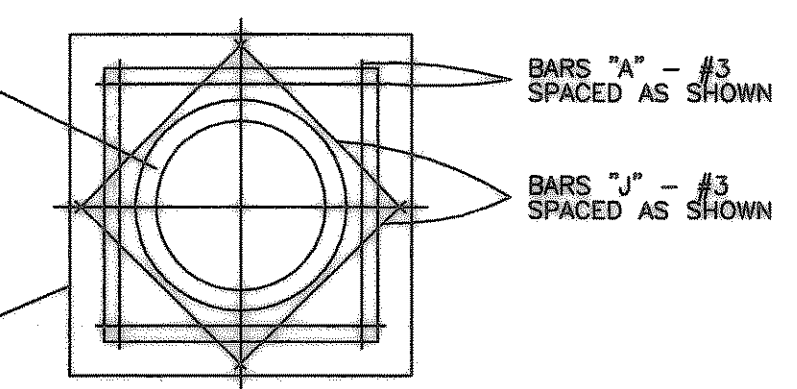


OUTLET STRUCTURE WITH FLOW CONTROL AND OVERFLOW POLLUTION RETENTION
N.T.S.

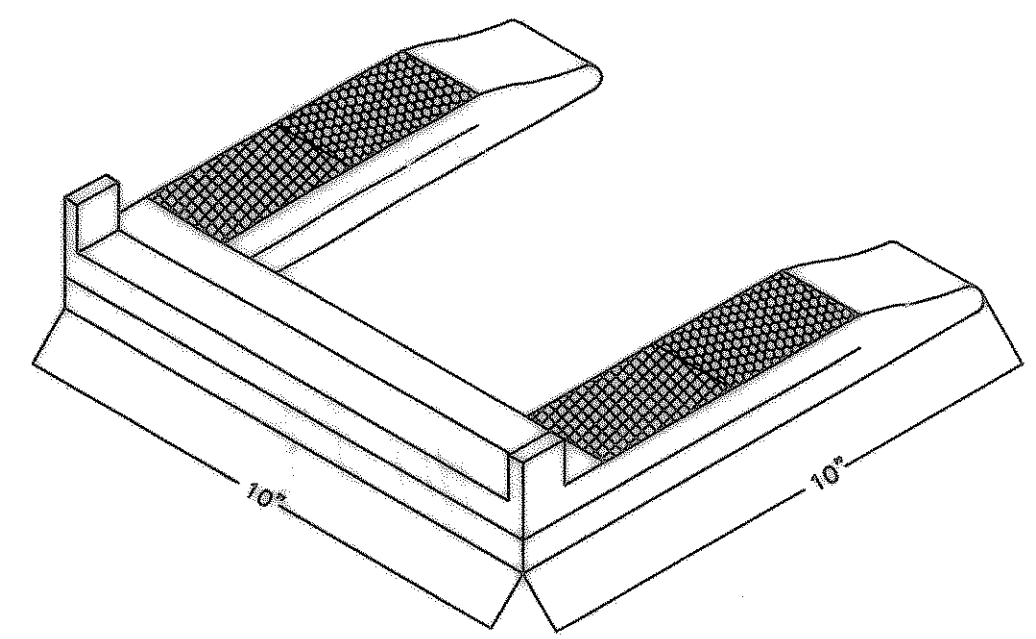
NOTE: FRAME AND COVER SHALL BE BASS & HAYES PATTERN NO. 380-24 OR EQUAL AND SHALL BE OF GRAY CAST IRON CONFORMING TO A.S.T.M. SPEC. A-48 FOR CLASS 30 CAST IRON.

PROVIDE 3/4" PREMOLDED EXPANSION JOINT BETWEEN MANHOLE AND CONCRETE PAVEMENT AND SEAL WITH HOT POURED RUBBER.

