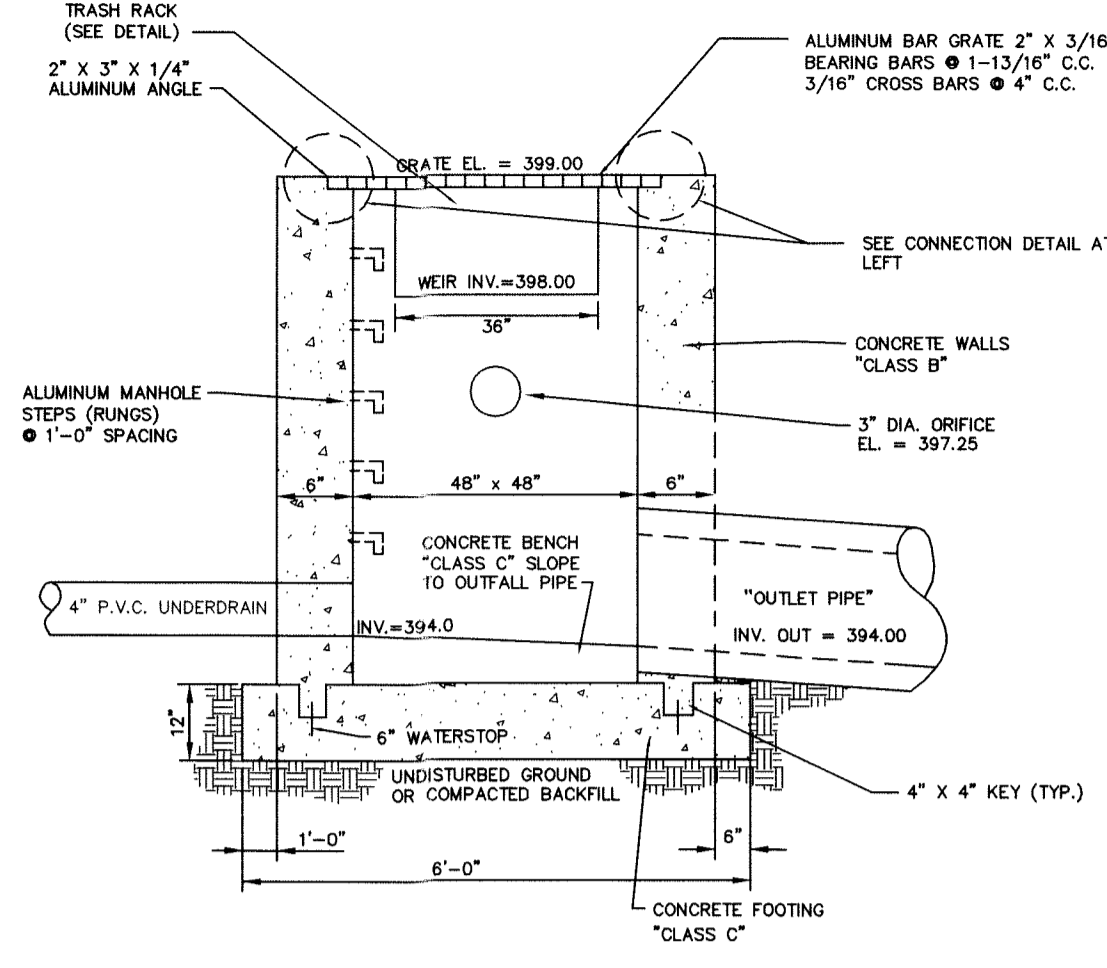
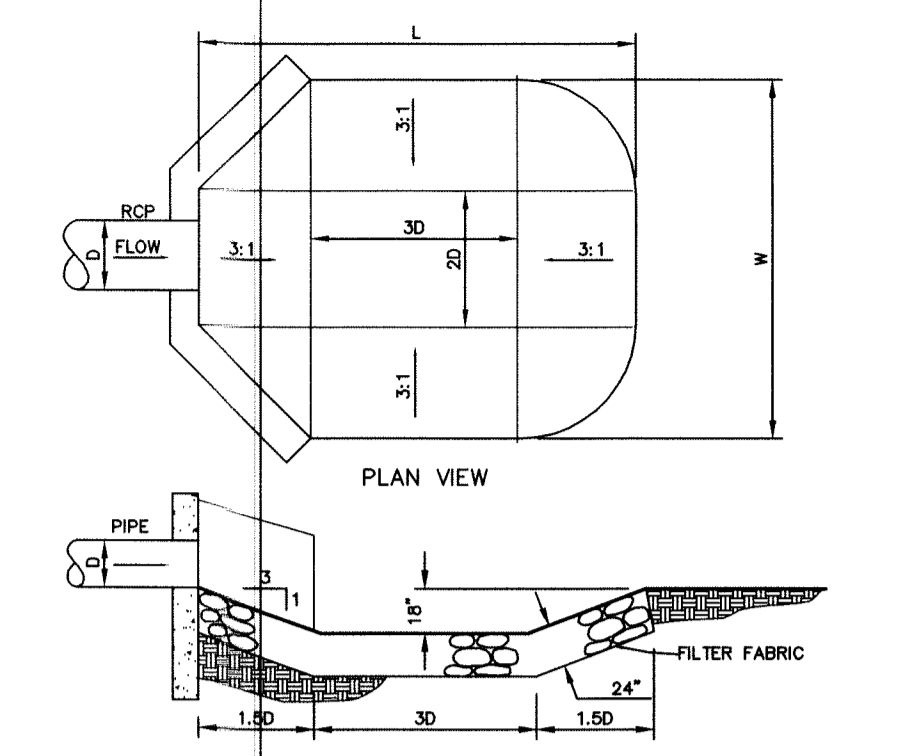


