

PLANS
FILE
NO.

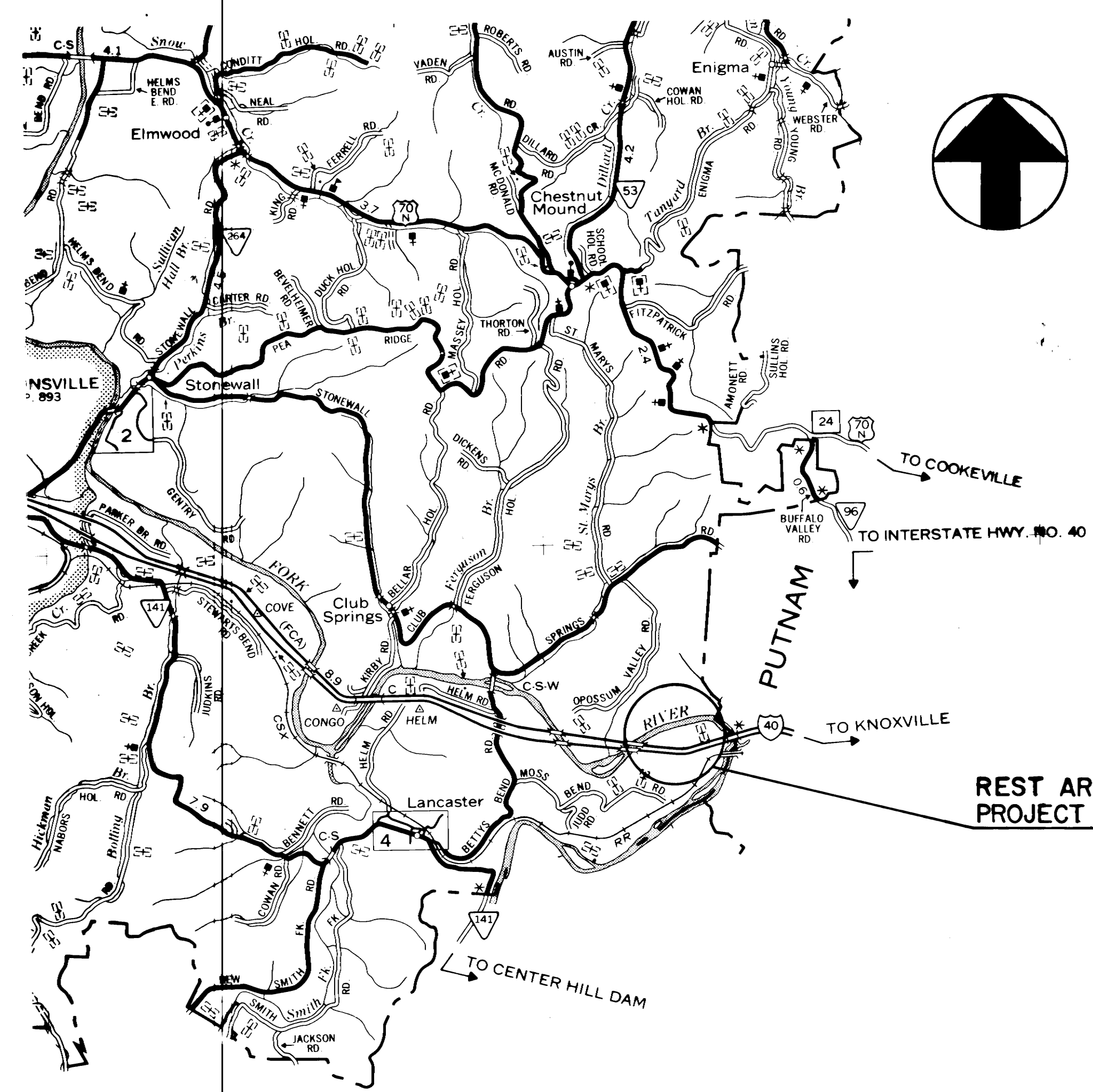
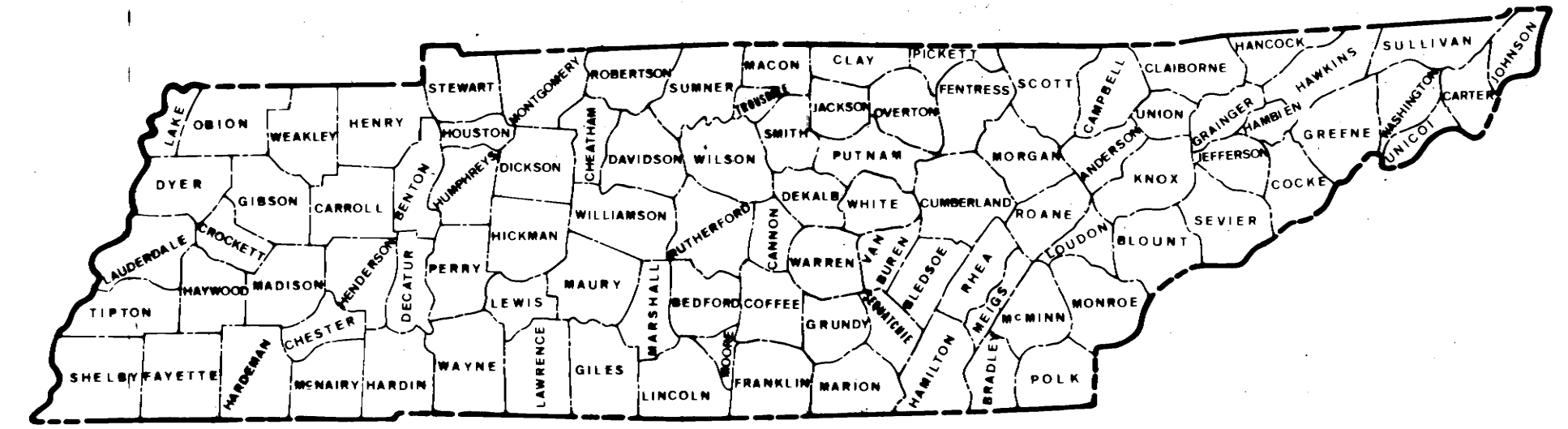
Index of Sheets	
TITLE SHEET	1
SITE PLANS, ESTIMATED QUANTITIES & SCOPE OF WORK	2
INTERMITTENT SAND FILTER PLAN, AND SECTION	2A
SEPTIC TANK PLAN, AND DETAILS	2B
CHLORINE CONTACT CHAMBER PLAN, AND DETAILS	2C
STANDARD WASTEWATER DETAILS	2D

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING AND DEVELOPMENT

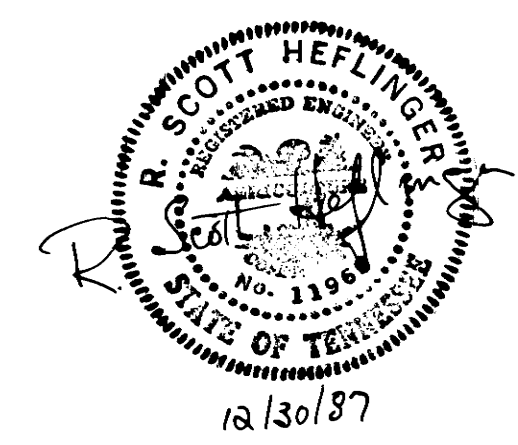
TENN.	YEAR	SHEET NO.
	1988	1
FED. AID PROJ. NO.		
STATE PROJ. NO.	80001-4155-04	

SMITH COUNTY
WASTEWATER TREATMENT
REST AREA

STATE HIGHWAY NO. F.A.H.S. NO.



REST AREA
PROJECT NO. 80001-4155-04



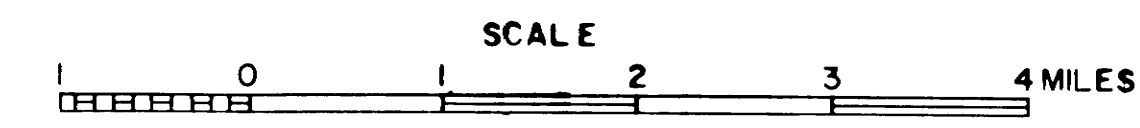
SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 1981 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

DES. ENG. SV. 1 DEWEY L. POWELL
DESIGNER DON HAYNES CHECKED BY DEWEY POWELL/CARL COBBLE
P.E. NO. 80001-4155-04

PROJECT LENGTH 0.000 MILES



TRAFFIC DATA	
ADT 1988	1800
ADT 2008	2900
DHV 2008	290
D	60-40
T	20%
V	65 M.P.H.

APPROVED: Louis Evans
STATE TRANSPORTATION ENGINEER

DATE _____
APPROVED: Jimmy L. Evans
COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
DIVISION ADMINISTRATOR DATE _____

SCOPE OF WORK

1. CONSTRUCT SEPTIC TANK AND DOSING SIPHON.
2. CONSTRUCT BURIED INTERMITTENT SAND FILTER.
3. CONSTRUCT CHLORINE CONTACT CHAMBER WITH APPURTENANCES.
4. INSTALL 6'-0" CHAIN LINK FENCE AROUND CHLORINE CONTACT CHAMBER.
5. CONNECT SEPTIC TANK TO EXISTING MANHOLE AND ABANDON LINE TO EXISTING FACILITY.
6. DEMOLISH EXISTING FACILITY IN ACCORDANCE WITH SPECIFICATION SECTION 02050.
7. GRADE AND SEED ENTIRE SITE INCLUDING OVER THE FILTER, TANK AND ABANDONED FACILITY.

NOTE:
IF REQUIRED THE CONTRACTOR WILL BE REQUIRED TO LOCATE AND FURNISH SUITABLE BORROW MATERIAL FROM A SITE APPROVED BY THE ENGINEER. ALL COSTS OF SAME TO BE INCLUDED IN THE BID FOR THE PROJECT.

NOTE: THIS SCOPE OF WORK IS NEITHER THE SEQUENCE OF WORK NOR A DETAILED DESCRIPTION, BUT A GENERAL OVERALL VIEW OF WORK TO BE DONE AT THIS REST AREA.

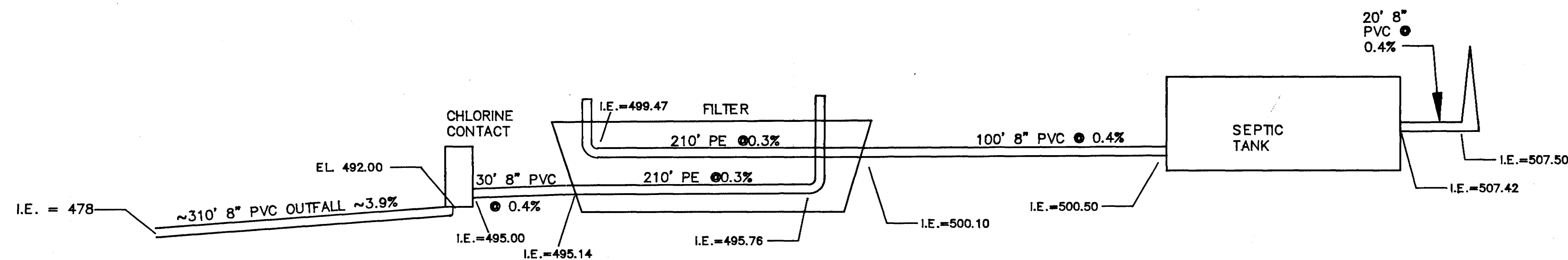
NOTE: EXCESS EXCAVATED MATERIAL FROM THE INSTALLATION OF THE SEPTIC TANK SHALL BE SPREAD AND CONTOUR TO GIVE THE REST AREA A SUBSEQUENT TO US INCLUDING IN OTHER ITEMS.

