

BENCH MARKS
 BM 1 HOWARD COUNTY NO. 2241004
 COORDINATES: N 485,710.222
 E 843,774.428
 3/4" REINFORC. MOD. GL. 208.323

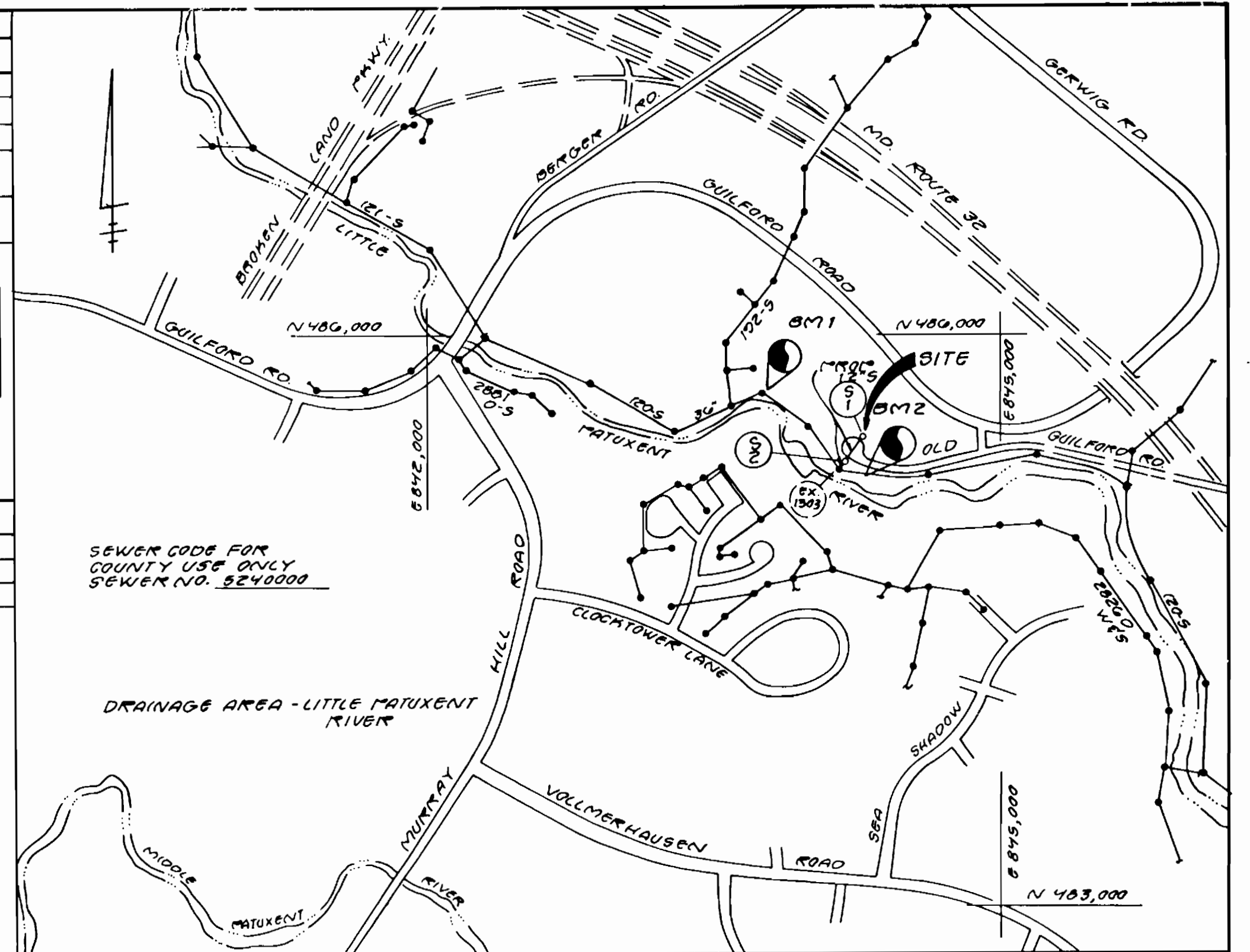
BM 2 HOWARD COUNTY NO. 2241005
 COORDINATES: N 485,262.170
 E 844,299.352
 N.B. 10' S. OF S. 5008 M.D.
 GL. 264.014
 (SEE VICINITY MAP)

QUANTITIES				
ITEM	UNIT	ESTIMATE	AS-BUILT	SUPPLIER
12" SEWER	L.F.	120		
DIST. CABINET, 4" MC ORAIN, 4" MC 1' CONV. MANHOLE	L.S.	1		
4" MC ORAIN, 4" MC 1' CONV. MANHOLE	L.S.	1		

