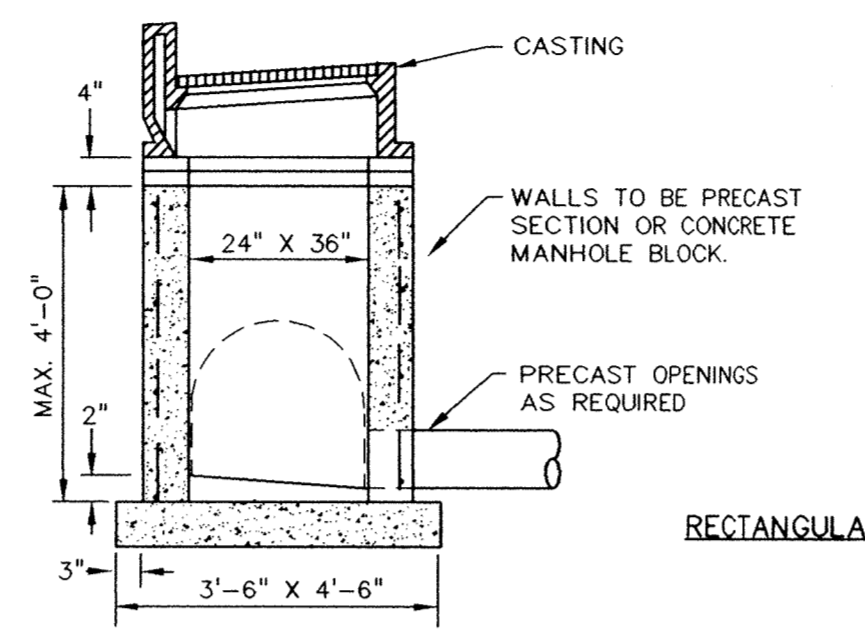
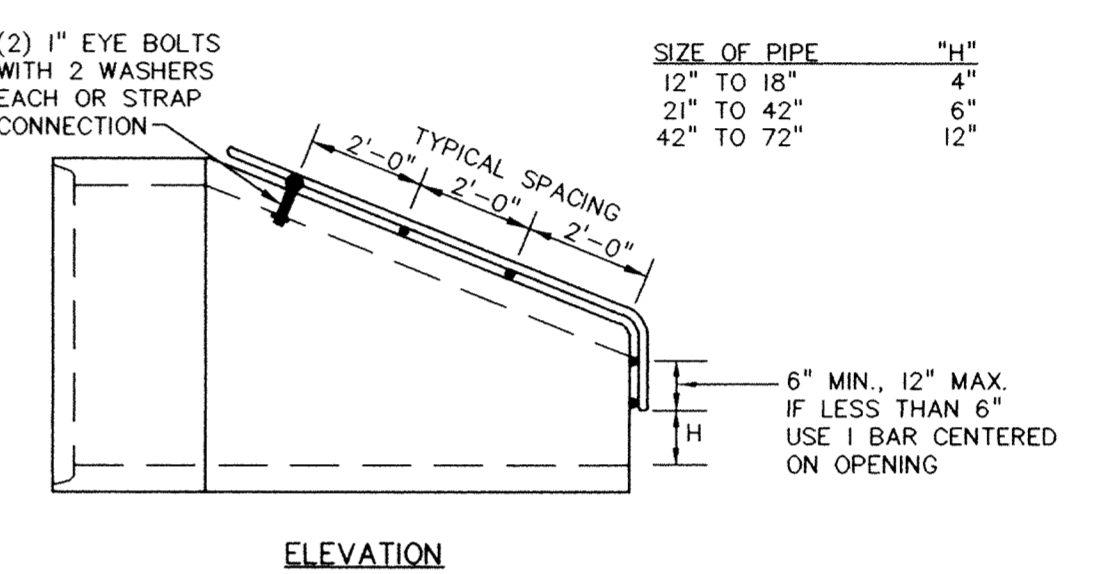
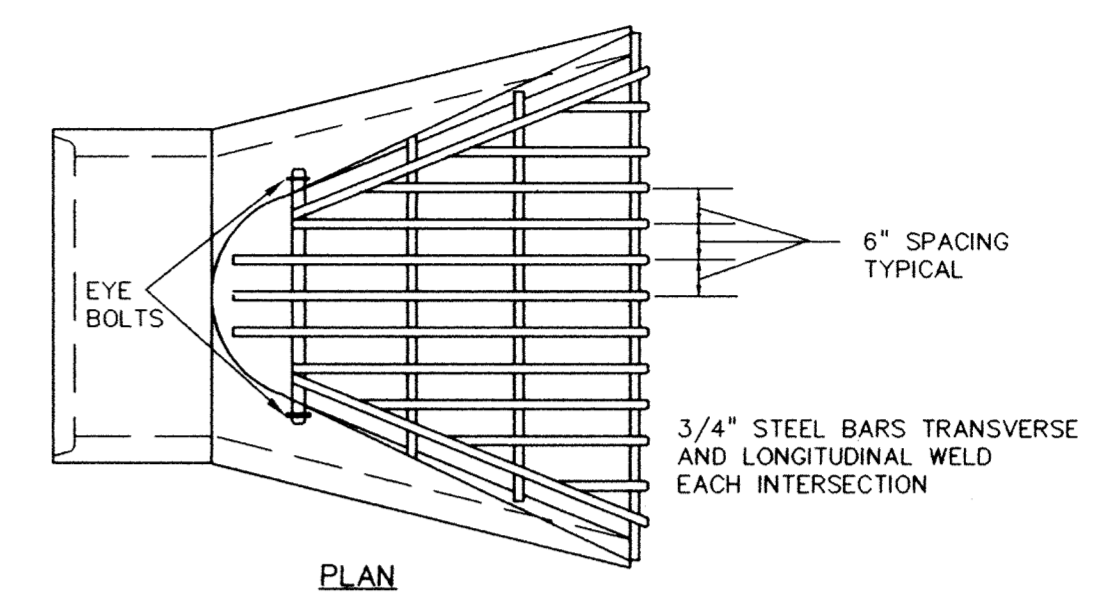
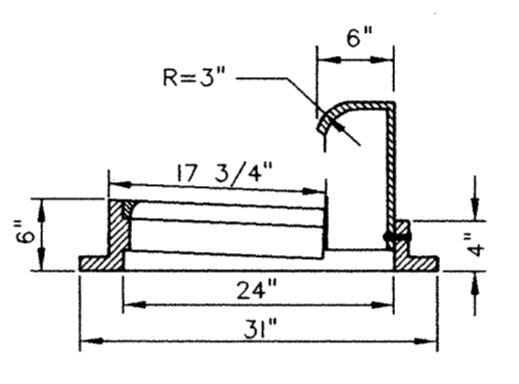