ESTIMATED QUANTITIES

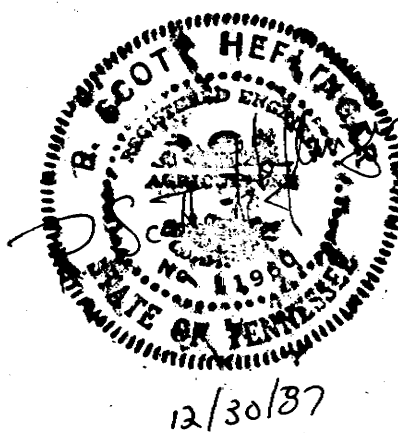
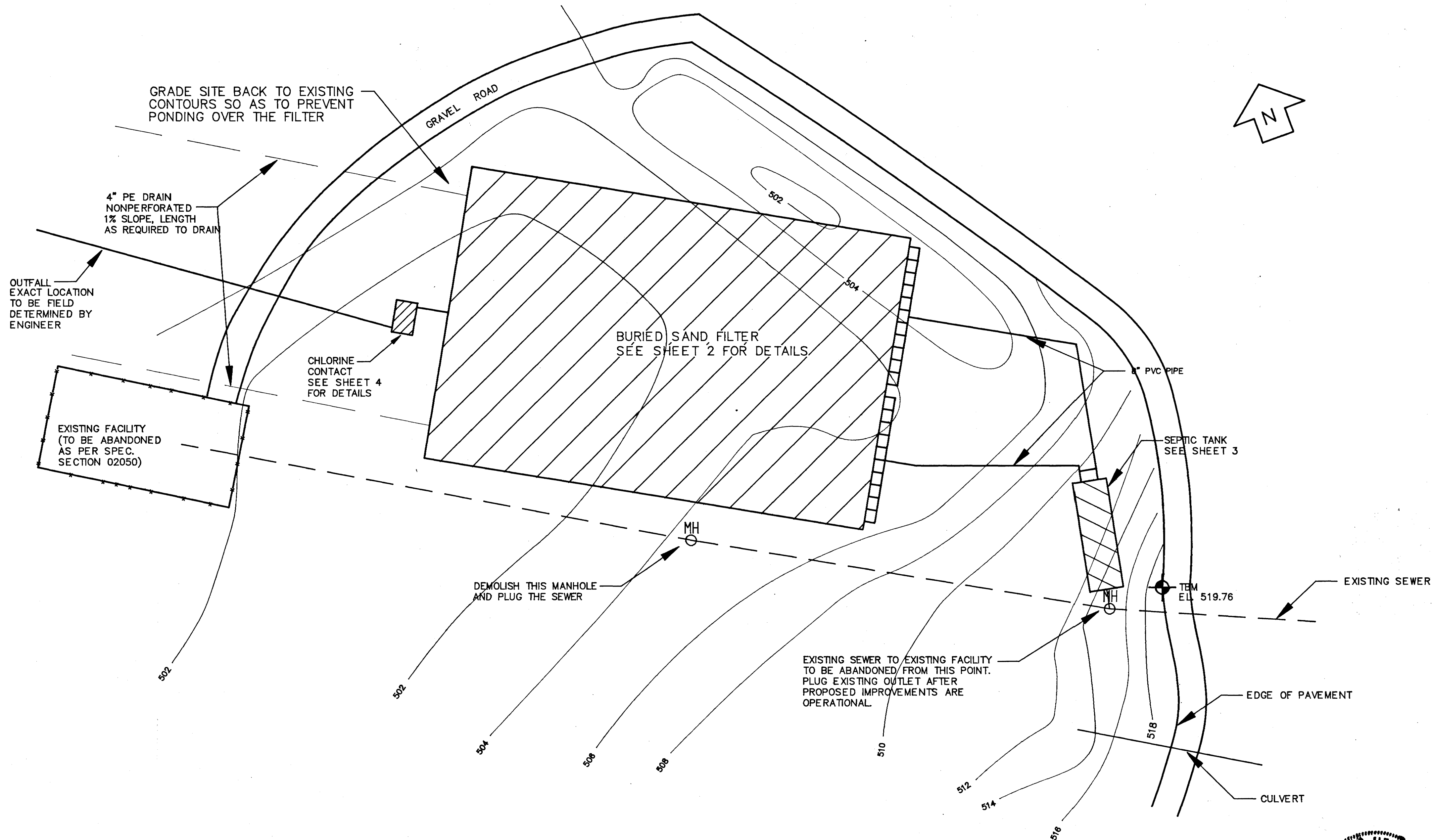
ITEM DESCRIPTION	SEPTIC TANK & DOSING SIPHON	FILTER	CHLORINE CONTACT CHAMBER	MISC.	TOTAL QUANTITY	UNIT
EXCAVATION	250	5000	125		5375	CU. YD.
REINFORCED CONCRETE INCLUDING FORMING AND STEEL	50		40		90	CU. YD.
6'-0" GALVANIZED CHAIN LINK FENCE INCLUDING A PERSONNEL GATE			80		80	L.F.
8" PVC SEWER PIPE				1400	1400	L.F.
8" PERFORATED POLYETHYLENE PIPE	50	9700			9750	L.F.
8" DIP	3				3	L.F.
8" GV					3	EA.
WEIR PLATE			1		1	EA.
DRY TYPE FLOW-THROUGH CHLORINATOR			1		1	EA.
FIBERGLASS GRATING WITH FRAME			26		26	SQ. FT.
STAFF GAUGE			1		1	EA.
8" DOSING SIPHON	2		2		4	EA.
MANHOLE FRAME AND COVER	3		3		6	EA.
40 MIL POLYETHYLENE LINER, INSTALLED		3500			3500	SQ. FT.
GALVANIZED PIPE HANDRAIL			50		50	L.F.
COARSE AGGREGATE (SIZE #4)		1100			1100	CUBIC YD
COARSE AGGREGATE (SIZE #5)		750			750	CUBIC YD
COARSE AGGREGATE (SIZE #7)		750			750	CUBIC YD
SAND (EFFECTIVE SIZE .3mm TO .6mm)		2200			2200	CUBIC YD
COARSE AGGREGATE (SIZE #57)		1100			1100	CUBIC YD
PLUG LINE TO EXISTING FACILITY INCLUDING SEPTIC TANK TIE-IN				1	1	EA.
SEEDING				2	2	ACRES

NOTE: THESE QUANTITIES ARE PROVIDED FOR INFORMATION PURPOSES ONLY AND ARE NOT INTENDED TO BE A BIDDING SCHEDULE.
IT SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH HIS BID BASED ON THE PLANS AND SPECIFICATIONS

