

THE BOTTOM OF THE TRENCH SHALL BE SHAPED TO FIT THE PIPE BARREL FOR AT LEAST 50% OF THE OUTSIDE DIAMETER. THE REMAINDER OF THE PIPE IS SURROUNDED TO A HEIGHT OF AT LEAST 6" ABOVE ITS TOP BY SELECT FILL MATERIALS, PLACED BY HAND TOOLS AND COMPACTED TO COMPLETELY FILL ALL SPACES UNDER AND ADJACENT TO THE PIPE.

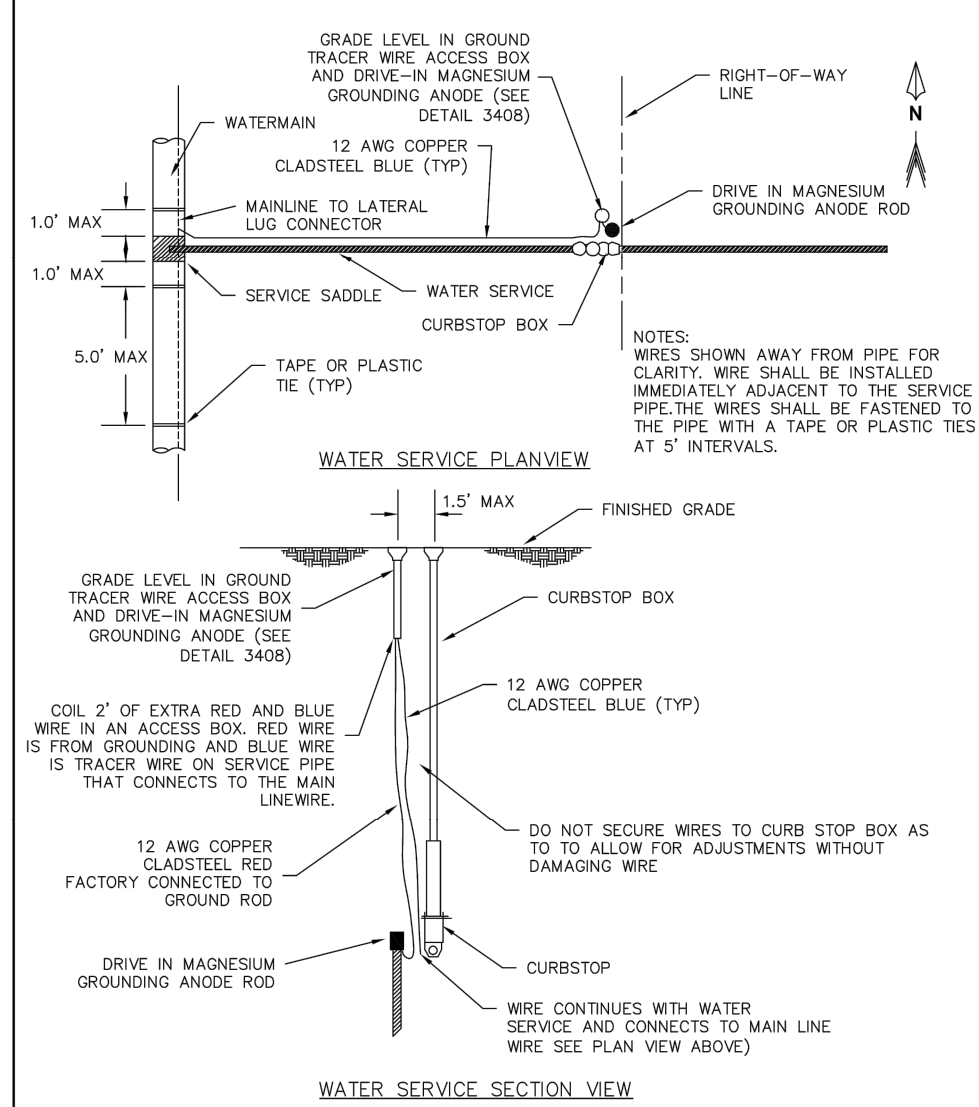
NOTE: ALL COSTS OF EXCAVATION BELOW GRADE AND PLACEMENT OF GRANULAR BEDDING SHALL BE INCLUDED IN THE BID PRICES FOR PIPE ITEMS.