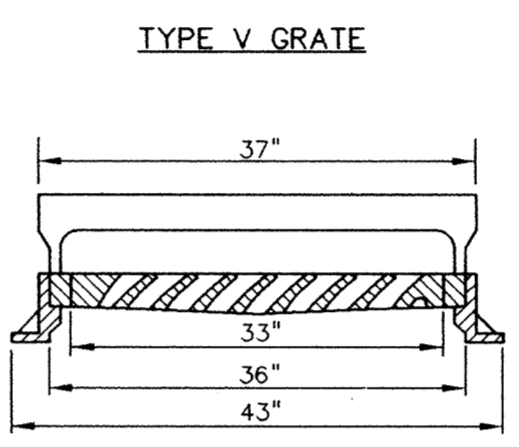
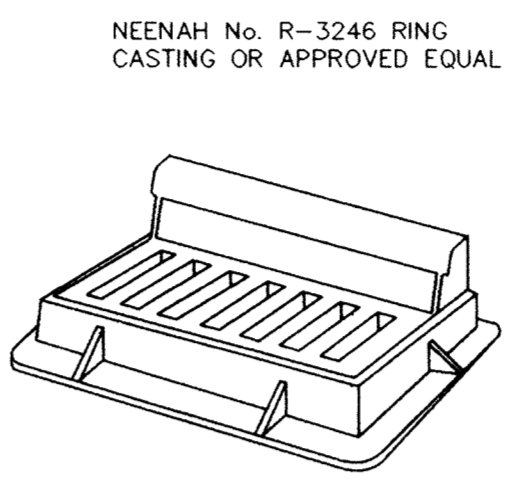
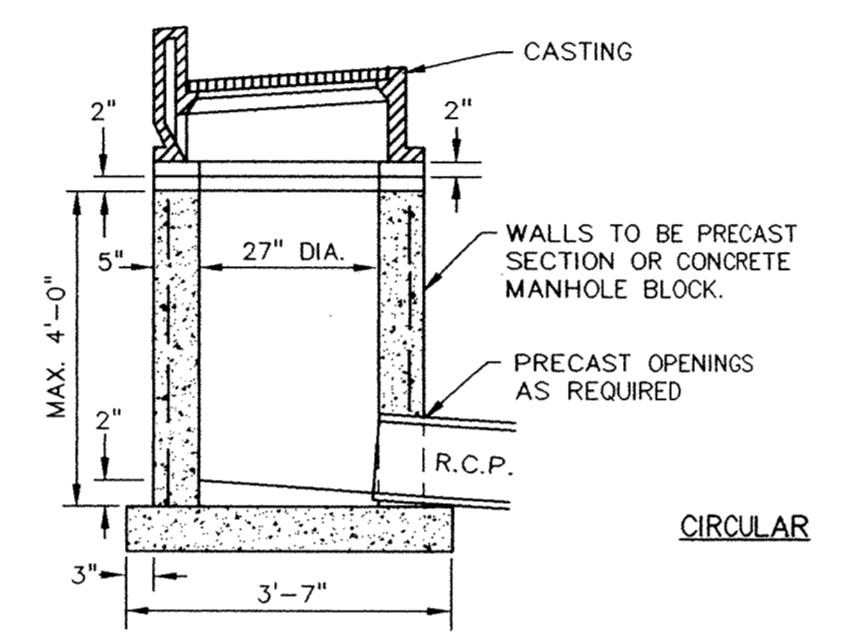


