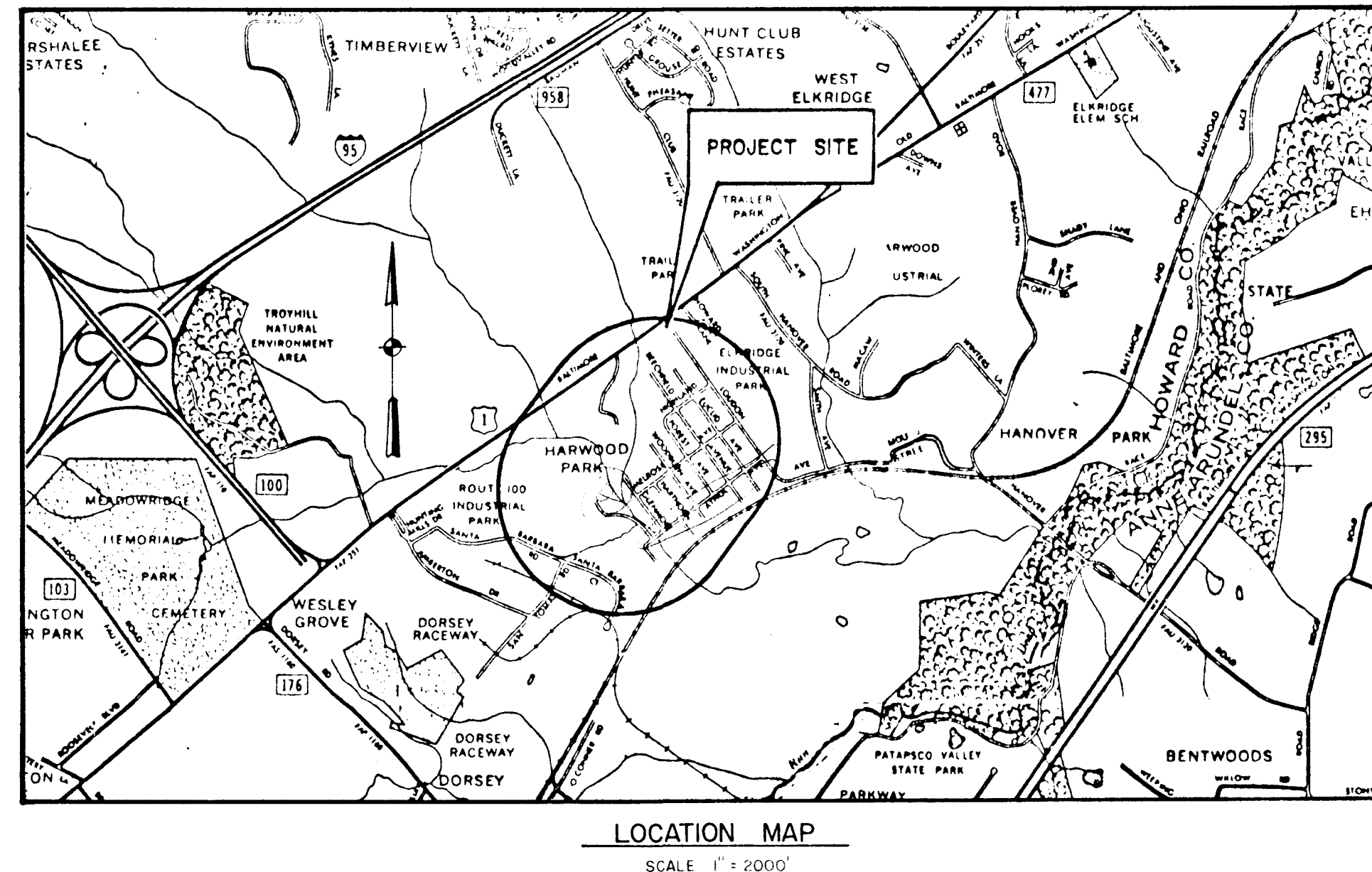




HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	TITLE SHEET & LOCATION PLAN
2	DRAINAGE AREA MAP
3	CONSTRUCTION DETAILS
4	CONSTRUCTION DETAILS
5	GEOMETRY LAYOUT
6	HORIZONTAL & VERTICAL CONTROLS
7	PLAN SHEET - MELROSE AVENUE
8	PROFILE SHEET - MELROSE AVENUE
9	PLAN SHEET - ATHOL AVENUE
10	PROFILE SHEET - ATHOL AVENUE
11	PLAN SHEET - MELROSE & ATHOL AVE.
12	PROFILE SHEET
13	PROFILE SHEET
14	SEDIMENT & EROSION CONTROL
15	SEDIMENT & EROSION CONTROL
16	SEDIMENT & EROSION CONTROL
17	COUNTY LINE WATER MAIN
18	COUNTY LINE WATER MAIN
19	COUNTY LINE WATER MAIN



Athol Ave

HARWOOD PARK STORM DRAINS

CAPITAL PROJECT D-6-1039

HARWOOD COMMUNITY ROADS

CAPITAL PROJECT J-0-4063

COUNTY LINE WATER MAIN

CAPITAL PROJECT W-6-8050

REVIEWED FOR _____ S.C.D.
NAME
AND MEETS TECHNICAL REQUIREMENTS

DATE: _____

SIGNATURE _____
U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR
SOIL EROSION AND SEDIMENT CONTROL BY THE
HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: _____ DATE: _____
HOWARD S.C.D.

CERTIFICATION BY THE DEVELOPER

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT THE RESPONSIBLE PERSONAL INVOLVED IN THIS CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF NATIONAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT."

SIGNATURE OF DEVELOPER _____ DATE _____

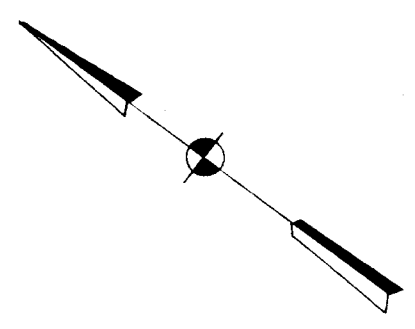
CERTIFICATION BY THE ENGINEER

"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"

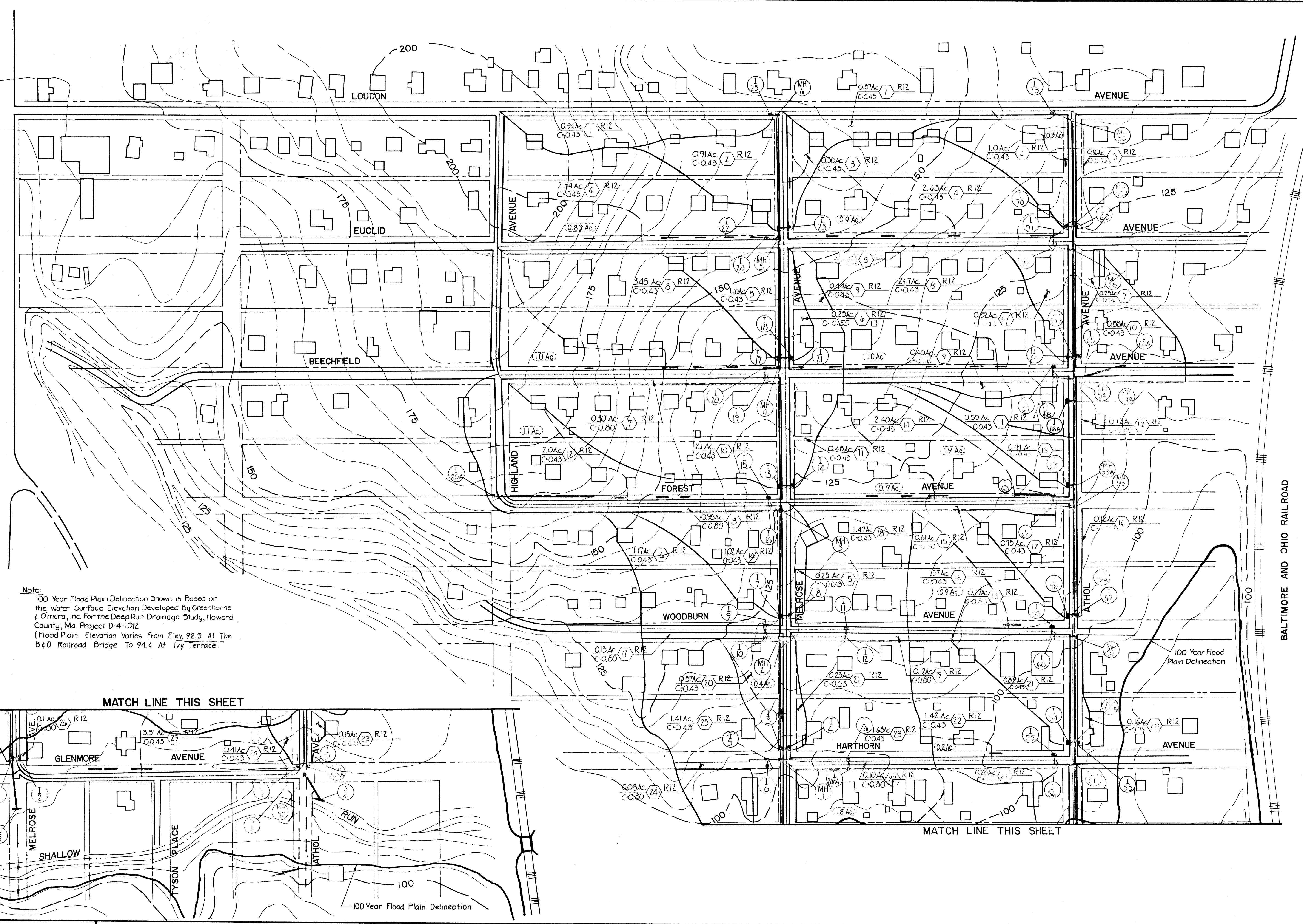
SIGNATURE OF ENGINEER _____ REG. NO. _____ DATE _____

CAPITAL PROJECT NO. W-6-8050
CONTRACT NO. 44-1015

C144BZ01



U.S. ROUTE 1
BALTIMORE WASHINGTON BLVD.



Note:
100 Year Flood Plain Delineation Shown is Based on the Water Surface Elevation Developed by Greenhorne & O'Mara, Inc. For the Deep Run Drainage Study, Howard County, Md. Project D-4-1012
(Flood Plain Elevation Varies From Elev. 92.3 At The B&O Railroad Bridge To 94.4 At Ivy Terrace.)

MATCH LINE THIS SHEET

MATCH LINE THIS SHEET

BALTIMORE AND OHIO RAILROAD

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DIRECTOR OF PUBLIC WORKS DATE 11/18/07
CHIEF, BUREAU OF ENGINEERING DATE 11/18/07
CHIEF, ROADS, BRIDGES, & STORM DRAINAGE DIVISION

 Johnson, McCordic & Thompson, P. A.
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

DRAINAGE AREA MAP
HARWOOD PARK

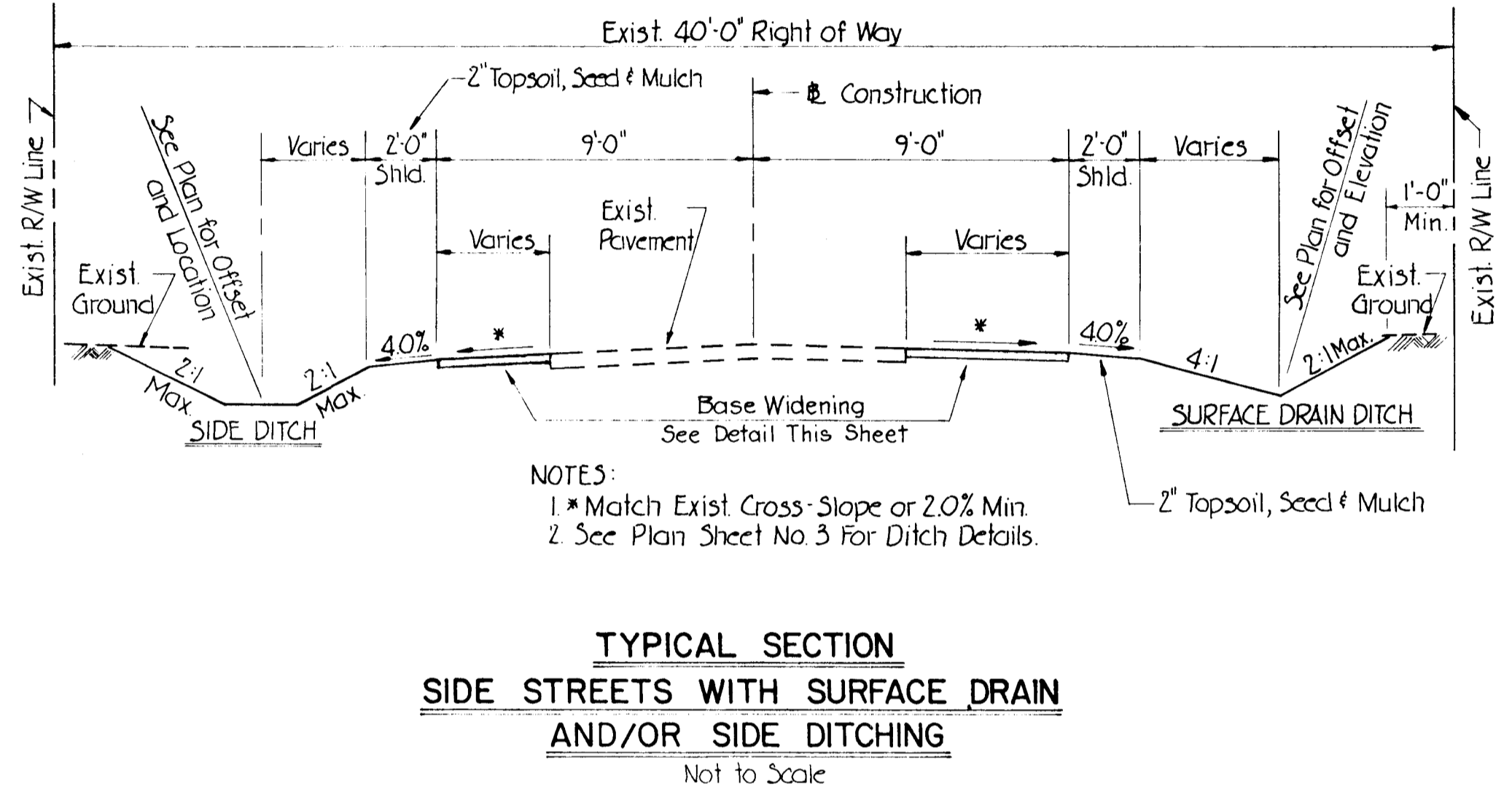
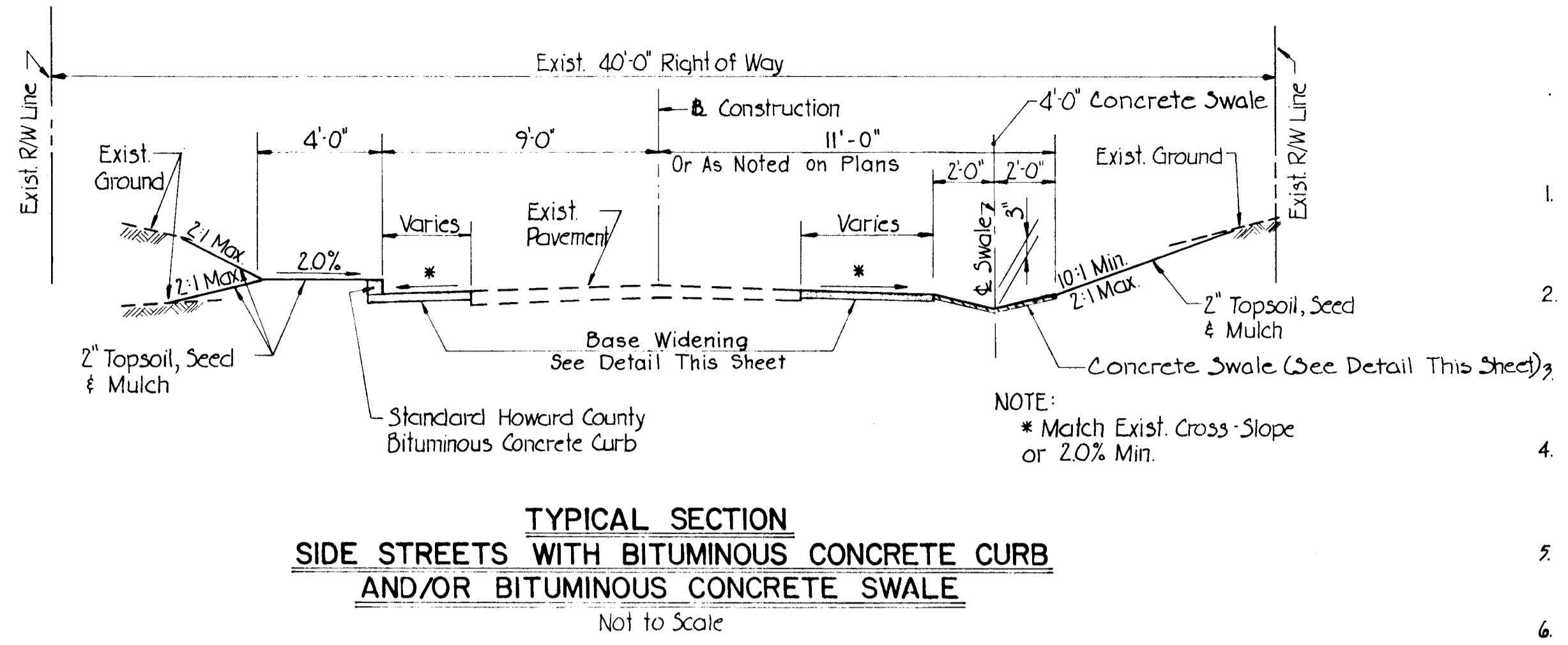
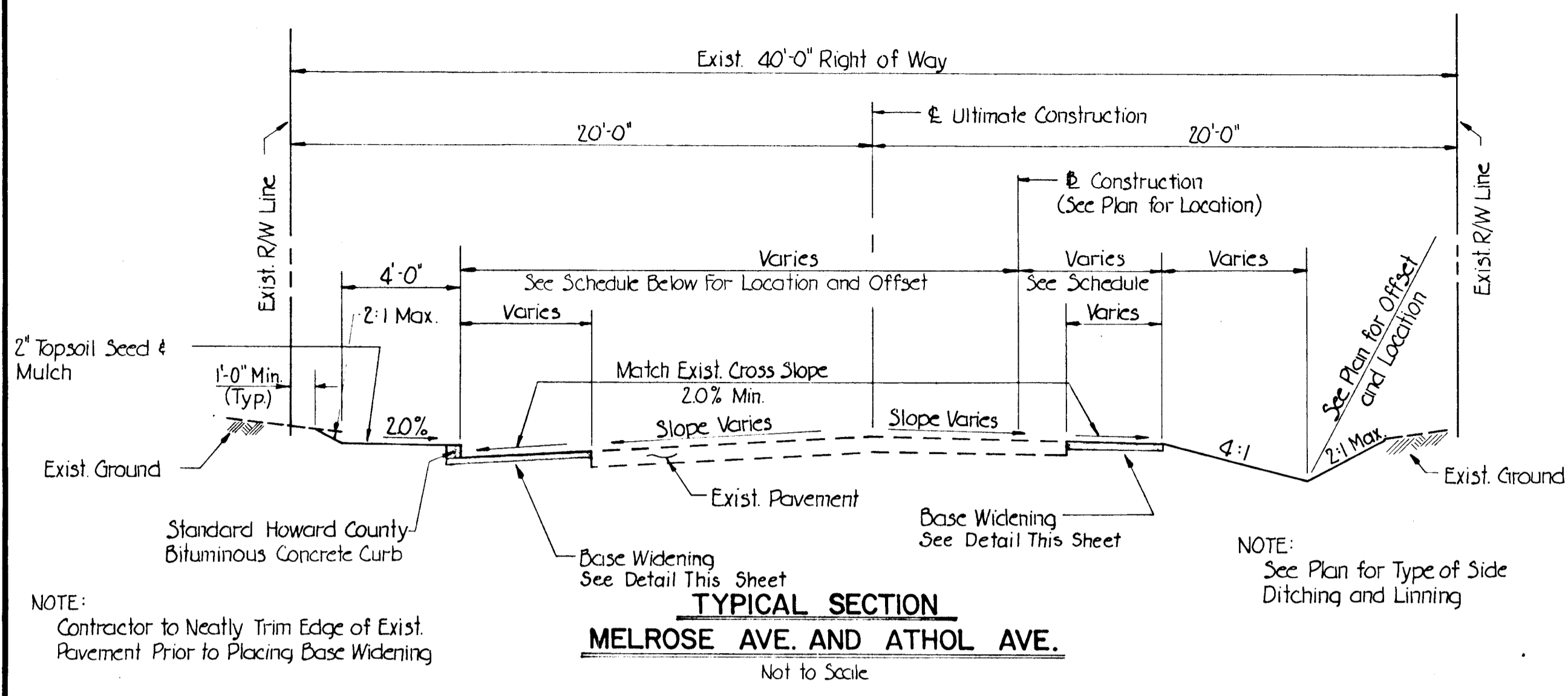
HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-O-4063
HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
ELECTION DISTRICT NO. 1
HOWARD COUNTY, MARYLAND

DRAWING NO. 2 OF 19
SCALE 1" = 100'
DES. P.W.Z.
DRW. W.K.S.
CHK. J.A.R.

