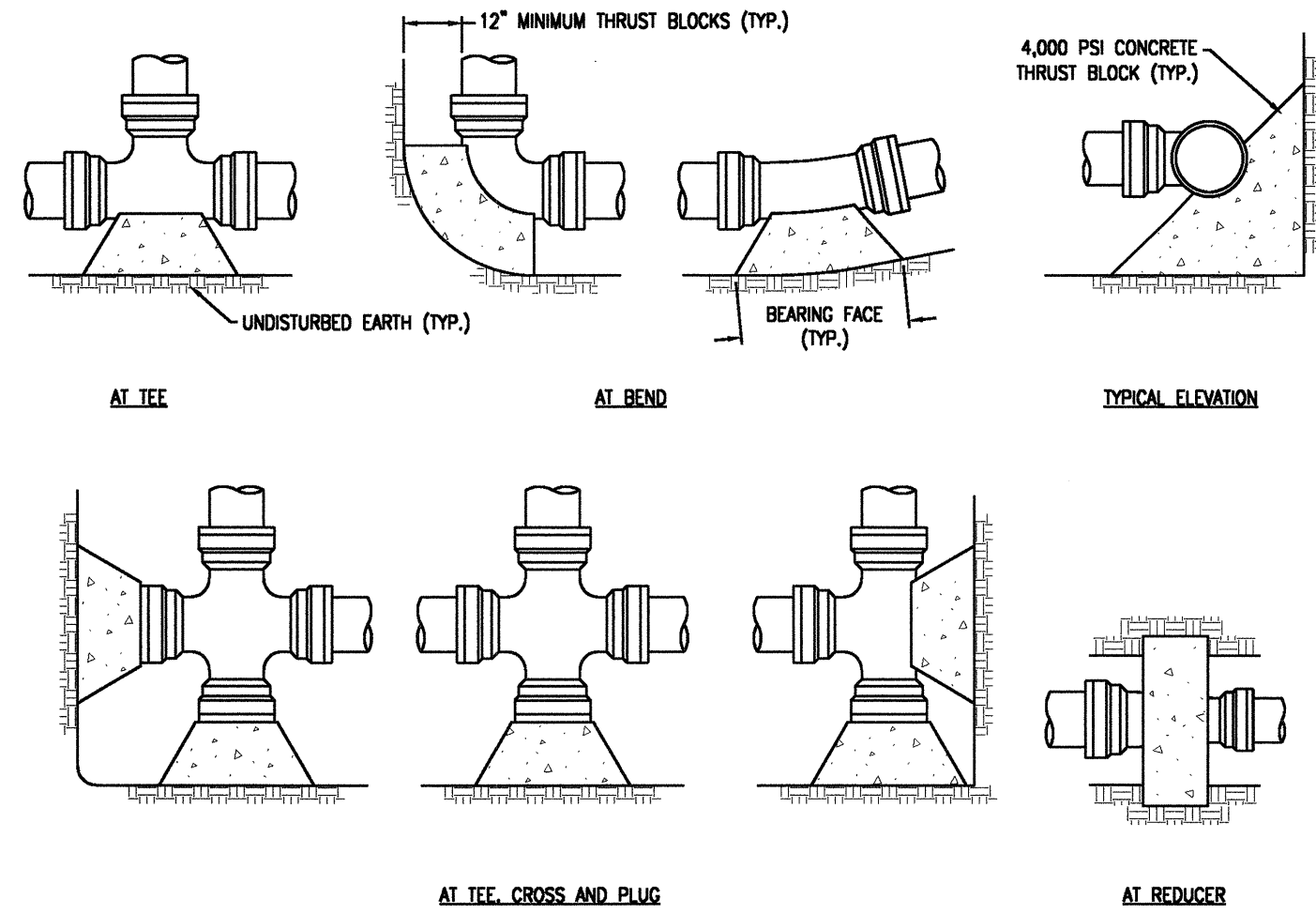


S:\PROJECTS\TLENJ-S-17-264 TLE SOUTH ORANGE NJ\CAD\17-264 C-003 DETAIL SHEET.DWG PLOTTED: 05/17/2019

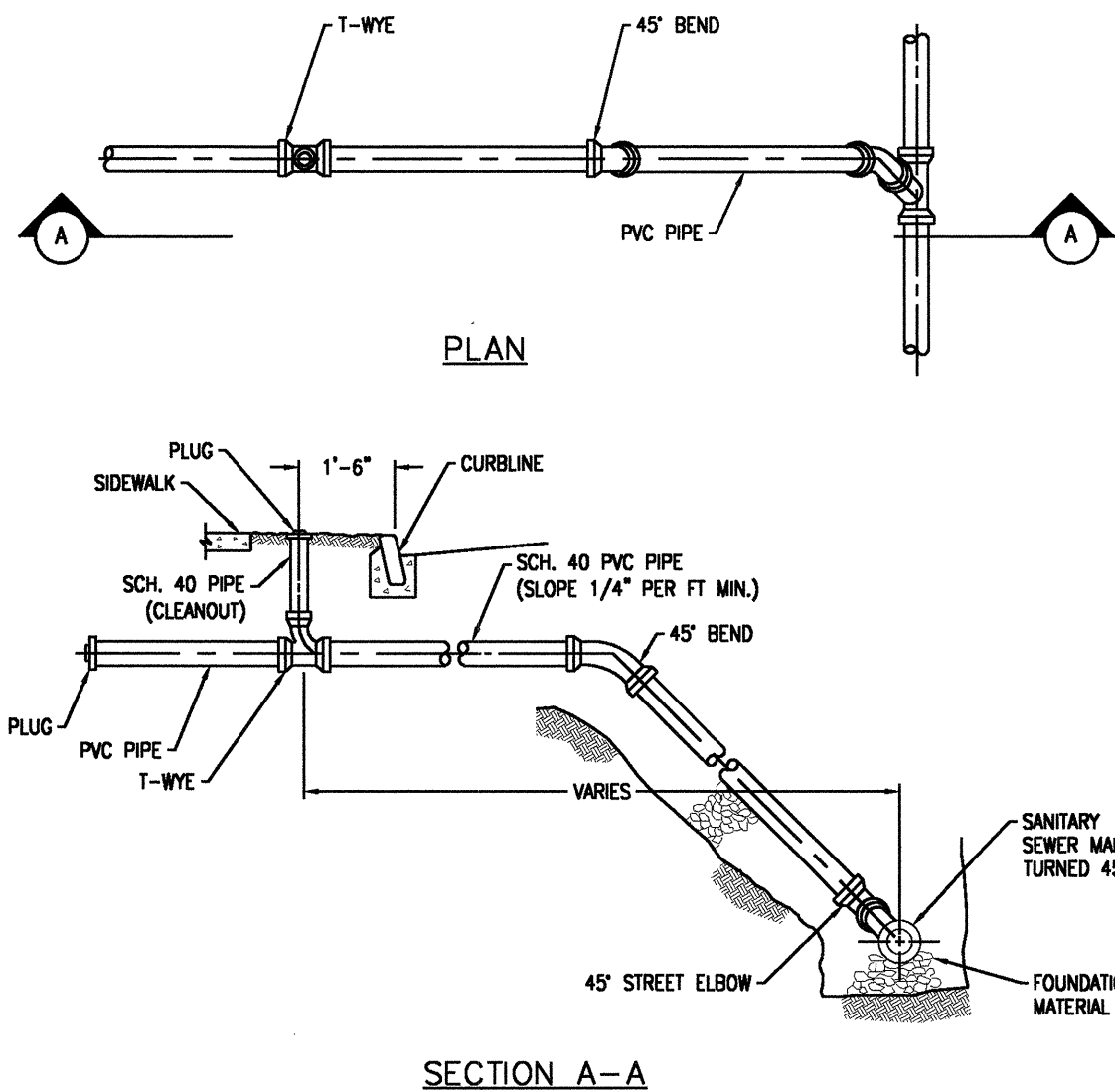
AREA OF BEARING FACE OF THRUST BLOCK IN SQUARE FEET (AREA BASED ON INTERNAL PRESSURE OF 150 PSIG AND SOIL BEARING PRESSURE OF 2000 PSF) (SEE NOTE 1)									
PIPE SIZE	BEND				TEE PLUG	REDUCER		TEE PLUG	REDUCER
	90°	45°	22-1/2°	11-1/4°		SIZE	AREA		
4" - 6"	4	2.5	1.5	1	3	6" x 4"	2		
8"	7	4	2	1	5	8" x 6"	2.5		
12"	14.5	8	4	2	10.5	12" x 8"	5.5		



- NOTES:
- SPECIAL DESIGN IS REQUIRED FOR FITTINGS ON DOMESTIC WATER MAIN PIPE LARGER THAN 12 INCHES.
 - THRUST BLOCK IS TO BE POURED AGAINST UNDISTURBED EARTH. WIDTH OF THRUST BLOCK SHOULD BE APPROXIMATELY TWICE HEIGHT.
 - THRUST BLOCK IS TO BE INSTALLED AT ALL BENDS, PLUGS, TEES, AND TAPPING SLEEVE AND VALVE CONNECTIONS.
 - FACTORY CAST OFFSETS ARE TO BE TREATED AS (2) 45 DEGREE BENDS.
 - FOR REDUCERS, THRUST BLOCK IS TO BE KEED INTO WALLS AND BOTTOM OF TRENCH.
 - MECHANICAL RESTRAINT IS REQUIRED IN ADDITION TO THRUST BLOCK.
 - WOOD BLOCKING IS NOT PERMITTED.

