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4	SEDIMENT AND EROSION CONTROL PLAN
5	SEDIMENT AND EROSION CONTROL DETAILS AND NOTES

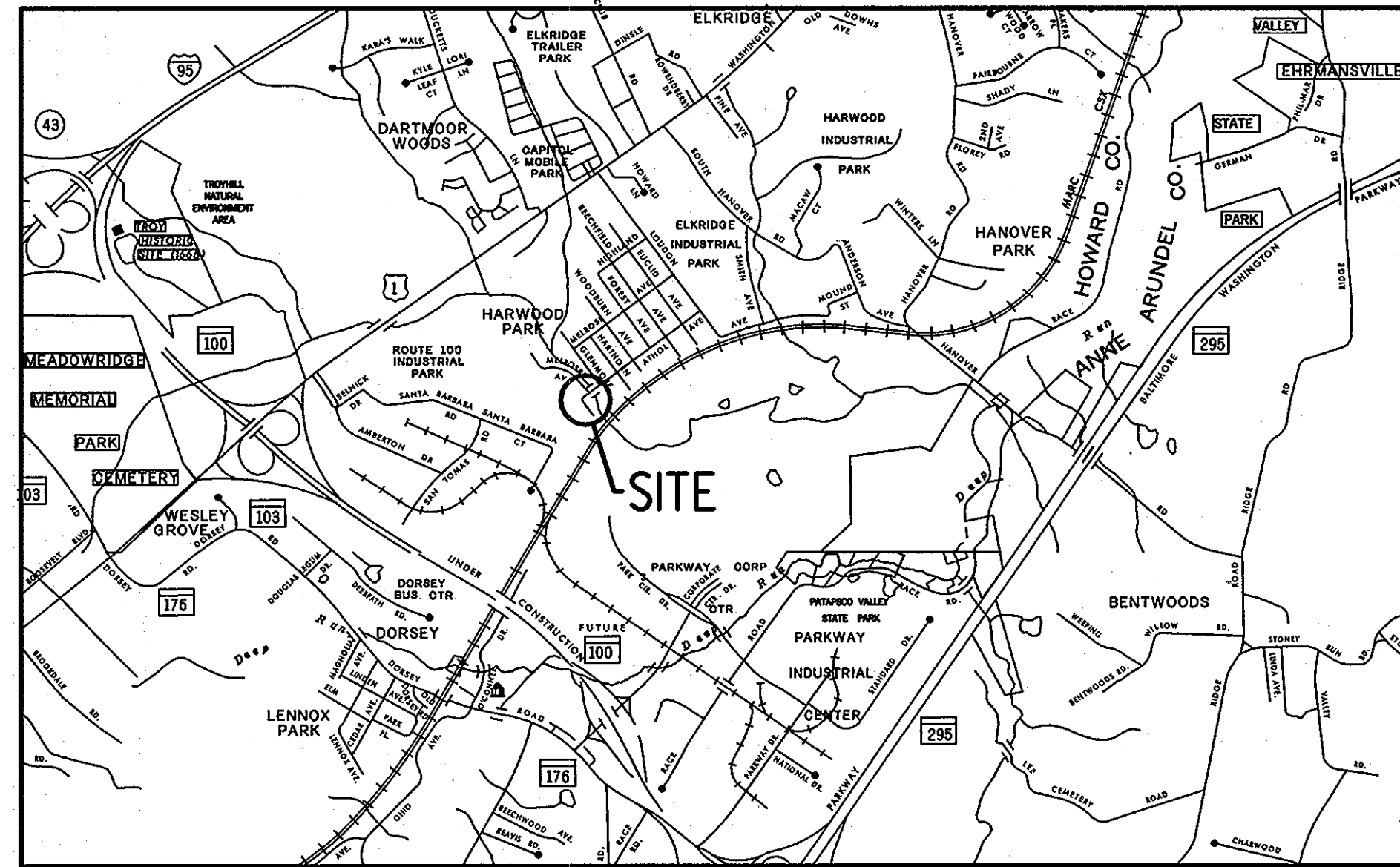
**GENERAL NOTES**

- ALL INFORMATION AND DETAILS ON THESE DRAWINGS SHALL BE CONSTRUCTED AS PER THE PLANS OR AS DIRECTED BY THE HOWARD COUNTY ENGINEER.
- ALL STATIONING AND DIMENSIONING ARE TO FIELD VERIFIED BY THE CONTRACTOR
- STORM DRAINAGE SLOPES ARE TO BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE HOWARD COUNTY ENGINEER
- APPROXIMATE LOCATIONS OF EXISTING UTILITIES ARE 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 NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.

MISS UTILITY 1-800-257-7777  
 BALTIMORE GAS & ELECTRIC CO. - ELECTRIC DISTRIBUTION 410-291-3096  
 VERIZON - TELECOMMUNICATIONS 410-224-9500  
 COMCAST CABLE - 410-461-0444  
 HOWARD COUNTY D.P.W. 410-313-4900

THE CONTRACTOR SHALL CONTACT THE HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION OF ENGINEERING FOR VERIFICATION AND/OR INFORMATION REGARDING:

- PROPOSED/EXISTING RIGHT-OF-WAY.
  - UTILITY RELOCATION.
  - MAINTENANCE OF TRAFFIC DURING CONSTRUCTION.
  - EROSION/SEDIMENT CONTROL CERTIFICATION AND PERMIT.
  - HORIZONTAL/VERTICAL SURVEY CONTROL.
  - GRADING PERMIT.
- SEE HOWARD COUNTY STANDARD DETAILS NO'S G-1.01 AND G-1.02 FOR STANDARD SYMBOLS.
  - HORIZONTAL COORDINATES ARE BASED ON MD NAD 83/91 DATUM AND VERTICAL ELEVATIONS ARE BASED ON NAVD 1988 ELEVATIONS, TRANSFERRED FROM N.G.S. CONTROL STATION HARWOOD MDSCM RESET. PID NO. JVO910.  
  