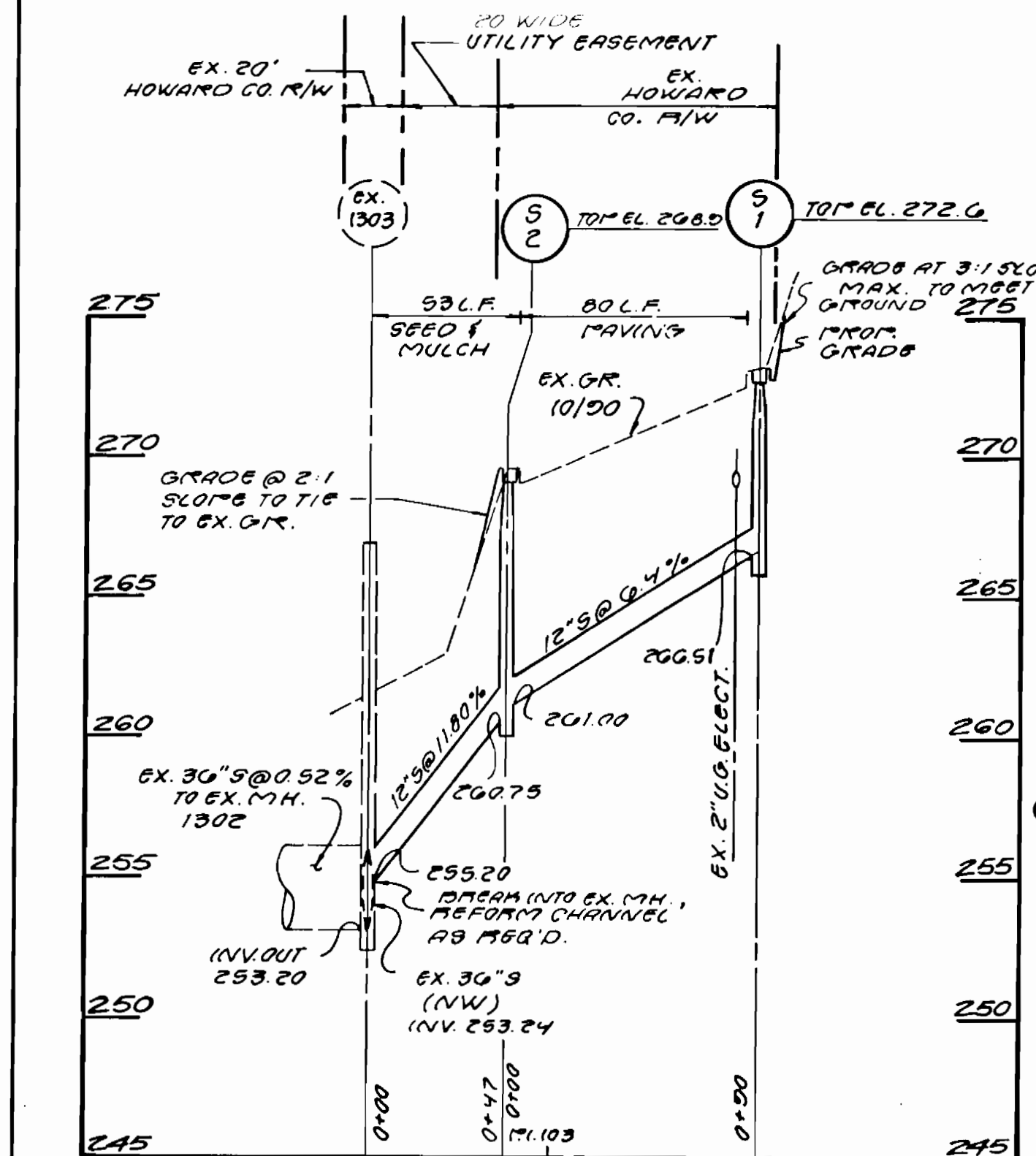
RESTORATION SCHEDULE			
LOCATION	DISTANCE	TYPE	
EX. MH. 1303 TO S-1	80 L.F.	PAVING	
	60 L.F.	SEED & MULCH	

MANHOLE STAKEOUT TABLE		
MANHOLE	DISTANCE	OFFSET
S-1	EX. MH. 1303 TO M. 103, 132	
S-2	EX. MH. 1303 TO M. 103, 47	

TRAVERSE DATA			
HO. CO. BM. 2241004	ER43,774.428		
N65°59'12"E 214.737'	N65,710.222		
H.E.C. TRAV. PT. 104	E685,583.9623		
S45°58'19"E 319.018'	N84,3948.1245		
H.E.C. TRAV. P. T. 103	E685,362.2414		
S49°44'29"E 154.683'	N844,177.4983		
HO. CO. BM. 2241005	E685,262.170		
S16°31'16"W 30.70'	N844,295.352		
H.E.C. TRAV. PT. 101	E685,232.7518		
N62°08'41"W 160.26'	N844,286.6261		
H.E.C. TRAV. PT. 102	E685,307.6307		
N30°44'44"E 63.32'	N844,144.9371		
H.E.C. TRAV. PT. 103	E685,362.0723		
	N844,177.3207		



