



# CITY OF NEW HOPE

# STANDARD DETAIL PLATES



December 2021

Stantec Project No. 34\_DTL

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LAST REVISION:  
DEC. 2021

CITY OF NEW HOPE, MN

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LAST REVISION:  
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PLATE NO.  
IND-2

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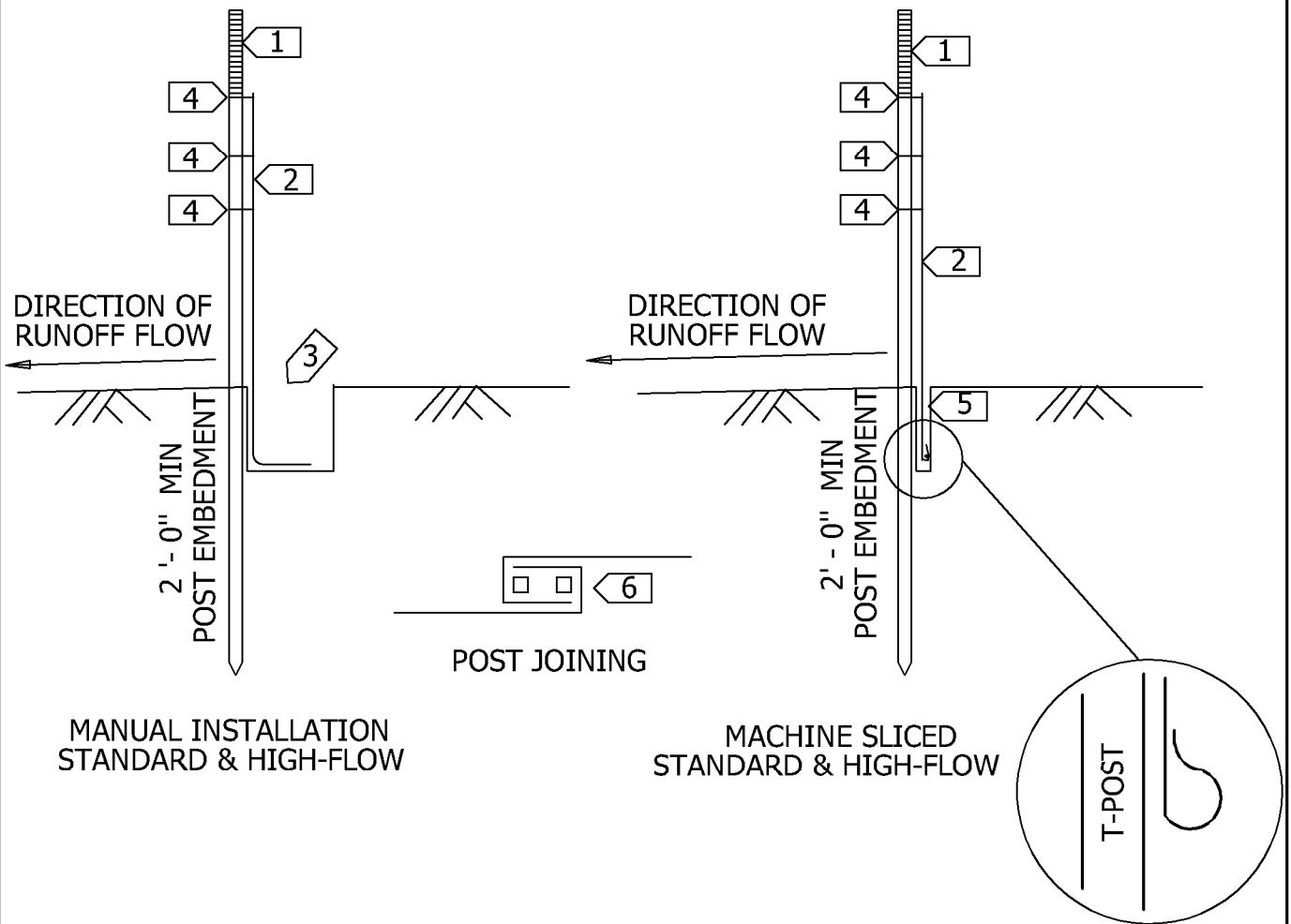
LAST REVISION:  
DEC. 2021

CITY OF NEW HOPE, MN

PLATE NO.  
IND-3

**KEY NOTES:** 

1. T-post length, 5 ft. min. at 6' max. spacing.
2. Geotextile shall meet MnDOT Spec. 3886.
3. 6" x 6" fabric anchorage trench and backfill with tamped natural soil.
4. Plastic zip ties (3 minimum w/ 50lb tensile) located on top 8".
5. Machine slice 8"- 12" depth (plus 6" flap).
6. Silt fence to wrap around post at least 180°.

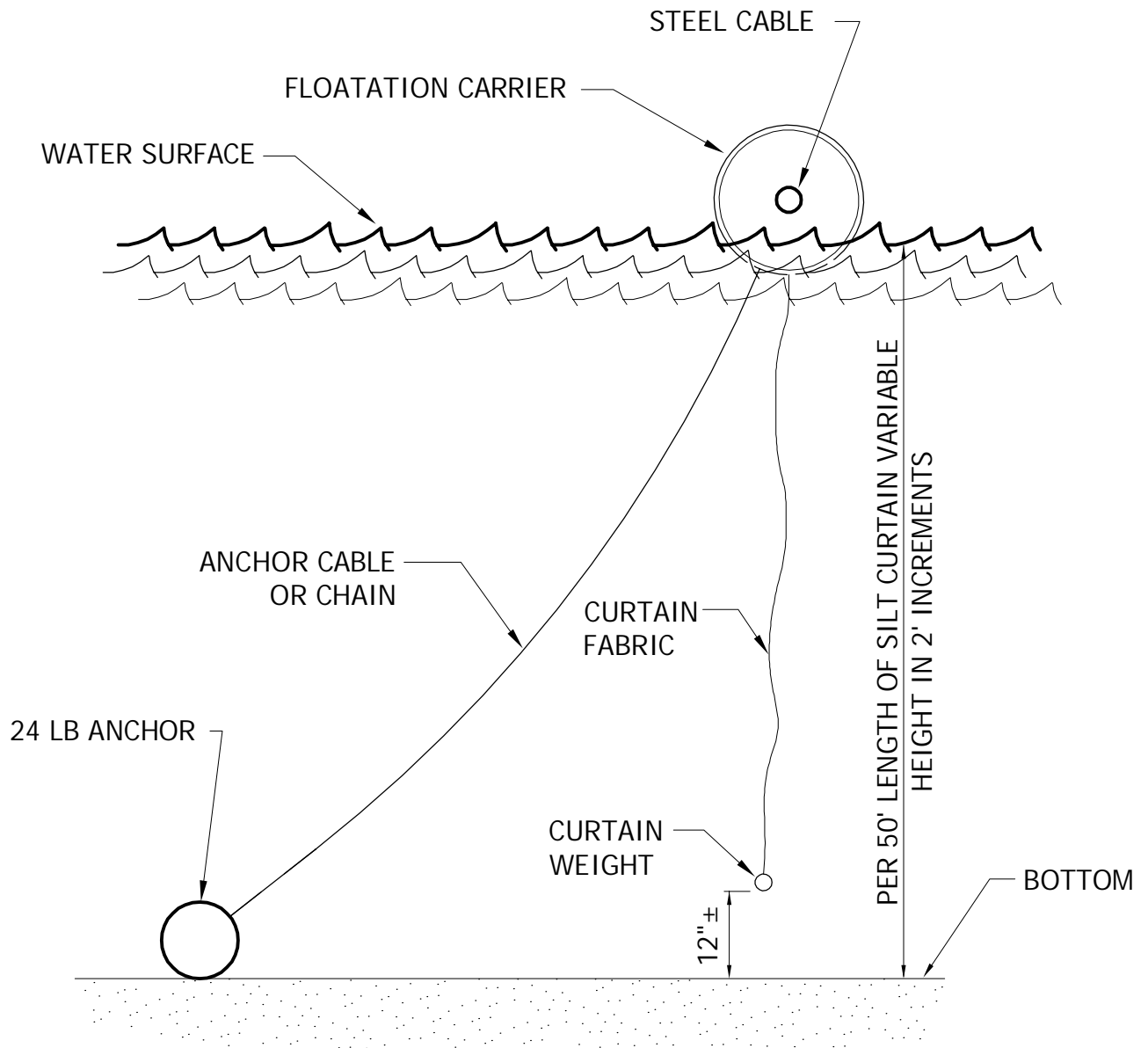


**SILT FENCE INSTALLATION**

**CITY OF NEW HOPE, MN**

LAST REVISION:  
AUG 2017

PLATE NO.  
ERO-1



10' MAX. SPACING  
BETWEEN ANCHORS.

NOTE: DOUBLE SILT FENCES SHOULD BE SPACED 10'  
APART. CURTAIN LENGTH TO MATCH BOTTOM  
PROFILE AS CLOSELY AS POSSIBLE.



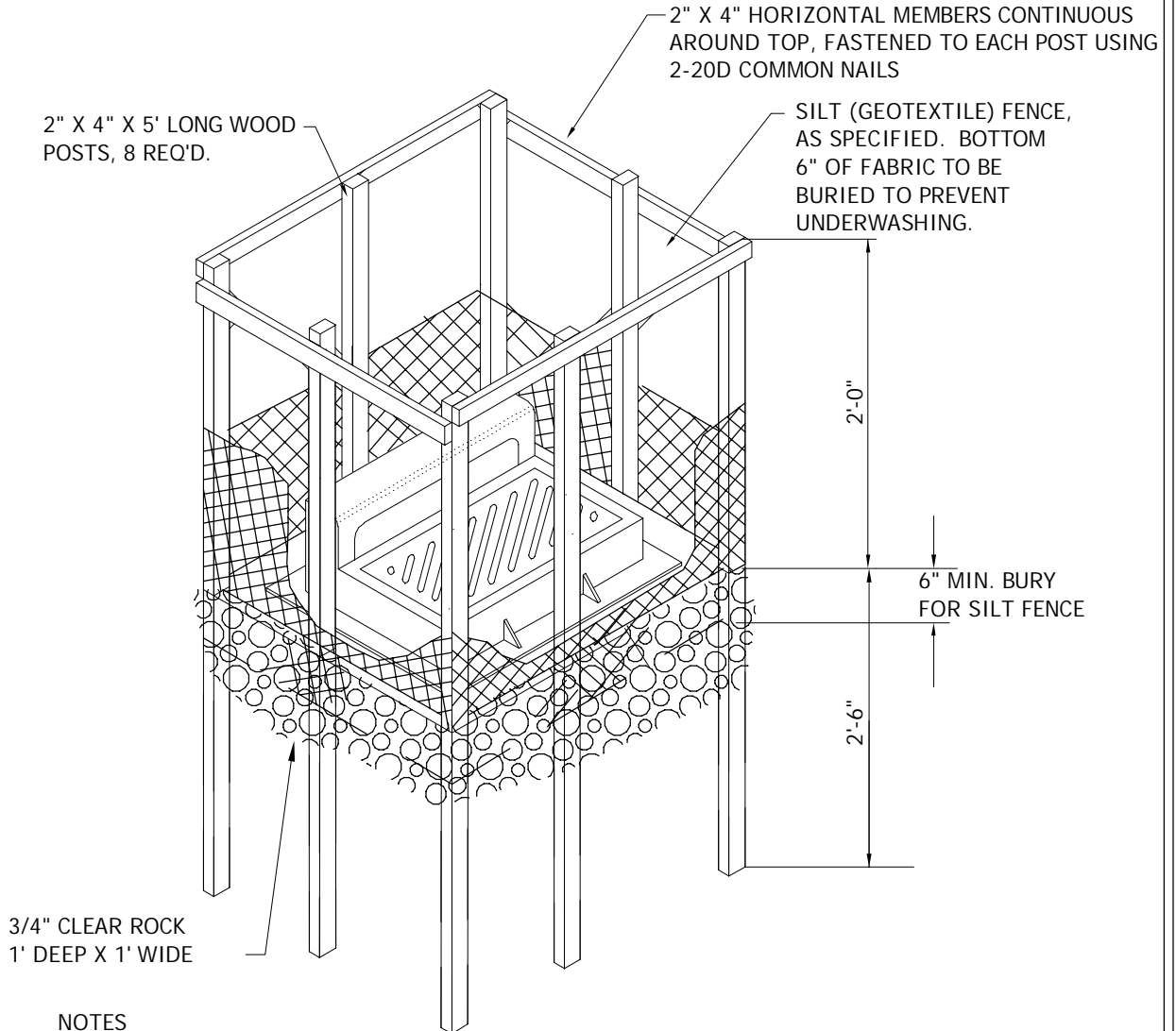
FLOATING SILT FENCE

CITY OF NEW HOPE, MN

LAST REVISION:  
Feb. 2013

PLATE NO.  
ERO-3

WOODEN LATH SHALL BE NAILED SECURELY TO THE POST MEMBER TO SECURE FILTER FABRIC.



**NOTES**

CONTRACTOR TO SET POSTS AND FABRIC AROUND THE BASIN DURING THE BACKFILLING OPERATION. SIZE AND SHAPE OF THE BARRIER SHALL BE MODIFIED TO FIT STRUCTURE. SILT FENCE TO BE PLACED AROUND ENTIRE PERIMETER. TOP OF SILT FENCE TO HAVE 12" MIN. CLEARANCE TO EXISTING GRADE.

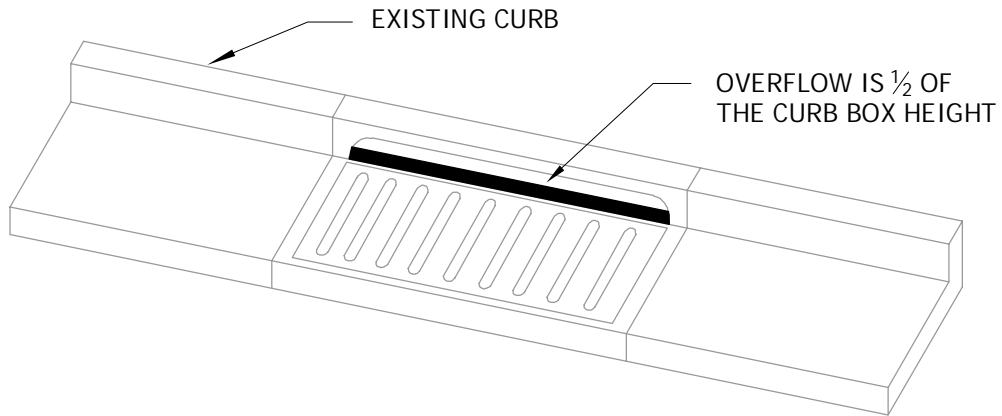


**EROSION CONTROL AROUND  
CATCH BASIN**

LAST REVISION:  
Jan. 2005

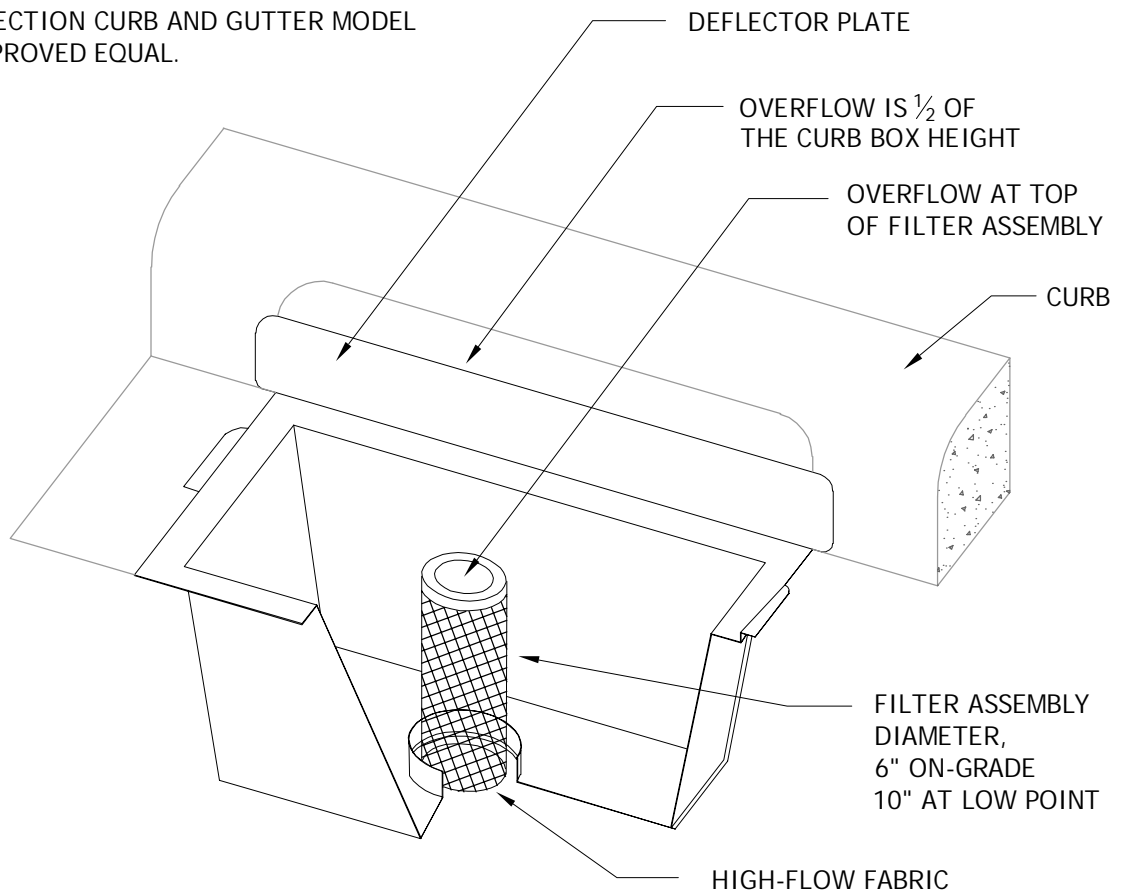
**CITY OF NEW HOPE, MN**

PLATE NO.  
**ERO-4A**



PLAN

WIMCO ROAD DRAIN CG-3067\* HIGH FLOW  
INLET PROTECTION CURB AND GUTTER MODEL  
OR CITY APPROVED EQUAL.



\* FOR THE NEW R-3290-VB STANDARD CASTING,  
INSTALL WIMCO ROAD DRAIN CG-3290 OR CITY  
APPROVED EQUAL.



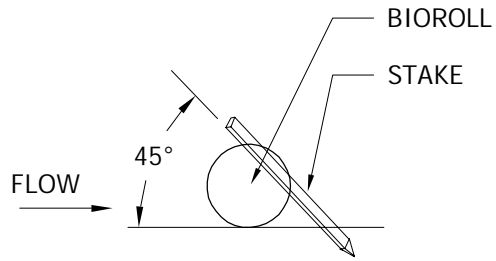
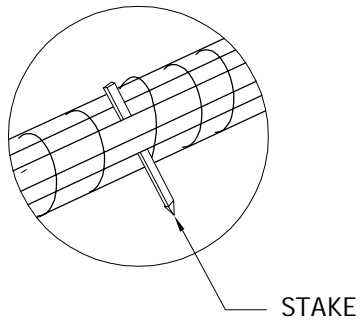
INLET PROTECTION  
CATCH BASIN INSERT  
AFTER PAVING

LAST REVISION:  
Jan. 2005

CITY OF NEW HOPE, MN

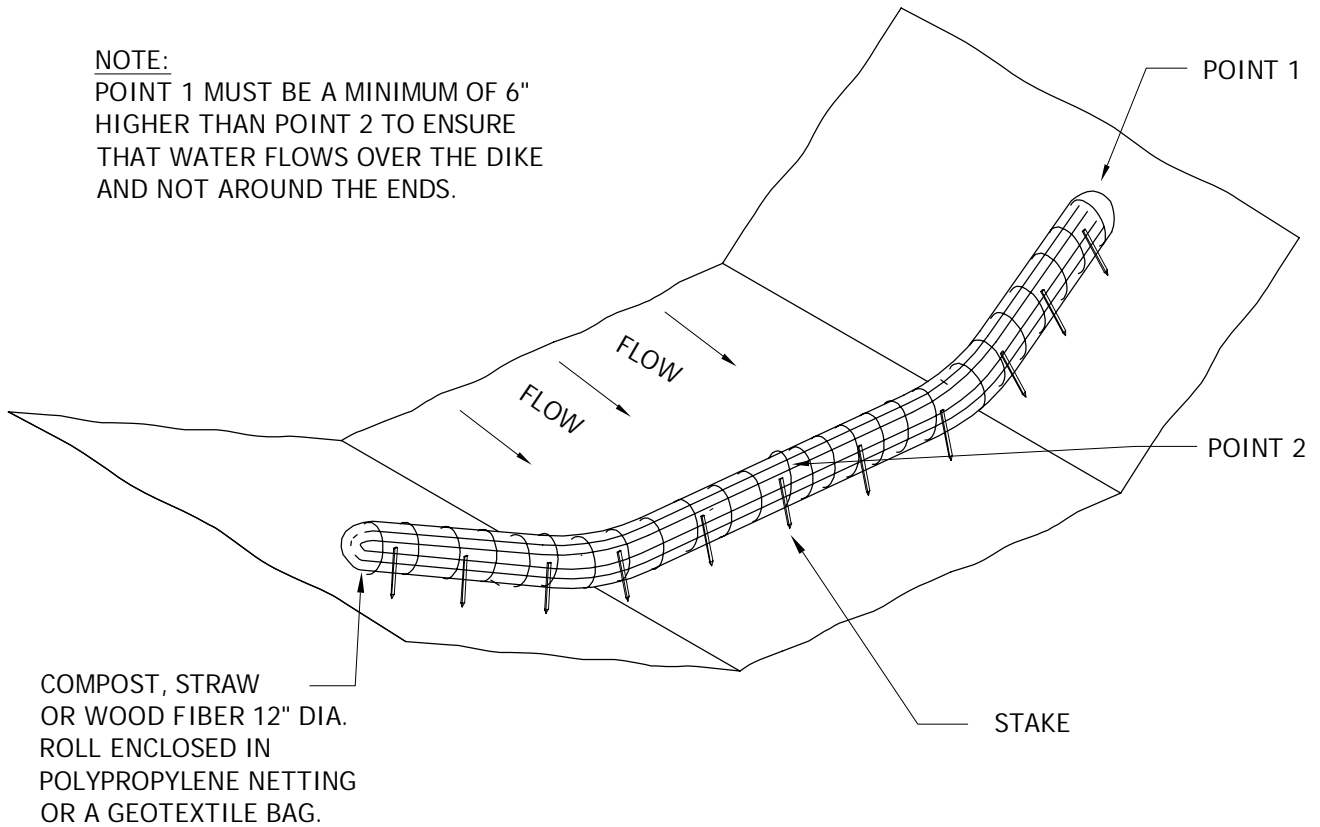
PLATE NO.  
ERO-4C





2" x 2" x 16" LONG WOODEN STAKES AT 1'-0" SPACING MINIMUM. STAKES SHALL BE DRIVEN THROUGH THE BACK HALF OF THE COMPOST LOG AT AN ANGLE OF 45° WITH THE TOP OF THE STAKE POINTING UPSTREAM.

**NOTE:**  
POINT 1 MUST BE A MINIMUM OF 6" HIGHER THAN POINT 2 TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

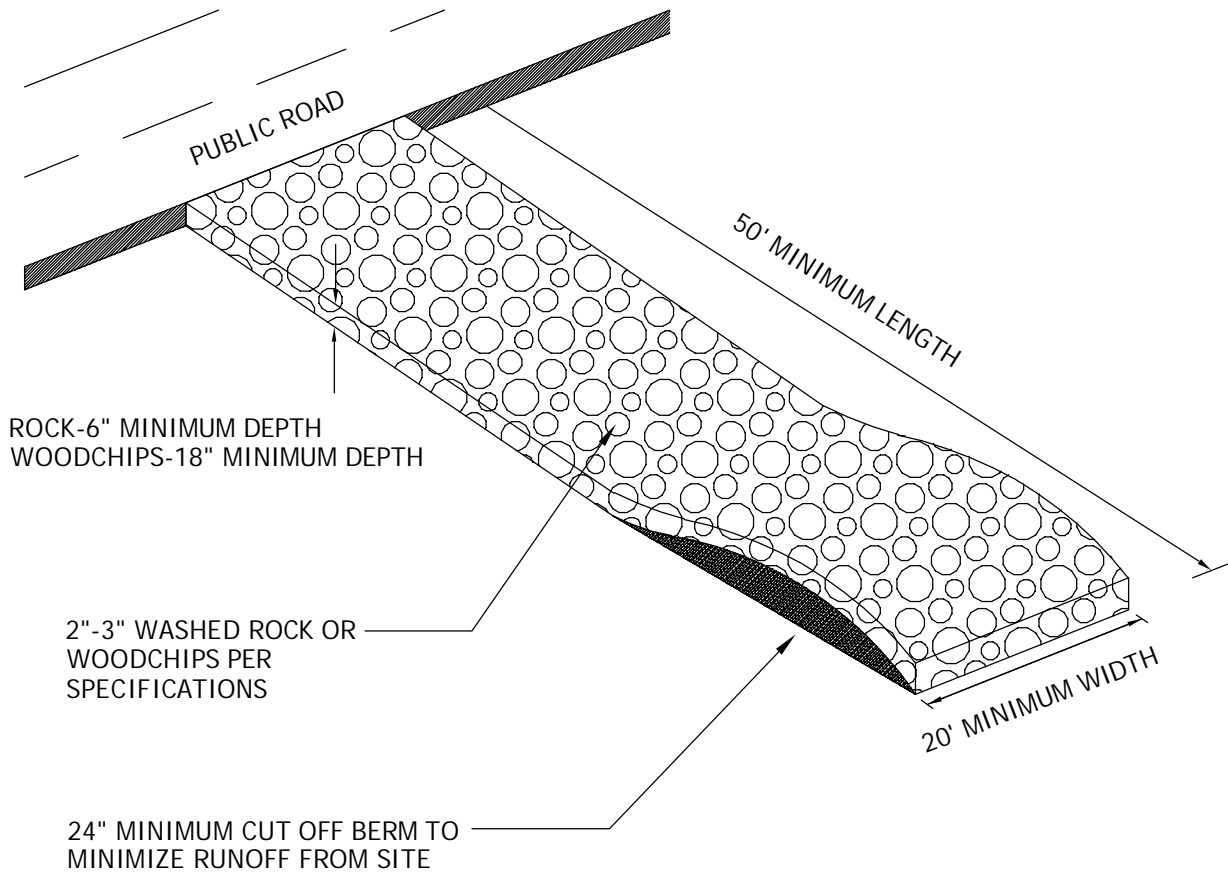


BIOLOG DITCH CHECK

LAST REVISION:  
March 2008

CITY OF NEW HOPE, MN

PLATE NO.  
ERO-5E



**NOTES:**

1. FILTER FABRIC SHALL BE PLACED UNDER ROCK TO STOP MUD MIGRATION THROUGH ROCK. FILTER FABRIC IS NOT REQUIRED UNDER WOODCHIPS.
2. 80% OF WOODCHIPS USED FOR CONSTRUCTION ENTRANCES MUST BE BETWEEN 2 INCHES AND 5 INCHES. NO CHIPPED-UP MANUFACTURED WOOD AND/OR CHEMICALLY TREATED WOOD IS ALLOWED.
3. ENTRANCE MUST BE MAINTAINED REGULARLY TO PREVENT SEDIMENTATION ON PUBLIC ROADWAYS. FUGITIVE ROCK OR WOODCHIPS WILL BE REMOVED FROM ADJACENT ROADWAYS DAILY OR MORE FREQUENTLY AS NECESSARY.



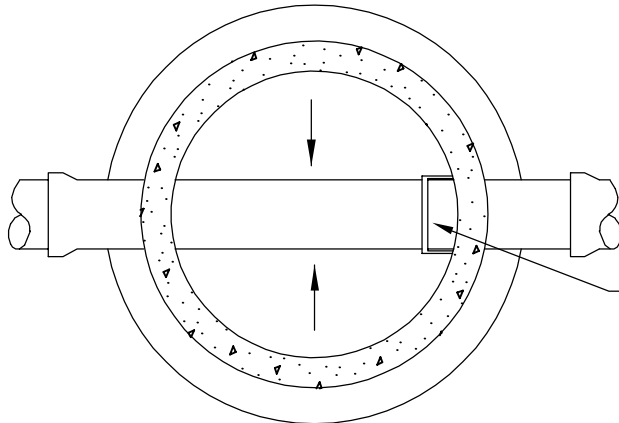
ROCK CONSTRUCTION ENTRANCE

LAST REVISION:  
Jan 2015

CITY OF NEW HOPE, MN

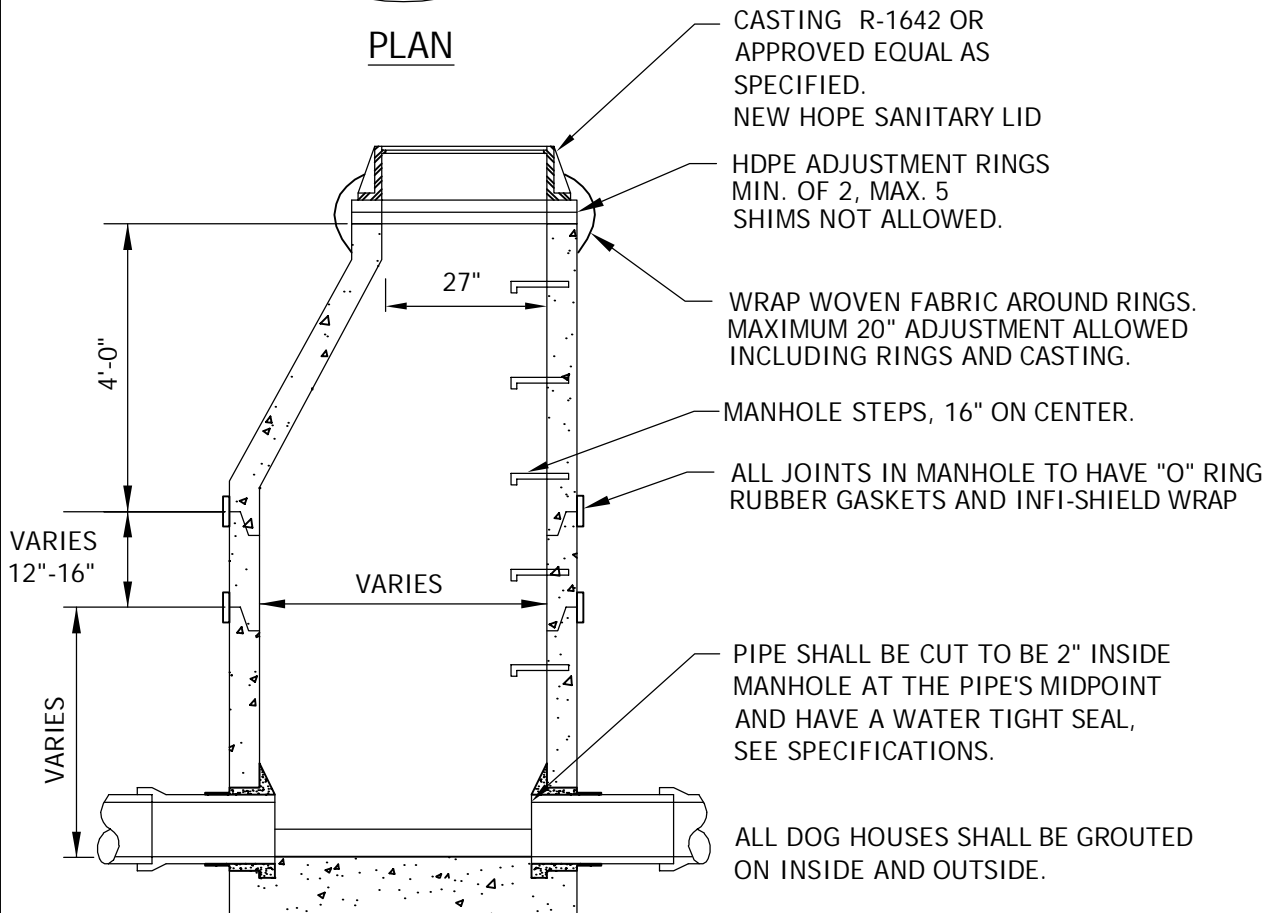
PLATE NO.  
ERO-7

PRECAST INVERT MUST BE 1/2  
DIAMETER OF THE PIPE AND BENCHES  
SLOPED 2" TOWARD THE INVERT.



MANHOLE STEPS SHALL BE PLACED  
SO THAT OFFSET VERTICAL PORTION  
OF CONE IS FACING DOWNSTREAM.

PLAN



CASTING R-1642 OR  
APPROVED EQUAL AS  
SPECIFIED.  
NEW HOPE SANITARY LID

HDPE ADJUSTMENT RINGS  
MIN. OF 2, MAX. 5  
SHIMS NOT ALLOWED.

WRAP WOVEN FABRIC AROUND RINGS.  
MAXIMUM 20" ADJUSTMENT ALLOWED  
INCLUDING RINGS AND CASTING.

MANHOLE STEPS, 16" ON CENTER.

ALL JOINTS IN MANHOLE TO HAVE "O" RING  
RUBBER GASKETS AND INFI-SHIELD WRAP

PIPE SHALL BE CUT TO BE 2" INSIDE  
MANHOLE AT THE PIPE'S MIDPOINT  
AND HAVE A WATER TIGHT SEAL,  
SEE SPECIFICATIONS.

ALL DOG HOUSES SHALL BE GROUTED  
ON INSIDE AND OUTSIDE.

SECTION

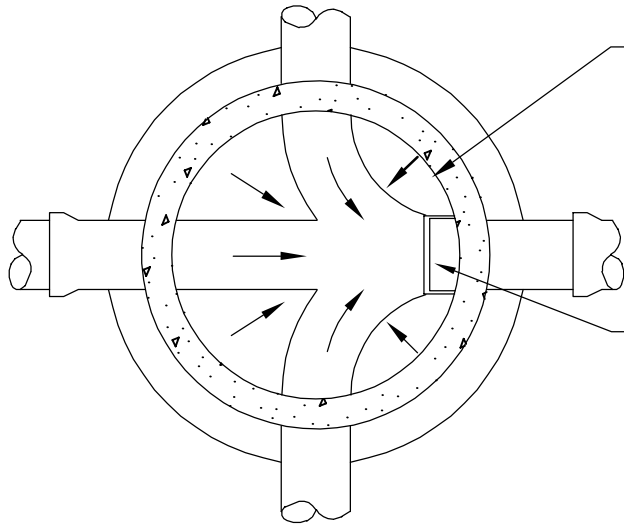


SANITARY SEWER MANHOLE (NEW)

LAST REVISION:  
JAN 2019

CITY OF NEW HOPE, MN

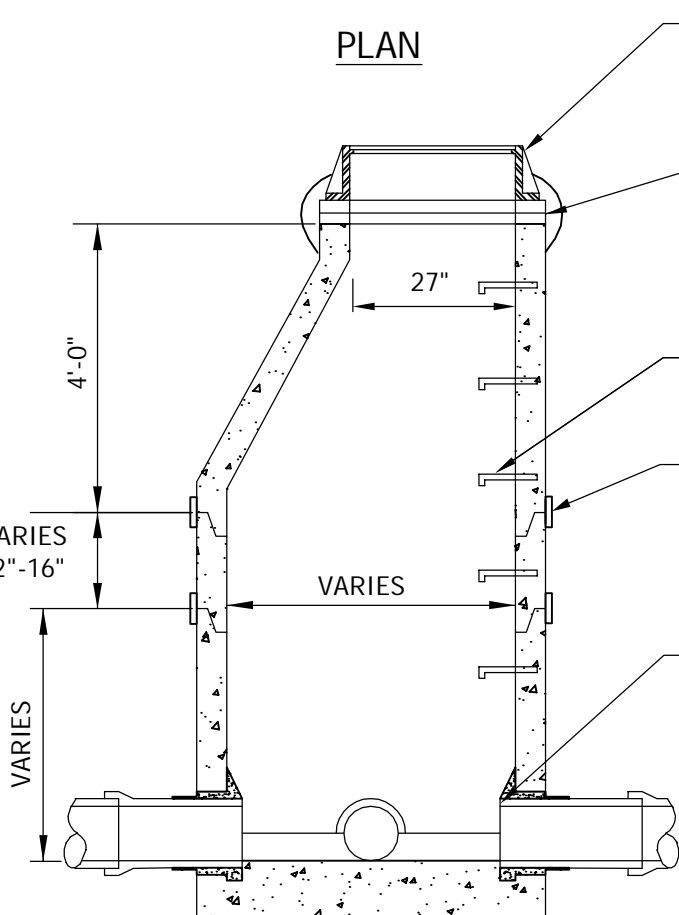
PLATE NO.  
SAN-1



PRECAST INVERT MUST BE 1/2 DIAMETER OF PIPE AND BENCHES SHOULD BE SLOPED 2" TOWARD INVERT.

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.

**PLAN**



CASTING R-1642 OR APPROVED EQUAL AS SPECIFIED. NEW HOPE SANITARY LID.

MINIMUM OF 2 MAXIMUM OF 5 HDPE ADJUSTMENT RINGS. NO SHIMS ALLOWED. WRAP WOVEN FILTER FABRIC AROUND RINGS. MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.

MANHOLE STEPS, 16" ON CENTER.

ALL JOINTS IN MANHOLE TO HAVE "O" RING RUBBER GASKETS JOINTS TO BE SEALED WITH INFI-SHIELD WRAP.

PIPE SHALL BE CUT TO BE 2" INSIDE MANHOLE AT THE PIPE'S MIDPOINT AND HAVE A WATER TIGHT SEAL, SEE SPECIFICATIONS.

ALL DOG HOUSES SHALL BE GROUTED ON BOTH INSIDE AND OUTSIDE.

**SECTION**

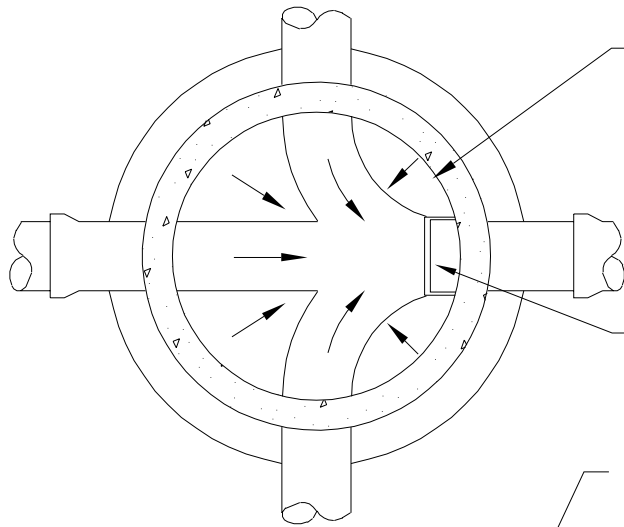


SANITARY SEWER JUNCTION MANHOLE

CITY OF NEW HOPE, MN

LAST REVISION:  
JAN 2019

PLATE NO.  
SAN-2

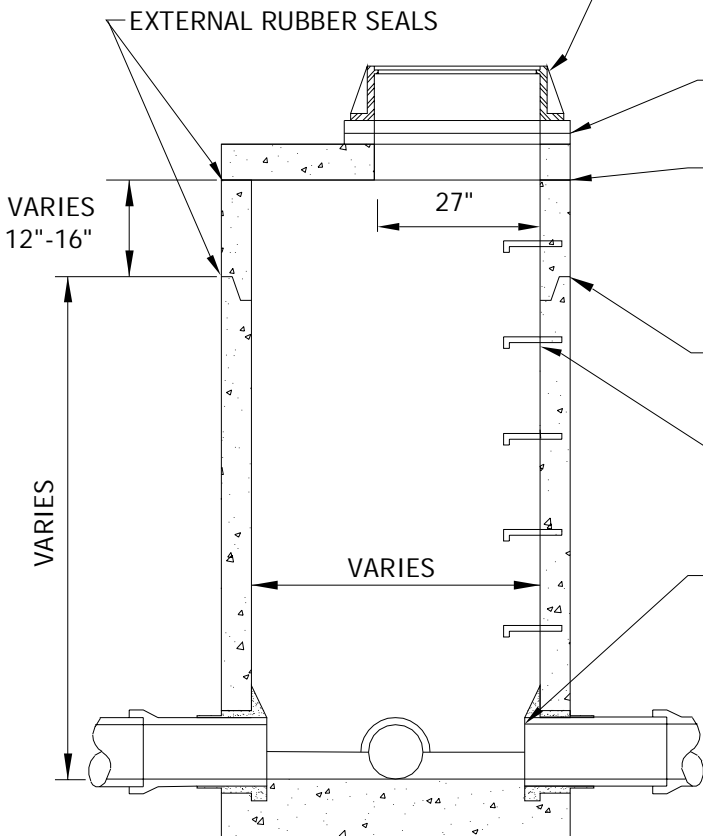


PRECAST INVERT MUST BE 1/2 DIAMETER OF THE PIPE AND THE BENCHES SLOPED 2" TOWARD INVERT.

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.

CASTING R-1642 OR APPROVED EQUAL AS SPECIFIED.  
NEW HOPE SANITARY LID.

**PLAN**



HDPE ADJUSTMENT RINGS MIN. OF 2, MAX. 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTINGS. SHIMS NOT ALLOWED.

TOP OF BARREL SECTION BELOW TOP SLAB TO HAVE FLAT TOP EDGE SEALED WITH 2 BEADS OF RAMNEK OR EQUAL. WRAP JOINTS WITH INFI-SHIELD WRAP

ALL JOINTS IN MANHOLE TO HAVE "O" RING RUBBER GASKETS AND INFI-SHIELD WRAP.

MANHOLE STEPS, 16" ON CENTER.

PIPE SHALL BE CUT TO BE 2" INSIDE MANHOLE AT THE PIPE'S MIDPOINT AND HAVE A WATER TIGHT SEAL, SEE SPECIFICATIONS.

ALL DOG HOUSES SHALL BE GROUTED ON THE INSIDE AND OUTSIDE.

**SECTION**

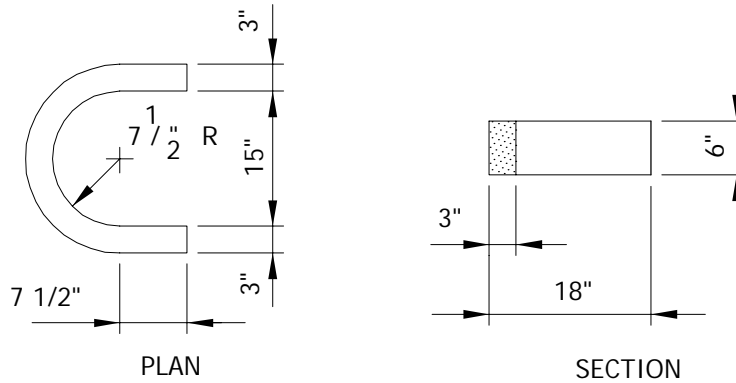


**SANITARY SEWER JUNCTION MANHOLE WITH REINFORCED TOP SLAB**

**CITY OF NEW HOPE, MN**

LAST REVISION:  
AUG. 2017

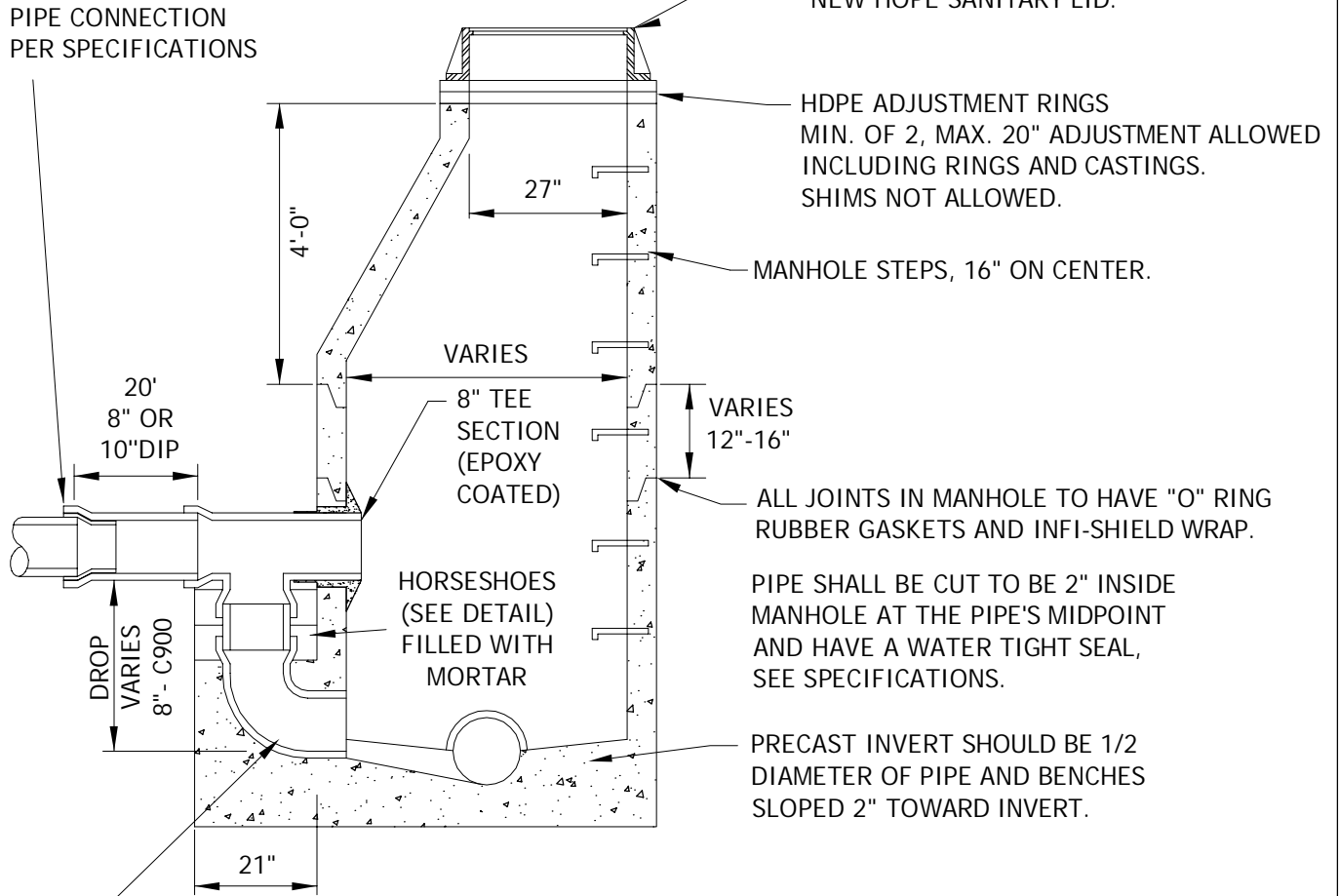
PLATE NO.  
SAN-3



**HORSESHOE DETAILS**

NEENAH 1916-F FRAME AND COVER OR EQUAL WITH 2 CONCEALED PICK HOLES. NEW HOPE SANITARY LID.

PIPE CONNECTION PER SPECIFICATIONS



HDPE ADJUSTMENT RINGS MIN. OF 2, MAX. 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTINGS. SHIMS NOT ALLOWED.

MANHOLE STEPS, 16" ON CENTER.

VARIES

8" TEE SECTION (EPOXY COATED)

VARIES 12"-16"

ALL JOINTS IN MANHOLE TO HAVE "O" RING RUBBER GASKETS AND INFI-SHIELD WRAP.

