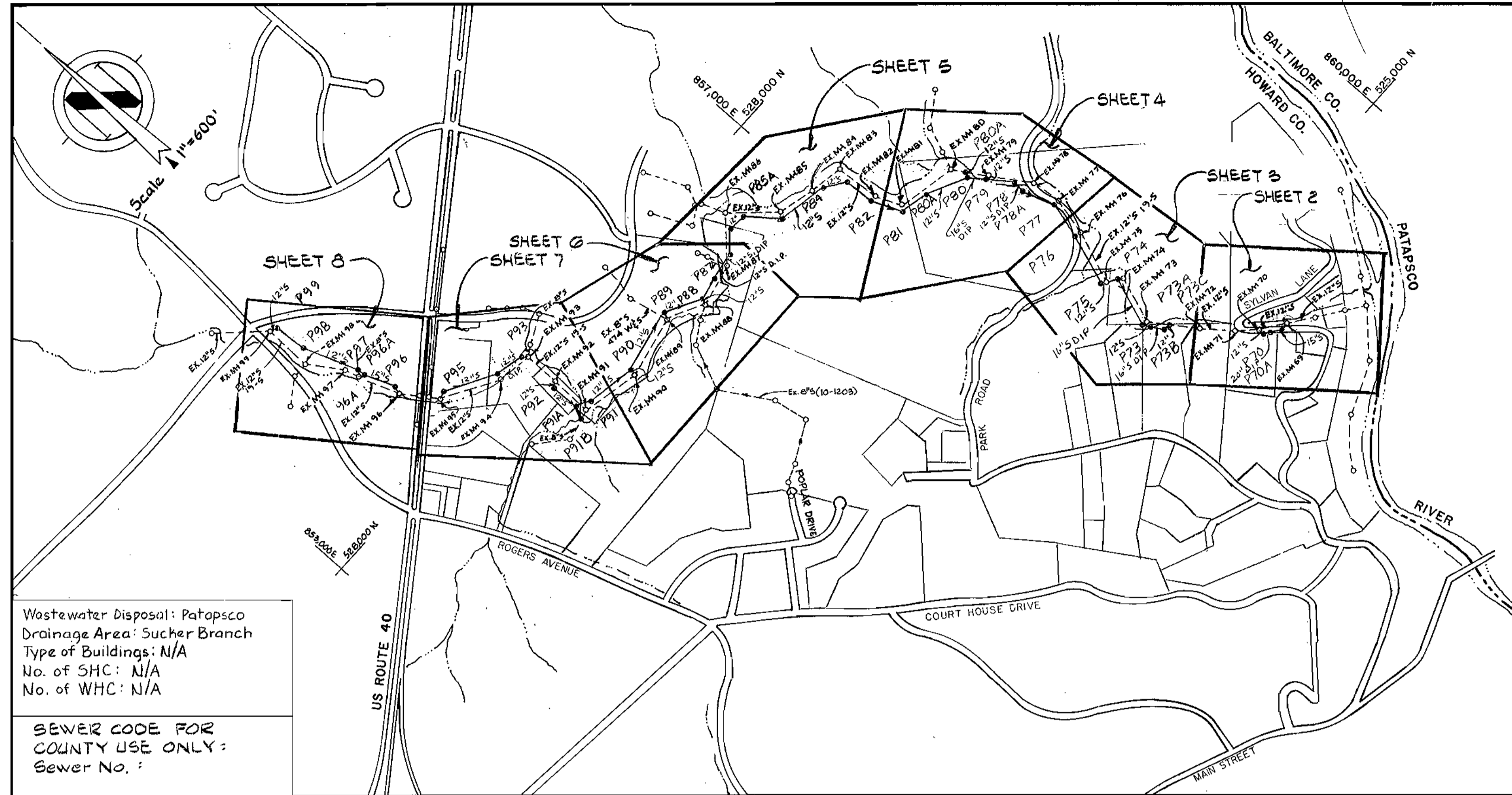


TRAVERSE SCHEDULE

P.I. #	NORTH	EAST	BEARING	DISTANCE
523	524121.92	858970.59	N 51° 12' 20" W	134.05'
68	524205.91	858866.11	N 58° 07' 14" W	199.26'
68A	524311.14	858696.91	N 58° 18' 17" W	187.74'
69	524409.78	858537.17	N 49° 49' 15" W	142.64'
1111	524501.81	858428.18	N 49° 17' 18" W	72.67'
70	524549.21	858373.10	N 49° 09' 18" W	171.75'
71	524661.54	858243.17	N 34° 54' 47" W	242.46'
72	524860.36	858104.40	N 39° 31' 09" W	362.20'
73	525139.77	857873.92	N 25° 56' 29" E	335.68'
74	525441.63	858020.77	N 45° 10' 59" W	114.25'
75	525522.15	857939.73	N 17° 32' 33" W	375.93'
76	525880.59	858053.04	N 08° 54' 03" E	249.09'
77	526126.68	858091.58	N 08° 44' 25" W	196.37'
78	526320.77	858061.74	N 33° 27' 25" W	309.74'
79	526579.19	857890.97	N 33° 38' 40" W	251.76'
80	526788.78	857751.49	N 82° 04' 59" W	398.74'
81	526843.70	857356.55	N 29° 22' 28" W	191.97'
82	527010.98	857262.39	N 02° 47' 24" W	308.87'
83	527319.48	857247.36	N 80° 14' 28" W	249.11'
84	527361.71	857001.85	N 80° 00' 27" W	250.60'
85	527405.19	856755.06	N 45° 33' 09" W	399.05'
86	527684.63	856470.18	S 42° 43' 31" W	365.15'
87	527416.38	856222.43	S 77° 11' 43" W	295.00'
88	527351.00	855934.77	N 56° 16' 01" W	267.72'
89	527499.67	855712.13	S 76° 47' 34" W	418.85'
90	527403.97	855304.35	N 74° 45' 34" W	390.05'
9020	527506.50	854928.02	N 20° 21' 05" W	69.03'
9019	527571.22	854904.01	N 04° 52' 33" W	326.63'
9018	527896.67	854876.25	N 06° 47' 12" W	98.39'
93	527994.37	854864.63	S 89° 28' 16" W	231.30'
94	527992.23	854633.34	N 55° 25' 40" W	201.38'
9017	528106.50	854467.52	N 50° 31' 53" W	197.79'
95	528232.23	854314.83	N 40° 59' 01" W	94.12'
9016	528303.28	854253.11	N 45° 39' 00" W	111.20'
213A	528381.01	854173.59	N 39° 08' 15" E	79.26'
96	528442.47	854123.55	N 20° 52' 30" W	313.50'
96A	528735.39	854011.84	N 21° 27' 15" W	103.85'
97	528832.05	853973.85	N 39° 35' 30" W	182.76'
1147	528972.88	853857.38	N 36° 32' 12" W	78.87'
98	529036.25	853810.42	N 01° 18' 04" E	198.63'
99A	529234.84	853814.93	N 00° 03' 04" E	138.51'
99	529373.35	853815.06		



Wastewater Disposal: Patapsco Drainage Area: Sucker Branch  
 Type of Buildings: N/A  
 No. of SHC: N/A  
 No. of WHC: N/A

SEWER CODE FOR COUNTY USE ONLY:  
 Sewer No. :

VICINITY MAP

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 ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- EXISTING SEWER MAIN - CONTRACT 195- IS REINFORCED CONCRETE PIPE.
- PIPE CAPACITY CALCULATIONS ARE BASED ON DESIGN MANUAL COEFFICIENTS.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS 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 AT THE LOCATION OF THE 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 TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
 STATE HIGHWAY ADMINISTRATION - 531-5533  
 BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES 561-2585  
 BALTIMORE GAS & ELECTRIC CO. - UNDERGROUND DAMAGE CONTROL - 234-5621  
 BALTIMORE GAS & ELECTRIC CO. - TROUBLE SHOOTING - 298-9013  
 MISS UTILITY - 1 - 559-0100  
 COLONIAL PIPELINE CO. - 795-1390  
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 992-2366.
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO 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 BID FOR CONSTRUCTION OF THE MAIN.
- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS.
- ALL SEWER MAINS SHALL BE A.C.P., R.C.P., D.I.P., OR P.V.C. UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G5.52.
- ALL MANHOLE FRAME AND COVERS SHALL BE SET 1.5' ABOVE EXISTING GRADE WHERE SHOWN IN PROFILE. SEE DETAIL G5.41.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES.
- STRAW BALE DIKE AND SILT FENCE ARE INTERCHANGEABLE.
- P.I.'S ARE "X"-CUTS IN RIMS OF EXISTING MANHOLES EXCEPT WHERE REFERENCES ARE SHOWN ON THE DRAWINGS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITIES COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- FOR CONCRETE ENCASUREMENT SEE STANDARD DETAIL G 2.03.
- REPAIR OPENINGS IN EXISTING PAVING AS PER STANDARD DETAIL G 4.01.
- D.I.P. SHALL BE CLASS 50.
- DESIGN Q'S SHOWN ARE ULTIMATE FLOWS.
- PROVIDE WATER TIGHT MANHOLE INSERTS, "SEWER GUARD" AS MANUFACTURED BY PRECO INDUSTRIES LTD. OR EQUAL FOR ALL NEW MANHOLES DESIGNATED WTM1 IN PLAN AND PROFILE AND FOR ALL EXISTING MANHOLES WHERE DESIGNATED WTM1.
- 100 YEAR FLOOD PLAIN IN VICINITY OF EXISTING MH 523 IS BASED ON ELEVATIONS SHOWN IN PATAPSCO RIVER BASIN STUDY PREPARED BY REGIONAL PLANNING COUNCIL, U.S.D.A. SOIL CONSERVATION SERVICE, MARCH 1980.
- 100 YEAR FLOOD PLAIN IN VICINITY OF EXISTING MH 58 IS BASED ON ELEVATIONS SHOWN ON RECORDED PLAT FOR THE RESUBDIVISION OF PARCEL "A" AND PARCEL "B" SECTION OF NORMANDY WOODS, HOWARD COUNTY, MARYLAND, ELECTION DISTRICT NO. 2 DATED APRIL 16, 1975.
- 100 YEAR FLOOD PLAIN IN OTHER AREAS IS BASED ON DESIGN MANUAL VOLUME I - STORM DRAINAGE - CHAPTER 10 - STORMWATER MANAGEMENT - ENVELOPE STUDY.

CONTRACT NO. 10-1305  
 PROJECT NO. S-6102  
 SUCKER BRANCH  
 PARALLEL INTERCEPTOR  
 HOWARD COUNTY, MARYLAND  
 DEPARTMENT OF PUBLIC WORKS

QUANTITIES			
ITEM	BID	AS-BUILT	MATERIAL/SUPPLY
20'S(D.I.P.) L.F.	40	37 L.F.	
16'S(D.I.P.) L.F.	810	788 L.F.	
15'Sewer L.F.	810	795 L.F.	
12'Sewer L.F.	4950	4829 L.F.	
12'S(D.I.P.) L.F.	840	816 L.F.	
8'Sewer L.F.	90	81 L.F.	
Manholes Ea.	40	40	
Meter Ea.	1	1	

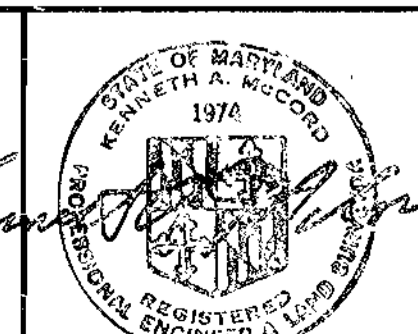
SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE 15 OF THE STANDARD SPECIFICATIONS

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT  
*[Signature]* 9-16-85  
 SIGNATURE DATE  
 U S SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT APPROVED:  
*[Signature]* 9/16/85  
 HOWARD S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*[Signature]* 9-1-85  
 DIRECTOR OF PUBLIC WORKS - DATE  
*[Signature]* 8/23/85  
 CHIEF - BUREAU OF ENGINEERING - DATE  
*[Signature]* 8/23/85  
 CHIEF - UTILITY DESIGN DIVISION - DATE

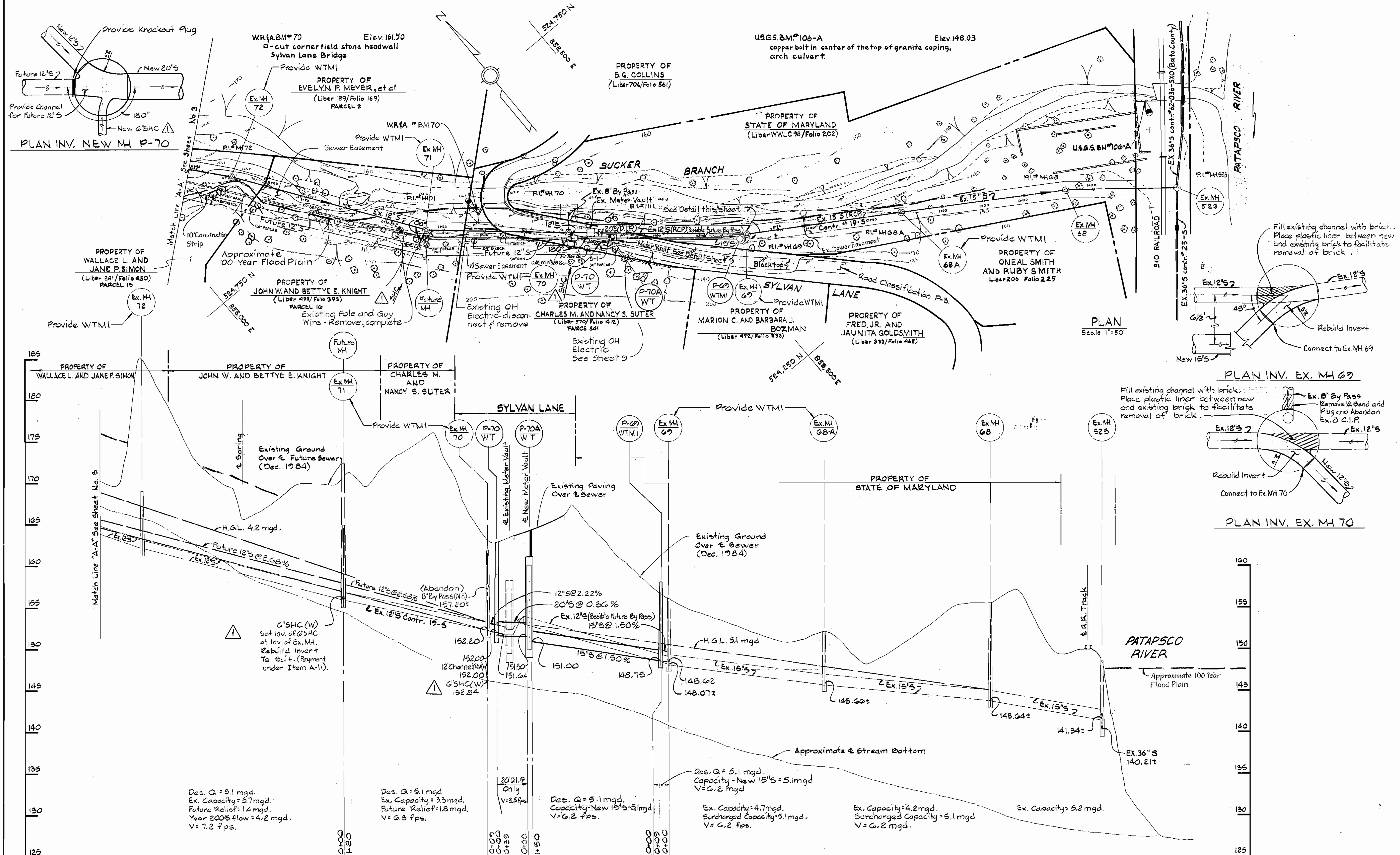
WHITMAN, REQUARDT  
 AND ASSOCIATES  
 ENGINEERS  
 2315 ST. PAUL ST.  
 BALTIMORE, MARYLAND