 N 558,479.01  
 E 1,386,642.06  
 ELEV. 189.56
  - A STAGING AND STOCKPILE AREA WILL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE HOWARD COUNTY ENGINEER.
  - TOPOGRAPHY SURVEY INFORMATION BASED ON FIELD SURVEY PERFORMED BY JOHNSON, MIRMIRAN & THOMPSON DATED JANUARY 2004.



LOCATION MAP  
 SCALE 1" = 2000'

CAPITAL PROJECT NO. D-III8-54

**ATHOL AVENUE - STORM DRAIN IMPROVEMENTS**

HOWARD COUNTY, MARYLAND  
 DEPARTMENT OF PUBLIC WORKS

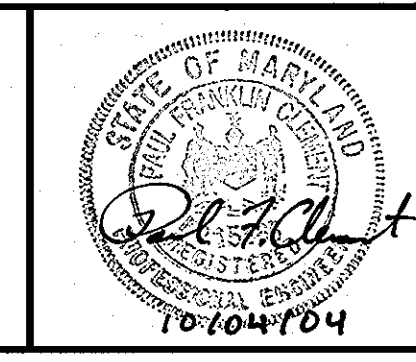
APPROVED: FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Steve Shavar* 10/6/04  
 CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
*Jim Mays* 10-6-04  
 U.S. Natural Resources Conservation Service DATE  
 THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John K. Kalant* 10-6-04  
 Howard Soil Conservation District DATE

FILE: G:\S\030621\ATHOL\HOWARD\ATHOL.DWG

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*Steve Shavar* 10/6/04  
 DIRECTOR OF PUBLIC WORKS  
*Steve Shavar* 10/6/04  
 CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION  
*Paul S. Seaton* 10/6/04  
 CHIEF, BUREAU OF ENGINEERING  
*William A. Marshall* 10-6-04  
 CHIEF, BUREAU OF HIGHWAYS

**JMT**  
 JOHNSON, MIRMIRAN & THOMPSON  
 Engineering A Brighter Future  
 72 Loveton Circle Baltimore, Maryland 21152-0949



DES:	SAM				
DRN:	JMB				
CHK:	PFC				
DATE:	9/04	BY	NO.		DATE

CAPITAL PROJECT NO.  
**D-III8-54**

TITLE SHEET  
**ATHOL AVENUE  
 STORM DRAIN IMPROVEMENTS**

SCALE  
 AS SHOWN  
 SHEET  
 1 OF 5

BASELINE CONTROL COORDINATES			
LOCATION	STATION	NORTH	EAST
BASELINE OF CONSTRUCTION ATHOL AVENUE	POT STA. 100+00.00	554,700.8487	1,385,671.0018
	POT STA. 100+87.82	554,759.9750	1,385,735.9320
	POT STA. 101+73.55	554,813.0930	1,385,803.2290
	POT STA. 103+83.54	554,937.9250	1,385,972.0830
	POT STA. 104+95.55	555,003.1070	1,386,063.1690

UTILITY TEST HOLES			
NO.	LOCATION	UTILITY	TOP ELEV.
TH 1	STA. 100+76.4, 6.7' RT.	12" WATER	117.0
TH 2	STA. 102+73.3, 3.9' RT.	12" WATER	94.3
TH 3	STA. 103+26.7, 1.0' RT.	8" WATER	88.1
TH 4	STA. 103+60.8, 15.2' RT.	12" WATER	84.9
TH 1B	STA. 102+92.6, 13.4' RT.	1" ELECTRIC	91.7
TH 2B	STA. 102+93.7, 12.7' LT.	2" GAS	93.0
TH 3B	STA. 102+92.2, 16.1' RT.	1/4" TELE. & (3) 1" ELEC.	91.8

STANDARD BITUMINOUS CURB (STD. NO. R-3.03)	
STA. 100+66.7 TO STA. 100+94.0, RT. -	27 L.F.
STA. 101+06.0 TO STA. 101+42.3, RT. -	37 L.F.
STA. 101+60.5 TO STA. 101+94.1, RT. -	34 L.F.
STA. 102+56.4 TO STA. 102+90.8, RT. -	34 L.F.
STA. 103+17.8 TO STA. 103+74.2, RT. -	56 L.F.

COMBINATION CURB AND GUTTER (STD. NO. R-3.01)	
STA. 100+94.0 TO STA. 101+06.0, RT. •	- 12 L.F.
STA. 102+19.9 TO STA. 102+35.1, RT. ••	- 15 L.F.

