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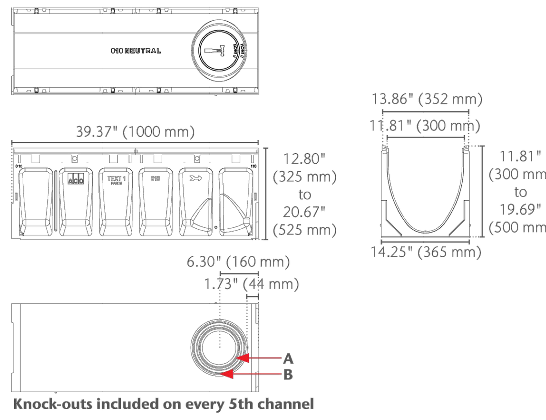
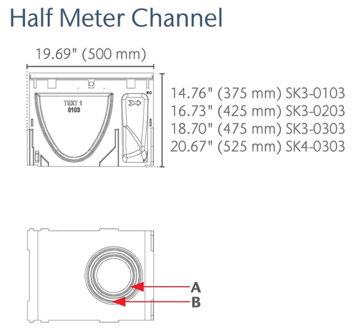
ACO Specifications
January 2026

S300K Iron Edged Channels Spec Sheet

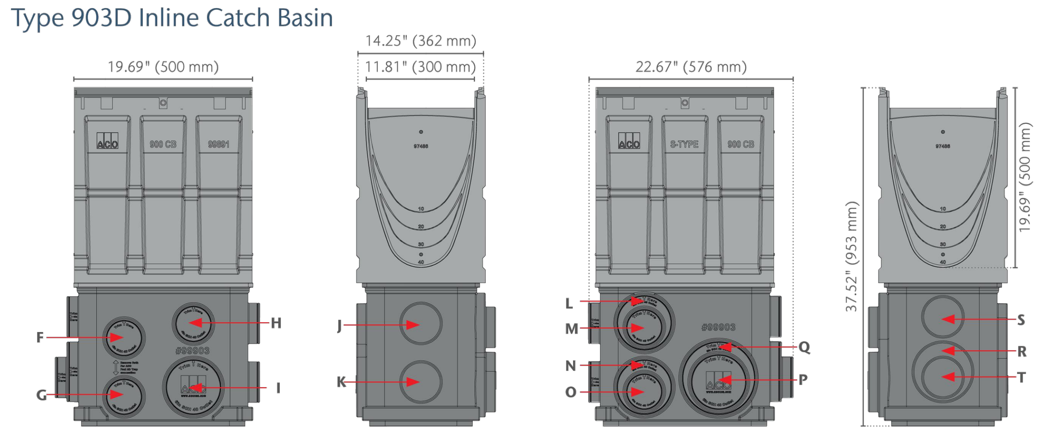
One Meter Channel



Half Meter Channel

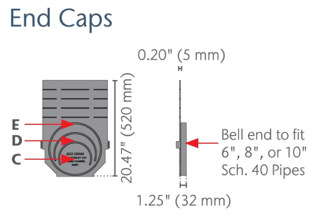


Type 903D Inline Catch Basin



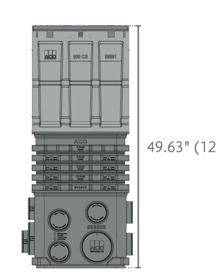
Total Capacity = 15.59 gallons

End Caps



Type 904D Inline Catch Basin

1. Riser can be cut down in 1" (25 mm) increments.
2. Maximum capacity including riser 27.82 gallons.
3. Add 12" (300 mm) to all heights if using riser.
4. Outlet flow rates will be higher due to increased depth - contact ACO Sales Office for more details.



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S300K Iron Edged Channels Spec Sheet