BID ITEM DESCRIPTION			
ITEM NO	DESCRIPTION	UNIT	QUANTITY
755-46.86	WASTE TREATMENT PLANT REPAIRS	LS	1



HYDRAULIC PROFILE

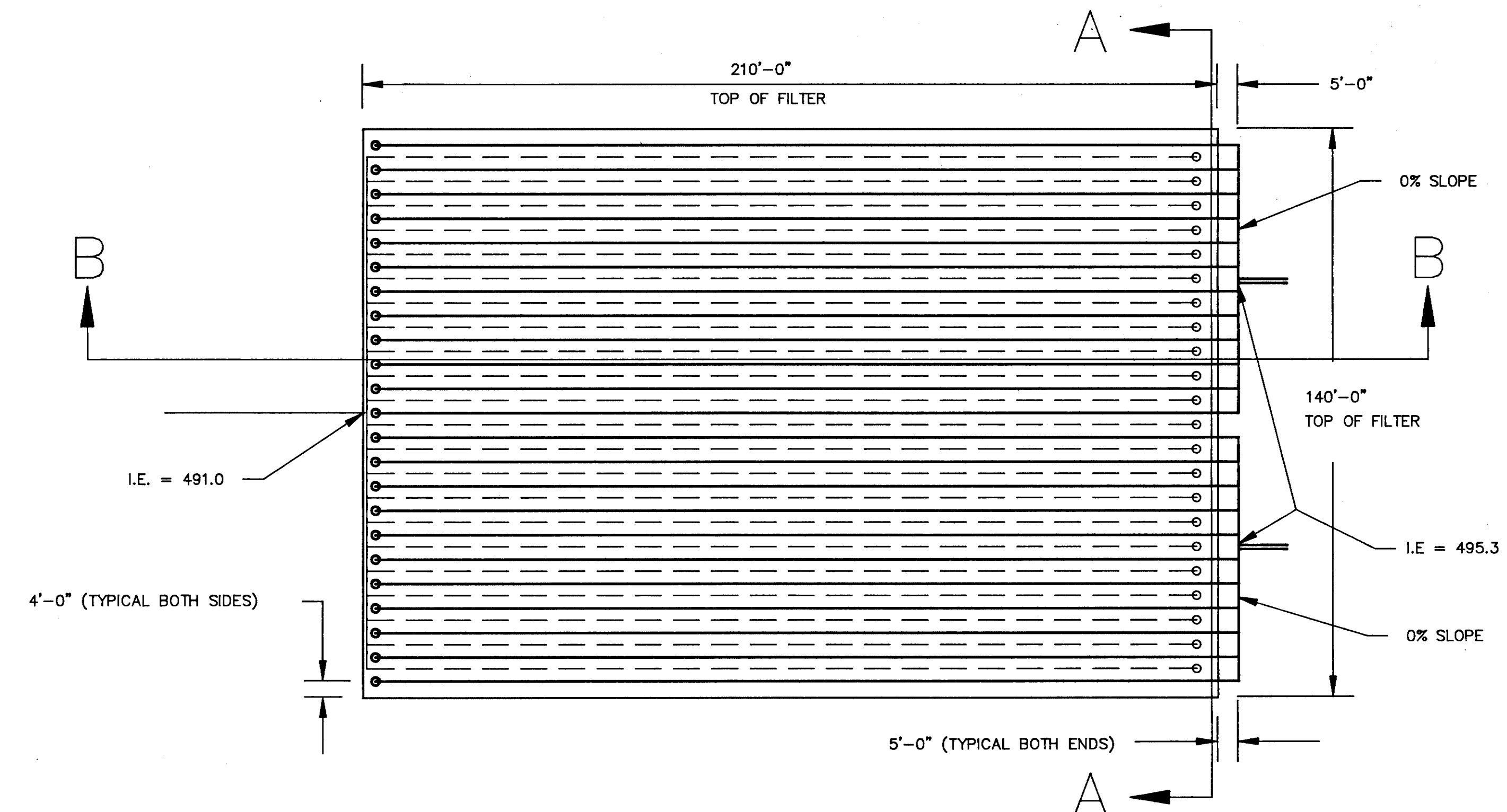


EMPE INC

SITE PLAN

SMITH COUNTY REST AREA
WASTEWATER IMPROVEMENTS

206	DESIGNED: D.M.H.	SCALE: 1"=30'	2
JOB NO.	DRAWN BY: J.W.	DATE: 12/5/87	SHEET NO.
	APP'D: T.B.G.	REVISION:	



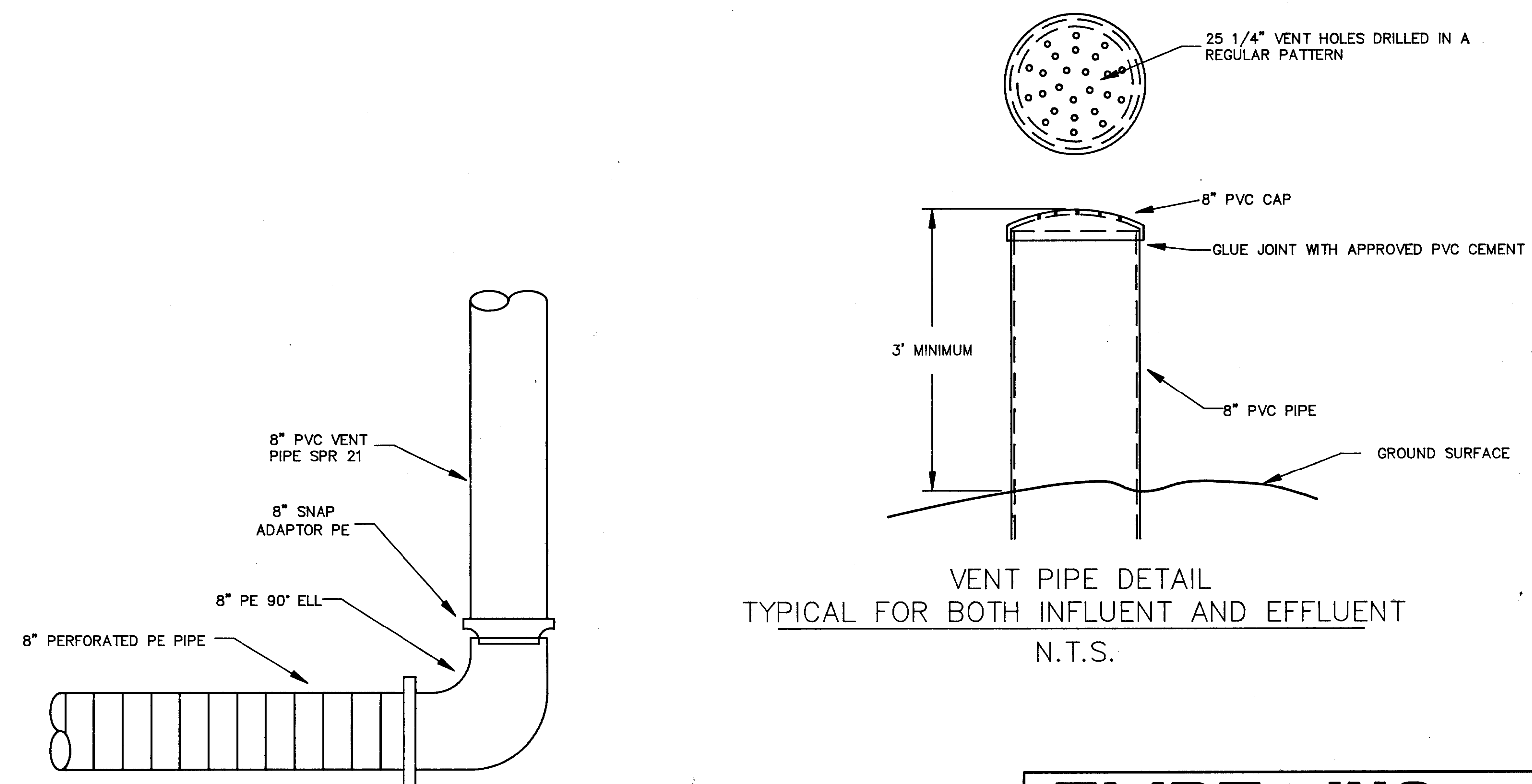
BURIED INTERMITTENT SAND FILTER
PLAN VIEW

N.T.S.

ALL HORIZONTAL PIPE IN THE FILTER IS
8" PERFORATED PE PIPE.

ALL VERTICAL PIPE IN THE FILTER IS
8" PVC PIPE

SAND USED IN FILTER IS NATURAL RIVER
SAND NOT MANUFACTURED.



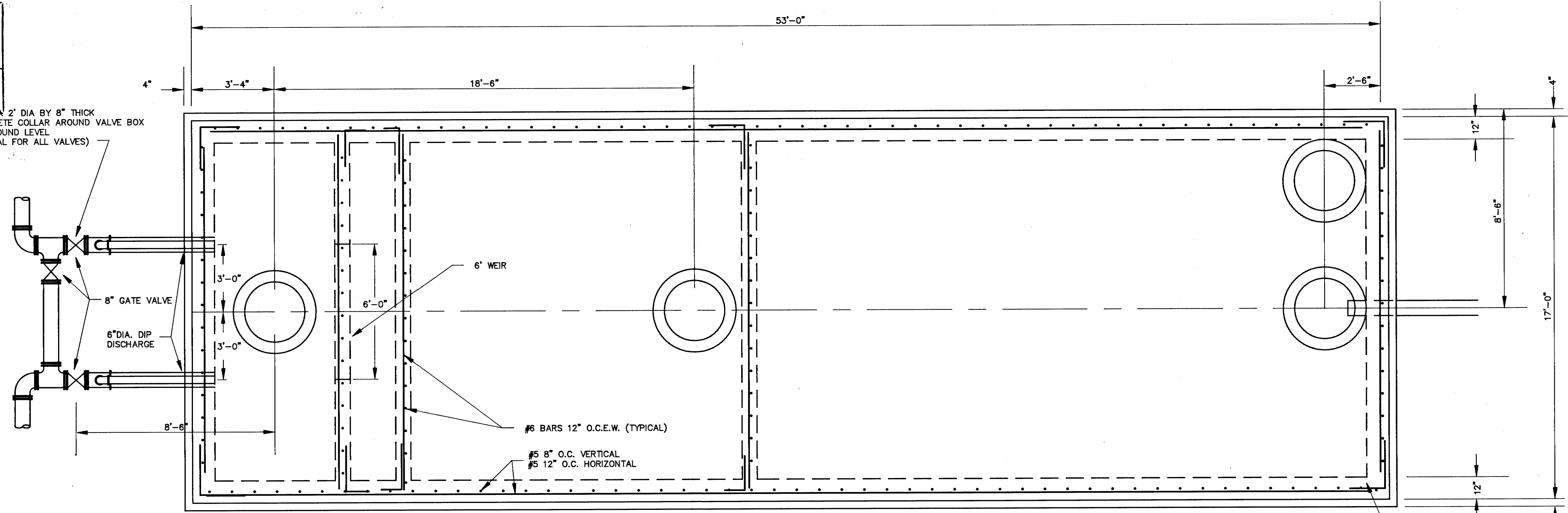
DETAIL AT PE TO PVC VENT CONNECTION

INTERMITTENT SAND FILTER PLAN, SECTIONS, AND DETAILS SMITH COUNTY REST AREA WASTEWATER IMPROVMENTS

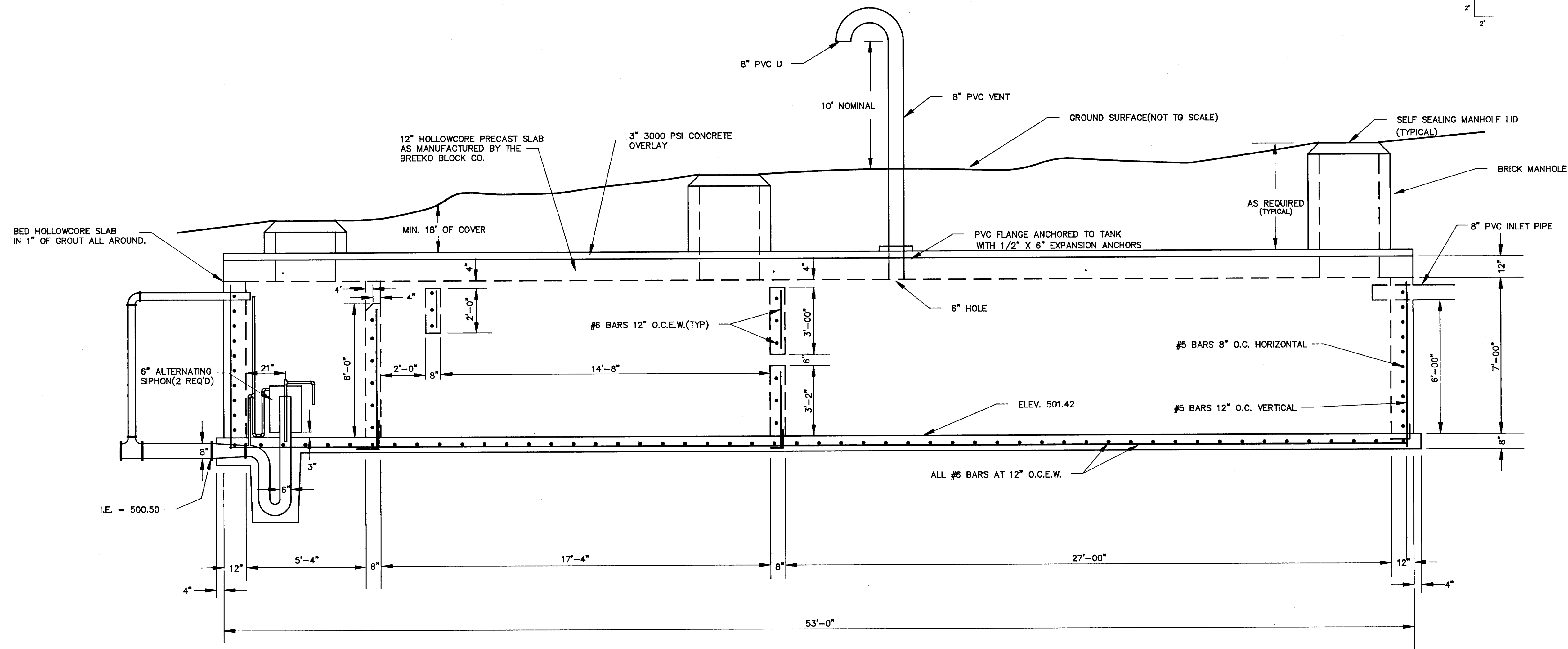
SCALE: AS SHOWN

TENN. STATE HIGHWAYS
Plans
Div.
No.

POUR A 2' DIA BY 8" THICK
CONCRETE COLLAR AROUND VALVE BOX
AT GROUND LEVEL
(TYPICAL FOR ALL VALVES)



PLAN - SEPTIC TANK



SIDE VIEW - SEPTIC TANK

SP 80001-4155-04
Sheet 2B

REV. 2-1-88: REVISED TOP SLAB TO
PRECAST HOLLOW-
CORE W/ 3000 PSI
CONCRETE.

NOTE:
SEE SHEET 2C FOR
REINFORCING STEEL
DETAILS AT INTERSECTIONS.