• TRANSITION CONCRETE CURB TO TIE-IN TO PROPOSED BITUMINOUS CURB AT STA. 100+94 AND STA. 101+06.  
•• NOSE DOWN CURB AT BOTH ENDS

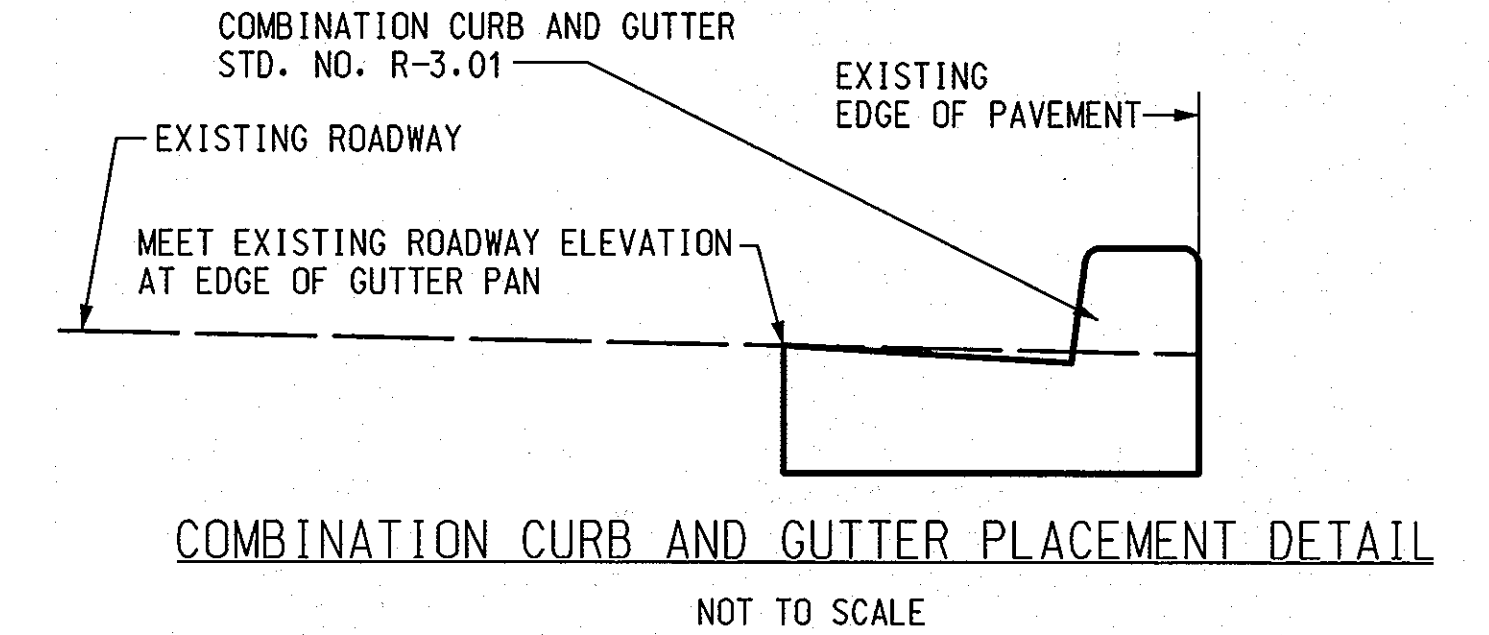
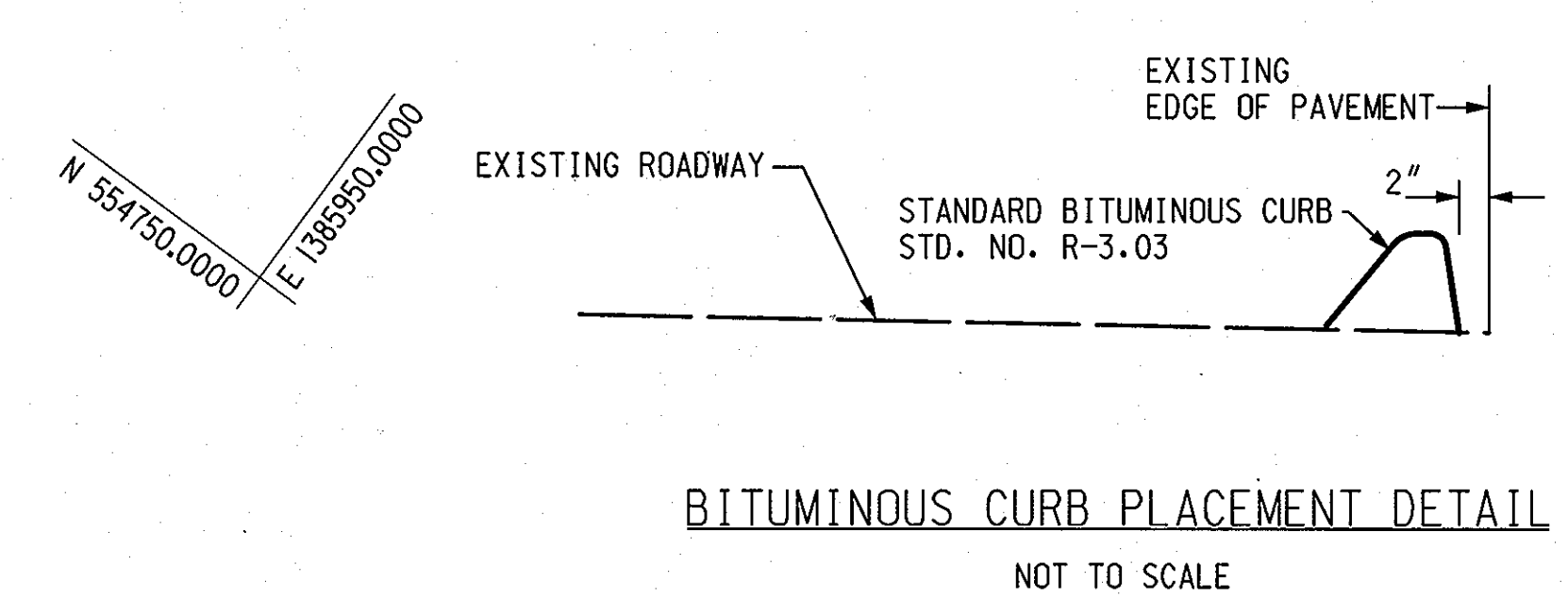
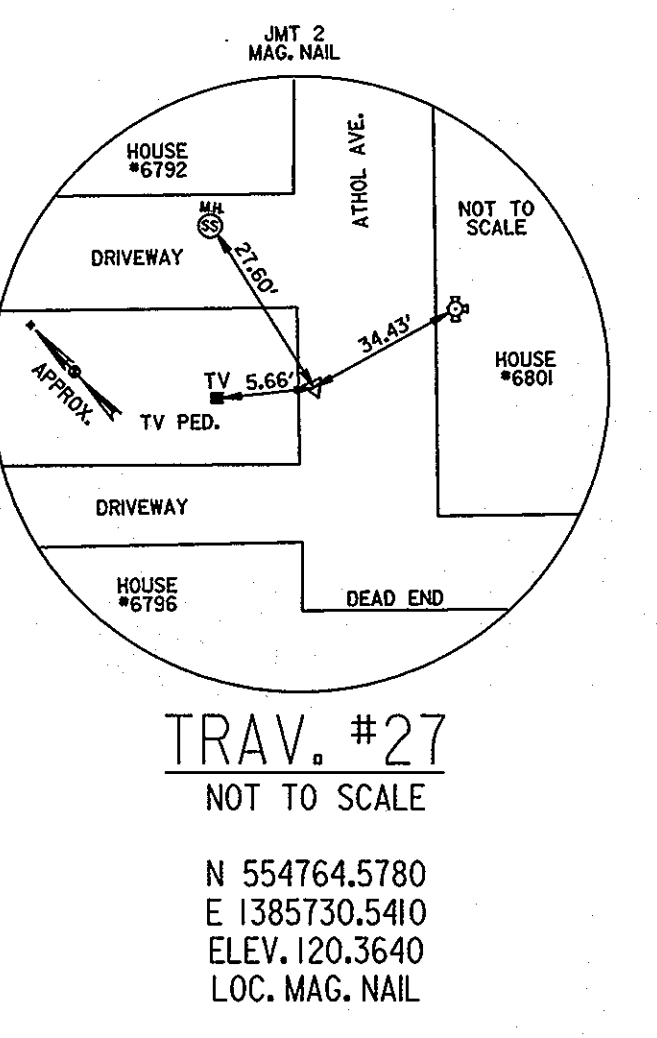
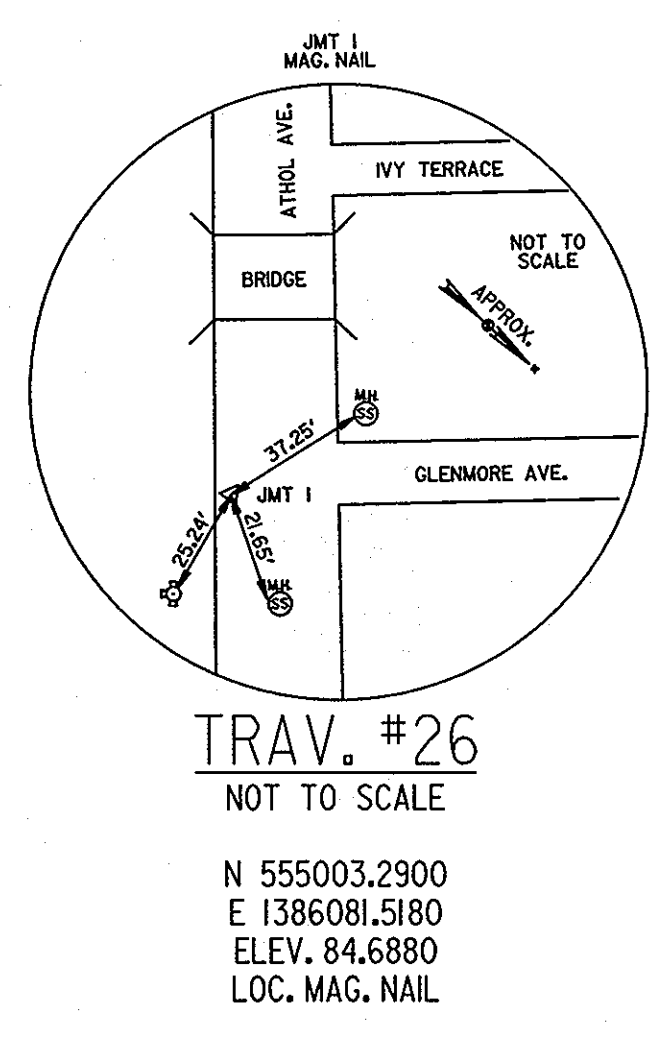
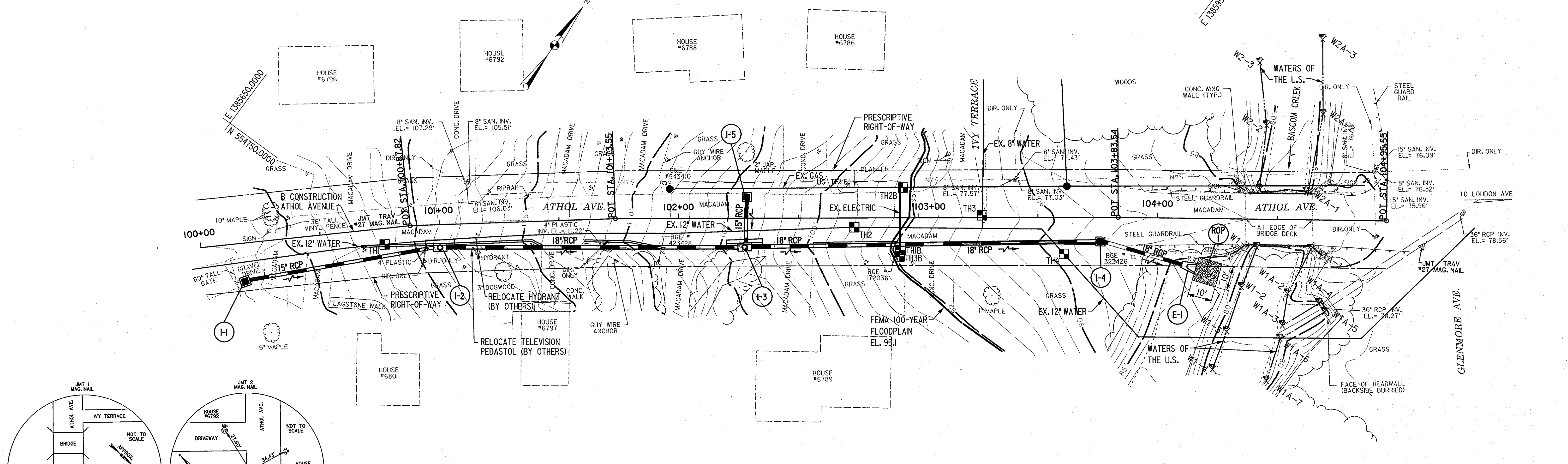
STORM DRAIN STRUCTURE SCHEDULE			
NO.	LOCATION	TYPE	STD. NO.
I-1	STA. 100+16.9, 16.1' RT.	TYPE 'S' INLET	SD-4.22
I-2	STA. 101+00.0, 7.9' RT.	TYPE A-5 INLET	SD-4.01
I-3	STA. 102+27.5, 10.4' RT.	TYPE A-5 INLET	SD-4.01
I-4	STA. 103+76.1, 10.1' RT.	SINGLE WR INLET	SD-4.37
E-1	STA. 104+10.3, 19.3' RT.	CONCRETE END SECTION FOR 18" RCP	SD-5.51
I-5	STA. 102+28.4, 8.9' LT.	SINGLE WR INLET	SD-4.37

