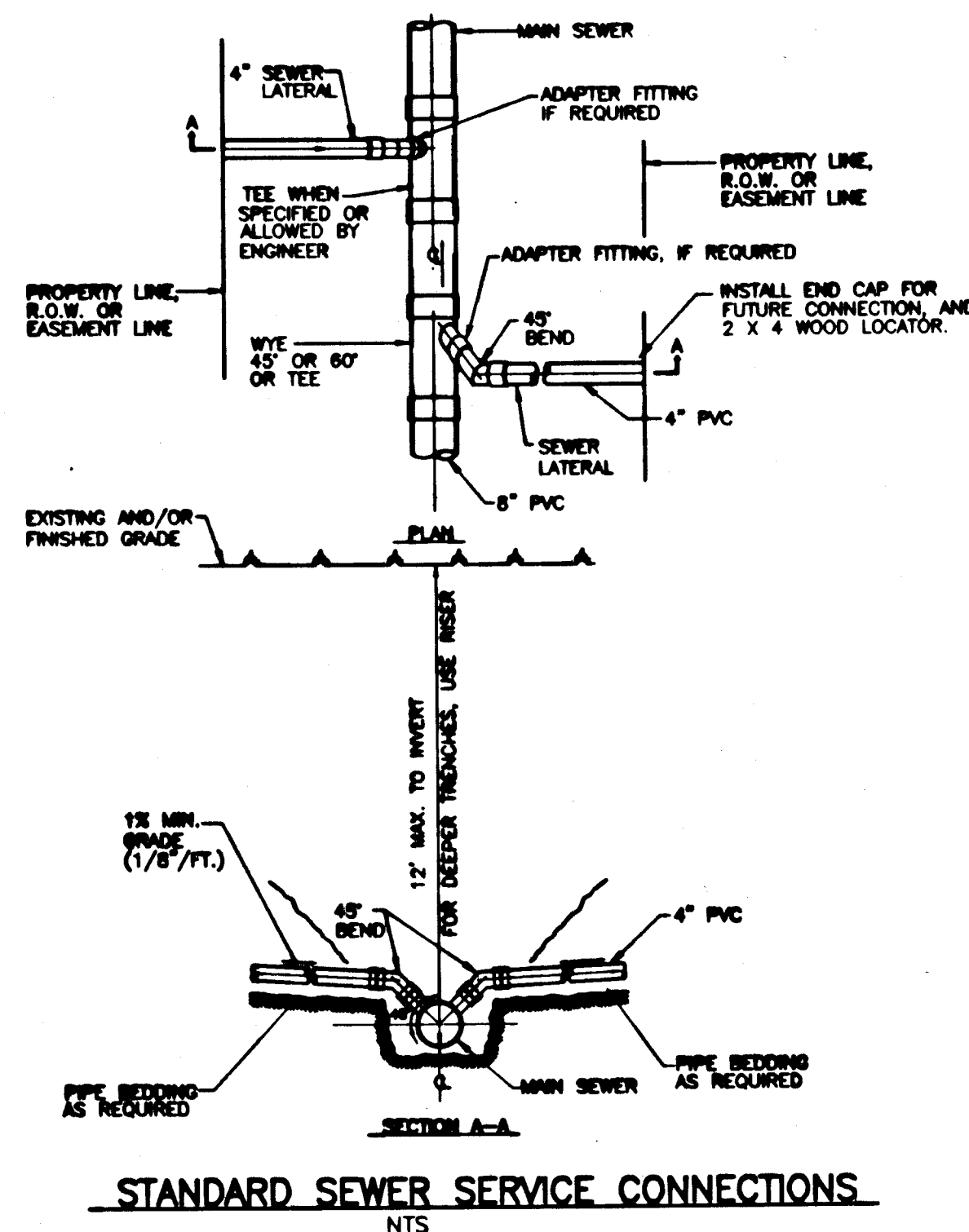
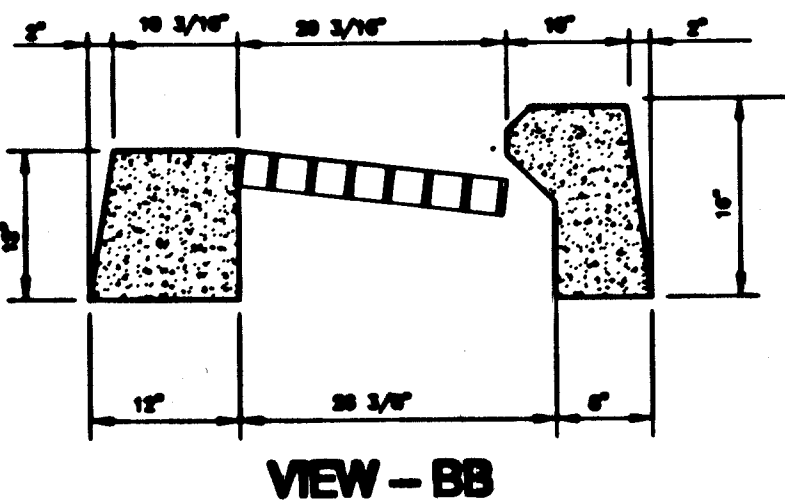
