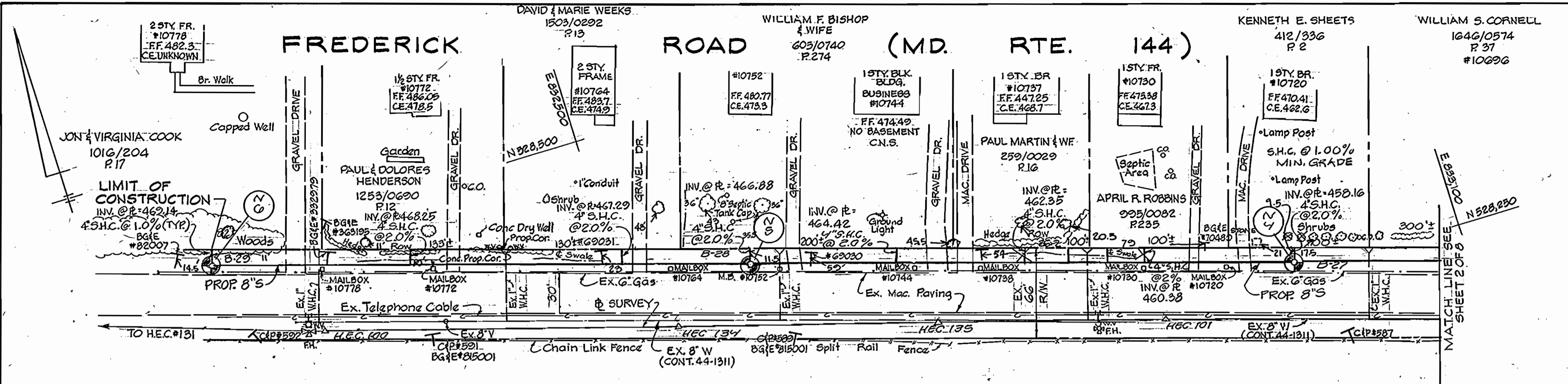
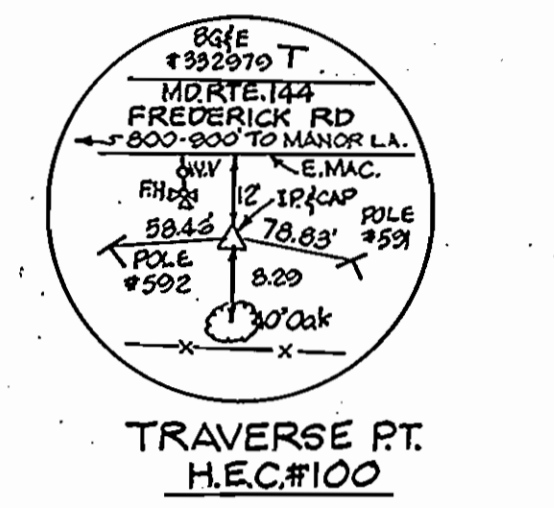


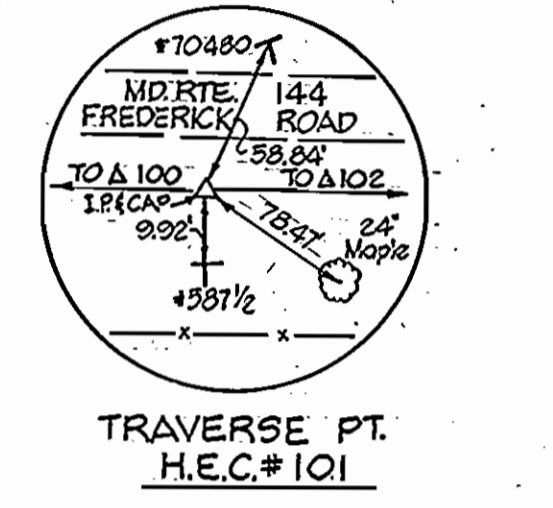
3322 W 1/2 Frederick Rd. Sewer Main, C.P.# S-6167



QUANTITIES				
ITEM	UNIT	ESTIMATE	AS-BUILT	SUPPLIER
8" SAN. SEWER	L.F.	7,458	7,463	GRIFFIN PIPE/J.M. MAN.
10" SAN. SEWER	L.F.	1,623	1,620	GRIFFIN PIPE
4" S.H.C.	L.F.	270	320	J.M. MANUFACTURING
STD. 4" MANHOLE	EA.	33	33	ATLANTIC PROD.
TYPE 'A' DROP CONN.	EA.	1	1	ATLANTIC PROD.
TYPE 'B' DROP CONN.	EA.	1	1	ATLANTIC PROD.
6" S.H.C.	L.F.	12	32	J.M. MANUFACTURING
8" D.I.P., CL. 52	L.F.	102	21	GRIFFIN PIPE
24" STEEL CASING PIPE W/ 8" D.I.P.	L.F.	80	85	BALTIMORE PIPE

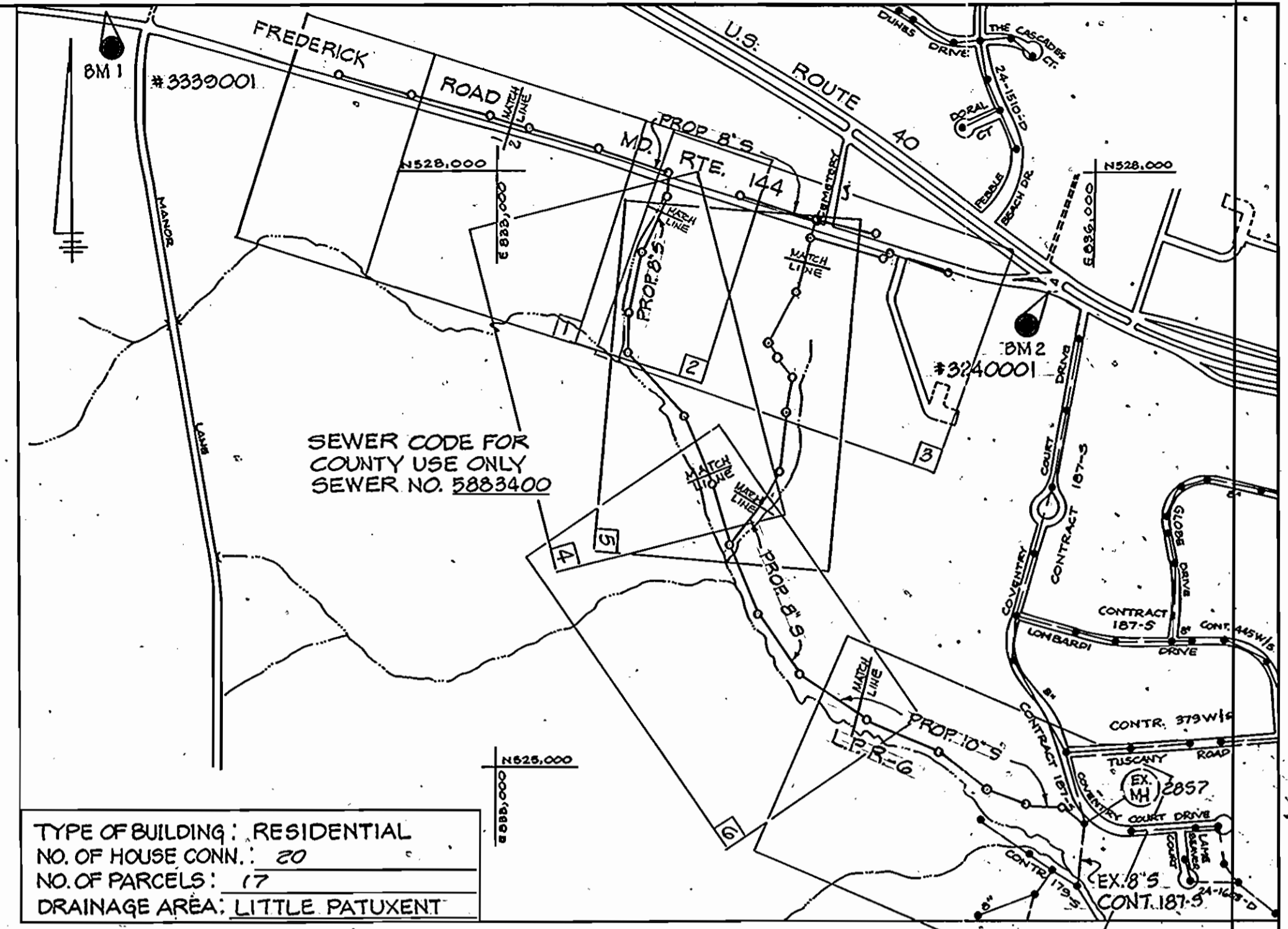


**PLAN**  
SCALE: 1"=50'



**SURVEY CONTROL**

- B.M. 1 HOWARD CO. CONTROL 3339001  
3/4" REBAR 0.3' BELOW SURFACE  
21" N. OF & ROAD 200' W. OF  
& MANOR ROAD.  
N 528812.701 ELEV. 507.532  
E 891026.665
- B.M. 2 HOWARD CO. CONTROL 3240001  
CONC. MON. 0.3' ABOVE SURFACE 55'  
S. OF S. CURB OF RAMP OF RTE 144  
WHERE IT MEETS RTE. 40 EASTBOUND  
100' W. OF & COVENTRY CT DRIVE.  
N 527406.798 ELEV. 481.229  
E 895762.990