VICINITY MAP
 SCALE 1"=400'



PLAN
 SCALE 1"=50'

By the Engineer:
 "I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
 Signature of Engineer: *[Signature]* Date: 1/3/91
 H.D. REG. NO. 8676

By the Developer:
 "I/we certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."
 Signature of Developer: *[Signature]* Date: *[Date]*

PERMANENT SEEDING NOTES
 APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- 1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREA-NITROGEN FERTILIZER (9 LBS/1000 SQ. FT.).
- 2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE (1.5 LBS/1000 SQ. FT.) OF KEEPING LOWGROSS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOO. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNWROTTEN SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

- SEDIMENT CONTROL NOTES**
- 1) A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (992-2455).
 - 2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 - 3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, BARRIERS, PERIMETER SLOPES AND ALL SLOPES CHARACTERIZED AS 1:1 TO 3:1; B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADDED AREAS ON THE PROJECT SITE.
 - 4) ALL SEDIMENT TRAPS/FILTERS SHALL BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
 - 5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SPEC. 51) SOO (SPEC. 36), TEMPORARY SEEDINGS (SPEC. 30) AND MULCHING (SPEC. 52). TEMPORARY STABILIZATION WITH MULCH BARRIERS CAN ONLY BE DONE FOR PERMANENT SEEDING DATES. DO NOT ALLOW FOR FRESH GRASS GERMINATION AND ESTABLISHMENT OF CRASSES.
 - 6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 - 7) SITE ANALYSIS:
 - TOTAL AREA OF SITE --- ACRES
 - AREA TO BE MAPPED OR PAVED --- ACRES
 - AREA TO BE VEGETATIVELY STABILIZED --- ACRES
 - TOTAL CUT --- CU. YDS.
 - TOTAL FILL --- CU. YDS.
 - 8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 - 9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF NECESSARY, BY THE HOWARD COUNTY DIV. OF SEDIMENT CONTROL INSPECTOR.
 - 10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUIRED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, OTHER BUILDING OR GRADING. INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

SEQUENCE OF CONSTRUCTION (S.O.C.)

1. CONTACT HOWARD COUNTY BUREAU OF CONSTRUCTION INSPECTION (707-2272) FOR A CONSTRUCTION DIVISION.
2. INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS PER SECTION 219.
3. EXCAVATE AND INSTALL PROPOSED SEWER MAIN.
4. RESTORE PAVING AND EARTH TRENCHES TO THEIR ORIGINAL CONDITION AS PER HOWARD COUNTY STANDARDS.
5. FINE GRADE ALL DISTURBED AREAS AND STABILIZE WITH PERMANENT SEEDING.
6. UPON PERMISSION FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR REMOVE EROSION AND SEDIMENT CONTROL DEVICES AND PERMANENTLY STABILIZED AREAS HAVE BEEN PERMANENTLY STABILIZED.

- GENERAL NOTES**
1. Approximate location of existing mains are shown. The Contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
 2. All Horizontal Controls shown are based on Maryland State Coordinates.
 3. All Vertical Controls are based on U.S.G.S. Datum.
 4. All pipe elevations shown are invert elevations.
 5. Clear all utilities by a minimum of 6'. Clear all poles by 2'-0" minimum or tunnel as required.
 6. For details not shown on the Drawings, And for materials and construction methods, use Howard County Design Manual, Volume IX, Standard Specification And Details For Construction. The Contractor shall have a copy of Volume IX on the job.
 7. Where test pits have been made on existing utilities, they are noted by the symbol \boxtimes at location of test pit. A note or notes containing the results of the test pit or pits is included on the drawings. Existing utilities in the vicinity of the proposed work for which tests have not been dug shall be located by the Contractor two weeks in advance of Construction Operations at the Contractor's expense.
 8. The Contractor shall notify the following utility companies or agencies at least five working days prior to starting work shown on this plan:
 - C&P Telephone Company 977-0589
 - State Highway Administration 531-5533
 - Baltimore Gas & Electric Co. Contractor Service 850-4620
 - Baltimore Gas & Electric Co. Underground Damage Control 850-9004
 - Baltimore Gas & Electric Co. Trouble Shooting 298-9001
 - MISS UTILITY 1-800-257-7777
 - Colonial Pipeline 795-1390
 - Bureau of Utilities, Howard County Dept. of Public Works 313-4900
 9. Trees and shrubs are to be protected from damage to the maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the Contractor.
 10. Contractor shall remove trees, stumps and roots along line of excavation. Payment for such removal shall be included in the unit price for construction of the main and service connections.
 11. All Sewer mains shall be C.S.P.X., R.C.S.P., V.C.P.X., or P.V.C. unless otherwise noted.
 12. The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole wall.
 13. All manholes shall be 4'-0" inside diameter unless otherwise noted.
 14. Trench repair to be in accordance with Howard County Standards Details.
 15. All work will be in accordance with Howard County Standards and Specifications for Soil Erosion and Sediment Control Section 219.
 16. Length of open trench will be limited to that which can be filled and stabilized within one working day.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
 APPROVED: *[Signature]* DATE: 2/21/91
 U.S. SOIL CONSERVATION SERVICE

This Construction Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
 APPROVED: *[Signature]* DATE: 2/20/91
 HOWARD S.C.D.