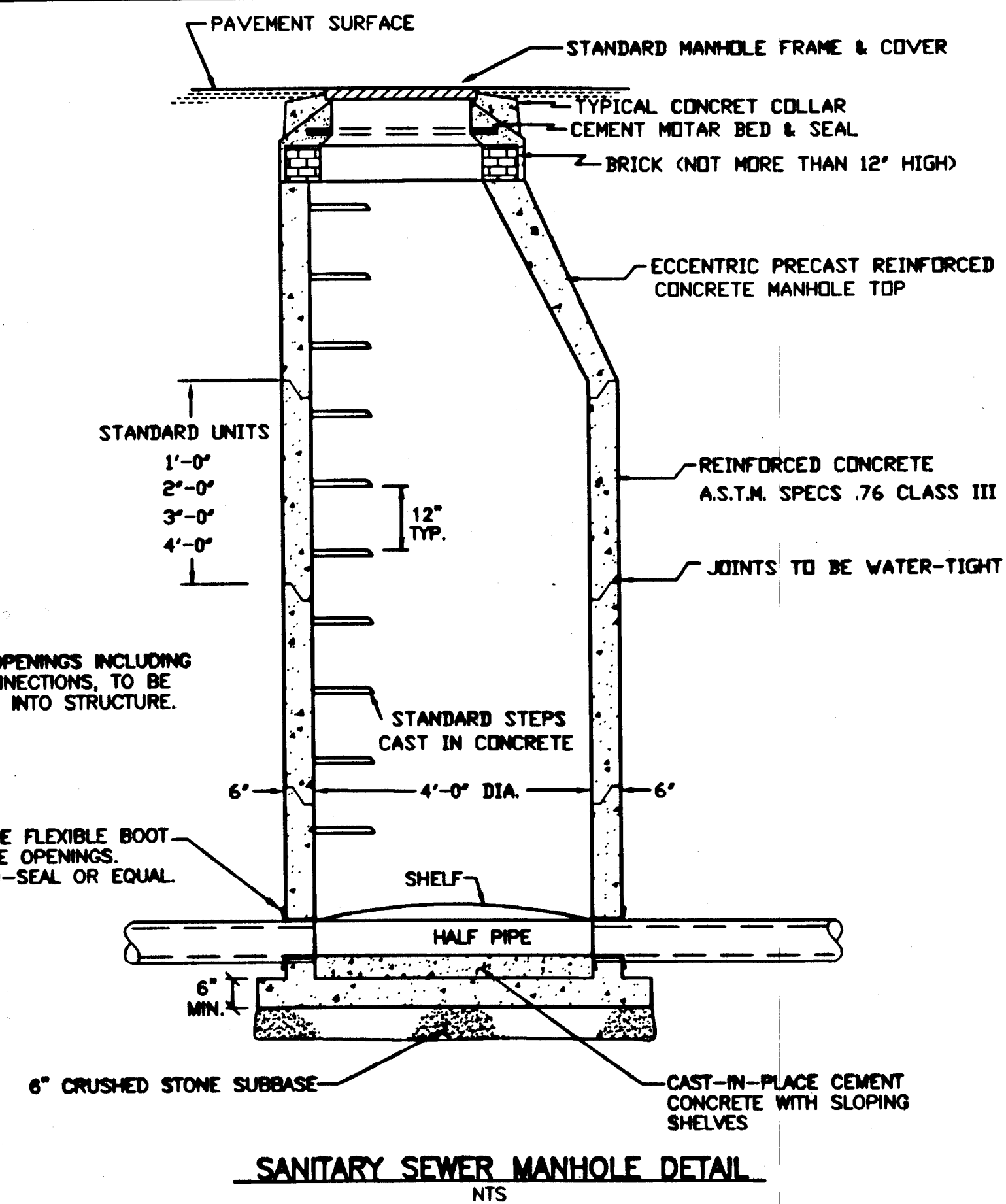