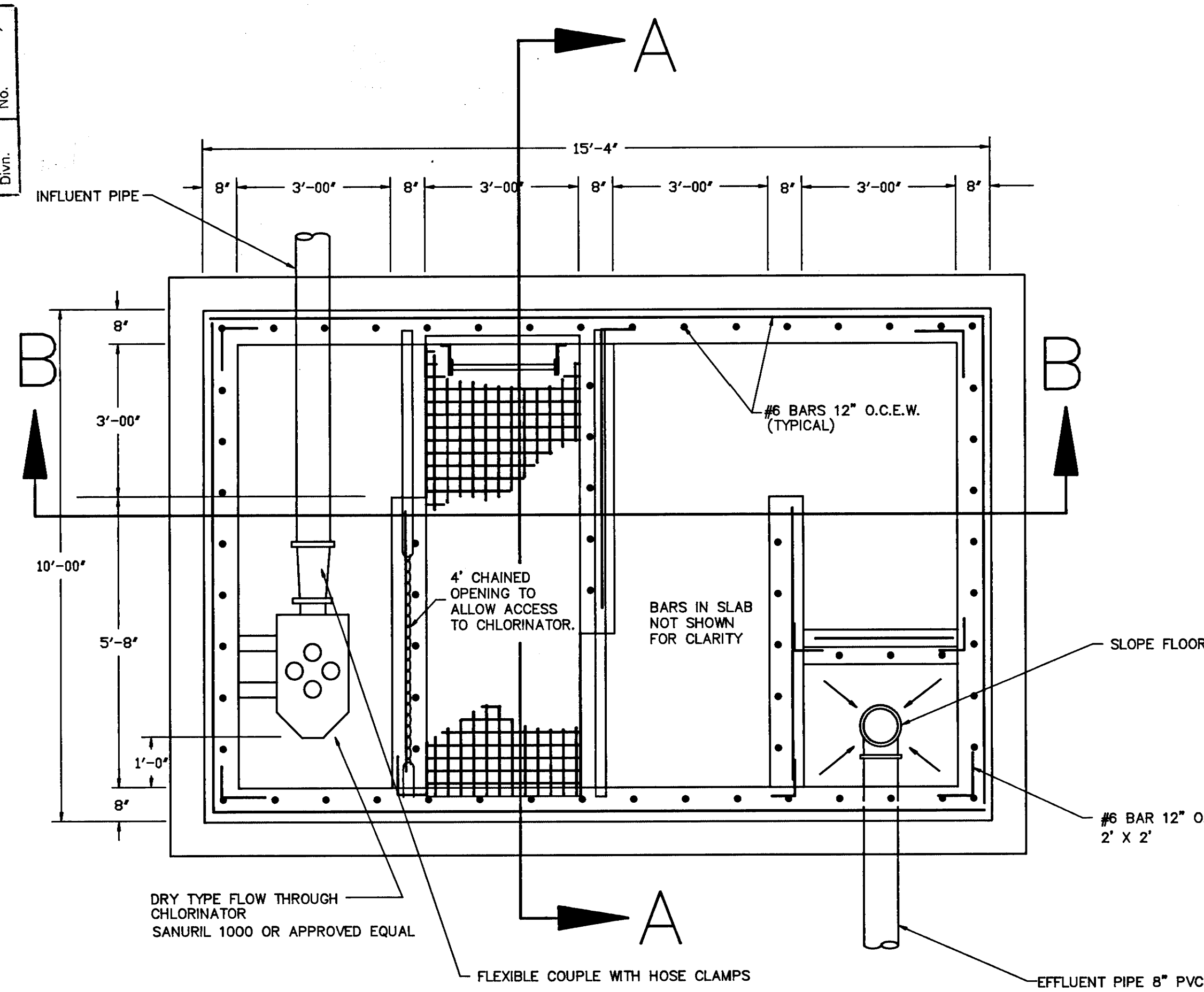
EMPE INC

SEPTIC TANK PLAN AND DETAILS

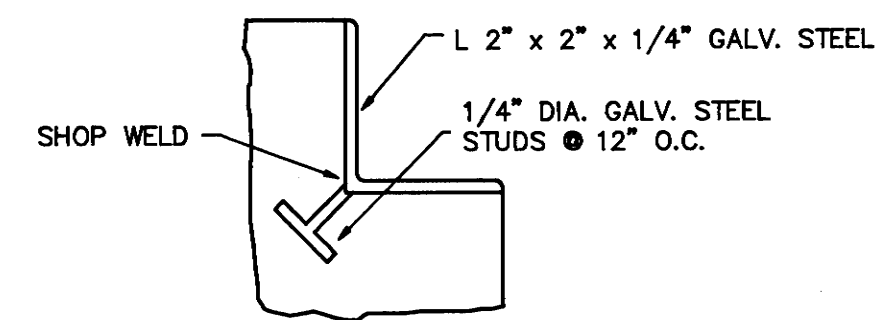
SMITH COUNTY REST AREA
WASTEWATER IMPROVEMENTS

206	DESIGNED: D.M.H.	SCALE: 3/8"=1'-0"	2B
JOB NO.	DRAWN BY: G.D.	DATE: 12-15-87	SHEET NO.
	APPVD: T.B.G.	REVISION:	

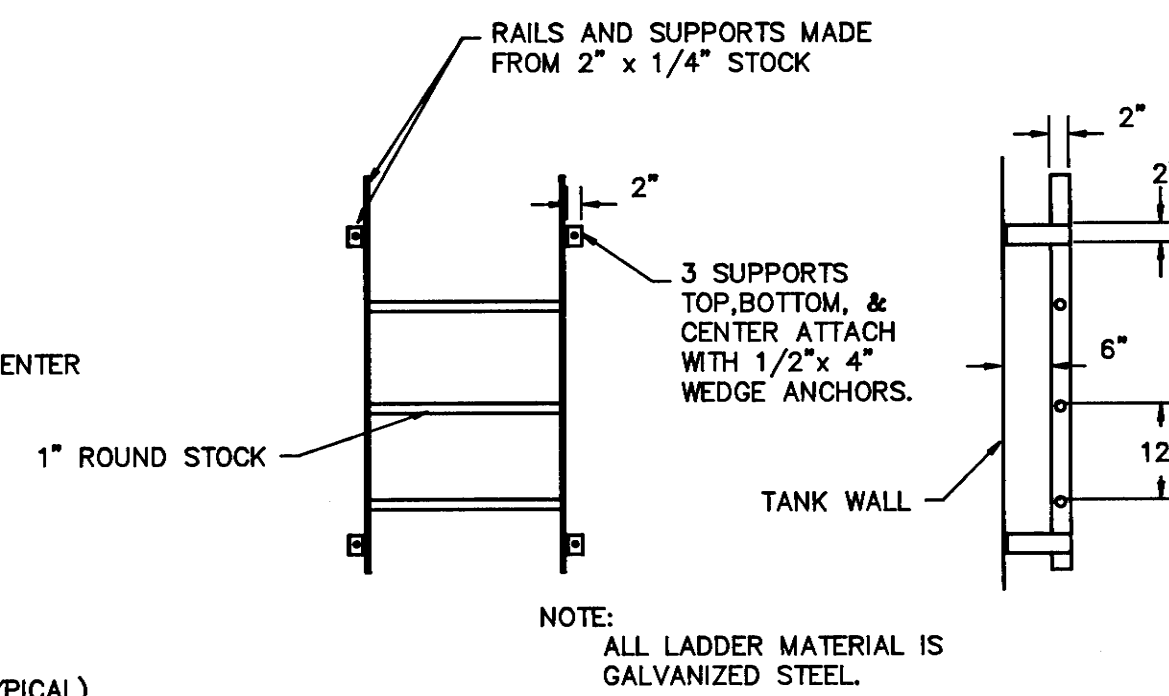
TENN. STATE HIGHWAYS
File *Permit*
Plans
Divn.



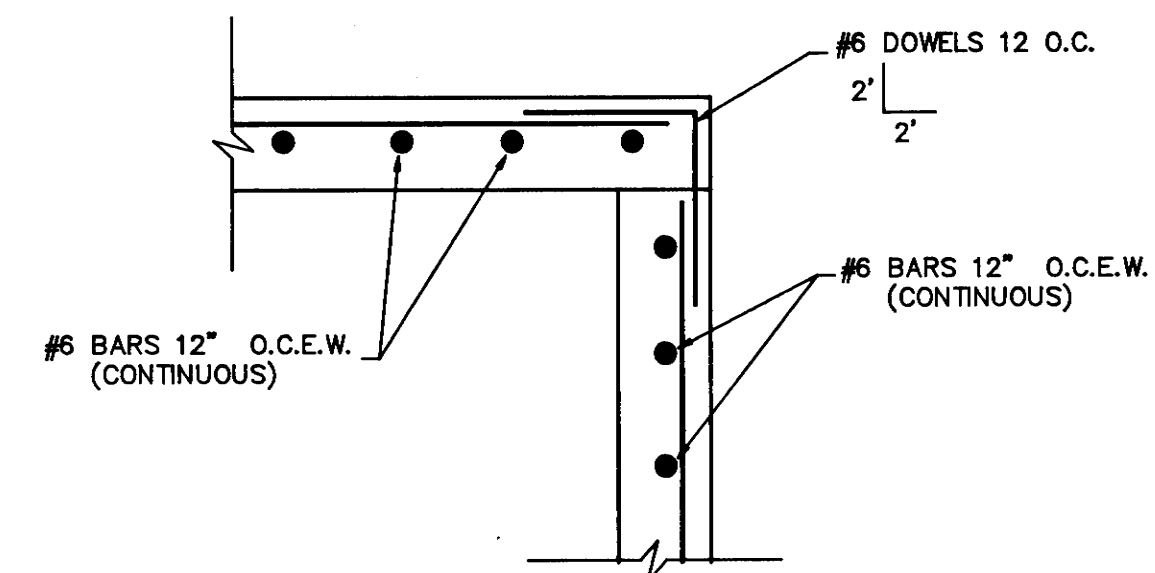
CHLORINE CONTACT CHAMBER
PLAN VIEW



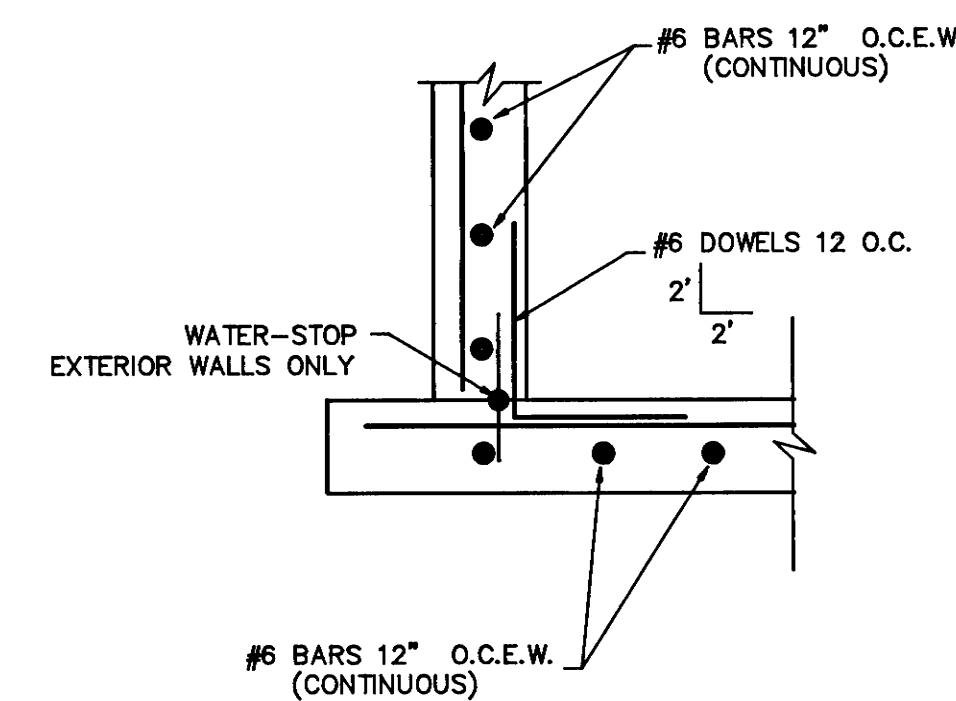
FRAME FOR REMOVABLE GRATING
N.T.S.