**NOTES:**  
 1. ALL TRASH RACKS MUST HAVE SUFFICIENT NET OPEN AREA PERPENDICULAR TO FLOW TO CONVEY PEAK DESIGN FLOW THROUGH THEM WITH MAXIMUM VELOCITY OF 2 F.P.S. IN MOST CASES, PEAK DESIGN FLOW SHOULD BE BASED ON PASSAGE OF EMERGENCY SPILLWAY HYDROGRAPH (ESH).  
 2. ALL ALUMINUM SURFACES MOUNTED DIRECTLY TO CONCRETE MUST BE PAINTED WITH A HEAVY COAT OF ALUMINUM PIGMENTED ALKALINE RESISTANT BITUMINOUS PAINT EQUAL TO MILITARY SPECIFICATION MIL-86857.  
 3. ALL TRASH RACKS AND FASTENERS SHALL HAVE SUFFICIENT STRENGTH TO WITHSTAND ANTICIPATED LOADINGS.  
 4. SECONDARY WEIR OR ORIFICE TRASH RACKS SHOULD BE PROVIDED WHERE POTENTIAL EXISTS FOR DEBRIS TO BLOCK THE WEIR OR ORIFICE, OR TO ENTER THE OUTLET STRUCTURE AND BLOCK THE OUTLET PIPE. RACKS SHOULD ALSO BE PROVIDED WHERE NECESSARY TO PREVENT ACCIDENTAL OR UNAUTHORIZED ENTRY, PARTICULARLY BY CHILDREN. ACTUAL SITE AND STRUCTURE CONDITIONS MUST BE CONSIDERED IN EVALUATION OF TRASH RACK NEEDS AND DESIGNS.