Description	Part No.	Invert in² (mm²)	Weight lbs.
SK3-00 Constant depth channel - 39.37" (1m)[1]	**69041**	**11.81 (300)**	**140**
SK3-1 Sloped channel - 39.37" (1m)	**69001**	12.01 (305)	140
SK3-2 Sloped channel - 39.37" (1m)	**69002**	12.2 (310)	141.3
SK3-3 Sloped channel - 39.37" (1m)	**69003**	12.4 (315)	142.8
SK3-4 Sloped channel - 39.37" (1m)	**69004**	12.6 (320)	144.1
SK3-5 Sloped channel - 39.37" (1m)[1]	**69005**	12.8 (325)	145.4
SK3-6 Sloped channel - 39.37" (1m)	**69006**	12.99 (330)	146.9
SK3-7 Sloped channel - 39.37" (1m)	**69007**	13.19 (335)	148.2
SK3-8 Sloped channel - 39.37" (1m)	**69008**	13.39 (340)	149.5
SK3-9 Sloped channel - 39.37" (1m)	**69009**	13.58 (345)	150.9
SK3-10 Sloped channel - 39.37" (1m)[1]	**69010**	13.78 (350)	152.3
SK3-010 Constant depth channel - 39.37" (1m)[1]	**69042**	**13.78 (350)**	**152.3**
SK3-0103 Constant depth channel - 19.69" (0.5m)[1]	**69045**	**13.78 (350)**	**84.2**
SK3-11 Sloped channel - 39.37" (1m)	**69011**	13.98 (355)	153.6
SK3-12 Sloped channel - 39.37" (1m)	**69012**	14.17 (360)	155
SK3-13 Sloped channel - 39.37" (1m)	**69013**	14.37 (365)	156.4
SK3-14 Sloped channel - 39.37" (1m)	**69014**	14.57 (370)	157.7
SK3-15 Sloped channel - 39.37" (1m)[1]	**69015**	14.76 (375)	149.1
SK3-16 Sloped channel - 39.37" (1m)	**69016**	14.96 (380)	160.5
SK3-17 Sloped channel - 39.37" (1m)	**69017**	15.16 (385)	161.9
SK3-18 Sloped channel - 39.37" (1m)	**69018**	15.35 (390)	163.2
SK3-19 Sloped channel - 39.37" (1m)	**69019**	15.55 (395)	164.6
SK3-20 Sloped channel - 39.37" (1m)[1]	**69020**	15.75 (400)	166
SK3-020 Constant depth channel - 39.37" (1m)[1]	**69044**	**15.75 (400)**	**166**
SK3-0203 Constant depth channel - 19.69" (0.5m)[1]	**69047**	**15.75 (400)**	**92**
SK3-21 Sloped channel - 39.37" (1m)	**69021**	15.94 (405)	167.3
SK3-22 Sloped channel - 39.37" (1m)	**69022**	16.14 (410)	168.7
SK3-23 Sloped channel - 39.37" (1m)	**69023**	16.34 (415)	170.1
SK3-24 Sloped channel - 39.37" (1m)	**69024**	16.54 (420)	171.4
SK3-25 Sloped channel - 39.37" (1m)[1]	**69025**	16.73 (425)	172.7
SK3-26 Sloped channel - 39.37" (1m)	**69026**	16.93 (430)	174.2
SK3-27 Sloped channel - 39.37" (1m)	**69027**	17.13 (435)	175.5
SK3-28 Sloped channel - 39.37" (1m)	**69028**	17.32 (440)	176.8
SK3-29 Sloped channel - 39.37" (1m)	**69029**	17.52 (445)	178.3
SK3-30 Sloped channel - 39.37" (1m)[1]	**69030**	17.72 (450)	179.6
SK3-030 Constant depth channel - 39.37" (1m)[1]	**69046**	**17.72 (450)**	**179.6**
SK3-0303 Constant depth channel - 19.69" (0.5m)[1]	**69049**	**17.72 (450)**	**100**
SK3-31 Sloped channel - 39.37" (1m)	**69031**	17.91 (455)	180.9
SK3-32 Sloped channel - 39.37" (1m)	**69032**	18.11 (460)	182.4
SK3-33 Sloped channel - 39.37" (1m)	**69033**	18.31 (465)	183.7
SK3-34 Sloped channel - 39.37" (1m)	**69034**	18.50 (470)	185
SK3-35 Sloped channel - 39.37" (1m)[1]	**69035**	18.70 (475)	186.5
SK3-36 Sloped channel - 39.37" (1m)	**69036**	18.90 (480)	187.7
SK3-37 Sloped channel - 39.37" (1m)	**69037**	19.09 (485)	189.1
SK3-38 Sloped channel - 39.37" (1m)	**69038**	19.29 (490)	190.5
SK3-39 Sloped channel - 39.37" (1m)	**69039**	19.49 (495)	191.9
SK3-40 Sloped channel - 39.37" (1m)[1]	**69040**	19.69 (500)	193.2
SK3-040 Constant depth channel - 39.37" (1m)[1]	**69048**	**19.69 (500)**	**193.2**
SK3-0403 Constant depth channel - 19.69" (0.5m)[1]	**69050**	**19.69 (500)**	**109**
SK3-903D In-line catch basin - 19.69" (0.5m)[3]	**69053**	37.40 (950)	99.4
SK3-904D In-line catch basin - 19.69" (0.5m)[4]	**69054**	49.53 (1258)	104.4

Description	Part No.	Invert in² (mm²)	Weight lbs.
Series 600 Optional plastic riser	**99902**	-	10
Foul air trap - fits both 910 & 610 basins	**90854**	-	1.2
SK3 channel Universal end cap	**96827**	19.69 (500)	2.5
SK3 channel Installation device	**97479**	-	4.9
Grate removal tool	**01318**	-	0.3
SK3 ductile iron slotted grate[6]	**02445**	-	50
SK3 ductile iron longitudinal ADA grate[6]	**96833**	-	64
SK3 ductile iron 4-bolt	**99592**	-	50.2

1. This channel offers bottom knockout feature: 6" & 8" round.
2. Inverts shown are male end; for female invert depth subtract 5mm (≈0.2") from male invert (except neutral channels where it will be same as male invert). To calculate overall channel depth, add 20 mm (0.79") to invert depth
3. Catch basin assembly includes grate, polymer concrete top, trash bucket and plastic base.
4. Catch basin assembly includes grate, polymer concrete top, deep trash bucket, plastic riser and plastic base
5. See 12" width ductile iron grate specification info for grate details.