RECORD DRAWINGS



- NOTES:
1. CONCRETE ADJUSTING RINGS, MIN. 4" MAX 10" NO MINIMUM WITH FINAL ADJUSTMENT.
 2. CONCRETE BASE SHALL BE 6" POURED IN PLACE OR 5" PRECAST SLAB.



- NOTES:
1. TRASH GUARD TO BE GALVANIZED AFTER FABRICATION.
 2. THE SIZE OF EACH TRASH GUARD WILL VARY TO FIT APRON.
 3. THE LAST 3 PIPE JOINTS SHALL BE TIED.

REV. NO.	DATE	DESCRIPTION
1	7/31/97	PER ENGINEER REVIEW LETTER DATED 7/25/97
2	8/22/97	WOODEN SKIMMER
3	2/12/98	RECORD DRAWINGS

DATE: 7/09/97
 DESIGN BY: GO
 DRAWN BY: BG
 CHECKED BY: GO
 DWG FILE: 6-PPDET.
 TEXT FILE: NONE
 FILE NO.: 7024.20-03

I hereby certify that this plan 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.

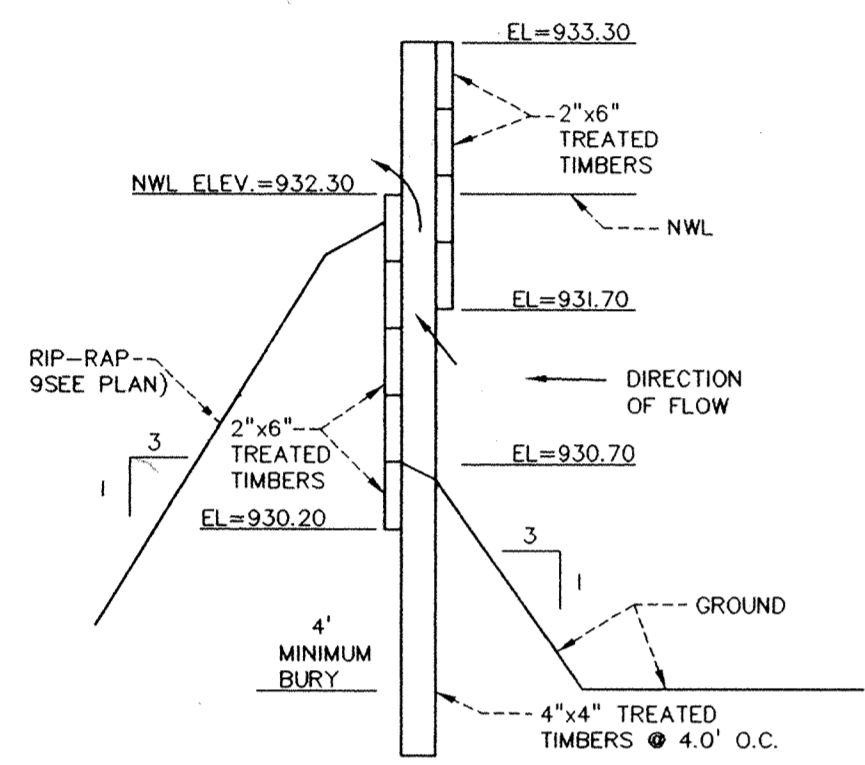
Signed: *[Signature]*
 Date: 7/09/97 Reg. No. 14960

John Oliver & Associates, Inc.
 Civil Engineering, Land Surveying, and Planning
 580 Dodge Avenue
 Elk River, Minnesota
 (612)441-2072 (FAX)441-5665

