

STANDARD
CONSTRUCTION
DETAILS

WASTEWATER

JANUARY 2022



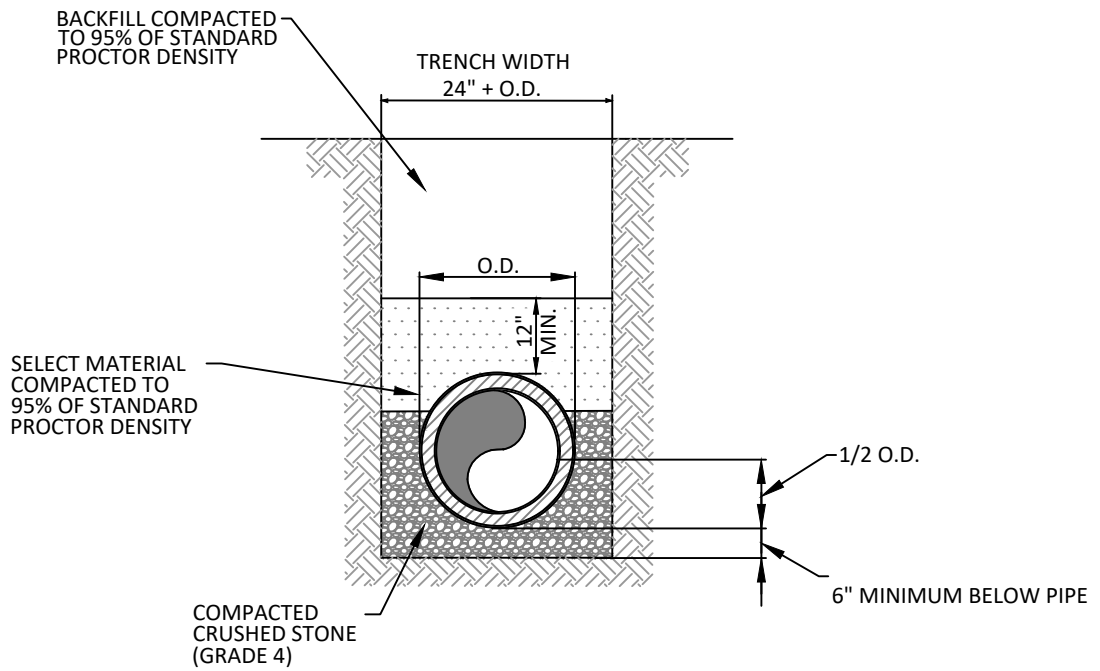
PUBLIC WORKS & ENGINEERING SERVICES

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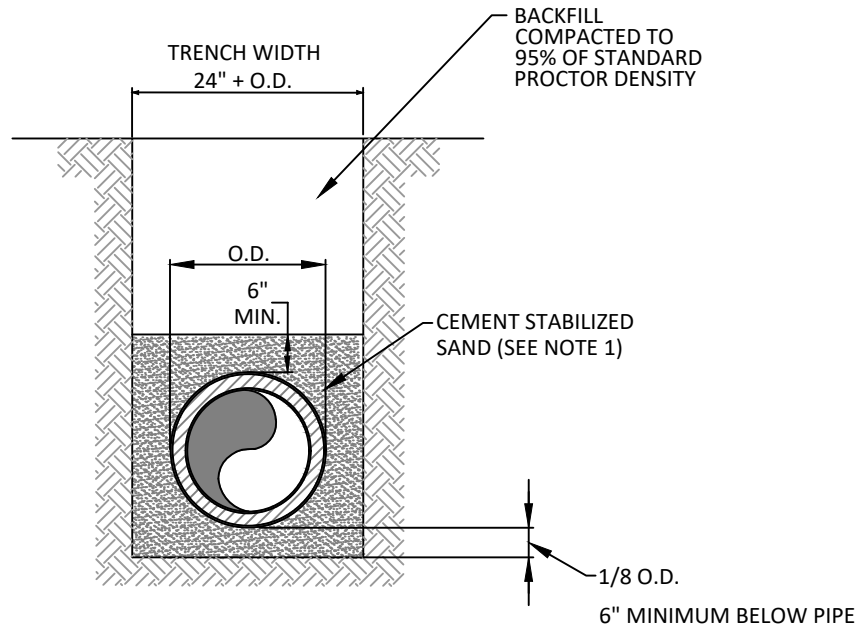
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1. WASTEWATER SYSTEM GENERAL NOTES ARE IN THE TOWN OF ADDISON GENERAL CONSTRUCTION NOTES DOCUMENT.
2. CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITION OF NCTCOG DETAILS AND SPECIFICATIONS, THE MOST CURRENT TCEQ REGULATIONS, AND THESE STANDARDS. WHEN THE NCTCOG MANUAL AND THESE STANDARDS ARE IN CONFLICT, THE MORE RESTRICTIVE STANDARDS/DETAILS SHALL GOVERN.
3. STANDARD DETAILS CONTAINED HEREIN ARE THE MINIMUM STANDARDS, MORE STRINGENT CRITERIA MAY BE REQUIRED AT THE DIRECTION OF PUBLIC WORKS & ENGINEERING SERVICES.



TYPICAL P.V.C. WASTEWATER MAIN EMBEDMENT

N.T.S.

