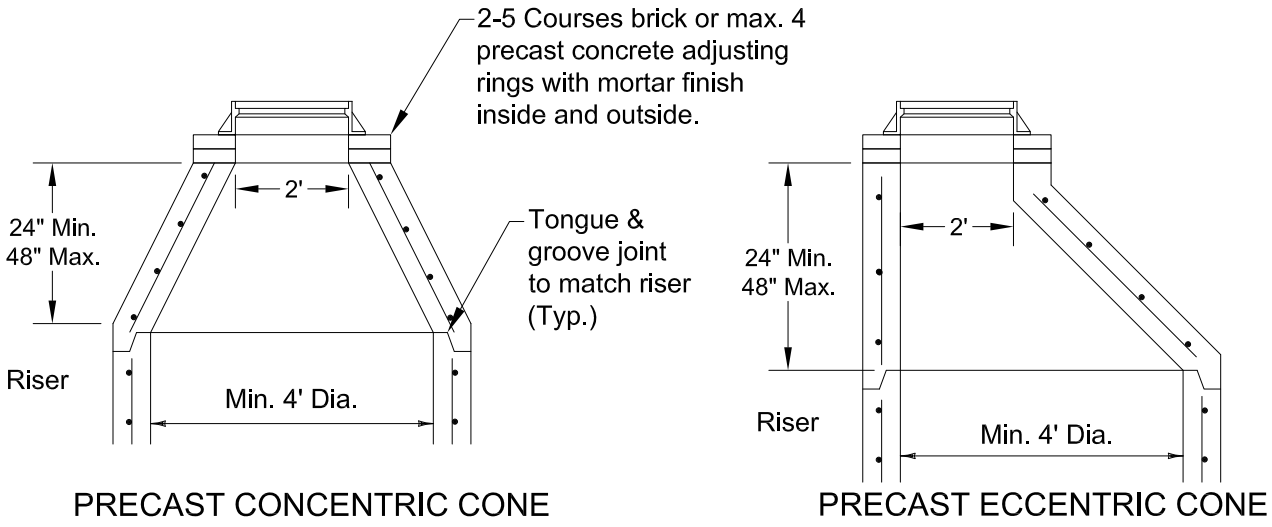
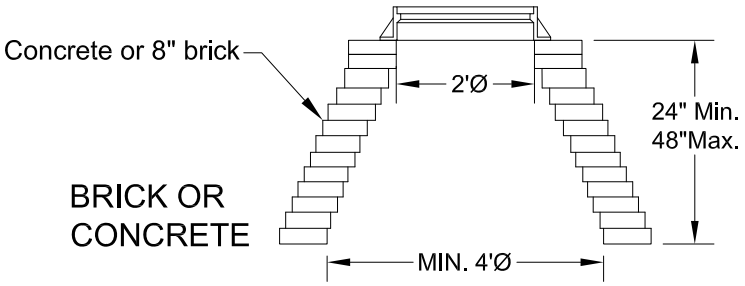
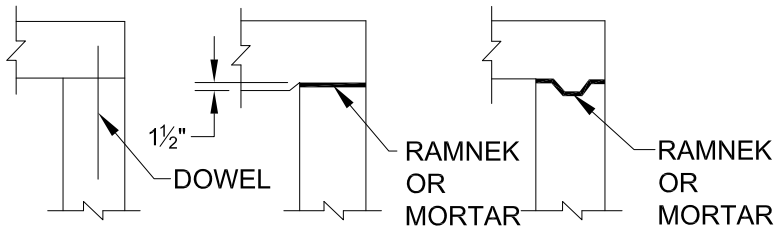


