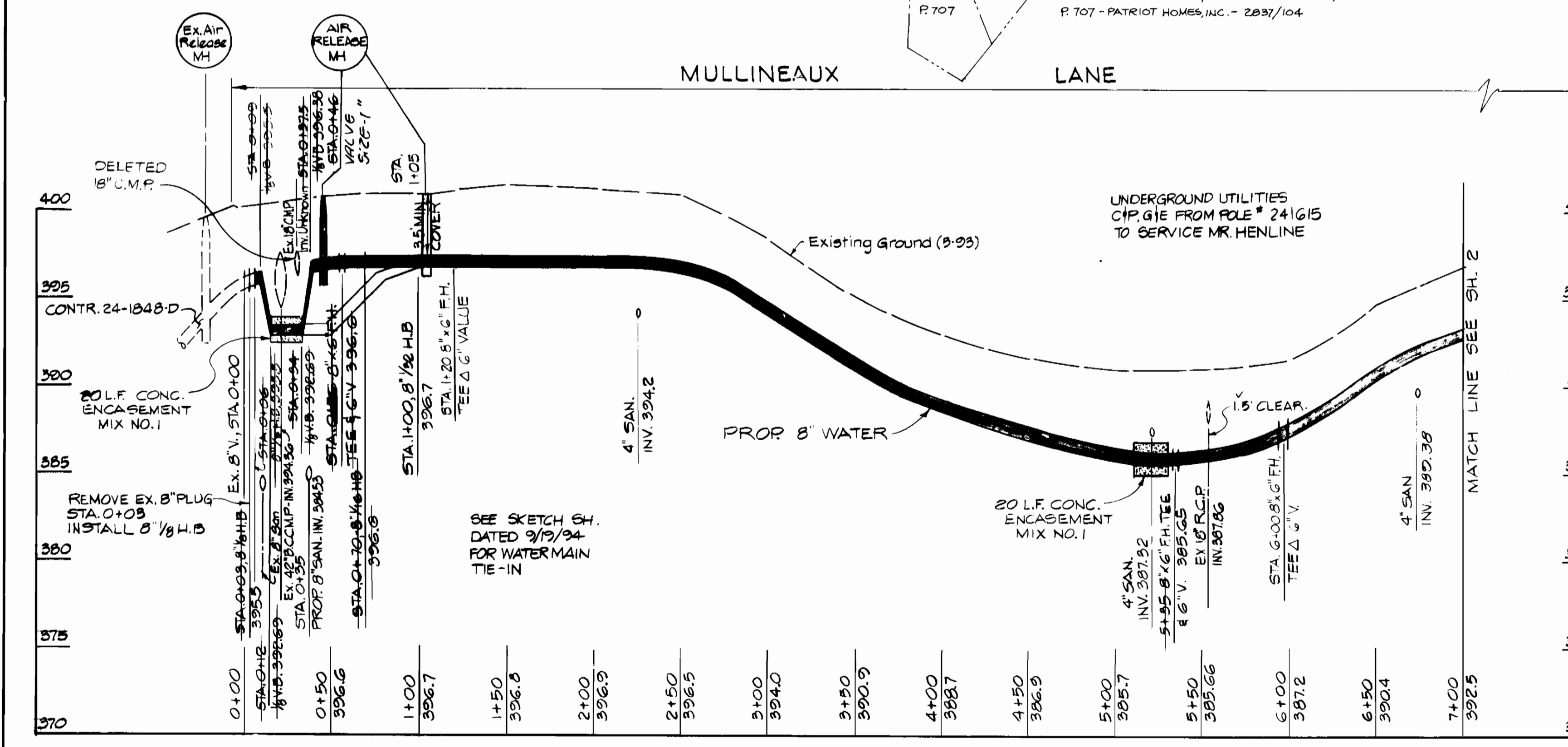
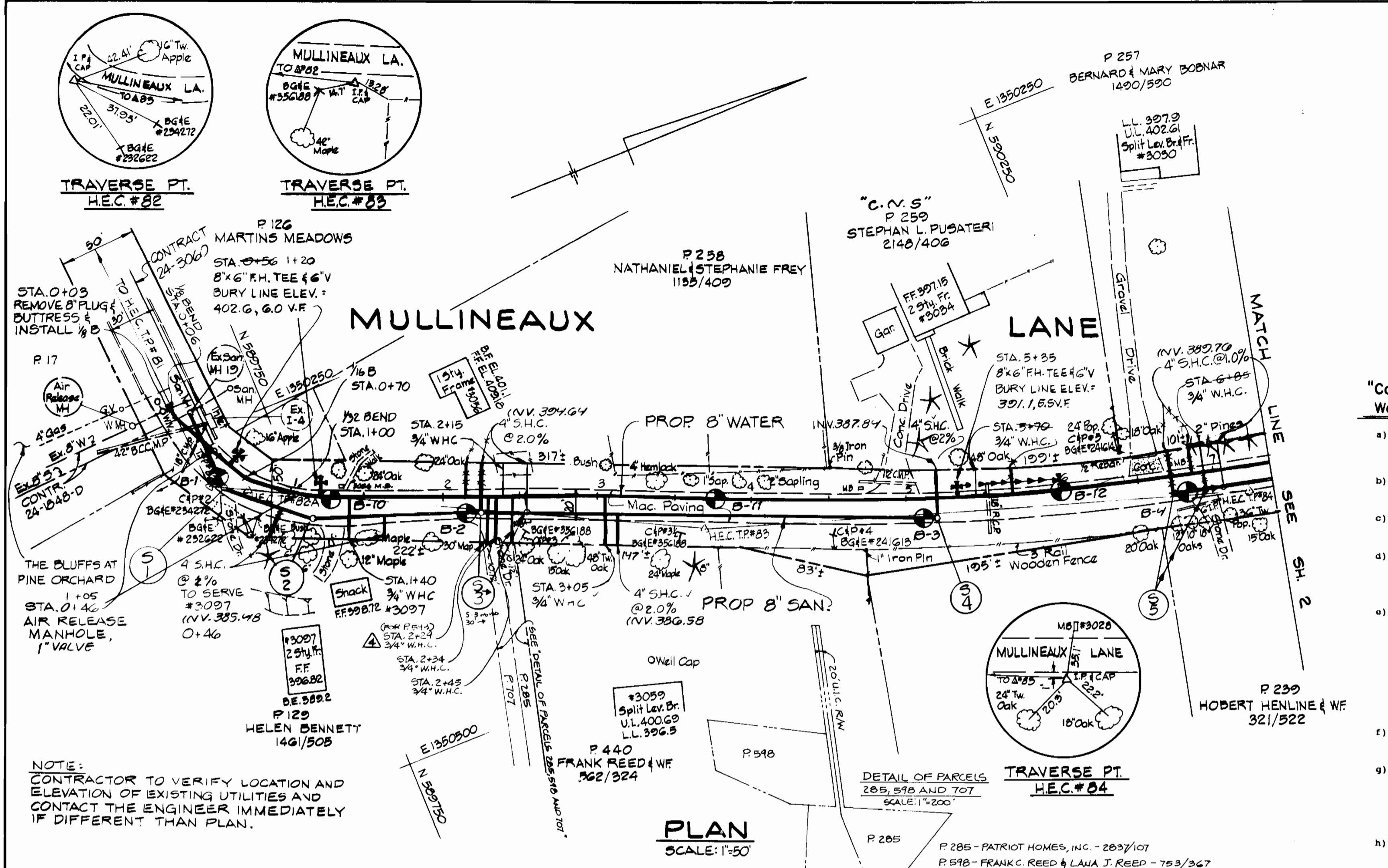