Outlet Flow Rates

Outlet	Product	Outlet size (Sch. 40)	Invert Depth in (mm)	GPM	CFS
A	Bottom outlet - SK3-00	6" round	11.81 (300)	421	0.94
A	Bottom outlet - SK3-040	6" round	19.69 (500)	544	1.21
B	Bottom outlet -SK3-00	8" round	11.81 (300)	748	1.67
B	Bottom outlet - SK3-040	8" round	19.69 (500)	966	2.15
C	End outlet - SK3-00	6" round	11.81 (300)	364	0.81
C	End outlet - SK3-40	6" round	19.69 (500)	500	1.11
D	End outlet - SK3-10	8" round	13.78 (350)	681	1.52
D	End outlet - SK3-40	8" round	19.69 (500)	863	1.92
E	End outlet - SK3-20	10" round	15.75 (400)	1116	2.49
E	End outlet - SK3-40	10" round	19.69 (500)	1304	2.91
F	Type SK3-903D	4" round	29.80 (757)	287	0.64
G	Type SK3-903D	4" round	36.29 (922)	319	0.71
H	Type SK3-903D	4" round	28.22 (717)	279	0.62
I	Type SK3-903D	6" round	36.29 (922)	707	1.57
J	Type SK3-903D	4" round	28.37 (721)	280	0.62
K	Type SK3-903D	4" round	34.87 (886)	312	0.7
L	Type SK3-903D	6" round	29.15 (740)	626	1.4
M	Type SK3-903D	4" round	28.59 (726)	281	0.63
N	Type SK3-903D	6" round	36.28 (922)	707	1.57
O	Type SK3-903D	4" round	35.72 (907)	316	0.7
P	Type SK3-903D	6" round	35.72 (907)	701	1.56
Q	Type SK3-903D	8" round	36.28 (922)	1237	2.76
R	Type SK3-903D	6" round	34.78 (883)	690	1.54
S	Type SK3-903D	4" round	27.65 (702)	276	0.61
T	Type SK3-903D	4" round	34.36 (873)	310	0.69

These are the pipe flow rates at the specified outlet, NOT channel flow rates. Catch basin flow rates are without trash bucket - using trash bucket reduces flow.

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Specification Summary

General

The surface drainage system shall be ACO Drain PowerDrain S300K as manufactured by ACO, Inc. or equal approved. (Add appropriate grate - see grate spec information).

Installation

The trench drain system shall be installed in accordance with the manufacturer's installation instructions and recommendations.

Materials

The trench system bodies shall be manufactured from polymer concrete with minimum properties as follows:

- Compressive strength: 14,000 psi
- Flexural strength: 4,000 psi
- Water absorption 0.07%
- Frost-proof
- Salt-proof
- Dilute acid and alkali-resistant

The nominal clear opening shall be 12" (300 mm) with overall width of 10.24" (260 mm). Pre-cast units shall be manufactured with either an invert slope of 0.5% or with neutral invert and have a wall thickness of at least 0.67" (16 mm). Each unit will feature a partial radius in the trench bottom and a male to female interconnecting end profile. Units shall have horizontal cast in anchoring keys on the outside wall to ensure maximum mechanical bond to the surrounding bedding material and pavement surface. The ductile iron edge rail will be integrally cast in by the manufacturer to ensure maximum homogeneity between polymer concrete body and edge rail. Each edge rail shall be at least 1/4" (6 mm) thick.

EN1433 Load Class F
202,328 lbs – 4,177 psi

ACO, Inc.

