

SIZE	QUANTITIES	
	ESTIMATED	AS-BUILT
8" Sewer	6530	6,528 L.F.
6" Sewer	455	579 L.F.

- GENERAL NOTES**
1. Approximate locations of existing mains are shown. The Contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted service. Any damage incurred shall be repaired immediately.
 2. All pipe elevations shown are invert (I) elevations.
 3. Clear all utilities by a minimum of 6 inches. Clear all poles by 2'-0" minimum or tunnel as required.
 4. For all standards see standard details bound in the specifications.
 5. Contractor shall locate existing utilities in advance of construction operations in the vicinity of proposed utilities.
 6. Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these drawings:
 Baltimore Gas & Electric Company - Underground Electric Distribution Engineering - "Damage Control" - 234-5691
 Baltimore Gas & Electric Company - Underground Gas Distribution Engineering - 559-0100
 Chesapeake and Potomac Telephone Company - 725-9976
 Miss Utility - 393-3648
 7. Trees are to be protected from damage to maximum extent. Trees located within the construction strip are not to be uncovered or damaged by the Contractor.
 8. 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.
 9. All sewer mains shall be C.S.P.X, V.C.P.X. or A.C.P. Class 2400 unless otherwise noted.
 10. The Contractor shall provide a joint in all sewer mains within 2'-0" of exterior wall.
 11. All manholes shall be 4'-0" inside diameter, unless otherwise noted.
 12. Watertight manhole frame and cover to be used where indicated on drawings. Standard Detail S-12 (RCR-63A)
 13. All horizontal controls are based on Maryland State Coordinates.
 14. All vertical controls are based on Maryland State Datum.

CONTRACT NO. 649-S
HANOVER OUTFALL AND COLLECTOR SEWERS
WINTERS LANE TO SHADY LANE
HOWARD COUNTY MARYLAND
DEPARTMENT OF PUBLIC WORKS



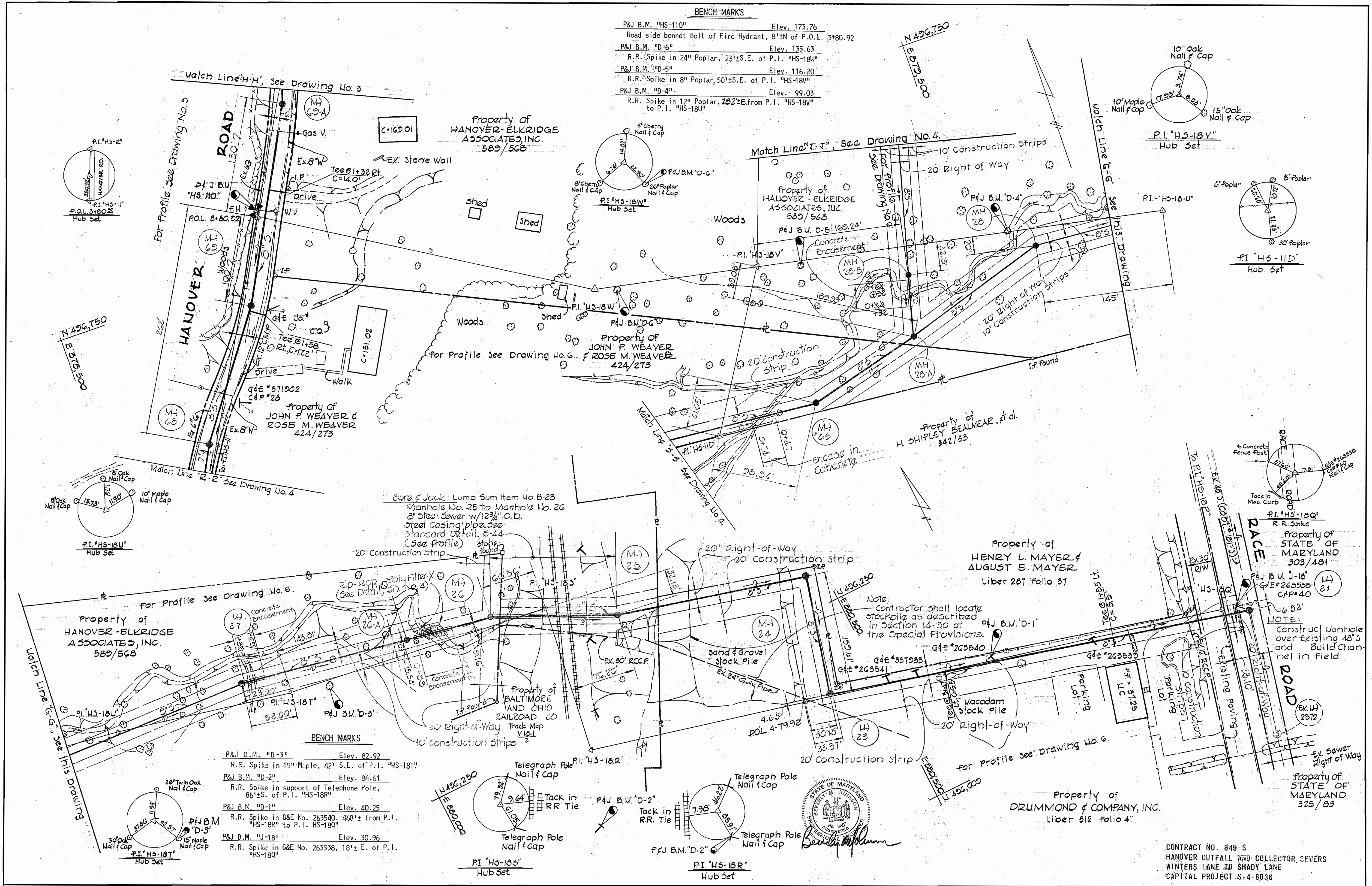
CONTRACT NO. 649-S
 HANOVER OUTFALL AND COLLECTOR SEWERS
 WINTERS LANE TO SHADY LANE
 CAPITAL PROJECT S-4-8036

