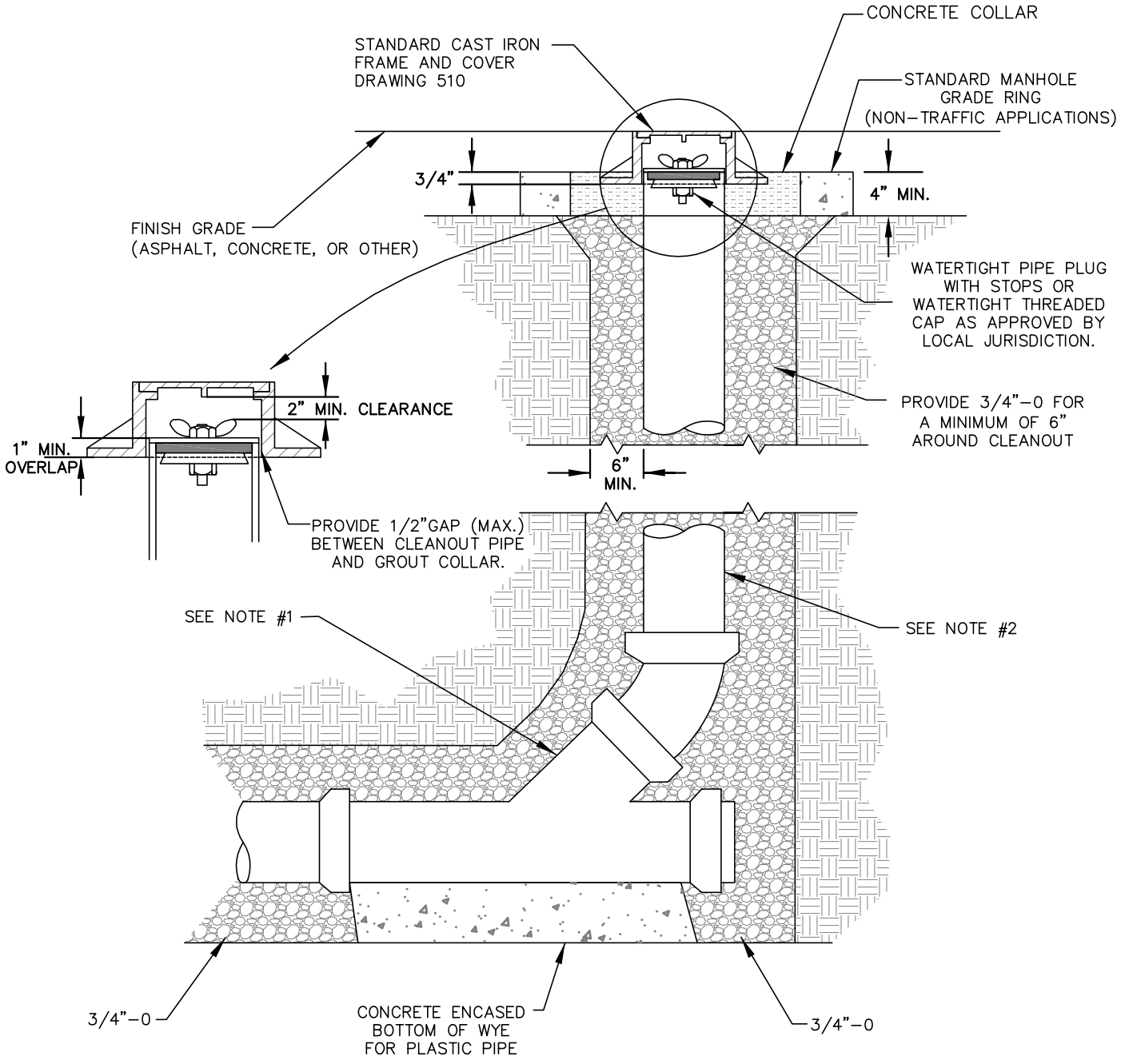


NOTES:

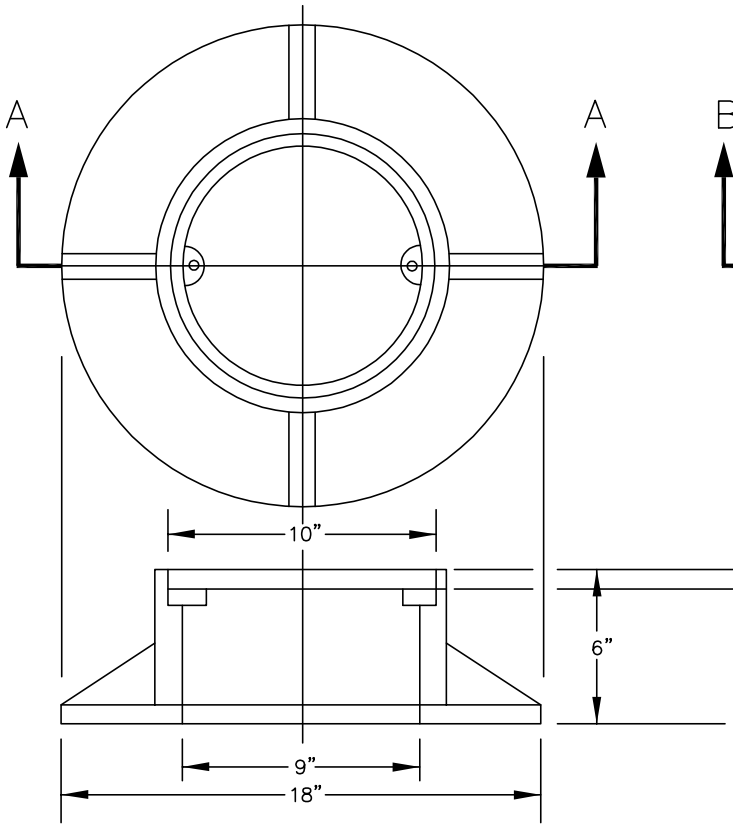
1. CONCRETE ENCASE ENTIRE WYE SECTION AND 45 DEGREE BEND IF CONCRETE OR DUCTILE IRON PIPE.
2. STANDPIPE TO BE SAME SIZE AS MAINLINE UP TO AND INCLUDING 8" PIPE. MAINLINE GREATER THAN 8" SHALL HAVE A 8" STANDPIPE.