DES: J.R.K.			
DRN: G.T.F.			
CHK: R.B.N.			
DATE:			
BY	NO.	REVISION	DATE

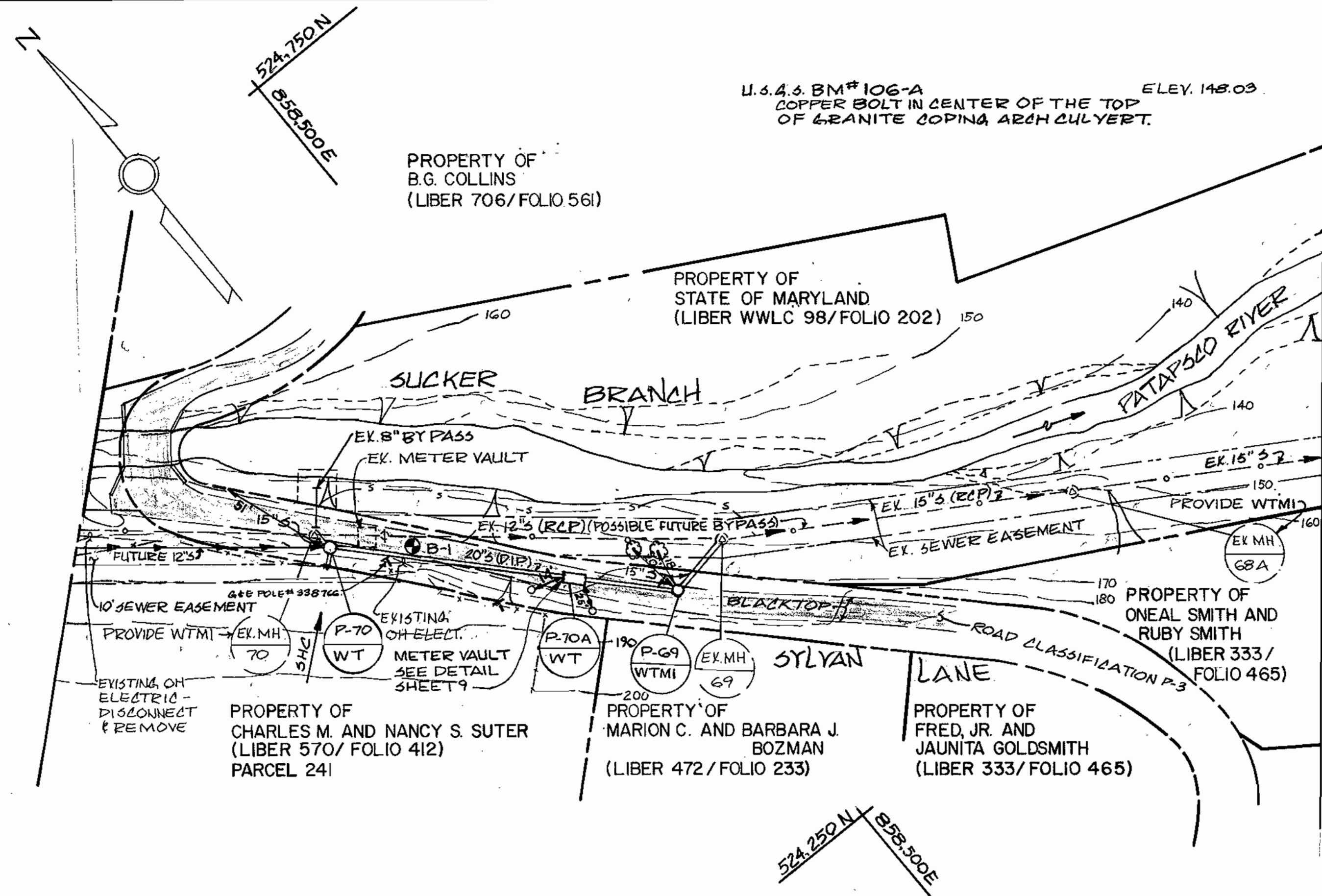
VICINITY MAP AND GENERAL NOTES  
 600' SCALE MAP NO. \_\_\_\_\_ BLOCK NO. \_\_\_\_\_

ELLICOTT CITY  
 SUCKER BRANCH PARALLEL INTERCEPTOR  
 PROJECT NO. S-6102  
 CONTRACT NO. 10-1305  
 SCALE AS SHOWN  
 SHEET 1 OF 10



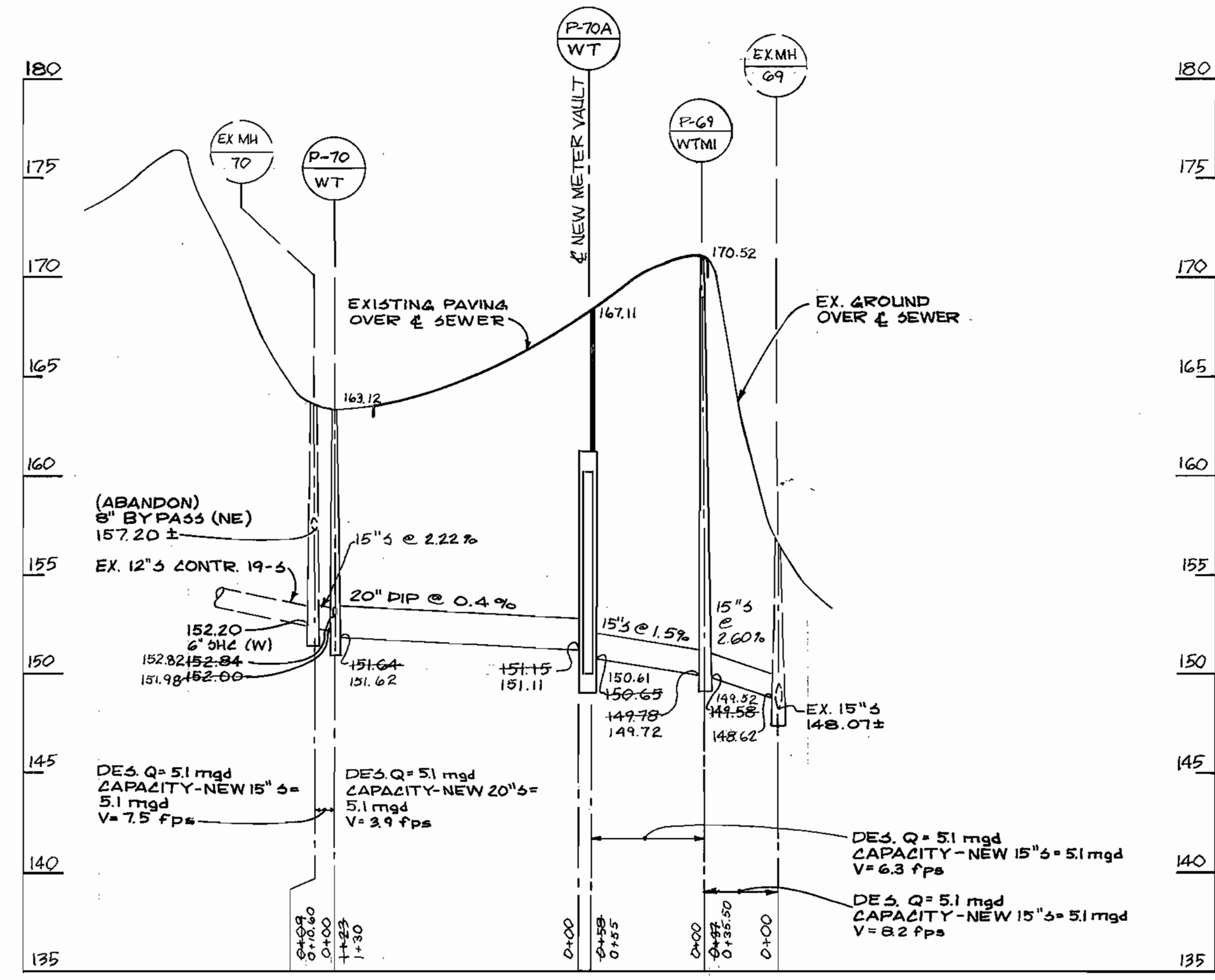
PROFILE: Scale: H: 1"=50' V: 1"=5'

<p><b>DEPARTMENT OF PUBLIC WORKS</b> HOWARD COUNTY, MARYLAND</p> <p><i>Robert W. Ward</i> 9-3-85 DIRECTOR OF PUBLIC WORKS - DATE</p> <p><i>Robert W. Ward</i> 9/3/85 CHIEF - BUREAU OF UTILITIES - DATE</p>	<p><b>WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS</b> 2315 ST. PAUL ST. BALTIMORE, MARYLAND</p> <p><i>Robert W. Ward</i> 9-3-85 CHIEF - BUREAU OF ENGINEERING - DATE</p> <p><i>Robert W. Ward</i> 9/2/85 CHIEF - UTILITY DESIGN DIVISION - DATE</p>	<p>DES: JRK DRN: GTF CHK: RBN</p> <p>DATE: _____</p> <p>BY: _____ NO. _____ REVISION _____ DATE _____</p>	<p style="text-align: center;"><b>PLAN AND PROFILE OF SEWER MAIN</b></p> <p style="text-align: center;">600' SCALE MAP NO. 25 BLOCK NO. 8</p>	<p style="text-align: center;"><b>ELLICOTT CITY</b> SUCKER BRANCH PARALLEL INTERCEPTOR PROJECT NO. S-6102 CONTRACT NO. 10-1305</p>	<p>SCALE AS SHOWN</p> <p>SHEET 2 OF 10</p>
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PLAN  
SCALE 1" = 50'

NOTE:  
THIS SHEET IS PREPARED PER AN ADDENDUM TO CONTRACT NO 10-1305. ALL INFORMATION SHOWN AS EXISTING IS DUPLICATED FROM SHEET 2 OF CONTRACT NO 10-1305, PREPARED BY WHITMAN, REQUARDT AND ASSOCIATES.



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

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Robert M. Baime* 1-19-87  
DIRECTOR OF PUBLIC WORKS DATE

*William E. Quinn* 1-19-87  
CHIEF, BUREAU OF ENGINEERING DATE

*Donald J. Gorman* 1/19/87  
CHIEF, UTILITY DESIGN DIVISION DATE

JOHN E. HARMS, JR & ASSOCIATES, INC.  
CONSULTING ENGINEERS  
P.O. BOX 5  
PASADENA, MARYLAND



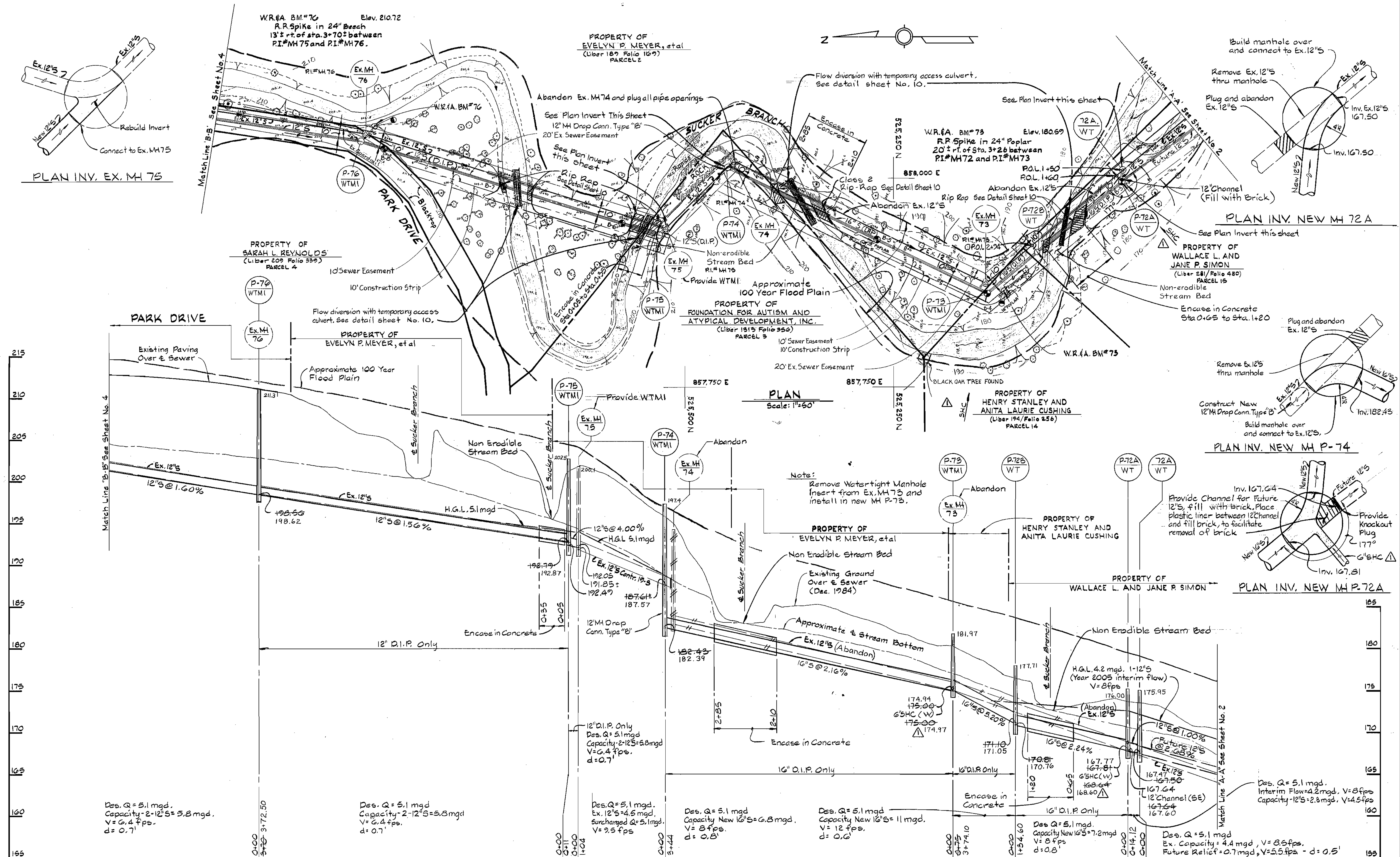
DES: S.E.S.			
DRN: K.S.V.			
CHK: S.E.S.			
DATE: 1/7/87	BY: NO.	REVISION	DATE

PLAN AND PROFILE OF  
SEWER MAIN

600' SCALE MAP NO. 25 BLOCK NO. 8

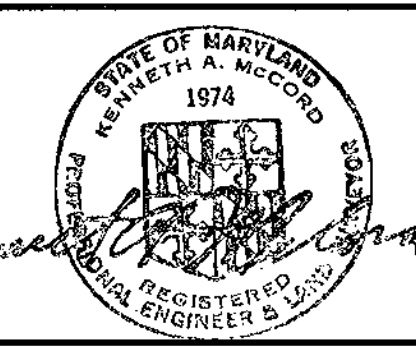
ELLCOTT CITY  
SUCKER BRANCH PARALLEL INTERCEPTOR  
PROJECT NO. S-6102  
CONTRACT NO. 10-1305

SCALE AS SHOWN  
SHEET 2A OF 10



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Director: *Robert W. ...*  
 Chief - Bureau of Engineering: *...*  
 Chief - Bureau of Utilities: *...*

WHITMAN, REQUARDT  
 AND ASSOCIATES  
 ENGINEERS  
 2315 ST. PAUL ST.  
 BALTIMORE, MARYLAND



DES: J.R.K.	DATE:
DRN: G.T.F.	BY NO.
CHK: R.B.N.	REVISION
	DATE

PLAN AND PROFILE OF  
 SEWER MAIN  
 600' SCALE MAP NO. 25 BLOCK NO. 882

ELLICOTT CITY  
 SUCKER BRANCH PARALLEL INTERCEPTOR  
 PROJECT NO. S-6102  
 CONTRACT NO. 10-1305

SCALE AS SHOWN  
 SHEET 3 OF 10

W.R.&A. BM#81 Elev. 237.43  
R.R. Spike in root 18" Oak  
18' Int. of sta. 0+25± between  
P.I.#MH81 and P.I.#MH82.

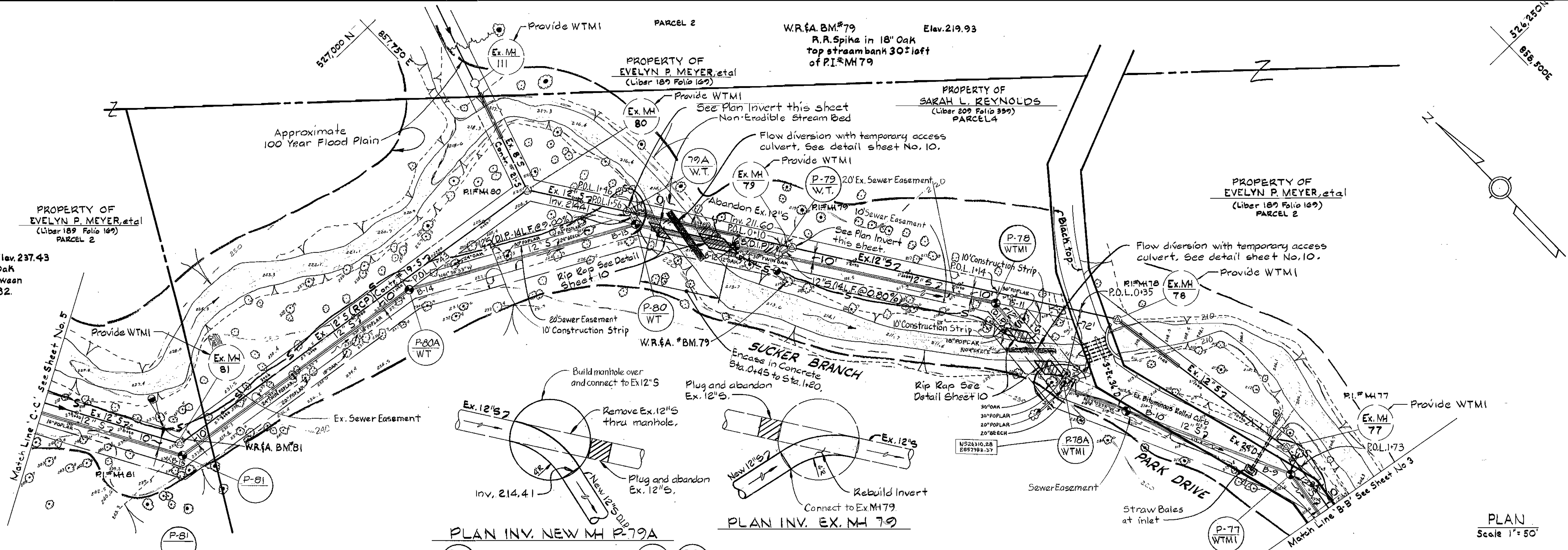
PROPERTY OF  
EVELYN P. MEYER, et al  
(Liber 189 Folio 169)  
PARCEL 2

PROPERTY OF  
EVELYN P. MEYER, et al  
(Liber 189 Folio 169)

