NEENAH R-1733 SERIES SOLID COVER (SEE RIGHT), ESS BROS. 301, OR APPROVED EQUAL

27" HDPE PLASTIC ADJUSTING RINGS (MIN. 2) SEE NOTE:

O-RINGS ON JOINTS

PRECAST OR BLOCK DESIGN 4020

NOTE: WHERE PVC PIPE IS USED THE CONTRACTOR SHALL FURNISH MANHOLE WITH WATER TIGHT BOOT.

NOTE: DASHED LINE DENOTES SUMP, IF SPECIFIED, IN MANHOLE

NOTE:
PLASTIC HDPE ADJUSTING RINGS (MIN. 2)
USE A COMBINATION OF 2", 6" AND 12" RINGS TO ACHIEVE NEEDED HEIGHT.
INCLUDE MIN. 2-2" RING IMMEDIATELY UNDER THE CASTING. RINGS SEALED W/ BUTYL CAULK. SEE GV-SS-010

8" PRECAST CONCRETE OR CAST-IN-PLACE BASE

PRECAST OR BLOCK

36"

5"

D / 2

4"

27"

12"

16"

35 7/16"

24"

7/8"

7"

3/4"

1 1/16"

25 3/4"

CITY ENGINEER REG 23110

APPROVED JANUARY 1, 2018
HDPE PLASTIC ADJUSTMENT RINGS (OR APPROVED EQUAL) MIN. 2 OR AS DIRECTED BY ENGINEER. SEE NOTE:

SEAL ADJUSTMENT RINGS (SEE NOTE)

PRECAST CONCRETE BASE SLAB

OPENINGS AS REQUIRED

NOTE:

CASTINGS SHALL BE NEENAH R3067-L WITH "L" TYPE GRATE.

IF MORE THAN 5 - 2" RINGS ARE NEEDED CONTRACTOR SHALL USE A COMBINATION OF 2", 6" AND 12" RINGS TO ACHIEVE NEEDED HEIGHT.

REINFORCING AND CONCRETE ARE TO BE IN ACCORDANCE WITH ASTM SPECIFICATION C478.

NOTE:

PLASTIC HDPE ADJUSTING RINGS (MIN. 2) USE A COMBINATION OF 2", 6" AND 12" RINGS TO ACHIEVE NEEDED HEIGHT. INCLUDE MIN. 2-2" RING IMMEDIATELY UNDER THE CASTING. RINGS SEALED W/BUTYL CAULK. SEE GV-SS-010
HDPE PLASTIC ADJUSTMENT RINGS
(OR APPROVED EQUAL)
MIN. 2
OR AS DIRECTED BY ENGINEER.
SEE NOTE:

SEAL ADJUSTMENT RINGS (SEE NOTE)

3.0'
2.0'
5'

VARIABLE
—
VARIES
(2' TYP.)

OPENINGS AS REQUIRED

PRECAST CONCRETE
BASE SLAB

NOTE:
CASTINGS SHALL BE NEENAH R3067-L WITH "L" TYPE GRATE.

IF MORE THAN 5 – 2" RINGS ARE NEEDED
CONTRACTOR SHALL USE A COMBINATION OF 2", 6" AND 12" RINGS TO ACHIEVE NEEDED HEIGHT.

RINGS SHALL BE SEALED USING APPROVED FLEX-SEAL UTILITY SEALANT AND APPLICATION SHALL FOLLOW DETAIL GV-SS-010.

REINFORCING AND CONCRETE ARE TO BE IN ACCORDANCE WITH ASTM SPECIFICATION C478.