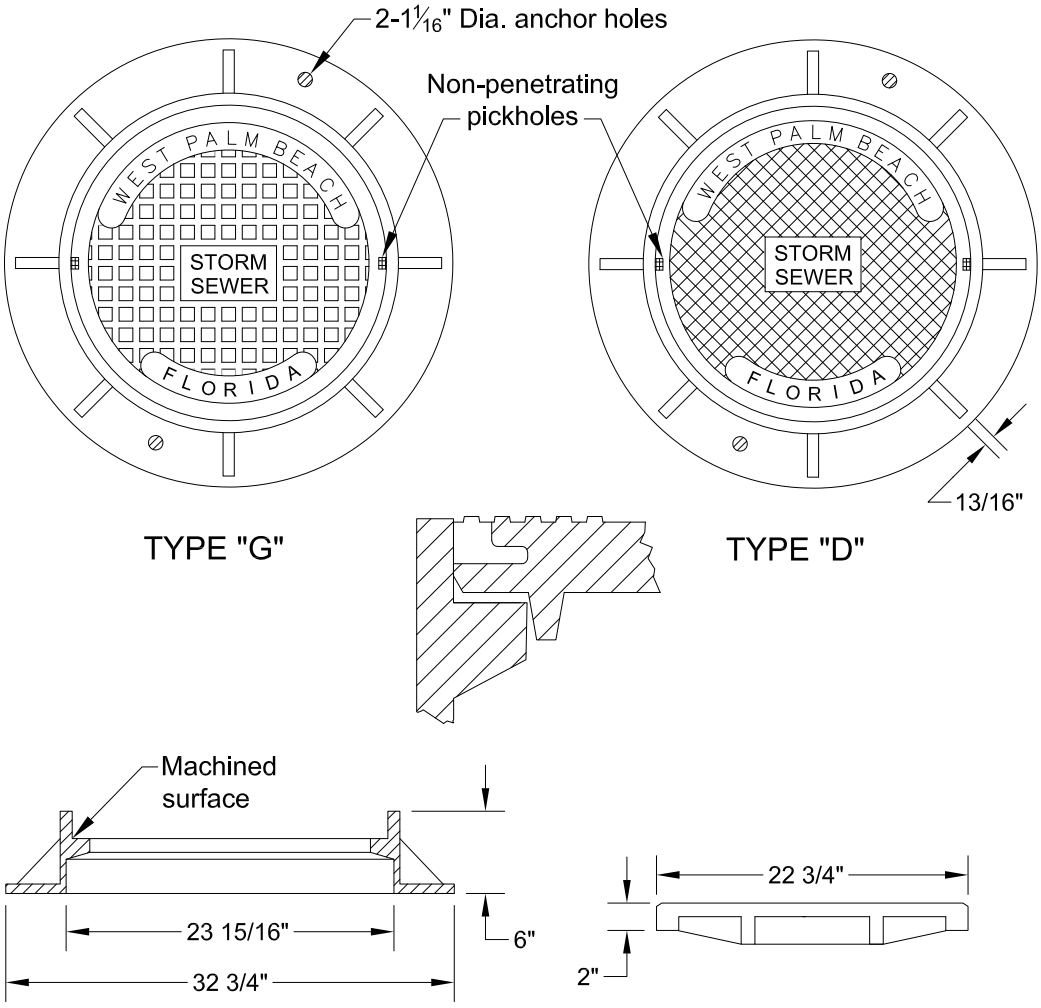


1. Manhole top may be of cast-in-place or precast concrete construction or brick construction. For concrete construction, the concrete and steel reinforcement shall be the same as the supporting wall unit. An eccentric cone may be used.
2. Manhole tops shall be secured to structures by optional construction joints as shown below.



3. All grouted joints are to have a maximum thickness of 1".
4. Keyways are to be a minimum of 1 ½" deep.
5. Storm drainage structures/components shall comply with F.D.O.T. Design Standards Index #201, Latest Edition.

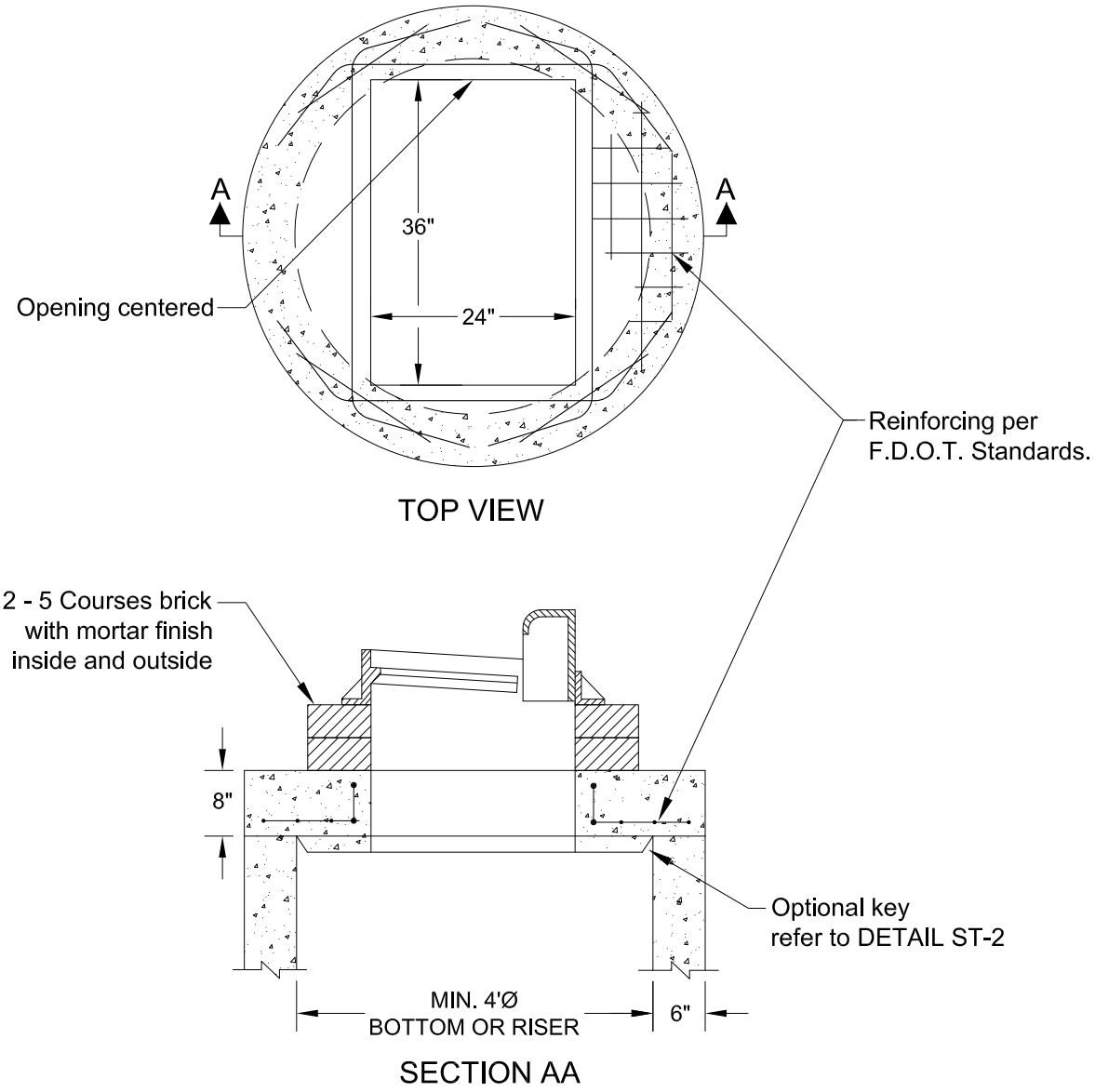
REVISED: JUNE-2016	STORMWATER SYSTEM - MANHOLE TOP	STANDARD DETAIL
ISSUED: 2016	CITY OF WEST PALM BEACH	ST-1