STANDARD CLEANOUT

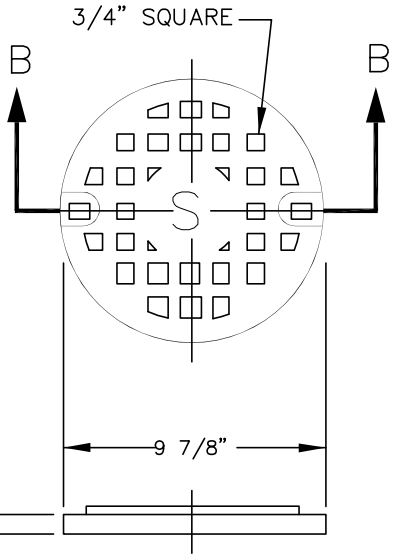
DRAWING NO. 500

REVISED 10-31-19

Clean Water Services



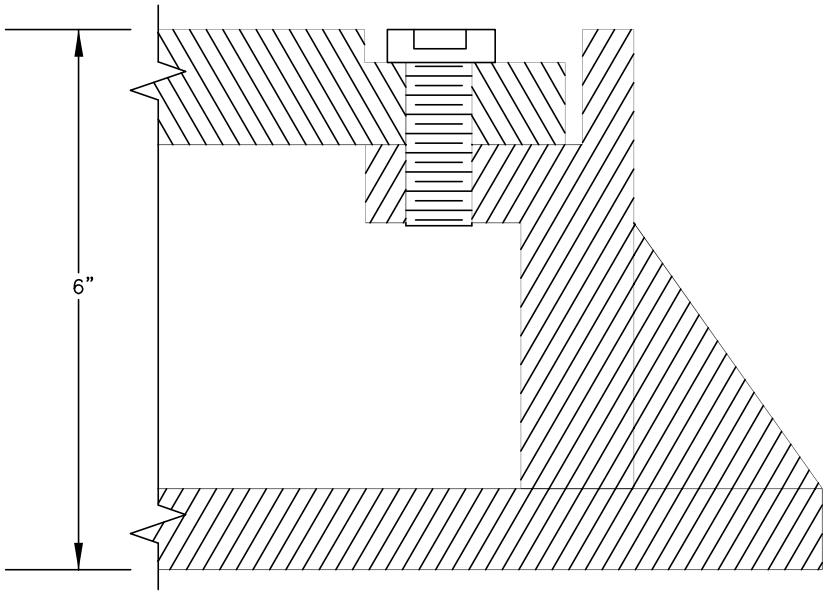
SECTION A–A



SECTION B–B

NOTES

1. ¼" ALLEN HEAD BOLTS 1" LONG RECESSED.
2. ALL PERMANENT CLEANOUTS TO HAVE BOLT DOWN COVERS.
3. MATERIAL SHALL BE GRAY CAST–IRON, ASTM A–48, CLASS 30.



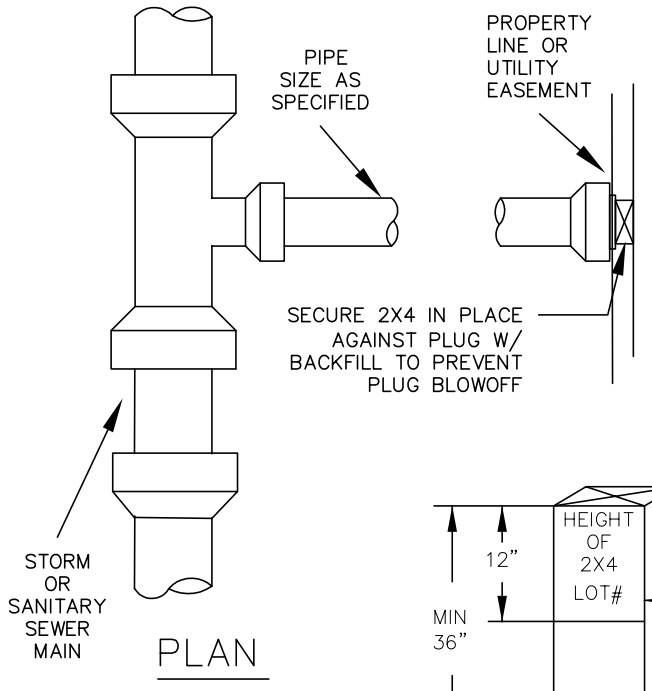
DETAIL

CLEANOUT FRAME AND COVER

DRAWING NO. 510

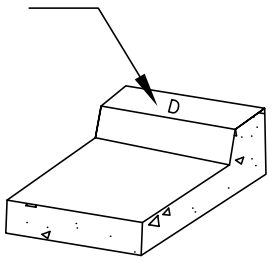
REVISED 10–31–19

Clean Water Services



PLAN

1. ALL STORM AND SANITARY SERVICE LATERALS SHALL BE MARKED ON THE TOP FACE OF CURB AS FOLLOWS:
   - STORM DRAIN LATERALS "D"
   - SANITARY SEWER LATERALS "S"
2. LETTERS SHALL HAVE ½" MAX. WIDTH AND A MAX HEIGHT OF 4"
3. LETTER SHALL BE CENTERED ON TOP FACE OF CURB.