CAST IRON MANHOLE FRAME AND COVER



TOP PLAN
TYPE A & TYPE B
STORM SEWER MANHOLE
NOTE: MAX. PIPE SIZE 78"

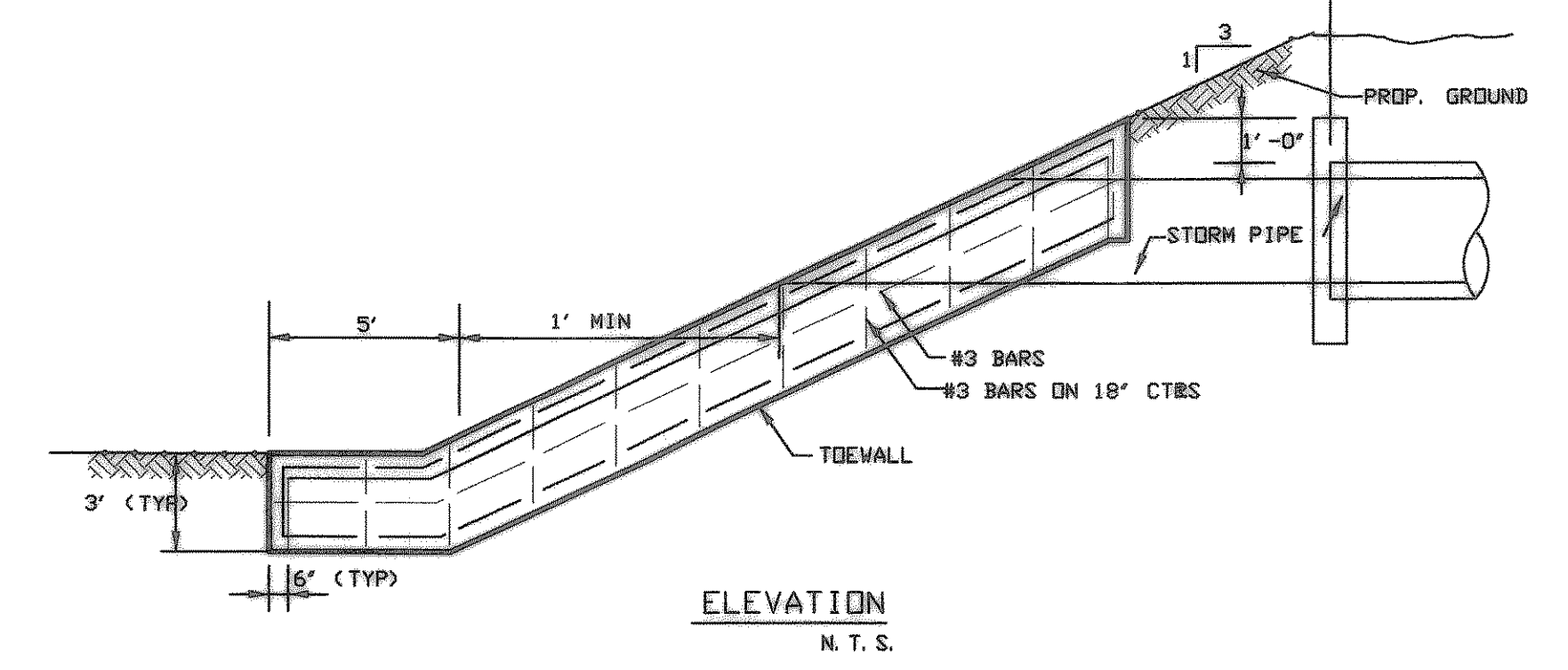


MANHOLE STEP DETAIL
BASS & HAYES FOUNDRY # MA (PLASTIC)

