

**DESIGN FLOW TABULATION CHART**

AREA SYMBOL	AREA ACRES	POPULATION ULTIMATE	ULT. AVG. NON-DOMESTIC SEWAGE FLOW (M.G.D.)	ULT. AVG. DOMESTIC SEWAGE FLOW (M.G.D.)	ULT. PEAK FLOW (M.G.D.)	PEAK INDUSTRIAL WASTE FLOW (M.G.D.)	DESIGN FLOW (M.G.D.)
A	1,818	7,400	0.019	0.833	2.620	0.075	2.695
B	1,980	6,641	0.002	0.757	2.530	0.010	2.540
A-B	3,798	14,041	0.021	1.590	4.680	0.085	4.765
C	172	1,278	0.032	0.117	0.870	0.120	0.990
A-C	3,970	15,319	0.053	1.707	5.010	0.213	5.223
D	553	3,813	0.010	0.478	1.620	0.040	1.660
A-D	4,523	19,132	0.063	2.186	6.060	0.254	6.314
E	809	5,232	0.059	0.545	1.965	0.236	2.201
A-E	5,332	24,364	0.122	2.730	7.270	0.492	7.762
F	192	1,526	0	0.177	0.712	0	0.712
A-F	5,524	25,900	0.122	2.907	7.648	0.492	8.140
G	588	4,170	0.440	0.880	1.460	2	2.580
A-G	16,112	30,070	0.582	3.387	8.650	2.840	10.480
H	303	2,524	0	0.293	1.048	0	1.048
A-H	6,415	32,594	0.582	3.680	9.270	1.830	11.100
I	545	3,685	0	0.424	1.420	0	1.420
A-I	6,960	36,279	0.582	4.104	10.130	1.830	11.960
J	452	3,270	0.070	0.299	1.100	0.280	1.380
A-J	7,412	39,549	0.632	4.403	10.700	2.070	12.770

1) Ultimate sewage flow incorporates effluent contributed to sanitary sewer by Hammond Park Middle and Elementary School of 1400 pupils, using 35 gallons/day per student.  
 2) Ultimate discharge from Maryland Virginia Milk Producers Association, including 0.100 m.g.d. per 100 acres considering future development of M-R Zoning.

**CONTRACT NO. 528-S**  
**HAMMOND BRANCH INTERCEPTOR**  
**HOWARD COUNTY, MARYLAND**  
**DEPARTMENT OF PUBLIC WORKS**



CONTRACT NO. 528-S  
 HAMMOND BRANCH INTERCEPTOR  
 CAPITAL PROJECT S-4-6036

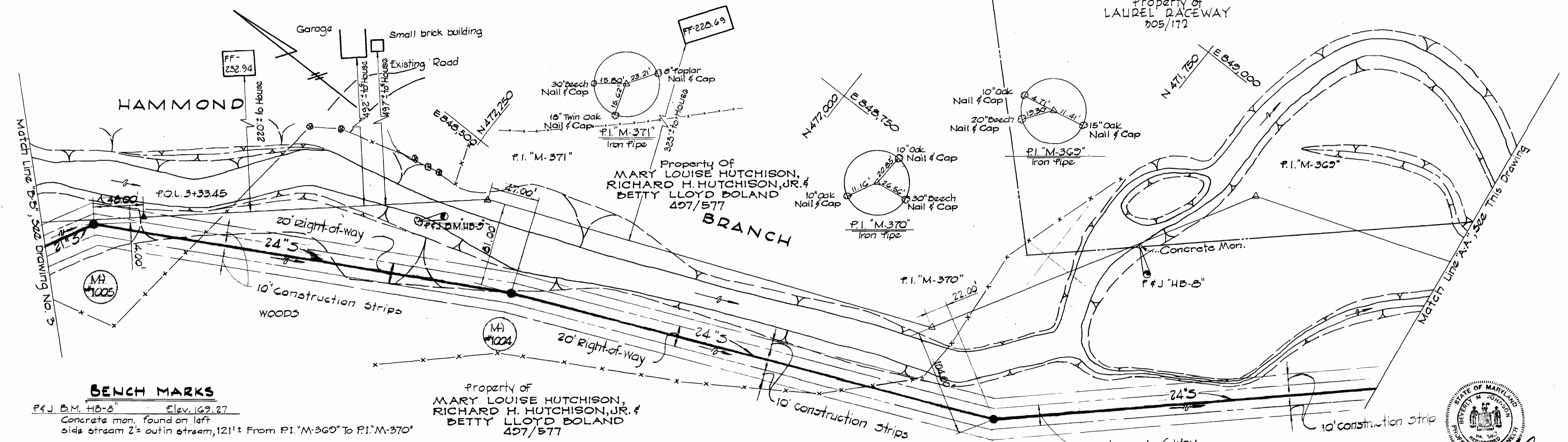
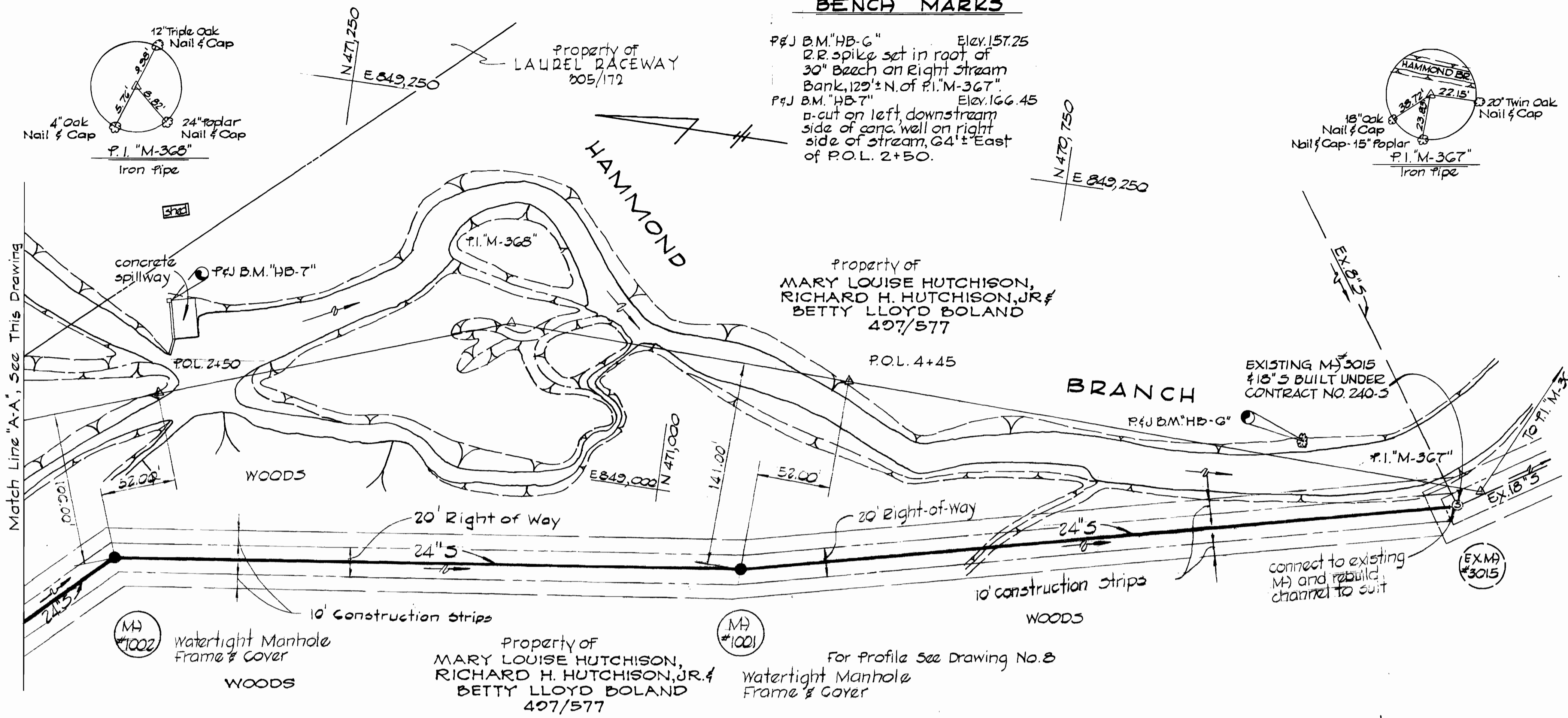
PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	CONTRACT NO. 528-S	LOCATION MAP OF SANITARY SEWERS	ELECTION DISTRICT NO. 6	DRAWING NO. 1 OF 10	SCALE AS SHOWN
	DATE 7-19-73 W. O. Falbert CHIEF - BUREAU OF ENGINEERING					