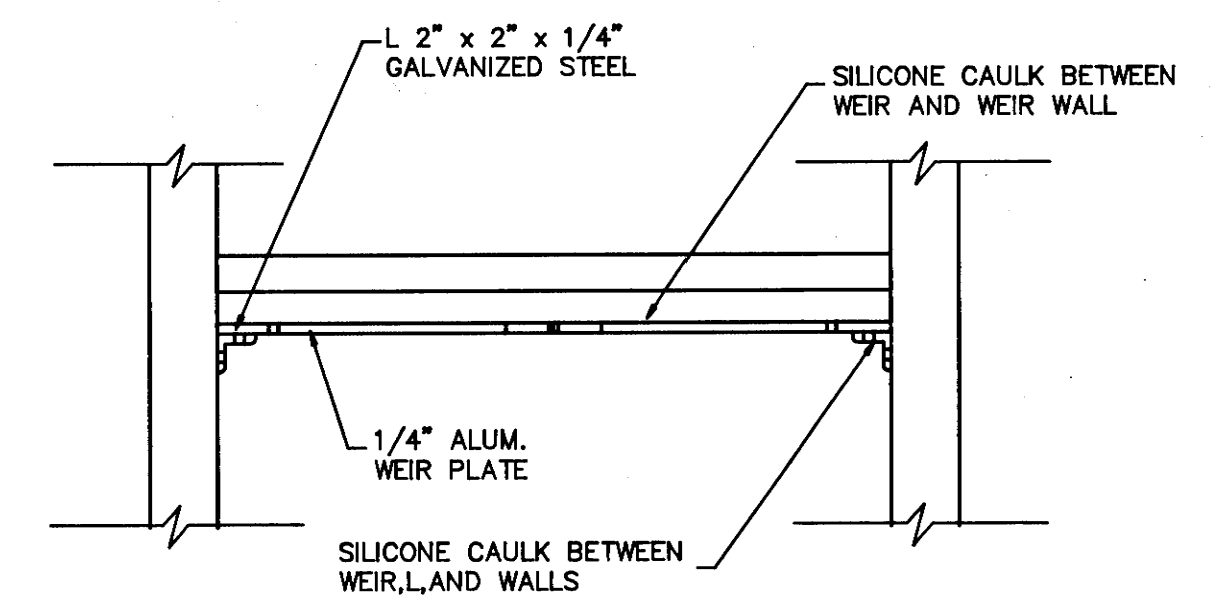
FRONT VIEW SIDE VIEW
LADDER DETAIL
N.T.S.



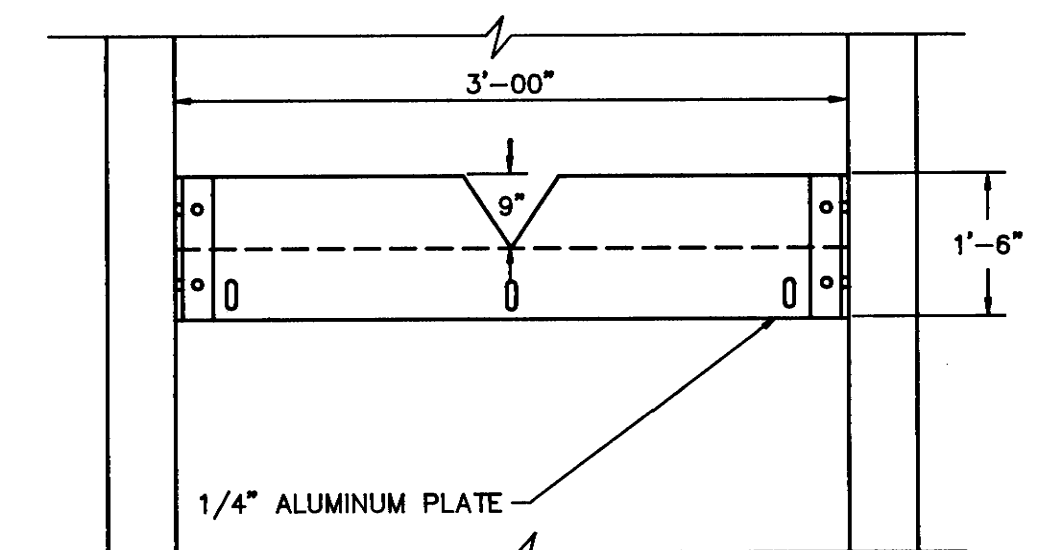
ROOF SLAB @ WALL
N.T.S.



BASE SLAB @ WALL
N.T.S.