GENERAL NOTES

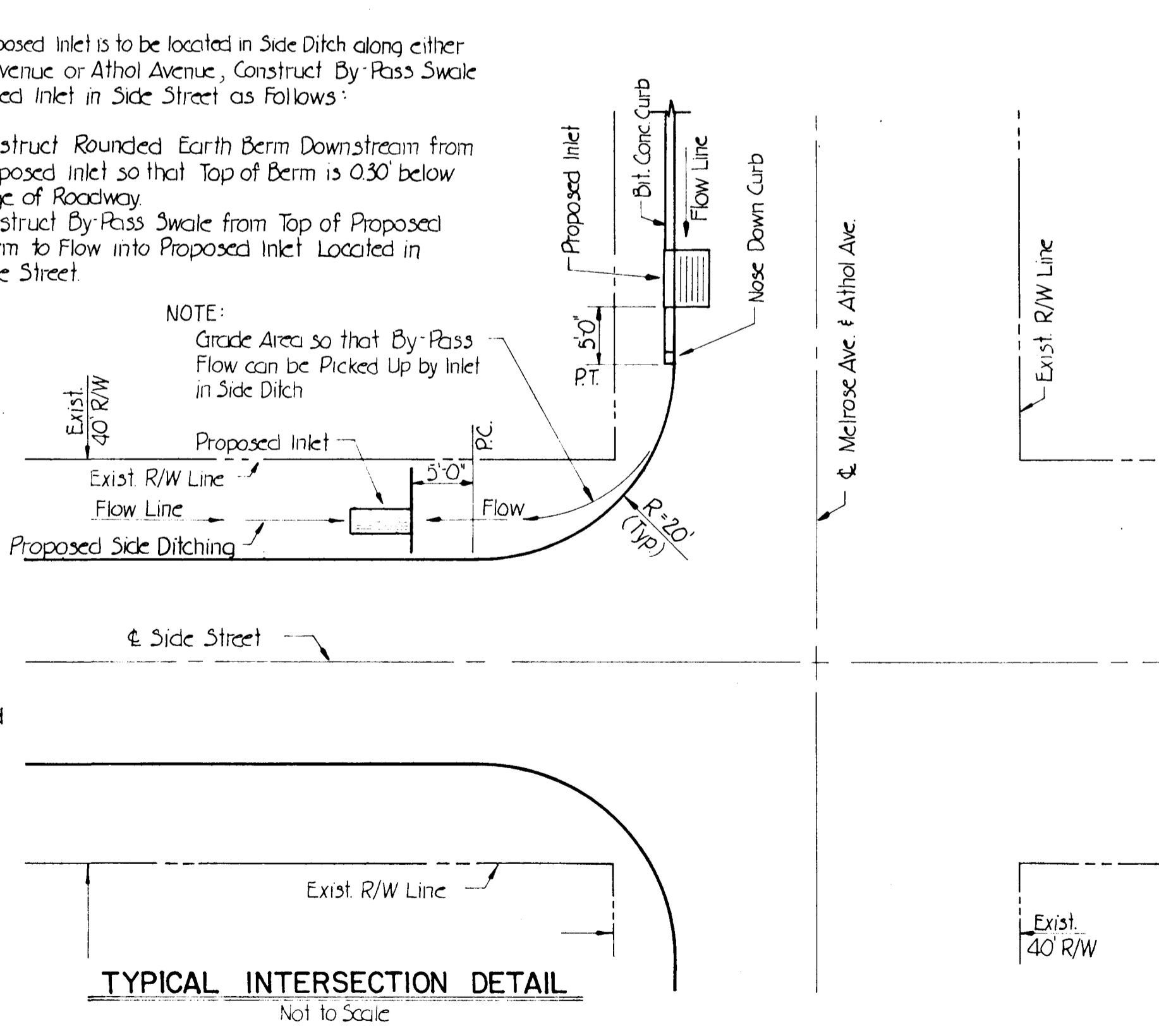
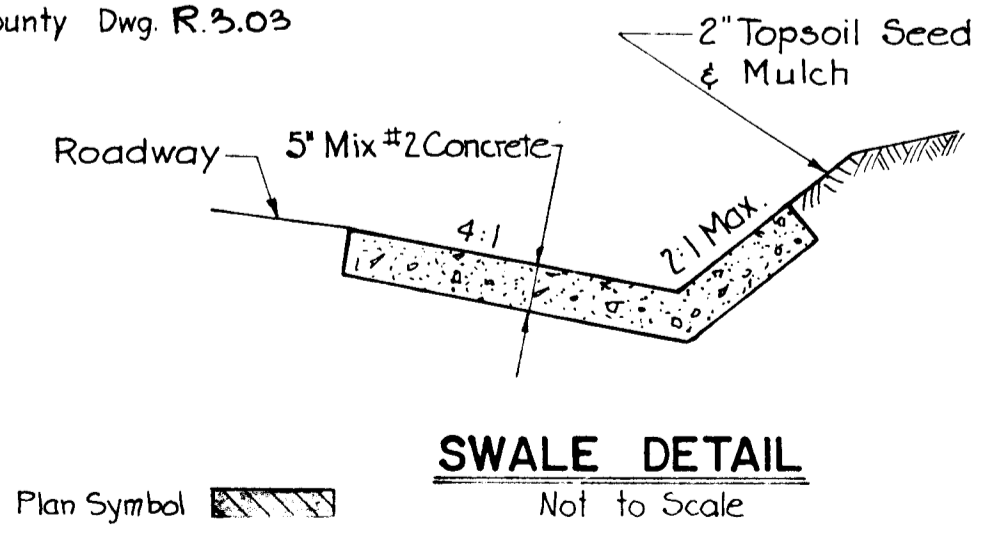
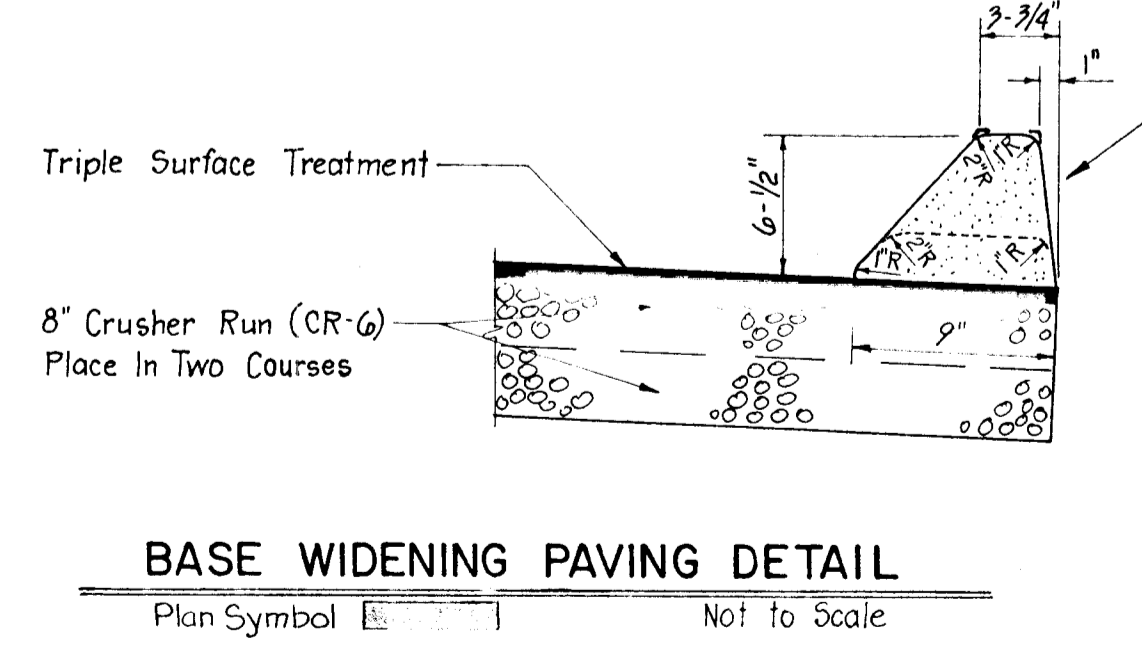
- Right of Way Lines shown on these Plans are shown for assistance in interpreting the Plans. For any Fee Right of Way and Easement Information see Right of Way Plats.
- Endwalls are not to be constructed until grading is completed. The types of endwalls are subject to modifications.
- Existing Private Sidewalks disturbed by the work shall be reconstructed. Steps shall be provided where necessary as a result of grading.
- 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 Storm Drains.
- All Pipe Elevations shown are invert ϕ Elevations.
- All Slopes and/or Disturbed Areas shall receive 2" Topsoil, Seed and Mulch except where otherwise indicated on the Plans or as directed by the Engineer.
- The Contractor shall install and maintain all temporary Sediment Control Measures as shown on the drawings. However, any Sediment Control Measures not specifically indicated in the contract documents, but required as a result of the Contractor's excavations or activities shall not be cause for Extra Payment.
- Location Points for Inlets, Manholes And Structures

Item	Horizontal Location	Vertical Location
Curb Type Inlets	Center Face of Curb	Top of Curb
Grate Type Inlets	Center of Grate	Top of Grate
Manholes	Center of Cover	Top of Cover
Structures w/Stack	Center of Cover	Top of Cover
Endwalls	Center of Wall	Top of Wall
- 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.
- 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 Storm Drains.
- 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" 234-5691;
 - Baltimore Gas & Electric Company - Underground Gas Distribution Engineering 234-5533;
 - Chesapeake and Potomac Telephone Company 725-9976;
 - State Highway Administration 531-5533.
- All manholes shall be 4'-0" inside diameter.
- Standard Details for this Contract shall be the Howard County Standard Details as supplemented by the Maryland State Highway Administration Standard Details.
- Trees are to be protected from damage to the maximum extent.
- 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 "Clearing and Grubbing."
- 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.
- Top Elevations of structures shall be adjusted in the field to meet existing conditions as directed by the Engineer.
- Grading shall be done in such a manner so as to insure positive drainage to the proposed inlet structures.
- Horizontal and vertical controls are based on the Maryland State Grid Coordinate System.
- Corrugated Metal Pipe shall be bituminous coated, Type A, #16 Gauge.



* Construct Bituminous Concrete Curb
** Construct Edge Of Road

STATION AND OFFSET	BIT. CONG. CURB	EDGE OF ROAD	REMARKS
MELROSE AVENUE			
Sta. 212+86 To Sta. 215+22 - 15' Lt.		**	
Sta. 212+86 To Sta. 215+22 - 9' Rt.	*	**	
Sta. 215+80 To Sta. 218+08 - 15' Lt.		**	
Sta. 215+80 To Sta. 218+08 - 7' Rt.		**	
Sta. 218+69 To Sta. 221+03 - 15' Lt.		**	
Sta. 218+69 To Sta. 221+03 - 7' Rt.		**	
Sta. 221+56 To Sta. 223+90 - 15' Lt.		**	
Sta. 221+56 To Sta. 223+90 - 7' Rt.	*	**	
Sta. 224+48 To Sta. 226+81 - 15' Lt.		**	
Sta. 224+48 To Sta. 226+81 - 7' Rt.		**	
Sta. 227+40 To Sta. 229+75 - 19' Lt.	*	**	
Sta. 227+40 To Sta. 229+62 - 7' Rt.		**	
ATHOL AVENUE			
Sta. 112+86 To Sta. 115+22 - 5' Lt.		**	
Sta. 112+86 To Sta. 115+22 - 17' Rt.		**	
Sta. 115+80 To Sta. 118+08 - 5' Lt.		**	
Sta. 115+80 To Sta. 118+08 - 17' Rt.		**	
Sta. 118+69 To Sta. 121+00 - 9' Lt.	*	**	
Sta. 118+69 To Sta. 121+00 - 17' Rt.		**	
Sta. 121+58 To Sta. 123+93 - 5' Lt.		**	
Sta. 121+58 To Sta. 123+93 - 17' Rt.		**	
Sta. 124+91 To Sta. 126+82 - 9' Lt.	*	**	
Sta. 124+91 To Sta. 126+82 - 17' Rt.		**	
Sta. 127+40 To Sta. 129+50 - 5' Lt.		**	
Sta. 127+40 To Sta. 129+50 - 17' Rt.		**	



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE _____
CHIEF, BUREAU OF ENGINEERING DATE _____

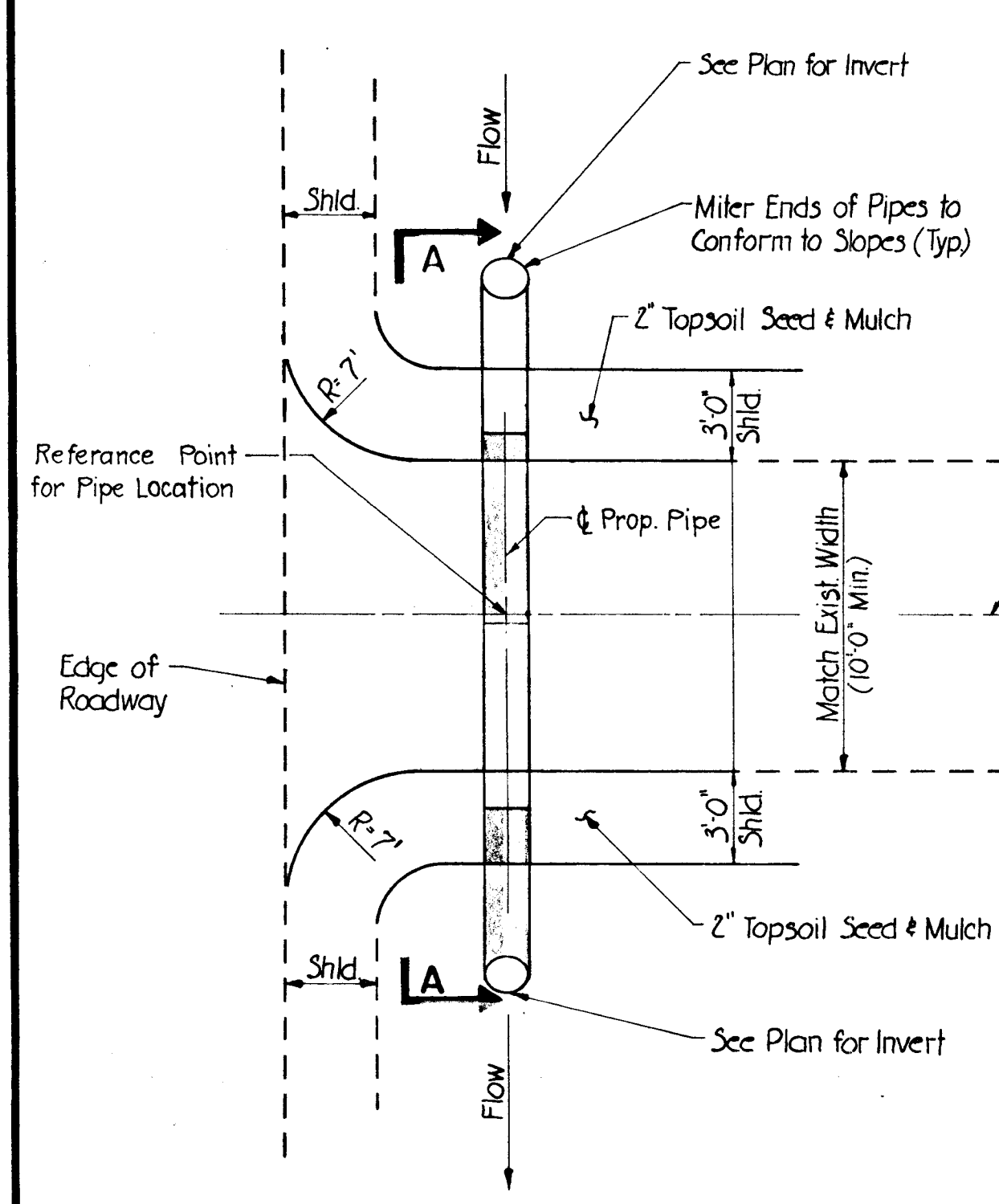
Emilia Anderson *Calia Walker*
CHIEF, ROADS, BRIDGES, & STORM DRAINAGE DIVISION DATE _____

Johnson, McCordic & Thompson, P. A.
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

CONSTRUCTION DETAILS
HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-O-4063
HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
ELECTION DISTRICT NO. 1
HOWARD COUNTY, MARYLAND

DRAWING SCALE DES. P.W.Z.
NO. 3 AS SHOWN DRW. R.L.D.
OF 19 CHK. J.A.R.

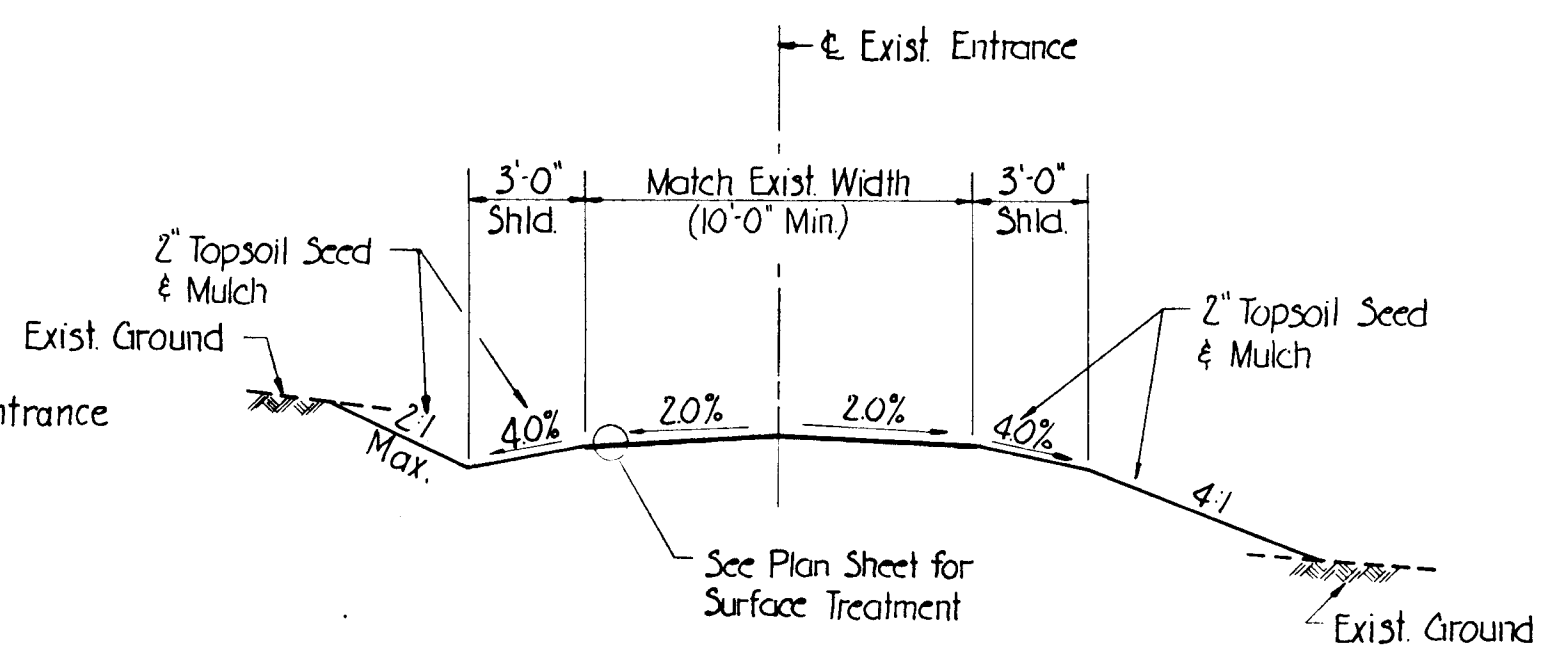


PLAN

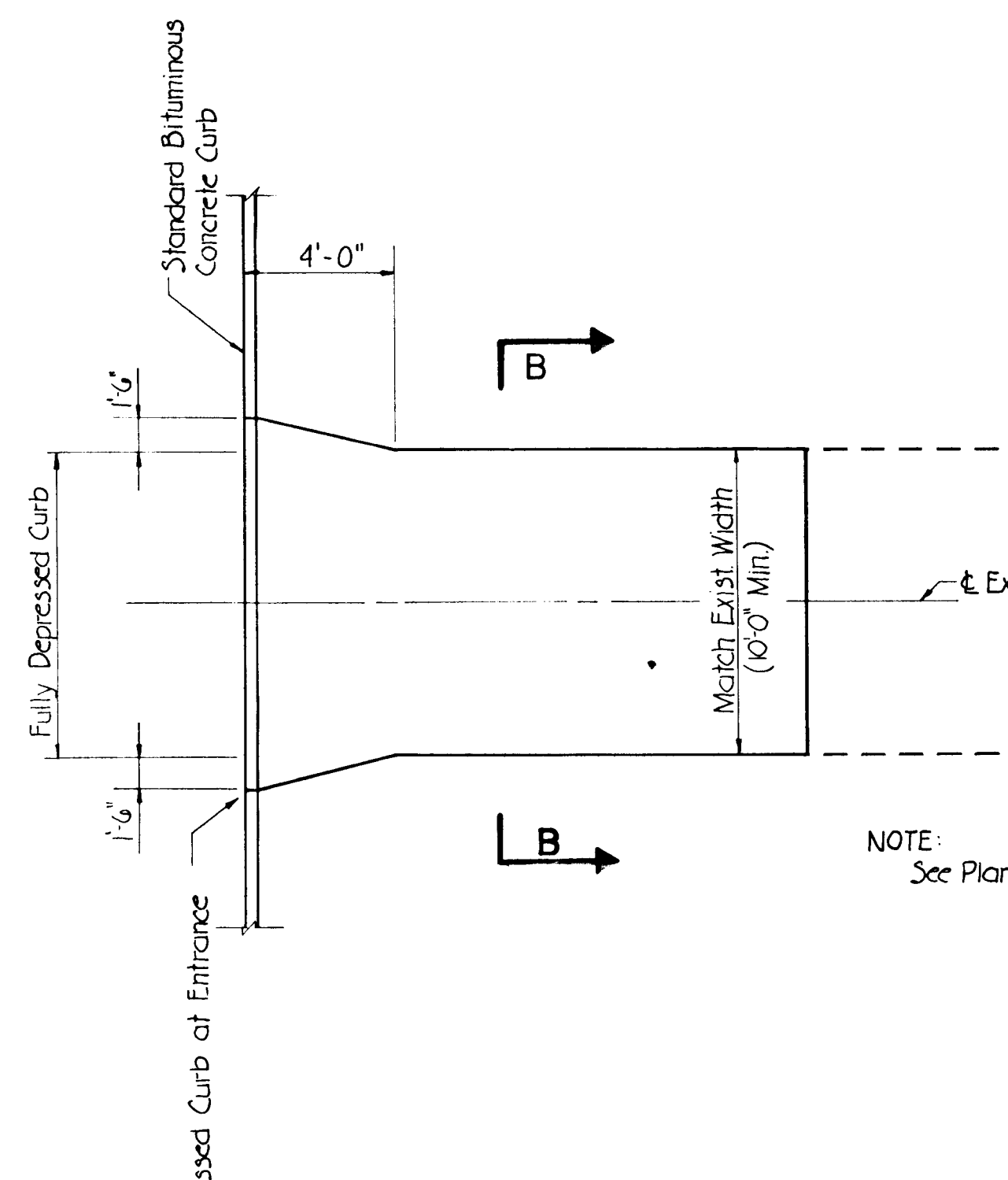
TYPICAL OPEN-SECTION DRIVEWAY ENTRANCE DETAIL

Not to Scale

- NOTES:
 1. See Schedule for Type, Size and Location of Entrance Culverts.
 2. See Plans for Surface Treatment.