STORM DRAIN PIPE SCHEDULE			
FROM	TO	TYPE	LENGTH
I-1	I-2	15" RCP, CL. IV	78 L.F.
I-2	I-3	18" RCP, CL. IV	122 L.F.
I-3	I-4	18" RCP, CL. V	144 L.F.
I-4	E-1	18" RCP, CL. IV	34 L.F.
I-5	I-3	15" RCP, CL. IV	18 L.F.

OUTLET PROTECTION SCHEDULE				
NO.	TYPE	LENGTH, Ld	WIDTH	AREA
ROP-1	CLASS I RIPRAP, ROP *	10 L.F.	10 L.F.	11 S.Y.

\* SEE DETAIL ON E&S NOTES SHEET

EXTEND 4" PLASTIC PIPE THROUGH CURB  
STA. 100+94, 10', RT. - 3 L.F.  
STA. 101+68, 12', RT. - 4 L.F.

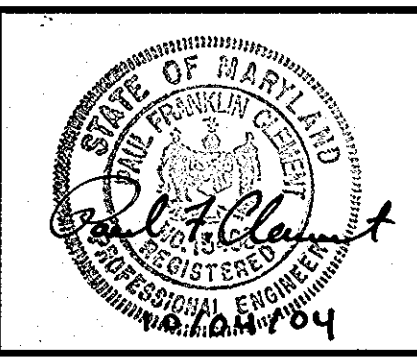


DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Jan 10 10/6/04*  
DIRECTOR OF PUBLIC WORKS  
Steve Shavan 10/6/04  
CHIEF TRANSPORTATION AND SPECIAL PROJECTS DIVISION

*Paul Deppan 10/6/04*  
CHIEF, BUREAU OF ENGINEERING  
*William F. ... 10-6-04*  
CHIEF, BUREAU OF HIGHWAYS