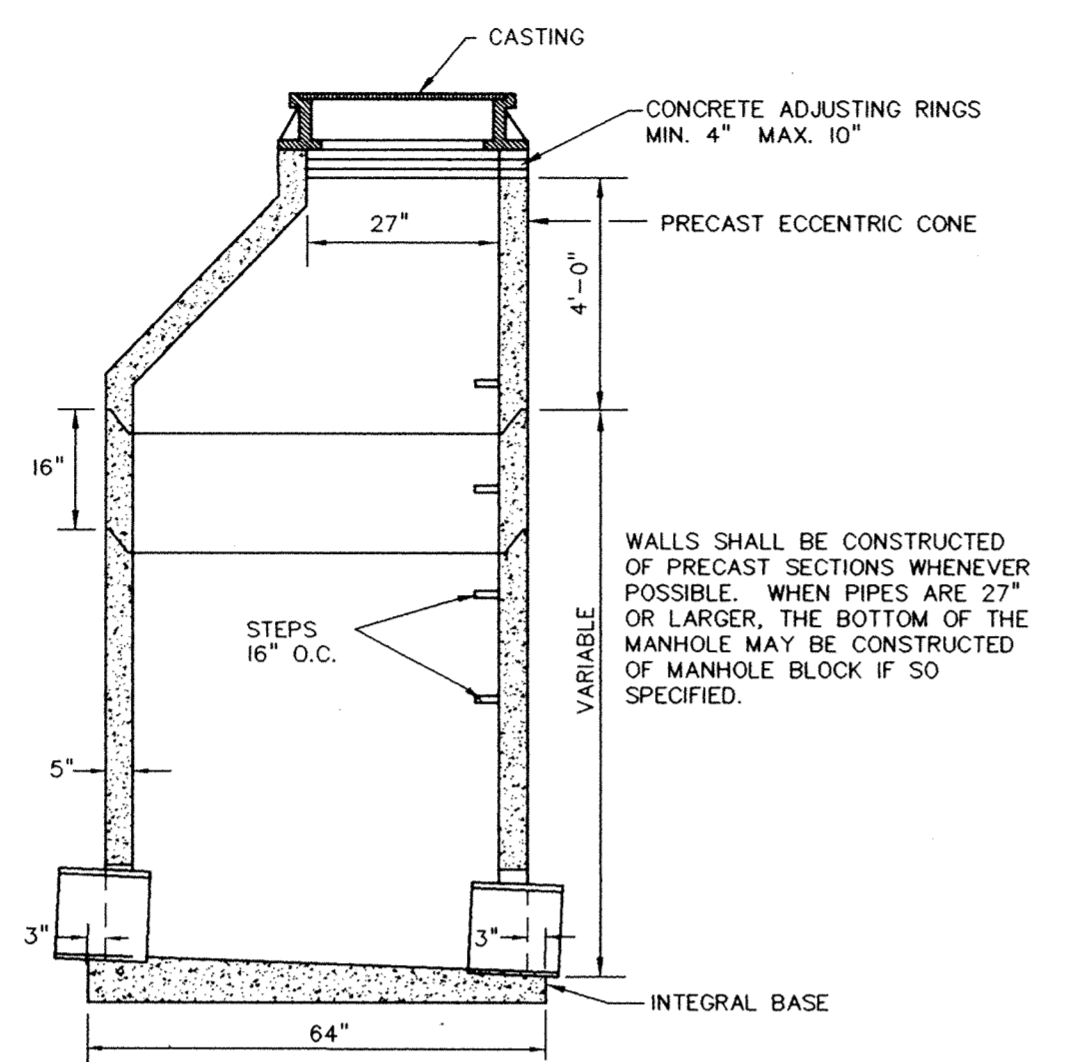
201 W. Travelers Trail, Suite 200
 Elk River, MN 55327
 (612)884-3045 (FAX)884-3049

LAFAYETTE WOODS SECOND ADDITION ELK RIVER, MN WINDSOR DEVELOPMENT L.L.P. DETAILS

SHEET NO. 6 OF 9



NOTE: ALL LUMBER SHALL BE PRESSURE TREATED



- NOTES:
1. WHEN MANHOLE DEPTH IS LESS THAN 8' OR CASTING IS RECTANGULAR, A SLAB TOP SHALL BE USED IN PLACE OF THE CONE. THE SLAB SHALL BE SUITABLE FOR AASHTO HS 20 HIGHWAY LOADINGS. THE SLAB SHALL BE ON A MORTAR BED.
 2. MANHOLE INVERT SHALL BE SLOPED TO PROVIDE SMOOTH FLOW FROM INLET TO OUTLET.
 3. MANHOLE JOINTS MAY BE MADE WITH CEMENT MORTAR INSIDE AND OUT.