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CLASSES OF EMBEDMENT AND BACKFILL MATERIALS

ASTM D2321 (1) (CSA B182.11) CLASS	CLASS DESCRIPTION	ASTM D2487 NOTATION	ASTM D2487 DESCRIPTION	AASHTO M43 NOTATION	AASHTO M145 NOTATION	BNQ 2560	1 1/2 IN. (40mm)	3/8" (9.5mm)	No. 4 (4.75mm)	NO. 200 (0.075mm)	LL	PI	Cu	Cc
							ASTM D2321 (1) (CSA B182.11) PERCENTAGE PASSING SIEVE SIZES				ATTERBERG LIMITS		COEFFICIENTS	
I (2)	CRUSHED ROCK, ANGULAR 3	N/A	ANGULAR CRUSHED STONE OR ROCK, CRUSHED GRAVEL, CRUSHED SLAG; LARGE VOIDS WITH LITTLE OR NO FINES	5, 56, 57 (4) 6, 67 (4)	N/A		100%	<25%	<15%	<12%	NON PLASTIC		N/A	
II	CLEAN, COARSE-GRAINED SOILS	GW	WELL-GRADED GRAVEL, GRAVEL-SAND MIXTURES; LITTLE OR NO FINES	5, 6	A1, A3	CG-14, MG-20	100%		<50% of "COARSE FRACTION"	<5%	NON PLASTIC		>4	1 to 3
		GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES; LITTLE OR NO FINES	56, 57, 67									4	<1 or >3
		SW	WELL-GRADED SANDS, GRAVELLY SANDS; LITTLE OR NO FINES						>50% of "COARSE FRACTION"				>6	1 to 3
		SP 6	POORLY-GRADED SANDS, GRAVELLY SAND; LITTLE OR NO FINES										<6	<1 or >3
	COARSE-GRAINED SOILS, BODERLINE CLEAN TO W/FINES	GW-GC, SP-SM	SANDS AND GRAVELS WHICH ARE BORDERLINE BETWEEN CLEAN AND WITH FINES	N/A			100%		VARIES	5% TO 12%	NON PLASTIC		SAME AS FOR GW, GP, SW AND SP	
III	COURSE-GRAINED SOILS WITH FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES	GRAVEL & SAND WITH <10% FINES	A-2-4, A-2-5, A-2-6, OR A-4 OR A-6 SOILS WITH MORE THAN 30% RETAINED ON #200 SIEVE		100%		<50% of "COARSE FRACTION"	12% TO 50%	N/A	<4 OR <"A" LINE	N/A	
		GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES									<7 & >"A" LINE		
		SM	SILTY SANDS, SAND-CLAY MIXTURES						>50% of "COARSE FRACTION"			>4 OR <"A" LINE		
		SC	CLAYEY SANDS, SAND-CLAY MIXTURES									>7 & >"A" LINE		
	INORGANIC FINE-GRAINED SOILS	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SILTS WITH SLIGHT PLASTICITY						100%	>30% (RETAINED)	<50	<4 OR <"A" LINE		
		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY; GRAVELLY, SANDY, OR SILTY CLAYS; LEAN CLAYS							>30% (RETAINED)		>7 & >"A" LINE		
IV (5)	INORGANICS FINE-GRAINED SOILS	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SILTS WITH SLIGHT PLASTICITY	N/A	A-2-7 OR A-4 OR A-6 SOILS WITH 30% OR LESS RETAINED ON #200 SIEVE		100%		100%	<30% (Retained)	<50	<4 or <"A" LINE	N/A	
		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY; GRAVELLY, SANDY, OR SILTY CLAYS; LEAN CLAYS	N/A								>7 & >"A" LINE		
V (7)	INORGANIC FINE-GRAINED SOILS	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS	N/A	A5, A7		100%		100%	>50%	>50	<"A" LINE	N/A	
		CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	N/A								>"A" LINE		
	ORGANIC SOILS OR HIGHLY ORGANIC SOILS	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	N/A			100%		100%	>50%	<50	<4 OR <"A" LINE	N/A	
		OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	N/A							>50	<"A" LINE		
		PT	PEAT AND OTHER HIGH ORGANIC SOILS	N/A										

NOTES:
1. REFER TO ASTM D2321 / CSA B182.11 / BNQ 2560 FOR MORE COMPLETE SOIL DESCRIPTIONS.
2. CLASS I MATERIALS ALLOW FOR A BROADER RANGE OF FINES THAN PREVIOUS VERSIONS OF D2321 / B182.11. WHEN SPECIFYING CLASS I MATERIAL FOR INFILTRATION SYSTEMS, THE ENGINEERING SHALL INCLUDE A REQUIREMENT FOR AN ACCEPTABLE LEVEL OF FINES.
3. ALL PARTICLE FACES SHALL BE FRACTURED.
4. ASSUMES LESS THAN 25% PASSES THE 3/8" SIEVE.
5. CLASS IV MATERIALS REQUIRE A GEOTECHNICAL EVALUATION PRIOR TO USE AND SHOULD ONLY BE USED AS BACKFILL UNDER THE GUIDANCE OF A QUALIFIED ENGINEER.
6. UNIFORM FINE SANDS (SP) WITH MORE THAN 50% PASSING A 100 SIEVE BEHAVE LIKE SILTS AND SHOULD BE TREATED AS CLASS III SOILS IF ALLOWED.
7. CLASS V MATERIALS SHALL NOT BE PERMITTED AS BEDDING AND BACKFILL MATERIAL.