"AS BUILTS"  
S-31-76

**BENCH MARKS**

**GENERAL NOTES**

1. Approximate location of existing utilities is shown. The Contractor shall take all necessary precautions to protect existing utilities and to maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer by the Contractor at the Contractor's expense.
2. The Contractor shall locate existing utilities a minimum of two weeks in advance of construction operations in vicinity of utilities. Cost shall be included in the unit price bid for excavation.
3. Contractor shall notify the following utilities or agencies at least (5) days before starting work shown on these plans:  
State Highway Administration - Mr. Thomas G. Mohler 662-1171  
Baltimore Gas and Electric Company - Underground Electric Distribution Engineering - "Damage Control" - Mr. G.J. Zeller, Manager 234-5691  
Baltimore Gas and Electric Company - Underground Gas Distribution Engineering - Mr. Bell 234-5533  
Miss Utility 1-800-441-8355
4. Clear all utilities by a minimum of 6". Clear all poles 2'-0" minimum, or tunnel as required. Cost for tunneling or bracing at poles shall be included in the unit prices bid for excavation.
5. All pipe elevations shown are invert (I) elevations.
6. Manholes No. 1001 to 1013 inclusive shall be 4'-0" inside diameter. All other manholes shall be 5'-0" inside diameter.
7. The Contractor shall provide a pipe joint in each sewer main within 2'-0" of the exterior manhole walls.
8. Watertight manhole frame and cover to be used where indicated on drawings [Standard Detail S-12 (RCR-634)]. Where watertight manhole frame and cover is used, set top of frame 1'-6" above finished grade.
9. For details not shown on the Contract Drawings see Standard Details bound in the specifications.
10. Trees are to be protected from damage to the maximum extent.
11. Contractor shall remove trees, stumps and roots along line of excavation as directed by the Engineer. Payment for such removal shall be included in the unit price bid for excavation and backfill for sewer mains.
12. 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.
13. Horizontal and Vertical controls are based on the Maryland State Grid Coordinate System.



**BENCH MARKS**

P&J B.M. "HB-8" Elev. 162.27  
Concrete mon. found on left side stream 2' out in stream, 121'± From P.I. "M-369" to P.I. "M-370"

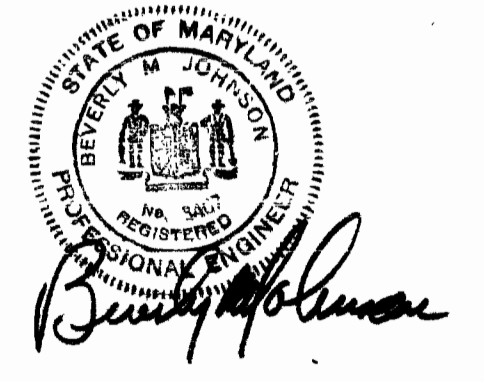
P&J B.M. "HB-9" Elev. 175.07  
r.r. spike set in root of 9" Poplar on left side of stream, 60'± N.E. of P.I. "M-371"

P&J B.M. "HB-6" Elev. 157.25  
r.r. spike set in root of 30" beech on right stream bank, 128'± North of P.I. "M-367"

Property of MARY LOUISE HUTCHISON, RICHARD H. HUTCHISON, JR. & BETTY LLOYD BOLAND 407/577

For Profile See Drawing No. 8

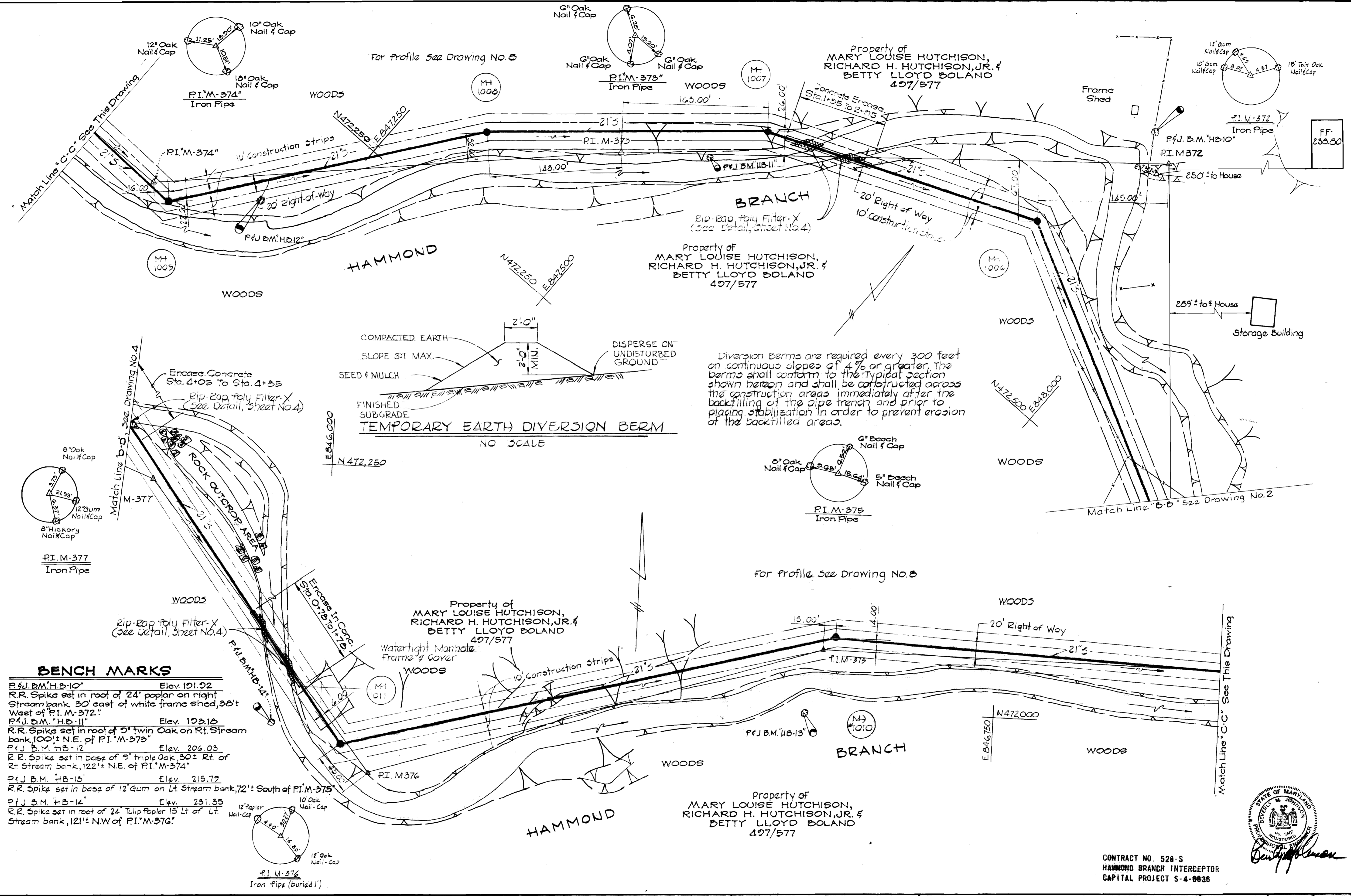
CONTRACT NO. 528-S  
HAMMOND BRANCH INTERCEPTOR  
CAPITAL PROJECT S-4-0038



PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 7-19-73 DATE	CONTRACT NO. 528-S	PLAN HAMMOND BRANCH INTERCEPTOR	ELECTION DISTRICT GUILFORD NO. 6	DRAWING	SCALE	APPROVED: T.A.F. CHECKED: R.D.B. DESIGNED: T.A.F. DATE: 7-19-73
					NO. 2	1" = 50'	
					OF 10		

