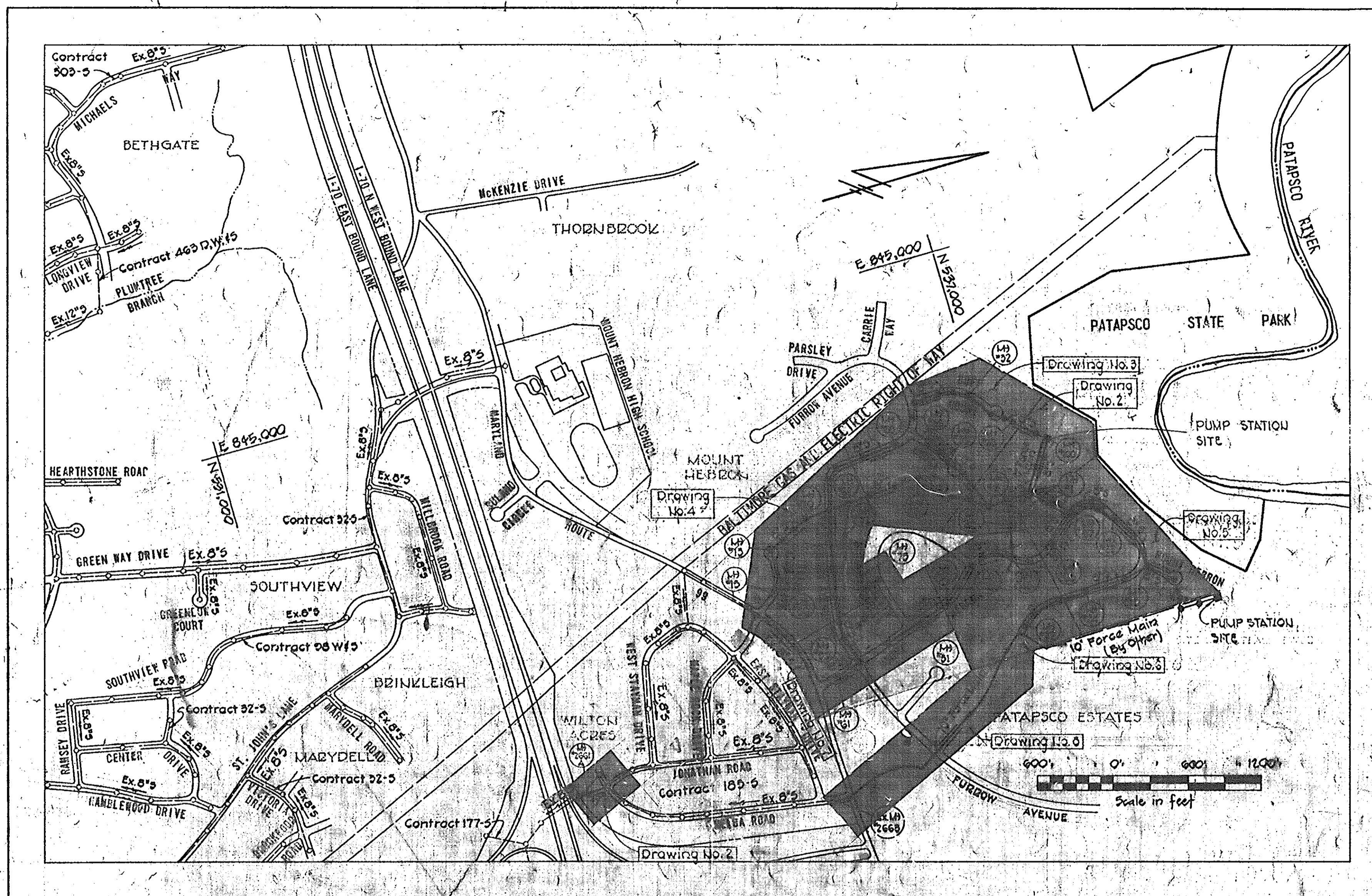
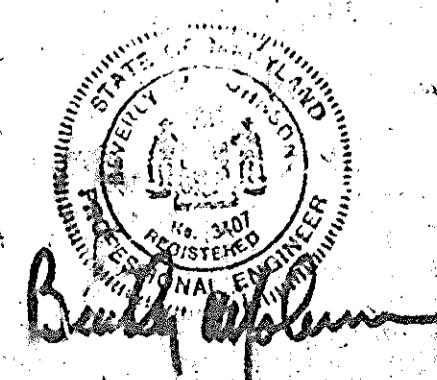


QUANTITIES		
Item	Estimated	As-Built
10" Sewer	130 L.F.	25 L.F.
8" Sewer	10,540 L.F.	9,907 L.F.
6" Sewer	1860 L.F.	2800 L.F.
10" Force Main	2575 L.F.	2313 L.F.
8" Force Main	275 L.F.	275 L.F.
Manholes	545 V.F.	549 V.F.



- 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 prices bid for excavation and backfill for mains.
 3. Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these plans:
 Miss Utility (Collect) 1-559-0100
 Baltimore Gas & Electric Company - Underground Electric Distribution Engineering "Damage Control" Mr. G.J. Zeller, Manager - 234-5891
 Baltimore Gas & Electric Company - Underground Gas Distribution Engineering, Mr. Bell - 234-5533
 Chesapeake and Potomac Telephone Co. - 725-9976
 State Highway Administration 531-5533
 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 and backfill for sewer mains.
 5. All pipe elevations shown are invert elevations.
 6. All manholes shall be 4'-6" inside diameter.
 7. The Contractor shall provide a pipe joint in each sewer main within 2'-0" of exterior of manhole walls.
 8. Watertight manhole frame and cover to be used where indicated on drawings Standard Details S-12 (MCR-83A). 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. All sewer mains shall be C.S.P.J.X., V.C.P.X., or A.C.P. Class 2400, unless otherwise noted.
 14. Force mains shall be ductile iron pipe Class 3A in accordance with Section 8 of the specifications. Force mains shall have a minimum of 4 feet of cover.
 15. Buttress or anchor all force main fittings with concrete. For details see Standard Details bound in the Specifications.
 16. Horizontal and vertical controls are based on the Maryland State Grid Coordinate System.

CAPITAL PROJECT S-4-6037
CONTRACT NO. 744-S
MOUNT HEBRON SANITARY SEWERS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

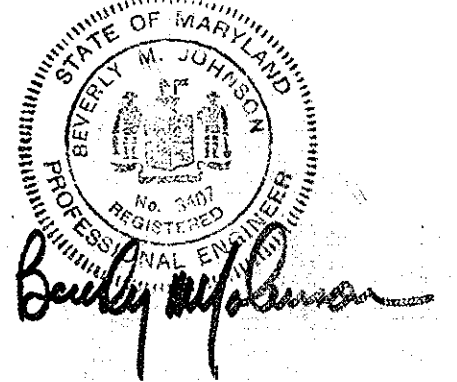
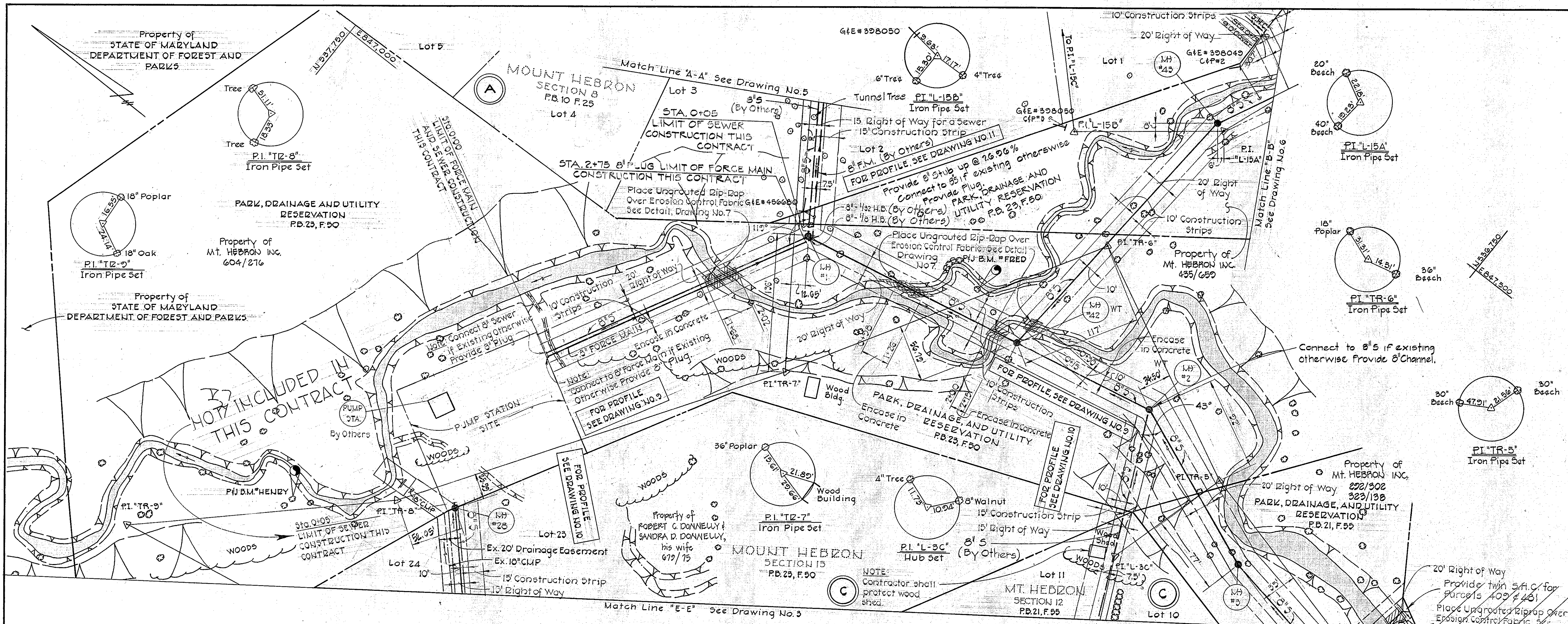


CONTRACT NO. 744-S
 MOUNT HEBRON SEWER MAIN EXTENSION
 HOWARD COUNTY CAPITAL PROJECT S-4-6037

PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DIRECTOR OF PUBLIC WORKS DATE: 8-30-77 CHIEF BUREAU OF ENGINEERING DATE: 8-29-77	CONTRACT NO. 744-S CAPITAL PROJECT NO. S-4-6037	LOCATION MAP OF SANITARY SEWERS	MOUNT HEBRON SEWER MAINS ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND	DRAWING NO. OF 14	SCALE As Shown	MAPS 234-42 235-41 235-42
					W.O. 2067-10	K&E BALTIMORE 17 663 PHOENIX MC 1314 April 10, 1978	

WS 744-S/1

086141 NVA 1108-57



CONTRACT NO. 744-S
 MOUNT HEBRON SEWER MAIN EXTENSION
 HOWARD COUNTY CAPITAL PROJECT S-4-6037

PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 8-30-77 DATE	CONTRACT NO. 744-S CAPITAL PROJECT NO. S-4-6037	PLAN MOUNT HEBRON SEWER MAINS	MOUNT HEBRON SEWER MAINS ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND	DRAWING NO. 2 OF 14	SCALE 1"=50'	Designed: REP Drafted: ARZ Checked: TAF
					W.O. 3367-10		