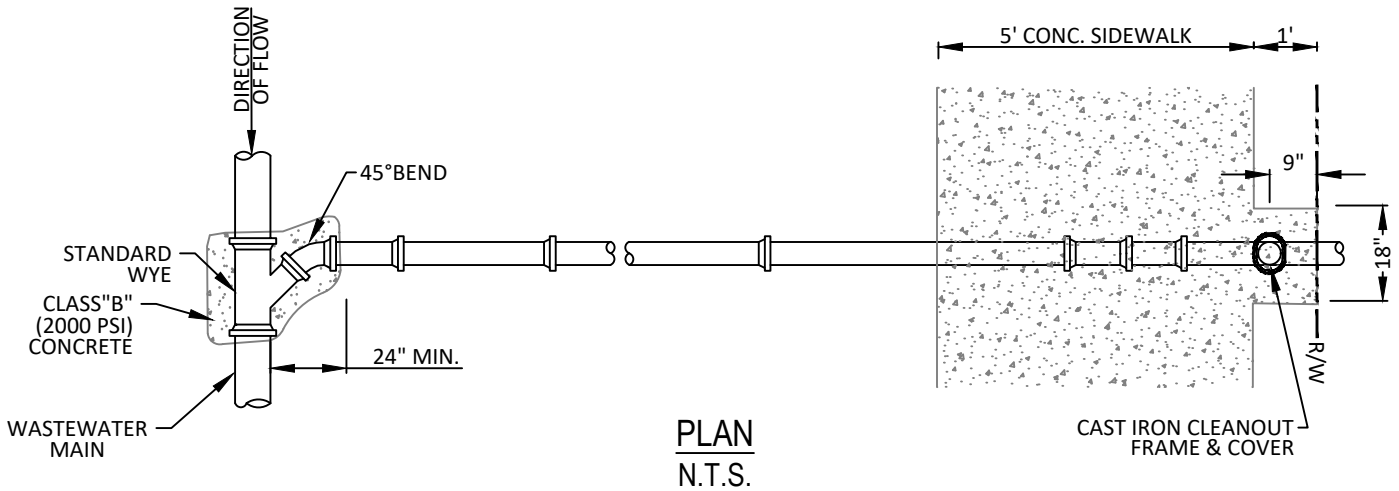
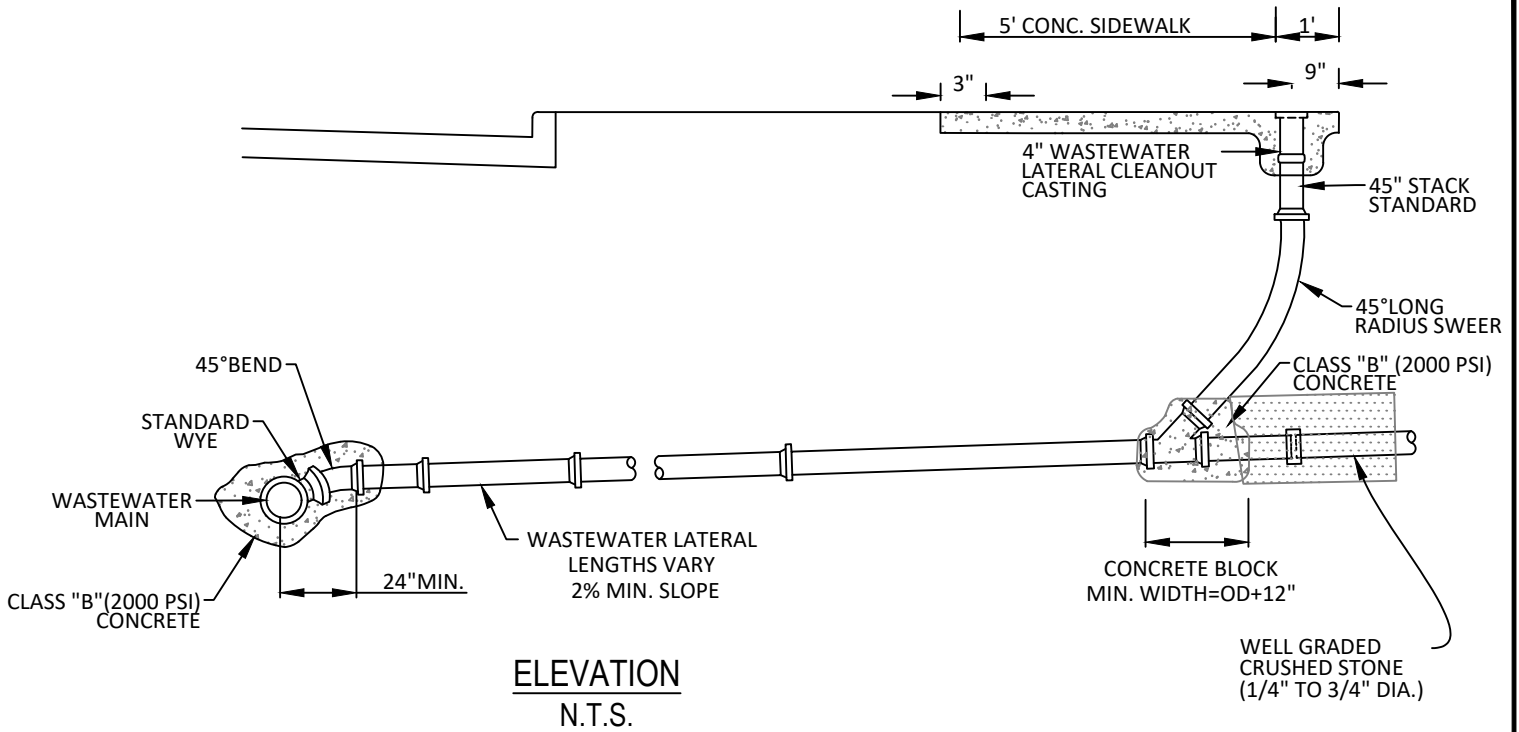


P.V.C. WASTEWATER MAIN CEMENT STABILIZED SAND EMBEDMENT

N.T.S.

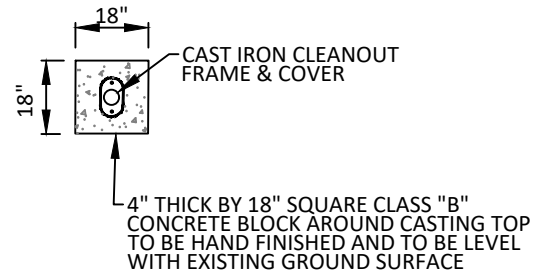
NOTES:

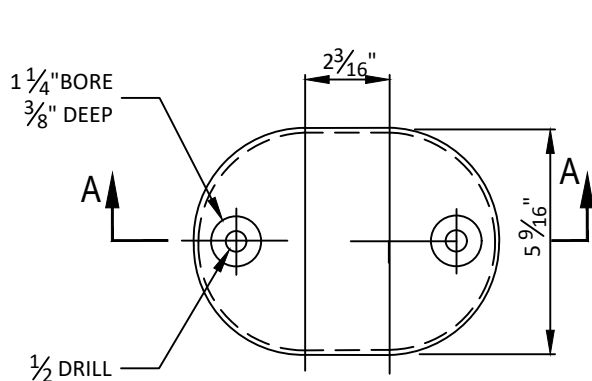
1. CEMENT STABILIZED SAND IS REQUIRED FOR PRESSURE RATED WASTEWATER MAIN AND LATERAL BEDDING. CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THE USE OF BROWN COLORING IN CEMENT STABILIZED SAND IS REQUIRED FOR PRESSURE RATED WASTEWATER MAIN AND LATERAL BEDDING.



