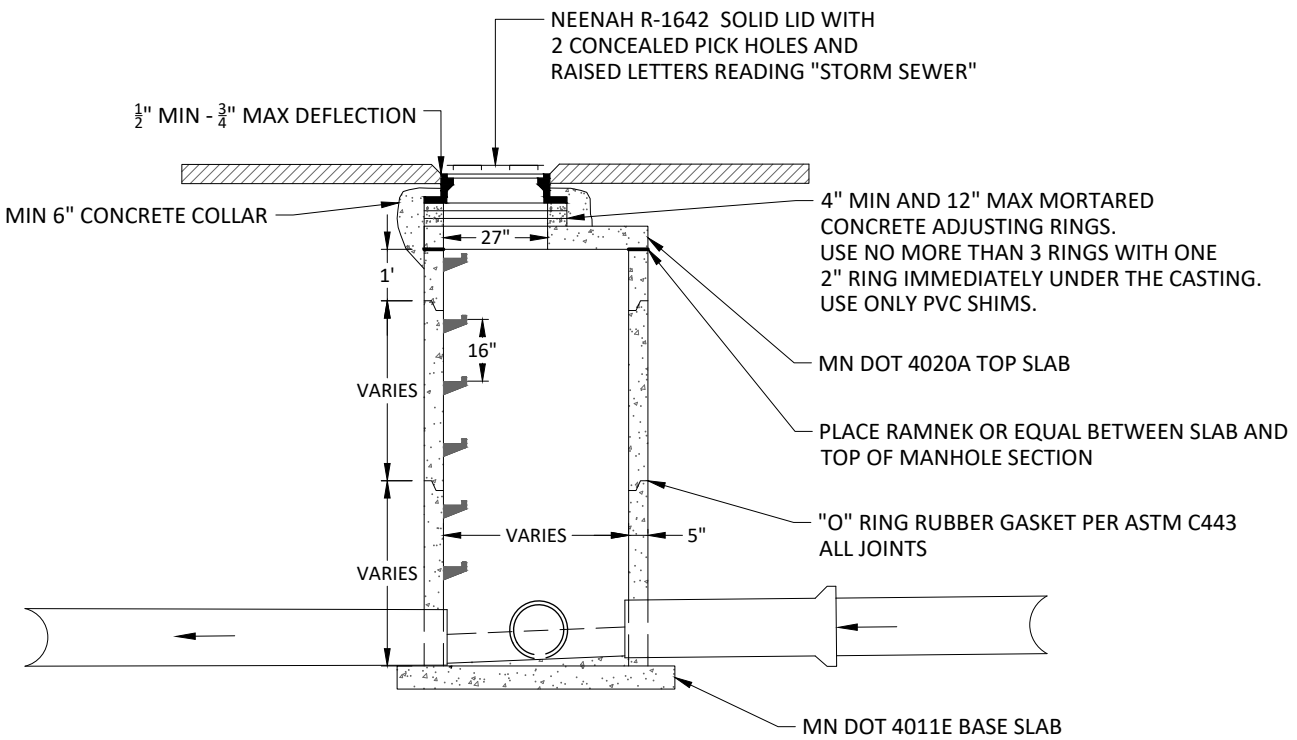
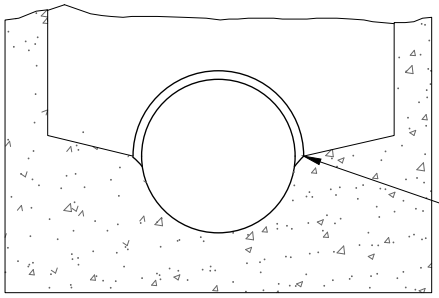




NOTES:

1. ALL MANHOLES MUST BE A MINIMUM OF 4' IN DEPTH.
2. PLACE MANHOLE STEPS SO THAT THE VERTICAL PORTION OF THE CONE IS FACING DOWNSTREAM.
3. PROVIDE POURED CONCRETE INVERTS AND DOGHOUSES.
4. GROUT ALL LIFT HOLES.
5. INSTALL MARKING POSTS AT ALL MANHOLES LOCATED OUTSIDE OF STREET SECTION. SEE PLATE NO. MISC-01.
6. POUR A 6" CONCRETE COLLAR AROUND THE RINGS AND CASTING.
7. STEPS REQUIRED IN ALL MANHOLES 4' OR GREATER IN DEPTH.

CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

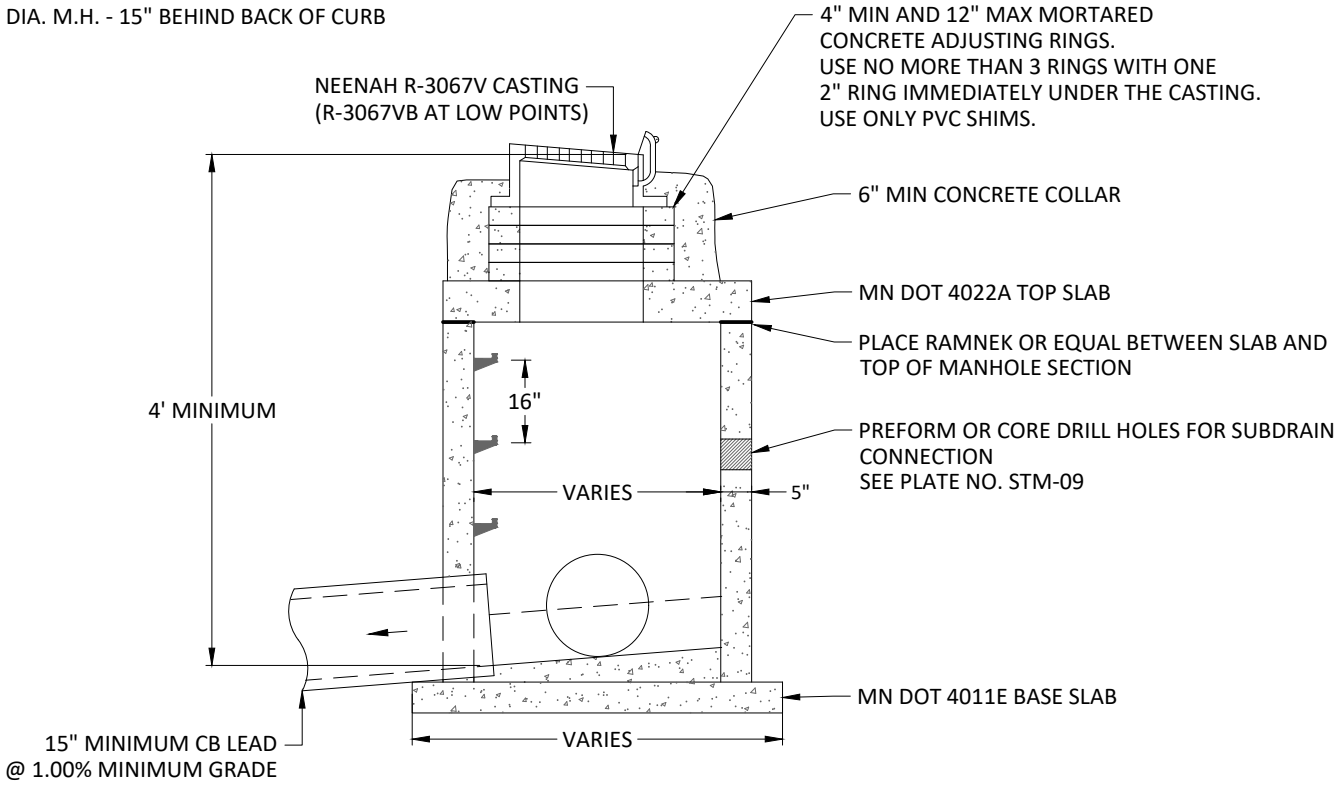
STORM STANDARD MANHOLE

Plate No.

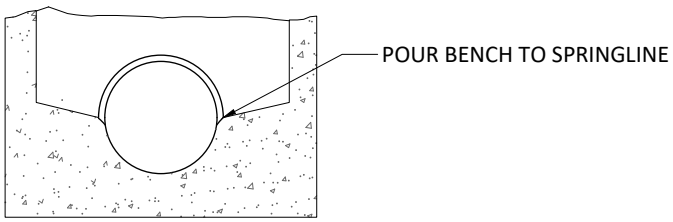
STM-01

Revised 03/23

DIMENSION FROM BACK OF CURB TO CENTER OF PIPE:
4' DIA. M.H. - 9" IN FROM BACK OF CURB
6' DIA. M.H. - 3" BEHIND BACK OF CURB
8' DIA. M.H. - 15" BEHIND BACK OF CURB



SECTION



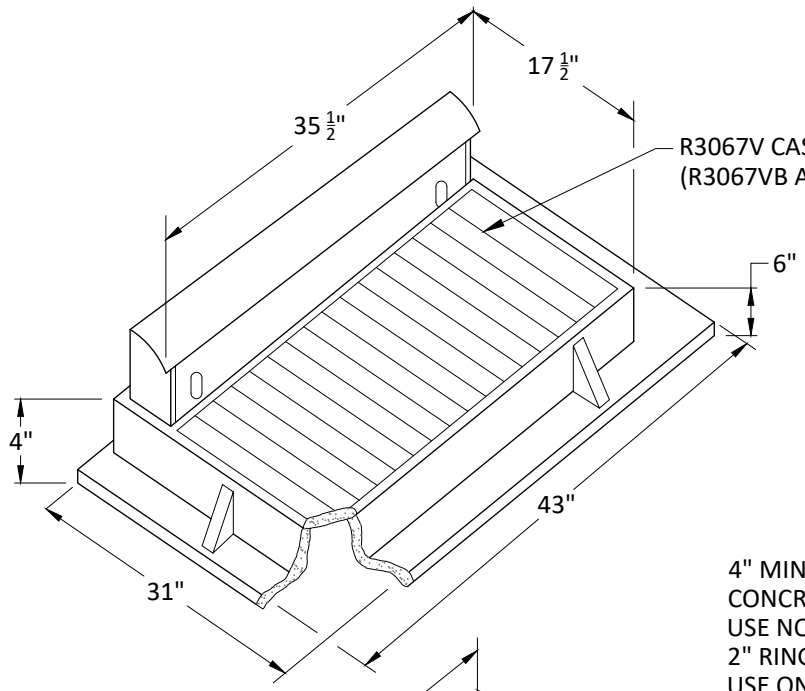
NOTES:

1. ALL CATCH BASIN/MANHOLES MUST BE MINIMUM OF 4' IN DEPTH.
2. POUR CONCRETE INVERTS AND DOGHOUSES.
3. GROUT ALL LIFT HOLES.
4. INSTALL DRAINTILE AT ALL CATCH BASINS. SEE PLATE NO. STM-09.
5. STEPS REQUIRED IN ALL MANHOLES 4' OR GREATER IN DEPTH.
6. PLACE STEPS IN EITHER FRONT CORNER DEPENDING ON PIPE CONFIGURATION.

CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

CATCH BASIN MANHOLE

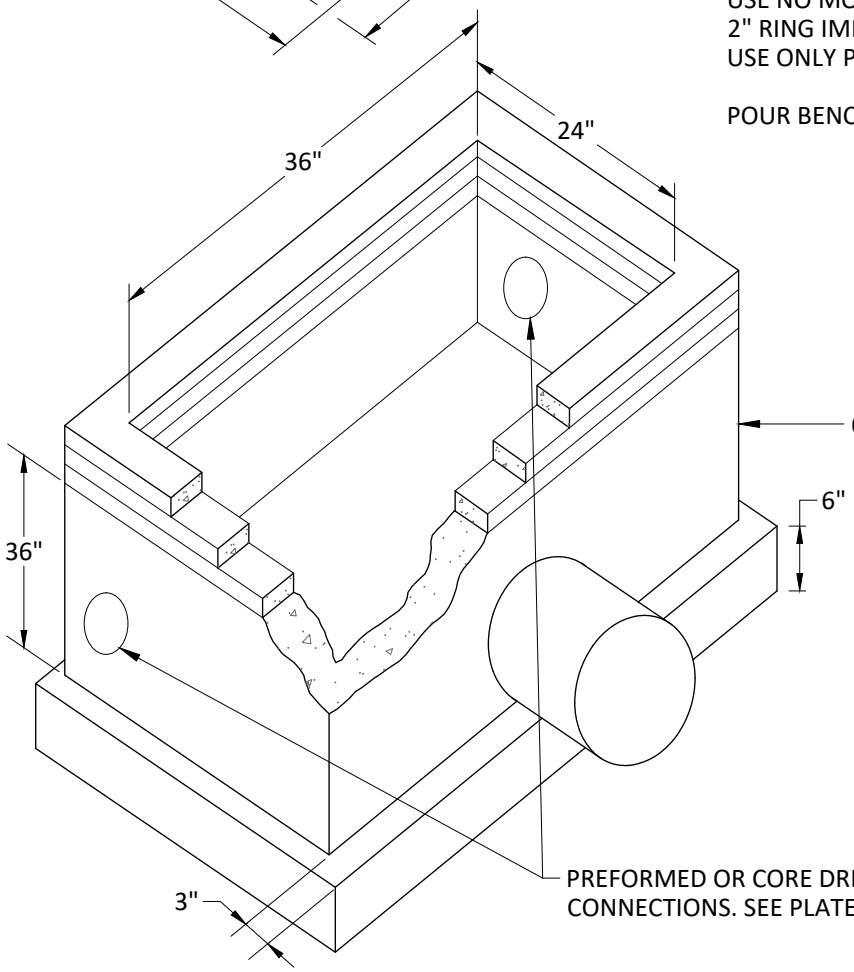
Plate No.
STM-02
Revised 03/23



R3067V CASTING OR APPROVED EQUAL
(R3067VB AT LOW POINTS)

4" MIN AND 12" MAX MORTARED
CONCRETE ADJUSTING RINGS.
USE NO MORE THAN 3 RINGS WITH ONE
2" RING IMMEDIATELY UNDER THE CASTING.
USE ONLY PVC SHIMS.

POUR BENCH TO SPRINGLINE OF PIPE.



6" PRECAST REINFORCED CONCRETE

PREFORMED OR CORE DRILLED HOLES REQUIRED FOR SUBDRAIN
CONNECTIONS. SEE PLATE NO. STM-09

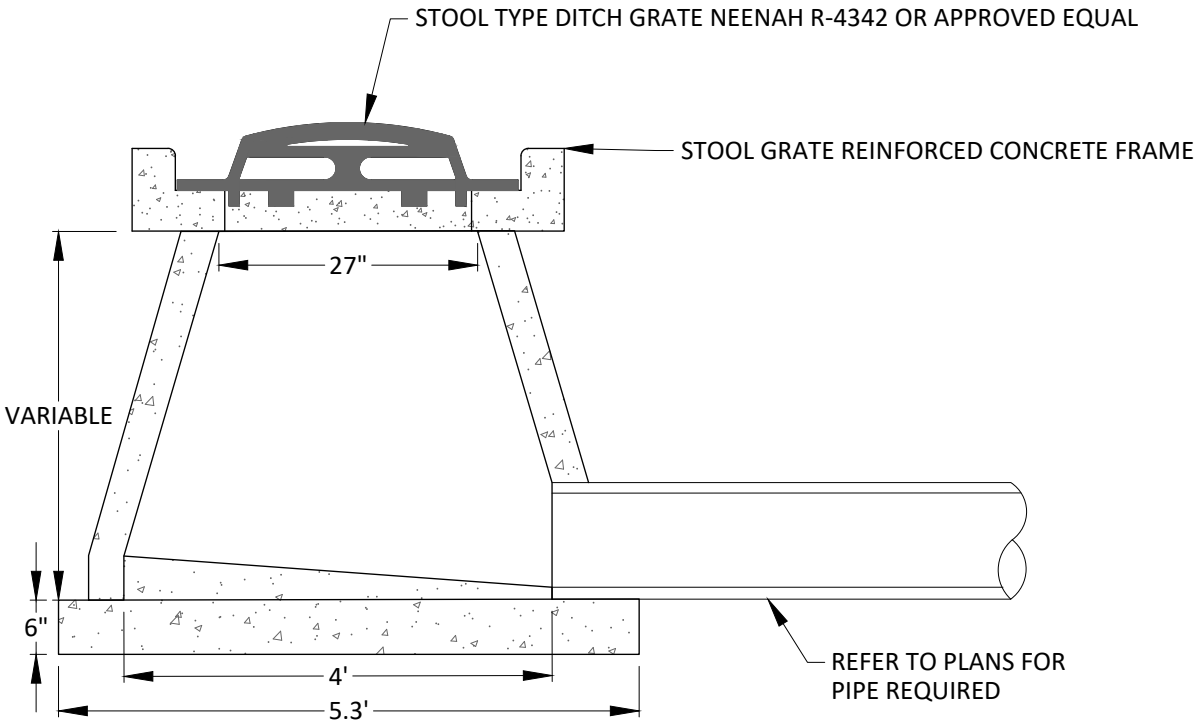
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

2x3 CATCH BASIN

Plate No.

STM-03

Revised 02/23



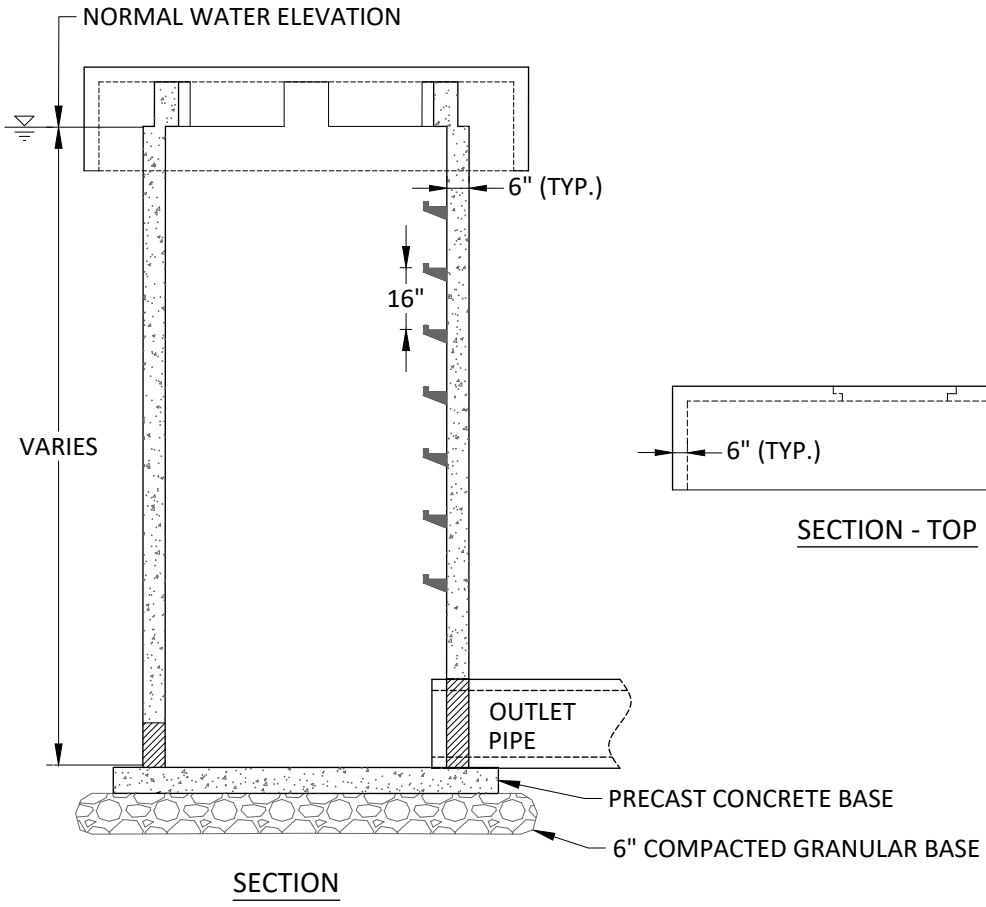
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

TYPE G CATCH BASIN

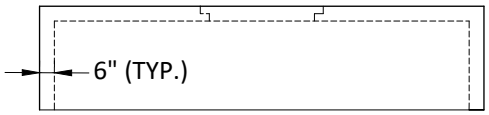
Plate No.

STM-04

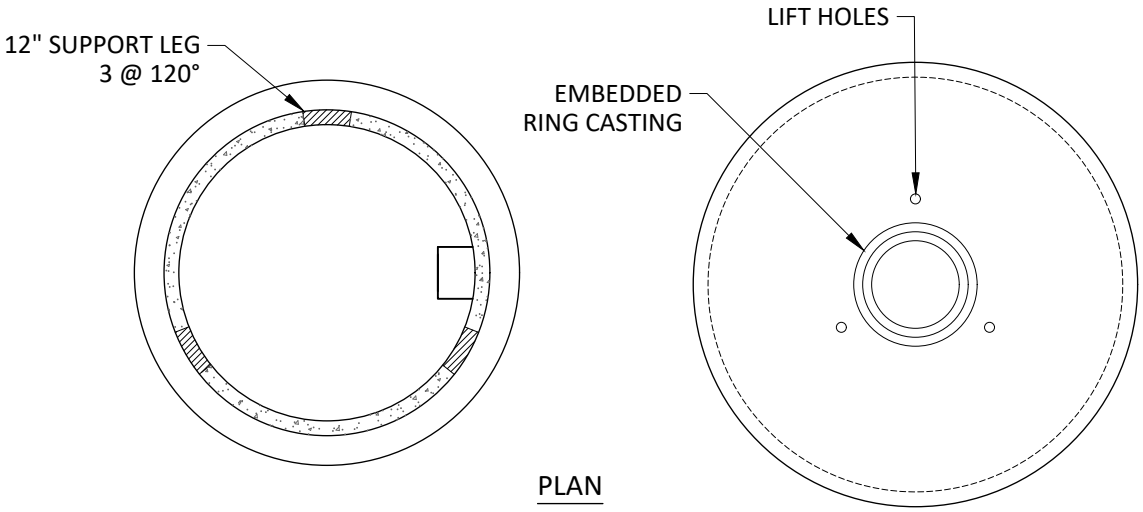
Revised 02/23



SECTION



SECTION - TOP



PLAN

NOTES:

1. POUR CONCRETE INVERTS AND DOGHOUSES.
2. GROUT ALL LIFT HOLES.
3. STEPS REQUIRED IN STRUCTURE WHEN 4' OR GREATER IN DEPTH.

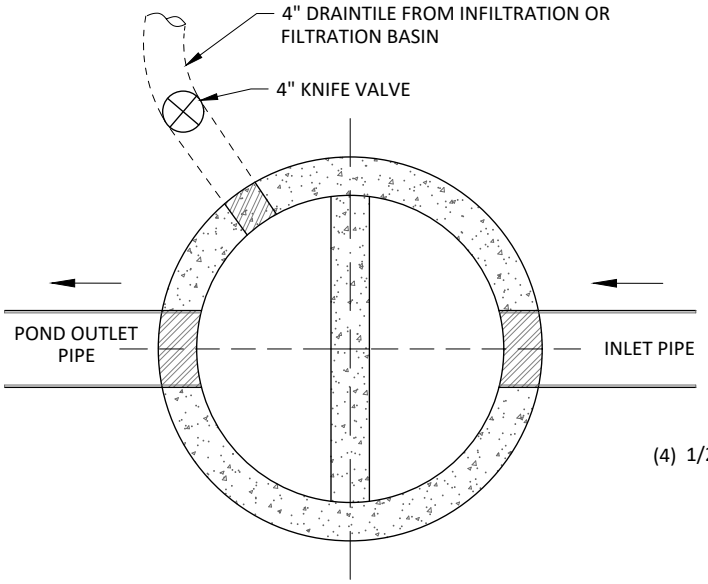
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

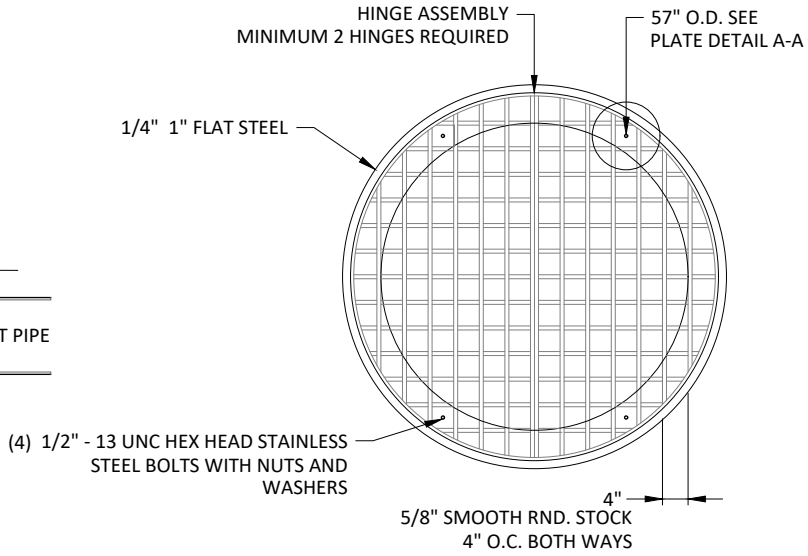
POND SKIMMER OUTLET CAP TYPE

Plate No.