WS 744-S/2

Match Line "E-E" See Drawing No. 2

NOT INCLUDED
IN THIS CONTRACT

BENCH MARKS

- P & J B.M. "100" ELEV. 445.038
+ Cut on road side Bonnet Bolt on Fire Hydrant 50'± South of Trav. P.I. "L-1A"
- P & J B.M. "101" ELEV. 444.826
+ Cut on Road Side Bonnet Bolt on Fire Hydrant on Furrow Court 225'± N.E. of Trav. P.I. "L-2A" and 75'± S.W. of Trav. P.I. "L-3A"
- P & J B.M. "102" ELEV. 380.625
Cut on Corner Electric Box 60'± S.E. of Trav. P.I. "L-5A"
- P & J B.M. "103" ELEV. 398.222
+ Cut road side Bonnet Bolt on Fire Hydrant 27'± N.E. Trav. P.I. "L-6A"
- P & J B.M. # BART ELEV. 400.670
R.R. Spike in 48" Oak 2'± N of traverse P.I. "TR-2"
- P & J B.M. # CANE ELEV. 385.510
R.R. Spike in 18" Sycamore 35'± N.E. of traverse P.I. "TR-3"

Property of MOUNT HEBRON, INC. 558/727
Place Ungrouted Zip-Rap Over Erosion Control Fabric See Detail, Drawing No. 7
40" Oak 12'±

Property of MOUNT HEBRON, INC. 222/302 323/138
Place Ungrouted Zip-Rap Over Erosion Control Fabric See Detail, Drawing No. 7
Barbed Wire Fence
10" Tree 8'±

Property of MOUNT HEBRON, INC. 222/302 323/138
Place Ungrouted Zip-Rap Over Erosion Control Fabric See Detail, Drawing No. 7
10" Tree 8'±

Property of MOUNT HEBRON, INC. 222/302 323/138
Place Ungrouted Zip-Rap Over Erosion Control Fabric See Detail, Drawing No. 7
10" Tree 8'±

Water Meter House #9329
Nail Found in Curb
10" Tree 8'±

CONTRACT NO. 744-S
MOUNT HEBRON SEWER MAIN EXTENSION
HOWARD COUNTY CAPITAL PROJECT S-4-6037

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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
8-30-77
DIRECTOR OF PUBLIC WORKS DATE

CONTRACT NO. 744-S
CAPITAL PROJECT NO. S-4-6037

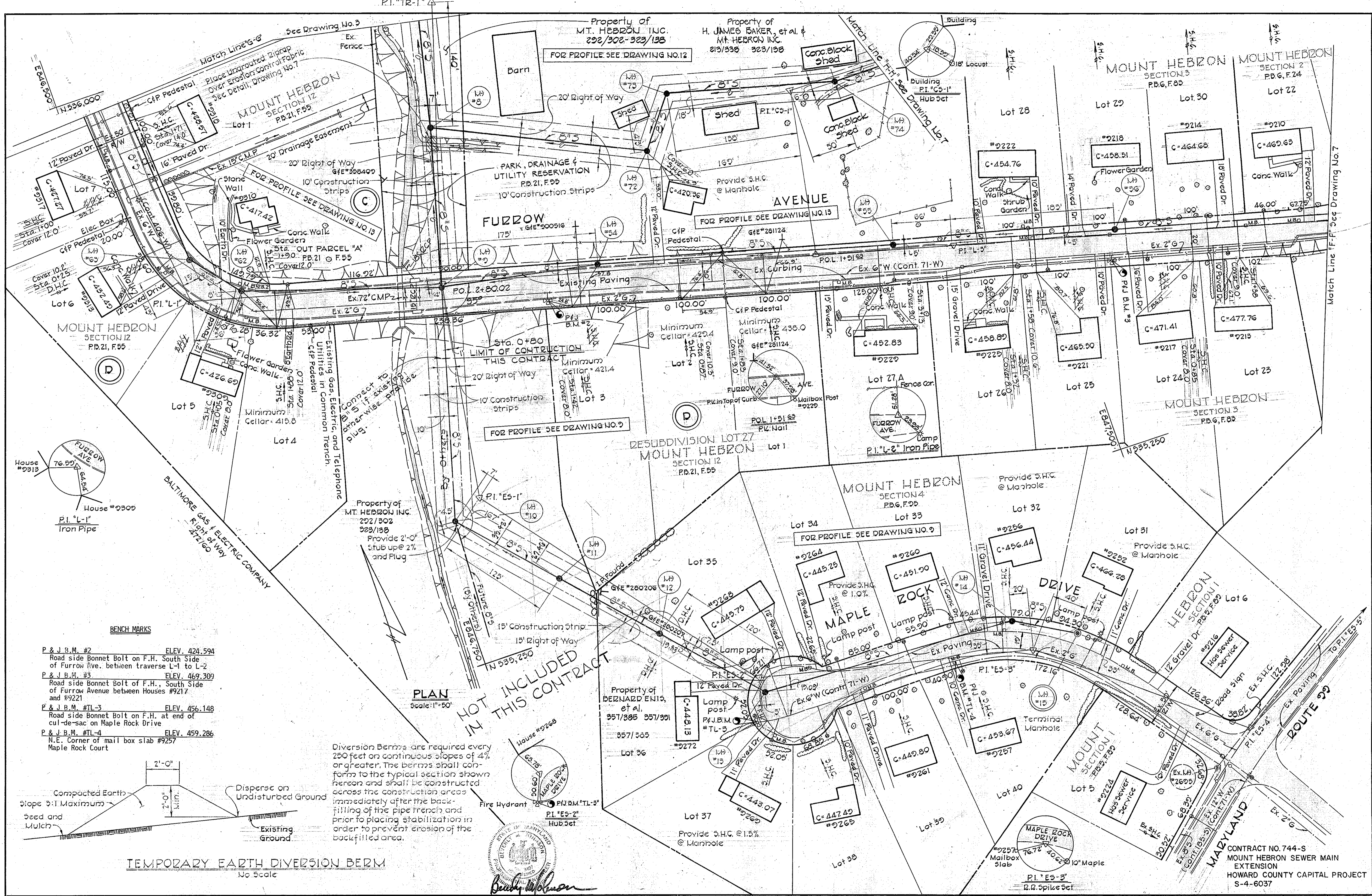
PLAN
MOUNT HEBRON SEWER MAINS

MOUNT HEBRON SEWER MAINS
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

DRAWING
NO. 3
OF 14
SCALE
1"=50'
Designed: REP
Drafted: ARZ
Checked: TAF

WS 744-S/3

WS 744-S/4



- BENCH MARKS**
- P & J.B.M. #2 ELEV. 424.594
Road side Bonnet Bolt on F.H. South Side of Fuzzow Ave. between traverse L-1 to L-2
 - P & J.B.M. #3 ELEV. 469.309
Road side Bonnet Bolt of F.H., South Side of Fuzzow Avenue between Houses #9217 and #9221
 - P & J.B.M. #TL-3 ELEV. 456.148
Road side Bonnet Bolt on F.H. at end of cul-de-sac on Maple Rock Drive
 - P & J.B.M. #TL-4 ELEV. 459.286
N.E. Corner of mail box slab #9257 Maple Rock Court

TEMPORARY EARTH DIVERSION BERM
No Scale

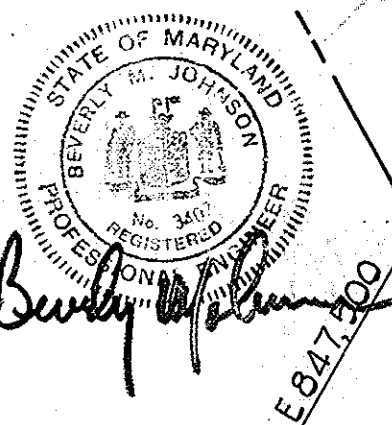
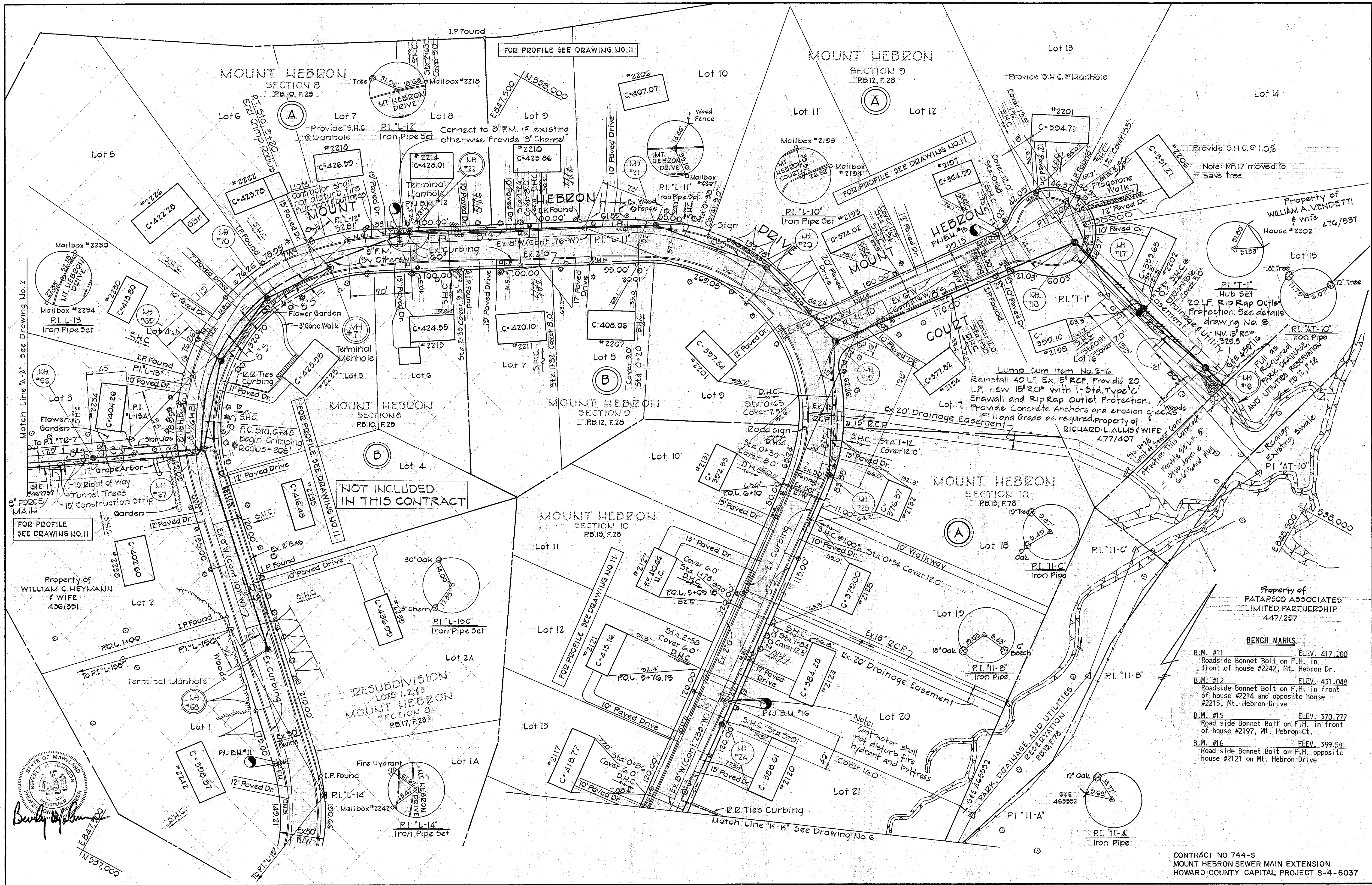
Diversion Berms are required every 250 feet on continuous slopes of 4% or greater. The berms shall conform to the typical section shown hereon and shall be constructed across the construction areas immediately after the backfilling of the pipe trench and prior to placing stabilization in order to prevent erosion of the backfilled area.

