

**ATTACHMENT 5
Nyloplast Basin Shop Drawings**

PROJECT INFORMATION	
ALLIED PRODUCT MANAGER:	
ADS SALES REP:	
PROJECT NO:	0



F.W. KENT PARK CAMPGROUND

OXFORD, IA

Engineered Surface Drainage Products

GENERAL

PVC surface drainage inlets shall include the drain basin type as indicated on the contract drawing and referenced within the contract specifications. The ductile iron grates for each of these fittings are to be considered an integral part of the surface drainage inlet and shall be furnished by the same manufacturer. The surface drainage inlets shall be as manufactured by Nyloplast a division of Advanced Drainage Systems, Inc., or prior approved equal.

MATERIALS

The drain basins required for this contract shall be manufactured from PVC pipe stock, utilizing a thermoforming 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 drain basin or catch basin. 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 grates and frames furnished for all surface drainage inlets shall be ductile iron for sizes 8", 10", 12", 15", 18", 24" and 30" and shall be made specifically for each basin so as to provide a round bottom flange that closely matches the diameter of the surface drainage inlet. Grates for drain basins shall be capable of supporting various wheel loads as specified by Nyloplast. 12" and 15" square grates will be hinged to the frame using pins. Ductile iron used in the manufacture of the castings shall conform to ASTM A536 grade 70-50-05. Grates and covers shall be provided painted black.

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 1, class 2, or class 3 material as defined in ASTM D2321. Bedding and backfill for surface drainage inlets shall be well placed and compacted uniformly in accordance with ASTM D2321. The drain basin 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 load rated installations, a concrete slab shall 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.



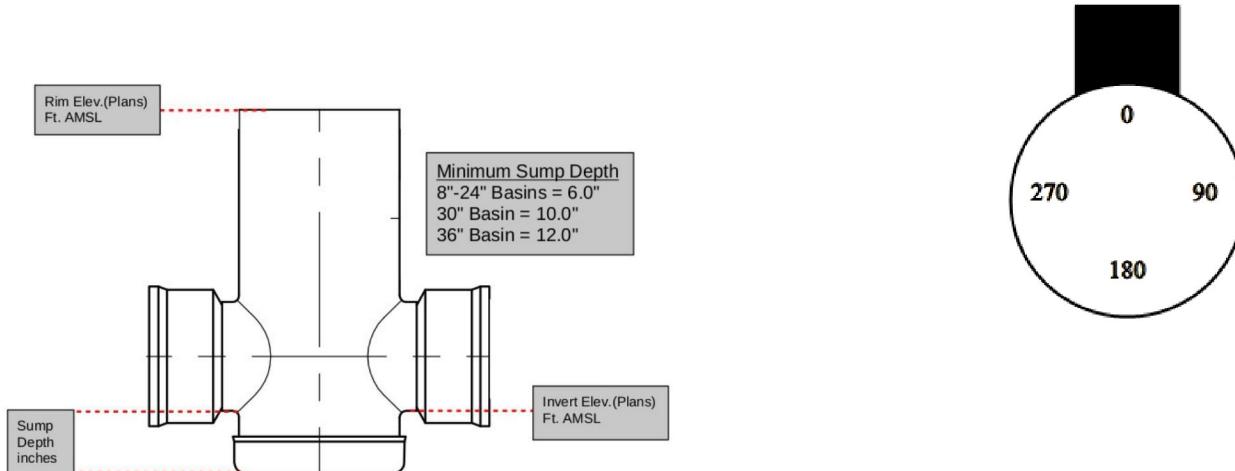
DRAIN BASIN SHOP DRAWING

PO#	
Part Number	2818AG5
Customer approval	

Project Name	F.W. Kent Park Campground	18	Structure No.	B1	Qty.	1
Prepared By	branden.maurstad@adspipe.com ADS (651) 968-6238 branden.maurstad@adspipe.com	Grate	18; Domed			
		Accessories				

Rim Elev. 839.04 ft. Basin Height 3.04 ft. Sump Depth 6 in.