WS 649 S/1

"AS BUILT" 8-16-76

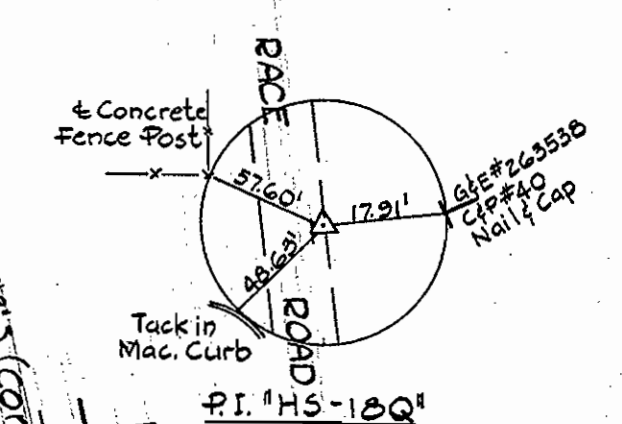
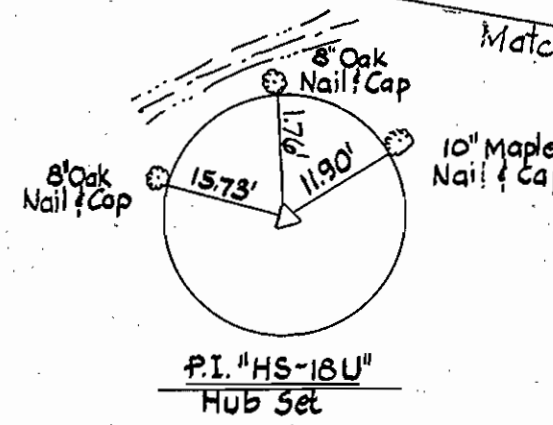
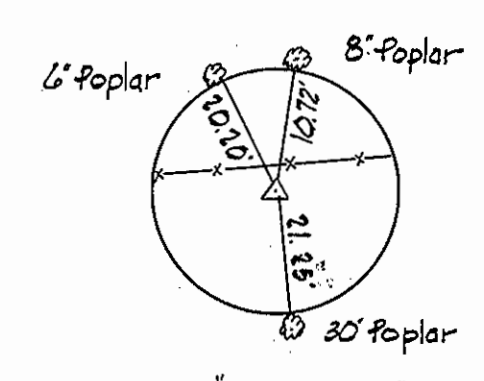
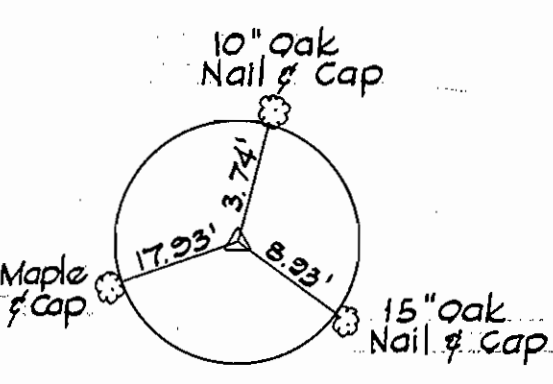
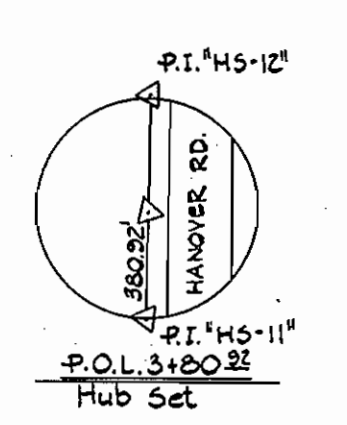
PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 4-21-75 W. O. Pulver CHIEF-BUREAU OF ENGINEERING	CONTRACT NO. 649-S	LOCATION MAP OF SANITARY SEWERS	ELECTION DISTRICT ELKRIDGE NO. 1	DRAWING NO. 1 OF 6 SCALE AS SHOWN	DESIGNED: TAF DRAFTED: RDB CHECKED: TAF
---	---	--------------------	------------------------------------	-------------------------------------	--------------------------------------	---

WS 649 S/2



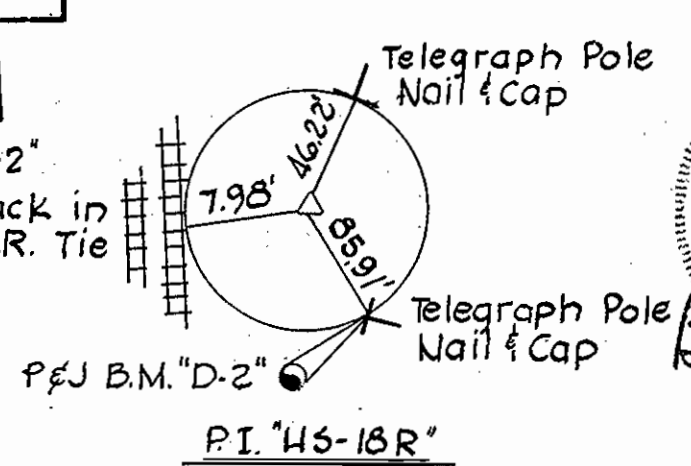
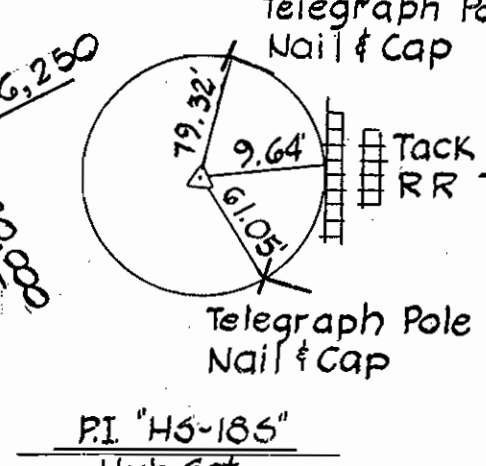
BENCH MARKS