NOT INCLUDED IN THIS CONTRACT

Barry Johnson
Professional Seal

PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 8-30-77 DIRECTOR OF PUBLIC WORKS DATE	CONTRACT NO. 744-S CAPITAL PROJECT NO. S-4-6037	PLAN AND DETAILS MOUNT HEBRON SEWER MAINS	MOUNT HEBRON SEWER MAINS ELECTION DISTRICT NO.2 HOWARD COUNTY, MARYLAND	DRAWING NO. 4 OF 14 SCALE As Shown Designed: REP Drafted: ARZ Checked: TAF
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WS 744-S/5



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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 8-30-77
 DIRECTOR OF PUBLIC WORKS DATE

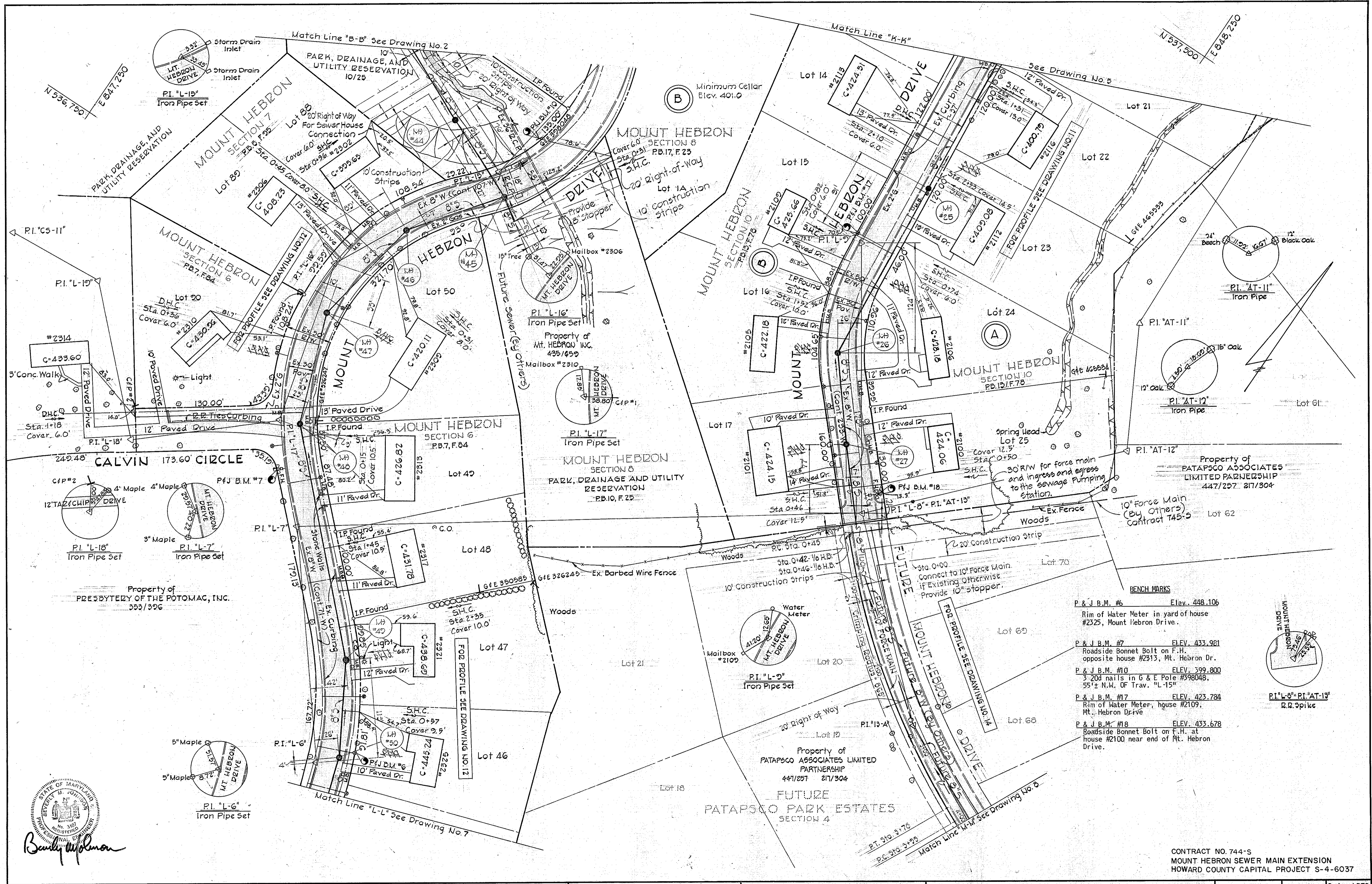
CONTRACT NO. 744-S
 CAPITAL PROJECT NO. S-4-6037

PLAN
 MOUNT HEBRON SEWER MAINS

MOUNT HEBRON SEWER MAINS
 ELECTION DISTRICT NO. 2
 HOWARD COUNTY, MARYLAND

DRAWING NO. 5 OF 14	SCALE 1"=50'	Designed: REP Drafted: ARZ Checked: TAF
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CONTRACT NO. 744-S
 MOUNT HEBRON SEWER MAIN EXTENSION
 HOWARD COUNTY CAPITAL PROJECT S-4-6037



Purdum & Jeschke
 ENGINEERS
 1023 N. CALVERT ST.
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *P. J. Resnik* 8-30-77
 Chief-Bureau of Engineering: *W. O. Filbert* 8-29-77

CONTRACT NO. 744-S
 CAPITAL PROJECT NO. S-4-6037

PLAN
 MOUNT HEBRON SEWER MAINS

MOUNT HEBRON SEWER MAINS
 ELECTION DISTRICT NO. 2
 HOWARD COUNTY, MARYLAND

DRAWING NO. 6 OF 14
 SCALE 1"=50'
 Designed: REP
 Drafted: ARZ
 Checked: TAF

CONTRACT NO. 744-S
 MOUNT HEBRON SEWER MAIN EXTENSION
 HOWARD COUNTY CAPITAL PROJECT S-4-6037

WS 744-S/6

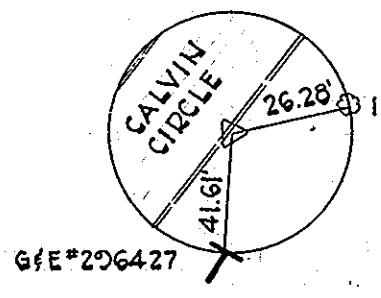
BENCH MARKS

P & J B.M. #4 Elev. 489.431
Road side Bonnet Bolt on FH, West side of Mt. Hebron Drive opposite house #2425 and C & P Pole #2.

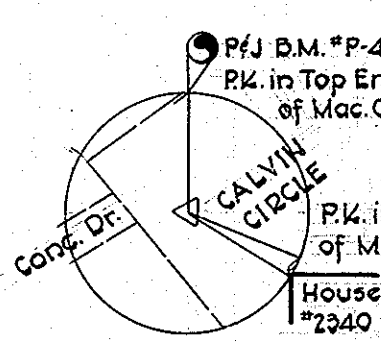
P & J B.M. #5 Elev. 481.182
Road side Bonnet Bolt on FH at Mt. Hebron Drive and Calvin Circle.

P & J B.M. #P-3 Elev. 437.26
R.R. Spike in G & E Pole #274302, 36'± West of P.I. "CS-1".

P & J B.M. #P-4 Elev. 463.35
P.K. Nail in the top curb west side Calvin Circle 33'± northeast of P.I. "CS-3".