2	REV. DRAWING NAME OR NUMBER	TJR	01/28/16		NOTE: ALL DIMENSIONS ARE ± 1/2 FOOT.
REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D	

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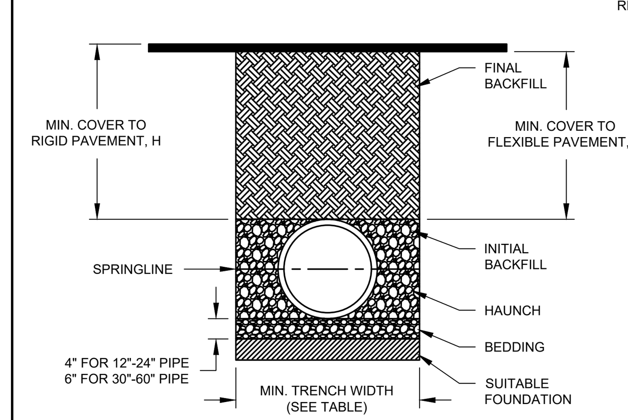
DIA. DET/RET SYSTEM
CLASSES OF EMBEDMENT AND AND BACKFILL MATERIALS
DRAWING NUMBER: STD-109
ADVANCED DRAINAGE SYSTEMS, INC. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026
DRAWN BY: TJR | DATE: 06/01/15 | CHK'D BY: | SCALE: NTS | SHEET: 1 OF 1



RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4" (100mm)	21" (533mm)
6" (150mm)	23" (584mm)
8" (200mm)	26" (660mm)
10" (250mm)	28" (711mm)
12" (300mm)	30" (762mm)
15" (375mm)	34" (864mm)
18" (450mm)	39" (991mm)
24" (600mm)	48" (1219mm)
30" (750mm)	56" (1422mm)
36" (900mm)	64" (1626mm)
42" (1050mm)	72" (1829mm)
48" (1200mm)	80" (2032mm)
60" (1500mm)	96" (2438mm)

MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS**

PIPE DIAM.	SURFACE LIVE LOADING CONDITION H-25	HEAVY CONSTRUCTION (75T AXLE LAOD) *
12" - 48" (300mm - 1200mm)	12" (305mm)	48" (1219mm)
60" (1500mm)	24" (610mm)	60" (1524mm)

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER
**SEE BACKFILL REQUIREMENTS IN NOTE 6.

MAXIMUM RECOMMENDED COVER BASED ON VECHICLE LOADING CONDITIONS

PIPE DIAM.	CLASS I COMPACTED	CLASS I DUMPED	CLASS II 95%	CLASS II 90%	CLASS III 95%
4" (100mm)	37 (11.3m)	18 (5.5m)	25 (7.6m)	18 (5.5m)	18 (5.5m)
6" (150mm)	44 (13.4m)	20 (6.1m)	29 (8.8m)	20 (6.1m)	21 (6.4m)
8" (200mm)	32 (9.8m)	15 (4.6m)	22 (6.7m)	15 (4.6m)	16 (4.9m)
10" (250mm)	38 (11.6m)	18 (5.5m)	26 (7.9m)	18 (5.5m)	18 (5.5m)
12" (300mm)	35 (10.7m)	17 (5.2m)	24 (7.3m)	17 (5.2m)	17 (5.2m)
15" (375mm)	38 (11.6m)	17 (5.2m)	25 (7.6m)	17 (5.2m)	18 (5.5m)
18" (450mm)	36 (11.0m)	17 (5.2m)	24 (7.3m)	17 (5.2m)	17 (5.2m)
24" (600mm)	28 (8.5m)	13 (4.0m)	20 (6.1m)	13 (4.0m)	14 (4.3m)
30" (750mm)	28 (8.5m)	13 (4.0m)	20 (6.1m)	13 (4.0m)	14 (4.3m)
36" (900mm)	26 (7.9m)	12 (3.7m)	18 (5.5m)	13 (4.0m)	13 (4.0m)
42" (1050mm)	23 (7.0m)	11 (3.4m)	16 (4.9m)	11 (3.4m)	11 (3.4m)
48" (1200mm)	25 (7.6m)	11 (3.4m)	17 (5.2m)	11 (3.4m)	12 (3.7m)
60" (1500mm)	25 (7.6m)	11 (3.4m)	17 (5.2m)	11 (3.4m)	12 (3.7m)

FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12, LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS:
NO HYDROSTATIC PRESSURE,
UNIT WEIGHT OF SOIL (Ys) = 120 PCF

NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION

2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm).

5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING TO THE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. FOR TRAFFIC APPLICATIONS WITH LESS THAN FOUR FEET OF COVER, EMBEDMENT OF THE PIPE SHALL BE USING ONLY A CLASS I OR CLASS II BACKFILL.