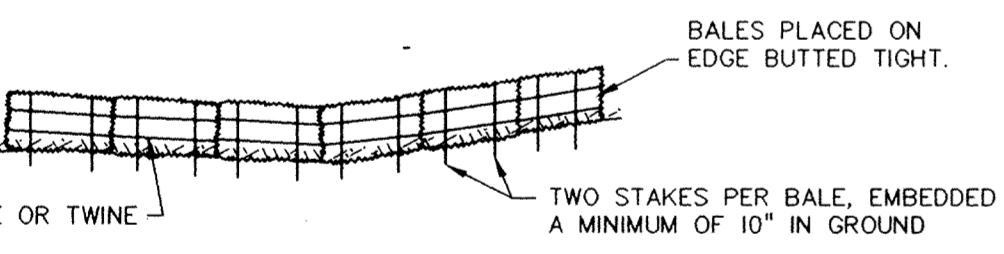
SHALLOW STORM SEWER MANHOLE OR CATCH BASIN (D-03)

STANDARD INLET CASTINGS (C-03)

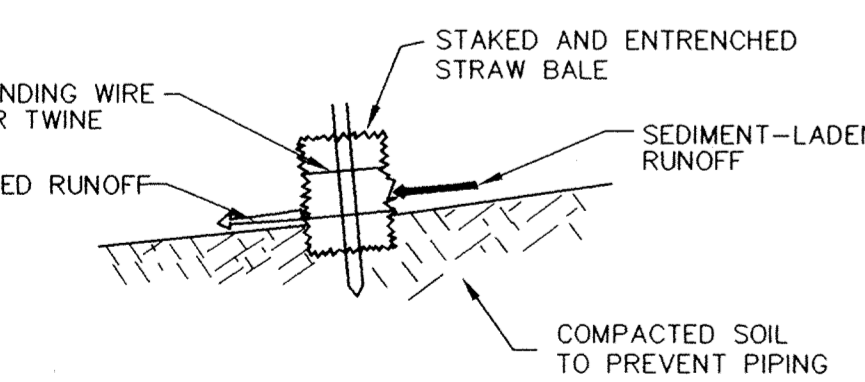
TRASH GUARD FOR CONCRETE PIPE (D-06)

WOODEN SKIMMER

STANDARD STORM SEWER MANHOLE (D-01)