PIPE SHALL BE CUT TO BE 2" INSIDE MANHOLE AT THE PIPE'S MIDPOINT AND HAVE A WATER TIGHT SEAL, SEE SPECIFICATIONS.

PRECAST INVERT SHOULD BE 1/2 DIAMETER OF PIPE AND BENCHES SLOPED 2" TOWARD INVERT.

ALL DOG HOUSES SHALL BE GROUTED ON THE INSIDE AND OUTSIDE.

20' 8" OR 10" DIP  
DIP VARIES 8" - C900

PRECAST 8"-1/4 BEND (EPOXY COATED) INTEGRAL WITH BASE SECTION

**SECTION**

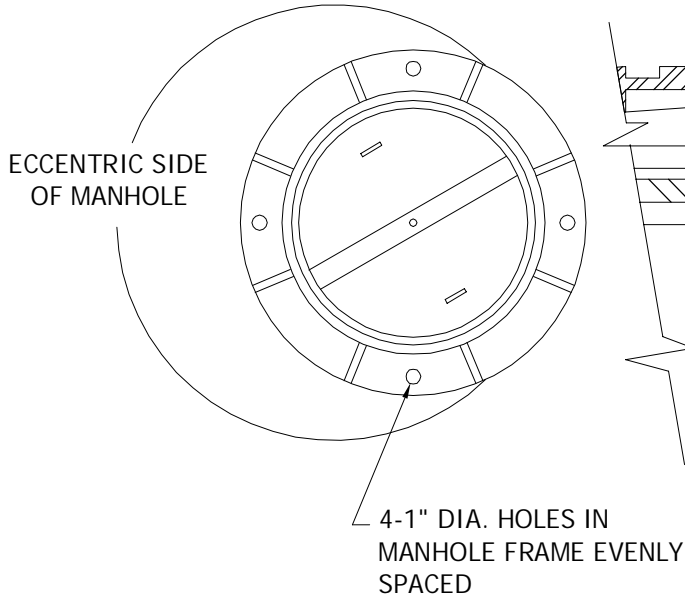


SANITARY SEWER DROP INLET MANHOLE

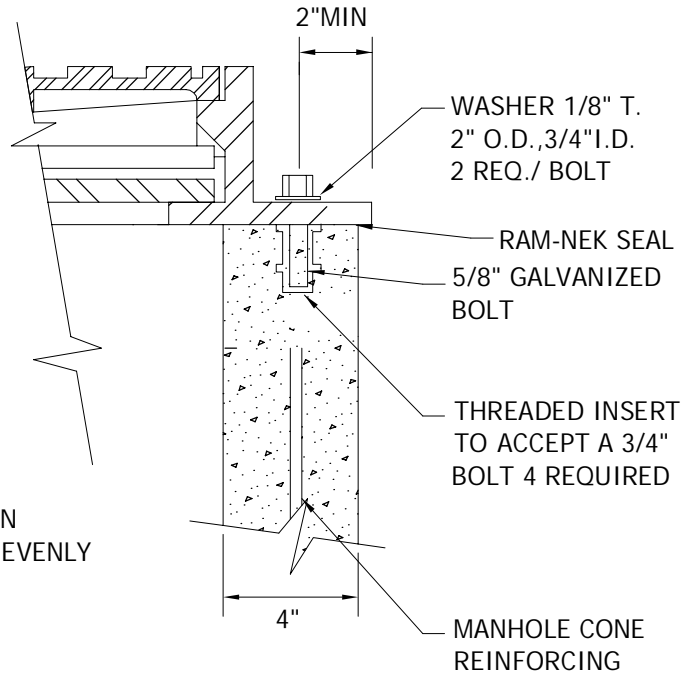
CITY OF NEW HOPE, MN

LAST REVISION: AUG 2017

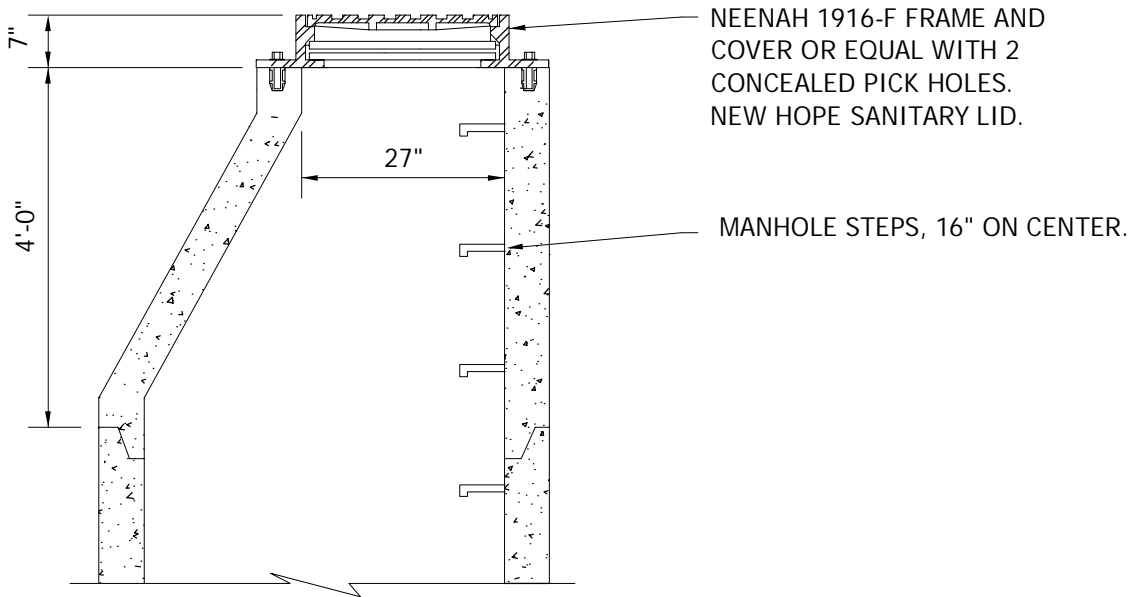
PLATE NO. SAN-4



PLAN VIEW TOP COVER REMOVED



TIE DOWN DETAIL



ECCENTRIC WATERTIGHT MANHOLE

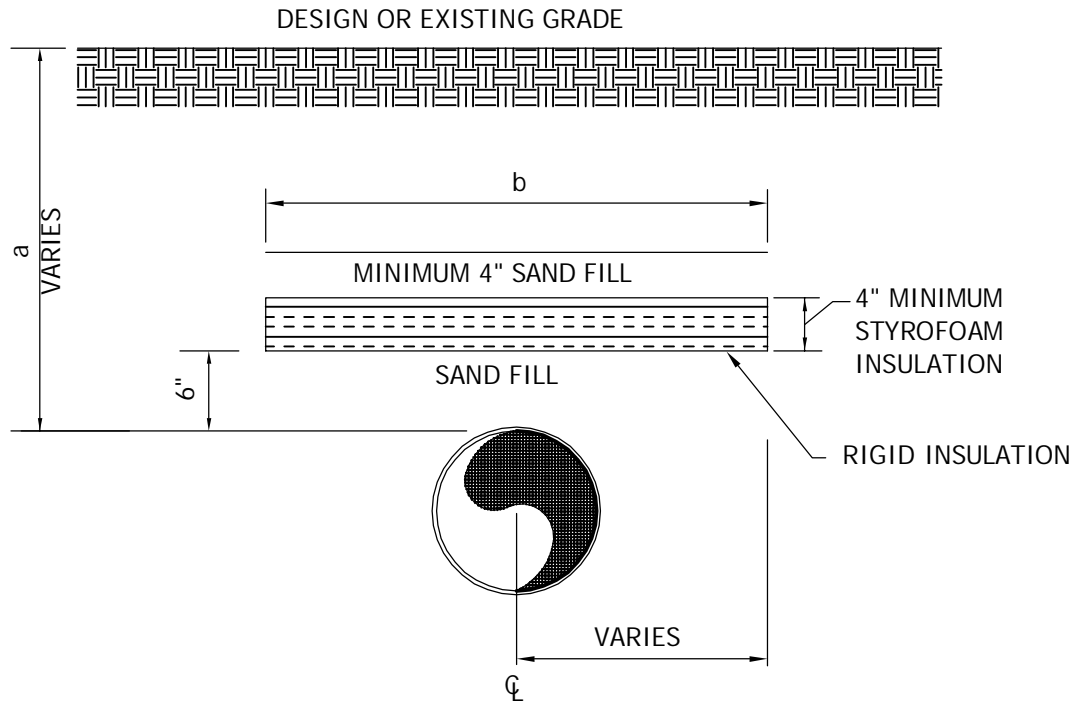


WATERTIGHT CASTING FOR SANITARY SEWER MANHOLE

CITY OF NEW HOPE, MN

LAST REVISION:  
AUG 2017

PLATE NO.  
SAN-5



NOTE: PIPE SHALL BE CENTERED UNDER INSULATION UNLESS OTHERWISE SPECIFIED. ENGINEER MAY REQUIRE INSULATION AT OTHER LOCATIONS.

<u>COVER OVER PIPE - a</u>	<u>WIDTH OF INSULATING BOARD - b</u>
2'	11'
3'	9'
4'	7'
5'	5'
6'	3'



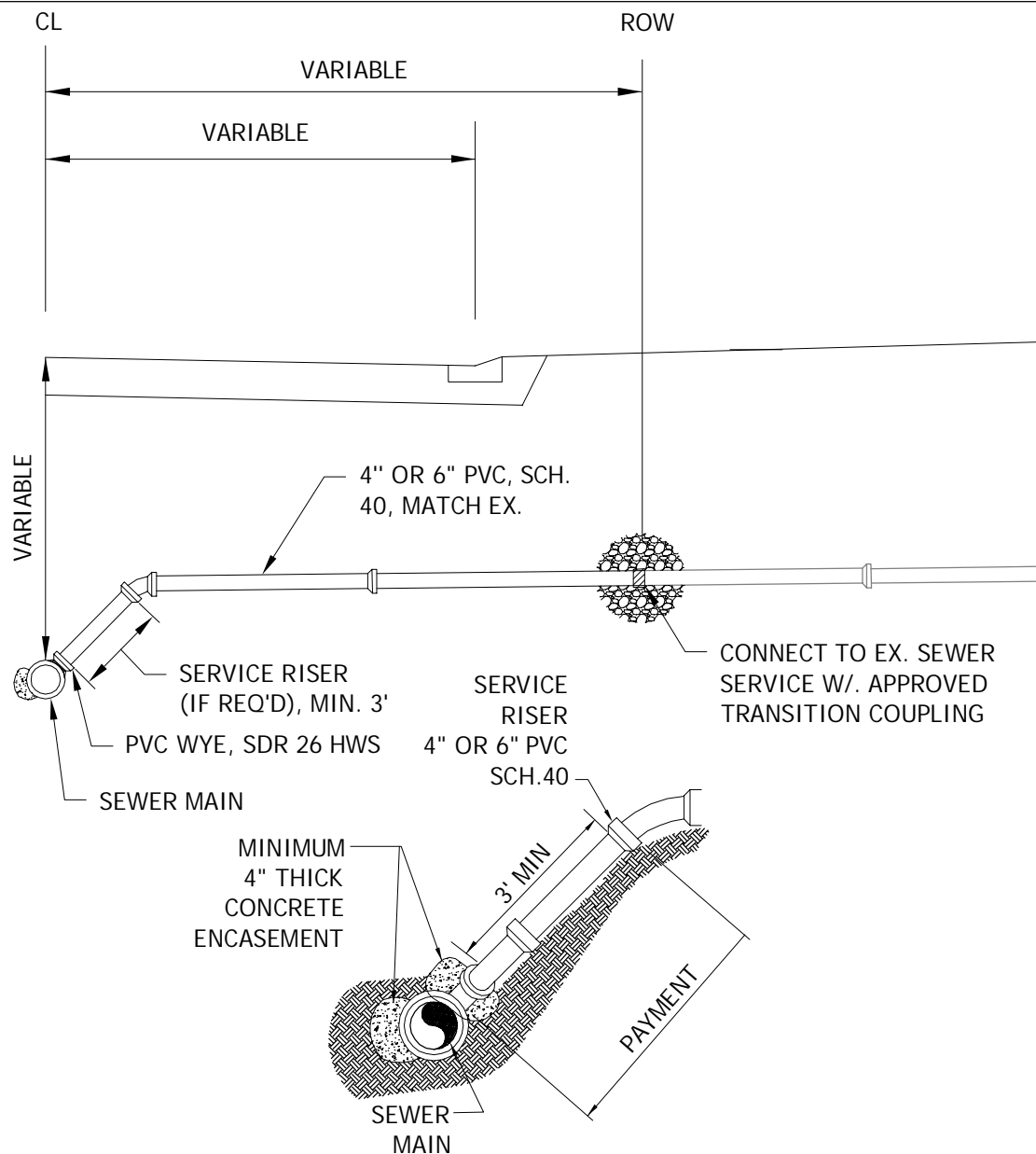
INSULATION DETAIL

LAST REVISION:  
JAN 2013

CITY OF NEW HOPE, MN

PLATE NO.  
SAN-6





NOTES:

1. SEWER SERVICE PIPE SHALL MATCH EXISTING SERVICE SIZE.
2. PIPE SHALL BE SCHEDULE 40 PVC.
3. SLOPE - 1/4" PER FOOT MINIMUM. MATCH SLOPE OF EXISTING SERVICE WHERE POSSIBLE.
4. ALL PIPE SHALL BE BEDDED IN GRANULAR BORROW 3149.2B1.
5. IF RISER REQUIRED, MINIMUM OF 3' LONG AND PLACEMENT OF 4" THICK CONCRETE ENCASEMENT AT RISER/WYE CONNECTION IS CONSIDERED INCIDENTAL TO THE PAYMENT OF RISER LENGTH.
6. FERNCO CONNECTION TO EXISTING SANITARY SERVICE PIPE SHALL BE ENCASED WITH CLEAR ROCK 1' BELOW AND ABOVE CONNECTION.



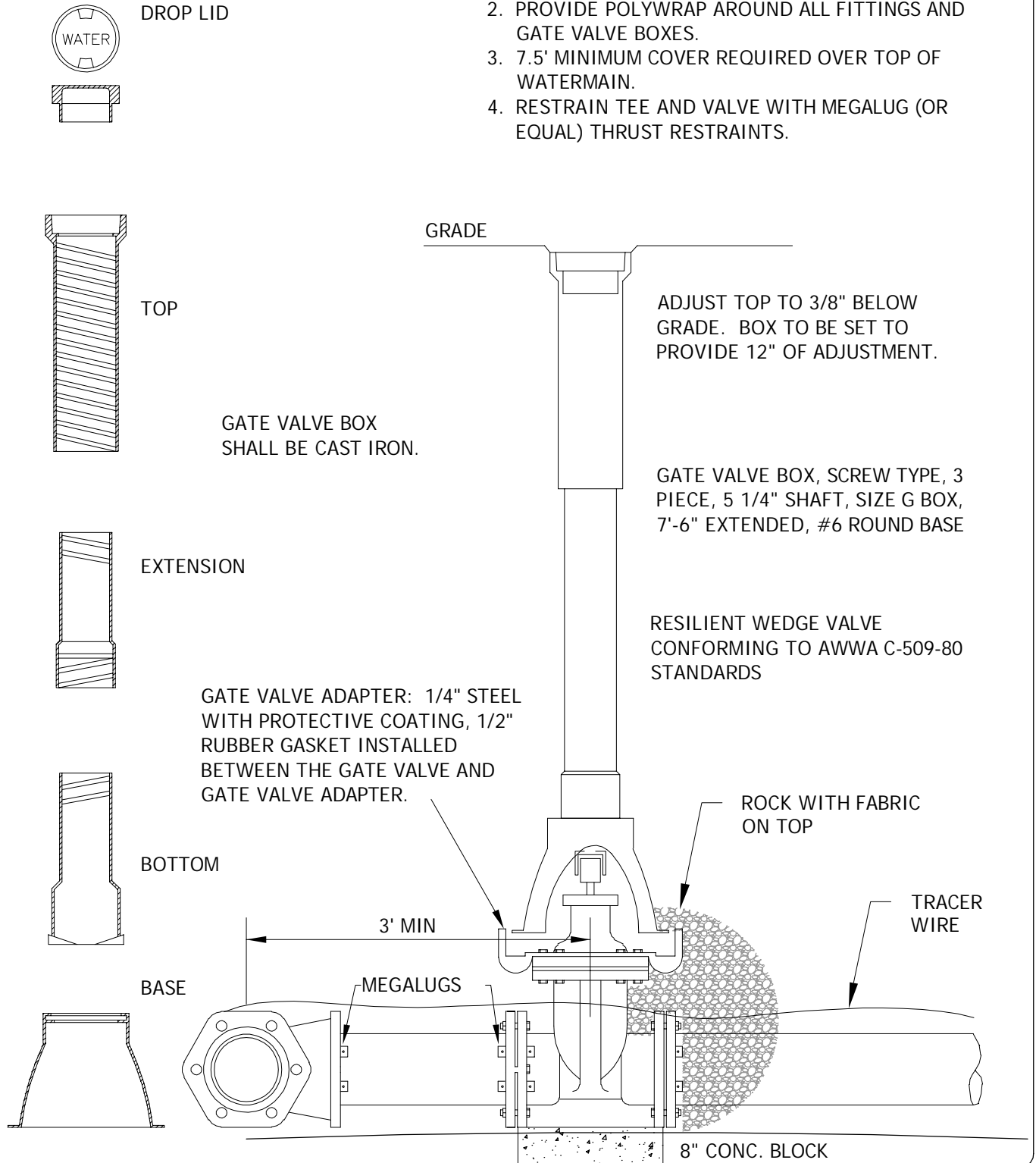
SEWER SERVICE CONNECTION

LAST REVISION:  
SEPT 2017

CITY OF NEW HOPE, MN

PLATE NO.  
SAN-8

- NOTES: 1. ALL EXTERIOR GATE VALVE BOLTS ARE TO BE STAINLESS STEEL OR CITY APPROVED EQUAL.  
 2. PROVIDE POLYWRAP AROUND ALL FITTINGS AND GATE VALVE BOXES.  
 3. 7.5' MINIMUM COVER REQUIRED OVER TOP OF WATERMAIN.  
 4. RESTRAIN TEE AND VALVE WITH MEGALUG (OR EQUAL) THRUST RESTRAINTS.



GATE VALVE AND BOX  
 INSTALLATION

CITY OF NEW HOPE, MN

LAST REVISION:  
 MAR. 2020

PLATE NO.  
 WAT-3

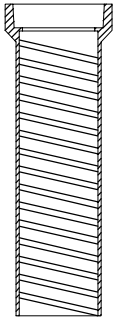


DROP LID



7.5' MINIMUM COVER REQUIRED OVER TOP OF WATER MAIN.

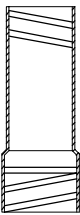
TOP



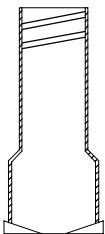
GRADE

ADJUST TOP TO 3/8" BELOW GRADE.  
BOX TO BE SET TO PROVIDE 12" OF ADJUSTMENT.

EXTENSION

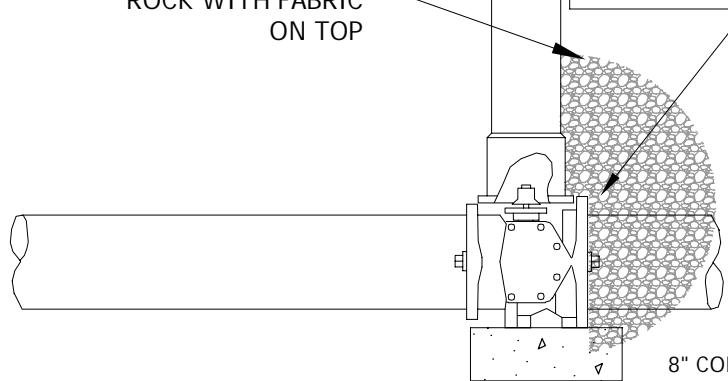


BOTTOM

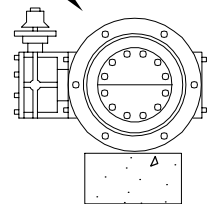


ROCK WITH FABRIC ON TOP

BUTTERFLY VALVE (16" OR LARGER)



END VIEW



8" CONC. BLOCK



### BUTTERFLY VALVE BOX INSTALLATION

LAST REVISION:  
MAR. 2020

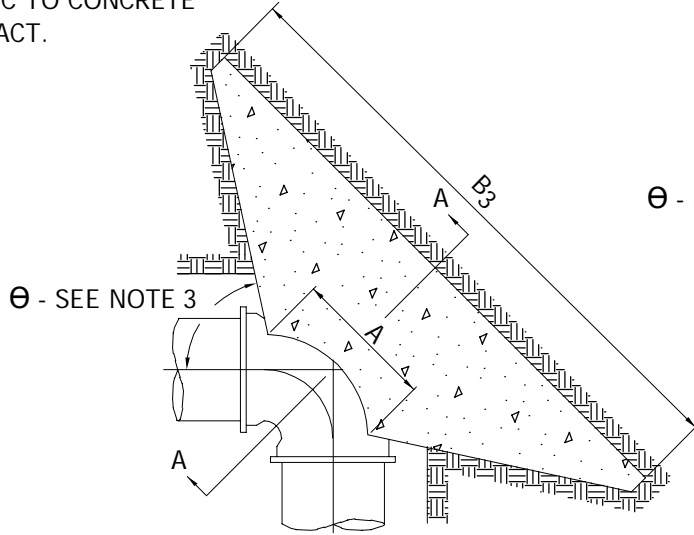
## CITY OF NEW HOPE, MN

PLATE NO.  
WAT-4

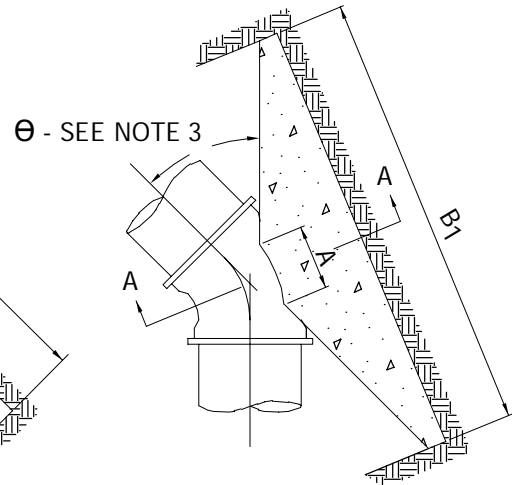
**NOTES:**

1. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POURED AGAINST FIRM UNDISTURBED EARTH.
2. DIMENSION 'A' SHOULD BE AS LARGE AS POSSIBLE.
3.  $\Theta = 45^\circ$  MINIMUM
4. PROVIDE POLYETHYLENE WRAP AROUND ALL FITTINGS.
5. ALL BENDS AND FITTINGS SHALL BE RESTRAINED WITH MEGALUG THRUST RESTRAINTS OR EQUAL.
6. NO PVC TO CONCRETE CONTACT.

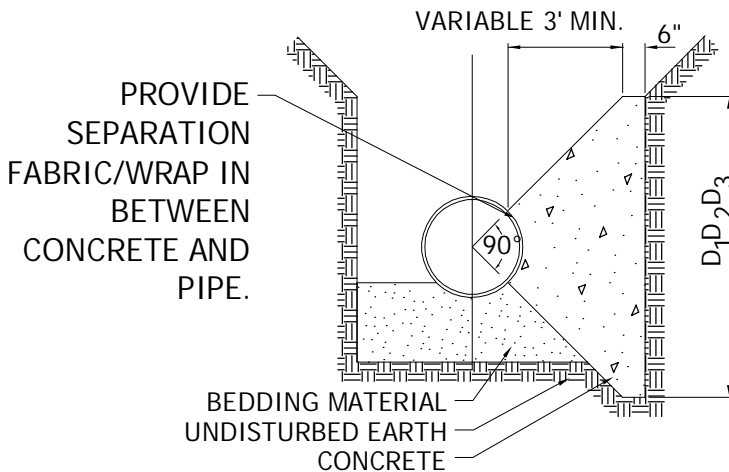
BUTTRESS DIMENSIONS						
PIPE SIZE	22 1/2° BEND		45° BEND		90° BEND/TEE	
	B <sub>1</sub>	D <sub>1</sub>	B <sub>2</sub>	D <sub>2</sub>	B <sub>3</sub>	D <sub>3</sub>
6"	1'-5"	1'-5"	1'-5"	1'-5"	2'-1"	1'-6"
8"	1'-5"	1'-5"	2'-1"	1'-6"	2'-8"	2'-0"
12"	1'-10"	1'-10"	3'-4"	2'-0"	4'-9"	2'-6"
16'	3'-0"	2'-0"	3'-10"	3'-0"	6'-2"	3'-6"
20"	3'-6"	2'-8"	5'-6"	3'-4"	8'-4"	4'-0"
24"	4'-4"	3'-0"	6'-10"	3'-10"	9'-8"	5'-0"



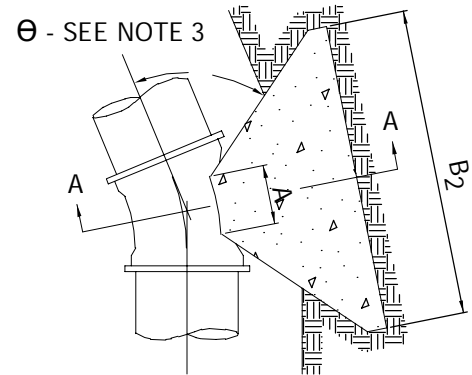
PLAN 45° TO 90° BENDS



PLAN 22 1/2° TO 45° BENDS



SECTION A-A



PLAN 0° TO 22 1/2° BENDS

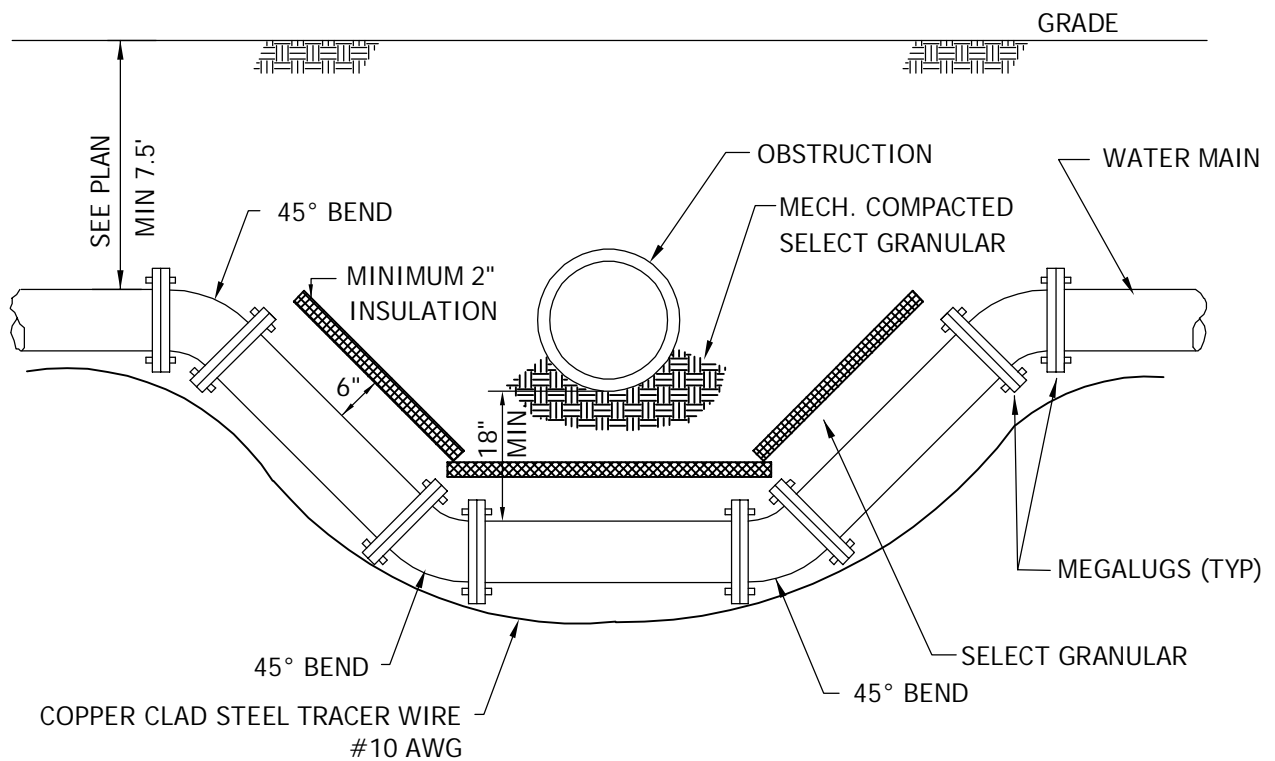


CONCRETE THRUST BLOCKING

CITY OF NEW HOPE, MN

LAST REVISION:  
NOV 2014

PLATE NO.  
WAT-6



NOTES:

1. ALL FITTINGS SHALL BE FUSION BONDED EPOXY COATED DUCTILE IRON TO MEET OR EXCEED ANSI/AWWA C550 AND C116/A21.116 REQUIREMENTS.
2. MEGALUGS WILL NOT BE ALLOWED ON ANY CIP WATER MAIN.
3. SELECT GRANULAR WILL BE REQUIRED BETWEEN INSULATION, WATER MAIN, AND OBSTRUCTION.
4. ALL BENDS SHALL HAVE MEGALUGS WITH BLOCKING AND POLY-WRAP.
5. ALL WATERMAIN BOLTS SHALL BE COR-BLUE.
6. TRACER WIRE SHALL BE TAPED TO BOTTOM OF WATERMAIN PIPE EVERY 20'.



WATER MAIN OFFSET W/ MEGALUGS

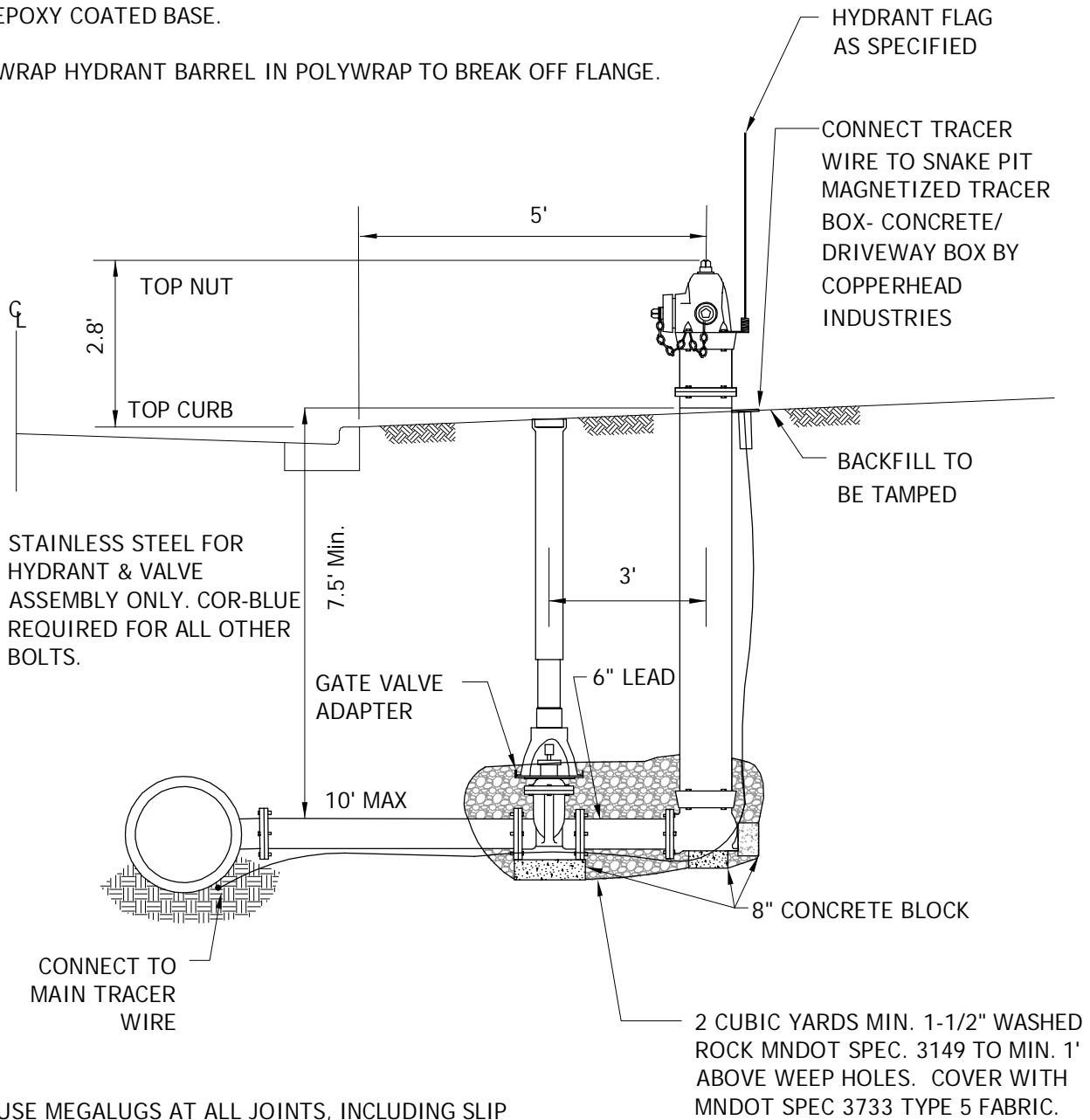
CITY OF NEW HOPE, MN

LAST REVISION:  
JAN 2019

PLATE NO.  
WAT-10

HYDRANT SHALL BE AVK SERIES 2700 WITH 16" TRAFFIC SECTION AND EPOXY COATED BASE.

WRAP HYDRANT BARREL IN POLYWRAP TO BREAK OFF FLANGE.



STAINLESS STEEL FOR HYDRANT & VALVE ASSEMBLY ONLY. COR-BLUE REQUIRED FOR ALL OTHER BOLTS.

USE MEGALUGS AT ALL JOINTS, INCLUDING SLIP CONNECTIONS

ALL HYDRANTS SHALL BE FURNISHED WITH STORZ NOZZLE COMPATIBLE WITH 5" STORZ HOSE COUPLING. STORZ ADAPTERS WILL NOT BE ACCEPTED.

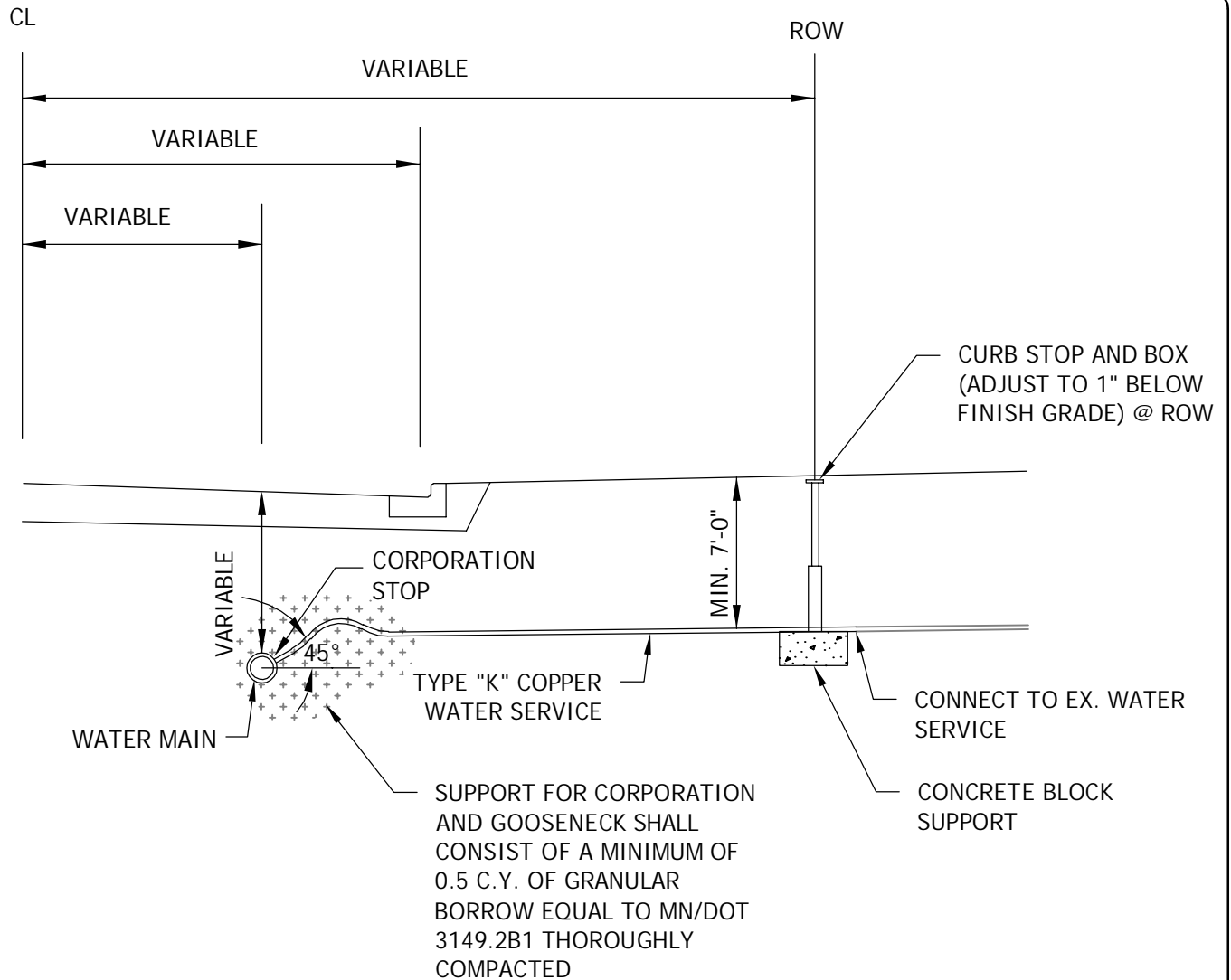


HYDRANT

CITY OF NEW HOPE, MN

LAST REVISION:  
MAR. 2020

PLATE NO.  
WAT-11



NOTES:

1. SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.
2. CURB BOX SHALL EXTEND FROM 78" TO 90".
3. ALL PIPE SHALL BE BEDDED IN GRANULAR BORROW 3149.2B1.
4. IF CURB STOP IS IN DRIVEWAY, CONTRACTOR MUST INSTALL A FORD A-1 CASTING, WITH SMOOTH LID.
5. CURB BOX LID SHALL BE OFFSET 1 1/2" SET SCREW TYPE BY ESS BROTHERS OR APPROVED EQUAL.

CORPORATION STOP  
 MUELLER B-25000  
 FORD F-600-4, F-600-6  
 McDONALD 4701-B

CURB STOP  
 MUELLER B-25154  
 FORD B22-444M, B22-666M  
 McDONALD 6104

CURB BOX  
 McDONALD 5614



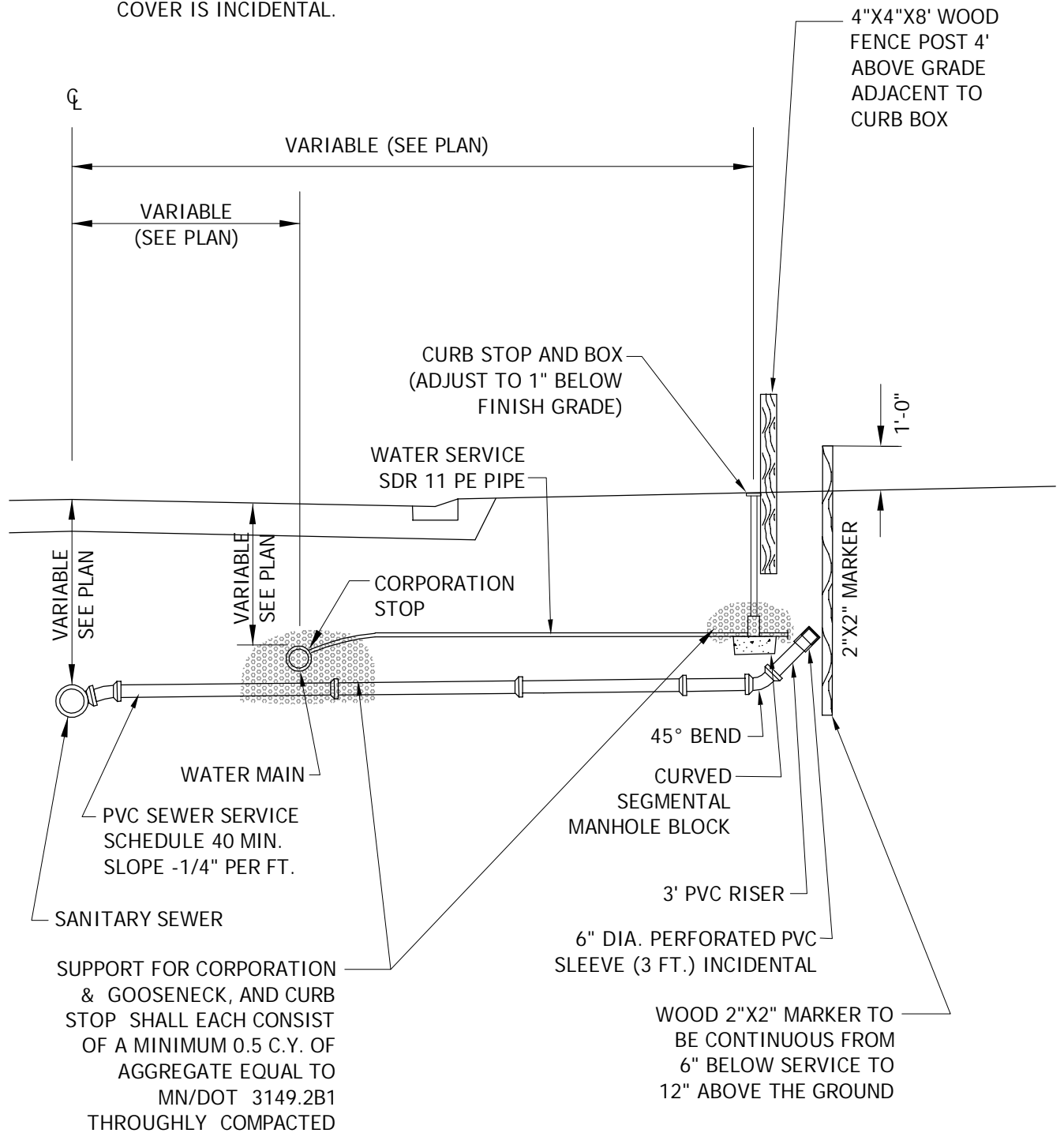
WATER SERVICE CONNECTION

CITY OF NEW HOPE, MN

LAST REVISION:  
 MAY 2017

PLATE NO.  
 SER - 1

**NOTE:**  
 ALL FITTINGS AND APPURTENANCES  
 FROM SANITARY SEWER MAIN TO 6" PVC  
 COVER IS INCIDENTAL.



SEWER AND WATER  
 SERVICE CONNECTIONS FOR NEW  
 CONSTRUCTION

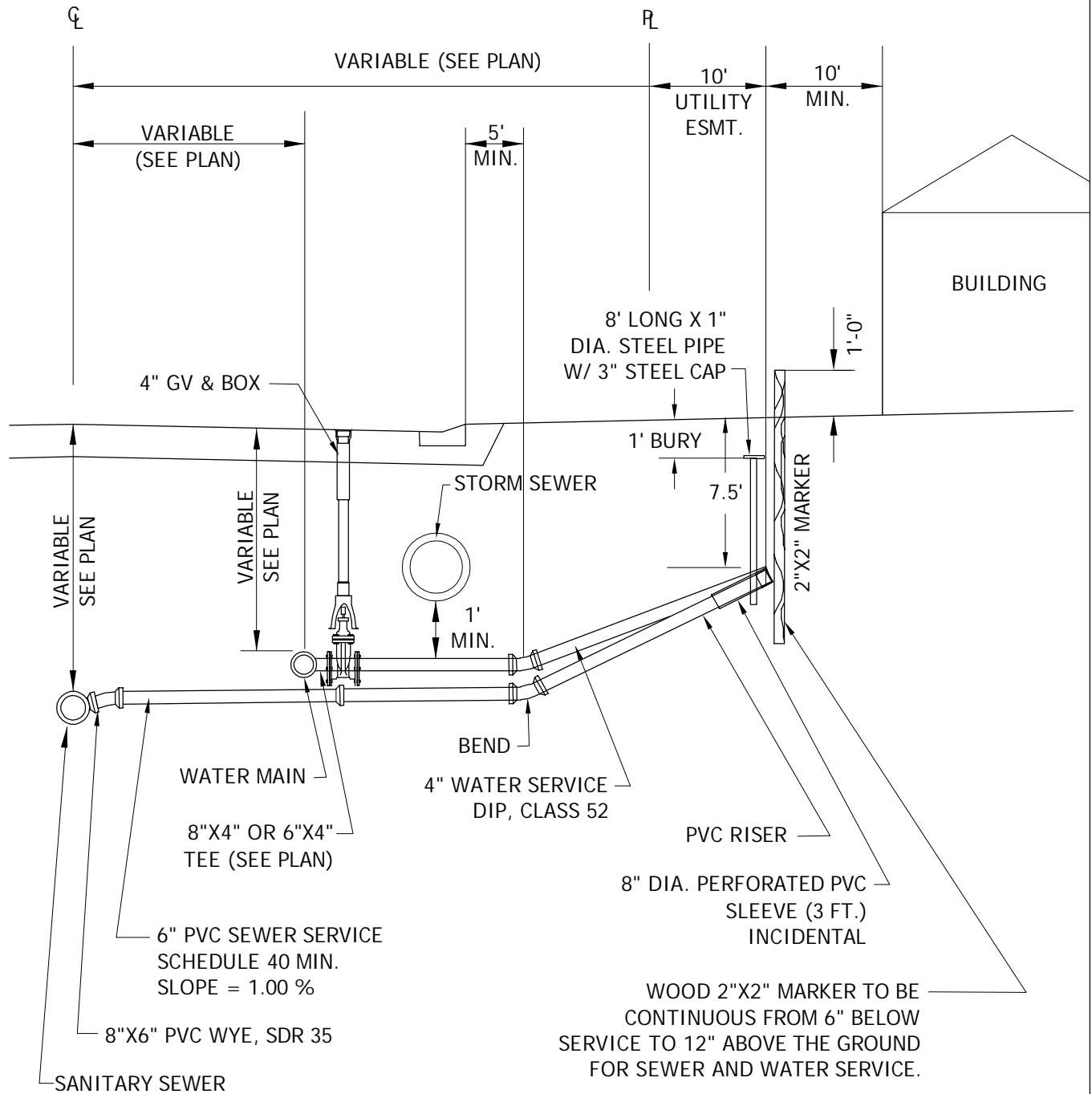
CITY OF NEW HOPE, MN

LAST REVISION:  
 July 2015

PLATE NO.  
 SER-1A



NOTE: ALL FITTINGS AND APPURTENANCES FROM SANITARY SEWER MAIN TO 8" PVC SLEEVE IS INCIDENTAL.