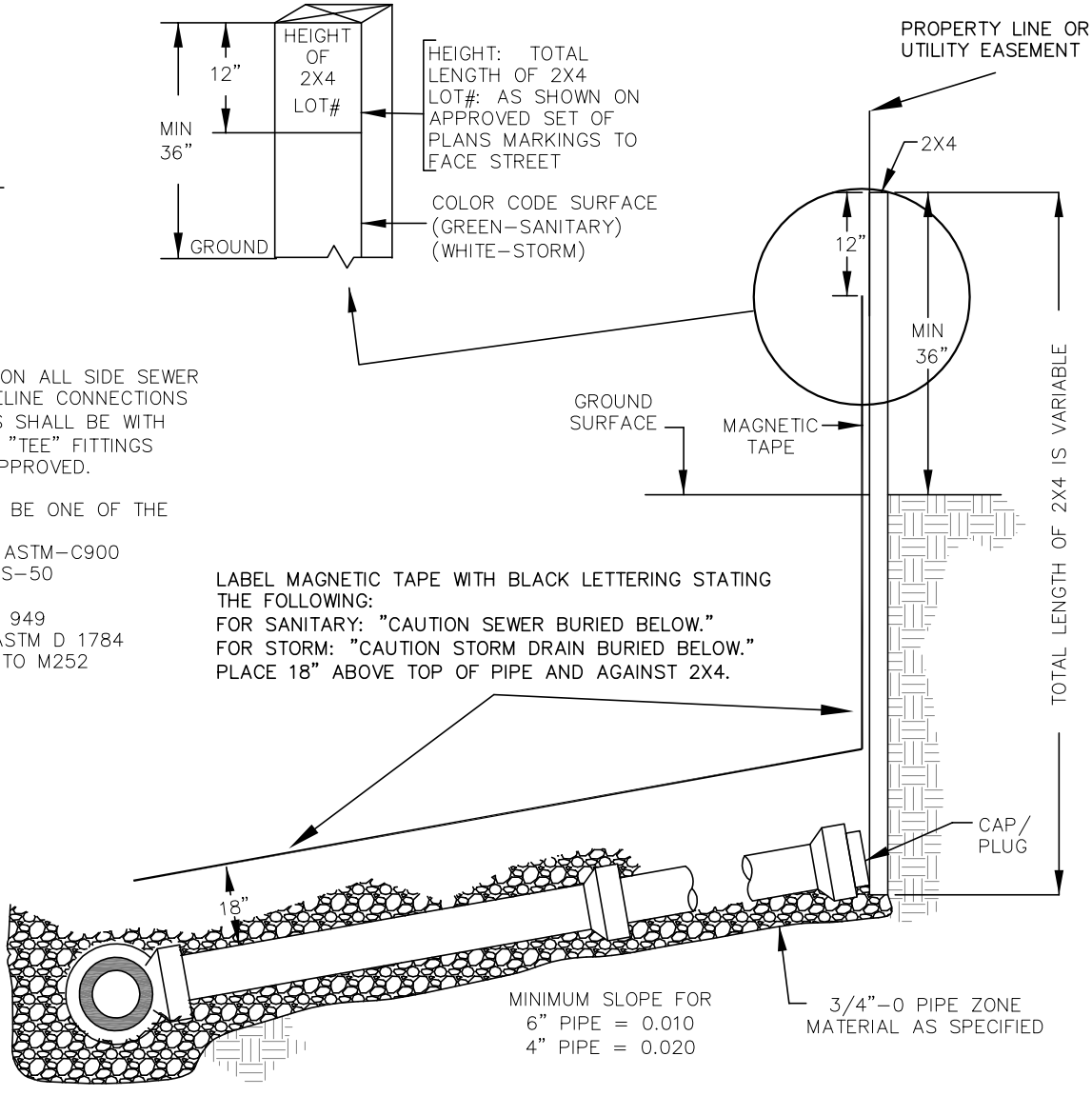
CURB STAMP DETAIL

HEIGHT: TOTAL LENGTH OF 2X4
LOT#: AS SHOWN ON APPROVED SET OF PLANS MARKINGS TO FACE STREET

COLOR CODE SURFACE
(GREEN–SANITARY)
(WHITE–STORM)

NOTES:

1. FOR NEW CONSTRUCTION ALL SIDE SEWER AND SIDE STORM PIPELINE CONNECTIONS TO 8" AND 10" MAINS SHALL BE WITH FACTORY FABRICATED "TEE" FITTINGS UNLESS OTHERWISE APPROVED.
2. PIPE MATERIAL SHALL BE ONE OF THE FOLLOWING
   A. PVC ASTM–D3034, ASTM–C900
   B. DUCTILE IRON CLASS–50
   (STORM ONLY)
   C. A–2000 PVC ASTM 949
   D. PVC RIB MEETING ASTM D 1784
   E. CPP MEETING AASHTO M252



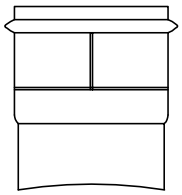
ELEVATION

SIDE SEWER / SIDE STORM PIPELINE

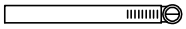
DRAWING NO. 520

REVISED 10–31–19

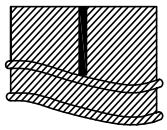
Clean Water Services



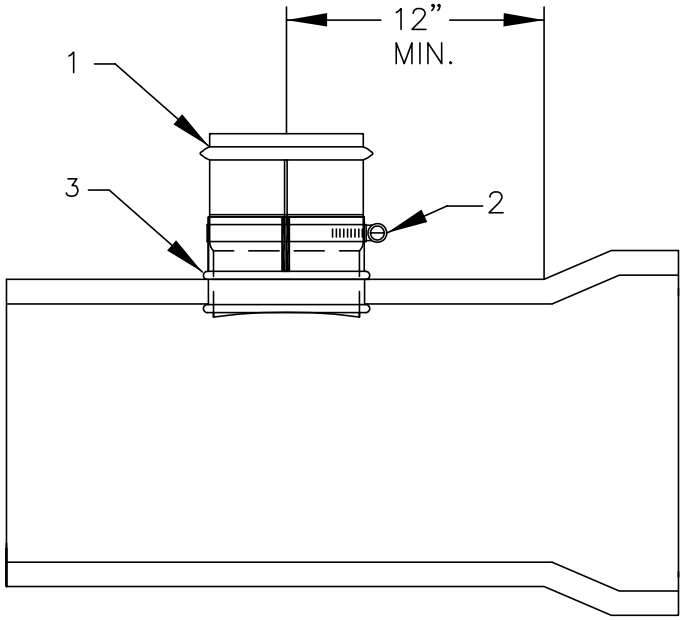
1. PVC HUB SHALL CONFORM TO ASTM 3034, SDR 35 DRIVE INTO CENTER OF RUBBER SLEEVE AFTER SLEEVE IS PLACED IN HOLE.



2. STAINLESS STEEL BAND SECURES UPPER HALF OF RUBBER SLEEVE TO THE PVC HUB. STAINLESS STEEL BAND SHALL BE 300 SERIES, 9/16" BAND WIDTH, CADMIUM PLATED CARBON STEEL, AND ATTACHED WITH HEX HEAD SLOTTED SCREW.



3. COMPLETE RUBBER SLEEVE INCLUDES A MOLDED SEGMENT THAT HOLDS IT IN PLACE.



NOTES:

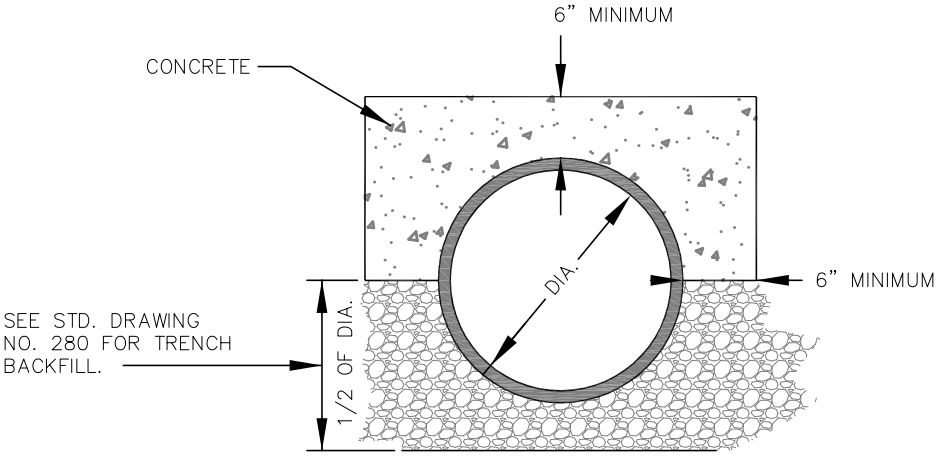
1. ALL INSERTA TEE HOLES SHALL BE MACHINE DRILLED AND CORED.
2. INSERTA TEES ARE NOT ALLOWED IN NEWLY CONSTRUCTED MAINLINES WITH AN INSIDE DIAMETER (I.D.) OF 10 INCHES OR SMALLER.
3. MAINLINE SHALL BE TWO SIZES (NOMINAL I.D.) LARGER THAN THE INSERTA TEE.
4. INSTALLATION SHALL BE PER MANUFACTURER'S INSTRUCTIONS.