	Stub size	Angle	Pipe Type	Invert Elev.	Production Depth
Stub #1	8 in.	0	ADS N-12	836.5 ft.	30.48 in.
Stub #2					
Stub #3					
Stub #4					
Stub #5					
Stub #6					



CUSTOMER NOTES

PART CODES

PRODUCTION NOTES

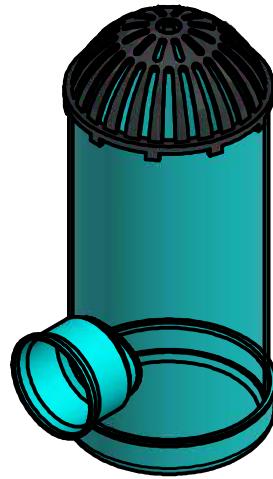
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ISOMETRIC VIEW



PLAN VIEW

STUB 1



PLAN VIEW - NO CASTING



DRAIN BASIN SHOP DRAWING

PO#		
Part Number	2818AG3	
Customer approval		

Project Name F.W. Kent Park Campground

18

Structure No.
B2

Qty. 1

Prepared By branden.maurstad@adspipe.com
ADS
(651) 968-6238
branden.maurstad@adspipe.com

Grate 18; Domed

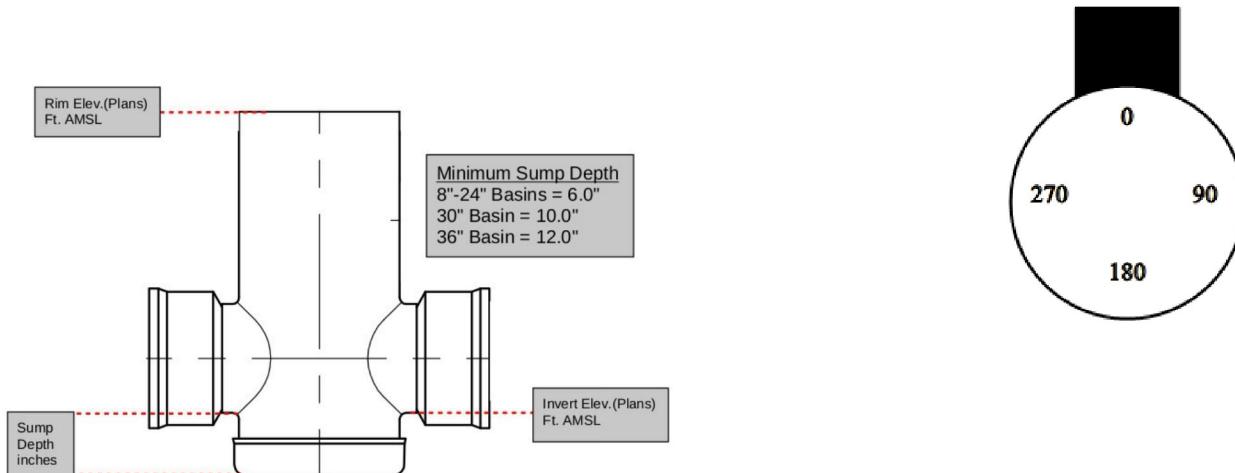
Accessories

Rim Elev. 838.95 ft.

Basin Height 2.87 ft.

Sump Depth 6 in.

	Stub size	Angle	Pipe Type	Invert Elev.	Production Depth
Stub #1	8 in.	0	ADS N-12	836.58 ft.	28.44 in.
Stub #2					
Stub #3					
Stub #4					
Stub #5					
Stub #6					



CUSTOMER NOTES

PART CODES

PRODUCTION NOTES

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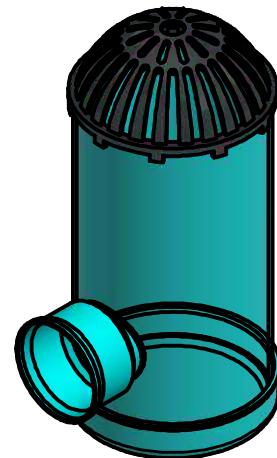
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STUB 1