Signature of Developer: *[Signature]* Date: *[Date]*

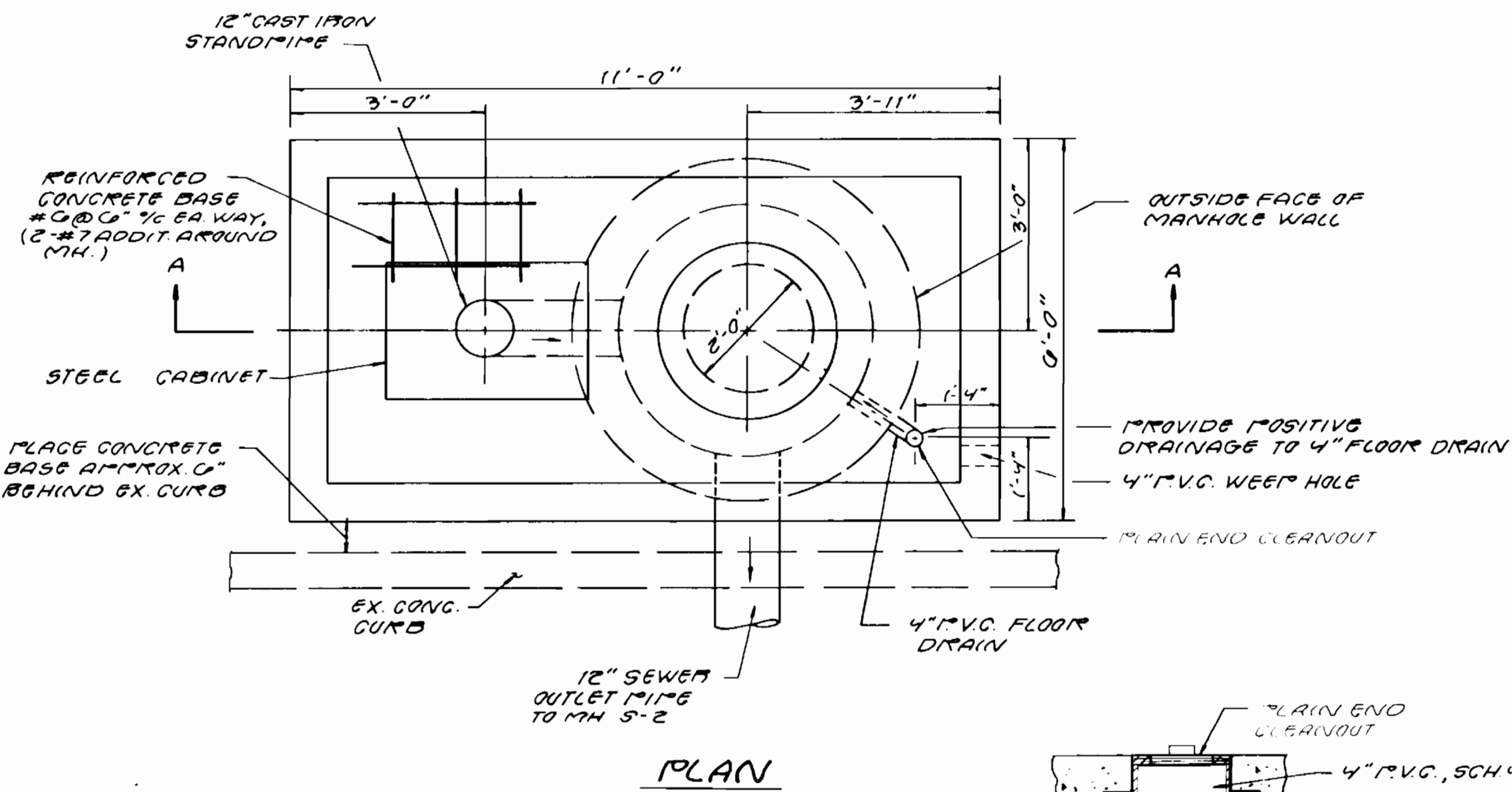
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DIRECTOR OF PUBLIC WORKS: *[Signature]* DATE: 2-28-91
 CHIEF, BUREAU OF UTILITIES: *[Signature]* DATE: 2-28-91