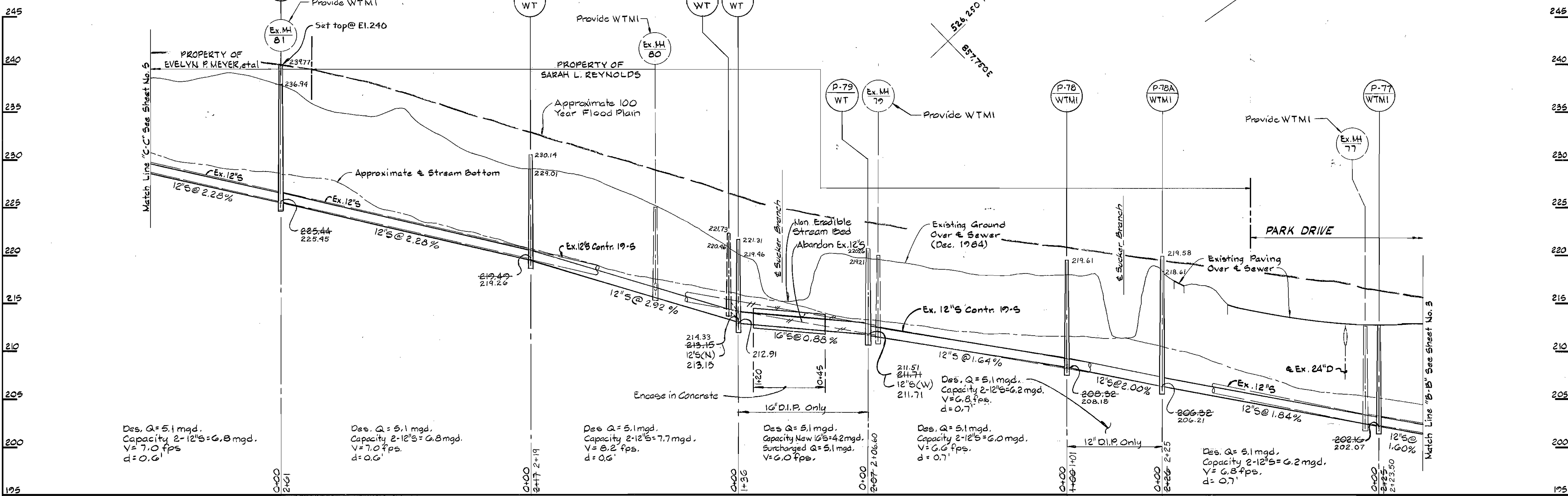
W.R.&A. BM#79 Elev. 219.93  
R.R. Spike in 18" Oak  
top stream bank 30' left  
of P.I.#MH79

PROPERTY OF  
SARAH L. REYNOLDS  
(Liber 209 Folio 399)  
PARCEL 4

PROPERTY OF  
EVELYN P. MEYER, et al  
(Liber 189 Folio 169)  
PARCEL 2



PLAN  
Scale 1"=50'



PROFILE Scale: H=1"=50'  
V=1"=5'

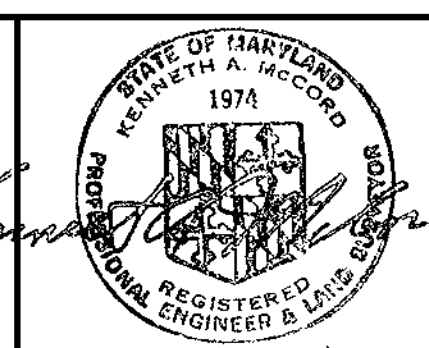
25-524/858.5 FB# 6943, 6949

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works - DATE: 9-3-85  
Chief - Bureau of Engineering - DATE: 8-23-85  
Chief - Bureau of Utilities - DATE: 9/1/85  
Chief - Utility Design Division - DATE: 8/12/85

WHITMAN, REQUARDT  
AND ASSOCIATES  
ENGINEERS

2315 ST. PAUL ST.  
BALTIMORE, MARYLAND



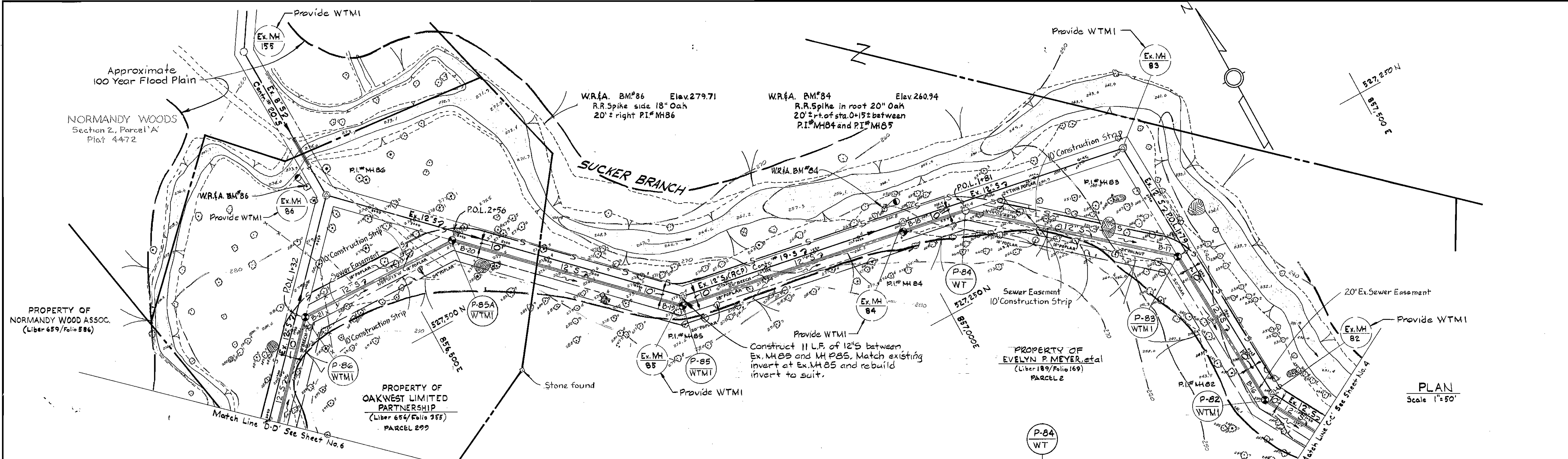
DES: J.R.K.			
DRN: G.T.F.			
CHK: R.B.N.			
DATE:	BY:	NO.:	REVISION:

PLAN AND PROFILE OF  
SEWER MAIN

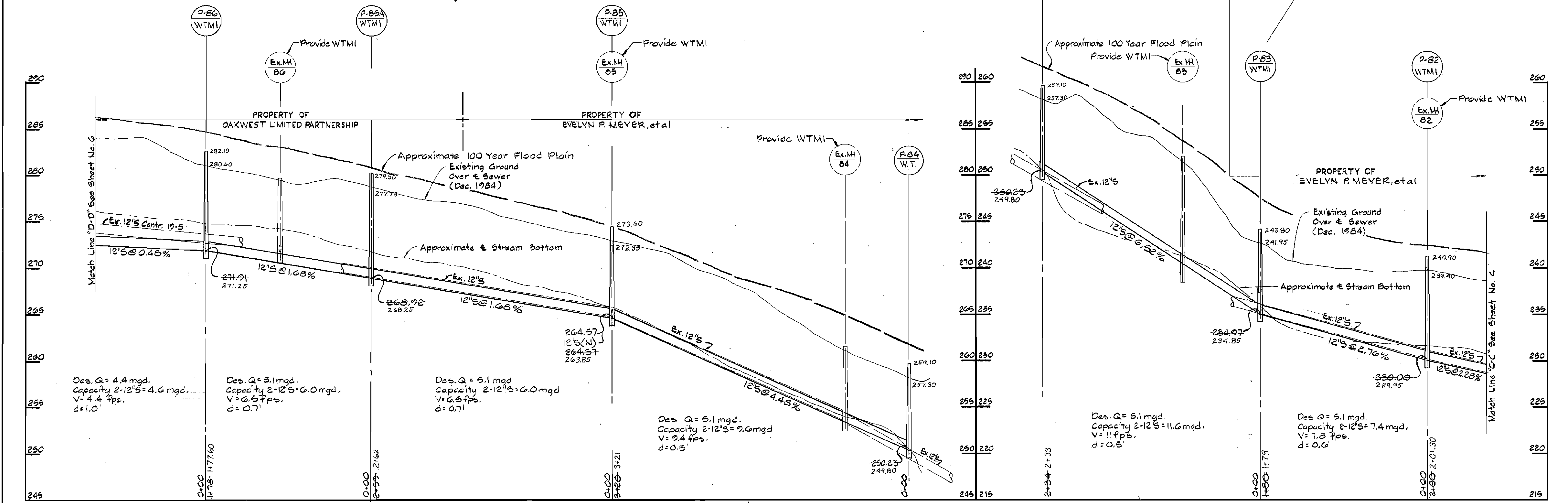
600' SCALE MAP NO. 25 BLOCK NO. 1

ELLICOTT CITY  
SUCKER BRANCH PARALLEL INTERCEPTOR  
PROJECT NO. S-6102  
CONTRACT NO. 10-1305

SCALE AS SHOWN  
SHEET 4 OF 10



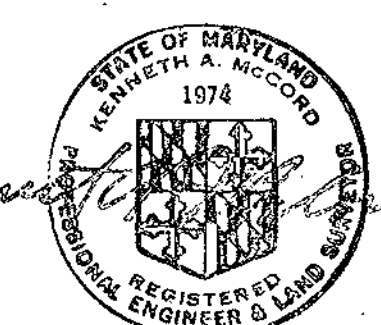
PLAN  
Scale 1"=50'



PROFILE Scale: H: 1"=5' V: 1"=5'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Director of Public Works: *John F. Murphy* 9-7-85  
Chief - Bureau of Engineering - Date: *William B. Kelly* 8/22/85  
Chief - Bureau of Utilities - Date: *Paul D. Gorman* 8/22/85

WHITMAN, REQUARDT  
AND ASSOCIATES  
ENGINEERS  
2315 ST. PAUL ST.  
BALTIMORE, MARYLAND

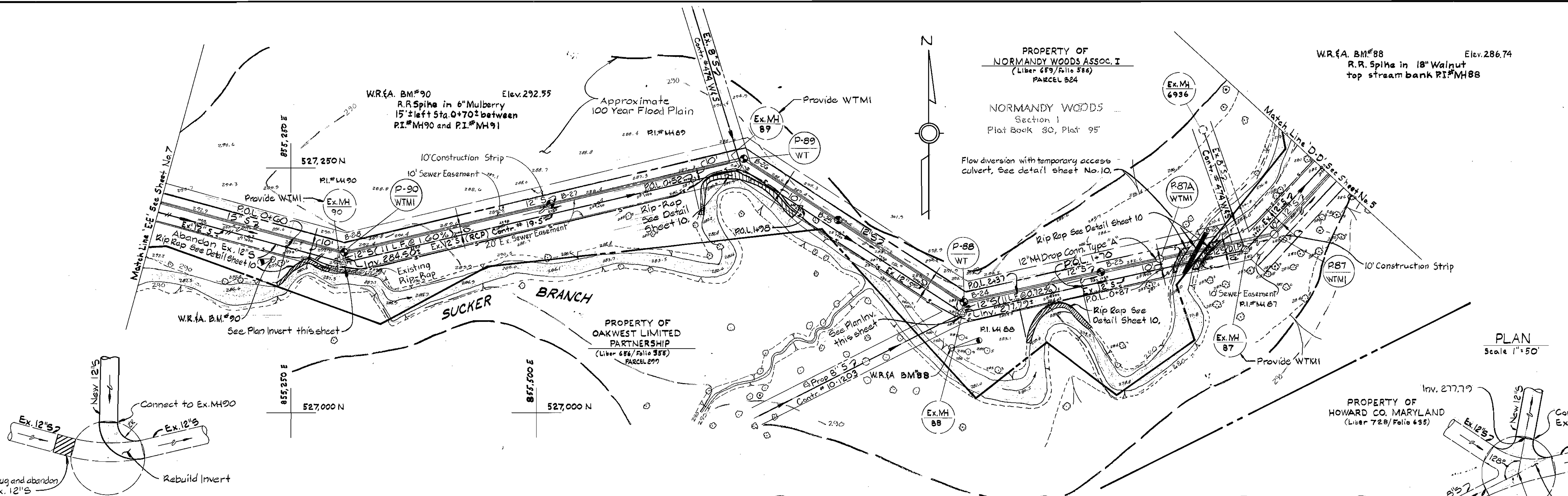


DES: J.R.K.	
DRN: G.T.F.	
CHK: R.B.N.	
DATE:	
BY:	NO.
REVISION:	DATE:

PLAN AND PROFILE OF  
SEWER MAIN  
600' SCALE MAP NO. 25 BLOCK NO.

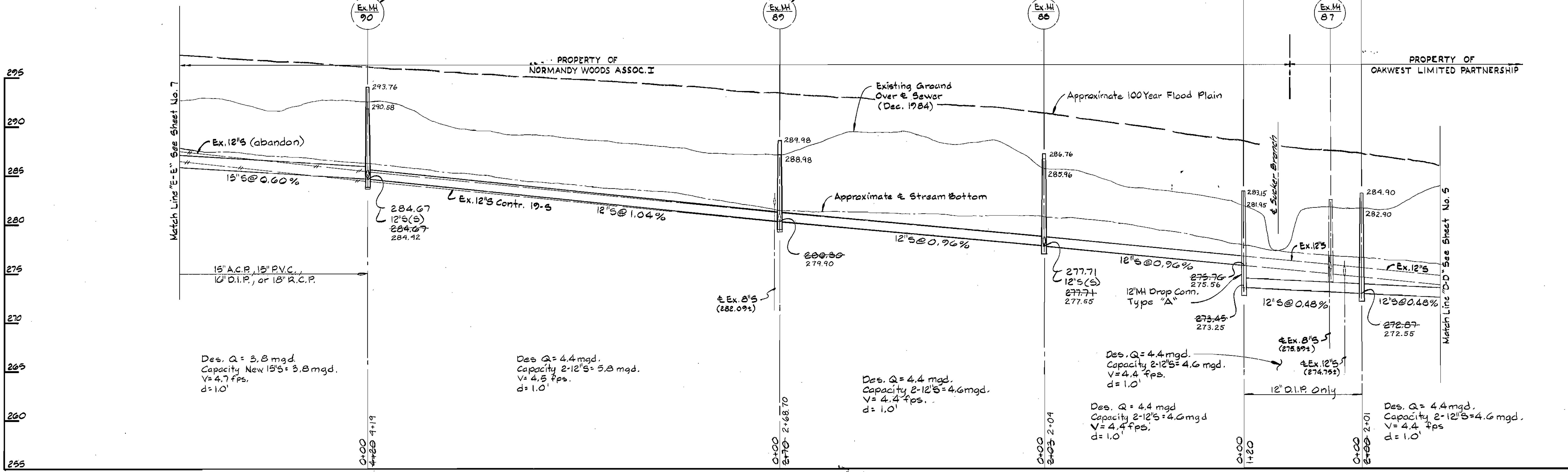
ELLICOTT CITY  
SUCKER BRANCH PARALLEL INTERCEPTOR  
PROJECT NO. S-6102  
CONTRACT NO. 10-1305

SCALE AS SHOWN  
SHEET 5 OF 10



PLAN INV. EX. MH 90

PLAN INV. EX. MH 88



PROFILE Scale: H: 1"=50' V: 1"=5'

25-527/857  
25-527/855:5  
FB # 6943, 6949

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Robert W. Wood* 9-3-85  
DIRECTOR OF PUBLIC WORKS - DATE

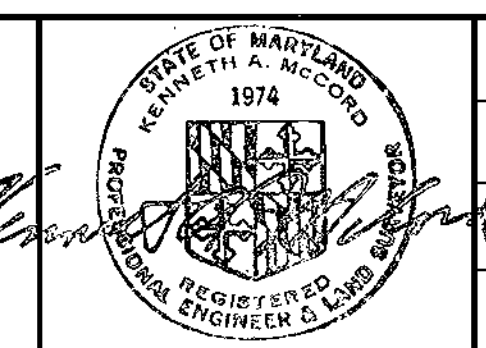
*Richard W. Wood* 9/3/85  
CHIEF - BUREAU OF UTILITIES - DATE