**JMT**  
JOHNSON, MIRMAN & THOMPSON  
Engineering A Brighter Future  
72 Loveton Circle Baltimore, Maryland 21152-0949

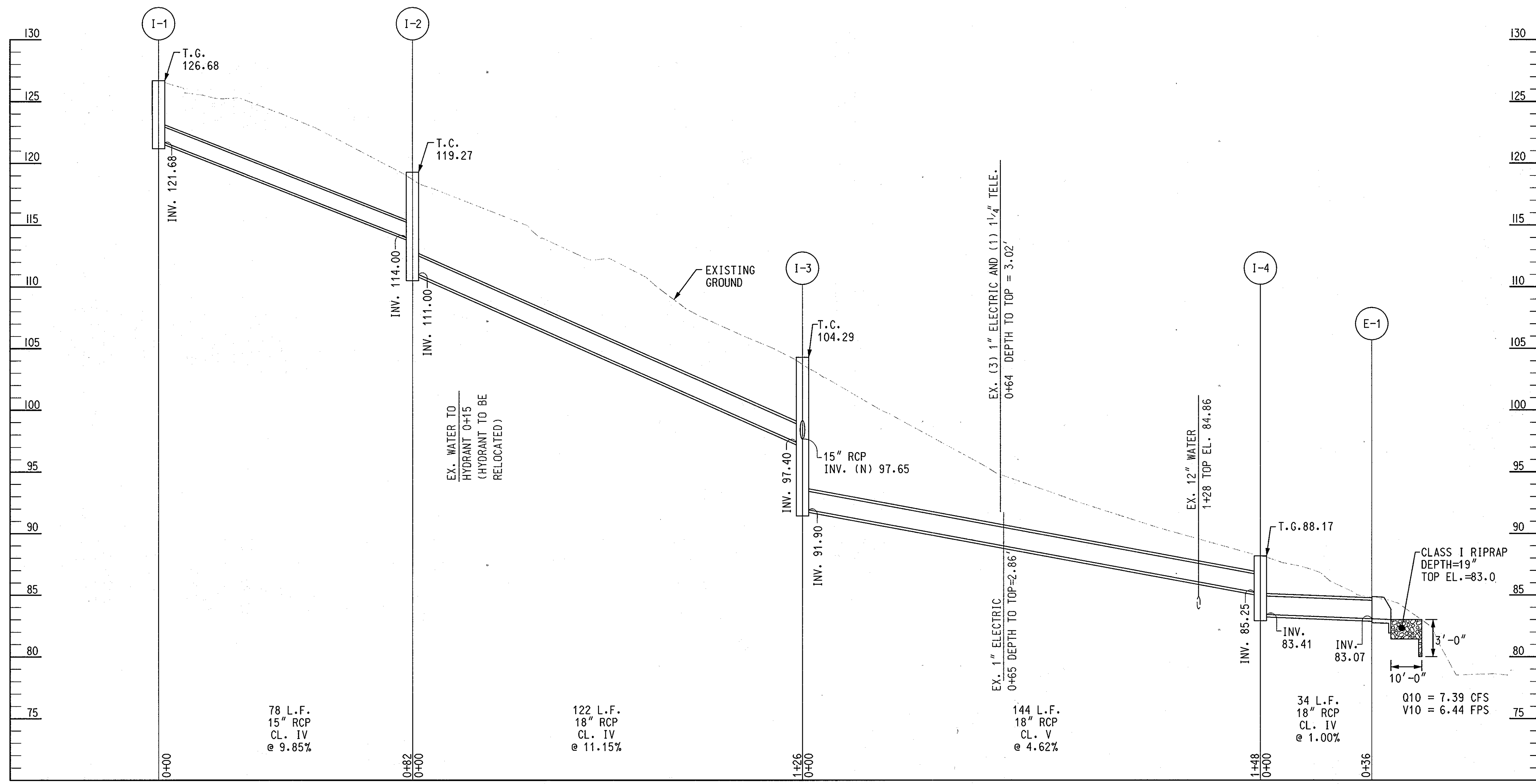


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BY	NO.				