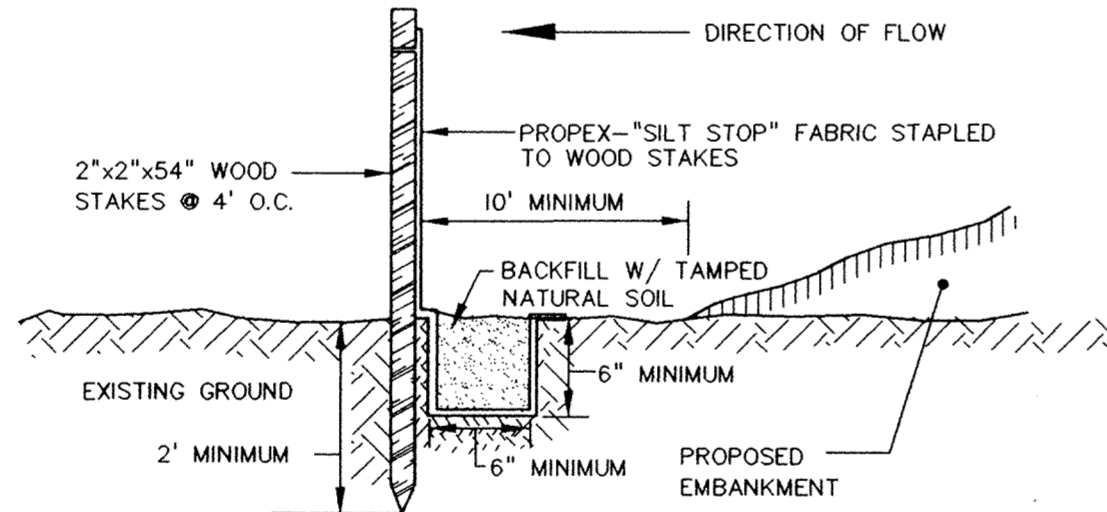


PROPERLY INSTALLED STRAW BALE BARRIER

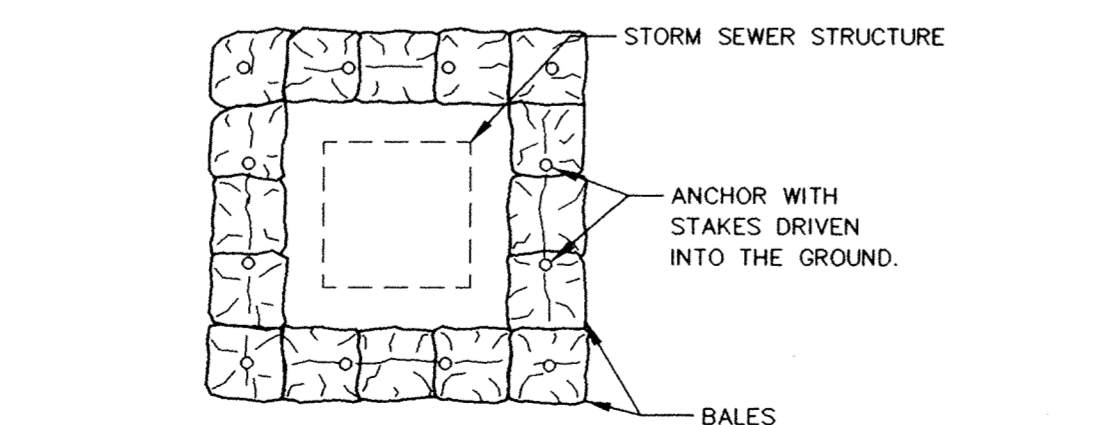


- NOTES:
1. THE BALES SHOULD BE TRENCHED 4" INTO THE GROUND AND SHOULD BE STAKED BY STEEL FENCE POSTS OR 2" X 2" WOOD STAKES. THE STAKES SHOULD BE ANGLED TOWARDS THE PREVIOUSLY LAID BALE.
 2. SOIL SHOULD BE COMPACTED ON THE UPSLOPE SIDE OF BALES. LOOSE STRAW SHOULD BE WEDGED BETWEEN THE BALES.

EROSION CONTROL STRAW BALE CHECK DAM (E-01)

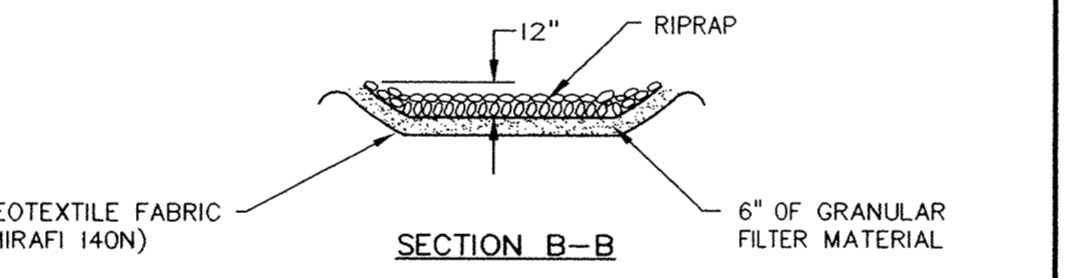


SILT FENCE (TO BE PLACED AS DIRECTED BY THE ENGINEER)