INSERTA TEE

DRAWING NO. 530

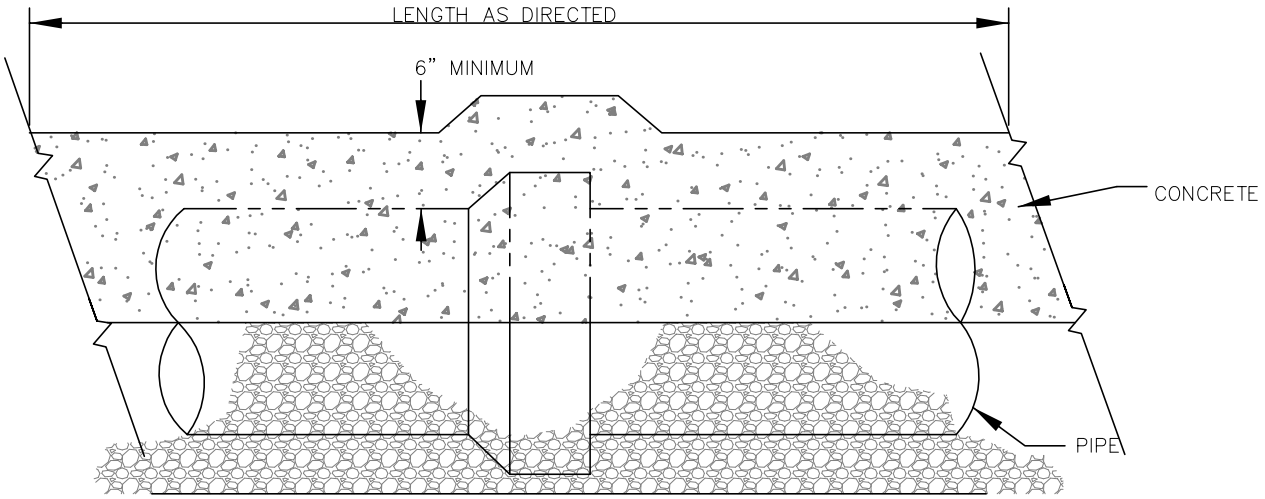
REVISED 10-31-19

Clean Water Services



END VIEW

NOTE:
CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 PSI AND 2" TO 4" SLUMP.



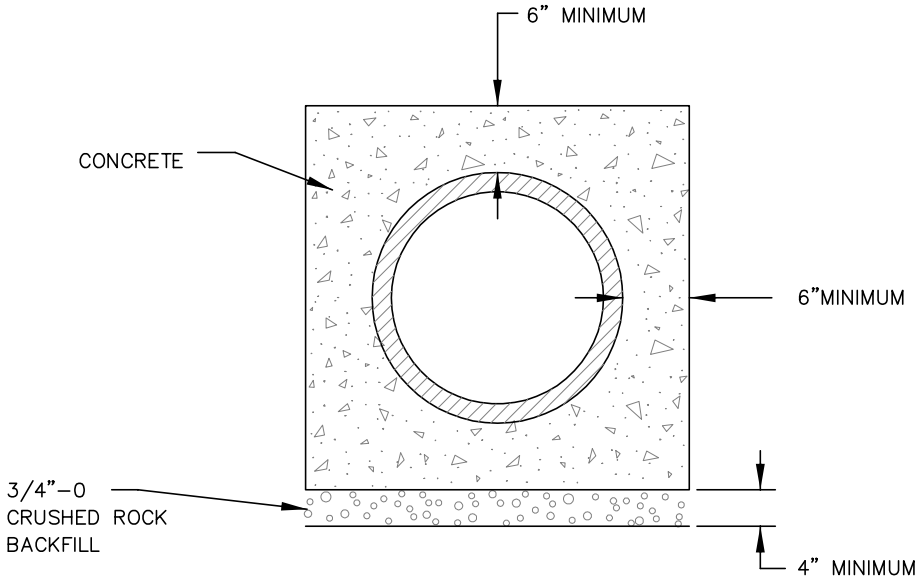
SIDE VIEW

CONCRETE CAP

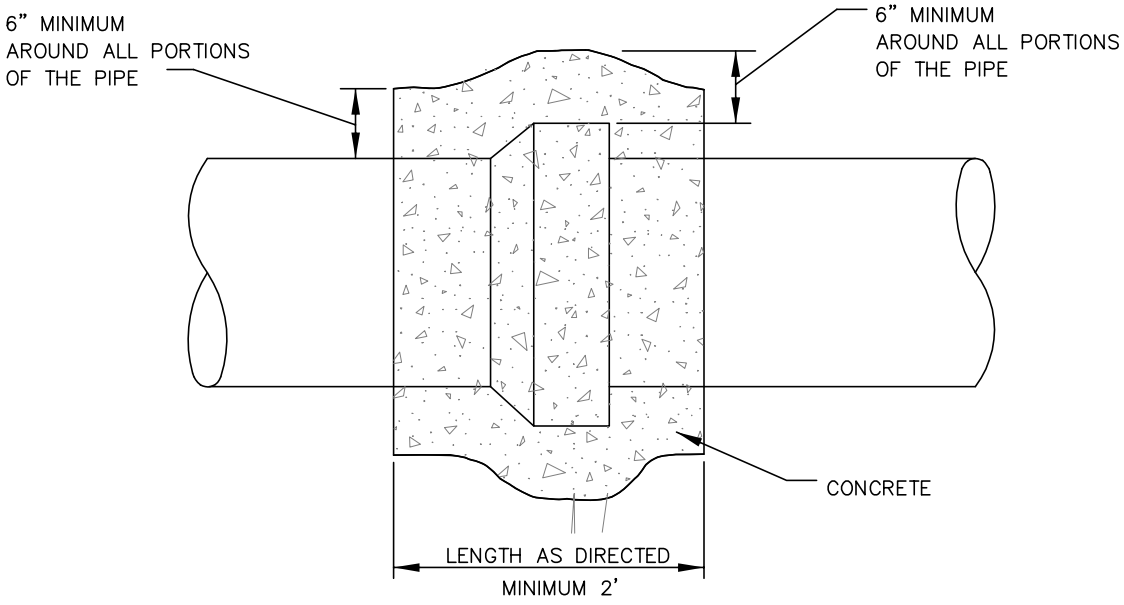
DRAWING NO. 550

REVISED 10-31-19

Clean Water Services



END VIEW



SIDE VIEW

NOTES:

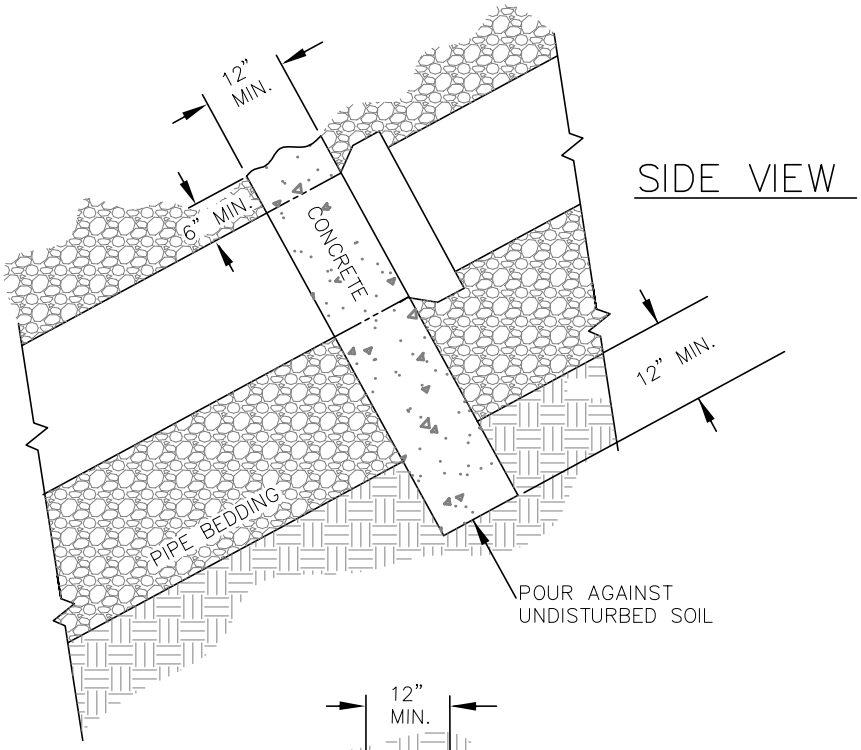
1. CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 PSI AND, 2" TO 4" SLUMP.
2. PRIOR TO INSTALLING THE CONCRETE, ENSURE THE JOINT IS SEALED IN A MATTER AS NOT TO ALLOW CONCRETE TO ENTER INTO THE INTERIOR OF PIPE.