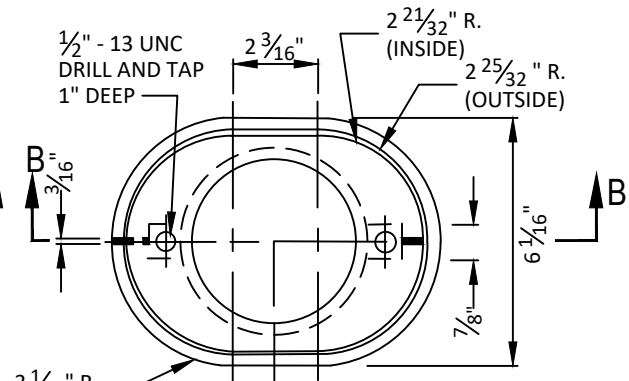
NOTES:

1. WASTEWATER LATERALS ARE TO BE CONSTRUCTED TO CLEAR EXISTING AND PROPOSED FACILITIES, SUCH AS STORM DRAIN MAINS, RETAINING WALLS, OTHER UTILITIES, ETC.
2. THE WASTEWATER LATERAL SHALL HAVE MINIMUM COVER OF 4'-0" BELOW THE PROPOSED CURB GRADE AT THE PROPERTY LINE, DETERMINED FROM PAVING GRADE, OR AS REQUIRED TO MAINTAIN A MINIMUM OF 2.0% GRADE, OR AS DIRECTED BY PUBLIC WORKS & ENGINEERING SERVICES.
3. PROPERTY OWNER IS RESPONSIBLE FOR OWNERSHIP & MAINTENANCE OF THE SEWER SERVICE LATERAL.

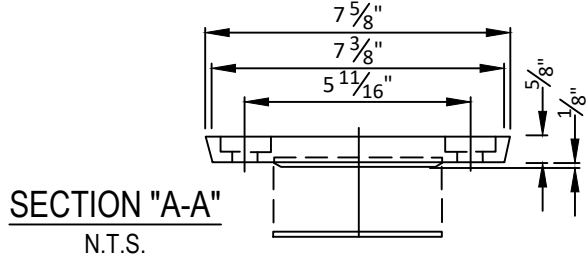




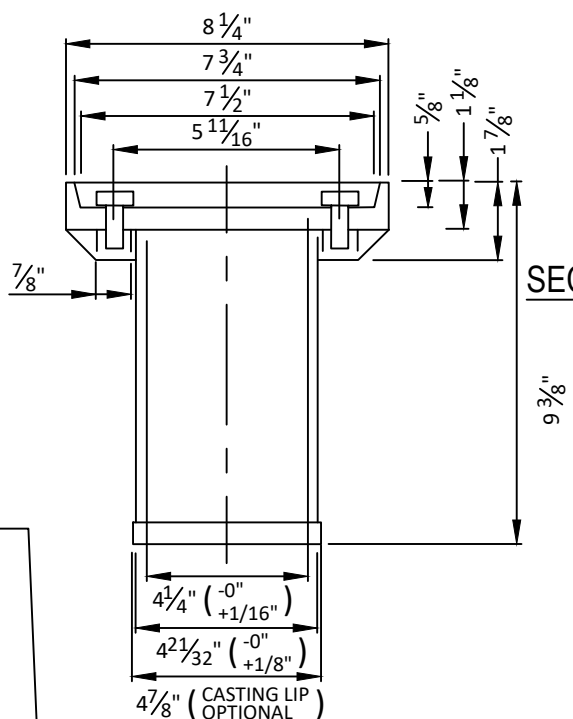
COVER
N.T.S.



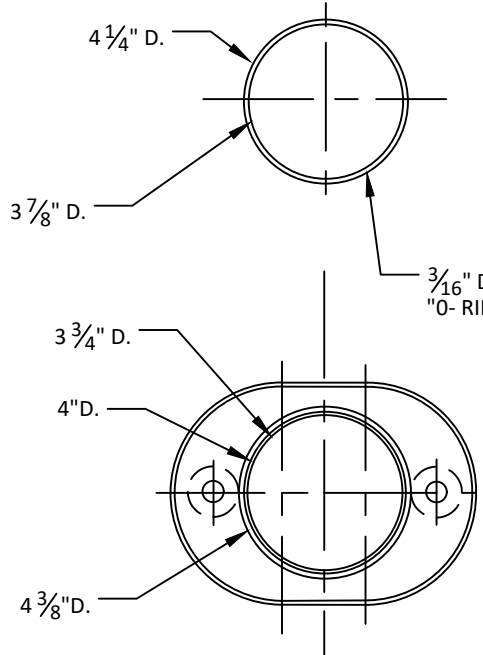
CLEANOUT FRAME TOP
N.T.S.



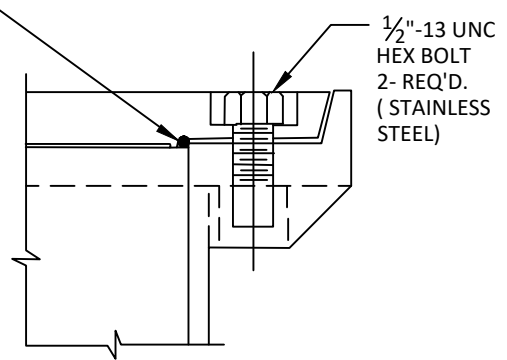
SECTION "A-A"
N.T.S.



SECTION "B-B"
N.T.S.



CLEANOUT FRAME BOTTOM
N.T.S.



ASSEMBLY VIEW
N.T.S.

1. THE WORDS "WASTEWATER LATERAL CLEANOUT" SHALL BE CAST INTO TOP OF COVER.
2. MATERIALS TO BE CAST IRON.



**CAST IRON
CLEANOUT FRAME & COVER
IN PAVEMENT APPLICATION**

STANDARD CONSTRUCTION DETAILS
WASTEWATER

DATE:
JANUARY 2022

REV DATE:
-

SHEET:
SD-WW03

MANHOLE RIM TO BE SET FLUSH WITH PAVEMENT OR 1" TO 4" ABOVE GRADE IN NON-PAVED AREAS

SEE CAST IRON MANHOLE FRAME & COVER DETAIL SD-WW07

EXIST. GRADE

EXIST. PVMT

USE APPROVED GRADE RINGS AND NON-SHRINK GROUT AS REQUIRED TO RAISE GRADE; 18" MAX. ADJUSTMENT

1/2" NON SHRINK GROUT COATING

30"

NEOPRENE O-RING GASKET AND MASTIC

3' TO 5'
3' FOR 4' MANHOLE

4', 5', OR 6'

VARIES

INTERMEDIATE RISER
(USE MINIMUM NO. OF RISERS)

REFER TO NCTCOG SPECIFICATIONS (LATEST EDITION) FOR:

1. CONCRETE CLASS.
2. CONCRETE PIPE MATERIALS.
3. MANHOLE MATERIAL.
4. O-RING RUBBER GASKET JOINT.

COUPLING WITH O-RING RUBBER GASKET KOR-N-SEAL OR APPROVED EQUAL

TOP OF PIPE

BASE RISER (VARIES)

12"

5"
12" MIN.