PLAN VIEW

STUB 1



ISOMETRIC VIEW

PLAN VIEW - NO CASTING

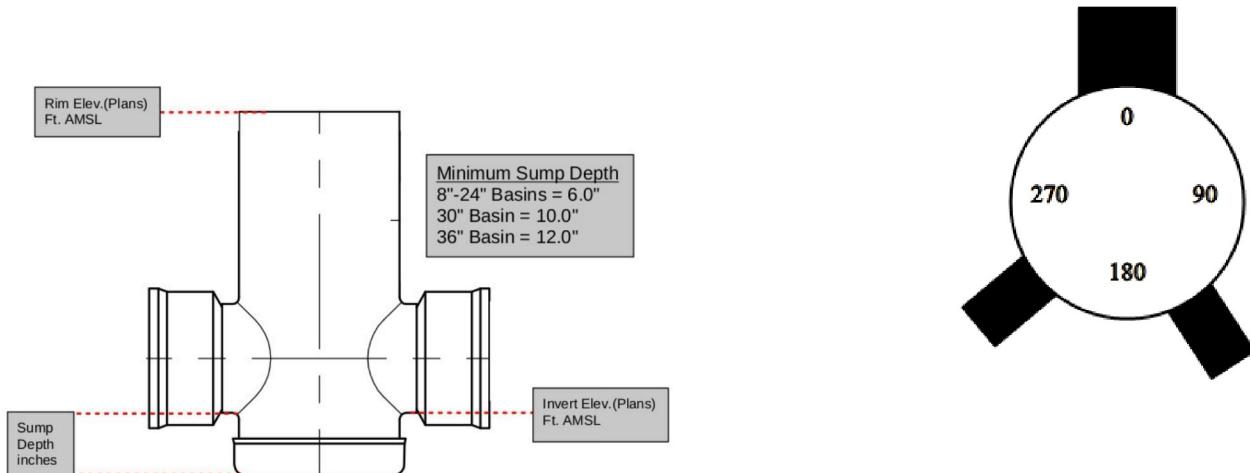
DRAIN BASIN SHOP DRAWING

PO#		
Part Number	2836AG5	
Customer approval		

Project Name	F.W. Kent Park Campground	36	Structure No.	B3	Qty. 1
Prepared By	branden.maurstad@adspipe.com ADS (651) 968-6238 branden.maurstad@adspipe.com	Grate	30; Domed		
		Accessories	36X30 GRATE REDUCING RING		

Rim Elev.	839.15 ft.	Basin Height	4.05 ft.	Sump Depth	12 in.
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	Stub size	Angle	Pipe Type	Invert Elev.	Production Depth
Stub #1	15 in.	0	ADS N-12	836.1 ft.	36.6 in.
Stub #2	8 in.	147	ADS N-12	836.21 ft.	35.28 in.
Stub #3	8 in.	230	ADS N-12	836.2 ft.	35.4 in.
Stub #4					
Stub #5					
Stub #6					



CUSTOMER NOTES

PART CODES

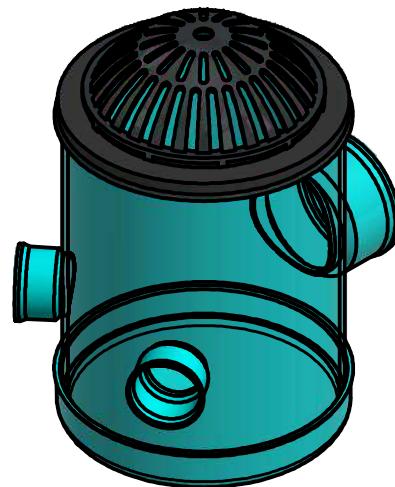
PRODUCTION NOTES

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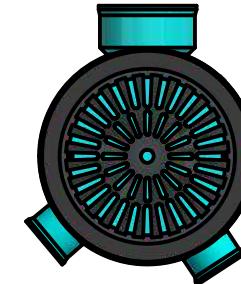
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ISOMETRIC VIEW