CONCRETE ENCASEMENT/ CLOSURE COLLAR

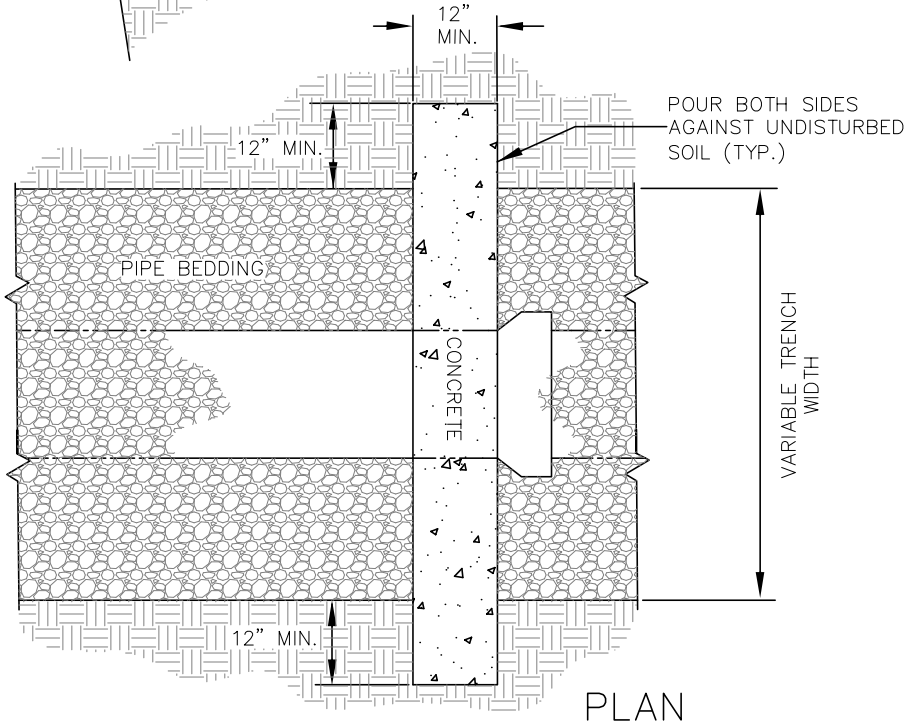
DRAWING NO. 560

REVISED 10–31–19

Clean Water Services



SIDE VIEW



PLAN

SLOPE	MIN. ANCHOR SPACING CENTER TO CENTER
20% – 34%	35'
35% – 50%	25'
51% +	15' OR CONC. ENCASEMENT

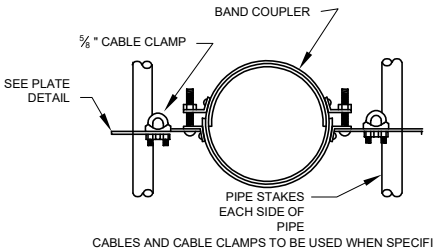
NOTE:
1. CONCRETE ANCHORS TO BE INSTALLED IMMEDIATELY DOWNHILL OF PIPEBELL.
2. CONCRETE SHALL HAVE A 28 DAY STRENGTHOF 3000 PSI, AND 2" TO 4" SLUMP.
3. ODOT "METAL PIPE SLOPE ANCHORS" ARE AN ACCEPTABLE ALTERNATIVE, SEE DETAIL #580.

CONCRETE ANCHOR WALL

DRAWING NO. 570

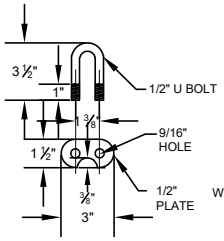
REVISED 10-31-19

Clean Water Services

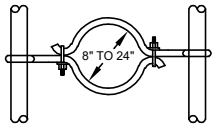


CABLES AND CABLE CLAMPS TO BE USED WHEN SPECIFIED.

ANCHOR ASSENBLY ALTERNATE "A"

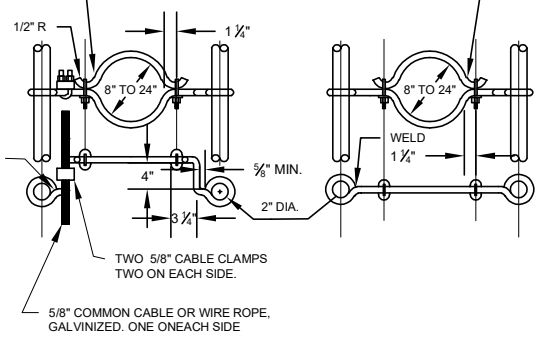


U BOLT



DETAIL "A"

½"ROUND IRON FOR 8" PIPE
¾" ROUND IRON FOR PIPE OVER 8"
(SEE OPTIONAL FABRICATION DETAIL A)



WITH CABLE **WITHOUT CABLE**

ANCHOR ASSENBLY ALTERNATE "B"

CABLES AND CABLE CLAMPS TO BE USED WHEN SPECIFIED.

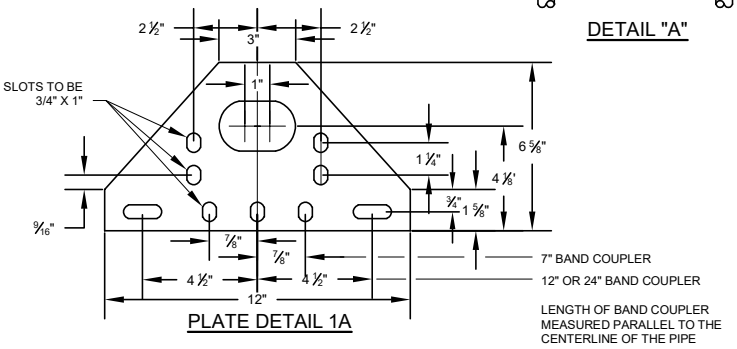
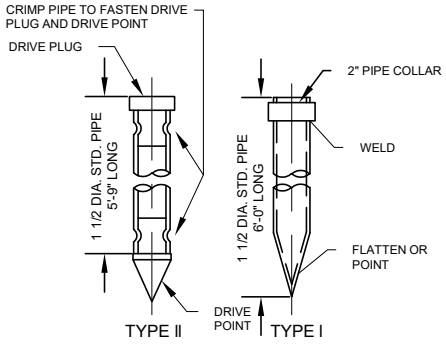