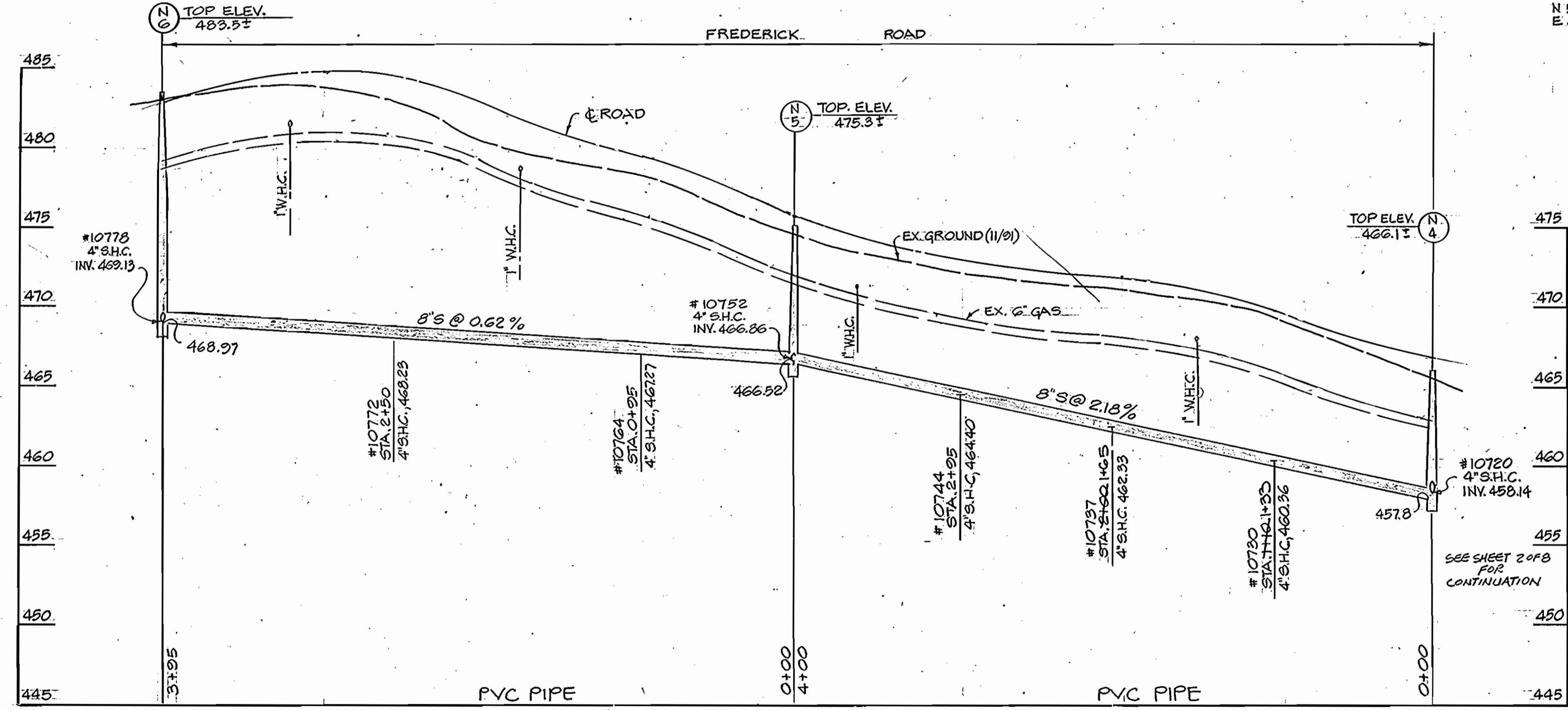


**VICINITY MAP**  
SCALE: 1"=600'

**GENERAL NOTES**

- 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.
- All Horizontal Controls shown are based on Maryland State Coordinates.
- All Vertical Controls are based on U.S.G.S. Datum.
- All pipe elevations shown are invert elevations.
- Clear all utilities by a minimum of 6". Clear all poles by 5'-0" minimum or tunnel as required.
- For details not shown on the Drawings, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specification and Details for Construction. The Contractor shall have a copy of Volume IV on the job.
- Where test pits have been made on existing utilities, they are noted by the symbol  $\square$  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.
- The Contractor shall notify the following utility companies or agencies at least five working days prior to starting work shown on this plan:
 

Bell Atlantic - Md.	597-8585
State Highway Administration	531-5533
Baltimore Gas & Electric Co. Contractor Service	650-4620
Baltimore Gas & Electric Co. Underground Damage Control	787-2068
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
AT&T	865-3003
- 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.
- 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.
- All manholes shall be 4'-0" inside diameter unless otherwise noted.
- All sewer mains shall be D.I.P. or P.V.C. unless otherwise noted.
- Trench repair to be in accordance with Howard County Std. Details.
- All work will be in accordance with Howard County Standards and Specifications for Soil Erosion and Sediment Control Section 219.
- House(s) with the symbol "C.N.S." indicates "cellar not served."
- Length of open trench will be limited to that which must be filled and stabilized within one working day.
- The contractor shall notify the Bureau of Highways, Howard County at (410) 313-2450 at least five working days before any open cut or any County Road or boring/jacking operation in County roads for laying sewer main or house connections.



**PROFILE**  
SCALE: HOR. 1"=50' VERT. 1"=5'

- SEQUENCE OF CONSTRUCTION**
- CONTACT HOWARD COUNTY BUREAU OF CONSTRUCTION INSPECTION (313-1800) PRIOR TO STARTING DATE.
  - INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS PER SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL VOL. III.
  - EXCAVATE AND INSTALL PROPOSED 8" AND 10" SEWER MAINS ACROSS THE CARROLL PROPERTY AND 8" SEWER PARALLEL TO FREDERICK RD. AND 4" HOUSE CONNECTIONS TO RIGHT OF WAY LINE.
  - RESTORE PAVING AND EARTH TRENCHES TO THEIR ORIGINAL CONDITION AS PER HOWARD COUNTY STANDARDS. § M.S.H.A. UTILITY PERMIT.
  - UPON PERMISSION FROM HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES.
  - FINE GRADE ALL DISTURBED AREAS AND STABILIZE WITH PERMANENT SEEDING.

WATER QUALITY CERTIFICATION  
#88-GWQC-001R  
NATIONWIDE PERMIT  
NWP #12  
UTILITY LINE BACKFILL & BEDDING

By the Developer:  
"I do certify that all development and construction will be done according to this plan, and that my 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."  
*Robert E. Engler, Inc.* 2/15/94  
Signature of Developer

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."  
*Robert E. Engler, Inc.* 2/15/94  
Signature of Engineer

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
*Robert E. Engler, Inc.* 2/15/94  
U.S. SOIL CONSERVATION SERVICE

This Construction Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.  
APPROVED: *Robert E. Engler, Inc.* 2/15/94  
HOWARD S.C.D.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Director of Public Works: *Robert E. Engler, Inc.* 2-9-94  
Chief, Bureau of Engineering: *Robert E. Engler, Inc.* 2/9/94  
Chief, Bureau of Utilities: *Robert E. Engler, Inc.* 2-7-94  
Chief, Water & Sewer Division: *Robert E. Engler, Inc.* 2-2-94

HICKS ENGINEERING CO., INC.  
ENGINEERS - SURVEYORS - PLANNERS  
200 E. JOPPA ROAD SUITE 402  
TOWSON MARYLAND 21286

DES.	E.A.S.	KW	1	REV. PER NO. DEPT. OF THE ENVIRONMENT COMMENTS	9/10/94
DRN.	F.W.	DEH	2	REVISED QUANTITIES LIST	12/5/94
CHK.	E.A.S.				
DATE:	1-7-94	BY	NO.	REVISION	DATE

CONTRACT NO. 20-3322

FREDERICK ROAD SEWER MAIN  
3 RD. ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT S-6167  
C-240994-04 LE

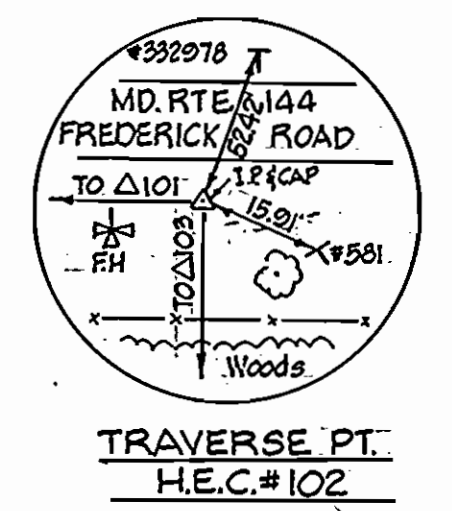
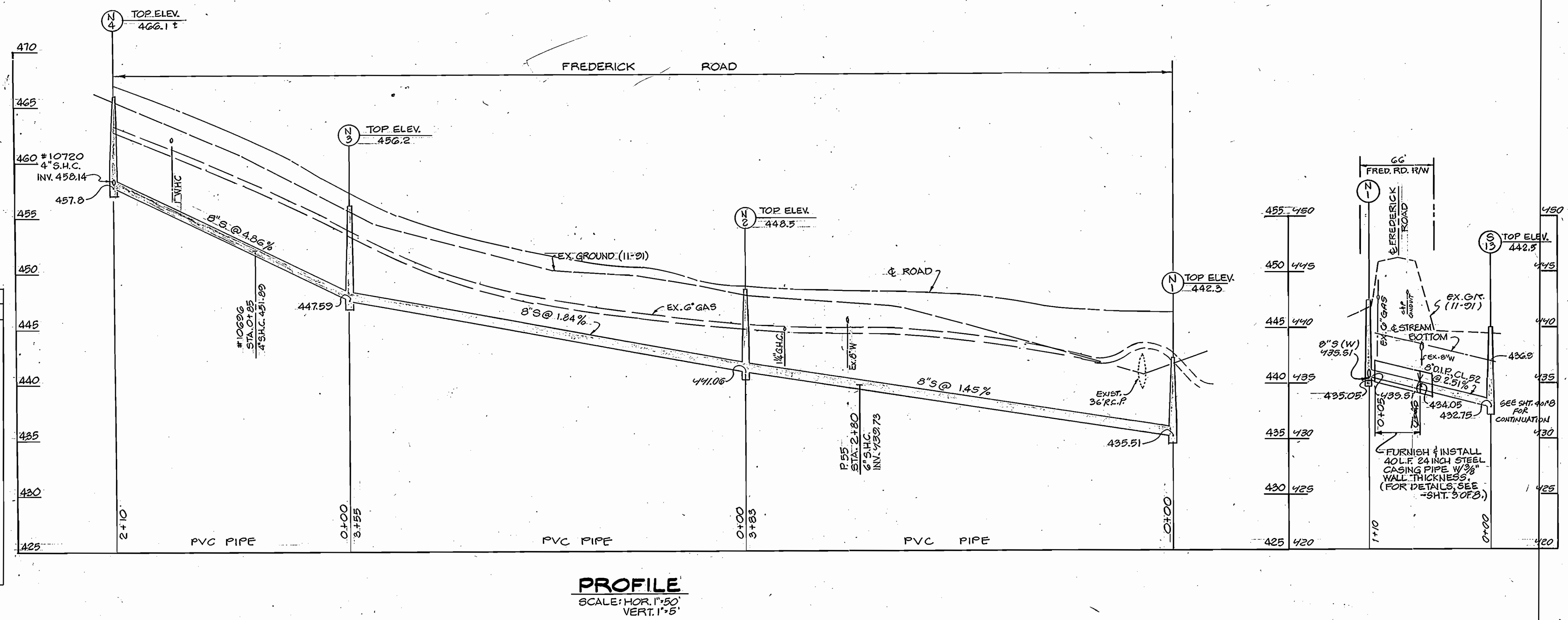
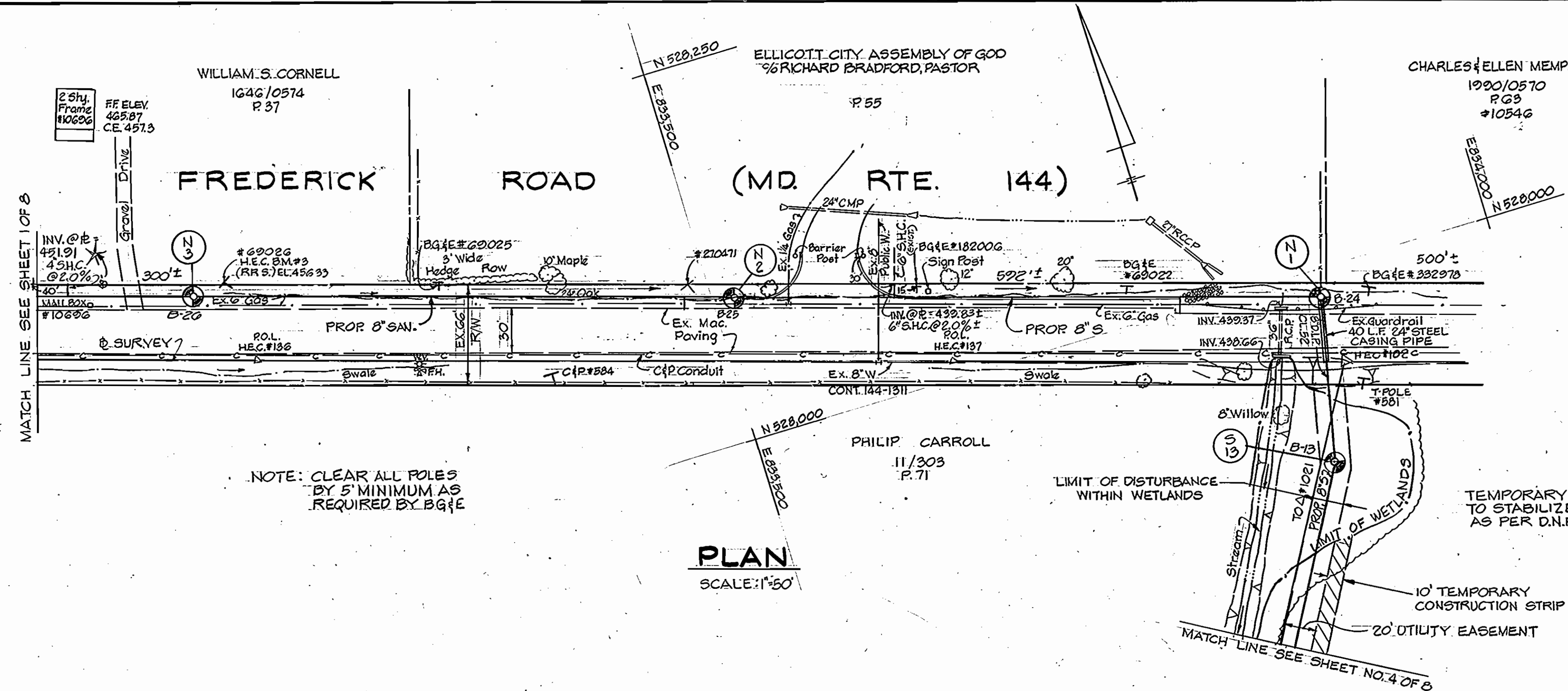
SCALE AS SHOWN  
SHEET 1 OF 8