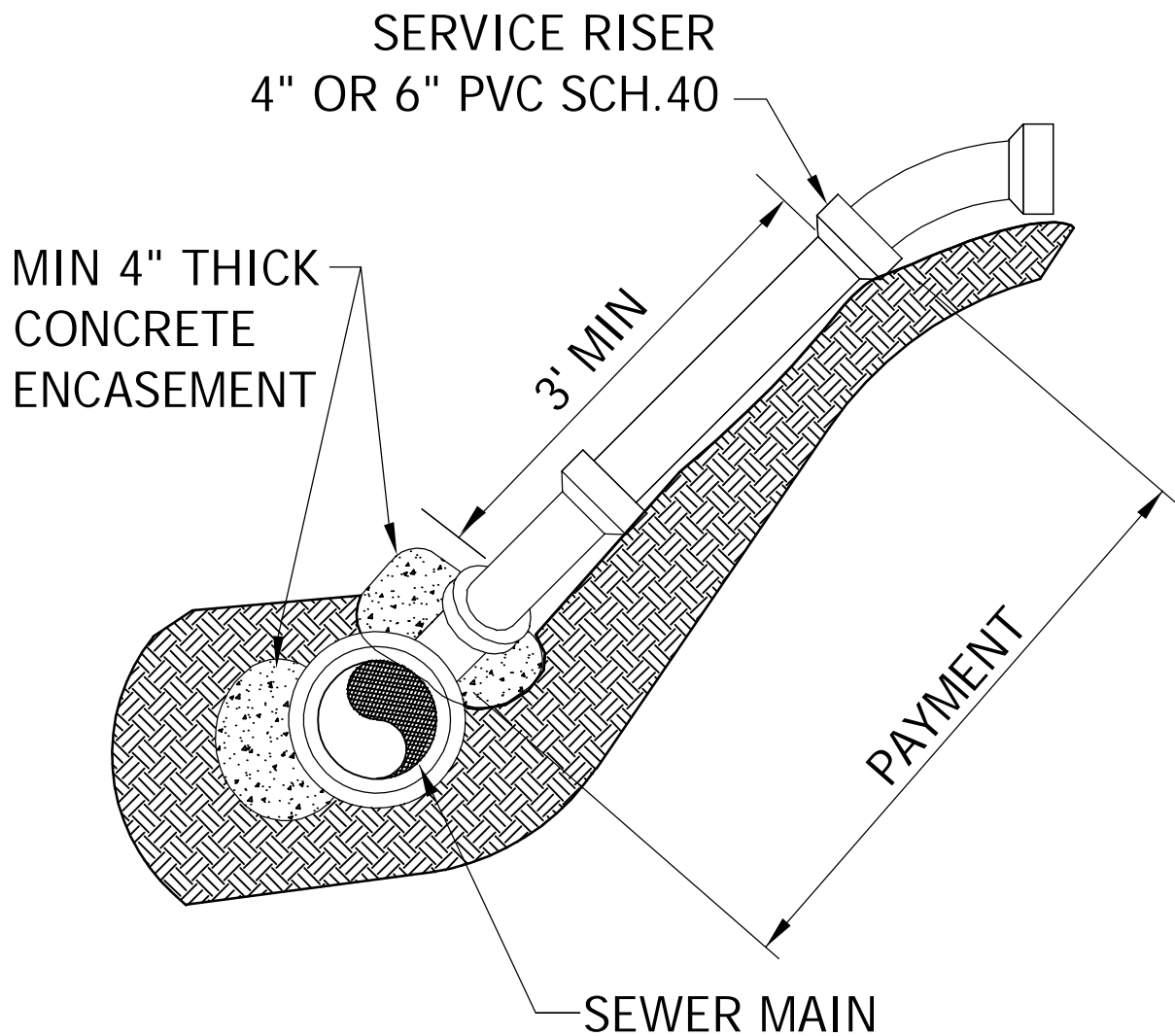


MULTI FAMILY (SLAB ON GRADE)  
SEWER AND WATER  
SERVICE CONNECTIONS

CITY OF NEW HOPE, MN

LAST REVISION:  
Jan. 2006

PLATE NO.  
SER-1B



SERVICE RISER

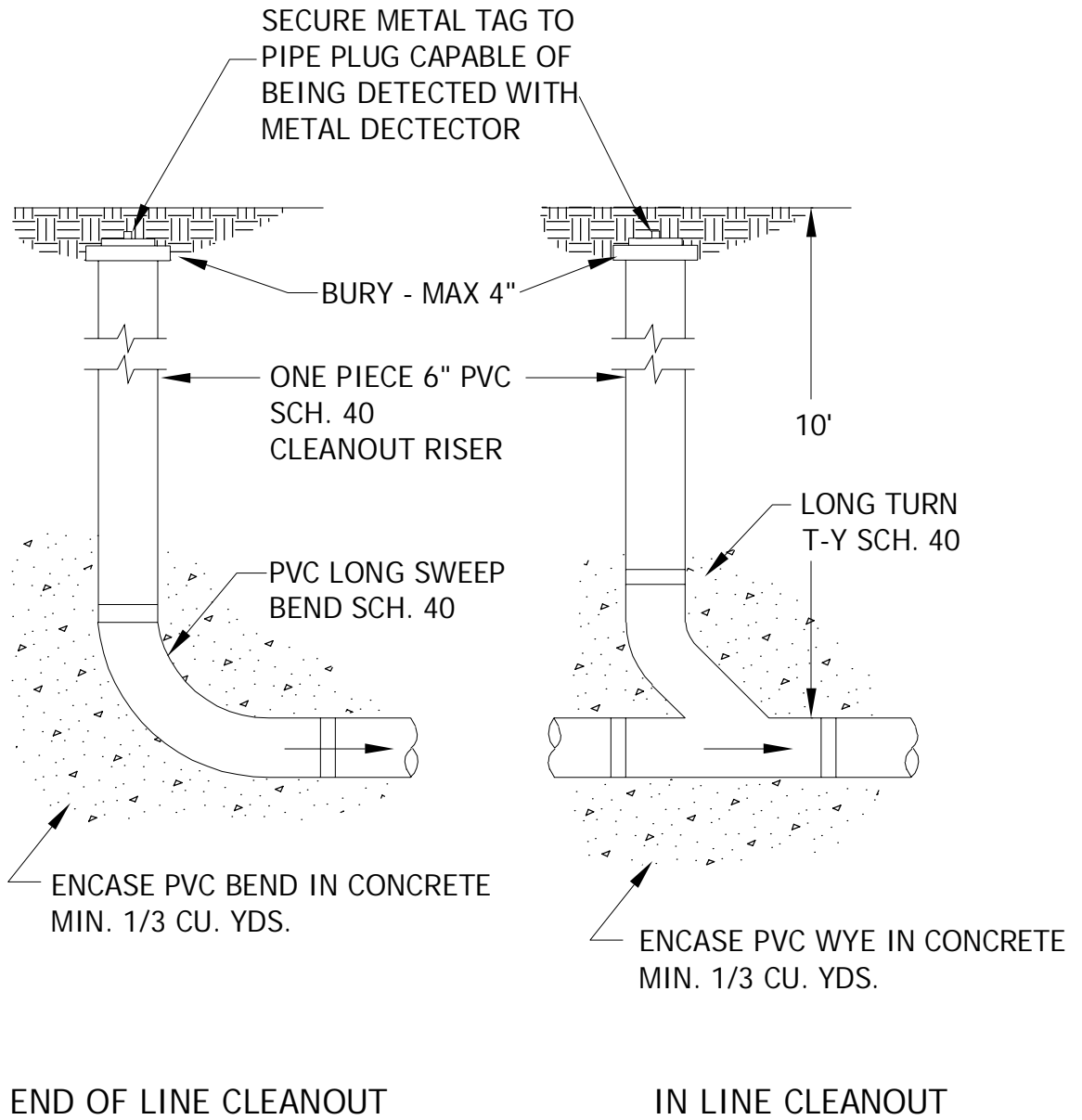
LAST REVISION:  
FEB. 2020

CITY OF NEW HOPE, MN

PLATE NO.  
SER-2

NOTE:  
6" HUB WITH THREADED  
PVC PLUG - DO NOT GLUE

NOTE:  
ENCLOSE LONG SWEEP BEND  
OR COMBINATION WYE IN  
CONCRETE AS SHOWN.

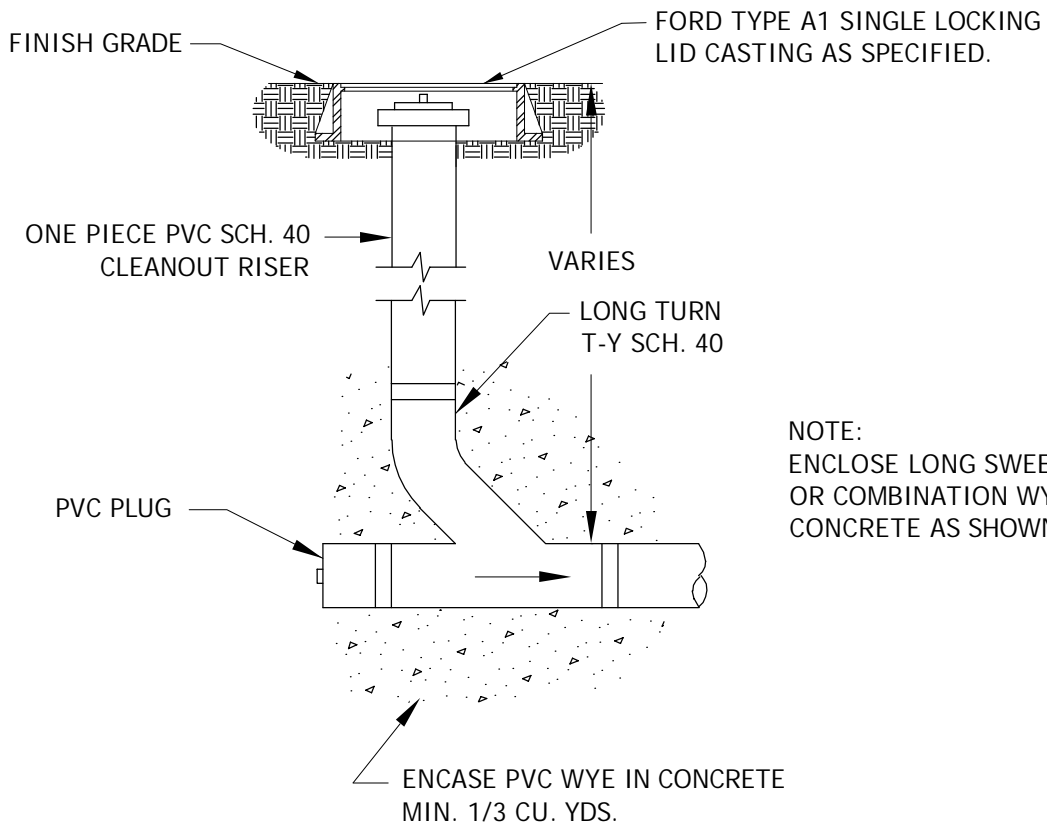


PVC SERVICE LINE CLEANOUTS

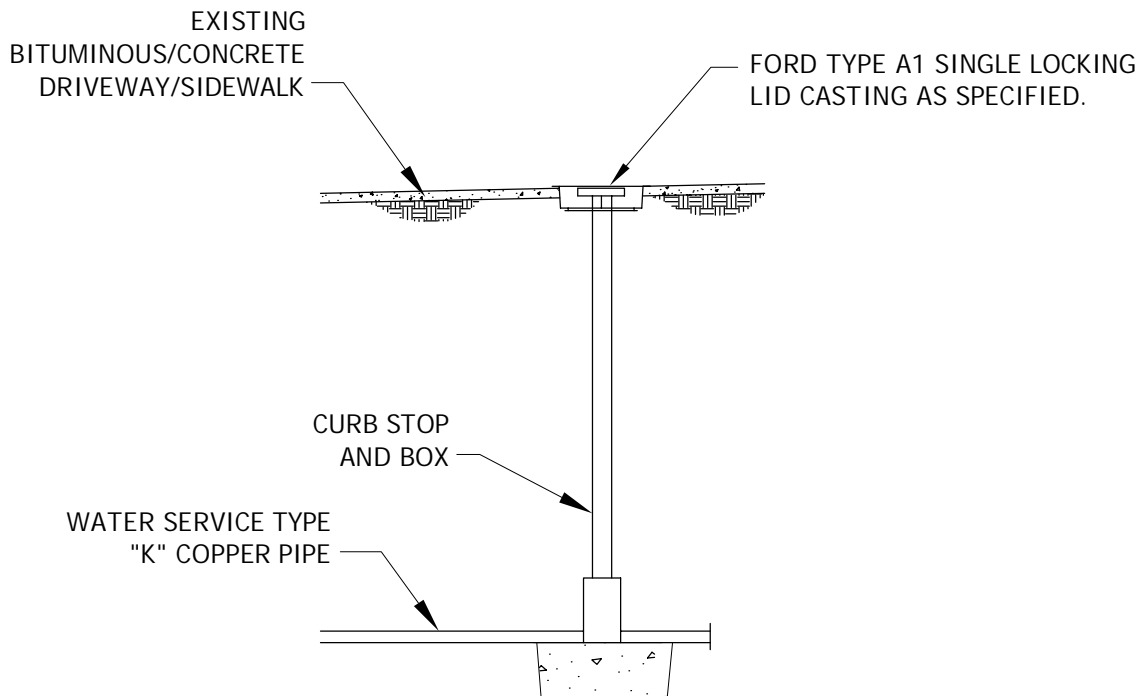
CITY OF NEW HOPE, MN

LAST REVISION:  
MAR 2016

PLATE NO.  
SER-3



NOTE:  
ENCLOSE LONG SWEEP BEND  
OR COMBINATION WYE IN  
CONCRETE AS SHOWN.

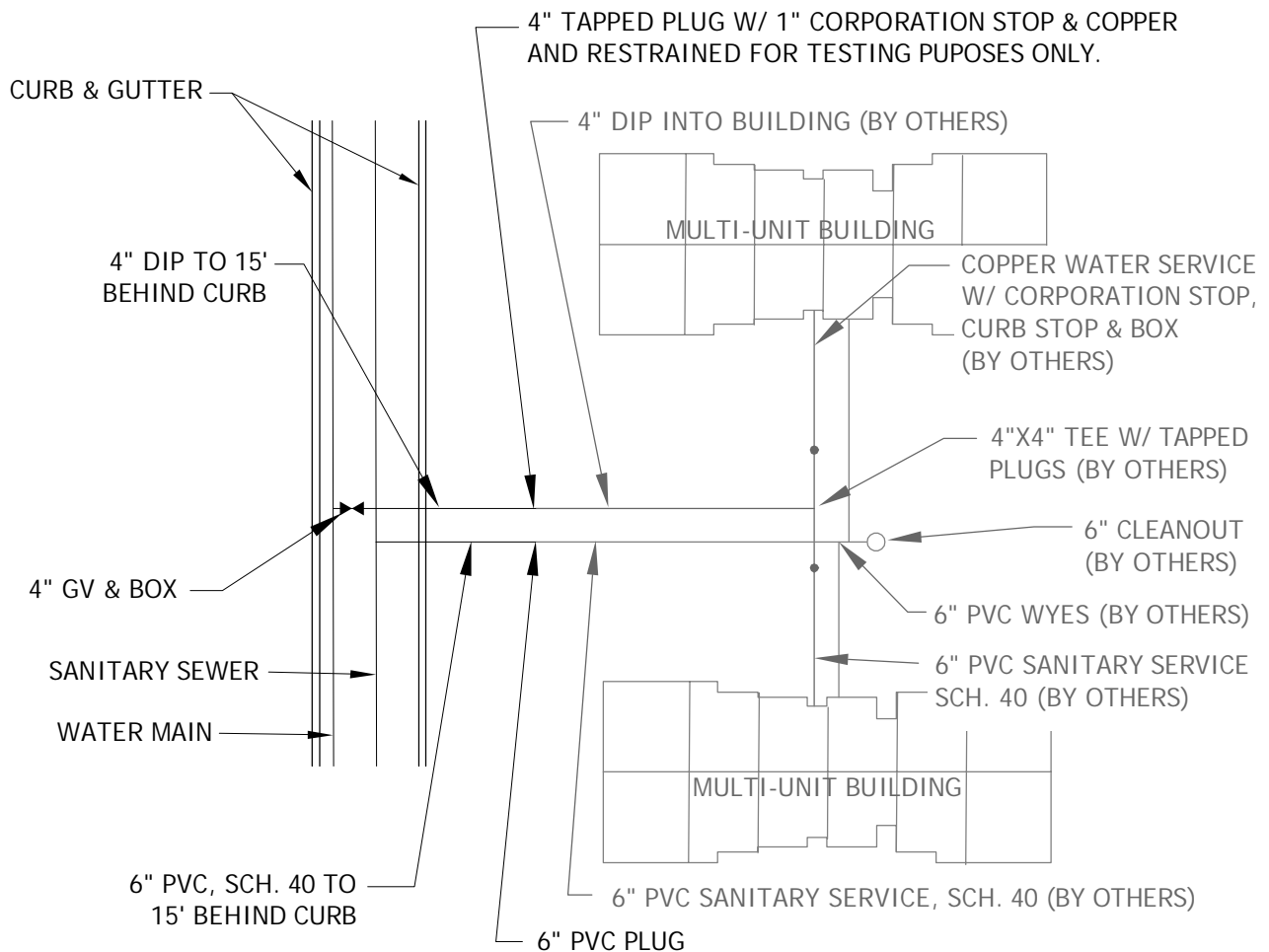
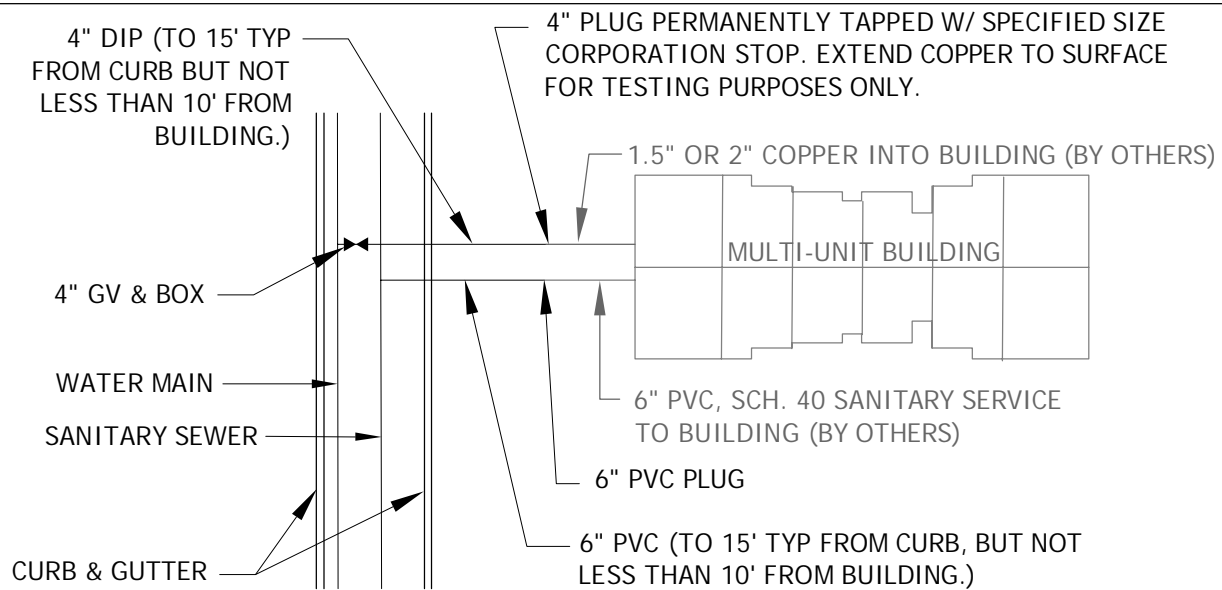


CURB BOX AND CLEANOUT  
PROTECTION IN DRIVEWAY

CITY OF NEW HOPE, MN

LAST REVISION:  
MAY 2017

PLATE NO.  
SER-8



4" WATER AND 6" SEWER SERVICE  
FOR MULTI-UNIT BUILDINGS

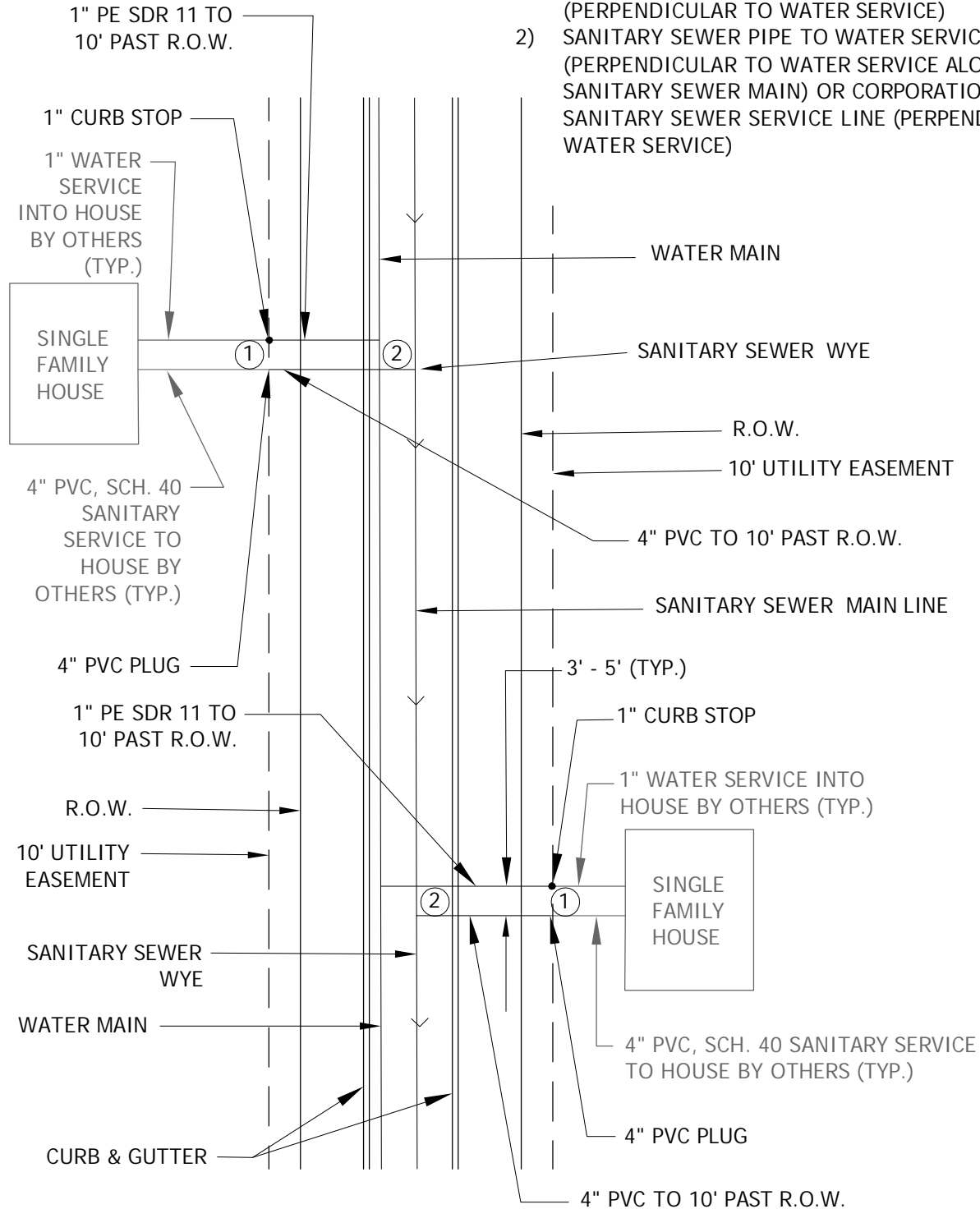
CITY OF NEW HOPE, MN

LAST REVISION:  
April 2003

PLATE NO.  
SER-9

CONTRACTOR TO PROVIDE THE FOLLOWING DIMENSIONS:

- 1) CURB STOP TO SANITARY SEWER PLUG (PERPENDICULAR TO WATER SERVICE)
- 2) SANITARY SEWER PIPE TO WATER SERVICE LINE (PERPENDICULAR TO WATER SERVICE ALONG SANITARY SEWER MAIN) OR CORPORATION STOP TO SANITARY SEWER SERVICE LINE (PERPENDICULAR TO WATER SERVICE)



LOCATING REQUIREMENTS  
FOR SINGLE FAMILY HOUSES

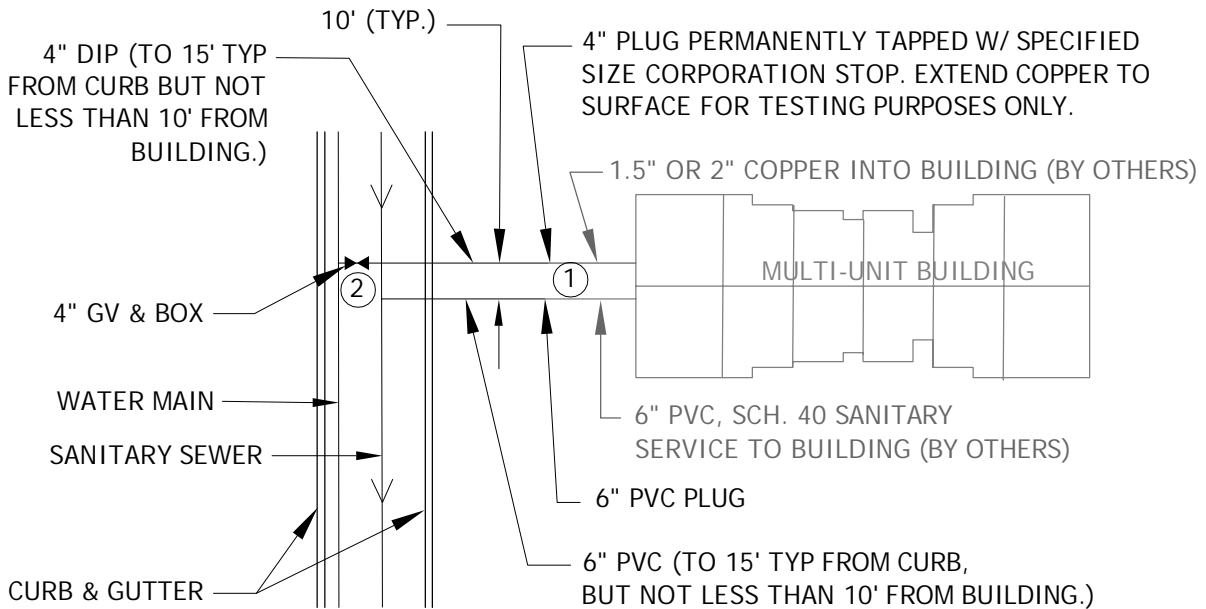
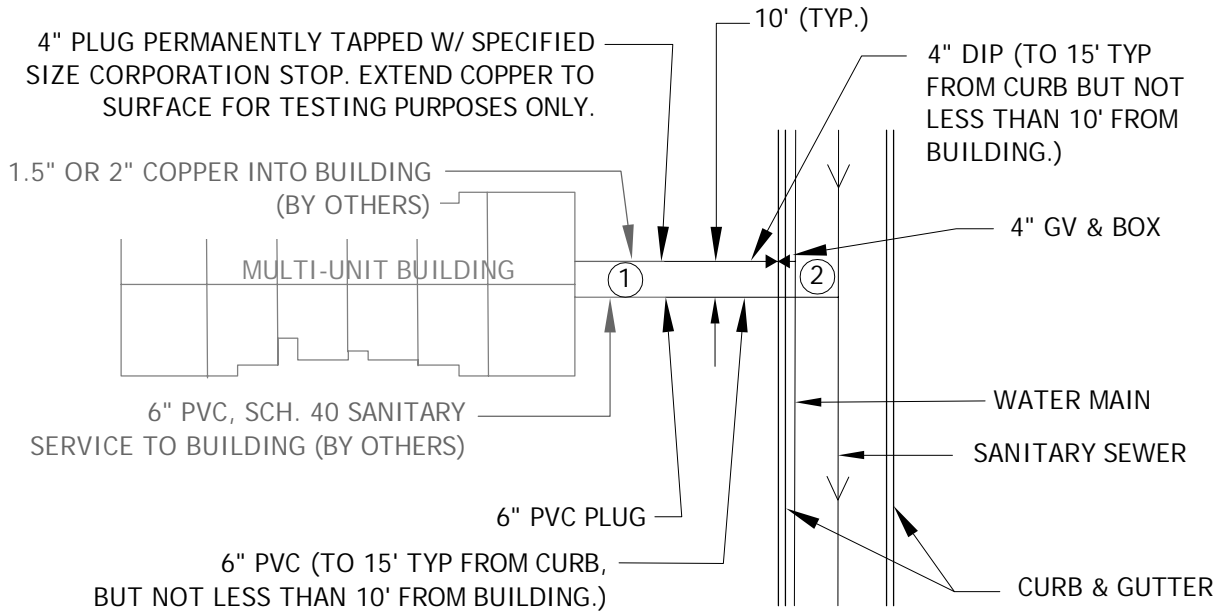
CITY OF NEW HOPE, MN

LAST REVISION:  
MAY 2015

PLATE NO.  
SER-9A

CONTRACTOR TO PROVIDE THE FOLLOWING DIMENSIONS:

- 1 WATER LINE PLUG TO SANITARY SEWER PLUG  
(PERPENDICULAR TO WATER LINE)
- 2 SANITARY SEWER PIPE TO WATER LINE  
(PERPENDICULAR TO WATER LINE ALONG SANITARY  
SEWER MAIN) OR WATER LINE TEE TO SANITARY SEWER  
LINE (PERPENDICULAR TO WATER LINE)

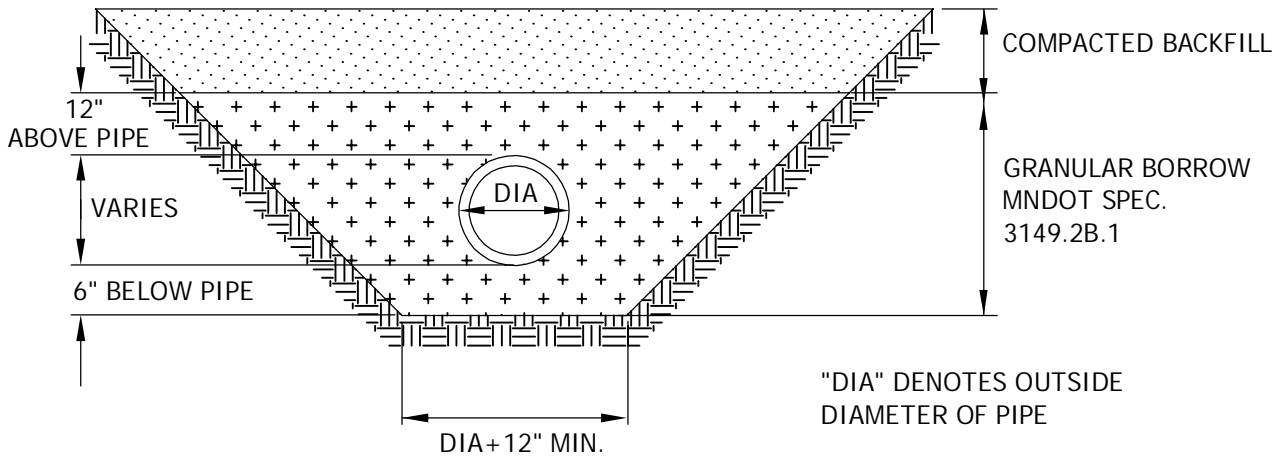


LOCATING REQUIREMENTS  
FOR MULTI-UNIT BUILDINGS

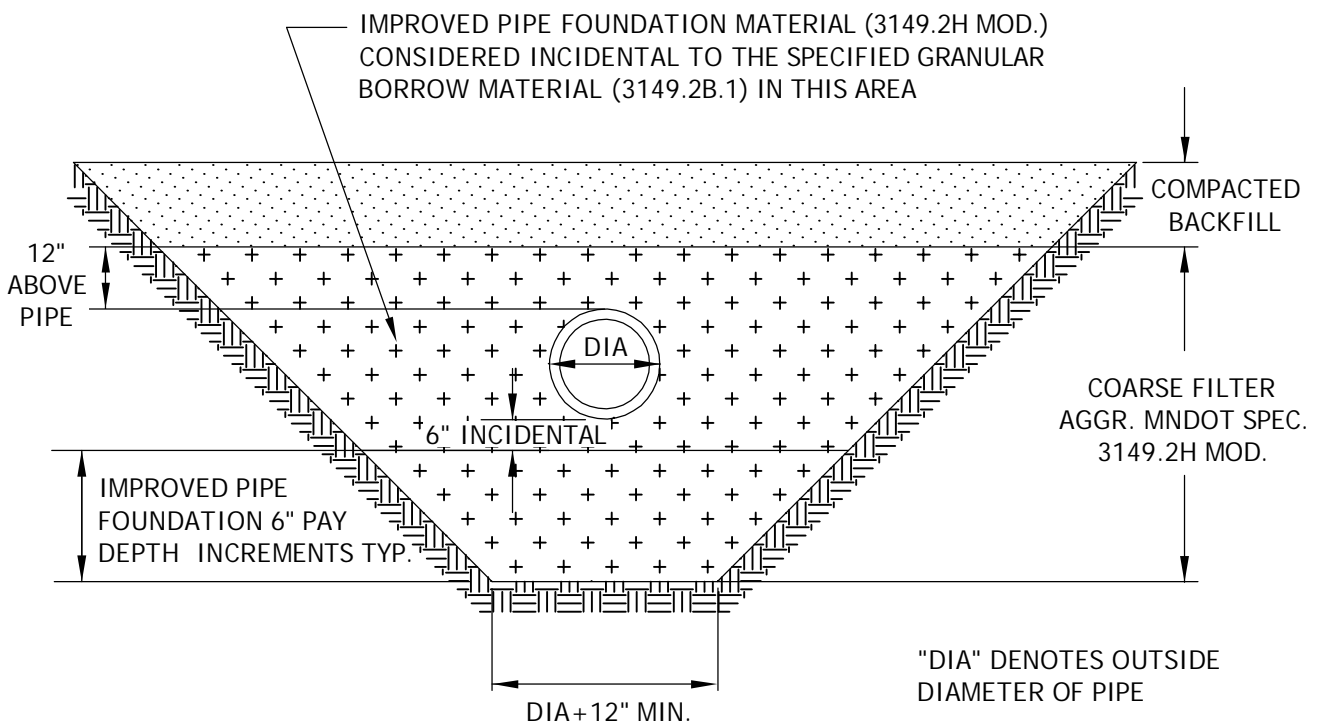
CITY OF NEW HOPE, MN

LAST REVISION:  
Feb. 2006

PLATE NO.  
SER-9B



**PIPE FOUNDATION & BEDDING  
GOOD SOILS**



**IMPROVED PIPE FOUNDATION MATERIAL  
POOR SOILS**



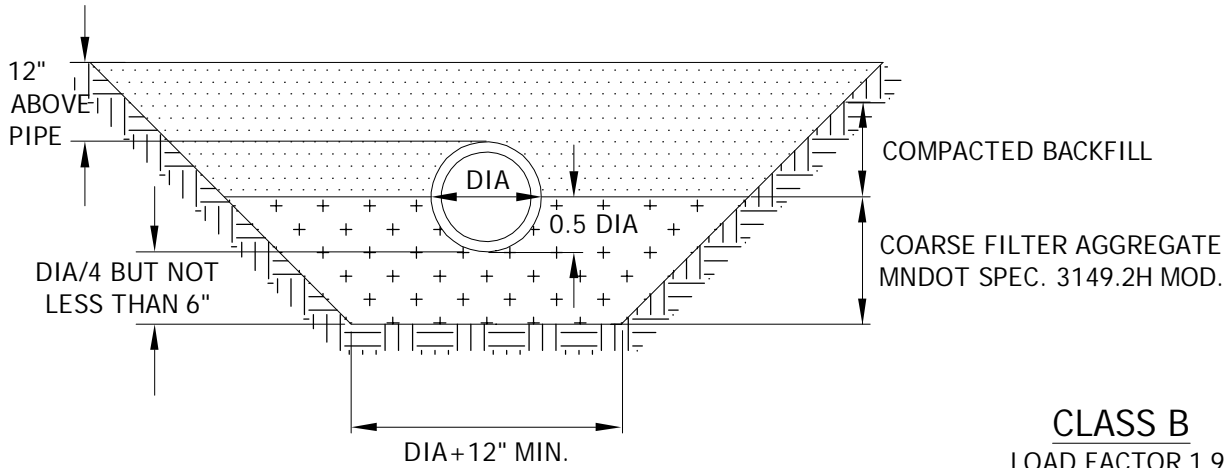
PIPE FOUNDATION & BEDDING  
METHODS FOR PVC

LAST REVISION:  
AUG 2017

CITY OF NEW HOPE, MN

PLATE NO.  
BED-1

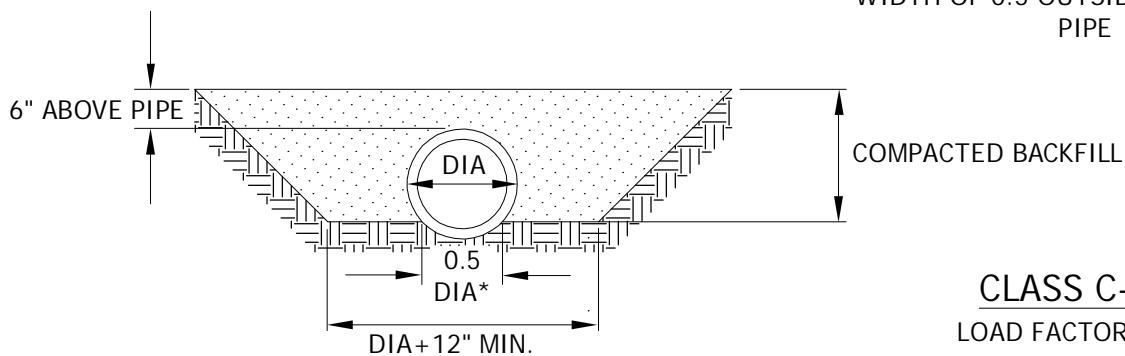




**CLASS B**

LOAD FACTOR 1.9

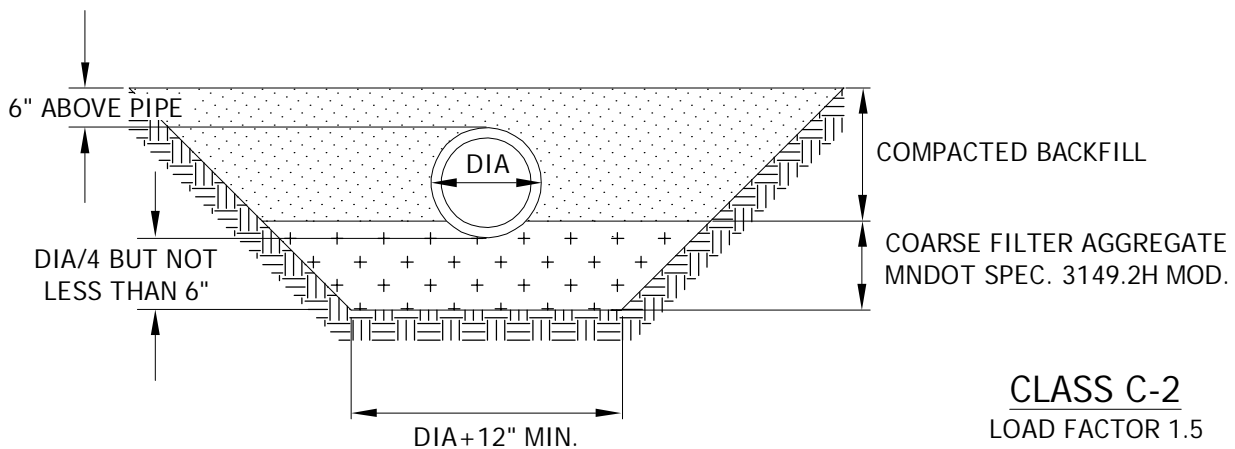
HAND SHAPE ANGULAR BEDDING MATERIAL TO SEAT PIPE A MINIMUM WIDTH OF 0.5 OUTSIDE DIAMETER OF PIPE



**CLASS C-1**

LOAD FACTOR 1.5

\*NOTE: THE BOTTOM OF THE TRENCH SHALL BE HAND SHAPED FROM FIRM UNDISTURBED SOIL TO FIT AT LEAST 1/2 OF THE OUTSIDE PIPE DIAMETER FOR ALL CLASS C BEDDING



**CLASS C-2**

LOAD FACTOR 1.5

HAND SHAPE ANGULAR BEDDING MATERIAL TO SEAT PIPE A MINIMUM WIDTH OF 0.5 OUTSIDE DIAMETER OF PIPE

"DIA" DENOTES OUTSIDE DIAMETER OF PIPE

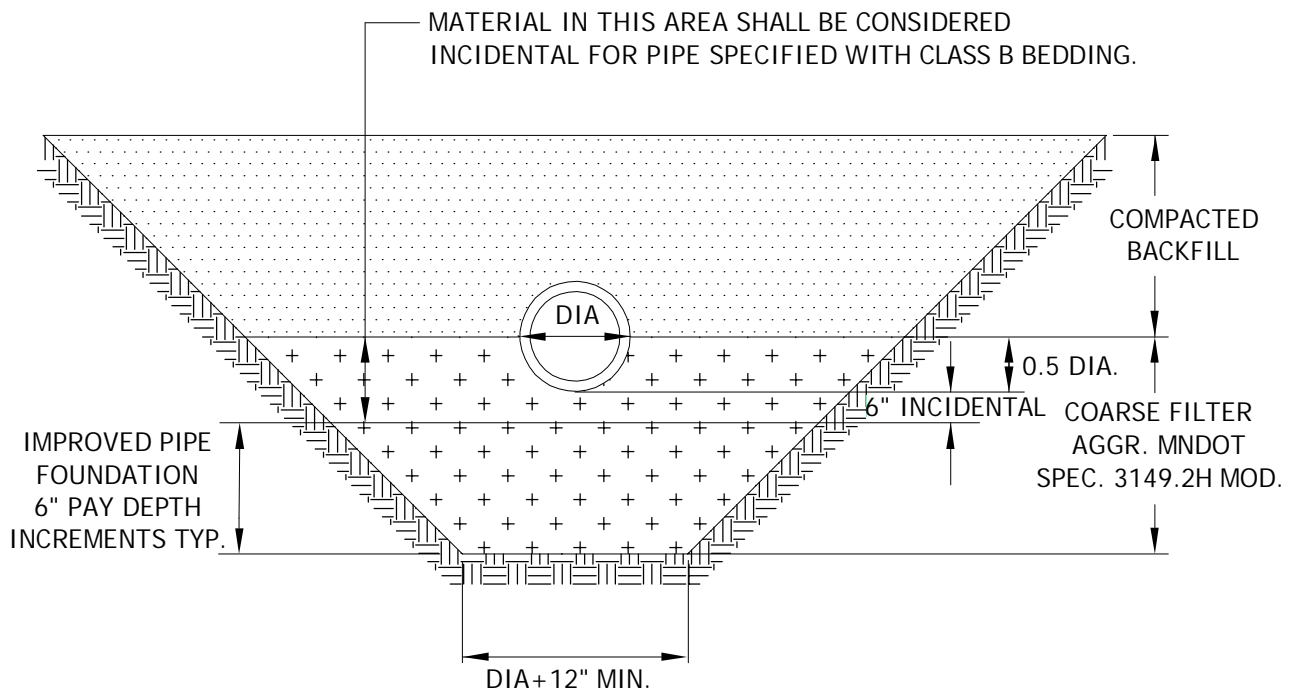


PIPE FOUNDATION & BEDDING  
METHODS FOR RCP OR DIP

LAST REVISION:  
AUG 2017

CITY OF NEW HOPE, MN

PLATE NO.  
BED-2



"DIA" DENOTES OUTSIDE DIAMETER OF PIPE

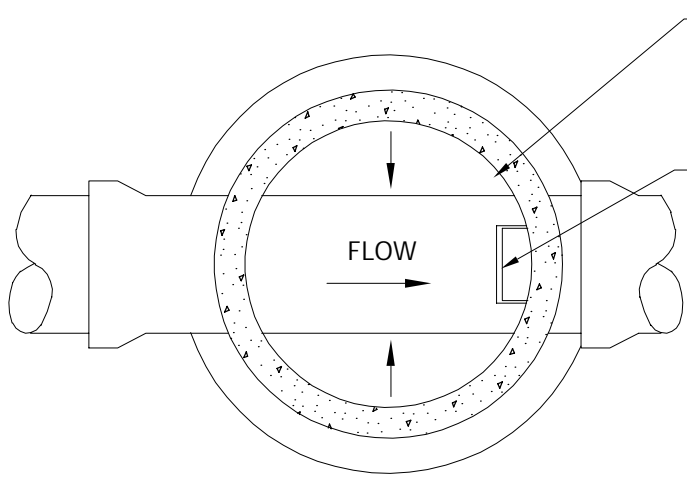


IMPROVED PIPE FOUNDATION  
FOR RCP AND DIP

LAST REVISION:  
AUG 2017

CITY OF NEW HOPE, MN

PLATE NO.  
BED-3

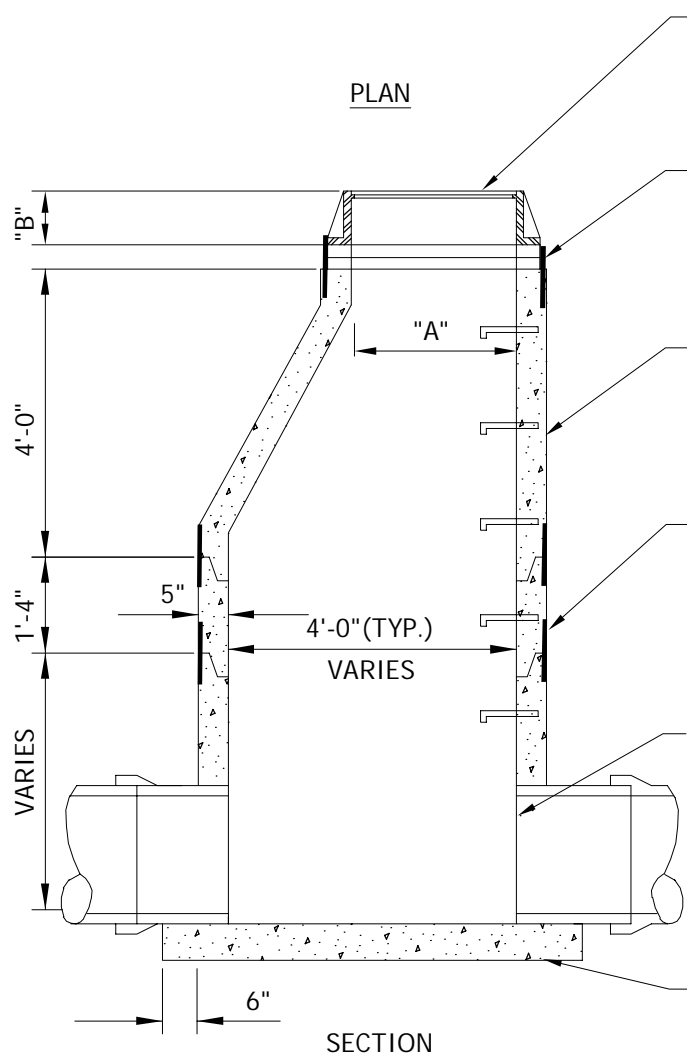


GROUT BOTTOM OF MANHOLE TO  $\frac{1}{2}$  DIAMETER AT PIPE AND SLOPE  
GROUT 2" TOWARD INVERT.

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.

CASTING	A	B
R1642B	27"	7"
Ess.Bro.309	27"	7"

PLAN



NEENAH R-1642-B MANHOLE FRAME AND COVER OR EQUAL. 2 CONCEALED PICK HOLES. NEW HOPE STORM LID.