EMBEDMENT AS SPECIFIED BY STANDARD DETAILS.

ROCK FOUNDATION PER NCTCOG ITEM 504.2.2.4

COMPACT TO 95% STD PROCTOR

GEOTEXTILE MATERIAL

NOTES

1. IF FALSE MANHOLE BOTTOMS ARE REQUIRED, THEY SHALL BE CONSTRUCTED, INSTALLED, AND REMOVED PER WASTEWATER MANHOLE FALSE BOTTOM STD. DETAIL.
2. WHERE MANHOLES ARE OUTSIDE OF PAVEMENT, FRAME & COVER SHALL BE CENTERED IN 5'x5' CONCRETE PAD IN NON-PAVED AREAS, CLASS 'A' 3000 PSI CONCRETE, 6" THICKNESS.
3. ALL MANHOLES SHALL PASS VACUUM TEST AS PER NCTCOG SPECIFICATIONS .



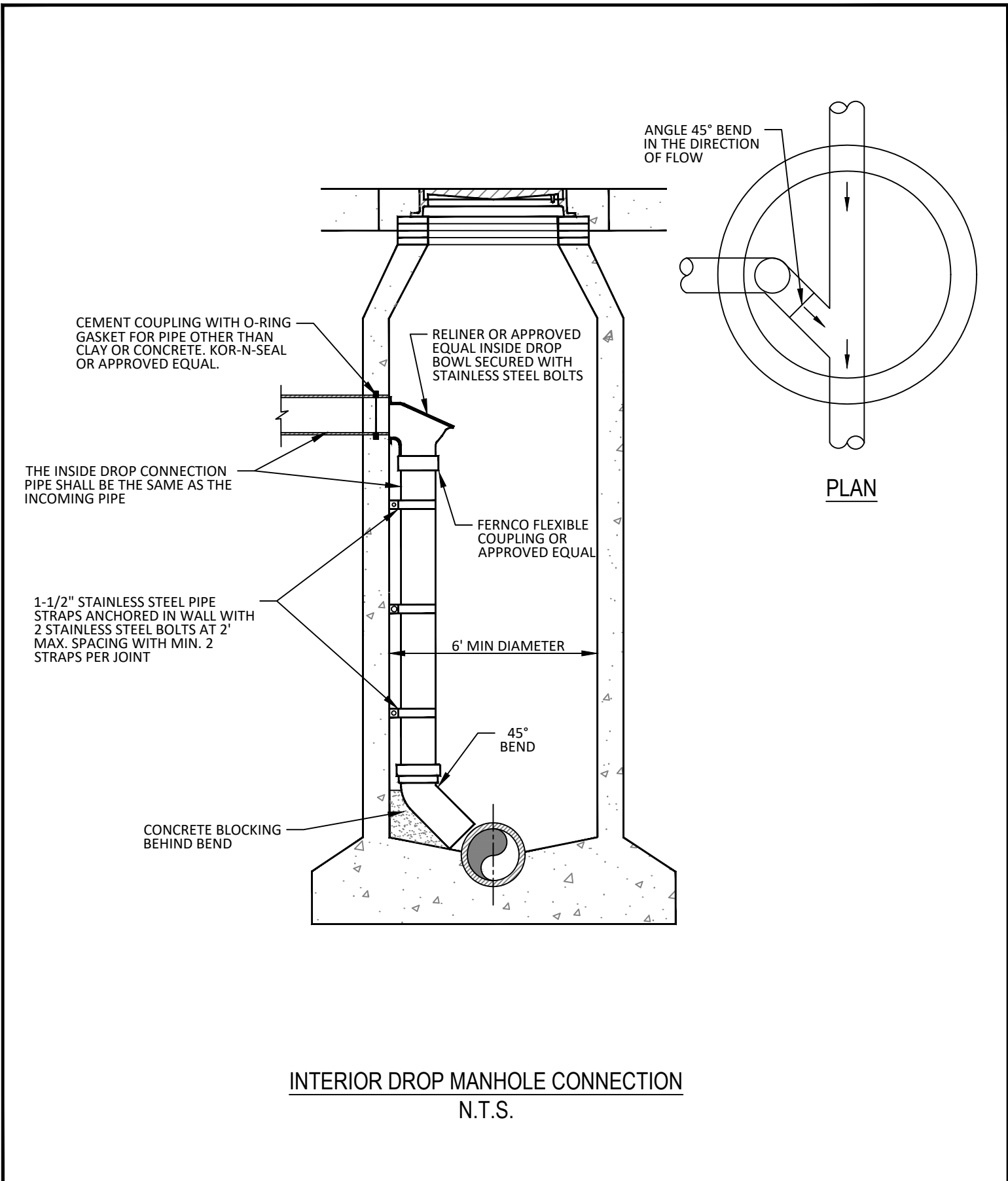
PRECAST CONCRETE PIPE MANHOLE

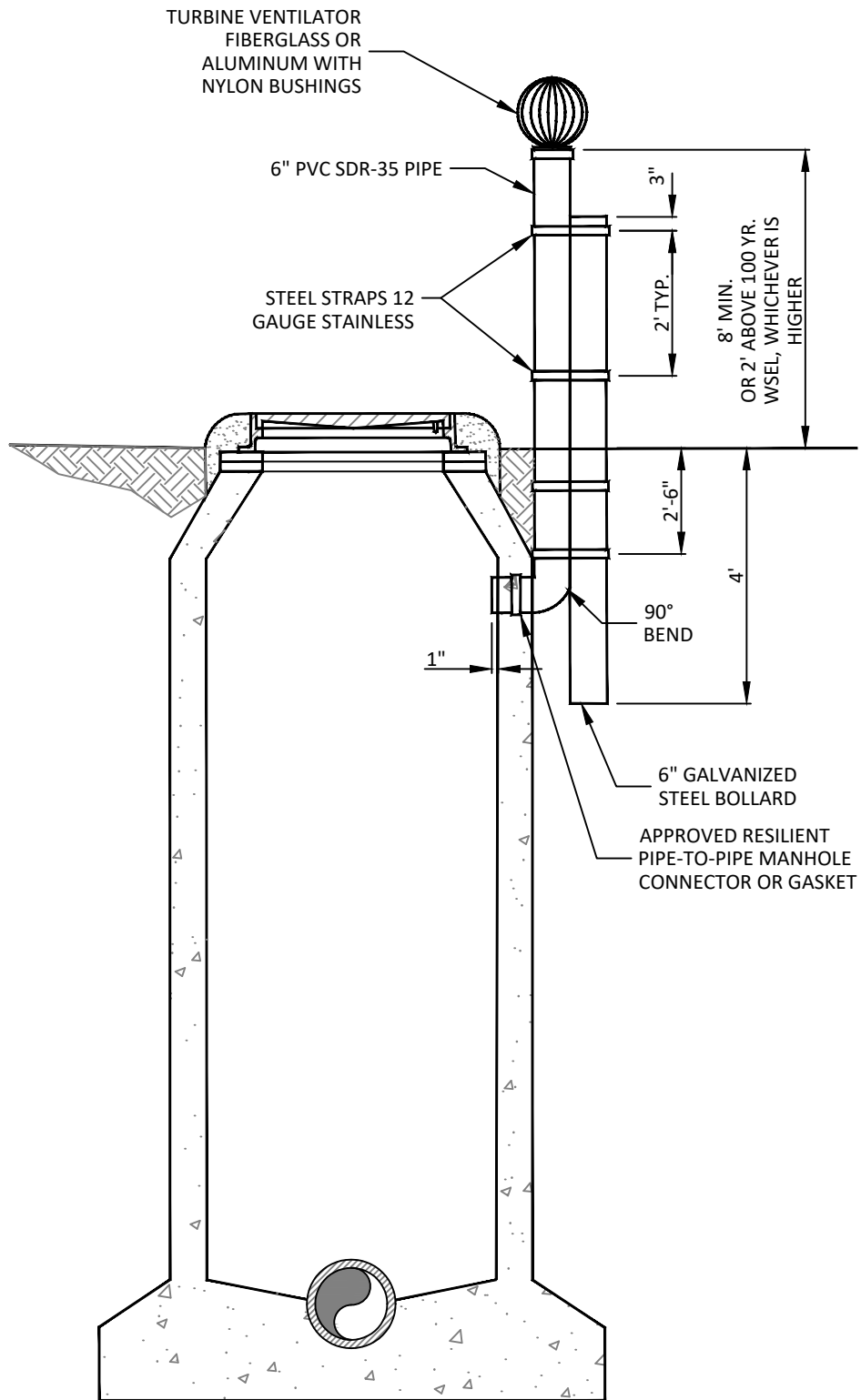