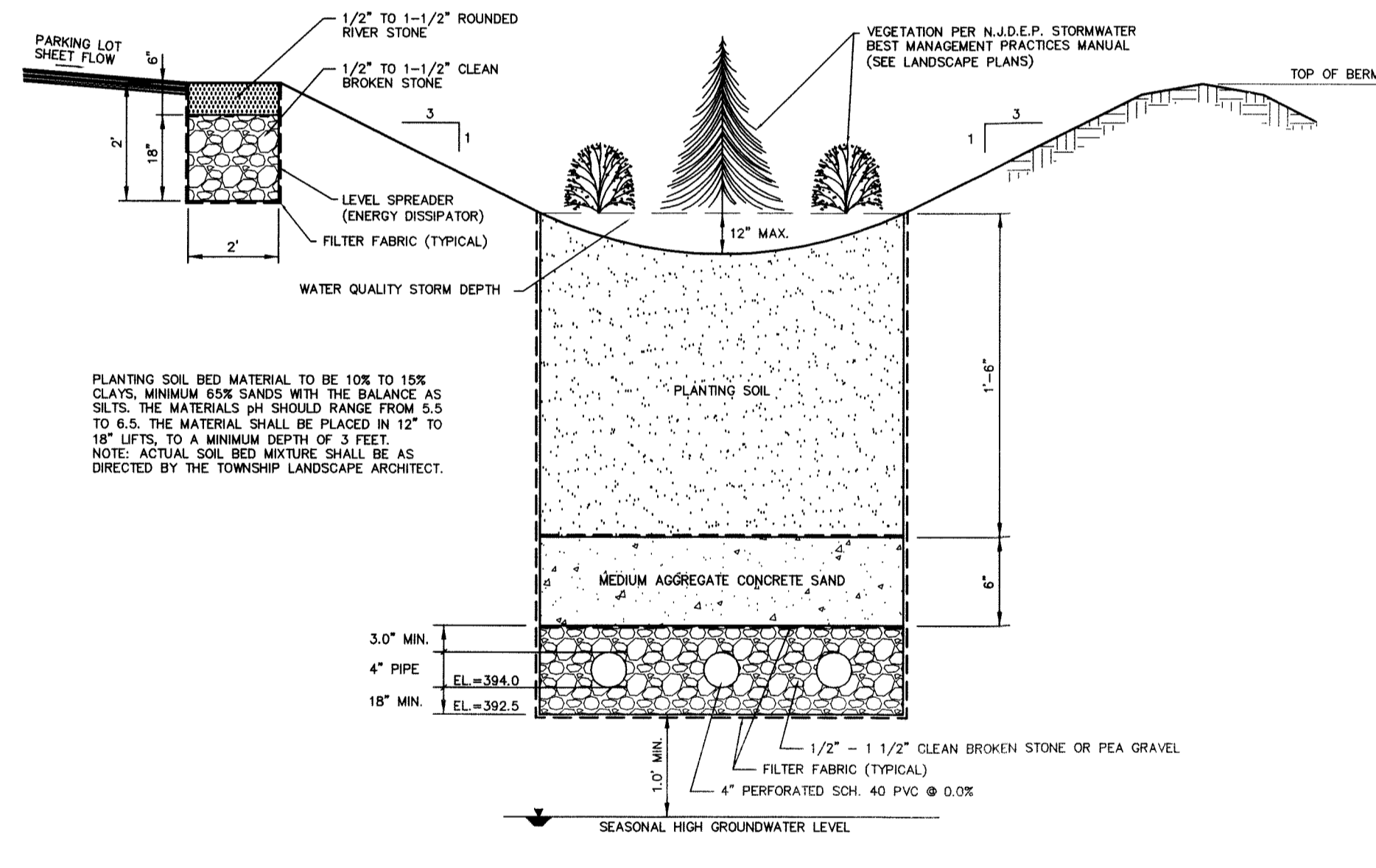
**OUTLET STRUCTURE DETAIL**  
NOT TO SCALE



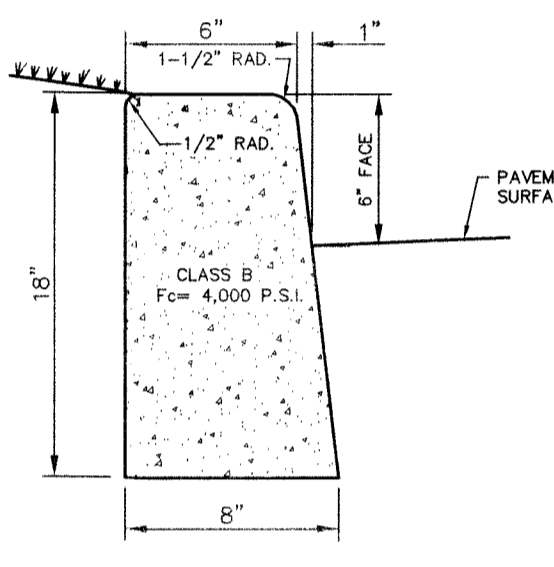
**SCOUR HOLE SCHEDULE**

HEAD WALL NO.	D	S %	Q (CFS)	L (FT.)	W (FT.)	D50 (IN)	T (IN)
1	18"	1.0	10.1	13.5	12.0	8	24
2	24"	1.0	25.0	18.0	16.0	8	24
3	15"	1.0	4.13	13.5	12.0	8	24