MINIMUM OF 2, MAXIMUM OF 5 HDPE ADJUSTMENT RINGS. NO SHIMS ALLOWED. WRAP WOVEN FILTER FABRIC AROUND RINGS. MAXIMUM 20" OF ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.

MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH  $\frac{1}{2}$ " GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL.)

ALL JOINTS IN MANHOLE TO HAVE "O" RING RUBBER GASKETS. JOINTS TO BE SEALED IN INFI-SHIELD WRAP.

\*\*DOG HOUSES MUST BE GROUTED BOTH INSIDE AND OUTSIDE OF STRUCTURE

PIPE SHALL BE CUT OUT 2" FROM INSIDE FACE OF WALL.

NOTE: KOR-N-SEAL MANHOLE OR EQUAL CONSIDERED ACCEPTABLE ALTERNATE.

8" THICK X 6'-0" DIAMETER PRECAST CONCRETE SLAB WITH #4 @ 8" E.W.

SECTION

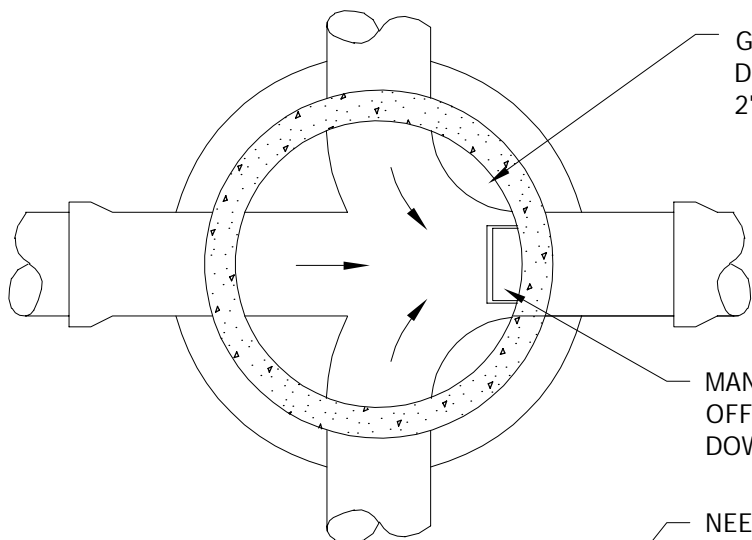


STORM SEWER MANHOLE

CITY OF NEW HOPE, MN

LAST REVISION:  
JAN 2019

PLATE NO.  
STO-1



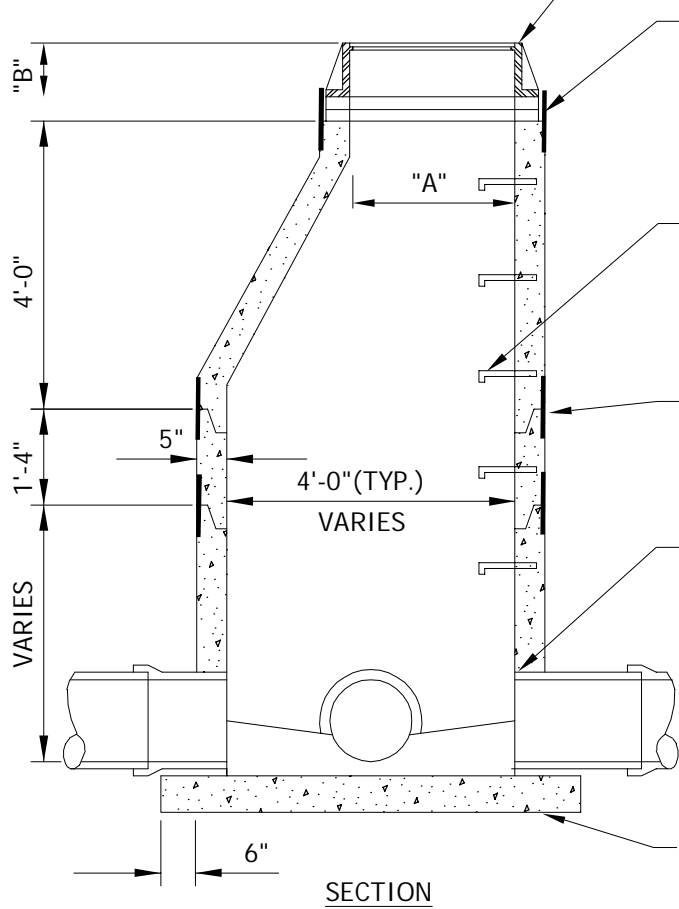
GROUT BOTTOM OF MANHOLE TO  $\frac{1}{2}$  DIAMETER AT PIPE AND SLOPE GROUT 2" TOWARD INVERT.

CASTING	A	B
R1642B	27"	7"
ESS BROS. 309	27"	7"

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.

PLAN

NEENAH R-1642-B MANHOLE FRAME AND COVER OR EQUAL. 2 CONCEALED PICK HOLES. NEW HOPE STORM LID.



MINIMUM OF 2 MAXIMUM OF 5 HDPE ADJUSTMENT RINGS. NO SHIMS ALLOWED. WRAP WOVEN FILTER FABRIC AROUND RINGS. MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.

MANHOLE STEPS, COPOLYMER POLYPROPYLENE PLASTIC, WITH  $\frac{1}{2}$ " GRADE 60 STEEL REINFORCEMENT OR EQUAL, 16" ON CENTER. (NO STEPS ALLOWED IN UPPER 27" BARREL.)

ALL JOINTS IN MANHOLE TO HAVE "O" RING RUBBER GASKETS. JOINTS TO BE SEALED IN INFI-SHIELD WRAP.

PIPE SHALL BE CUT OUT 2" FROM INSIDE FACE OF WALL.

\*\* DOGHOUSES MUST BE GROUTED BOTH INSIDE AND OUTSIDE OF STRUCTURE

NOTE: KOR-N-SEAL MANHOLE OR EQUAL CONSIDERED ACCEPTABLE ALTERNATE.

8" THICK X 6'-0" DIAMETER PRECAST CONCRETE SLAB WITH #4 @ 8" E.W.

SECTION

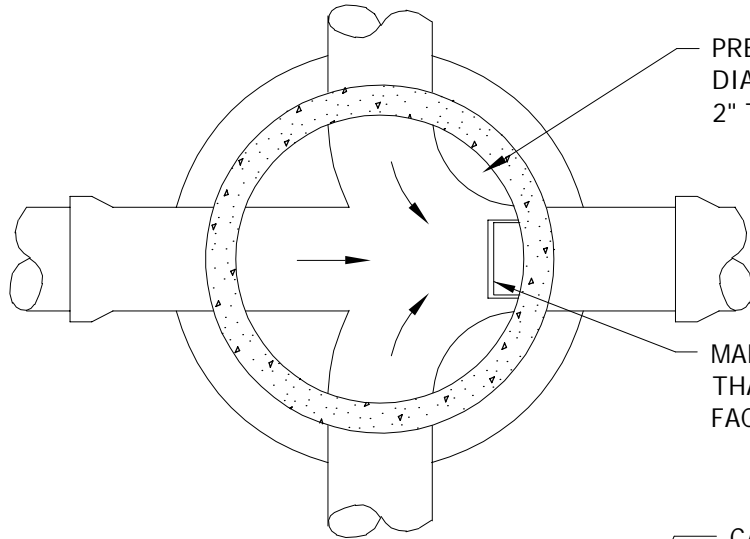


STORM SEWER JUNCTION MANHOLE

LAST REVISION:  
JAN 2019

CITY OF NEW HOPE, MN

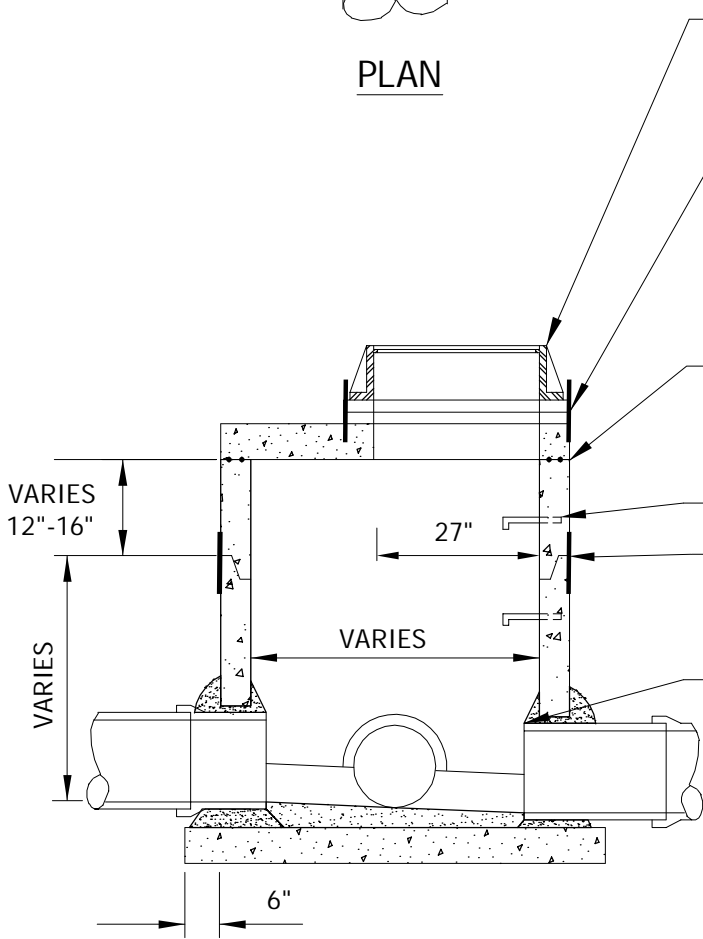
PLATE NO.  
STO-2



PRECAST INVERT SHOULD BE 1/2 DIAMETER OF PIPE AND BENCHES SLOPED 2" TOWARD INVERT.

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET HOLE IN TOP SLAB IS FACING DOWNSTREAM.

**PLAN**



CASTING R-1642 OR APPROVED EQUAL AS SPECIFIED. NEW HOPE STORM LID.

MINIMUM OF 2 MAXIMUM OF 5 HDPE ADJUSTMENT RINGS. NO SHIMS ALLOWED. WRAP WOVEN FILTER FABRIC AROUND RINGS. MAXIMUM 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.

TOP OF BARREL SECTION BELOW TOP SLAB TO HAVE FLAT TOP EDGE SEALED WITH 2 BEADS OF RAMNEK OR EQUAL.

MANHOLE STEPS, 16" ON CENTER.

ALL JOINTS IN MANHOLE TO HAVE "O" RING RUBBER GASKETS JOINTS TO BE SEALED WITH INFI-SHIELD WRAP.

PIPE SHALL BE CUT TO BE 2" INSIDE MANHOLE AT THE PIPE'S MIDPOINT

DOGHOUSES MUST BE GROUTED BOTH INSIDE AND OUTSIDE.

**SECTION**

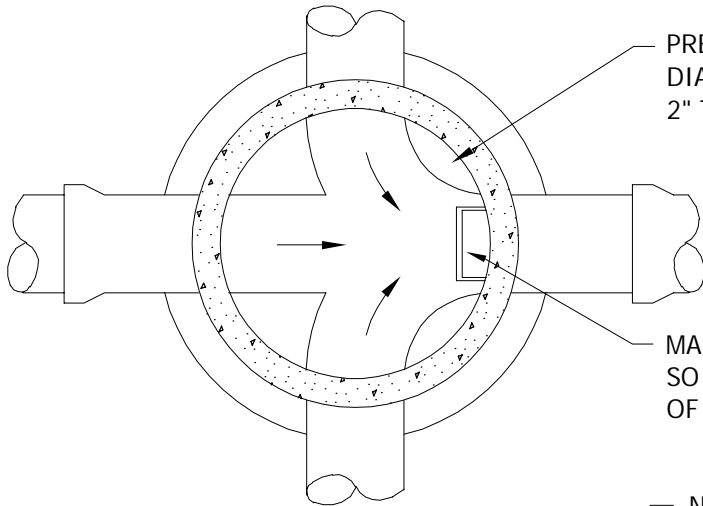


**STORM SEWER JUNCTION MANHOLE WITH REINFORCED TOP SLAB**

LAST REVISION:  
JAN 2019

**CITY OF NEW HOPE, MN**

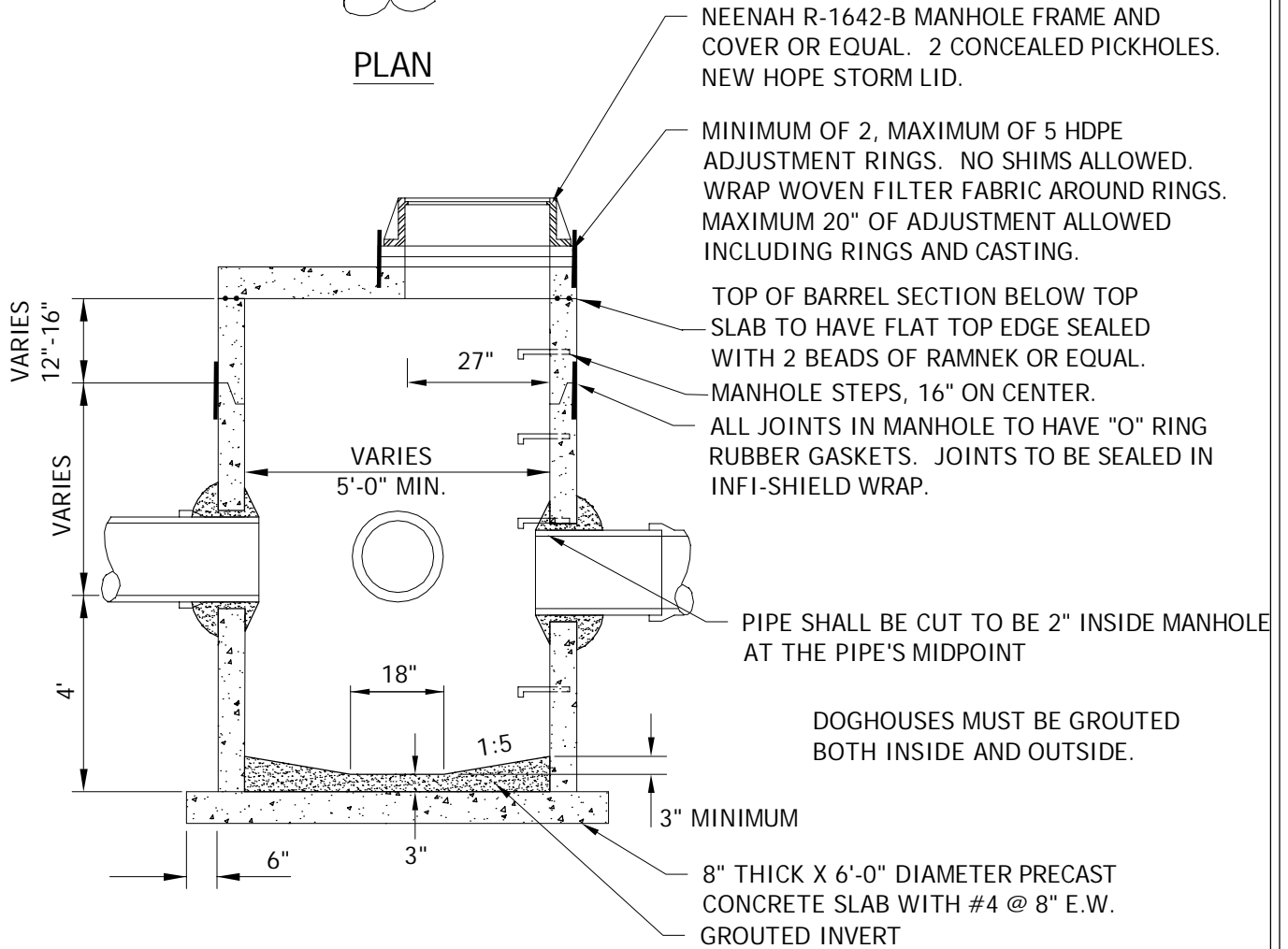
PLATE NO.  
STO-3



PRECAST INVERT SHOULD BE 1/2 DIAMETER OF PIPE AND BENCHES SLOPED 2" TOWARD INVERT.

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.

PLAN



NEENAH R-1642-B MANHOLE FRAME AND COVER OR EQUAL. 2 CONCEALED PICKHOLES. NEW HOPE STORM LID.

MINIMUM OF 2, MAXIMUM OF 5 HDPE ADJUSTMENT RINGS. NO SHIMS ALLOWED. WRAP WOVEN FILTER FABRIC AROUND RINGS. MAXIMUM 20" OF ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.

TOP OF BARREL SECTION BELOW TOP SLAB TO HAVE FLAT TOP EDGE SEALED WITH 2 BEADS OF RAMNEK OR EQUAL.

MANHOLE STEPS, 16" ON CENTER.

ALL JOINTS IN MANHOLE TO HAVE "O" RING RUBBER GASKETS. JOINTS TO BE SEALED IN INFI-SHIELD WRAP.

PIPE SHALL BE CUT TO BE 2" INSIDE MANHOLE AT THE PIPE'S MIDPOINT

DOGHOUSES MUST BE GROUTED BOTH INSIDE AND OUTSIDE.

8" THICK X 6'-0" DIAMETER PRECAST CONCRETE SLAB WITH #4 @ 8" E.W. GROUTED INVERT

SECTION

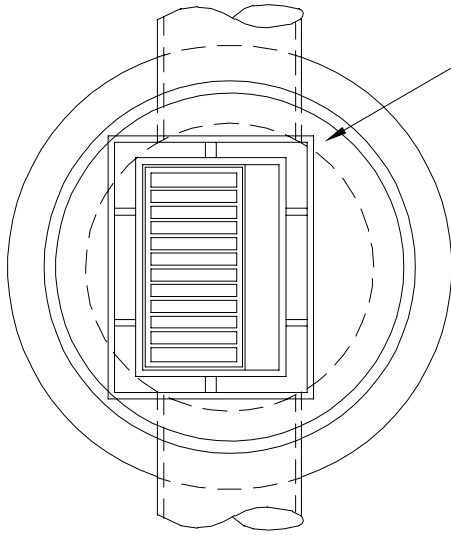


STORM SEWER JUNCTION MANHOLE WITH REINFORCED TOP SLAB & SUMP

CITY OF NEW HOPE, MN

LAST REVISION:  
JAN 2019

PLATE NO.  
STO-4



24"x36" SLAB OPENING FOR NEENAH R3067-VB OR EQUAL. INSTALL NEENAH R3290-A FOR DRIVEWAYS AND VALLEY GUTTERS. (VANE GRATE SHOWN)

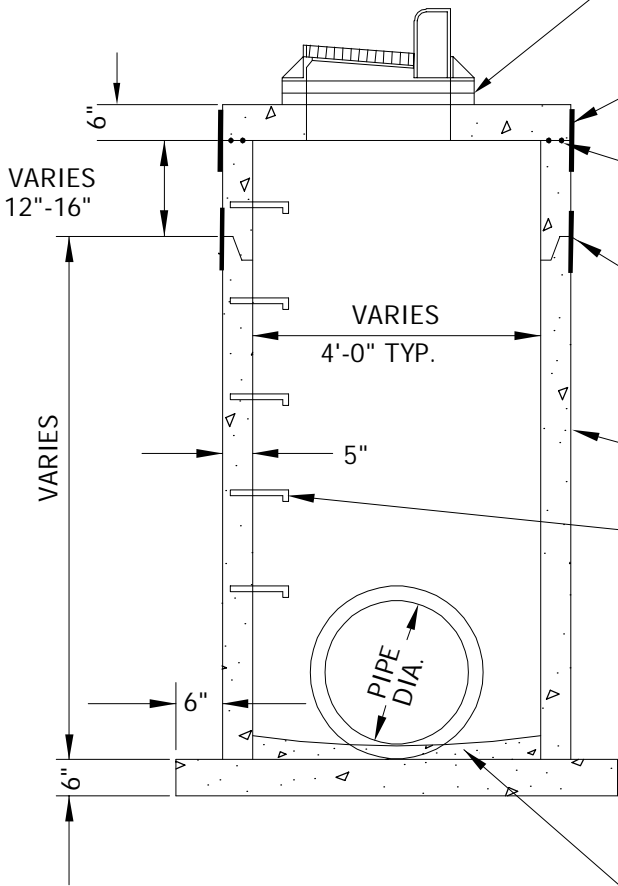
DIMENSION FROM BACK OF CURB TO CENTER OF STRUCTURE.

- 4' DIA. MH - 9" IN FROM BACK OF CURB
- 5' DIA. MH - 3" IN FROM BACK OF CURB
- 6' DIA. MH - 3" BEHIND BACK OF CURB
- 7' DIA. MH - 9" BEHIND BACK OF CURB
- 8' DIA. MH - 15" BEHIND BACK OF CURB

PLAN

MIN. OF 2, MAX OF 5 HDPE ADJUSTMENT RINGS. NO SHIMS ALLOWED. WRAP WOVEN FILTER FABRIC AROUND RINGS. MAX. 20" ADJUSTMENT ALLOWED INCLUDING CASTING AND RINGS

6" PRECAST REINFORCED CONCRETE SLAB. FOR 6' DIA. MANHOLE, AND 8" PRECAST SLAB IS REQUIRED.



TOP OF BARREL SECTION UNDER TOP SLAB TO HAVE FLAT TOP EDGE SEALED WITH 2 BEADS OF RAMNEK OR EQUAL.

ALL JOINTS IN MANHOLE TO HAVE "O" RING RUBBER GASKETS. JOINTS TO BE SEALED WITH INFI-SHIELD GATOR WRAP

PRECAST CONCRETE SECTION

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM FOR ALL LINES UP TO 36" DIA. AND OVER. PLACE STEPS ON RIGHT HAND SIDE WHEN FACING DOWNSTREAM FOR ALL LINES UP TO 36" DIA. AND OVER.

MINIMUM SLAB THICKNESS, 6" FOR 14' DEPTH. INCREASE THICKNESS 1" FOR EACH 4' OF DEPTH GREATER THAN 14', AND REINFORCE WITH 6"X6" 10/10 MESH.

DOGHOUSES SHOULD BE GROUTED ON BOTH THE INSIDE AND OUTSIDE.

SECTION

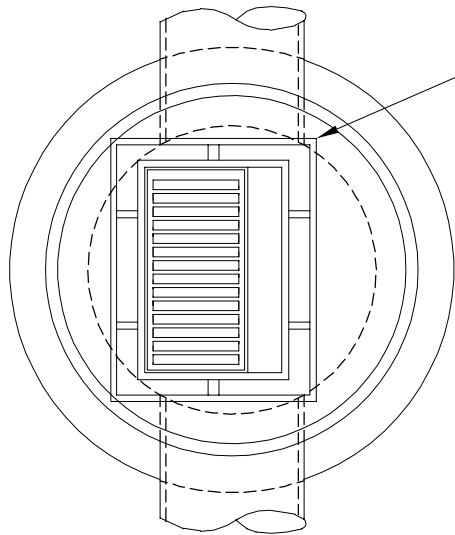


TYPE II CATCH BASIN MANHOLE

CITY OF NEW HOPE, MN

LAST REVISION:  
JAN 2019

PLATE NO.  
STO-5

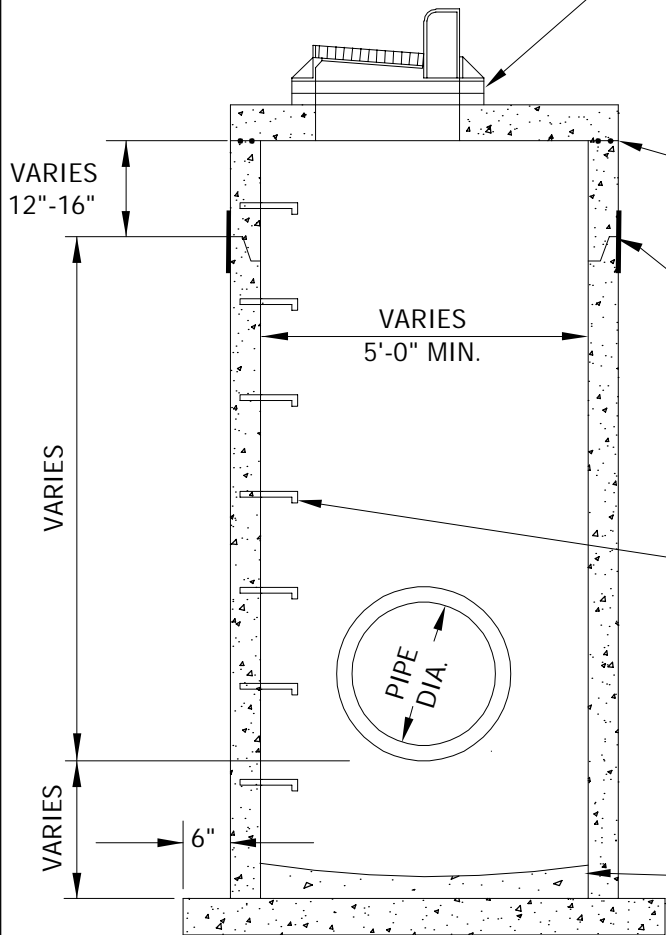


24"x36" SLAB OPENING FOR NEENAH R3067-VB OR EQUAL. INSTALL NEENAH R3290-A FOR DRIVEWAYS AND VALLEY GUTTERS. (VANE GRATE SHOWN)

DIMENSION FROM BACK OF CURB TO CENTER OF STRUCTURE.

- 4' DIA. MH - 9" IN FROM BACK OF CURB
- 5' DIA. MH - 3" IN FROM BACK OF CURB
- 6' DIA. MH - 3" BEHIND BACK OF CURB
- 7' DIA. MH - 9" BEHIND BACK OF CURB
- 8' DIA. MH - 15" BEHIND BACK OF CURB

PLAN



MIN. OF 2, MAX OF 5 HDPE ADJUSTMENT RINGS. NO SHIMS ALLOWED. WRAP WOVEN FILTER FABRIC AROUND RINGS. MAX. 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING.

TOP OF BARREL SECTION UNDER TOP SLAB TO HAVE FLAT TOP EDGE SEALED WITH 2 BEADS OF RAMNEK OR EQUAL.

ALL JOINTS IN MANHOLE TO HAVE "O" RING RUBBER GASKETS. JOINTS TO BE SEALED WITH INFI-SHIELD GATOR WRAP

DOGHOUSES SHALL BE GROUTED ON BOTH THE OUTSIDE AND INSIDE.

MANHOLE STEPS, 16" ON CENTER

INSTALL THE SNOOT BY BEST MANAGEMENT PRODUCTS, INC. OR EQUAL; AND SKIMMER AND ENERGY DISSIPATER AS SPECIFIED.

GROUT BOTTOM

SECTION



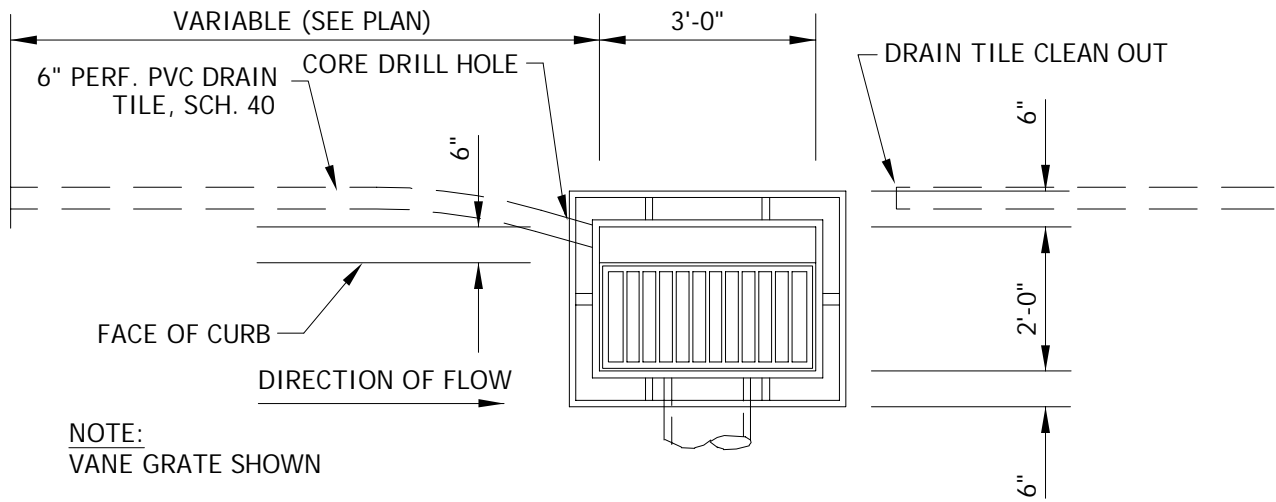
CATCHBASIN MANHOLE WITH SUMP

LAST REVISION:  
JAN 2019

CITY OF NEW HOPE, MN

PLATE NO.  
STO-6





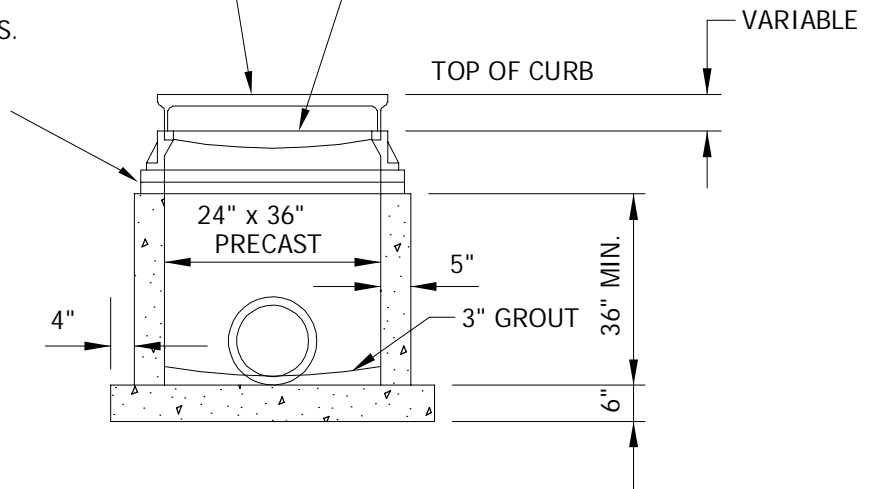
PLAN

CATCHBASIN CASTING NEENAH R3067-VB OR EQUAL. INSTALL R3290-A CASTING IN DRIVEWAYS AND VALLEY GUTTERS.

MIN. OF 2, MAX. 5 HDPE ADJUSTMENT RINGS. NO SHIMS ALLOWED WRAP WOVEN FILTER FABRIC AROUND RINGS. MAX 20" ADJUSTMENT ALLOWED INCLUDING RINGS AND CASTING

GRATE TO BE 2" BELOW GUTTER GRADE. MIN. 8' CURB TRANSITION ON EITHER SIDE

DOGHOUSES SHALL BE GROUTED ON BOTH THE OUTSIDE AND THE INSIDE.



SECTION



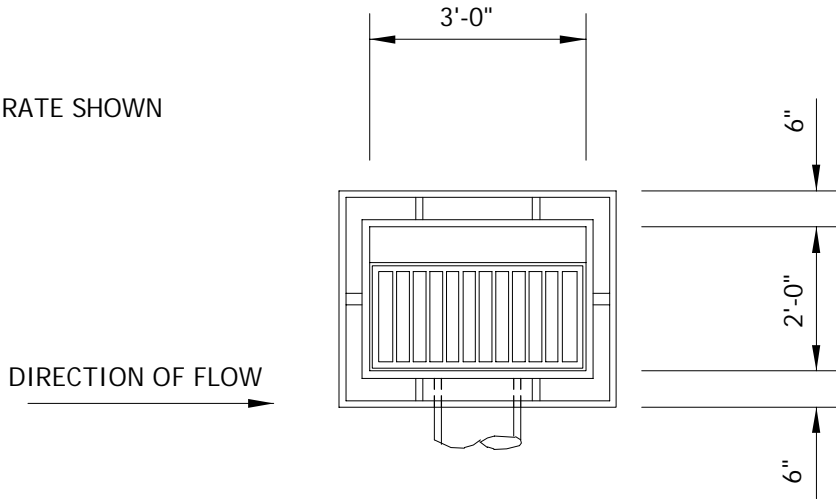
2'X3' CATCH BASIN

LAST REVISION:  
JAN 2019

CITY OF NEW HOPE, MN

PLATE NO.  
STO-7

NOTE:  
VANE GRATE SHOWN

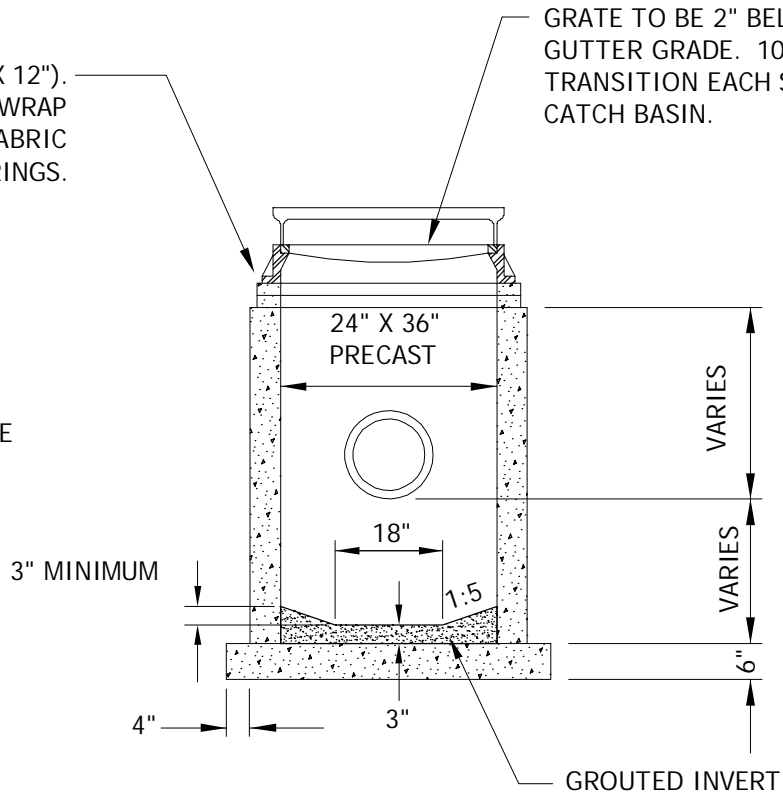


PLAN

NEW HDPE RINGS (MAX 12").  
NO SHIMS ALLOWED. WRAP  
WOVEN FILTER FABRIC  
AROUND RINGS.

GRATE TO BE 2" BELOW  
GUTTER GRADE. 10'  
TRANSITION EACH SIDE OF  
CATCH BASIN.

DOGHOUSES SHALL BE  
GROUTED ON BOTH THE  
INSIDE AND OUTSIDE.



SECTION



CATCHBASIN WITH SUMP

LAST REVISION:  
DEC 2017

CITY OF NEW HOPE, MN

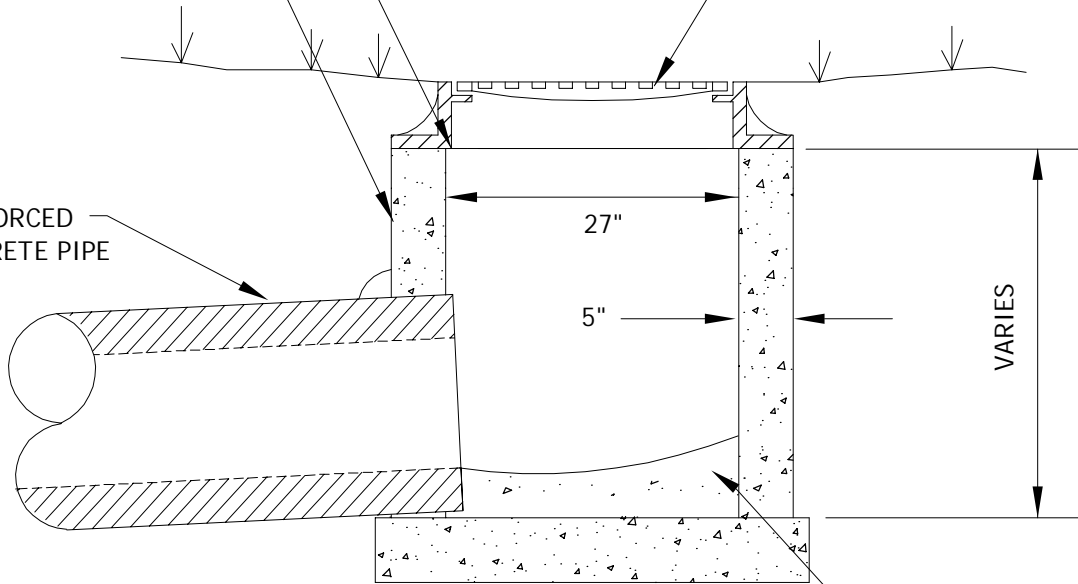
PLATE NO.  
STO-8

MINIMUM OF 2, MAXIMUM OF 5 HDPE  
ADJUSTMENT RINGS. NO SHIMS ALLOWED.  
WRAP WOVEN FILTER FABRIC AROUND RINGS.  
MAXIMUM 12" ADJUSTMENT ALLOWED.

PRECAST CONCRETE  
STRUCTURE

NEENAH R-2588-B MANHOLE  
FRAME AND COVER OR EQUAL

REINFORCED  
CONCRETE PIPE



GROUT BOTTOM

DOG HOUSES MUST BE GROUTED BOTH  
INSIDE AND OUTSIDE OF STRUCTURE.

40" DIA. X 5" THICK PRECAST  
REINFORCED CONCRETE  
BASE SLAB.

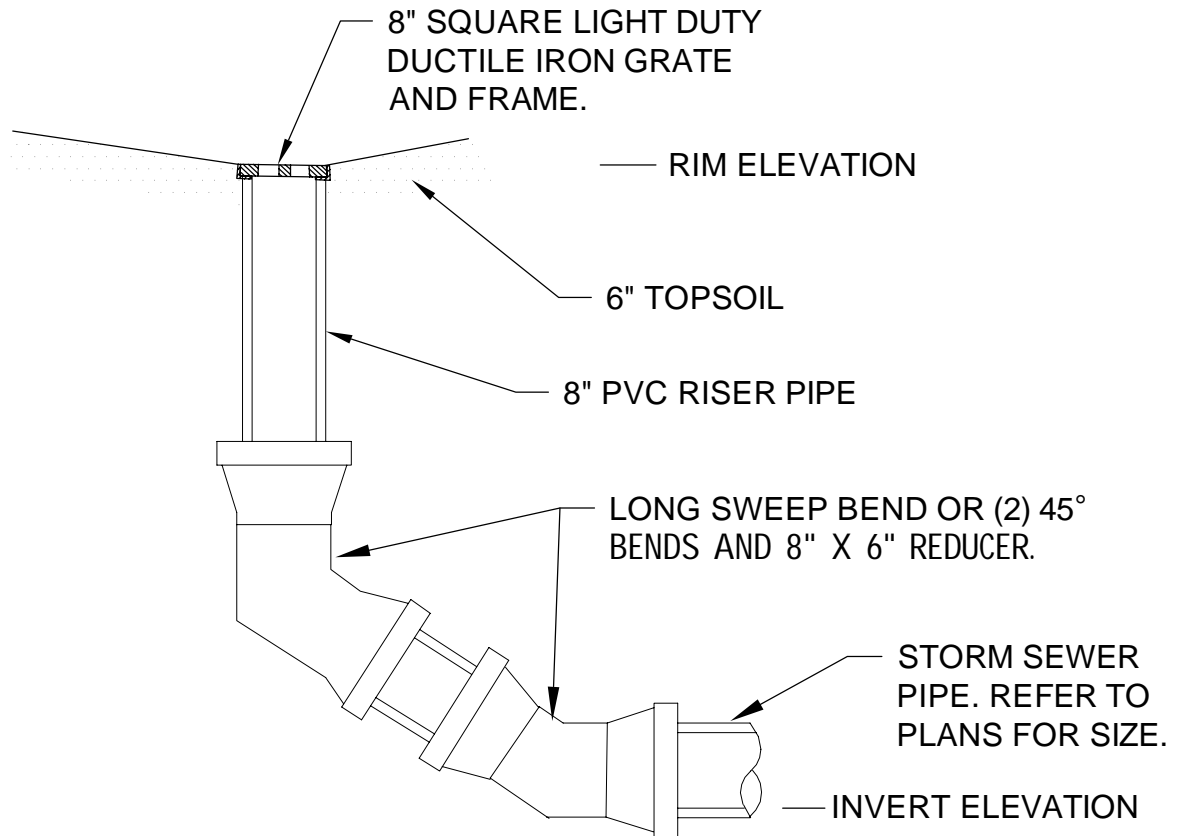


PRECAST 27" YARD DRAIN (YD)

LAST REVISION:  
JAN 2019

CITY OF NEW HOPE, MN

PLATE NO.  
STO-9

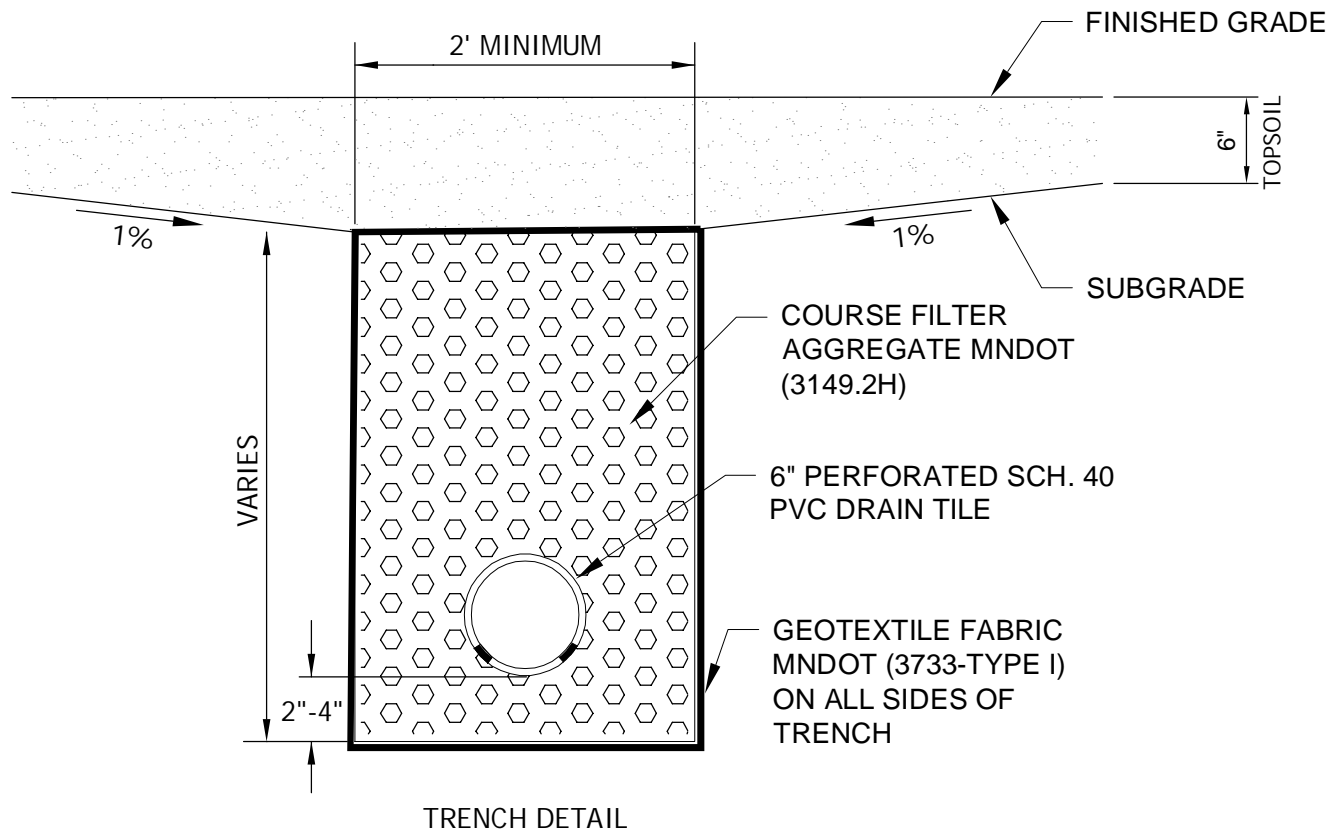


AREA DRAIN

LAST REVISION:  
JULY 2019

CITY OF NEW HOPE, MN

PLATE NO.  
STO-10



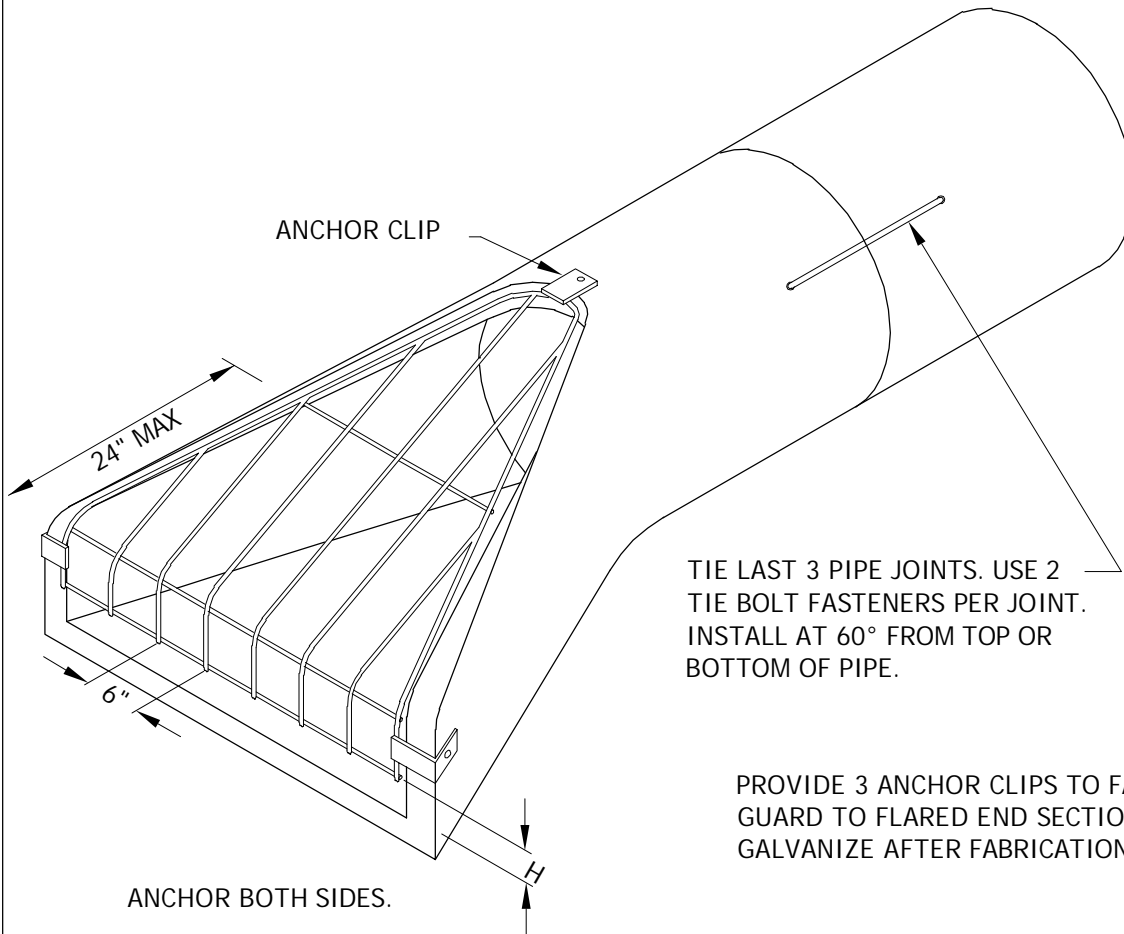
FRENCH DRAIN

CITY OF NEW HOPE, MN

LAST REVISION:  
JULY 2019

PLATE NO.  
STO-11

SEE CITY PLATE NO. STO-13 FOR RIPRAP PLACEMENT.