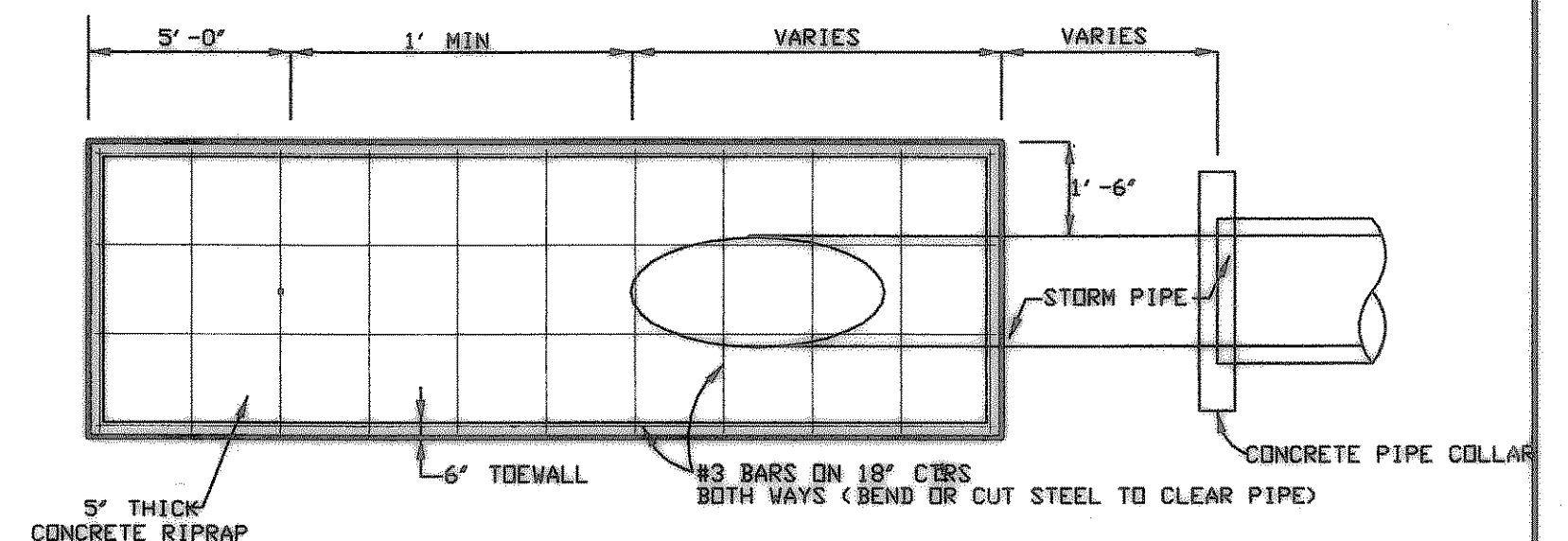
STORM SEWER MANHOLE
NOTE: MAX. PIPE SIZE 78"

- NOTES: APPLICABLE TO ALL MANHOLES
1. PREFABRICATED MANHOLES OF EQUIVALENT STRENGTH AND DESIGN MAY BE SUBSTITUTED WITH THE APPROVAL OF AN ENGINEER.
 2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4200 LBS. PER SQUARE INCH AT 28 DAYS.
 3. MANHOLES SHALL BE BUILT ON THE MAIN SEWER LINE, LATERAL PIPES MAY ENTER MANHOLES AT ANY LOCATION.
 4. MANHOLES WILL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE PER EACH REGARDLESS OF MANHOLE DEPTH.
 5. CYLINDRICAL SHAPED MANHOLES MAY BE USED AS DIRECTED BY ENGINEER IN LIEU OF MANHOLE DESIGN SHOWN ON THIS PAGE.
 6. CONCRETE FOR PAVEMENT BLOCKOUTS SHALL BE CLASS HAND FINISH CONCRETE (4500 P.S.I.).

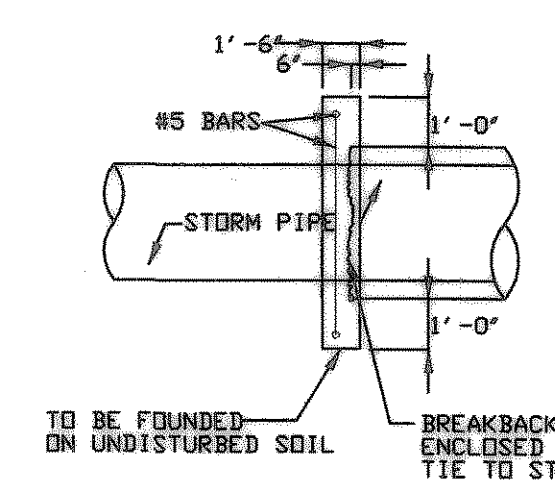
NOTE: BASS & HAYES PLASTIC COATED STEEL NEOPRENE COATED STEEL STEPS OR EQUAL SHALL BE PLACED SECURELY INTO MANHOLE WALLS ON 15" CENTERS VERTICALLY AND STAGGERED ON 12" CENTERS HORIZONTALLY.