**SCOUR HOLE PROTECTION DETAIL**  
NOT TO SCALE

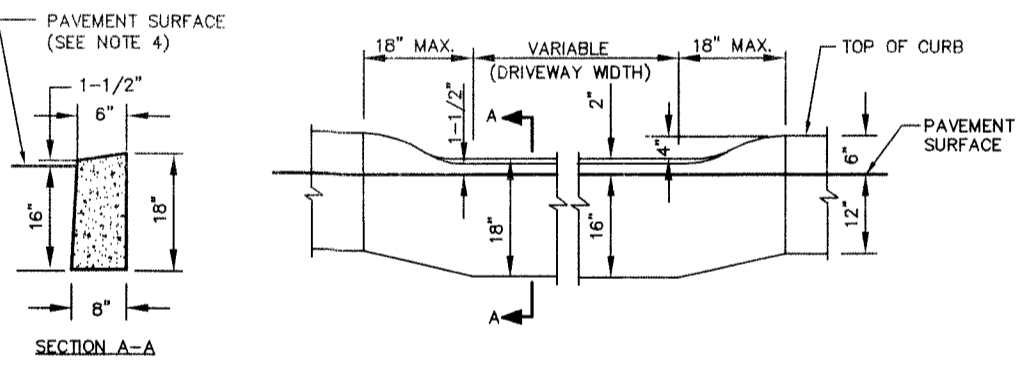


**SECTION: BIORETENTION BASIN**  
NOT TO SCALE



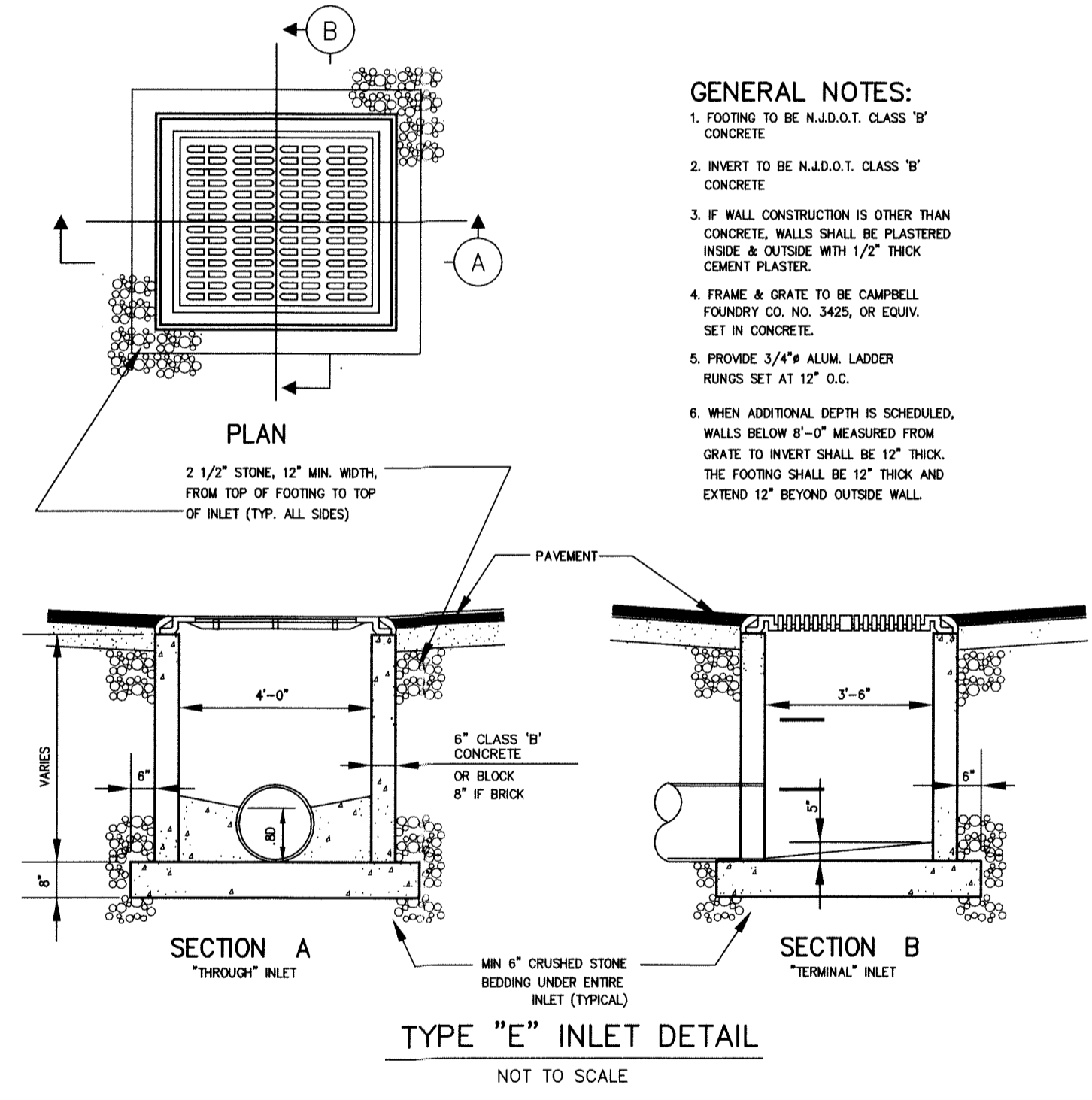
**NOTES:**  
 1. EXPANSION JOINTS SHALL BE PROVIDED AT APPROXIMATELY EQUAL DISTANCES OF NOT MORE THAN 20' BETWEEN JOINTS, AND SHALL BE FILLED WITH PREFORMED EXPANSION JOINT FILLER, 1/2" THICK, WHICH SHALL BE FLUSH WITH TOP AND FACE.  
 2. CLEAN 3/16" JOINTS AT 10' O.C.  
 3. CONCRETE SHALL BE 4000 P.S.I. CLASS B' AIR ENTRAINED ACCORDING TO THE REQUIREMENTS OF THE NEW JERSEY D.O.E. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