P&J B.M. "HS-110"	Elev. 173.76
Road side bonnet bolt of Fire Hydrant, 8'±N of P.O.L. 3+80.92	
P&J B.M. "D-6"	Elev. 135.63
R.R. Spike in 24" Poplar, 23'±S.E. of P.I. "HS-18W"	
P&J B.M. "D-5"	Elev. 116.20
R.R. Spike in 8" Poplar, 50'±S.E. of P.I. "HS-18V"	
P&J B.M. "D-4"	Elev. 99.03
R.R. Spike in 12" Poplar, 282'±E. from P.I. "HS-18U"	



BENCH MARKS

P&J B.M. "D-3"	Elev. 82.92
R.R. Spike in 15" Maple, 42' S.E. of P.I. "HS-18T"	
P&J B.M. "D-2"	Elev. 84.61
R.R. Spike in support of Telephone Pole, 86'±S. of P.I. "HS-18R"	
P&J B.M. "D-1"	Elev. 40.25
R.R. Spike in G&E No. 263540, 460'± from P.I. "HS-18R" to P.I. "HS-18Q"	
P&J B.M. "J-18"	Elev. 30.96
R.R. Spike in G&E No. 263538, 18'± E. of P.I. "HS-18Q"	



Bore & Jack: Lump Sum Item No. B-23
 Manhole No. 25 to Manhole No. 26
 8" Steel Saver w/12 3/4" O.D.
 Steel Casing pipe, See
 Standard Detail, S-44
 (See Profile)

Note:
 Contractor shall locate
 stockpile as described
 in Section 14-30 of
 the Special Provisions.

NOTE:
 Construct Manhole
 over Existing 48" S
 and Build Chan-
 nel in field.

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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DATE: 11-17-75
 CHIEF BUREAU OF ENGINEERING

CONTRACT NO. 649-S

PLAN
 HANOVER OUTFALL AND COLLECTOR SEWERS
 WINTERS LANE TO SHADY LANE

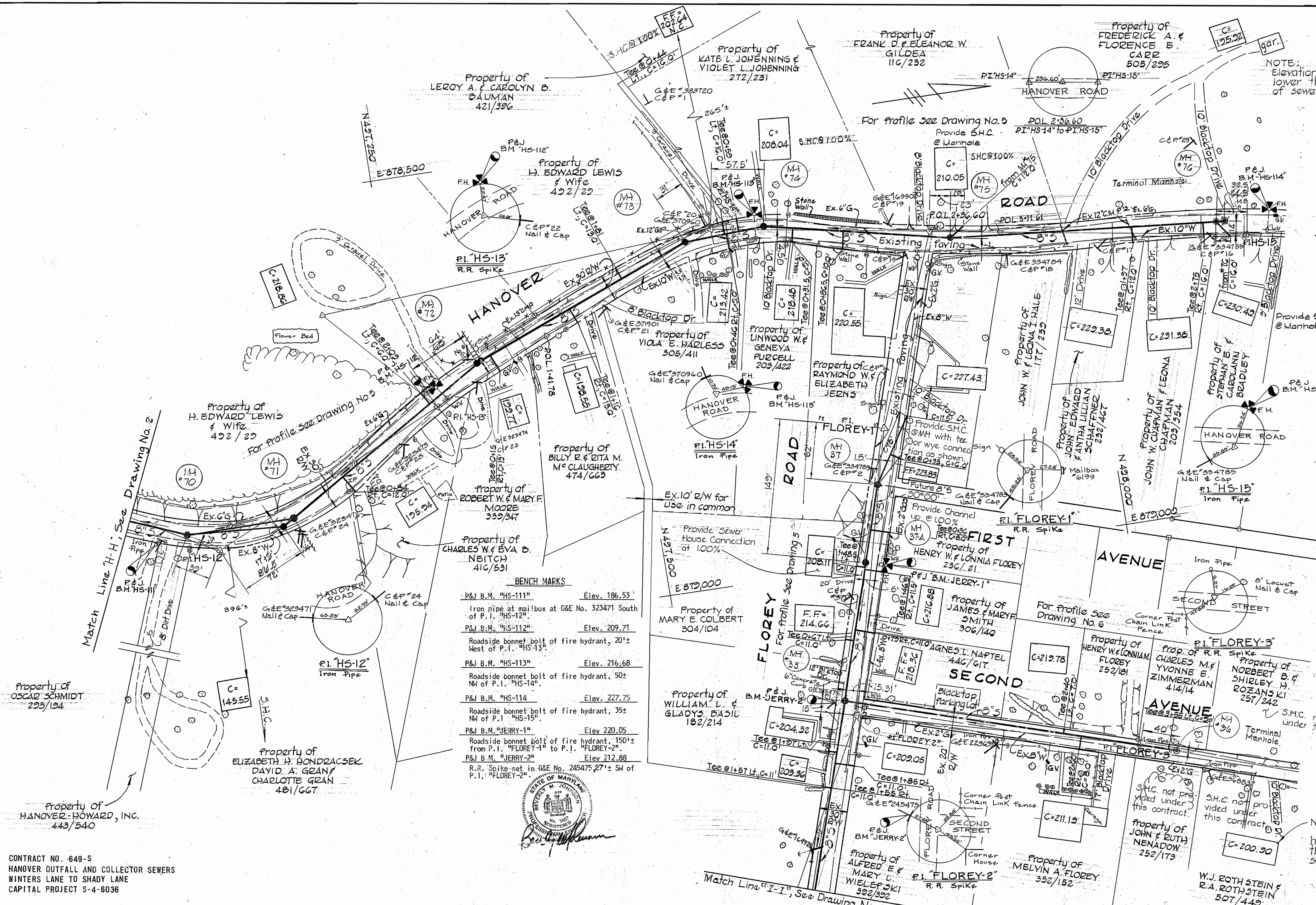
ELECTION DISTRICT
 ELKRIDGE NO. 1

DRAWING NO. 2 OF 6
 SCALE 1" = 50'