1. Provide U.S. Foundry No. 240 Ring & Cover Type "G" in piaved or grassed areas; Cover (D) in sidewalk and driveway areas.
2. Manholes that are private shall not have "WEST PALM BEACH" embossed on them.

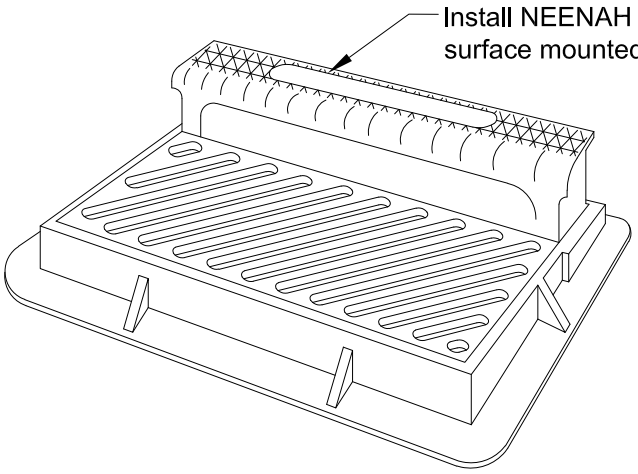
Frame WT.: Approximately 195 lbs. / 88.5 kg
Cover WT.: Approximately 125 lbs. / 56.8 kg (Type "D")
Cover WT.: Approximately 130 lbs. / 59 kg (Type "G")

REVISED: JUNE-2016	STORMWATER SYSTEM - TYPES "G" & "D" COVER & FRAME	STANDARD DETAIL
ISSUED: 2016	CITY OF WEST PALM BEACH	ST-2