*James E. Nease* 9-3-85  
CHIEF - BUREAU OF ENGINEERING - DATE

*Richard W. Wood* 9/3/85  
CHIEF - UTILITY DESIGN DIVISION - DATE

WHITMAN, REQUARDT  
AND ASSOCIATES  
ENGINEERS

2315 ST. PAUL ST.  
BALTIMORE, MARYLAND



DES: J.R.K.			
DRN: G.T.F.			
CHK: R.B.N.			
DATE:	BY:	NO.	REVISION

PLAN AND PROFILE OF  
SEWER MAIN

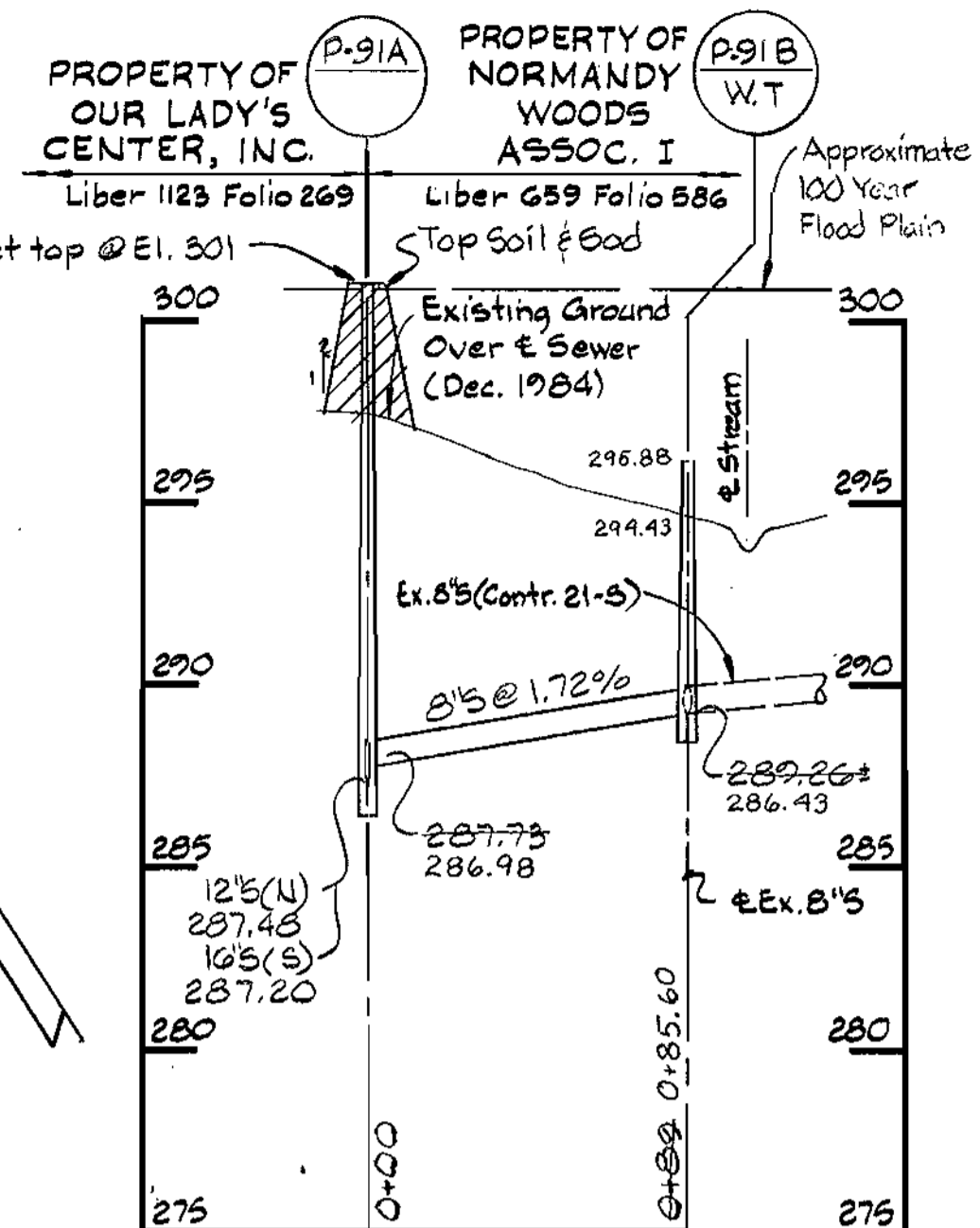
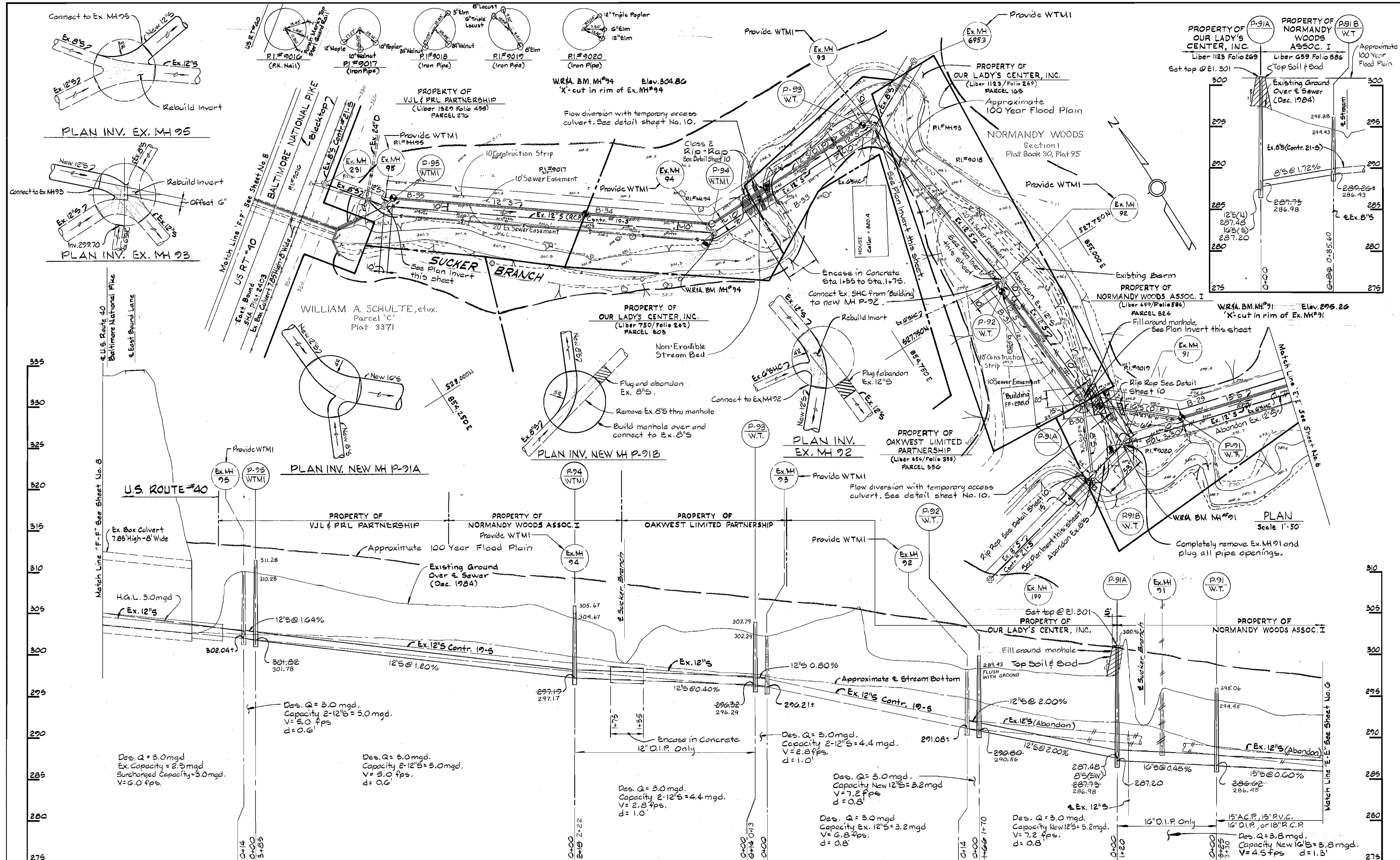
600' SCALE MAP NO. 25 BLOCK NO. 1

ELLICOTT CITY  
SUCKER BRANCH PARALLEL INTERCEPTOR

PROJECT NO. S-6102  
CONTRACT NO. 10-1305

SCALE AS SHOWN

SHEET 6 OF 10



PROFILE Scale: H=1/80 V=1/5'

18-528/855 25-327/855 FB # 6943, 6949

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James F. Norman* 9-7-85  
DIRECTOR OF PUBLIC WORKS - DATE

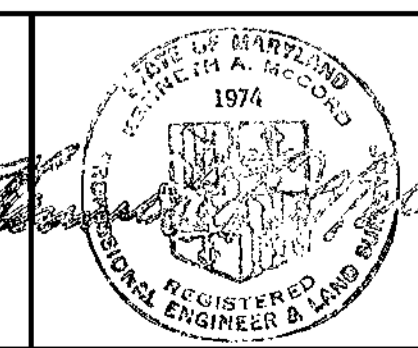
*Robert A. Williams* 9/3/85  
CHIEF - BUREAU OF UTILITIES - DATE

*William A. Schulze* 8-23-85  
CHIEF - BUREAU OF ENGINEERING - DATE

*Robert L. Johnson* 8/14/85  
CHIEF - UTILITY DESIGN DIVISION - DATE

WHITMAN, REQUARDT  
AND ASSOCIATES  
ENGINEERS

2315 ST. PAUL ST  
BALTIMORE, MARYLAND



DES: J.R.K.			
DRN: G.T.F.			
CHK: R.B.N.			
DATE:	BY:	NO.	REVISION

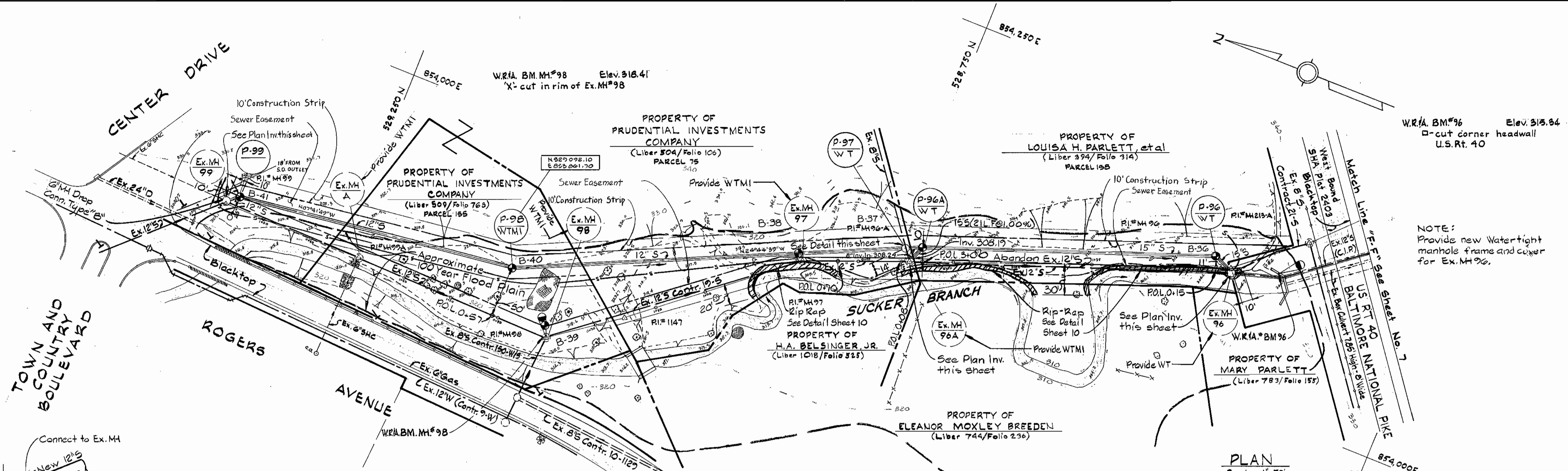
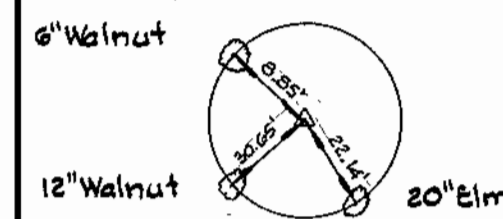
PLAN AND PROFILE OF  
SEWER MAIN

600' SCALE MAP NO. 29/18 BLOCK NO. 1/15

ELLICOTT CITY  
SUCKER BRANCH PARALLEL INTERCEPTOR  
PROJECT NO. S-6102  
CONTRACT NO. 10-1305

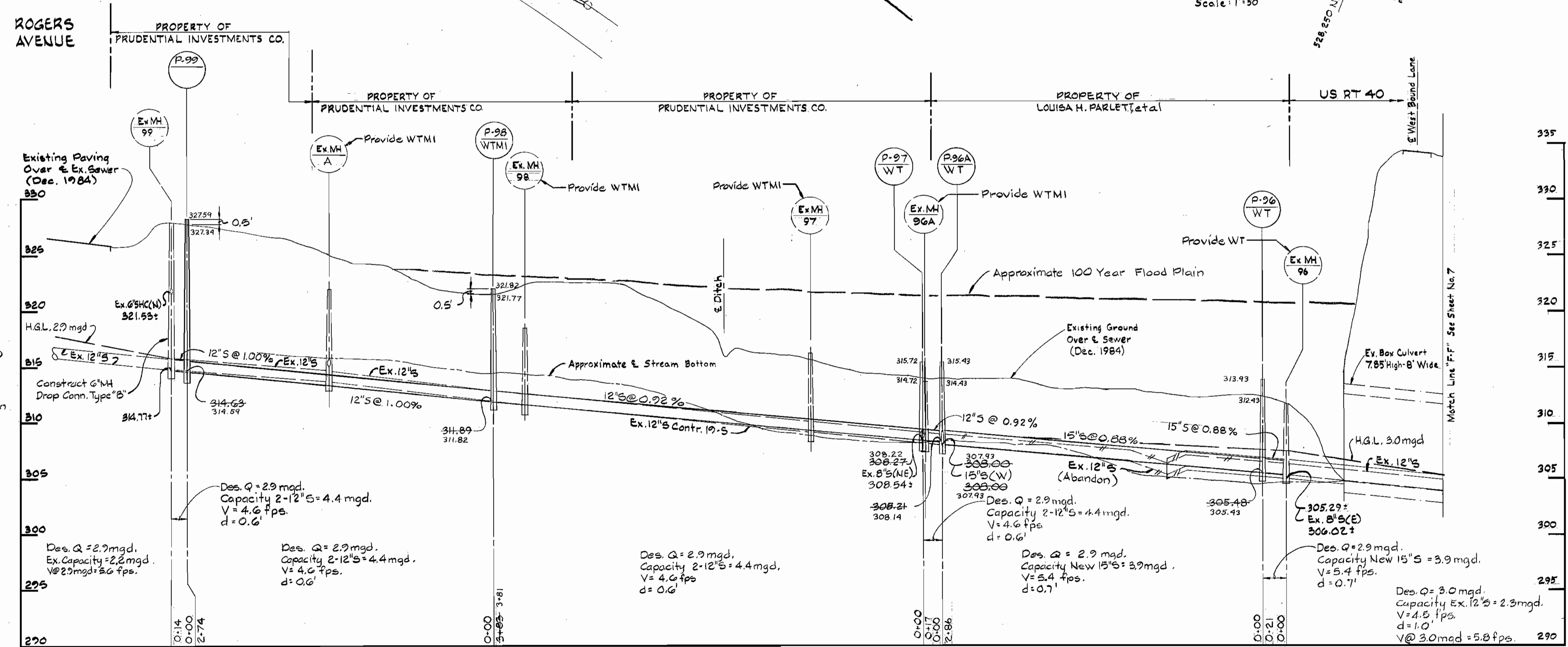
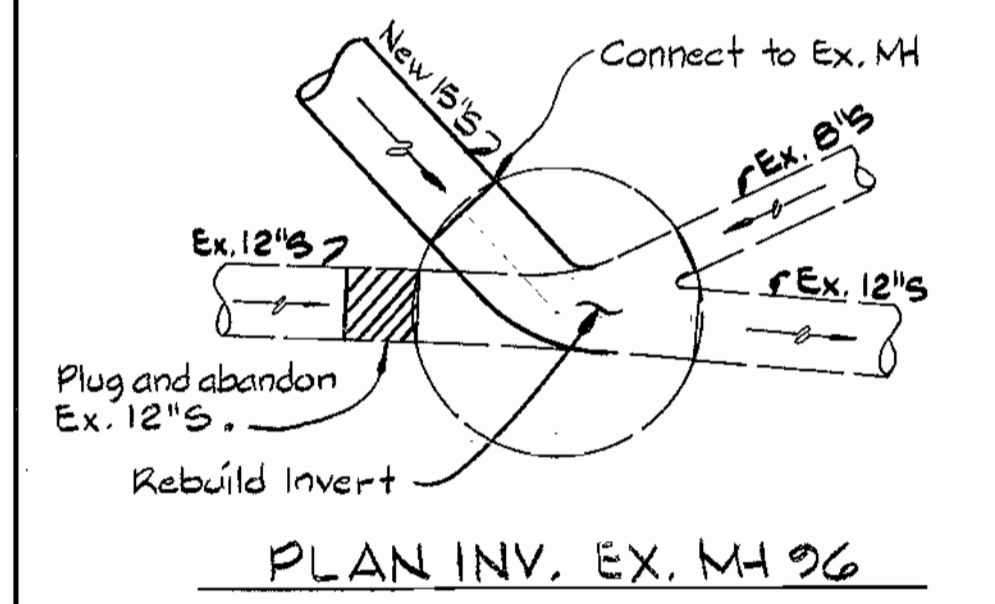
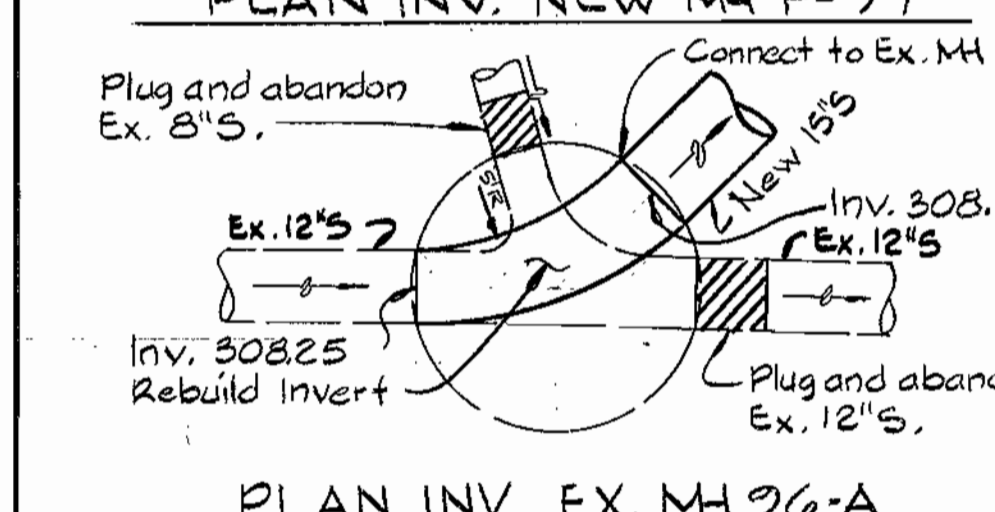
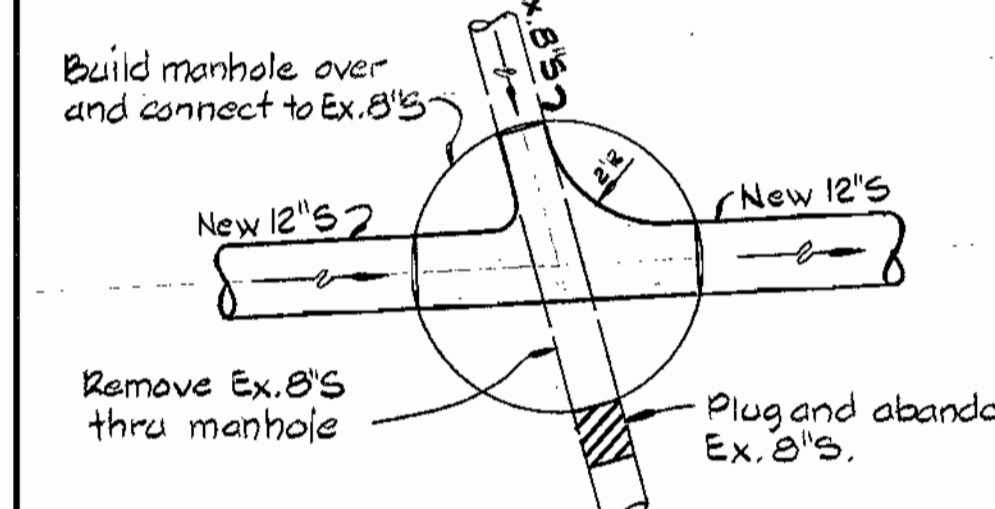
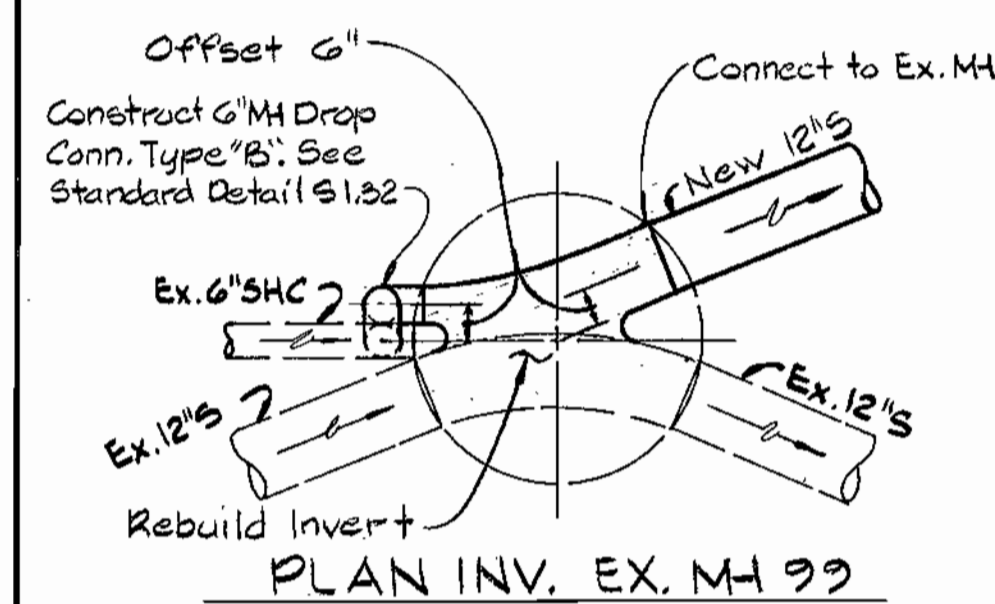
SCALE AS SHOWN  
SHEET 7 OF 10