STEEL FRAME AND GRATE
NTS

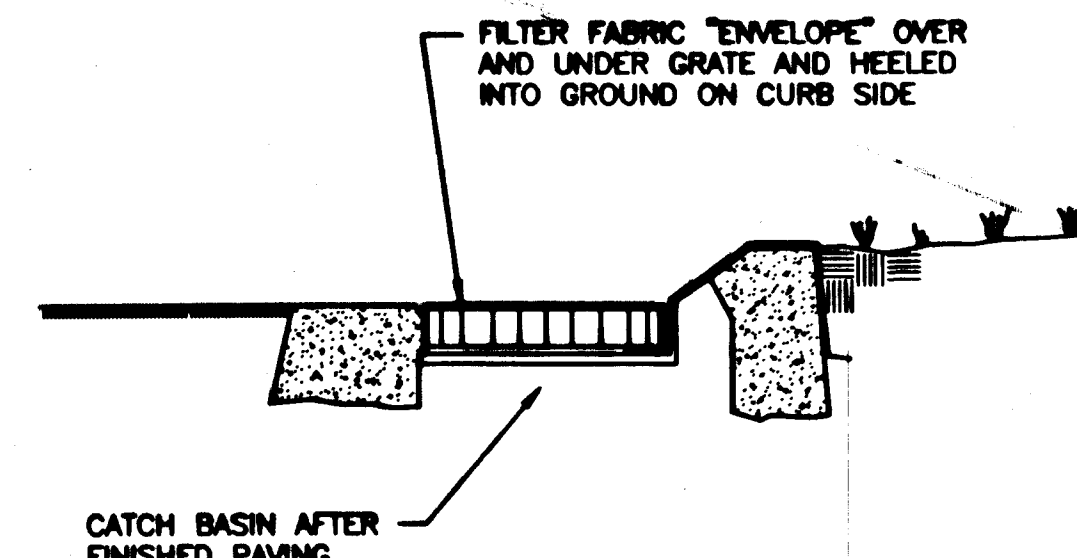
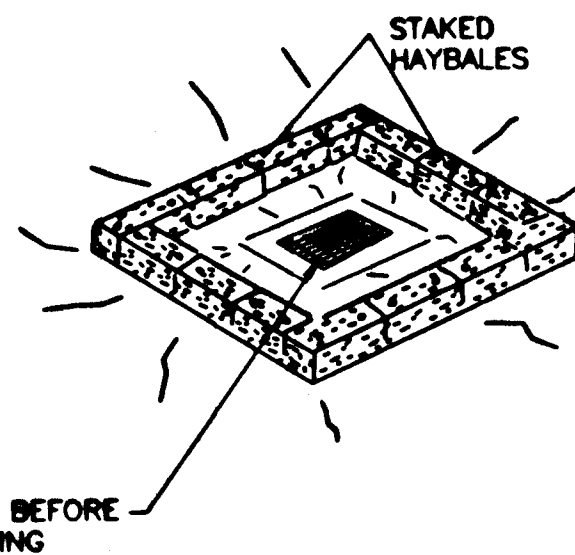