PLATE DETAIL 1A



PIPE STAKES

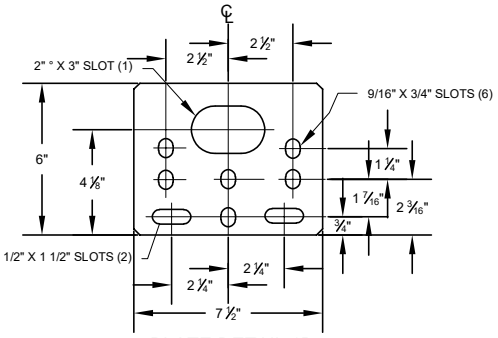
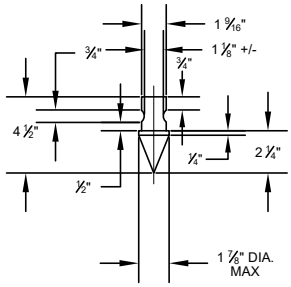
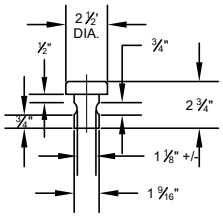


PLATE DETAIL 1B



DRIVE POINT
(CAST IRON)



DRIVE PLUG
(CAST IRON)

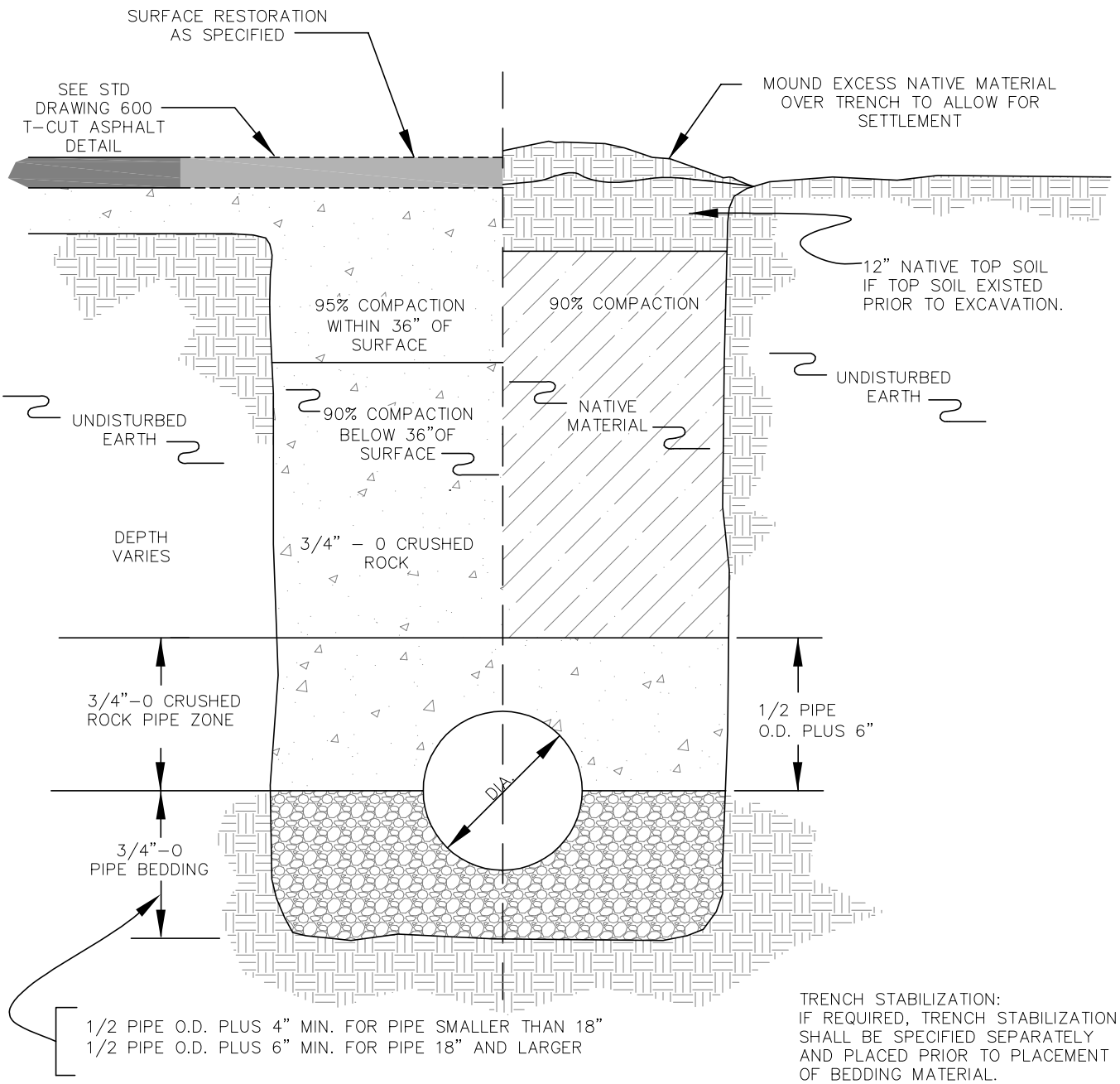
1. ALL PIPE STAKES AND HARDWARE TO BE GALVANIZED AFTER FABRICATION.
2. EITHER ALTERNATE "A" OR ALTERNATE "B" ANCHOR ASSEMBLY MAY BE USED AT CONTRACTOR'S OPTION FOR ANNULARLY CORRUGATED PIPE. ALTERNATE "A" TO BE USED WITH HELICALLY CORRUGATED PIPE.
3. EITHER TYPE 1 OR TYPE 2 PIPE STAKES MAY BE USED WITH EITHER ANCHOR ASSEMBLY ALTERNATE AT THE CONTRACTOR'S OPTION.
4. PLACE SLOPE ANCHOR ASSEMBLIES ON 6 M MAX. CENTERS. ON SLOPES 20 % OR GREATER.
5. PLATE MATERIAL TO BE ASTM A36M 6.3 MM GALVANIZE AFTER FABRICATION.