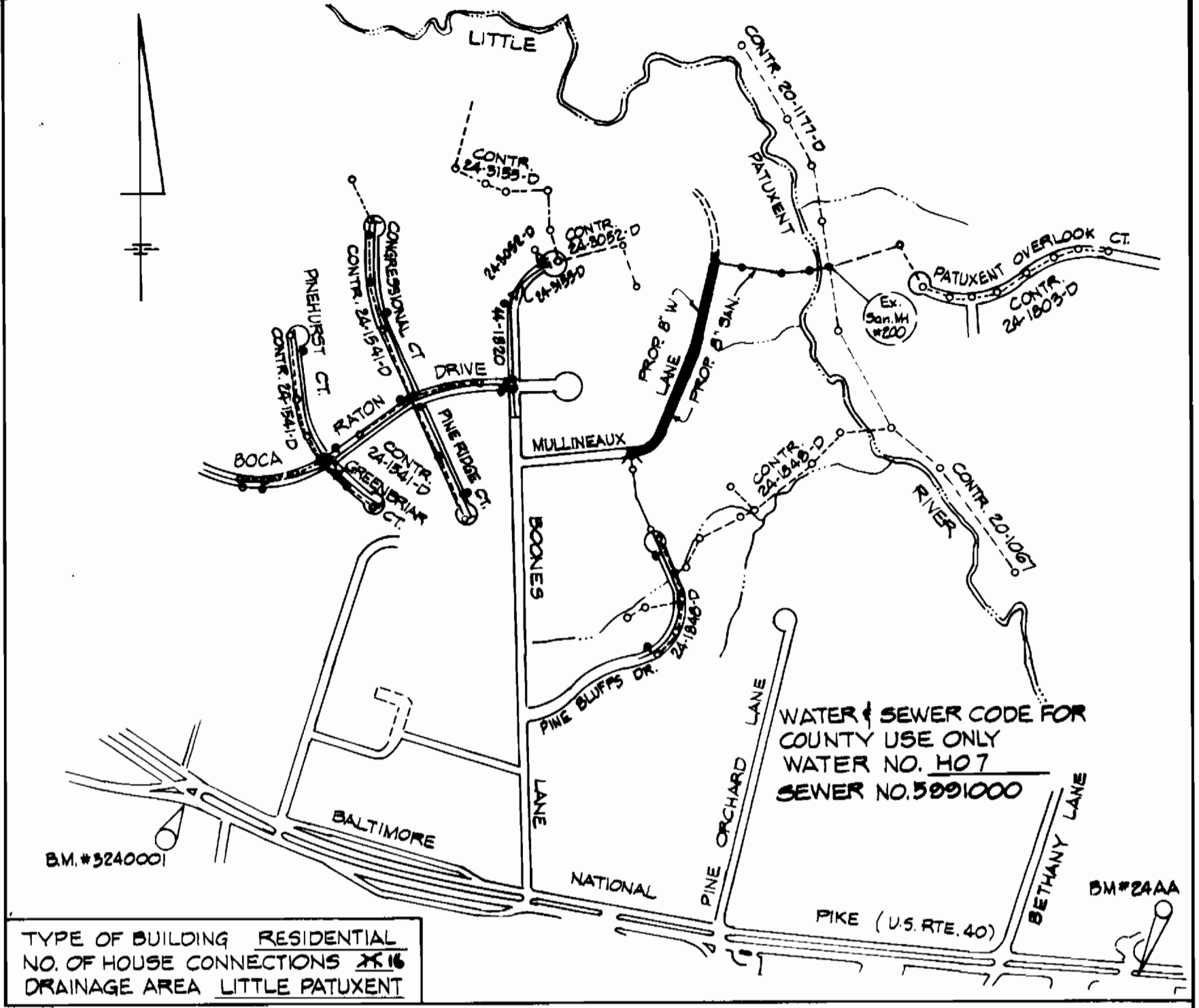
3304 WS/1 Mullineaux Lane water & sewer mains / c.p. # W-8188 A.B.



QUANTITIES				
ITEM	UNIT	ESTIMATE	AS-BUILT	SUPPLIER
8" WATER MAIN	L.F.	1052		
3/4" W.H.C.	L.F.	330		
1" W.H.C.	L.F.	10		
8" CAP	EA.	1		
FIRE HYDRANT	EA.	3		
8" X 6" TEE	EA.	9		
6" VALVE	EA.	3		
8" 1/2 BEND	EA.	6		
8" 1/4 BEND	EA.	1		
8" 1/2 BEND	EA.	1		
AIR RELEASE MH	EA.	1		
8" SAN.	L.F.	1329		
STD 4" MANHOLE	EA.	10		
4" SEWER HSE. CONN.	L.F.	266		
TYPE B DROP CONN.	EA.	3		
TYPE A DROP CONN.	EA.	1		
SHALLOW 4" MH	EA.	1		
16" DIA. CASING PIPE	L.F.	50		

"Conditions and Management Practices for Working in Nontidal Wetlands"

- a) For utility line installation, strip, stockpile and maintain separately the top 6" of soil material from the nontidal wetlands and buffer, to be replaced as the top layer of the backfilled material.
- b) Remove excess fill or construction material or debris to an upland disposal area, outside of any floodplain, wetland, or buffer.
- c) Place materials in a location and manner which does not adversely impact surface or subsurface water flow into or out of the nontidal wetland.
- d) Use previously excavated material as utility line backfill, unless it contains waste metal products, unsightly debris, toxic material or any other deleterious substance. Use clean borrow material when excavated material is not suitable for use as backfill.
- e) Rectify any nontidal wetlands and buffers temporarily impacted by any proposed repair and maintenance activity or installation of the utility line. All stabilization in the wetland and buffer shall be of the following recommended species: Annual Ryegrass (*Lolium multiflorum*), Millet (*Setaria italica*), Oats (*Avena sativa*), and/or Rye (*Secale cereale*). Other non-persistent vegetation may be acceptable, but must be approved by the Nontidal Wetlands Division, Kentucky 21. Fescue shall not be utilized in the wetland or buffer. All temporary fills shall be removed in their entirety on or before the completion of construction.
- f) After installation has been completed, make post construction grades and elevations of nontidal wetlands the same as the original grades and elevations.
- g) To protect important aquatic species, in-stream work is prohibited as determined by the classification of the stream as follows:
 - 1) Class I waters. In-stream work may not be conducted during the period March 1 through June 15, inclusive, during any year.
 - h) No removal of vegetation, grading, filling, draining or other alteration of the nontidal wetlands or buffer outside the limits of disturbance shall occur, either during construction or after completion, without written authorization from the Water Resources Administration.