DESIGNED: DHD
 DRAFTED: JSK
 CHECKED: YAF
 POS. SHEETS: 14, 15

AS BUILT
 6-16-76

NOTE:
Elevation of home
lower than invert
of sewer.



BENCH MARKS

P&J B.M. "HS-111"	Elev. 186.53
Iron pipe at mailbox at G&E No. 323471 South of P.I. "HS-12"	
P&J B.M. "HS-112"	Elev. 209.71
Roadside bonnet bolt of fire hydrant, 20'± West of P.I. "HS-13"	
P&J B.M. "HS-113"	Elev. 216.68
Roadside bonnet bolt of fire hydrant, 50'± NW of P.I. "HS-14"	
P&J B.M. "HS-114"	Elev. 227.75
Roadside bonnet bolt of fire hydrant, 35'± NW of P.I. "HS-15"	
P&J B.M. "JERRY-1"	Elev. 220.05
Roadside bonnet bolt of fire hydrant, 150'± from P.I. "FLOREY-1" to P.I. "FLOREY-2"	
P&J B.M. "JERRY-2"	Elev. 212.88
R.R. Spike set in G&E No. 245475, 27'± SW of P.I. "FLOREY-2"	



CONTRACT NO. 649-S
HANOVER OUTFALL AND COLLECTOR SEWERS
WINTERS LANE TO SHADY LANE
CAPITAL PROJECT S-4-6036

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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
4-21-75
DATE

CONTRACT NO. 649-S

PLAN AND DETAILS
HANOVER OUTFALL AND COLLECTOR SEWERS
WINTERS LANE TO SHADY LANE

ELECTION DISTRICT
ELK RIDGE NO. 1

DRAWING
NO. 3
OF 5

SCALE
1"=50'