THRUST BLOCK DETAILS

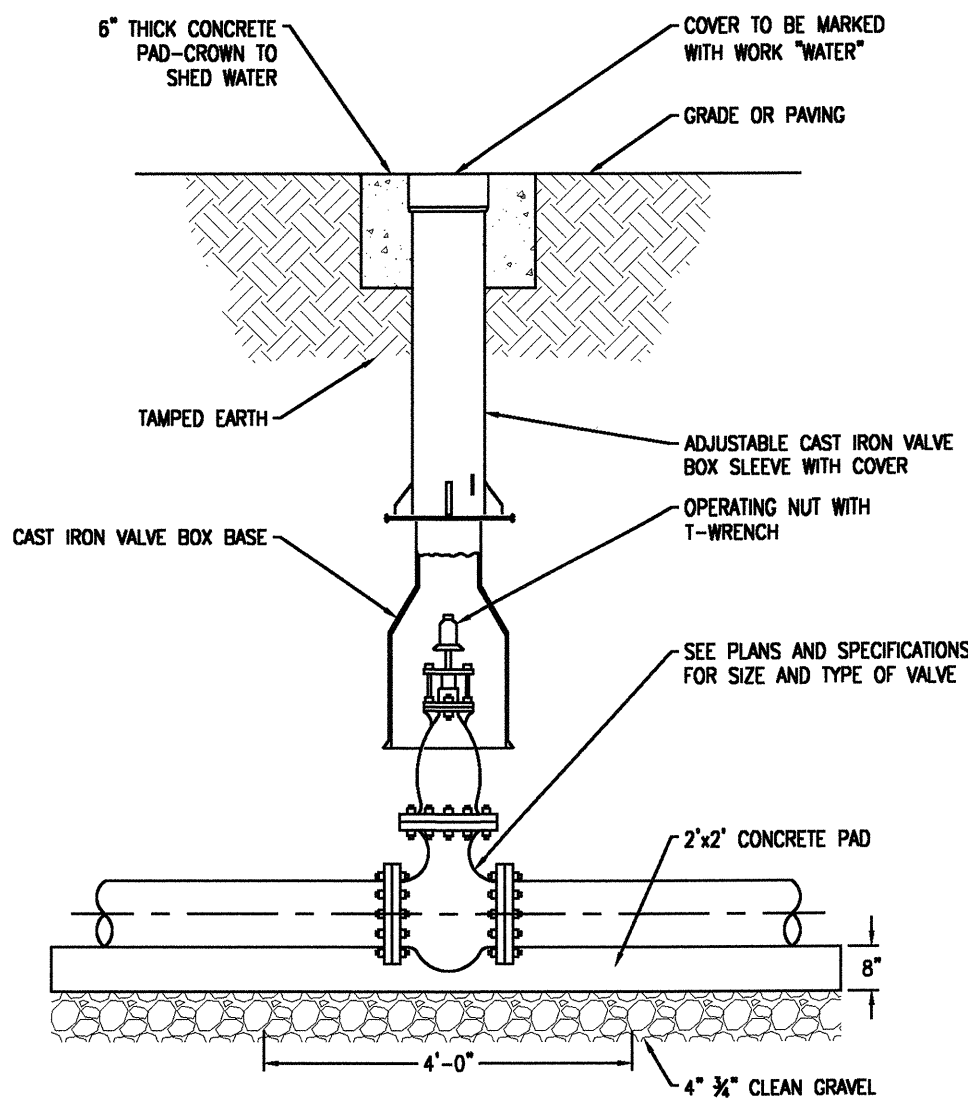
N.T.S.



- GENERAL NOTES:
- ALL COUPLINGS, PLUGS, SOIL PIPES & CAPS TO BE STANDARD FOR TYPE OF PIPE USED, INSTALLATION TO BE WATERTIGHT.
 - HOUSE CONNECTIONS ARE TO BE 6" P.V.C.
 - ALL PLUG THREADS SHALL BE GREASED AT TIME OF INSTALLATION.
 - MINIMUM DEPTH OF COVER ON SANITARY SEWER MAINS SHALL BE 5 FEET.
 - POLYVINYL CHLORIDE PIPE AND FITTINGS FOR HOUSE LATERALS SHALL CONFORM TO A.S.T.M. D-3034.

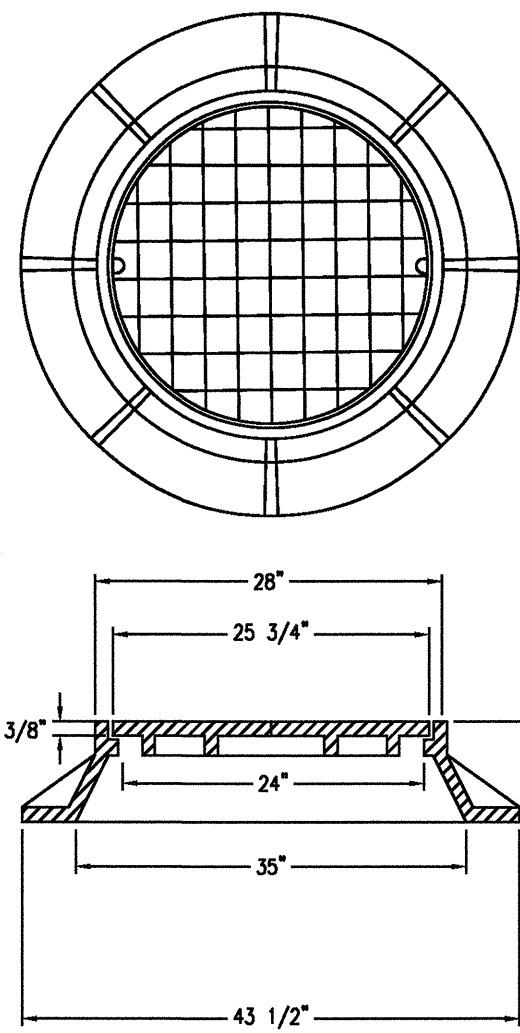
SANITARY SEWER BUILDING CONNECTION

N.T.S.