VICINITY MAP
SCALE: 1" = 600'

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 II, Standard Specification and Details for Construction. The Contractor shall have a copy of Volume II on the job.
7. Where test pits have been made on existing utilities, they are noted by the symbol 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	397-8585
State Highway Administration	531-5533
Baltimore Gas & Electric Co. Contractor Service	850-4620
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	795-1330
Bureau of Utilities, Howard County Dept. of Public Works	313-4900
AT&T	265-3803
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 water mains shall be D.I.P. C.152 unless otherwise noted.
12. Top of water main pipe to have a minimum of 3/8" of cover unless otherwise noted.
13. Valves adjacent to tees shall be strapped to tees.
14. All fittings shall be buttressed or anchored with concrete in accordance with Standard Details unless otherwise provided for on the drawings.
15. Fire Hydrants shall be set to the bury line elevations shown on the drawings. All Fire Hydrants shall be strapped and buttressed with concrete in accordance with the Standard Details. Soil around the Fire Hydrants shall be compacted in accordance with Section 1003 of the Standard Specifications.
16. The Contractor shall not operate any water main valves on the Existing Water System. Call Howard Co. Bureau of Utilities at 313-4900. Coordinate the tie-in to the exist. 8" water at least five working days prior to scheduling.
17. Trench repair to be in accordance with Howard Co. Standard Details.
18. All work to be in accordance with Howard County Standards and Specifications for Soil Erosion and Sediment Control Section 210.
19. All Sewer mains shall be D.I.P. or P.V.C. unless otherwise noted.
20. All manholes shall be 4'-0" inside diameter unless otherwise noted.
21. Length of open trench will be limited to that which must be filled and stabilized within one working day.
22. House(s) with the symbol "C.N.S." indicates that cellar cannot be served.

Sequence of Construction

1. Contact Howard County Bureau of Construction Inspection (313-1800) prior to starting date.
2. Install erosion and sediment control devices as per Section 219 of the Howard County Design Manual Vol. IV.
3. Excavate and install proposed 8" water 8" sewer main, 3/4" 8" water house connection and 4" sewer house connection.
 - o See "Conditions and Management Practices" for construction of sewer main within wetlands and buffer area.
4. Restore paving and earth trenches to their original condition as per Howard County Standards.
5. Upon permission from Howard County Sediment Control Inspector, remove Sediment Control Devices.
6. Fine grade all disturbed areas and stabilize with permanent seeding.

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: 12/2/93

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: 12/3/93

PROFILE

SCALE: HORIZ. 1" = 50'
 VERT. 1" = 5'

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
 Patricia Taylor
 U.S. SOIL CONSERVATION SERVICE
 DATE: 12/17/93

This Construction Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
 APPROVED: *[Signature]*
 HOWARD S.C.D.
 DATE: 12/15/93

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *[Signature]* DATE: 12/17/93
 Chief, Bureau of Engineering: *[Signature]* DATE: 12/17/93
 Chief, Bureau of Utilities: *[Signature]* DATE: 12-10-93
 Chief, Water & Sewer Design Division: *[Signature]* DATE: 12-8-93

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

DES.	EAS.	DRN.	CHK'D.E.H.	DATE:	BY	NO.	REVISION
J.K.W.	7	REV'D PER AS-BUILT	12/15/93				
E.A.S.	1	REVISED AS PER HO.CO. BUREAU OF UTIL. (D.P.W.) COMMENTS	12/27/93				
E.A.S.	2	REVISED PER DEPT. OF ENVIRONMENT	1/3/94				
D.E.H.	3	REVISED QUANTITIES	5-20-94				
D.E.H.	4	ADDED 3-3/4" W.H.C. @ STA. 2+29.22+4+2+45; REVISED QUANTITIES	5-31-94				
J.K.W.	5	ADDED BASEMENT ELEVATIONS	7-24-94				
J.K.W.	6	REV. 4" S.H.C. FOR #3017 TO BE @ 12	8-14-94				