STM-05

Revised 02/23





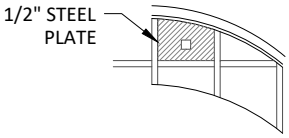
NOTES:

1. FOR INFILTRATION & BIORETENTION BASIN STRUCTURES, 4" KNIFE VALVE SHALL BE LOCATED 10' OR LESS FROM STRUCTURE.

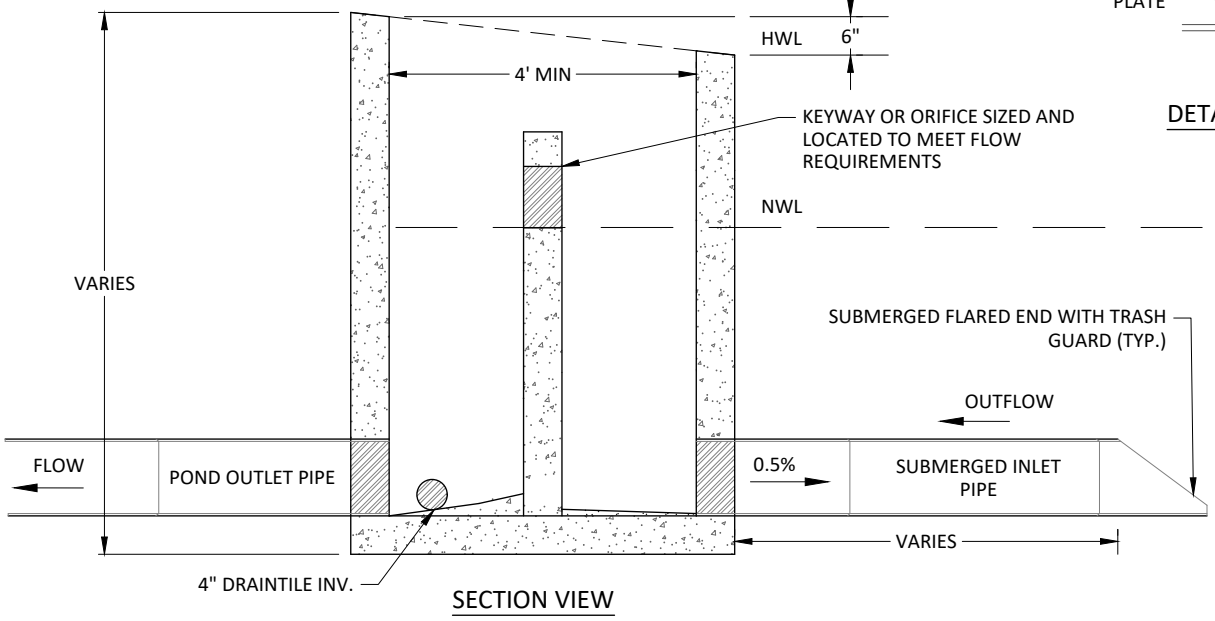
NOTES:

1. POND SKIMMER GRATE SHALL BE 57" (2) PIECE 5/8" ROD.
2. ALL METAL SHALL BE HOT-DIPPED GALVANIZED.

TOP VIEW



DETAIL "A-A"



SECTION VIEW

NOTES:

1. WEIR AND PIPE INTERFACE SHALL BE WATERTIGHT.
2. SIZE STRUCTURE INLET PIPE TO LIMIT VELOCITIES TO 0.5 FT/S FOR THE TREATMENT STORM EVENT.
3. SIZE POND OUTLET TO MEET RATE CONTROL REQUIREMENTS.
4. TIE LAST 3 PIPE JOINTS. USE 2 TIE BOLT FASTENERS PER JOINT.

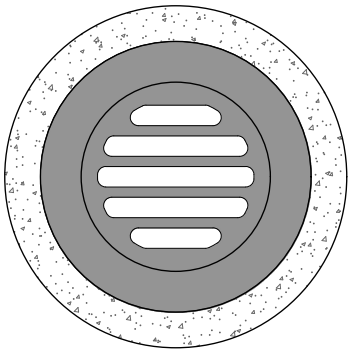
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

POND SKIMMER OUTLET SUBMERGED INLET

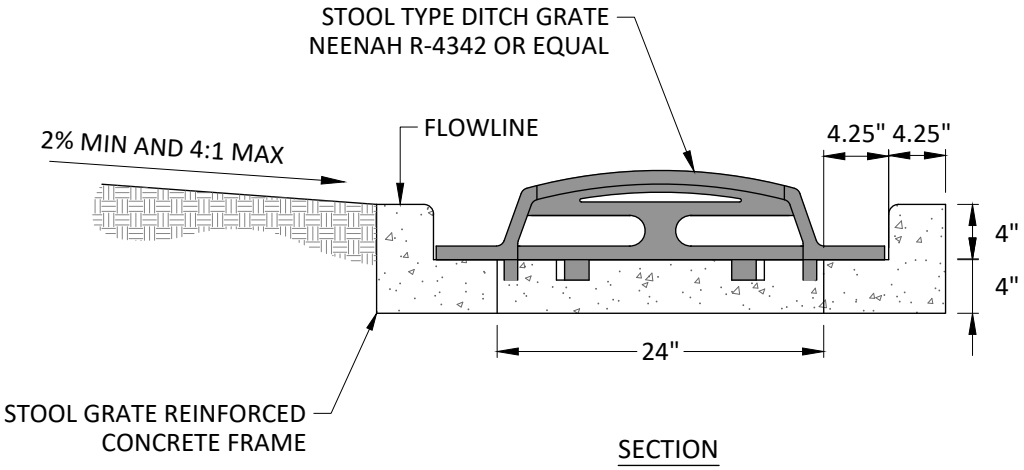
Plate No.

STM-06

Revised 02/23



PLAN



SECTION

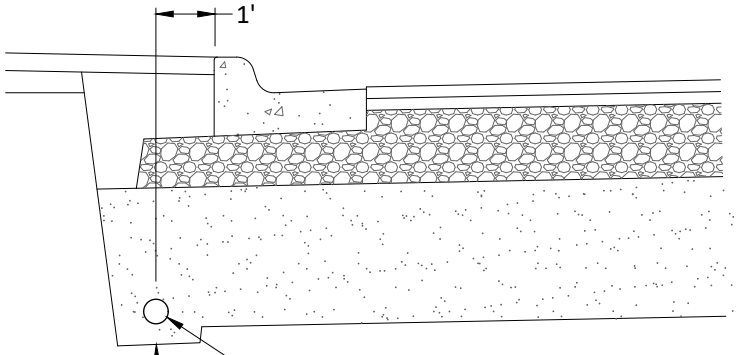
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

DITCH GRATE CASTING AND CONCRETE COLLAR

Plate No.

STM-07

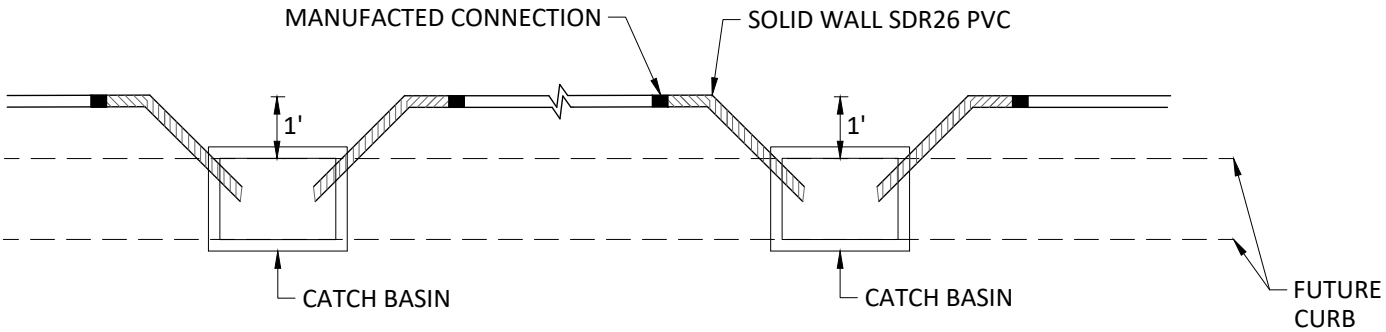
Revised 03/23



GEOTEXTILE FABRIC (MnDOT TYPE V)

4" PERFORATED UNDERDRAIN (MnDOT 3245 OR 3278) WITH CIRCULAR KNIT POLYMERIC FILTER SOCK PER ASTM D6707-1. DO NOT USE MnDOT 3733 TYPE 1 SEWN SEAM NON WOVEN FABRIC.

SECTION



PLAN

NOTES:

1. PLACE DRAINTILE CONTINUOUSLY ON BOTH SIDES OF THE STREET FROM CATCH BASIN TO CATCH BASIN. AT TERMINAL CATCH BASINS, EXTEND THE DRAINTILE A MINIMUM OF 30' PAST THE LAST CATCH BASIN IN THE SYSTEM.

2. FOR THE FIRST 18" AT THE CATCH BASIN, USE NON PERFORATED SOLID WALL SDR 26 PVC. USE A MANUFACTURED CONNECTION (FERNCO FITTINGS OR EQUAL) BETWEEN PVC AND HDPE DRAINTILE.

4. PLACE DRAINTILE 6" BELOW SUBGRADE OR AT THE BOTTOM OF THE SELECT GRANULAR SECTION AND 1' BEHIND THE PROPOSED CURBLINE.

5. PLACE DRAINTILE ON THE STREET SIDE OF THE CATCHBASIN AT THE REQUEST OF THE ENGINEER.

6. INSTALL DRAINTILE AT THE SAME TIME THE SELECT GRANULAR SECTION IS PLACED AND FOLLOW THE STREET GRADE.

7. CONNECTIONS TO CATCH BASIN SHALL BE PRE FORMED OR CORE DRILLED. GROUT VOIDS AT CONNECTIONS.

8. IF SUMP DISCHARGE CONNECTIONS ARE BEING INSTALLED, THE DRAIN TILE MUST BE RIGID PVC TO THE NEXT DOWNSTREAM CATCHBASIN.