NOTE: Provide new Watertight manhole frame and cover for Ex. MH 96.

PLAN Scale: 1"=50'



PROFILE Scale: H: 1"=50' V: 1"=5'

17-529/854  
17-528/854  
18-529/855.5  
FB# 6943, 6949

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Director of Public Works - Date  
Chief - Bureau of Engineering - Date  
Chief - Bureau of Utilities - Date  
Chief - Utility Design Division - Date

WHITMAN, REQUARDT  
AND ASSOCIATES  
ENGINEERS  
2315 ST. PAUL ST.  
BALTIMORE, MARYLAND

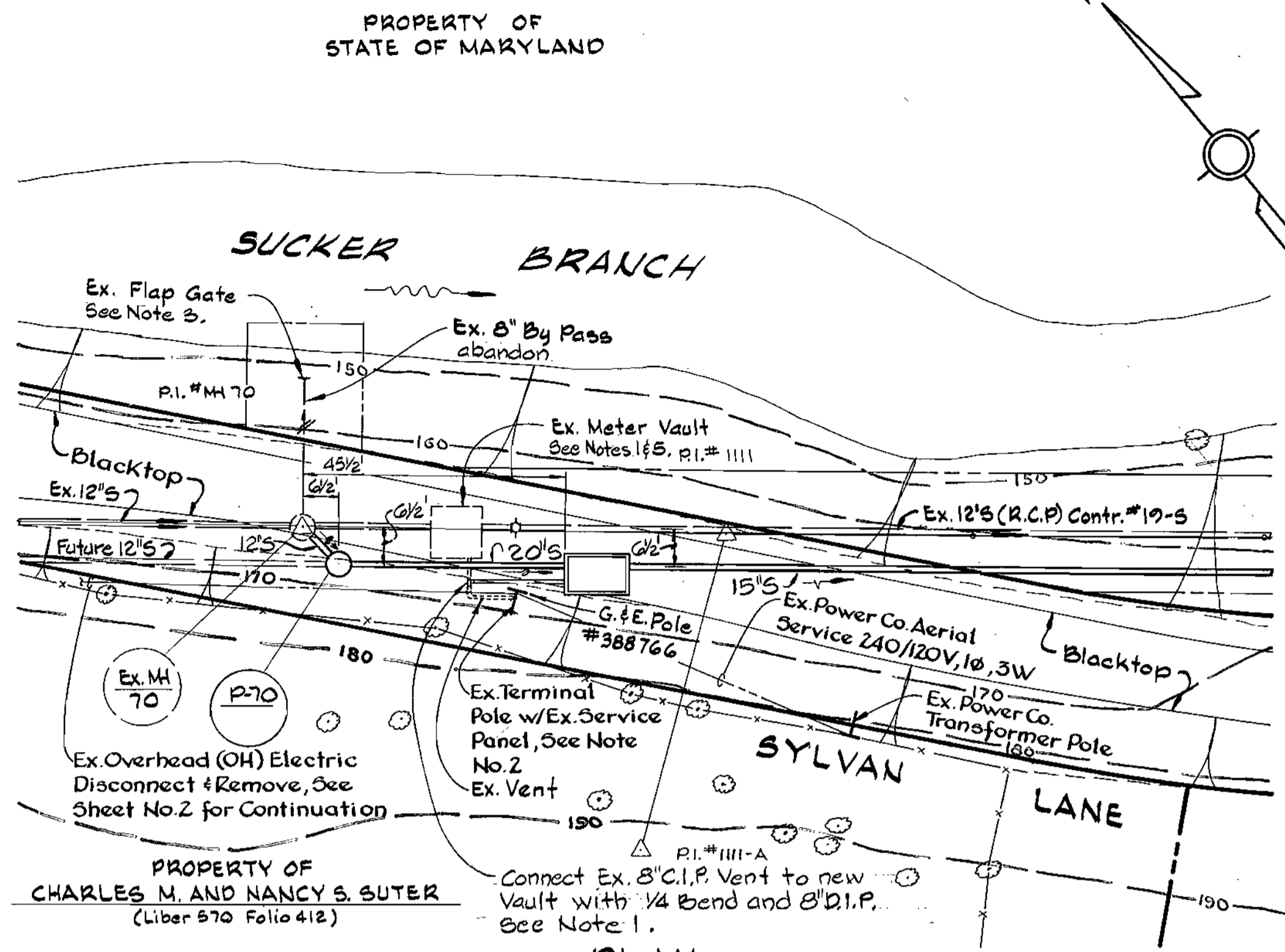


Table with columns for DES, DRN, CHK, DATE, BY, NO., REVISION, DATE.

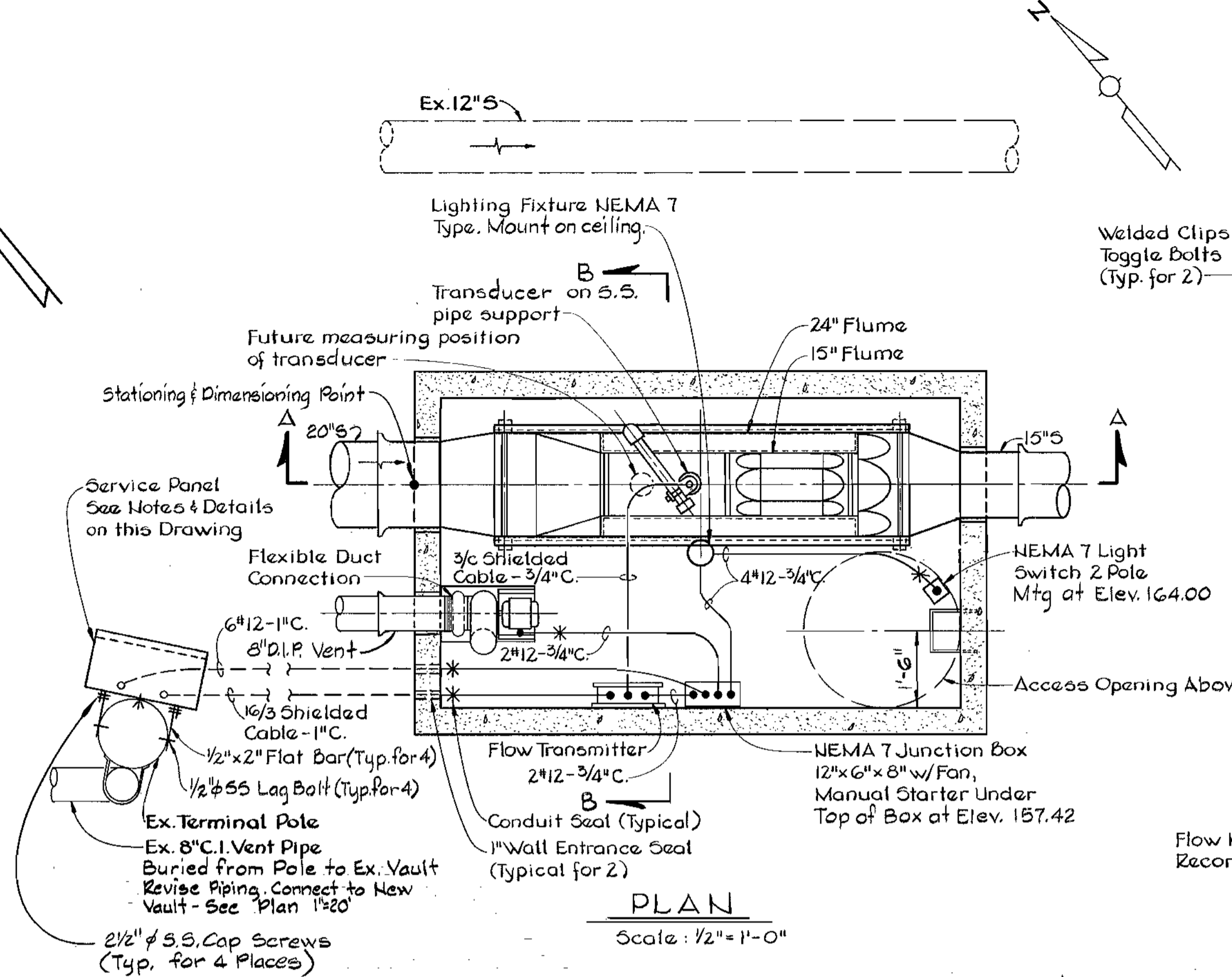
PLAN AND PROFILE OF  
SEWER MAIN  
600' SCALE MAP NO. 17/18 BLOCK NO. 24/19

ELLICOTT CITY  
SUCKER BRANCH PARALLEL INTERCEPTOR  
PROJECT NO. S-6102  
CONTRACT NO. 10-1305

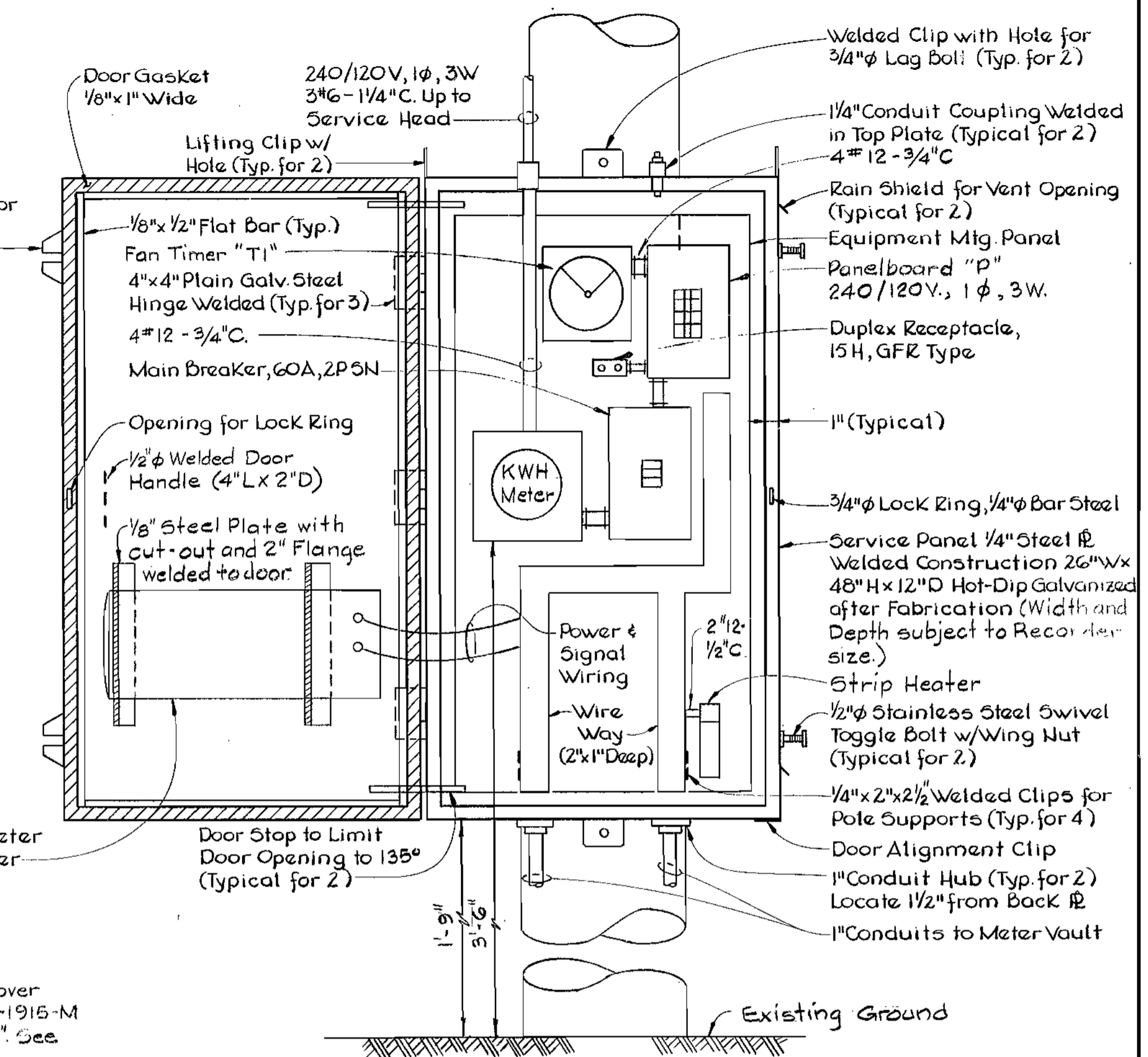
SCALE AS SHOWN  
SHEET 8 OF 10



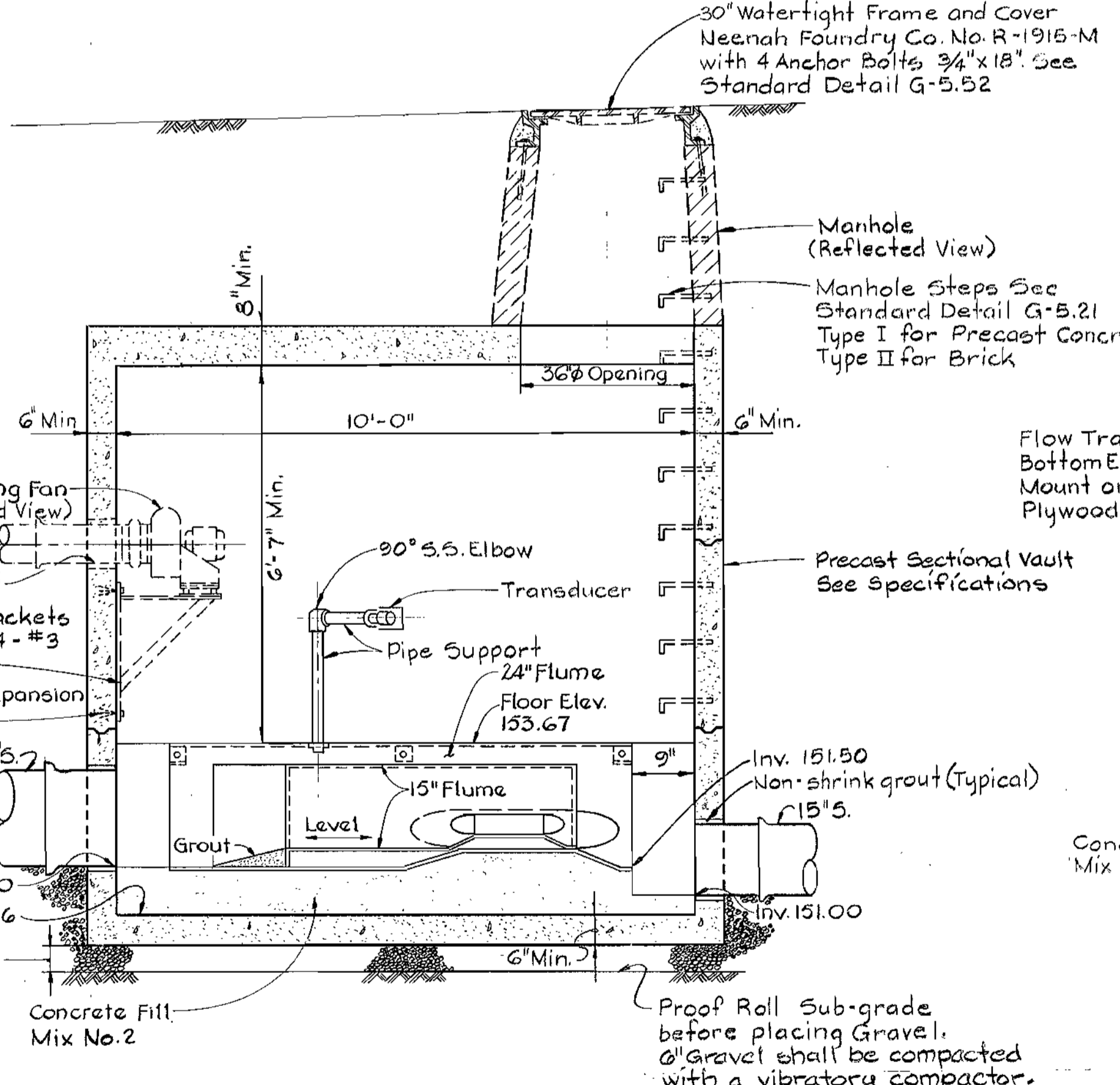
**PLAN**  
Scale: 1"=20'