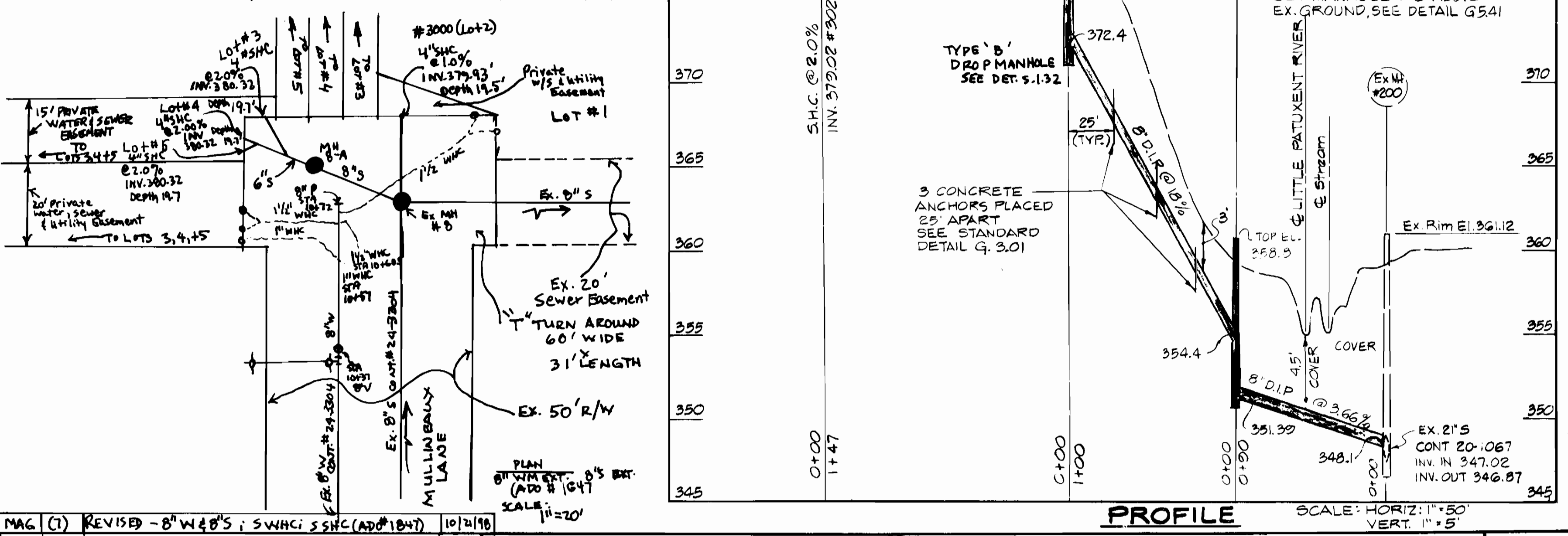
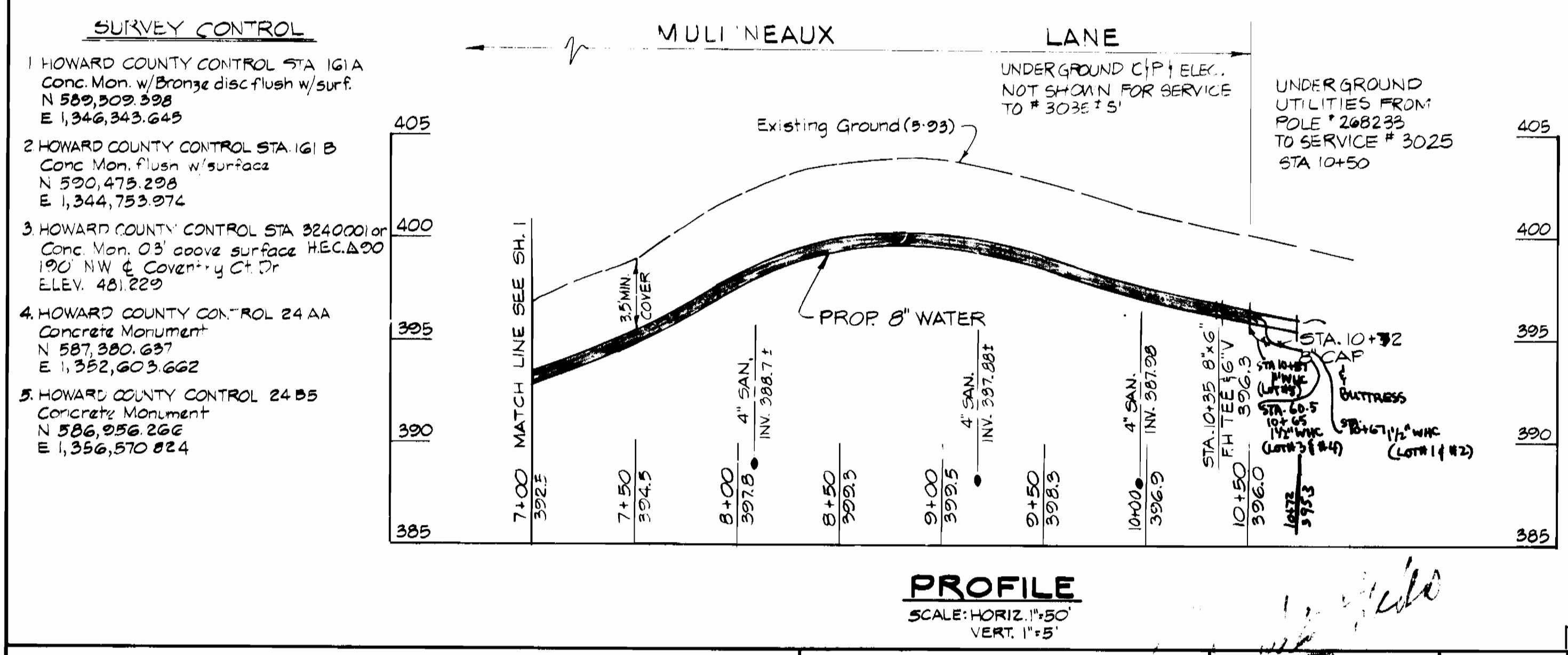
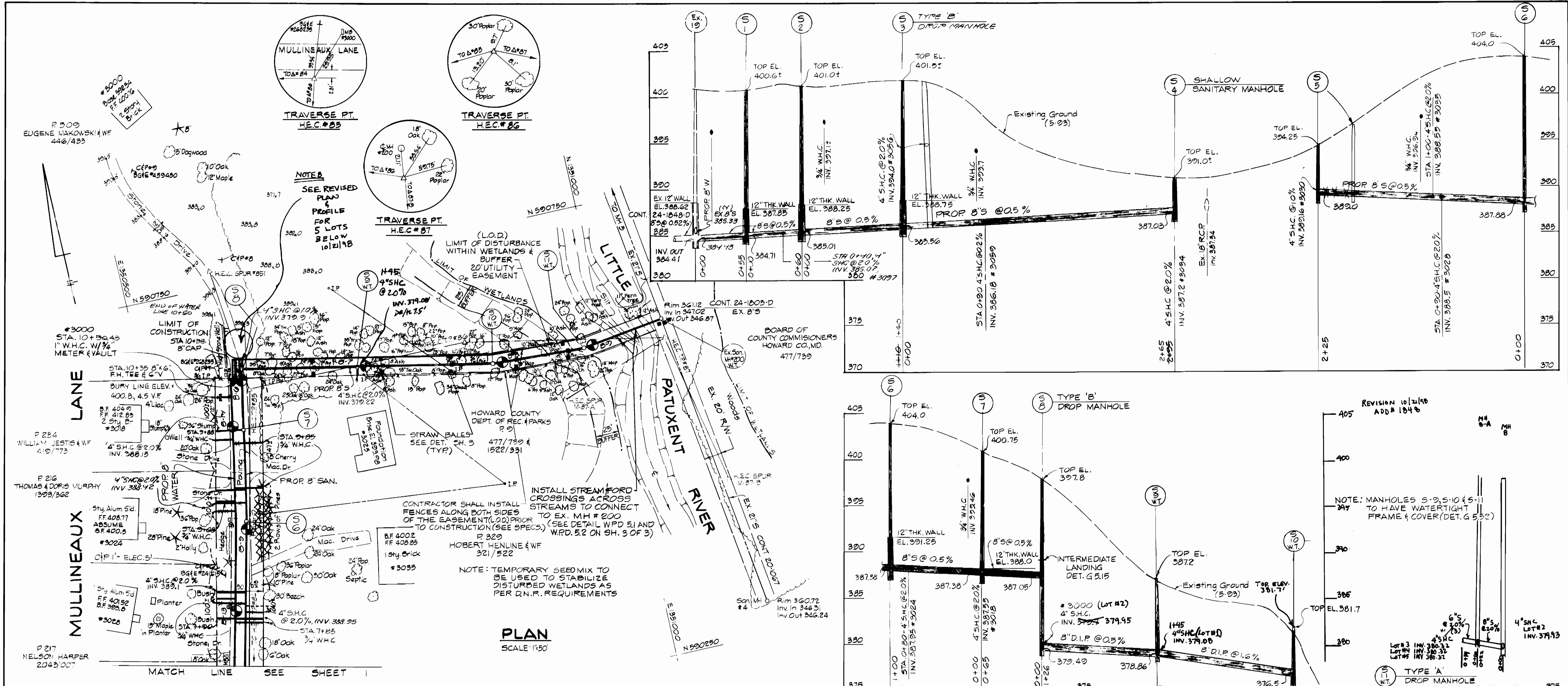
WATER QUALITY CERTIFICATION
 (#88-GWQC-001R)
 NATIONWIDE PERMIT
 NWP#12
 UTILITY LINE BACKFILL AND BEDDING

MULLINEAUX LANE WATER AND SEWER MAINS
 2 NO. ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CAPITAL PROJECT W-8188
 CONTRACT NO. 24-3304

SCALE AS SHOWN
 SHEET 1 OF 3

AS-BUILT 10/94

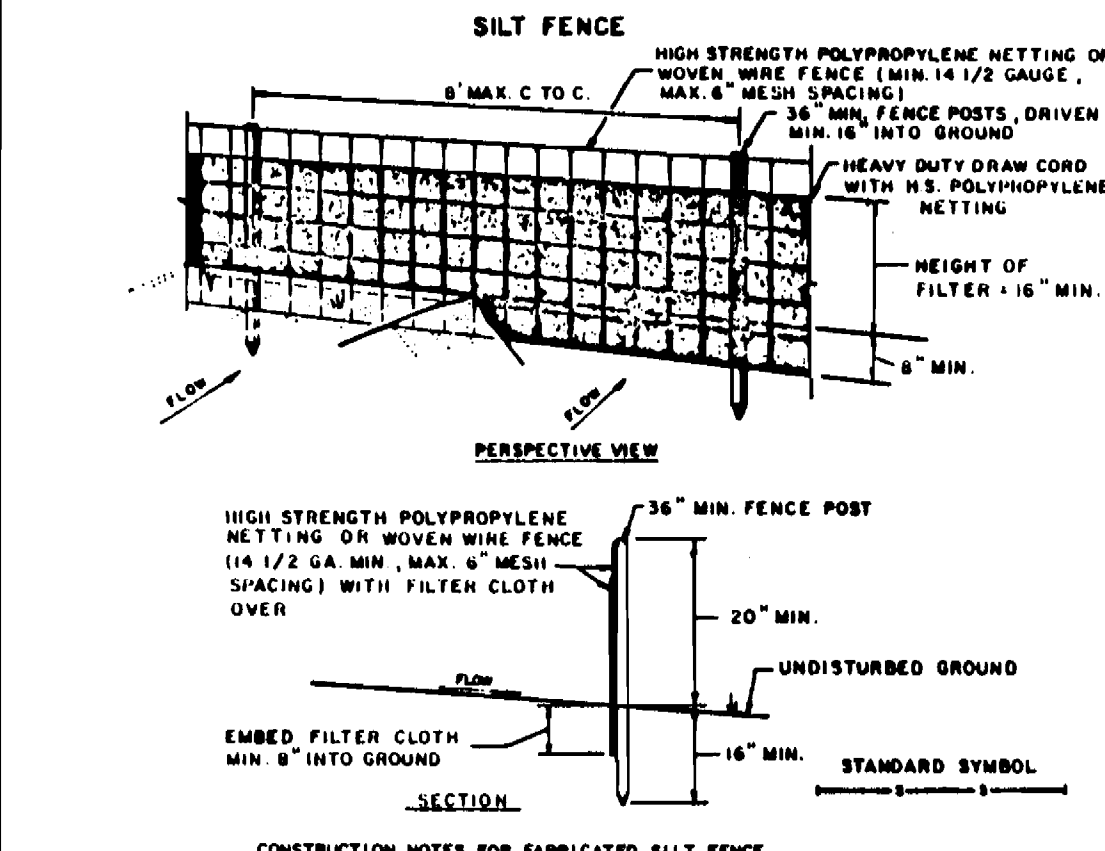
A.B.
 3304 WS/2 Mullineaux Lane C.P. # W-8188