**CONCRETE CURB DETAIL**  
NOT TO SCALE



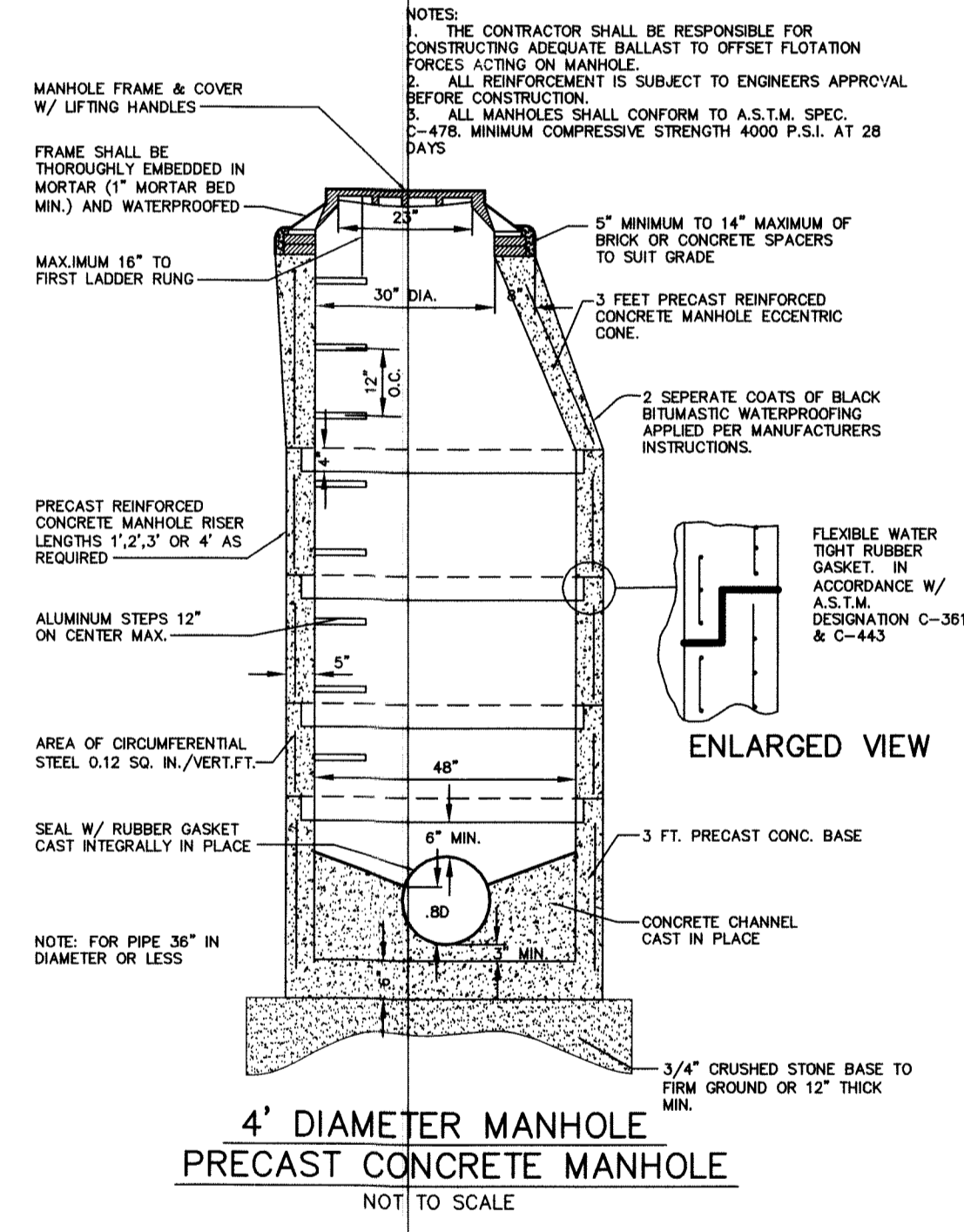
**NOTES:**  
 1. EXPANSION JOINTS SHALL BE PROVIDED AT APPROXIMATELY EQUAL DISTANCES OF NOT MORE THAN 30' BETWEEN JOINTS, AND SHALL BE FILLED WITH PREFORMED EXPANSION JOINT FILLER, 1/2" THICK, WHICH SHALL BE FLUSH WITH TOP AND FACE.  
 2. CLEAN 3/16" JOINTS AT 10' O.C.  
 3. CONCRETE SHALL BE 4000 P.S.I. CLASS B' AIR ENTRAINED ACCORDING TO THE REQUIREMENTS OF THE NEW JERSEY D.O.E. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.  
 4. PAVEMENT SURFACE TO BE FLUSH WITH CURB AT HANDICAP ACCESS AND LEVEL SPREADER LOCATIONS. TOP OF CURB AT HANDICAP ACCESS SHALL SLOPE TOWARDS THE PARKING AREA. TOP OF CURB AT LEVEL SPREADER SHALL SLOPE TOWARDS THE DETENTION BASIN.