STANDARD CONSTRUCTION DETAILS WASTEWATER

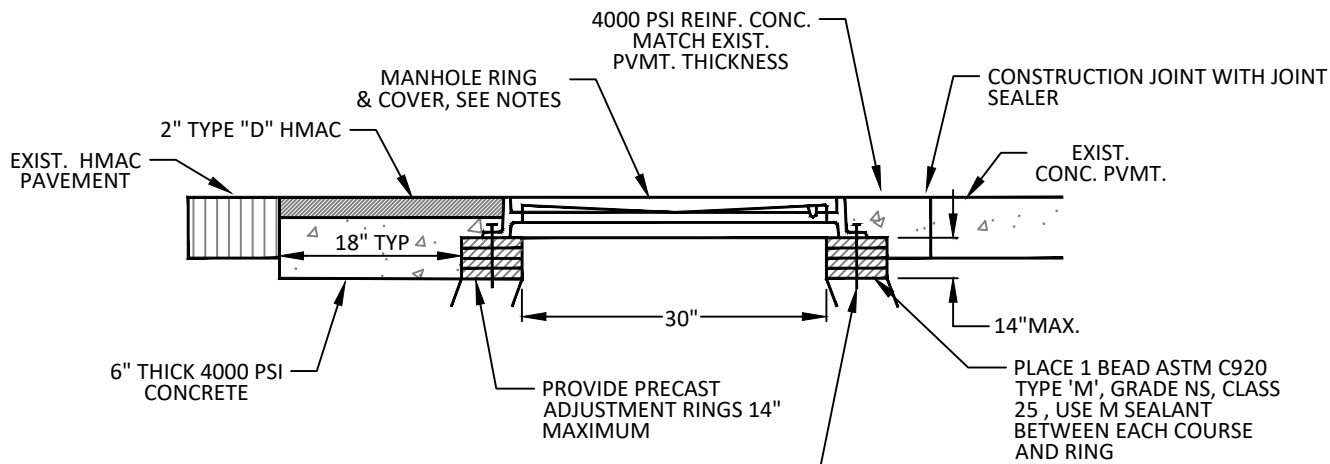
DATE: JANUARY 2022

REV DATE: -

SHEET: SD-WW04



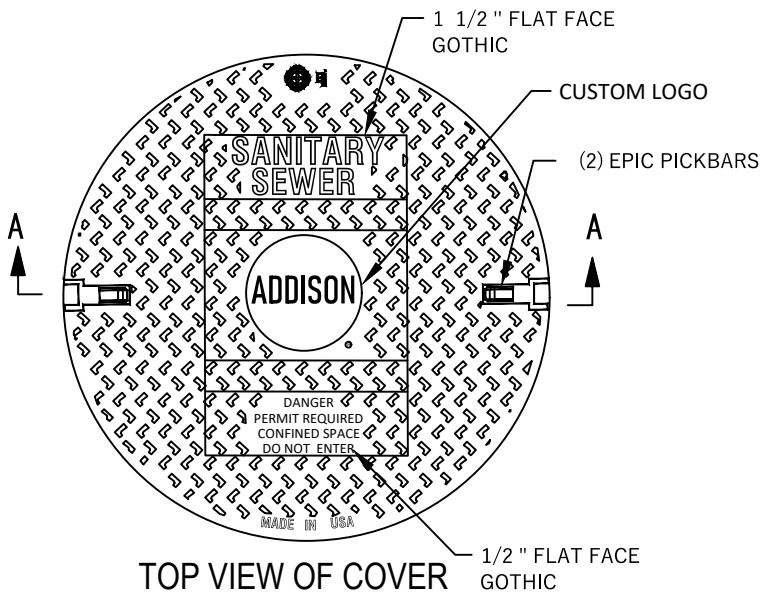




NOTES

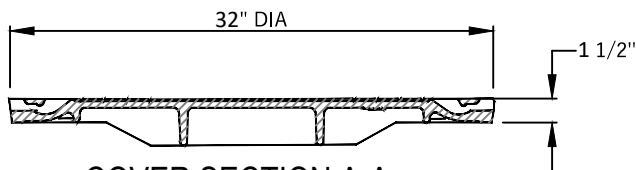
1. THERE SHALL BE A SMOOTH TRANSITION BETWEEN THE FRAME GRADE RING, OR THE GRADE RING AND THE CONE.
2. CONCRETE EXTENSION RINGS MAY BE PRECAST OR CAST-IN-PLACE. BRICK EXTENSION RINGS WILL NOT BE ALLOWED.
3. STANDARD SHALL BE 2", 3", 4", 6" AND 12". EXTENSIONS SHALL BE SIZED TO MINIMIZE THE NUMBER REQUIRED TO RAISE THE MANHOLE. NO MORE THAN A TOTAL OF 14" OF EXTENSION WILL BE ALLOWED ON ANY MANHOLE.