DESIGNED: DWD
DRAFTED: JSK
CHECKED: TAF
P.S. SHEETS: 7/10

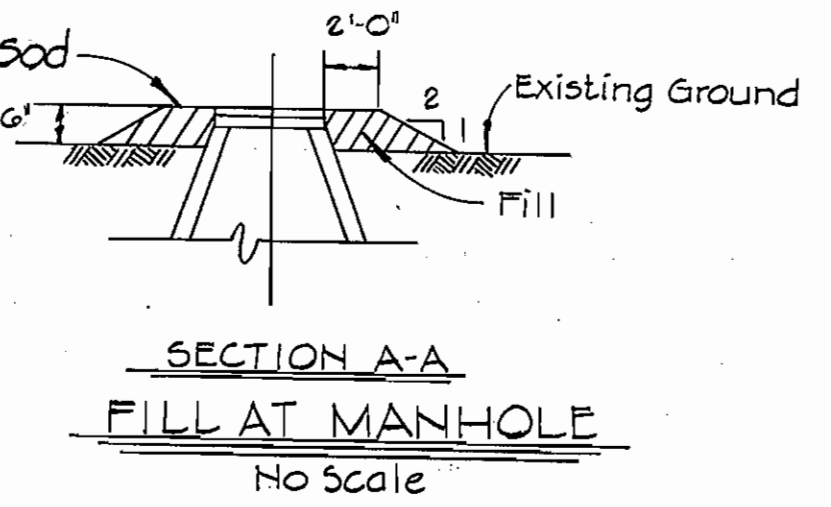
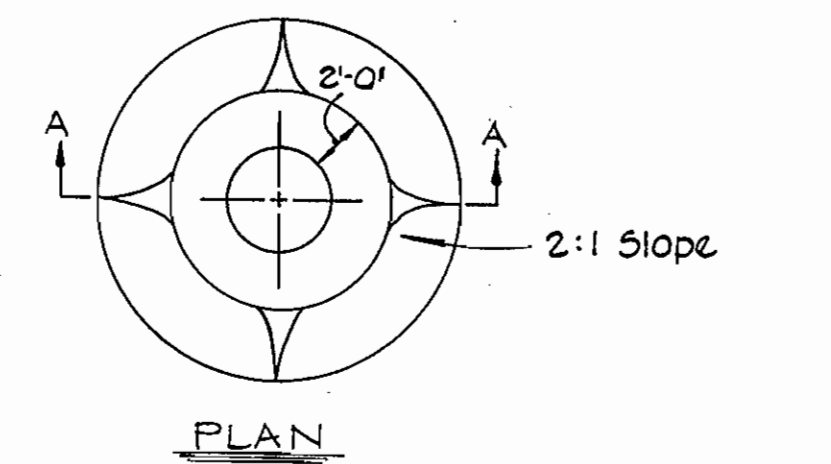