HICKS ENGINEERING CO., INC.
 ENGINEERS - SURVEYORS - PLANNERS
 200 E. JOPPA ROAD - SUITE 402
 TOWSON, MARYLAND 21204

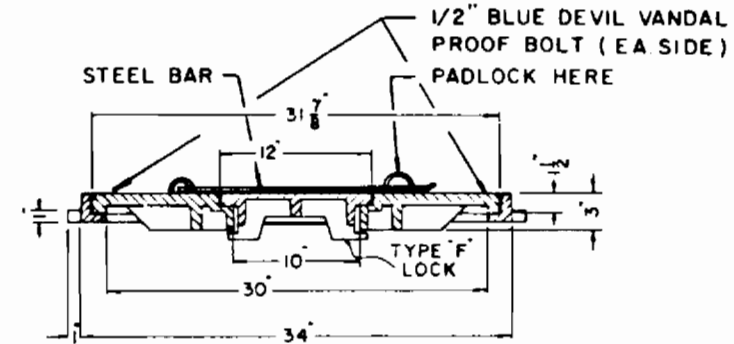
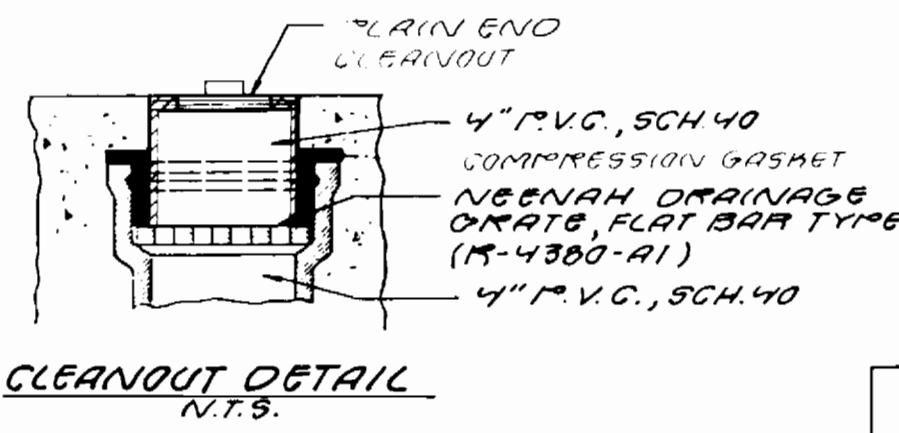
DES: E.A.S.	DATE: 1/12/90	BY: NO.	REVISION	DATE
DRN: C.E.S.				
CHK: L.T.B.				