REV: 3/2006



CLASS C PIPE BEDDING

STANDARD PLATE NO. 3405



WATER SERVICE PLAN VIEW

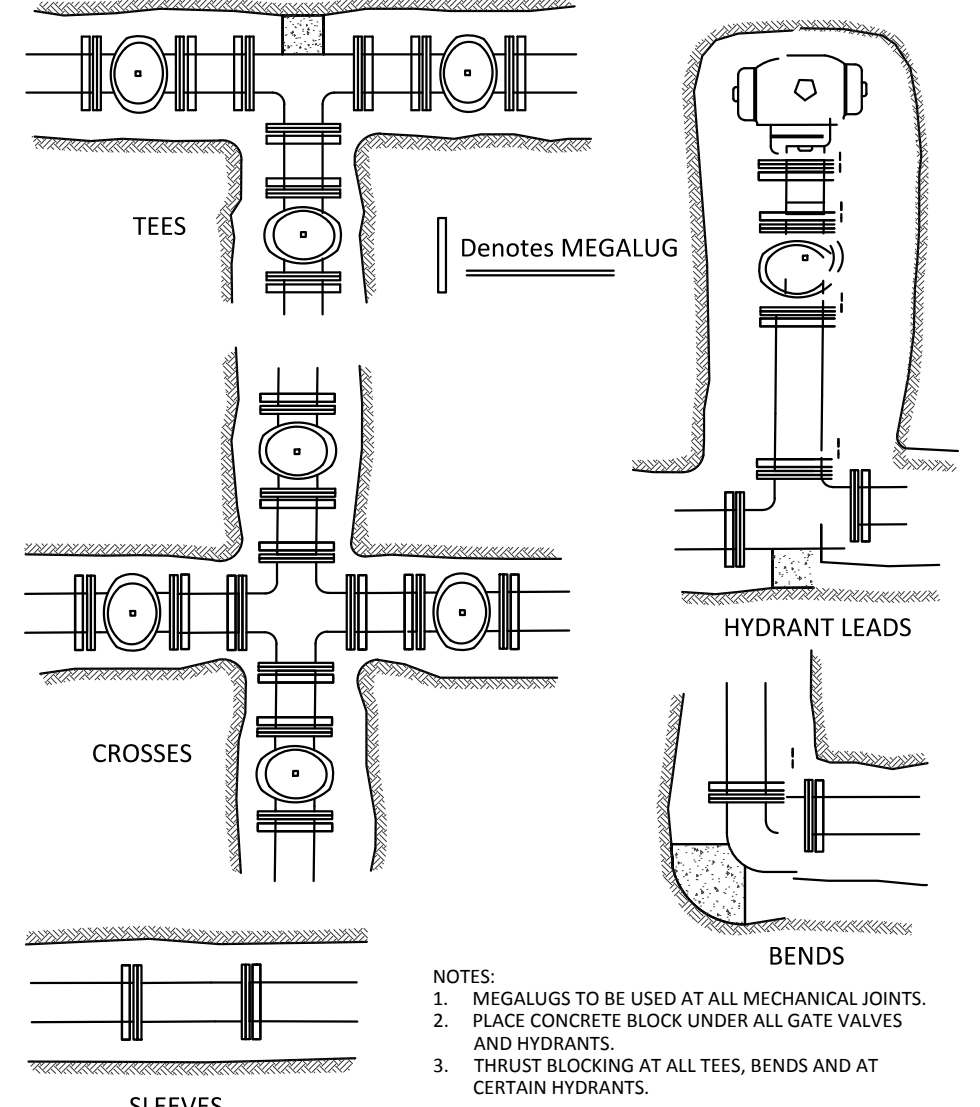
WATER SERVICE SECTION VIEW

REV: 2/2017



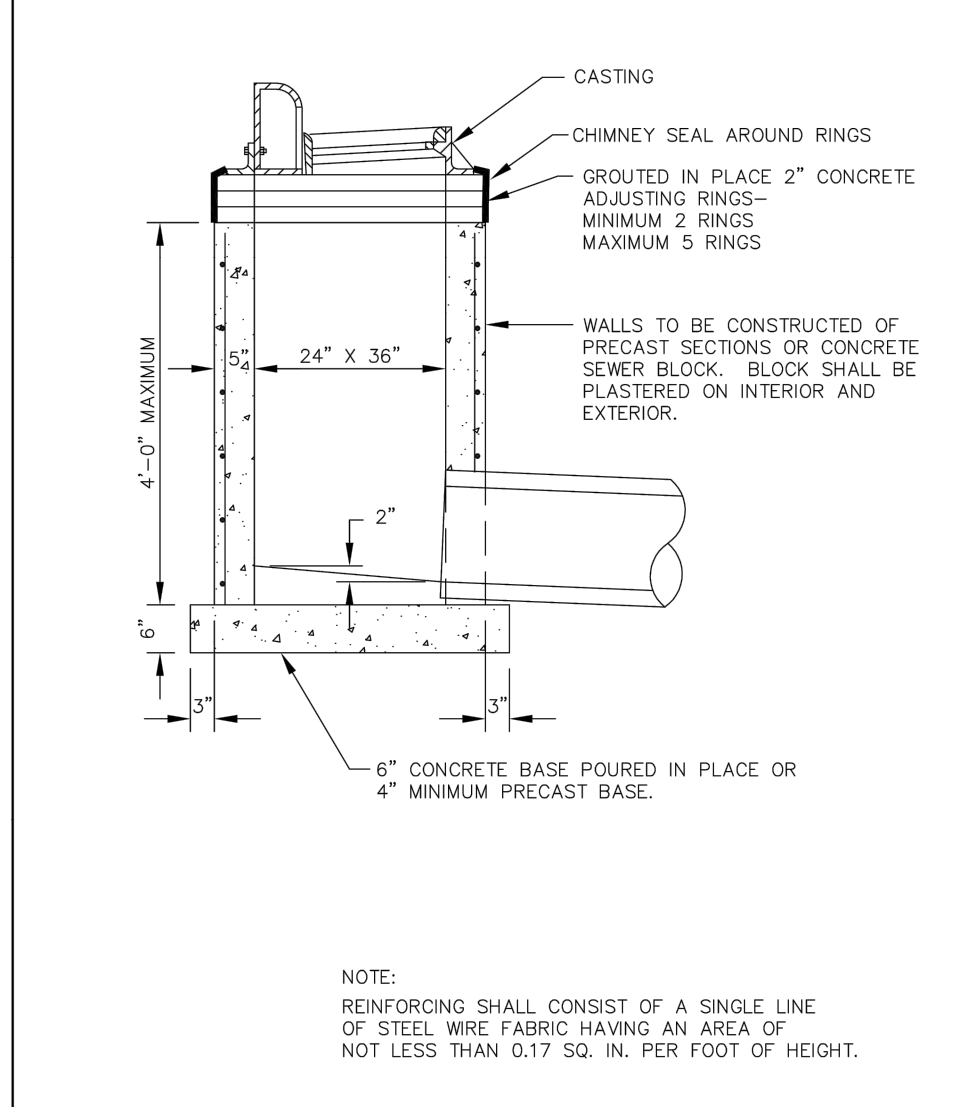
TRACER WIRE DETAIL

STANDARD PLATE NO. 3408



NOTES:
1. MEGALUGS TO BE USED AT ALL MECHANICAL JOINTS.