6	INITIAL BACKFILL	JAB	04/02/20		NOTE: ALL DIMENSIONS ARE ± 1/2 FOOT.
REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D	

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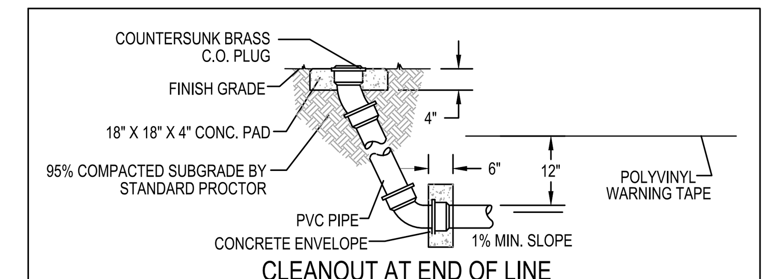
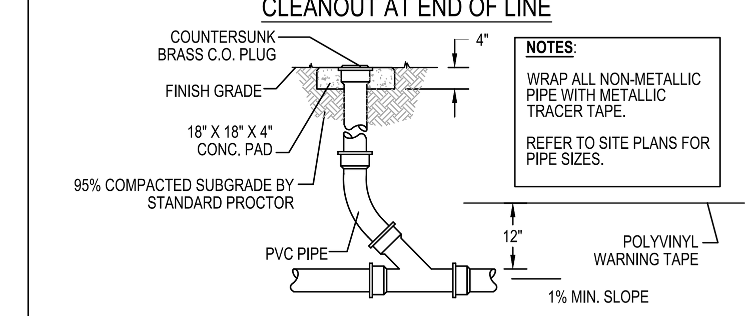
ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

DIA. DET/RET SYSTEM
TRENCH INSTALLATION DETAIL (N-12 PER AASHTO)
DRAWING NUMBER: STD-101
ADVANCED DRAINAGE SYSTEMS, INC. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026
DRAWN BY: TJR | DATE: 12/29/16 | CHK'D BY: | SCALE: NTS | SHEET: 1 OF 1

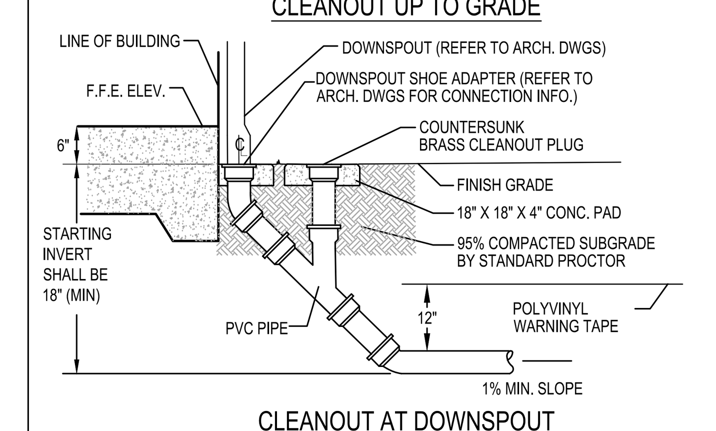


CLEANOUT AT END OF LINE



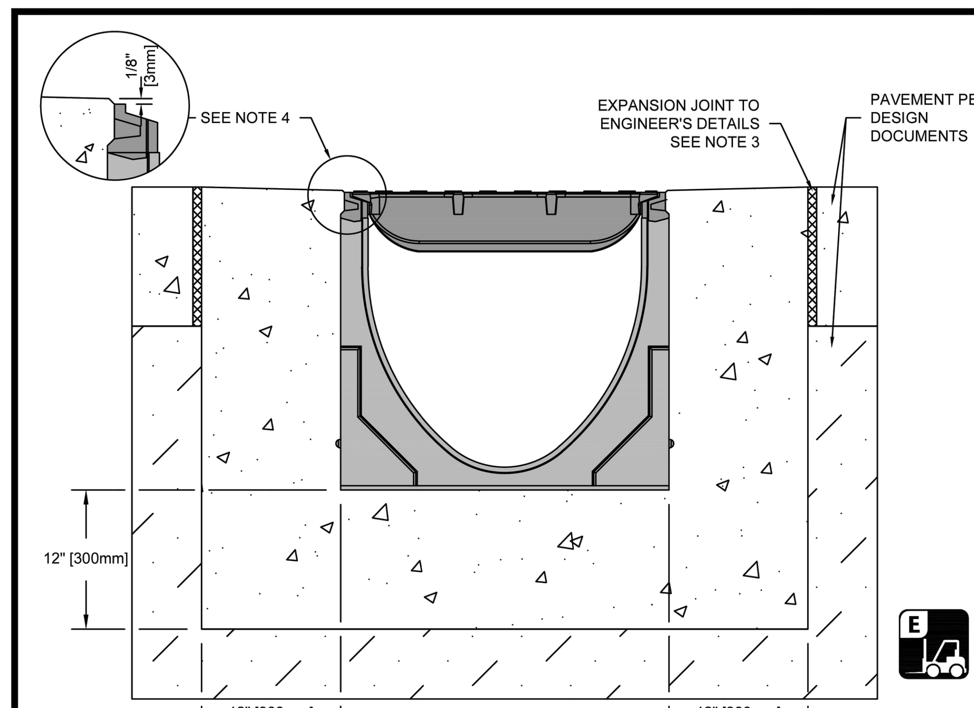
NOTES:
WRAP ALL NON-METALLIC PIPE WITH METALLIC TRACER TAPE.
REFER TO SITE PLANS FOR PIPE SIZES.