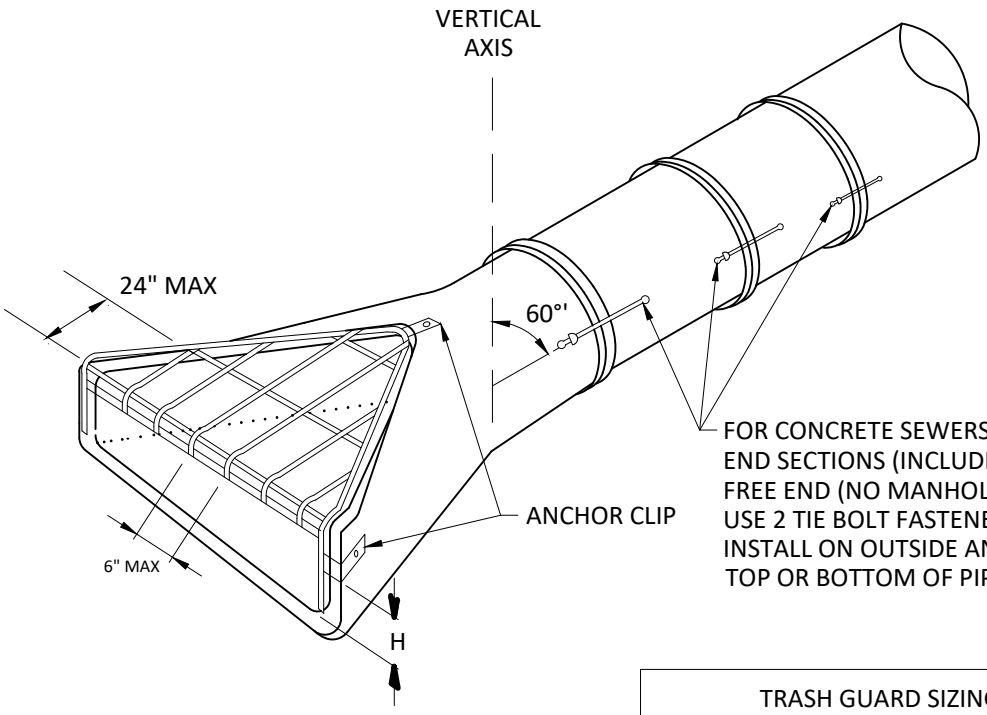
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

DRAINTILE

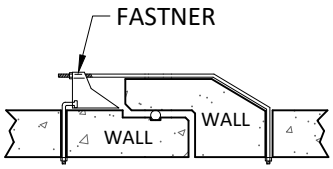
Plate No.

STM-08

Revised 03/23



FOR CONCRETE SEWERS, TIE THE TREE END SECTIONS (INCLUDING APRON) OF A FREE END (NO MANHOLE).
USE 2 TIE BOLT FASTENERS PER JOINT.
INSTALL ON OUTSIDE AND AT 60° FROM TOP OR BOTTOM OF PIPE.



TIE BOLT & FASTENER ASSEMBLY

TRASH GUARD SIZING			
PIPE SIZE (IN.)	BOLT DIAMETER (IN.)	BARS (IN.)	H (IN.)
15	5/8	3/4	4
18	5/8	3/4	4
21	5/8	1	6
24	3/4	1	6
27	3/4	1	6
30	3/4	1	6
36	3/4	1	6
42	3/4	1	6
48	1	1 1/4	12

NOTES:

1. THE UNIT PRICE FOR FLARED END SECTION SHALL INCLUDE TRASH GUARD AND TYING JOINTS.
2. PLATES AND BARS SHALL BE HOT-ROLLED STEEL. BARS, PLATES, PIPE, AND BOLTS SHALL BE GALVANIZED.
3. VERTICAL OPENING SHALL BE MAXIMUM OF 6" AND A MINIMUM OF 4" HIGH.
4. SEE PLATE NO. STM-12 FOR RIP RAP DETAIL.
5. DO NOT PLACE RIP RAP HIGHER THAN THE INVERT OF THE FES.
6. INSTALL TRASH GUARDS ONLY ON 15-18" FLARED END SECTIONS.
7. FOR CONCRETE CULVERTS, PIPE TIES SHALL BE REQUIRED FOR ALL JOINTS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR SPECIAL PROVISIONS.

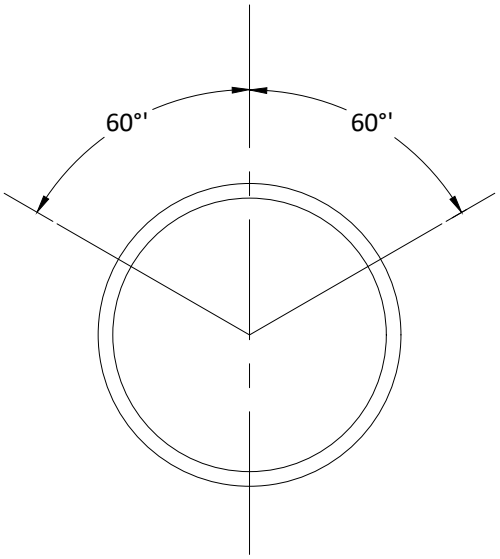
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

FLARED END SECTION WITH TRASH GUARD

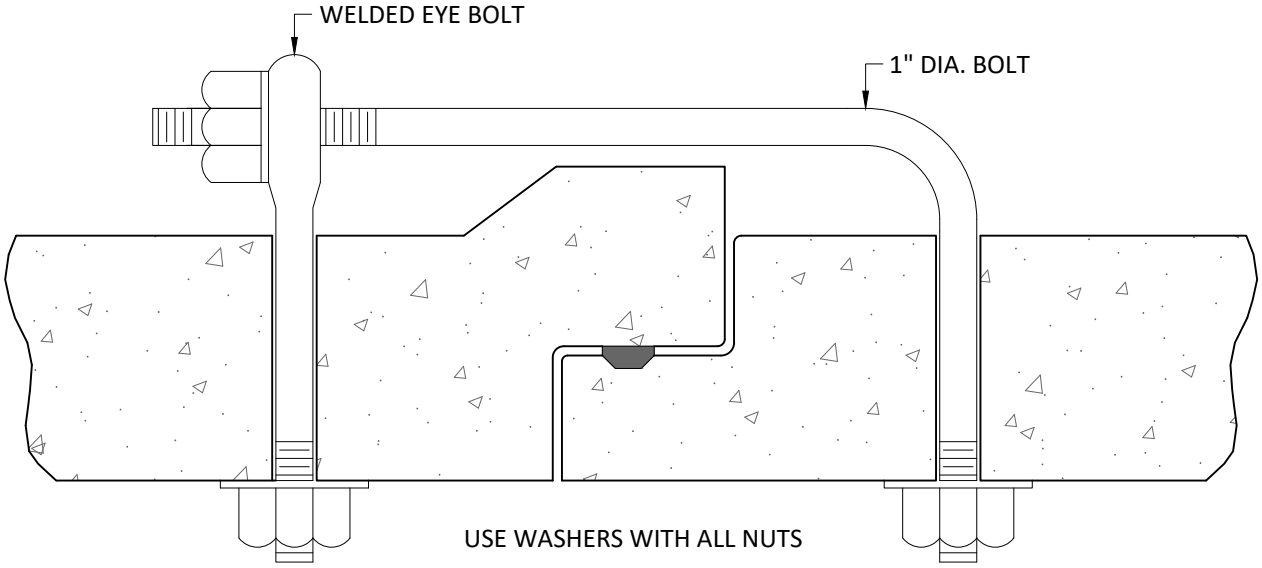
Plate No.

STM-09

Revised 03/23



TIE PLACEMENT



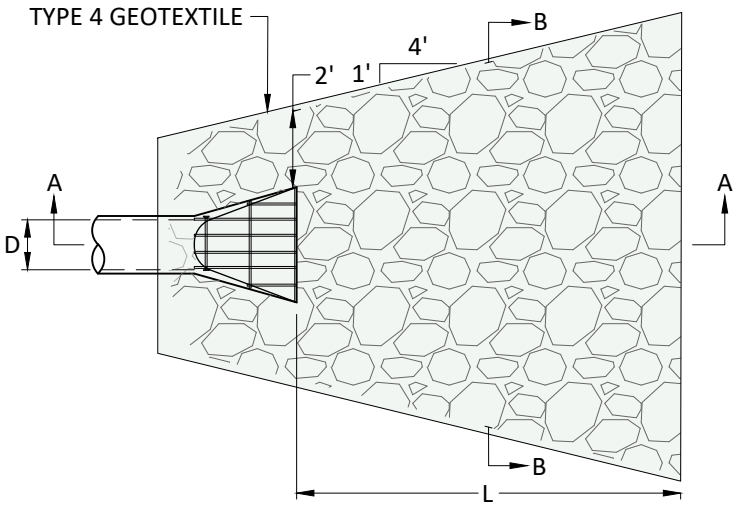
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

PIPE TIE

Plate No.

STM-10

Revised 03/23

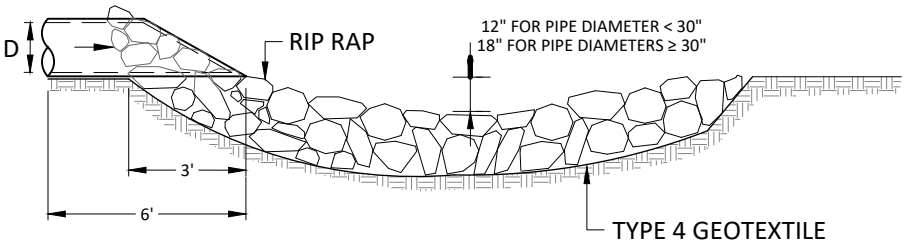


PLAN

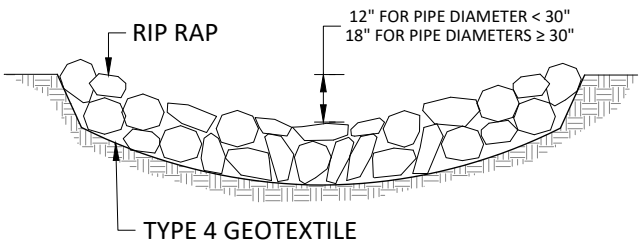
NOTES:

1. COVER AREA UNDER RIP RAP WITH FABRIC. EXTEND FABRIC 6' UNDER THE FLARED END SECTION AND UP THE SIDES OF THE EXCVATED AREA TO FINISHED GRADE.

2. PLACE RIP RAP 3' UNDER THE FLARED END SECTION. PLACE A 3" LAYER OF 1.5" CRUSHED ROCK UNDER THE APRON TO AID IN GRADING. CRUSHED ROCK IS INCIDENTAL TO RIP RAP.



SECTION A-A



SECTION B-B

RIP RAP AT RCP OUTLETS			
		CLASS III (9")	CLASS IV (12")
DIAMETER OF ROUND PIPE (IN)	L (FT)	18" DEPTH (CY)	24" DEPTH (CY)
15	8.0	5.3	7.0
18	10	6.8	9.0
21	10	7.3	9.8
24	12	9.2	12.3
27	12	9.7	13.0
30	14	11.9	15.9
36	16	15.0	20.0
42	18	17.5	23.4
48	20	20.7	27.6

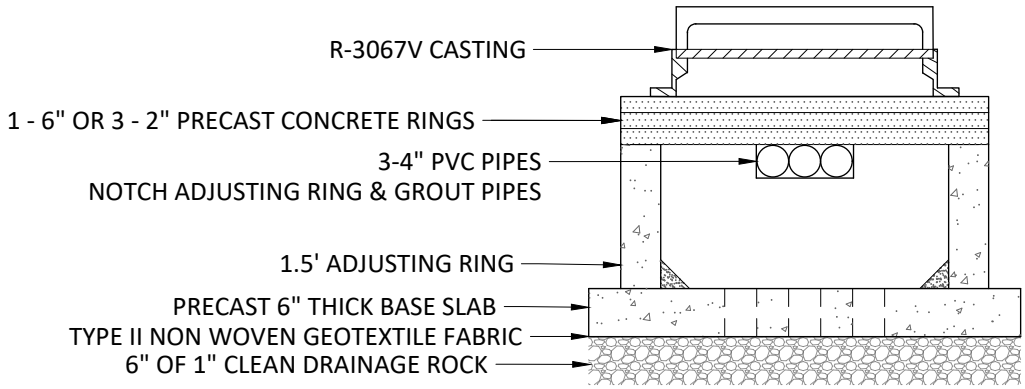
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