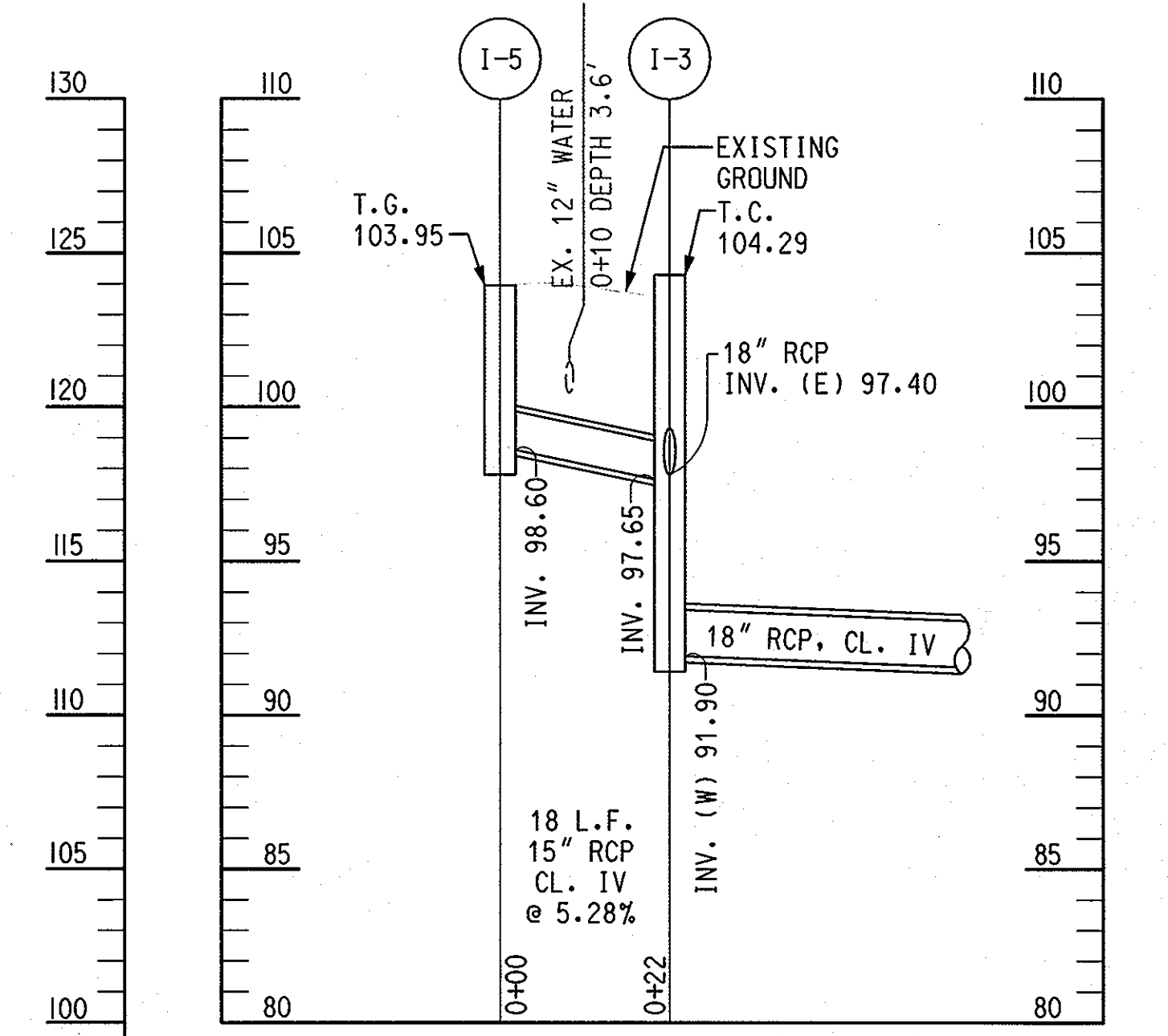
CAPITAL PROJECT NO.  
**D-1118-54**

PLAN SHEET  
**ATHOL AVENUE  
STORM DRAIN IMPROVEMENTS**

SCALE  
1" = 20'  
SHEET  
2 OF 5



STA. 100+17 TO STA. 104+10, RT.  
 SCALE: HORIZ. 1" = 20'  
 VERT. 1" = 5'



STA. 102+28, LT. TO STA. 102+28, RT.  
 SCALE: HORIZ. 1" = 20'  
 VERT. 1" = 5'

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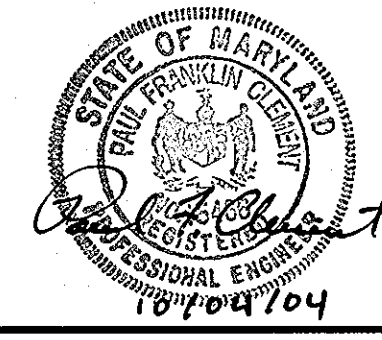
DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*Steve Shaner* 10/6/04  
 DIRECTOR OF PUBLIC WORKS

*William J. Mahaffey* 10-6-04  
 CHIEF TRANSPORTATION AND SPECIAL PROJECTS DIVISION

*Charles D. Seppan* 10/6/04  
 CHIEF, BUREAU OF ENGINEERING

*William J. Mahaffey* 10-6-04  
 CHIEF, BUREAU OF HIGHWAYS



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STORM DRAIN PROFILES

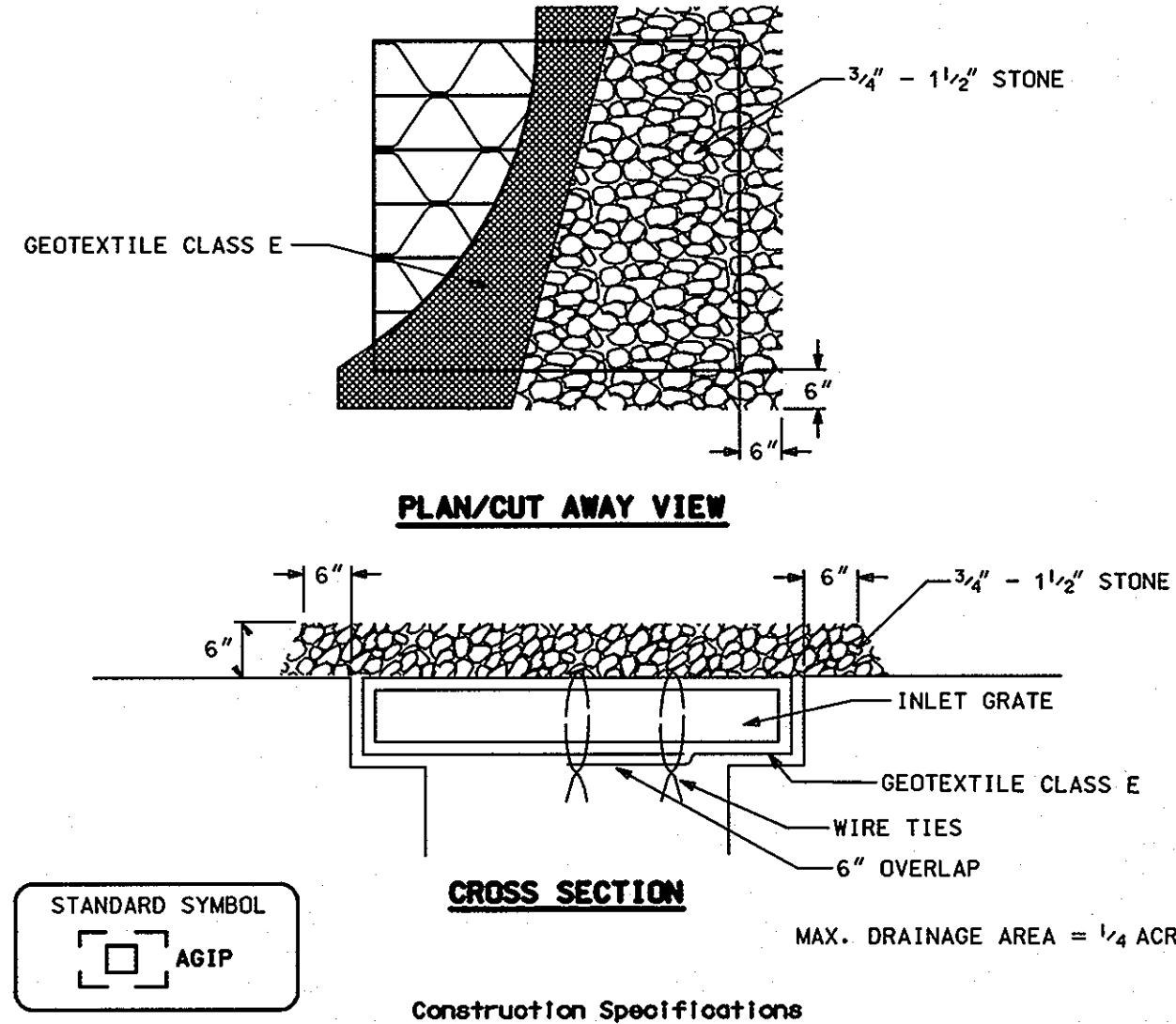
**ATHOL AVENUE  
 STORM DRAIN IMPROVEMENTS**