W.O. 3315, F.D. 100-10, 700-1, 700-2, 700-10

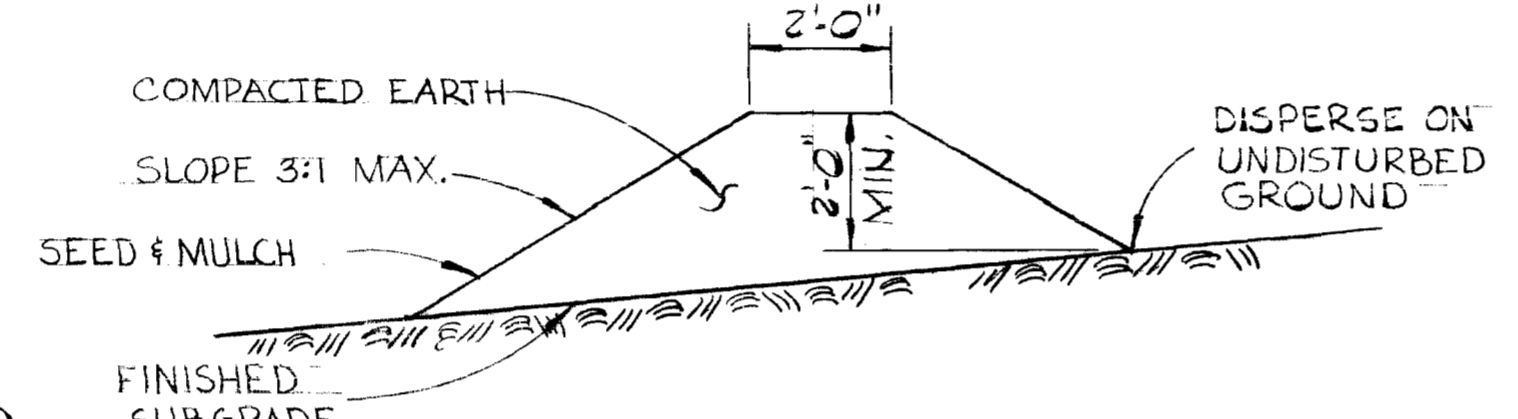
"AS BUILT"  
6-21-76



**BENCH MARKS**

- P.F.J. B.M. "HB-10" Elev. 191.92
- R.R. Spike set in root of 24" poplar on right Stream bank 30' east of white frame shed, 38' West of P.I. M.-372"
- P.F.J. B.M. "HB-11" Elev. 193.16
- R.R. Spike set in root of 9" twin Oak on Rt. Stream bank, 100'± N.E. of P.I. M.-373"
- P.F.J. B.M. "HB-12" Elev. 206.03
- R.R. Spike set in base of 9" triple Oak, 30'± Rt. of Rt. Stream bank, 122'± N.E. of P.I. M.-374"
- P.F.J. B.M. "HB-13" Elev. 215.79
- R.R. Spike set in base of 12" Gum on Lt. Stream bank, 72'± South of P.I. M.-375"
- P.F.J. B.M. "HB-14" Elev. 231.35
- R.R. Spike set in root of 24" Tulip Poplar 15' Lt. of Lt. Stream bank, 121'± N.W. of P.I. M.-376"

**TEMPORARY EARTH DIVERSION BERM**



Diversion Berms are required every 300 feet on continuous slopes of 4% or greater. The berms shall conform to the typical section shown hereon and shall be constructed across the construction areas immediately after the backfilling of the pipe trench and prior to placing stabilization in order to prevent erosion of the backfilled areas.

**PURDUM & JESCHKE**  
ENGINEERS  
1023 N. CALVERT ST.  
BALTIMORE, MARYLAND

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND  
DATE: 7-19-73  
CHIEF - BUREAU OF ENGINEERING

CONTRACT NO. 528-S

PLAN  
HAMMOND BRANCH INTERCEPTOR

ELECTION DISTRICT  
GUILFORD NO. 6

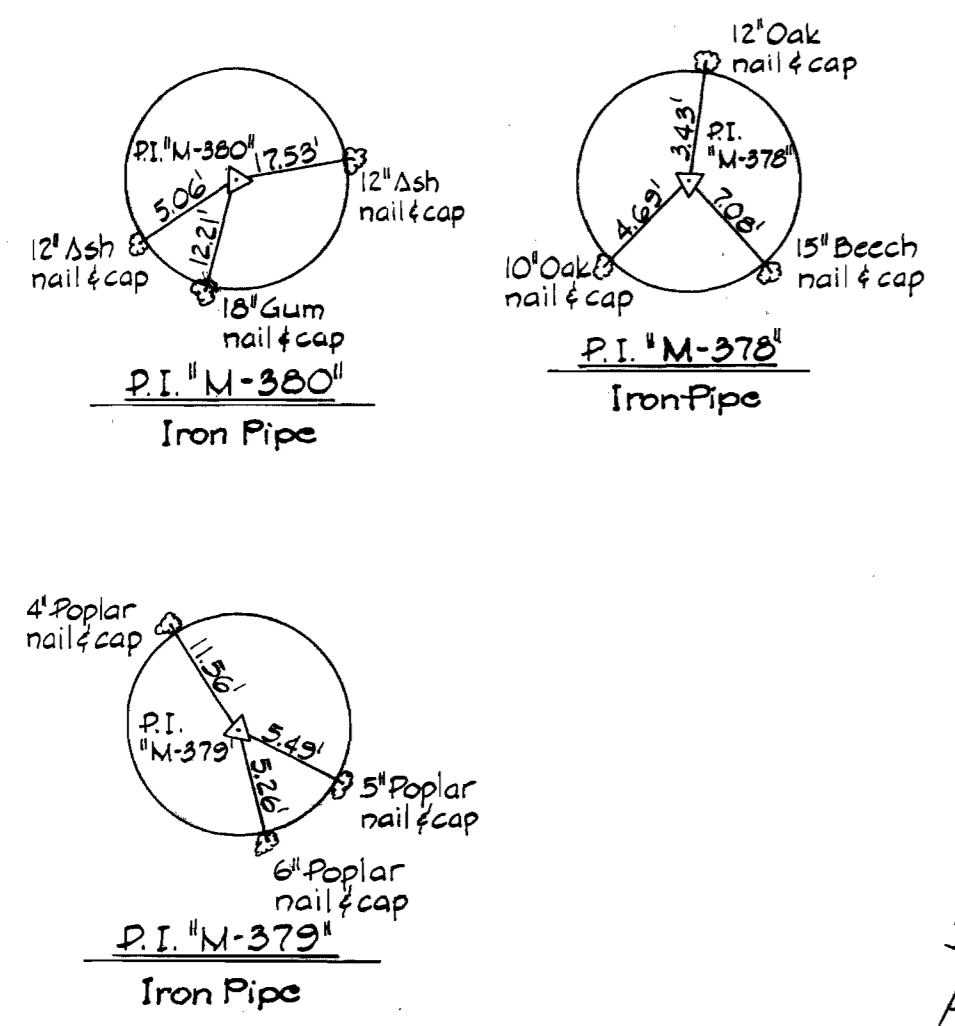
DRAWING NO. 3 OF 10  
SCALE 1" = 50'



CONTRACT NO. 528-S  
HAMMOND BRANCH INTERCEPTOR  
CAPITAL PROJECT S-4-8836

WS 528-S/3

#45 BUILT # 8-31-76



Property of  
MARY LOUISE HUTCHISON,  
RICHARD H. HUTCHISON, JR. &  
BETTY LLOYD BOLAND  
497/577

For Profile See Drawing No. 849

Rip-Rap to consist of dense rocks random shapes and sizes, resistant to the action of air and water, and suitable for bank protection. All rocks shall weigh a minimum of 150 pounds.

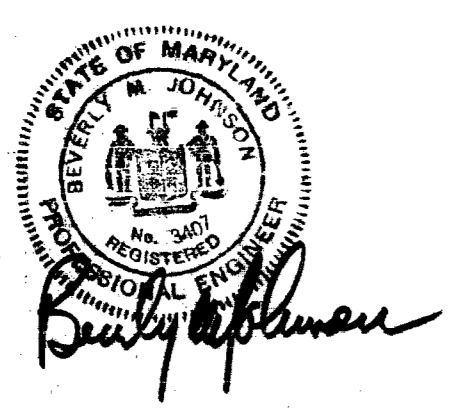
NOTE:  
Poly Filter-X shall be as manufactured by Carthage Mills, Inc. Erosion Control Division, 124 W. 66th Street Cincinnati, Ohio, or approved equal.

**RIP-RAP DETAIL**

SCALE 3/8" = 1'0"

**BENCH MARK**

- P&J B.M. HB-15" Elev. 246.23  
High point on painted boulder, 113' SE of P.I. M-378"
- P&J B.M. HB-16" Elev. 250.30  
4 nails in 8" Oak, 5' left of stream 116' West of P.I. M-370"
- P&J B.M. HB-17" Elev. 251.72  
4 nails in 12" Ironwood, 112' S.W. P.I. M-360"
- P&J B.M. HB-18" Elev. 252.00  
4 nails in 24" Hickory 3' left stream 76' S.E. of P.I. M-361"
- P&J B.M. HB-19" Elev. 256.68  
P.K. nail found in E. bridge crossing Hammond Branch on Stephens Rd. 40' North of P.I. M-382



**PURDUM & JESCHKE**  
ENGINEERS  
1023 N. CALVERT ST.  
BALTIMORE, MARYLAND

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND  
DATE 7-19-73  
W. O. Libert  
CHIEF - BUREAU OF ENGINEERING