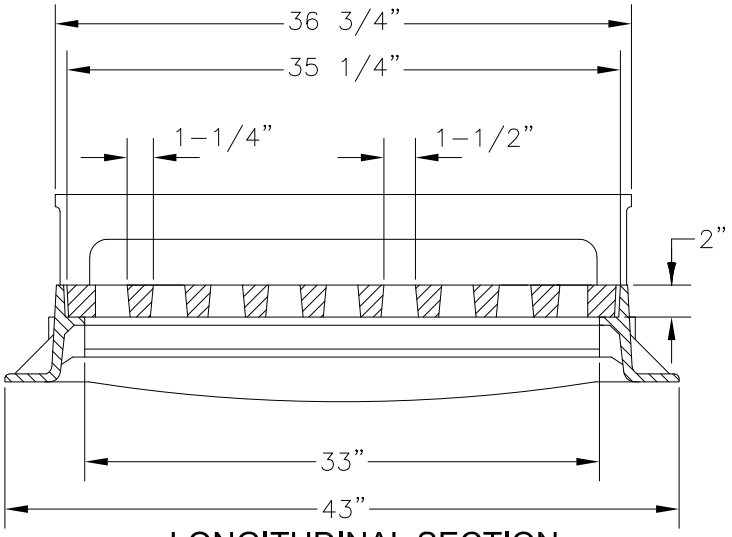


1. This inlet is primarily intended for locations with light to moderate flows where right of way does not permit the use of F.D.O.T. curb inlet TYPES 1 through 6. The typical application is on curb returns to City streets. The inlet grate shall be suitable for pedestrian and bicycle traffic.
2. This inlet to be located in vertical faced curbs such as TYPE "D" or "F" Curb. Inlet to be located outside pedestrian crosswalk where practical.
3. Frame shall be adjusted with two (min.) to five (max.) courses of brick.
4. Inlet and grate detail shown is NEENAH R-3067-R Grate as shown in DETAIL ST-4. Grates shall comply with AASHTO H-20 loading. Inlet and grate shall be Class 30 castings in accordance with ASTM A-48.
5. Storm drainage structures/components shall comply with F.D.O.T. Design Standards Index#214, Latest Edition.

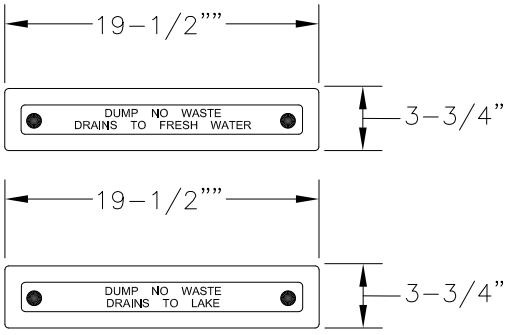
REVISED: JUNE-2016	STORMWATER SYSTEM - CURB INLET TOP	STANDARD DETAIL
ISSUED: 2016	CITY OF WEST PALM BEACH	ST-3



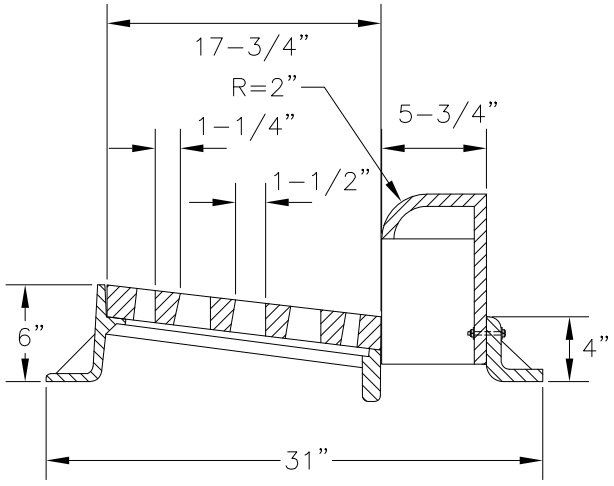
NEENAH FOUNDRY R-3067-R
or USF 5130-6431
FRAME AND GRATE