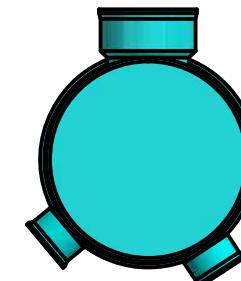
STUB 3



STUB 2

PLAN VIEW

STUB 3



STUB 2

PLAN VIEW - NO CASTING



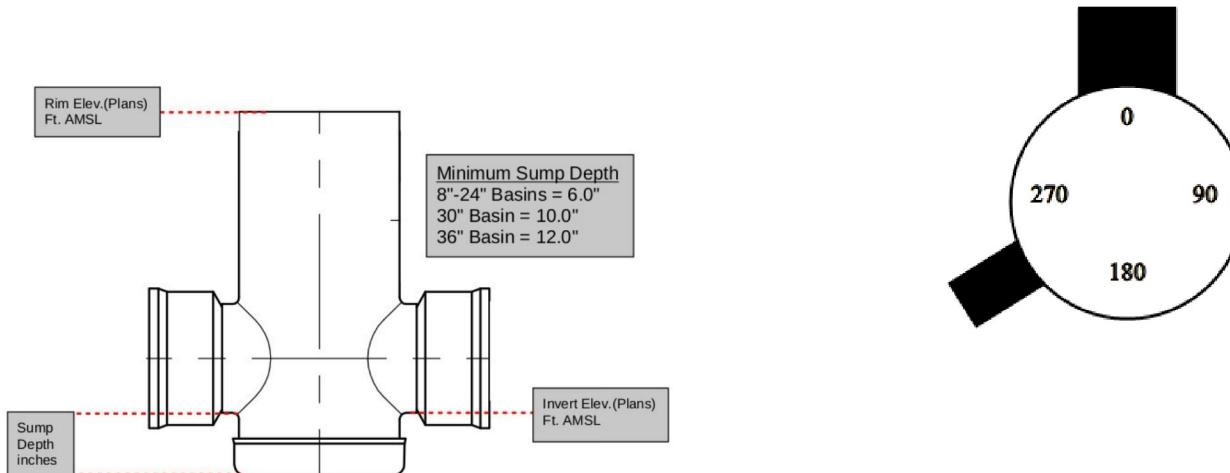
DRAIN BASIN SHOP DRAWING

PO#		
Part Number	2836AG5	
Customer approval		

Project Name	F.W. Kent Park Campground	36	Structure No.	A2	Qty. 1
Prepared By	branden.maurstad@adspipe.com ADS (651) 968-6238 branden.maurstad@adspipe.com	Grate	30; Domed		
		Accessories	36X30 GRATE REDUCING RING		

Rim Elev. 838.25 ft. Basin Height 4.16 ft. Sump Depth 12 in.

	Stub size	Angle	Pipe Type	Invert Elev. AMSL	Production Depth
Stub #1	15 in.	0	ADS N-12	835.09 ft.	37.92 in.
Stub #2	8 in.	238	ADS N-12	835.09 ft.	37.92 in.
Stub #3					
Stub #4					
Stub #5					
Stub #6					



CUSTOMER NOTES

PART CODES

PRODUCTION NOTES

	3099CGD; 30BASE36;	

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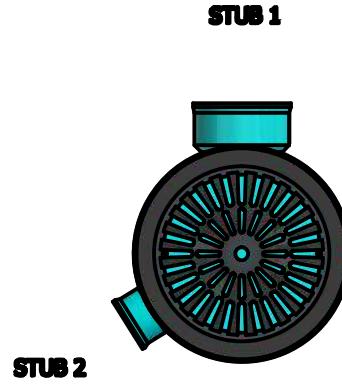
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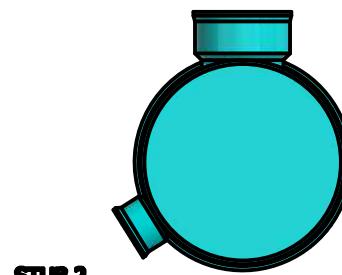
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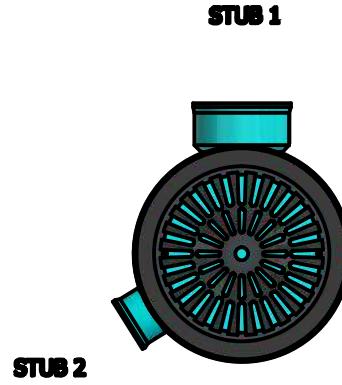