**DEPRESSED CURB DETAIL**  
NOT TO SCALE

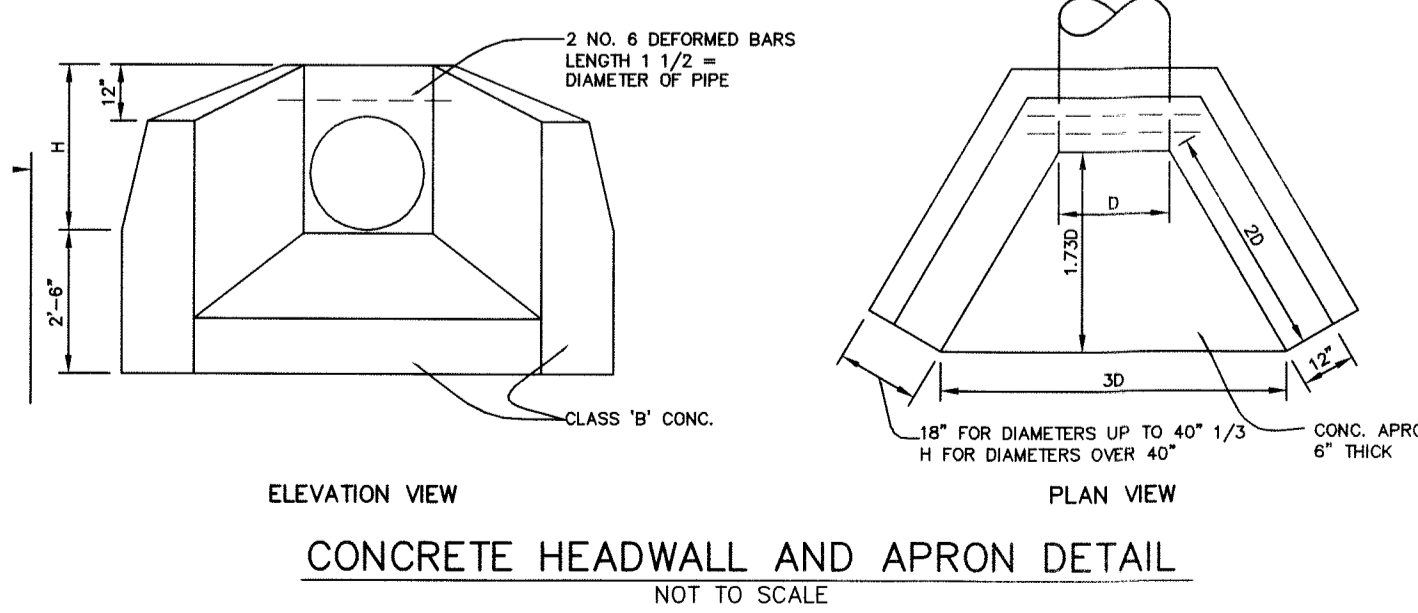


**GENERAL NOTES:**  
 1. FOOTING TO BE N.J.D.O.T. CLASS 'B' CONCRETE.  
 2. INVERT TO BE N.J.D.O.T. CLASS 'B' CONCRETE.  
 3. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, WALLS SHALL BE PLASTERED INSIDE & OUTSIDE WITH 1/2" THICK CEMLA PLASTER.  
 4. FRAME & GRATE TO BE CAMPBELL FOUNDRY CO. NO. 3425, OR EQUIV. SET IN CONCRETE.  
 5. PROVIDE 3/4" ALUM. LADDER RUNGS SET AT 12' O.C.  
 6. WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW 6'-0" MEASURED FROM GRATE TO INVERT SHALL BE 12" THICK. THE FOOTING SHALL BE 12" THICK AND EXTEND 12" BEYOND OUTSIDE WALL.

**TYPE "E" INLET DETAIL**  
NOT TO SCALE



**4' DIAMETER MANHOLE PRECAST CONCRETE MANHOLE**  
NOT TO SCALE



**CONCRETE HEADWALL AND APRON DETAIL**  
NOT TO SCALE

NOTE: SHOP DRAWINGS FOR ALL PRECAST DRAINAGE STRUCTURES SHALL BE SUBMITTED TO AND APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO FABRICATION.

NO.	DATE	REVISION
2	01/15/21	PER BOARD
1	07/20/20	PER TOWNSHIP REVIEW

DANIEL E. PARKER  
NEW JERSEY LAND SURVEYOR LIC. NO. 35866



DRAWN BY: PJD  
 CHECKED BY: SEP  
 SCALE: AS NOTED

**SITE PLAN**  
 488 ROUTE 31 SOUTH  
 TAX MAP LOT 7.06 BLOCK 79  
 TOWNSHIP OF WASHINGTON  
 WARREN COUNTY, NEW JERSEY

**STEPHEN E. PARKER**  
 NEW JERSEY PROFESSIONAL ENGINEER LIC. NO. 36187

DATE: 04-15-19  
 FILE: 13211  
 SHEET: 8 OF 9