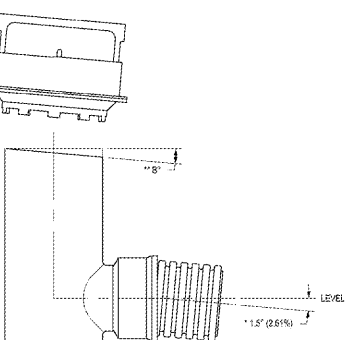
32 __ AGR __ X
32 __ AGR __ X



STRUCTURE SIZE	B"	H"
12"	3.15	5.50
15"	3.15	5.50
18"	3.61	5.25
24"	3.15	5.50
30"	2.85	5.00

CURB INLET

30 __ AGR __ X
30 __ AGR __ X

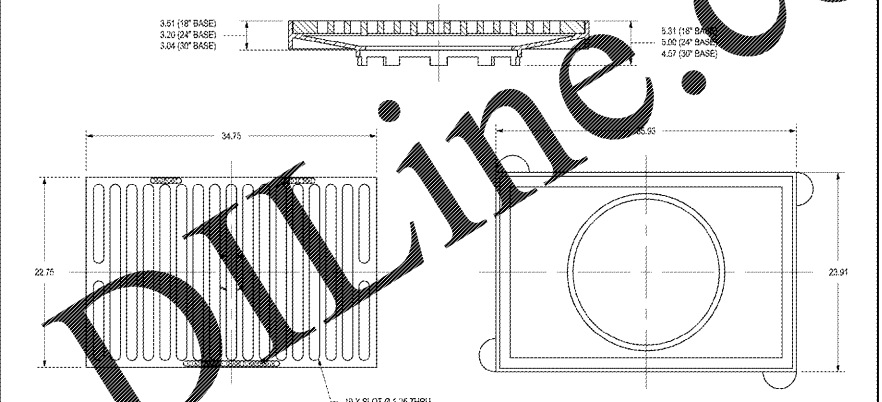


STRUCTURE SIZE	B"	H"
12"	3.15	5.50
15"	3.15	5.50
18"	3.61	5.25
24"	3.15	5.50
30"	2.85	5.00

* MAXIMUM DEFLECTION FOR 4" - 30" ADS IN 12" HORIZ. DUAL WALL CORRUGATED HOPE PIPE IN ANY DIRECTION	THIS PRINT (INCLUDING SUBJECT MATTER IN WHICH IT IS INCORPORATED) IS THE PROPERTY OF NYLOPLAST. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF NYLOPLAST.	DATE: 03-05-08	APPX. 2 FT X 3 FT CURB INLET STRUCTURE
** MAXIMUM FIELD GRADE TRIM ADJUSTMENT	THIS PRINT (INCLUDING SUBJECT MATTER IN WHICH IT IS INCORPORATED) IS THE PROPERTY OF NYLOPLAST. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF NYLOPLAST.	DATE: 05-04-11	TITLE
		DATE: 05-04-11	PROJECT NO.: 700-110-07
		DWG NO. A	SCALE: 1/4" = 1'-0"

3299CGR

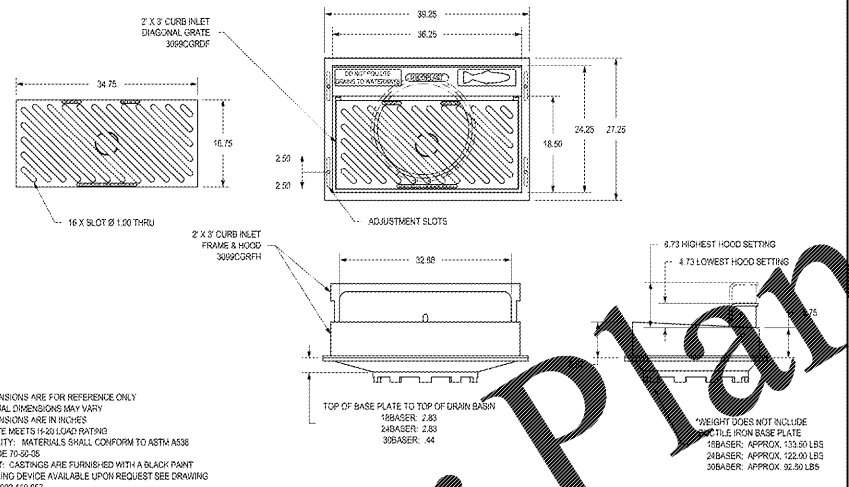
APPROX. DRAIN AREA = 432.28 SQ IN
APPROX. WEIGHT OF GRATE = 94.00 LBS