2. PLACE CONCRETE BLOCK UNDER ALL GATE VALVES AND HYDRANTS.
3. THRUST BLOCKING AT ALL TEES, BENDS AND AT CERTAIN HYDRANTS.

N.T.S. DETAIL NAME
W-09 05/06 NO SCALE
Sambatek
www.sambatek.com



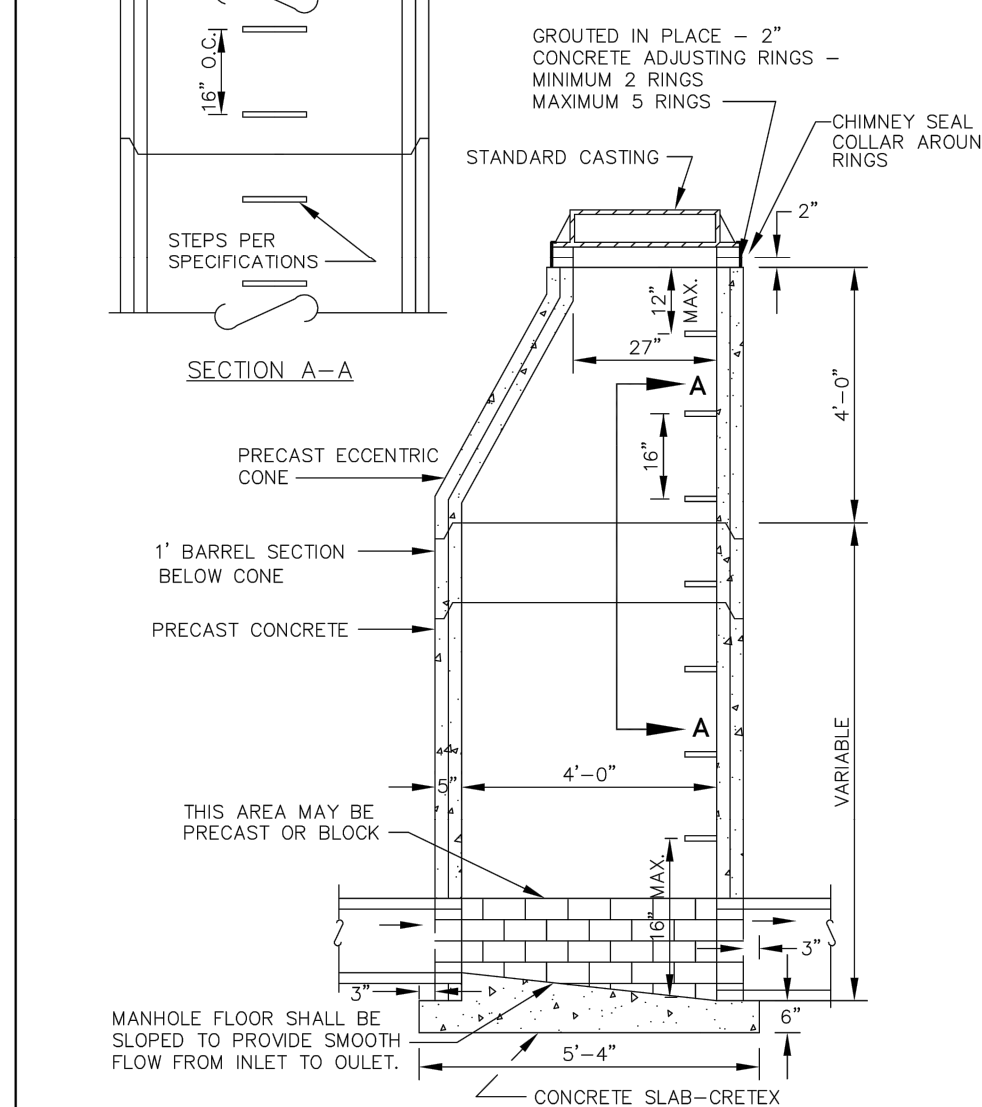
NOTE:
REINFORCING SHALL CONSIST OF A SINGLE LINE OF STEEL WIRE FABRIC HAVING AN AREA OF NOT LESS THAN 0.17 SQ. IN. PER FOOT OF HEIGHT.