RING TO BE ATTACHED TO CONE WITH THREE 3/4" DIA. STAINLESS STEEL ALL THREAD BOLTS. BOLTS TO BE SECURED IN PLACE WITH EPOXY CONCRETE.



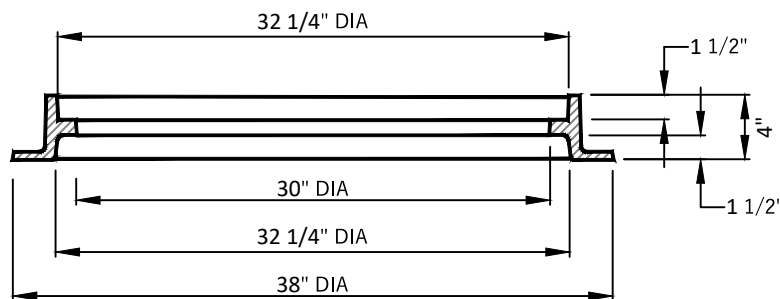
TOP VIEW OF COVER

N.T.S.



COVER SECTION A-A

N.T.S.



FRAME SECTION A-A

N.T.S.



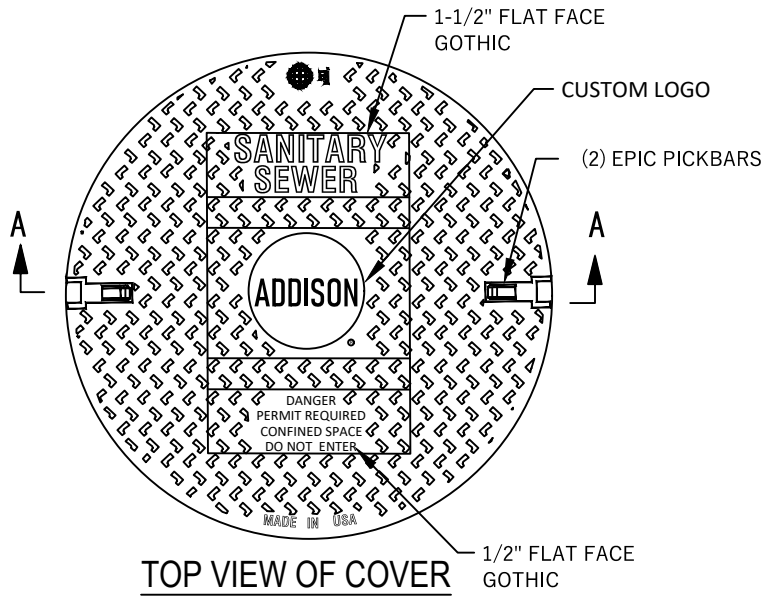
**CAST IRON
MANHOLE FRAME & COVER**

STANDARD CONSTRUCTION DETAILS
WASTEWATER

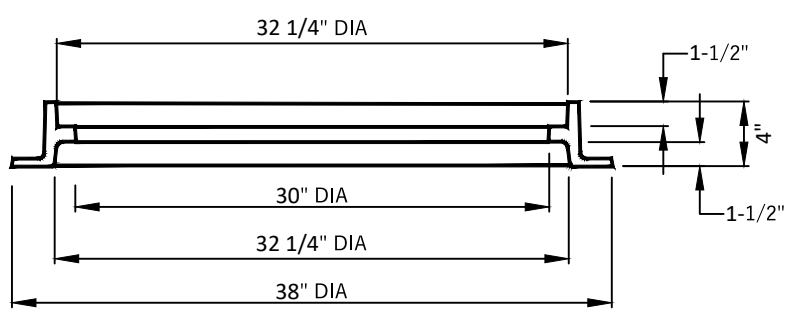
DATE:
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REV DATE:
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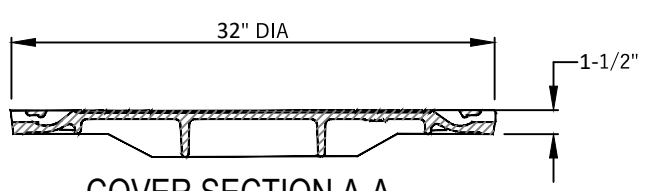
SHEET:
SD-WW07



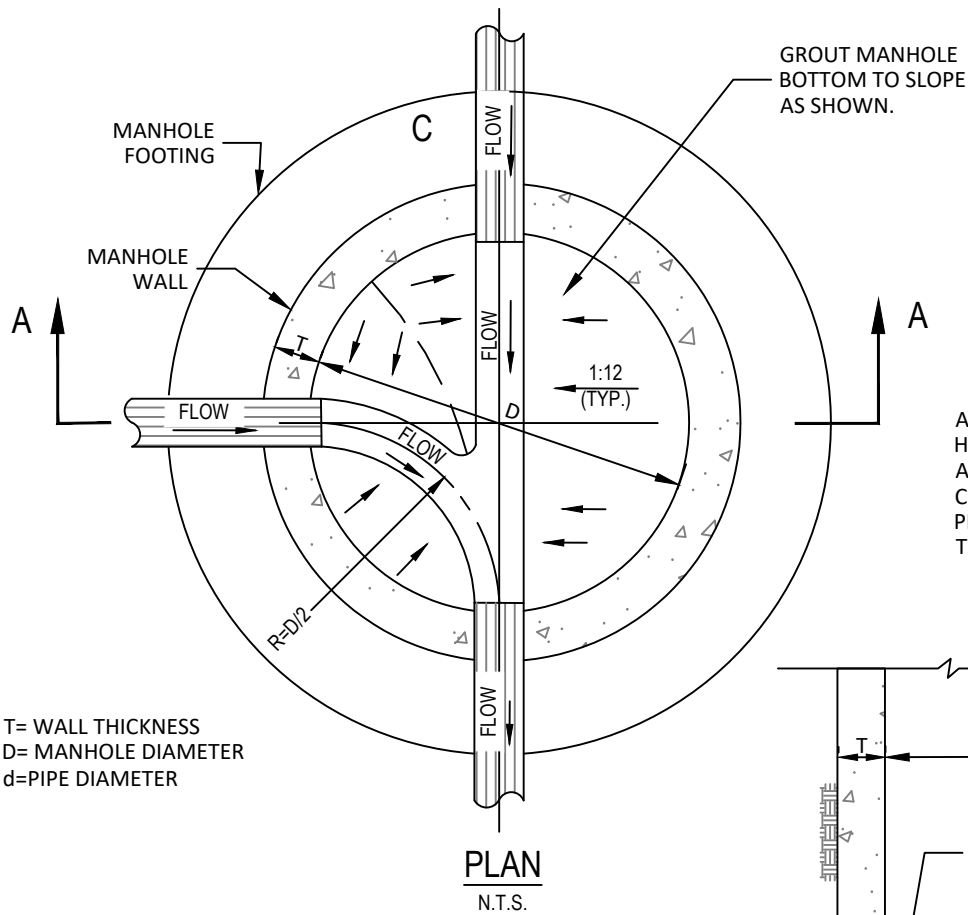
TOP VIEW OF COVER
N.T.S.