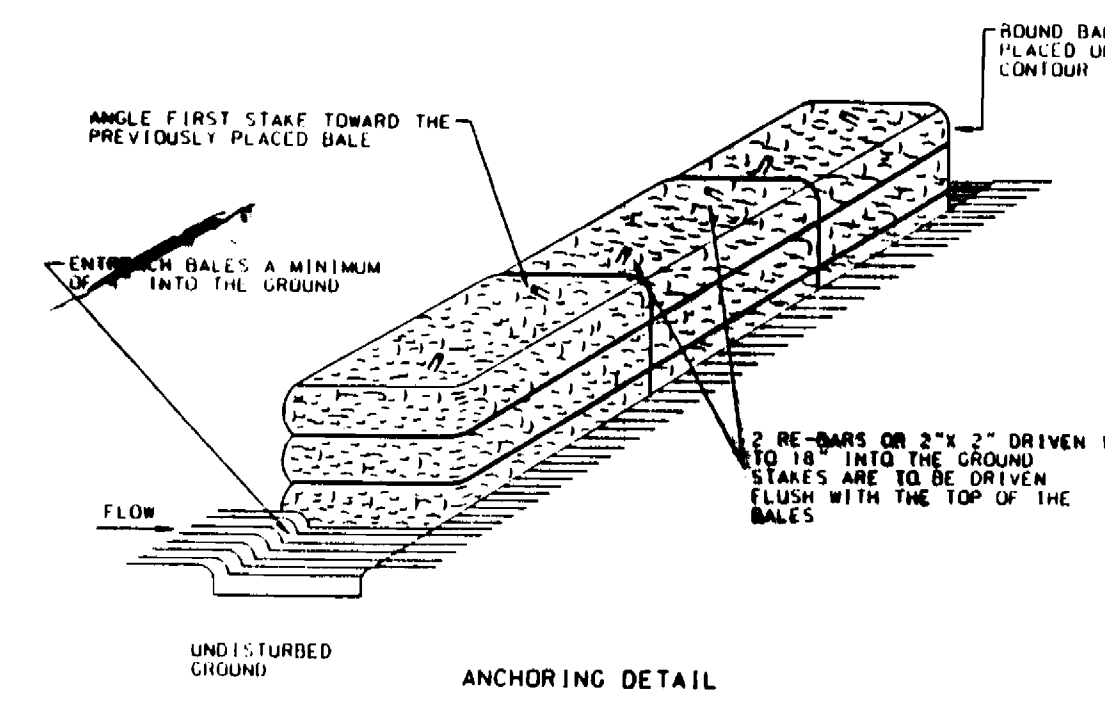
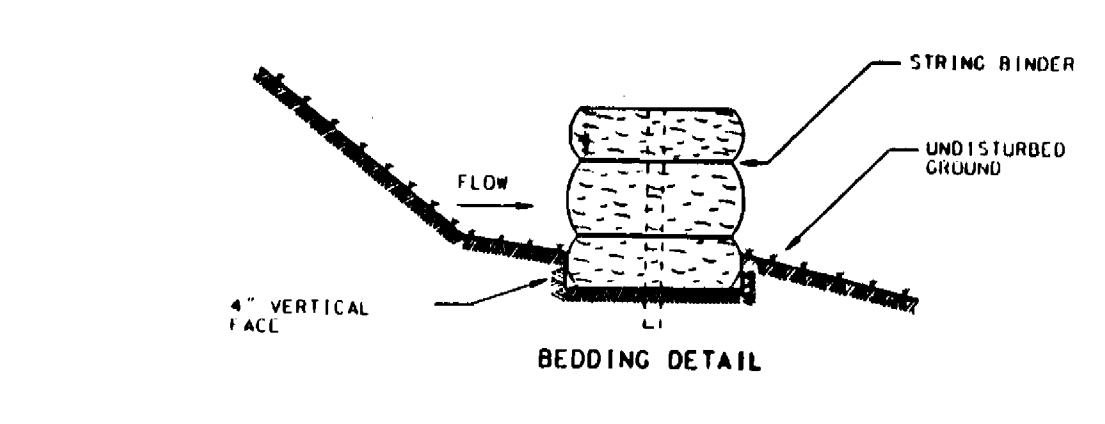
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DIRECTOR OF PUBLIC WORKS: [Signature] 12-10-93 CHIEF, BUREAU OF UTILITIES: [Signature] 12-10-93	HICKS ENGINEERING CO., INC. ENGINEERS · SURVEYORS · PLANNERS 200 E. JOPPA ROAD · SUITE 402 TOWSON, MARYLAND 21286 CHIEF, WATER & SEWER DESIGN DIVISION: [Signature] 12-8-93	WATER QUALITY CERTIFICATION (# 85-GWQC-001R) NATIONWIDE PERMIT NWP #12 UTILITY LINE BACKFILL AND BEDDING	MULLINEAUX LANE WATER AND SEWER MAINS 2ND. ELECTION DISTRICT HOWARD COUNTY, MARYLAND CAPITAL PROJECT W-8188 CONTRACT NO. 24-3304	SCALE AS SHOWN SHEET 2 OF 3
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AS-BUILT 10/94

A.B.
 C.P.# W-8188
 Mullineaux Lane
 ws/3
 3304



- HIGH STRENGTH POLYPROPYLENE NETTING OR WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES ON STAPLES.
 - FILTER CLOTH TO BE FASTENED SECURELY TO FENCE POSTS WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BUNDLES" DEVELOP IN THE SILT FENCE.
- POSTS: STEEL EITHER T OR U TYPE ON 1/4" x 1/4" x 1/4" MIN. ACTUAL DIMENSIONS**
FENCE: WOVEN WIRE, 1 1/2 GA. 6" MAX. MESH OPENING OR HIGH STRENGTH POLYPROPYLENE NETTING
FILTER CLOTH: FILTER 2, MINAFI 100L, STABILINKA TEGM OR APPROVED EQUAL
PREFABRICATED UNIT: GEOPUR DM/PROFENCE, OR APPROVED EQUAL



- CONSTRUCTION SPECIFICATIONS**
- Bales shall be placed at the toe of a slope, on the contour, and in a row with the ends of each bale tightly abutting the adjacent bales.
 - Each bale shall be entrenched in the soil a minimum of 4 inches and placed so the bindings are horizontal.
 - Bales shall be securely anchored in place by either two stakes or rebar driven through the bale 12 to 18 inches into the ground. The first stake in each bale shall be driven toward the previously laid bale at an angle to force the bales together. Stakes shall be driven flush with the top of the bale.
 - Straw bale dikes shall be inspected frequently and after each rain event and maintenance performed as necessary.
 - All bales shall be removed when the site has been stabilized. The trench where the bales were located shall be graded flush and stabilized.