ANCHOR BOTH SIDES.

ISOMETRIC

TIE LAST 3 PIPE JOINTS. USE 2 TIE BOLT FASTENERS PER JOINT. INSTALL AT 60° FROM TOP OR BOTTOM OF PIPE.

PROVIDE 3 ANCHOR CLIPS TO FASTEN TRASH GUARD TO FLARED END SECTION. HOT DIP GALVANIZE AFTER FABRICATION.

STORM SEWER SHALL BE RCP.

PIPE SIZE	TRASH GUARD SIZING		
	BARS	'H'	BOLTS
12"-18"	3/4"φ	4"	5/8"
21"-42"	1"φ	6"	3/4"
48"-72"	1 1/4"φ	12"	1"

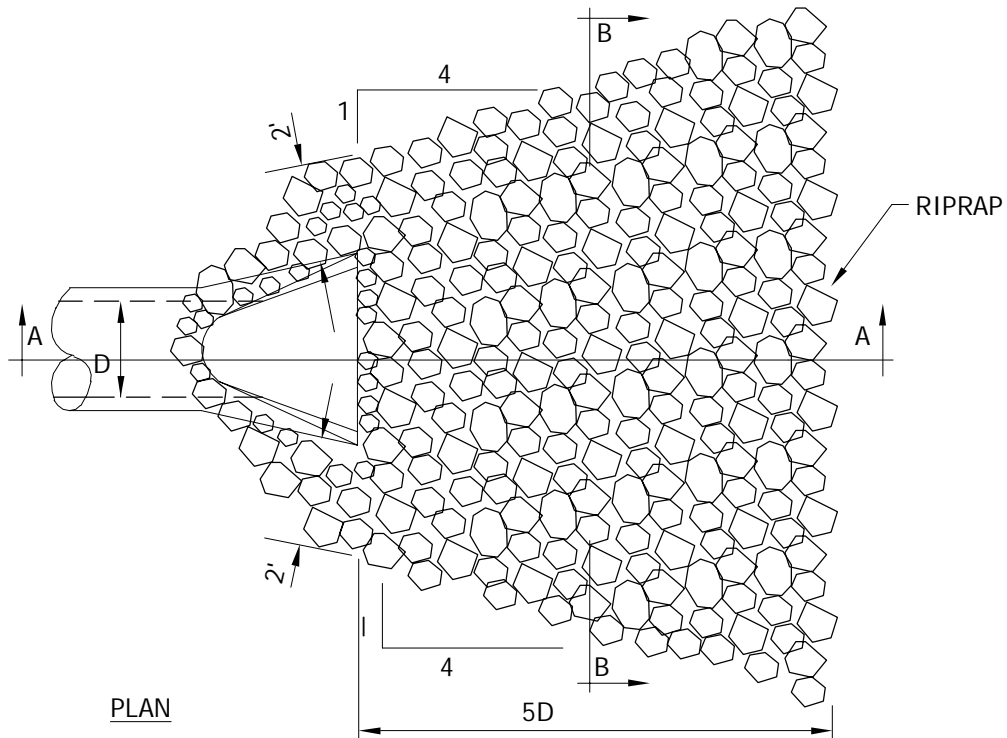


FLARED END SECTION  
WITH TRASH GUARD

LAST REVISION:  
DEC 2017

CITY OF NEW HOPE, MN

PLATE NO.  
STO-12

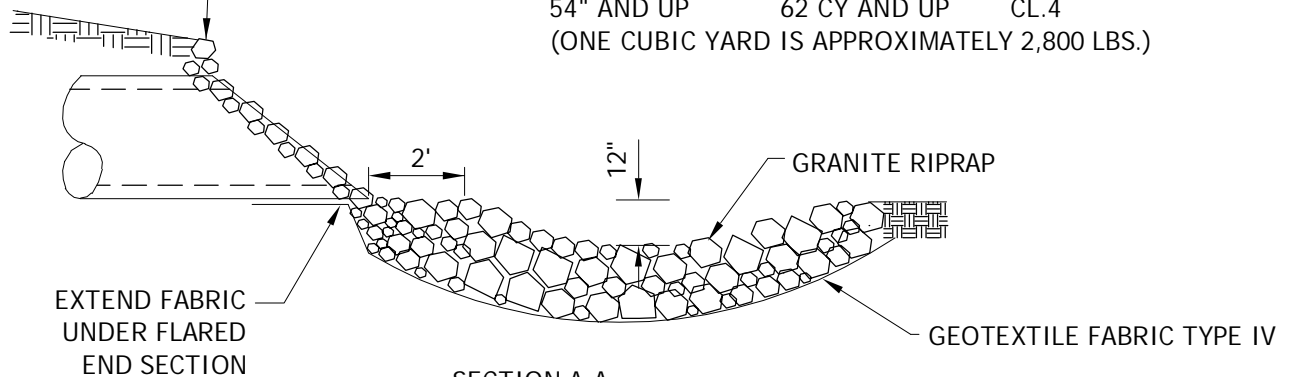


**RIPRAP REQUIREMENTS**

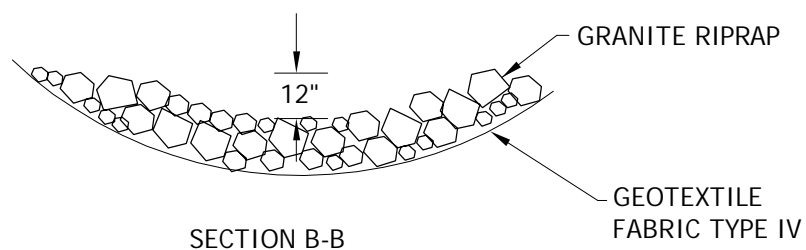
12" TO 24"	8 TO 12 CY	CL.3
27" TO 33"	14 TO 20 CY	CL.3
36" TO 48"	23 TO 38 CY	CL.3
54" AND UP	62 CY AND UP	CL.4

(ONE CUBIC YARD IS APPROXIMATELY 2,800 LBS.)

12' MAX.  
HAND PLACE AS  
NECESSARY



**SECTION A-A**



**SECTION B-B**

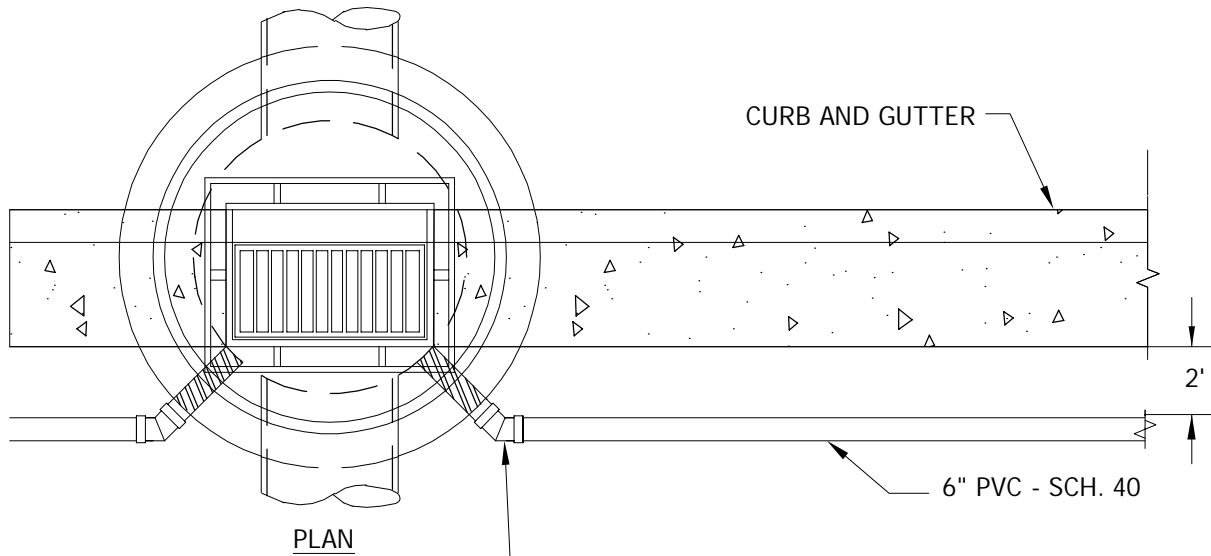


**RIPRAP AT OUTLETS**

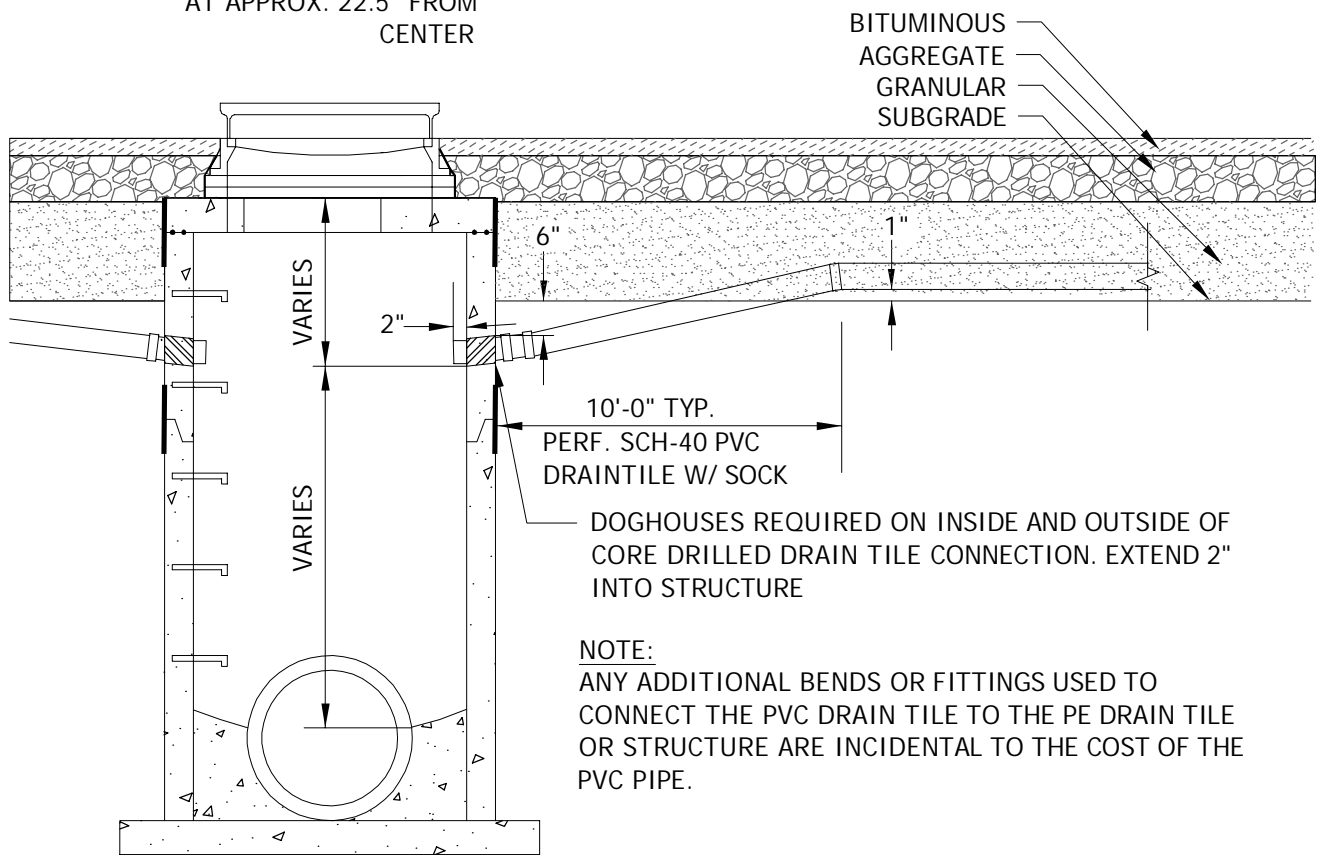
LAST REVISION:  
Feb. 2017

**CITY OF NEW HOPE, MN**

PLATE NO.  
**STO-13**



CORE DRILL HOLE FOR  
PVC DRAINTILE IN FIELD  
AT APPROX. 22.5° FROM  
CENTER



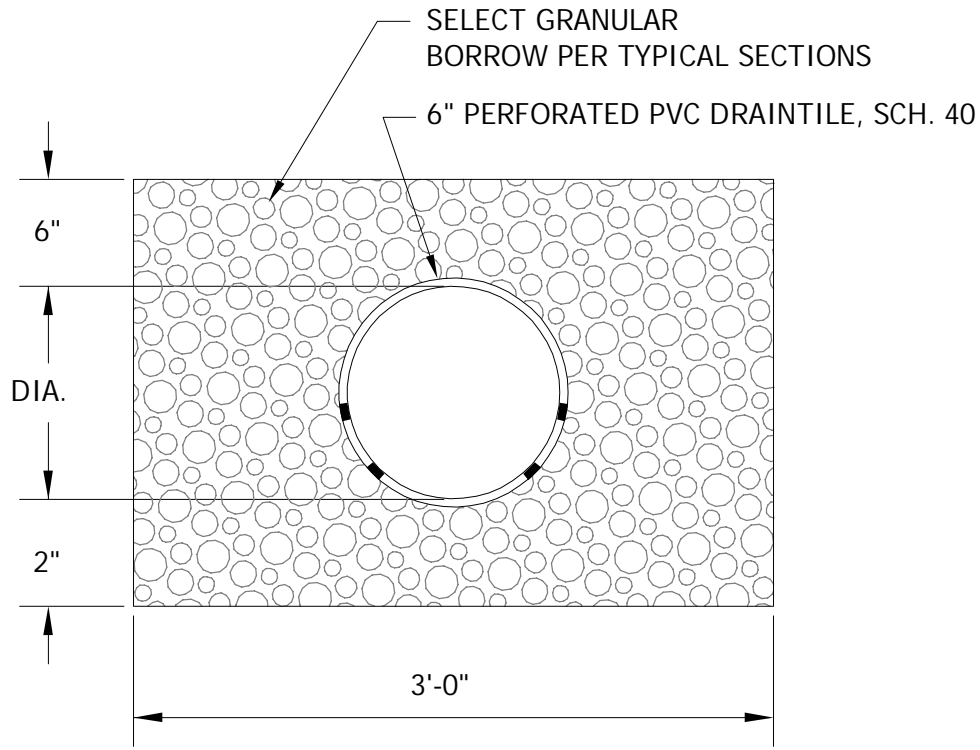
DRAINTILE INSTALLATION  
INTO CATCHBASIN

LAST REVISION:  
OCT 2017

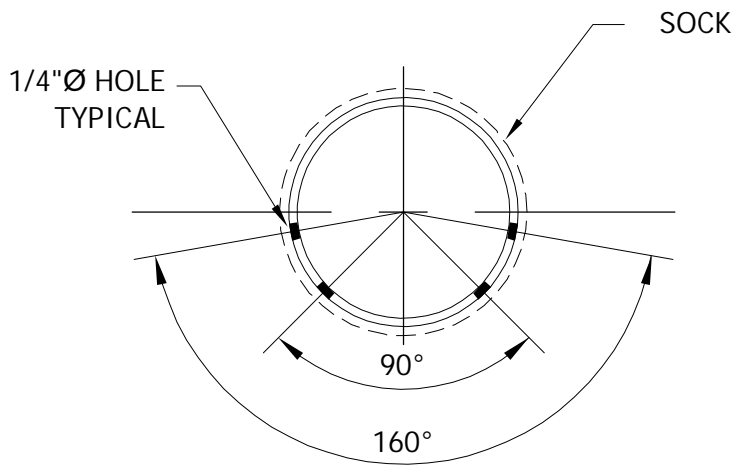
CITY OF NEW HOPE, MN

PLATE NO.  
STO-14





TRENCH DETAIL



PIPE DETAIL

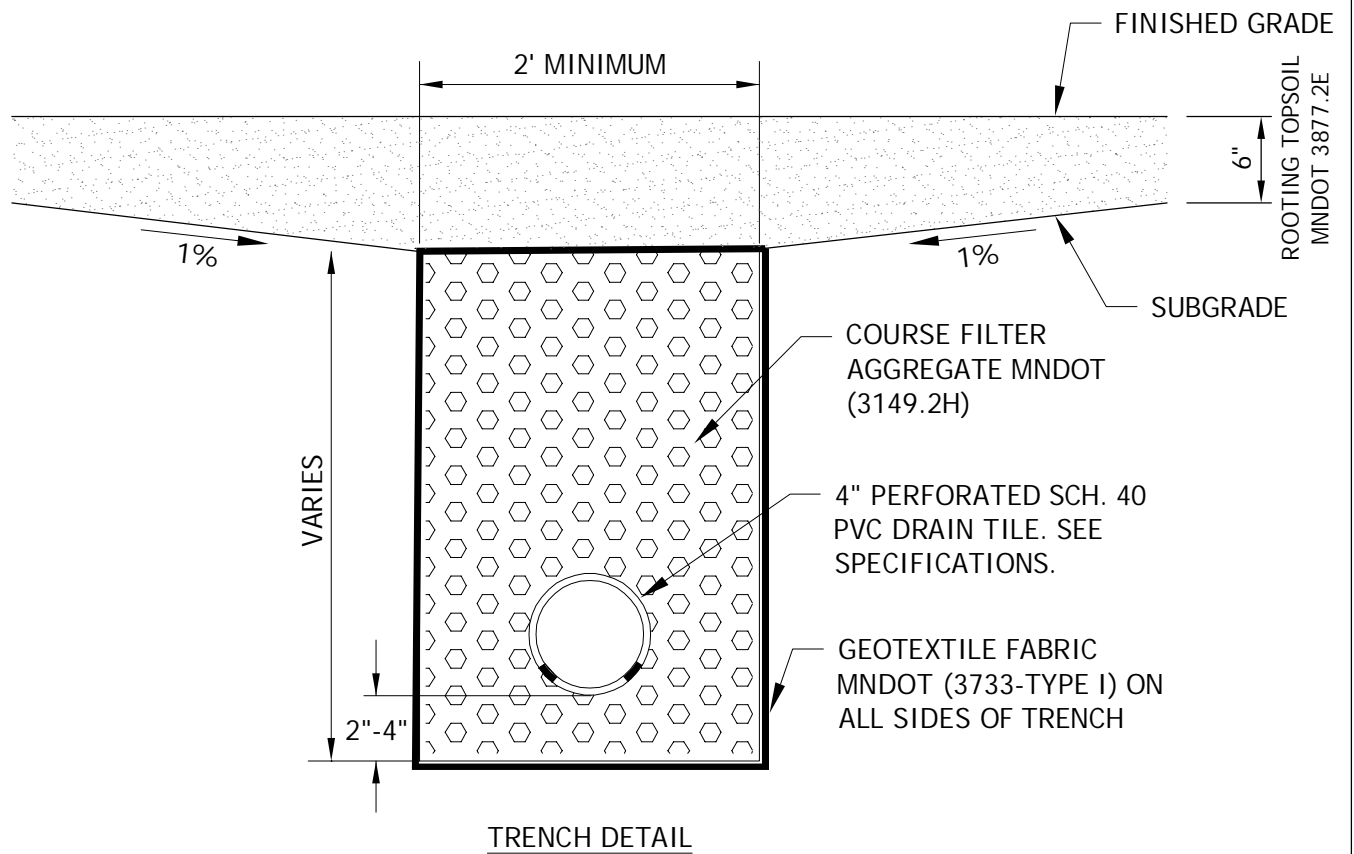


PVC PERFORATED PIPE  
TRENCH DETAIL

LAST REVISION:  
OCT 2017

CITY OF NEW HOPE, MN

PLATE NO.  
STO-15



PVC PERFORATED PIPE  
TRENCH DETAIL - SPECIAL

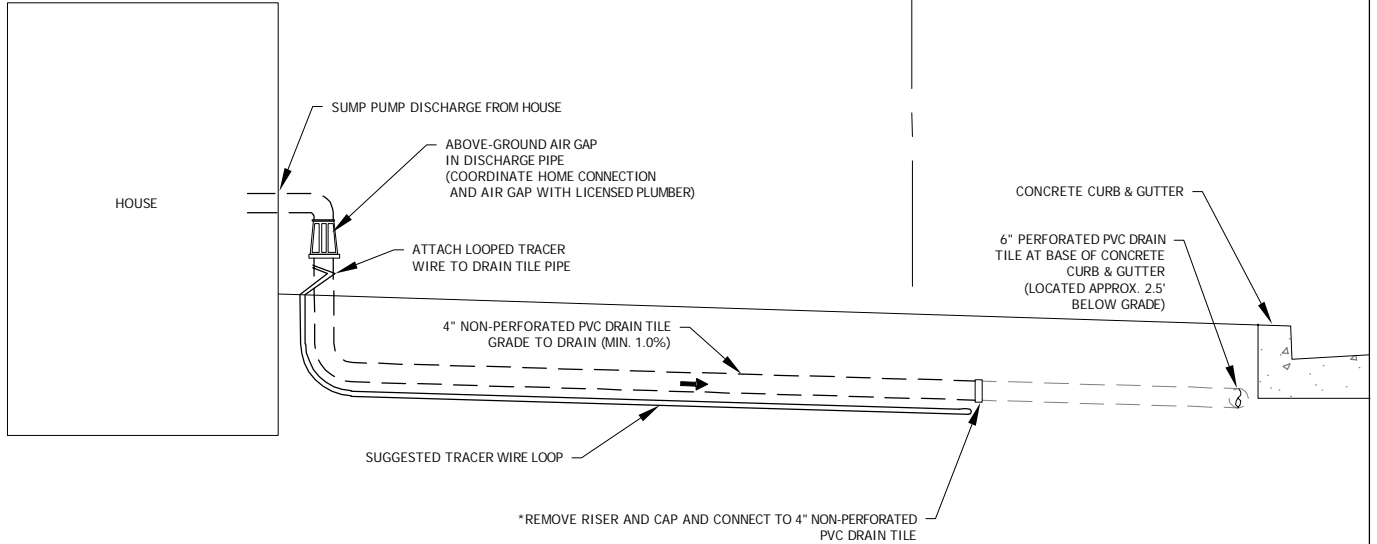
LAST REVISION:  
FEB 2019

CITY OF NEW HOPE, MN

PLATE NO.  
STO-16

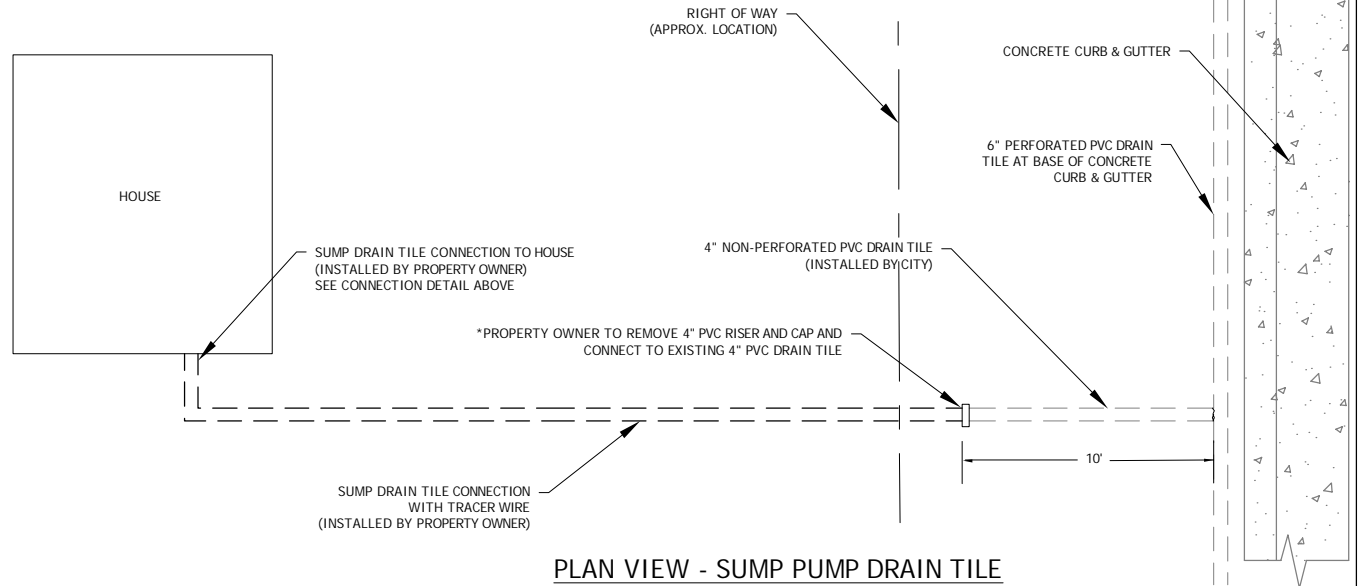
\*PRIOR TO CONNECTION TO EXISTING CITY DRAIN TILE, NOTIFY PROJECT INSPECTOR OR NEW HOPE PUBLIC WORKS AT 763-592-6777. (PERMIT REQUIRED, \$1 FEE FOR PROCESSING)

NOTE: THIS DETAIL IS PROVIDED ONLY AS GENERAL GUIDANCE FOR THE PROPERTY OWNER TO CONNECT TO THE CITY'S DRAIN TILE SYSTEM. IT IS RECOMMENDED TO INSTALL THE PRIVATE SUMP PUMP DRAIN TILE UTILIZING A LICENSED PLUMBER. THE CITY IS NOT RESPONSIBLE FOR IMPROPER INSTALLATION OR DAMAGE CAUSED BY THE PRIVATE SUMP PUMP DRAIN TILE CONNECTION TO THE CITY SYSTEM.



**PROFILE VIEW - SUMP PUMP DRAIN TILE**  
NOT TO SCALE

\*PRIOR TO CONNECTION TO EXISTING CITY DRAIN TILE, NOTIFY PROJECT INSPECTOR OR NEW HOPE PUBLIC WORKS AT 763-592-6777. (PERMIT REQUIRED, \$1 FEE FOR PROCESSING)



**PLAN VIEW - SUMP PUMP DRAIN TILE**  
NOT TO SCALE



**SUGGESTED SUMP PUMP TO DRAIN TILE CONNECTION**

LAST REVISION:  
JUNE 2018

**CITY OF NEW HOPE, MN**

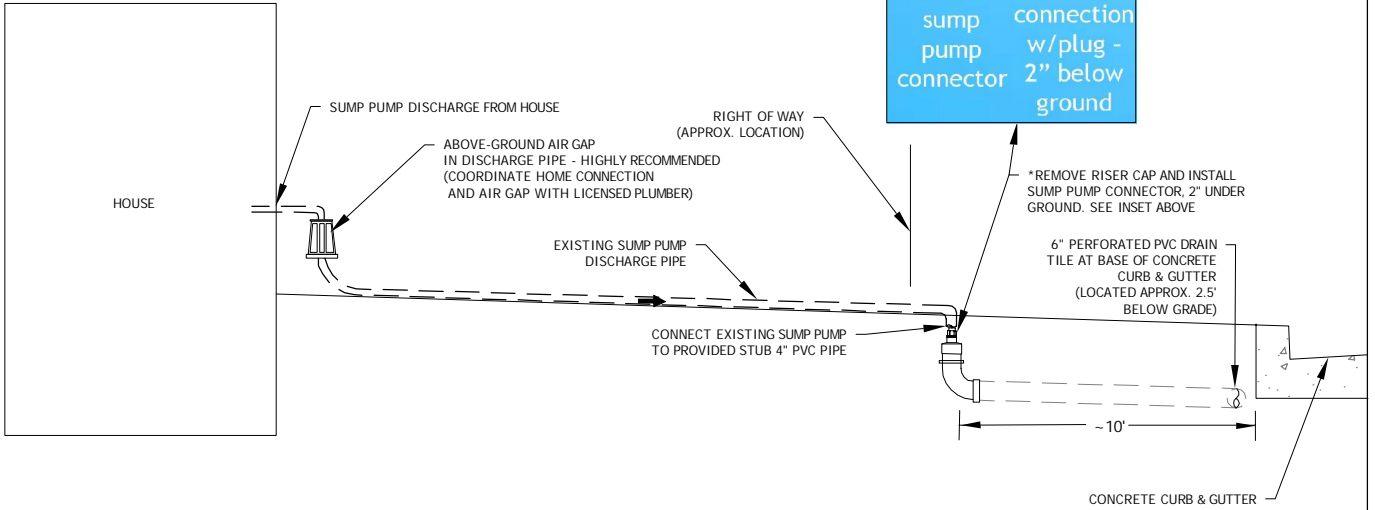
PLATE NO.  
STO-18A

\*PRIOR TO CONNECTION TO EXISTING CITY DRAIN TILE, NOTIFY PROJECT INSPECTOR OR NEW HOPE PUBLIC WORKS AT 763-592-6777. (PERMIT REQUIRED, \$1 FEE FOR PROCESSING)

NOTE: THIS DETAIL IS PROVIDED ONLY AS GENERAL GUIDANCE FOR THE PROPERTY OWNER TO CONNECT TO THE CITY'S DRAIN TILE SYSTEM. IT IS RECOMMENDED TO INSTALL THE PRIVATE SUMP PUMP DRAIN TILE UTILIZING A LICENSED PLUMBER. THE CITY IS NOT RESPONSIBLE FOR IMPROPER INSTALLATION OR DAMAGE CAUSED BY THE PRIVATE SUMP PUMP DRAIN TILE CONNECTION TO THE CITY SYSTEM.

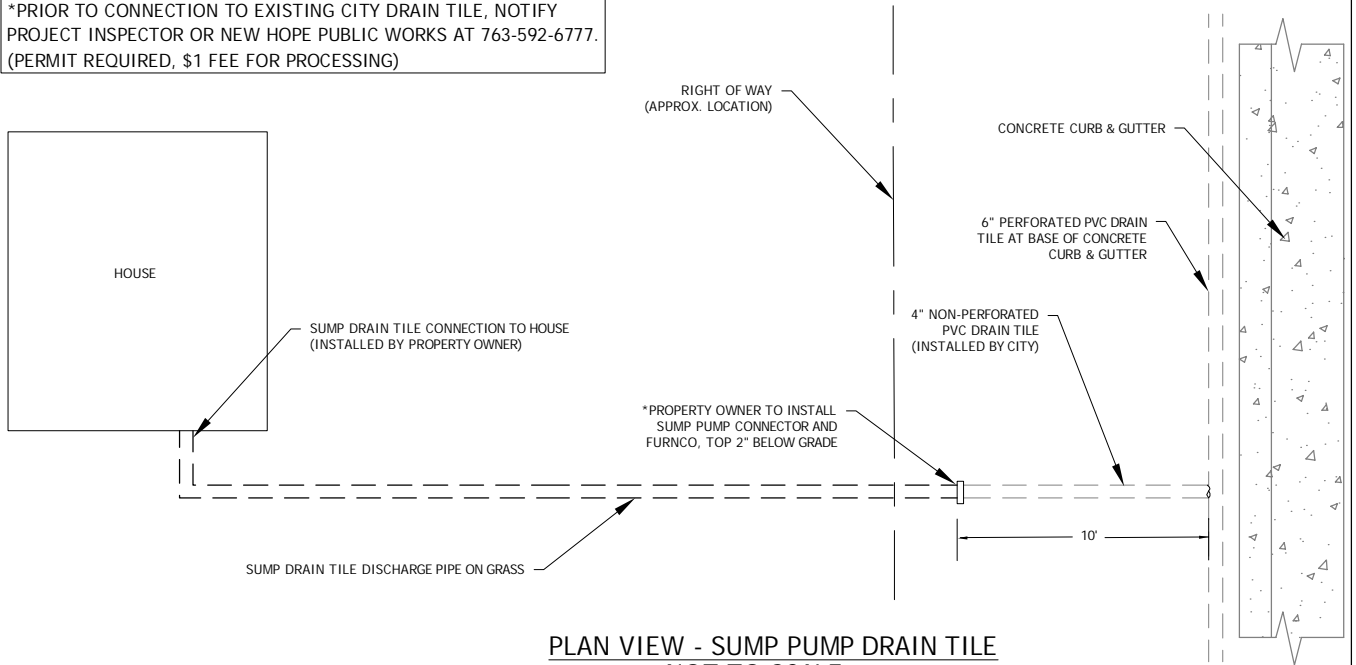


ADAPTER WITH 2" THREADED PLASTIC CAP  
4" X 2" FERNCO



**PROFILE VIEW - SUMP PUMP DRAIN TILE**  
NOT TO SCALE

\*PRIOR TO CONNECTION TO EXISTING CITY DRAIN TILE, NOTIFY PROJECT INSPECTOR OR NEW HOPE PUBLIC WORKS AT 763-592-6777. (PERMIT REQUIRED, \$1 FEE FOR PROCESSING)



**PLAN VIEW - SUMP PUMP DRAIN TILE**  
NOT TO SCALE

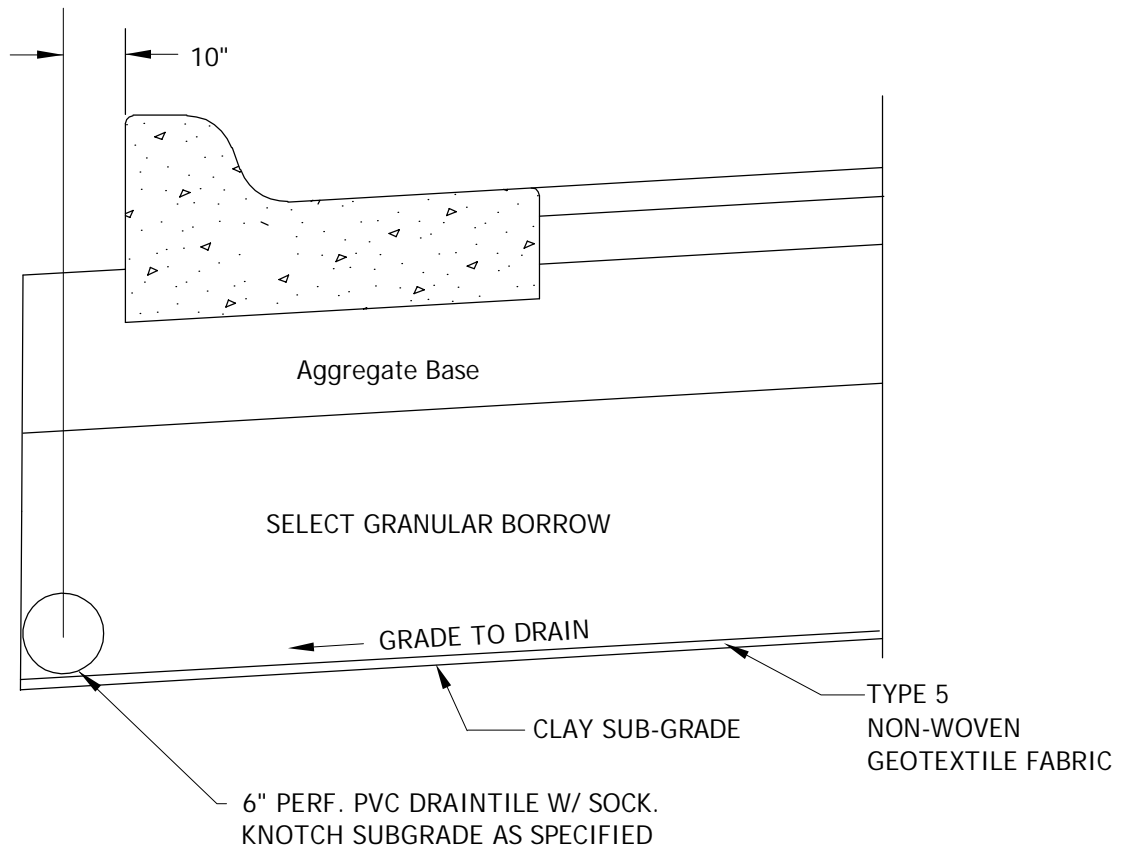


**SUMP PUMP TO DRAIN TILE -  
SHALLOW CONNECTION**

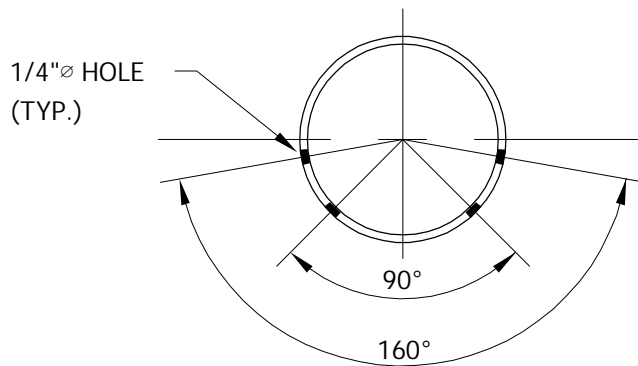
LAST REVISION:  
JUNE 2018

**CITY OF NEW HOPE, MN**

PLATE NO.  
STO-18B



TRENCH DETAIL



PIPE DETAIL

NOTE:  
 IN LOCATIONS WHERE THERE IS EXISTING CURB AND GUTTER, INSTALL DRAIN TILE UNDER LIP OF GUTTER AS DIRECTED BY ENGINEER.

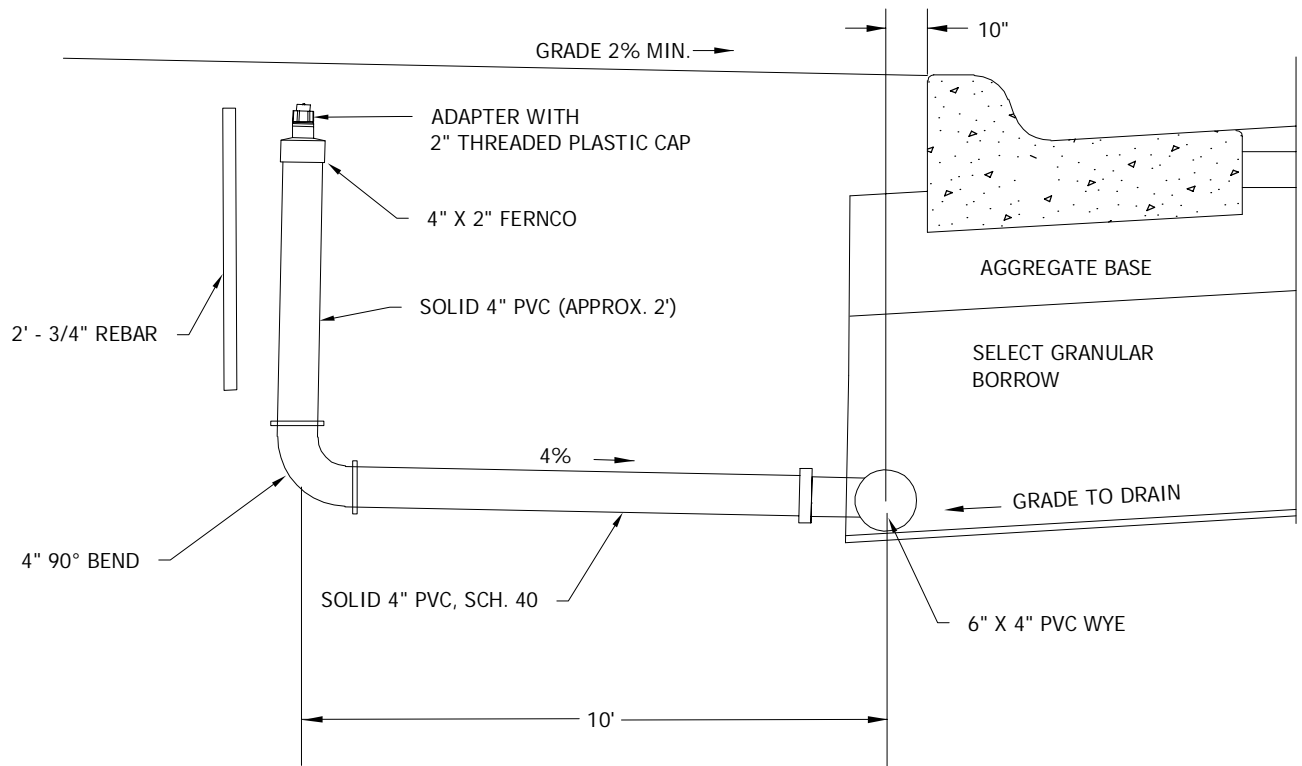


PVC PERFORATED PIPE BELOW  
 CONCRETE CURB

LAST REVISION:  
 MAY 2017

CITY OF NEW HOPE, MN

PLATE NO.  
 STO-19

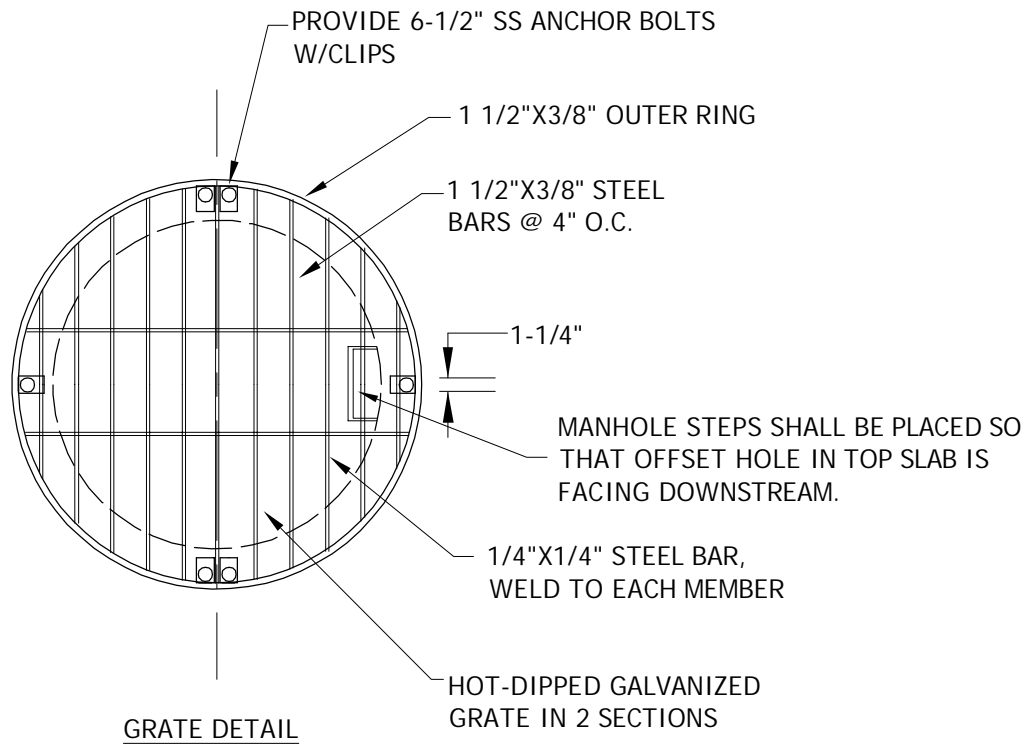


PVC SUMP PUMP STUB

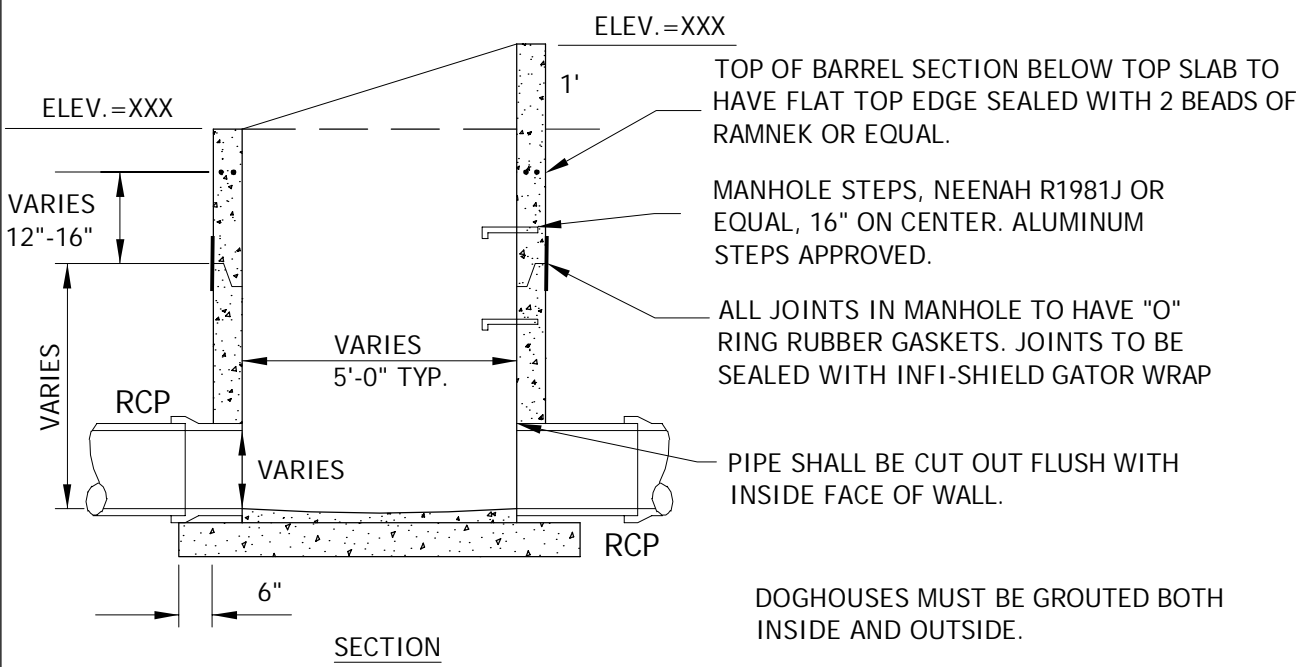
LAST REVISION:  
MAY 2017

CITY OF NEW HOPE, MN

PLATE NO.  
STO-20



NO BLOCK STRUCTURES ARE ALLOWED.