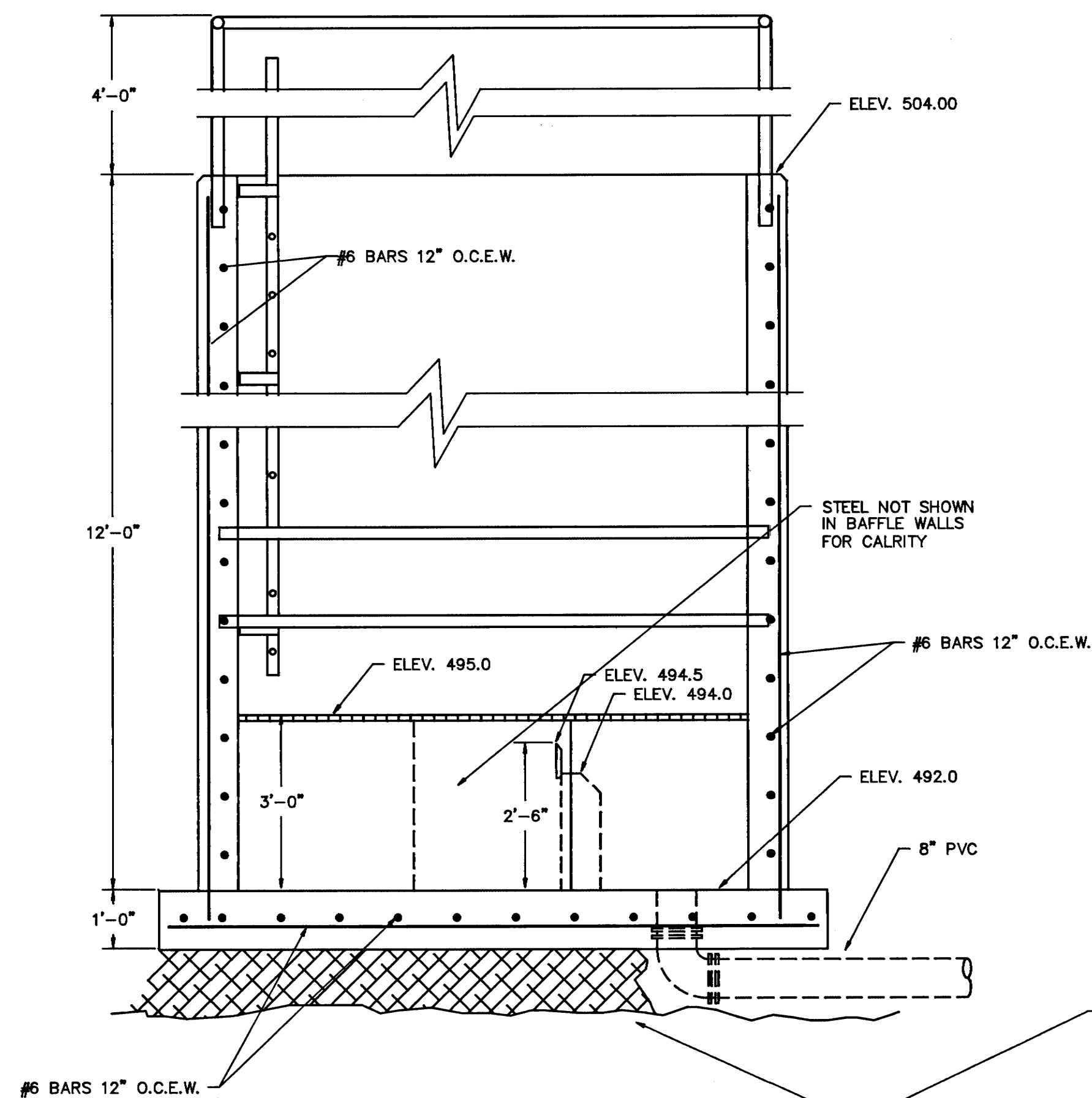


PLAN VIEW

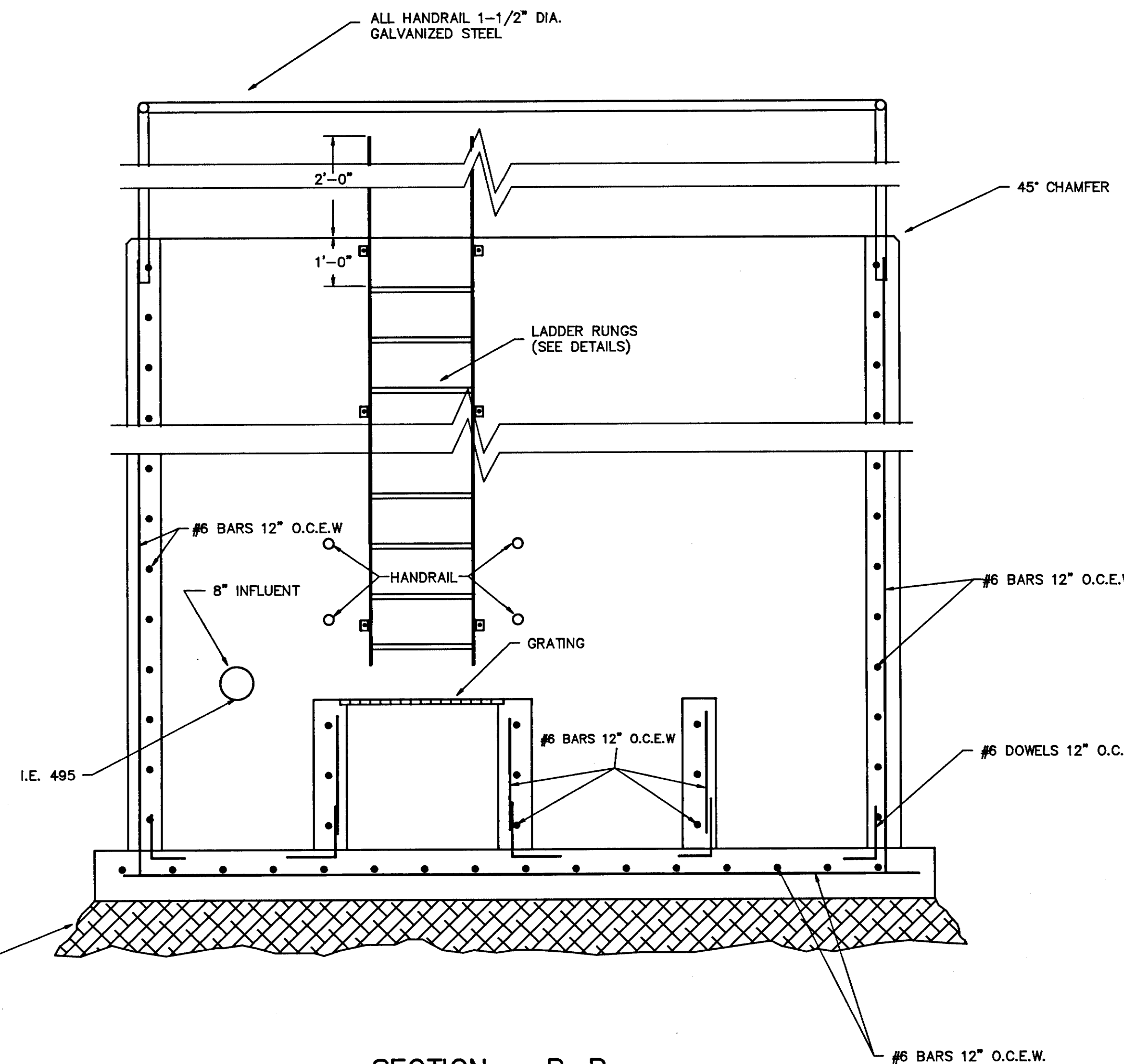


FRONT VIEW

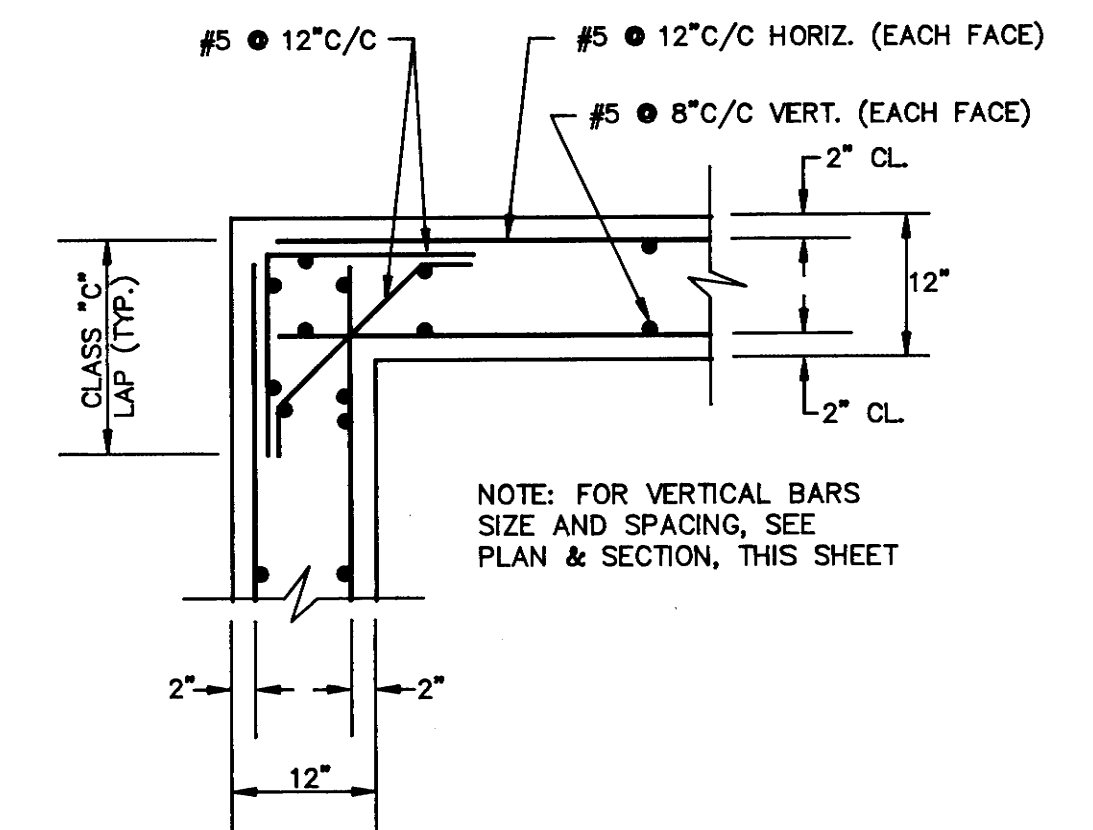
WEIR PLATE DETAIL
N.T.S.



SECTION - A-A



SECTION - B-B

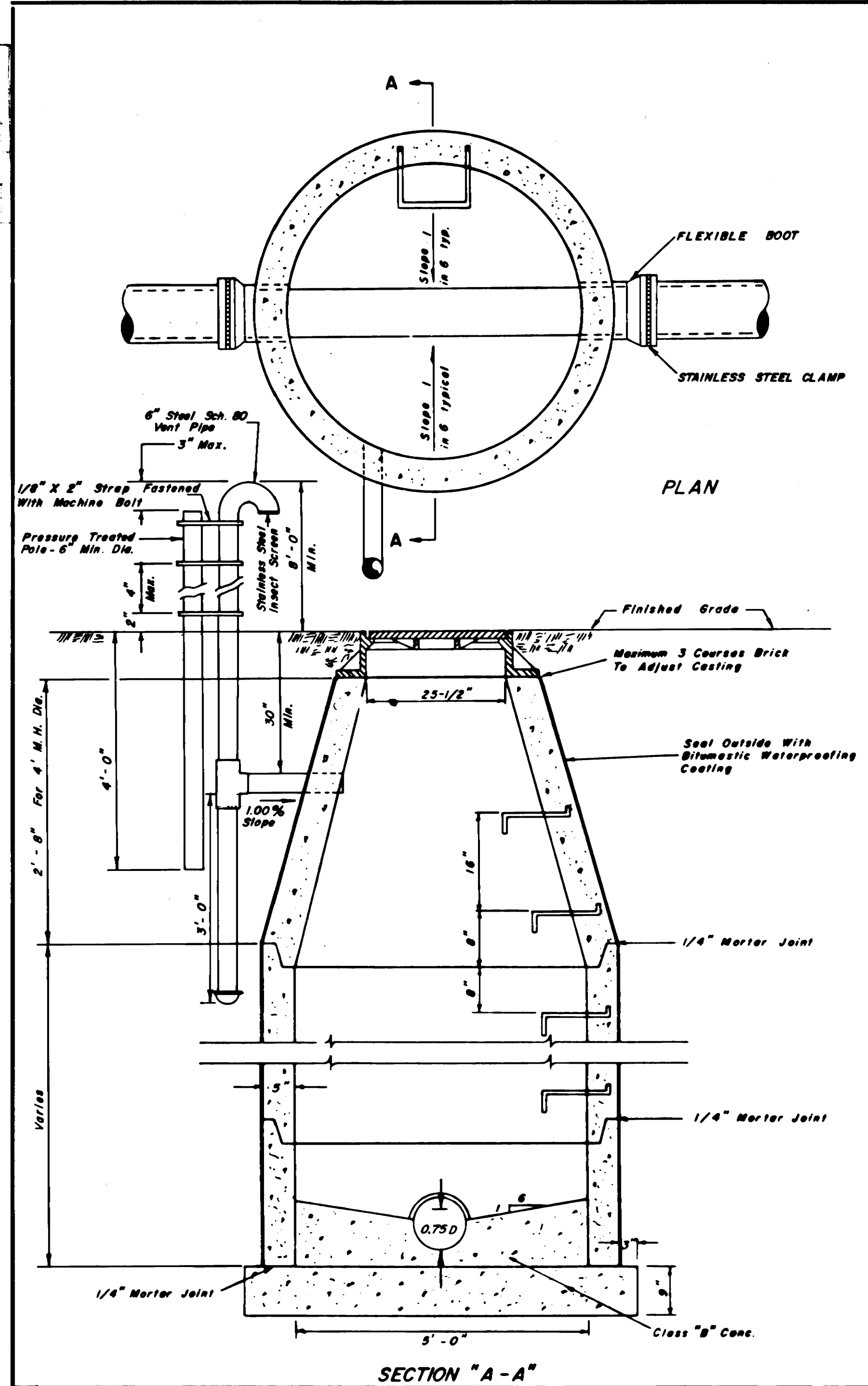


TYPICAL CORNER DETAIL
N.T.S.