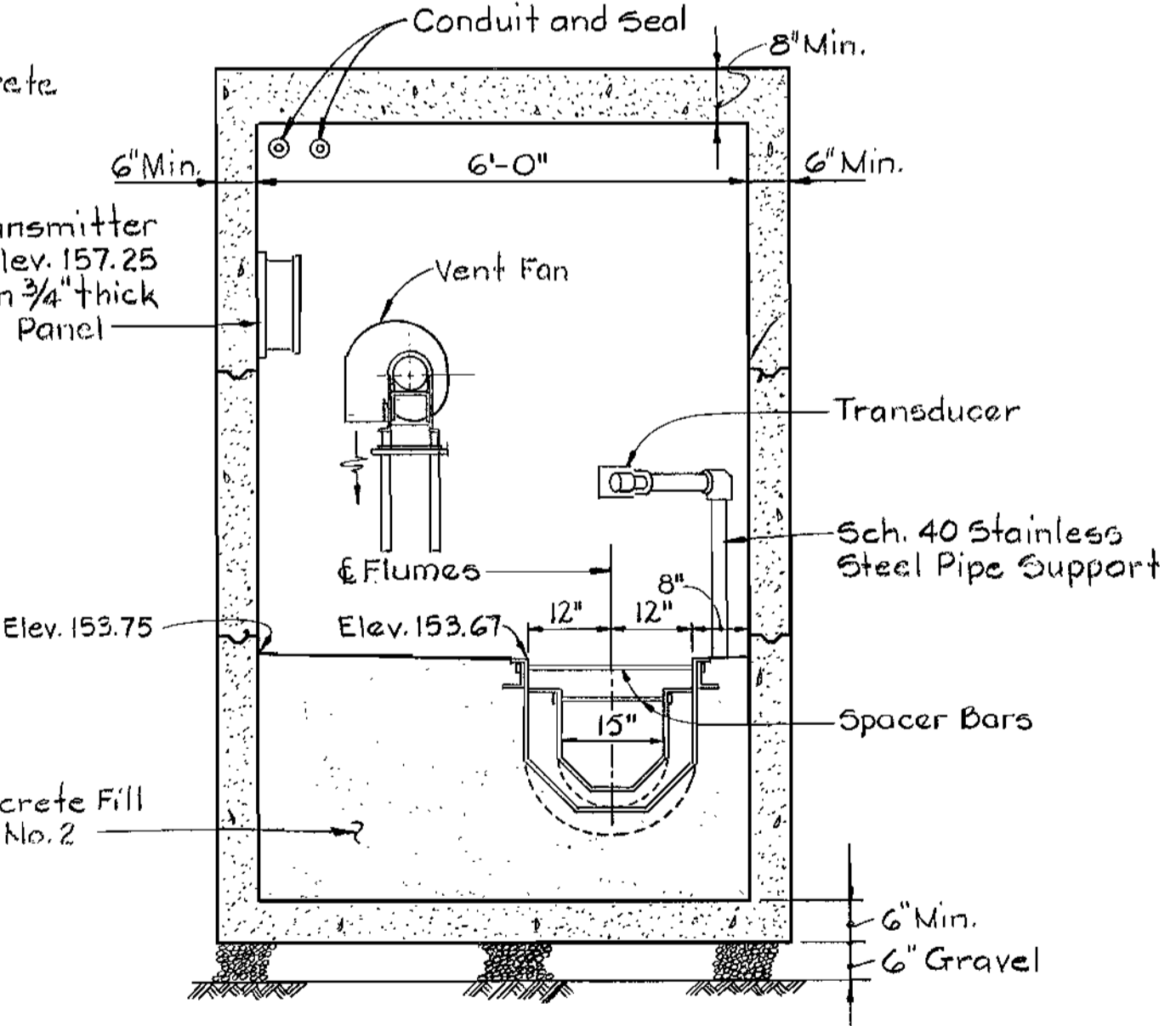
**PLAN**  
Scale: 1/2"=1'-0"



**ELEVATION SERVICE PANEL**  
Scale: 1/8"=1'-0"

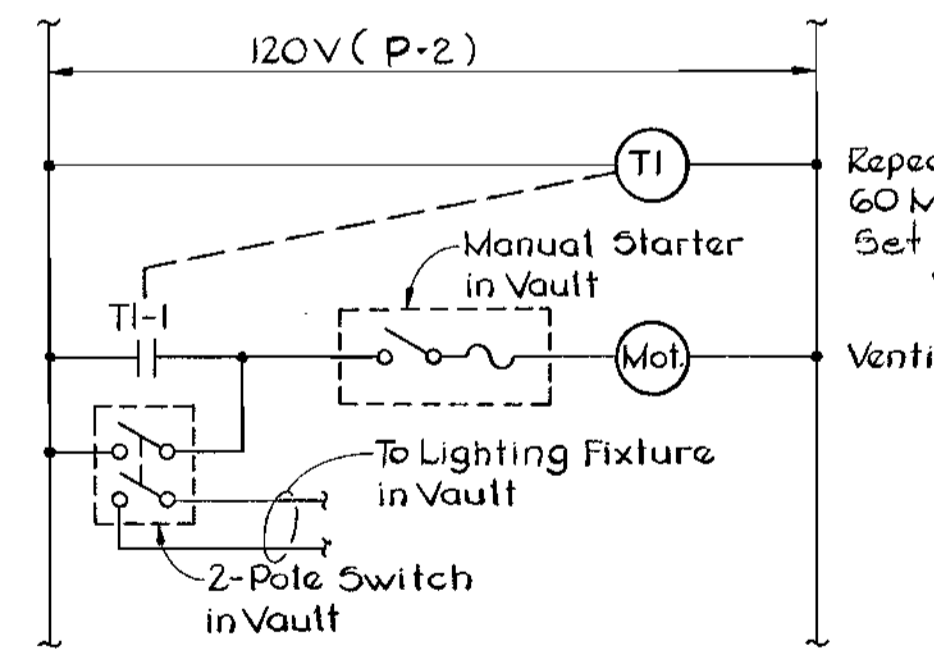


**SECTION 'A-A'**  
Scale: 1/2"=1'-0"



**SECTION 'B-B'**  
Scale: 1/2"=1'-0"

- Notes:**
1. Remove existing 8" magnetic flowmeter, flow recorder, sump pump and all electrical equipment from existing Meter Vault. Plug abandoned ventilation pipe opening.
  2. Disconnect and remove the existing Service Panel mounted on the existing Terminal Pole and provide new Service Panel as specified and as detailed on this drawing.
  3. Remove existing flap gate on By Pass and plug abandoned pipe.
  4. All equipment removed shall be delivered to the Bureau of Utilities yard on Old Montgomery Road.
  5. Replace 8" magnetic flow meter with 8-inch DIP Existing sewer between MH 69 and MH 70 shall be kept open as possible future by pass to be activated when maintenance of new meter is being performed.

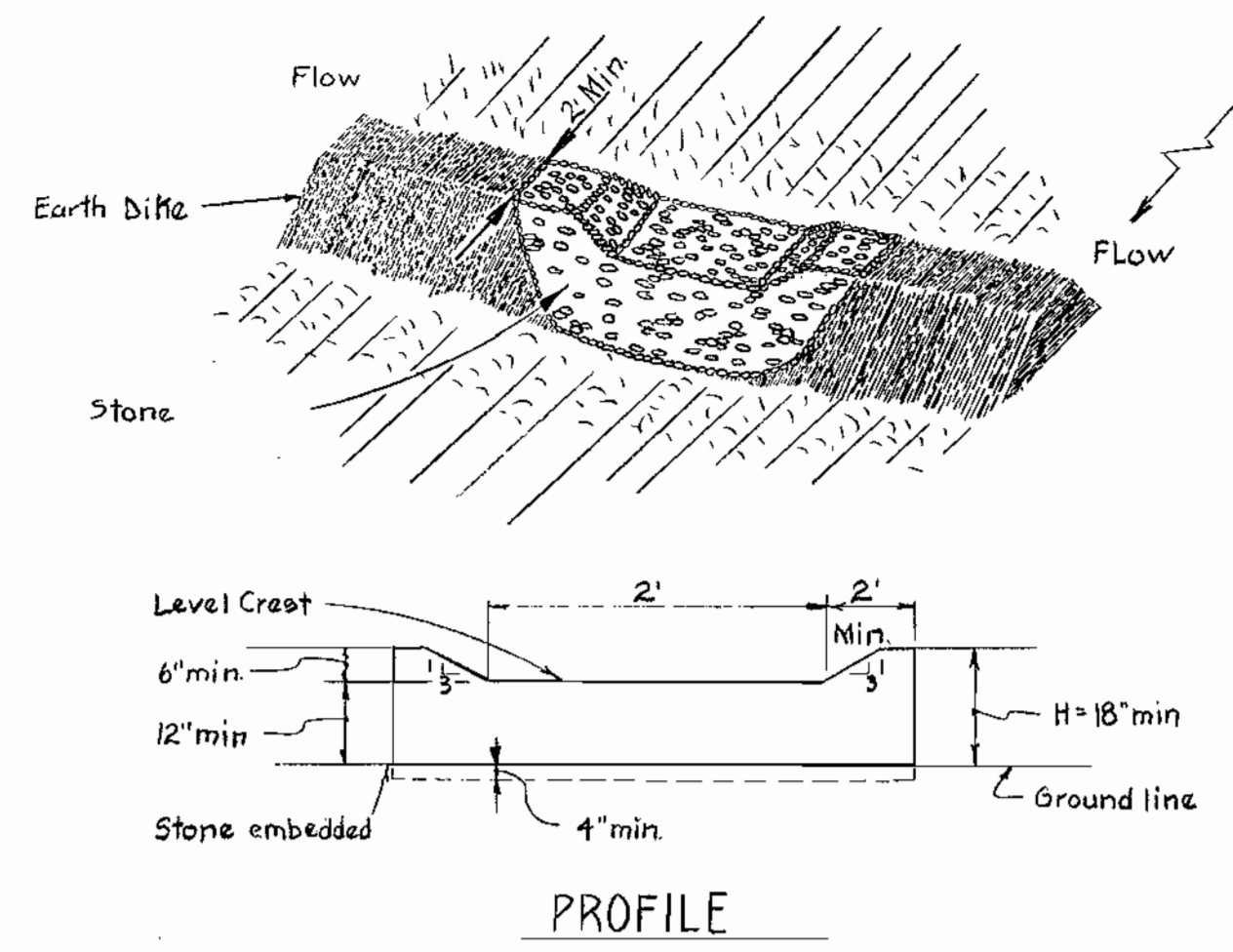


**ELEMENTARY WIZING DIAGRAM VENTILATING FAN AND LIGHT IN VAULT**

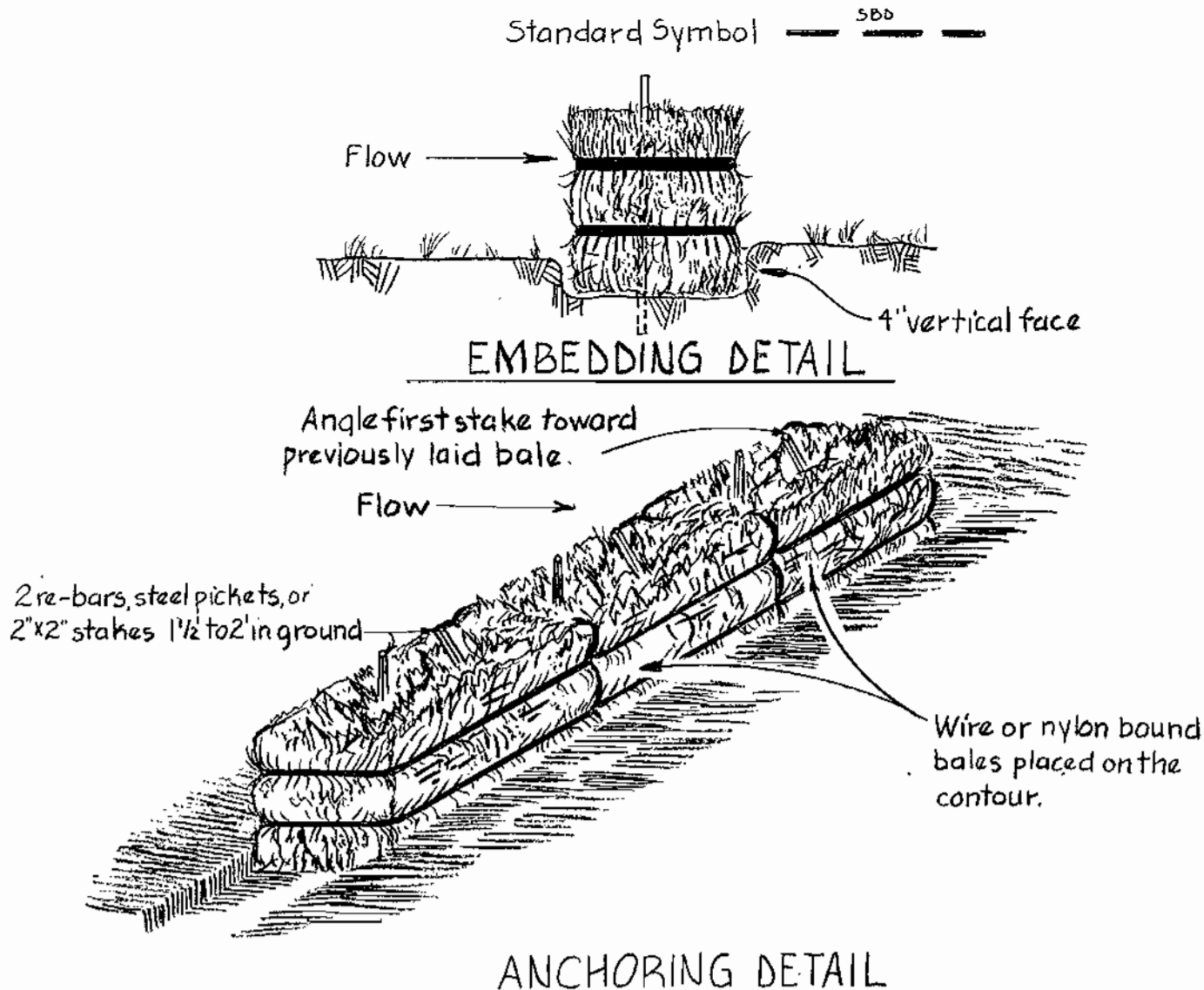
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director: Robert W. Ford Chief - Bureau of Utilities: Robert W. Ford	WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS 2315 ST. PAUL ST. BALTIMORE, MARYLAND	STATE OF MARYLAND KENNETH A. MCCORD 1974 PROFESSIONAL REGISTERED ENGINEER & SURVEYOR	DES: EFD	DRN: T.W.A.	CHK: RBN	DATE:	BY:	NO.:	REVISION:	DATE:	600' SCALE MAP NO.:	BLOCK NO.:	ELLICOTT CITY SUCKER BRANCH PARALLEL INTERCEPTOR PROJECT NO. S-6102 CONTRACT NO. 10-1305	SCALE AS SHOWN SHEET 9 OF 10
			DETAILS OF METER VAULT											