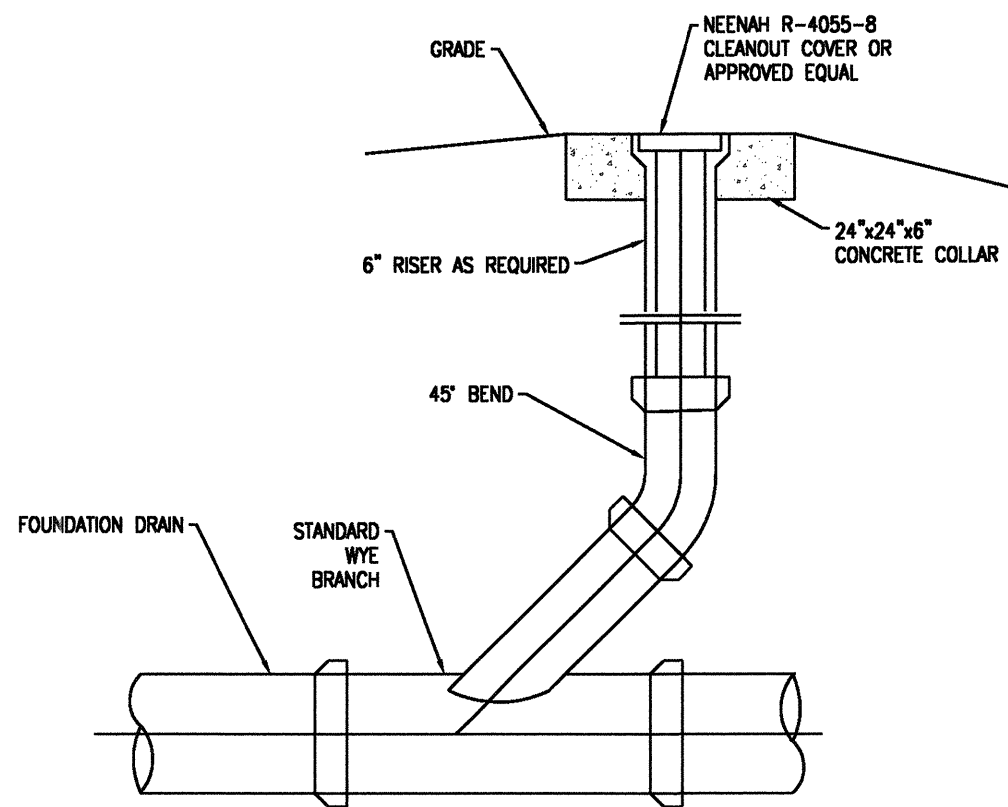
CURB VALVE DETAIL

N.T.S.



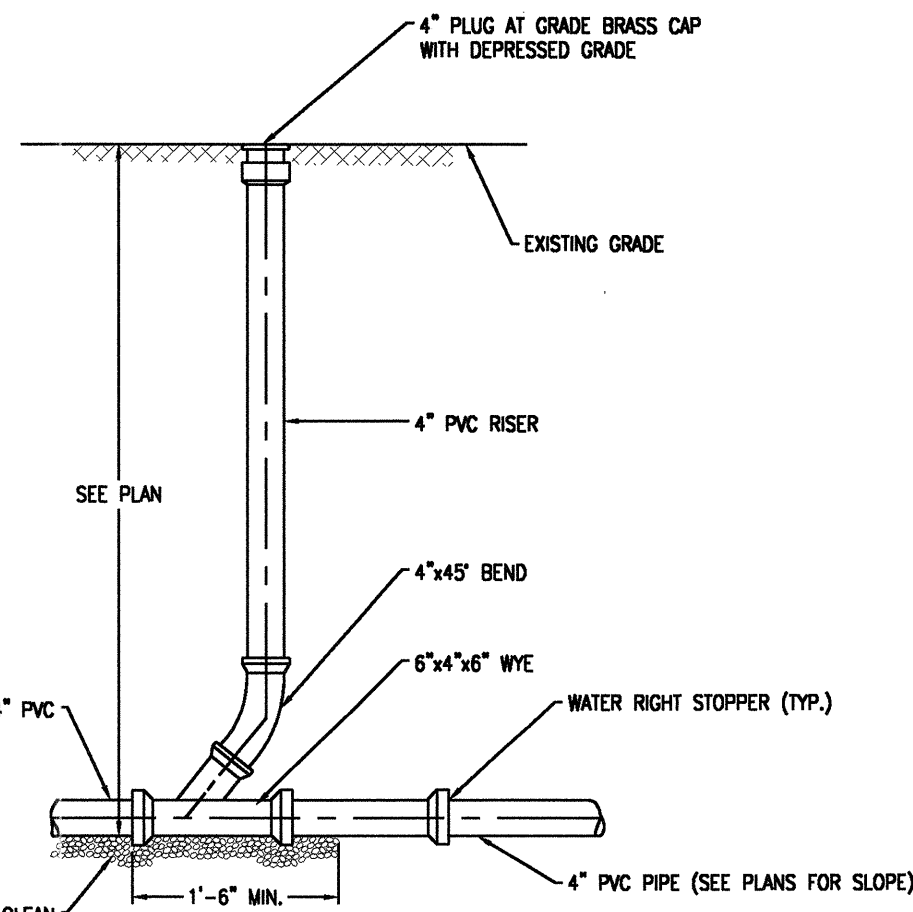
MANHOLE FRAME AND COVER

N.T.S.