STRAW BALE DIKE
 ■■■ STANDARD SYMBOL

***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:

- 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 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. 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 (1.4 LBS/1000 SQ FT.) OF WEeping LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 20, 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 500. 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 SMALL CHAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING AN 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 SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

* SEE CONDITION 'E' (SHEET 1 OF 3) FOR SEEDING WITHIN THE WETLANDS & BUFFER AREAS.

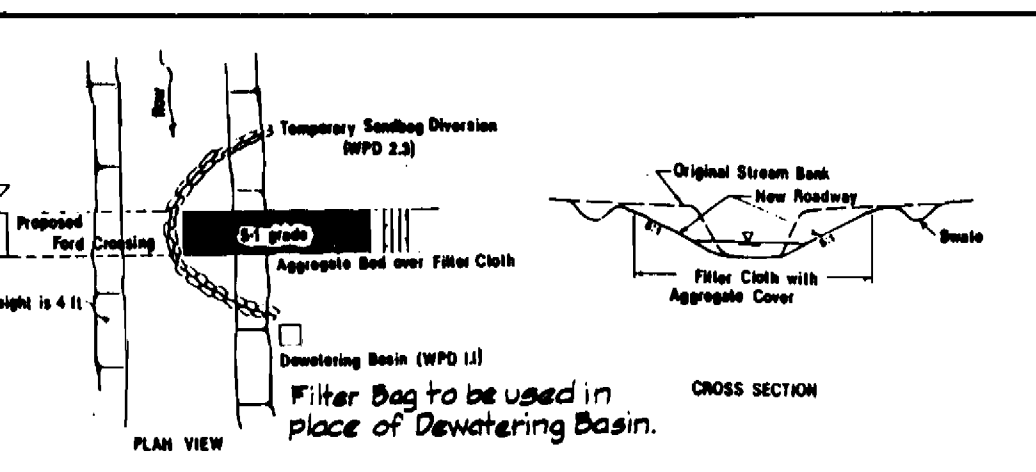
SEDIMENT CONTROL NOTES

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF CONSTRUCTION INSPECTION 315-8800 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 RESTORATION, PERIMETER 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 AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BAKES SHOW MUST BE FENCED AND MARKING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- 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 PERIMETER SEEDINGS (SEC. 5) 500 (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE UNDER RECOMMENDED SEEDING DATES DO 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 PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:**
 TOTAL AREA OF SITE: 0.27 ACRES
 AREA TO BE RUMPED OR PAVED: 0.21 ACRES
 AREA TO BE VEGETATIVELY STABILIZED: 0.06 ACRES
 TOTAL CUT: 0 CU. YDS.
 TOTAL FILL: 0 CU. YDS.
 OPPOSITE WASTE/BORROW AREA LOCATION: ---
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY NEW 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 THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

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

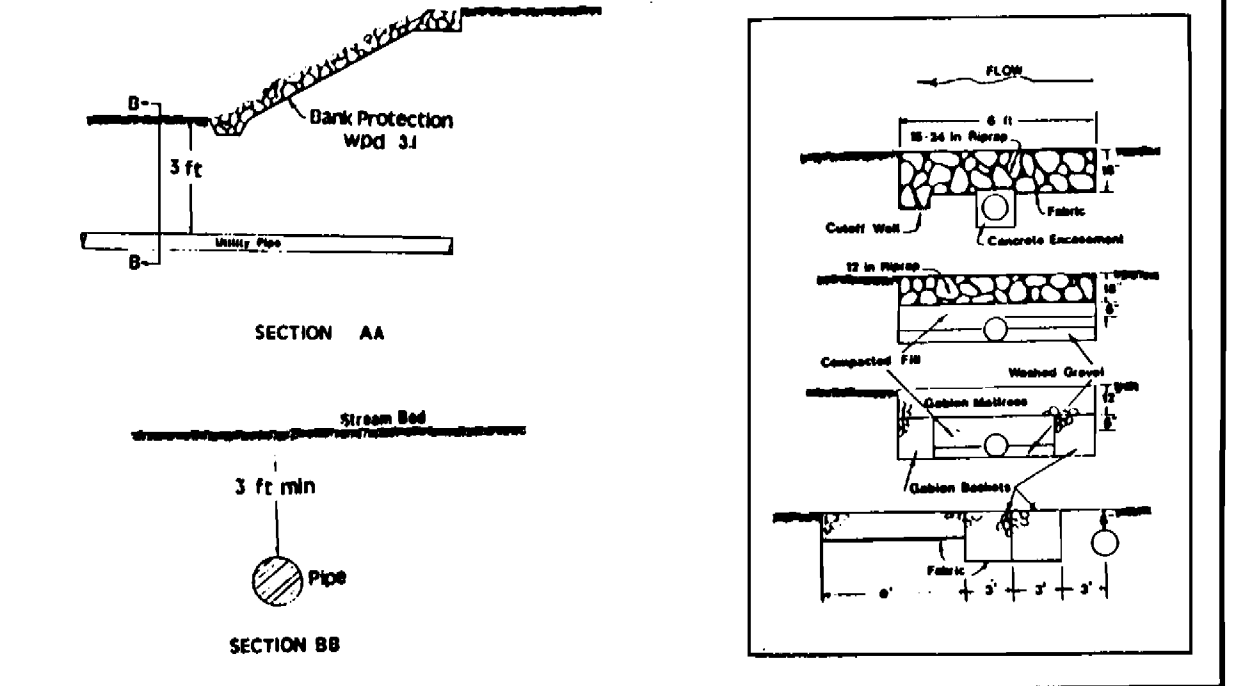
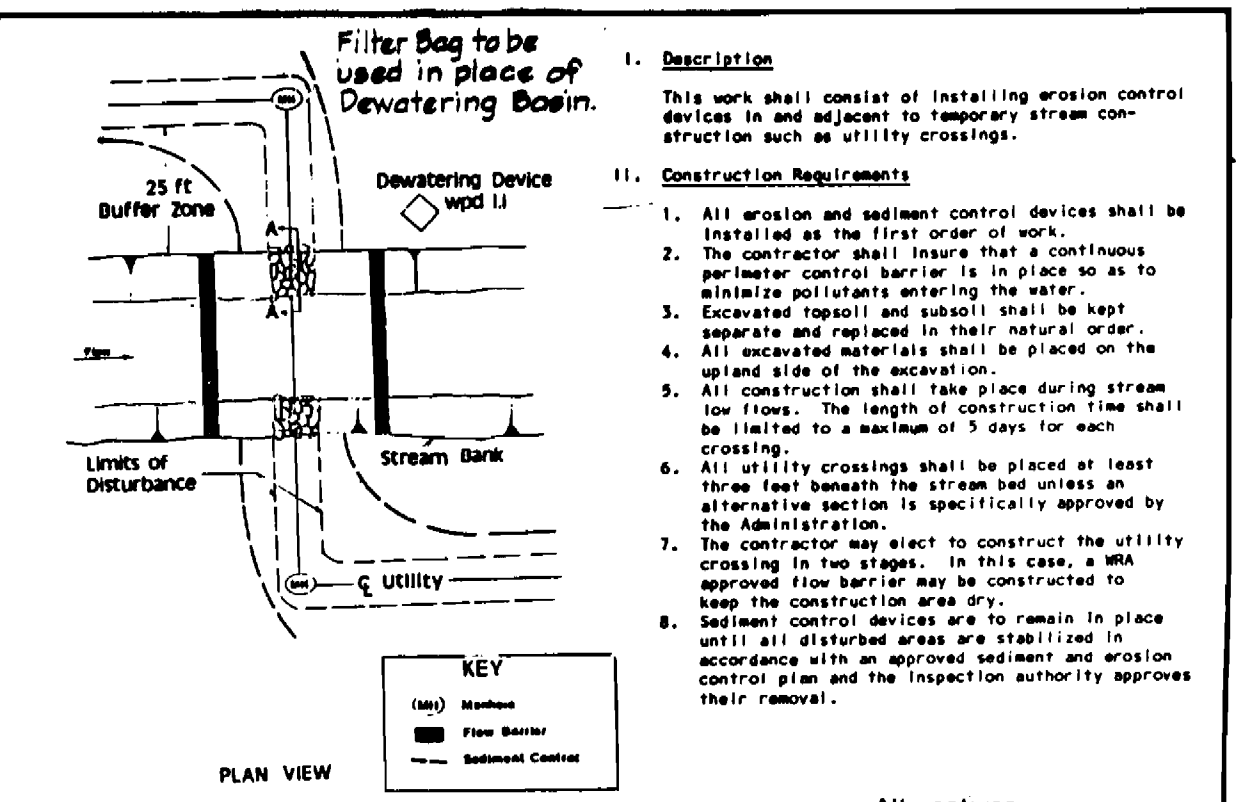
TRAVERSE DATA