REV: 2/2017



SHALLOW CATCH BASIN

STANDARD PLATE NO. 2500



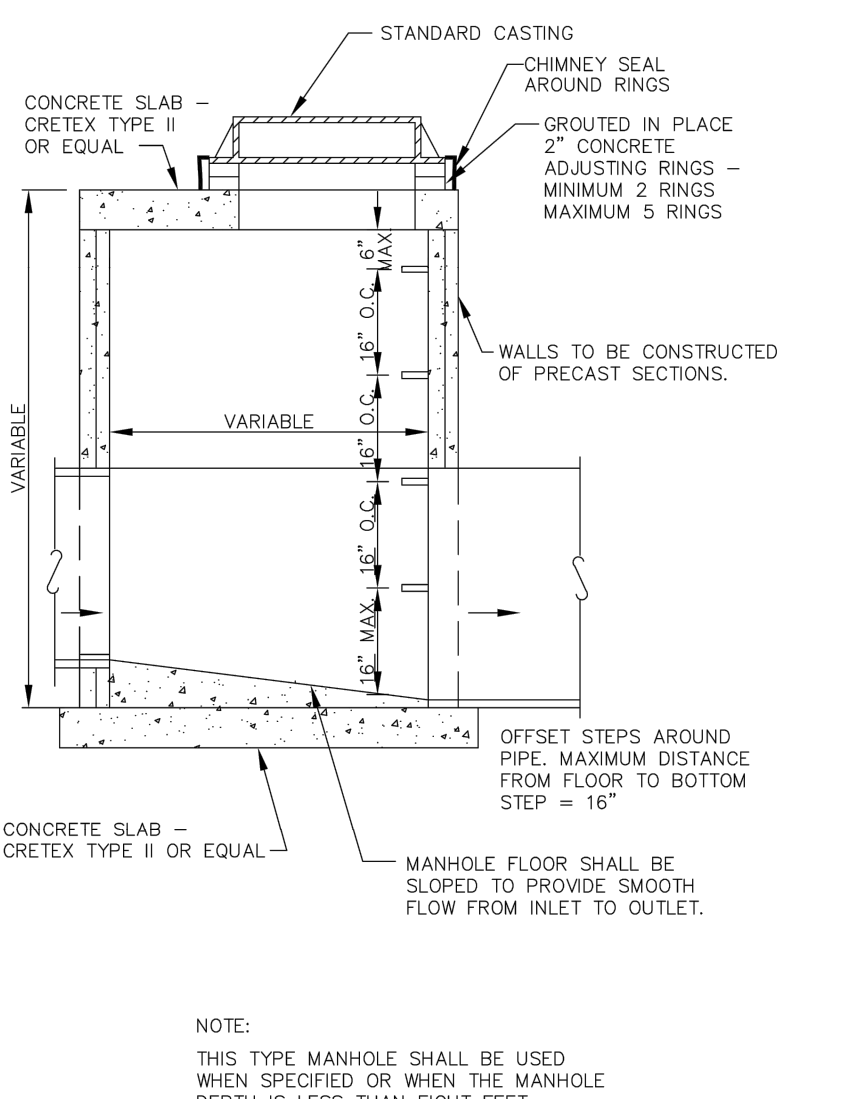
MANHOLE FLOOR SHALL BE SLOPED TO PROVIDE SMOOTH FLOW FROM INLET TO OUTLET.

REV: 2/2017



STANDARD MANHOLE

STANDARD PLATE NO. 2501



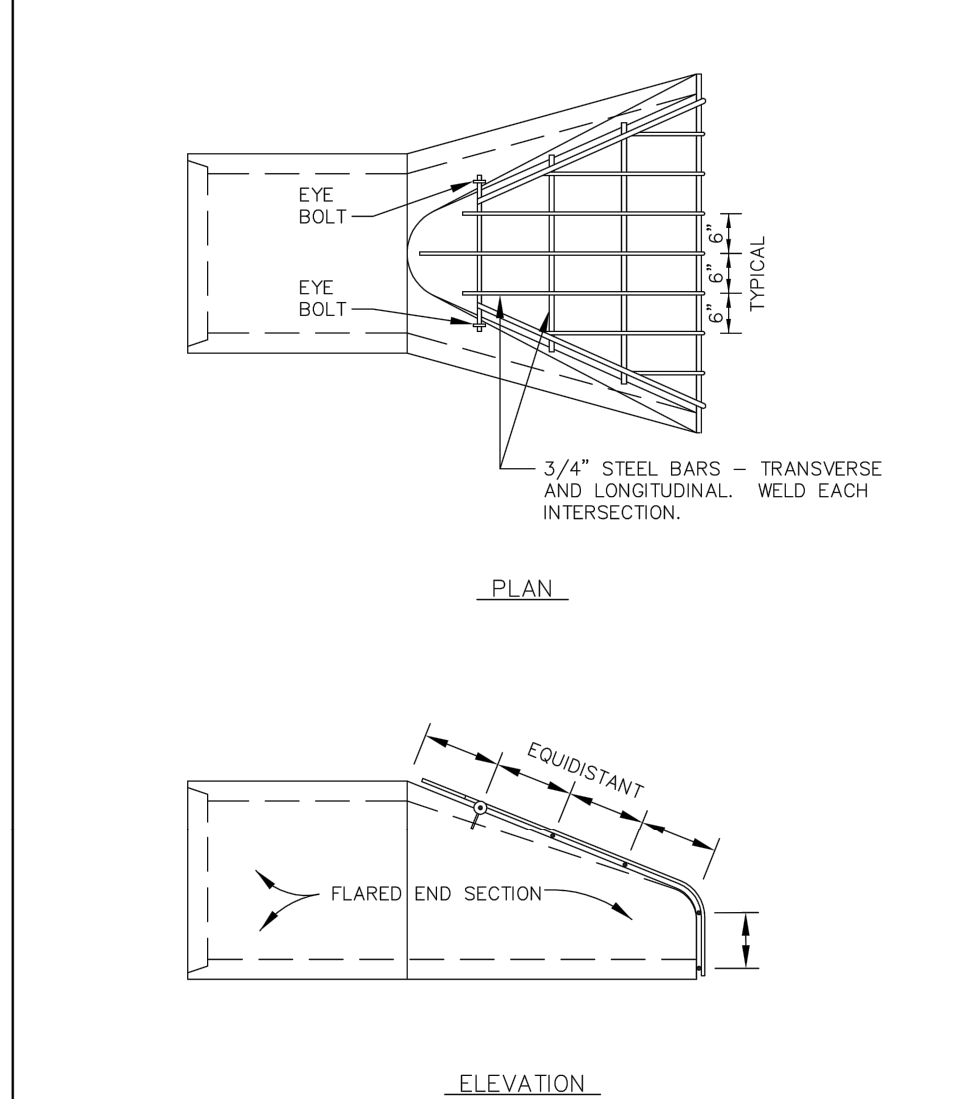
NOTE:
THIS TYPE MANHOLE SHALL BE USED WHEN SPECIFIED OR WHEN THE MANHOLE DEPTH IS LESS THAN EIGHT FEET.