**CONSTRUCTION SEQUENCE  
SEDIMENT CONTROL PROCEDURES**

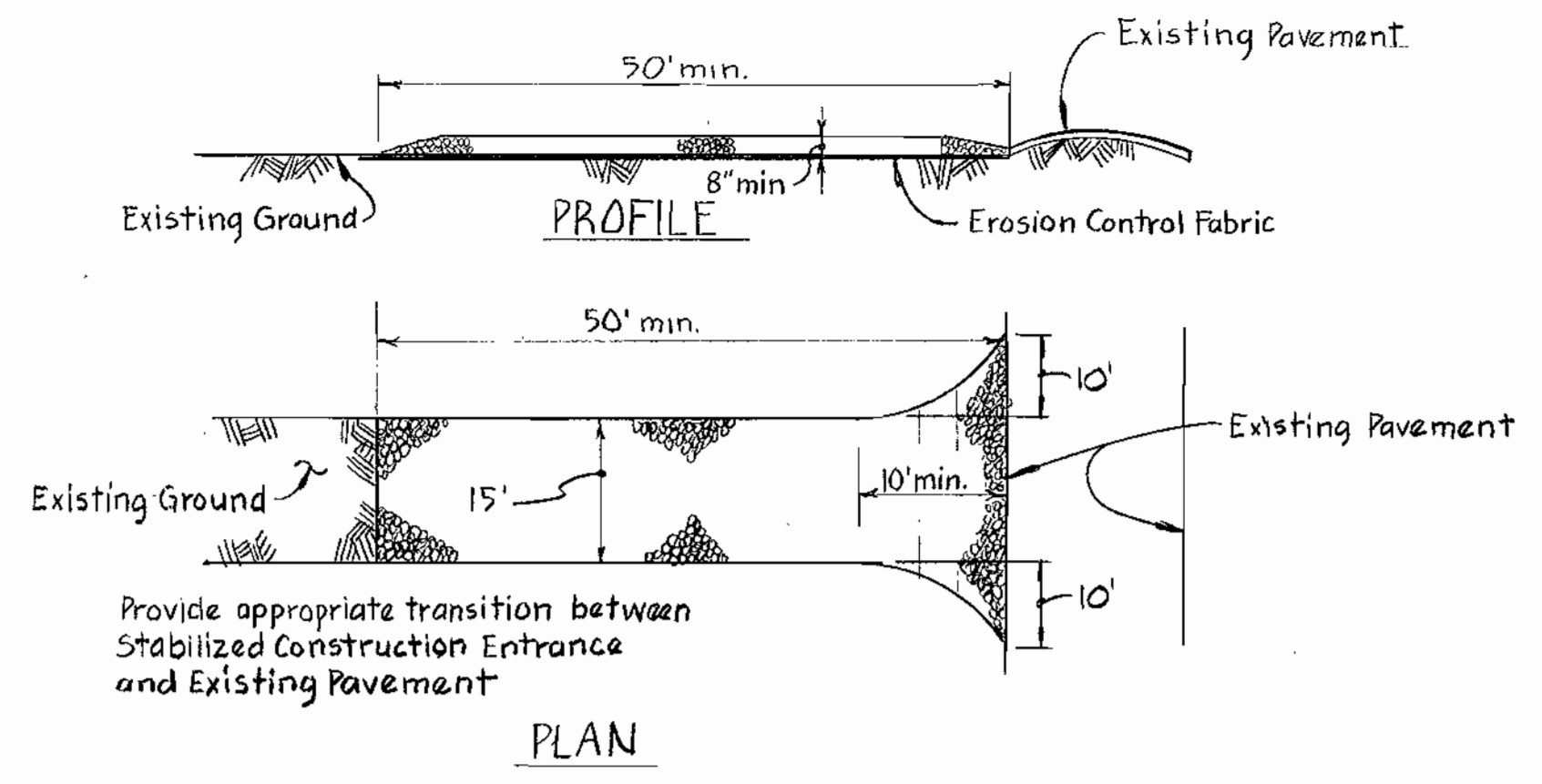
1. OBTAIN SEDIMENT CONTROL PERMIT (ARTICLE 15.05-3).
2. OBTAIN WATER RESOURCES ADMINISTRATION PERMIT.
3. CONSTRUCT CONTINUOUS SILT FENCE ON STREAM SIDE OF PIPE IN ADVANCE OF SEWER CONSTRUCTION.
4. CONSTRUCT STONE ENTRANCE AND STREAM CROSSINGS IN ADVANCE OF SEWER CONSTRUCTION.
5. CLEAR, GRUB AND STRIP AS REQUIRED. PROTECT STREAM FROM EROSION OF STORED TOPSOIL. SEPARATE TOPSOIL FROM SUBSOIL.
6. EXCAVATE FOR AND CONSTRUCT SEWER MAINS.
7. STOCKPILE EXCAVATED MATERIAL ON HIGH SIDE OF TRENCH.
8. CONSTRUCT STONE OUTLET SEDIMENT PITS FOR DEWATERING PUMP DISCHARGE.
9. RESTORE EROSION CONTROL STRUCTURES DISTURBED BY SEWER CONSTRUCTION.
10. STABILIZE DISTURBED AREAS AS CONSTRUCTION PROGRESSES WITH TEMPORARY SEEDING AND MULCHING (OR PERMANENT RESTORATION).
11. CONSTRUCT RIP-RAP SLOPE PROTECTION. GABIONS MAY BE SUBSTITUTED FOR RIP-RAP WHERE APPROVED BY THE ENGINEER.
12. CONSTRUCT RIP-RAP STREAMBED IF AND WHERE DIRECTED BY THE ENGINEER. IN THE EVENT THE EXISTING STREAM BOTTOM IS CONSIDERED BY THE ENGINEER TO BE ERODIBLE IN THOSE AREAS SHOWN AS NON-ERODIBLE ON THE CONTRACT DRAWINGS A SOLID RIP-RAP STREAM BED WITH CUT-OF-WALL SHALL BE CONSTRUCTED OVER THE PIPE. PAYMENT WILL BE MADE PER SQUARE YARD AT THE UNIT PRICE BID FOR RIP-RAP.
13. COMPLETE PERMANENT RESTORATION.
14. REMOVE SEDIMENT STRUCTURES WHEN DIRECTED. ALL SEDIMENT CONTROL DEVICES SHALL REMAIN IN SERVICE WITHIN THE 100 YEAR FLOOD PLAIN UNTIL REMOVAL IS APPROVED BY THE WATER RESOURCES ADMINISTRATION INSPECTOR AND BY THE SOIL CONSERVATION SERVICE INSPECTOR.
15. BLASTING WITHIN THE STREAMBED WILL NOT BE ALLOWED BY W.R.A. BETWEEN MARCH AND MAY.



**STONE OUTLET STRUCTURE**

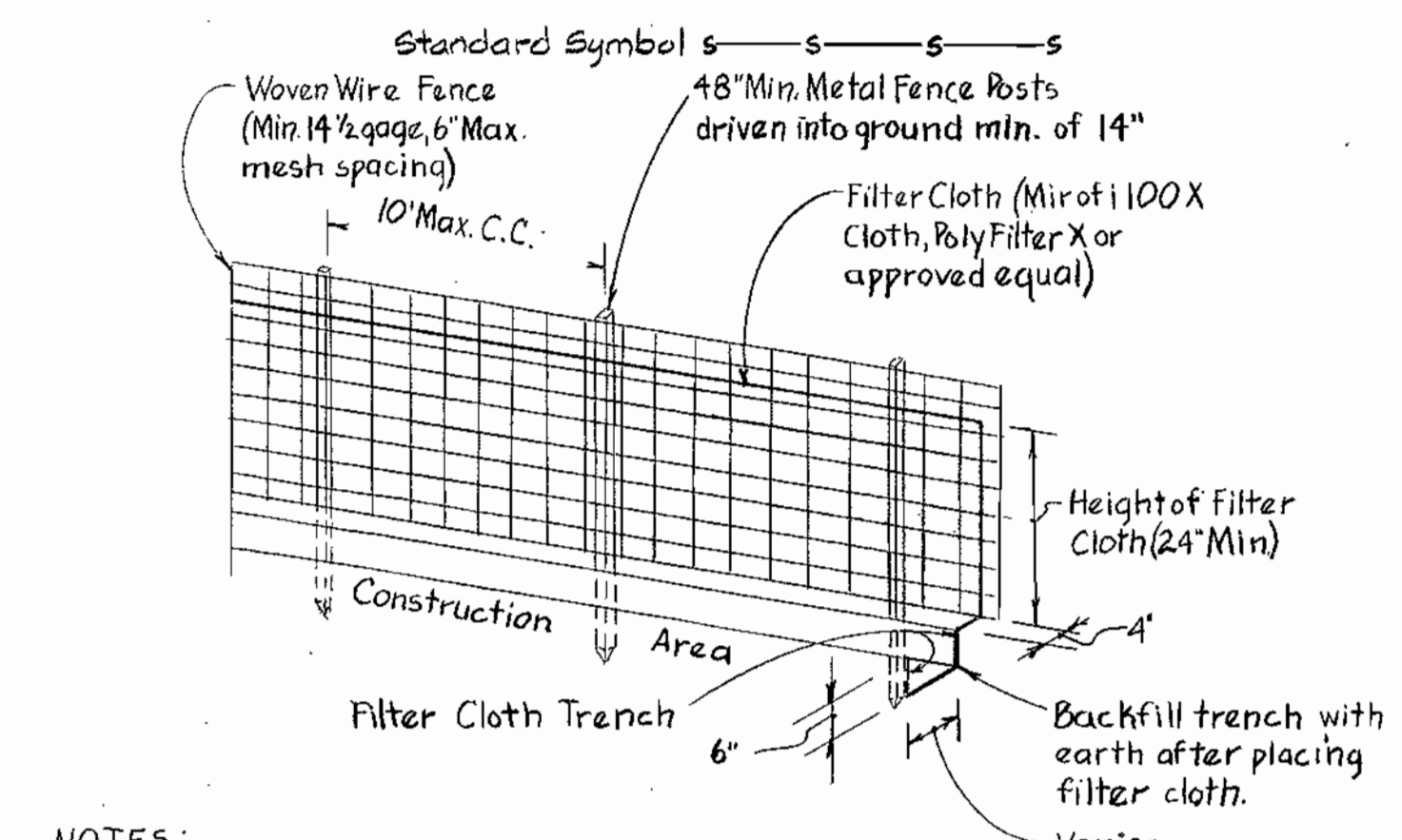


**STRAW BALE DIKE**



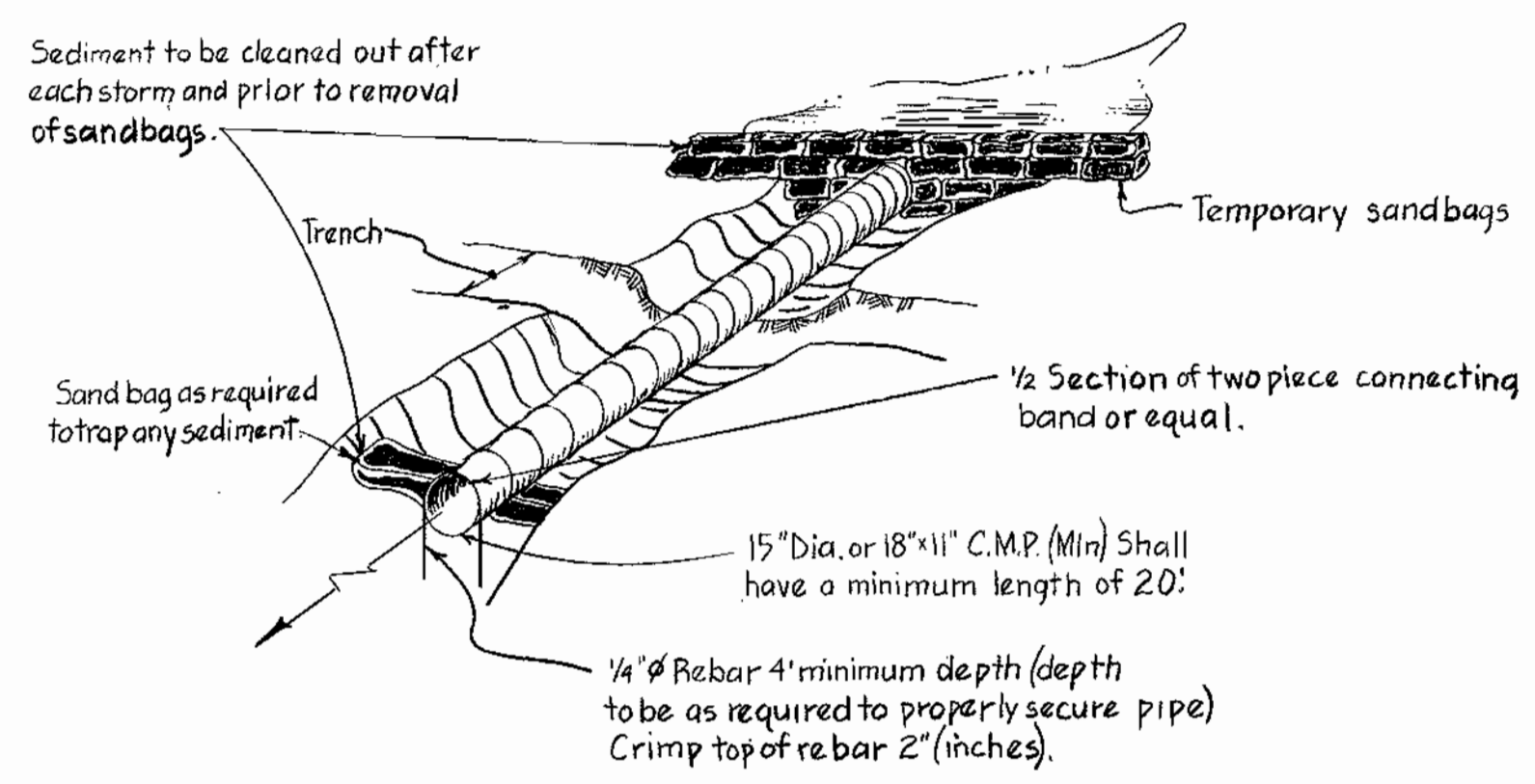
**STABILIZED CONSTRUCTION ENTRANCE**

- Notes:
1. Stone Size - M.S.H.A. size NO.2.
  2. The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto existing pavement.

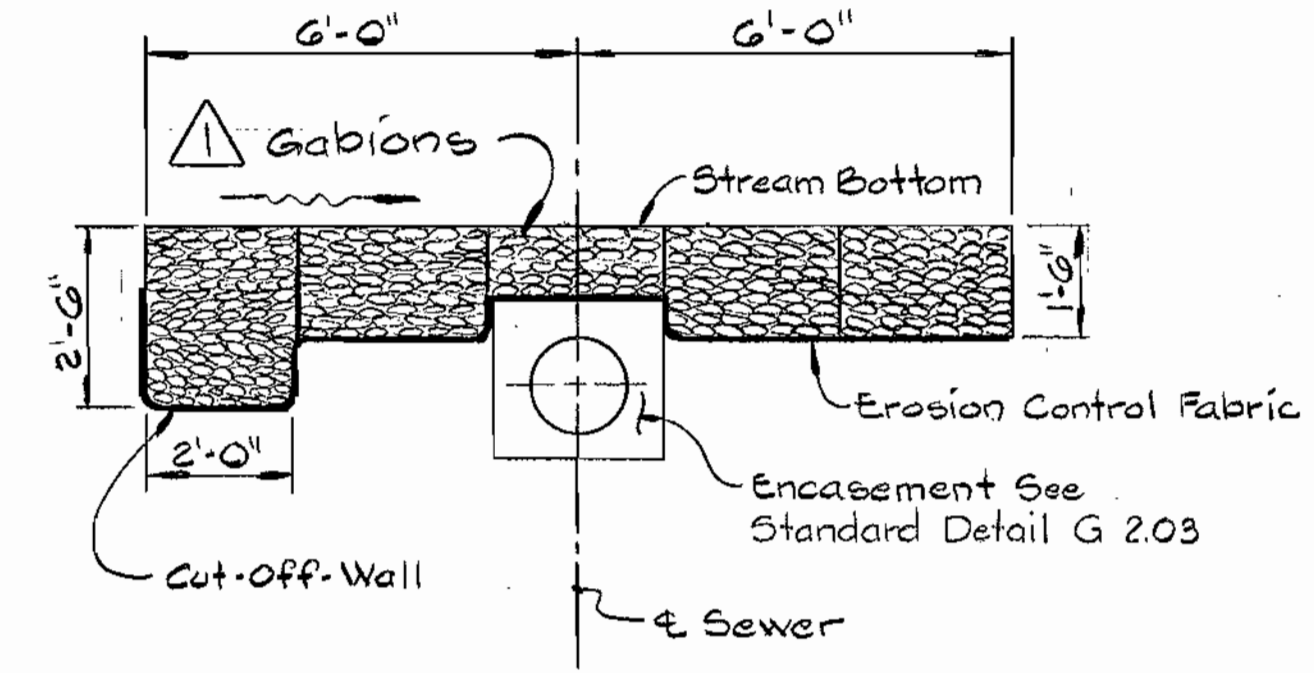


- NOTES:
1. Woven wire fence to be fastened securely to fence posts by use of wire ties.
  2. Filter cloth to be fastened securely to woven wire fence by use of wire ties spaced every 24" of top and mid section.