NOTE:
PLASTIC HDPE ADJUSTING RINGS (MIN. 2)
USE A COMBINATION OF 2", 6" AND 12" RINGS TO ACHIEVE NEEDED HEIGHT.
INCLUDE MIN. 2–2"
RING IMMEDIATELY UNDER THE CASTING.
RINGS SEALED W/BUTYL CAULK. SEE GV-SS-010

APPROVED JANUARY 1, 2018

CITY ENGINEER REG 23110

CATCH BASIN DESIGN K WITH SUMP

GV-ST-030
NEENAH R-4342 DITCH GRATE, STOOL TYPE

8" POURED CONC. BASE. FOR ALTERNATE PRECAST CONCRETE BASE, SEE MNDOT STANDARD PLATES INDEX. REINFORCEMENT: 0.12 SQ. IN. PER FOOT IN EACH DIRECTION.

PIPE

27" DIA. PRECAST CONCRETE PIPE

SLOPE 1"/FT.

2" CLR.

5" MIN.
FITTING HUB WITH 4” THREADED PLUG. APPLY TEFOLON THREAD TAPE, OR APPROVED EQUAL, OVER THREADS.

MCDONALD 74M "A" SERIES CAST IRON METER PIT FRAME AND COVER

FINISHED GRADE

4” TOPSOIL OR DRIVEWAY PAVEMENT

LEAVE 24” OF EXCESS WIRE AT SURFACE.

NOTE:

FOR TRACER WIRE INSTALLATION REQUIREMENTS, REFER TO THE MINNESOTA RURAL WATER ASSOCIATION STANDARD DETAILS.

GROUND WIRE

TRACER WIRE

MAINLINE TO LATERAL LUG CONNECTOR

MAGNESIUM GROUNDING ANODE

FLOW

VARIES
CONCRETE CURB

TYPICAL SECTION

12" MIN.

MAINLINE TO LATERAL LUG CONNECTOR

1.5' MAX.

METAL LOCATE POST

GEOTEXTILE FABRIC TYPE V

4" PVC

2.0 % SLOPE

MAGNESIUM GROUNDING ANODE

PVC CAP ON END OF STUB

COARSE FILTER AGGREGATE MNDOT SPEC. 3149.2 H

6"X4" WYE

PERFORATED PIPE WITH GEOTEXTILE SOCK

SOLID PVC PIPE (SUMP SERVICE STUB)

TRACE WIRE
ACCESS BOX

NOTE:
EXTEND COARSE FILTER AGGREGATE & GEOTEXTILE FABRIC FULL LENGTH OF PERFORATED PIPE

PERFORATED PIPE SHALL BE PLACED AT THE BOTTOM OF THE STREET EXCAVATION WITH PERFORATIONS UP (OR AS DIRECTED BY ENGINEER)

FOR TRACER WIRE BOX
SEE DETAIL GV-ST-110

NOTE:
FOR TRACER WIRE INSTALLATION REQUIREMENTS, REFER TO THE MINNESOTA RURAL WATER ASSOCIATION STANDARD DETAILS.

PERFORATED PIPE WITH GEOTEXTILE SOCK (SUB-GRADE DRAINAGE)
50 FT. TYP. UPSTREAM OF STRUCTURE (OR AS DIRECTED BY ENGINEER)

APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110
SUB-GRADE & SUMP DRAINAGE PIPE WITH SERVICE STUB & CLEANOUT
Golden Valley
GV-ST-060
FOR TRACE WIRE BOX (SEE DETAIL GV–ST–110)

NOTE:
EXTEND COARSE FILTER AGGREGATE & GEOTEXTILE FABRIC FULL LENGTH OF PERFORATED PIPE ONLY

PERFORATED PIPE SHALL BE PLACED AT THE BOTTOM OF THE STREET EXCAVATION WITH PERFORATIONS UP (OR AS DIRECTED BY ENGINEER)

NOTE:
FOR TRACER WIRE INSTALLATION REQUIREMENTS, REFER TO THE MINNESOTA RURAL WATER ASSOCIATION STANDARD DETAILS.