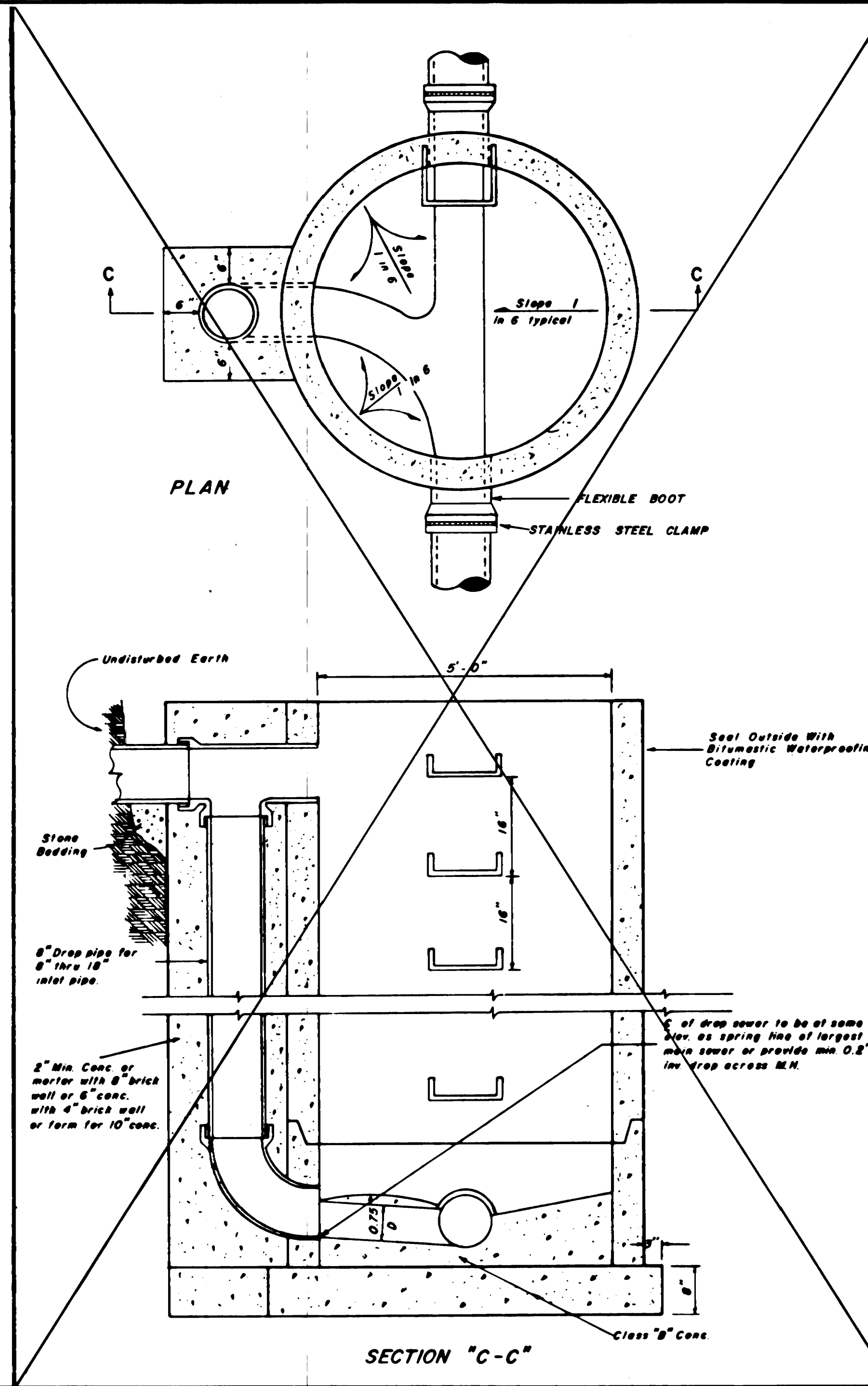
EMPE INC

CHLORINE CONTACT CHAMBER
PLAN AND DETAIL
SMITH COUNTY REST AREA
WASTEWATER IMPROVEMENTS

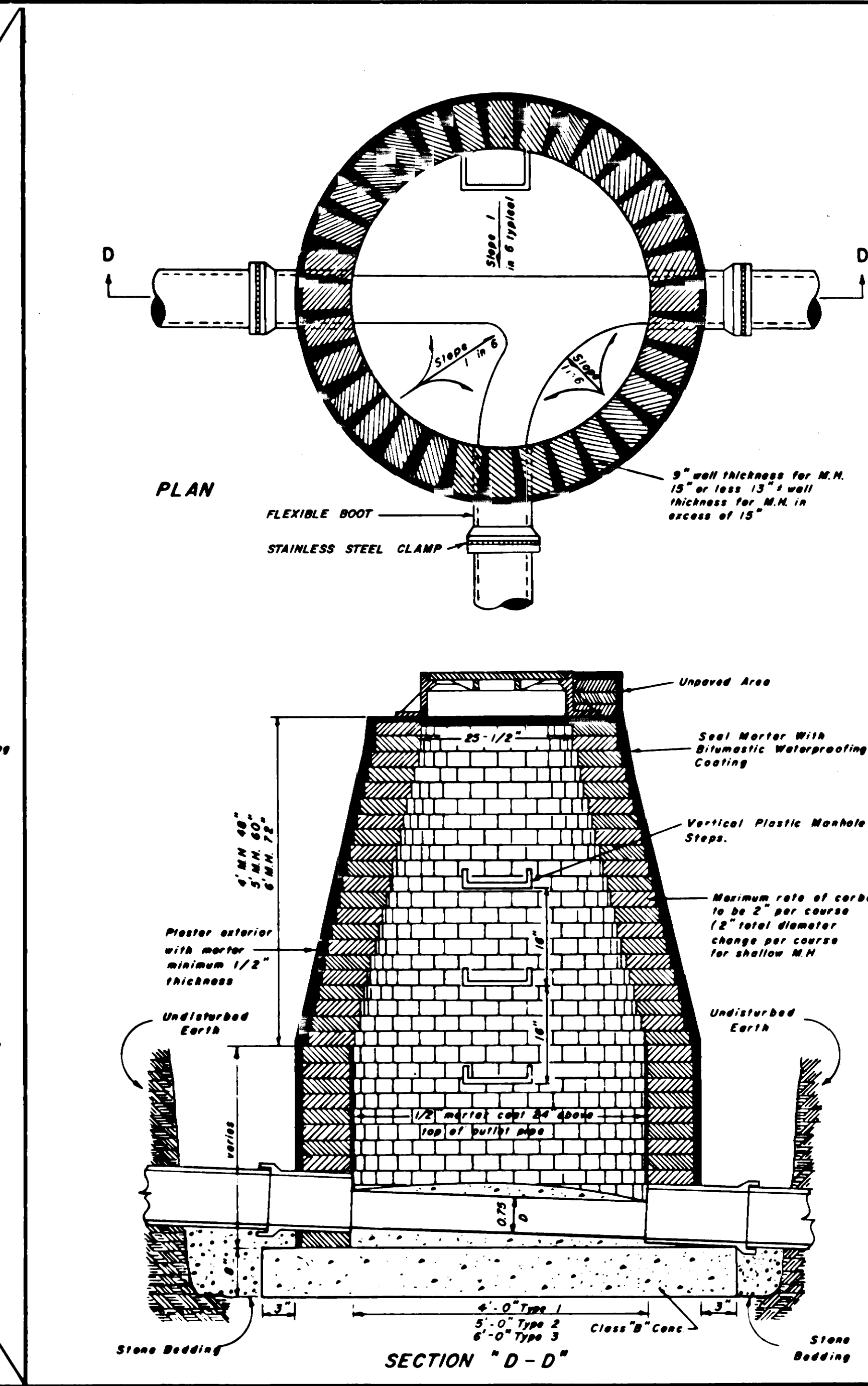
206 JOB NO.	DESIGNED: D.M.H. DRAWN BY: G.D. APPVD: T.B.G.	SCALE: 3/8" = 1'-0" DATE: 12-15-87 REVISION:	2C SHEET NO.
----------------	---	--	-----------------



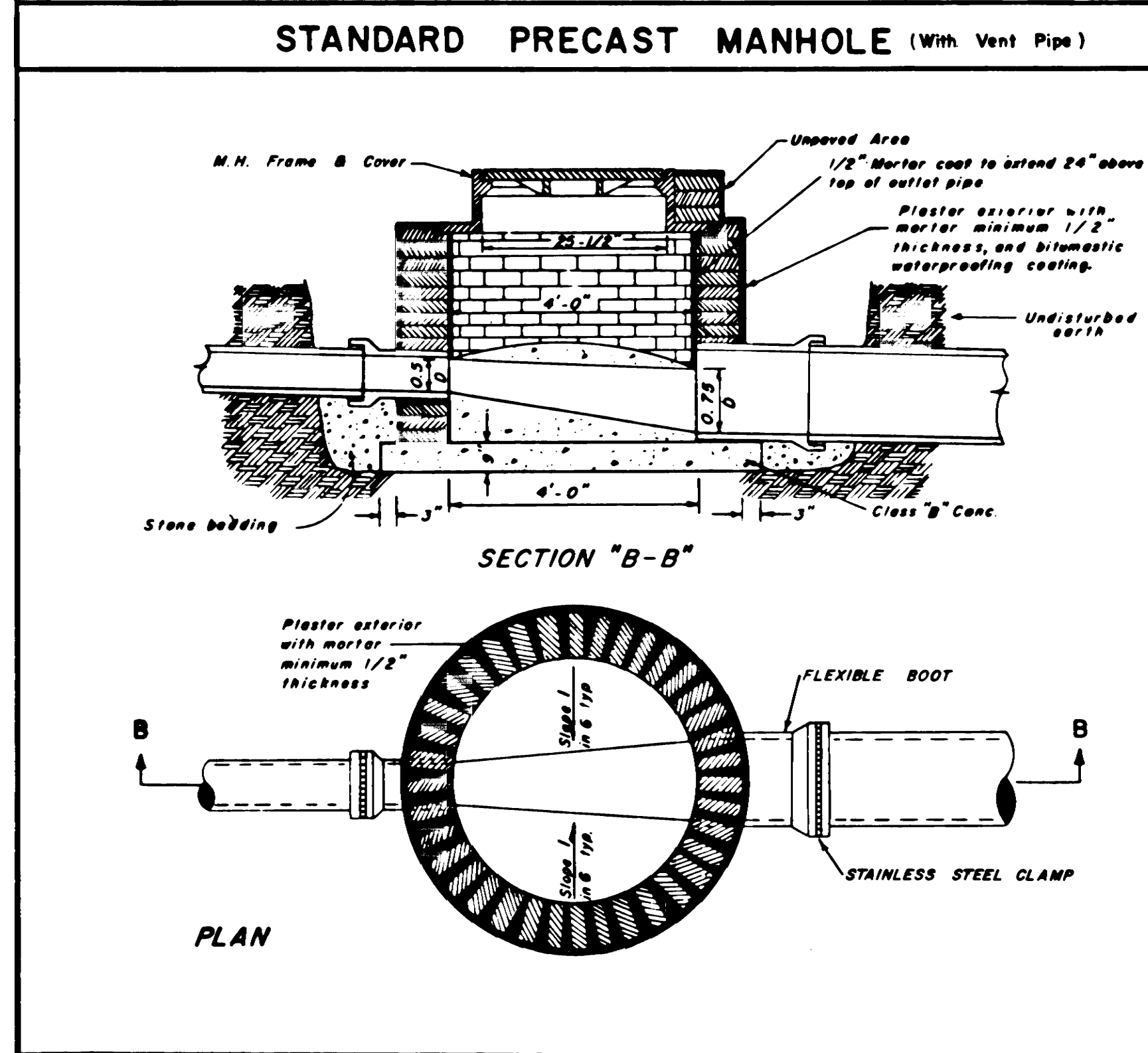
STANDARD PRECAST MANHOLE (With Vent Pipe)