SECTION A-A

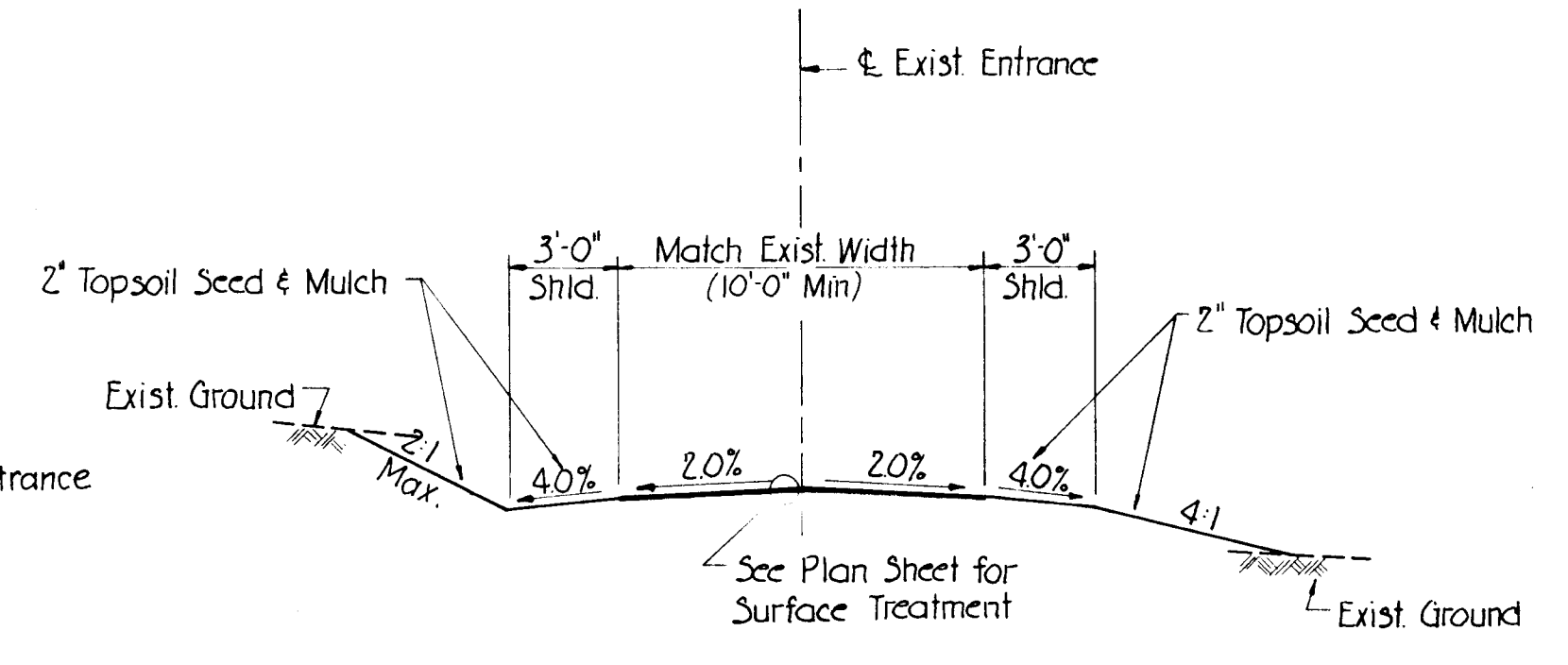


PLAN

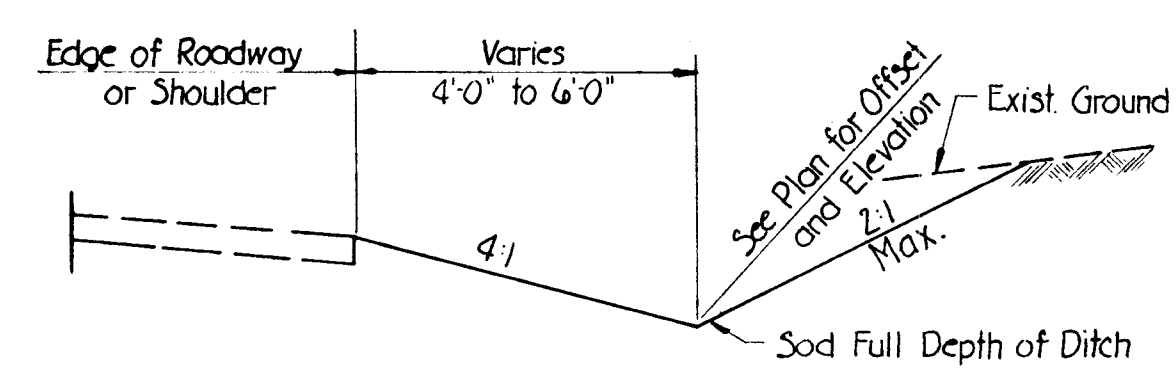
TYPICAL CLOSED-SECTION DRIVEWAY ENTRANCE DETAIL

Not to Scale

- NOTE:
 See Plan for Surface Treatment

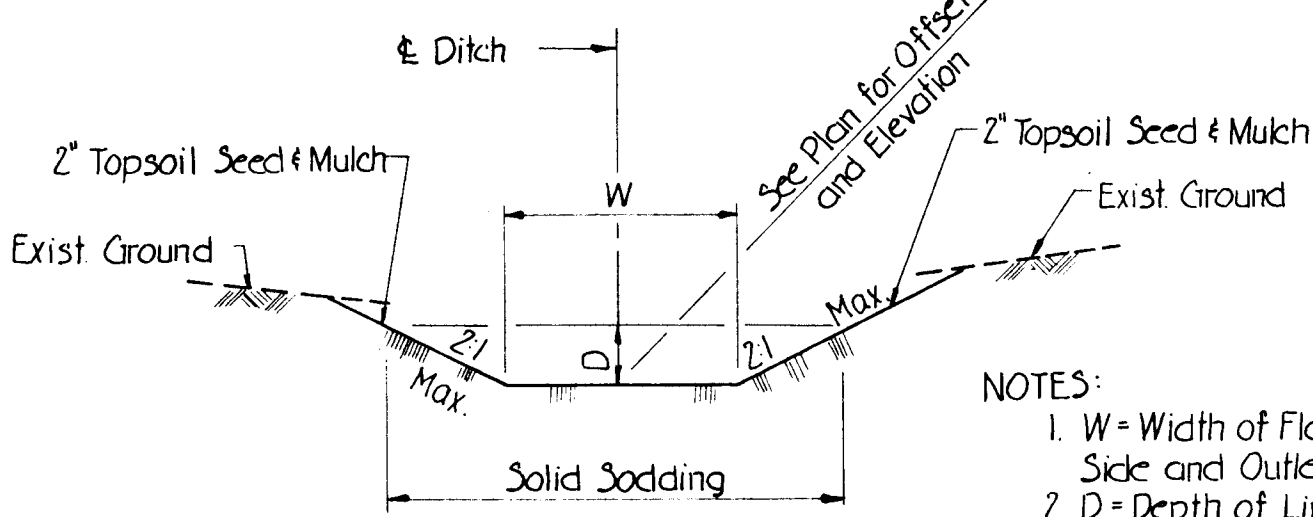


SECTION B-B



SOD SURFACE DRAIN DITCH

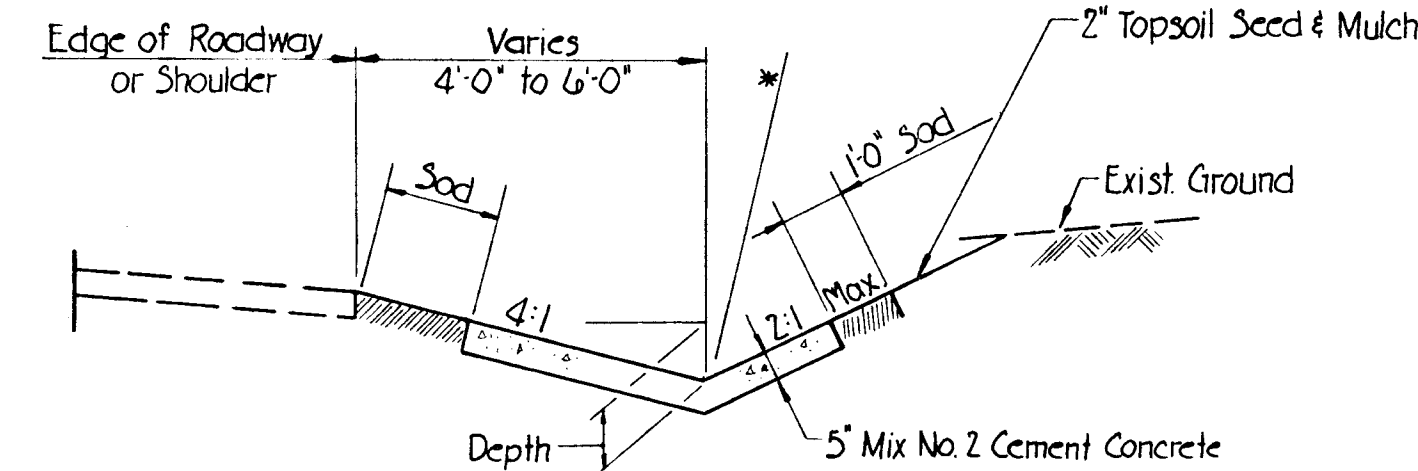
Not to Scale



SOD SIDE AND OUTLET DITCH

Not to Scale

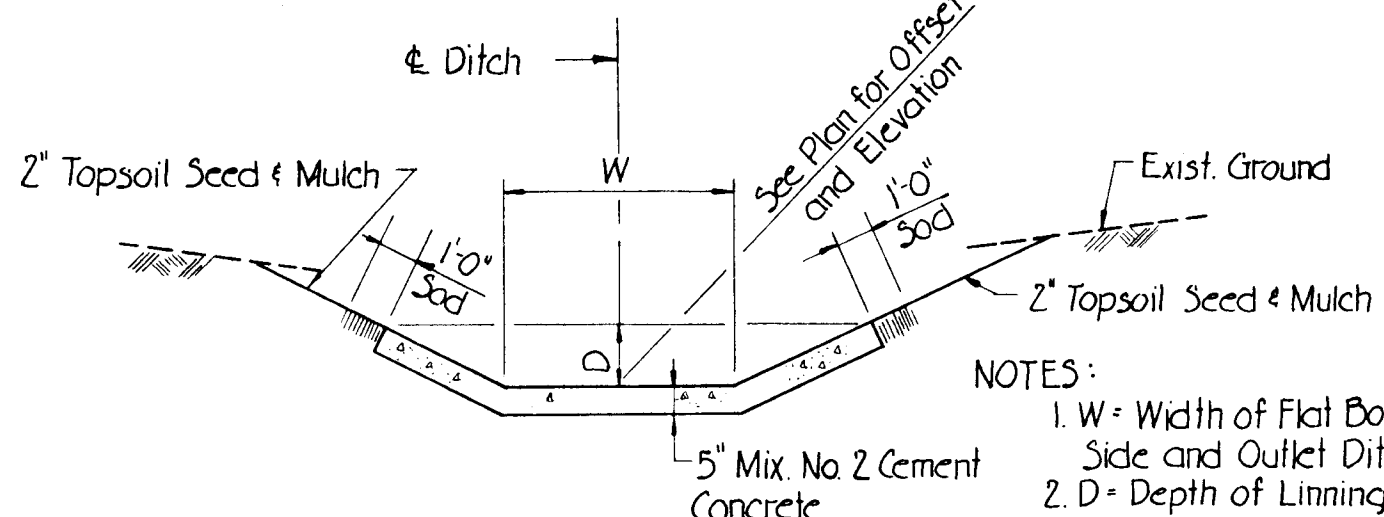
- NOTES:
 1. W = Width of Flat Bottom Side and Outlet Ditch.
 2. D = Depth of Lining.



CONCRETE SURFACE DRAIN DITCH

Not to Scale

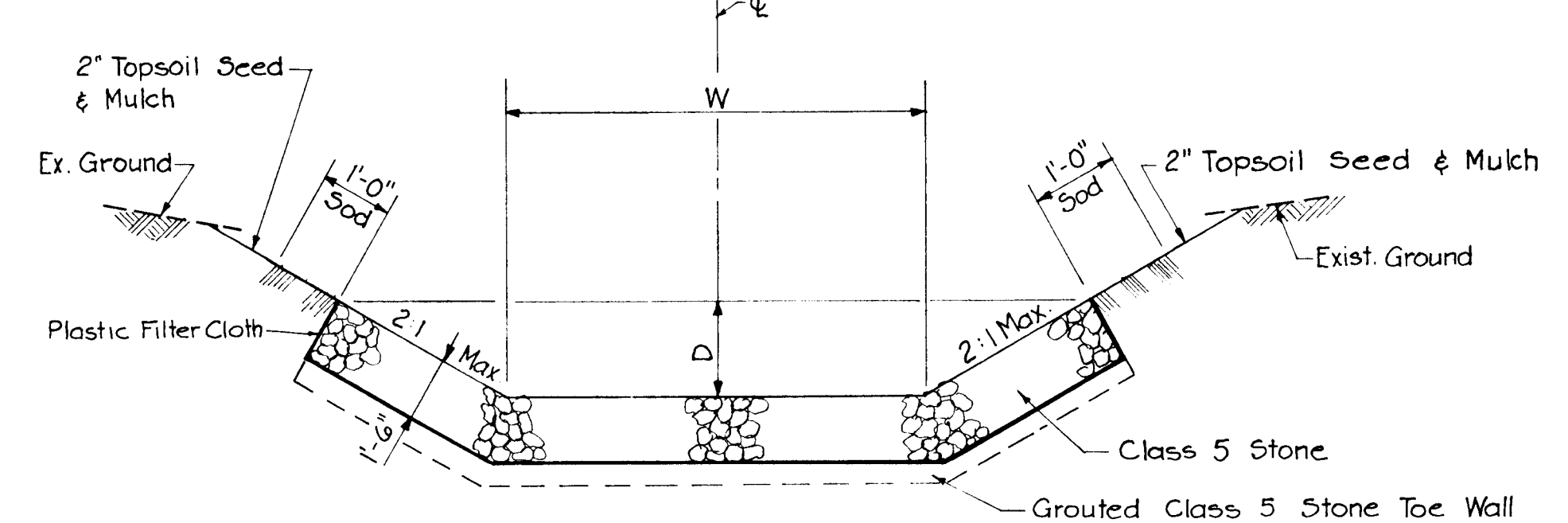
- NOTES:
 1. See Howard County Details for Reinforcing Requirements.
 2. See Plan for Offset, Elevation and Depth of Concrete Lining.



CONCRETE SIDE AND OUTLET DITCH

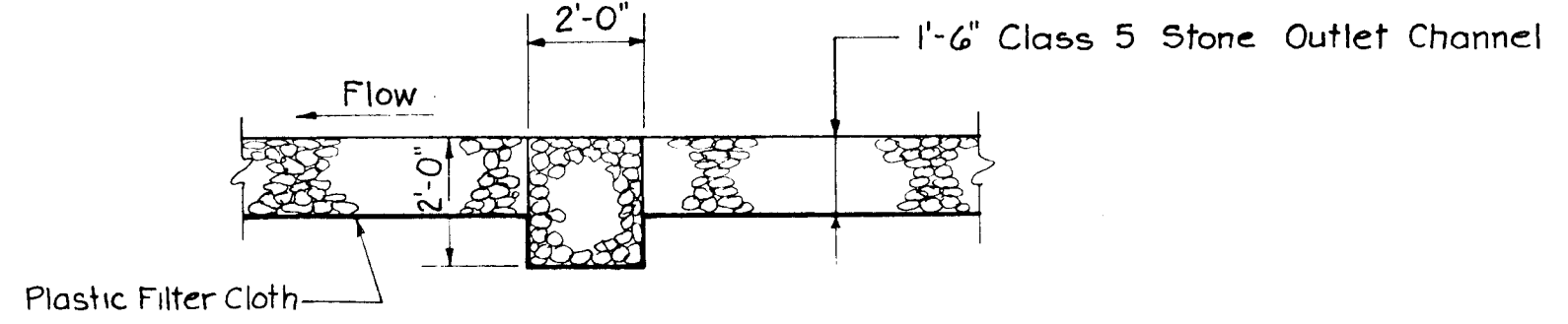
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- NOTES:
 1. W = Width of Flat Bottom Side and Outlet Ditch.
 2. D = Depth of Lining.



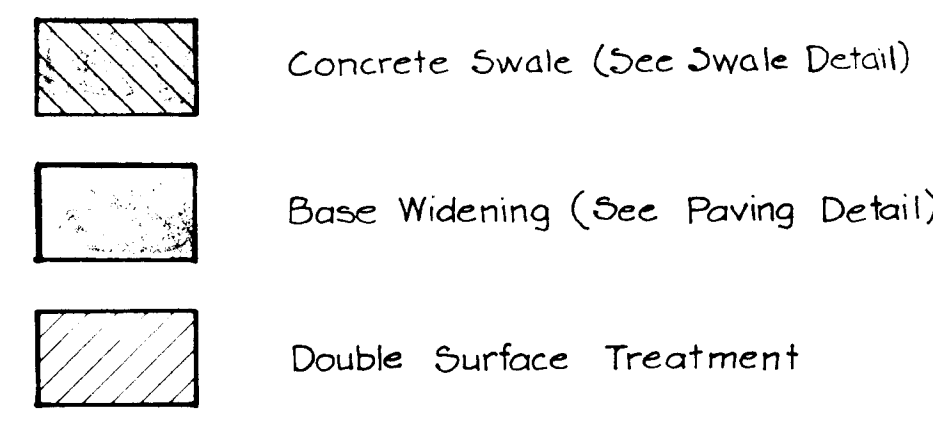
OUTLET CHANNEL DETAIL

Not to Scale

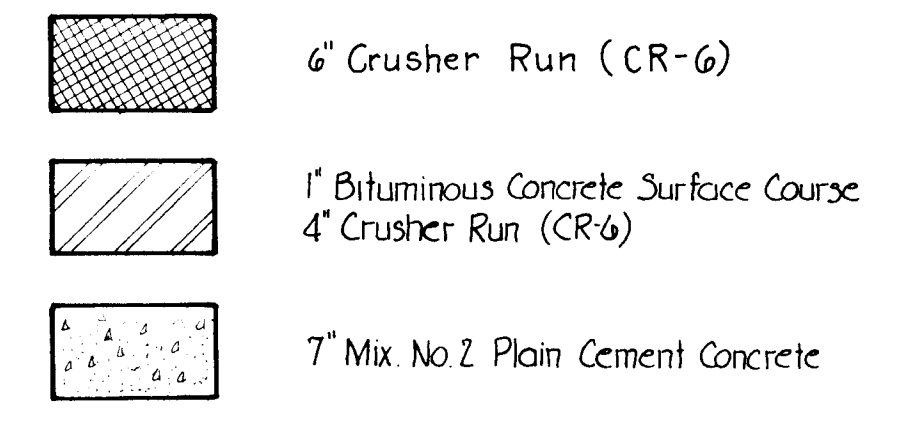


OUTLET CHANNEL TOE-WALL DETAIL

Not to Scale



ROADWAY PAVEMENT LEGEND



DRIVEWAY ENTRANCE TREATMENT LEGEND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DIRECTOR OF PUBLIC WORKS DATE
 CHIEF, BUREAU OF ENGINEERING DATE

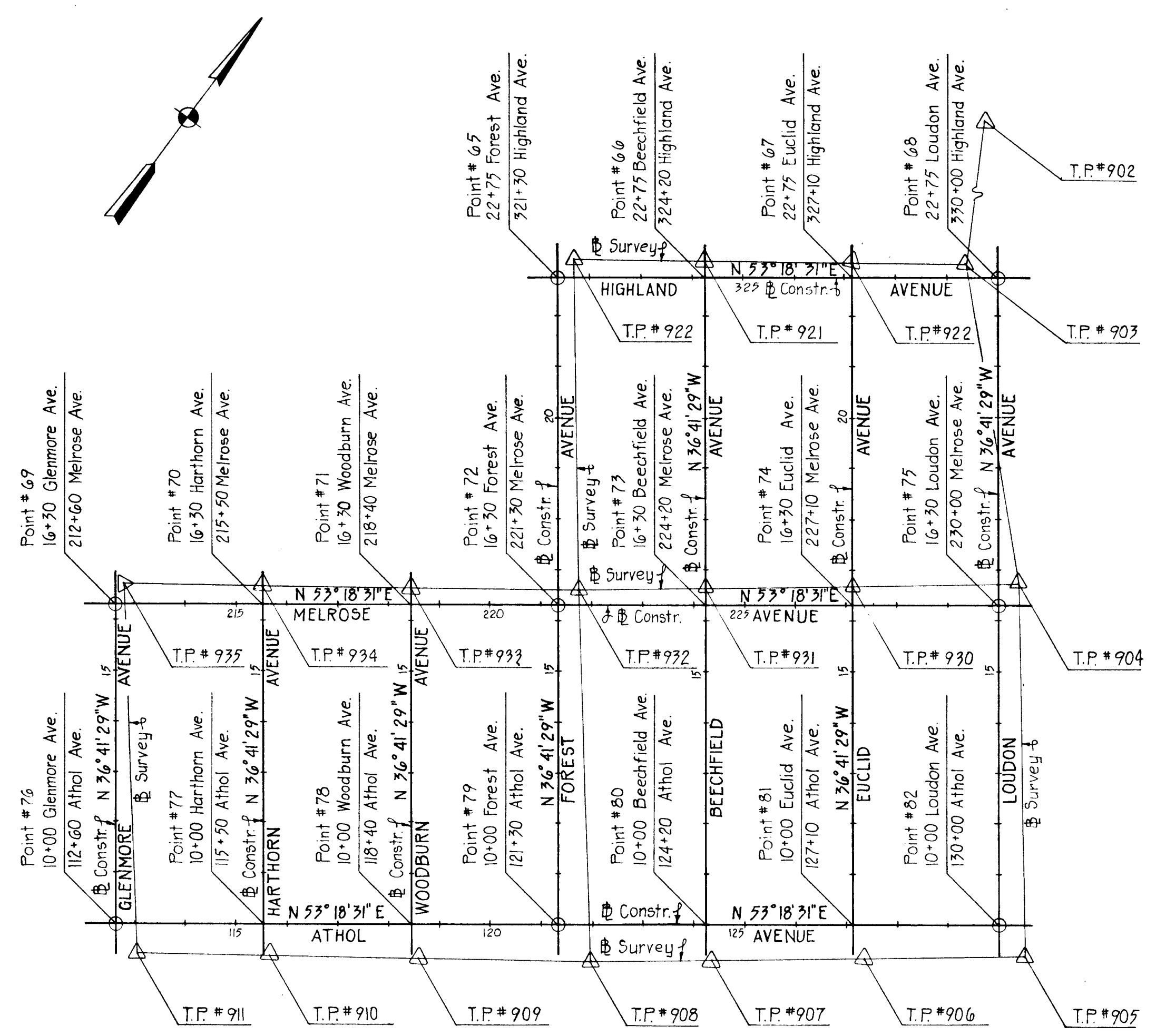
Johnson, McCordic & Thompson, P. A.
 ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS



CONSTRUCTION DETAILS
 HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-O-4063
 HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
 ELECTION DISTRICT NO. 1
 HOWARD COUNTY, MARYLAND

DRAWING NO. 4 OF 19
 SCALE AS SHOWN
 DES. P.W.Z.
 DRW. R.L.D.
 CHK. J.A.R.