PLAN VIEW

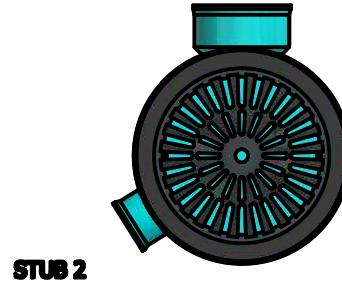


STUB 2

PLAN VIEW - NO CASTING



STUB 1



STUB 1



DRAIN BASIN SHOP DRAWING

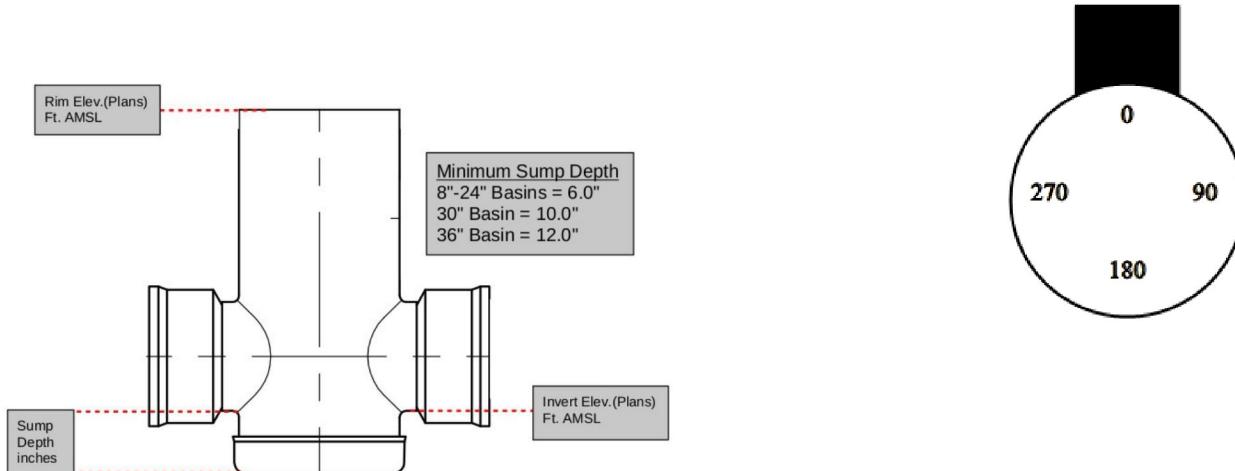
PO#		
Part Number	2818AG3	
Customer approval		

Project Name F.W. Kent Park Campground 18 Structure No. A1 Qty. 1

Prepared By branden.maurstad@adspipe.com Grate 18; Domed
ADS (651) 968-6238
branden.maurstad@adspipe.com Accessories

Rim Elev. 839.25 ft. Basin Height 2.92 ft. Sump Depth 6 in.

	Stub size	Angle	Pipe Type	Invert Elev.	Production Depth
Stub #1	8 in.	0	ADS N-12	836.83 ft.	29.04 in.
Stub #2					
Stub #3					
Stub #4					
Stub #5					
Stub #6					



CUSTOMER NOTES

PART CODES

PRODUCTION NOTES

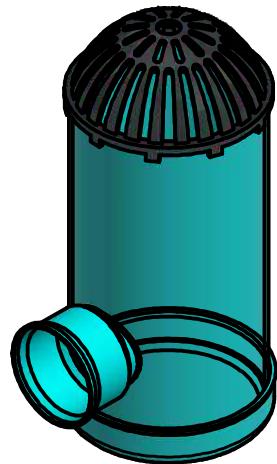
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ISOMETRIC VIEW



PLAN VIEW

STUB 1



PLAN VIEW - NO CASTING



DRAIN BASIN SHOP DRAWING

PO#		
Part Number	2824AG7	
Customer approval		

Project Name F.W. Kent Park Campground

24 Structure No. B3 (1) Qty. 1

Prepared By branden.maurstad@adspipe.com
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branden.maurstad@adspipe.com