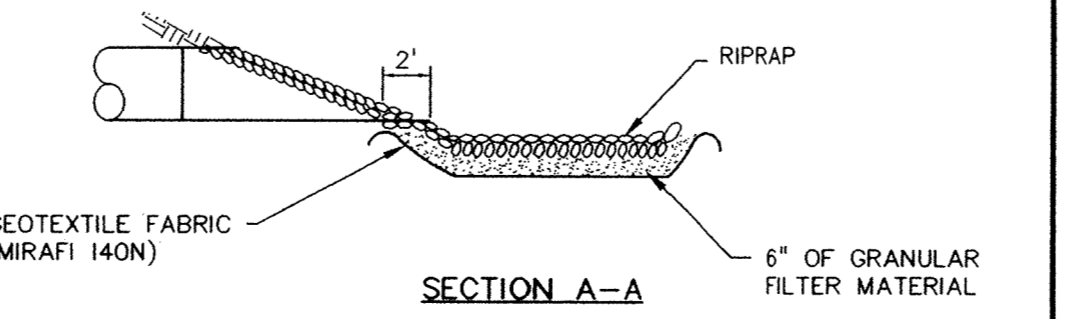
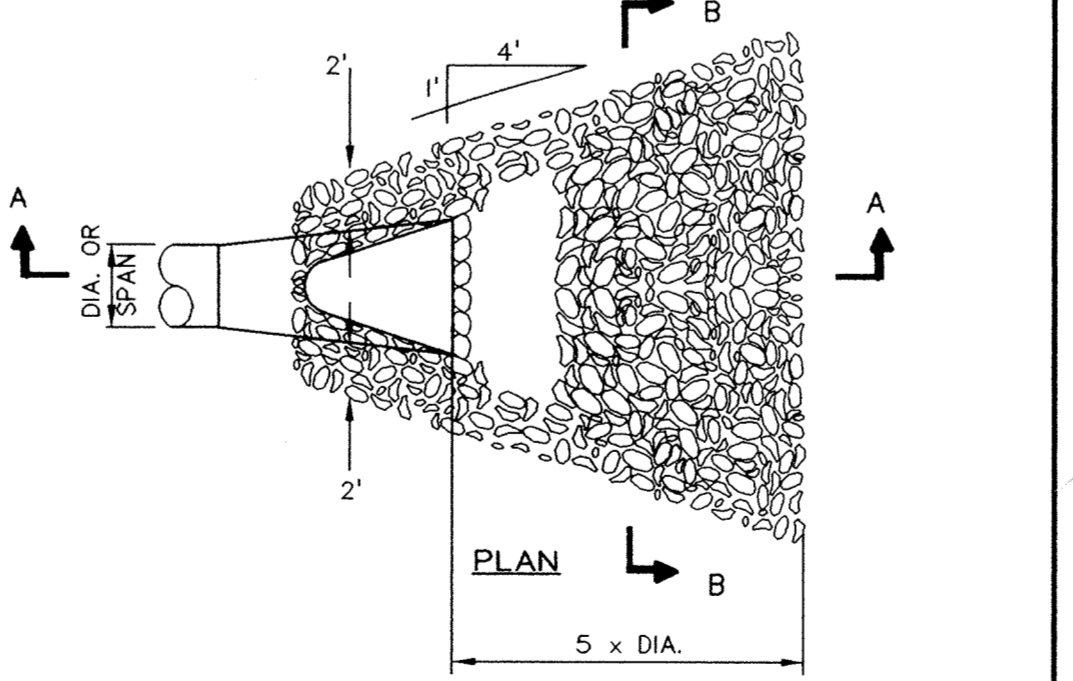


SUGGESTED PLACEMENT OF SEDIMENT CONTROL BALES

EROSION CONTROL MEASURES (E-02)