BASE LINE CONSTRUCTION STAKEOUT

TO LOCATE	T	B.S.	F.S.	RT. \angle	DIST.	COORDINATES		REMARKS
						NORTH	EAST	
68	903	902	68	119° 22' 03"	2.60	496370.0949	874282.4425	
65	922	921	65	142° 51' 39"	2.35	495810.2669	873584.8188	
75	904	905	75	2° 11' 35"	5.13	495812.8911	874667.8322	
72	932	933	72	280° 26' 49"	5.14	495293.0631	873970.2085	
69	935	934	69	91° 49' 25"	4.79	494773.2352	873272.5847	
82	905	906	82	52° 10' 44"	4.24	495307.7152	875044.2593	
79	908	909	79	67° 40' 10"	6.73	494787.8873	874346.6356	
76	911	910	76	254° 40' 35"	9.45	494268.0593	873649.0118	

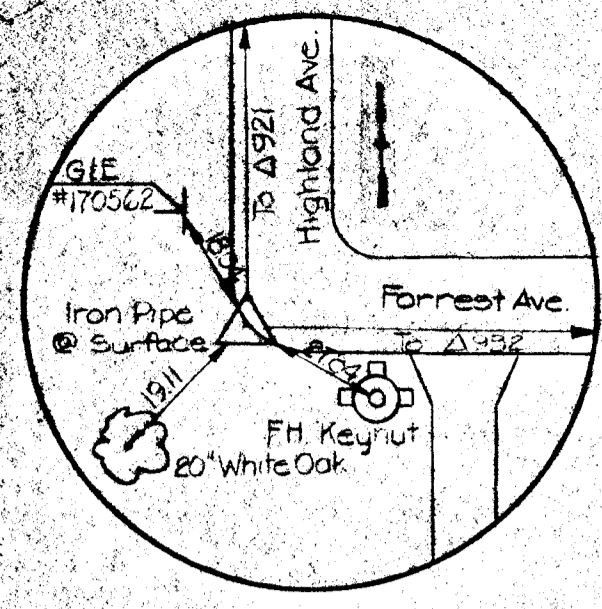
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DIRECTOR OF PUBLIC WORKS DATE _____
 CHIEF, BUREAU OF ENGINEERING DATE _____
Elizabeth Henderson Galia 11/18/82
 CHIEF, ROADS, BRIDGES, & STORM DRAINAGE DIVISION DATE

Johnson, McCordic & Thompson, P. A.
 ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS
 1524 YORK ROAD • BALTIMORE, MARYLAND • 21201 • (301) 821-6601

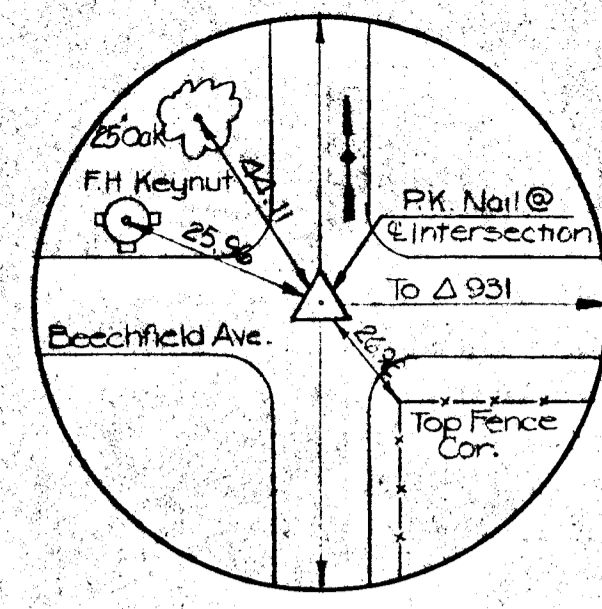
GEOMETRY LAYOUT
 HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-O-4063
 HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
 ELECTION DISTRICT NO. 1
 HOWARD COUNTY, MARYLAND

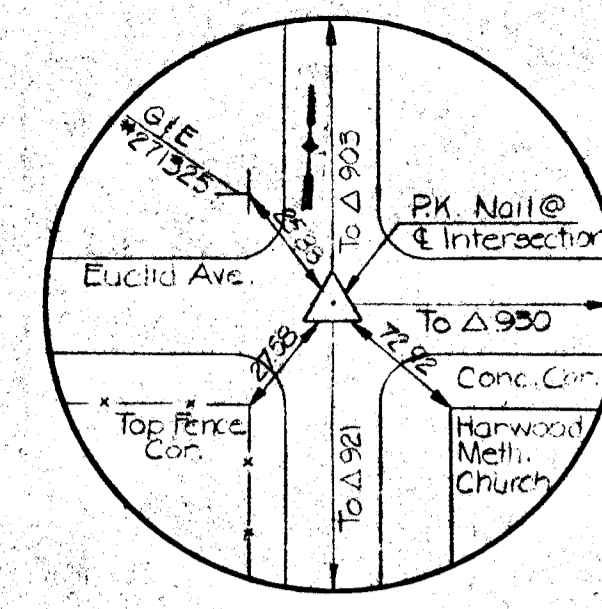
DRAWING NO. 5 OF 19
 SCALE 1"=200'
 DES. W.K.L.
 DRW. M.L.
 CHK. J.A.R.



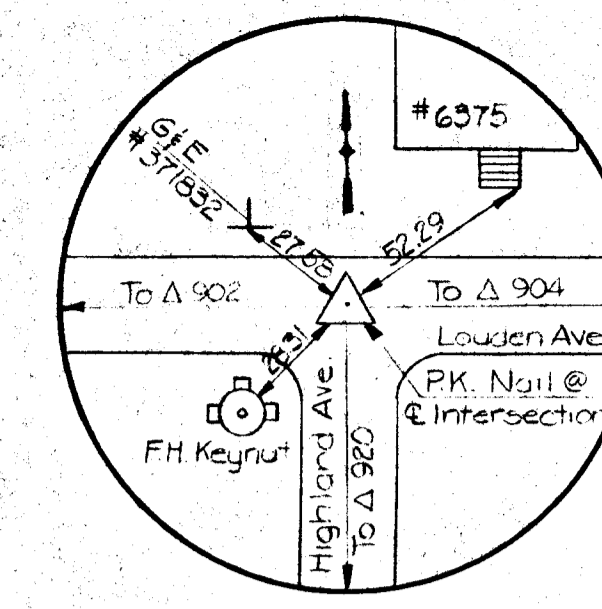
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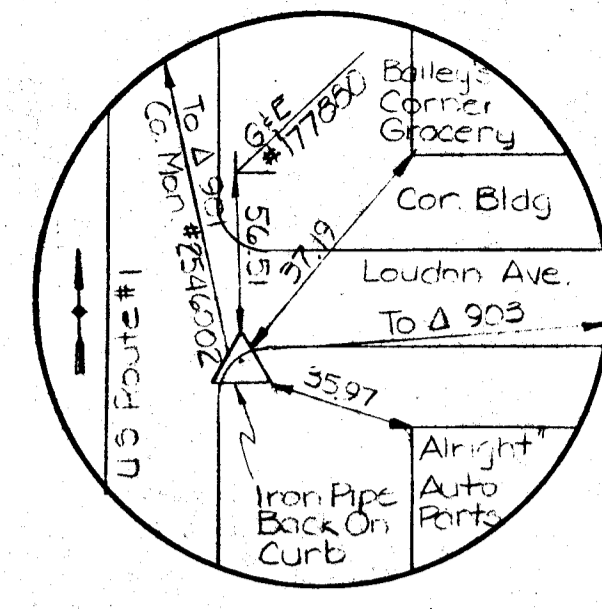
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920



903

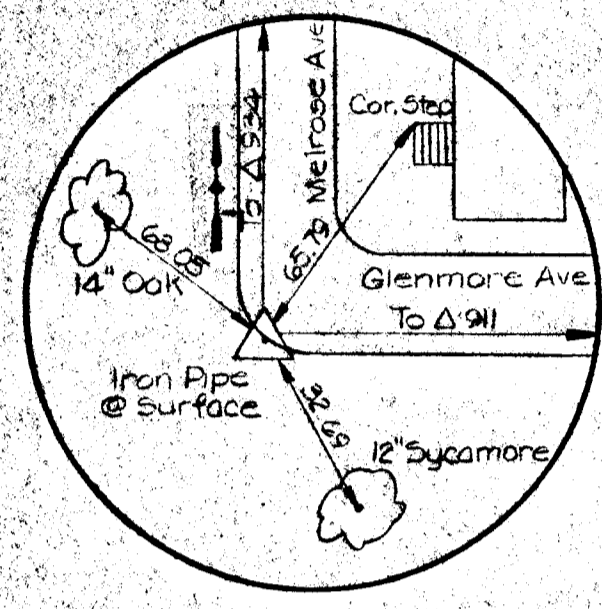


902

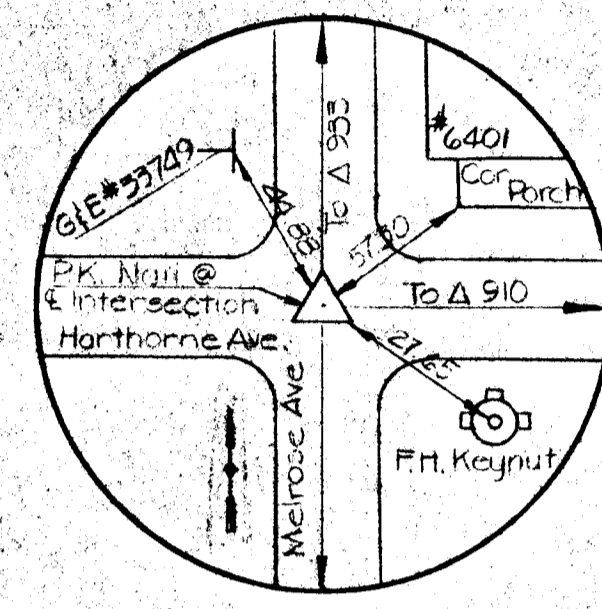
HIGHLAND AVENUE

LOUDON AVENUE

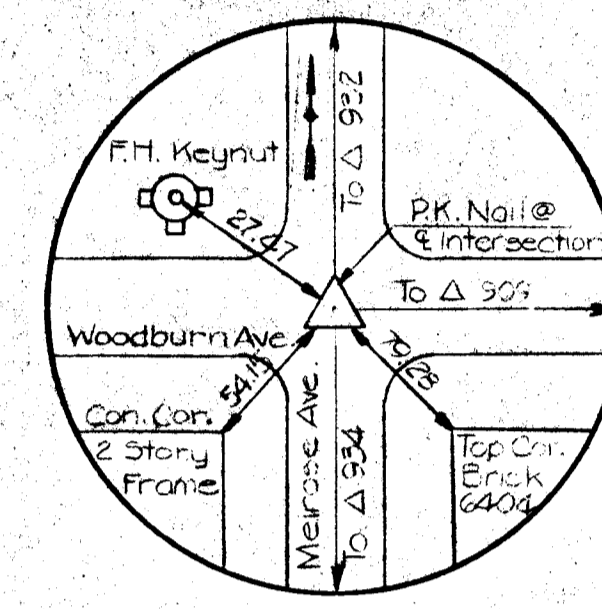
TRAVERSE POINT COORDINATES		
POINT NO.	NORTH	EAST
901	497157.2170	874176.5650
902	497157.5341	873647.6315
903	496329.7322	874279.5650
904	495817.1045	874664.9130
905	495506.5965	875045.5483
906	495132.5456	874816.3434
907	494955.4990	874584.3916
908	494784.4438	874352.4150
909	494610.3680	874120.4163
910	494436.3276	873888.4724
911	494262.2659	873656.4819
912	493997.2550	873288.7434
913	493695.1979	873223.8976
914	492831.6386	873058.3969
915	492359.4000	872959.3130
920	492157.7623	874049.6017
921	495984.5342	873816.9227
922	495812.5231	873585.4760
930	495643.7779	874432.3197
931	495470.4640	874199.8357
932	495297.6735	873967.9346
933	495124.4169	873735.4550
934	494950.5430	873502.2670
935	494777.1597	873269.5470



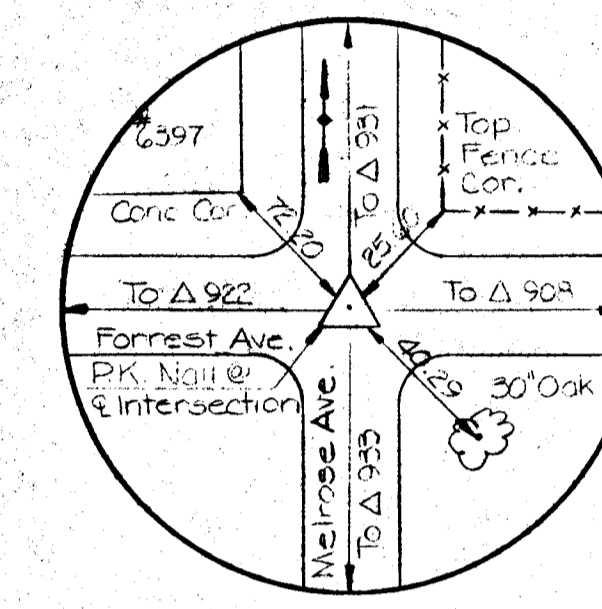
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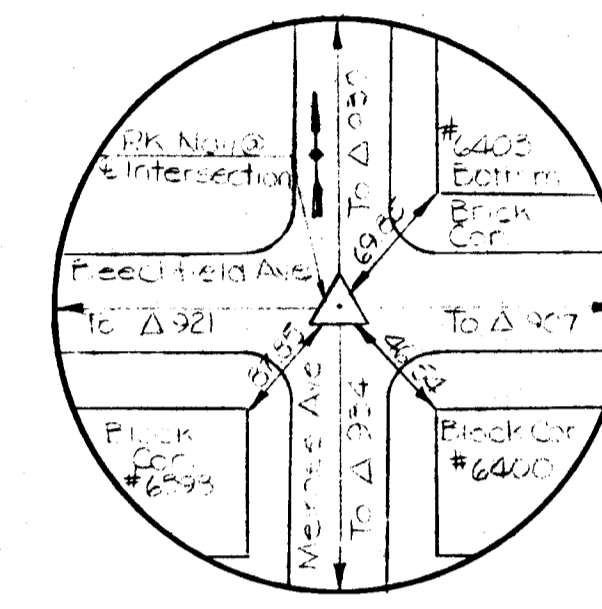
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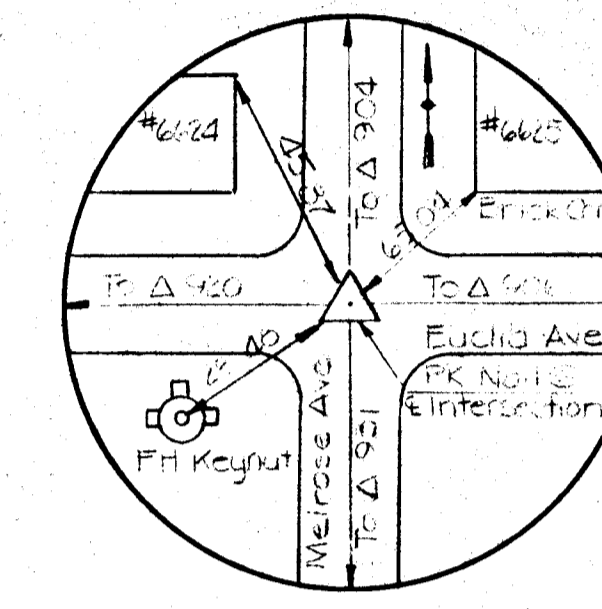
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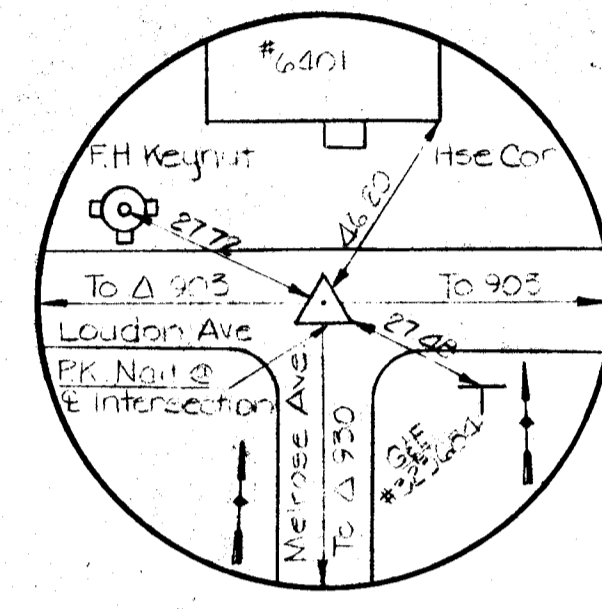
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931

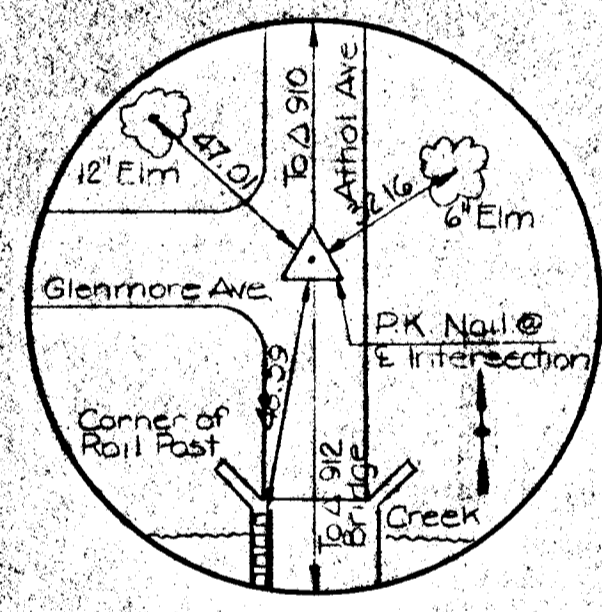


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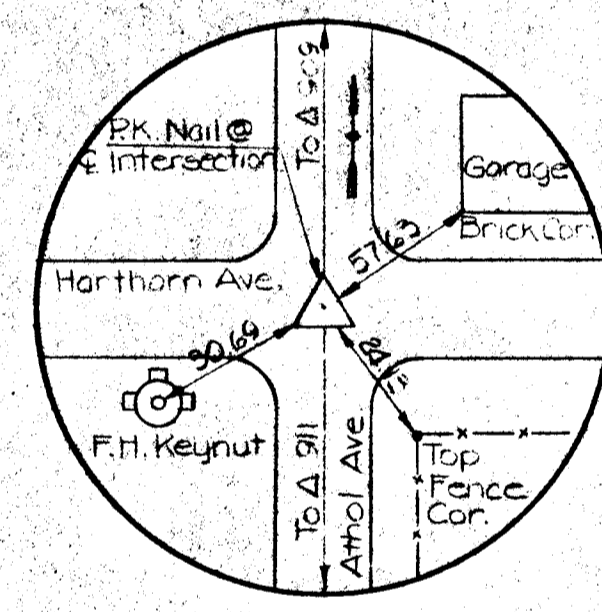


904

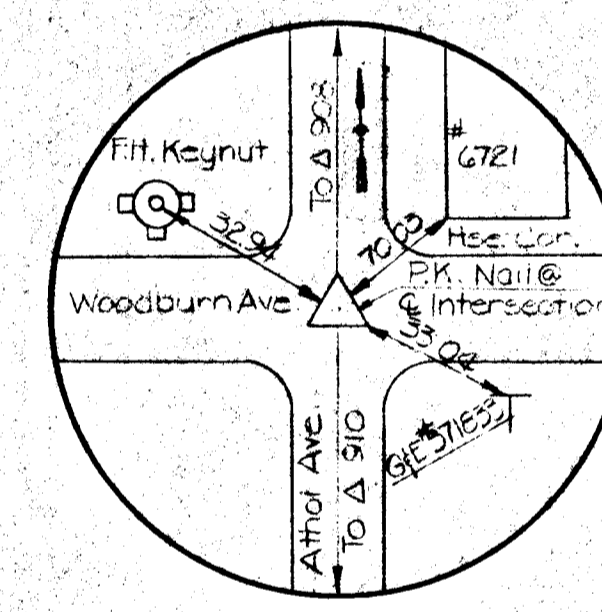
MELROSE AVENUE



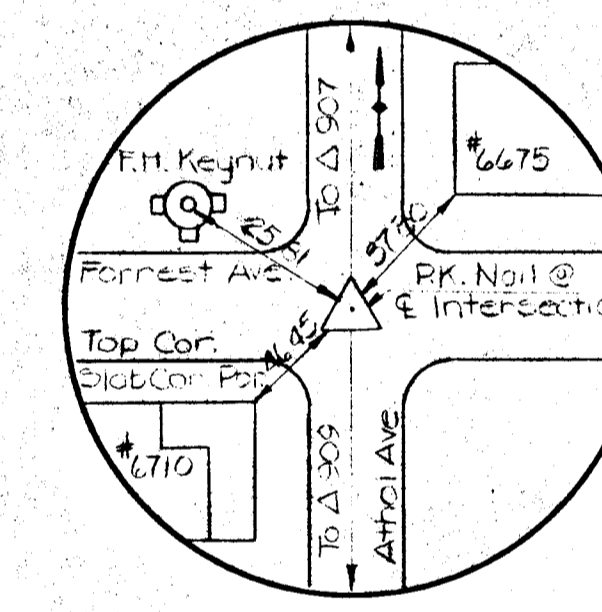
911



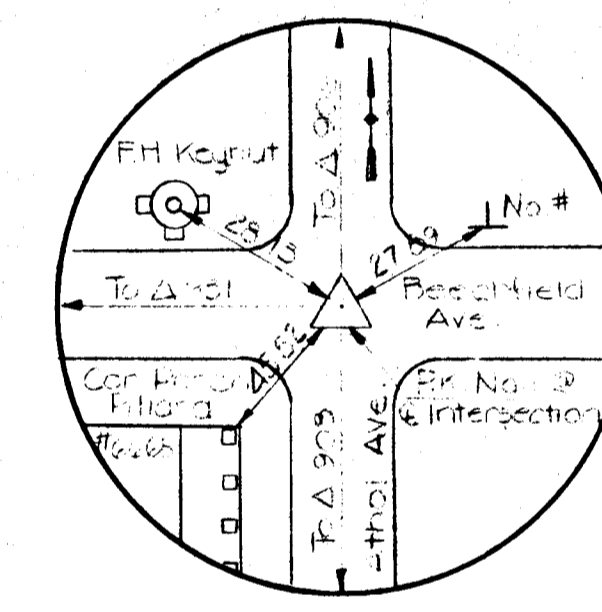
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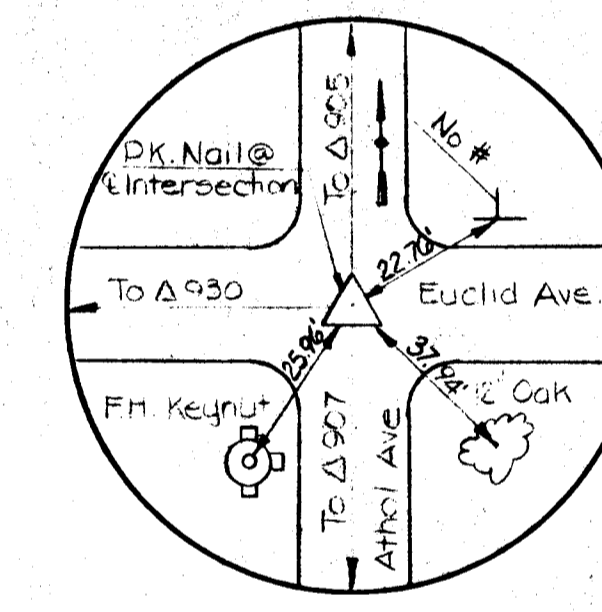
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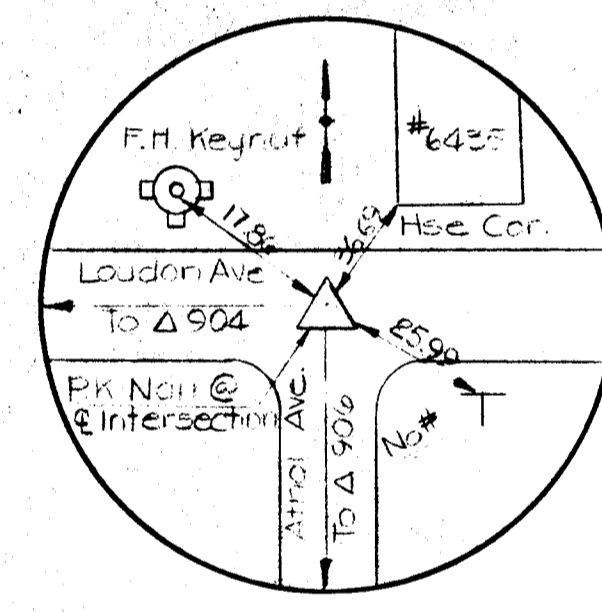
908



907



906



905

ATHOL AVENUE

- Bench Mark #102 Elev. 167.06
Cut Nail and Washer, Southside of G+E Pole # 516931.100 ± East of U.S. Route 1, North Side of Loudon Ave.
- Bench Mark #103 Elev. 203.91
X-Cut in F.H.E. Bolt, Southwest Corner of Intersection @ Loudon Ave. and Highland Ave's.
- Bench Mark #104 Elev. 162.73
Cut Nail and Washer, Northside of G+E Pole # 323684, Southeast Corner of Intersection @ Loudon and Melrose Ave's.
- Bench Mark #105 Elev. 143.12
Cut Nail and Washer, Westside of G+E Pole No #, Southeast Corner of Intersection @ Loudon and Athol Ave's.