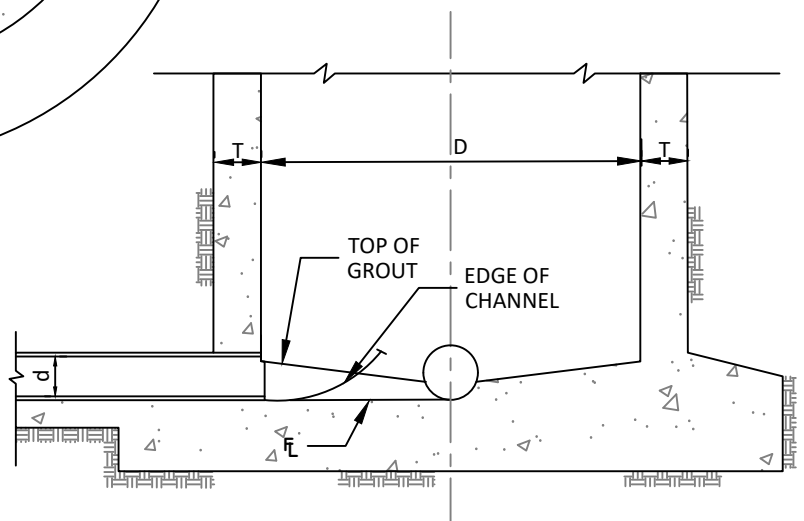
FRAME SECTION A-A
N.T.S.



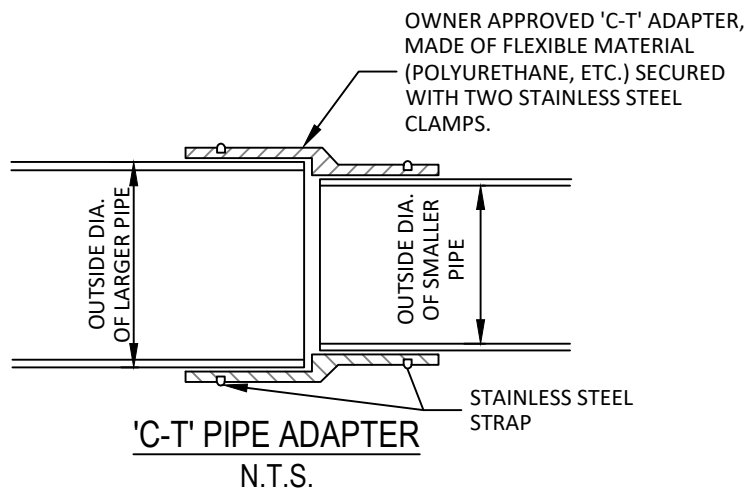
COVER SECTION A-A
N.T.S.