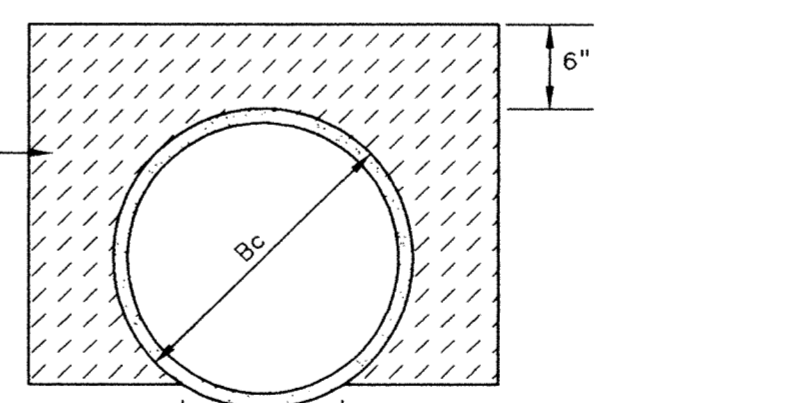


SECTION B-B



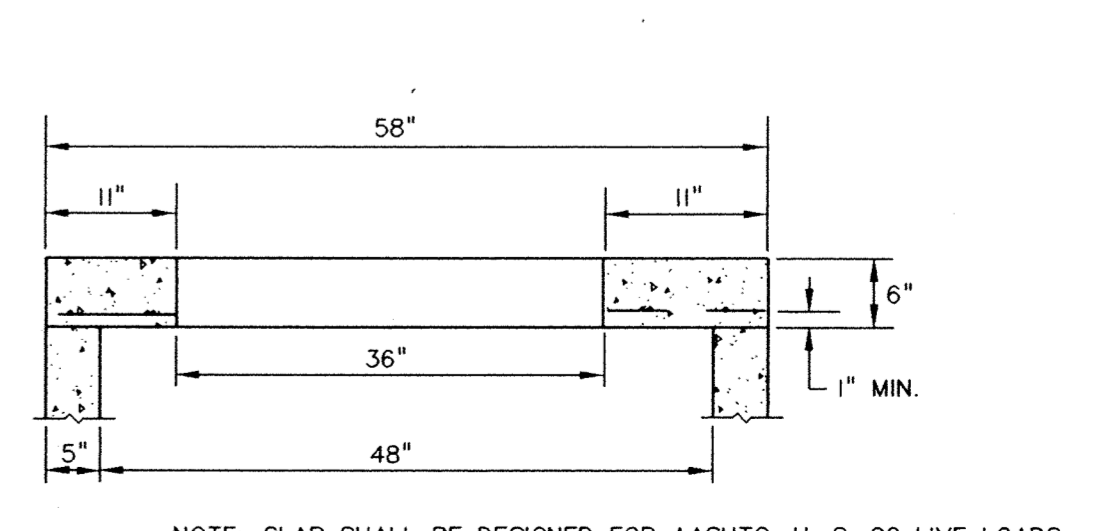
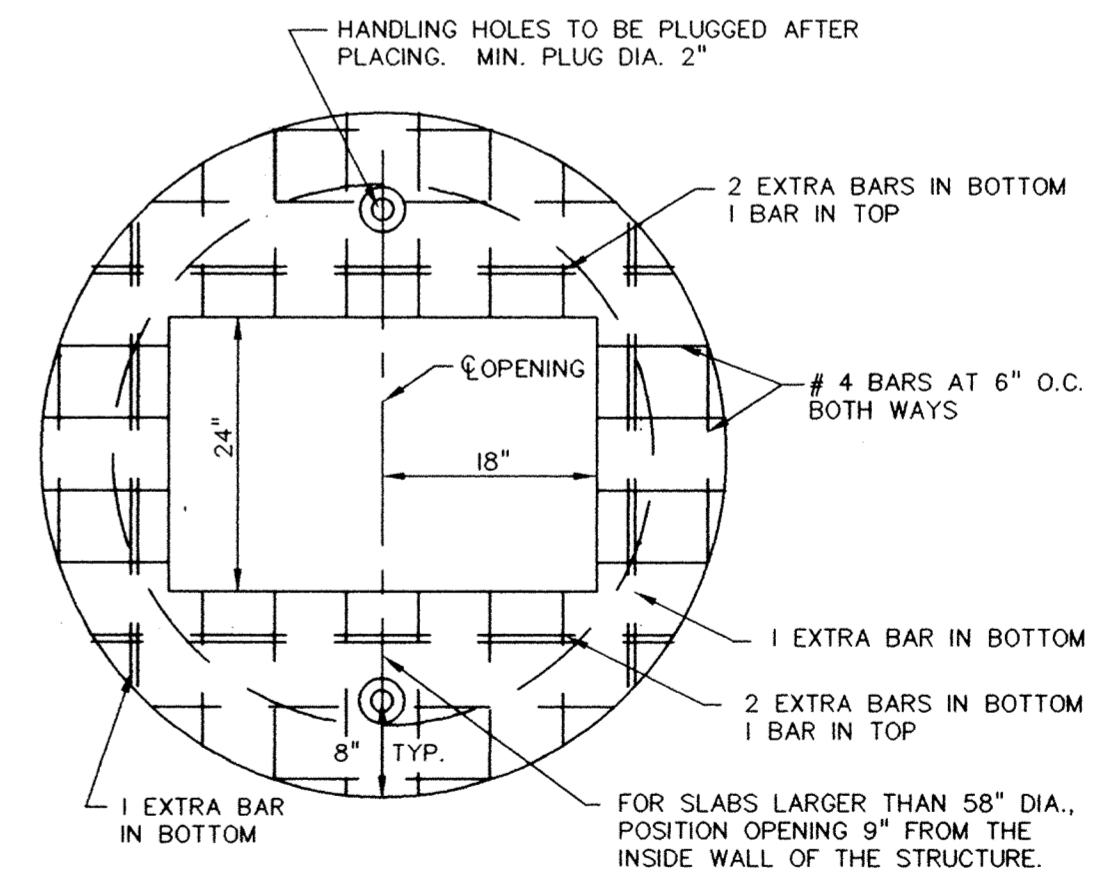
RANDOM RIPRAP (D-10)

PRIME CONTRACTOR/UTILITIES: C.W. HOULE, INC.
 CURB & GUTTER: HALVORSON CONCRETE, INC.
 STREETS: BAUERLY BROS., INC.
 INSPECTION: RALPH BADER, HOWARD R. GREEN CO.
 SURVEY: JOHN OLIVER & ASSOCIATES, INC.
 EARTHWORK: SOIL-CON, INC.
 RECORD DRAWINGS: FRED FRITSCHEL, JOA
 CONSTRUCTED: 1997



CLASS C CONCRETE PIPE BEDDING (S-10)

- REFERENCE:
 CONCRETE PIPE DESIGN MANUAL
 PREPARED BY AMERICAN CONCRETE PIPE INSTITUTE
- NOTE:
 FOR ROCK OR OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHOULD BE OVER EXCAVATED A MINIMUM OF 6" AND BACKFILLED WITH GRANULAR MATERIAL.



STANDARD RECTANGULAR MANHOLE SLAB TOP (D-05)