SCALE AS SHOWN

SHEET  
 3 OF 5



DETAIL 23B - AT GRADE INLET PROTECTION



1. Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
2. Place 3/4" to 1 1/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE      PAGE E-16-6A      MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SEQUENCE OF CONSTRUCTION

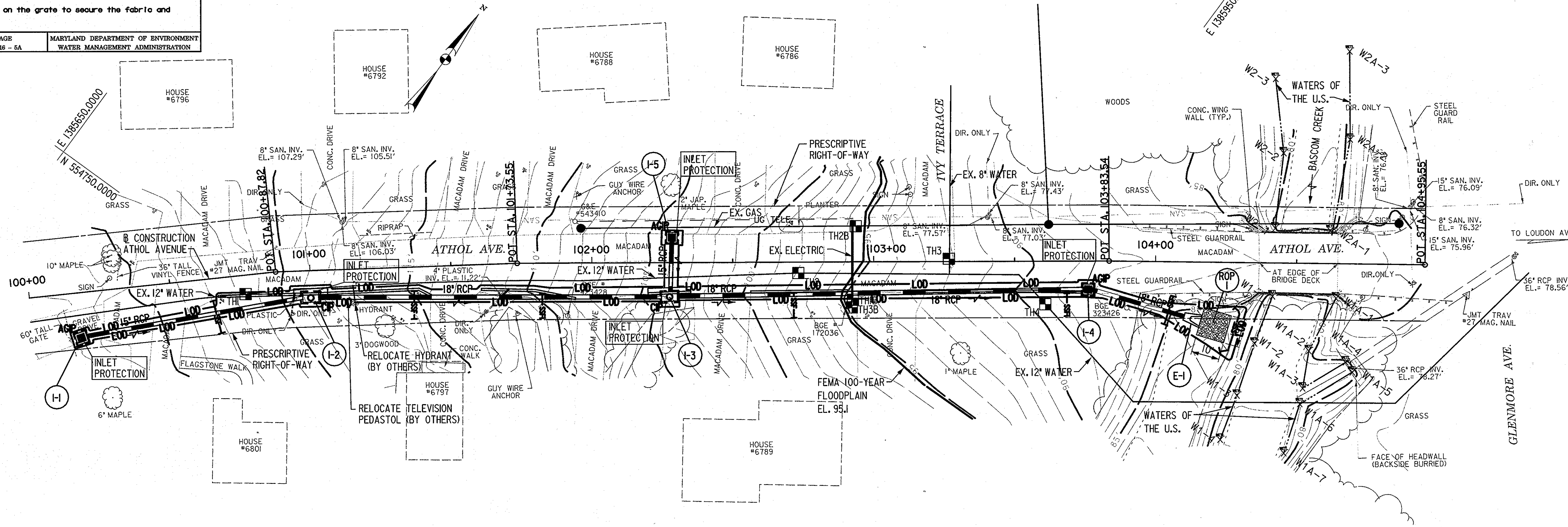
1. CONTRACTOR SHALL OBTAIN GRADING PERMIT FROM HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR SHALL CONTACT HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES, AND PERMITS AT (410) 313-2455 TO SCHEDULE A PRE-CONSTRUCTION MEETING AT LEAST 72 HOURS BEFORE CONSTRUCTION IS TO BEGIN.
3. INSTALL SUPER SILT FENCE DOWNSTREAM OF TRENCH EXCAVATION STOCKPILE AREAS TO PREVENT SEDIMENT FROM BEING TRANSPORTED DOWNSTREAM TO STREAM. RELOCATE SUPER SILT FENCE AS CONSTRUCTION PROGRESSES. INSTALL INLET PROTECTION ON PROPOSED INLETS ONCE EACH INLET IS CONSTRUCTED.
4. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 24 HOURS OF INITIAL DISTURBANCE.

Reviewed for HOWARD SCD and meets Technical Requirements:

*Jim Myers*      10-6-04  
 USDA- Natural Resources Information Service      Date

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

*John R. Roberts*      10-6-04  
 Howard SCD      Date



ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 24 HOURS OF INITIAL DISTURBANCE.

SEE SEQUENCE OF CONSTRUCTION THIS SHEET CONCERNING SUPER SILT FENCE INSTALLATION.

FILE: G:\SMD\30665\30665.dwg    DATE: 10/16/04

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*Steve Shaner* 10/16/04  
 DIRECTOR OF PUBLIC WORKS

*William R. Walsh* 10-6-04  
 CHIEF TRANSPORTATION AND SPECIAL PROJECTS DIVISION

**JMT**  
 JOHNSON, MIRMIRAN & THOMPSON  
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 72 Loveton Circle Baltimore, Maryland 21152-0949



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CAPITAL PROJECT NO.  
 D-1118-54

EROSION AND SEDIMENT CONTROL PLAN SHEET  
**ATHOL AVENUE  
 STORM DRAIN IMPROVEMENTS**

SCALE  
 1" = 20'  
 SHEET  
 4 OF 5