AS  
 3322  
 ws/2 Frederick Rd. Sewer  
 AS - BUILT 12/27/94

RESTORATION SCHEDULE			
LOCATION	DISTANCE	TYPE	TYPE
N-1 to N-6	1743'	Seed & Mulch	-
N-7 to N-9	720'	715'	15' Paving
EX 2857 to S-13	4254'	"	"
S-20 to S-23	725'	680'	45' Paving
S-20 to N-8	65'	41' Seed & Mulch	No Paving
S-13 to N-1	110'	86'	No Paving
4" S.H.C. to R/W Line	220'	200'	20' Paving

TRAVERSE DATA			
NO.	CO. BM	COORDINATES	ELEVATION
1	3339001	S 71°57'43" E	1257.31'
2	HEC TRAV. PT. 100	S 73°38'13" E	617.75'
3	HEC TRAV. PT. 101	S 72°59'56" E	1056.64'
4	HEC TRAV. PT. 102	S 20°24'34.5" W	406.3600'
5	HEC TRAV. PT. 1021	S 02°20'42.0" W	427.7200'
6	HEC TRAV. PT. 1022	S 37°02'08.0" E	175.2400'
7	HEC TRAV. PT. 1023	S 28°49'34.5" W	144.5400'
8	HEC TRAV. PT. 1024	S 30°47'15.5" E	270.8200'
9	HEC TRAV. PT. 1025	S 15°55'03.0" E	297.9800'
10	HEC TRAV. PT. 1026	S 27°04'08.0" E	338.0200'
11	HEC TRAV. PT. 1027	S 34°17'08.0" E	268.4200'
12	HEC TRAV. PT. 1028	S 29°04'30.5" E	289.2200'
13	HEC TRAV. PT. 1029	S 30°18'18.0" E	204.3400'
14	HEC TRAV. PT. 1030	S 62°06'43.0" E	240.5400'
15	HEC TRAV. PT. 1031	S 67°55'03.0" E	216.2600'
16	HEC TRAV. PT. 1032	S 69°02'23.0" E	271.8600'
17	HEC TRAV. PT. 1033	S 57°13'28.0" E	219.8600'
18	HEC TRAV. PT. 1034	S 41°10'03.0" E	236.1200'
19	HEC TRAV. PT. 1035	S 14°55'17.0" W	174.6000'
20	HEC TRAV. PT. 142	S 62°22'50.5" E	206.7000'
21	HEC TRAV. PT. 141	S 54°44'02.2" E	135.0916'
22	HEC TRAV. PT. 126	N 47°50'17.0" E	315.8336'
23	HEC TRAV. PT. 125	N 23°53'50.5" W	376.5833'
24	HEC TRAV. PT. 124	N 28°02'15.5" W	651.7226'
25	HEC TRAV. PT. 123	N 16°09'27.0" E	643.8941'
26	HEC TRAV. PT. 122	N 11°47'54.5" E	683.1180'
27	HEC TRAV. PT. 121	N 27°18'55.5" W	308.6729'
28	HO. CO. BM 3240001	N 78°00'55.5" W	413.2888'
29	HEC TRAV. PT. 130	N 73°26'19.5" W	725.9001'
30	HEC TRAV. PT. 104	N 73°00'08.0" W	401.4892'
31	HEC TRAV. PT. 103	N 73°04'00.5" W	412.2839'
32	HEC TRAV. PT. 102		527936.9945

STAKEOUT TABLE			
MHI	TRAVERSE	STATION	OFFSET
S-1	Pt. 125 to Pt. 126	1+56.82	93.86' Left
S-1A	Pt. 1035 to Pt. 142	(-)-0+95.82	125.69' Left
S-2	Pt. 1035 to Pt. 1034	0+49.01	123.00' Right
S-3	Pt. 1033 to Pt. 1034	0+62.90	3.55' Right
S-4	Pt. 1032 to Pt. 1031	0+69.88	21.13' Right
S-5	Pt. 1030 to Pt. 1029	0+38.74	40.44' Right
S-6	Pt. 1028 to Pt. 1029	0+81.09	18.96' Left
S-7	Pt. 1027 to Pt. 1045A	1+10.22	52.30' Left
S-8	Pt. 1026 to Pt. 1025	0+39.17	139.09' Right
S-9	Pt. 1025 to Pt. 1024	0+83.02	96.96' Right
S-10	Pt. 1022 to Pt. 1023	0+46.59	59.42' Right
S-11	Pt. 1022 to Pt. 1021	0+93.16	10.00' Left
S-12	Pt. 1021 to Pt. 102	0+12.32	14.46' Right
S-13	Pt. 102 to Pt. 1021	0+66.12	7.07' Left
S-14	Pt. 1045 to Pt. 1044	0+76.08	105.41' Left
S-15	Pt. 1044 to Pt. 1045	2+05.23	155.03' Right
S-16	Pt. 1044 to Pt. 1043	0+57.63	141.73' Left
S-17	Pt. 1043 to Pt. 1044	(-)-0+18.79	172.98' Right
S-18	Pt. 1043 to Pt. 1042	(-)-0+12.80	192.57' Left
S-19	Pt. 1041 to Pt. 1042	0+64.22	15.21' Right
S-20	Pt. 104 to Pt. 1041	0+72.80	59.86' Right
S-21	Pt. 104 to Pt. 130	2+99.19	37.90' Right
S-22	Pt. 104 to Pt. 130	3+22.10	5.12' Right
S-23	Pt. 130 to Pt. 104	0+94.65	8.16' Left
N-1	Pt. 102 to Pt. 101	0+15.71	42.24' Right
N-2	Pt. 102 to Pt. 101	3+98.70	41.15' Right
N-3	Pt. 101 to Pt. 102	3+82.93	40.69' Left
N-4	Pt. 101 to Pt. 102	0+92.93	40.65' Left
N-5	Pt. 100 to Pt. 101	3+11.18	46.04' Left
N-6	Pt. 100 to Pt. 131	0+84.81	48.26' Right
N-7	Pt. 103 to Pt. 102	0+76.87	39.74' Right
N-8	Pt. 104 to Pt. 103	0+87.40	40.04' Right
N-9	Pt. 104 to Pt. 130	2+33.89	37.58' Left



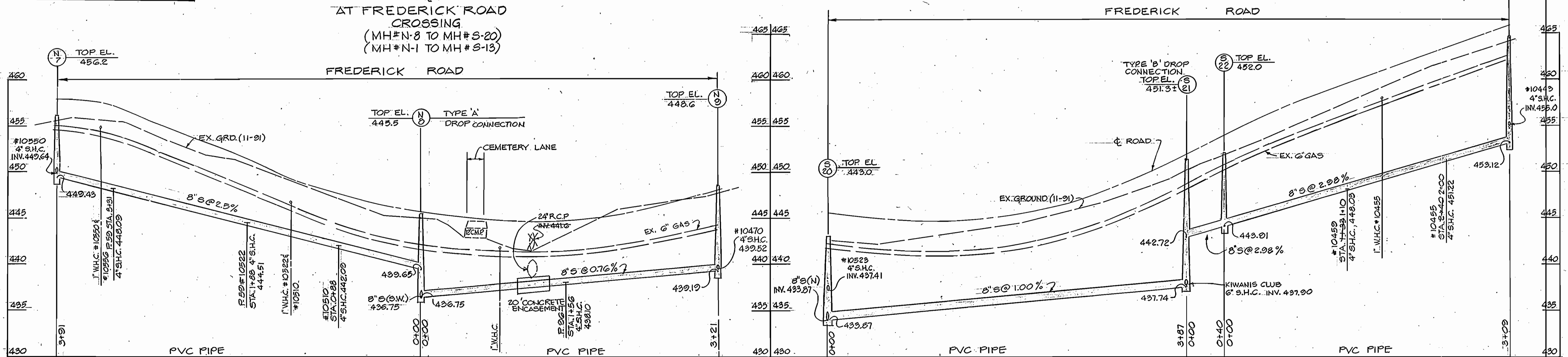
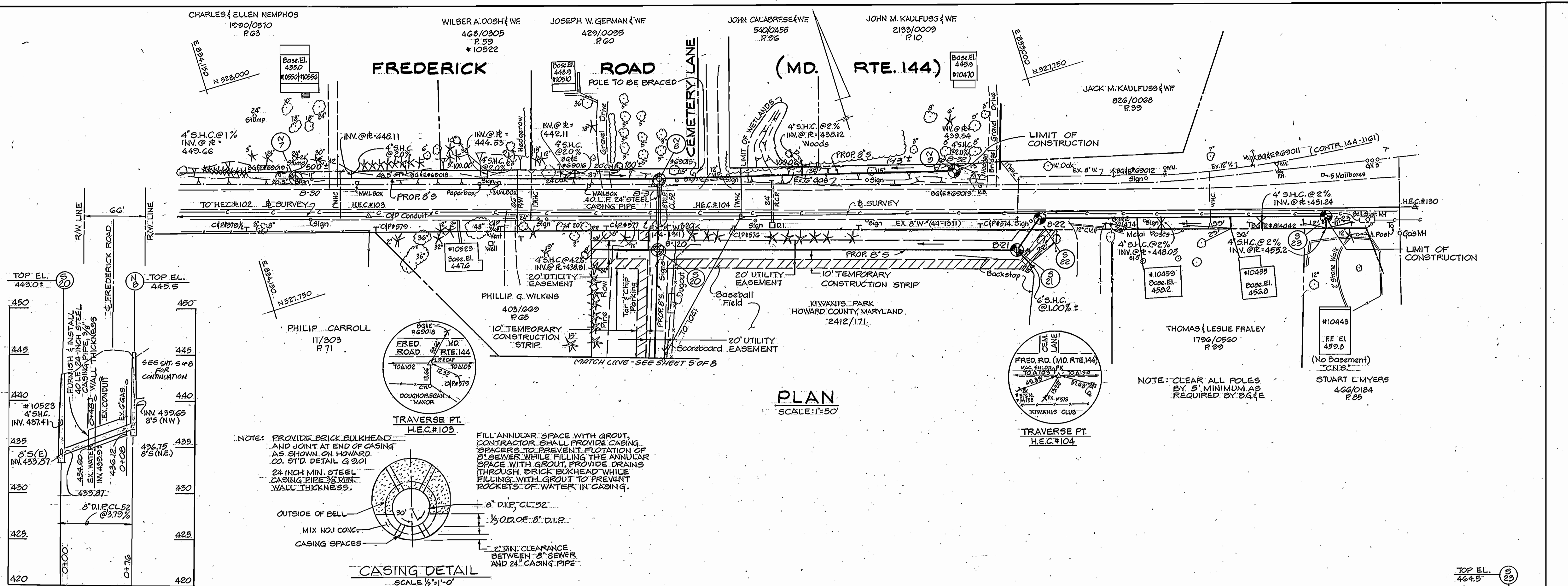
DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 James M. Shaw 2/9/94  
 DIRECTOR OF PUBLIC WORKS DATE  
 Robert M. Seaman 2-7-94  
 CHIEF, BUREAU OF UTILITIES DATE

HICKS ENGINEERING CO., INC.  
 ENGINEERS - SURVEYORS - PLANNERS  
 200 E. JOPPA ROAD SUITE 402  
 TOWSON, MARYLAND 21286

DES:	DRN:	CHK:	DATE:	BY:	NO.:	REVISION	DATE:
E.A.S.	KW	1	5/19/94			REV. PER MD. DEPT. OF THE ENVIRONMENT COMMENTS	
	DEH	2	12/15/94			ADDED 24" I.D. STEEL CASING PIPE	
			12/15/94			ADDED 4" S.H.C. & ENTR. FOR CHURCH SITE	
			5/10/95			CHANGED 4" S.H.C. TO 6" S.H.C. @ CHURCH SITE (P. 5)	
						REV. INV. EL. TO TIE INTO EXIST. 6" S.H.C.	