- Bench Mark #106 Elev. 125.04
JMT Δ 300, PK. Nail @ Intersection of Athol and Euclid Ave's.
- Bench Mark #107 Elev. 111.04
Cut Nail and Washer, Westside of G+E Pole No #, Northeast Corner of Intersection @ Athol and Beechfield Ave's.
- Bench Mark #108 Elev. 115.38
X-Cut in F.H.E. Bolt, Northwest Corner of Intersection @ Athol and Forest Ave's.
- Bench Mark #109 Elev. 101.90
JMT Δ 999, PK. Nail @ Intersection of Athol and Woodburn Ave's.

- Bench Mark #110 Elev. 96.84
Cut Nail and Washer, Westside of G+E Pole No #, @ Intersection of Athol and Harthorn Ave's.
- Bench Mark #111 Elev. 85.52
Cut Nail and Washer, Westside of G+E Pole No #, Eastside of Athol and Glenmore Ave's.
- Bench Mark #116 Elev. 107.55
Top of Howard County Concrete Monument #2446002, Located 64' West on Tracks, 600 ±, South of Harthorn Ave, 200 ± South of Stream.
- Bench Mark #901 Elev. 194.25
Top of Howard County Concrete Monument #2546002, Located Westside of U.S. Route 1, 100 ± North of Klamp Liquors.

BENCH MARKS

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *W. F. ...* DATE: 1-6-87
 Chief, Bureau of Engineering: *W. G. ...* DATE: *1/6/87*
 Chief, Roads, Bridges, & Storm Drainage Division: *W. G. ...* DATE: *1/6/87*

Johnson, McCordic & Thompson, P. A.
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 1526 YORK ROAD • BALTIMORE, MARYLAND • 21093 • (301) 821-6601



HORIZONTAL & VERTICAL CONTROLS
 HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-0-4063
 HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
 ELECTION DISTRICT NO. 1
 HOWARD COUNTY, MARYLAND

DRAWING NO. 6	SCALE AS SHOWN	DES. W.K.L.
OF 19		DRW. W.K.S.
		CHK. J.A.R.

Melrose Ave.
Sta. 221+51 to Sta. 224+02 - Rt.
Sta. 224+80 to Sta. 225+62 - Rt.
Remove And Reset 354± L.F. Existing
Fence (See Special Provisions).

INLET SCHEDULE					
NUMBER	TYPE	INV. IN	INV. OUT	TOP EL.	REMARKS
I-13	WR Inlet DGT.	120.52	119.77	125.10	Std No MD-374.06
I-14	Std WR Inlet	---	121.92	126.00	Std No MD-374.04
I-15	WR Inlet DGT.	---	120.50	125.80	Std No MD-374.06
I-16	WR Inlet DGT.	120.25	120.00	126.50	"
I-17	WR Inlet DGT.	132.25	132.00	137.50	"
I-18	WR Inlet DGT.	---	---	138.10	"
I-19	WR Inlet DGT.	---	131.56	136.50	"
I-20	WR Inlet DGT.	130.80	130.50	135.50	"
I-21	WR Inlet DGT.	---	130.70	136.50	Std No MD-374.06
I-22	Std WR Inlet	154.46	154.20	158.90	Std No MD-374.04
I-23	WR Inlet DGT.	---	154.66	157.00	Std No MD-374.06
I-24	WR Inlet DGT.	153.30	153.25	156.80	Std No MD-374.06
I-25	Std WR Inlet	---	158.80	---	Std No MD-374.04
I-25A	WR Inlet DGT.	---	165.80	168.00	Std No MD-374.06

* Top Elevation of Inlet to meet Top of Existing Curb.
Note: All STD No. MD-374.06 INLETS MODIFIED FOR LENGTH (5'-6") TO ACCOMMODATE DOUBLE GRATES AND SUPPORT BEAM AS SHOWN ON STD DETAILS MD-374.02 & MD-374.03.

MANHOLE SCHEDULE					
NUMBER	TYPE	SIZE	INV. OUT	TOP EL.	REMARKS
MH-3	Std Type A-1	48"	118.00	*	See SDD/7
MH-4	Std Type A-1	48"	126.96	*	See SDD/7
MH-5	Std Type A-1	48"	150.50	*	See SDD/7
MH-6	Std Type B	48"	158.00	*	See SDD/9

* Top Elevations to be Set in the Field to meet Existing Conditions.

ENTRANCE PIPE SCHEDULE				
LOCATION & OFFSET	SIZE & TYPE	LENGTH	REMARKS	
Euclid Ave. 16+85 - 13' Rt.	25" x 16" B.C.C.M.P.A.	32'	*	
Euclid Ave. 17+60 - 15' Rt.	22" x 13" B.C.C.M.P.A.	26'	*	
Euclid Ave. 18+30 - 15' Rt.	22" x 13" B.C.C.M.P.A.	26'	*	
Euclid Ave. 19+67 - 15' Rt.	18" x 11" B.C.C.M.P.A.	26'	*	
Euclid Ave. 20+51 - 15' Rt.	18" x 11" B.C.C.M.P.A.	26'	*	
Euclid Ave. 21+02 - 15' Rt.	18" x 11" B.C.C.M.P.A.	26'	*	
Beechfield Ave. 17+43 - 15' Rt.	25" x 16" B.C.C.M.P.A.	26'	*	
Beechfield Ave. 18+16 - 15' Rt.	22" x 13" B.C.C.M.P.A.	26'	*	
Beechfield Ave. 18+86 - 15' Rt.	18" x 11" B.C.C.M.P.A.	40'	*	
Beechfield Ave. 20+68 - 15' Rt.	18" x 11" B.C.C.M.P.A.	26'	*	
Forest Ave. 18+70 - 15' Rt.	22" x 13" B.C.C.M.P.A.	26'	*	
Forest Ave. 19+05 - 15' Rt.	22" x 13" B.C.C.M.P.A.	28'	*	
Forest Ave. 19+99 - 15' Rt.	18" x 11" B.C.C.M.P.A.	28'	*	
Melrose Ave. 228+17 - 10' Rt.	18" x 11" B.C.C.M.P.A.	70'	*	
Beechfield Ave. 15+70 - 15' Rt.	18" x 11" B.C.C.M.P.A.	26'	*	

* All Entrance Pipes to be Mitered on Both Ends to Conform to Proposed Slopes and Side Ditching.

DITCH LINING SCHEDULE				
LOCATION	TYPE	LENGTH	DEPTH	REMARKS
Melrose Ave.				
219+07 to 220+70 - Lt.	Sod	91'	0.8'	
219+87 to 221+00 - Rt.	Sod	113'	0.8'	
221+65 to 223+90 - Lt.	Sod	225'	Full Depth	
224+57 to 226+80 - Lt.	Concrete	223'	0.5'	
224+57 to 226+80 - Rt.	Sod	223'	0.5'	
227+48 to 229+68 - Rt.	Sod	170'	0.5'	
Forest Ave.				
16+70 to 20+57 - Rt.	Concrete	304'	0.5'	
Beechfield Ave.				
16+70 to 21+16 - Rt.	Concrete	334'	0.5'	
Euclid Ave.				
17+10 to 20+90 - Rt.	Concrete	292'	0.5'	

DITCH LINING LEGEND:
 Seed and Mulch Surface Drain Ditch
 Sod Surface Drain Ditch
 Concrete Surface Drain Ditch
 Concrete Swale

MATCH LINE SEE SHEET NO. II

MATCH LINE SEE SHEET NO. 9

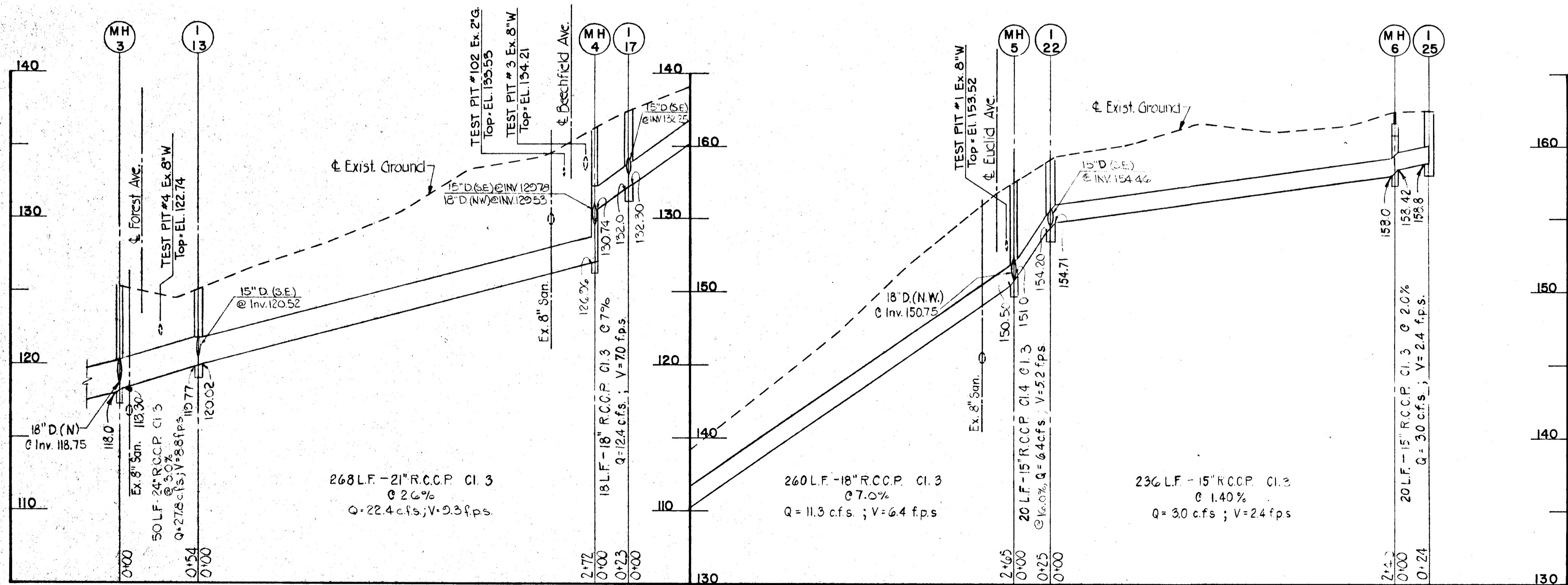
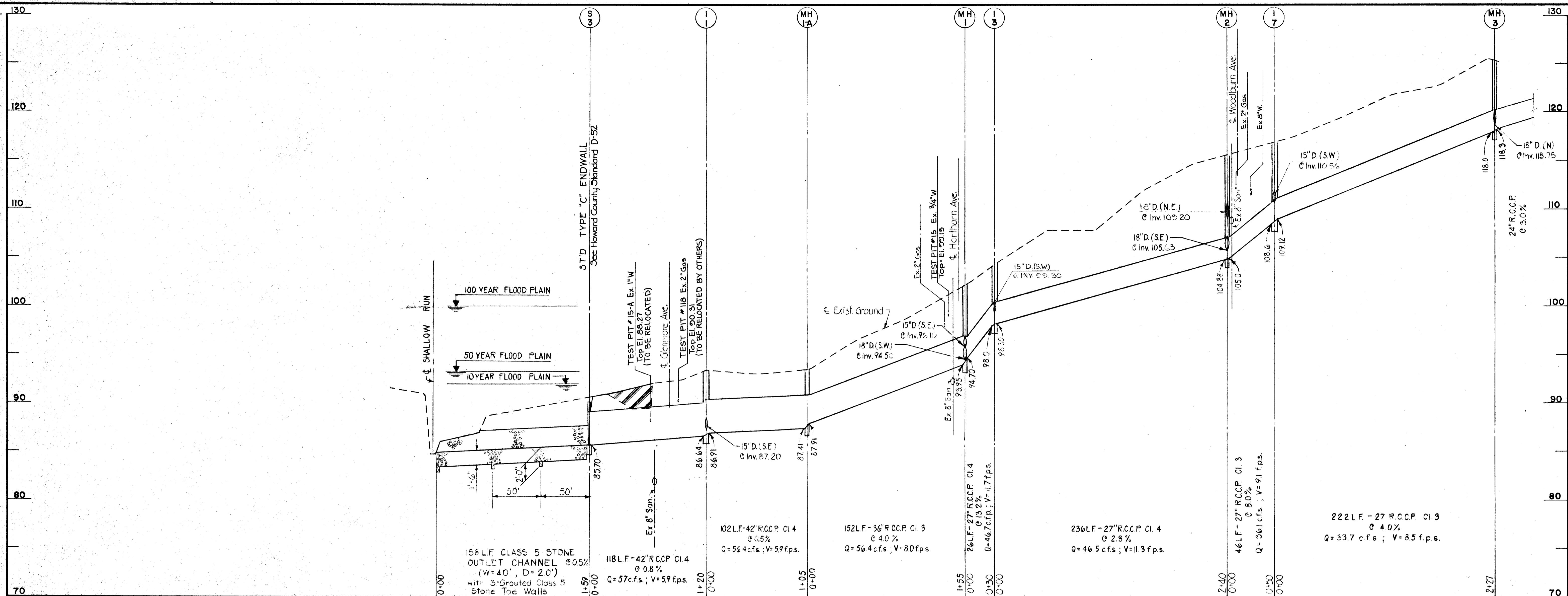
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
 Director of Public Works: [Signature]
 Chief, Bureau of Engineering: [Signature]
 Chief, Roads, Bridges, & Storm Drainage Division: [Signature]

Johnson, McCord & Thompson, P. A.
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 1526 YORK ROAD • BALTIMORE, MARYLAND • 21203 • (301) 871-6501

STORM DRAIN & ROADWAY
PLAN
HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-O-4063
 HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
 ELECTION DISTRICT NO. 1
 HOWARD COUNTY, MARYLAND

DRAWING NO. 7 OF 19
 SCALE 1" = 50'
 DES. PWZ
 DRW. R.L.D.
 CHK. J.A.R.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *William F. Williams* DATE: *1-6-82*
Chief, Bureau of Engineering: *Robert J. Kelly* DATE: *1-14-82*
Chief, Roads, Bridges, & Storm Drainage Division: *Henry Anderson* DATE: *1/4/82*



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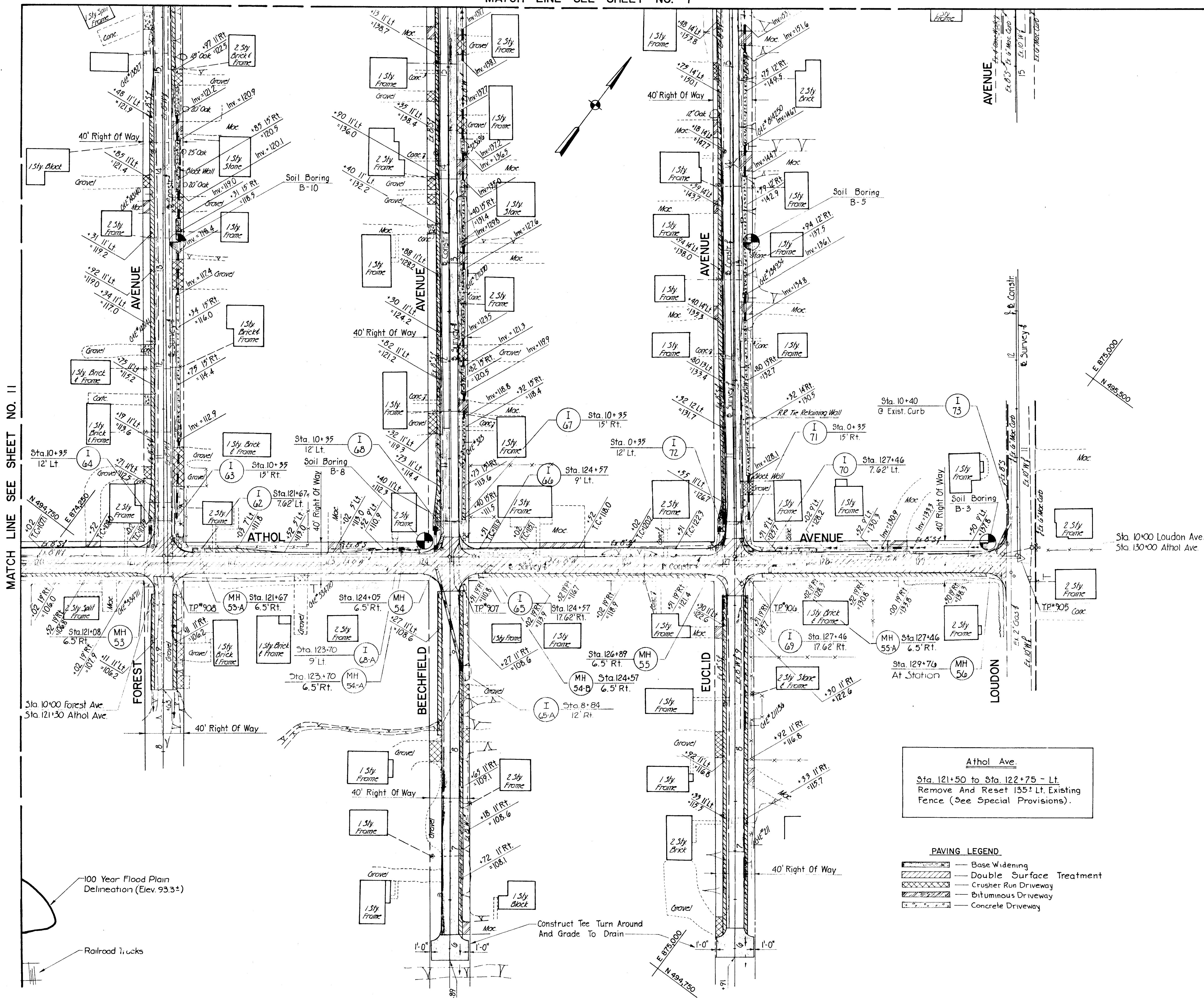


STORM DRAIN PROFILES
MELROSE AVENUE
HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-O-4063
HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
ELECTION DISTRICT NO. 1
HOWARD COUNTY, MARYLAND

DRAWING	SCALE	DES. P.W.Z.
NO. 8	HORZ. 1" = 50'	DRW. M.L.
OF 19	VERT. 1" = 5'	CHK. J.A.R.

MATCH LINE SEE SHEET NO. 7



INLET SCHEDULE					
NUMBER	TYPE	INV. IN	INV. OUT	TOP EL.	REMARKS
I-61	Deleted From Contract				
I-62	WR Inlet D.G.T.		104.70	110.7	STD. No. MD-374.06
I-63	WR Inlet D.G.T.	106.26	105.40	111.0	"
I-64	WR Inlet D.G.T.	104.92	104.68	111.5	"
I-65	WR Inlet D.G.T.		107.92	110.8	STD. No. MD-374.06
I-66	STD. WR Inlet		108.80	112.0	STD. No. MD-374.04
I-67	WR Inlet D.G.T.		106.05	111.3	STD. No. MD-374.06
I-68	WR Inlet D.G.T.	105.30	105.00	112.1	"
I-69	WR Inlet D.G.T.		121.50	125.6	"
I-70	WR Inlet D.G.T.		120.55	125.6	"
I-71	WR Inlet D.G.T.		120.10	124.7	"
I-72	WR Inlet D.G.T.	119.86	119.76	125.3	STD. No. MD-374.06
I-73	STD. WR Inlet		136.71	*	STD. No. MD-374.04
I-65A	WR Inlet D.G.T.		106.30	108.40	STD. No. MD-374.06
I-68A	WR Inlet D.G.T.		105.45	110.50	STD. No. MD-374.06

* Top Elevation To Match Top Of Existing Curb.
 Note: All Std No. Md-374.06 Inlets Modified for length (5'-6") to Accommodate Double Grate and Support Beam as Shown on Details Md-374.02 & MD-374.03

MANHOLE SCHEDULE					
NUMBER	TYPE	SIZE	INV. OUT	TOP EL.	REMARKS
MH 53	STD. Type A-1	48"	99.32	*	See SDD/7
MH 53-A	STD. Type A-1	48"	100.02	*	See SDD/7
MH 54	STD. Type B	48"	104.52	*	See SDD/9
MH 54-A	STD. Type A-1	48"	104.00	*	See SDD/7
MH 54-B	STD. Type B	48"	107.56	*	See SDD/9
MH 55	STD. Type A-1	48"	116.23	*	See SDD/7
MH 55-A	STD. Type A-1	48"	119.00	*	See SDD/7
MH 56	STD. Type A-1	48"	133.50	*	See SDD/7

* Top Elevations To Be Set In The Field To Meet Existing Conditions.