NOTE: ALL PIPE OPENINGS INCLUDING HOUSE CONNECTIONS, TO BE PRE-CAST INTO STRUCTURE.

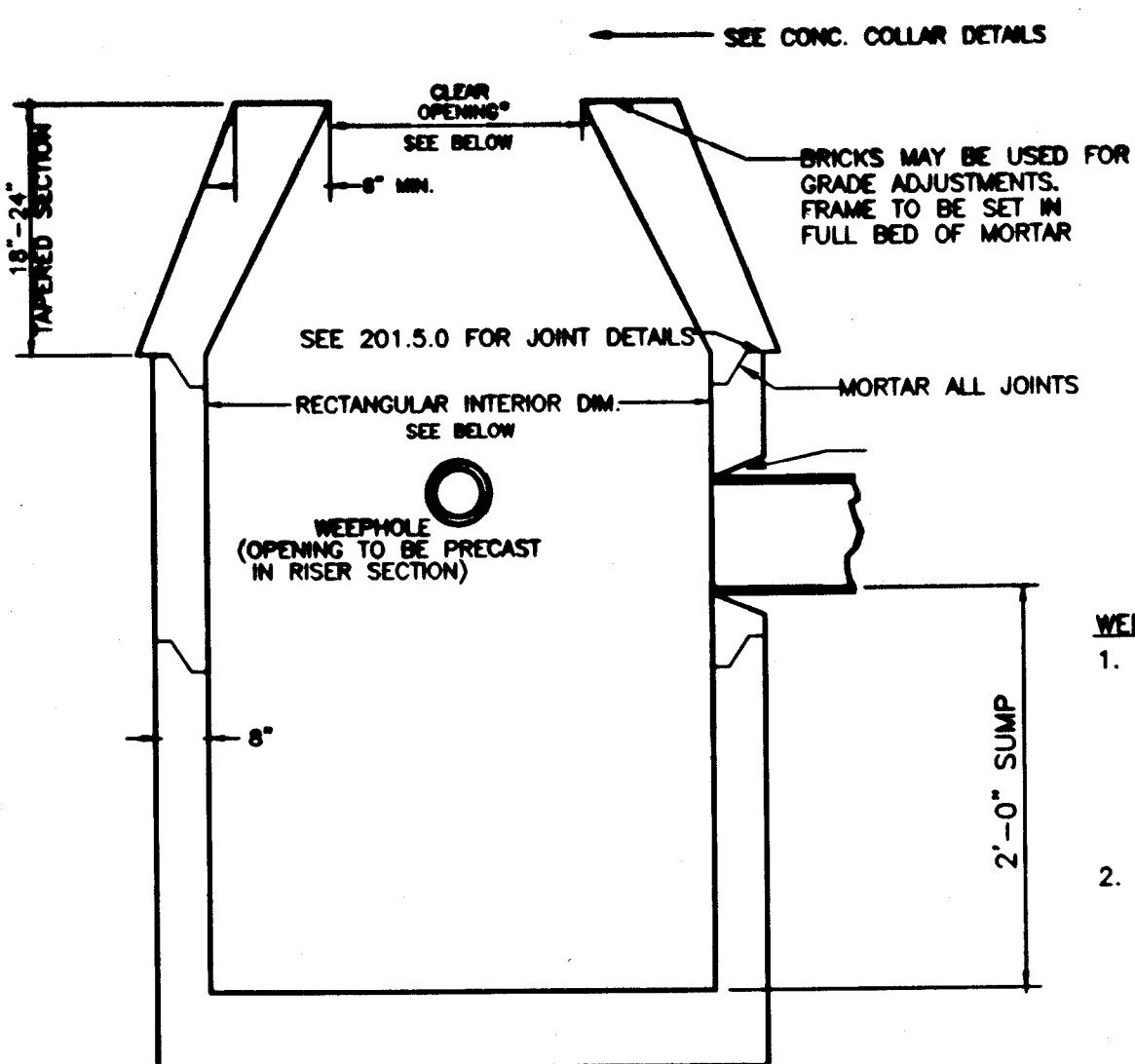


- NOTES:**
1. CONCRETE - 4000 P.S.I., 28 DAYS
 2. REINFORCEMENT - ASTM A-615, GRADE 60

**SINGLE GRATE WITH CONCRETE COLLAR
ONLINE WITH CURB**
NTS



CATCH BASIN SEDIMENTATION PROTECTION
NTS



STRUCTURE	CLEAR OPENING	SQUARE INTERIOR DIMENSION
SINGLE	27" x 36" MIN.	3'-0" x 4'-0"
DOUBLE	33" x 45" MIN.	3'-0" x 6'-6"

THRUST BLOCK NOTES

1. FOR REQUIRED BEARING AREA DIMENSIONS D & L SEE TABLE. DIMENSIONS OF D & L OTHER THAN THOSE SHOWN IN THE TABLE MAY BE USED PROVIDED THEY YIELD A BEARING AREA EQUAL TO OR LARGER THAN THAT REQUIRED.
2. CONCRETE NOT TO OVERLAP ANY JOINT.
3. CONCRETE TO BE PLACED SO AS NOT TO INTERFERE WITH REMOVING OR INSTALLING ANY OF THE JOINTING HARDWARE.
4. APPROXIMATE VOLUME OF CONCRETE THRUST BLOCK:

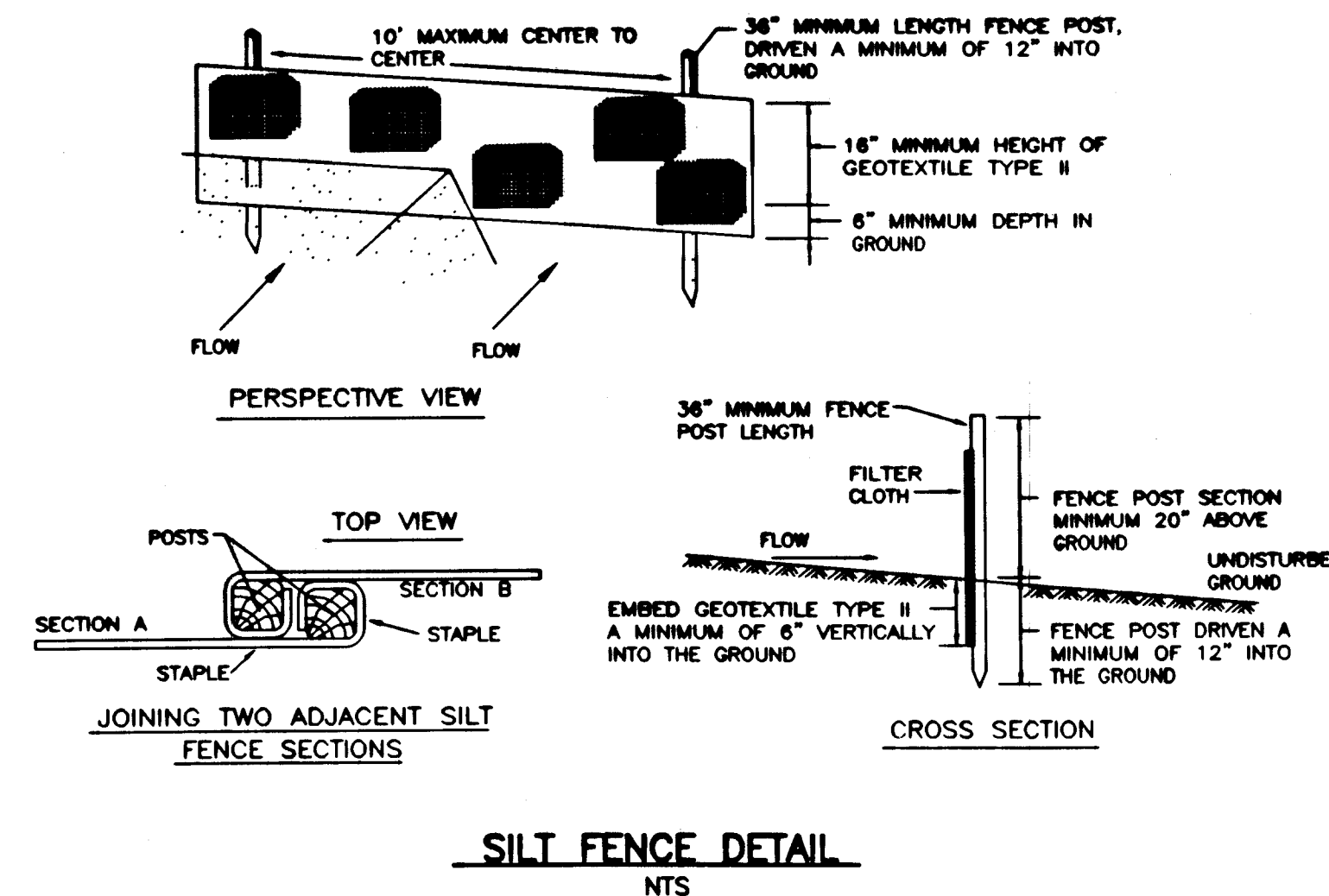