CONTRACT NO. 528-S

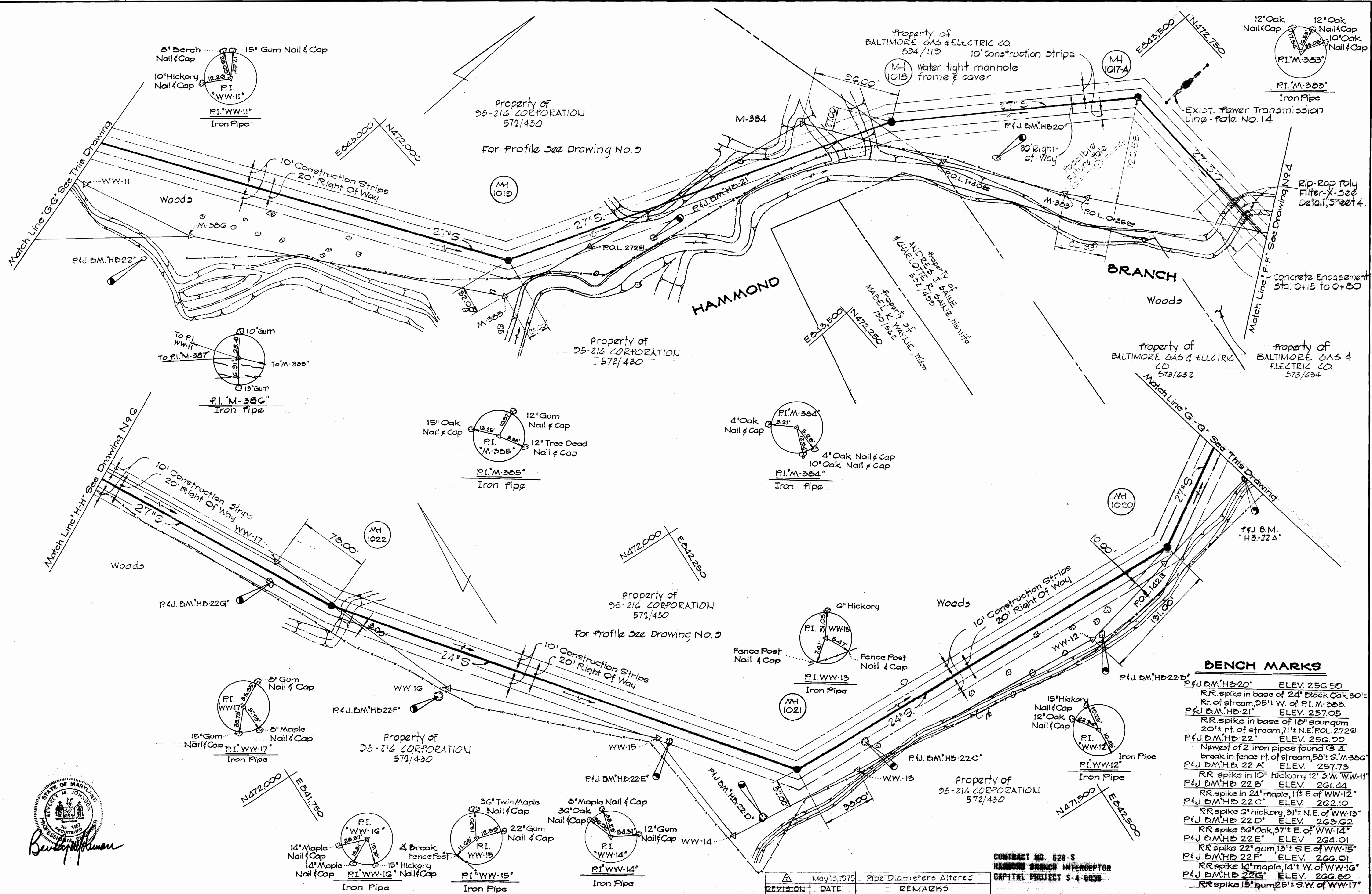
PLAN  
HAMMOND BRANCH INTERCEPTOR

ELECTION DISTRICT  
GUILFORD NO. 6

DRAWING NO. 4 OF 10  
SCALE 1" = 50'

WS 528-S/4

AS BUILTS  
8-31-76



**BENCH MARKS**

P&J B.M. HB-20'	ELEV. 256.50
RR spike in base of 24" Black Oak 30' rt. of stream, 05' W. of P.I. M-305	
P&J B.M. HB-21'	ELEV. 257.05
RR spike in base of 10" sour gum 20' rt. of stream, 71' N.E. P.O.L. 2729	
P&J B.M. HB-22'	ELEV. 256.00
Newest of 2 iron pipes found @ A break in fence rt. of stream, 58' S. M-306	
P&J B.M. HB-22 A'	ELEV. 257.73
RR spike in 10' hickory 12' S.W. WW-11	
P&J B.M. HB-22 B'	ELEV. 261.44
RR spike in 24" maple, 11' E. of WW-12	
P&J B.M. HB-22 C'	ELEV. 262.10
RR spike 6" hickory 31' N.E. of WW-13	
P&J B.M. HB-22 D'	ELEV. 263.62
RR spike 30" Oak 37' E. of WW-14	
P&J B.M. HB-22 E'	ELEV. 264.01
RR spike 22" gum, 13' S.E. of WW-15	
P&J B.M. HB-22 G'	ELEV. 266.01
RR spike 14" maple, 14' W. of WW-16	
P&J B.M. HB-22 G'	ELEV. 266.00
RR spike 15" gum 25' S.W. of WW-17	

REVISION	DATE	REMARKS
1	May 13, 1975	Pipe Diameters Altered

CONTRACT NO. 528-S  
 HAMMOND BRANCH INTERCEPTOR  
 CAPITAL PROJECT S-4-6038



**PURDUM & JESCHKE**  
 ENGINEERS  
 1023 N. CALVERT ST.  
 BALTIMORE, MARYLAND

**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND  
 DATE: 7-19-75  
 W. O. Libert  
 CHIEF-BUREAU OF ENGINEERING

CONTRACT NO. 528-S

**PLAN**  
 HAMMOND BRANCH INTERCEPTOR

**ELECTION DISTRICT**  
 GULFORD NO. 6

**DRAWING**  
 NO. 5  
 OF 10

**SCALE**  
 1" = 50'

WS 528-S/5

145 BUILTS  
 8-51-76

This development has been approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: Robert W. Ziehm 3-1-74  
Howard Soil Conservation District Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements

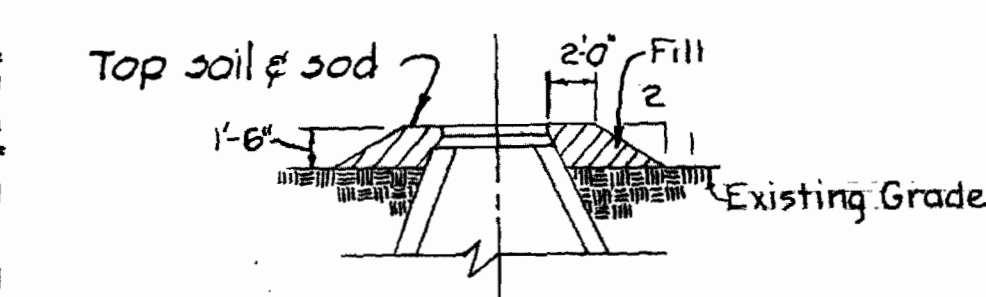
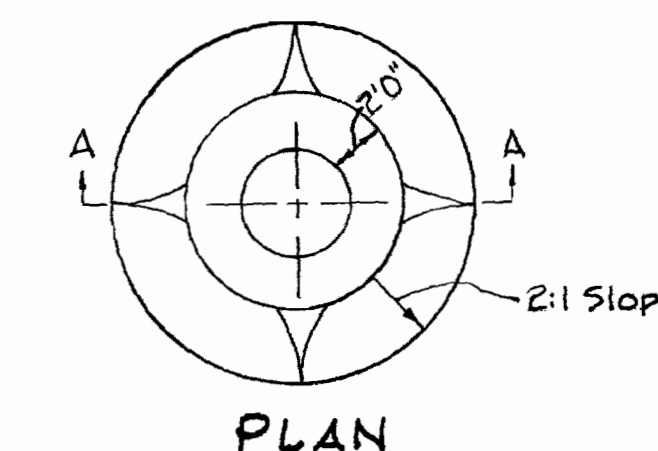
J. Amato 3-1-74  
U.S. Soil Conservation Service Date

I certify that all development and/or construction will be done according to the plan of development and the plan of soil erosion and sediment control.