DIMENSIONS ARE FOR REFERENCE ONLY. ACTUAL DIMENSIONS MAY VARY. GRADE MEETS H-20 LOAD RATING. GRADE MEETS H-20 LOAD RATING. QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05. GRADE MEETS H-20 LOAD RATING. GRADE MEETS H-20 LOAD RATING.	THIS PRINT (INCLUDING SUBJECT MATTER IN WHICH IT IS INCORPORATED) IS THE PROPERTY OF NYLOPLAST. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF NYLOPLAST.	DATE: 05-06-06	APPX. 2 FT X 3 FT ROAD & HIGHWAY 2 PICE GRATE ASSEMBLY
DRAWN BY: ERC	MATERIAL: DUCTILE IRON	DATE: 05-06-06	TITLE
DATE: 05-06-06	PROJECT NO.: 700-110-07	DATE: 05-06-06	PROJECT NO.:
DWG NO. A	SCALE: 1/4" = 1'-0"	DWG NO. A	SCALE: 1/4" = 1'-0"

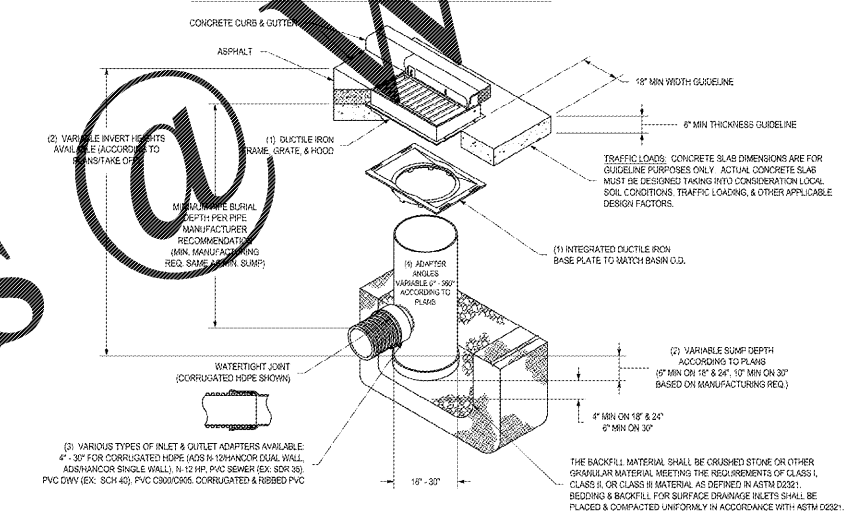
3099CGRDF & 3099CGRFH

APPROX. DRAIN AREA = 232.87 SQ IN
APPROX. WEIGHT WITH FRAME & HOOD = 344.30 LBS



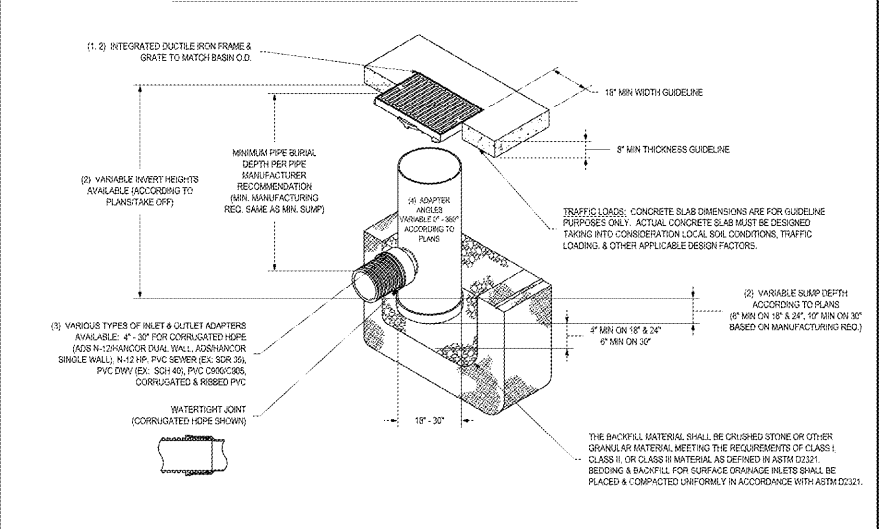
DIMENSIONS ARE FOR REFERENCE ONLY. ACTUAL DIMENSIONS MAY VARY. GRADE MEETS H-20 LOAD RATING. QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05. PAINT: CASTINGS ARE FINISHED WITH A BLACK PAINT. LOCKING DEVICE AVAILABLE UPON REQUEST SEE DRAWING NO. 700-110-057.	THIS PRINT (INCLUDING SUBJECT MATTER IN WHICH IT IS INCORPORATED) IS THE PROPERTY OF NYLOPLAST. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF NYLOPLAST.	DATE: 04-10-04	APPX. 2 FT X 3 FT CURB INLET HOOD
DRAWN BY: JUC	MATERIAL: DUCTILE IRON	DATE: 04-10-04	TITLE
DATE: 04-10-04	PROJECT NO.: 700-110-07	DATE: 04-10-04	PROJECT NO.:
DWG NO. A	SCALE: 1/4" = 1'-0"	DWG NO. A	SCALE: 1/4" = 1'-0"