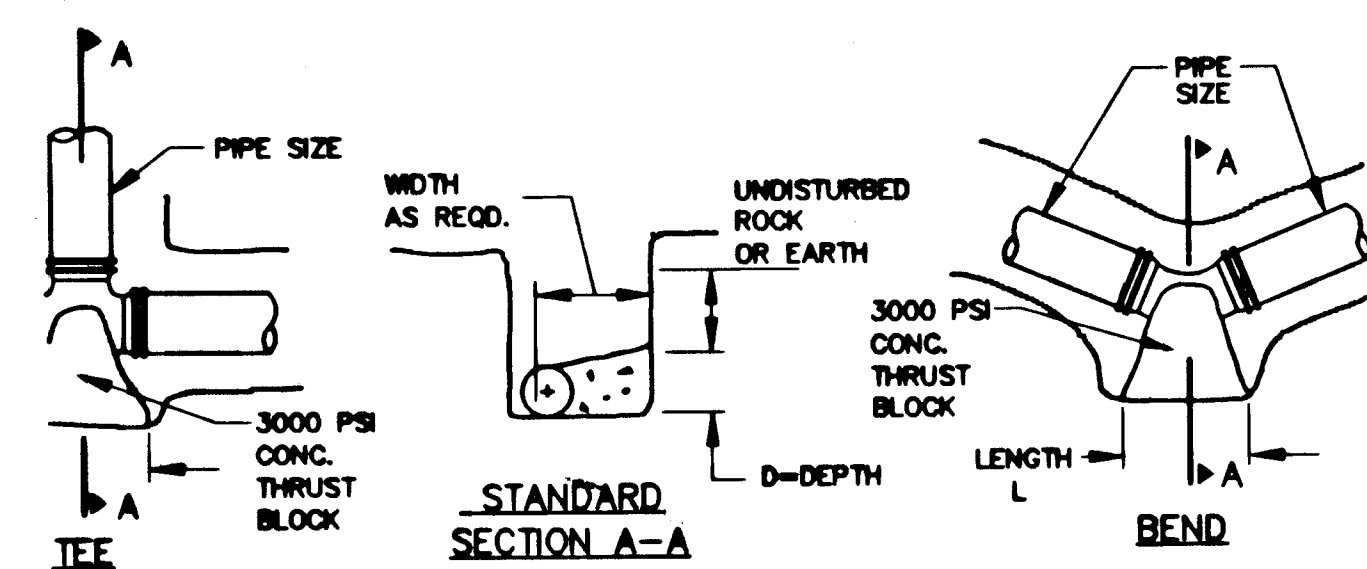
$$V = \frac{LD(W+D) - ID}{81}$$