W O Fulbert 8-7-73  
Signature Date

BENCH MARKS

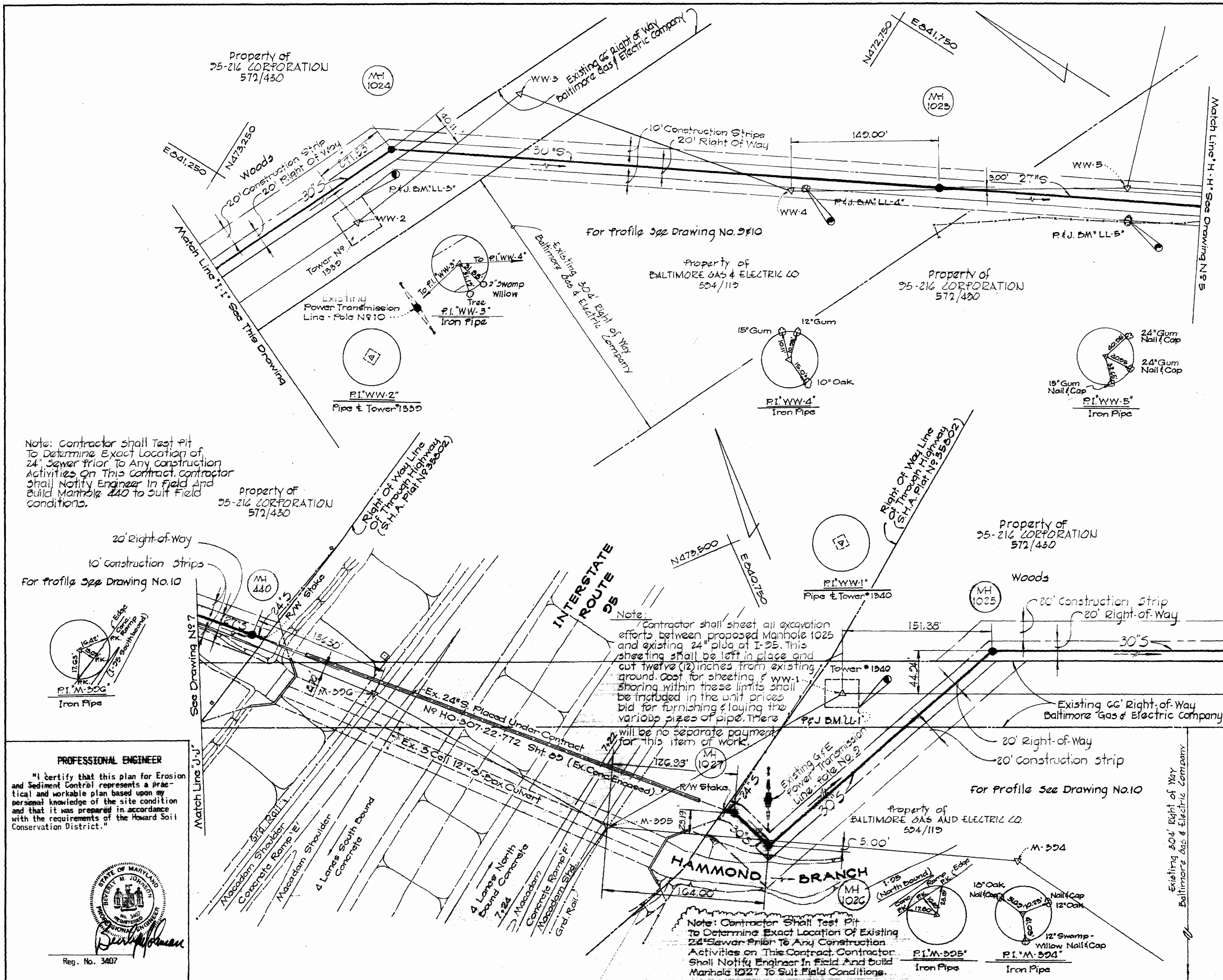
P&J B.M. LL-1	ELEV. 273.21
Square cut S.E. leg G&E tower #1340	
P&J B.M. LL-3	ELEV. 271.27
Square cut N.E. leg G&E tower #1339	
P&J B.M. LL-4	ELEV. 269.92
RR spike 12" gum 15' ± E. WW-4	
P&J B.M. LL-5	ELEV. 270.16
RR spike 15" gum 33' ± SW WW-5	



SECTION 'A-A'  
FILL AT MANHOLE  
No Scale

CONTRACT NO. 528-S  
HAMMOND BRANCH INTERCEPTOR  
CAPITAL PROJECT S-4-6888

WS 528-S/6



Note: Contractor shall test pit to determine exact location of 24" sewer prior to any construction activities on this contract. Contractor shall notify engineer in field and build manhole 440 to suit field conditions.

Note: Contractor shall sheet all excavation efforts between proposed manhole 1025 and existing 24" plug at I-95. This sheeting shall be left in place and cut twelve (12) inches from existing ground. Cost for sheeting & WW-1 shoring within these limits shall be included in the unit prices bid for furnishing & laying the various sizes of pipe. There will be no separate payment for this item of work.

Note: Contractor shall test pit to determine exact location of existing 24" sewer prior to any construction activities on this contract. Contractor shall notify engineer in field and build manhole 1027 to suit field conditions.

PROFESSIONAL ENGINEER  
"I certify that this plan for Erosion and Sediment Control represents a practical and workable plan based upon my personal knowledge of the site condition and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."



PURDUM & JESCHKE  
ENGINEERS  
1023 N. CALVERT ST.  
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
DATE 7-19-73  
W O Fulbert  
CHIEF BUREAU OF ENGINEERING