NO.	CO.	HM	161A	S 55°17'10" E	2259.38'	N 589,509.398	E 1,346,343.645
HCC	TRAV.	PT. 78	S 66°45'15" E	969.53'	N 588,222.729	E 1,348,200.869	
HCC	TRAV.	PT. 79	S 80°14'25" E	658.21'	N 587,840.078	E 1,349,091.692	
HCC	TRAV.	PT. 80	N 01°27'00" W	1932.78'	N 587,728.500	E 1,349,740.376	
HCC	TRAV.	PT. 81	N 86°19'12.5" E	593.37'	N 589,660.661	E 1,349,691.468	
HCC	TRAV.	PT. 82	N 27°05'02.5" E	323.28'	N 589,698.745	E 1,350,283.615	
HCC	TRAV.	PT. 83	N 18°08'00" E	355.10	N 589,986.574	E 1,350,430.803	
HCC	TRAV.	PT. 84	N 12°39'17.5" E	316.63'	N 590,324.038	E 1,350,541.321	
HCC	TRAV.	PT. 85	S 89°50'55" E	236.89'	N 590,632.976	E 1,350,610.647	
HCC	TRAV.	PT. 86	S 78°46'25" E	219.53'	N 590,632.350	E 1,350,847.576	
HCC	TRAV.	PT. 87	N 73°16'55" E	309.62	N 590,589.611	E 1,351,062.906	
HCC	TRAV.	PT. 88	S 81°09'55" E	1316.34'	N 590,668.273	E 1,351,262.366	
HCC	TRAV.	PT. 89	S 10°21'17.5" W	363.64'	N 590,603.174	E 1,352,677.096	
HO.	CO.	HM	3341001	S 12°51'20" W	1030.46'	N 590,245.456	E 1,352,611.734
HCC	TRAV.	PT. 91	S 04°01'57.5" W	578.80'	N 589,240.823	E 1,352,382.462	
HCC	TRAV.	PT. 92	S 15°11'55" W	1257.14'	N 588,665.221	E 1,352,321.633	
HCC	TRAV.	PT. 93	S 83°18'52.5" E	615.54'	N 587,452.062	E 1,351,992.054	
HO.	CO.	HM	24AA			N 587,380.402	E 1,352,603.409



- 1. Description**
 This plate provides the necessary details for construction of a ford access crossing across a stream. The following criteria shall be considered when proposing a ford:
- Structures which will pollute the stream with oil or hydraulic fluids shall not cross the stream. The size, type, and frequency of usage shall be considered.
 - Streams with steep banks or soft alluvial beds are not acceptable for this type of crossing.
 - The ford shall create a stream flow that is commensurate with the natural channel.
 - No constructed ford shall create a blockage to the passage of resident fish species.
- 11. Materials**
- Filter fabric - The filter cloth shall be a woven or non-woven fabric consisting of continuous chain polymeric filaments or yarns of polyester, polypropylene, polyethylene, or polypropylene, and resistant to hydrocarbons, aldehydes, and rot-resistant.
 - Blirap - 4 - 6" washed stone and gravel shall be used.
- 111. Construction Requirements**
- All erosion and sediment control devices shall be installed as the first order of business.
 - The ford shall be constructed in accordance with WPD 1, Standard Detail, 1983 Maryland Standards and Specifications for Sediment and Erosion Control.
 - All material excavated from the construction area shall be placed in a 500 approved disposal area outside of the 100-year floodplain unless otherwise allowed on the plans by the WQA.
 - Shallow weales shall be installed as necessary to trap surface runoff, thus collecting pollution from the ford access road.
 - Sediment control devices shall remain in place until all disturbed areas have been stabilized in accordance with approved sediment and erosion control plans and the inspecting authority approves their removal.

WATER RESOURCES ADMINISTRATION Ford Crossing Approved On 12/24/94 Chief, Waterway Permits WPD 5.2