CONTRACT NO. 20-3095
 600' SCALE MAP NO. 9-42 BLOCK NO. 19

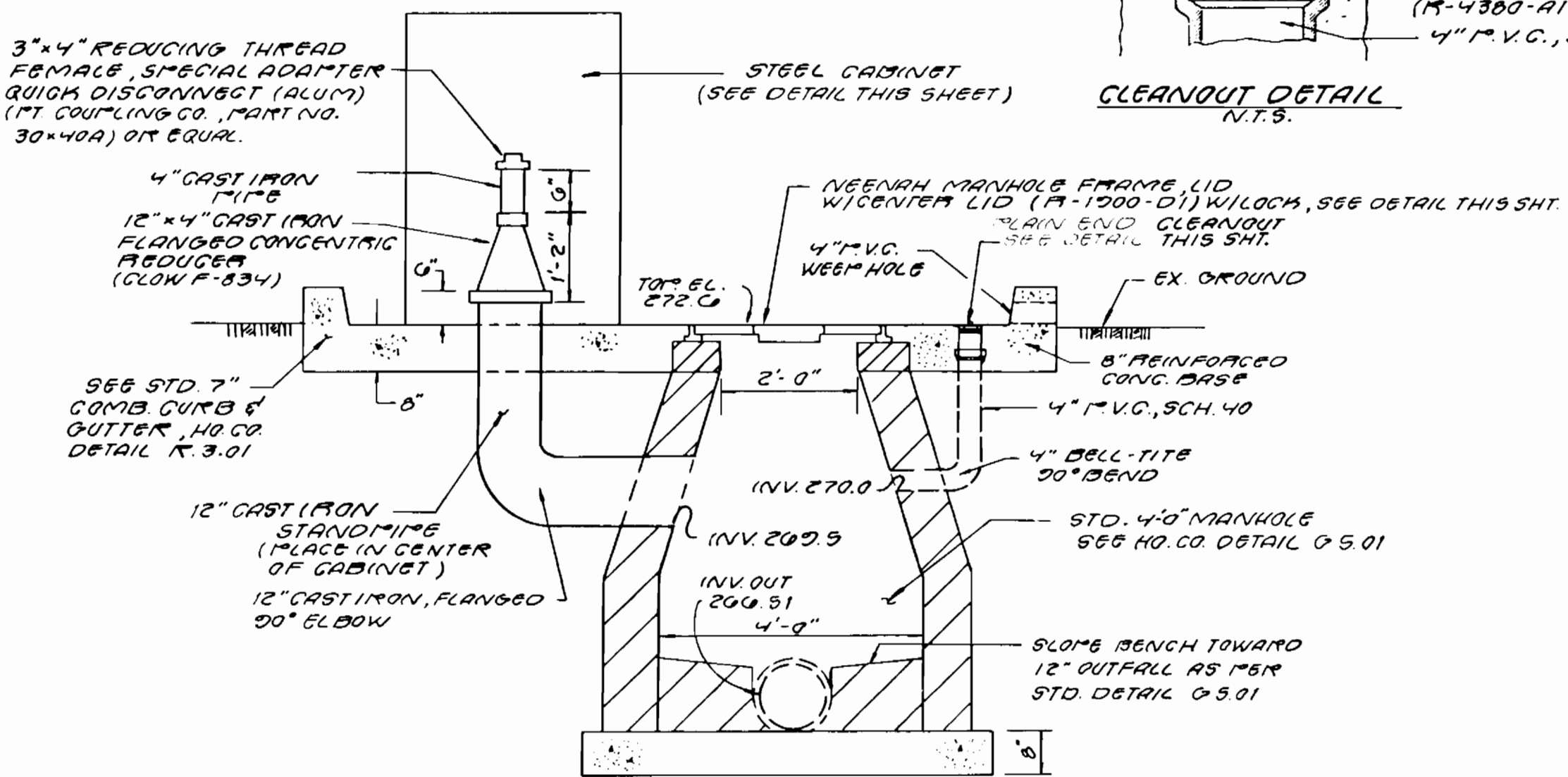
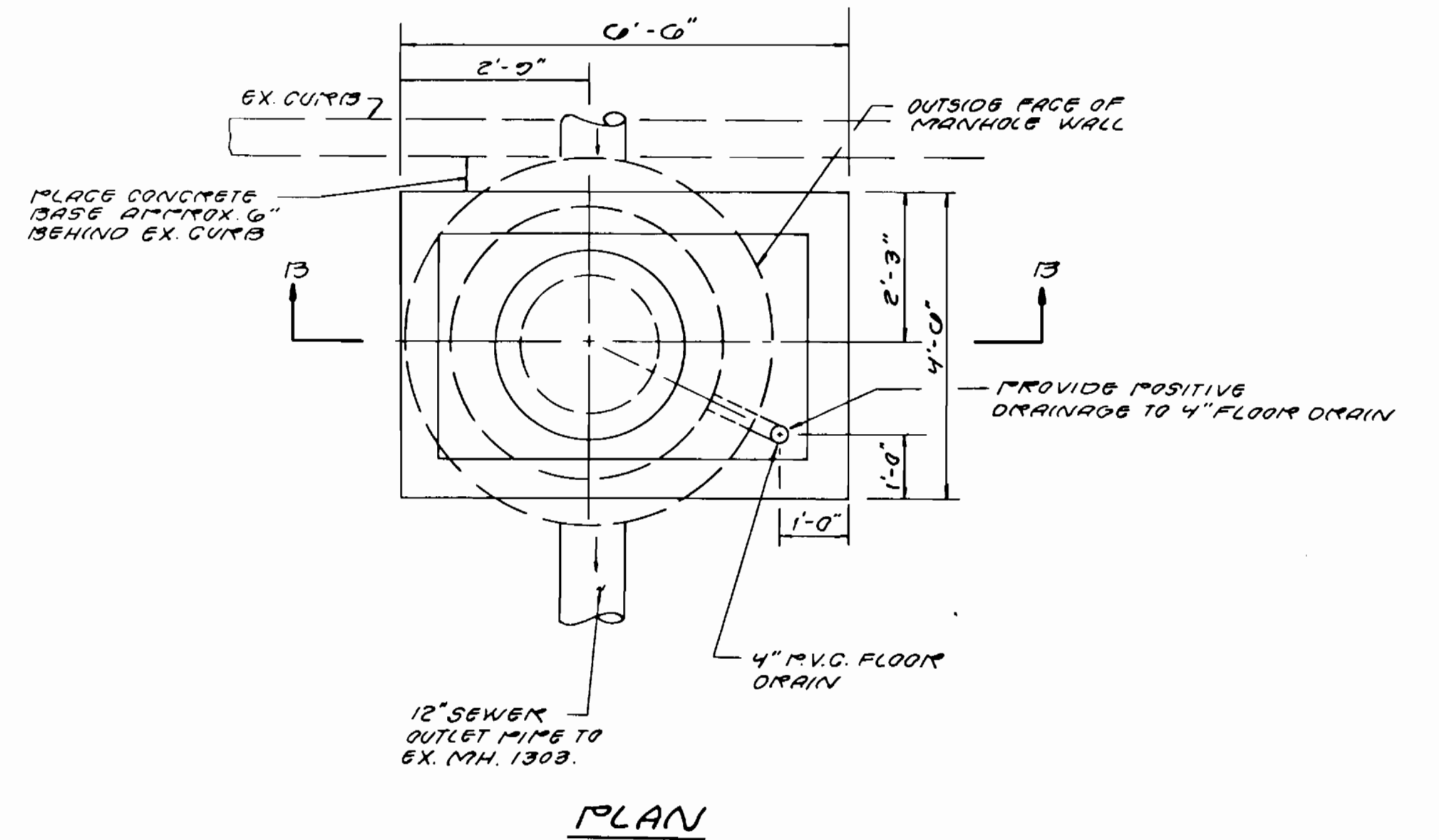
LITTLE PATUXENT
 LEACHATE DISPOSAL SITE
 HOWARD COUNTY, MARYLAND
 CAPITAL PROJECT C-0190A
 ELECTION DISTRICT NO. 6
 SCALE AS SHOWN
 SHEET 1 OF 2