CONTRACT NO. 528-S

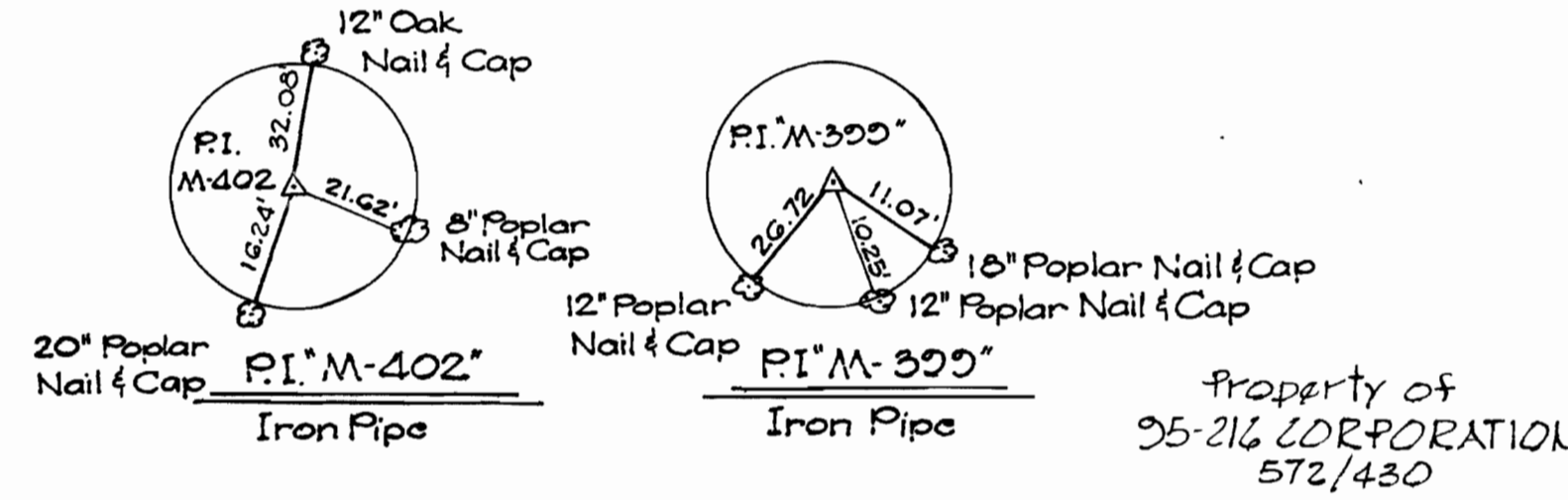
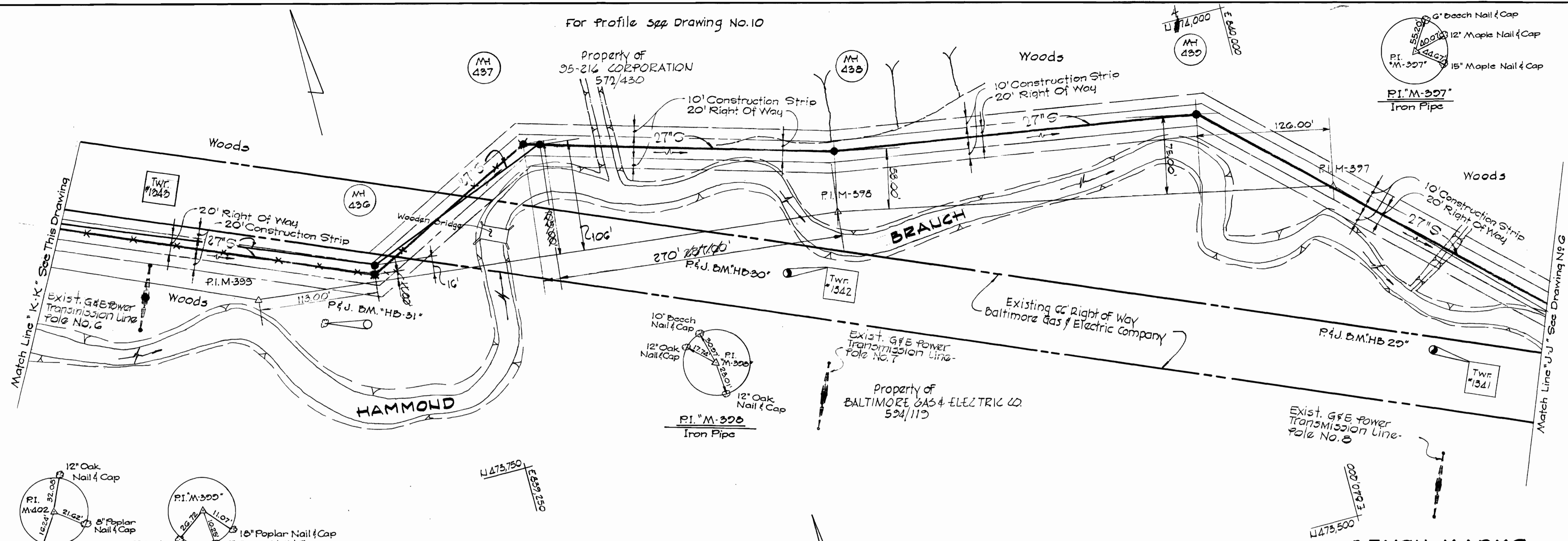
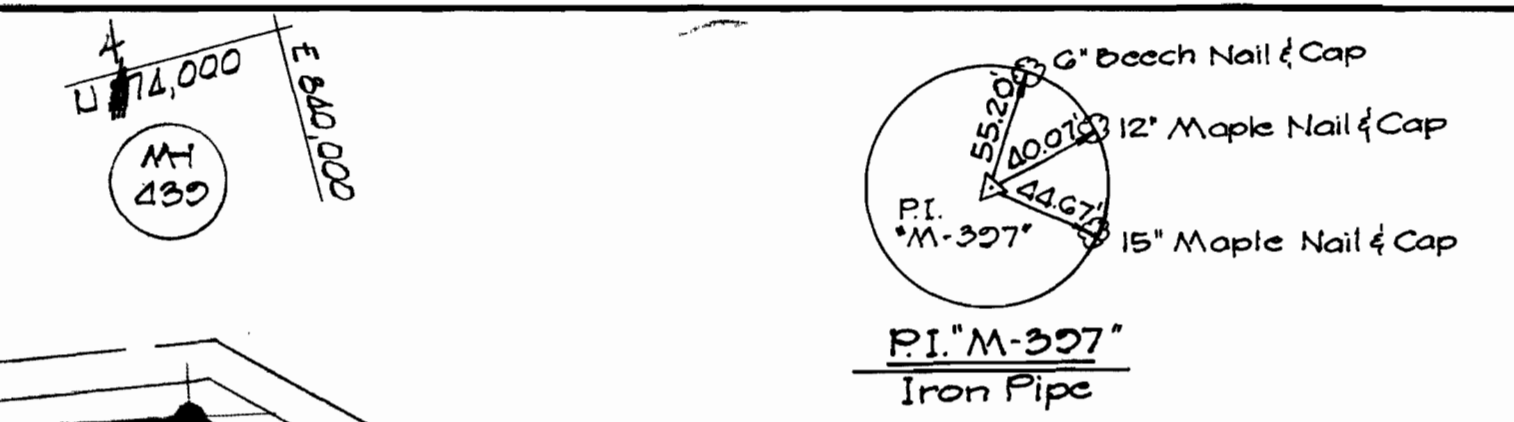
PLAN  
HAMMOND BRANCH INTERCEPTOR

ELECTION DISTRICT  
GUILFORD NO. 6

DRAWING NO. 6 OF 30

SCALE 1" = 50'  
DESIGNED: T.A.F.  
DRAWN: E.A.P.  
CHECKED: J.A.P.  
DATE: 3-1-74

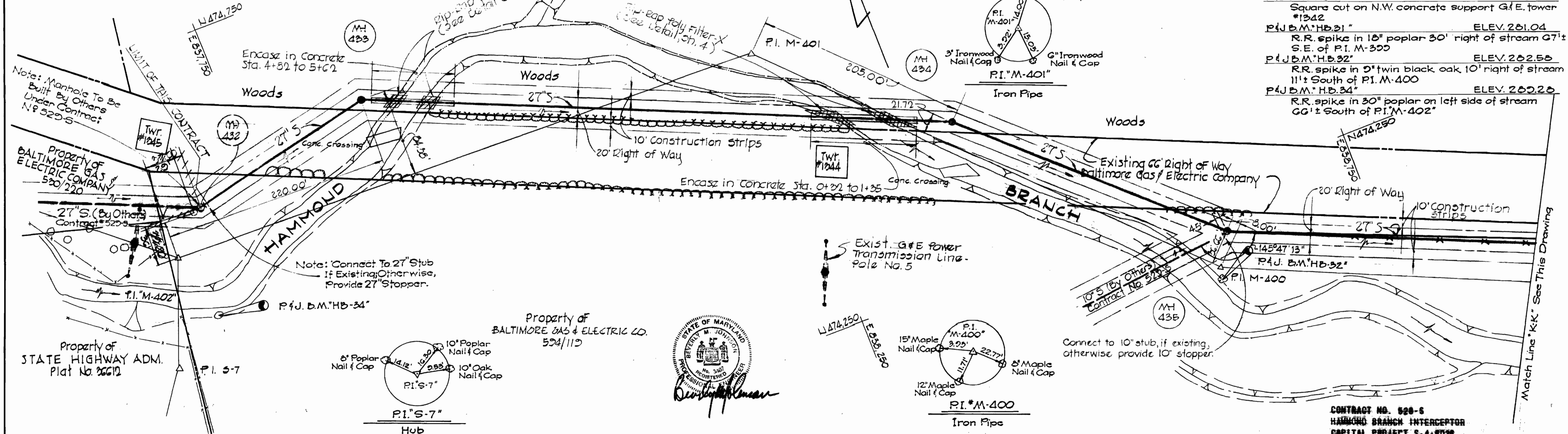
For Profile See Drawing No. 10



For Profile See Drawing No. 10

**BENCH MARKS**

P&J B.M.'HB 20"	ELEV. 275.72
Square cut on N.W. concrete support G.E. tower #1941	
P&J B.M.'HB 50"	ELEV. 278.36
Square cut on N.W. concrete support G.E. tower #1942	
P&J B.M.'HB 31"	ELEV. 281.04
R.R. spike in 18" poplar 30' right of stream G71 S.E. of P.I. M-399	
P&J B.M.'HB 32"	ELEV. 282.58
R.R. spike in 2" twin black oak 10' right of stream 11'± South of P.I. M-400	
P&J B.M.'HB 34"	ELEV. 282.26
R.R. spike in 30" poplar on left side of stream 66'± South of P.I. M-402"	



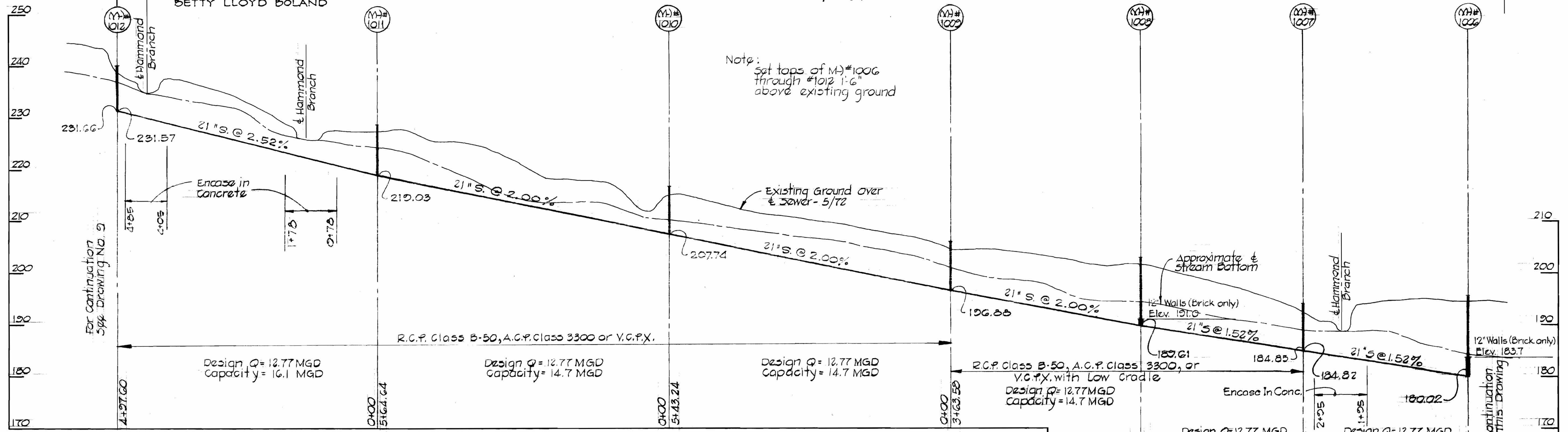
WS 528-S/7

<b>PURDUM &amp; JESCHKE</b> ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	<b>DEPARTMENT OF PUBLIC WORKS</b> HOWARD COUNTY, MARYLAND DATE: 7-19-73 W. O. Falbert CHIEF BUREAU OF ENGINEERING	CONTRACT NO. 528-S	PLAN HAMMOND BRANCH INTERCEPTOR	ELECTION DISTRICT GUILFORD NO. 6	DRAWING NO. 7 OF 10	SCALE 1" = 50'
					CONTRACT NO. 528-S HAMMOND BRANCH INTERCEPTOR CAPITAL PROJECT S-A-8038	