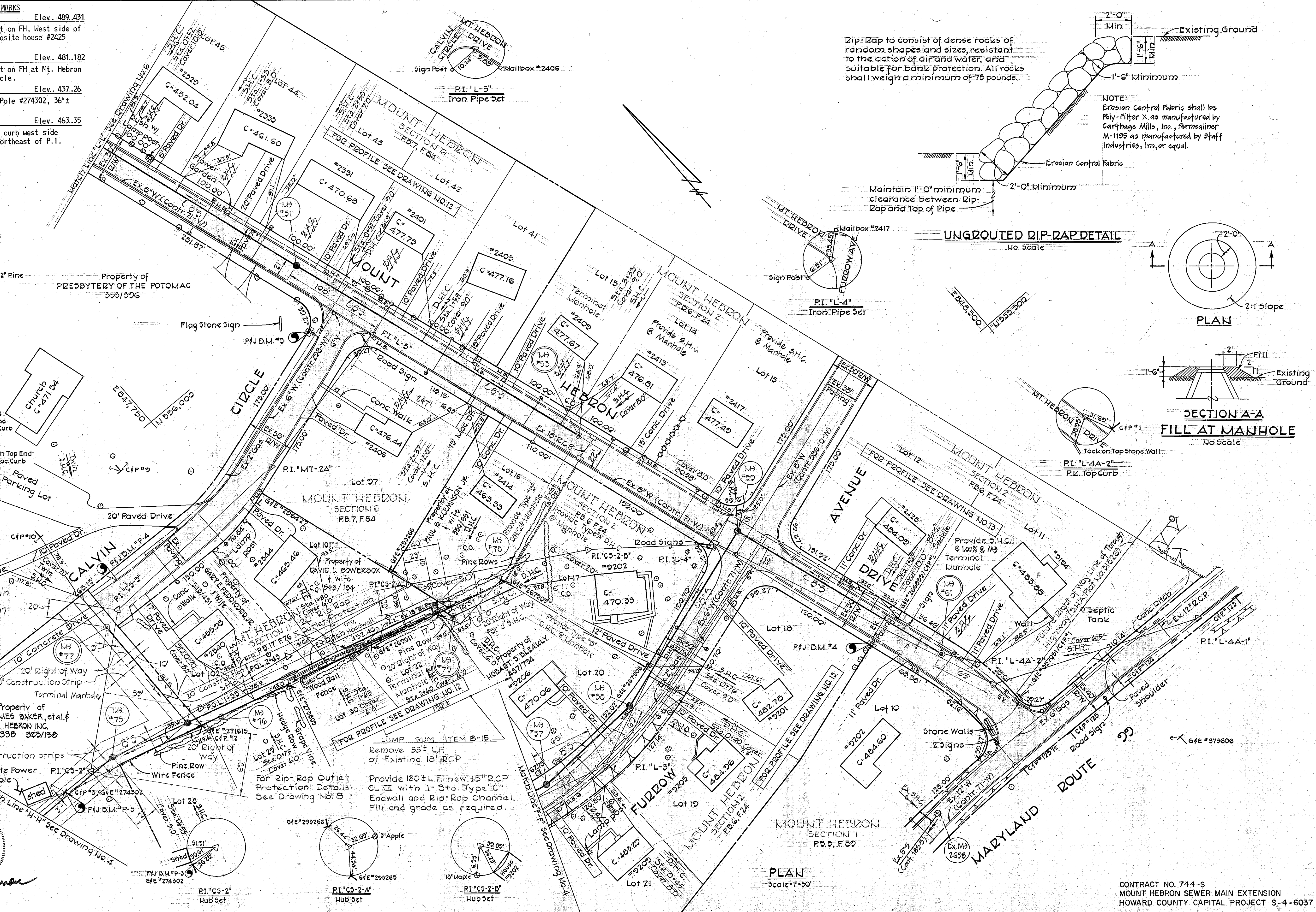
P.I. "MT-2A"
P.K. Top Curb



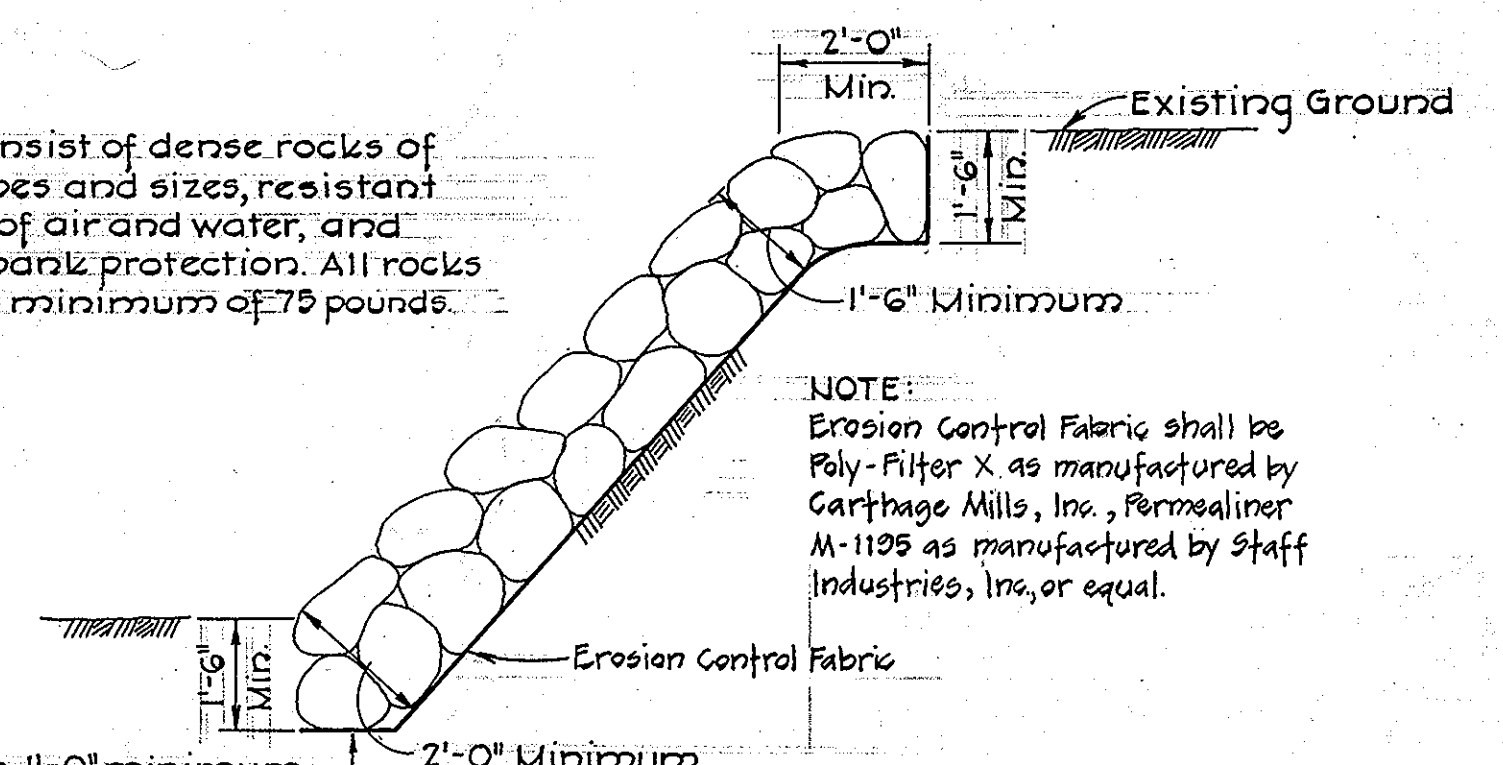
P.I. "CS-3"
P.K. Nail



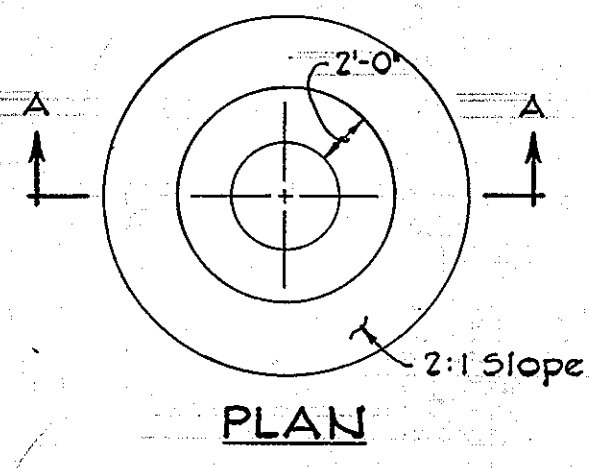
P.I. "CS-2"
Hub Set



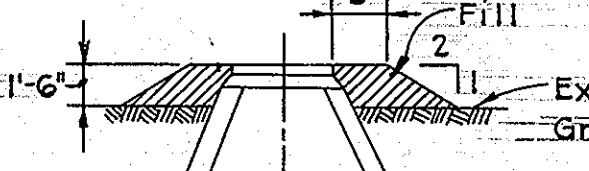
Rip-Zap to consist of dense rocks of random shapes and sizes, resistant to the action of air and water, and suitable for bank protection. All rocks shall weigh a minimum of 75 pounds.



UNGRADED RIP-ZAP DETAIL
No Scale



PLAN
2:1 Slope



SECTION A-A
FILL AT MANHOLE
No Scale

PLAN
Scale=1"=50'

CONTRACT NO. 744-S
MOUNT HEBRON SEWER MAIN EXTENSION
HOWARD COUNTY CAPITAL PROJECT S-4-6037

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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
8-30-77
DIRECTOR OF PUBLIC WORKS DATE

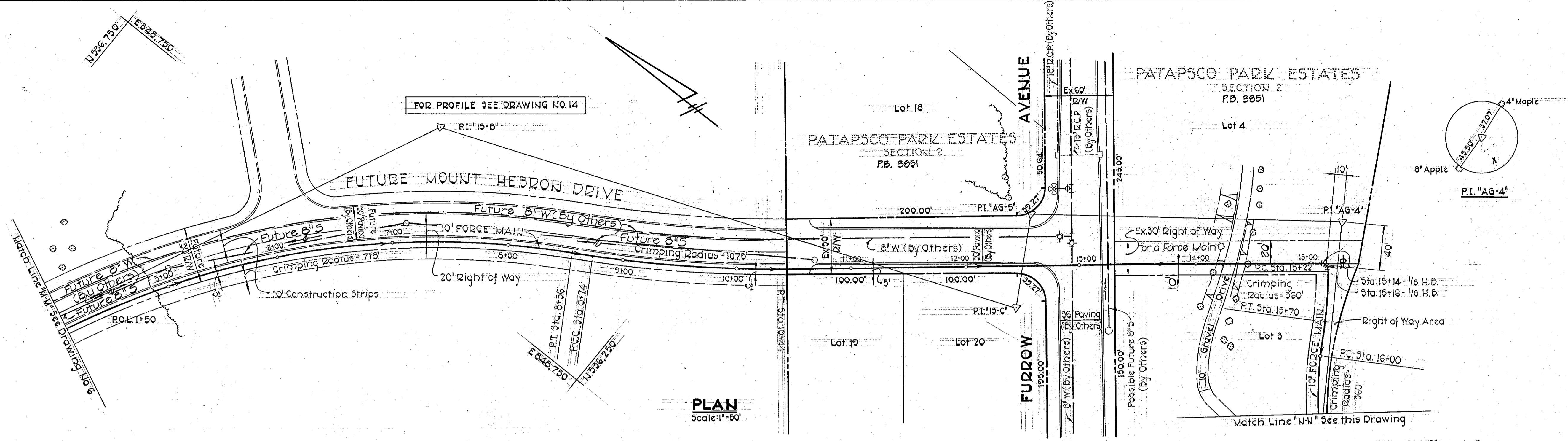
CONTRACT NO. 744-S
CAPITAL PROJECT NO. S-4-6037