PLAN

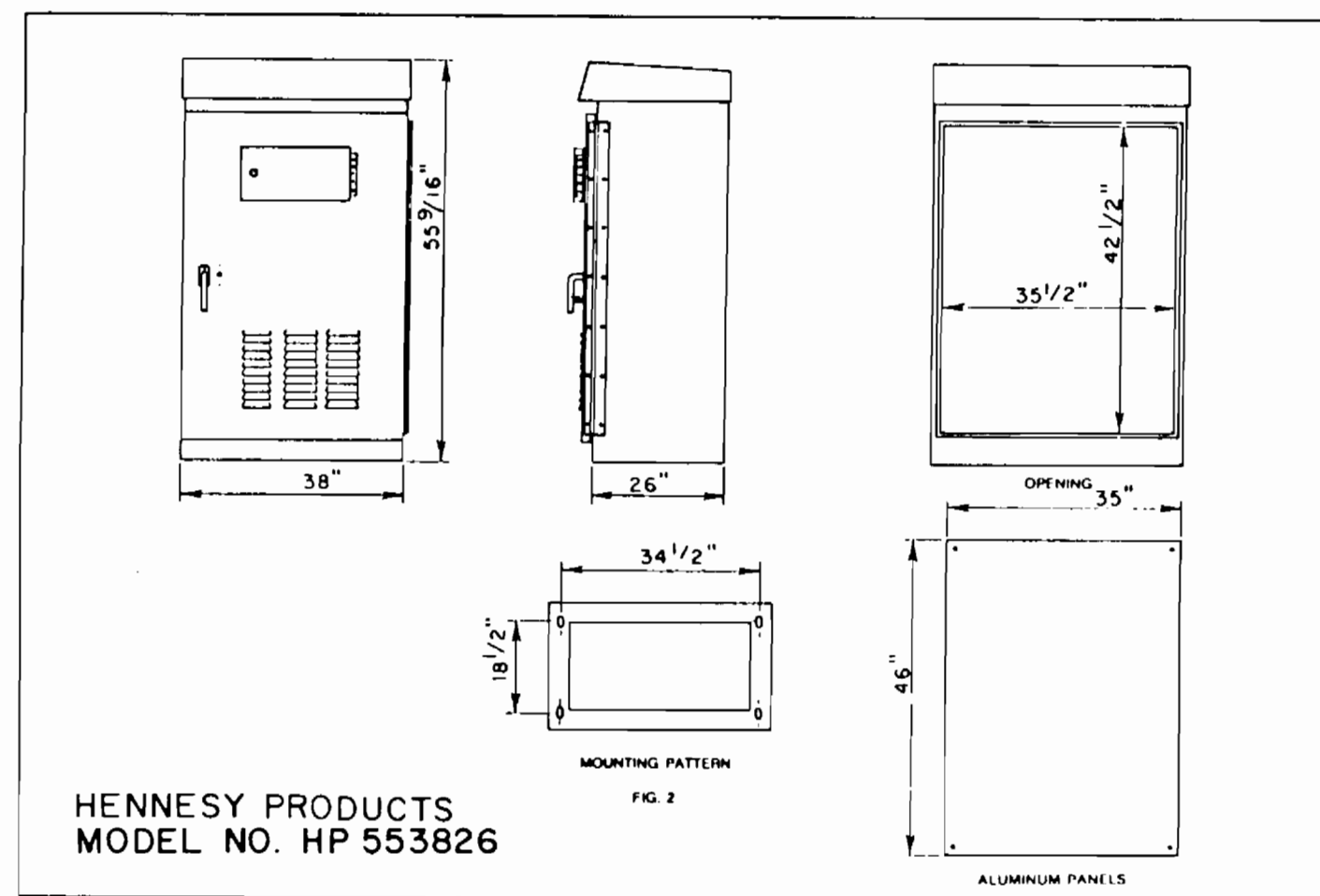


NEENAH MANHOLE FRAME & LID, W/CENTER LID, W/LOCK
N.T.S.