# HAMMOND BRANCH INTERCEPTOR

For Plan See Drawing N9 344

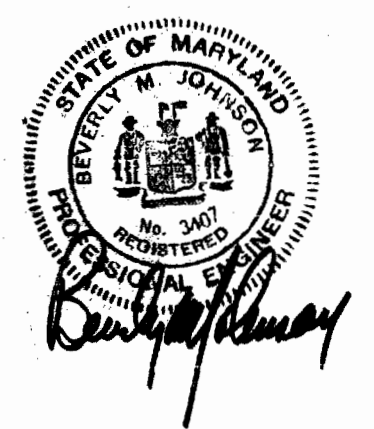
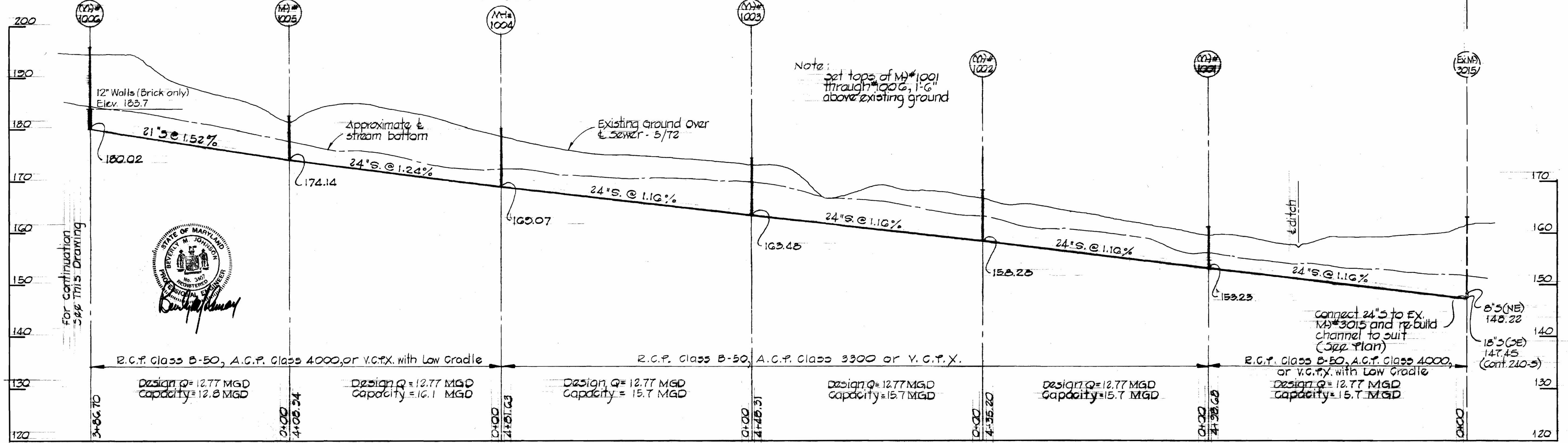
Property of  
MARY LOUISE HUTCHISON  
RICHARD H. HUTCHISON, JR. &  
BETTY LLOYD BOLAND



# HAMMOND BRANCH INTERCEPTOR

For Plan See Drawing N9 243

Property of  
MARY LOUISE HUTCHISON  
RICHARD H. HUTCHISON, JR. &  
BETTY LLOYD BOLAND



REVISION	DATE	REMARKS
1	May 2, 1975	Pipe Alternates Added

CONTRACT NO. 528-S  
HAMMOND BRANCH INTERCEPTOR  
CAPITAL PROJECT S-4-8038

**PURDUM & JESCHKE**  
ENGINEERS  
1023 N. CALVERT ST.  
BALTIMORE, MARYLAND

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND  
7-19-73  
DATE  
W. O. Pulbert  
CHIEF BUREAU OF ENGINEERING

CONTRACT NO. 528-S

PROFILE  
HAMMOND BRANCH INTERCEPTOR

ELECTION DISTRICT  
GUILFORD NO. 6

DRAWING NO. 8 OF 10  
SCALE: Horiz.: 1"=100' Vert.: 1"=10'