WHERE:

V = VOLUME IN CUBIC YARDS
L = LENGTH OF BLOCK IN FEET
D = DEPTH OF BLOCK IN FEET
W = WIDTH OF BLOCK IN FEET
ID = INSIDE DIAMETER OF PIPE IN FEET

5. VALUES FOR TEE ALSO APPLY TO END PLUGS, CAPS, AND TAPPING SLEEVES.
6. REQUIRED BEARING AREAS ARE DUE TO THRUSTS CAUSED BY 150 PSI WORKING PRESSURE PLUS 50% (75 PSI) SURGE ALLOWANCE RESULTING IN 225 PSI TOTAL INTERNAL PRESSURE. NORMAL PIPE DIAMETER USED.
7. REQUIRED BEARING AREAS ARE BASED ON ALLOWABLE SOIL BEARING CAPACITY OF 2000 LBS. PER SQUARE FOOT FOR SAND. DUE TO OTHER SOIL CONDITIONS ENCOUNTERED, BEARING AREAS MAY BE MODIFIED BY THE ENGINEER.
8. IN MUCK, PEAT, OR RECENTLY PLACED FILL ALL THRUST SHALL BE RESISTED BY PILES OR THE RODS TO SOLID FOUNDATIONS, OR BY REMOVAL OF SUCH UNSTABLE MATERIAL AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THE THRUSTS, ALL AS REQUIRED BY THE ENGINEER.

REQUIRED BEARING AREAS & DIMENSIONS FOR CONCRETE THRUST BLOCKS										
PIPE SIZE (IN.)	TEE (See Note 5)	90°(1/4)BEND		45°(1/2)BEND		22-1/2°(1/8)BEND		1-1/4°(1/32)BEND		
		AREA Sq.Ft.	Dimen. D x L	AREA Sq.Ft.	Dimen. D x L	AREA Sq.Ft.	Dimen. D x L	AREA Sq.Ft.	Dimen. D x L	
8	6.7	2.0 x 3.0	8.0	2.0 x 4.0	4.3	2.0 x 2.5	2.2	1.5 x 1.5	1.1	1.0 x 1.5



APPROVED BY EAST LONGMEADOW PLANNING BOARD

DATE: 3/26/02

CHAIRMAN: [Signature]

No.	DATE	REVISION	BY

DETAILS

PROJECT AND LOCATION:
**NOTTINGHAM MEADOWS
PHASE II
PARKER STREET
EAST LONGMEADOW, MA**

PREPARED FOR:
**APPLE
LAND DEVELOPMENT, INC.
296 NORTH MAIN STREET
EAST LONGMEADOW, MA**

DEC BAYSTATE ENVIRONMENTAL CONSULTANTS INC.
Civil Engineers Environmental Scientists
296 North Main Street East Longmeadow, MA 01028

DEC PROJECT No. 99-1104
SCALE AS NOTED
DATE JAN. 2002
DRAWN BY EDM
CHECKED BY MLP/JR

SHEET No. **6** OF 6 SHEETS