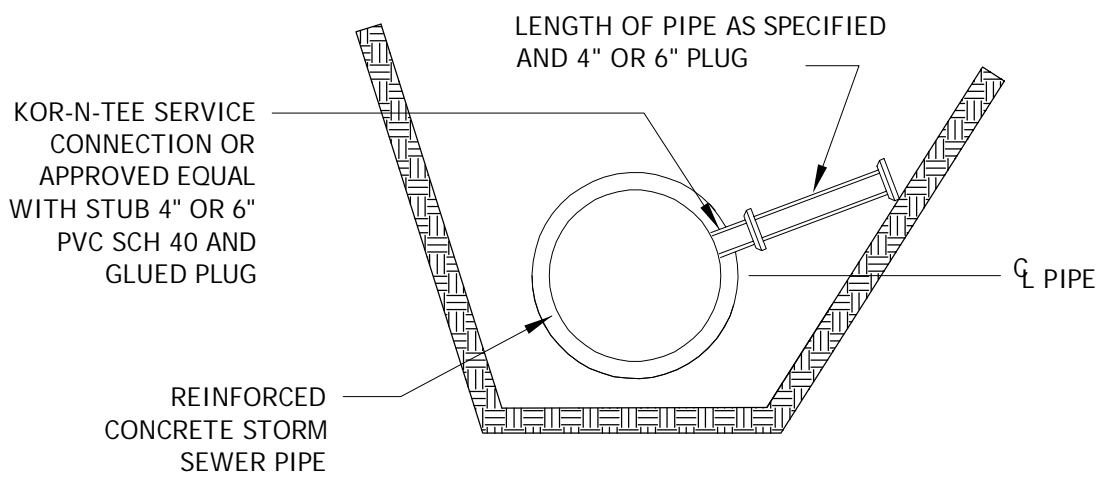
STANDARD OVERFLOW STRUCTURE

CITY OF NEW HOPE, MN

LAST REVISION:  
DEC 2017

PLATE NO.  
STO-21

NOTE:  
SERVICE CONNECTIONS  
TO BE AT 2:00 OR 10:00



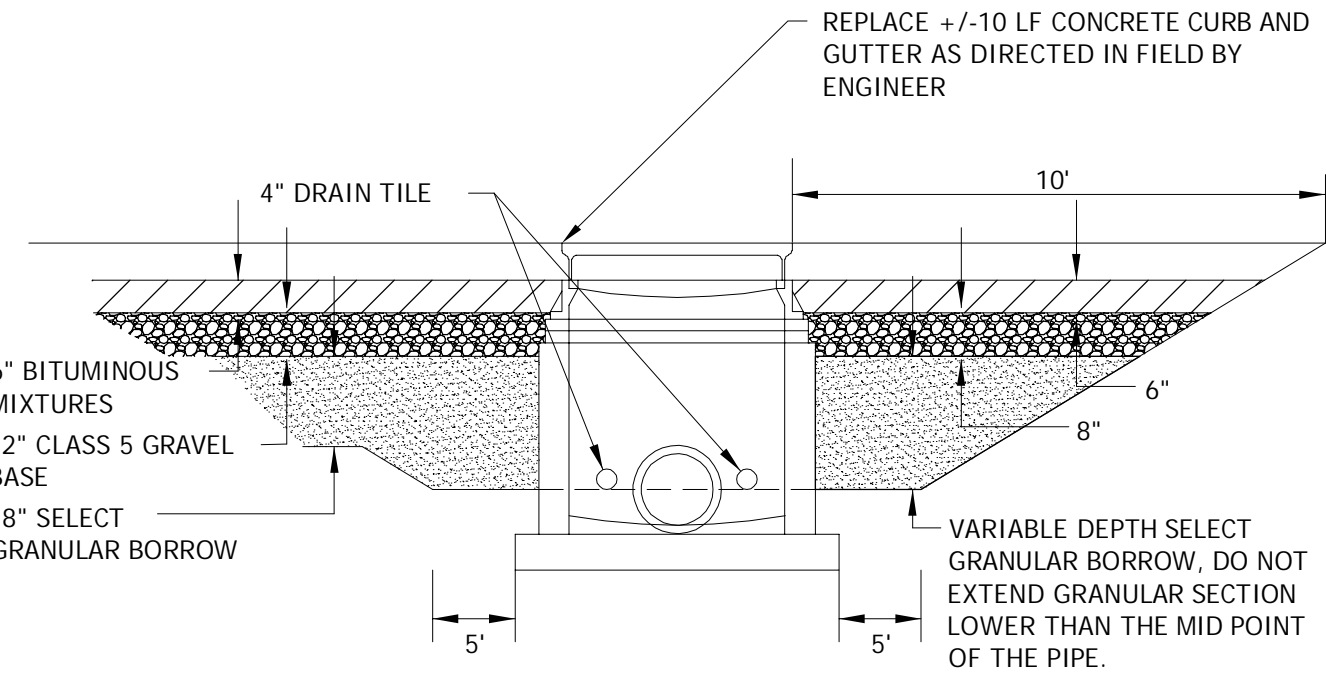
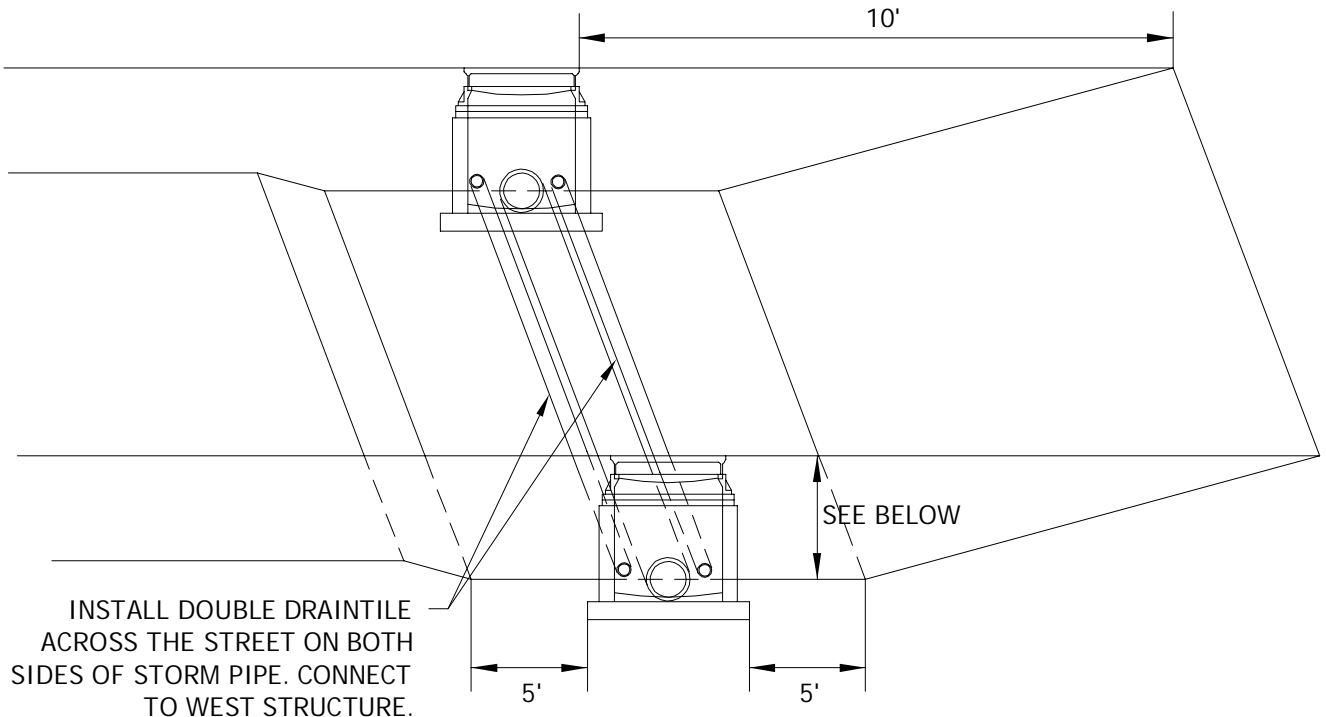
STORM SEWER SERVICE  
CONNECTION TO RCP

LAST REVISION:  
April 2004

CITY OF NEW HOPE, MN

PLATE NO.  
STO-27





SECTION

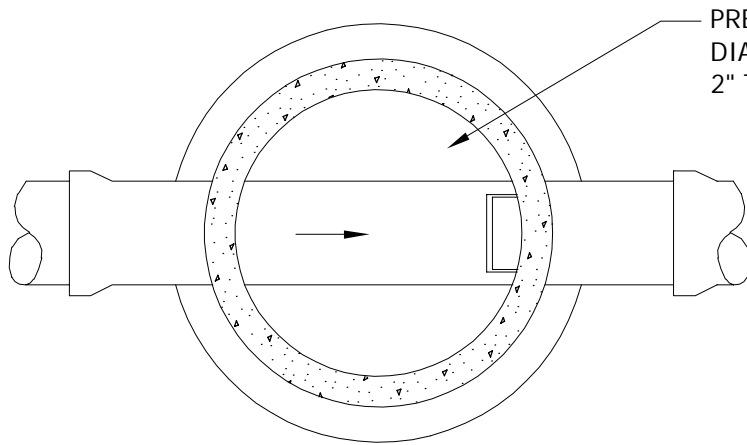


ROAD BED CONSTRUCTION AT CB CROSSING - SHALLOW

CITY OF NEW HOPE, MN

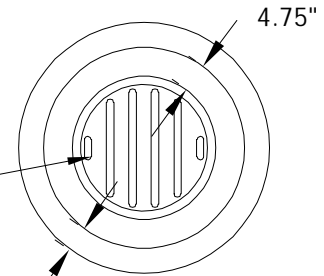
LAST REVISION:  
DEC 2017

PLATE NO.  
STO-28



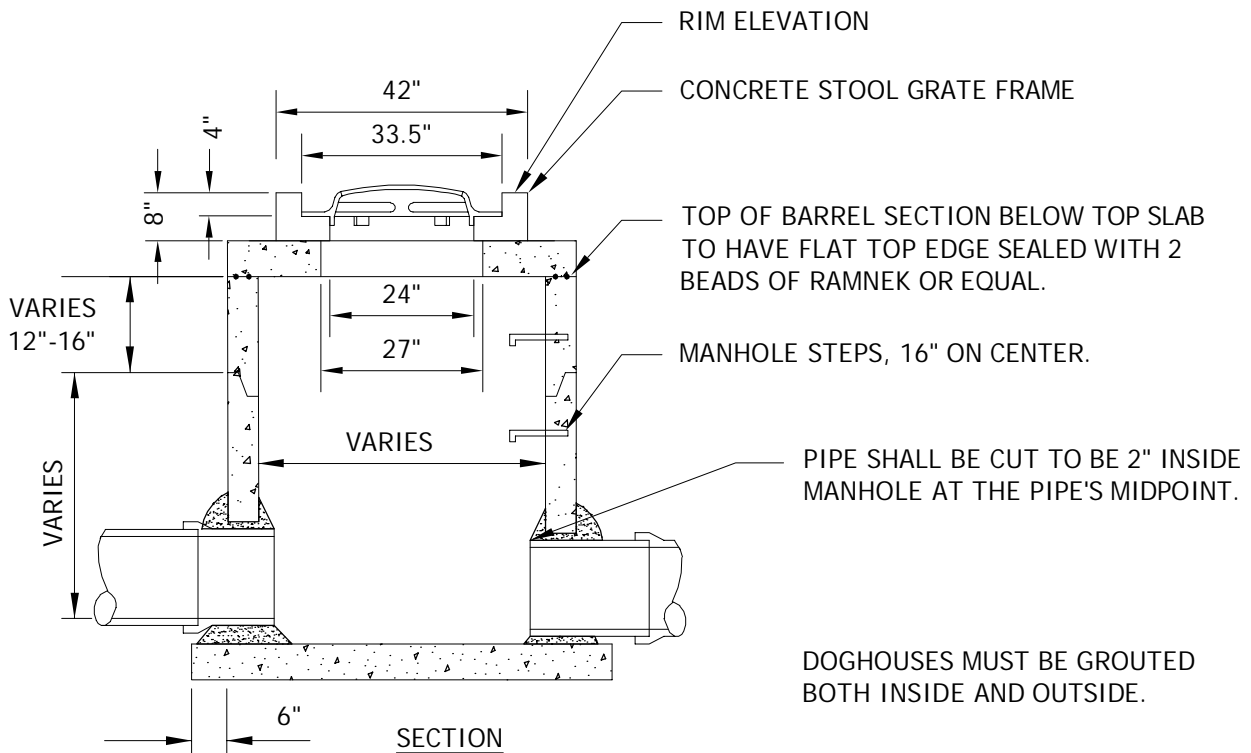
PLAN-INVERT

PRECAST INVERT SHOULD BE 1/2 DIAMETER OF PIPE AND BENCHES SLOPED 2" TOWARD INVERT.



TOP VIEW  
GRATE FRAME

CASTING AS SPECIFIED



SECTION

RIM ELEVATION

CONCRETE STOOL GRATE FRAME

TOP OF BARREL SECTION BELOW TOP SLAB TO HAVE FLAT TOP EDGE SEALED WITH 2 BEADS OF RAMNEK OR EQUAL.

MANHOLE STEPS, 16" ON CENTER.

PIPE SHALL BE CUT TO BE 2" INSIDE MANHOLE AT THE PIPE'S MIDPOINT.

DOGHOUSES MUST BE GROUTED BOTH INSIDE AND OUTSIDE.

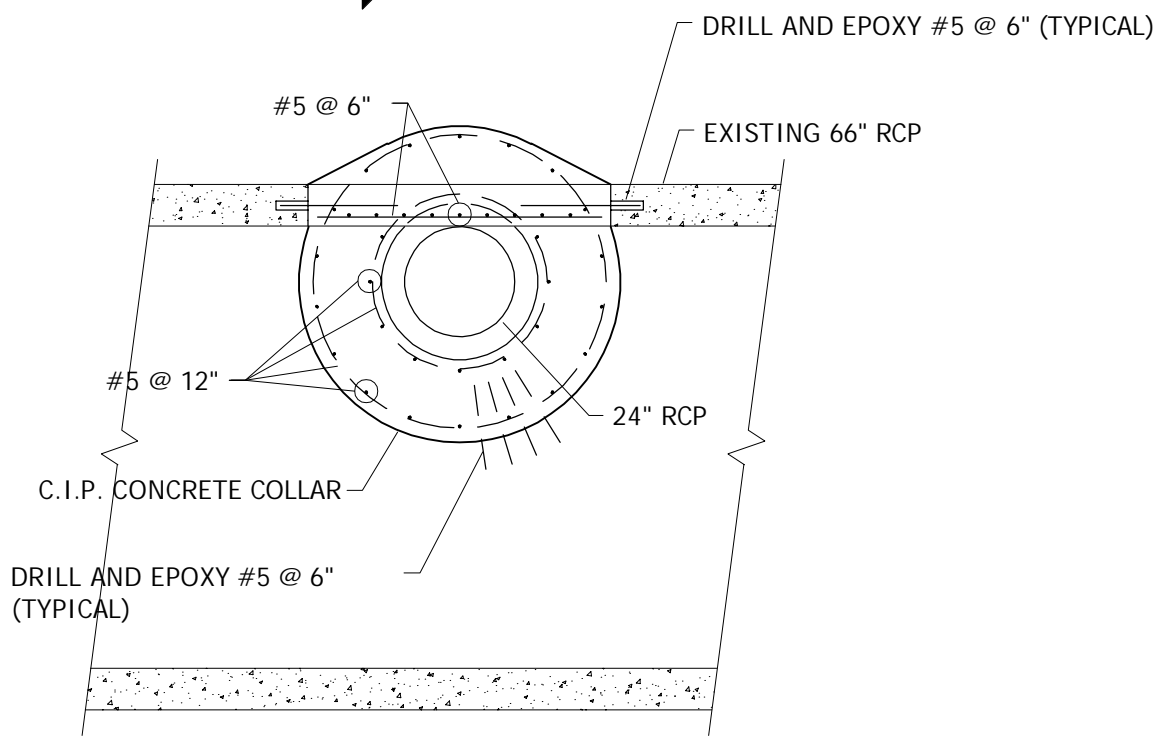
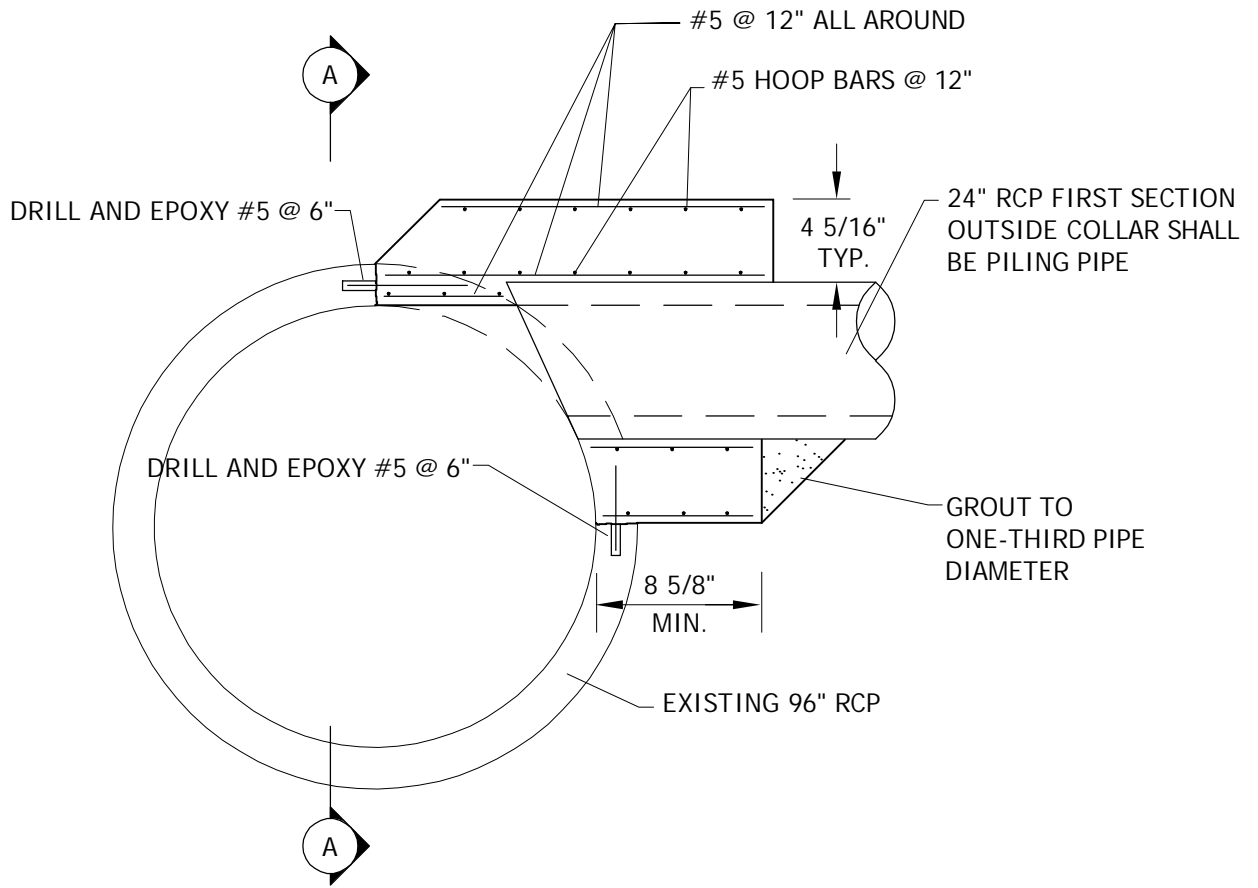


OFF STREET CATCHBASIN WITH  
CONCRETE STOOL GRATE FRAME

CITY OF NEW HOPE, MN

LAST REVISION:  
APR 2009

PLATE NO.  
STO-38

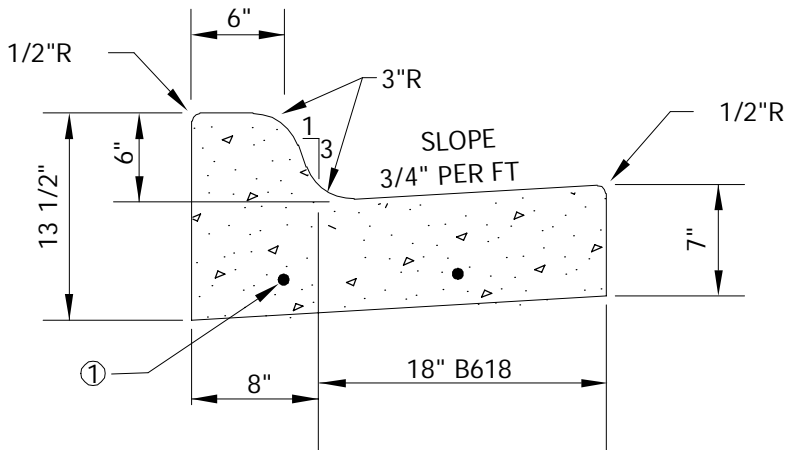


PIPE CONNECTION DETAIL  
 INTO EXISTING 66" RCP STORM

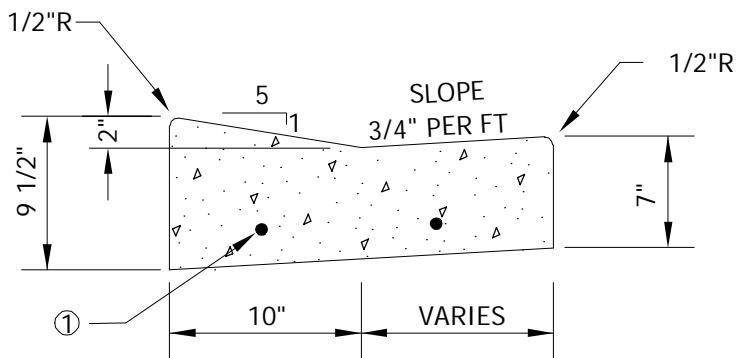
LAST REVISION:  
 NOV 2015

CITY OF NEW HOPE, MN

PLATE NO.  
 STO-39



MnDOT B618



STANDARD SECTION THROUGH DRIVEWAY

- ① PLACE #4 REBAR AS SHOWN, WHERE CURB CROSSES UTILITY TRENCHES WITH 3" OF COVER AND 8' ON EITHER SIDE OF IN-CURB STORM INLETS.

**NOTE:** CURB TO RECEIVE WHITE CURE COAT AFTER FORMING AND BACK OF CURB TO BE "STABBED" AT JOINT LOCATIONS TO PROMOTE CRACKING AT JOINTS.

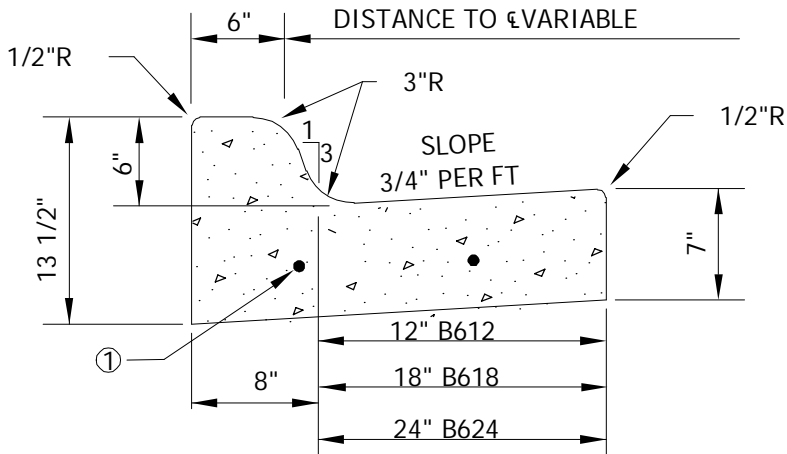


CURB AND GUTTER

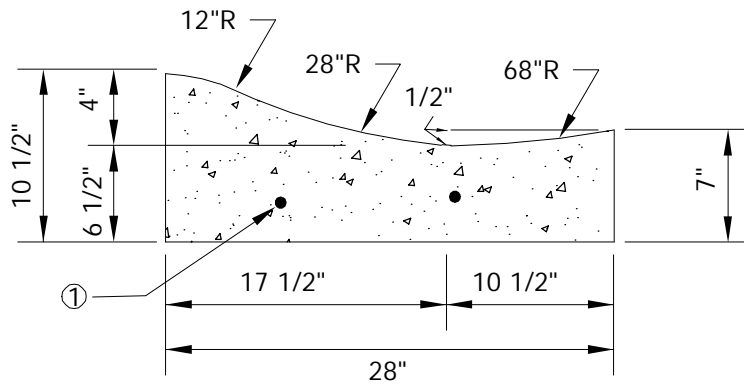
LAST REVISION:  
SEPT 2017

CITY OF NEW HOPE, MN

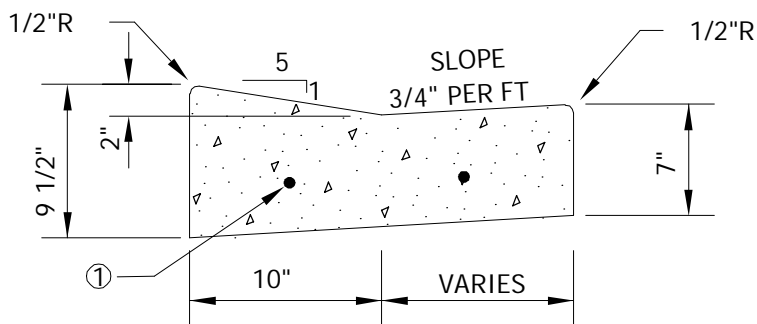
PLATE NO.  
STR-1



MnDOT B612  
MnDOT B618  
MnDOT B624



MOUNTABLE



STANDARD SECTION  
THROUGH DRIVEWAY

NOTE:

- ① PLACE #4 REBAR AS SHOWN, WHERE CURB CROSSES UTILITY TRENCHES WITH 3" OF COVER.

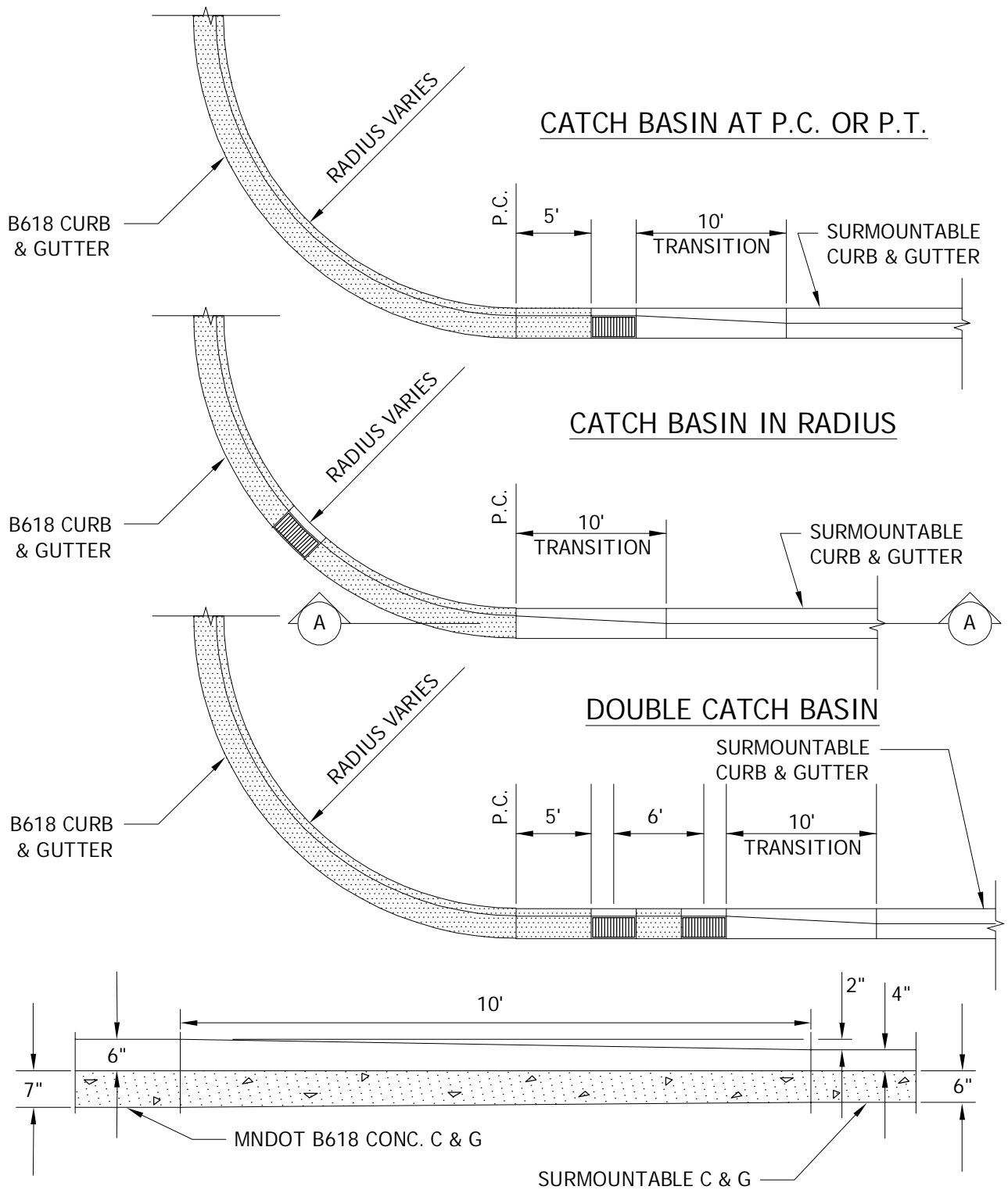


CURB AND GUTTER

LAST REVISION:  
DEC 2015

CITY OF NEW HOPE, MN

PLATE NO.  
STR-1A



**SECTION A-A**



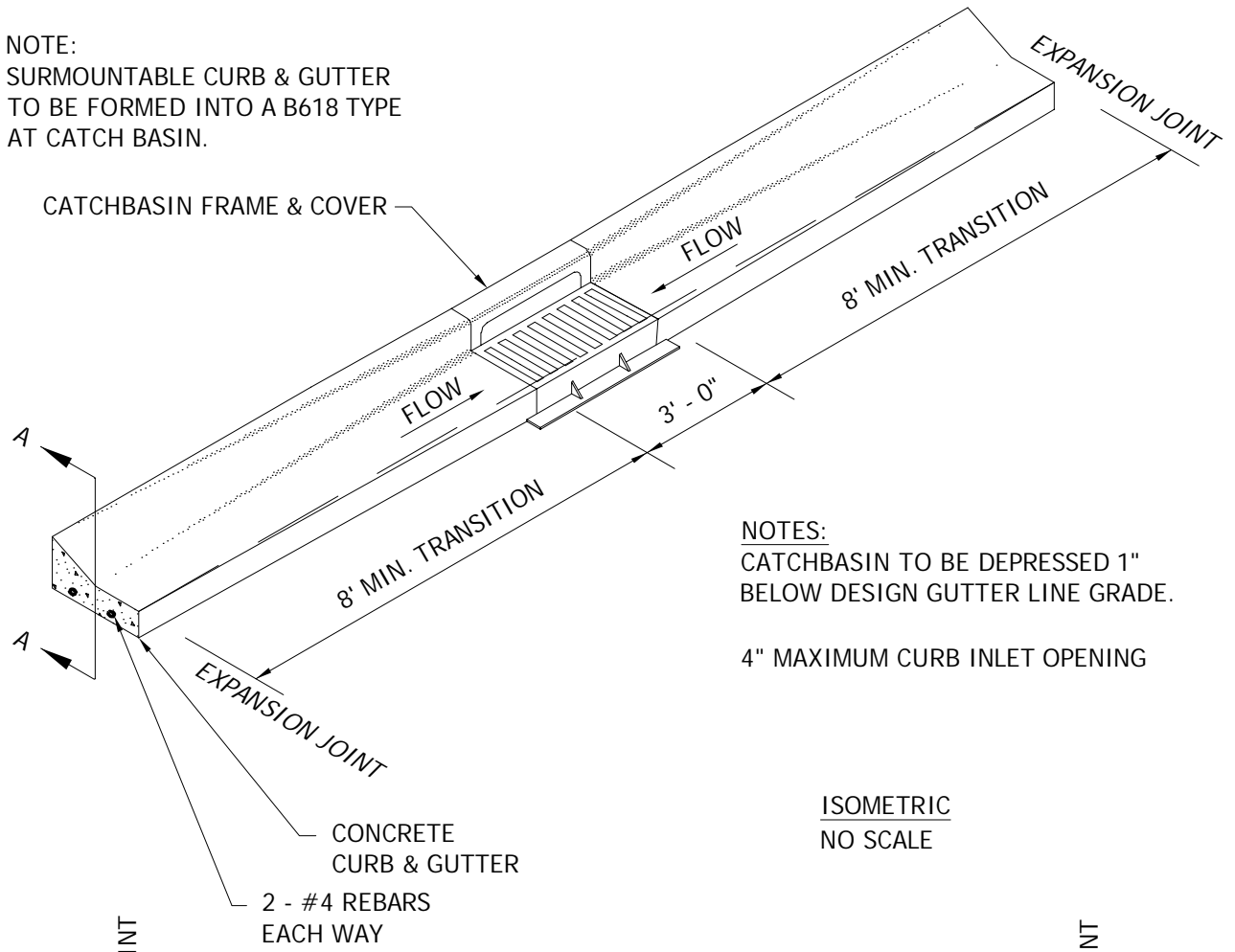
**CONCRETE CURB & GUTTER  
TRANSITION**

LAST REVISION:  
April 2010

**CITY OF NEW HOPE, MN**

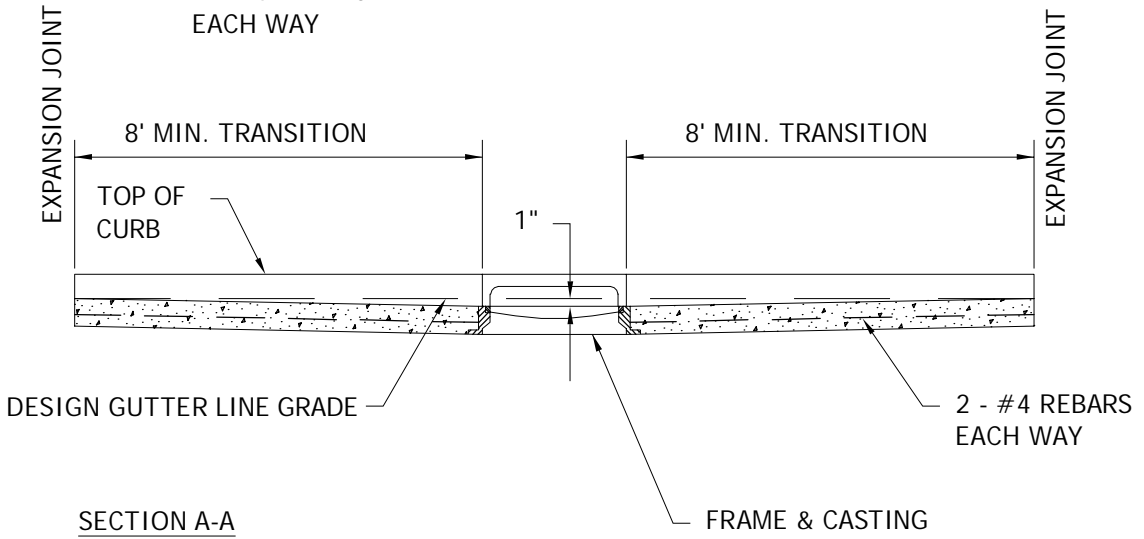
PLATE NO.  
**STR-2**

NOTE:  
 SURMOUNTABLE CURB & GUTTER  
 TO BE FORMED INTO A B618 TYPE  
 AT CATCH BASIN.



NOTES:  
 CATCHBASIN TO BE DEPRESSED 1"  
 BELOW DESIGN GUTTER LINE GRADE.  
 4" MAXIMUM CURB INLET OPENING

ISOMETRIC  
 NO SCALE



SECTION A-A  
 NO SCALE

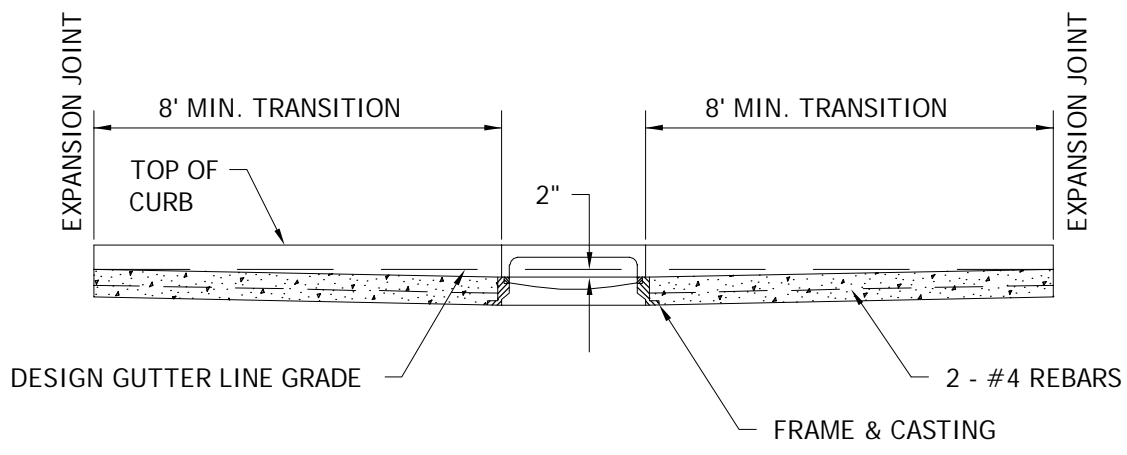
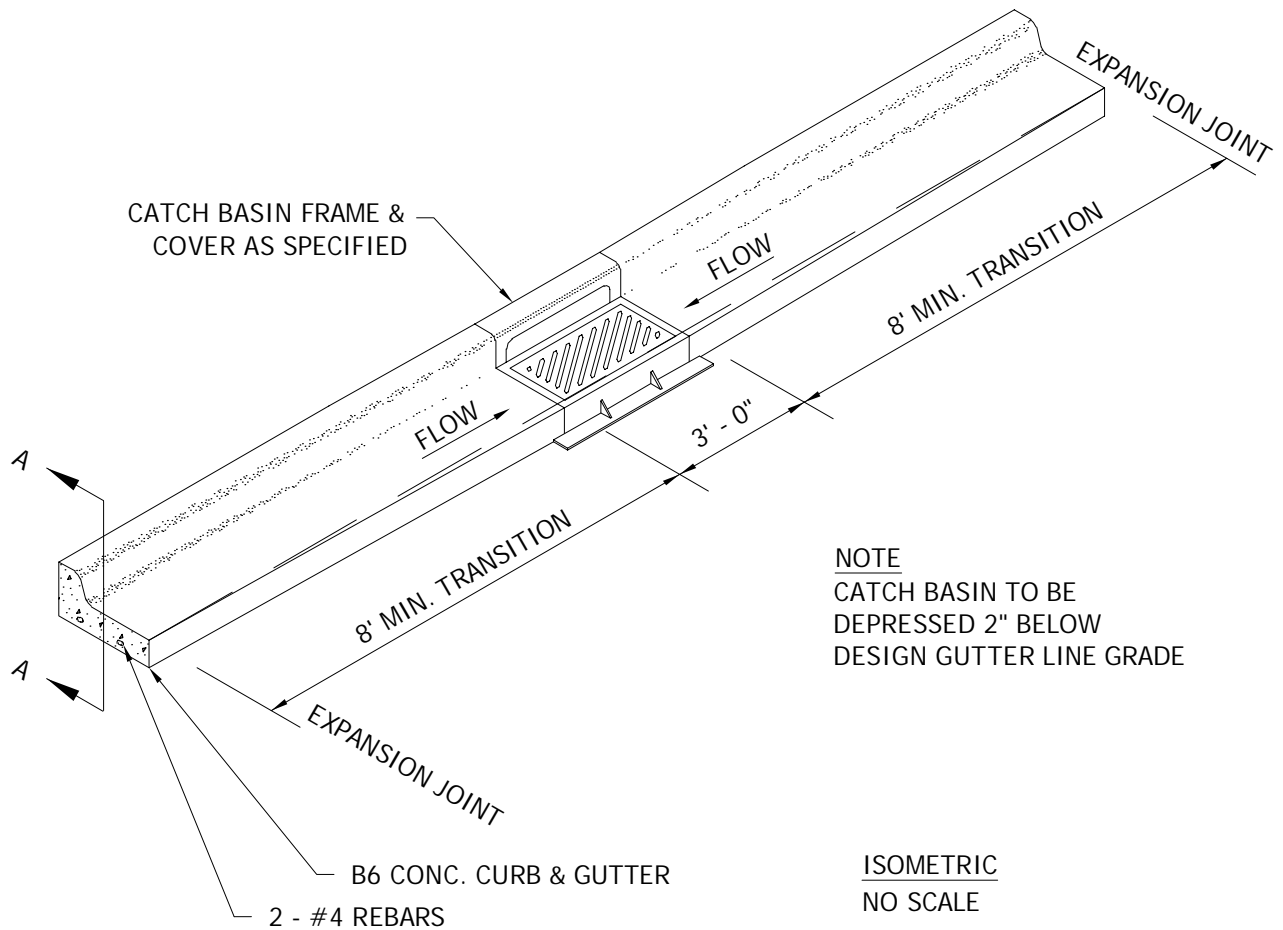


SURMOUNTABLE CURB & GUTTER  
 CONSTRUCTION AT CATCH BASIN

LAST REVISION:  
 SEPT 2017

CITY OF NEW HOPE, MN

PLATE NO.  
 STR-3



SECTION A-A  
No Scale



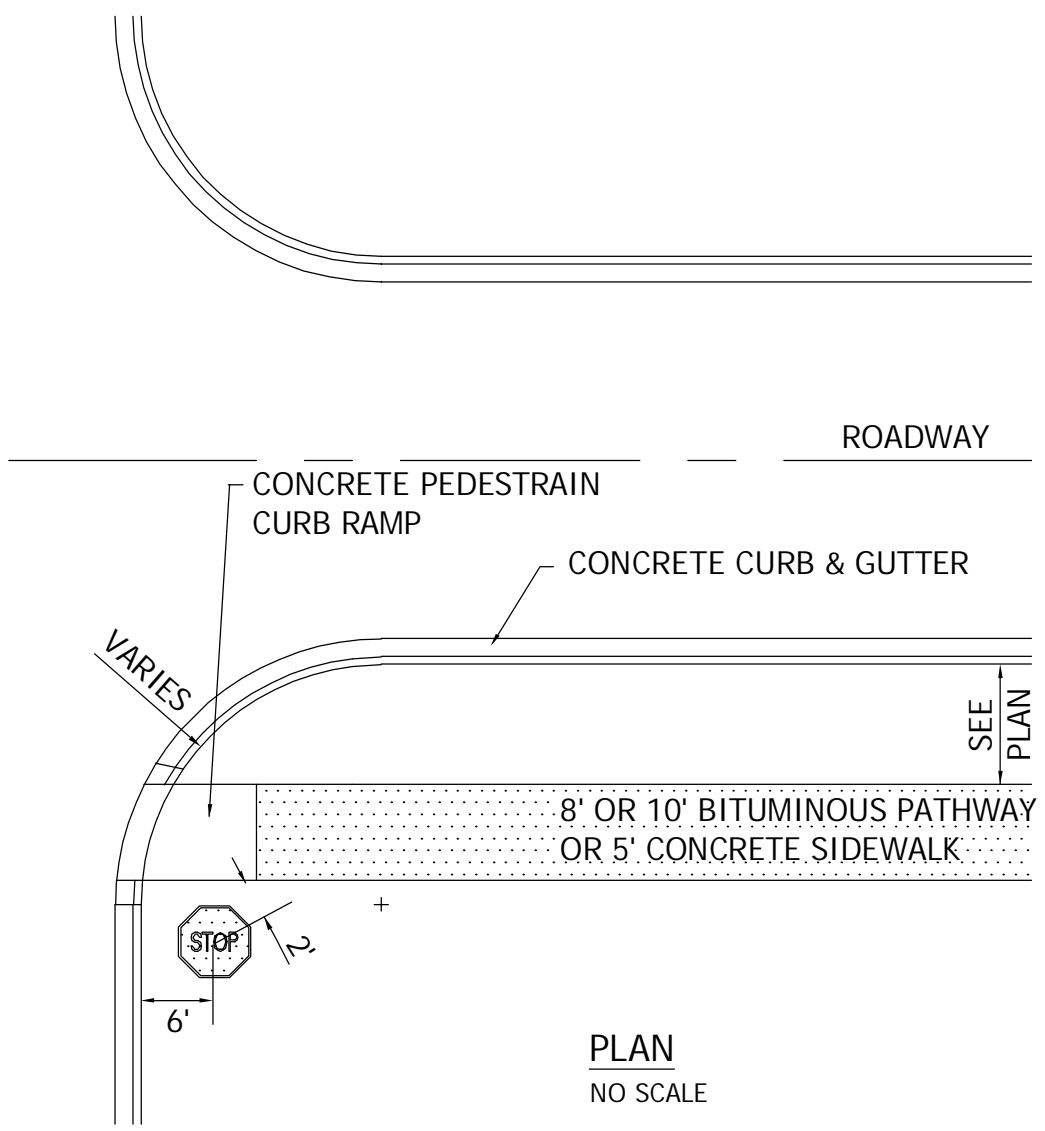
B6 CURB & GUTTER  
CONSTRUCTION AT CATCH BASIN

LAST REVISION:  
JAN 2013

CITY OF NEW HOPE, MN

PLATE NO.  
STR-4



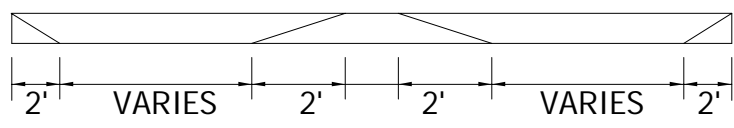
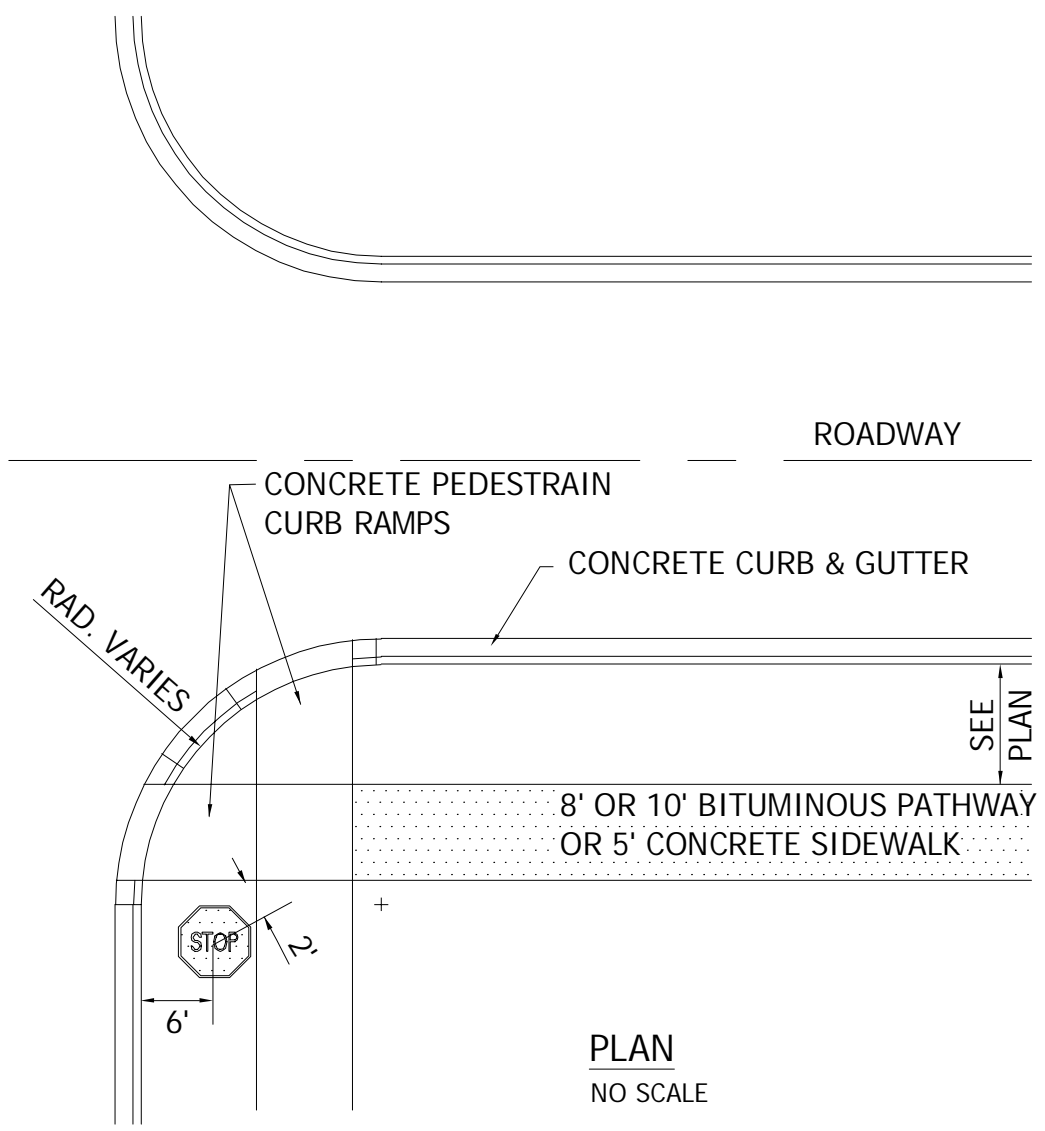