REV: 2/2017



SLAB TOP MANHOLE

STANDARD PLATE NO. 2502



PLAN

ELEVATION

REV: 3/2006



TRASH GUARD

STANDARD PLATE NO. 2504

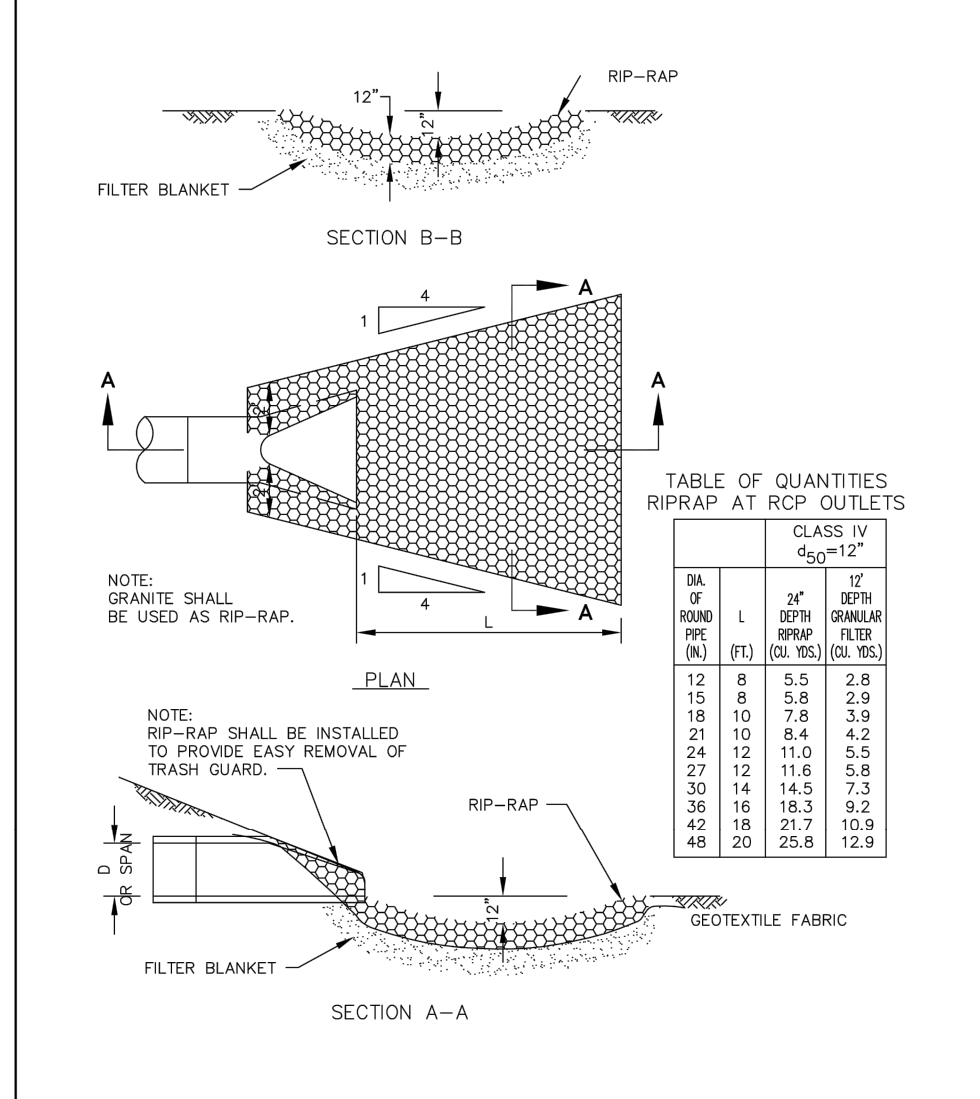


TABLE OF QUANTITIES
RIP-RAP AT RCP OUTLETS

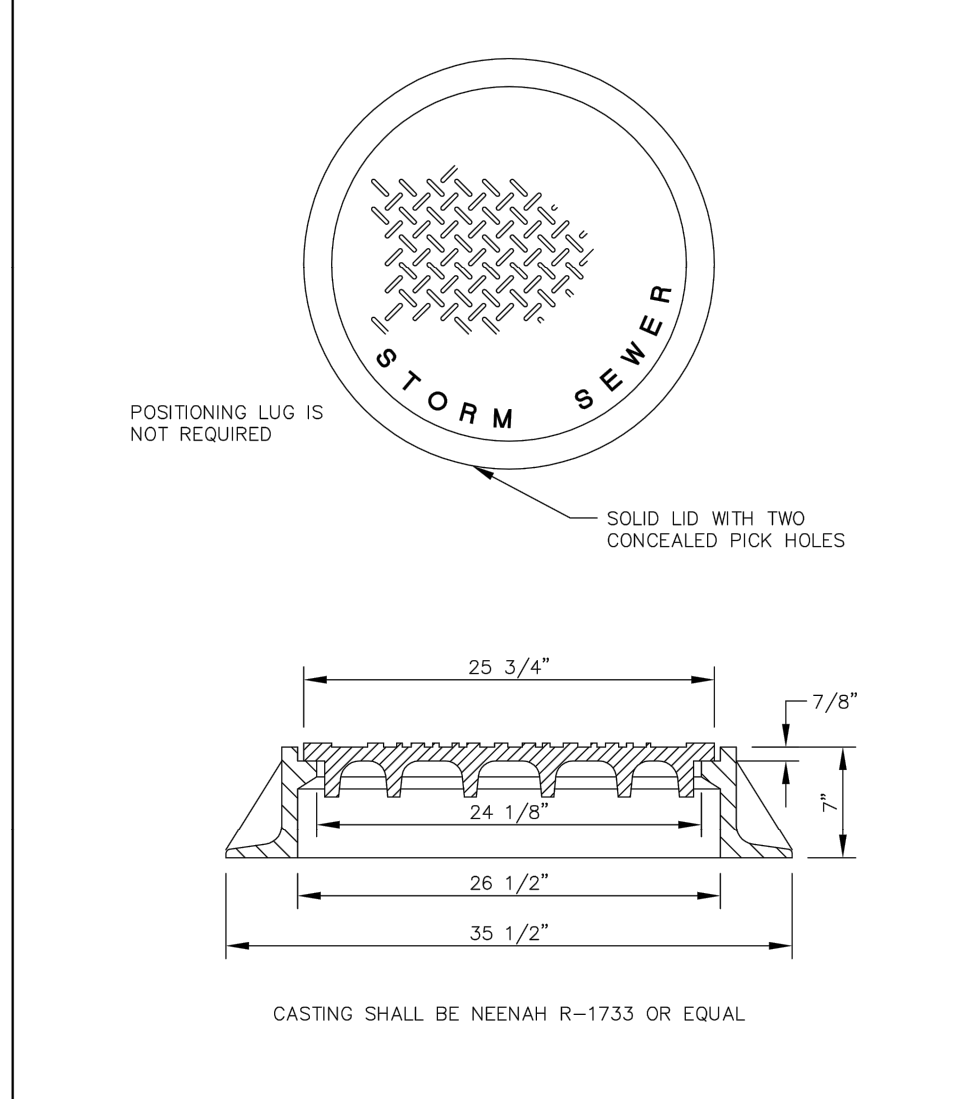
DIA OF RCP (IN)	L (FT)	CLASS IV 450# 12"	
		24" DEPTH RIP-RAP (SQ. YD)	12" DEPTH FILTER (SQ. YD)
12	8	5.5	2.6
15	8	5.8	2.9
18	10	7.6	3.9
21	10	8.4	4.2
24	12	11.0	5.5
27	12	11.6	5.8
30	14	14.5	7.3
36	16	18.3	9.2
42	18	21.7	10.9
48	20	25.8	12.9