ENTRANCE PIPE SCHEDULE			
LOCATION & OFFSET	SIZE & TYPE	LENGTH	REMARKS
Euclid Ave. 10+60 - 19 Rt.	22" x 13" BCCMPA	47'	*
Euclid Ave. 12+53 - 12 Rt.	18" x 11" BCCMPA	28'	*
Euclid Ave. 14+03 - 12 Rt.	18" x 11" BCCMPA	32'	*
Euclid Ave. 15+28 - 12 Rt.	18" x 11" BCCMPA	28'	*
Beechfield Ave. 11+54 - 15 Rt.	18" x 11" BCCMPA	26'	*
Beechfield Ave. 12+09 - 15 Rt.	18" x 11" BCCMPA	30'	*
Beechfield Ave. 13+04 - 15 Rt.	18" x 11" BCCMPA	26'	*
Beechfield Ave. 13+98 - 15 Rt.	18" x 11" BCCMPA	28'	*
Beechfield Ave. 14+41 - 15 Rt.	18" x 11" BCCMPA	30'	*
Beechfield Ave. 15+22 - 15 Rt.	18" x 11" BCCMPA	32'	*
Forest Ave. 10+77 - 15 Rt.	25" x 16" BCCMPA	80'	*
Forest Ave. 12+88 - 15 Rt.	18" x 11" BCCMPA	44'	*
Forest Ave. 13+59 - 15 Rt.	18" x 11" BCCMPA	28'	*
Forest Ave. 14+36 - 15 Rt.	18" x 11" BCCMPA	28'	*
Athol Ave. 128+78 - 9 Lt.	18" x 11" BCCMPA	32'	*

* All Entrance Pipes Shall be Mitered on Both Ends to Conform to Proposed Slopes and Side Ditching.

DITCH LINING SCHEDULE				
LOCATION	TYPE	LENGTH	DEPTH	REMARKS
Athol Ave.				
123+14 to 124+00 - Lt.	Sod	86'	0.5'	
127+48 to 129+70 - Lt.	Sod	190'	0.5'	
Forest Ave.				
10+25 to 10+65 - Rt.	Sod	40'	0.5'	
11+17 to 14+76 - Rt.	Concrete	260'	0.5'	
Beechfield Ave.				
10+25 to 14+26 - Rt.	Concrete	297'	0.5'	
14+56 to 15+95 - Rt.	Sod	105'	0.5'	
Euclid Ave.				
10+25 to 10+58 - Rt.	Sod	33'	0.5'	
10+82 to 15+14 - Rt.	Concrete	374'	0.5'	
15+42 to 16+00 - Rt.	Sod	58'	0.5'	

DITCH LINING LEGEND:
 Seed and Mulch Surface Drain Ditch
 Sod Surface Drain Ditch
 Concrete Surface Drain Ditch
 Concrete Swale

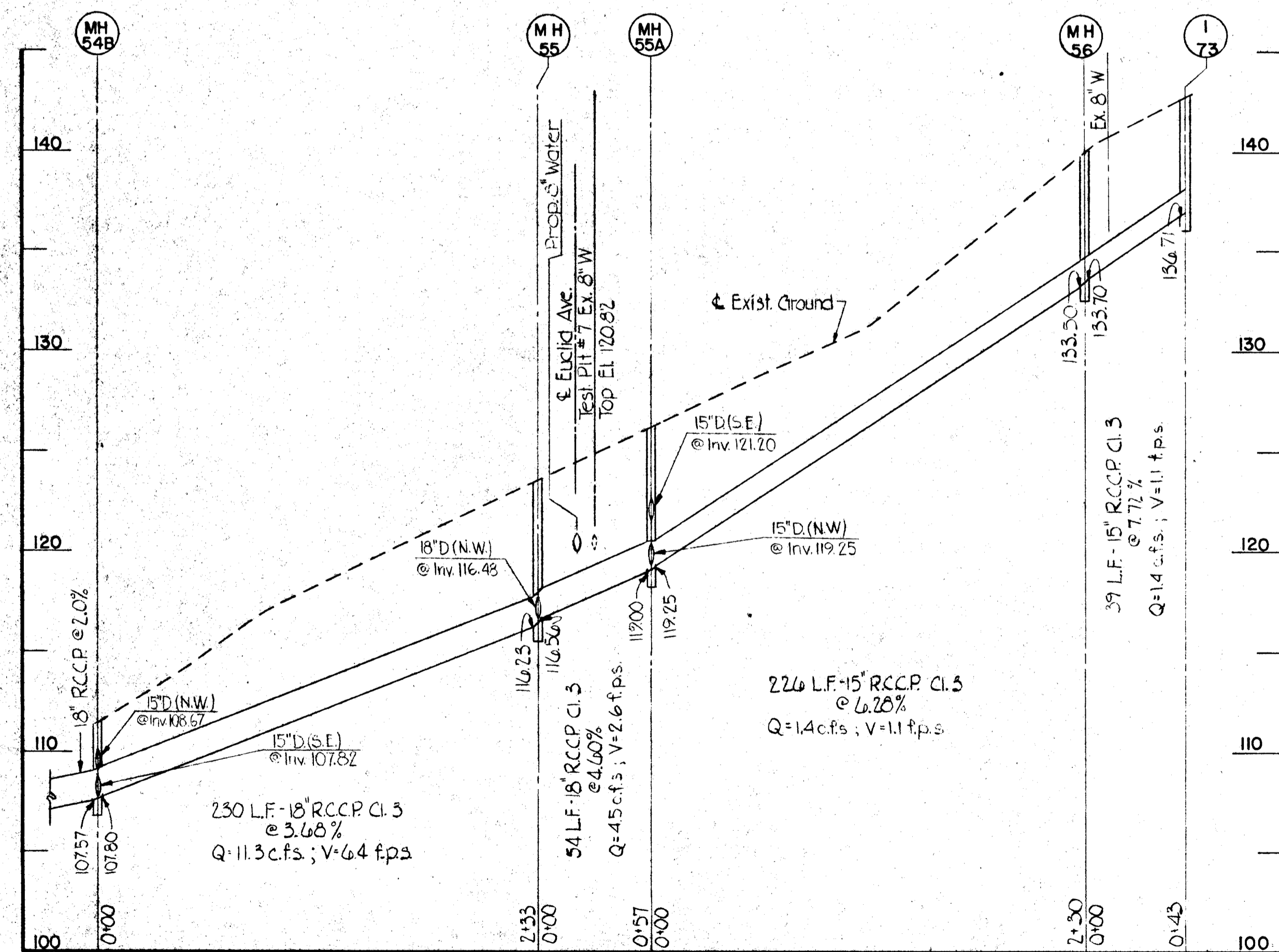
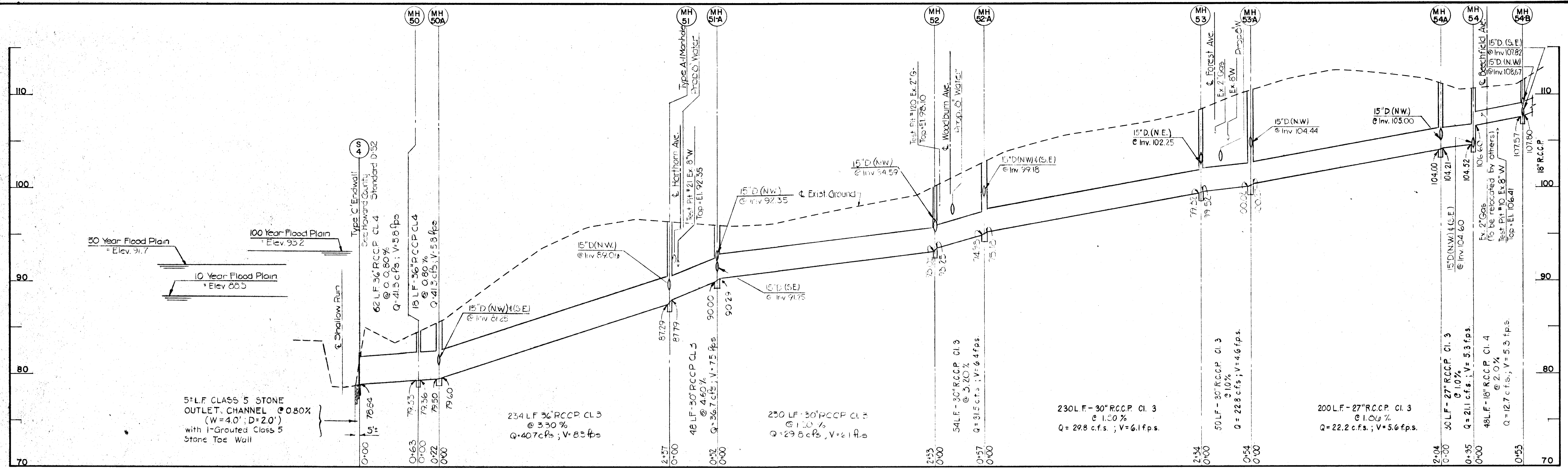
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DIRECTOR OF PUBLIC WORKS DATE _____ CHIEF, BUREAU OF ENGINEERING DATE _____
 Chief, Roads, Bridges, & Storm Drainage Division DATE 11/18/19

Johnson, McCordic & Thompson, P. A.
 ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS
 2500 W. BROAD ST. SUITE 100 BALTIMORE, MD 21201

STORM DRAIN & ROADWAY PLAN
 HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-0-4063
 HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
 ELECTION DISTRICT NO. 1
 HOWARD COUNTY, MARYLAND

DRAWING NO. 9 OF 19
 SCALE 1"=50'
 DES. P.W.Z.
 DRW. R.L.D.
 CHK. J.A.R.



DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

Henry F. Nunn 1-6-87
 DIRECTOR OF PUBLIC WORKS DATE
William J. Anderson 1/6/87
 CHIEF, BUREAU OF ENGINEERING DATE
 CHIEF, ROADS, BRIDGES, & STORM DRAINAGE DIVISION DATE



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 ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS
 1526 YORK ROAD • BALTIMORE, MARYLAND • 21209 • (301) 821-6601



STORM DRAIN PROFILES
 ATHOL AVENUE
 HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-0-4063
 HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
 ELECTION DISTRICT NO. 1
 HOWARD COUNTY, MARYLAND

DRAWING	SCALE	DES. PWZ.
NO. 10	HORZ. 1"=50'	DRW. M.L.
OF 19	VERT. 1"=5'	CHK. J.A.R.

INLET SCHEDULE					
NUMBER	TYPE	INV. IN	INV. OUT	TOP EL.	REMARKS
I-1	WR Inlet D.G.T.	86.91	86.64	91.80	Std No. MD-374.06
I-2	Std WR Inlet	89.50	89.30	92.30	Std No. MD-374.04
I-3	WR Inlet D.G.T.	98.30	98.00	103.5	Std No. MD-374.06
I-4	WR Inlet D.G.T.	101.30	101.30	103.60	"
I-5	WR Inlet D.G.T.	99.60	99.60	103.2	"
I-6	WR Inlet D.G.T.	100.30	100.30	103.2	"
I-7	WR Inlet D.G.T.	109.12	108.60	116.8	"
I-8	WR Inlet D.G.T.	111.00	111.00	116.8	"
I-9	WR Inlet D.G.T.	112.50	112.50	118.0	"
I-10	WR Inlet D.G.T.	112.24	112.00	118.0	"
I-11	WR Inlet D.G.T.	108.50	108.50	110.3	"
I-12	WR Inlet D.G.T.	108.26	108.00	111.0	"
I-51	WR Inlet D.G.T.	81.42	81.42	84.6	"
I-52	WR Inlet D.G.T.	81.45	81.45	84.6	"
I-53	WR Inlet D.G.T.	91.60	91.60	95.3	"
I-54	WR Inlet D.G.T.	92.45	92.45	94.5	"
I-55	WR Inlet D.G.T.	91.20	91.20	96.6	"
I-56	WR Inlet D.G.T.	90.98	90.62	97.4	"
I-57	WR Inlet D.G.T.	99.46	103.4	Std No. MD-374.06	"
I-58	Std WR Inlet	99.42	103.9	Std No. MD-374.04	"
I-59	WR Inlet D.G.T.	96.80	101.3	Std No. MD-374.06	"
I-60	WR Inlet D.G.T.	96.50	96.25	102.3	"
I-26	WR Inlet D.G.T.	95.54	95.30	98.4	"
I-26A	WR Inlet D.G.T.	95.80	98.4	Std No. MD-374.06	"

Note: All Std No. Md. 374.06 Inlets Modified for Length (5'-4") to Accommodate Double Grates and Support Beam as Shown on Std Details Md. 374.02 & Md. 374.03

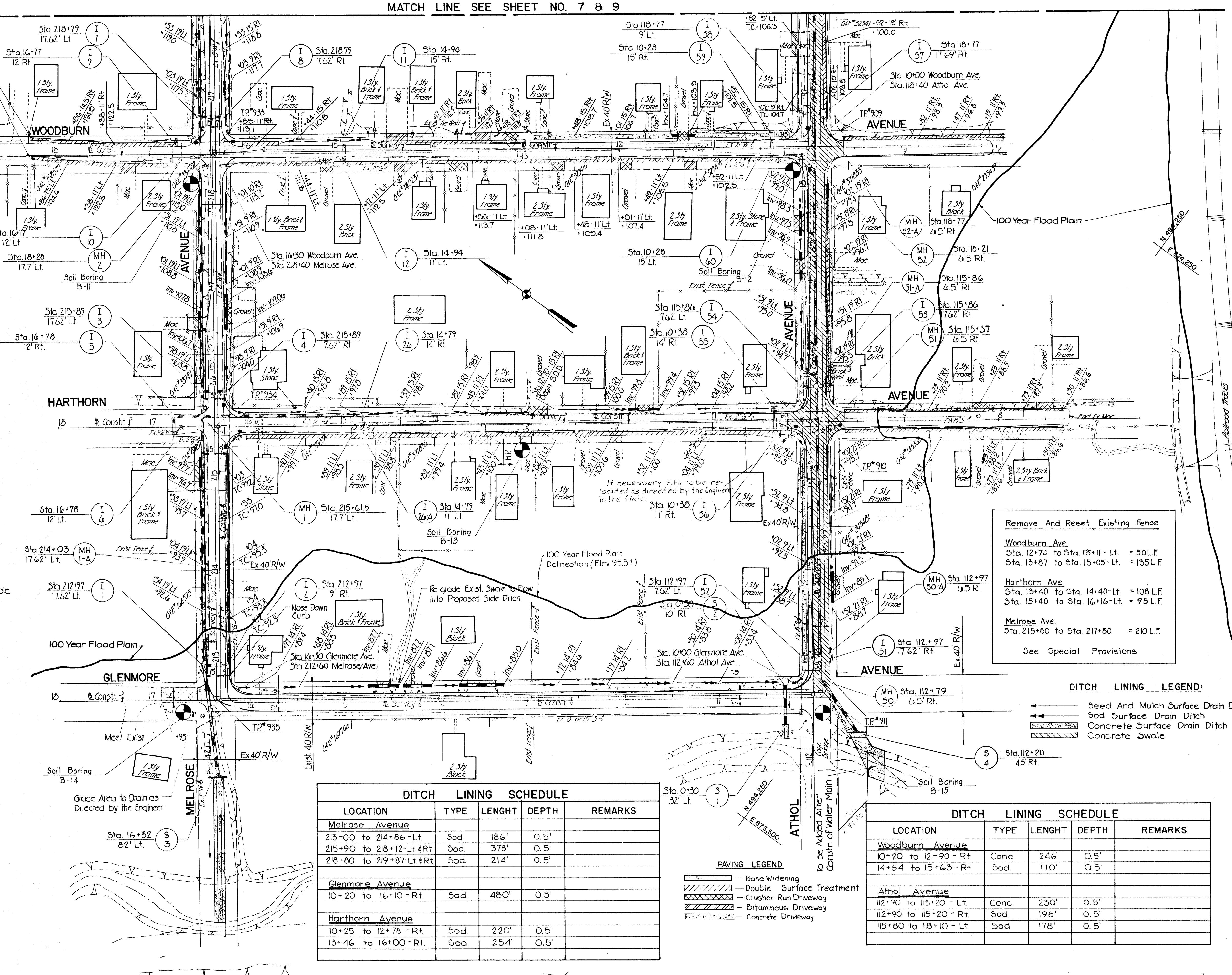
MANHOLE SCHEDULE					
NUMBER	TYPE	SIZE	INV. OUT	TOP EL.	REMARKS
MH-1	Std Type A-1	48"	93.95	*	See SDD/7
MH-2	Std Type A-1	48"	104.88	*	See SDD/7
MH-51	Std Type A-1	48"	87.29	*	See SDD/7
MH-52	Std Type A-1	48"	93.05	*	See SDD/7
MH-50	Std Type B	48"	79.33	*	See SDD/9
MH-1-A	Std Type B	48"	87.41	*	See SDD/9
MH-50-A	Std Type B	48"	79.50	*	See SDD/9
MH-51-A	Std Type B	48"	90.00	*	See SDD/9
MH-52-A	Std Type B	48"	94.95	*	See SDD/9

ENTRANCE PIPE SCHEDULE			
LOCATION & OFFSET	SIZE & TYPE	LENGTH	REMARKS
Woodburn Ave. 11+32 - 15' Rt.	18" x 11" B.C.C.M.P.A.	26'	*
Harthorn Ave. 11+77 - 15' Rt.	18" x 11" B.C.C.M.P.A.	34'	*
Glenmore Ave. 13+54 - 14' Rt.	22" x 13" B.C.C.M.P.A.	48'	*
Glenmore Ave. 14+22 - 14' Rt.	18" x 11" B.C.C.M.P.A.	30'	*
Glenmore Ave. 14+59 - 14' Rt.	18" x 11" B.C.C.M.P.A.	32'	*
Melrose Ave. 215+02 - 19' Lt.	18" x 11" B.C.C.M.P.A.	32'	*
Melrose Ave. 216+58 - 19' Lt.	18" x 11" B.C.C.M.P.A.	28'	*
Melrose Ave. 216+71 - 9' Rt.	18" x 11" B.C.C.M.P.A.	38'	*
Athol Ave. 117+73 - 21' Rt.	18" x 11" B.C.C.M.P.A.	34'	*
Athol Ave. 117+35 - 9' Lt.	18" x 11" B.C.C.M.P.A.	30'	*
Athol Ave. 117+60 - 9' Lt.	18" x 11" B.C.C.M.P.A.	26'	*

* All Entrance Pipes To Be Mitered On Both Ends To Conform To Proposed Grade

DITCH LINING SCHEDULE				
LOCATION	TYPE	LENGTH	DEPTH	REMARKS
Melrose Avenue				
213+00 to 214+86 - Lt.	Sod.	186'	0.5'	
215+90 to 218+12 - Lt & Rt	Sod.	378'	0.5'	
218+80 to 219+87 - Lt & Rt	Sod.	214'	0.5'	
Glenmore Avenue				
10+20 to 16+10 - Rt.	Sod.	480'	0.5'	
Harthorn Avenue				
10+25 to 12+78 - Rt.	Sod.	220'	0.5'	
13+46 to 16+00 - Rt.	Sod.	254'	0.5'	

DITCH LINING SCHEDULE				
LOCATION	TYPE	LENGTH	DEPTH	REMARKS
Woodburn Avenue				
10+20 to 12+90 - Rt	Conc.	246'	0.5'	
14+54 to 15+63 - Rt.	Sod.	110'	0.5'	
Athol Avenue				
112+90 to 115+20 - Lt	Conc.	230'	0.5'	
112+90 to 115+20 - Rt	Sod.	196'	0.5'	
115+80 to 118+10 - Lt	Sod.	178'	0.5'	



Remove And Reset Existing Fence
 Woodburn Ave.
 Sta. 12+74 to Sta. 13+11 - Lt. = 50L.F.
 Sta. 13+87 to Sta. 15+05 - Lt. = 135L.F.
 Harthorn Ave.
 Sta. 13+40 to Sta. 14+40 - Lt. = 108L.F.
 Sta. 15+40 to Sta. 16+16 - Lt. = 95L.F.
 Melrose Ave.
 Sta. 215+80 to Sta. 217+80 = 210L.F.
 See Special Provisions

DITCH LINING LEGEND:
 Seed And Mulch Surface Drain Ditch
 Sod Surface Drain Ditch
 Concrete Surface Drain Ditch
 Concrete Swale

PAVING LEGEND:
 Base Widening
 Double Surface Treatment
 Crusher Run Driveway
 Bituminous Driveway
 Concrete Driveway