PLAN AND DETAILS
MOUNT HEBRON SEWER MAINS

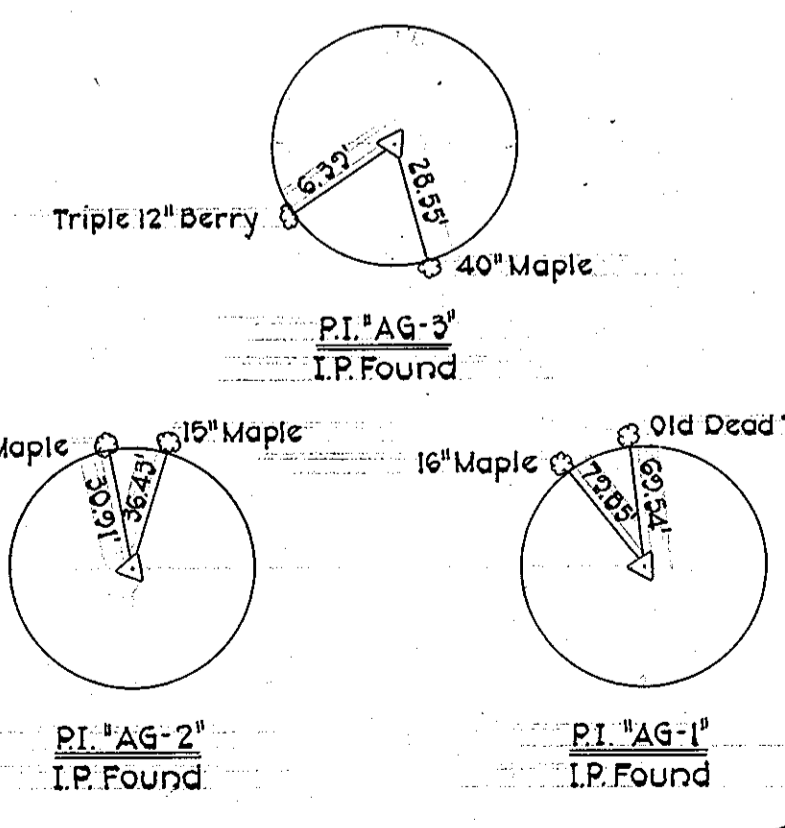
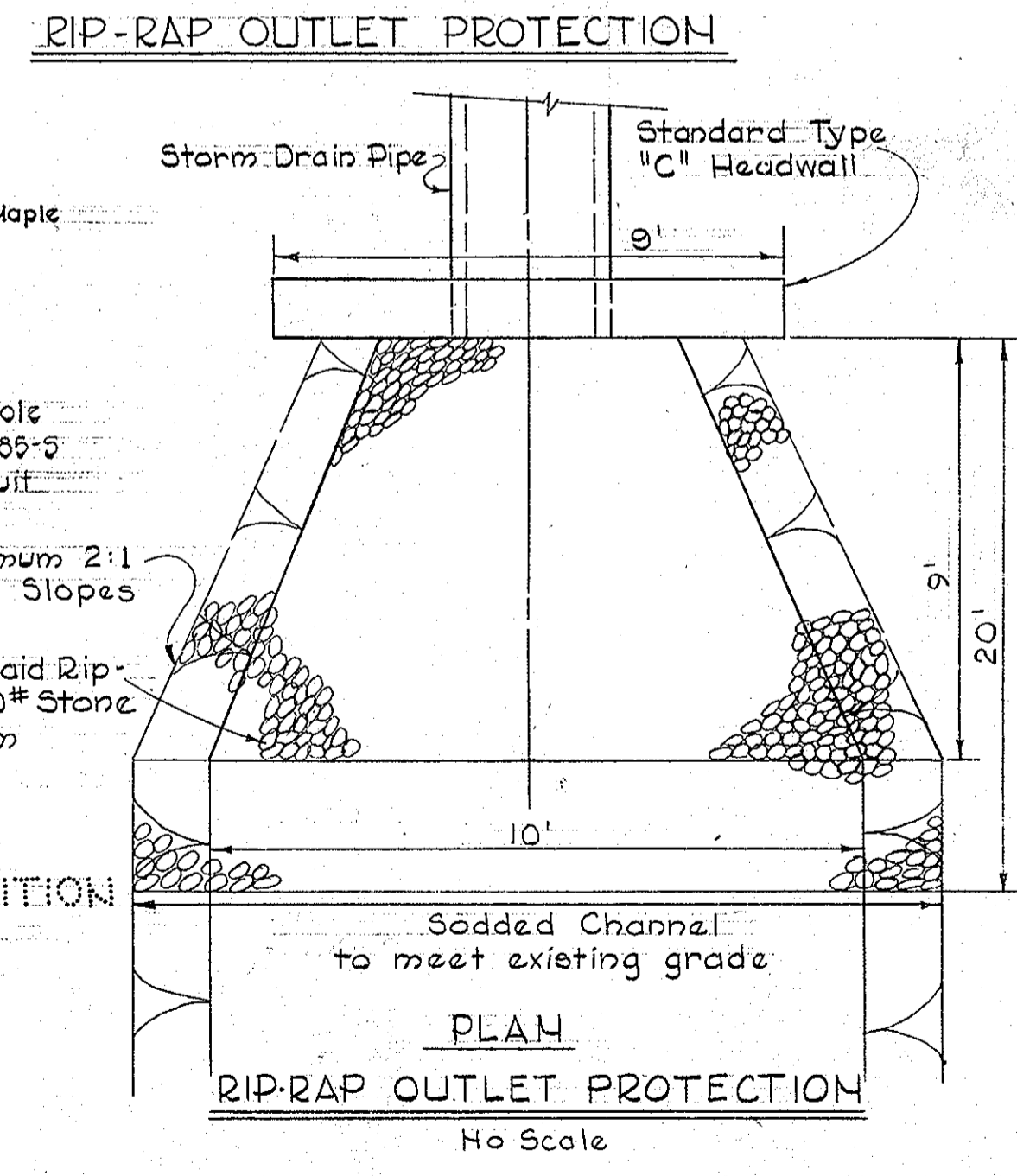
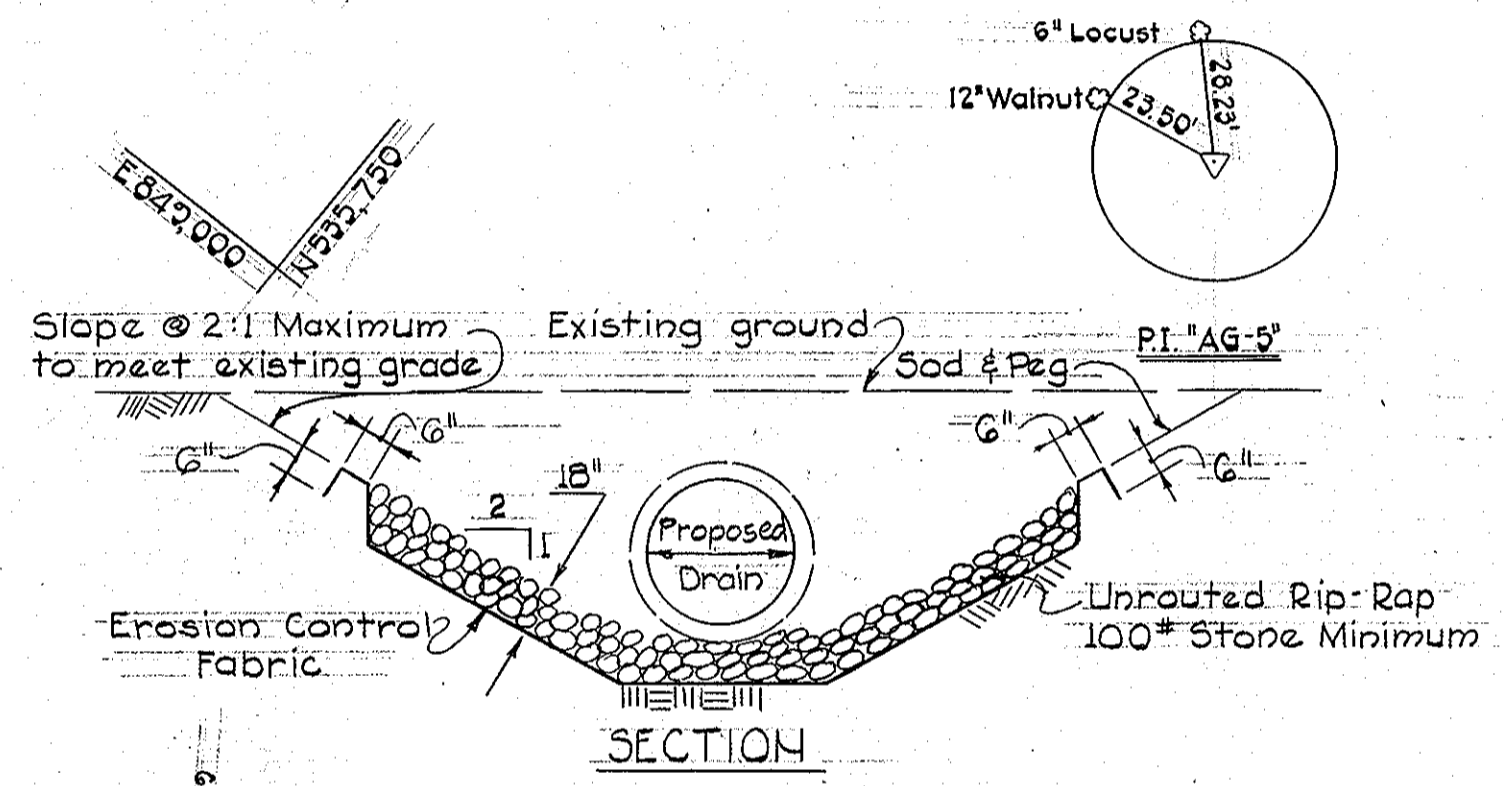
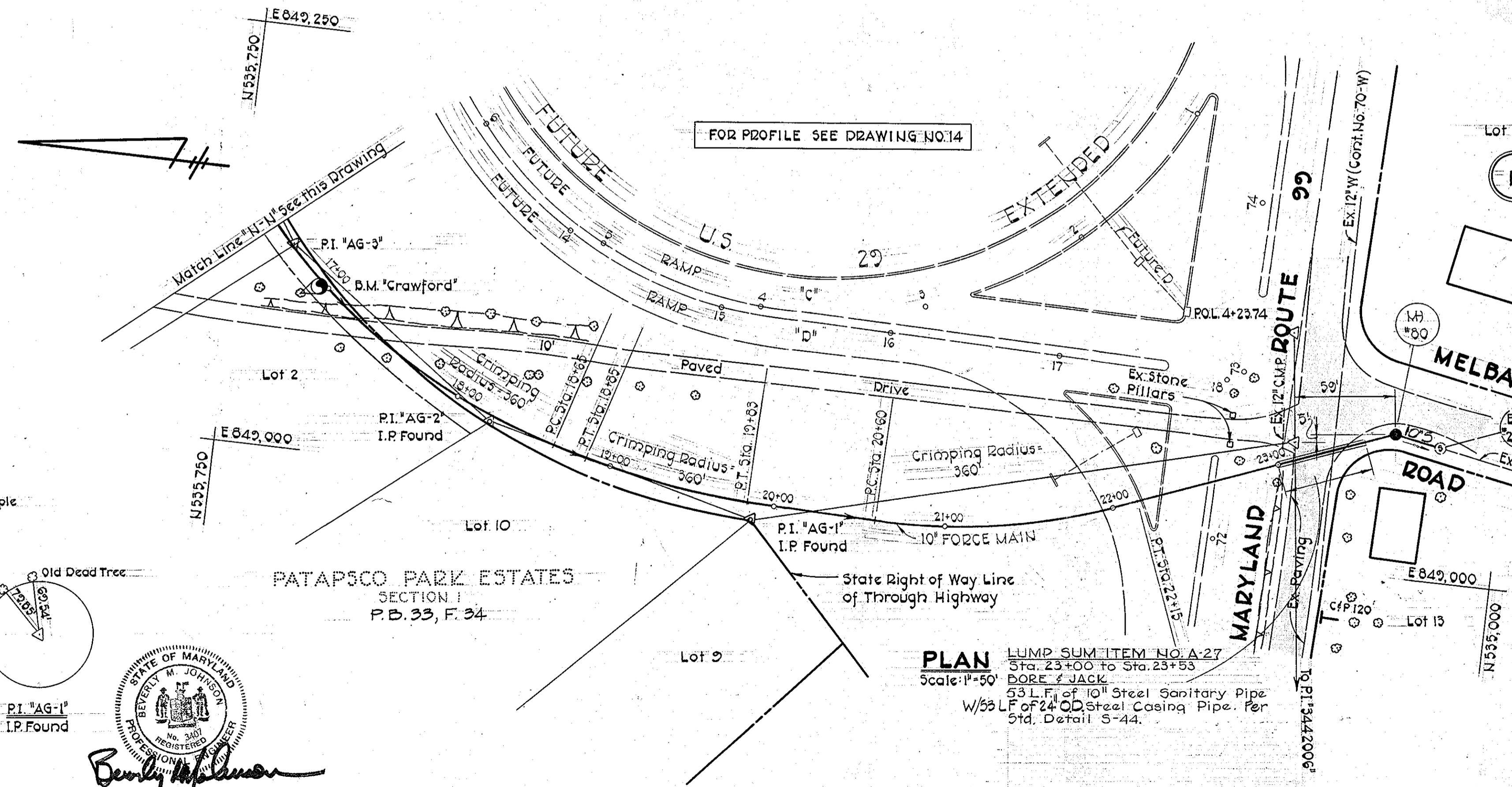
MOUNT HEBRON SEWER MAINS
ELECTION DISTRICT NO.2
HOWARD COUNTY, MARYLAND

DRAWING NO. 7 OF 14
SCALE As Shown
Designed: REP
Drafted: ARZ
Checked: TAF

744-S/7
WS



B.M. "Crawford" Elev. 454.57
 R.R. spike set in 30" Maple 28' N.W. of
 P.I. "AG-3".