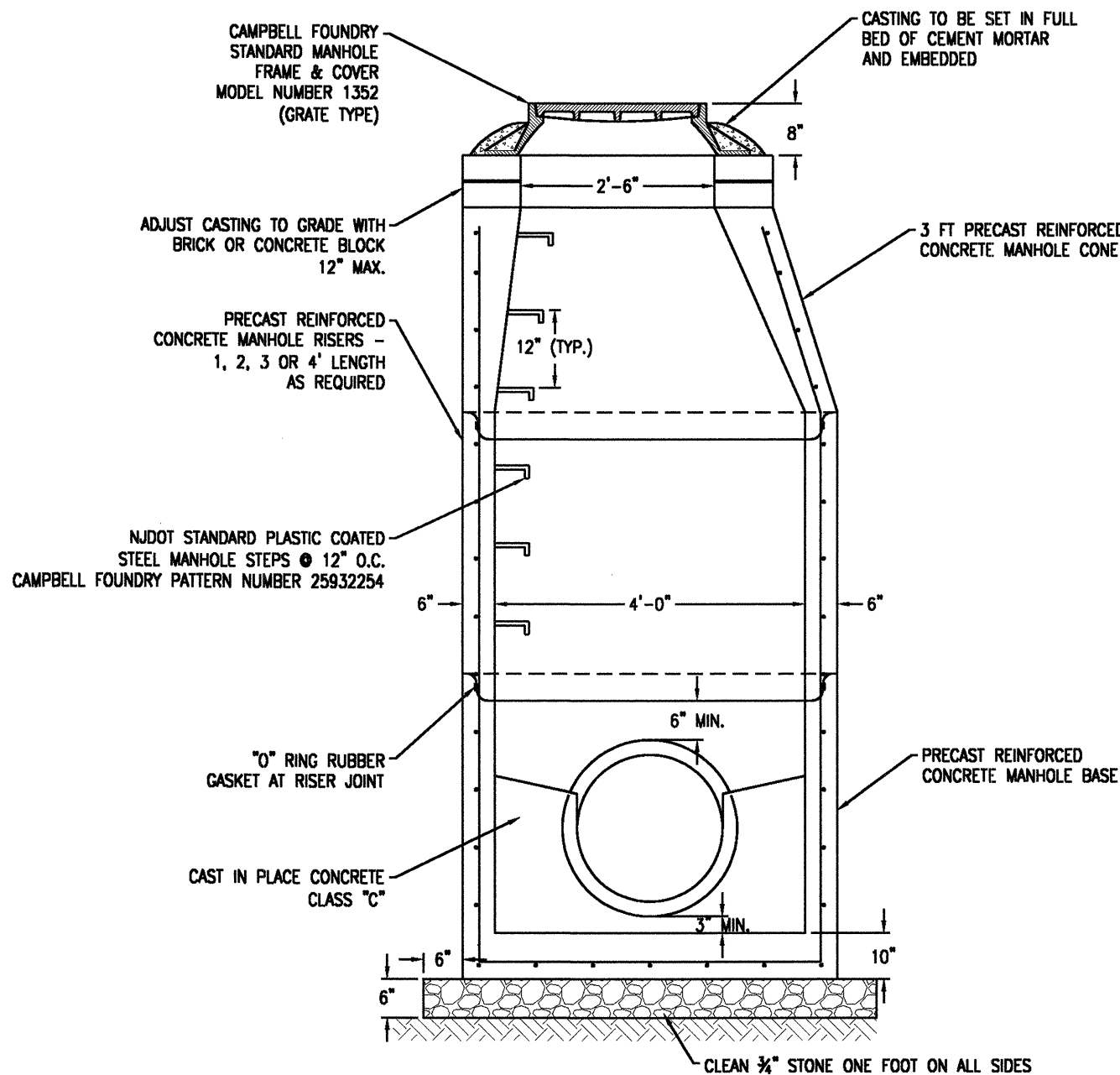
STORM CLEANOUT

N.T.S.



SANITARY CLEANOUT

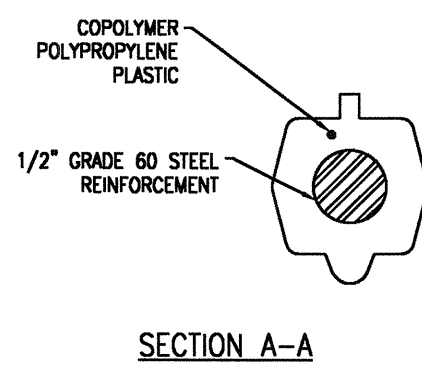
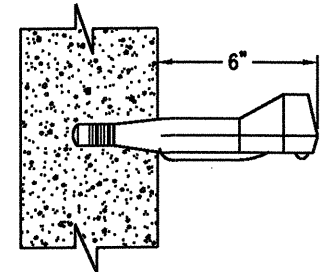
N.T.S.