NOTE:
CLEANOUT TO BE INSTALLED AT END OF STUB AT TIME OF CONNECTION BY OTHERS (SEE DETAIL GV–ST–060)

6" PERFORATED PIPE WITH GEOTEXTILE SOCK (SUB–GRADE DRAINAGE) 50 FT. TYP. FROM DRAINAGE STRUCTURE (OR AS DIRECTED BY ENGINEER)

MAGNESIUM GROUNDING ANODE

6" SOLID PVC PIPE SDR–35 (SUMP DRAINAGE)
GRATE TO BE HOT DIPPED GALVANIZED AND TO COME IN TWO SECTIONS

PROVIDE 6-1/2" SS ANCHOR BOLTS WITH CLIPS

1 1/2" x 3/8" STEEL BARS @ 4" O.C.

1 1/2" x 3/8" OUTER RING

PROVIDE 1/4" PLATE WITH LOCKING CLASP. CLASP TO HAVE 1/2" PADLOCK HOLE.

1/4" x 1/4" STEEL BAR WELD TO EACH MEMBER

PROVIDE 1/2" DIA. CONTINUOUS HINGE BAR

---

POND BUFFER ZONE (VARIES)

GRATE (SEE ABOVE)

100 YEAR HIGH WATER LEVEL

FINISHED GRADE

3:1 SLOPE

RIP-RAP AND FABRIC AS DIRECTED BY ENGINEER

NWL

FINISHED GRADE

3:1 SLOPE

6"

PIPE LENGTH AND GRADE FROM POND TO VARY

PRECAST CONCRETE SLAB

STRUCTURE TO BE SCREENED BY PLANTINGS IN BUFFER ZONE.

STRUCTURE BEDDING DEPTH TO VARY AS DIRECTED BY ENGINEER

8" MINIMUM

APPROVED JANUARY 1, 2018

CITY ENGINEER REG 23110

OUTLET CONTROL SKIMMER STRUCTURE WITH GRATE

City of Golden Valley

GV-ST-080
CORRUGATED POLYETHYLENE PIPE
(AASHTO M294)

<table>
<thead>
<tr>
<th>NOMINAL PIPE DIAMETER (INCHES)</th>
<th>MAXIMUM COVER (FEET)</th>
<th>TRENCH WIDTH (COVER ≤ 10 FT.) (INCHES)</th>
<th>TRENCH WIDTH (COVER ≥ 10 FT.) (INCHES)</th>
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<tr>
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<td>10'</td>
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EXISTING SURFACE

COVER:
2' MIN. (UNPAVED AREAS)
3' MIN. (PAVED ROADS)

12" MIN.
19" MIN.
6" MIN.

TRENCH WIDTH

GRANULAR BACKFILL
MNDOT SPEC. 3149.2D

CL. C BEDDING
MNDOT SPEC. 2451.3

FOUNDATION (TO BE DETERMINED IN FIELD BY ENGINEER)

INSTALLATION OF CORRUGATED POLYETHYLENE PIPE

GV-ST-090

APPROVED JANUARY 1, 2018

CITY ENGINEER REG 23110
1/4" HARDWARE CLOTH SCREEN

1 1/2" OR 2" PIPE

1" MIN.

EXISTING GROUND

MINIMUM 2" PIPE

BUILDING FOUNDATION

MAGNESIUM GROUNDING ANODE

TO CONNECTION POINT AT RIGHT OF WAY

FROM SUMP PUMP

NOTE:
FOR TRACER WIRE INSTALLATION REQUIREMENTS, REFER TO THE MINNESOTA RURAL WATER ASSOCIATION STANDARD DETAILS.

(NOT TO SCALE)
TRACER WIRE ACCESS BOX SHALL BE A VALVCO TYPE. LEAVE A MINIMUM OF 1" OF TRACER WIRE SLACK IN BOX.

NOTES:
CASTING CONFORMS TO: ASTM SPECIFICATION A-48 CLASS 30
ABS SHAFT CONFORMS TO: ASTM SPECIFICATIONS D-1788
TRACER WIRE ACCESS BOXES SHALL BE MANUFACTURED BY CP TEST SERVICES - VALVCO, INC. AND SHALL INCLUDE AN SP-BRACKET MANUFACTURED BY COPPERHEAD INDUSTRIES.