Grate 24; Domed

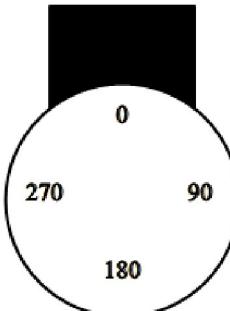
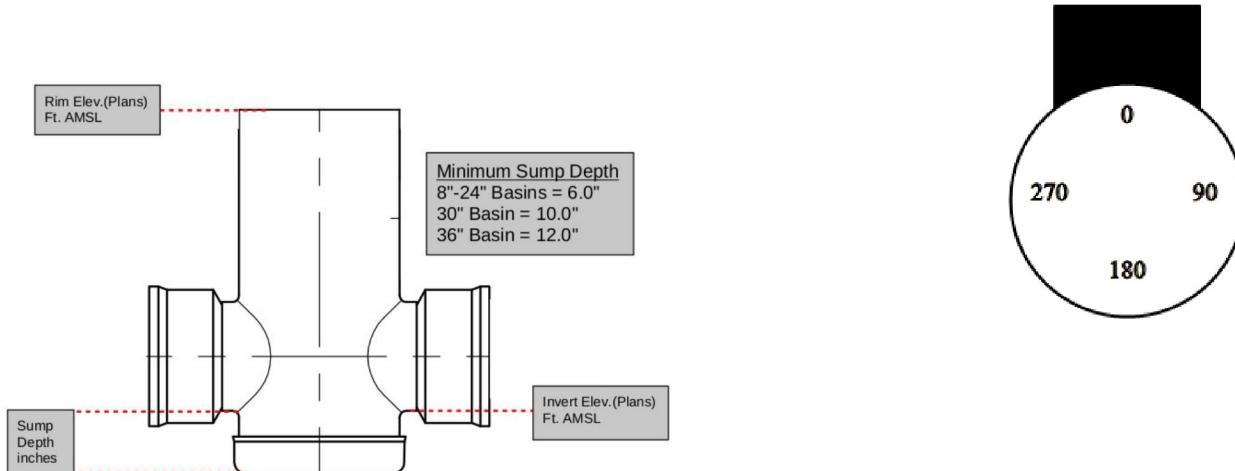
Accessories

Rim Elev. 832.71 ft.

Basin Height 5.21 ft.

Sump Depth 6 in.

	Stub size	Angle	Pipe Type	Invert Elev.	Production Depth
Stub #1	15 in.	0	ADS N-12	828 ft.	56.52 in.
Stub #2					
Stub #3					
Stub #4					
Stub #5					
Stub #6					



CUSTOMER NOTES

PART CODES

PRODUCTION NOTES

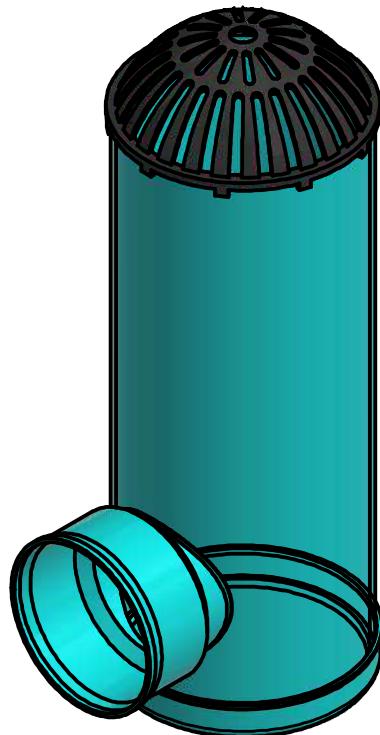
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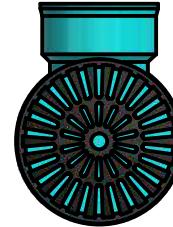
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ISOMETRIC VIEW