Beverly M. Johnson
 BEVERLY M. JOHNSON
 PROFESSIONAL ENGINEER
 No. 5407
 REGISTERED

PLAN
 Scale: 1"=50'
 LUMP SUM ITEM NO. A-27
 Sta. 23+00 to Sta. 23+53
 BORE "J" JACK
 53 L.F. of 10" Steel Sanitary Pipe
 w/53 L.F. of 24" OD Steel Casing Pipe. Per
 Std. Detail S-44.

CONTRACT NO. 744-S
 MOUNT HEBRON SEWER MAIN EXTENSION
 HOWARD COUNTY CAPITAL PROJECT S-4-6037

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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
RJ Ragan 8-29-77 *WO Gilbert* 8-29-77
 DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING DATE

CONTRACT NO. 744-S
 CAPITAL PROJECT NO. S-4-6037

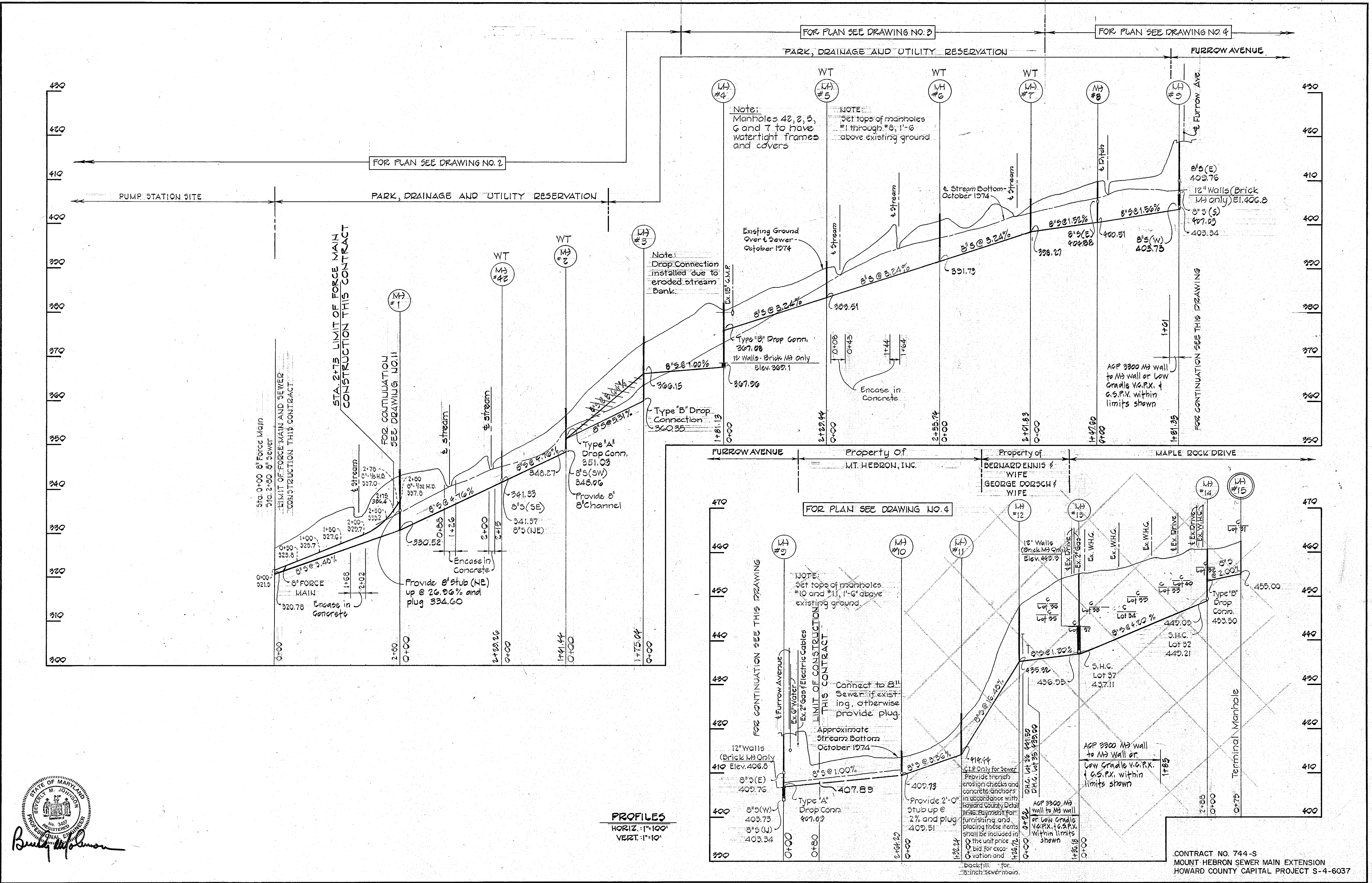
PLAN
 MOUNT HEBRON SEWER MAINS

MOUNT HEBRON SEWER MAINS
 ELECTION DISTRICT NO. 2
 HOWARD COUNTY, MARYLAND

DRAWING NO. 8 OF 14	SCALE 1"=50'	Designed: REP Drafted: ARZ Checked: TAF
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WS 744-S/8

WS 744-S/9



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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
8-29-77
DATE CHIEF-BUREAU OF ENGINEERING DATE

CONTRACT NO. 744-S
CAPITAL PROJECT NO. S-4-6037

PROFILES OF
SEWER AND FORCE MAINS

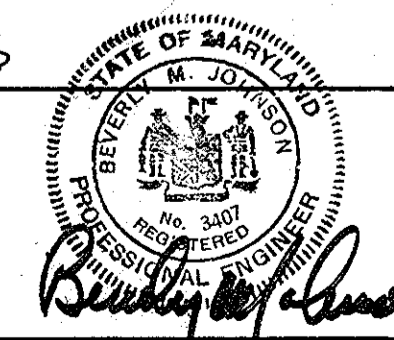
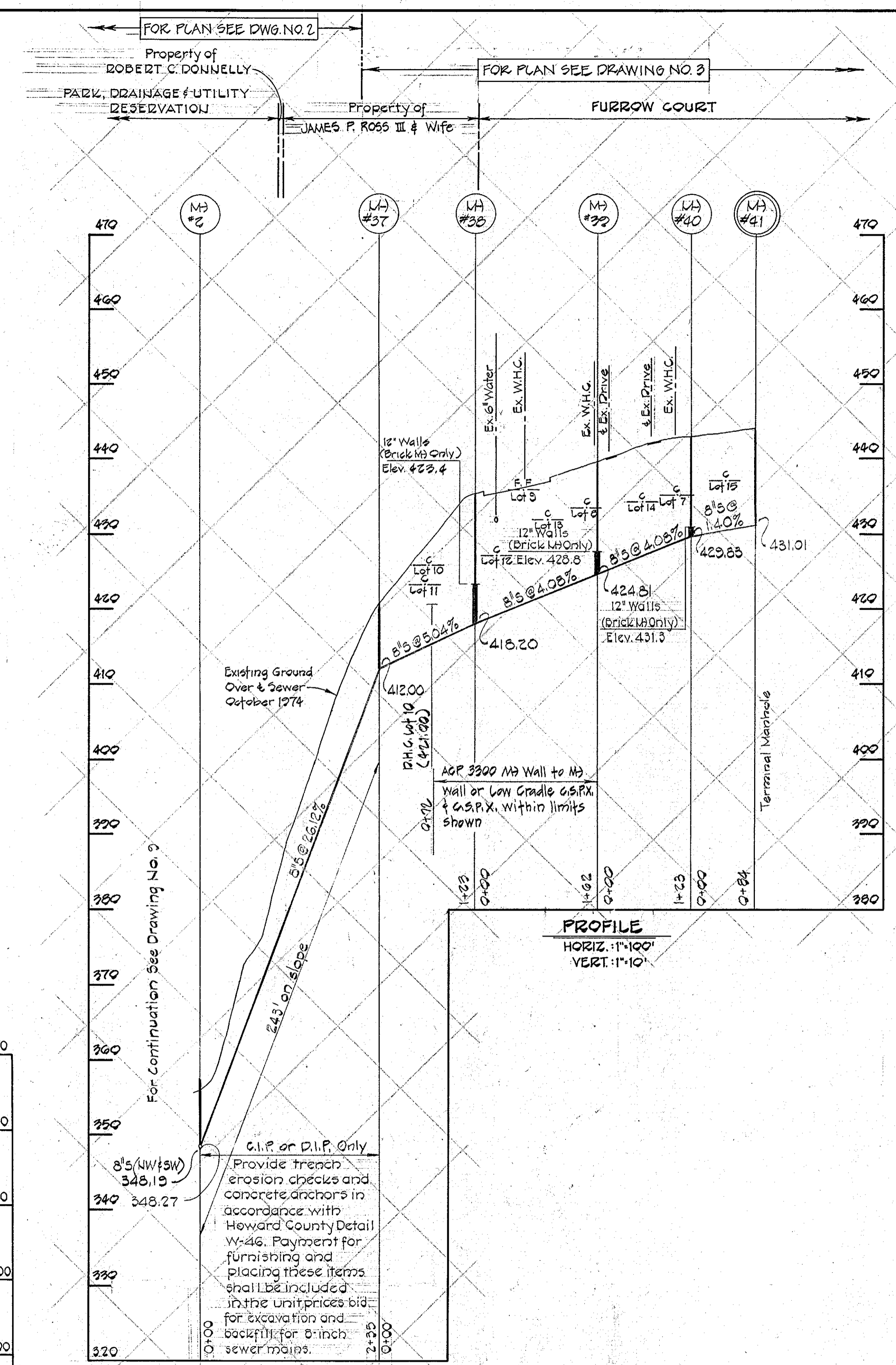
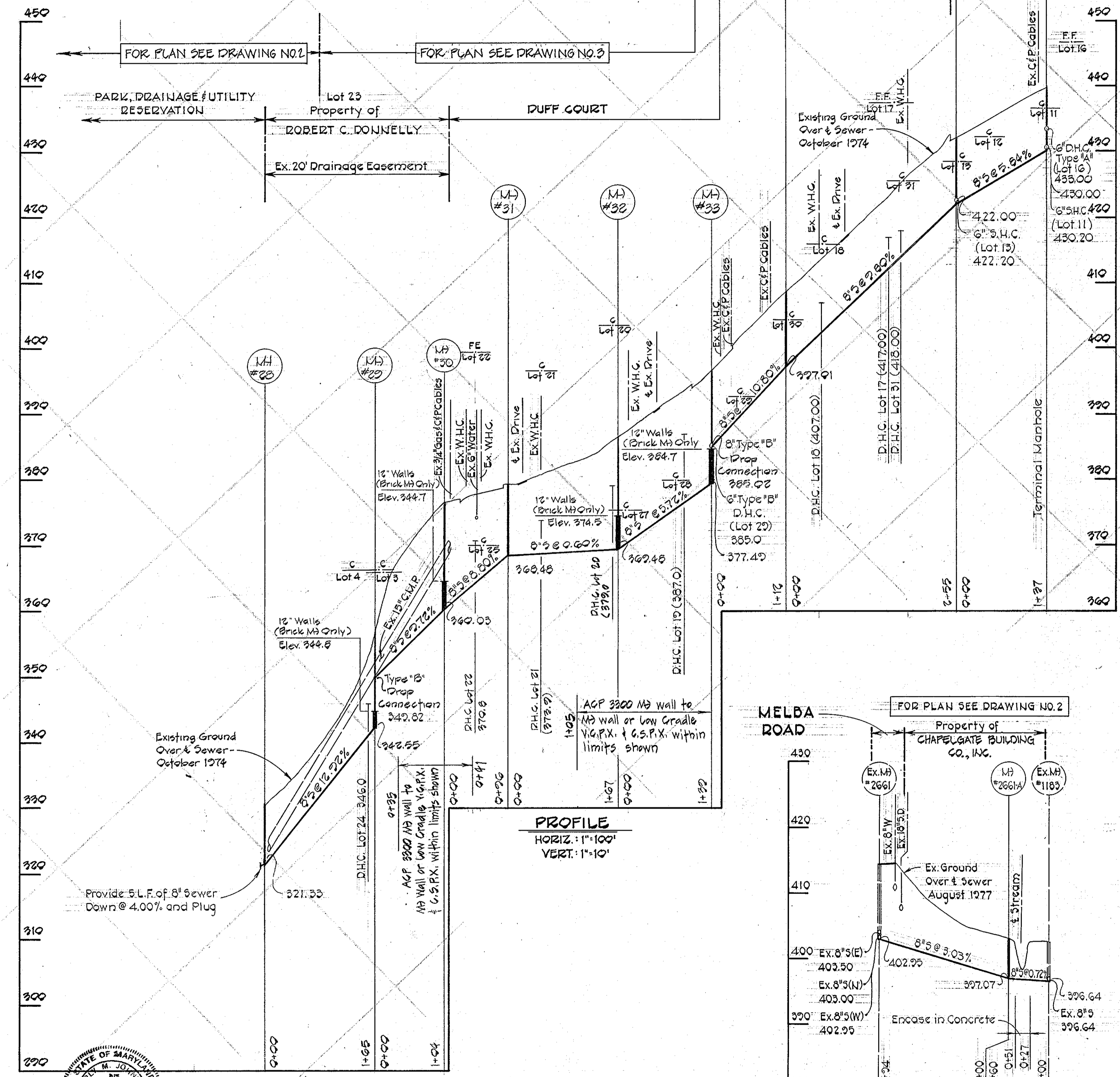
MOUNT HEBRON SEWER MAINS
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