REV: 3/2006



RIP-RAP INSTALLATION

STANDARD PLATE NO. 2505



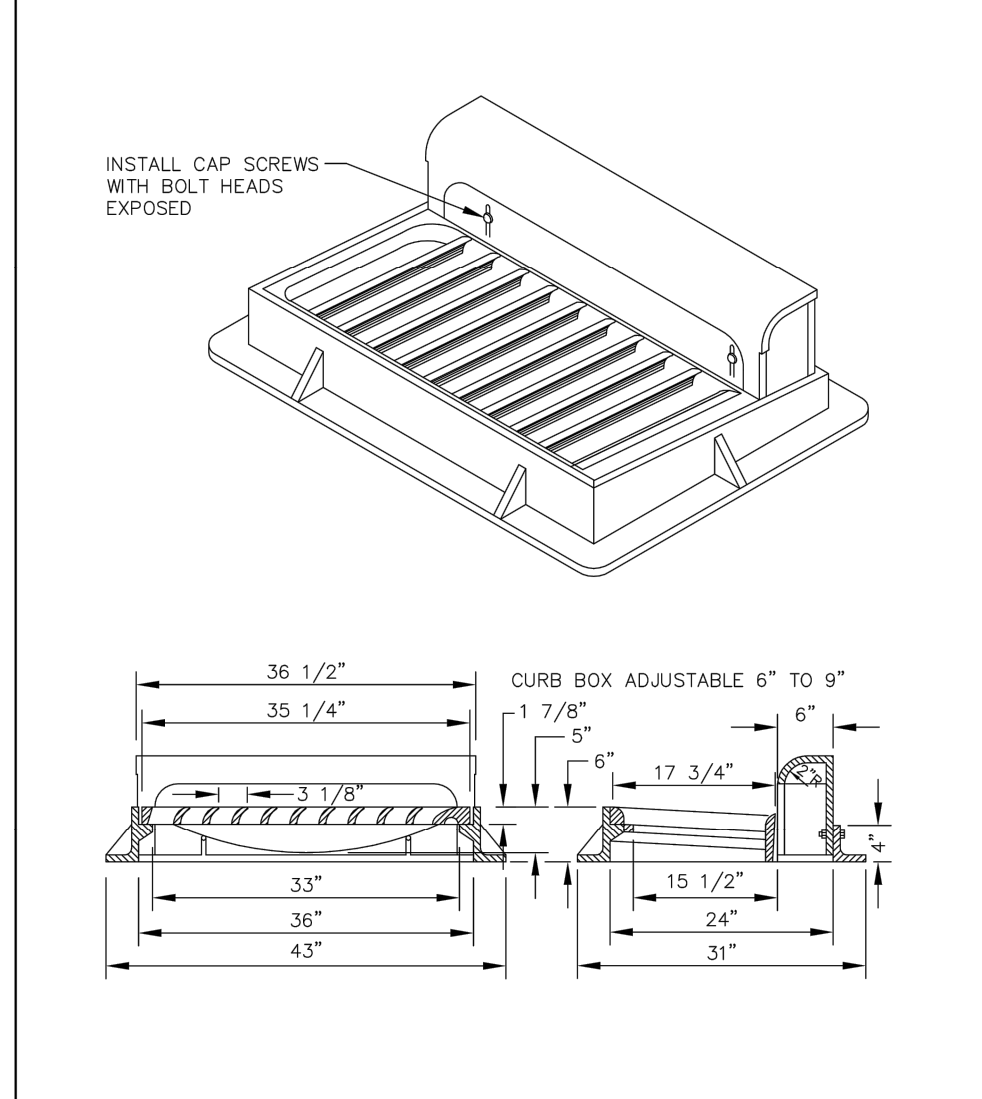
CASTING SHALL BE NEENAH R-1733 OR EQUAL

REV: 3/2006



STANDARD MANHOLE CASTING

STANDARD PLATE NO. 2506



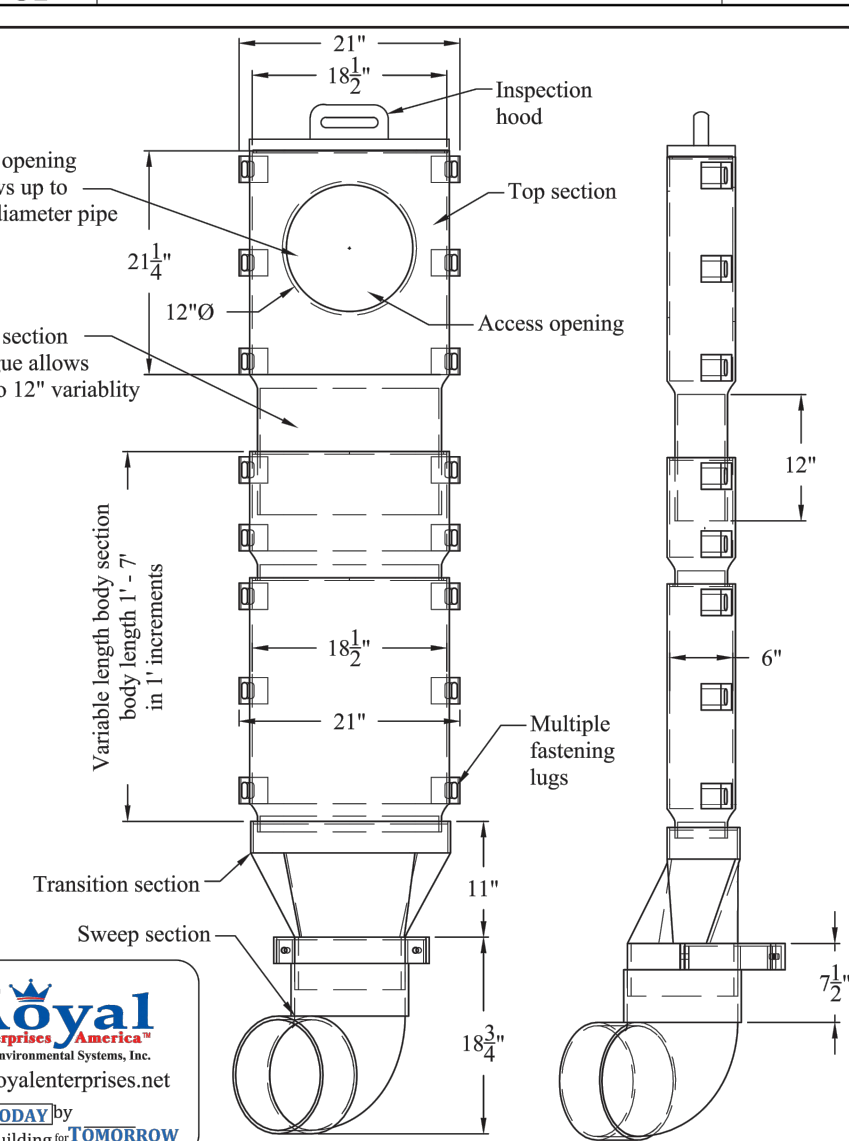
CASTINGS SHALL BE NEENAH R-3067-V OR EQUAL