CONTRACT NO. 20-3322  
 FREDERICK ROAD SEWER MAIN  
 3 RD. ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CAPITAL PROJECT S-6167  
 C-240994-04 LE  
 SCALE AS SHOWN  
 SHEET 2 OF 8

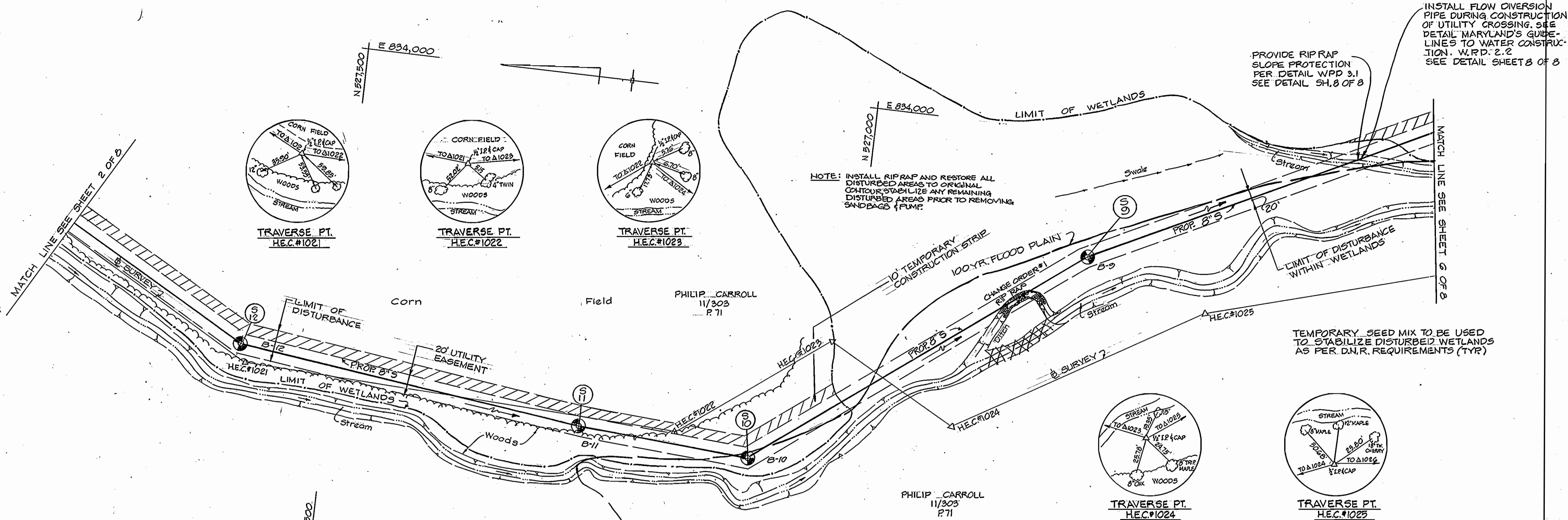
AB  
3322 ws/3 Frederick Rd. Sewer



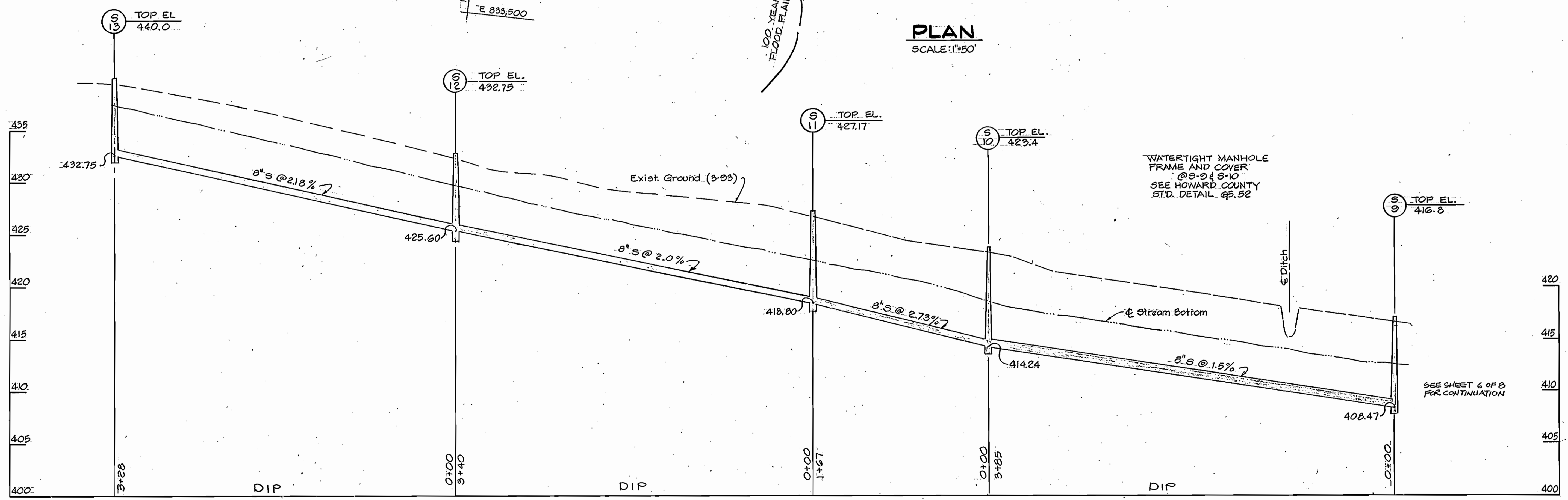
<b>DEPARTMENT OF PUBLIC WORKS</b> HOWARD COUNTY, MARYLAND Director of Public Works: <i>James A. Shaw</i> 2/1/94 Chief, Bureau of Engineering: <i>Robert S. ...</i> 2/1/94 Chief, Bureau of Utilities: <i>Robert S. ...</i> 2-7-94 Chief, Water & Sewer Division: <i>...</i> 2-2-94		<b>HICKS ENGINEERING CO., INC.</b> ENGINEERS - SURVEYORS - PLANNERS 200 E. JOPPA ROAD SUITE 402 TOWSON, MARYLAND 21286		DES: E.A.S. KW 1 REV. PER MD. DEPT. OF THE ENVIRONMENT COMMENTS 6/18/94 KW 2 LOWERED MAIN FROM S-21 TO N-8 AND ADDED 7/5/94 DRN: F.W. DEB. 3. 2" S.H.C. @ S-21 FOR KIWANIS CLUB BUILDINGS 10/15/94 CHK: E.A.S. DATE: 1-10-94 BY NO. REVISION DATE		CONTRACT NO. 20-3322 600' SCALE MAP NO. 516122 BLOCK NO.		<b>FREDERICK ROAD SEWER MAIN</b> 3 RD. ELECTION DISTRICT HOWARD COUNTY, MARYLAND CAPITAL PROJECT S-6167 C-240994-04 LE		SCALE AS SHOWN SHEET 3 OF 8
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AS BUILT 12/20/95

AB  
 3322  
 ws/4 Frederick Rd. Sewer



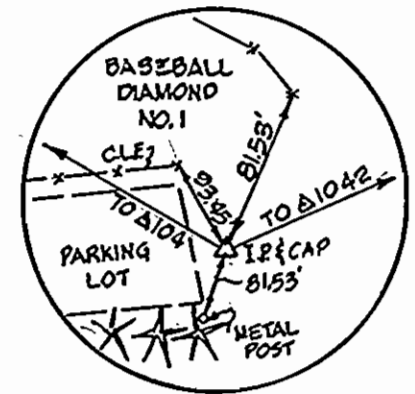
**PLAN**  
 SCALE: 1"=50'



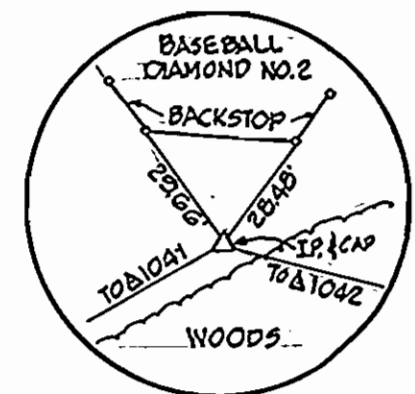
**PROFILE**  
 SCALE: HOR. 1"=50'  
 VERT. 1"=5'

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: James M. Lane 2/9/94 Chief, Bureau of Engineering: Paul W. Sporn 2/9/94 Chief, Bureau of Utilities: Robert Deiner 2-7-94 Chief, Water & Sewer Division: O. Donham 2-2-94		HICKS ENGINEERING CO., INC. ENGINEERS - SURVEYORS - PLANNERS 200 E. JOPPA ROAD SUITE 402 TOWSON, MARYLAND 21286		DES: E.A.S. DRN: F.W. CHK: E.A.S. DATE: 1-10-94		KW 1 REV. PER MD. DEPT. OF THE ENVIRONMENT COMMENTS: 9/14/94 CONTRACT NO. 20-3322 600 SCALE MAP NO. S-1022 BLOCK NO.		FREDERICK ROAD SEWER MAIN 3 RD. ELECTION DISTRICT HOWARD COUNTY, MARYLAND CAPITAL PROJECT S-6167 C-240994-04 LE		SCALE AS SHOWN SHEET 4 OF 8
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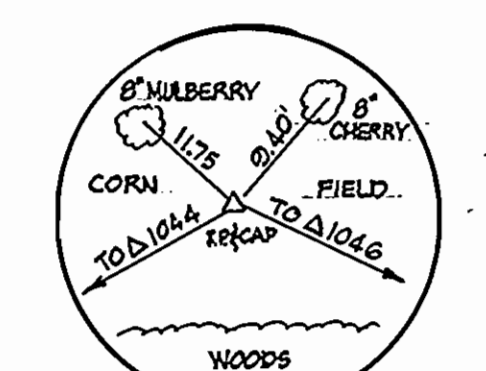
3322 ws/5 Frederick Rd. Sewer