CONTRACT NO. 744-S
MOUNT HEBRON SEWER MAIN EXTENSION
HOWARD COUNTY CAPITAL PROJECT S-4-6037

DRAWING NO. 9 OF 14
SCALE As Shown

Designed: REP
Drafted: REC
Checked: TAF

WS 744-S/10



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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
8-30-77
DIRECTOR OF PUBLIC WORKS DATE

CONTRACT NO. 744-S
CAPITAL PROJECT NO. S-4-6037

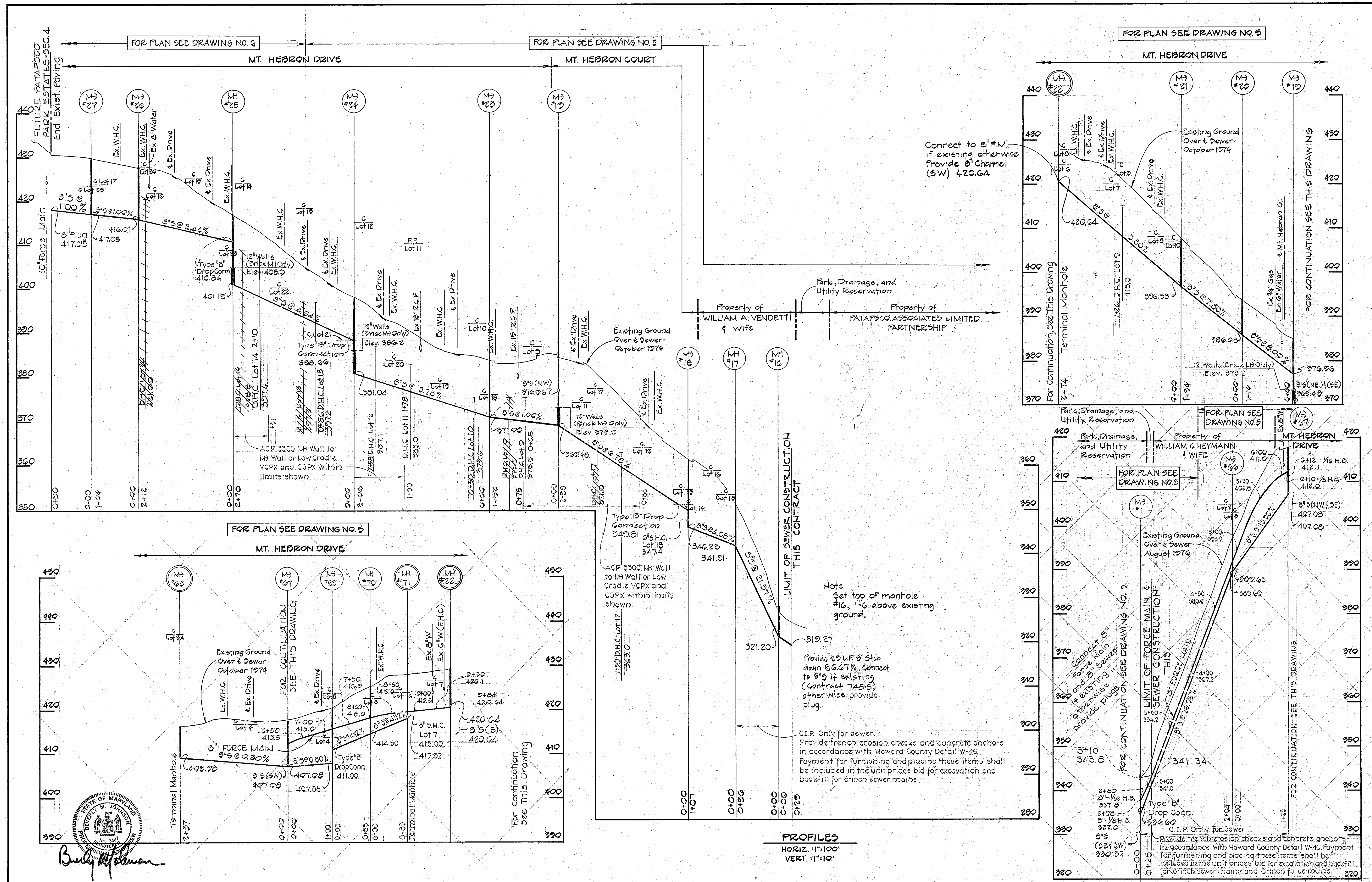
PROFILES OF SEWER MAINS

MOUNT HEBRON SEWER MAINS
ELECTION DISTRICT NO.2
HOWARD COUNTY, MARYLAND

DRAWING NO. 10 OF 14	SCALE As Shown	Designed: REP Drafted: REC Checked: TAF
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CONTRACT NO. 744-S
MOUNT HEBRON SEWER MAIN EXTENSION
HOWARD COUNTY CAPITAL PROJECT S-4-6037

WS 744-S/11



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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
8-30-77
DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING DATE

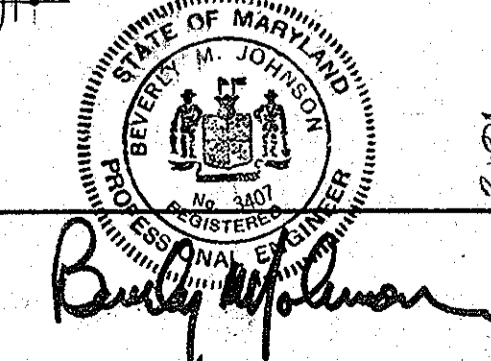
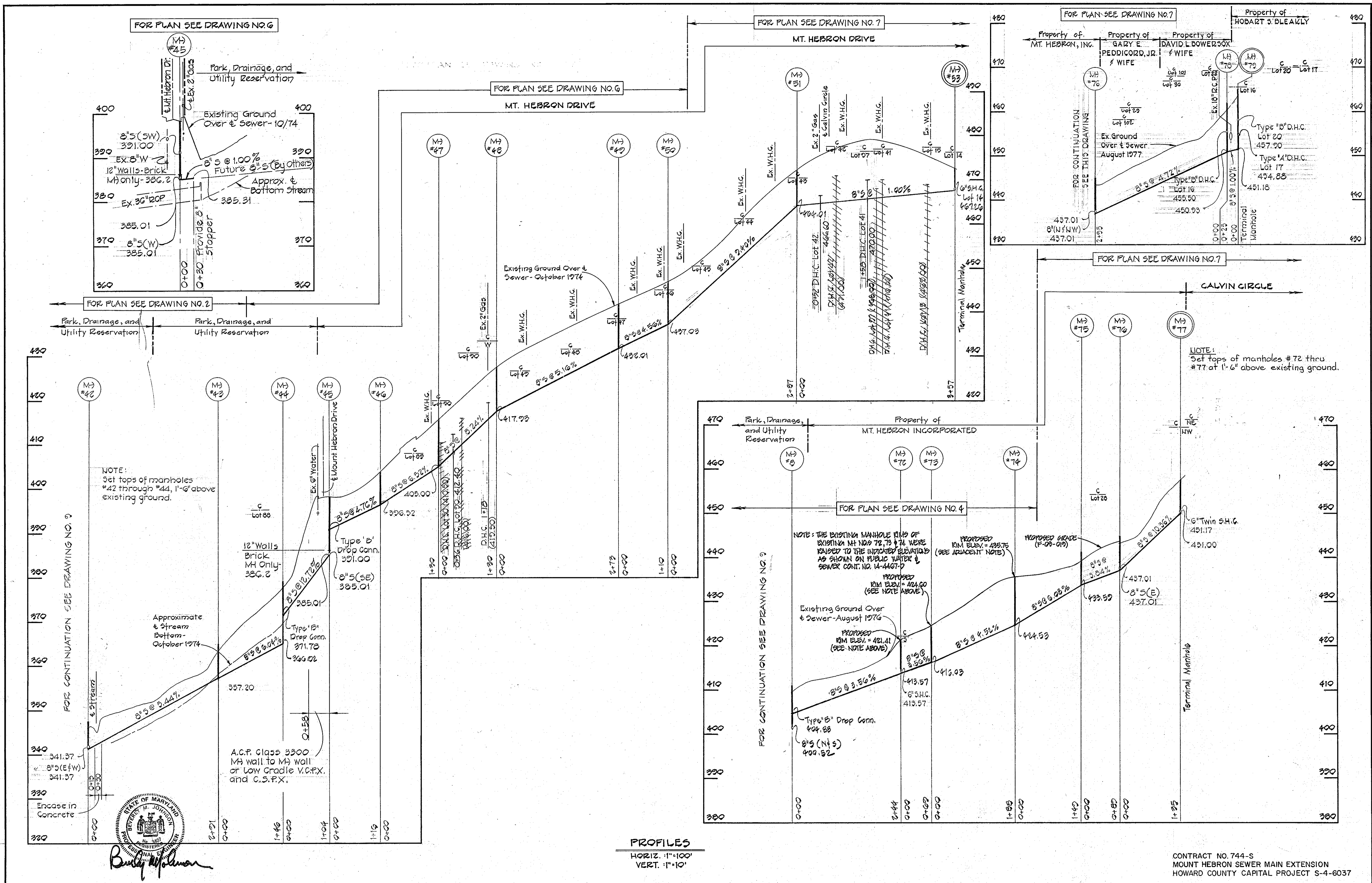
CONTRACT NO. 744-S
CAPITAL PROJECT NO. S-4-6037