CLEANOUT UP TO GRADE



CLEANOUT AT DOWNSPOUT

DOWNSPOUT/RAINLEADER CLEANOUT
N.T.S.



NOTES:
1. ENSURE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR EXISTING GROUND CONDITIONS. *ENGINEERING ADVICE MAY BE REQUIRED.*
2. MINIMUM CONCRETE STRENGTH OF 4,000 PSI IS RECOMMENDED. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
3. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL AND CONCRETE SURROUND. *ENGINEERING ADVICE MAY BE REQUIRED.*
4. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" [3mm] ABOVE THE TOP OF THE CHANNEL EDGE.
5. CONCRETE BASE THICKNESS SHOULD MATCH SLAB THICKNESS. ENGINEERING ADVICE MAY BE REQUIRED TO DETERMINE PROPER LOAD CLASS.
6. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

SPECIFICATION CLAUSE

S300K POWERDRAIN - LOAD CLASS E

GENERAL
THE SURFACE DRAINAGE SYSTEM SHALL BE POLYMER CONCRETE S300K CHANNEL SYSTEM WITH DUCTILE IRON EDGE RAILS AS MANUFACTURED BY ACO, INC.

MATERIALS
CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN DUCTILE IRON EDGE RAIL. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:

COMPRESSIVE STRENGTH:	13,000 PSI
FLEXURAL STRENGTH:	3,200 PSI
TENSILE STRENGTH:	1,500 PSI
WATER ABSORPTION:	0.07%
FROST PROOF	YES
DILUTE ACID AND ALKALI RESISTANT	YES
B117 SALT SPRAY TEST COMPLIANT	YES

THE SYSTEM SHALL BE 12" (300mm) NOMINAL INTERNAL WIDTH WITH A 14.2" (390mm) OVERALL WIDTH AND A BUILT-IN SLOPE OF 0.5%. CHANNEL INVERT SHALL HAVE DEVELOPED "V" SHAPE. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO, INC.

CHANNEL SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE TYPE SHALL BE APPROPRIATE TO MEET THE SYSTEM LOAD CLASS SPECIFIED AND INTENDED APPLICATION. GRATES SHALL BE SECURED USING EITHER THE 'POWERLOK' BOLTLESS LOCKING SYSTEM OR THE 4 BOLT LOCKING OPTION. CHANNEL AND GRATE SHALL BE CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