STUB 1



PLAN VIEW

STUB 1

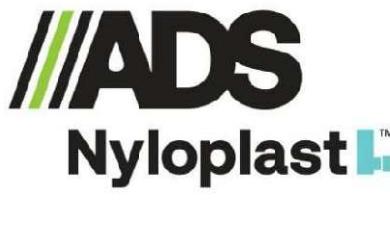
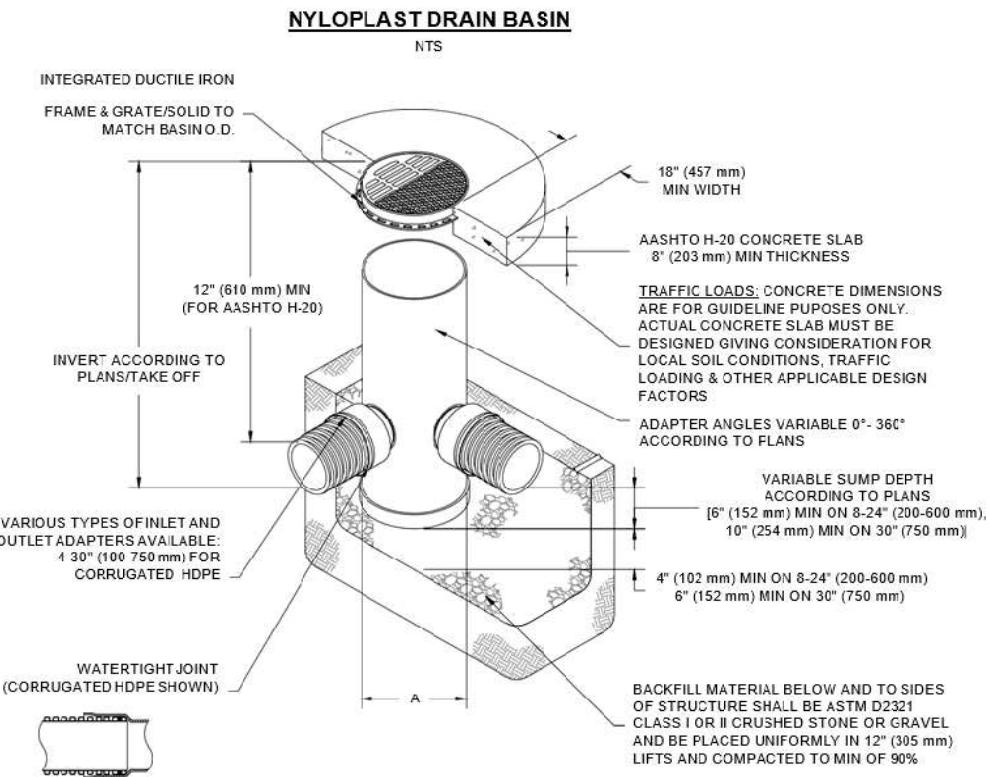


PLAN VIEW - NO CASTING

NOTES

1. 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
2. 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DJAL WALL) & SDR 35 PVC
5. FOR COMPLETE DESIGN AND PRODUCT INFORMATION: WWW.ADSPipe.COM/NYLOPLAST

A	PART #	GRATE/SOLID COVER OPTIONS		
8" (200 mm)	2808AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
10" (250 mm)	2810AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
12" (300 mm)	2812AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
15" (375 mm)	2815AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
18" (450 mm)	2818AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
24" (600 mm)	2824AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
30" (750 mm)	2830AG	PEDESTRIAN AASHTO H-20	STANDARD AASHTO H-20	SOLID AASHTO H-20



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PROJECT NAME:
F.W. KENT PARK CAMPGROUND

PROJECT LOCATION:
OXFORD, IA

STRUCTURE NO./NAME:
0

DATE:
4/12/24

#3 SHEET OF #4

Step-by-Step Process



STEP 1: Excavate Drain Basin location to depth. Provide a stone base. (Width of excavation can be the same width as pipe trench)



STEP 2: Set Drain Basin in place and level.



STEP 3: Install provided F-477 gasket for HDPE/PP corrugated pipe into last corrugation of the pipe. Lube the gasketed pipe and the inside of the drain basin bell.



NOTE: For H-20 or heavier load rated installations, set elevation of frame and grate. Then pour a concrete collar around and knife flowable fill under edges to support the frame.



STEP 4: Backfill the back side of structures and push the pipe home to the seat position. Re-check Drain Basin depth, level and position.



STEP 5: Backfill uniformly around structures with class I, II, or III material and compact in lifts according to ASTM D2321.



STEP 6: The drain basin body can be cut at the time of the final grade or raised with riser. No brick, stone or concrete block will be required to set the grate to the final grade height.