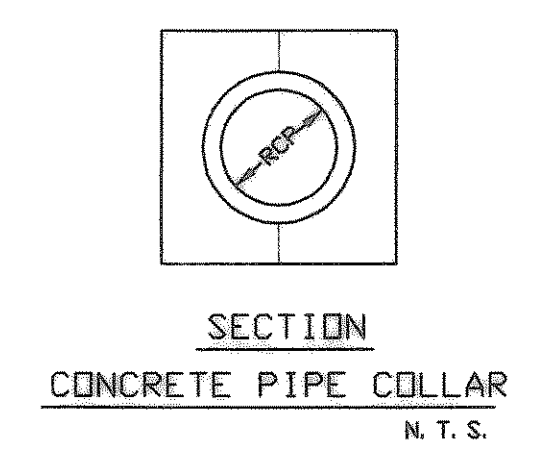
ELEVATION
N. T. S.



PLAN
N. T. S.



ELEVATION
N. T. S.

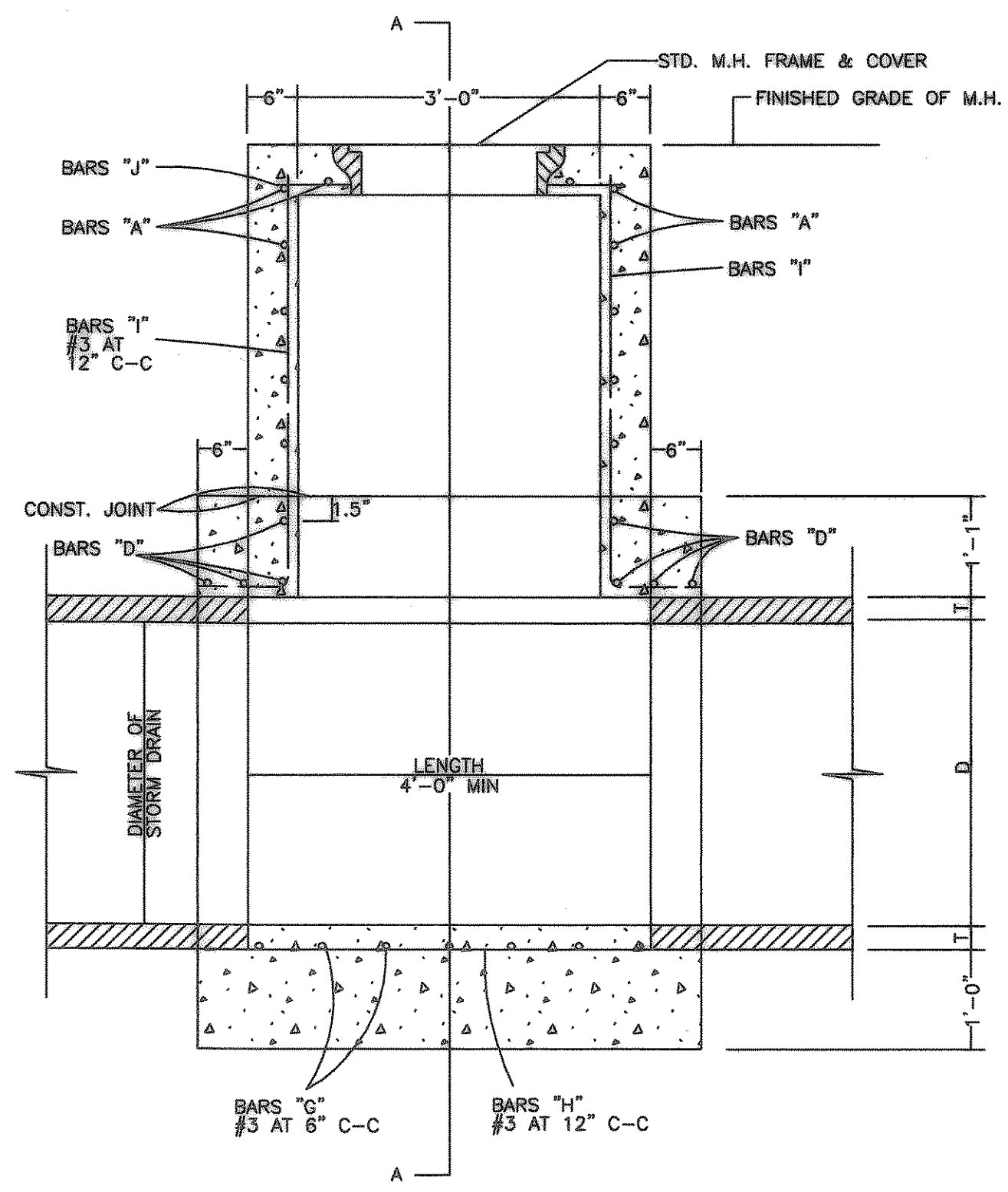


SECTION
CONCRETE PIPE COLLAR
N. T. S.