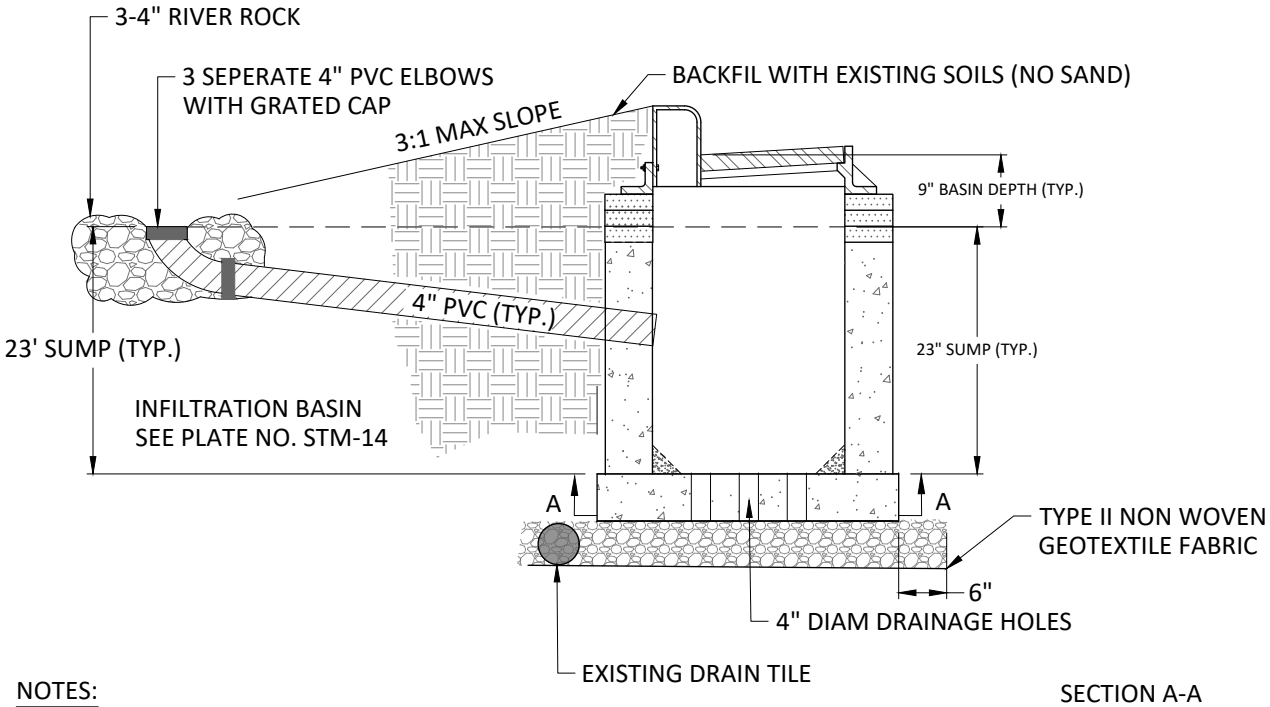
RIP RAP

Plate No.

STM-11

Revised 03/23

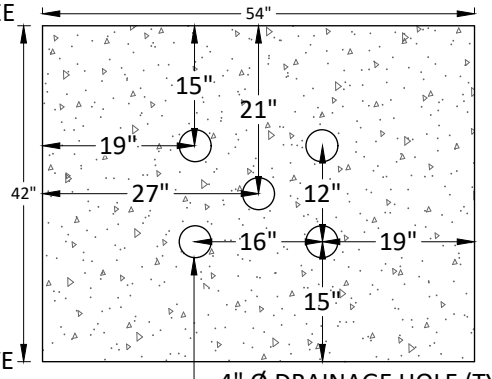




NOTES:

1. INLET CASTING SHALL BE SUMPED 2" FROM NORMAL GUTTER GRADE. SEE PLATE NO. STR-07 FOR CURB TRANSITION.
2. BOTTOM SLAB DRAINAGE HOLES SHALL BE CONSTRUCTED DURING FABRICATION OR CORE DRILLED PRIOR TO PLACEMENT.
3. IF NO DRAINTILE IS INSTALLED, PLACE 6" LAYER OF DRAINAGE ROCK TO ALLOW FLOW FROM UNDER STRUCTURE TO BIORETENTION FACILITY.
4. INSTALL PVC PIPE WITH REVERSE GRADE. INVERT AT BASIN SHALL BE A MINIMUM OF 1" HIGHER THAN TOP OF PIPE AT STRUCTURE.
5. PLACE PVC ELBOWS ON PIPE AT AN ELEVATION ABOVE GRADE LEVEL OF GARDEN AND CAP WITH A GRATE TO ALLOW WATER FLOW.
6. PLACE 3-4" RIVER ROCK AROUND PVC ELBOWS.
7. SEDIMENT BASIN STRUCTURE SHALL INCLUDE FRAME AND CASTING, 18" ADJUSTING RING, 6" OR 2" ADJUSTING RINGS, 6" BASE SLAB, DECORATIVE SPLASH BLOCKS, GEOTEXTILE FABRIC, DRAINAGE ROCK, AND PVC PIPE.

SECTION A-A



PRECAST 6" THICK BASE SLAB
DRAINAGE HOLE LOCATION

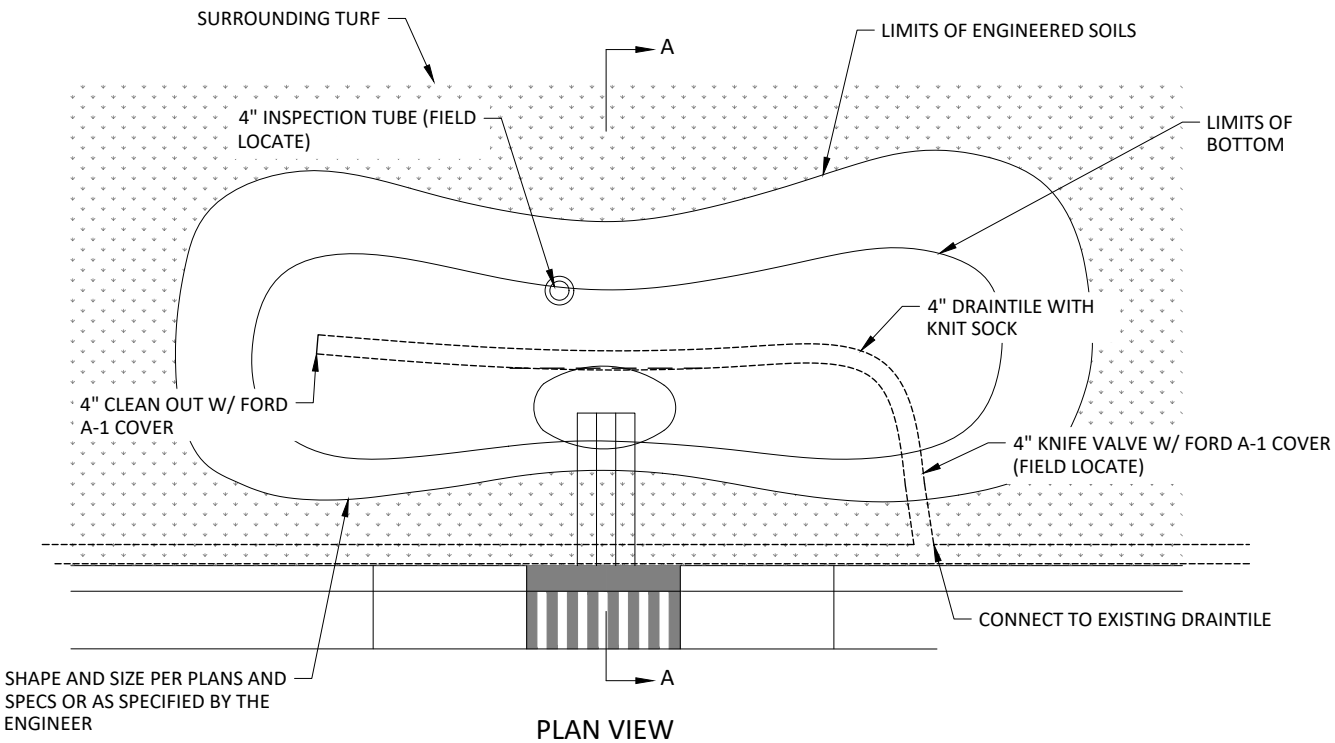
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

RAINGARDEN CATCH BASIN

Plate No.

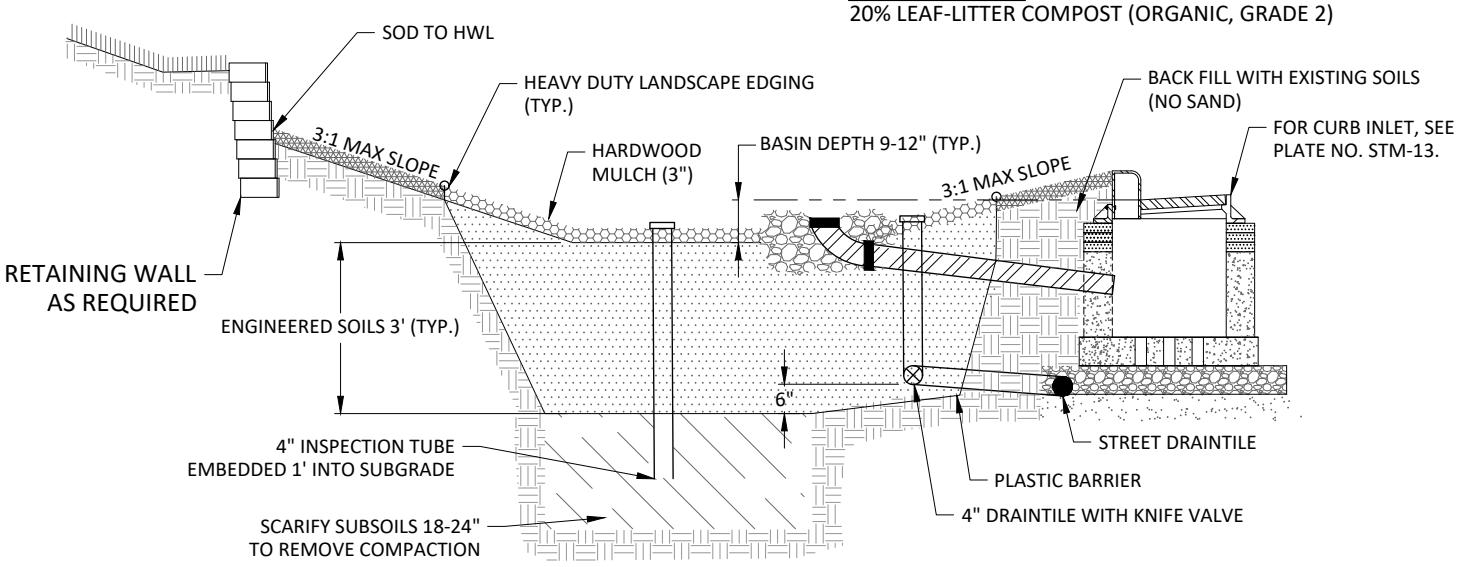
STM-12

Revised 03/23



PLAN VIEW

ENGINEERED SOIL: 80% COARSE-WASHED SAND (IMPORTED)
20% LEAF-LITTER COMPOST (ORGANIC, GRADE 2)



CROSS SECTION A-A

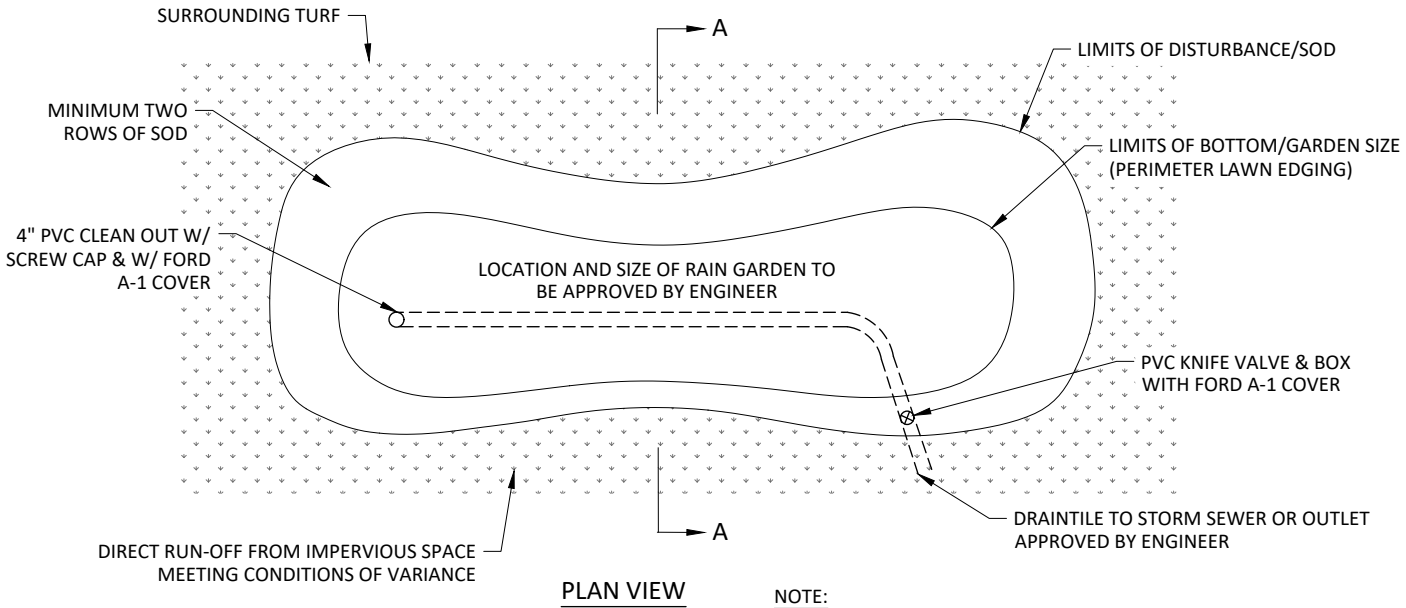
NOTES:

1. BASIN DETAIL IS SHOWN FOR GENERAL CONSTRUCTION PURPOSES, SEE PLANS AND SPECS FOR SPECIFIC BASIN SIZE AND SHAPE.
2. SEE PLATE NO. STM-19 FOR CONSTRUCTION, TESTING, AND INSPECTION REQUIREMENTS.
3. ALL BIORETENTION BASINS SHALL BE CONSTRUCTED TO DAKOTA COUNTY SOIL AND WATER CONSERVATION DISTRICT STANDARDS.
4. ALL BIORETENTION BASINS SHALL BE VEGETATED WITH PLUGS OR POTTED PLANTS SEEDING ONLY WILL NOT BE APPROVED.
5. ALL CLEANOUTS, VALVE BOXES AND INSPECTION TUBES REQUIRE A SCREW TYPE CAP.
6. BASINS WITHOUT THE ABILITY TO HAVE A DRAINTILE OUTLET SHALL RECEIVE A MODIFIED DEPTH (9" OR LESS) OF MODIFIED SOIL MIXTURE (75% EXISTING SOILS AND 25% GRADE 2 LEAF LITTER COMPOST) AS APPROVED BY THE ENGINEER.

CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

CURBSIDE BIORETENTION BASIN

Plate No.
STM-13
Revised 03/23



PLAN VIEW

SUBSOIL TYPE	SUBSOIL TYPE	RECOM. DEPTH
A	SAND/GRAVEL	12"-18"
B	SAND WITH CLAY OR SILT	9"-12"
C	CLAY OR SILT WITH SAND	6"-9"
D	CLAYS OR SILTS	0'-6"

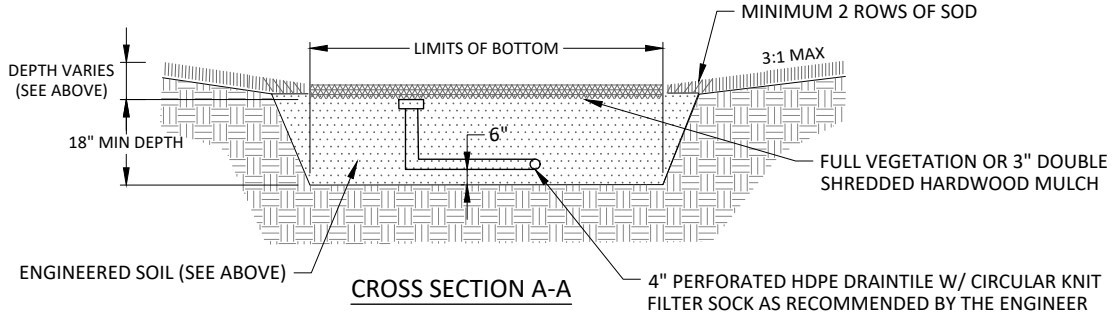
AREA OF ADDED IMPERVIOUS SURFACE AGREED TO BE TREATED (A) = _____ (SF)

VOLUME OF STORM WATER TO BE STORED (0.29 X A) = _____ (CF)

NOTE:

RAIN GARDEN VEGETATION SHALL BE GARDEN VARIETY PERENNIALS, SHRUBS, OR NATIVE PLANTS FROM A CONTAINER (PLUG TO HALF GALLON SIZE) PLACED ACCORDING TO RECOMMENDED PLANT SPACING REQUIREMENTS OR AS APPROVED BY THE ENGINEER.

ENGINEERED SOIL (DSCWCD MIX B)
80% COARSE – WASHED SAND (MnDOT 3126)
20% LEAF – LITTER COMPOST (ORGANIC, GRADE 2, MnDOT 3890)
NO TOPSOIL OR ON–SITE SOILS MAY BE USED IN ENGINEER.
3 RING INFILTROMETOR TESTING AND INFILTRATION TEST ON ENGINEERED SOILS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.



CROSS SECTION A-A

NOTES:

1. FINAL GRADE AND MULCHING SHALL BE DONE BY HAND.
2. NO EQUIPMENT WILL BE ALLOWED ON THE RAIN GARDEN AFTER EXCAVATION BEGINS.
3. PERIMETER EROSION CONTROL SHALL BE INSTALLED AND REMAIN IN PLACE UNTIL TURF IS ESTABLISHED AROUND RAIN GARDEN.
4. OWNER IS RESPONSIBLE FOR NOTIFYING ENGINEER FOR INSPECTION OF RAIN GARDEN FOR
   (1) FINALIZING RAIN GARDEN SIZE AND LOCATION.
   (2) OBSERVATION OF EXCAVATION AND SCARIFYING OF SUBSOIL.
   (3) APPROVAL TO BACKFILL WITH ENGINEERED SOILS.
   (4) FINAL INSPECTION WITH MULCH AND PLANTS INSTALLED.
5. GARDEN SIZE SHALL BE IN ACCORDANCE WITH THE MINIMUM GARDEN BOTTOM SIZE CALCULATED OR 12 SQUARE FEET, WHICHEVER IS GREATER.
6. OWNER SHALL MAINTAIN PER SMFMA AND REPORT O & M ACTIVITY ANNUALLY TO CITY ENGINEER.
7. FOLLOW CURRENT DAKOTA COUNTY SWCD LID STANDARDS.

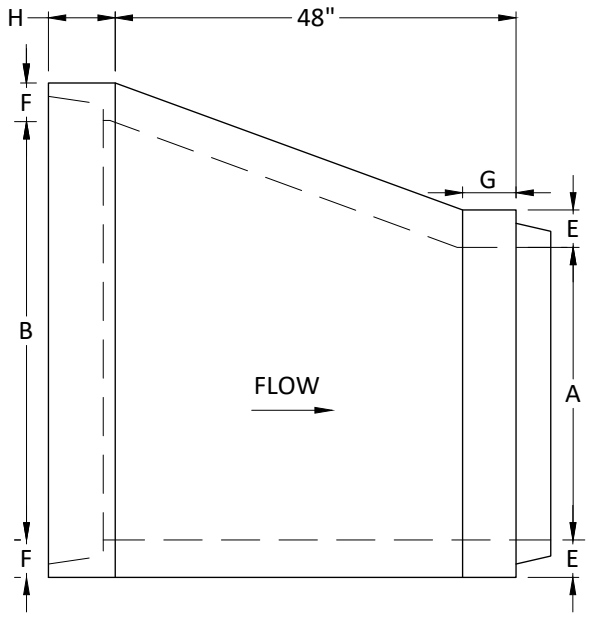
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

RESIDENTIAL BIORETENTION BASIN

Plate No.

STM-14

Revised 03/23



DIAMETER (INCHES)		LENGTH (INCHES)			
A	B	E	F	G	H
12	18	2	2 1/2	4	4
18	24	2 1/2	3	4	5
24	30	3	3 1/2	3 1/2	5
27	30	3 1/4	3 1/2	6	6
30	36	3 1/2	4	4	5
33	42	3	4 1/2	6	6
36	42	4	4 1/2	6	6 1/2
42	48	4 1/2	5	6	6 1/2

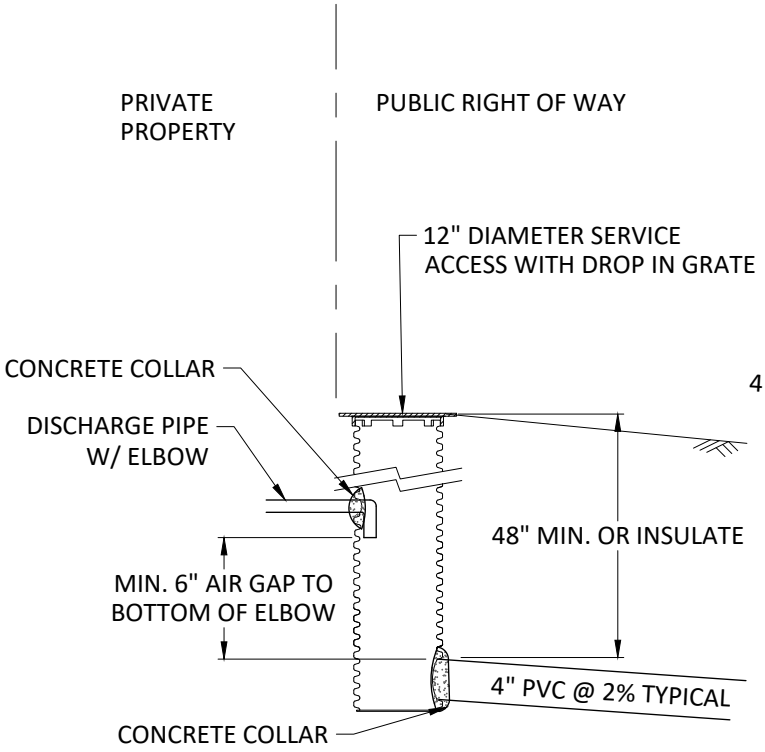
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

CONCRETE PIPE - INCREASER / REDUCER

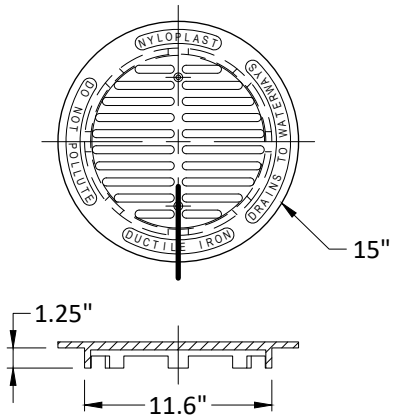
Plate No.

STM-15

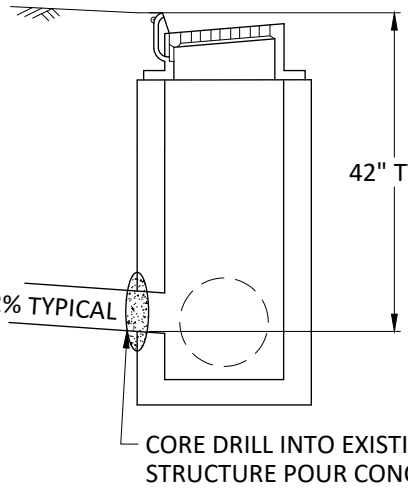
Revised 03/23



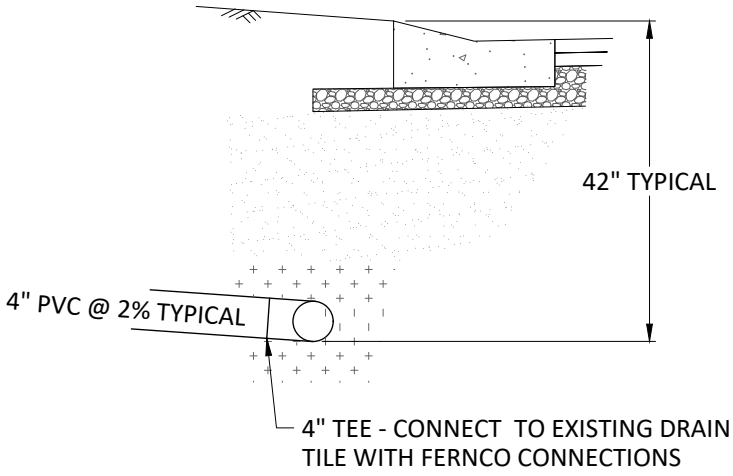
SERVICE ACCESS AT PROPERTY LINE



DROP IN GRATE
NYLOPLAST 1202D1



CONNECTION TO EXISTING CATCH BASIN



CONNECTION TO EXISTING DRAINTILE

NOTE:

1. ALL WORK DONE ON PRIVATE PROPERTY WILL REQUIRE A PLUMBING PERMIT FROM THE BUILDING DEPARTMENT. ALL WORK DONE ON PUBLIC RIGHT OF WAY OR PUBLIC EASEMENT WILL REQUIRE A RIGHT OF WAY EXCAVATION PERMIT FROM THE ENGINEERING DEPARTMENT.

CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

SUMP DISCHARGE CONNECTION

Plate No.
STM-16
Revised 03/23

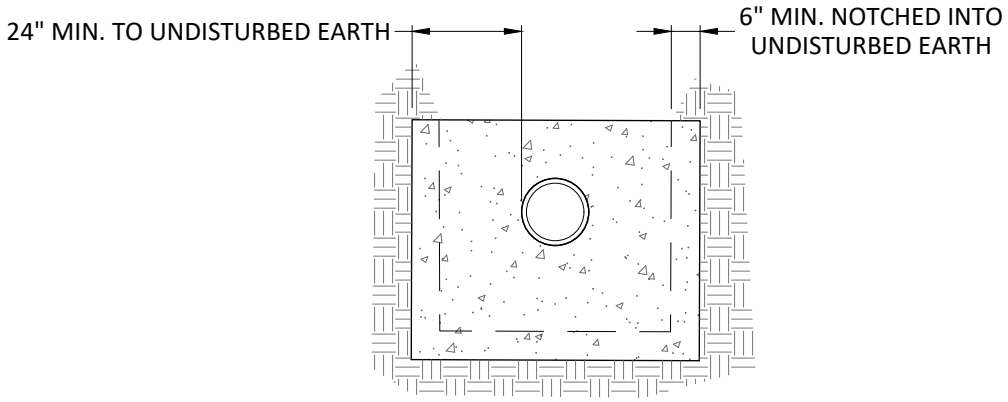
BIORETENTION INSTALLATION NOTES:

1. All work must comply with Dakota County Low Impact Development Standards. (See www.dakotaswcd.org)
2. The City of Inver Grove Heights Engineering Division is providing quality control and field verifications of the bioretention installations. Call the Engineering Division at (651) 450-2570 to schedule a preconstruction meeting prior to any disturbance in the bioretention area. City of Inver Grove Heights Engineering Division field verification is required prior to burying any work and/or installing any concrete, mulch and/or plant materials.
3. The bioretention areas must be staked off and marked to keep all construction traffic, equipment and material stockpiles out of the proposed bioretention areas.
4. Bioretention practices shall not be excavated until the contributing drainage areas with exposed soils have been fully stabilized and bituminous base course installed on contributing pavement areas. Divert upland drainage areas to prevent runoff from entering the excavated cell or into the work area. DO NOT use bioretention cells as temporary sediment basins or allow construction runoff into the cell.
5. Deliver sample materials onsite for city of Inver Grove Heights Engineering prior approval. Prior to beginning the installation, sufficient material quantities shall be onsite to complete the installation and stabilize exposed soil areas without delay.
6. Care must be taken to avoid contamination of engineered soils with sediment, in-situ or topsoil during and after installation. Materials must be segregated.
7. Installation with dry soil conditions is critical to prevent smearing and compaction. Schedule work for periods of dry weather. Do not work if soil conditions are wet. Excavation, soil placement and rapid stabilization of perimeter slopes with turf sod must completed before the next precipitation event. Turf sod placed in flow paths shall be secured with at least 6 stakes per square yard. Place stakes along uphill seam edges to prevent undermining flows until sod roots establish.
8. Do not leave infiltration areas and/or perimeter slopes exposed overnight. Secure the site from risk of precipitation damages at the end of every work day. In the event of rain, take action to divert stormwater away from the work area and temporarily cover of all exposed soils with filter fabric or impermeable sheeting.
9. City of Inver Grove Heights Engineering Division field observation of excavation and soil placement is required. Notify the engineering division prior to digging. Use backhoe with tooth bucket for cell excavation to avoid compacting or smearing of soils. (Do not use skid steer for excavation within the cell) Use tooth bucket to scarify (rip) underlying soils 6" to 9" deep to remove compaction. Gently mix the first lift of engineered soils with the loosened underlying soils to avoid stratification and promote permeability. Use excavator bucket to place materials. Construction equipment shall not be allowed into the basin. Leveling and final grading within the cell must be completed by hand.
10. The side slopes of the bioretention cell shall be 3h:1v or flatter. Lawn edging shall be installed along the outside perimeter of the cell to physically defined the limits of the bioretention cell. Lawn edging shall be securely staked per manufacturers installation requirements or 5 ft O.C. whichever is greater.
11. Replacement Engineered Soil shall be Minnesota Stormwater Manual 4.1.2 Mix B: Enhanced Filtration Blend (Well blended mixture of 80% ASTM C-33 Coarse Washed Sand (MnDot 3126) and 20% MnDot 3890 Grade 2 Leaf Litter Compost. The material supplier shall provide documentation that the compost has been sampled and tested as required by the Seal of Testing Assurance (STA) Program of the United States Composting Council (USCC) and a gradation sieve analysis for the washed sand. THE ENGINEERED SOIL SHALL NOT CONTAIN ANY TOPSOIL OR FILTER AGGREGATE WITH FINES.
12. Perforated under-drains shall be slotted single wall HDPE with circular knit polymeric filament filter sock per ASTM D6707-01. MnDot 3733 Type sewn seam non-woven fabric shall NOT be used.
13. Notify the City of Inver Grove Heights Engineering Division prior to placing any mulch or installing any plantings. The engineering Division shall field check elevations, soil compaction and permeability. Note: Depending on conditions observed, compaction removal by hand may be needed prior to placing mulch and/or after plantings.
14. Install Temporary Blocks at Curb and Gutter Openings immediately following curb installation to protect cells from sediment and/or high flow damages. Do not allow water from pavement cleaning operations or runoff from exposed soils into the cell. The Engineering Division will remove the board and stakes after field observations determine the plantings are well established and the cell is ready to accept runoff.
15. Installed sod and plantings require a total of 1" of water per week and active weed management until well established. Watering costs are considered incidental to sod and planting installations.
16. Soil certification, delivery tickets, spec sheets and plant tags shall be provided to the City.

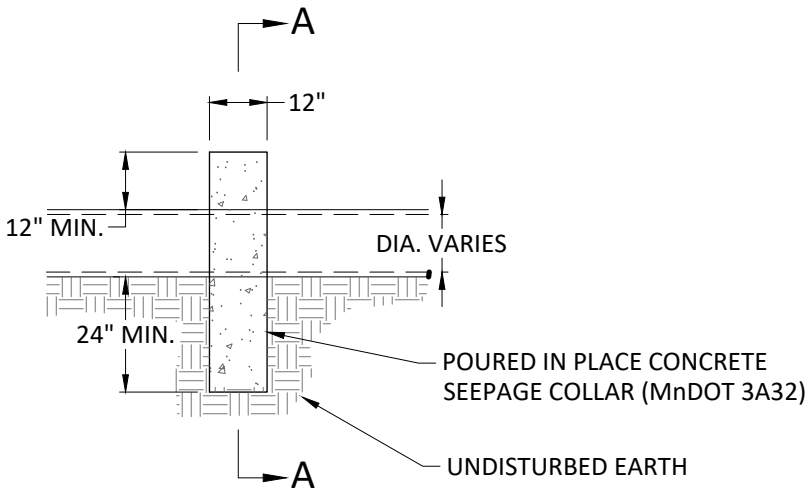
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

BIORETENTION NOTES

Plate No.
STM-17
Revised 03/23



SECTION A-A



NOTES:

1. NO BLOCK OR OTHER FILL MATERIAL ALLOWED.
2. FRAME COLLAR USING WOOD OR OTHER SUITABLE MATERIAL.
3. NOTCH ALL SIDES INTO UNDISTURBED SOILS A MINIMUM OF 6".

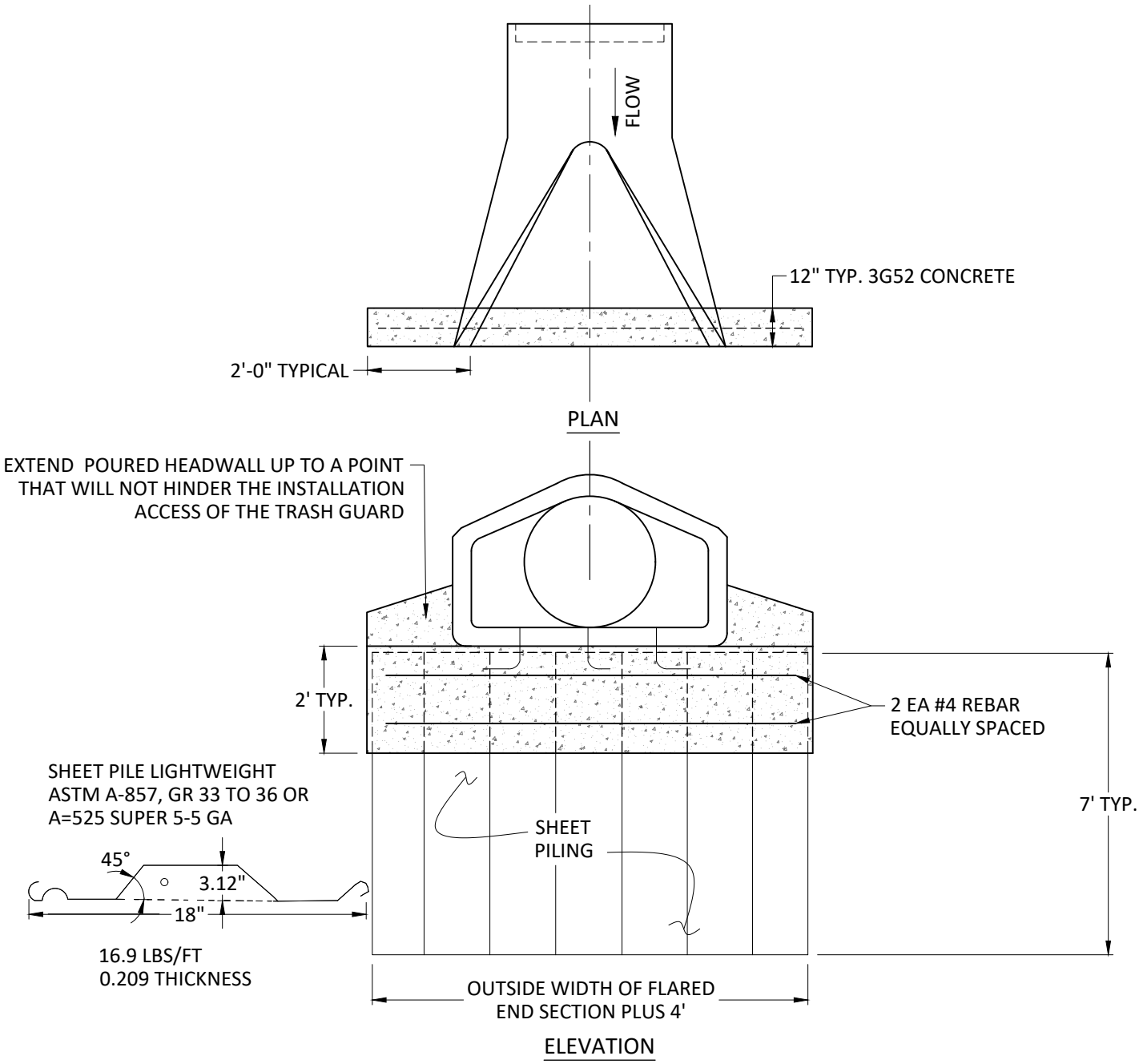
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

ANTI SEEPAGE COLLAR

Plate No.