- DIAMETER OF MANHOLE SHALL BE REVIEWED BY THE CONTRACTOR TO DETERMINE A LEGEND OF STANDARD MANHOLE DIMENSIONS WITH RESPECT TO PROPOSED PIPE SIZES, NUMBER AND GEOMETRY. OVER SIZE MANHOLES SHALL BE PROVIDED IF MINIMUM 6" WALL DIMENSION BETWEEN PIPES IS NOT MANUFACTURED.
- MANHOLES SHALL BE STANDARD PRECAST CONCRETE UNITS AND SHALL BE DESIGNED AND CONSTRUCTED BY THE MANUFACTURER TO SUPPORT TRUCK HS20 LOADING.

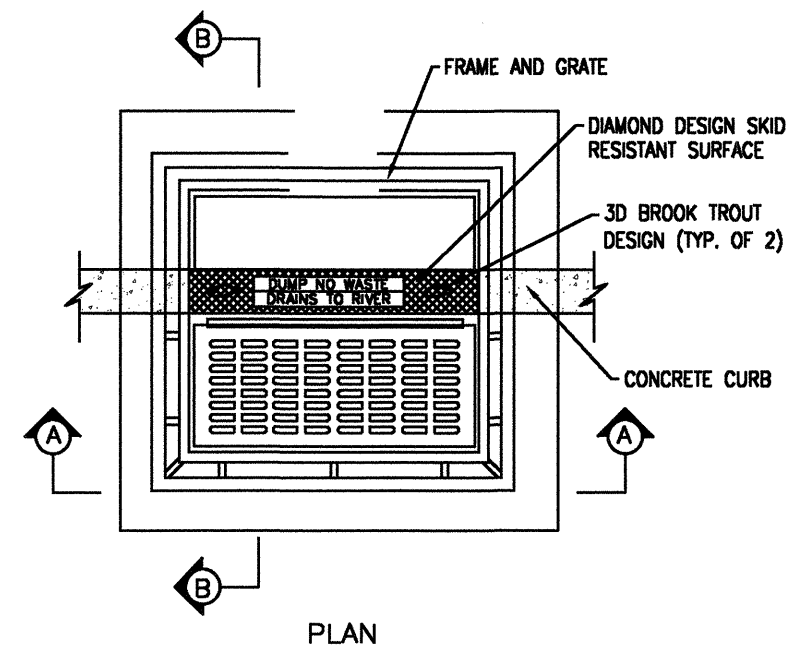
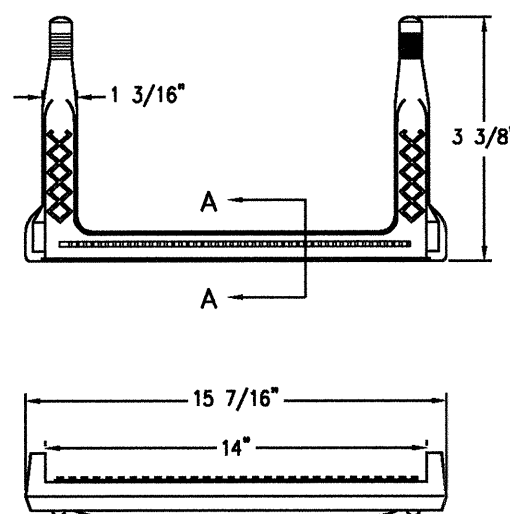
STORM MANHOLE

N.T.S.

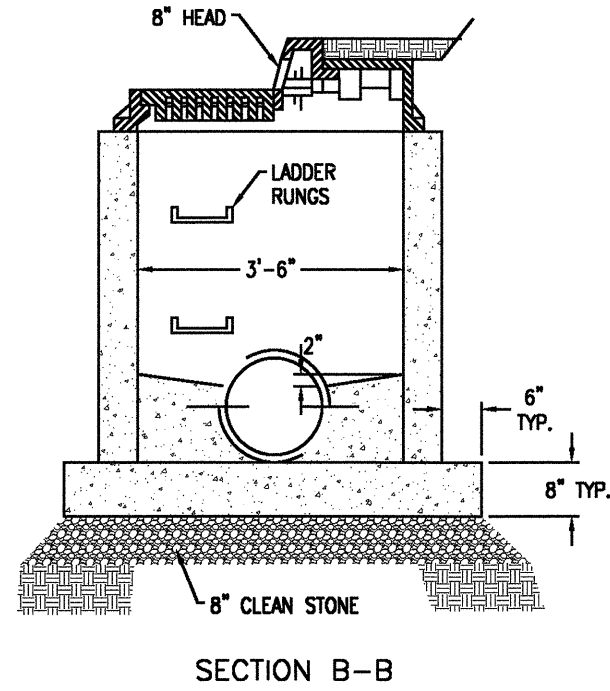
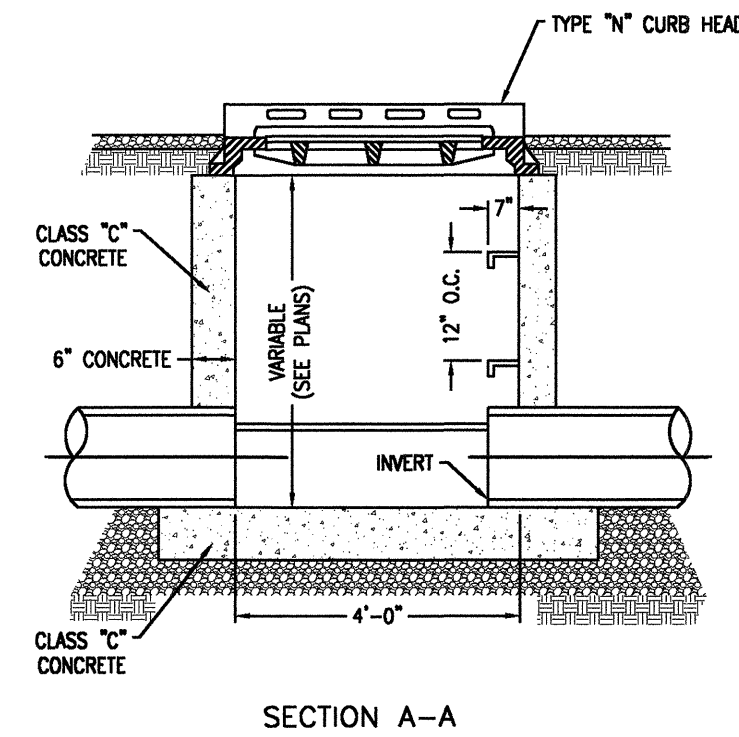