SK3-E-ECP
DATE: 12/18/25

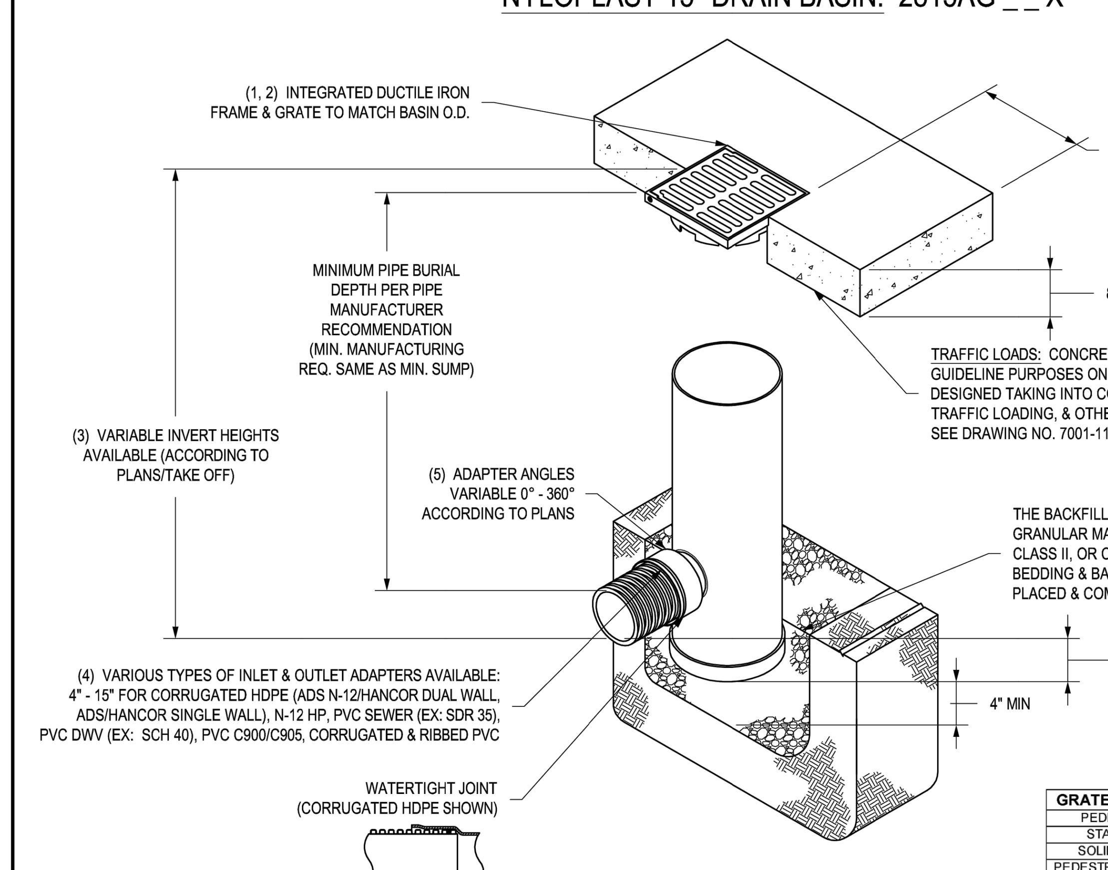
POWERDRAIN - S300K - LOAD CLASS: E
Exposed Concrete Pavement
INSTALLATION DRAWING - ACO DRAIN

ACO, Inc.

825 W. Beechcraft St Casa Grande, AZ 85122 Tel: 520-421-9988 Fax: 520-421-9899	9470 Pinecone Dr Mentor, OH 44060 Tel: 440-639-7230 Fax: 440-639-7235	481 Munn Rd. Suite #225 Fort Mill, SC 29715 Tel: 440-639-7230 Fax: 803-802-1063

Arizona Tel: 888-490-9552 e-mail: sales@acousa.com Ohio Tel: 440-639-7230 www.acoswm.com South Carolina Tel: 440-639-7230

NYLOPLAST 15" DRAIN BASIN: 2815AG _ _ X



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1599CGP	7001-110-207
STANDARD	MEETS H-20	1599CGS	7001-110-208
SOLID COVER	MEETS H-20	1599CGC	7001-110-209
PEDESTRIAN BRONZE	N/A	1599CGPB	7001-110-210
DOME	N/A	1599CGD	7001-110-211
DROP IN GRATE	LIGHT DUTY	1501DI	7001-110-073

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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DRAWN BY EBC | DATE 03-30-06 | REVISED BY NMH | DATE 03-14-16 | DWG SIZE A | SCALE 1:25 | SHEET 1 OF 1
MATERIAL
PROJECT NO./NAME
ADS Nyloplast — 3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
TITLE: 15 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL
DWG NO. 7001-110-190 REV E

OWNER/DEVELOPER
COMPANY: CITY OF COVINGTON
ADDRESS: 11234 ALCOVY RD
COVINGTON, GA 30014
PHONE: 678-342-8790
CONTACT: TRUDY HENRY
EMAIL:
TRUDY.HENRY@COVINGTON-NEWTON911.COM

CONTRACTOR
COMPANY: SUNBELT BUILDERS
ADDRESS: 10641 HIGHWAY 36
COVINGTON, GA 30014
CONTACT: MIKE MCCROREY
PHONE: 404-644-2939
EMAIL: MMCCROREY@SUNBELTBUILDERS.COM

SURVEYOR
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON,
GA 30650 PHONE: 706.342.1104
CONTACT: BRIAN SLATE
EMAIL: BSLATE@GEORGIACIVIL.COM

SITE DESIGNER
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896
MADISON, GA 30650
PHONE: 706.342.1104

JASON P. BROWN
LEVEL II CERTIFIED DESIGN PROFESSIONAL
#53274 - EXP. 05.01.2029

24-HOUR CONTACT
MIKE MCCROREY
404-644-2939

georgia civil
CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
LAND SURVEYING
311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED NO. PE031684 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

COVINGTON FIRE STATION #23
9155 HIGHWAY 36
COVINGTON, GA 30014
ZONING: CM - CORRIDOR MIXED USE

DRAWING DATE:	5/15/2026
DRAWN BY:	DLD
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:
5/15/2026	ADD. COMMENTS

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Sheet Title

STORM WATER MANAGEMENT DETAILS

Sheet Number

C-4.4