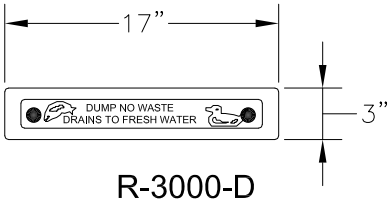
LONGITUDINAL SECTION



R-3000-B



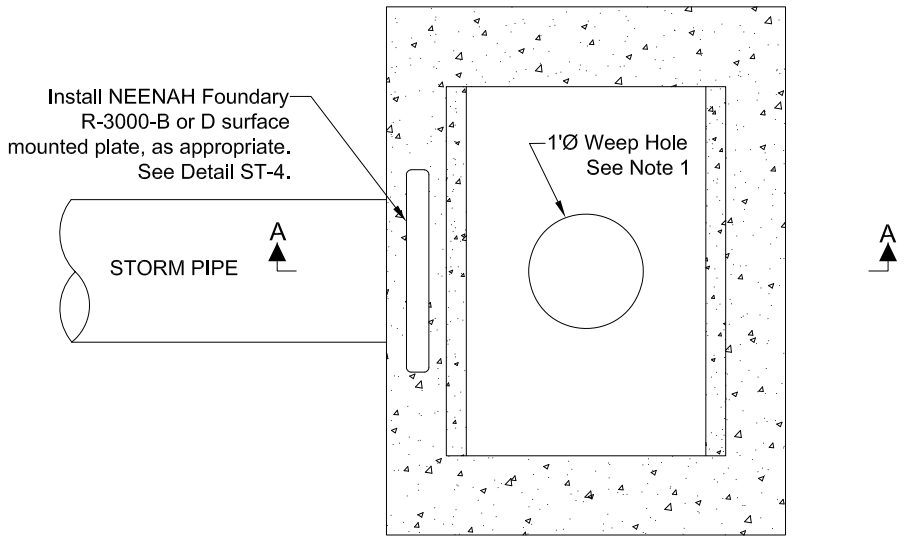
TRANSVERSE SECTION



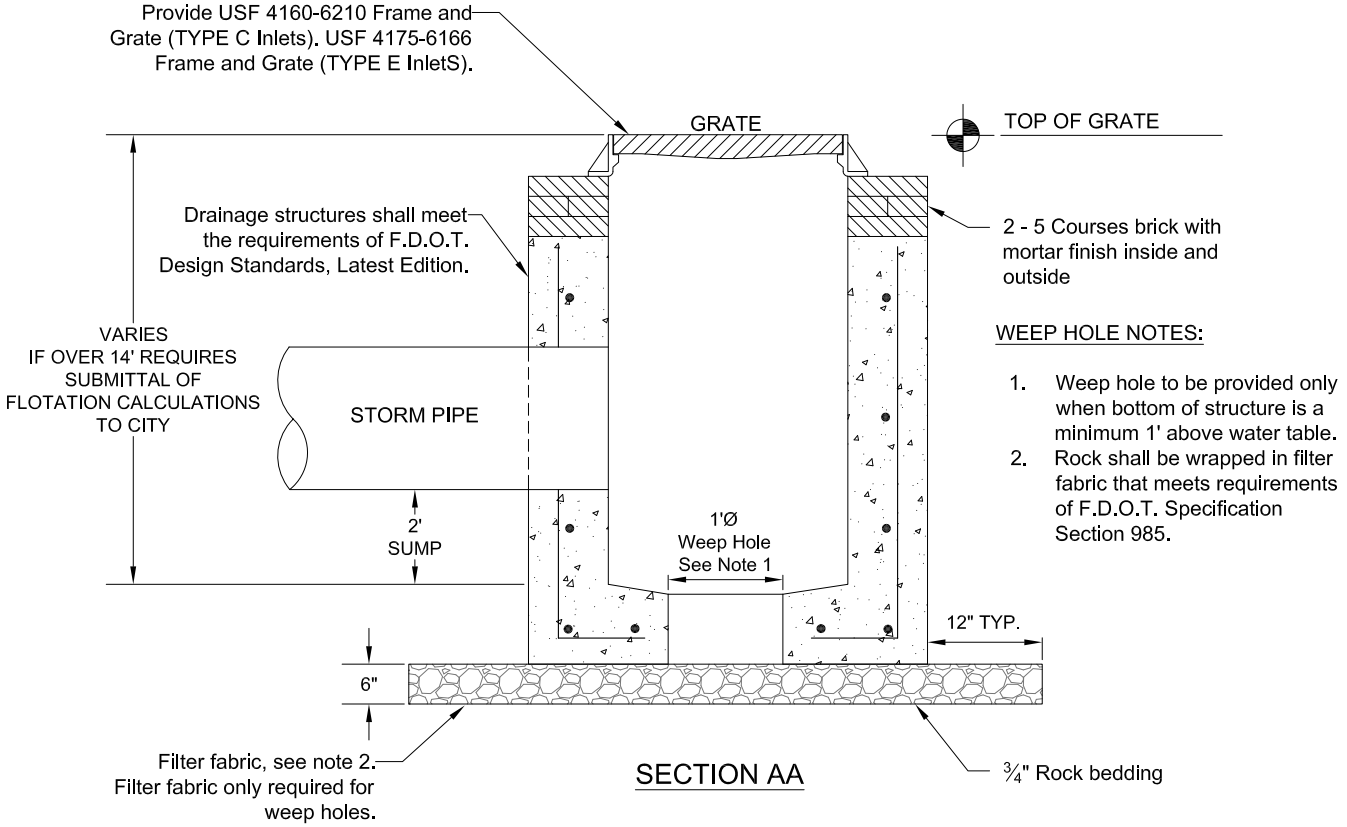
R-3000-D

NEENAH FOUNDRY SURFACE
MOUNT ENVIRONOTICE PLATES

REVISED: NOV-2018	STORMWATER SYSTEM - CURB INLET TOP, FRAME & GRATE	STANDARD DETAIL
ISSUED: 2016	CITY OF WEST PALM BEACH	ST-4