STM-18

Revised 03/23



NOTES:

1. INSTALL TRASH GUARD AND JOINT TIES PER PLATE NO. STM-10.
2. THE LENGTH OF REBAR SHALL BE EQUAL TO THE WIDTH OF THE FLARED END SECTION PLUS 3'.
3. SHEET PILING WILL BE REQUIRED FOR OUTFALLS LOCATED ABOVE THE NORMAL WATER LINE.
4. THE CITY ENGINEER MUST APPROVE ALL OUTFALLS ABOVE THE NWL. PILING MAY BE REQUIRED FOR OUTFALLS NOT MEETING CITY DESIGN STANDARDS.

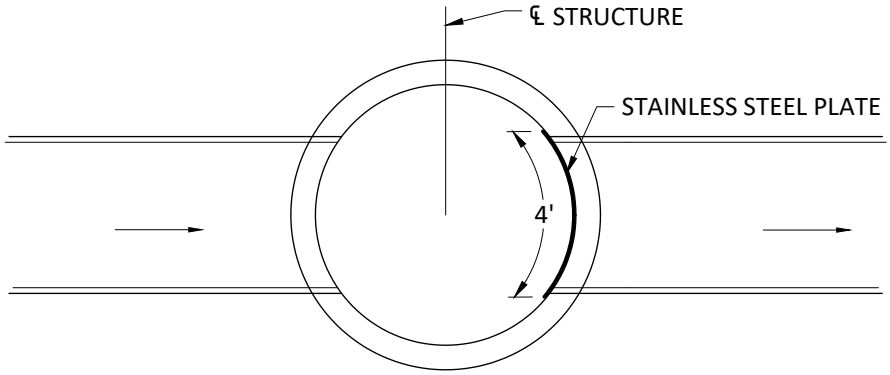
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

FLARED END SECTION WITH SHEET PILING

Plate No.

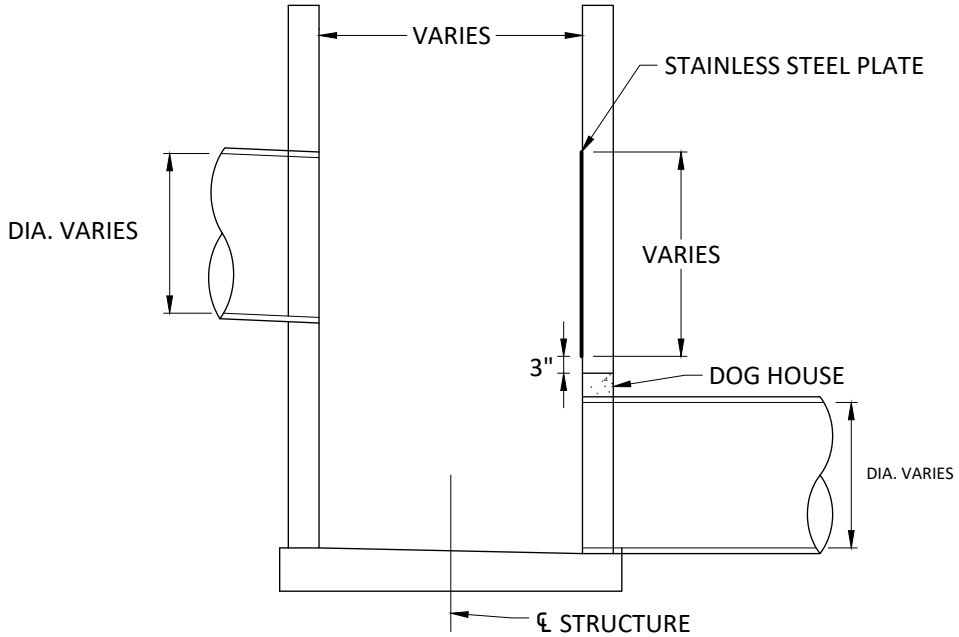
STM-19

Revised 03/23



TOP VIEW

NOT TO SCALE



SIDE VIEW

NOT TO SCALE

NOTES:

1. SPLASH PLATES ARE REQUIRED FOR ALL STORM SEWER DROP STRUCTURES.

2. STEEL PLATE SHALL BE 4' X 1/2" CONCAVE STAINLESS STEEL PLATES FASTENED TO STRUCTURE WALL W/ 1/2" STAINLESS STEEL ANCHOR BOLTS. INSTALL PLATE SEGMENTS 3" ABOVE LOWER DOG HOUSE TO CROWN OF UPPER PIPE. (INCIDENTAL)

3. SCOUR PLATE SHALL BE BUILT TO FIT. INSTALL PLATE PRIOR TO LID AND CASTING REPLACEMENT.

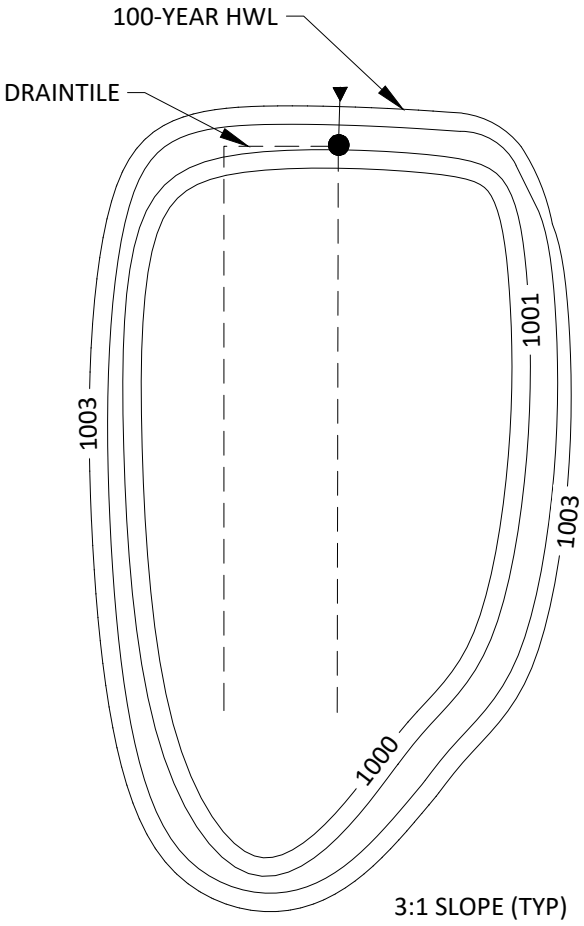
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

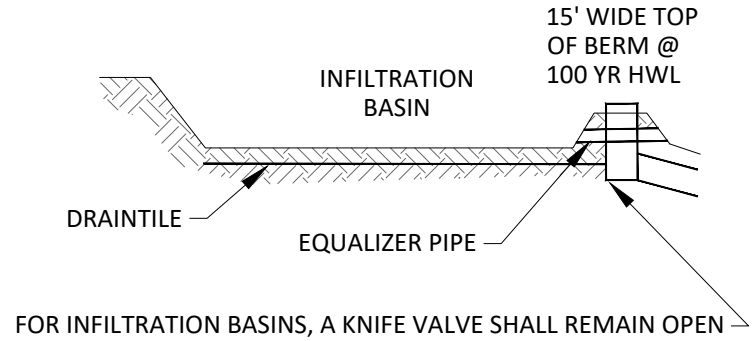
STORM SEWER SPLASH PLATE

Plate No.

STM-20

Revised 03/23





FOR INFILTRATION BASINS, A KNIFE VALVE SHALL REMAIN OPEN TO PROMOTE VEGETATION ESTABLISHMENT. ONCE VEGETATION IS ESTABLISHED, DRAINTILE VALVE SHALL BE CLOSED.

NOTES:

1. BASE BOTTOM ELEVATION ON DEPTH REQUIRED TO MEET 48 HR DRAWDOWN.
2. CALCULATE INFILTRATION VOLUME BASED ON THE STORAGE BETWEEN BASIN BOTTOM TO HWL.
3. PROVIDE LANDSCAPING AS DESCRIBED IN DESIGN GUIDE.

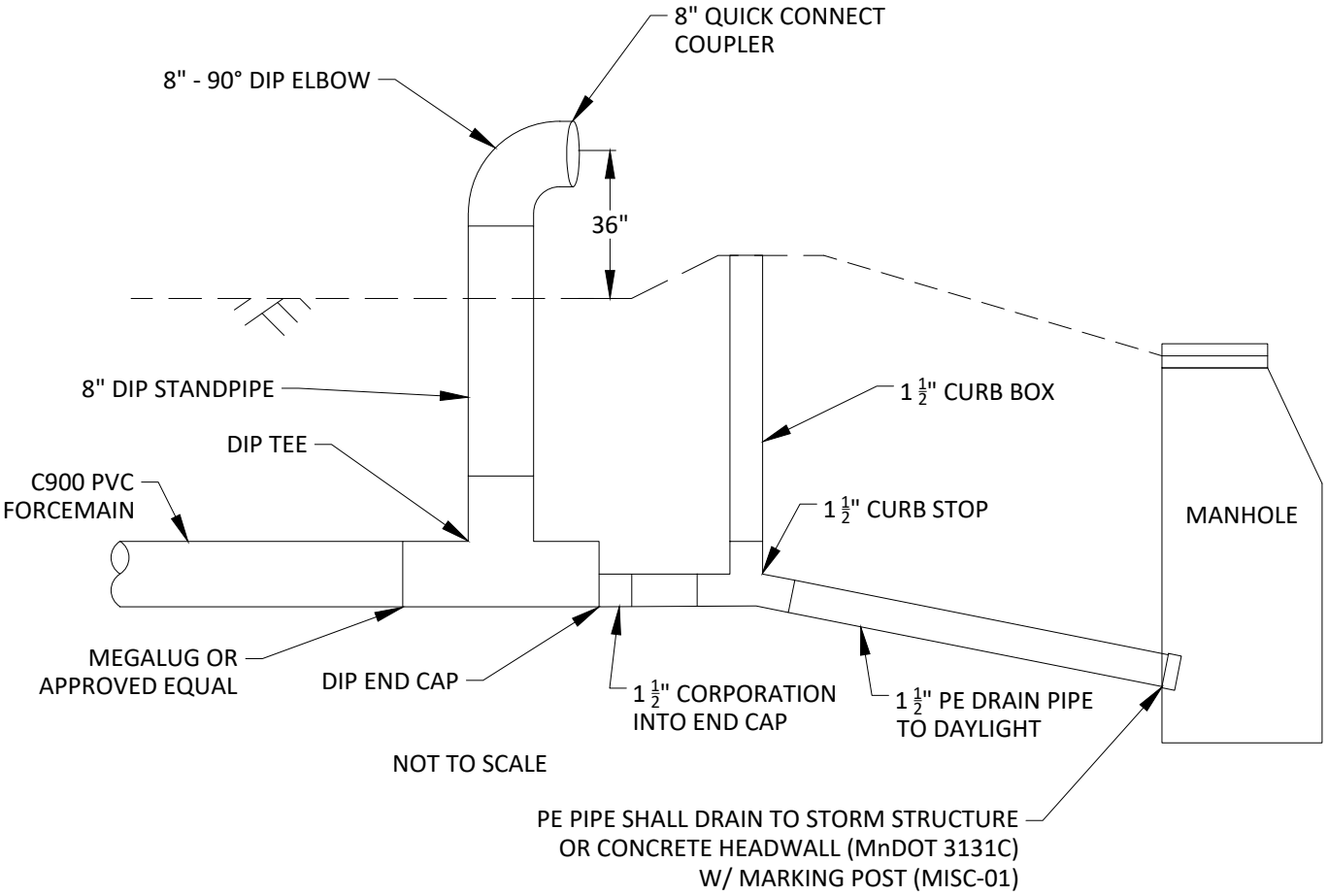
CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

TYPICAL POND AND INFILTRATION BASIN

Plate No.

STM-21

Revised 03/23



NOTES:

1. ABOVE GROUND 90° ELBOW AND DIP STANDPIPE SHALL BE FLANGED.
2. FACE ELBOW FLANGE TOWARDS ROAD
3. TIE JOINTS AT FITTINGS.

CITY OF INVER GROVE HEIGHTS
PUBLIC WORKS ENGINEERING DIVISION

STORM SEWER FORCEMAIN CONNECTION DETAIL

Plate No.

STM-22

Revised 03/23