PEDESTRIAN CURB RAMP  
GENERAL LOCATION

LAST REVISION:  
April 2004

CITY OF NEW HOPE, MN

PLATE NO.  
STR-5



PROFILE  
NO SCALE

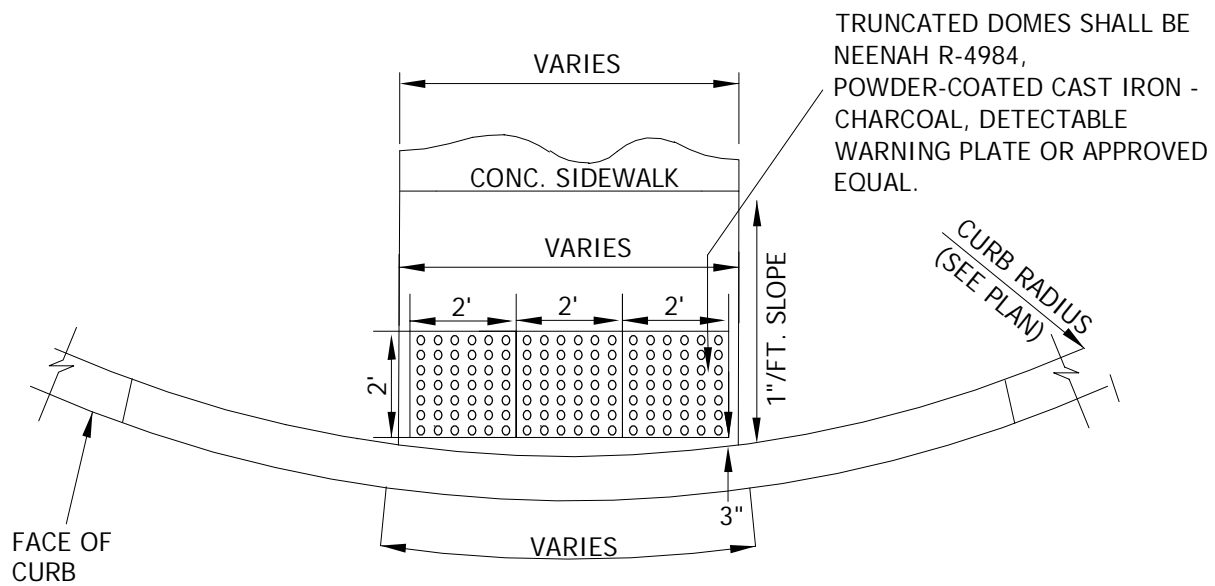


DOUBLE PEDESTRIAN CURB RAMP  
GENERAL LOCATION

CITY OF NEW HOPE, MN

LAST REVISION:  
April 2004

PLATE NO.  
STR-6



PLAN

REFER TO MnDOT  
STANDARD PLAN 5-297.250

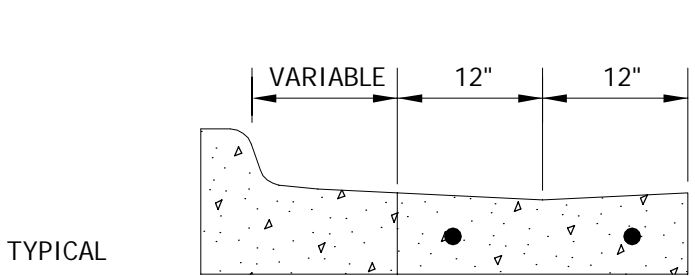
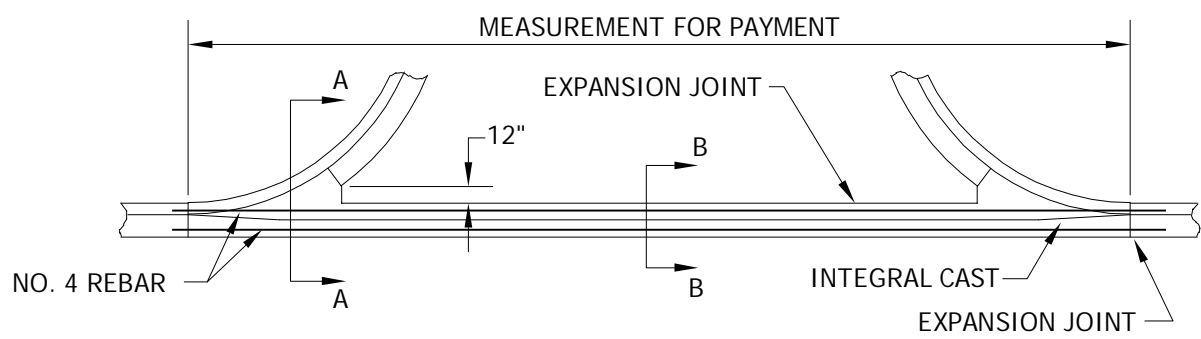
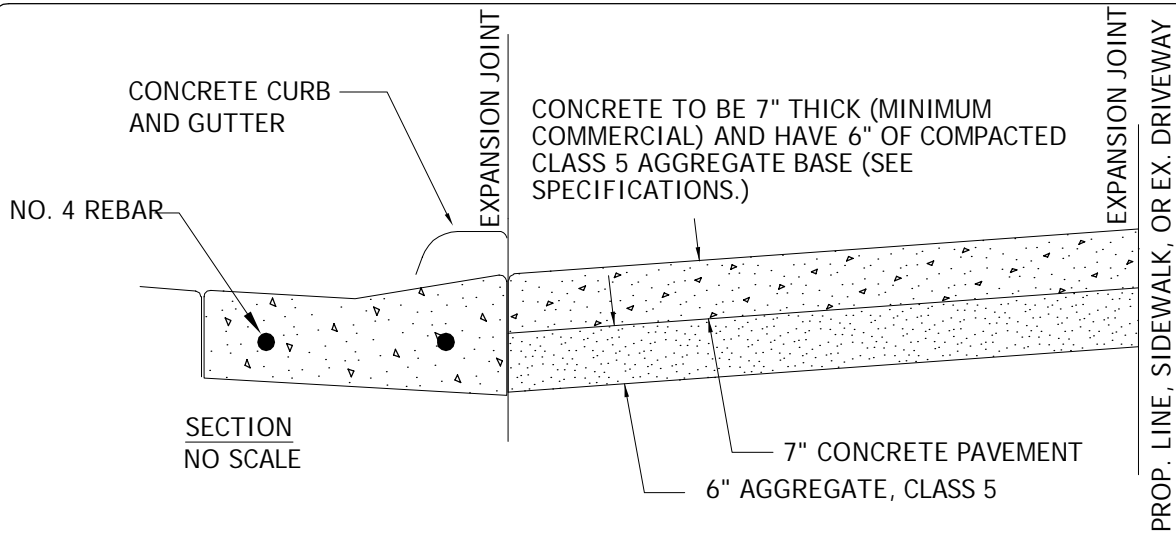


GENERAL PEDESTRIAN CURB RAMP  
DETAILS

LAST REVISION:  
DEC 2018

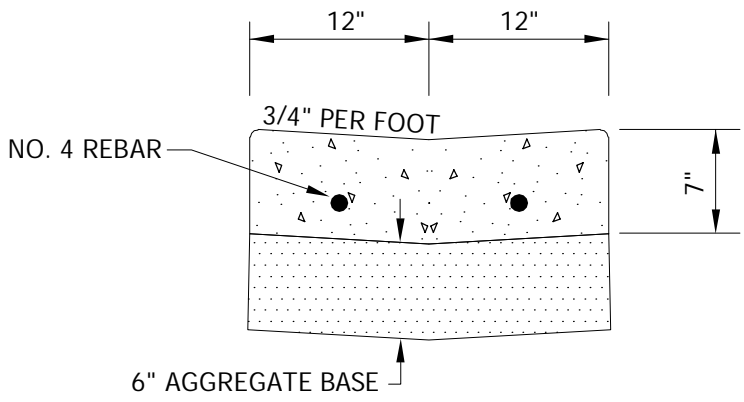
CITY OF NEW HOPE, MN

PLATE NO.  
STR-7



DRIVEWAY PATCHING BEYOND APRON WILL MATCH THE EXISTING SURFACE TYPE. SECTION WILL BE:  
 3" BIT. PAVEMENT W/ 6" CL 5 OR  
 6" CONC. PAVEMENT W/ 6" CL 5

SECTION A-A  
 THRU B618 C&G



SECTION B-B  
 THRU  
 CONCRETE GUTTER

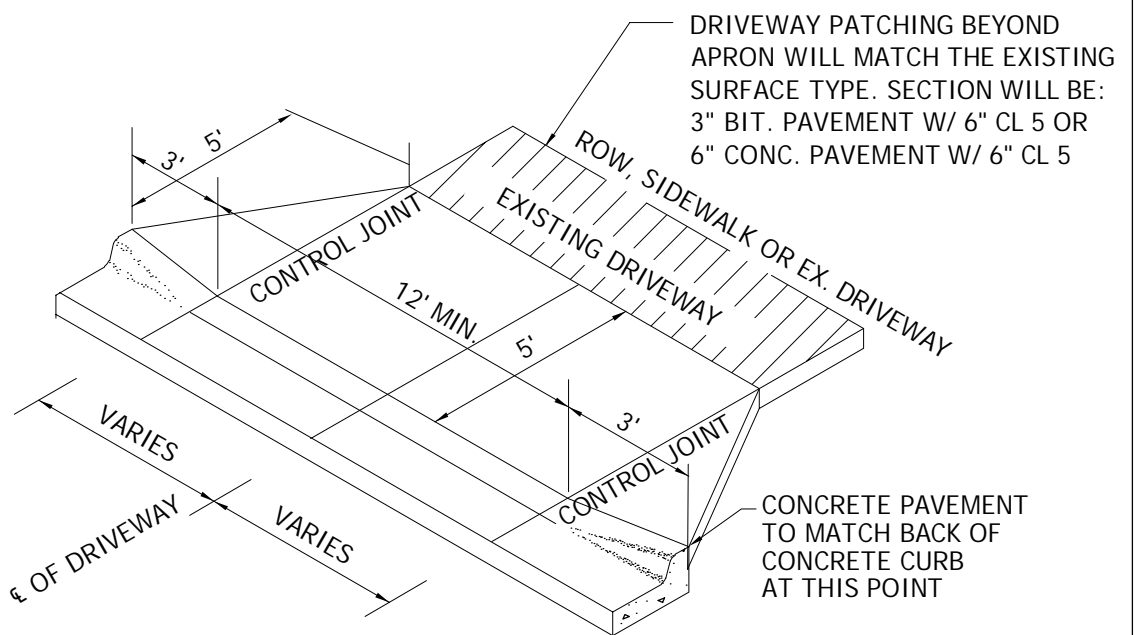
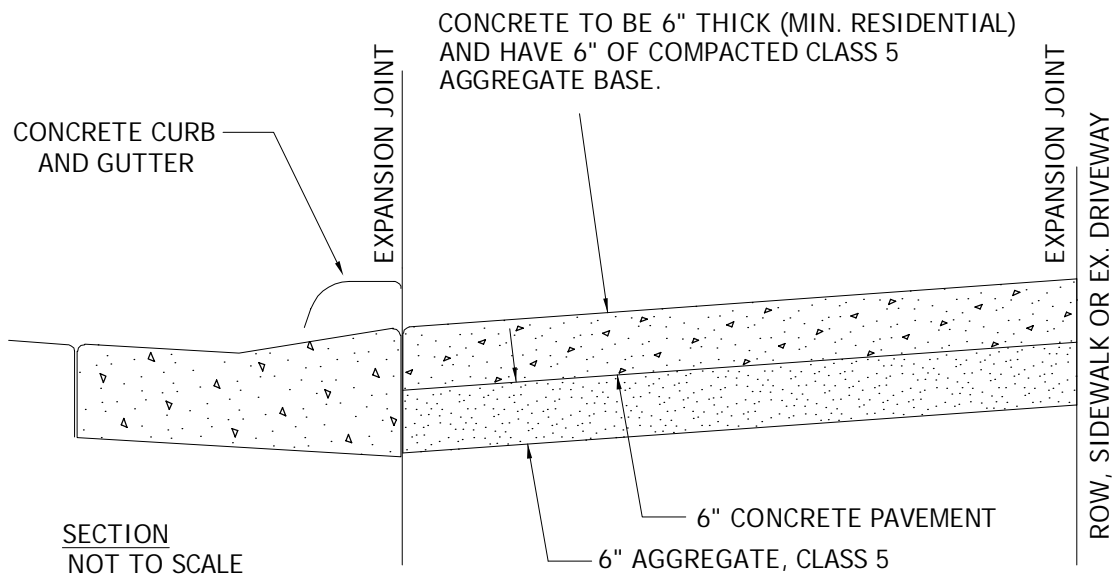


CONCRETE DRIVEWAY APRON  
 COMMERCIAL

LAST REVISION:  
 DEC 2016

CITY OF NEW HOPE, MN

PLATE NO.  
 STR-8



ISOMETRIC  
NOT TO SCALE

NOTE:  
CONTROL JOINTS IN CONCRETE CURB  
NOT TO EXCEED 10' SPACING  
THROUGH DRIVEWAY SECTION.

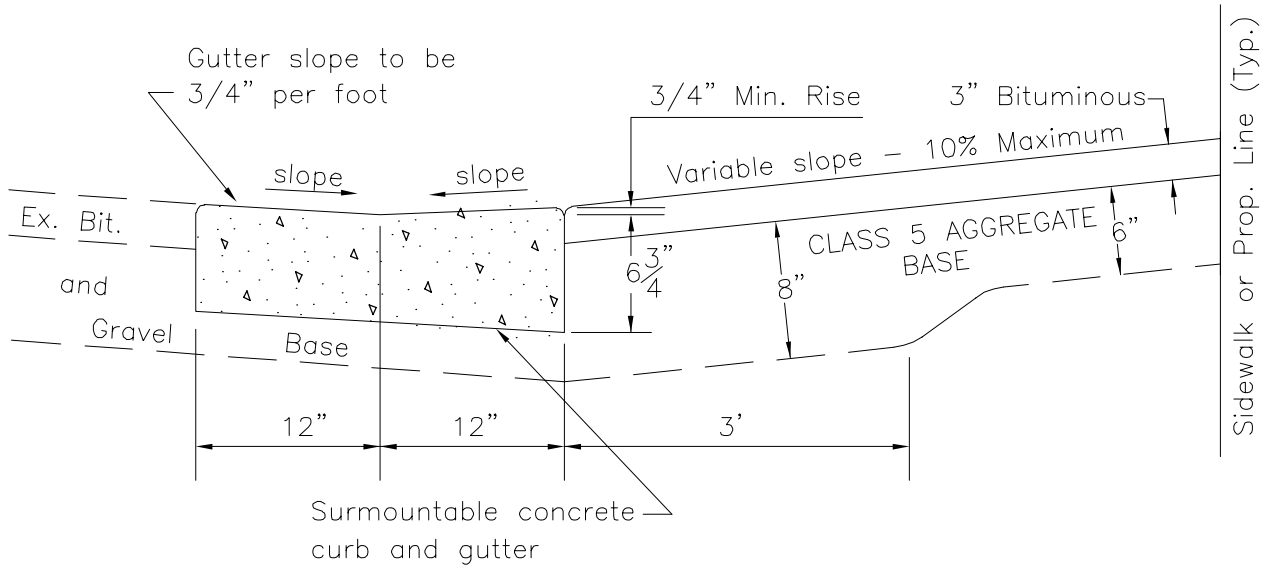


CONCRETE DRIVEWAY APRON  
RESIDENTIAL

LAST REVISION:  
JAN 2020

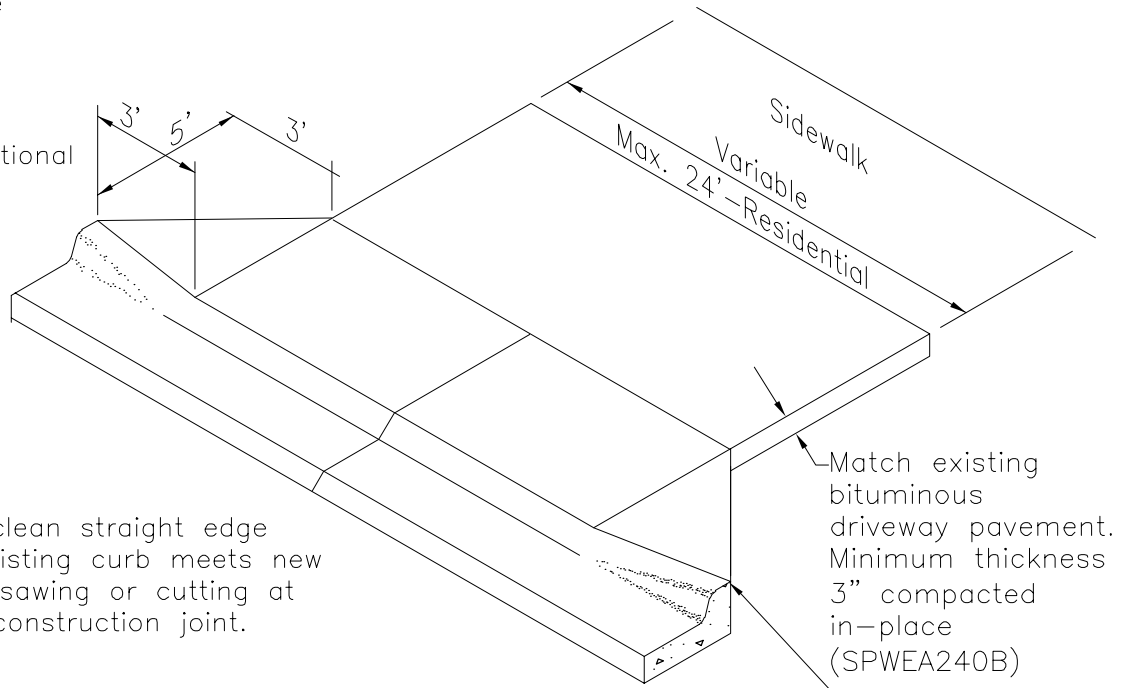
CITY OF NEW HOPE, MN

PLATE NO.  
STR-9



SECTION  
No Scale

NOTE:  
Radius is optional



NOTE:  
Provide clean straight edge where existing curb meets new curb by sawing or cutting at nearest construction joint.

ISOMETRIC  
No Scale



**BITUMINOUS RESIDENTIAL DRIVEWAY APRON**

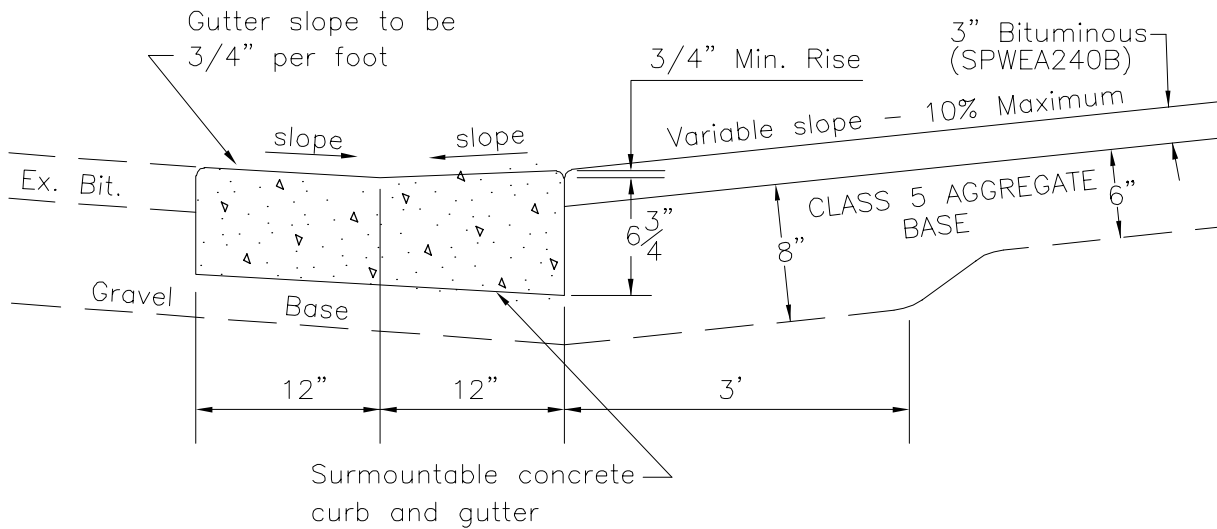
LAST REVISION:  
Jan. 2013

**CITY OF NEW HOPE, MN**

PLATE NO.  
**STR-10**

# SECTION

No Scale



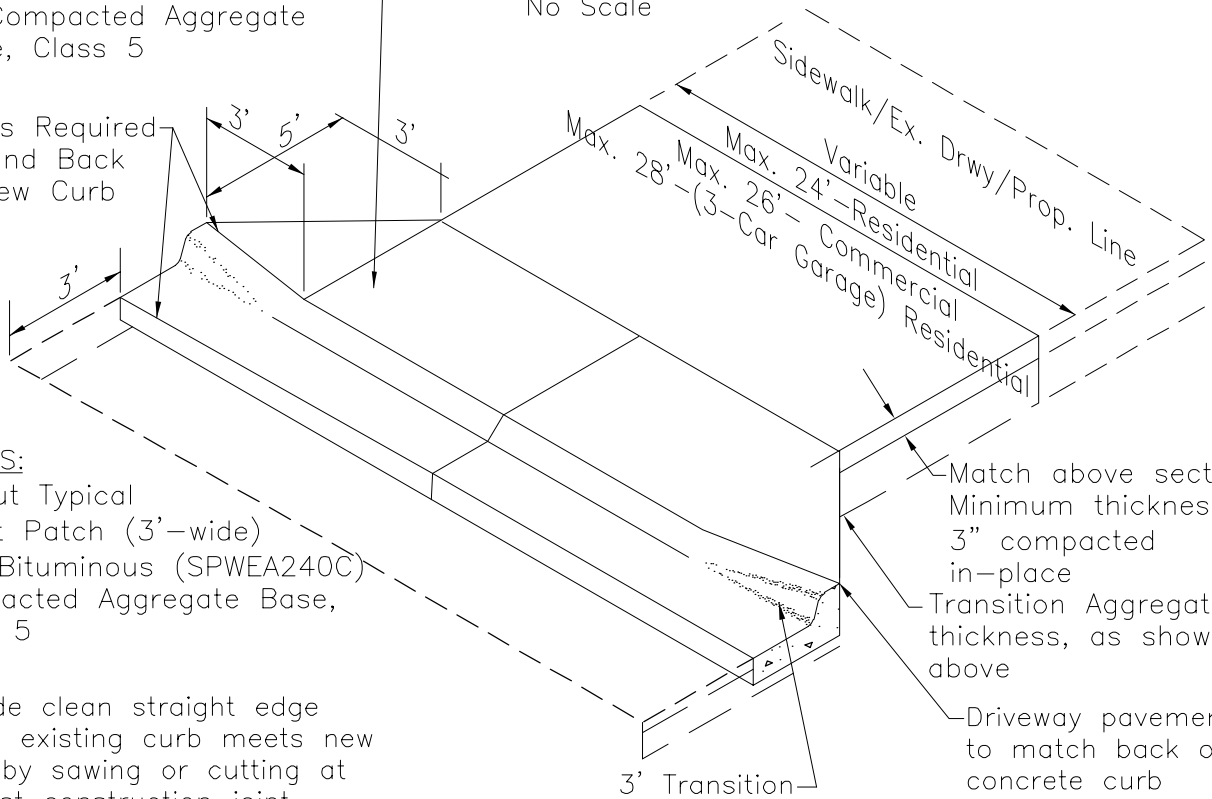
Sidewalk, Ex. Driveway connection or Prop. Line (Typ.)

- 5' Concrete Apron (optional)
- 6" Concrete
- 6" Compacted Aggregate Base, Class 5

# ISOMETRIC

No Scale

Forms Required  
Lip and Back  
of New Curb



### NOTES:

Sawcut Typical Street Patch (3'-wide)  
3.5" Bituminous (SPWEA240C)  
Compacted Aggregate Base, Class 5

Provide clean straight edge where existing curb meets new curb by sawing or cutting at nearest construction joint.

Match above section  
Minimum thickness 3" compacted in-place  
Transition Aggregate thickness, as shown above

Driveway pavement to match back of concrete curb at this point



RESIDENTIAL DRIVEWAY WITH APRON

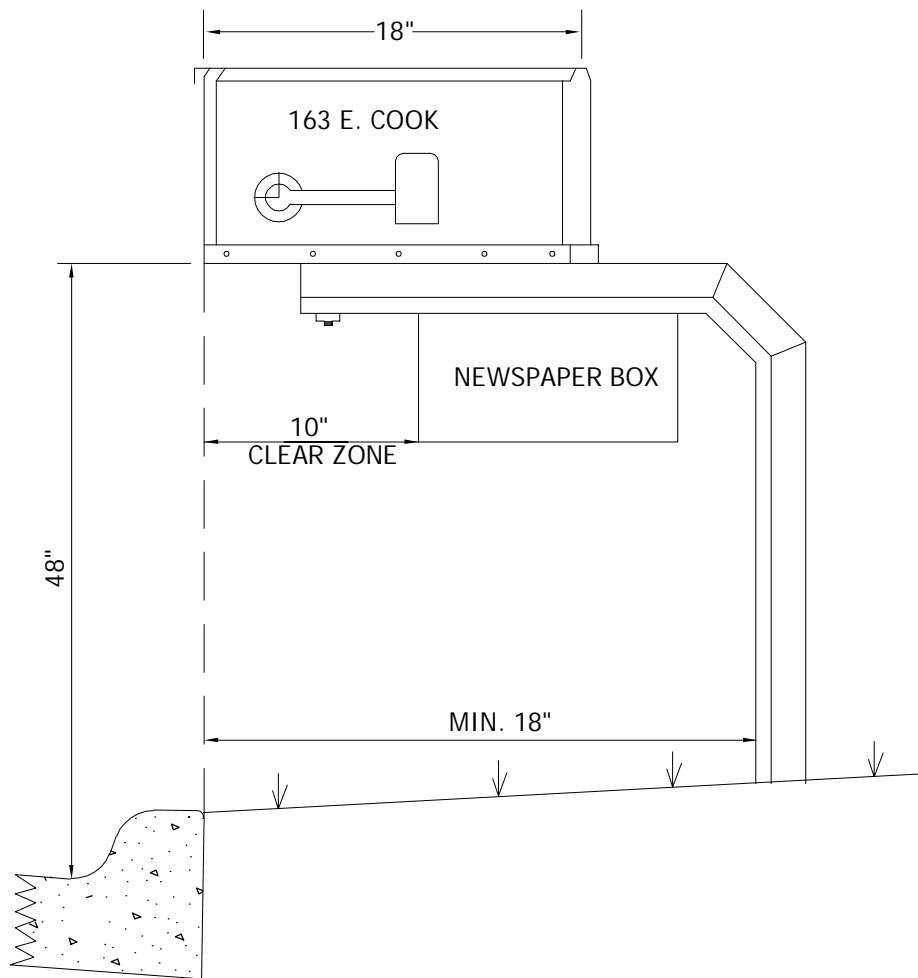
CITY OF NEW HOPE, MN

LAST REVISION:  
AUG. 2019

PLATE NO.  
STR-10A

NOTES:

- \* HEIGHT - 48" ABOVE STREET LEVEL
- \* HAVE BOX EXTEND AS FAR IN FRONT OF SUPPORT POST AS POSSIBLE. (THIS PREVENTS POSSIBLE SNOW PLOW DAMAGE).
- \* ADDRESS MUST BE ON THE SIDE OF BOX FROM WHICH CARRIER APPROACHES IN LETTERS ABOUT ONE INCH HIGH (OR ON FRONT WHERE BOXES ARE GROUPED).
- \* BOX MUST BE LOCATED SO CARRIER CAN SERVE WITHOUT LEAVING VEHICLE.
- \* MAILBOX SHOULD NOT EXTEND BEYOND BACK OF CURB.
- \* ALL POSTS TO BE A MINIMUM OF 18" BEHIND BACK OF CURB
- \* DIMENSIONS AS PER US POSTAL SERVICE.



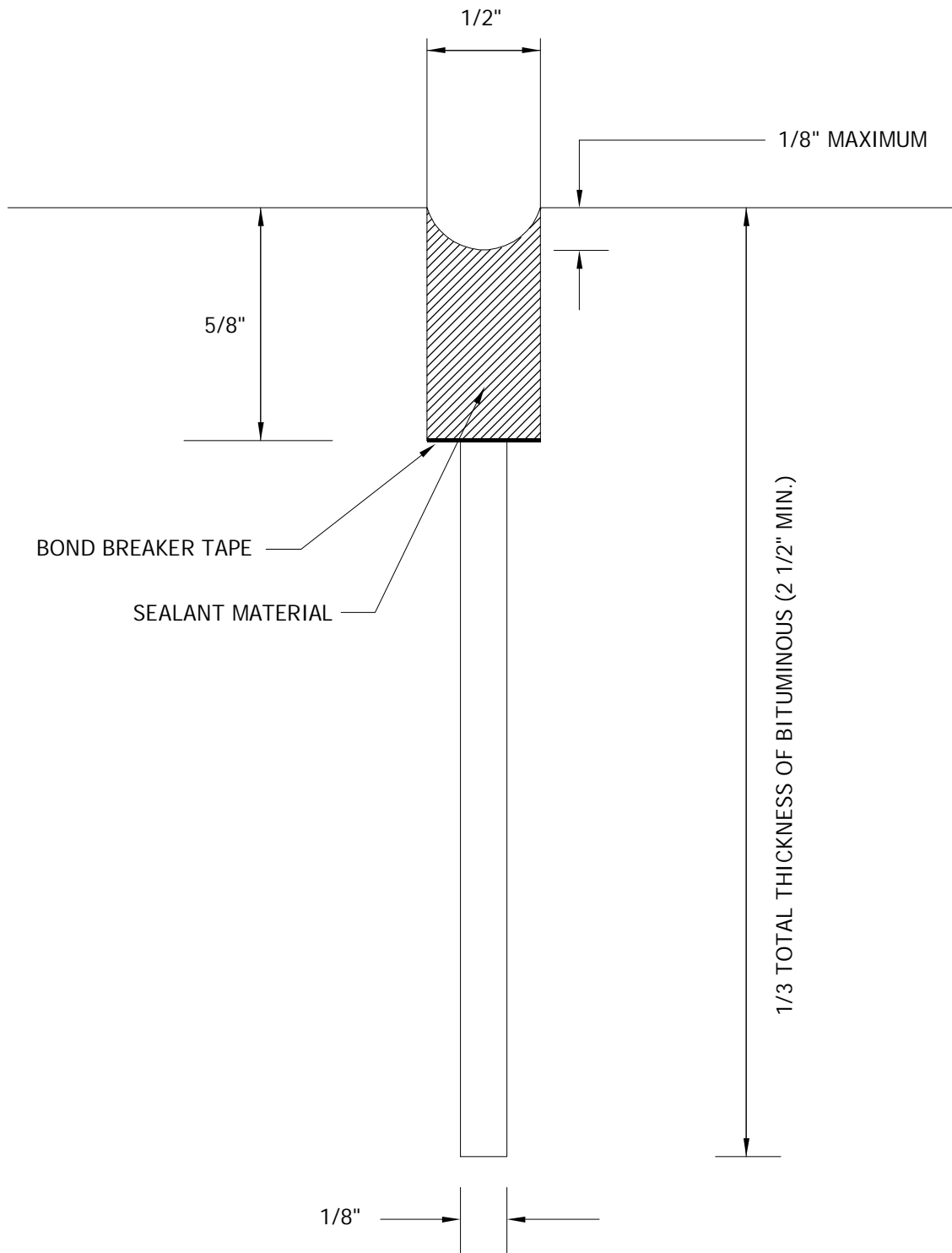
MAIL BOX INSTALLATION

CITY OF NEW HOPE, MN

LAST REVISION:  
DEC 2015

PLATE NO.  
STR-13





TYPICAL JOINT SECTION

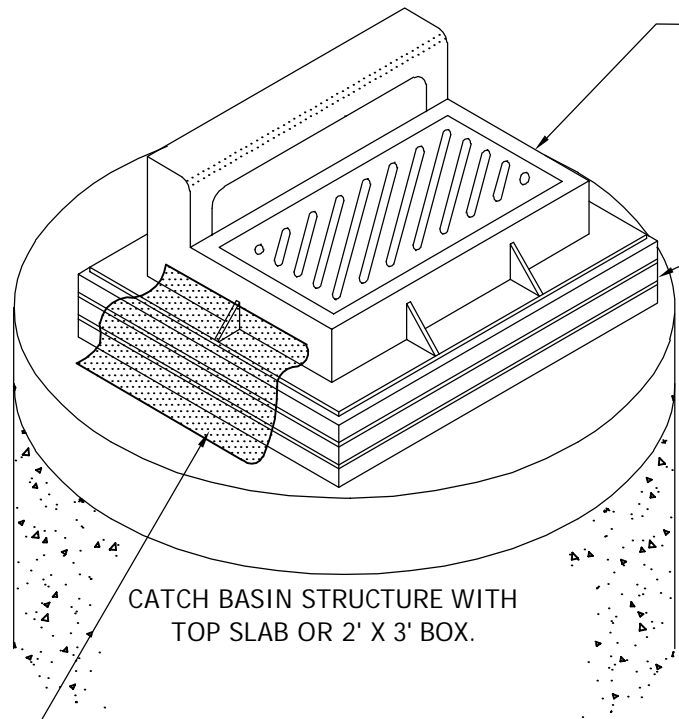


BITUMINOUS JOINT SAW AND SEAL

CITY OF NEW HOPE, MN

LAST REVISION:  
MAR 2008

PLATE NO.  
STR-16



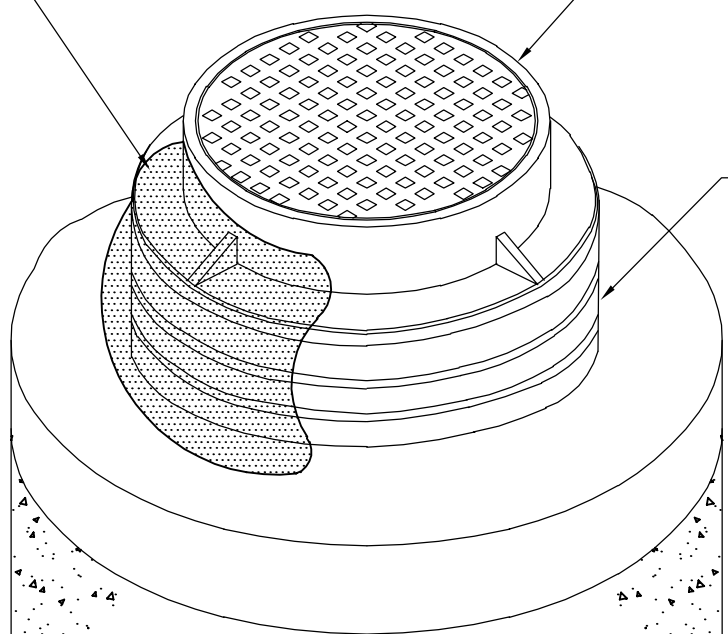
NEENAH R3067-VB OR R3067-V  
CATCH BASIN FRAME AND GRATE.  
SHALL BE FURNISHED WITH CURB  
INLET BOX AND 3" DIA. FRONT  
FACE AND 4" MAXIMUM OPENING.

NEW HDPE RINGS (MAX. 12")

CATCH BASIN STRUCTURE WITH  
TOP SLAB OR 2' X 3' BOX.

WOVEN FILTER FABRIC

NEENAH R1642-B MANHOLE FRAME OR  
EQUAL, (WITH "NEW HOPE" COVERS).



NEW HDPE RINGS (MAX. 12")

MANHOLE STRUCTURE WITH  
TOP SLAB OR CONE SECTION.



CATCH BASIN & MANHOLE ADJUSTMENT

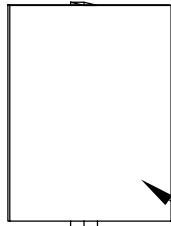
LAST REVISION:  
MARCH 2019

CITY OF NEW HOPE, MN

PLATE NO.  
STR-18

STREET SIGNS

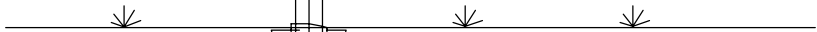
1. SHALL BE DIAMOND GRADE REFLECTIVE SHEETING PER MnDOT 3352.2A2g, TYPE XI
2. ATTACH TO SIGN POST WITH 1/32" NYLON WASHER & NUT, 5/16" STAINLESS STEEL BOLTS
3. INSTALL SO BOTTOM OF SIGN PANEL IS 7' FROM FINISH GRADE.



SIGN PANELS AS SPECIFIED OR AS SHOWN ON THE PLANS OR SIGN LEGEND.

SIGN POSTS

1. BOTTOM SECTION: 1.5-FOOT LONG, 2.5 INCH SQUARE, 12-GAUGE, PERFORATED, GALVANIZED.
2. 4-FOOT LONG 2.25 INCH SQUARE SLEEVE.
3. TOP SECTION: 2 INCH SQUARE, 12-GAUGE, PERFORATED, GALVANIZED.
4. MINIMUM 8 FEET, MAXIMUM 12 FEET LONG (LENGTH REQUIRED TO BE DETERMINED BY THE SIZE OF THE SIGN PANEL).
5. ATTACHED TO ANCHOR SYSTEM WITH CORNER BOLT.
6. SIGN POSTS TO BE MINIMUM 6 FEET BEHIND CURB OR AS DIRECTED BY ENGINEER.



TELESPAR OMNI-ANCHOR SYSTEM

NOTES:

1. ALL POSTS, HARDWARE, AND ANCHOR SYSTEMS SHALL BE TELESPAR SOLID SQUARE TUBE SYSTEMS AS DISTRIBUTED BY UNISTRUT CORPORATION, OR EQUAL.
2. BOX-OUTS SHALL BE USED WITHIN HARD SURFACED AREAS PRIOR TO SIGN PLACEMENT.

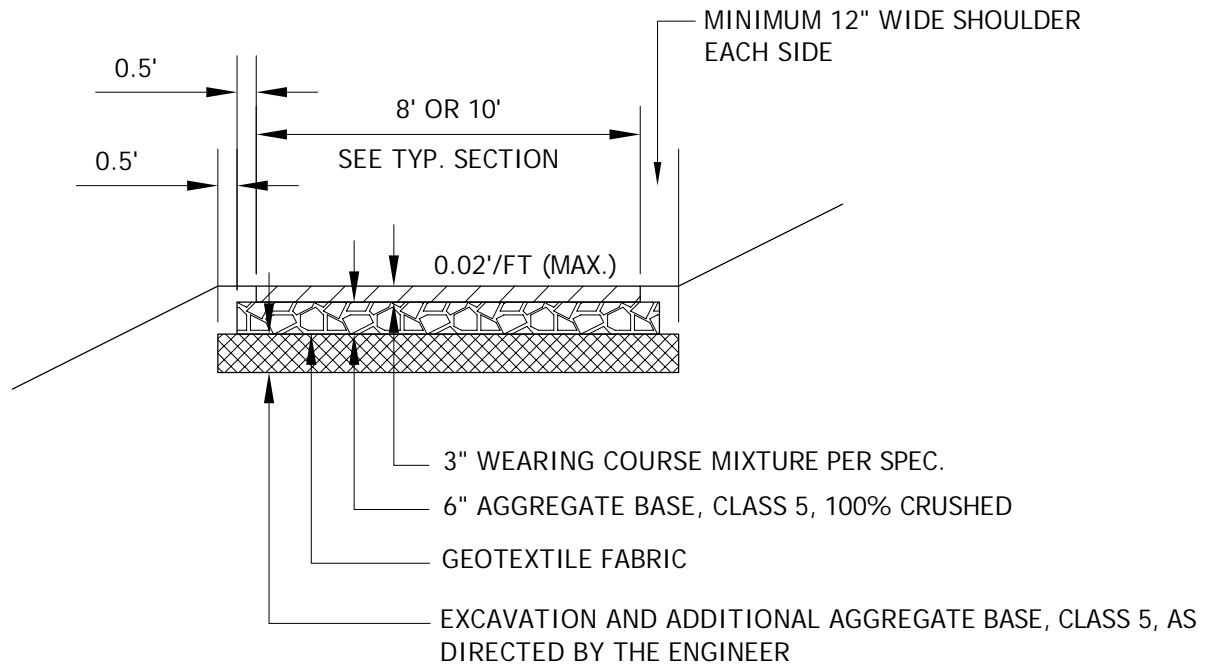


TYPICAL TRAFFIC SIGN INSTALLATION

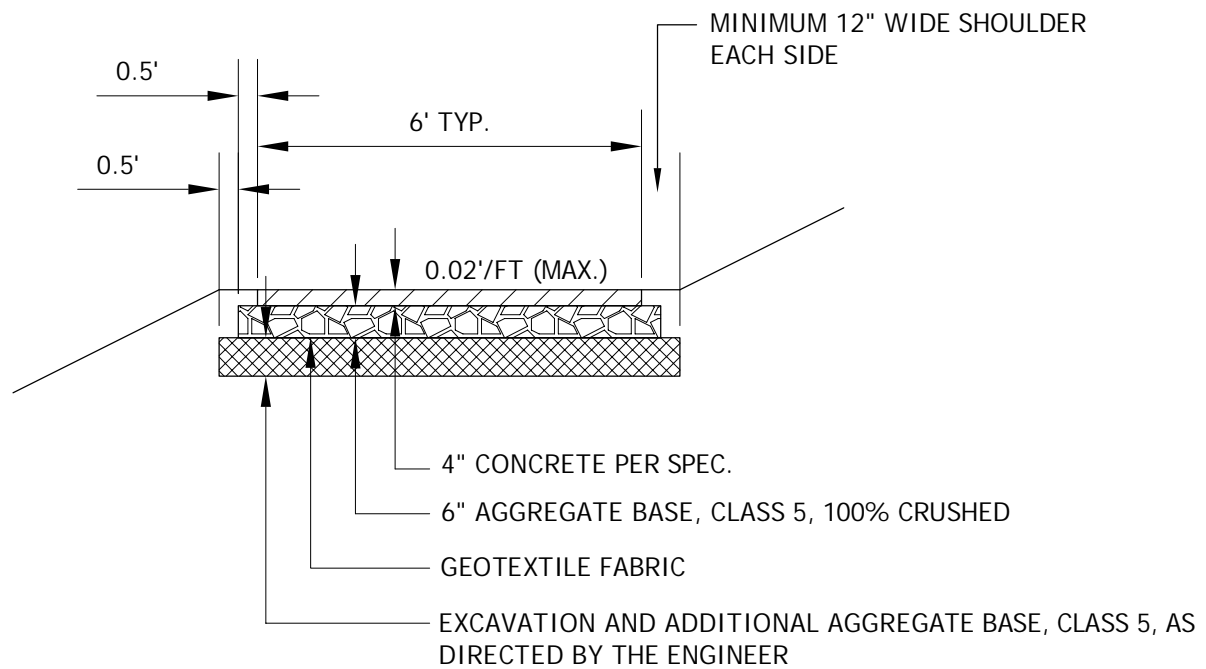
CITY OF NEW HOPE, MN

LAST REVISION:  
MAR 2020

PLATE NO.  
STR-24



BITUMINOUS PATHWAY



CONCRETE SIDEWALK



TYPICAL SECTION FOR BITUMINOUS PATHWAY AND CONCRETE SIDEWALK

LAST REVISION:  
Dec. 2015

CITY OF NEW HOPE, MN

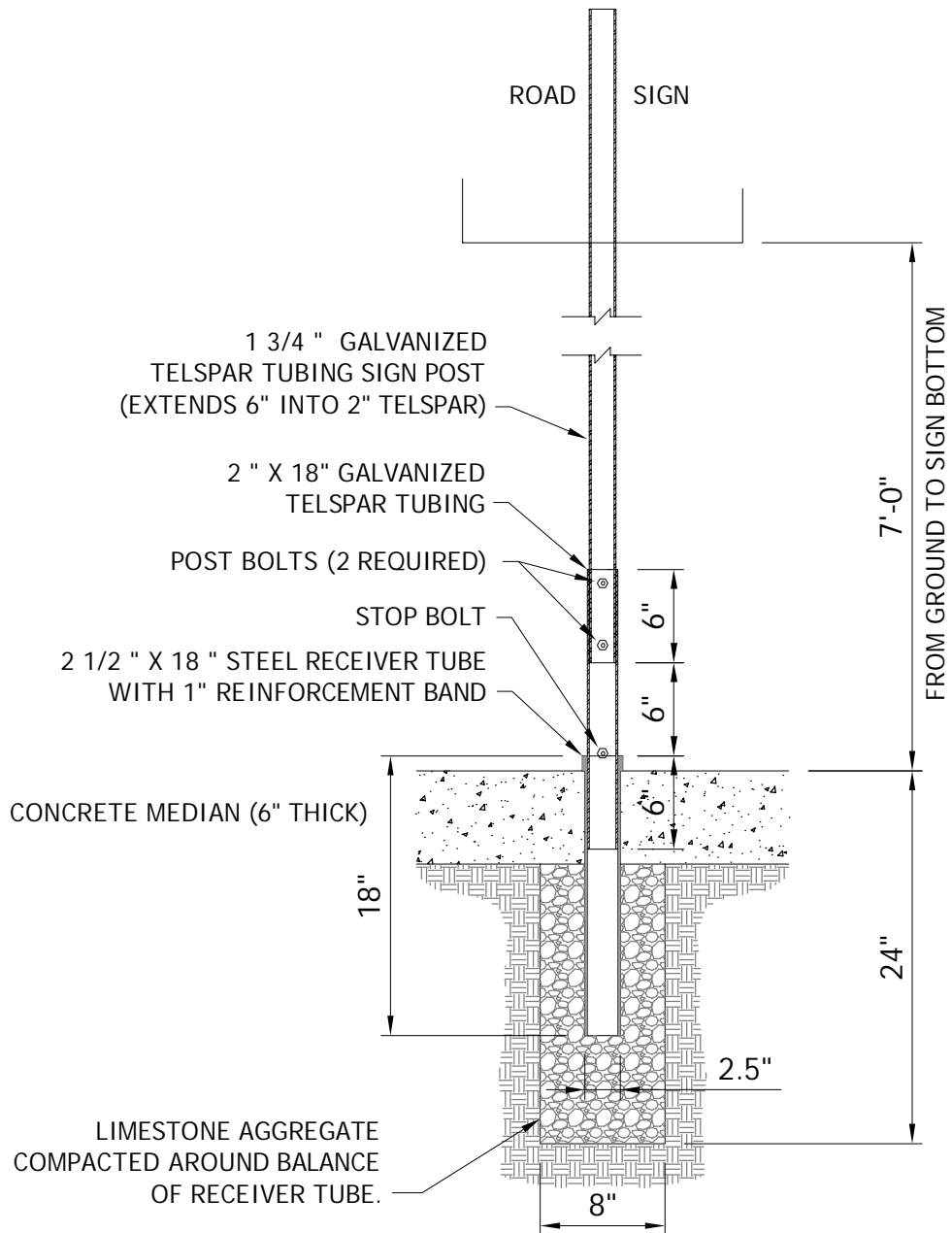
PLATE NO.  
STR-26

NOTES:

POST JOINT BOLTS TO BE PLACED AT 1", AND 5" HOLE SPACING.