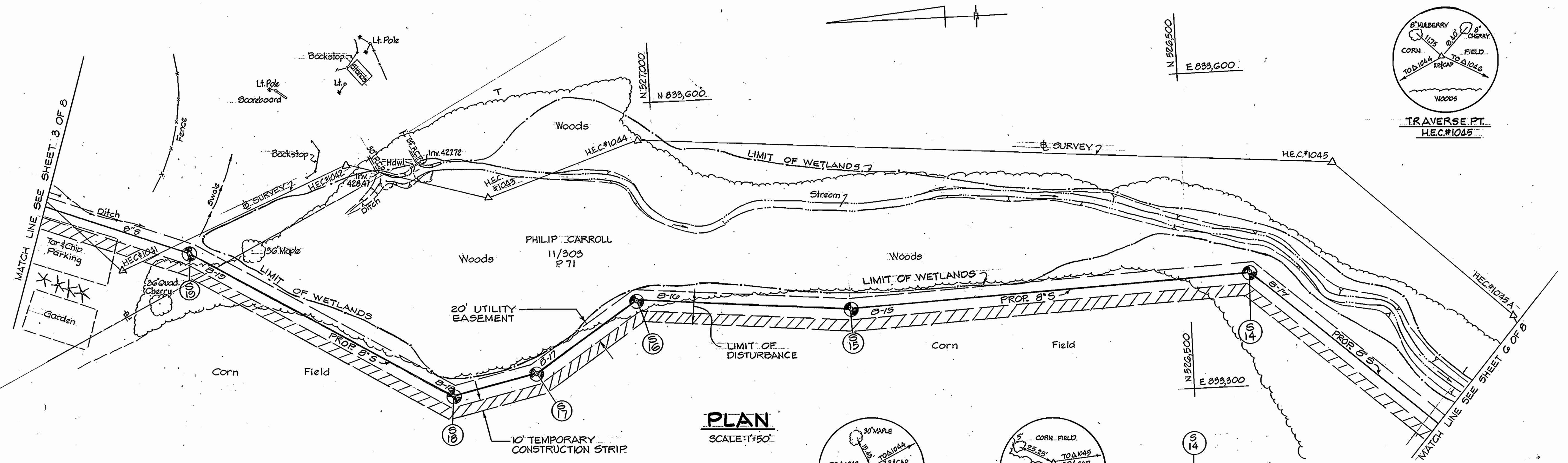
TRaverse PT. H.E.C.#1041



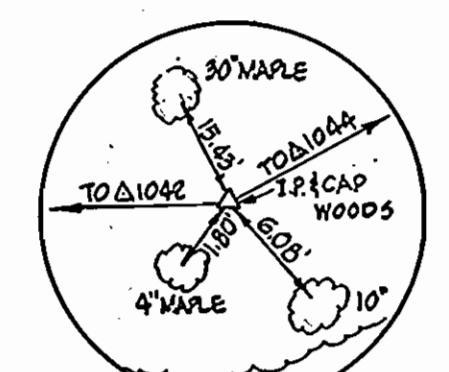
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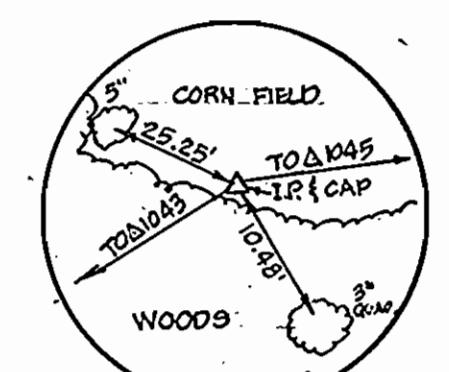
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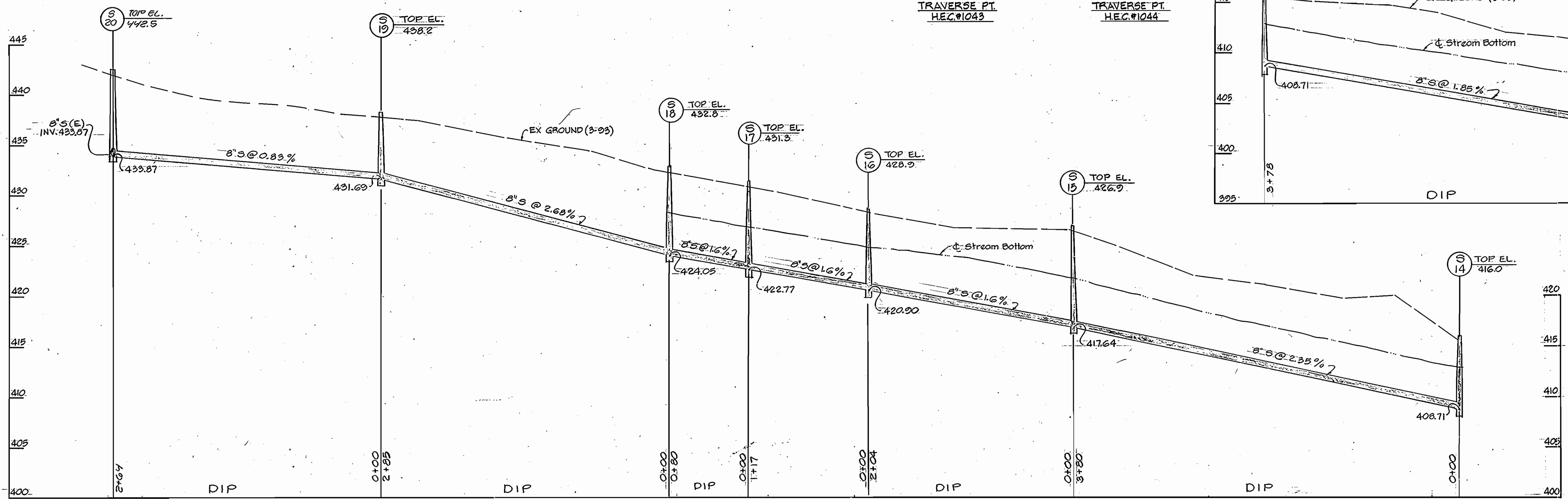
**PLAN**  
SCALE: 1"=50'



TRaverse PT. H.E.C.#1043



TRaverse PT. H.E.C.#1044

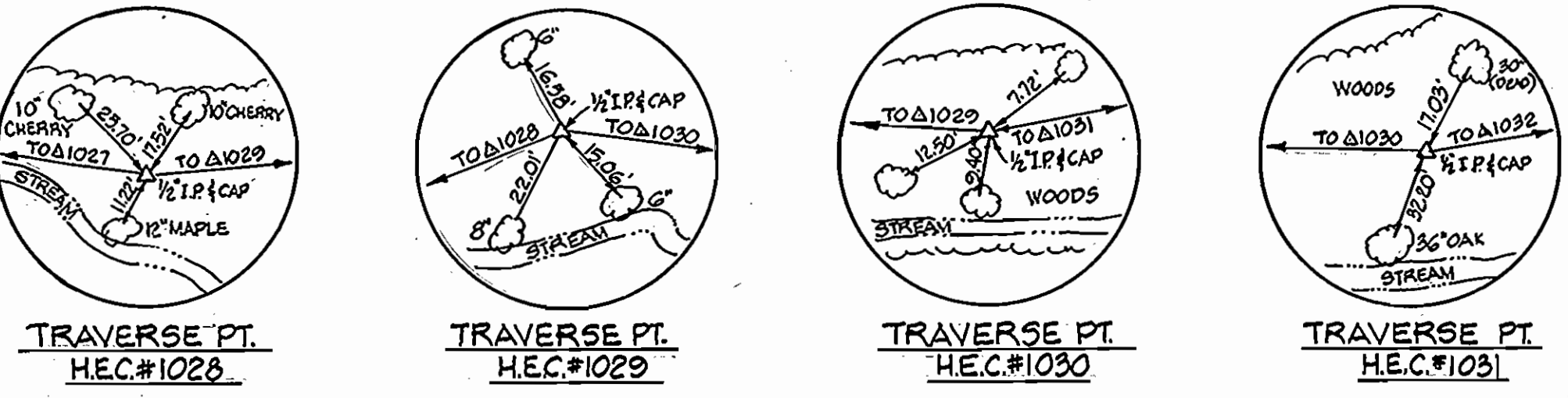
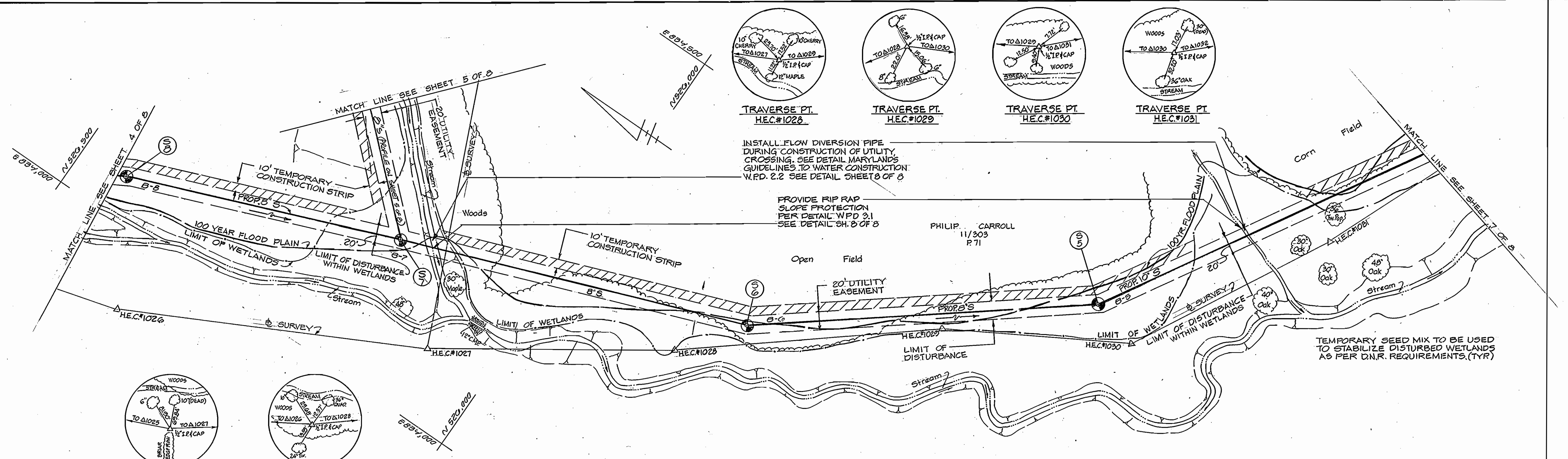


**PROFILE**  
SCALE: HOR. 1"=50'  
VERT. 1"=5'

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director: James M. Lewis (2/9/94) Chief, Bureau of Engineering: Robert J. Simpson (2/9/94) Chief, Bureau of Utilities: Robert J. Simpson (2-7-94) Chief, Water & Sewer Division: Robert J. Simpson (2-2-94)		HICKS ENGINEERING CO., INC. ENGINEERS SURVEYORS PLANNERS 200 E. JOPPA ROAD SUITE 402 TOWSON, MARYLAND 21286		DES: E.A.S. KW 1 DRN: F.W. 2 CHK: E.A.S. DATE: 1-10-94		REV. PER MD. DEPT. OF THE ENVIRONMENT COMMENTS 2 LOWERED MAIN FROM S-20 TO S-19 7/5/94		CONTRACT NO. 20-3322 600' SCALE MAP NO. 216123 BLOCK NO.		FREDERICK ROAD SEWER MAIN 3 RD. ELECTION DISTRICT HOWARD COUNTY, MARYLAND CAPITAL PROJECT S-6167 C-240994-04 LE		SCALE AS SHOWN SHEET 5 OF 8	
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AB