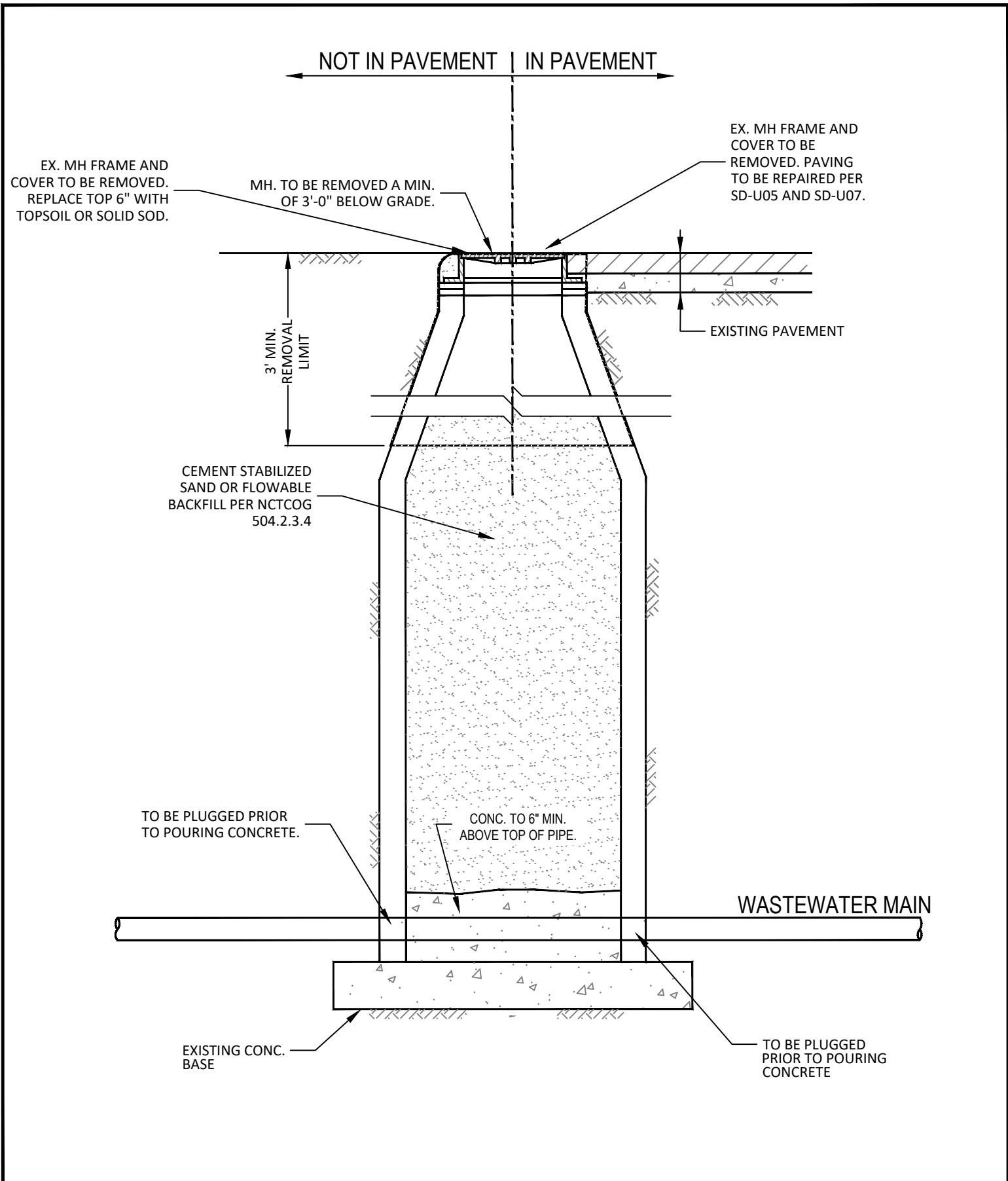


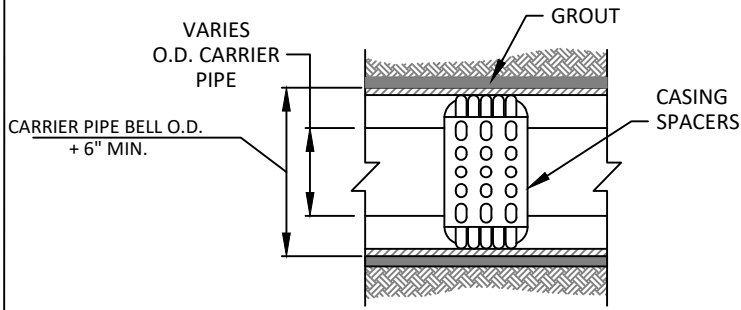
ALL MANHOLE INVERTS SHALL BE HALF DEPTH OF WASTEWATER PIPES. ALL INVERTS SHALL BE FORMED TO CENTER OF MANHOLE AND SHALL PROVIDE SMOOTH FLOW TRANSITIONS.



WASTEWATER MANHOLE LINE INTERSECTION
SECTION A-A
N.T.S.



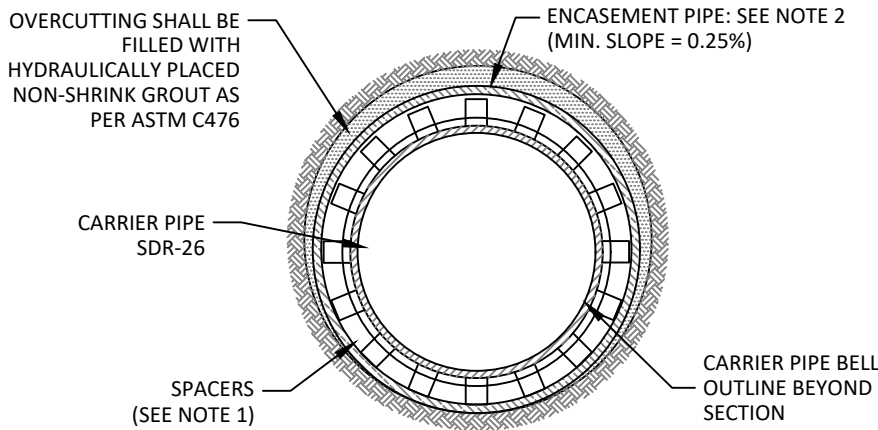




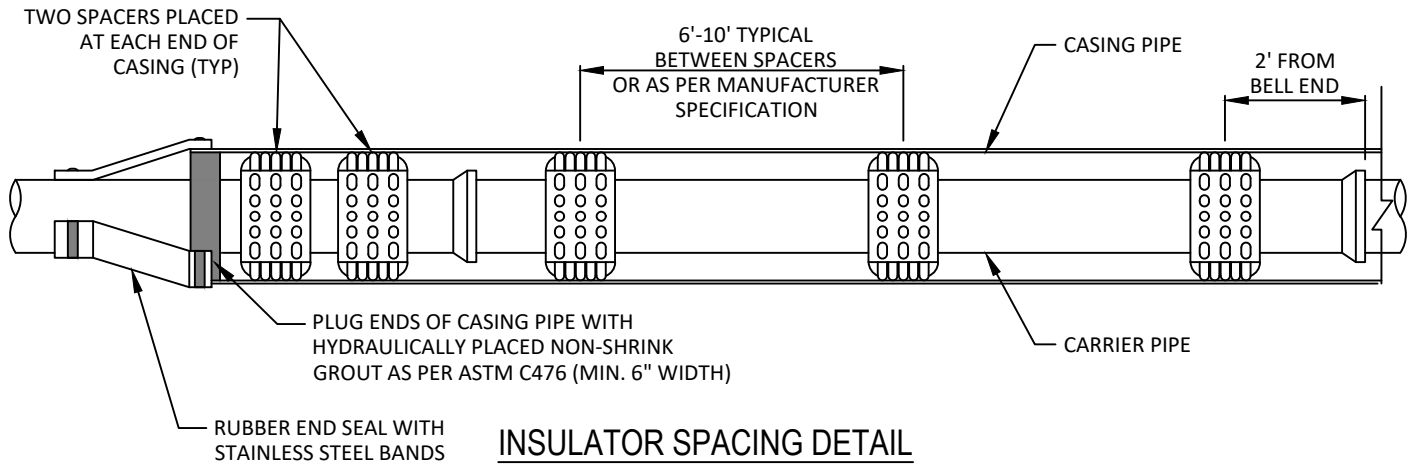
TYPICAL CASING SECTION
N.T.S.

CARRIER PIPE SIZE (IN)	STEEL ENCASEMENT O.D. (IN)	STEEL ENCASEMENT WALL THICKNESS (IN)
6	14	1/4
8	18	1/4
12	21	1/4
18	27	3/8
21	30	3/8
24	36	3/8
27	39	1/2

FOR ALL CARRIER PIPES OVER 27": THE STEEL ENCASEMENT SHALL BE 12" LARGER THAN THE CARRIER PIPE AND THE STEEL ENCASEMENT WALL THICKNESS SHALL BE 1/2".



WASTEWATER ENCASEMENT
N.T.S.



INSULATOR SPACING DETAIL
N.T.S.

NOTES:

- HIGH DENSITY POLYETHYLENE SPACERS, RACI OR EQUAL, SHALL BE USED. WHERE NO CASING PIPE IS REQUIRED OVERCUTTING AROUND UTILITY SHALL BE FILLED WITH HYDRAULICALLY PLACED NON-SHRINK GROUT AS PER ASTM C476.
- ENCASEMENT PIPE SHALL BE HIGH DENSITY STEEL PIPE. ALL JOINTS TO BE WELDED 100%.