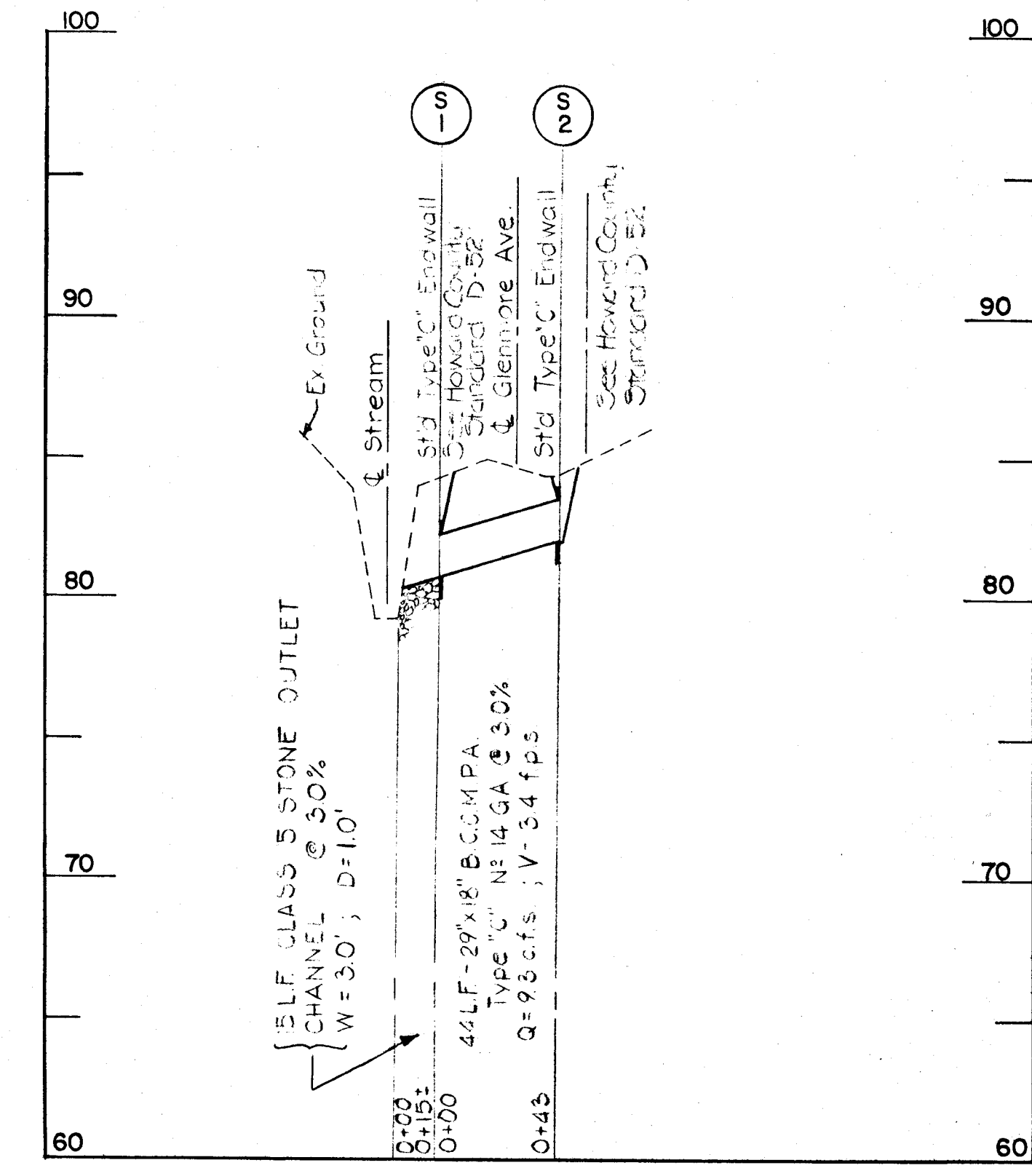
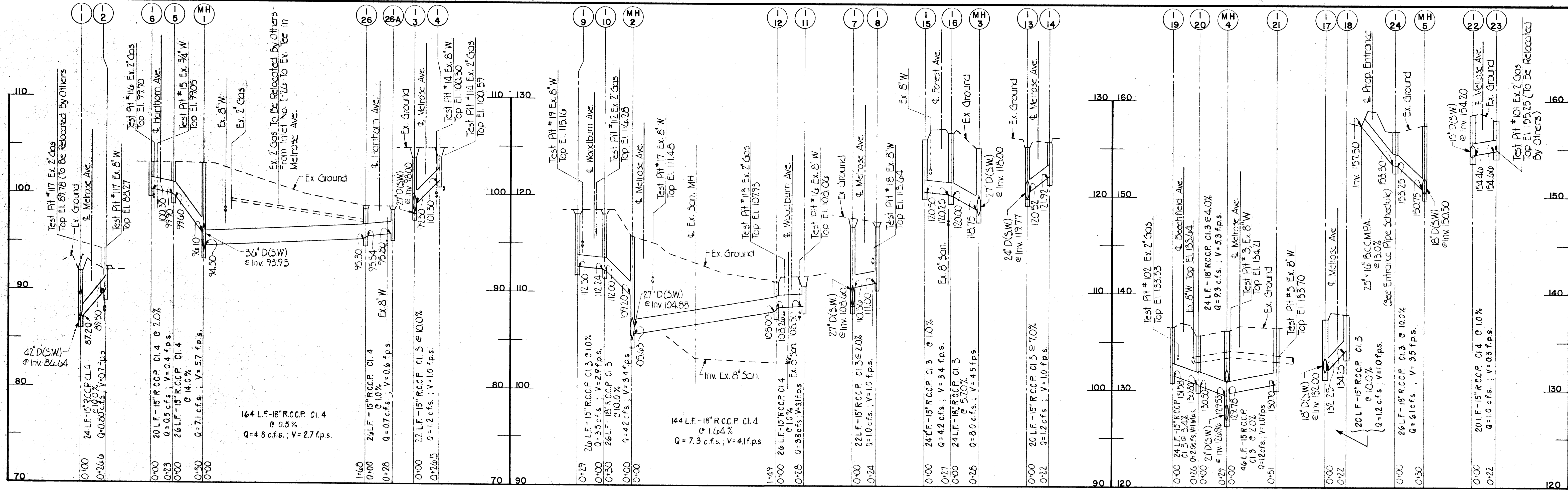
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works
 Chief, Bureau of Engineering

Johnson, McCordic & Thompson, P. A.
 ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

STORM DRAIN & ROADWAY PLAN
 HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-0-4063
 HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
 ELECTION DISTRICT NO. 1
 HOWARD COUNTY, MARYLAND

DRAWING	SCALE	DES. RWZ.
NO. 11	1" = 50'	DRW. R.L.D.
OF 19		CHK. J.A.R.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

1-6-82
DIRECTOR OF PUBLIC WORKS DATE
1-6-82
CHIEF, BUREAU OF ENGINEERING DATE
1-6-82
CHIEF, ROADS, BRIDGES, & STORM DRAINAGE DIVISION DATE

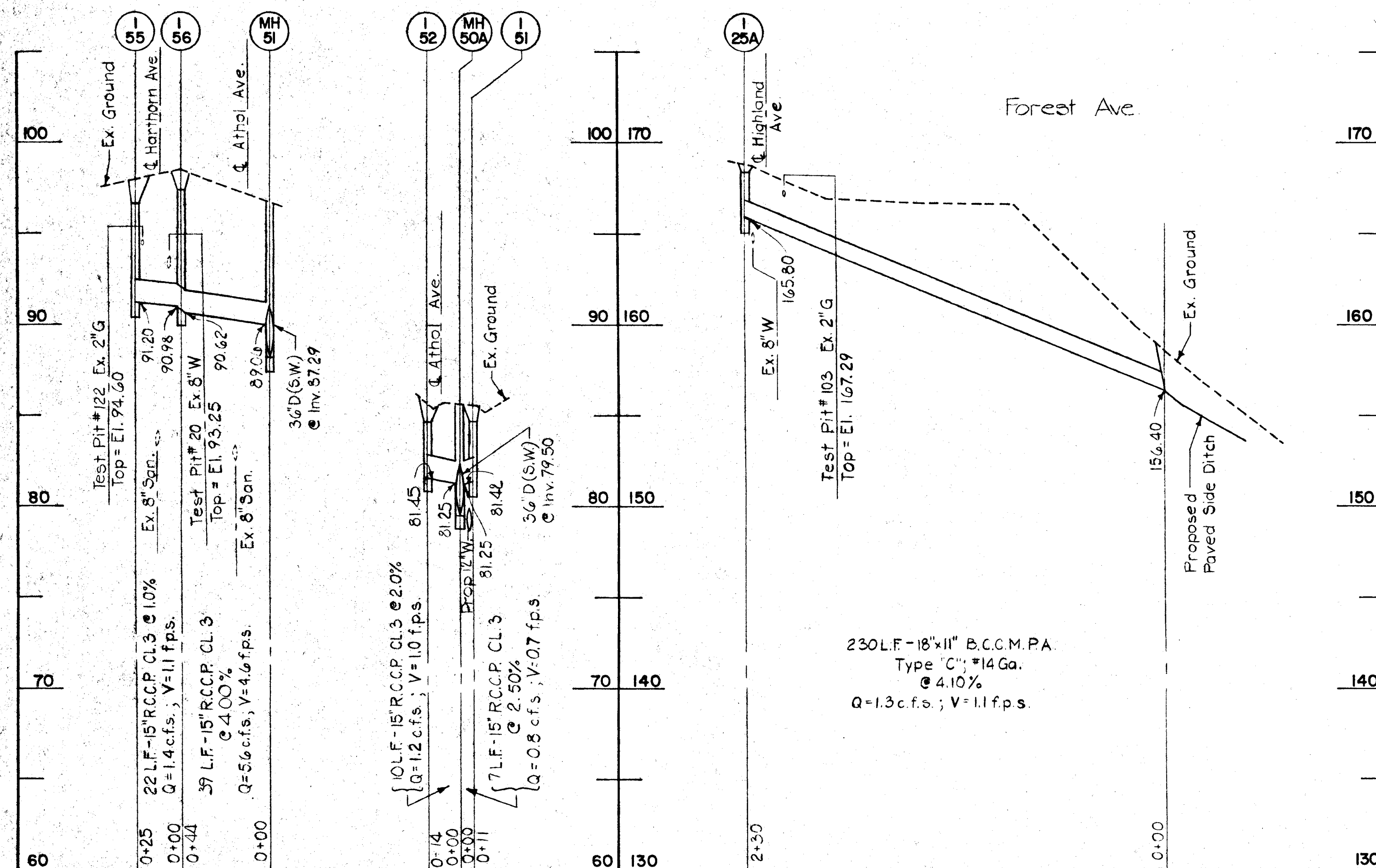
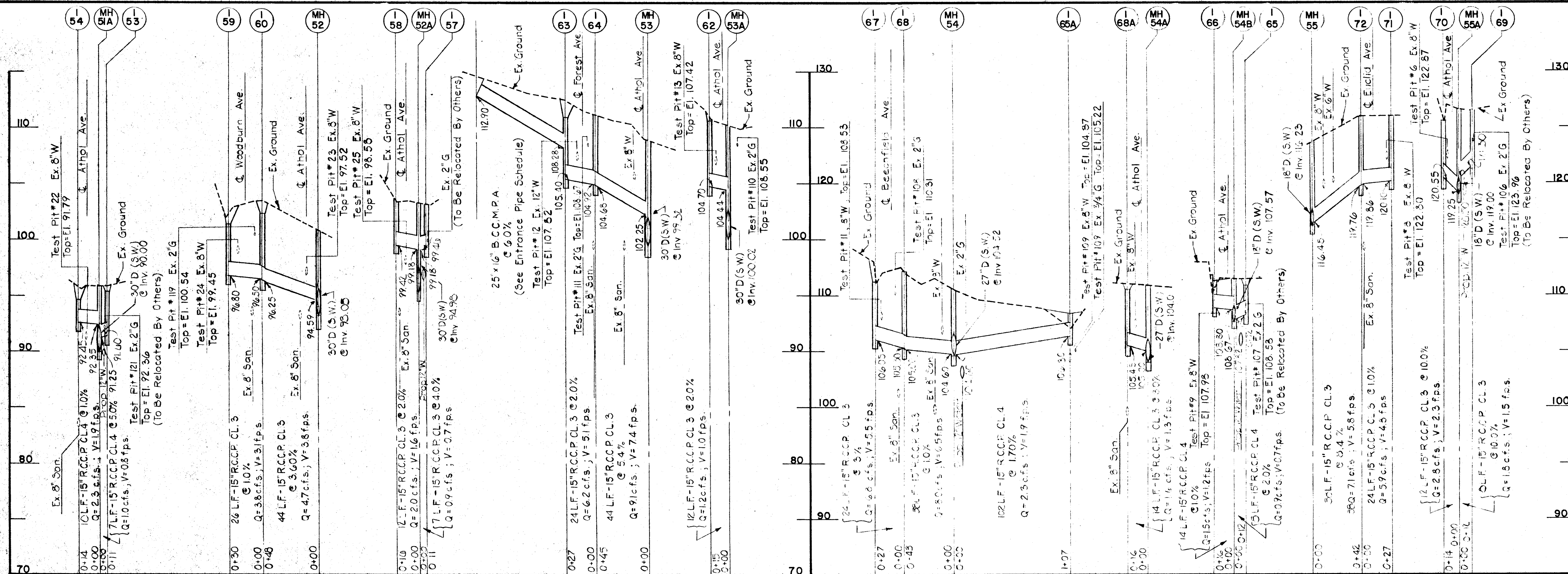
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STORM DRAIN PROFILES
MELROSE AVENUE
HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-0-4063
HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
ELECTION DISTRICT NO. 1
HOWARD COUNTY, MARYLAND

DRAWING	SCALE	DES. PWZ.
NO. 12	HORZ. 1"=50'	DRW. R.L.D.
OF 19	VERT. 1"=5'	M.L.
		CHK. J.A.R.



DEPARTMENT OF PUBLIC WORKS

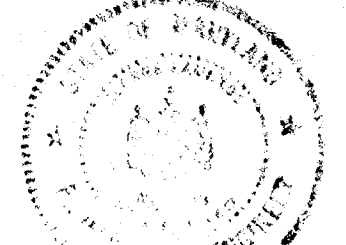
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE DATE
 DATE DATE
 CHIEF, BUREAU OF ENGINEERING

1/4/02
 CHIEF, ROADS, BRIDGES, & STORM DRAINAGE DIVISION



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STORM DRAIN PROFILES

HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-0-4063

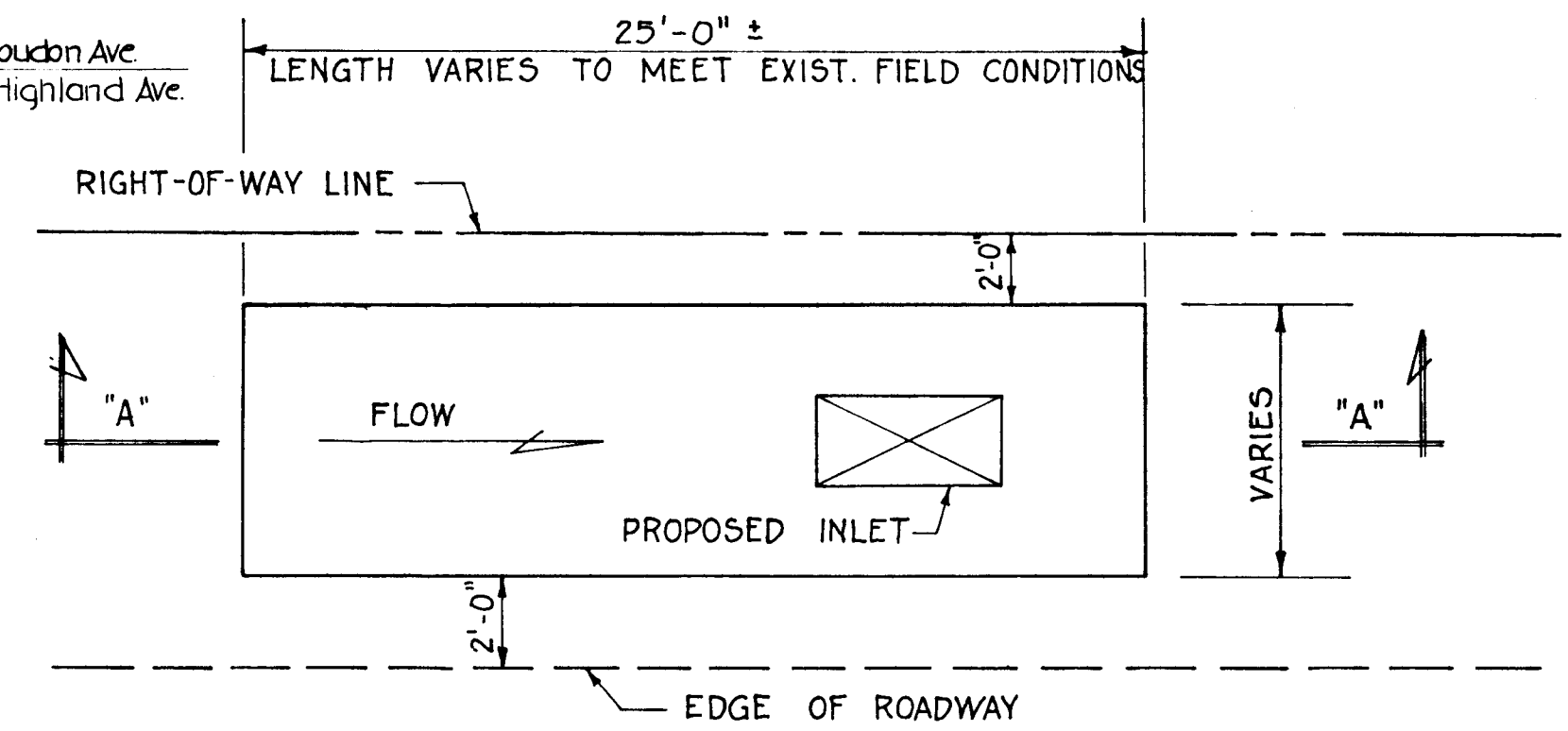
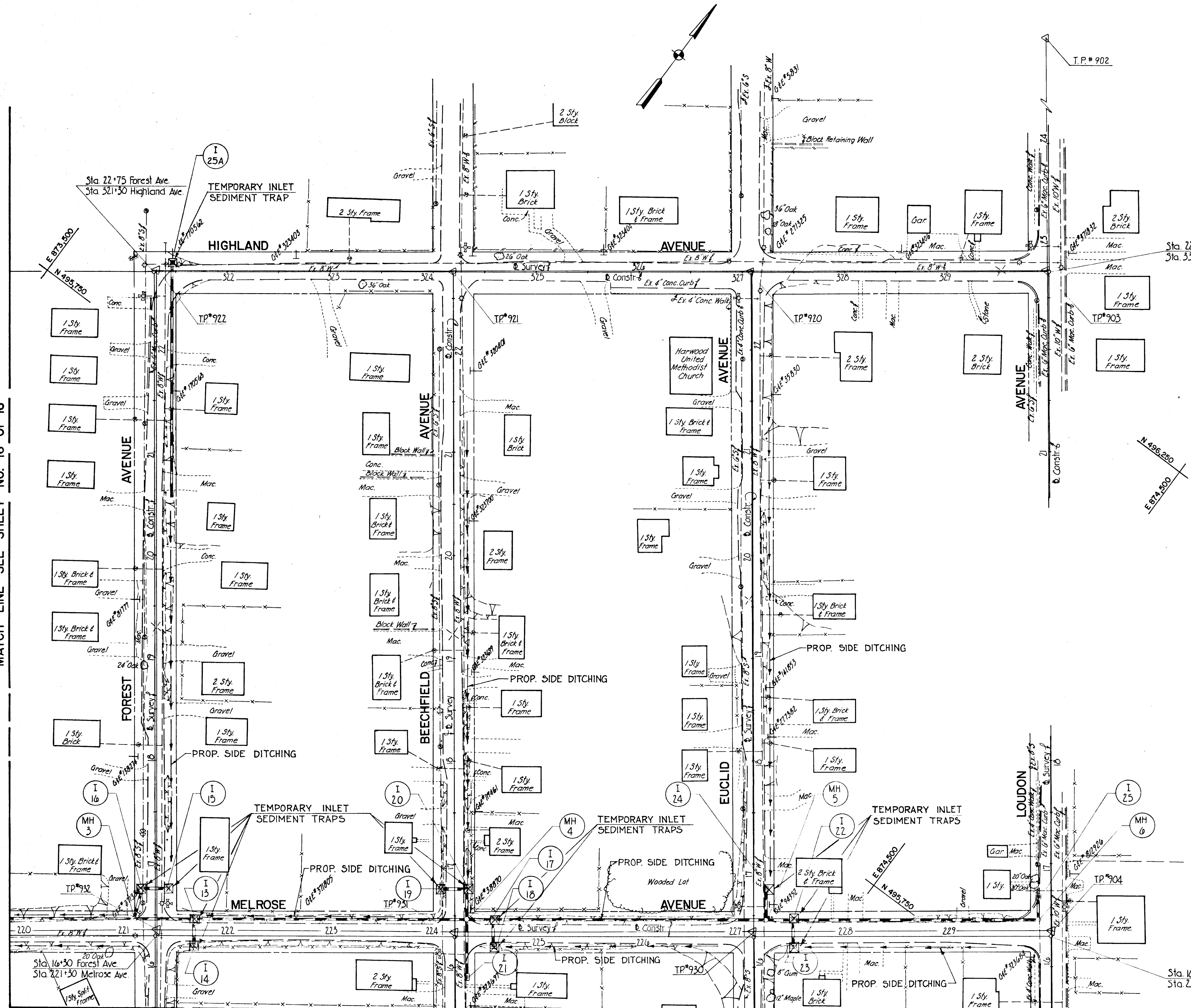
HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039

ELECTION DISTRICT NO. 1

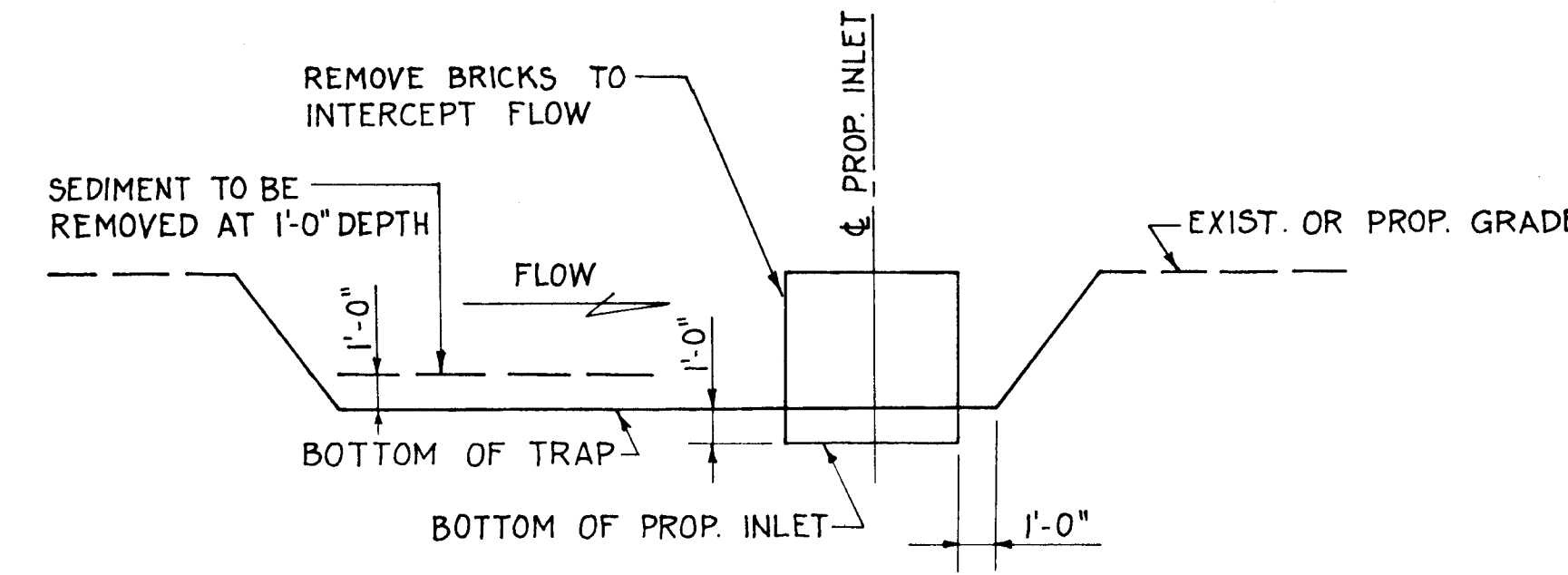
HOWARD COUNTY, MARYLAND

DRAWING	SCALE	DES. P.W.Z.
NO. 13	HORZ. 1"=50'	DRW. M.L.
OF 19	VERT. 1"=5'	CHK. J.A.R.