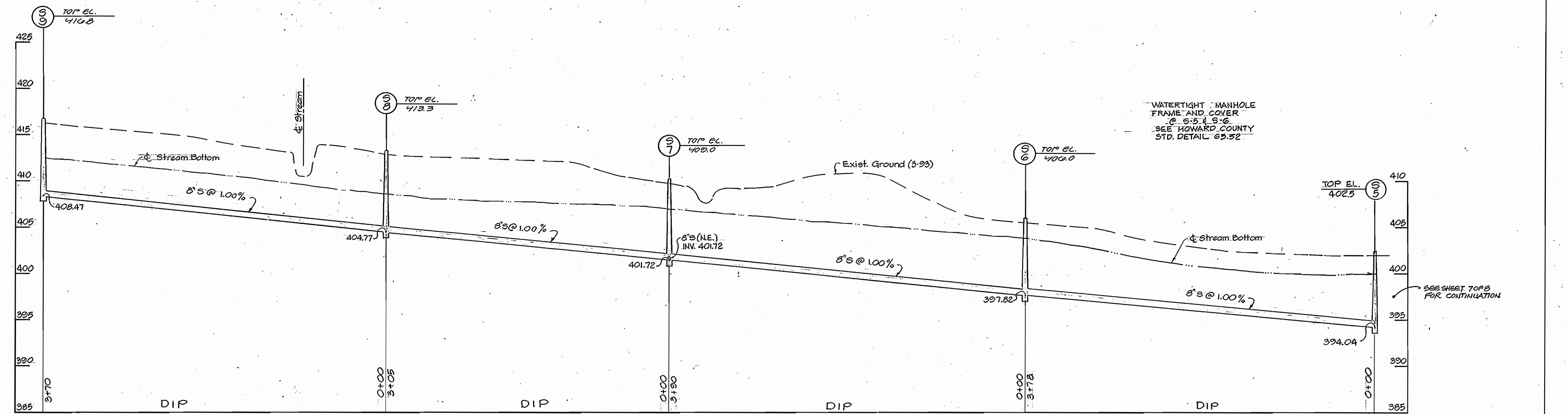
3322 WS/6 Frederick Rd. Sewer



INSTALL FLOW DIVERSION PIPE DURING CONSTRUCTION OF UTILITY CROSSING. SEE DETAIL MARYLANDS GUIDELINES TO WATER CONSTRUCTION W.P.D. 2.2 SEE DETAIL SHEETS 8 OF 8

PROVIDE RIP RAP SLOPE PROTECTION PER DETAIL WPD 2.1 SEE DETAIL SH. 8 OF 8

**PLAN**  
SCALE: 1"=50'



**PROFILE**  
SCALE: HOR. 1"=50'  
VERT. 1"=5'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James J. Lewis* 2/19/94  
DIRECTOR OF PUBLIC WORKS DATE

*Phillip S. Gamm* 2/19/94  
CHIEF, BUREAU OF ENGINEERING DATE

*Robert W. Deinger* 2-7-94  
CHIEF, BUREAU OF UTILITIES DATE

*Ch. Donahue* 2-2-94  
CHIEF, WATER & SEWER DIVISION DATE

HICKS ENGINEERING CO., INC.  
ENGINEERS · SURVEYORS · PLANNERS  
200 E. JOPPA ROAD SUITE 402  
TOWSON, MARYLAND 21286

*Phillip S. Gamm*  
REGISTERED PROFESSIONAL ENGINEER  
No. 8270  
Exp. 12/31/94

DES: E.A.S.	KW	1	REV. PER MD. DEPT. OF THE ENVIRONMENT COMMENTS	5/18/94
DRN: E.W.				
CHK: E.A.S.				
DATE: 1-10-93	BY	NO.	REVISION	DATE

CONTRACT NO. 20-3322

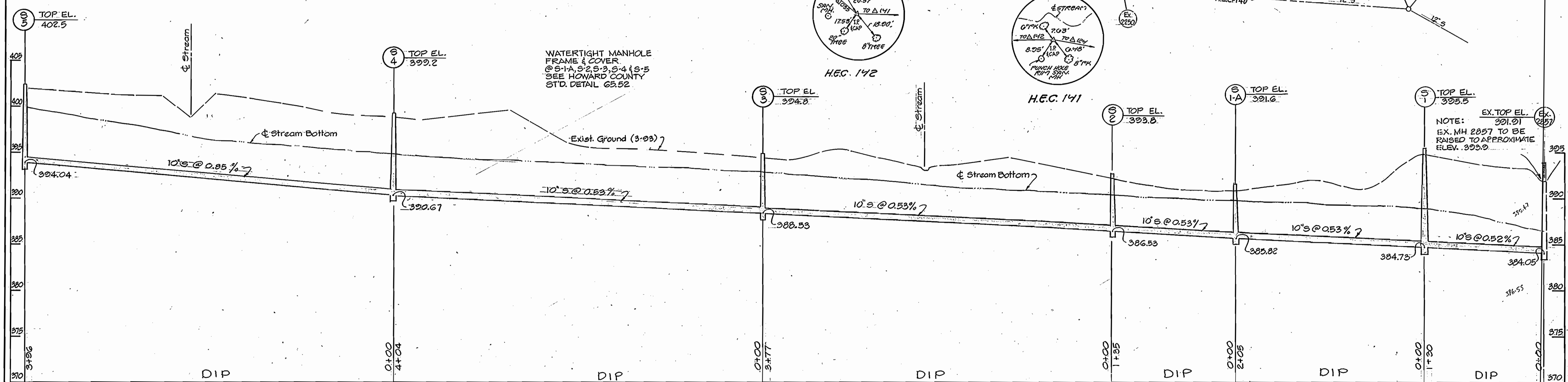
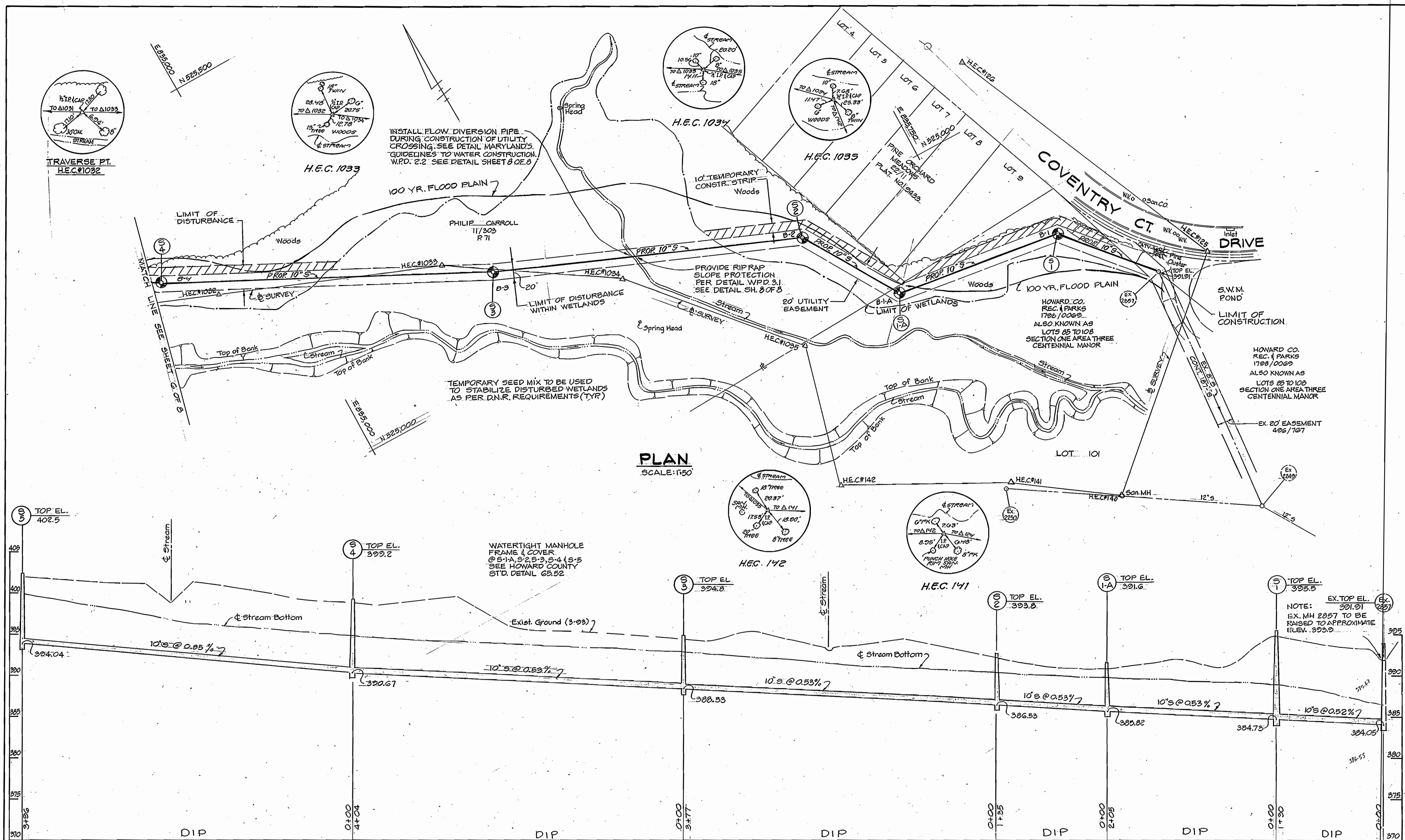
600' SCALE MAP NO. 3-10-23 BLOCK NO.

FREDERICK ROAD SEWER MAIN  
3 RD. ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT S-6167  
C-240994-04 LE

SCALE AS SHOWN  
SHEET 6 OF 8

AB

3322 ws/7 Frederick Rd. Sewer



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works DATE 2/9/94

Chief, Bureau of Engineering DATE 2/9/94

Chief, Bureau of Utilities DATE 2-2-94

Chief, Water & Sewer Division DATE

HICKS ENGINEERING CO., INC.  
ENGINEERS - SURVEYORS - PLANNERS  
200 E. JOPPA ROAD SUITE 402  
TOWSON, MARYLAND 21286

Professional Engineer Seal

DES: E.A.S.	KV	1	REV. PER MD. DEPT. OF THE ENVIRONMENT COMMENTS	5/18/94
DRN: F.W.				
CHK: E.A.S.				
DATE: 1-10-94	BY	NO.	REVISION	DATE

CONTRACT NO. 20-3322

600' SCALE MAP NO. S.16.823 BLOCK NO.

FREDERICK ROAD SEWER MAIN  
3 RD. ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT S-6167  
C-240994-04 LE