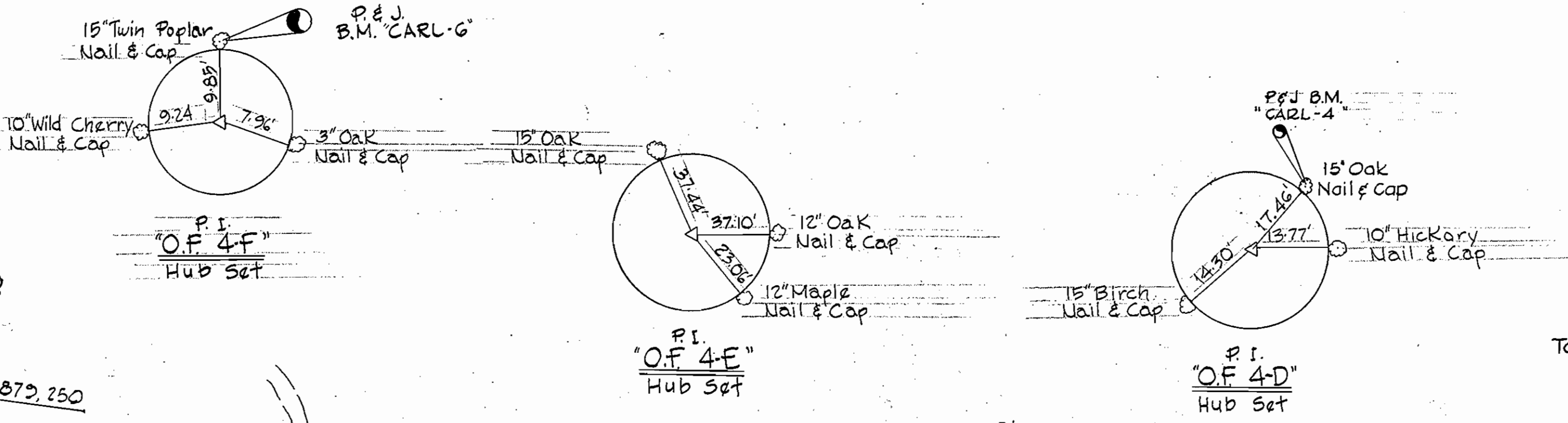
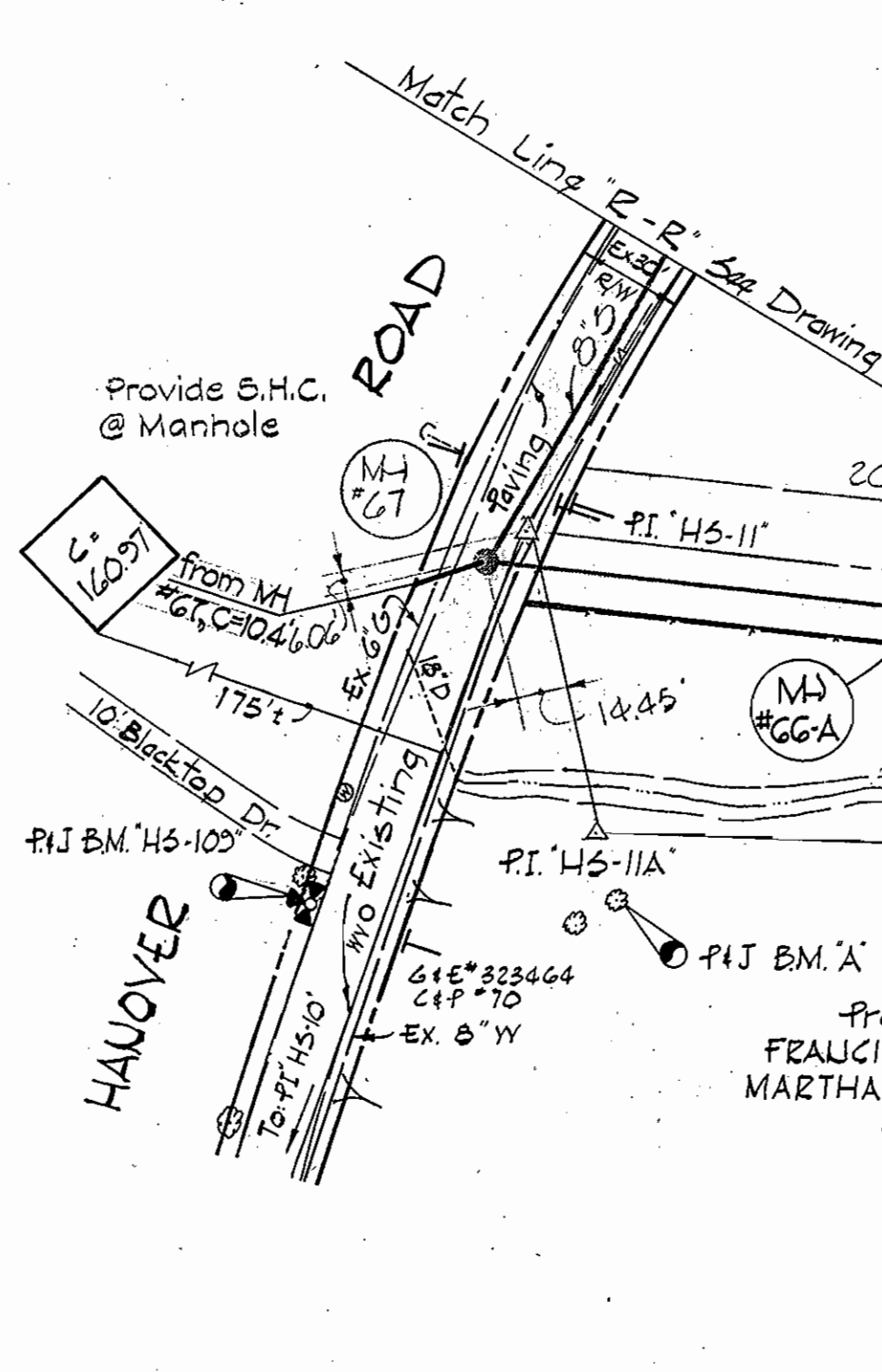
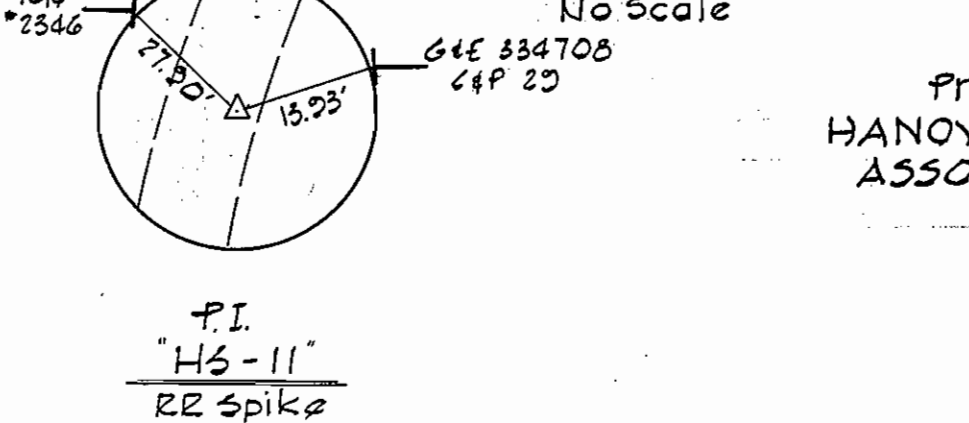
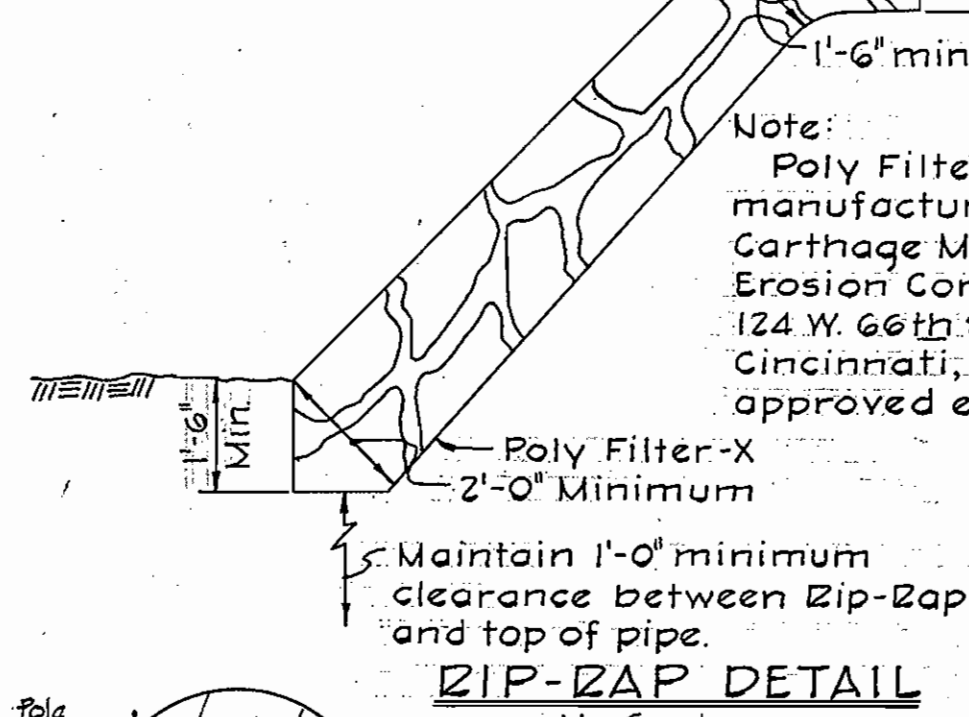
WS 649 S/3