PLASTIC LADDER RUNG

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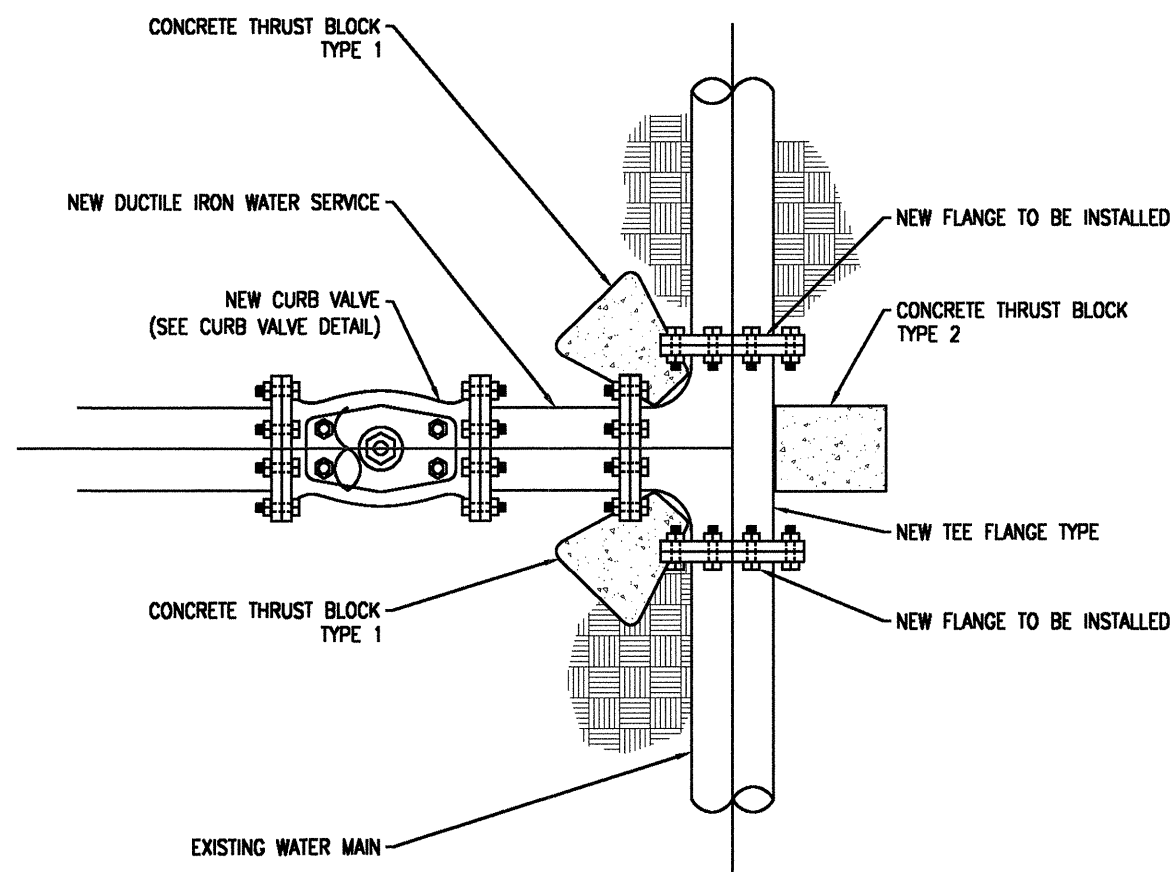


- NOTES:
- INVERTS TO BE ELIMINATED IN BOTTOM OF TERMINAL INLETS. BOTTOMS SHALL BE DISHED AND SLOPED TOWARDS THE OUTLET PIPE AT THE RATE OF A GRADE OF 2 INCHES PER FOOT.
 - PROVIDE COPOLYMER POLYPROPYLENE PLASTIC LADDER RUNGS 12 INCHES ON CENTER.
 - CASTING TO BE CAMPBELL FOUNDRY CO. PATTERN #2618 OR EQUIVALENT WITH ECO CURB PIECE TYPE "N" AND BICYCLE SAFETY GRATE #2617. CASTING TO BE THOROUGHLY PAINTED, OR APPROVED EQUAL.
 - WHEN DEPTH IS GREATER THAN 12 FEET, THE WALLS SHALL BE 8 INCHES THICK AND THE FOOTING SHALL BE EXTENDED TO 12 INCHES BEYOND THE OUTSIDE WALLS.
 - CLEAN STONE SHALL BE PLACED BENEATH THE STRUCTURE TO A DEPTH OF 8 INCHES.