REV: 3/2006



STANDARD INLET CASTING

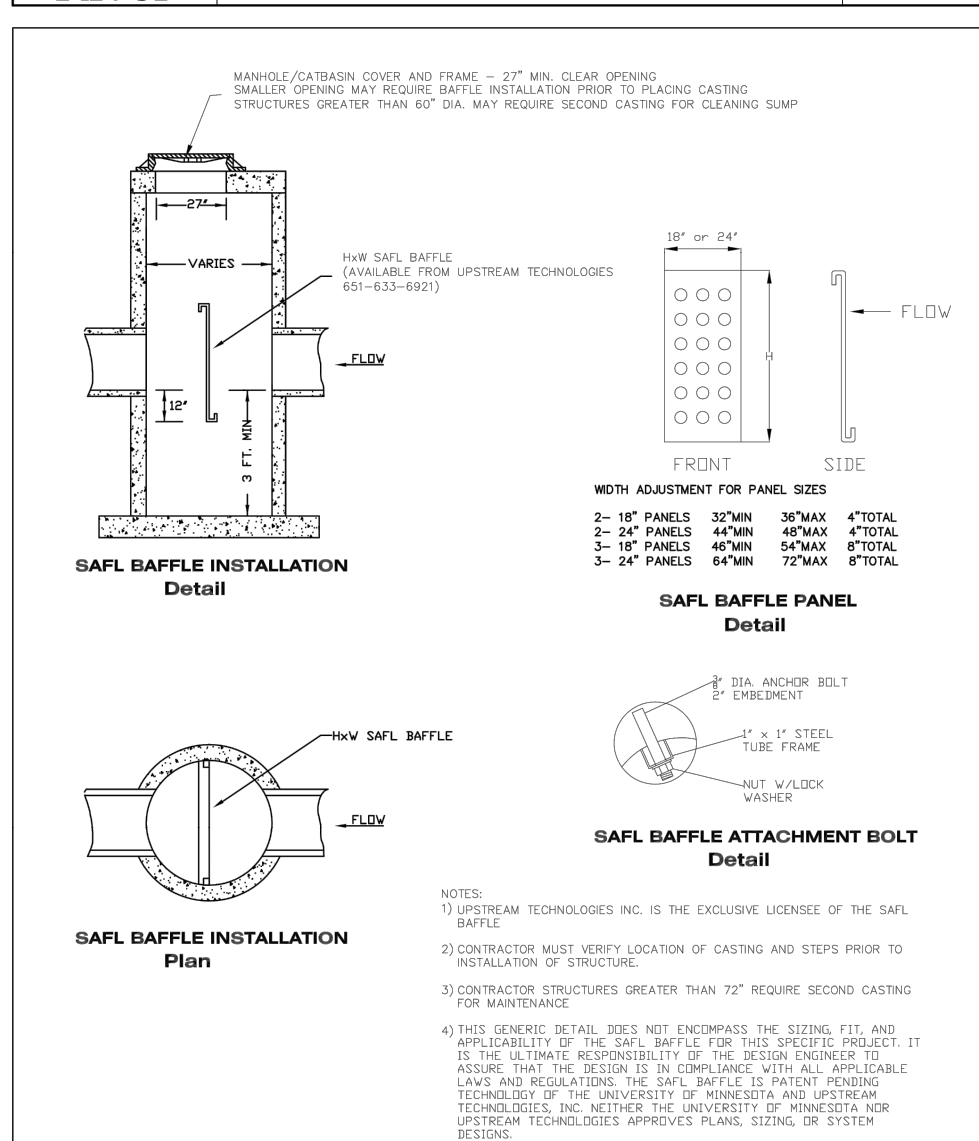
STANDARD PLATE NO. 2507



IntraFlow - Inside Drop System
Standard Details

Plate # IntraFl-1

P.O. Box 430 • 30622 Forest Blvd • Stacy, MN 55079 • Ph: 651.462.2130



SAFL BAFFLE STANDARD DETAIL

UPSTREAM TECHNOLOGIES

NEW BRIGHTON, MN

651-633-6921

SAFL BAFFLE ATTACHMENT BOLT

UPSTREAM TECHNOLOGIES

NEW BRIGHTON, MN

651-633-6921

SAFL BAFFLE INSTALLATION

UPSTREAM TECHNOLOGIES

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SAFL BAFFLE INSTALLATION

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SAFL BAFFLE STANDARD DETAIL

UPSTREAM TECHNOLOGIES

NEW BRIGHTON, MN

651-633-6921

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed professional ENGINEER under the laws of the state of Minnesota.

Eric T. Luth
Eric T. Luth
Registration No. 50475 Date: 03/28/2018

If applicable, contact us for a wet signed copy of this plan which is available upon request at Sambatek's, Minnetonka, MN office.

Designed: NRH Drawn: NRH
Approved: ETL Initial Issue: 03/15/18
Phase: CONSTRUCTION DOCUMENTS

No.	Date	By	Submittal / Revision
03/28/18	MMQ	CONSTRUCTION DOCS	
A	04/18/18	ETL	REVISE EAST TRAIL GRADES