"AS BUILT"
8-16-76

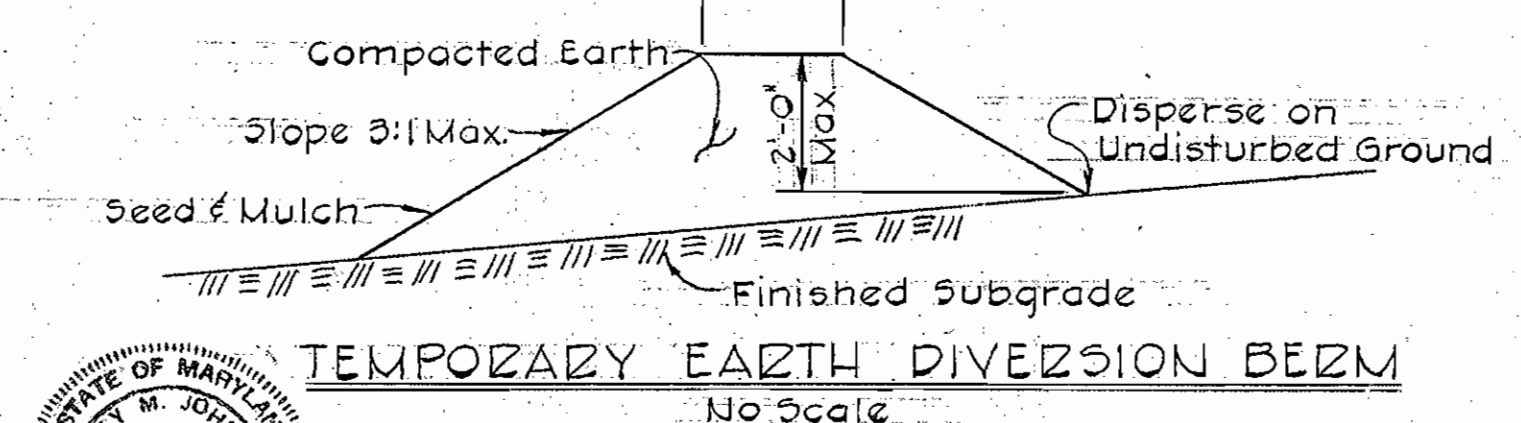
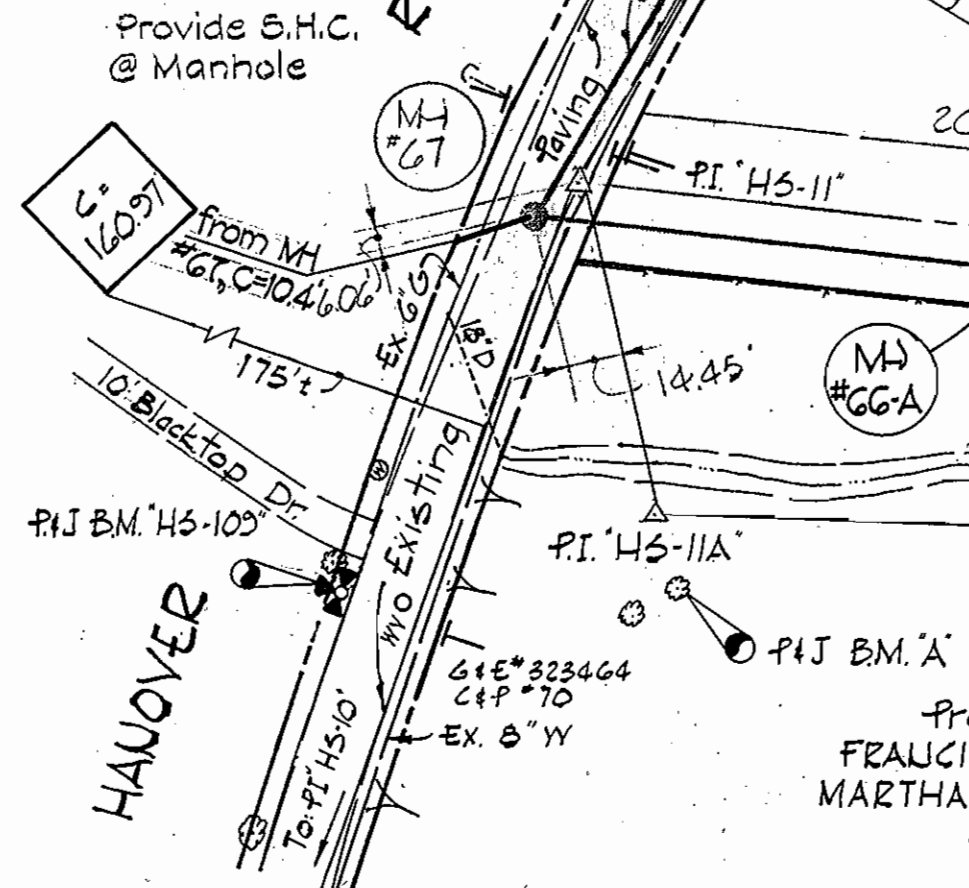
BENCH MARKS

P & J B.M. "CARL-1"	Elev. 201.15
R.R. Spike in 18" Hickory, 10.5'± SW of P.I. "O.F. 4A"	
P & J B.M. "CARL-2"	Elev. 156.04
R.R. Spike in 10" Pine, 14'± S.W. of P.I. "O.F. 4B"	
P & J B.M. "CARL-3"	Elev. 140.24
R.R. Spike in 10" Oak, 26.6'± W. of P.I. "O.F. 4C"	
P & J B.M. "CARL-4"	Elev. 137.78
R.R. Spike in 15" Oak, 17.5'± N.W. of P.I. "O.F. 4D"	
P & J B.M. "CARL-5"	Elev. 137.92
R.R. Spike in root of 24" Poplar; 37'± E. of P.I. "O.F. 4E"	
P & J B.M. "CARL-6"	Elev. 149.45
R.R. Spike 15" Twin Poplar; 9.8'± W. of P.I. "O.F. 4F"	
P & J B.M. "HS-109"	Elev. 148.49
Roadside bonnet bolt of fire hydrant 121'± S. of P.I. "HS-11"	
P & J B.M. "A"	Elev. 140.80
R.R. Spike in Multiple Willow 15'± S. of P.I. "HS-11A"	
P & J B.M. "B"	Elev. 136.17
R.R. Spike in tree 45'± N.W. of P.I. "HS-11B"	
P & J B.M. "C"	Elev. 126.62
R.R. Spike in base of Twin 24" Oak 17'± E. of P.I. "HS-11C"	

Zip-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 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.