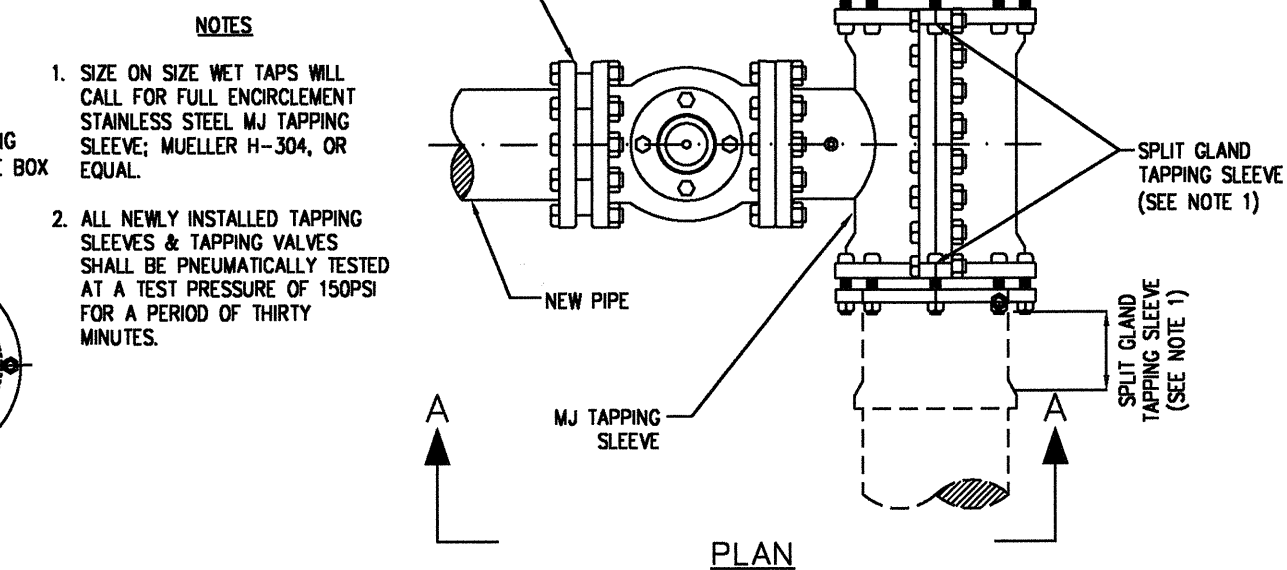
TYPE "B" INLET

N.T.S.



WATER MAIN CONNECTION DETAIL

N.T.S.



- NOTES:
- SIZE ON SIZE WET TAPS WILL CALL FOR FULL ENCLOSURE STAINLESS STEEL MJ TAPPING SLEEVE: MUELLER H-304, OR EQUAL.
 - ALL NEWLY INSTALLED TAPPING SLEEVES & TAPPING VALVES SHALL BE PNEUMATICALLY TESTED AT A TEST PRESSURE OF 150PSI FOR A PERIOD OF THIRTY MINUTES.

WET TAP TIE-IN DETAIL

N.T.S.

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Architecture
Engineering
Interior Design
Implementation Services

ISSUE				
NO.	DATE	DESCRIPTION		INT.
1	1.17.19	FOR COMPLETENESS REVIEW	GPG	
2	4.16.19	FOR MAY 6TH HEARING	GPG	
3	5.17.19	FOR 6.3.19 PLANNING BOARD	GPG	

REVISION				
NO.	DATE	DESCRIPTION		INT.

PRINCIPALS		ASSOCIATES	
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CO LIC ARC-401483	NC LIC 10120	MICHAEL J. VOGLIARDO, BA	NJ LIC 0911748
CT LIC RA-0011415	NH LIC 3001	GERARD P. GESARIO, PE	PA LIC 31425
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GA LIC RA011484	R LIC ARC-0504745		NY LIC 019151
IA LIC 05277	SC LIC AR.9143		
IL LIC 001020069	TN LIC 108850		
IN LIC 000006	TX LIC 26995		
MD LIC 12662	VA LIC 0401014089		
MI LIC 00022189	WI LIC 0401014089		
NJ LIC 06512787			
NY LIC 06512787			
PA LIC 31425			
RI LIC 000006			
SC LIC AR.9143			
TN LIC 108850			
TX LIC 26995			
VA LIC 0401014089			
WI LIC 0401014089			

Project: **THE LEARNING EXPERIENCE**
109 & 115 SOUTH ORANGE AVENUE WEST
TOWNSHIP OF SOUTH ORANGE VILLAGE
ESSEX COUNTY, NJ
BLOCK 1904, LOTS 16&17

Project No: **TLENJ-S-17-264** Scale: **AS NOTED**

Drawn By: **LB** Approved By: **GPG**

Drawing Name:

Drawing Number: **C-903**

Sheet No: **12** of: **13**

Initial Date: **JANUARY 3, 2019**

GERARD P. GESARIO
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ENGINEER
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