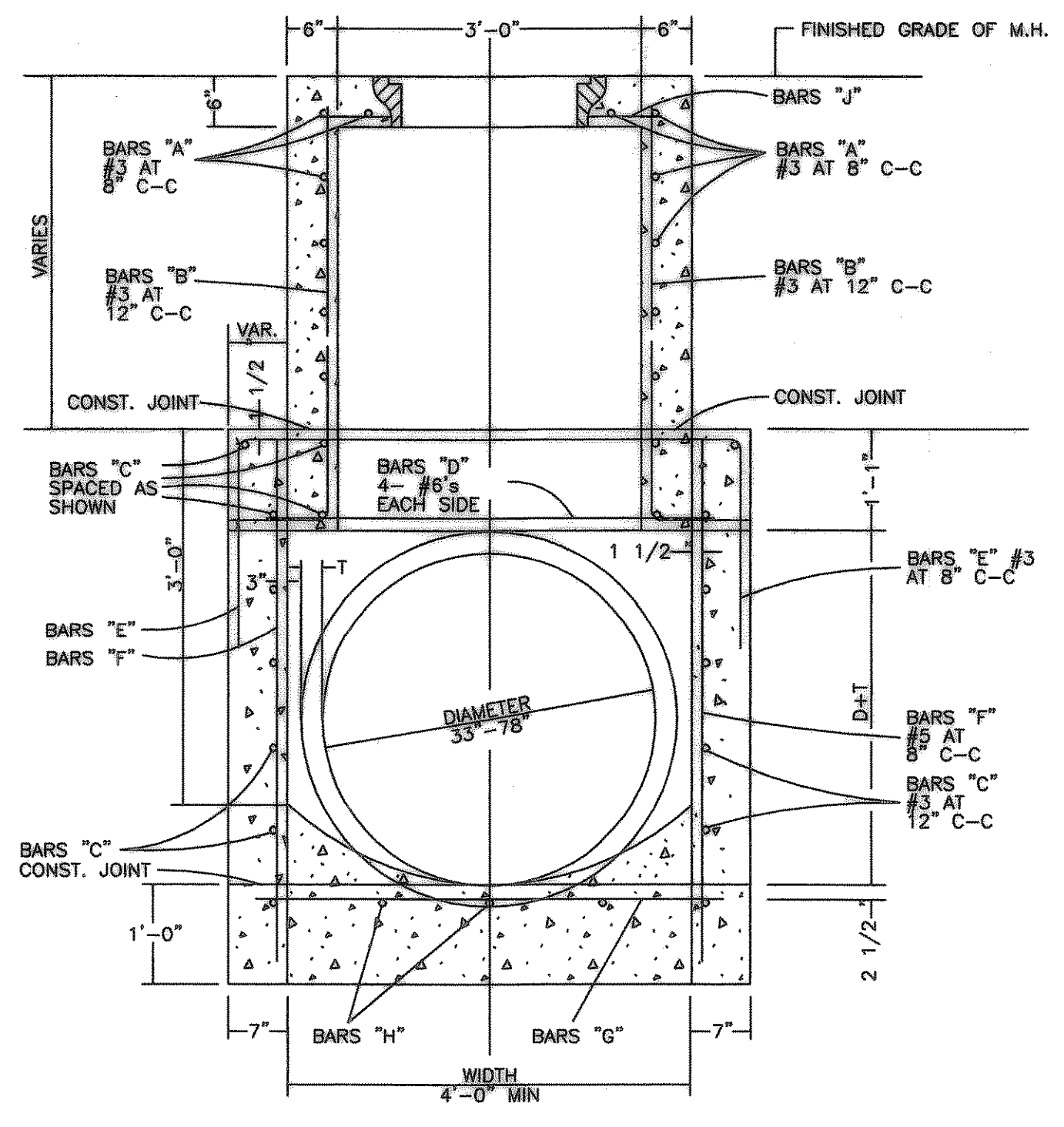
NOTES AND SPECIFICATIONS

1. CONCRETE FOR PIPE COLLAR AND RIPRAP SHALL BE 3000 PSI REINFORCING STEEL AND SHALL CONFORM TO ASTM SPECIFICATION A-615, GRADE 40.
2. REINFORCED CONCRETE PIPE (RCP) SHALL BE CLASS III TONGUE AND GROOVE TYPE CONFORMING TO ASTM SPECIFICATIONS C-76. OF THE DIAMETER INDICATED ON THE DRAWING.
3. HIGH DENSITY POLYETHYLENE (H.D.P.E.) PIPE SHALL CONFORM TO ASTM D3350 FOR CELL CLASS 324420C POLYETHYLENE TUBE MATERIAL SHALL MEET OR EXCEED THE DESIGNATION REQUIREMENTS OF TYPE III, CATEGORY 4 OR 5, GRADE P33 OR P34, AND CLASS C AS PER ASTM D 1248 STANDARD SPECIFICATION FOR POLYETHYLENE PLASTICS MOLDING AND EXTRUSION MATERIALS. THE INSIDE OF THE PIPE SHALL BE SMOOTH WITH AN "n" VALUE OF 0.12 OR 0.13. PIPE SHALL BE ONE 24" LONG SECTION (NO JOINTS ALLOWED).