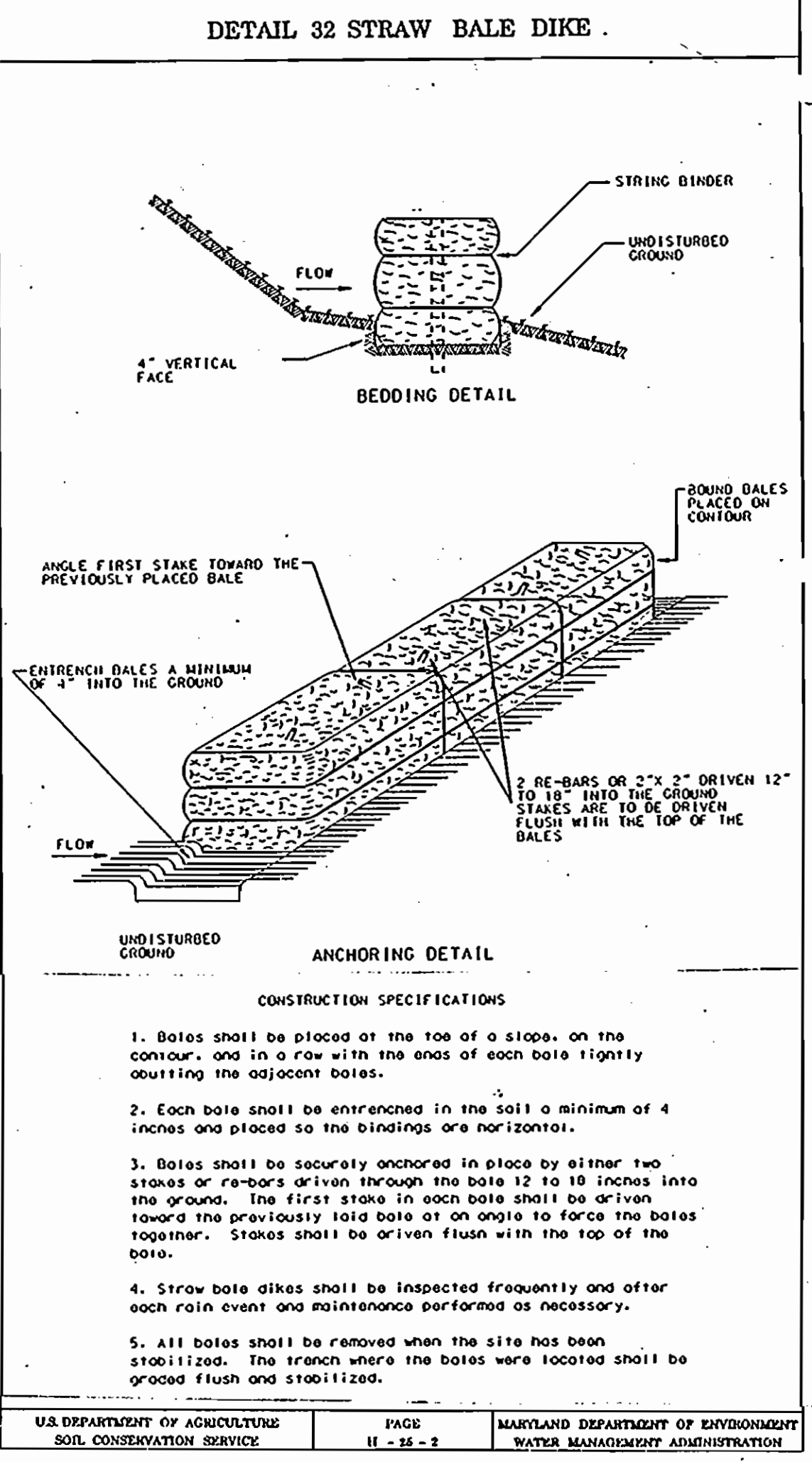
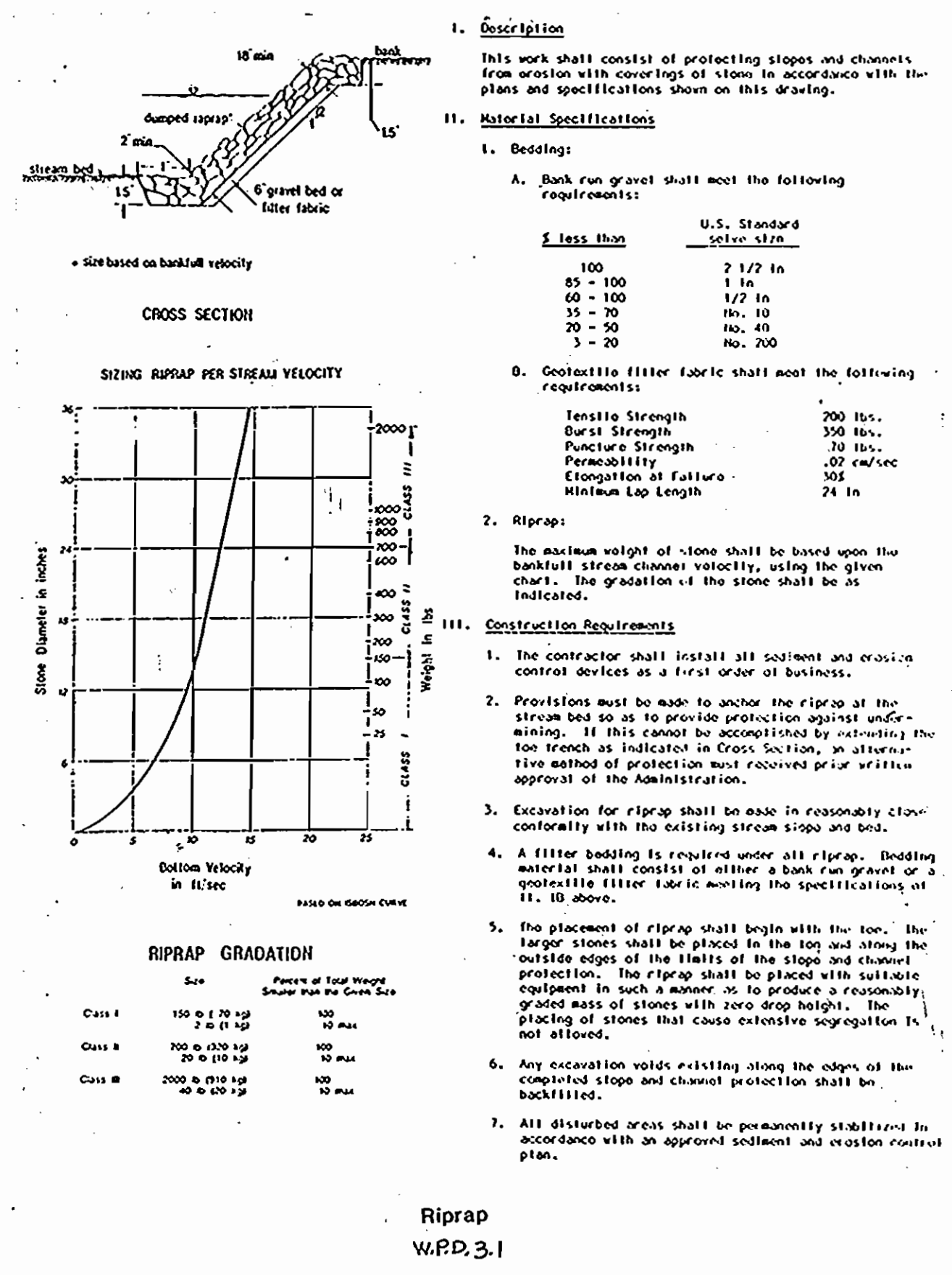
SCALE AS SHOWN

SHEET 7 OF 8

AS-BUILT 12/20/95

AB

3922 W/S/B Frederick Rd. Sewer



**TEMPORARY SEEDING NOTES**  
(NOT TO BE USED IN WETLAND AREAS)

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:

- PREFERRED:** APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ. FT.) BEFORE SEEDING. HARRON OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ. FT.).
- 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. HARRON 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 (1.4 LBS/1000 SQ. FT.) OF MEETING 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 UNROTTED SHALLOU GRASS 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.