PROFILES OF
SEWER AND FORCE MAINS

MOUNT HEBRON SEWER MAINS
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

DRAWING NO. 11 OF 14	SCALE As Shown	Designed: REP Drafted: REC Checked: TAF
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WS 744-S/12

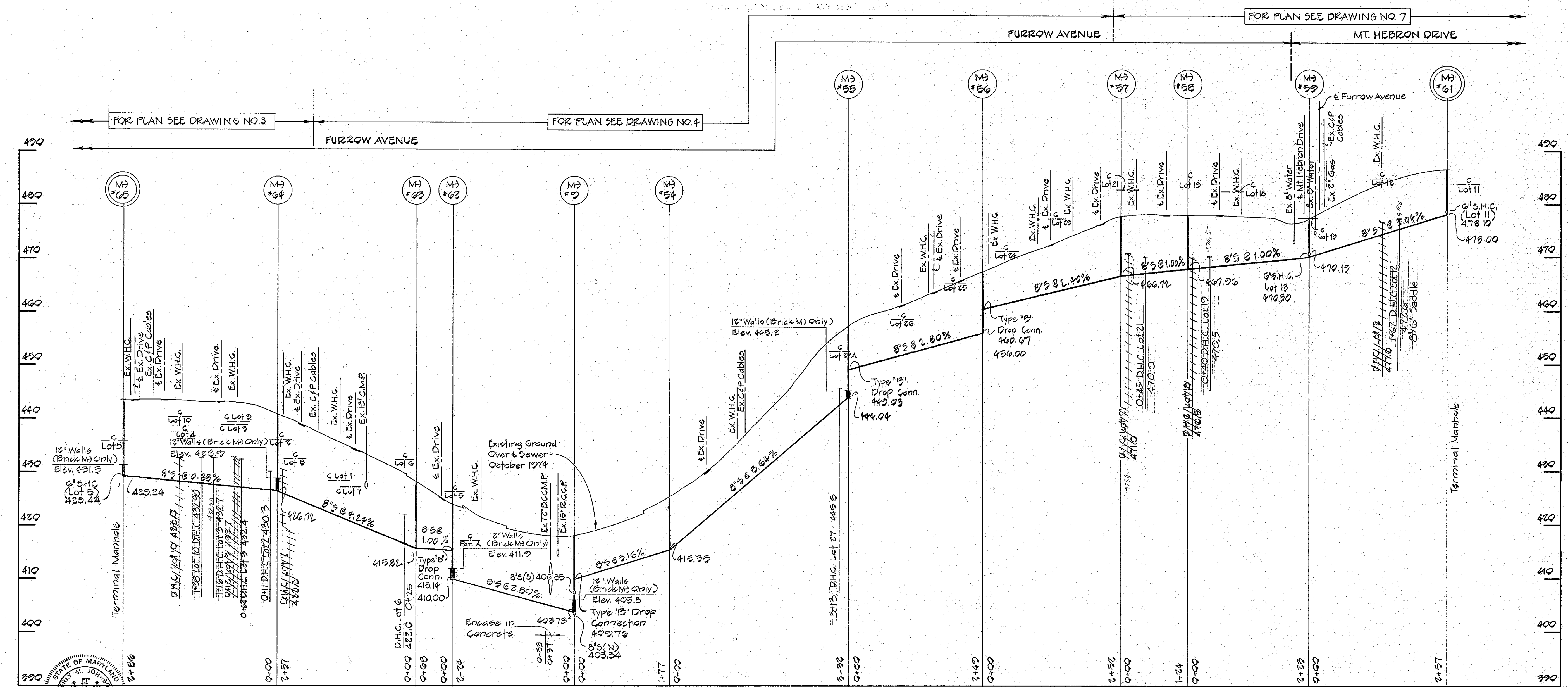


PROFILES
 HORIZ. : 1"=100'
 VERT. : 1"=10'

CONTRACT NO. 744-S
 MOUNT HEBRON SEWER MAIN EXTENSION
 HOWARD COUNTY CAPITAL PROJECT S-4-6037

PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>R.J. Regan</i> 8-30-77 <i>W.O. Purdum</i> 8-29-77 DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING DATE	CONTRACT NO. 744-S CAPITAL PROJECT NO. S-4-6037	PROFILES OF SEWER MAINS	MOUNT HEBRON SEWER MAINS ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND	DRAWING NO. 12 OF 14	SCALE As Shown Designed: REP Drafted: REC Checked: TAF
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WS 744-S/13



PROFILE
 HORIZ. 1"=100'
 VERT. 1"=10'

Burke Johnson
 PROFESSIONAL ENGINEER
 No. 3807
 STATE OF MARYLAND
 BRUCE M. JOHNSON

CONTRACT NO. 744-S
 MOUNT HEBRON SEWER MAIN EXTENSION
 HOWARD COUNTY CAPITAL PROJECT S-4-6037

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

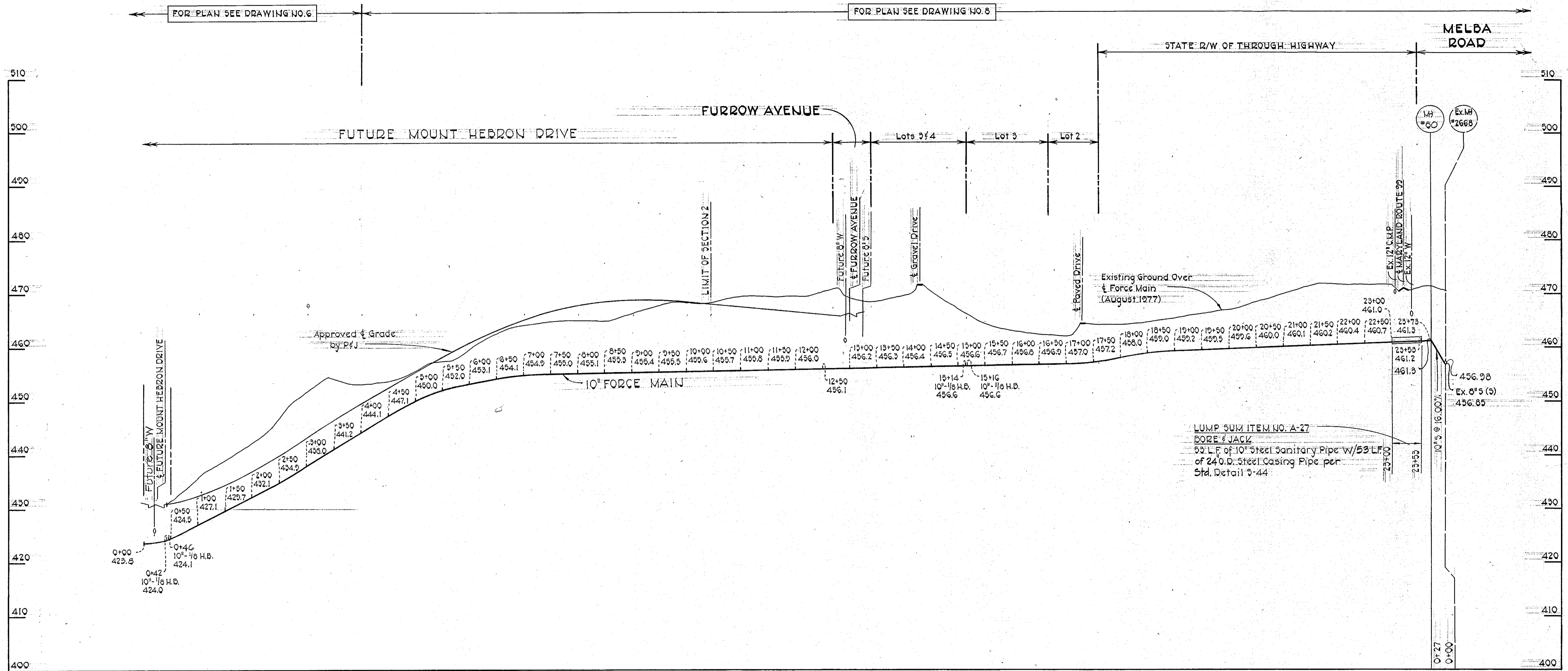
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works DATE 8-30-77
 Chief-Bureau of Engineering DATE 8-29-77

CONTRACT NO. 744-S
 CAPITAL PROJECT NO. S-4-6037

PROFILES OF
 SEWER MAINS

MOUNT HEBRON SEWER MAINS
 ELECTION DISTRICT NO. 2
 HOWARD COUNTY, MARYLAND

DRAWING NO. 13 OF 14	SCALE As Shown	Designed: REP
		Drafted: REC
		Checked: TAF



PROFILE

Scale: Horiz. 1"=100'
Vert. 1"=10'



Beverly M. Johnson

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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
W.O. Fort 8-29-77
DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING DATE

CONTRACT NO. 744-S
CAPITAL PROJECT NO. S-4-6037

PROFILES
MOUNT HEBRON FORCE MAIN

MOUNT HEBRON SEWER MAINS
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

DRAWING NO. 14 OF 14	SCALE As Shown	Designed: REP Drafted: ARZ Checked: TAF
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CONTRACT NO. 744-S
MOUNT HEBRON SEWER MAIN EXTENSION
HOWARD COUNTY CAPITAL PROJECT S-4-6037

WS 744-S/14