PLAN VIEW

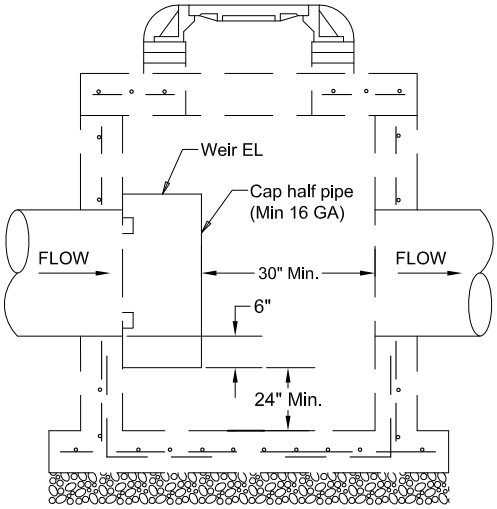


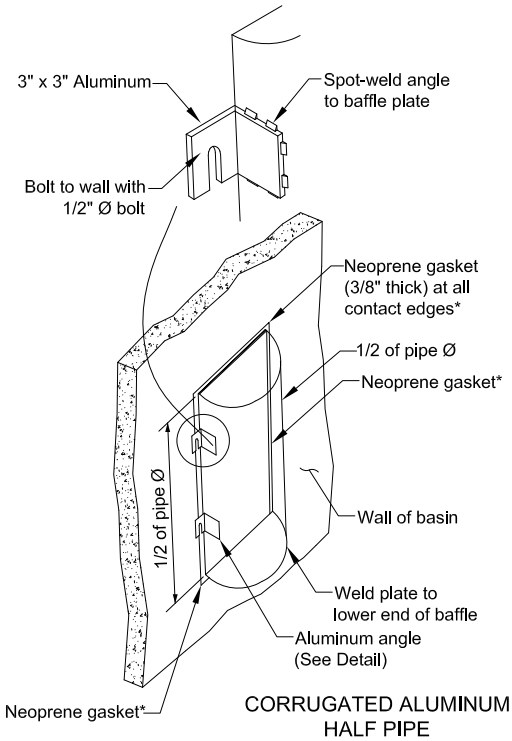
SECTION AA

WEEP HOLE NOTES:

1. Weep hole to be provided only when bottom of structure is a minimum 1' above water table.
2. Rock shall be wrapped in filter fabric that meets requirements of F.D.O.T. Specification Section 985.

REVISED: JUNE-2016	STORMWATER SYSTEM - SITE CATCH BASINS and DITCH BOTTOM INLETS	STANDARD DETAIL
ISSUED: 2016	CITY OF WEST PALM BEACH	ST-5





CORRUGATED ALUMINUM
HALF PIPE
WITH GASKET

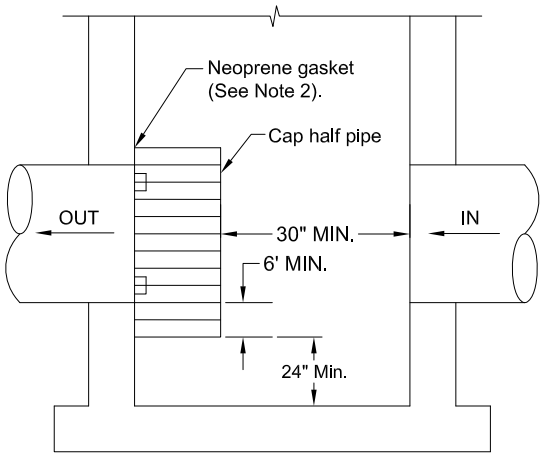
DISCHARGE PIPE DIAMETER	WEIR DIAMETER (1)	WEIR DIAMETER (2)	GAUGE
15"	21"	21"	16
18"	24"	24"	16
24"	30"	36"	16
30"	36"	42"	14
36"	42"	48"	14
42"	48"	54"	14
48"	54"	60"	14
54"	60"	66"	14

(1) RECTANGULAR STRUCTURE
(2) ROUND STRUCTURE

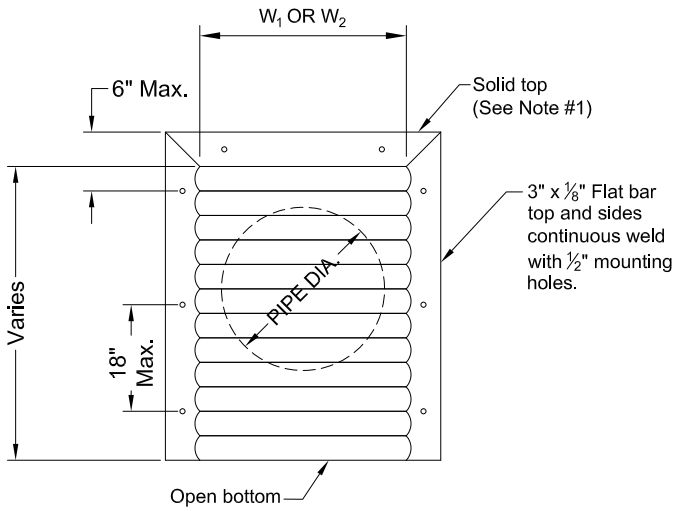
NOTES:

1. Aluminum sheet of same thickness (gauge) as pipe shall be welded to close the opening at the bottom of the half pipe.
2. Neoprene adhesive backed gasket, or approved equal (1"x3") shall be installed on the sides and top of all weir pipes.
3. Weirs to be fastened in place with 3/8" x 4" stainless steel "RED HEADS" or approved equal.
4. Mounting brackets may be added to flat bars to ease installation in round structures. Spacing to match holes in flat bars.
5. Refer to plans and details for structure dimensions.