**TEMPORARY SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

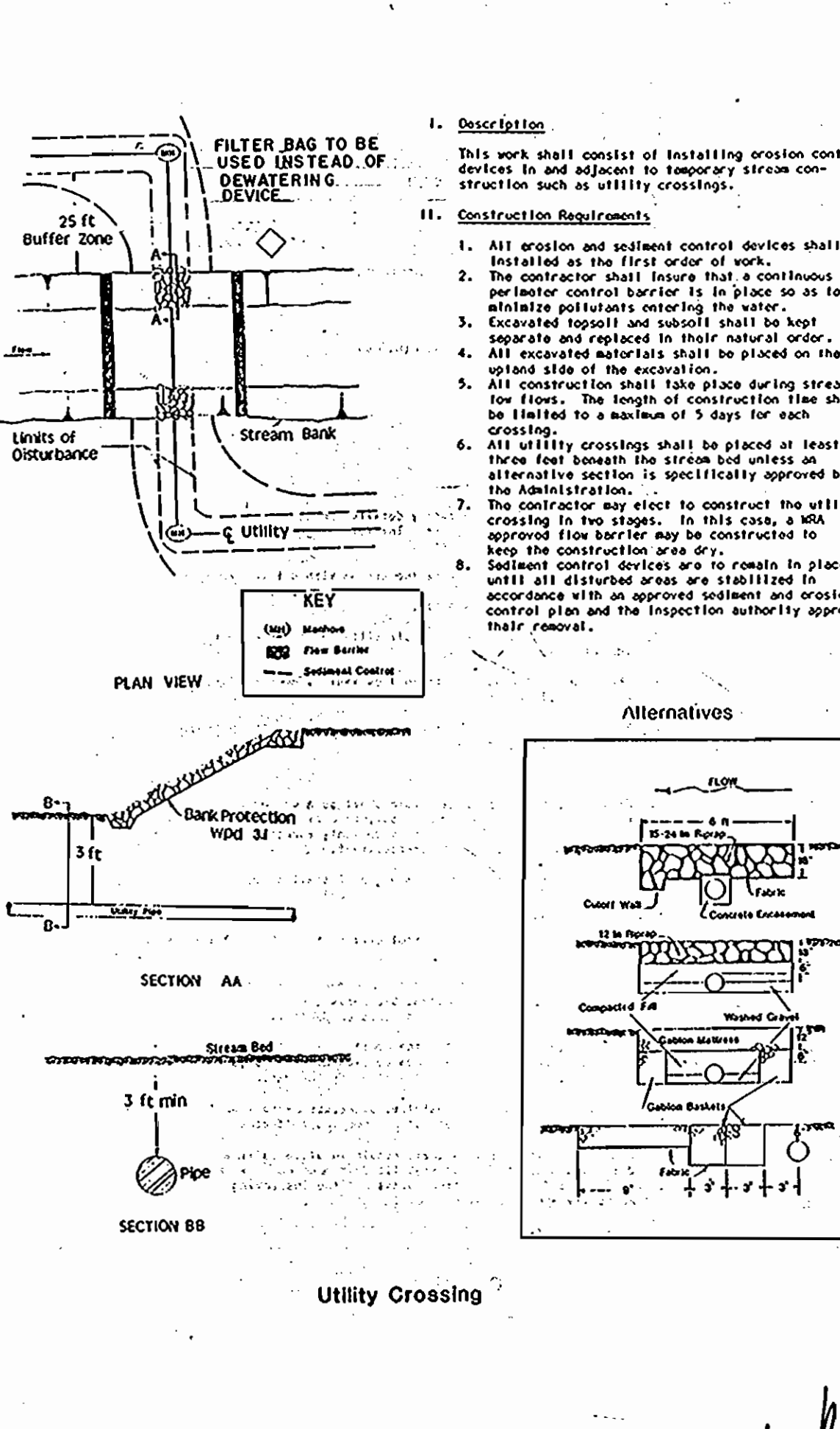
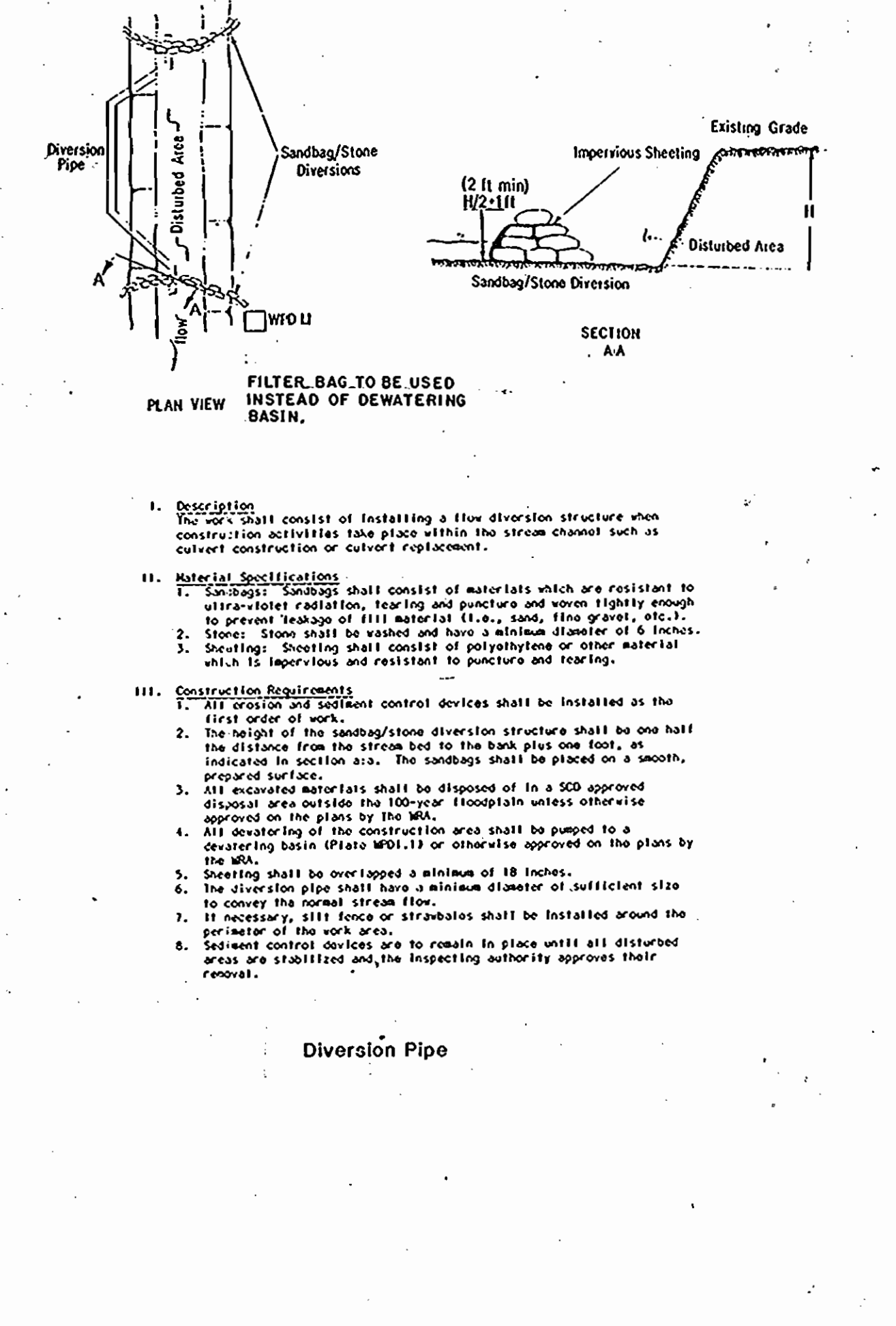
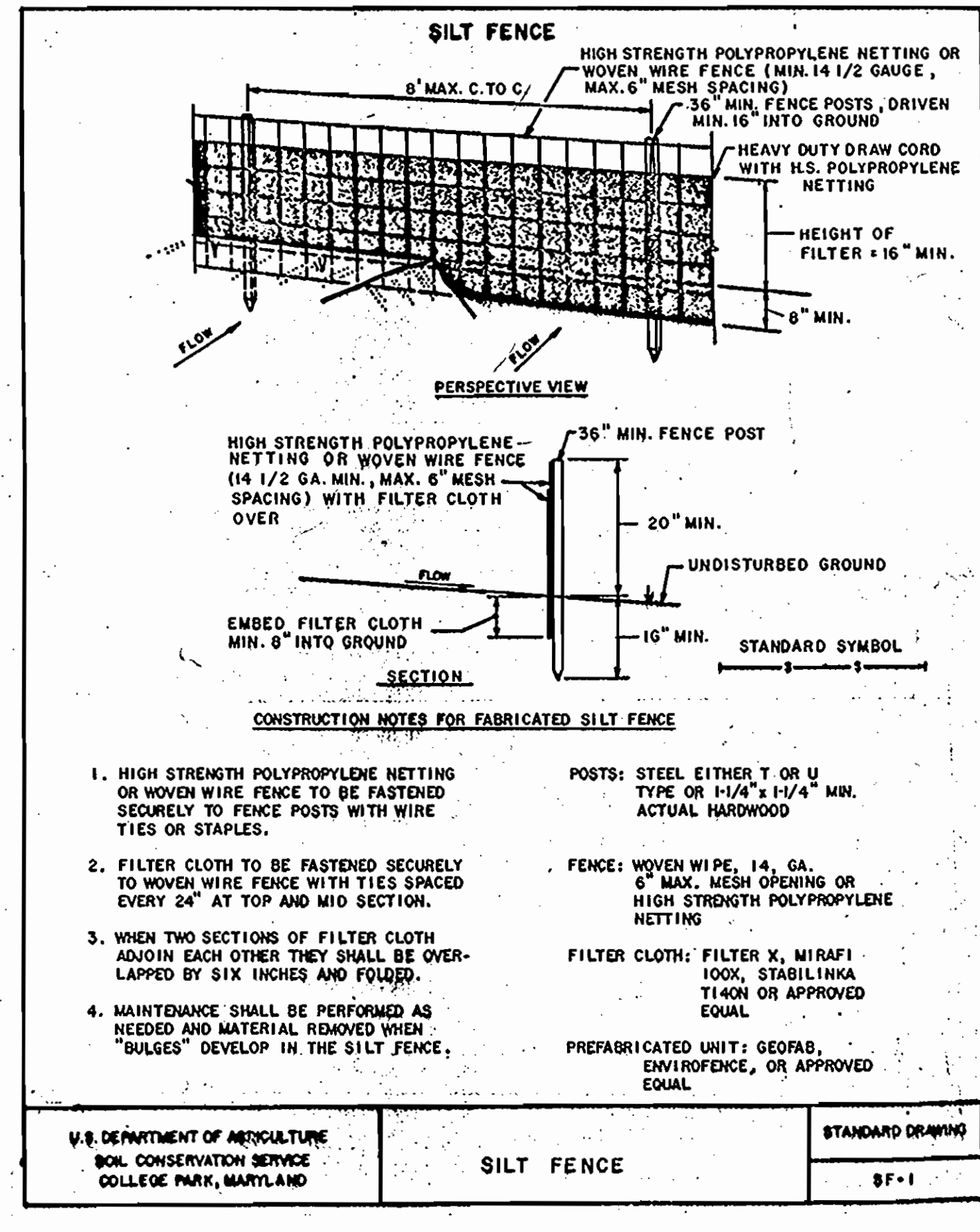
**SEEDING PREPARATION:** LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

**SOIL AMENDMENTS:** FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 24 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ. FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF MEETING LOWGROSS (.07 LBS/1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOO.

**SEEDING:** FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 24 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ. FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF MEETING LOWGROSS (.07 LBS/1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOO.

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

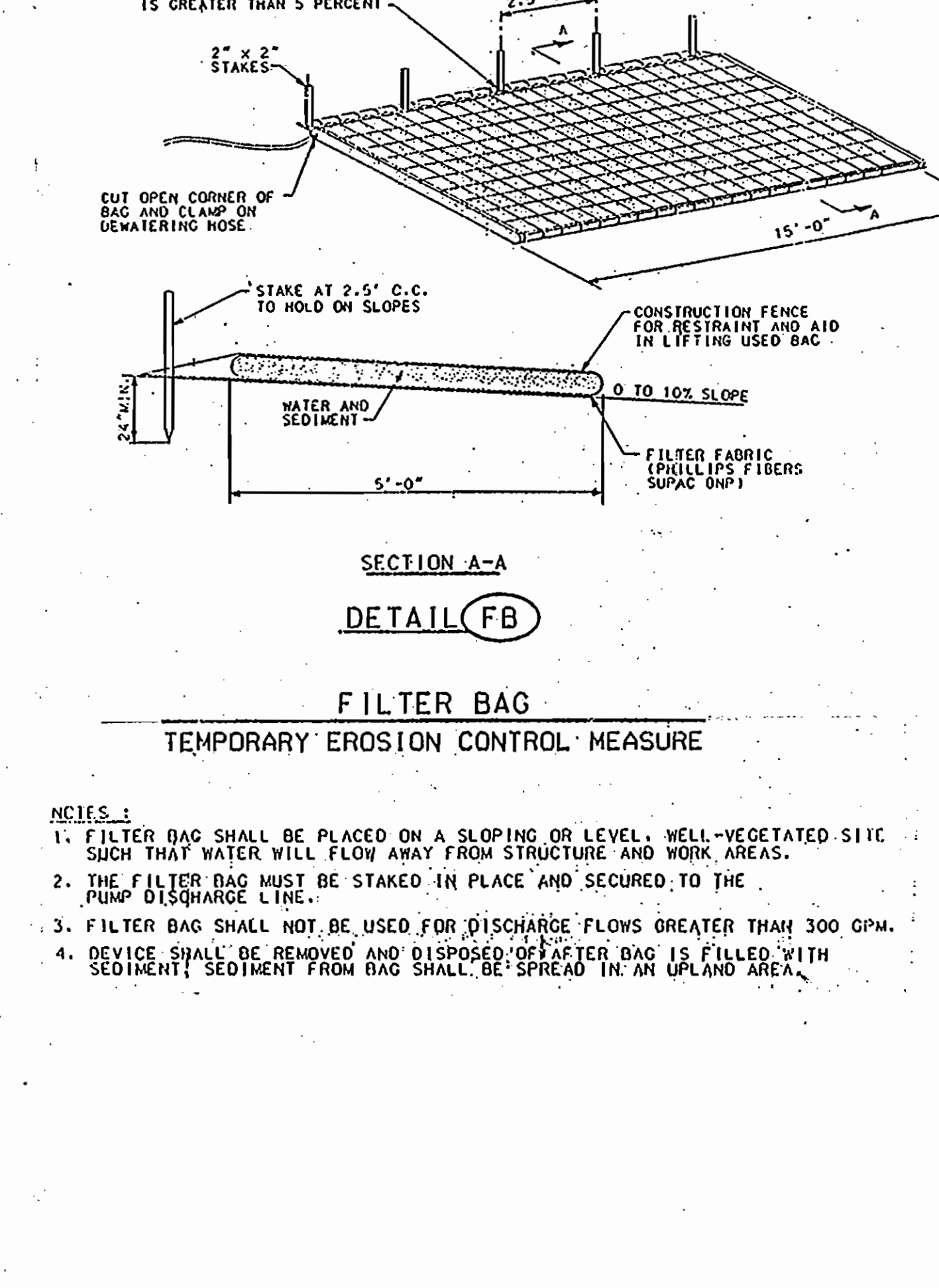
REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



**SEEDMENT CONTROL NOTES**

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF CONSTRUCTION INSPECTION 313-1880 PRIOR TO THE START OF ANY CONSTRUCTION.
- 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.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1; B) 14 DAYS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND MARKING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM URINALS.
- 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 (SEC. 31) SOO (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WITH RECOMMENDED SEEDING DATES NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:**  
TOTAL AREA OF SITE: \_\_\_\_\_ ACRES  
AREA DISTURBED: \_\_\_\_\_ ACRES  
AREA TO BE ROOFED OR PAVED: \_\_\_\_\_ ACRES  
AREA TO BE VEGETATIVELY STABILIZED: \_\_\_\_\_ ACRES  
TOTAL CUT: \_\_\_\_\_ CU. YDS.  
TOTAL FILL: \_\_\_\_\_ CU. YDS.  
OPPOSITE WASTE/BORROW AREA LOCATION: \_\_\_\_\_
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR ERECTION OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPM SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED 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 INSPECTION APPROVALS HAVE BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

\*NOTE: WASTE/BORROW AREA LOCATION MUST RECEIVE PRE-APPROVAL BY SEDIMENT CONTROL INSPECTOR



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

HICKS ENGINEERING CO., INC.  
ENGINEERS - SURVEYORS - PLANNERS  
200 E. JOPPA ROAD SUITE 402  
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CONTRACT NO. 20-3322  
600' SCALE MAP NO. \_\_\_\_\_ BLOCK NO. \_\_\_\_\_

FREDERICK ROAD SEWER MAIN  
3 RD. ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT S-6167  
C-240994-04LE  
SCALE AS SHOWN  
SHEET 8 OF 8

AS-BUILT 12/20/95