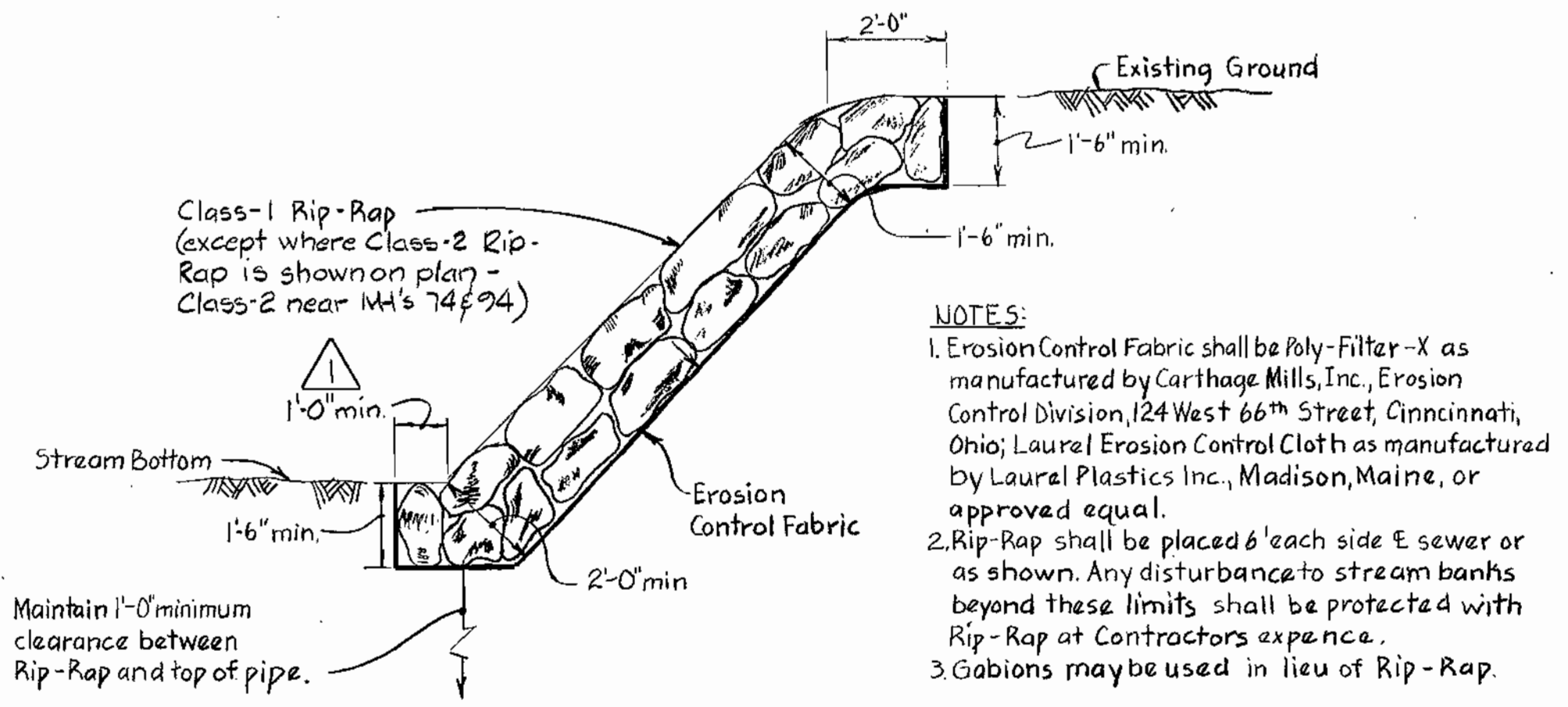
**SILT FENCE DETAIL**



**SOIL CONSERVATION MEASURES AT SMALL STREAM CROSSING**

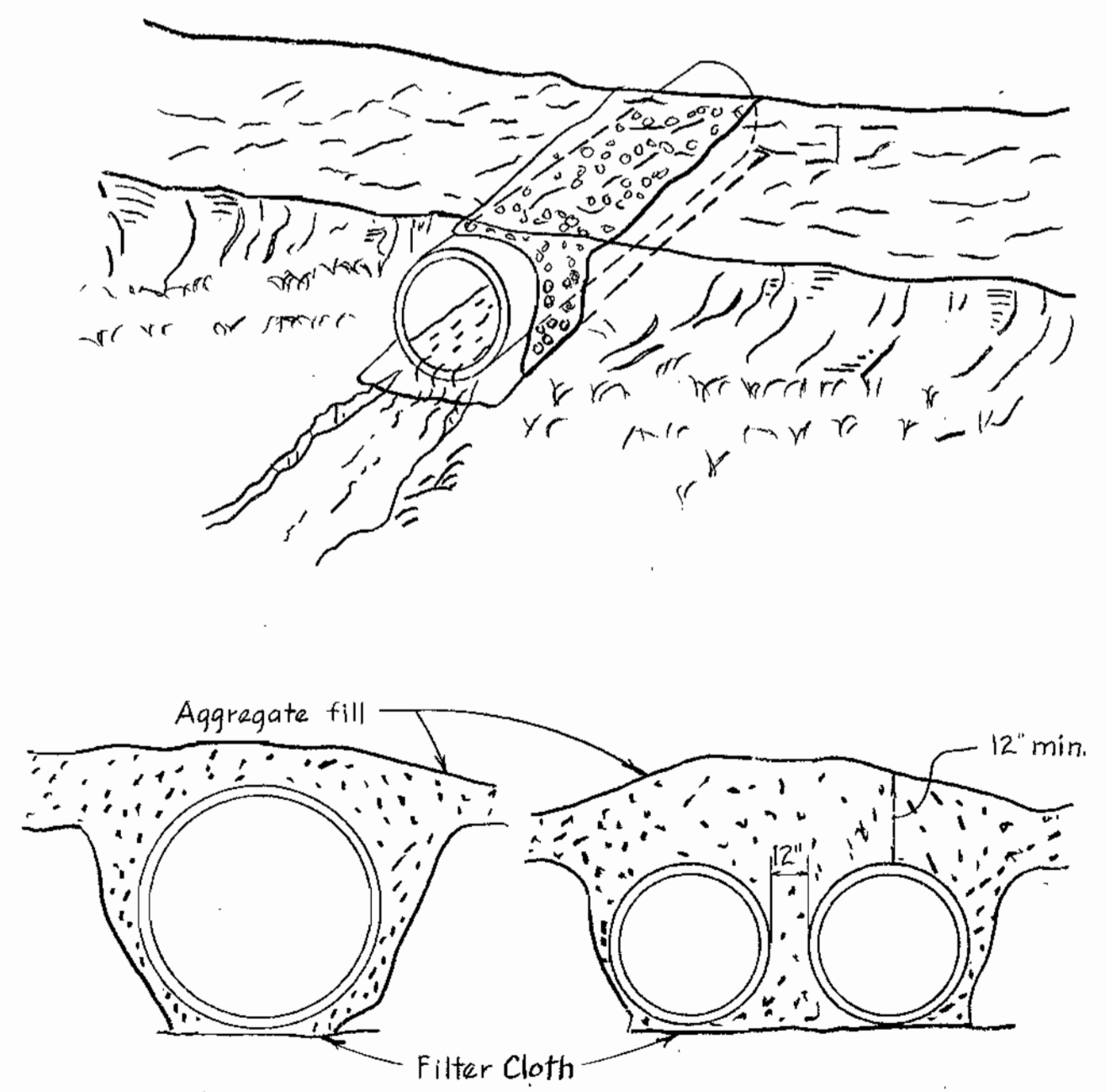


**GABION STREAM BED**

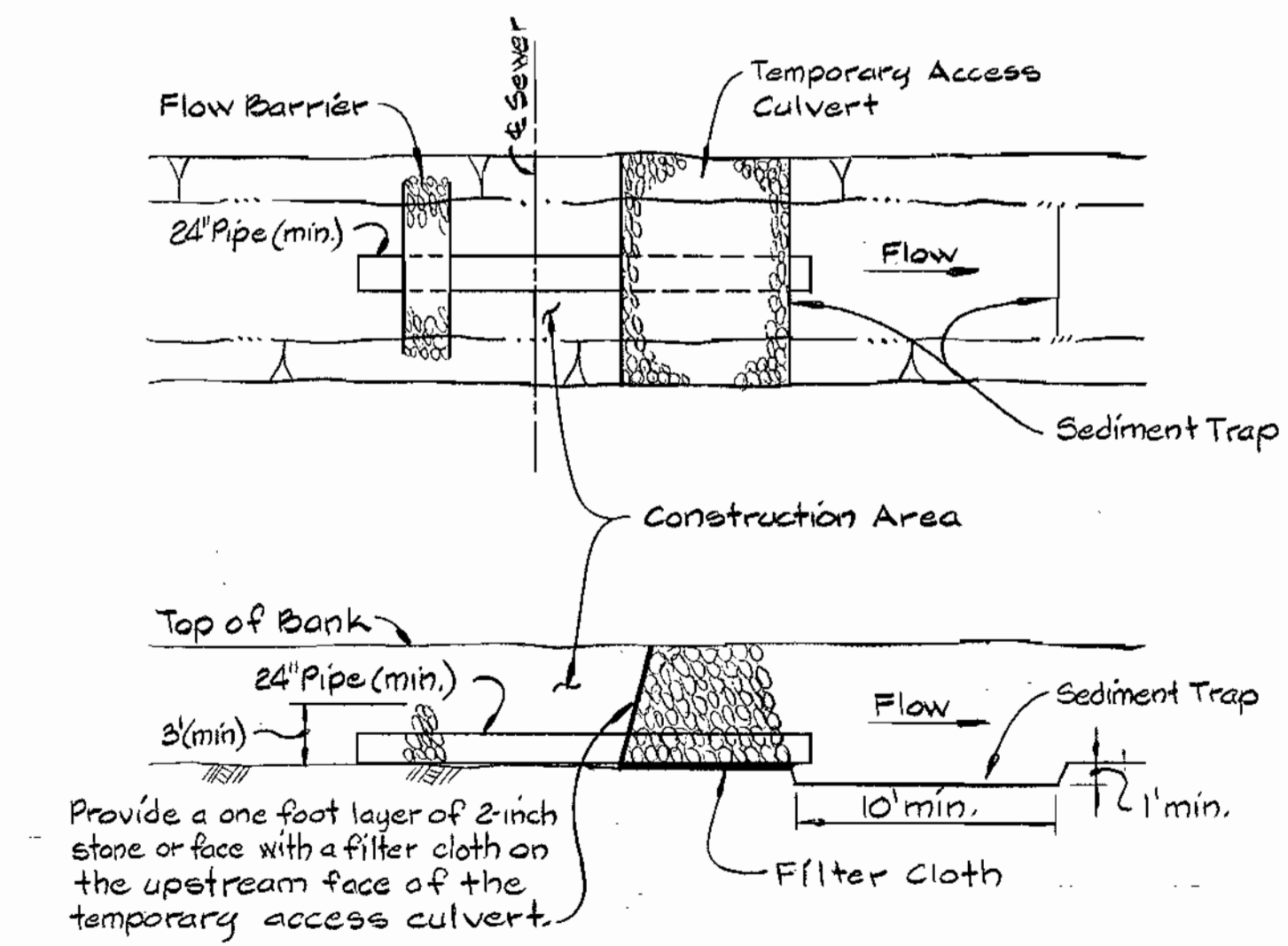


**RIP-RAP DETAIL**

- NOTES:
1. Erosion Control Fabric shall be Poly-Filter-X as manufactured by Carthage Mills, Inc., Erosion Control Division, 124 West 66th Street, Cincinnati, Ohio; Laurel Erosion Control Cloth as manufactured by Laurel Plastics Inc., Madison, Maine, or approved equal.
  2. Rip-Rap shall be placed 6" each side of sewer or as shown. Any disturbance to stream banks beyond these limits shall be protected with Rip-Rap at Contractors expense.
  3. Gabions may be used in lieu of Rip-Rap.

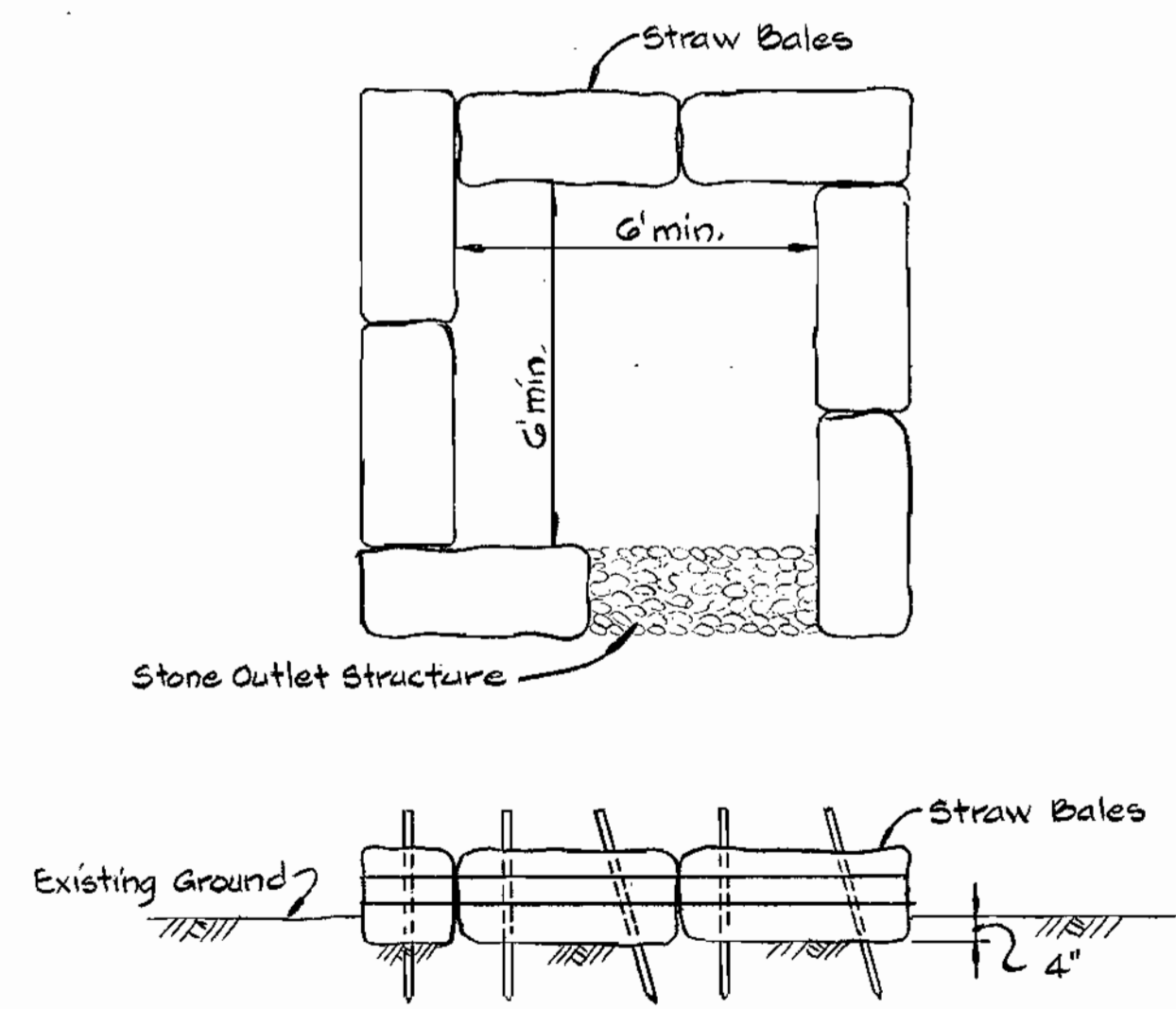


**TEMPORARY ACCESS CULVERT**



- Notes:
1. Pipes shall be sized to accommodate the normal stream flow. Minimum diameter shall be 24-inches.
  2. All dewatering of the construction area shall be pumped to a dewatering basin or other approved filtering device prior to re-entering the stream.
  3. The flow barrier shall be a minimum of 5 feet in depth and shall be constructed of materials sized to withstand normal stream flow velocities.

**TYPICAL FLOW DIVERSION WITH ACCESS CULVERT**



- Note:
- Depth of structure from top of straw bales shall be 3'.

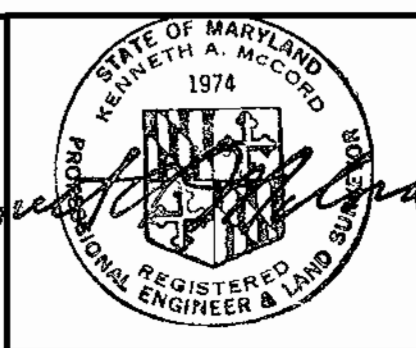
**DEWATERING STRUCTURE**

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works - DATE: 9-7-85  
Chief - Bureau of Engineering - DATE: 8/21/85  
Chief - Bureau of Utilities - DATE: 8/21/85  
Chief - Utility Design Division - DATE: 8/21/85

WHITMAN, REQUARDT  
AND ASSOCIATES  
ENGINEERS

2315 ST. PAUL ST.  
BALTIMORE, MARYLAND



DES: J.R.K.			
DRN: G.T.F.			
CHK: R.B.N.			
DATE:	JRK	1	Revised Rip-Rap Detail & Gabion Stream Bed
BY:	NO.	REVISION	DATE

SEDIMENT CONTROL  
DETAILS

600' SCALE MAP NO. \_\_\_\_\_ BLOCK NO. \_\_\_\_\_

ELLICOTT CITY  
SUCKER BRANCH PARALLEL INTERCEPTOR  
PROJECT NO. S-6102  
CONTRACT NO. 10-1305

SCALE  
AS  
SHOWN

SHEET  
10 OF 10