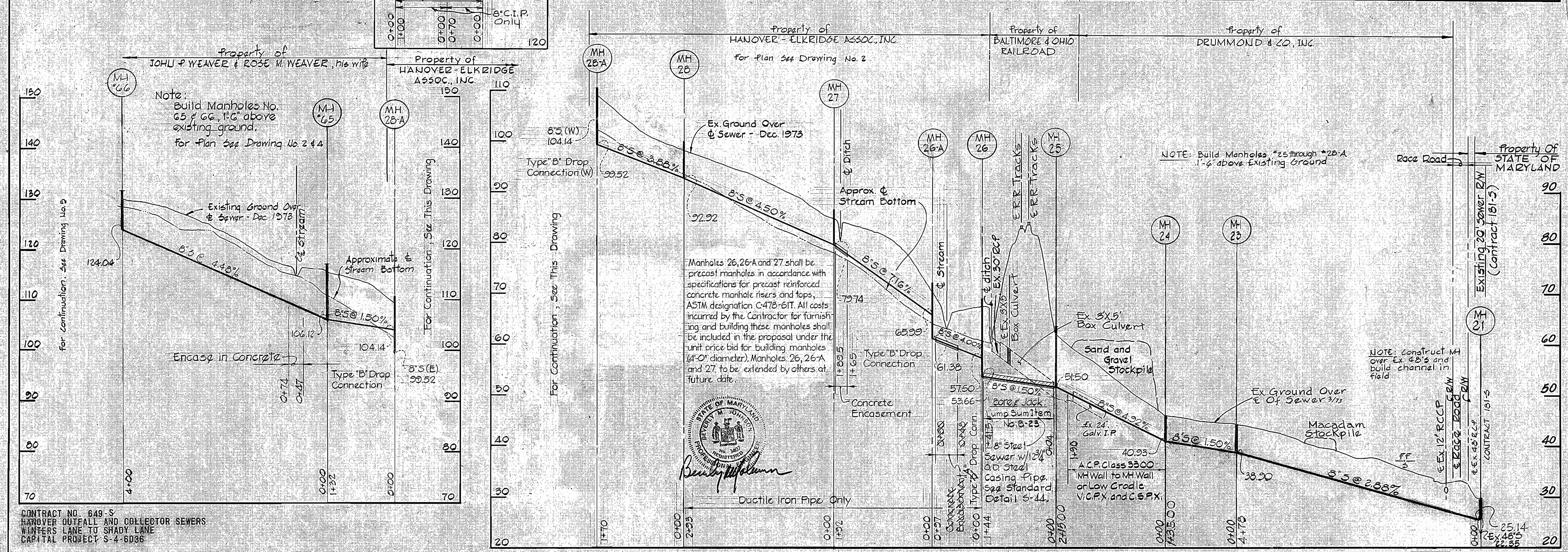
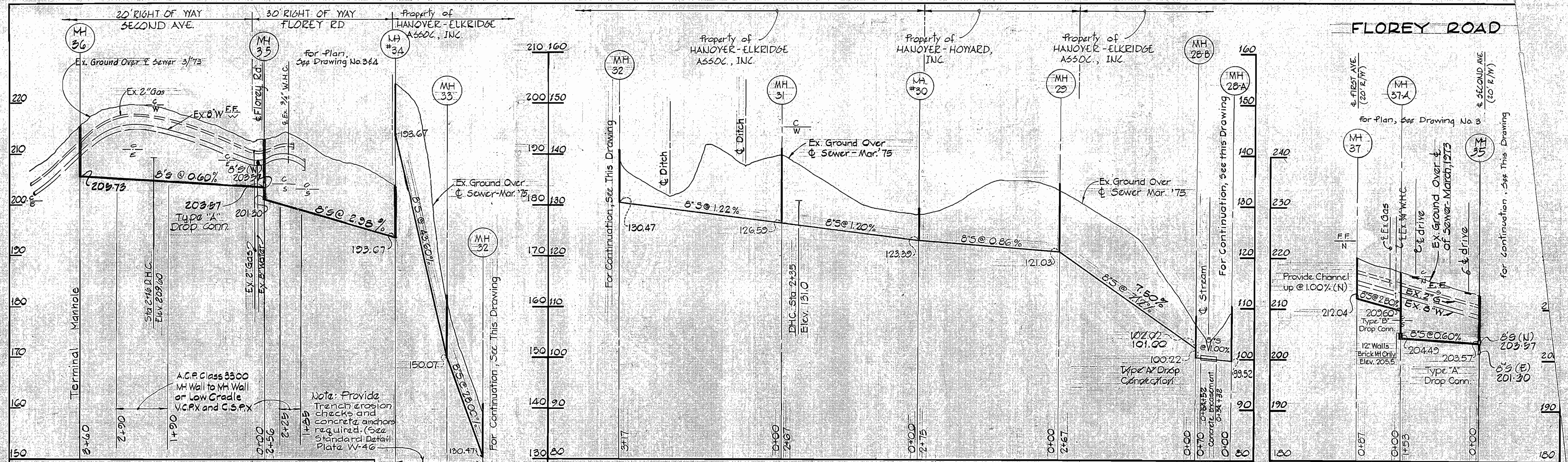
Diversion berms are required every 250 feet on continuous slopes of 4% or greater. The berms shall conform to the typical section shown hereon and shall be constructed across the construction areas immediately after the backfilling of the pipe trench and prior to placing stabilization in order to prevent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

CONTRACT NO. 649-S
HANOVER OUTFALL AND COLLECTOR SEWERS
WINTERS LANE TO SHADY LANE
CAPITAL PROJECT S-4-6036

WS 649 S/H

PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 4-21-77 W. O. Fallick CHIEF, BUREAU OF ENGINEERING	CONTRACT NO. 649-S	PLAN AND DETAILS HANOVER OUTFALL AND COLLECTOR SEWERS WINTERS LANE TO SHADY LANE	ELECTION DISTRICT ELKRIDGE NO. 1	DRAWING SCALE NO. 4 OF 6 1"=50'	Designed: P.W. Drafted: J.S.K. Checked: T.A.F. Pos. Sheets: 10, 11, 12, 13
					CONTRACT NO. 649-S HANOVER OUTFALL AND COLLECTOR SEWERS WINTERS LANE TO SHADY LANE CAPITAL PROJECT S-4-6036	

WS 649 S/6



CONTRACT NO. 649-S
 HANOVER OUTFALL AND COLLECTOR SEWERS
 WINTERS LANE TO SHADY LANE
 CAPITAL PROJECT S-4-6036

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

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 4-21-75
 DATE

CONTRACT NO. 649-S

PROFILE
 HANOVER OUTFALL AND COLLECTOR SEWERS
 WINTERS LANE TO SHADY LANE

ELECTION DISTRICT
 ELK RIDGE NO. 1

DRAWING NO. 6 OF 8

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