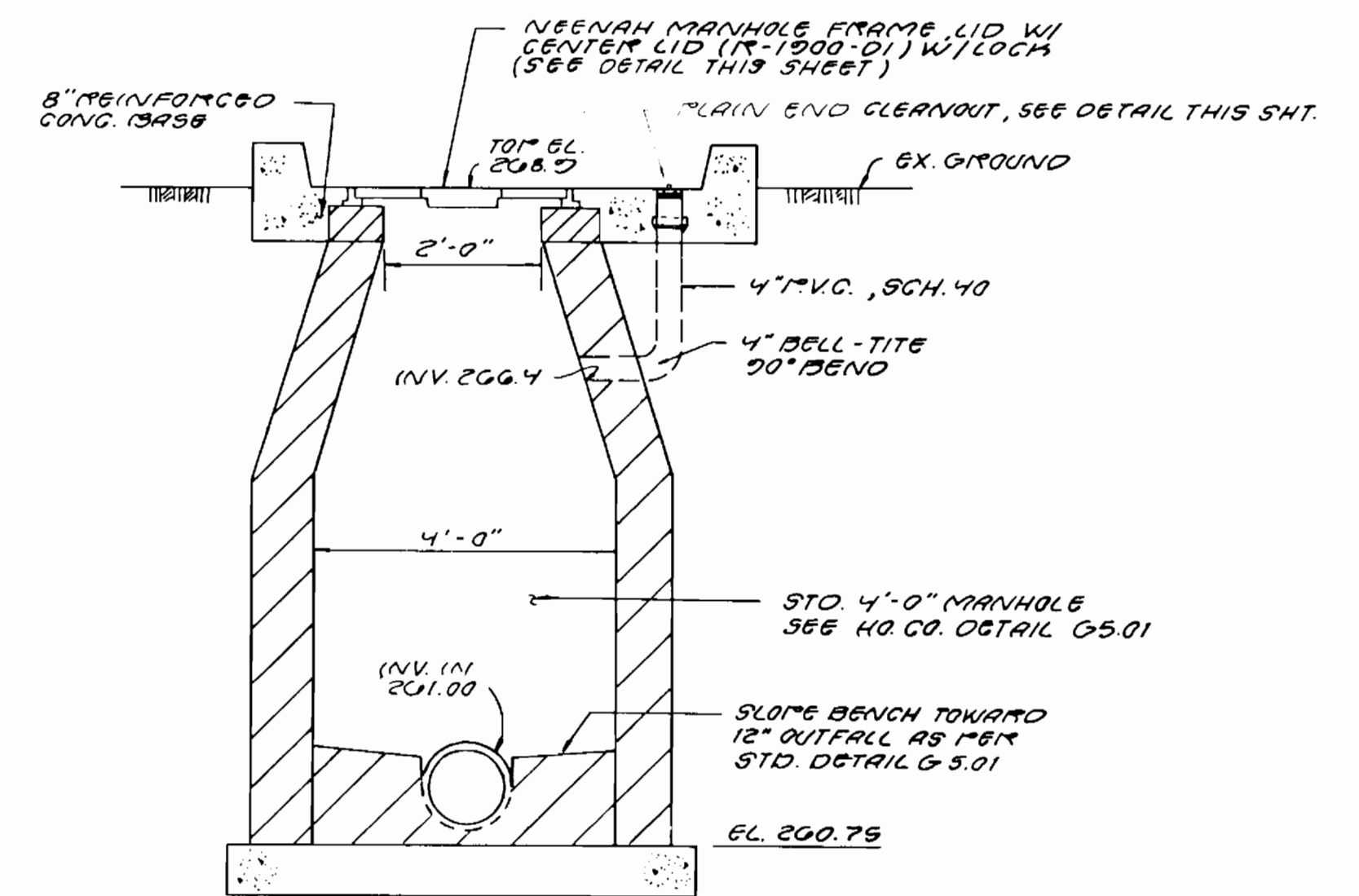


SECTION A-A
S-1

LEACHATE DISPOSAL FACILITY
SCALE: 1/2" = 1'-0"



DETAIL - STEEL CABINET
NOT TO SCALE



SECTION B-B
S-2

LEACHATE DISPOSAL FACILITY
SCALE: 1/2" = 1'-0"

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND James J. [Signature] 6/19/91 DIRECTOR OF PUBLIC WORKS DATE Robert Benjamin 2-29-91 CHIEF, BUREAU OF UTILITIES DATE		HICKS ENGINEERING CO., INC. ENGINEERS - SURVEYORS - PLANNERS 200 E. JOPPA ROAD - SUITE 402 TOWSON, MARYLAND 21204 [Professional Engineer Seal] [Signature]		DES: E. A. S. DRN: E. A. S. CHK: LTB DATE: 11/2/90		ERS 1 REVISED MEMO D.M.W. COMMENTS 3/9/91		CONTRACT NO. 20-3095 600' SCALE MAP NO. 5-42 BLOCK NO. 19		LITTLE PATUXENT LEACHATE DISPOSAL SITE HOWARD COUNTY, MARYLAND CAPITAL PROJECT C-0190A ELECTION DISTRICT NO. 6		SCALE AS SHOWN SHEET 2 OF 2
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