REVISED: JUNE-2016	WEIR DETAIL	STANDARD DETAIL
ISSUED: 2016	CITY OF WEST PALM BEACH	ST-6



SIDE VIEW



FRONT VIEW

DISCHARGE PIPE DIAMETER	WEIR DIAMETER (W_1)	WEIR DIAMETER (W_2)	GAUGE (T)
15"	21"	21"	16
18"	24"	24"	16
24"	30"	36"	16
30"	36"	42"	14
36"	42"	48"	14
42"	48"	54"	14
48"	54"	60"	14
54"	60"	66"	14

NOTES:

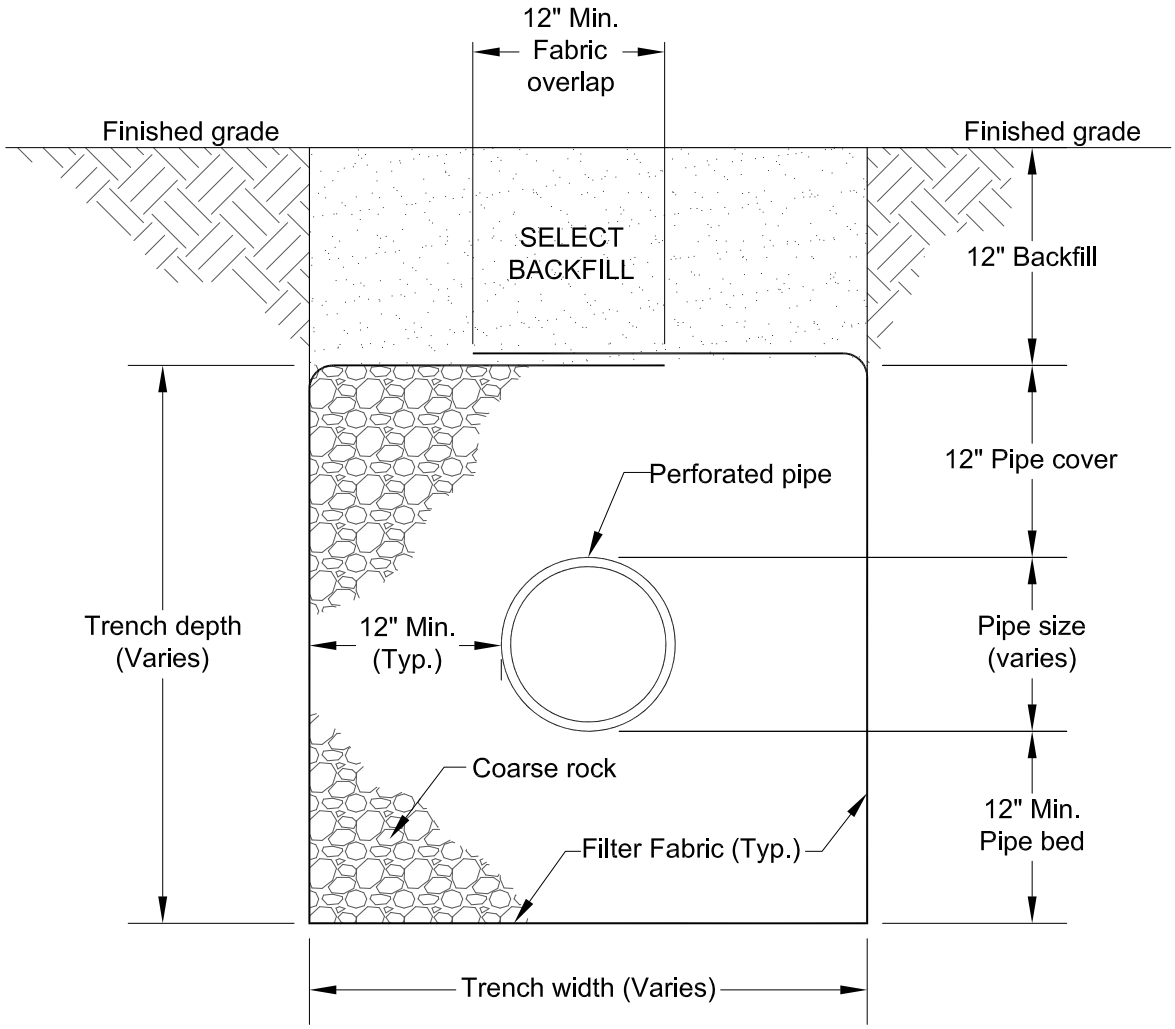
1. Aluminum sheet of same thickness (gauge) as pipe shall be welded to close the opening at the top.