O.D.O.T. PIPE SLOPE ANCHOR

DRAWING NO. 580

REVISED 10-31-19

Clean Water Services



NOTE:

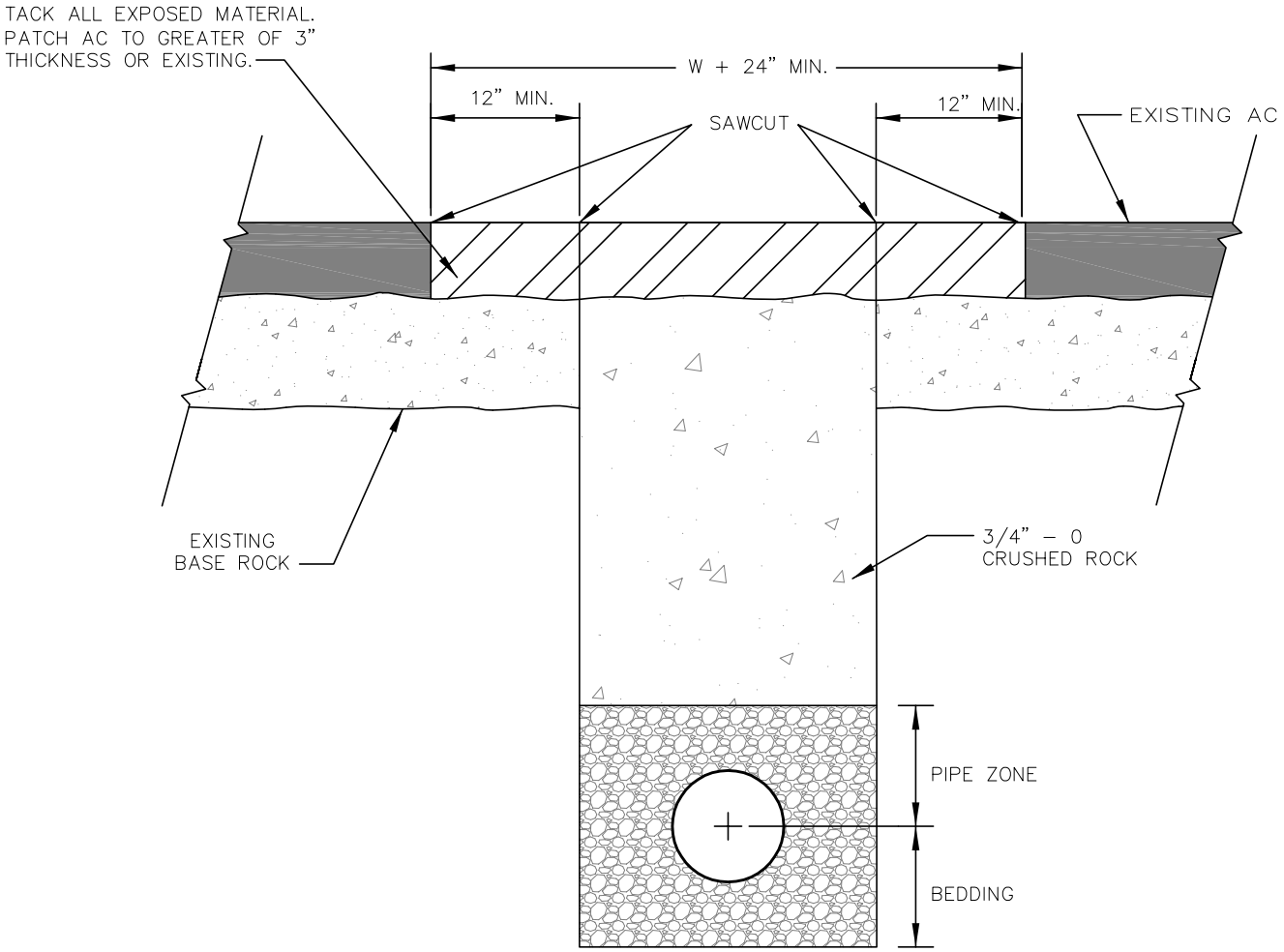
1. ALL COMPACTION REQUIREMENTS PER AASHTO T-99 AND ODOT/APWA SPEC 00405.
2. THE TRENCH WIDTH AT THE SURFACE OF THE GROUND SHALL BE KEPT TO A MINIMUM NECESSARY TO INSTALL THE PIPE IN A SAFE MANNER.
3. THE MINIMUM TRENCH WIDTH IN THE PIPE ZONE SHALL PROVIDE A CLEAR WORKING SPACE OF SIX INCHES OUTSIDE THE MAXIMUM OUTSIDE DIAMETER OF THE PIPE BEING INSTALLED.
4. IN ALL CASES, TRENCHES SHALL BE OF SUFFICIENT WIDTH TO ALLOW FOR SHORING, PROPER JOINING OF PIPE, AND BACKFILLING OF MATERIAL ALONG THE SIDES OF THE PIPE.

TRENCH BACKFILL DETAILS

DRAWING NO. 590

REVISED 10-31-19

Clean Water Services



NOTE:

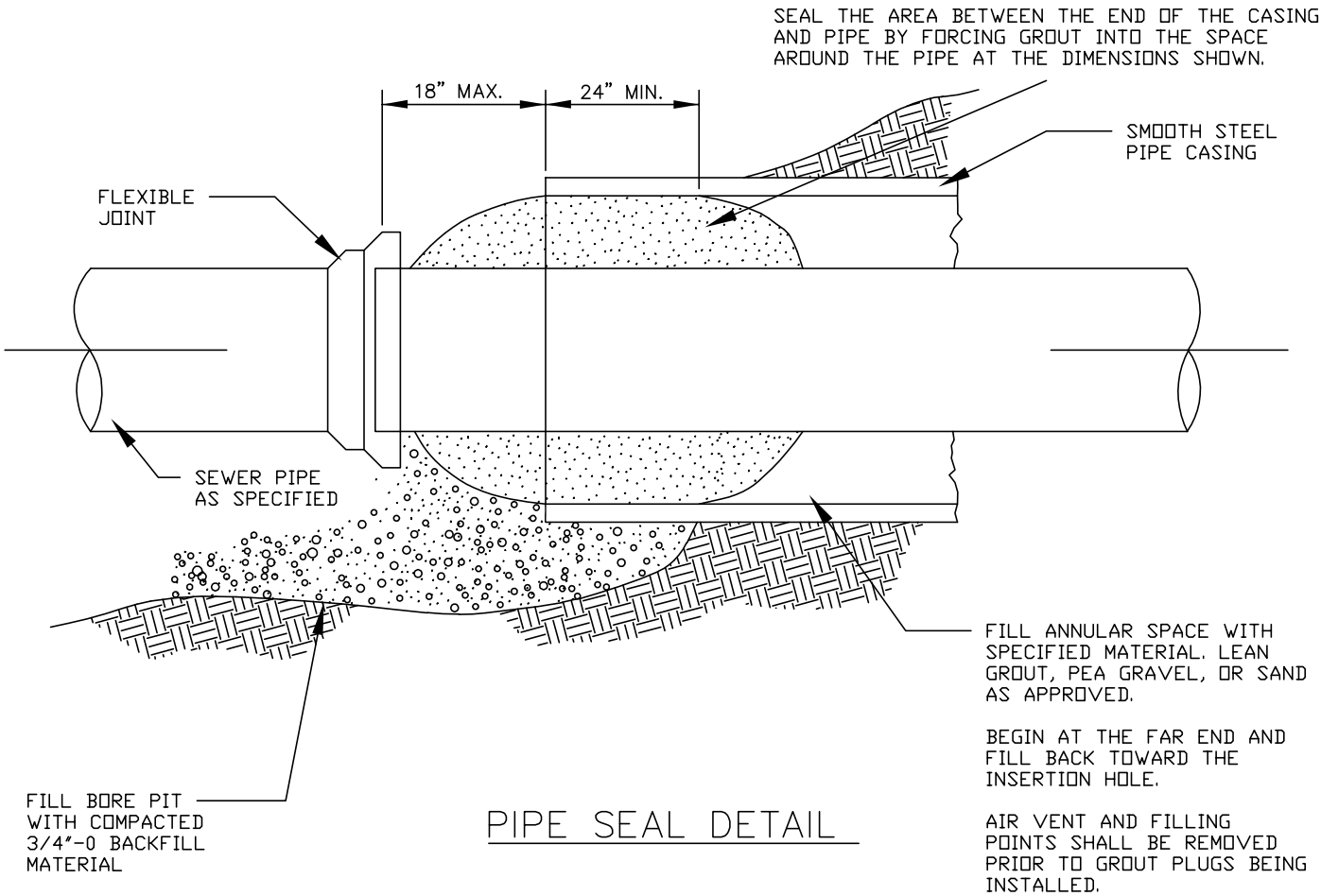
1. TEE CUT TO BE DONE AFTER EXCAVATION AND BACKFILL OF TRENCH.
2. SEE STD. DRAWING NO. 590 FOR BEDDING, PIPE ZONE, AND TRENCH BACKFILL.