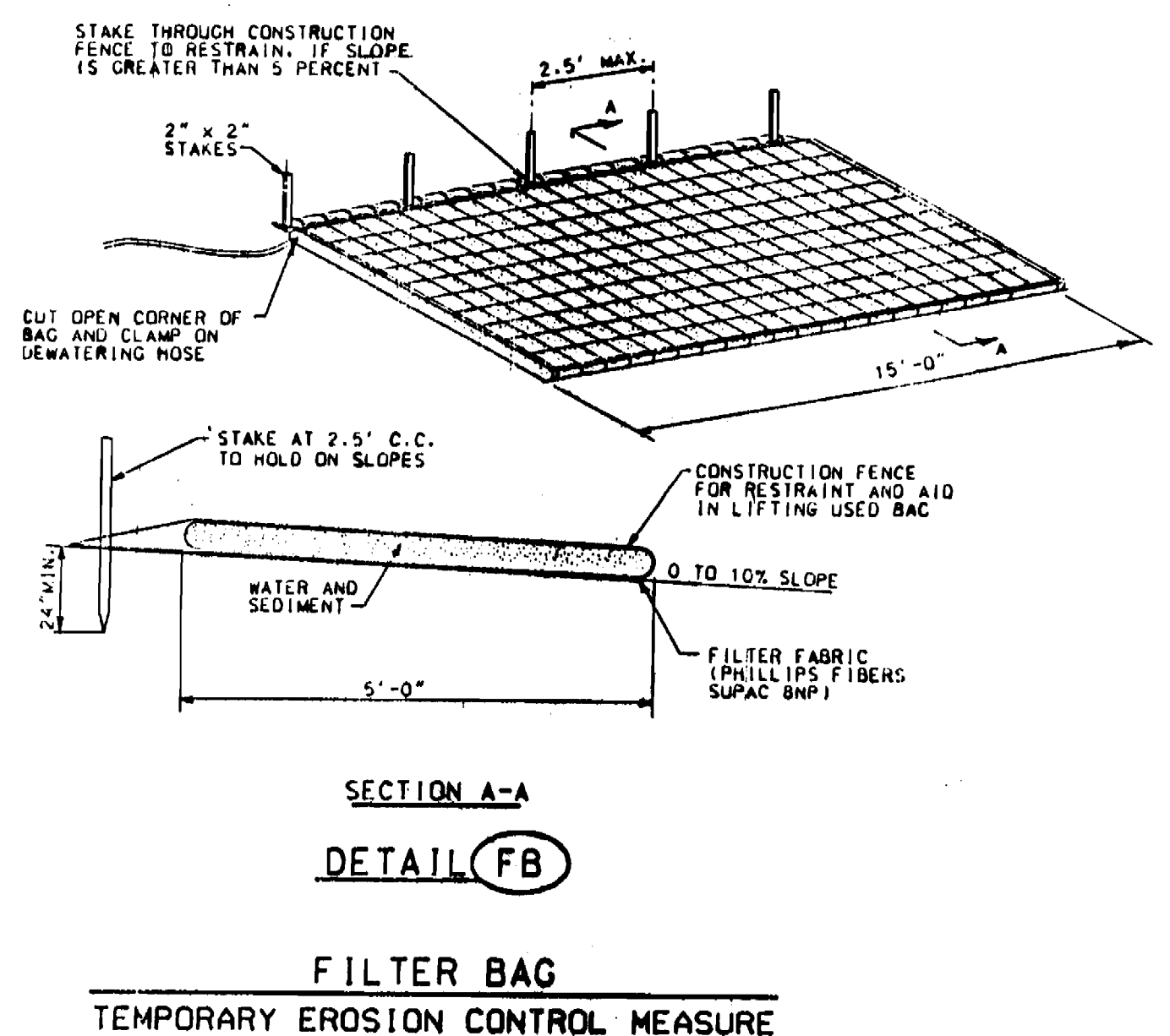
WATER RESOURCES ADMINISTRATION Utility Crossing Approved On 12/24/94 Chief, Waterway Permits WPD 5.1

STAKEOUT TABLE

SEWER	LOCATION	DISTANCE	TYPE
S-1	HCC T.P. 82 to HCC T.P. 82A, 0+10	NO OFFSET	
S-2	HCC T.P. 82 to HCC T.P. 82A, 0+69	15' RT	
S-3	HCC T.P. 82 to HCC T.P. 82A, 1+77	2' RT	
S-4	HCC T.P. 83 to HCC T.P. 84, 1+52	3' RT	
S-5	HCC T.P. 83 to HCC T.P. 84, 3+06	2' RT	
S-6	HCC T.P. 85 to HCC T.P. 84, 1+43	3' RT	
S-7	HCC T.P. 85 to HCC T.P. 84, 0+43	7' RT	
S-8	HCC T.P. 85 to SPUR 851, 0+25	0	
S-9	HCC T.P. 85 to HCC T.P. 86, 1+20	1' RT	
S-10	HCC T.P. 86 to HCC T.P. 87, 0+30	24' RT	
S-11	HCC T.P. 86 to HCC T.P. 87, 1+30	9' RT	

RESTORATION SCHEDULE

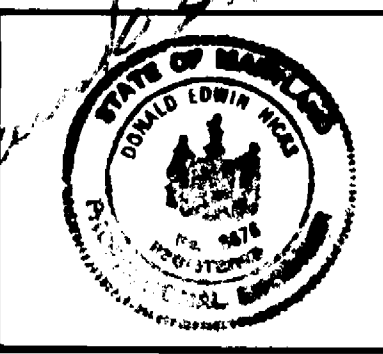
LOCATION	DISTANCE	TYPE	TYPE
EX. MH19 to S-4	520'	Paving	-
S-5 to S-8	390'	Paving	-
S-8 to EX. MH 200	463'	Woods	-
4" SHC #3097	20'	8" Paving	12' Seed
4" SHC #3036	32'	15" Paving	17' Seed
4" SHC #3059	20'	5" Paving	15' Seed
4" SHC #3034	30'	17" Paving	18' Seed
4" SHC #3030	35'	15" Paving	15' Seed
4" SHC #3028	32'	16" Paving	16' Seed
4" SHC #3035	20'	5" Paving	15' Seed
4" SHC #3024	32'	16" Paving	16' Seed
4" SHC #3025	30'	Woods	-
4" SHC #3018	30'	14" Paving	16' Seed
4" SHC #3000	10'	Paving	-
STA. 0+00 to 10+52	1052'	Paving	-
STA. 0+56 F.H.	10'	5" Paving	8' Seed
STA. 1+40 (WHC)	28'	20" Paving	8' Seed
STA. 2+15 (WHC)	22'	4" Paving	18' Seed
STA. 3+05 (WHC)	32'	16" Paving	16' Seed
STA. 5+70 (WHC)	20'	4" Paving	16' Seed
STA. 7+85 (WHC)	30'	15" Paving	15' Seed
STA. 7+90 (WHC)	20'	5" Paving	15' Seed
STA. 9+08 (WHC)	20'	4" Paving	16' Seed
STA. 9+85 (WHC)	32'	17" Paving	15' Seed
STA. 9+88 (WHC)	20'	4" Paving	16' Seed
STA. 10+50 (WHC)	5'	Paving	-



- NOTES:**
- FILTER BAG SHALL BE PLACED ON A SLOPING OR LEVEL, WELL-VEGETATED SITE SUCH THAT WATER WILL FLOW AWAY FROM STRUCTURE AND WORK AREAS.
 - THE FILTER BAG MUST BE STAKED IN PLACE AND SECURED TO THE PUMP DISCHARGE LINE.
 - FILTER BAG SHALL NOT BE USED FOR DISCHARGE FLOWS GREATER THAN 300 GPM.
 - DEVICE SHALL BE REMOVED AND DISPOSED OF AFTER BAG IS FILLED WITH SEDIMENT. SEDIMENT FROM BAG SHALL BE SPREAD IN AN UPLAND AREA.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND
 Director of Public Works DATE 12/27/94
 Chief, Bureau of Engineering DATE 12-8-93
 Chief, Bureau of Utilities DATE 12-10-93
 Chief, Water & Sewer Design Division DATE 12-8-93

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



DES: E.A.S.	EAS	1	REVISED PER DEPT. OF ENVIRONMENT	10-94
DRN: F.W.	J.K.W.	5	REVISED QUANTITIES	5-2-94
CHK: D.E.H.			REMOVED CASING DETAIL. ADDED DETAIL (WPD 3)	7-6-94
DATE: 8/24/93	BY	NO.	REVISION	DATE

WATER QUALITY CERTIFICATION (#88-GWQC-001R)
 NATIONWIDE PERMIT NWP#12
 UTILITY LINE BACKFILL AND BEDDING
 600' SCALE MAP NO. W-17, 5-17 BLOCK NO. 12

MULLINEAUX LANE WATER AND SEWER MAINS
 2ND. ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CAPITAL PROJECT W-8188
 CONTRACT NO. 24-3304

SCALE AS SHOWN
 SHEET 3 OF 3

AS-BUILT 10/94