NYLOPLAST 2 FT X 3 FT CURB INLET STRUCTURE: 30 __ AGR __ X



1 - 18" - 30" FRAMES, HOODS & BASE PLATES SHALL BE DUCTILE IRON HIGH STRENGTH GRADE 70-50-05.	THIS PRINT (INCLUDING SUBJECT MATTER IN WHICH IT IS INCORPORATED) IS THE PROPERTY OF NYLOPLAST. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF NYLOPLAST.	DATE: 03-23-10	APPX. 2 FT X 3 FT CURB INLET QUICK SPEC INSTALLATION DETAIL
2 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS.	THIS PRINT (INCLUDING SUBJECT MATTER IN WHICH IT IS INCORPORATED) IS THE PROPERTY OF NYLOPLAST. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF NYLOPLAST.	DATE: 05-18-14	TITLE
3 - GRATE CONNECTION SHALL BE TO THE DESIGNER'S REQUIREMENTS TO ASTM D2321 FOR CORRUGATED HOPE ADS IN 12" HORIZ. DUAL WALL.	THIS PRINT (INCLUDING SUBJECT MATTER IN WHICH IT IS INCORPORATED) IS THE PROPERTY OF NYLOPLAST. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF NYLOPLAST.	DATE: 05-18-14	PROJECT NO.: 700-110-07
4 - 1/2" H.P. PVC SEWER IN 12"		DWG NO. A	SCALE: 1/4" = 1'-0"

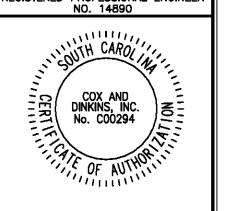
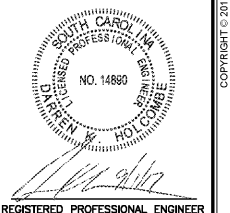
NYLOPLAST 2 FT X 3 FT ROAD & HIGHWAY STRUCTURE: 32 __ AGR __ X



1 - 18" - 30" FRAMES & GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.	THIS PRINT (INCLUDING SUBJECT MATTER IN WHICH IT IS INCORPORATED) IS THE PROPERTY OF NYLOPLAST. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF NYLOPLAST.	DATE: 05-20-10	APPX. 2 FT X 3 FT ROAD & HIGHWAY GRATE QUICK SPEC INSTALLATION DETAIL
2 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS.	THIS PRINT (INCLUDING SUBJECT MATTER IN WHICH IT IS INCORPORATED) IS THE PROPERTY OF NYLOPLAST. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF NYLOPLAST.	DATE: 03-16-11	TITLE
3 - GRATE CONNECTION SHALL CONFORM TO ASTM D2321 FOR CORRUGATED HOPE ADS IN 12" HORIZ. DUAL WALL.	THIS PRINT (INCLUDING SUBJECT MATTER IN WHICH IT IS INCORPORATED) IS THE PROPERTY OF NYLOPLAST. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF NYLOPLAST.	DATE: 03-16-11	PROJECT NO.: 700-110-07
4 - ADAPTERS CAN BE MOUNTED ON AN ANGLE OF 90° TO 300°, TO DEPENDS ON ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 700-110-057.		DWG NO. A	SCALE: 1/4" = 1'-0"



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CERTIFICATE OF AUTHORIZATION SEAL

NO.	DATE	DESCRIPTION
1	3/22/2017	Revised to add additional sheets
2	4/19/2017	Revised Per Public & Utility company comments
3	7/7/2017	Revised Water and Sanitary Sewer
4	8/9/2017	Revised building footprint
5	9/1/2017	Bid Set

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(F) 407.219.3541
tmurray@WINDCREST.COM

BID SET
Publix
South Lake Drive & Platt Springs Road
LOCATED NEAR RED BANK
LEXINGTON COUNTY, SOUTH CAROLINA
DETAILS

THIS PROJECT NO. 007600-02-005, 006, 013, 084, 095, 116	SHEET NO. 245-19A
PROJECT NO. 1920	SHEET NO. C31
DATE 3/15/2017	32 of 48

Order Plans

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