SLOPE HEADWALL DETAIL



ELEVATION



SECTION A-A

STORM SEWER MANHOLE
(FOR PIPE 33" TO 78" IN DIAMETER)

RECORD DRAWING
REVISED TO REFLECT KNOWN CHANGES MADE DURING CONSTRUCTION.
Robert F. Wight DATE 8-10-03

BENCHMARK:
TOP FLANGE BOLT ON FIRE HYDRANT CORNER OF I-30 AND GREENCREST BLVD. ELEVATION 570.25

PATE ENGINEERS
8150 BROOKVIEW DRIVE
SUITE 57-100
DALLAS, TEXAS 75247
TEL: (214) 357-2981
FAX: (214) 357-2985

TRAVEL CENTERS OF AMERICA - Protolite
Interstate 30 at State Highway 205
Rockwall, Texas 75087

PROJECT NO: TAR2TX

STATE OF TEXAS
REGISTERED PROFESSIONAL ENGINEER
35510
Robert F. Wight
10-18-02

REVISIONS: CONSTRUCTION SET DOCUMENTS; CONSTRUCTION BULLETIN #1 10/18/02

REVISIONS PER OWNER'S COMMENTS
REVISIONS PER CITY COMMENTS

CHECKED BY: JEM

Sheet:
STORM DRAIN DETAIL
C-11
Date: SEPTEMBER 25, 2002