MATCH LINE SEE SHEET NO. 16 OF 16



TEMPORARY INLET SEDIMENT TRAP
Not To Scale



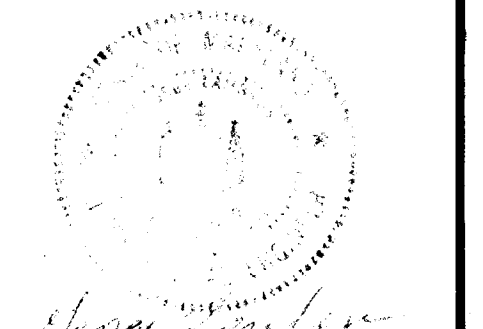
SECTION A-A
Not To Scale

NOTE:
All proposed side ditching shall be stabilized using the materials indicated on the plans as soon as possible.

MATCH LINE SEE SHEET NO. 15 OF 16

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
1-4-01
DATE
1/4/02
DATE

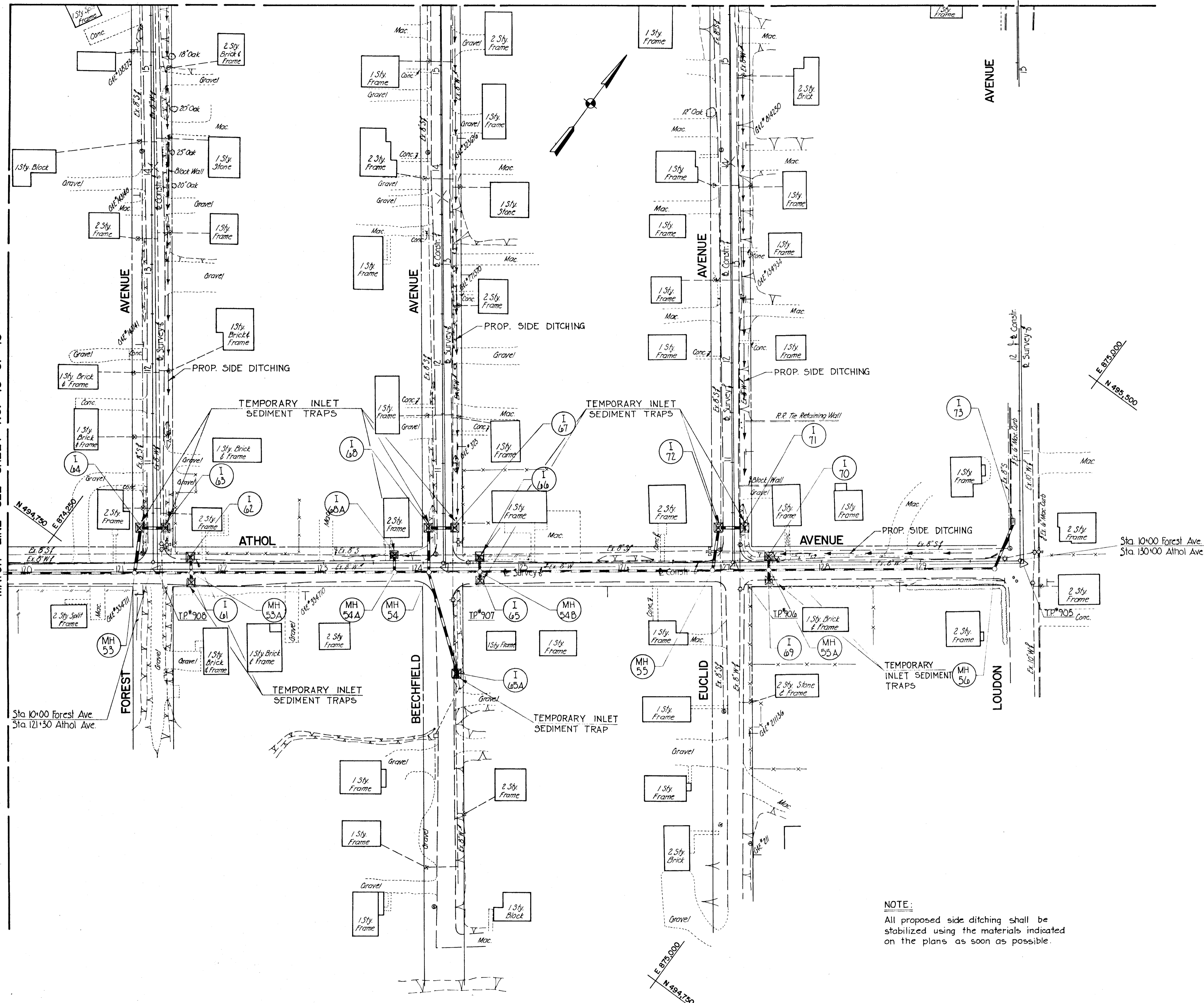
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SEDIMENT & EROSION CONTROL PLAN
HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-O-4063
HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
ELECTION DISTRICT NO. 1
HOWARD COUNTY, MARYLAND

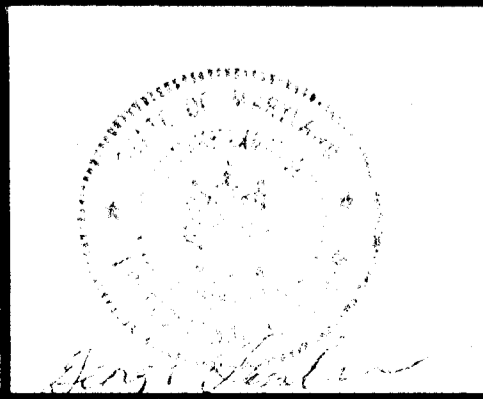
DRAWING NO. 14	SCALE 1" = 50'	DES. PW.Z.
OF 19		DRW. M.L.
		CHK. PW.Z.



NOTE:
All proposed side ditching shall be stabilized using the materials indicated on the plans as soon as possible.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DATE: 8/20/12
DATE: 8/20/12
CHIEF, BUREAU OF ENGINEERING
CHIEF, ROADS, BRIDGES, & STORM DRAINAGE DIVISION

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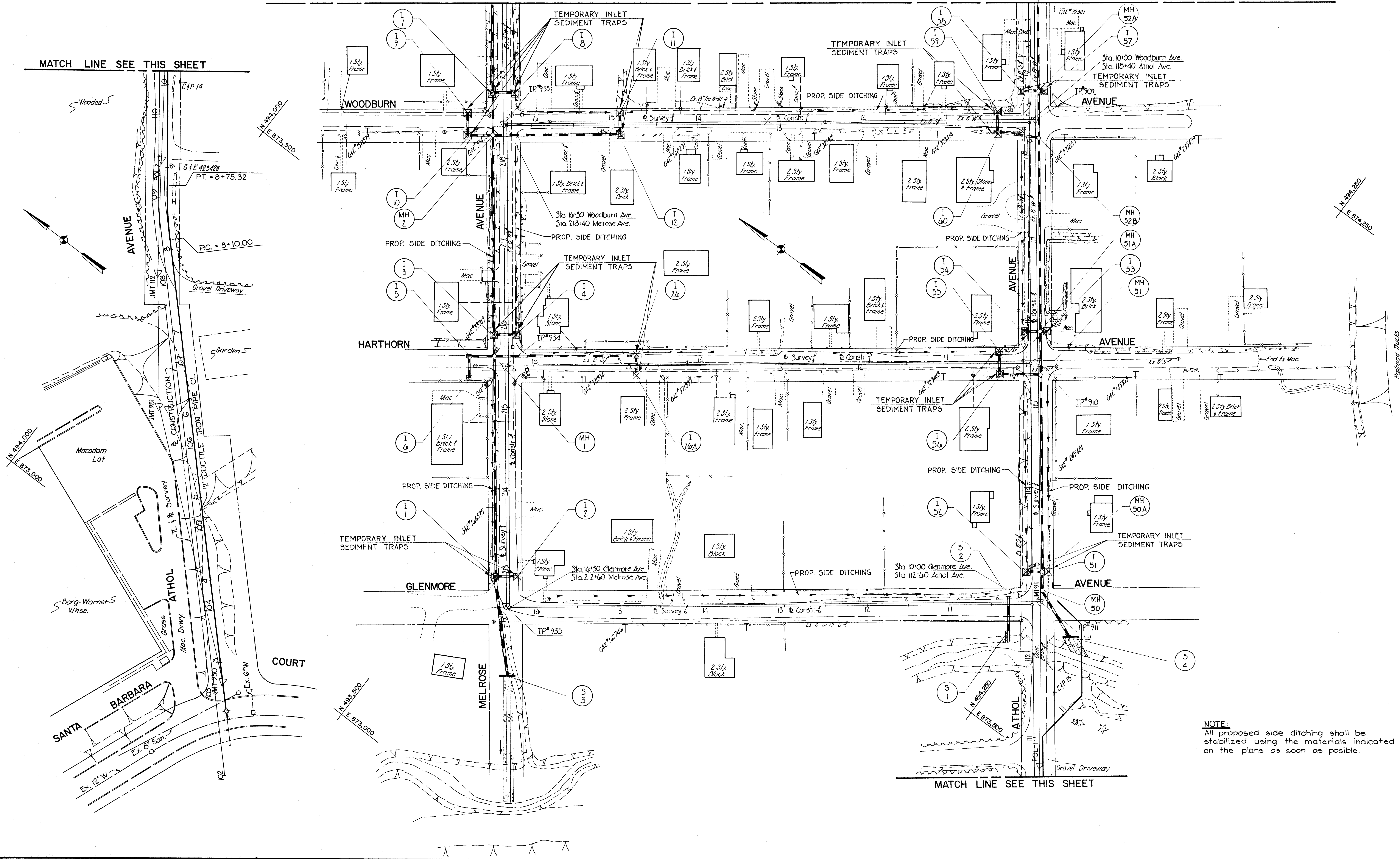


SEDIMENT & EROSION CONTROL PLAN
HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-0-4063
HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
ELECTION DISTRICT NO. 1
HOWARD COUNTY, MARYLAND

DRAWING	SCALE	DES. P.W.Z.
NO. 15	1" = 50'	DRW. M.L.
OF 19		CHK. J.A.R.

MATCH LINE SEE THIS SHEET

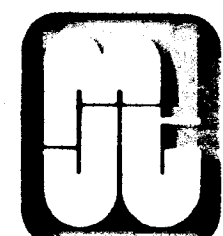


NOTE:
All proposed side ditching shall be stabilized using the materials indicated on the plans as soon as possible.

DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE
 CHIEF, BUREAU OF ENGINEERING DATE
 CHIEF, ROADS, BRIDGES, & STORM DRAINAGE DIVISION DATE



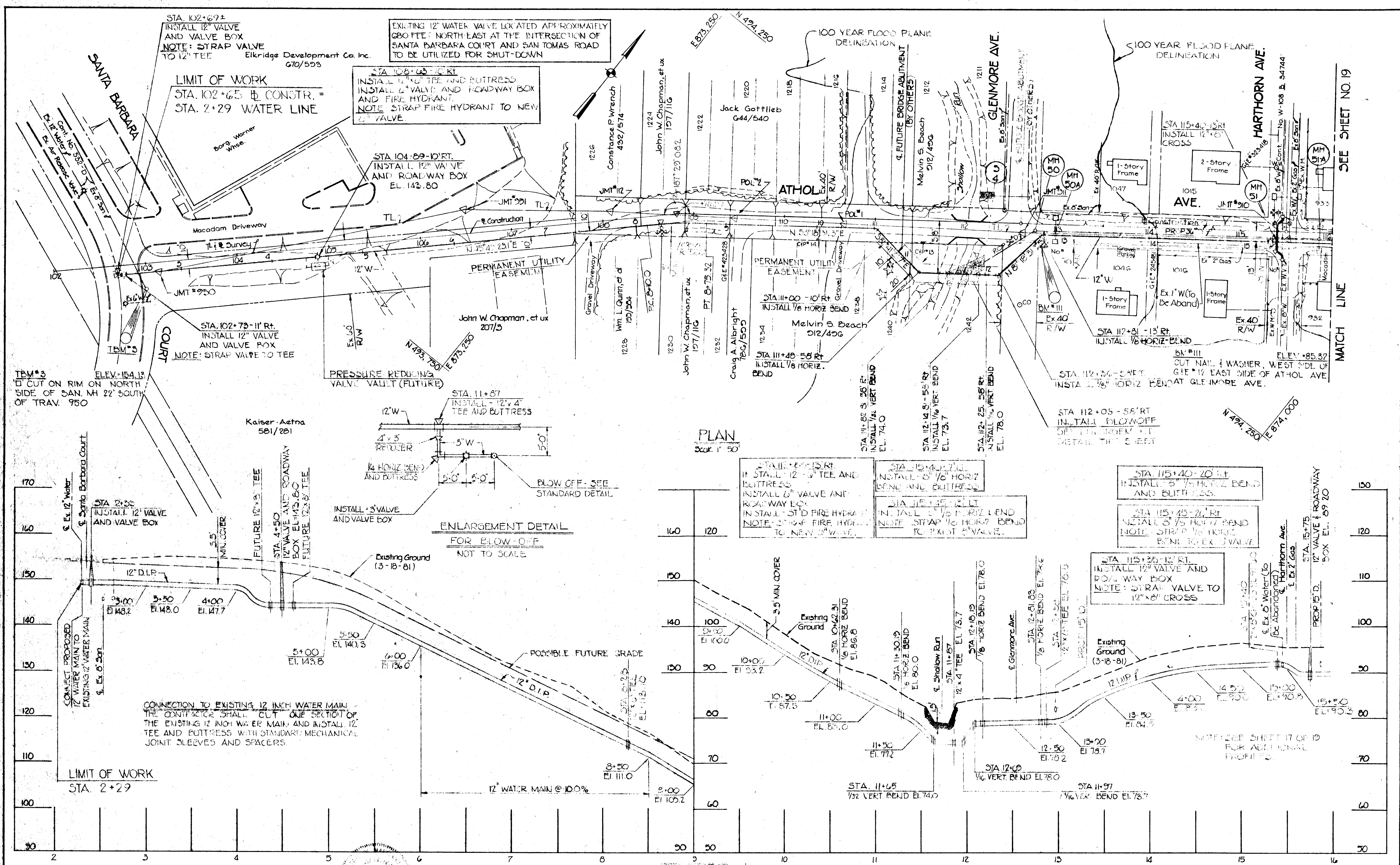
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SEDIMENT & EROSION CONTROL PLAN
 HARWOOD PARK

HARWOOD COMMUNITY ROADS CAPITAL PROJECT J-O-4063
 HARWOOD PARK STORM DRAINS CAPITAL PROJECT D-6-1039
 ELECTION DISTRICT NO. 1
 HOWARD COUNTY, MARYLAND

DRAWING	SCALE	DES.	P.W.Z.
NO. 16	1" = 50'	DRW.	M.L.
OF 19		CHK.	P.W.Z.



STA. 102+67±
INSTALL 12" VALVE
AND VALVE BOX
NOTE: STRAP VALVE
TO 12" TEE

LIMIT OF WORK
STA. 102+65 ± CONSTR. =
STA. 2+29 WATER LINE

EXISTING 12" WATER VALVE LOCATED APPROXIMATELY
280 FEET NORTH EAST AT THE INTERSECTION OF
SANTA BARBARA COURT AND SAN TOMAS ROAD
TO BE UTILIZED FOR SHUT-DOWN

STA. 108+05 ± 10' RT.
INSTALL 12" TEE AND BUTTRESS
INSTALL 6" VALVE AND ROADWAY BOX
AND FIRE HYDRANT.
NOTE: STRAP FIRE HYDRANT TO NEW
12" VALVE.

STA. 104+89 ± 10' RT.
INSTALL 12" VALVE
AND ROADWAY BOX
EL. 143.80

STA. 102+73 ± 11' RT.
INSTALL 12" VALVE
AND VALVE BOX
NOTE: STRAP VALVE TO TEE

PRESSURE REDUCING
VALVE VAULT (FUTURE)

STA. 11+87
INSTALL 12" x 4"
TEE AND BUTTRESS

PLAN
Scale: 1" = 50'

STA. 11+82 ± 8' 36" RT.
INSTALL 12" TEE AND
BUTTRESS
INSTALL 6" VALVE AND
ROADWAY BOX
INSTALL STD FIRE HYDRANT
NOTE: STRAP FIRE HYDRANT
TO EXISTING VALVE.

STA. 12+14 ± 8' 55" RT.
INSTALL 1/8" VERT BEND
EL. 74.0

STA. 12+14 ± 8' 55" RT.
INSTALL 1/8" VERT BEND
EL. 73.7

STA. 12+25 ± 56" RT.
INSTALL 1/8" VERT BEND
EL. 78.0

STA. 115+40 ± 20' RT.
INSTALL 5" 1/8" HORIZ BEND
AND BUTTRESS.

STA. 115+45 ± 21' RT.
INSTALL 5" 1/8" HORIZ BEND
NOTE: STRAP 1/8" HORIZ
BEND TO EX. VALVE.

STA. 115+35 ± 13' RT.
INSTALL 12" VALVE AND
ROADWAY BOX
NOTE: STRAP VALVE TO
12" x 8" CROSS

ENLARGEMENT DETAIL
FOR BLOW-OFF
NOT TO SCALE

PROFILE
Horizontal: 1" = 50'
Vertical: 1" = 10'

NOTE: SEE SPECIAL PROVISIONS
FOR CONNECTING EX. WATER
HOUSE CONNECTION TO NEW
12" WATER MAIN.

SEE SHEET NO. 19

MATCH LINE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
1-6-81
DIRECTOR OF PUBLIC WORKS DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
11/81
CHIEF - BUREAU OF UTILITIES DATE

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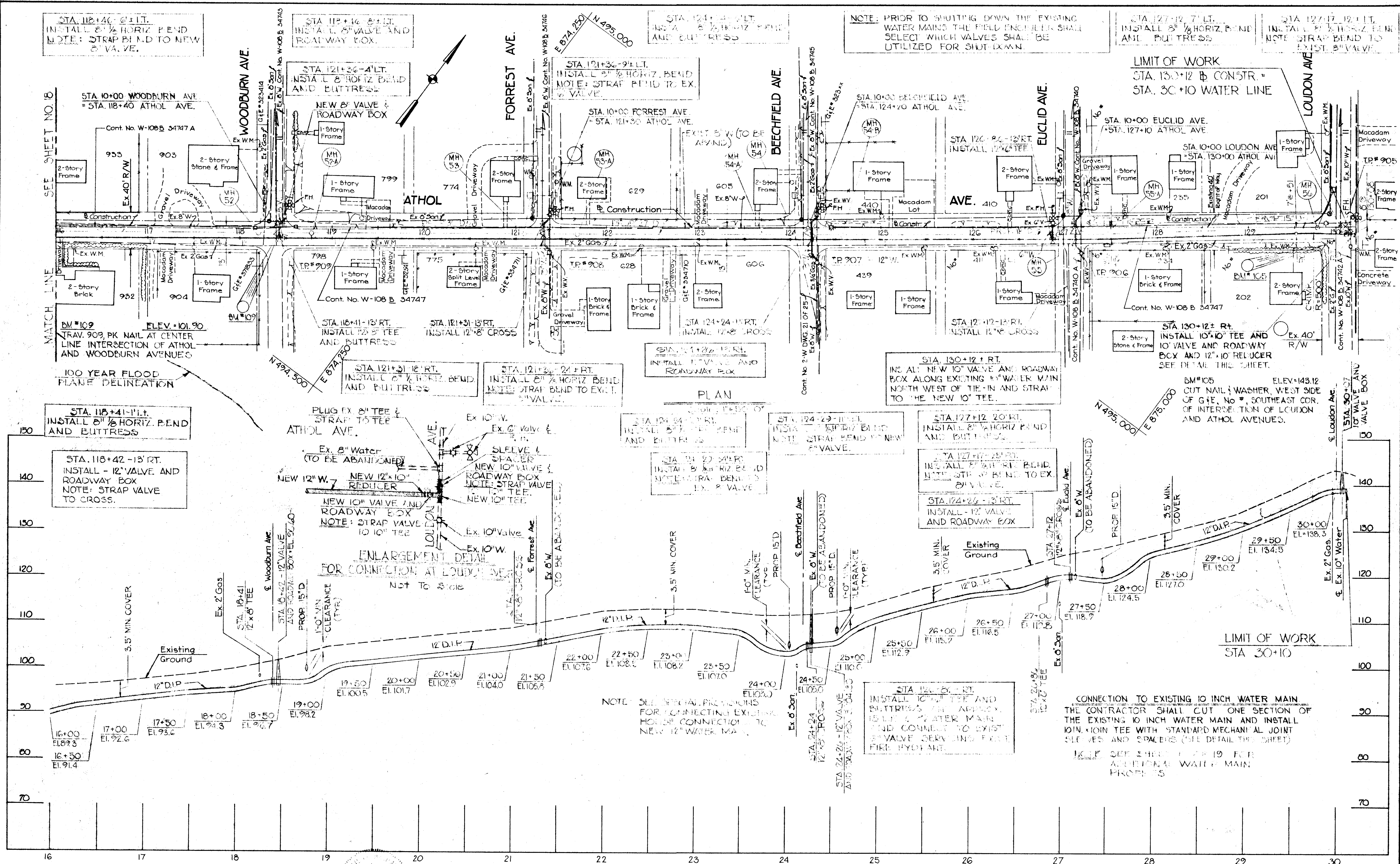
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
11/81
CHIEF, UTILITY DIVISION DATE

CONTRACT NO. 44-1015

PLAN AND PROFILE
STA. 2+00 TO STA. 16+00

COUNTY LINE WATER MAIN
CAPITAL PROJECT W-6-8050

CAPITAL PROJECT NO. W-6-8050
CONTRACT NO. 44-1015
DRAWING NO. 15
OF 19
SCALE AS SHOWN



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 1-6-82
 JOHNSON, MIRMIRAN & THOMPSON P.A.
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DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 11/5/81
 CHIEF, UTILITY DIVISION

CONTRACT NO. 44-1015

PLAN AND PROFILE
 STA. 16+00 TO STA. 30+00

COUNTY LINE WATER MAIN
 CAPITAL PROJECT W-6-8050

CAPITAL PROJECT NO. W-6-8050
 CONTRACT NO. 44-1015
 DRAWING NO. 13
 OF 19
 SCALE AS SHOWN