BOLT THROUGH 11TH HOLE IS THE STOP BOLT AT THE REINFORCEMENT BAND

5/16" X 3" STAINLESS STEEL BOLT WITH NYLON INSERT LOCK NUTS.  
PLACE STEEL WASHER ON TELSPAR SIDE.

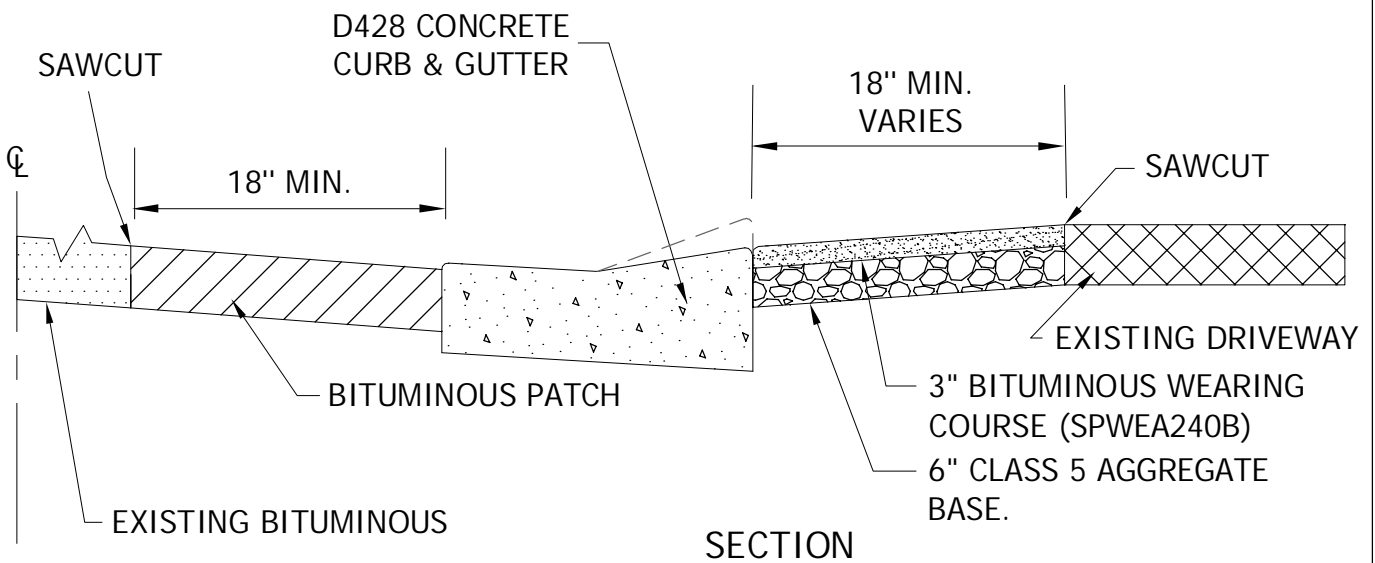
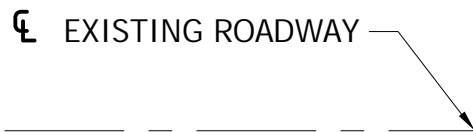
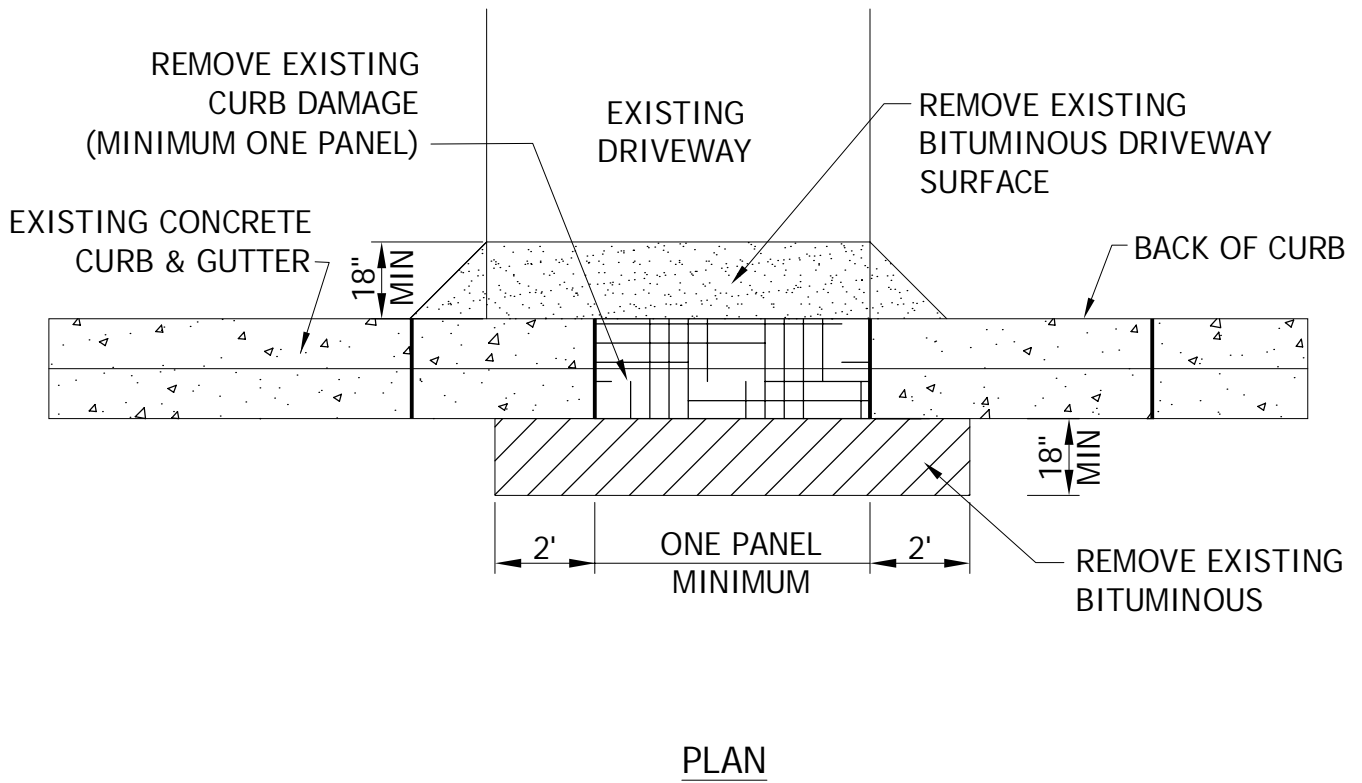


MEDIAN SIGN  
INSTALLATION DETAIL

LAST REVISION:  
May 2015

CITY OF NEW HOPE, MN

PLATE NO.  
STR-28

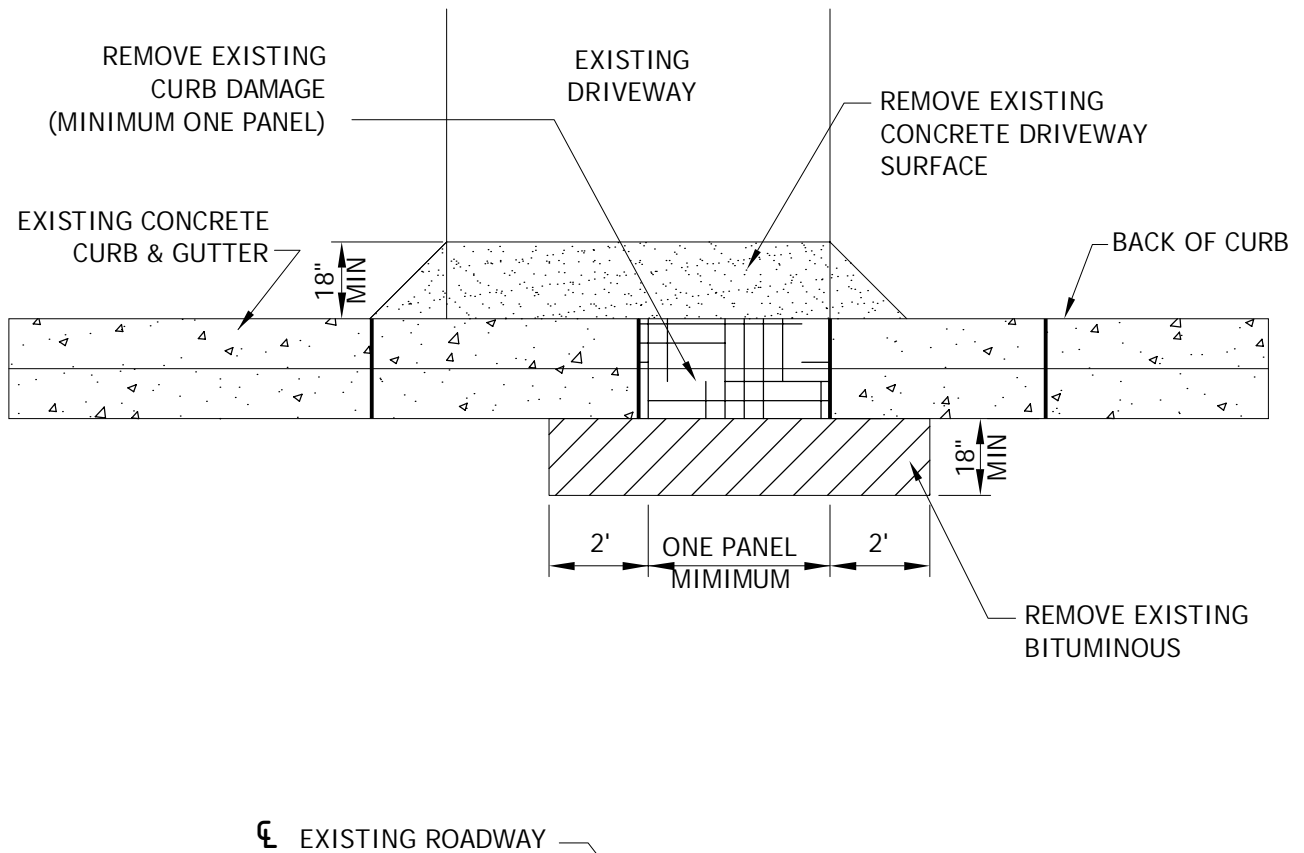


CONCRETE CURB REPLACEMENT  
DRIVE LOCATION  
(BITUMINOUS D/W APRON)

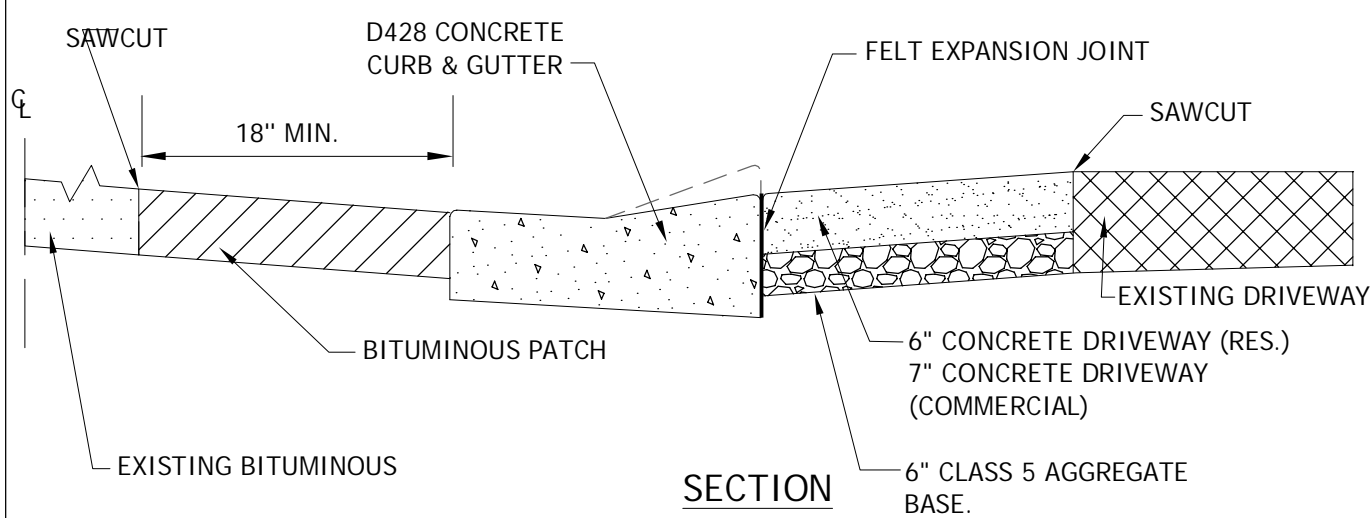
LAST REVISION:  
DEC 2017

CITY OF NEW HOPE, MN

PLATE NO.  
STR-29



**PLAN**



**SECTION**

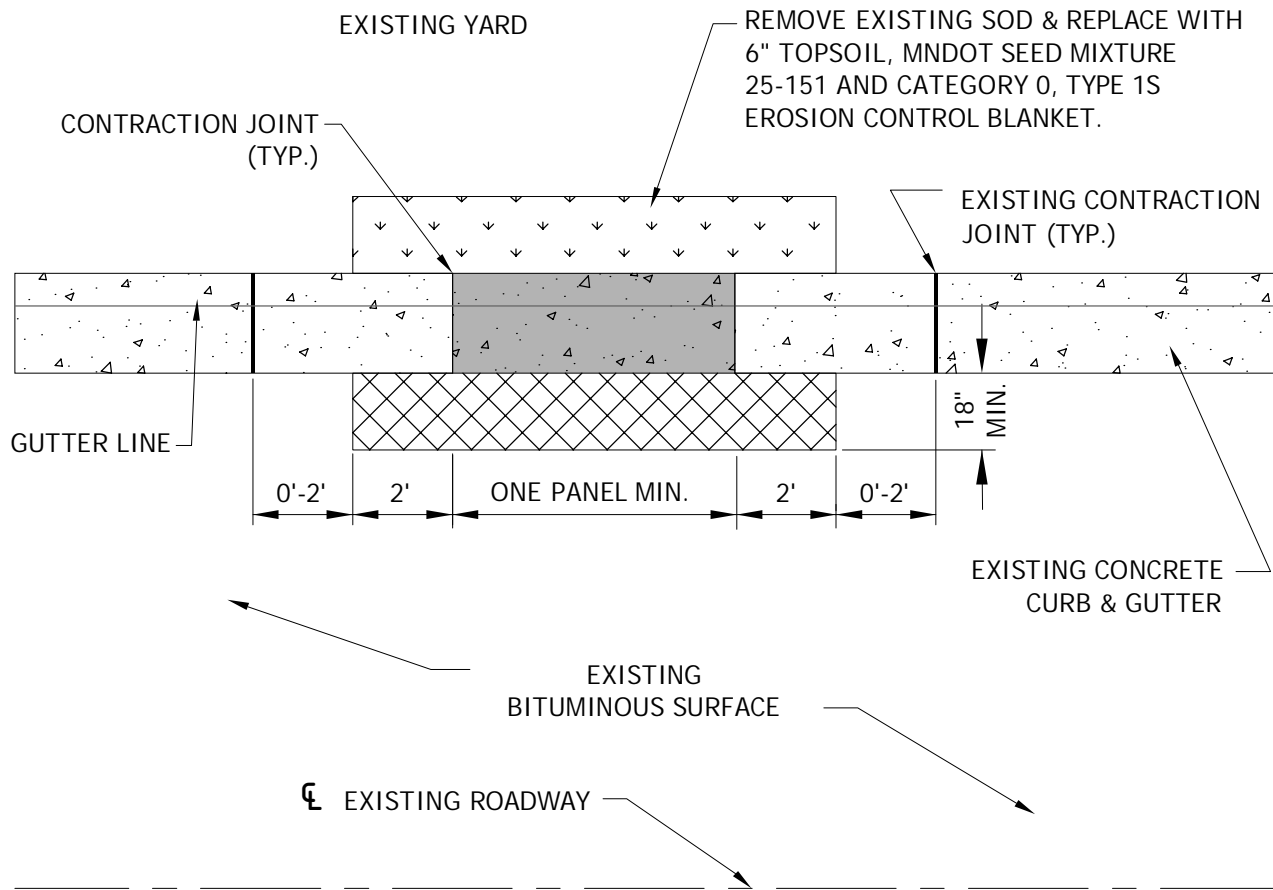


**CONCRETE CURB REPLACEMENT  
DRIVE LOCATION  
(CONCRETE D/W APRON)**

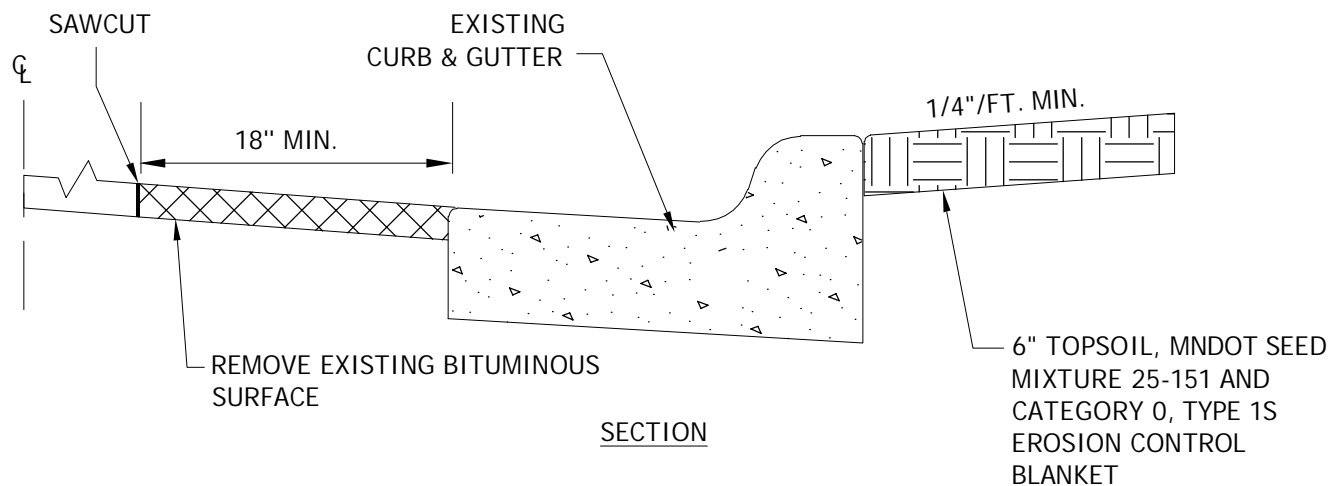
**CITY OF NEW HOPE, MN**

LAST REVISION:  
DEC 2021

PLATE NO.  
STR-30



PLAN



SECTION



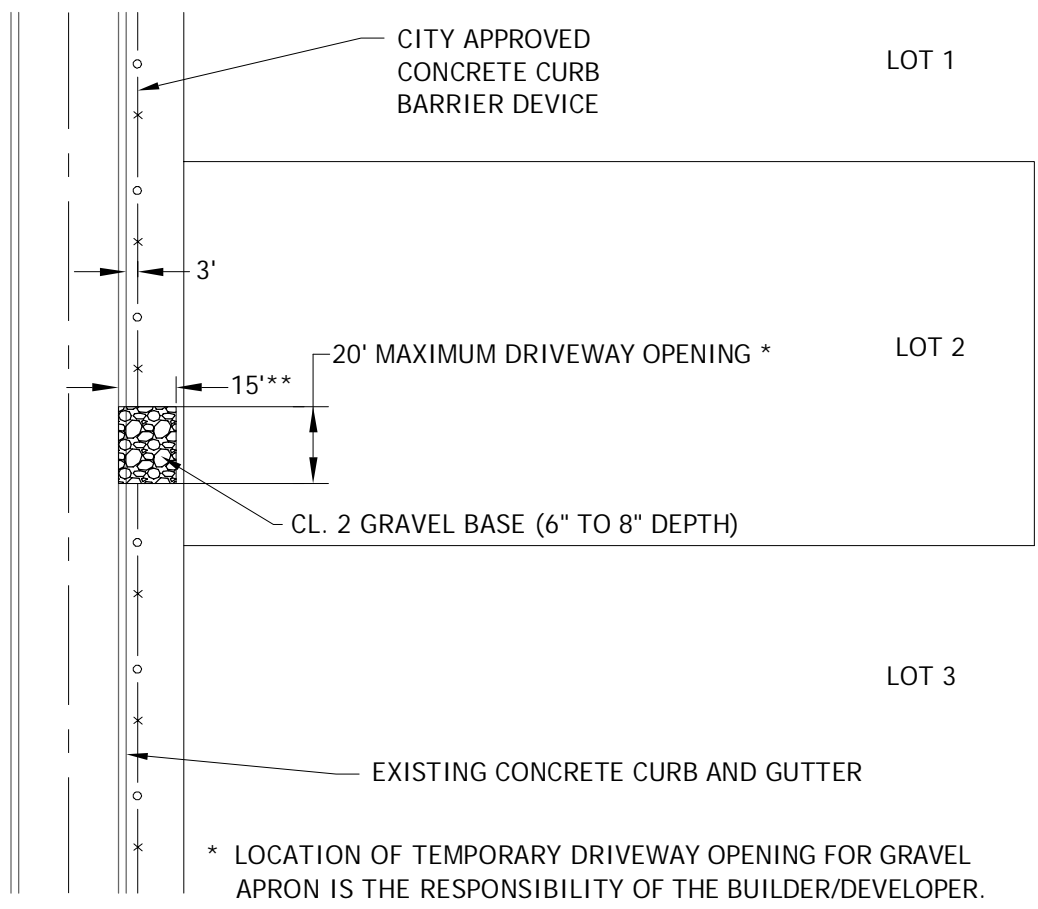
CONCRETE CURB REPLACEMENT  
NON DRIVEWAY LOCATION

LAST REVISION:  
FEB 2017

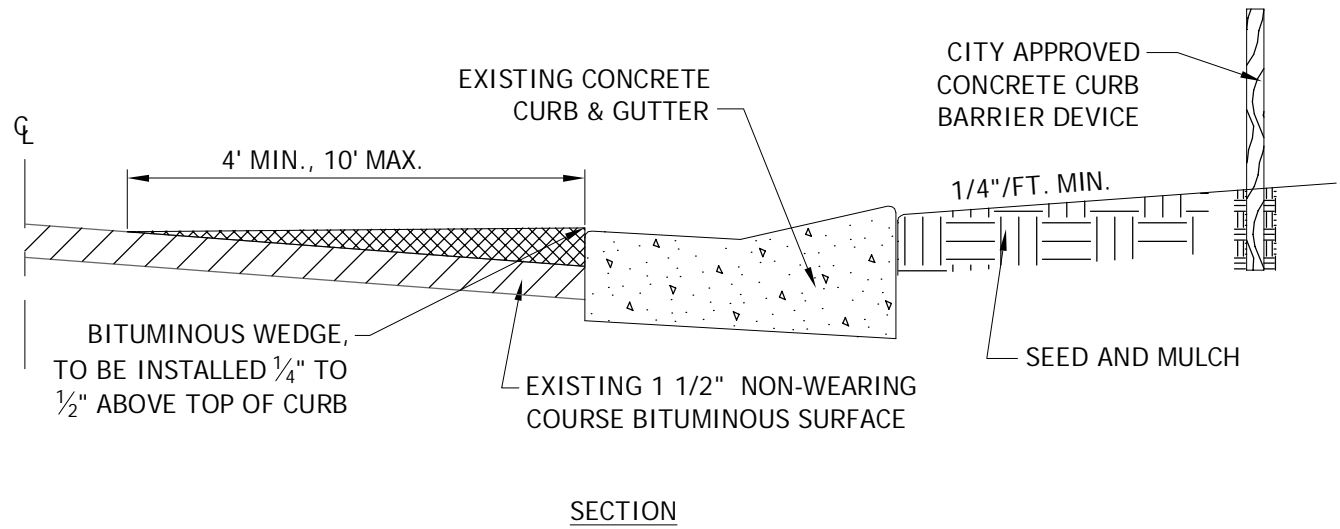
CITY OF NEW HOPE, MN

PLATE NO.  
STR-31





\* LOCATION OF TEMPORARY DRIVEWAY OPENING FOR GRAVEL APRON IS THE RESPONSIBILITY OF THE BUILDER/DEVELOPER.  
 \*\* 15' OR 5' BEYOND SIDEWALK.

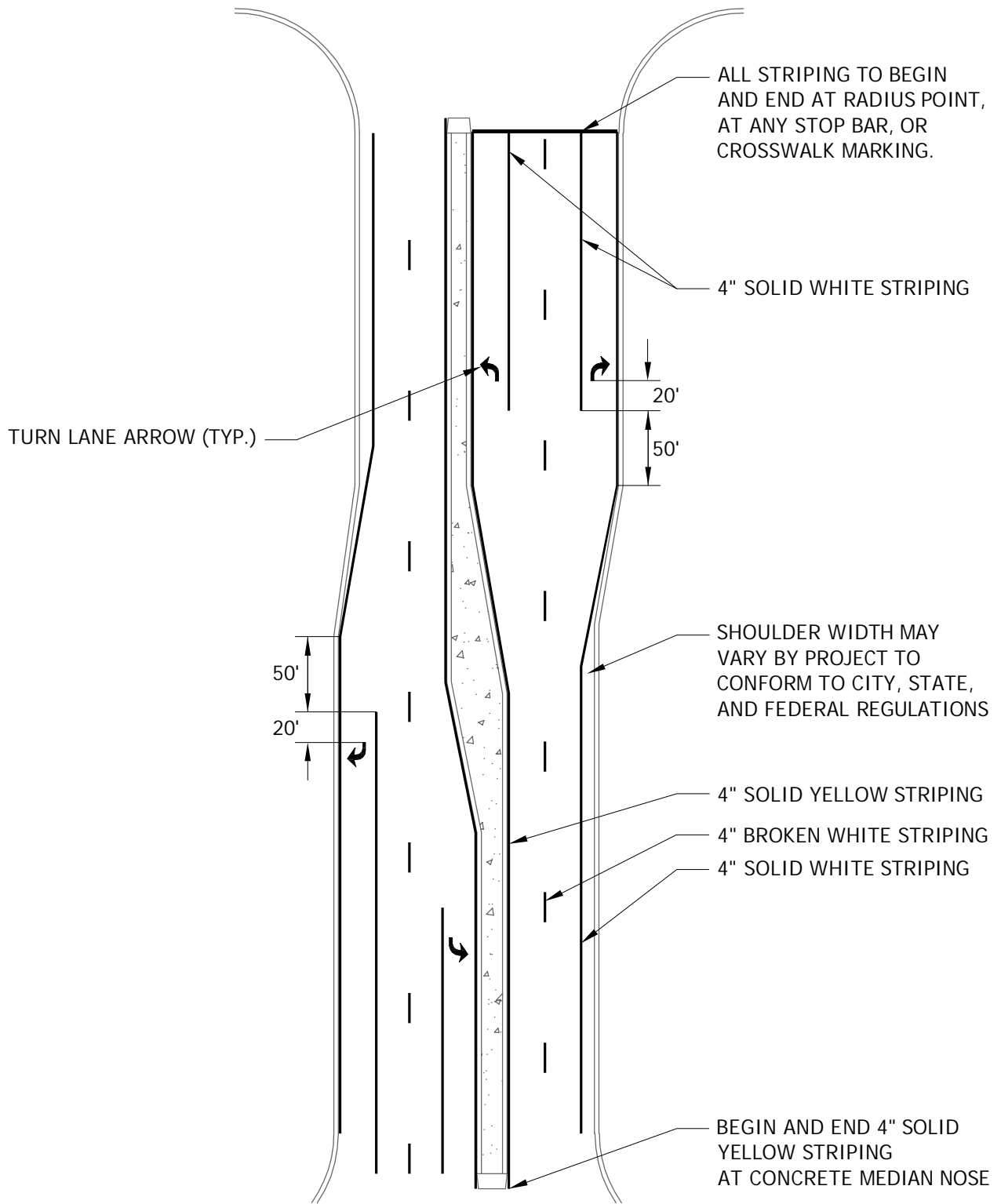


CONCRETE CURB PROTECTION

CITY OF NEW HOPE, MN

LAST REVISION:  
APR 2010

PLATE NO.  
STR-33

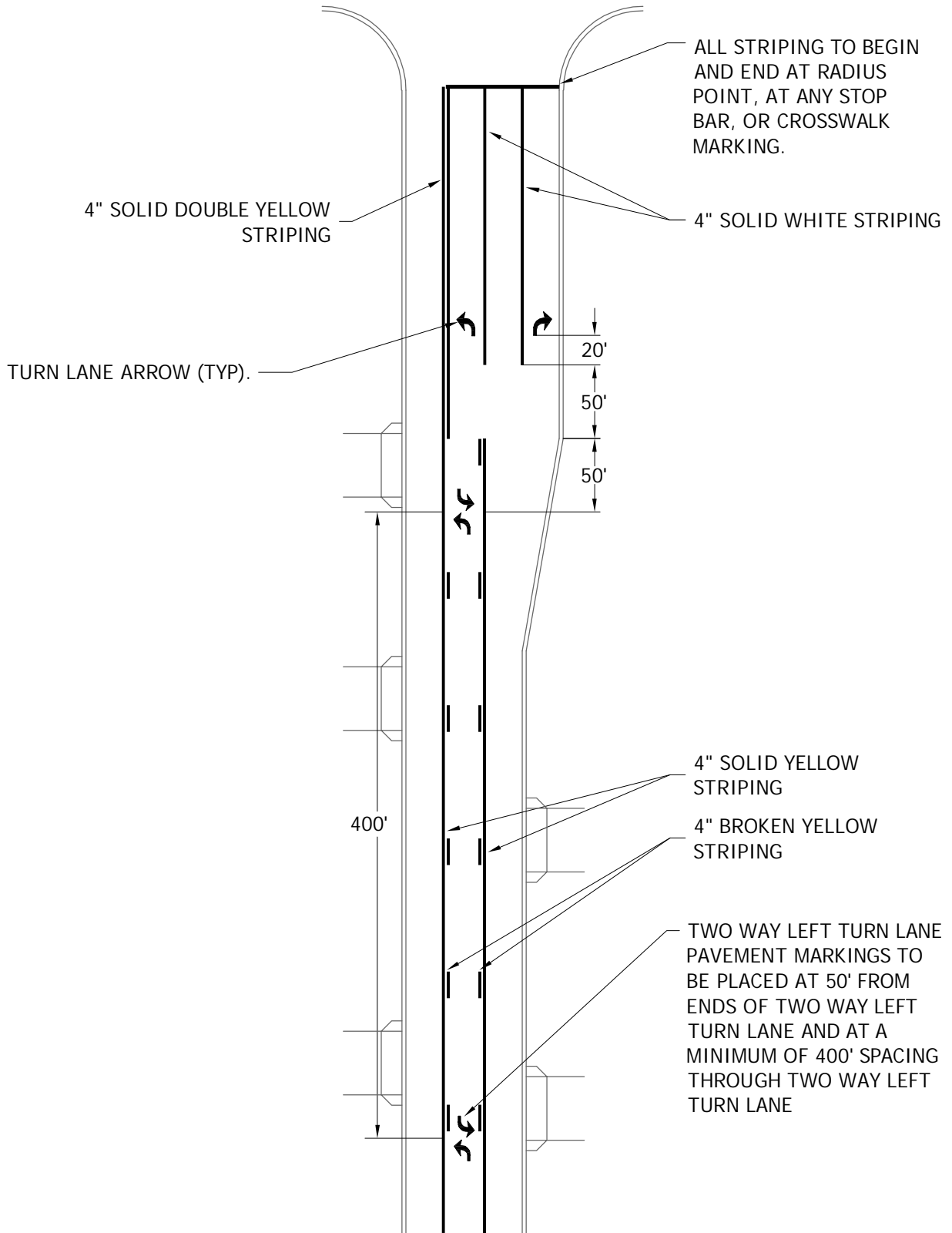


STRIPING DETAIL WITH  
CONCRETE MEDIAN

CITY OF NEW HOPE, MN

LAST REVISION:  
January 2010

PLATE NO.  
STR-35

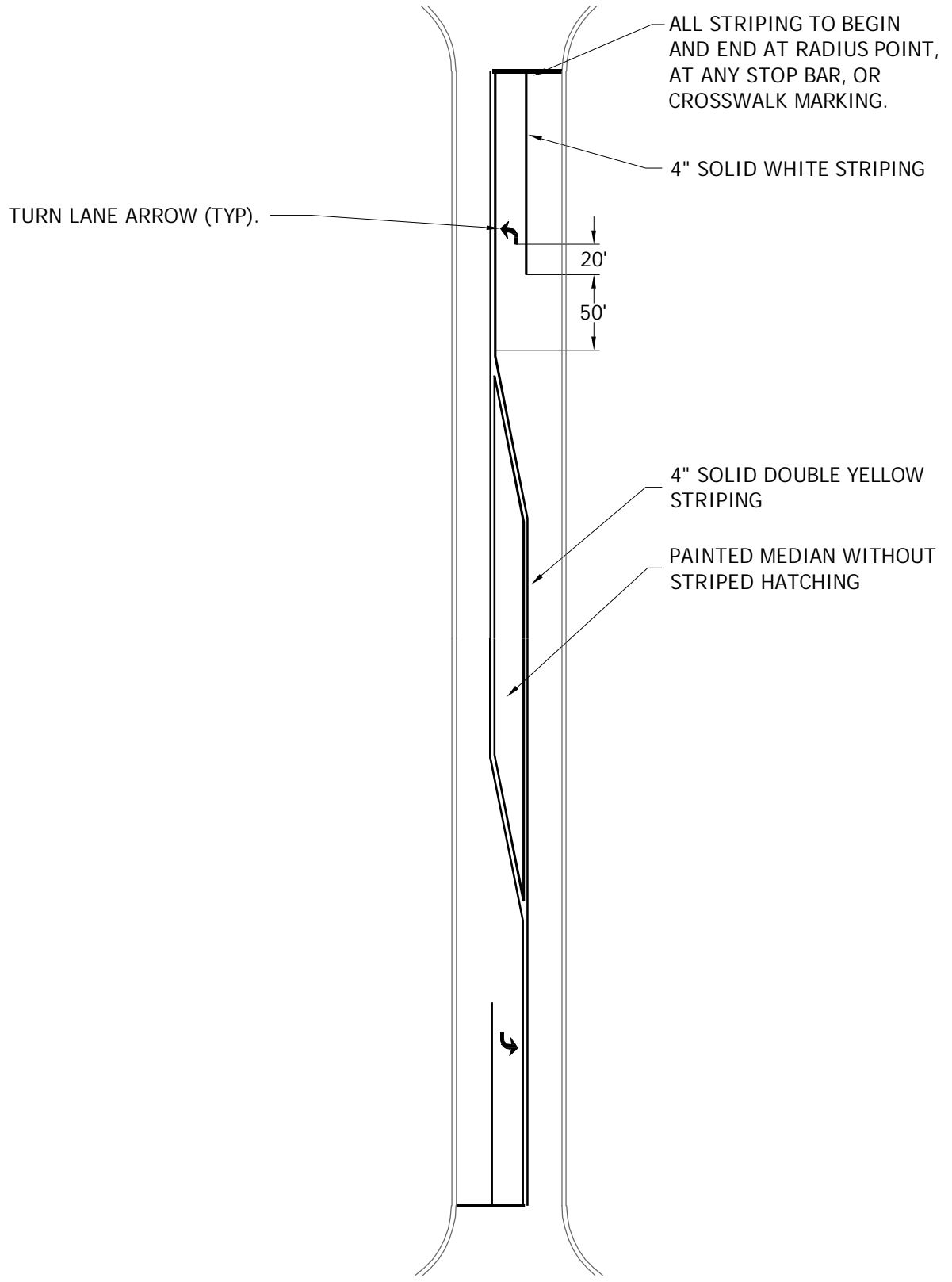


STRIPING DETAIL WITH  
TWO WAY LEFT TURN LANES

LAST REVISION:  
January 2010

CITY OF NEW HOPE, MN

PLATE NO.  
STR-36

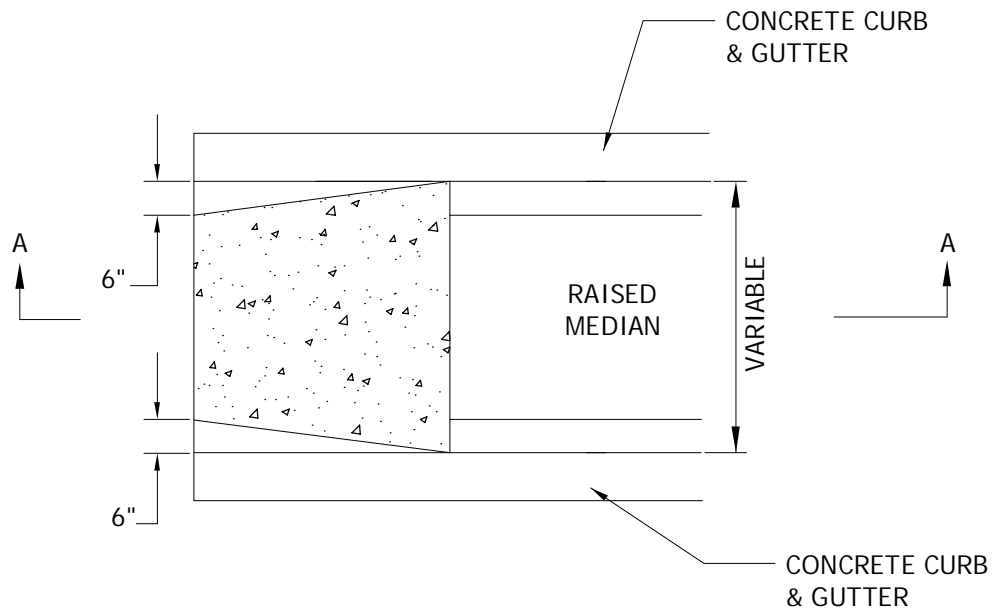


STRIPING DETAIL WITH STRIPED MEDIAN

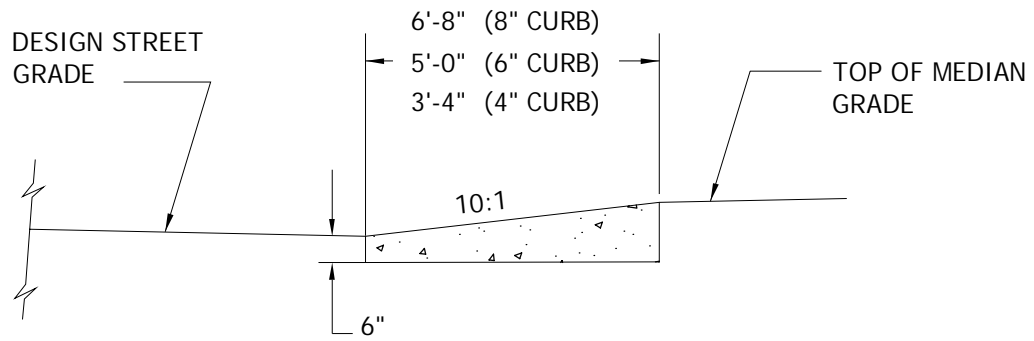
CITY OF NEW HOPE, MN

LAST REVISION:  
January 2010

PLATE NO.  
STR-37



PLAN



SECTION A-A

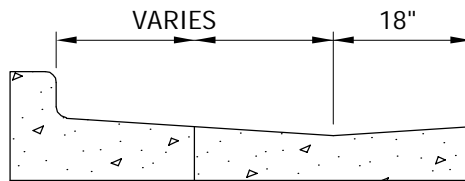
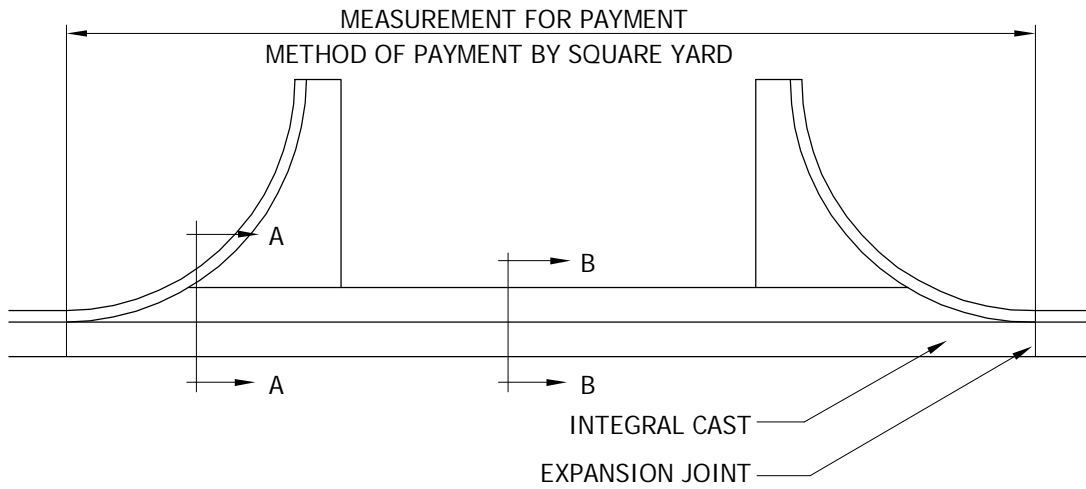


CONCRETE APPROACH  
NOSE DETAIL

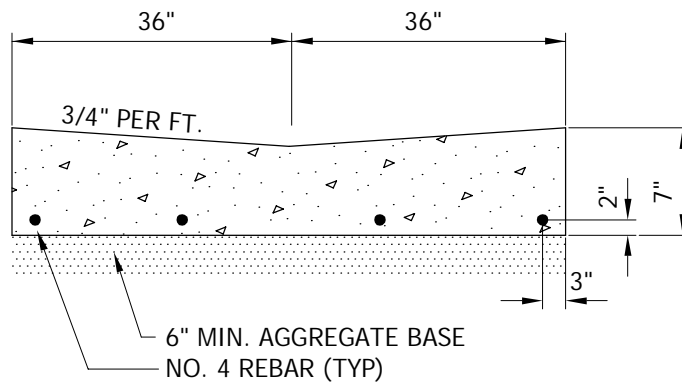
LAST REVISION:  
JAN 2013

CITY OF NEW HOPE, MN

PLATE NO.  
STR-38



SECTION A-A  
THRU B618 C & G



SECTION B-B  
THRU CONCRETE GUTTER

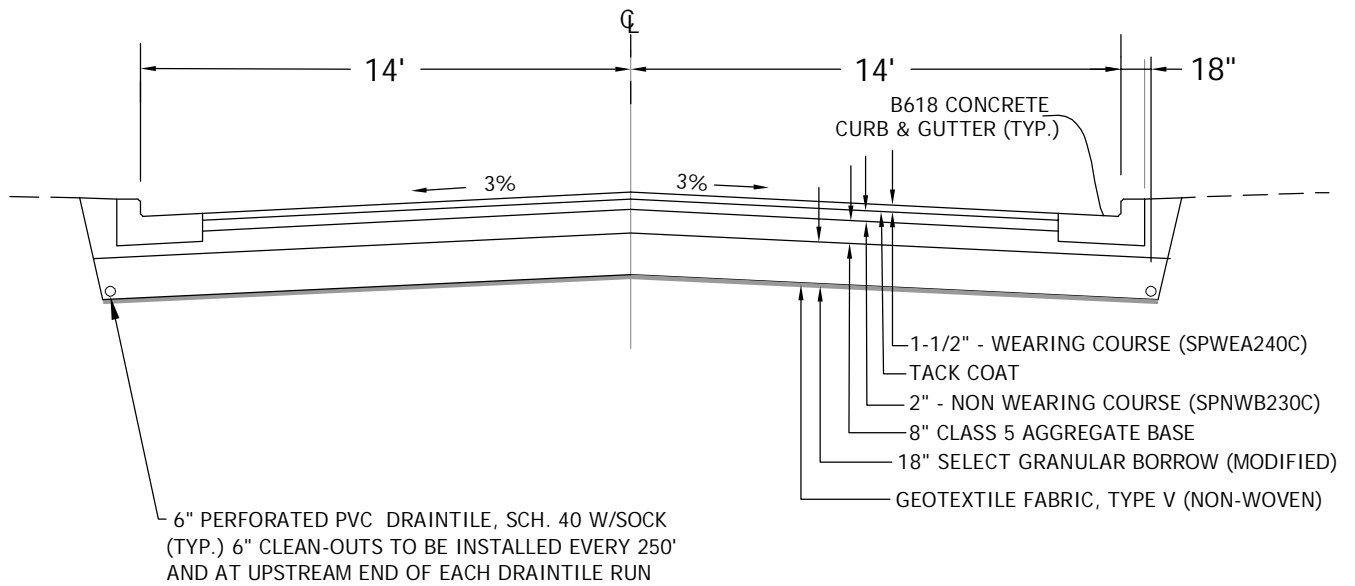


CONCRETE VALLEY GUTTER

CITY OF NEW HOPE, MN

LAST REVISION:  
JAN 2015

PLATE NO.  
STR-39



## FULL RECONSTRUCTION

NOT TO SCALE

NOTE:  
WEAR COURSE IS TYPICALLY INSTALLED IN THE SPRING THE FOLLOWING YEAR, AFTER ONE WINTER

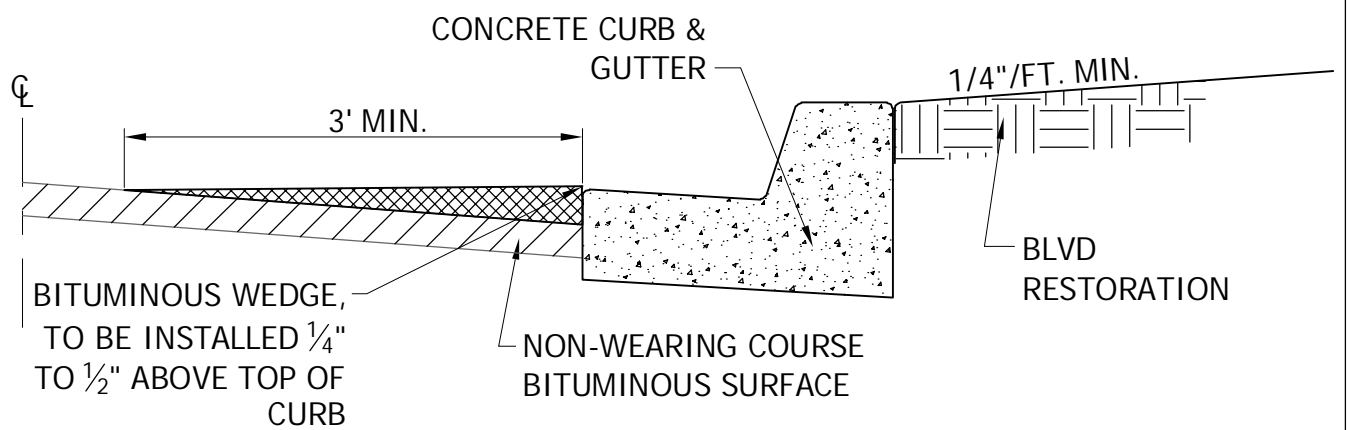


RESIDENTIAL TYPICAL STREET SECTION

LAST REVISION:  
JAN 2019

CITY OF NEW HOPE, MN

PLATE NO.  
STR-40



CONCRETE CURB PROTECTION  
BITUMINOUS WEDGE

CITY OF NEW HOPE, MN

LAST REVISION:

FEB. 2020

PLATE NO.

STR-41