2. Neoprene adhesive backed gasket, or approved equal (1"x3") shall be installed on the sides and top of all baffles.

3. Pollution retardant baffle to be fastened in place with ⅜"x4" stainless steel "RED HEADS," or approved equal.

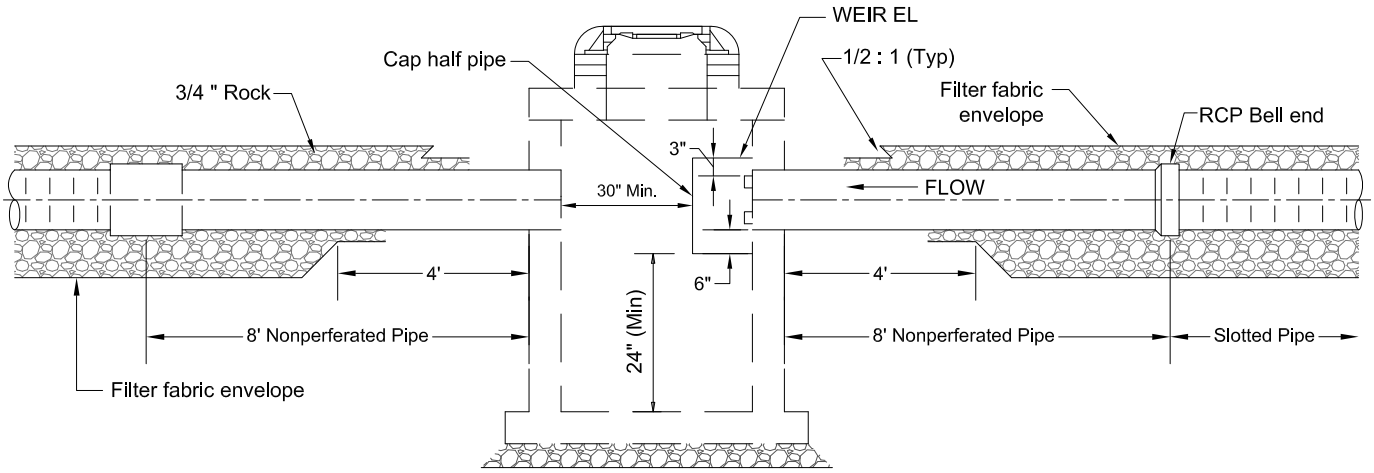
4. Mounting brackets may be added to flat bars to ease installation in round structures. Spacing to match holes in flat bars.

REVISED: JUNE-2016	POLLUTION RETARDENT BAFFLE DETAIL	STANDARD DETAIL
ISSUED: 2016	CITY OF WEST PALM BEACH	ST-7



Filter fabric shall be subsurface drainage type meeting the requirements of FDOT Standard Specifications Section 985. All filter fabric joints shall lap a minimum of one (1) foot.

REVISED: JUNE-2016	STORMWATER SYSTEM - EXFILTRATION TRENCH	STANDARD DETAIL
ISSUED: 2016	CITY OF WEST PALM BEACH	ST-8



REVISED: JUNE-2016	TYPICAL EXFILTRATION TRENCH LONGITUDINAL SECTION	STANDARD DETAIL
ISSUED: 2016	CITY OF WEST PALM BEACH	ST-9

1. All storm drainage systems and components shall comply with the design standards and specifications of the FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT), Latest Edition.
2. Storm drainage structures shall be manufactured using either Type I or Type II cement with a concrete mix designed to attain a minimum compressive strength of 4,000 PSI in 28 days.
3. Concrete shall be Class I; except ASTM C478 (4,000 PSI) concrete may be substituted for precast items manufactured in plants meeting the requirements of Section 449 of the FDOT Specifications.
4. All reinforcing is Grade 60 bars with 2" min. cover unless otherwise noted in the FDOT Design Standards. Refer to FDOT Index 201 for equivalent area of welded wire fabric.
5. Contractor/engineer shall obtain approval from City prior to rotating structure to facilitate connections between structure walls and storm sewer pipes.
6. Structures with depths over 14 feet are to be designed for anti-floatation by the Design Engineer and calculations shall be provided to the City for review.
7. Frames, grates and covers shall be of traffic bearing design and shall be Cast Grey Iron conforming to ASTM Standard A48. Frame and grates shall be as per City Standard Details ST-2 and ST-4 or as approved by the City.
8. Provide environmental notice plates on inlet hoods or structure tops as appropriate. Refer to City Standard Detail ST-4.
9. Reinforced concrete drainage pipe (RCP) shall conform to the requirements of ASTM C76, Class III with bell and spigot end joints and pipe gaskets per ASTM C443. PIpe shall be laid with bell pointing in the upstream direction.
10. Maximum structure openings for pipe shall be the pipe outside diameter plus 6-inches. Mortar used to seal the pipe into the opening will be such a mix that shrinkage will not cause leakage into or out of the structure.