T–CUT
ASPHALT DETAILS

DRAWING NO. 600

REVISED 10–31–19

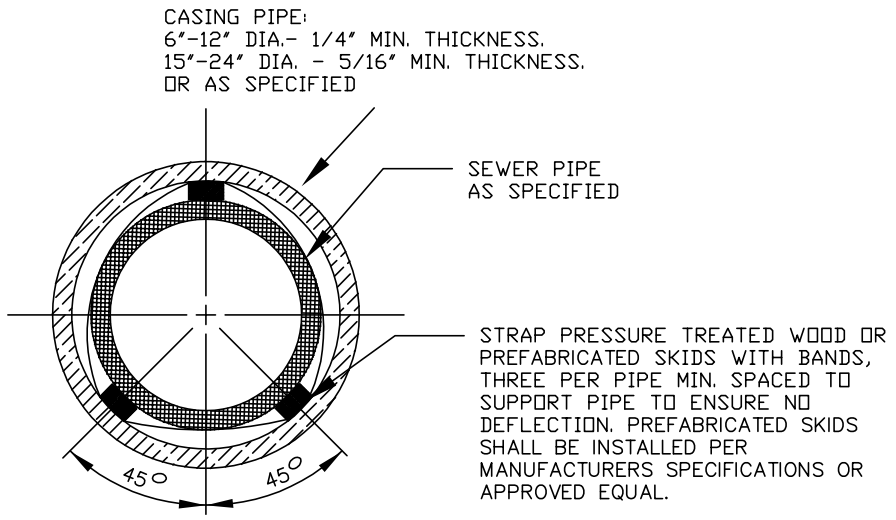
Clean Water Services



PIPE SEAL DETAIL

NOTES:

1. PROVIDE PIPE NIPPLE AT TOP OF CASING, AT EACH END OF CASING OR AS SPECIFIED, FOR FILLING AND VERIFYING FILLING OPERATION. (MIN DIAMETER SIZE 4")
2. GROUT SHALL BE PUMPED TO FILL VOIDS AROUND THE CASING DURING THE INSTALLATION. ENGINEER DESIGN REQUIRED.

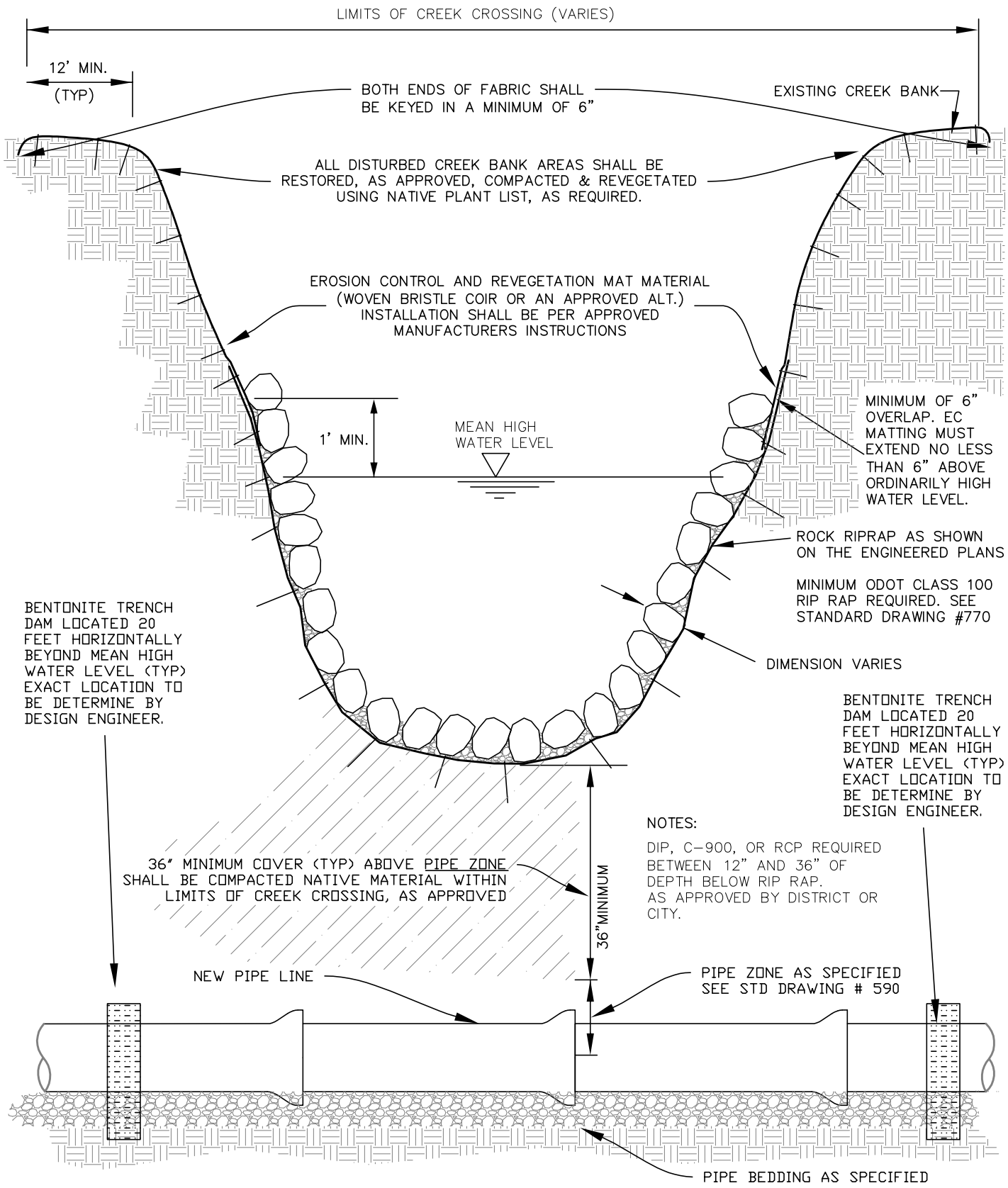


CASING SECTION

BORE DETAIL

DRAWING NO. 610

REVISED 10-31-19



CREEK CROSSING RESTORATION

DRAWING NO. 620

REVISED 10-31-19

Clean Water Services