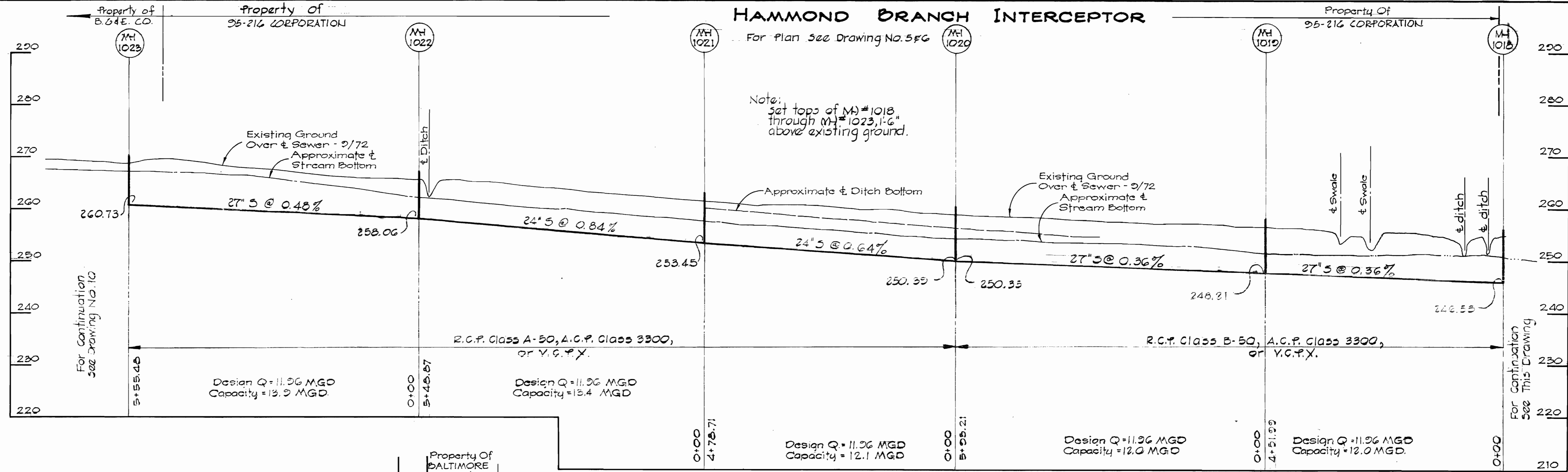
WS 528-S/8

W.O.#3515



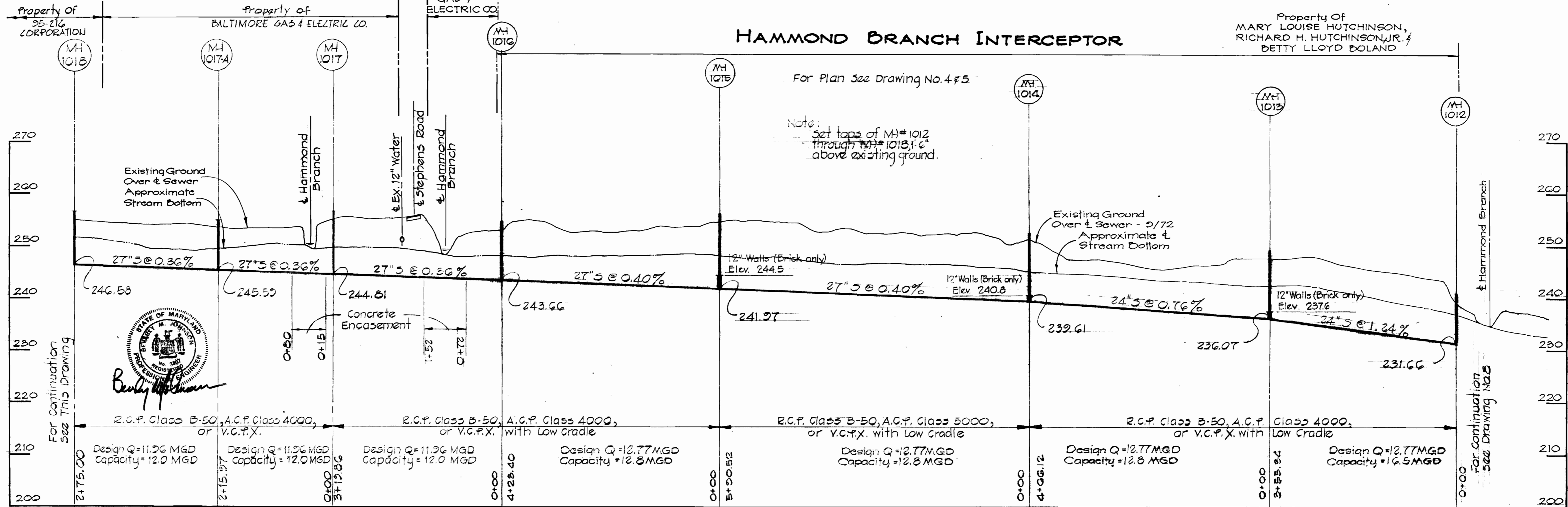
# HAMMOND BRANCH INTERCEPTOR

For Plan See Drawing No. 5#6



# HAMMOND BRANCH INTERCEPTOR

For Plan See Drawing No. 4#5



REVISION	DATE	REMARKS
△	May 13, 1975	Pipe Diameters Altered
△	May 2, 1975	Pipe Alternates Added

CONTRACT NO. 528-S  
 HAMMOND BRANCH INTERCEPTOR  
 CAPITAL PROJECT S-4-0636

**PURDUM & JESCHKE**  
 ENGINEERS  
 1023 N. CALVERT ST.  
 BALTIMORE, MARYLAND

**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND  
 DATE: 7-19-73  
 CHIEF BUREAU OF ENGINEERING

CONTRACT NO. 528-S

PROFILE  
 HAMMOND BRANCH INTERCEPTOR

ELECTION DISTRICT  
 GUILFORD NO. 6

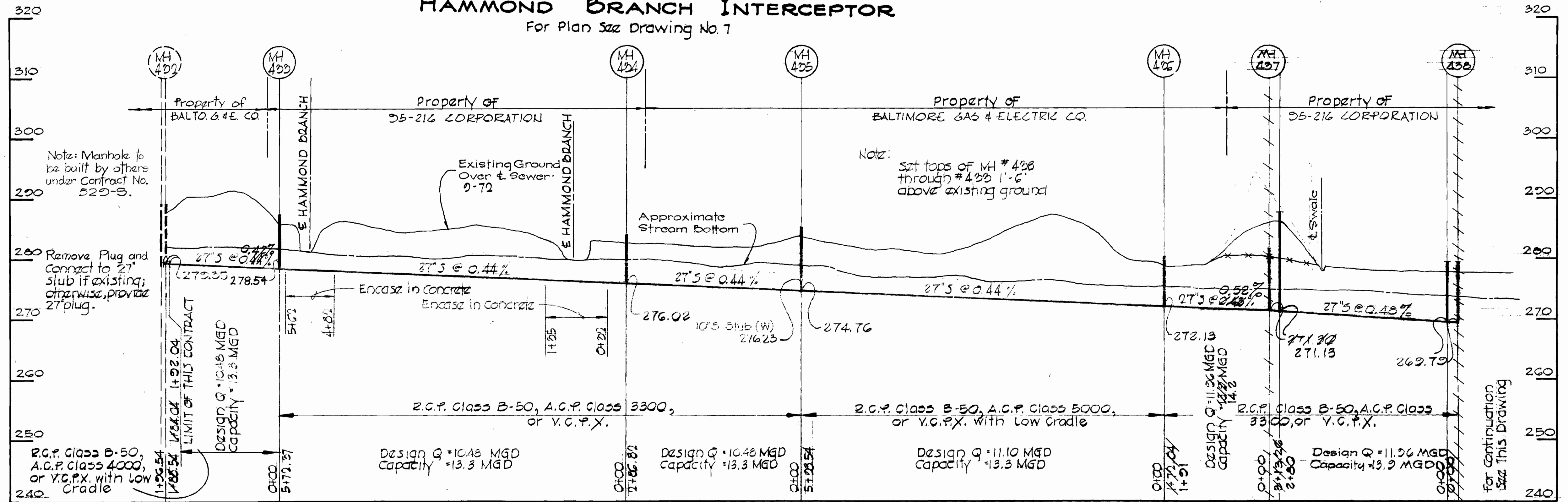
DRAWING NO. 5 OF 10  
 SCALE: 1" = 10' (Vertical), 1" = 10' (Horizontal)

WS 528-S/9

"AS BUILT" 6-21-76

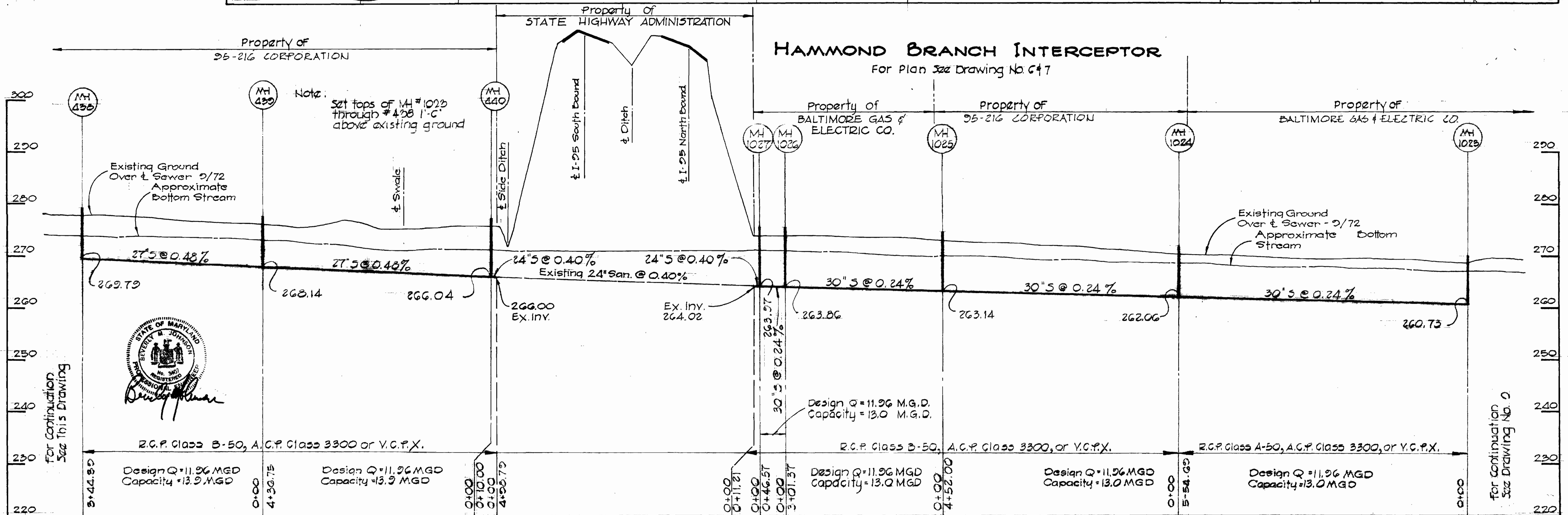
# HAMMOND BRANCH INTERCEPTOR

For Plan 522 Drawing No. 7



# HAMMOND BRANCH INTERCEPTOR

For Plan 522 Drawing No. 7



REVISION	DATE	REMARKS
1	May 2, 1975	Pipe Alternates Added

CONTRACT NO. 528-S  
 HAMMOND BRANCH INTERCEPTOR  
 CAPITAL PROJECT 3-4-3538

**PURDUM & JESCHKE**  
 ENGINEERS  
 1023 N. CALVERT ST.  
 BALTIMORE, MARYLAND

**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND  
 DATE: 7-19-73  
 W. O. Fulbert  
 CHIEF BUREAU OF ENGINEERING

CONTRACT NO. 528-S

**PROFILE**  
 HAMMOND BRANCH INTERCEPTOR

**ELECTION DISTRICT**  
 GUILFORD NO. 6

**DRAWING**  
 NO. 10  
 OF 10

**SCALE**  
 1" = 10'  
 1/4" = 10'

WS 528-5/10

"AS BUILT"  
 5-31-76