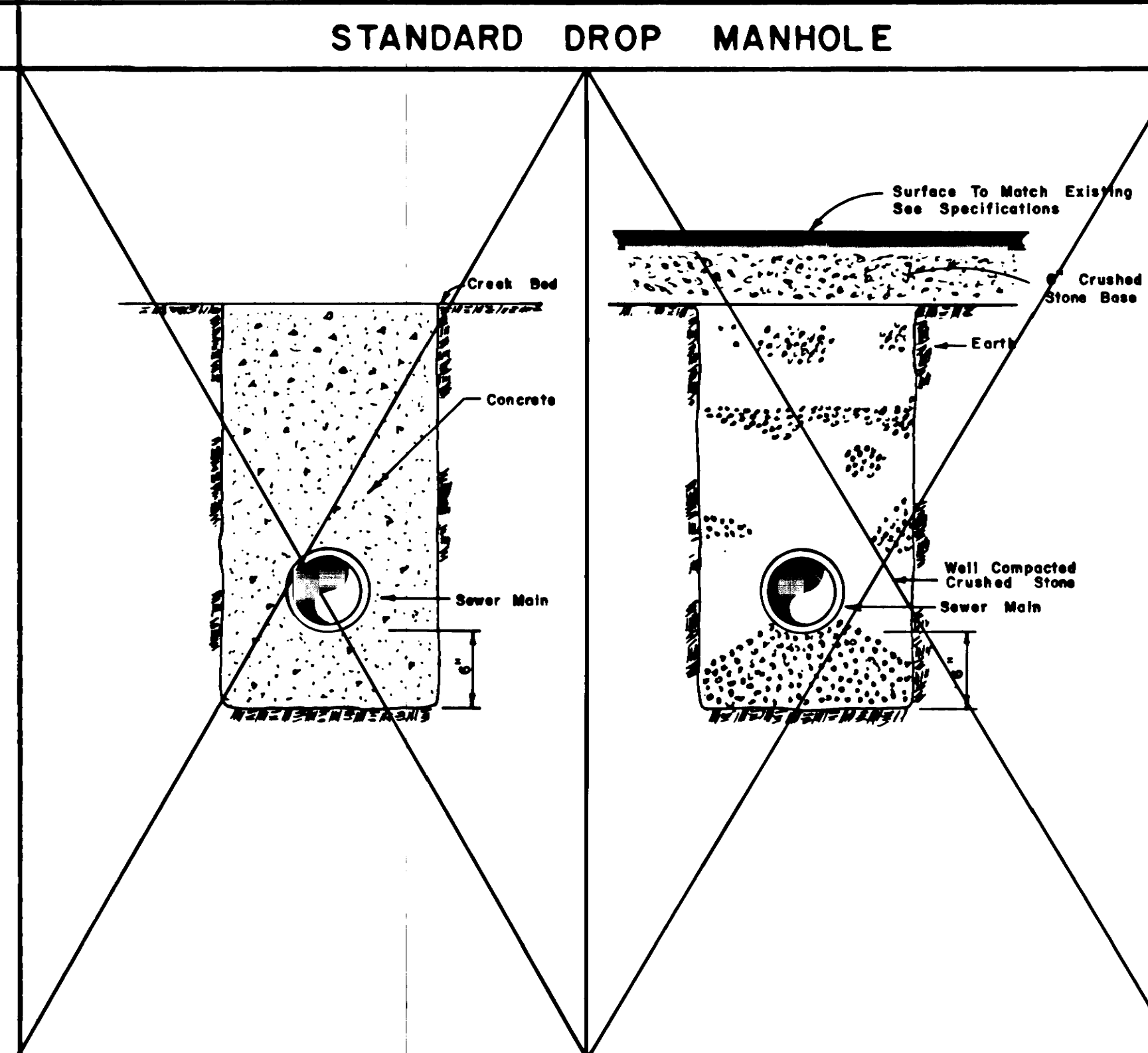
STANDARD DROP MANHOLE



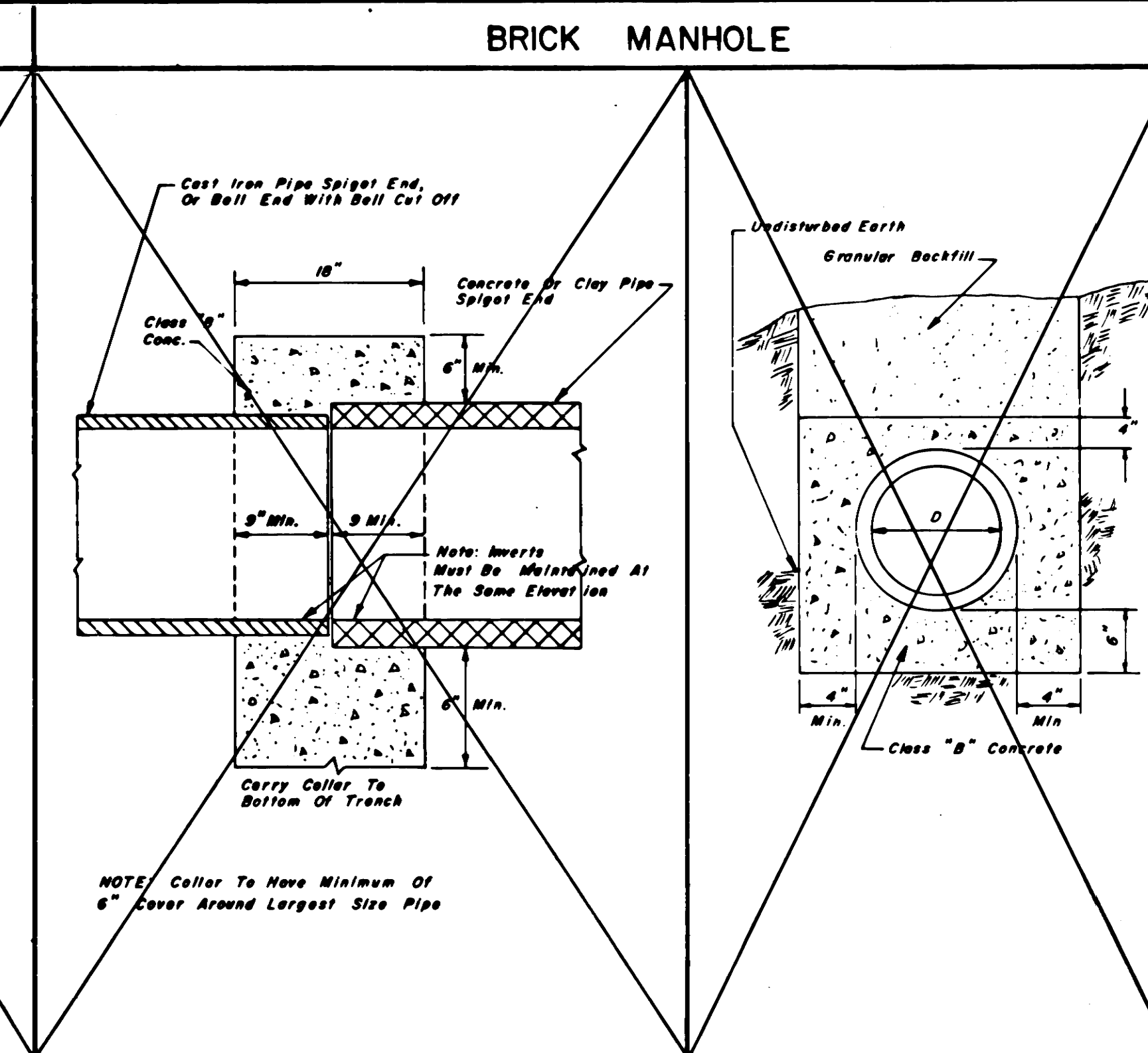
BRICK MANHOLE



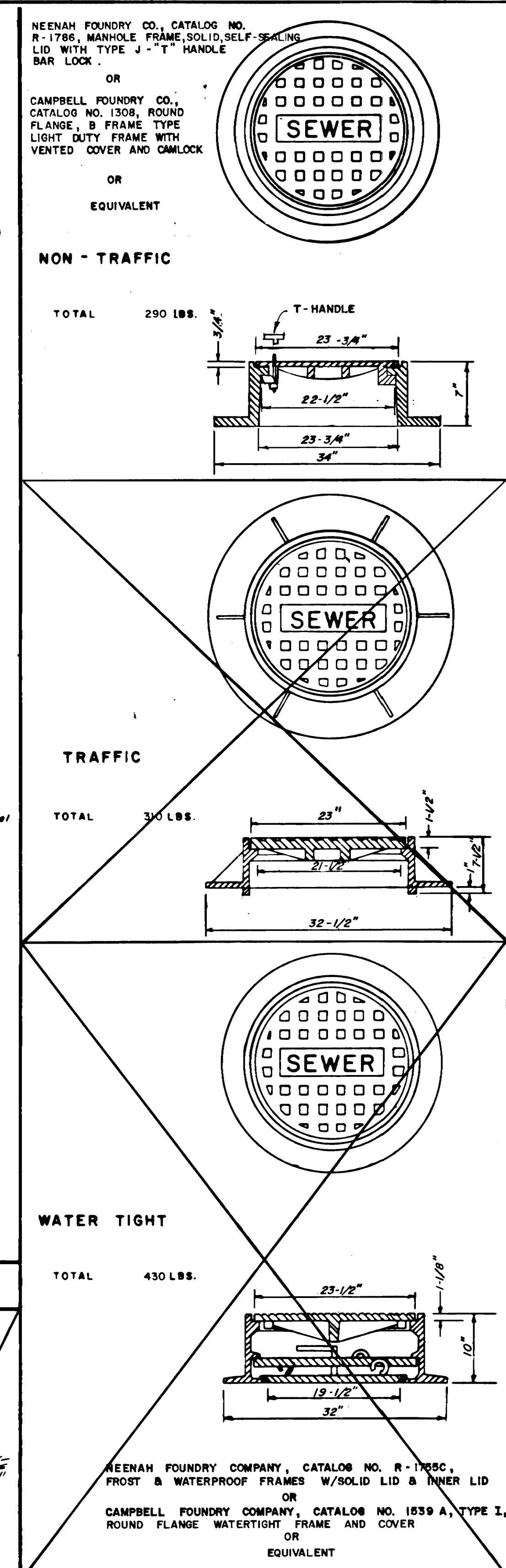
STANDARD SHALLOW MANHOLE



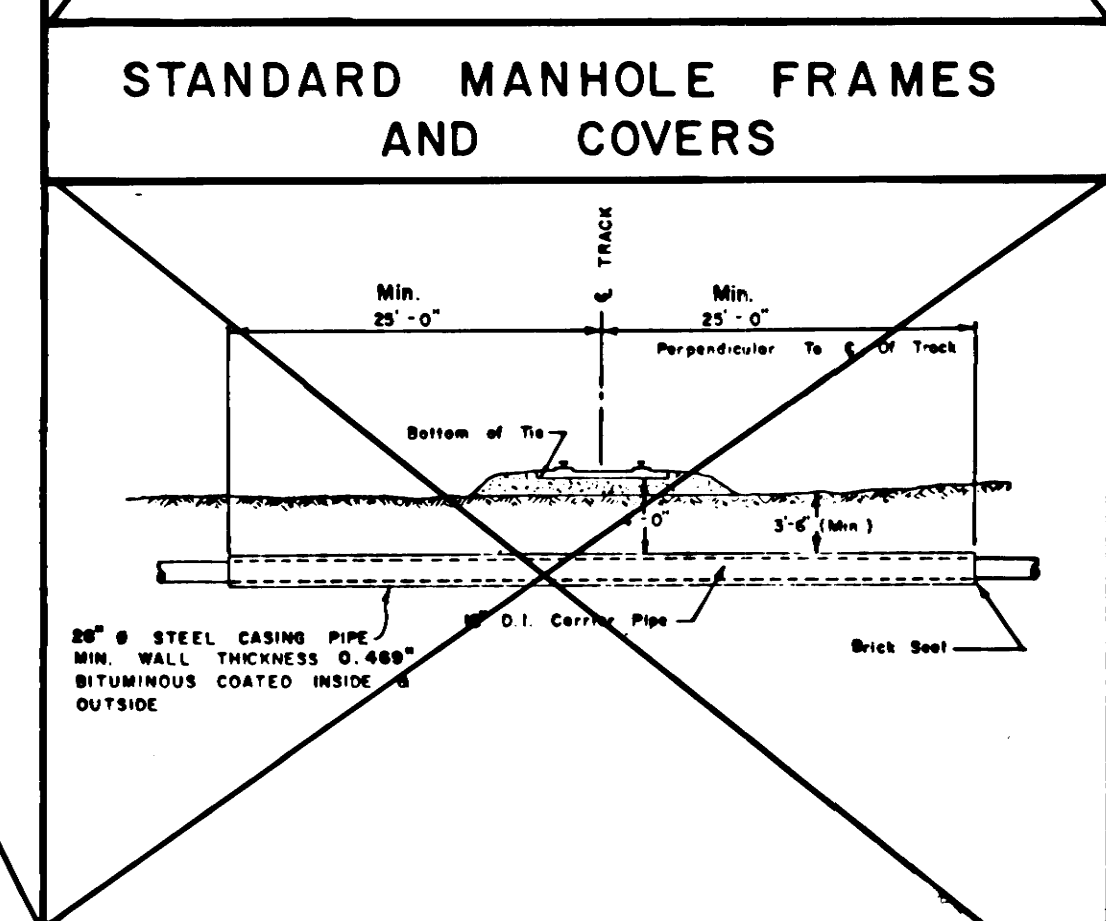
TYPICAL STREAM CROSSING DETAIL



PAVEMENT REPAIR



STANDARD MANHOLE FRAMES AND COVERS



RAILWAY CROSSING

NEENAH FOUNDRY CO., CATALOG NO.
R-1786, MANHOLE FRAME, SOLID, SELF-SEALING
LID WITH TYPE J - "T" HANDLE
BAR LOCK.

OR
CAMPBELL FOUNDRY CO.,
CATALOG NO. 1308, ROUND
FLANGE, B FRAME TYPE
LIGHT DUTY FRAME WITH
VENTED COVER AND CAMLOCK

OR
EQUIVALENT

NON - TRAFFIC

TOTAL	290 LBS.
-------	----------

TRAFFIC

01	TOTAL	310 LBS.
----	-------	---------------------

WATER TIGHT

TOTAL	430 LBS.
-------	----------

NEENAH FOUNDRY COMPANY, CATALOG NO. R-1725C,
FROST & WATERPROOF FRAMES W/SOLID LID & INNER LID
OR
CAMPBELL FOUNDRY COMPANY, CATALOG NO. 1539 A, TYPE I,
ROUND FLANGE WATERTIGHT FRAME AND COVER
OR
EQUIVALENT

STANDARD	WASTEWATER	DETAILS
SMITH COUNTY REST AREA WASTEWATER IMPROVEMENTS		

**ENVIRONMENTAL MANAGEMENT
PLANNING & ENGINEERING**

1151 ATHENS WAY, METRO CENTER
NASHVILLE, TENNESSEE 37203

MEM-
TRI-

STANDARD WASTEWATER DETAILS			
SMITH COUNTY REST AREA WASTEWATER IMPROVEMENTS			
DRAWN BY	J. D. G.	CHECKED	T. B. G.
		DATE	12-15-87
		REVISIONS	