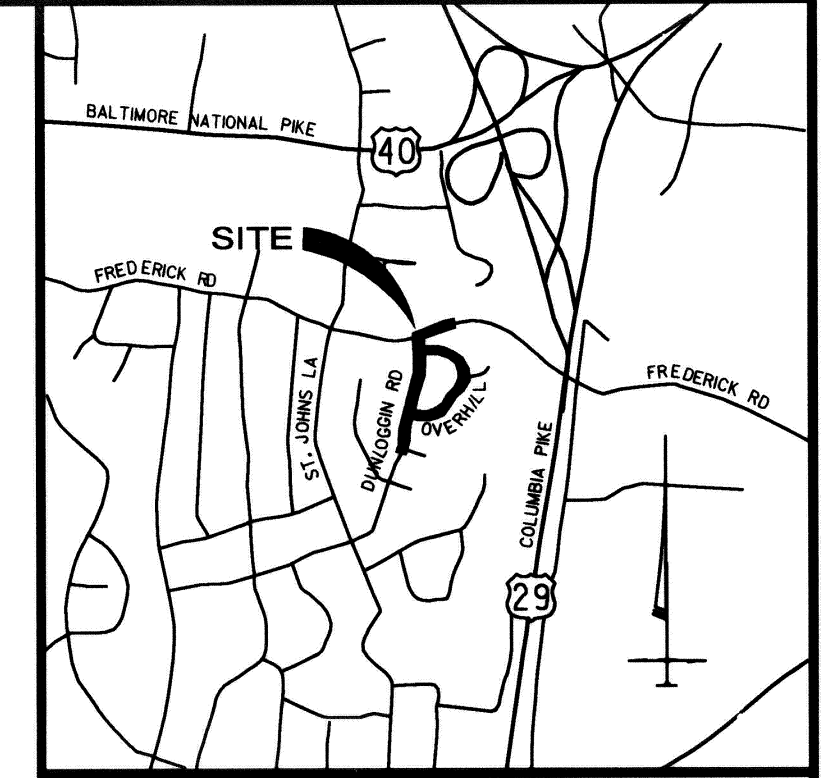


# DUNLOGGIN ROAD

## AS-BUILT

March 23rd, 2000



VICINITY MAP  
SCALE: 1" = 2,000'

### INDEX OF SHEETS

1. TITLE SHEET
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### GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:
 

MISS UTILITY	1-800-257-7777
VERIZON TELEPHONE COMPANY	752-9976
HOWARD COUNTY BUREAU OF UTILITIES	992-2366
AT&T CABLE LOCATION DIVISION	393-3553
BALTIMORE GAS & ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	531-5533
HOWARD COUNTY CONSTRUCTION/INSPECTION/SURVEY DIVISION	313-1880
4. APPROXIMATE LOCATIONS OF EXISTING WATER AND SEWER MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAIN AND HOUSE CONNECTIONS AND MAINTAIN UNINTERRUPTED SERVICES. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE AND INFORM THE BUREAU OF UTILITIES, HOWARD COUNTY AT (410) 313-4900.
5. WHERE ELEVATIONS OF EXISTING WATER AND SEWER MAINS ARE NOT SHOWN, CONTRACTOR SHALL TEST PIT THE EXISTING WATER AND SEWER MAIN TO DETERMINE THE ELEVATIONS OF THE MAIN PRIOR TO CONSTRUCTION OF INLETS. IF CONFLICTS EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
6. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
7. THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD PUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS.
8. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM.
9. STORMWATER MANAGEMENT IS NOT PROVIDED FOR THIS PROJECT DUE TO INSIGNIFICANT INCREASE IN PAVED AREA.
10. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
11. THERE IS NO 100-YEAR FLOODPLAIN ON SITE.
12. ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
13. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
14. PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
15. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
16. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
17. ALL PIPE ELEVATIONS SHOWN ARE INVERTS  $\odot$  ELEVATIONS.
18. STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
19. PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.

### GENERAL NOTES (CONT'D)

18. ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
19. NO WETLAND AREAS EXIST WITHIN THE PROJECT LIMIT OF DISTURBANCE. AREAS OF OBSERVED SATURATION ARE LOCATED WITHIN MANICURED LAWNS
20. ALL SANITARY MANHOLES, VALVES, OR FIRE HYDRANTS SHALL BE ADJUSTED TO PROPER GRADE BY THE CONTRACTOR IF IMPACTED BY THE PROPOSED WORK.
21. COORDINATES SHOWN HEREON ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD 83' AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 24F3, AND NO. 24F4.
22. DATUM AND ORIGIN OF VERTICAL SITE CONTROL SHOWN HEREON ARE BASED ON NGVD29. REFER TO SHEET NO. 2 OF 16 FOR ELEVATIONS AND COORDINATES.
23. THE SITE SURVEY WAS PERFORMED BY STV INCORPORATED IN SEPTEMBER, 2000.
24. STATION AND OFFSET FOR A-10 INLETS ARE MEASURED TO THE MIDPOINT OF THE FRONT FACE OF EACH INLET. STATION AND OFFSET FOR 'WR' INLETS ARE MEASURED TO THE MIDPOINT OF THE FRONT FACE OF THE CURB OPENING. TOP ELEVATIONS FOR ALL A-10 AND 'WR' INLETS ARE TAKEN TO THE TOP OF THE CURB.
25. STATION, OFFSET, AND COVER ELEVATIONS FOR MANHOLES ARE MEASURED TO THE CENTER OF THE MANHOLE COVER.
26. STATION AND OFFSET FOR ENDWALL IS MEASURED TO THE CENTER OF THE WALL FROM WHICH THE STORM DRAIN PIPE DISCHARGES.
27. CONTRACTOR SHALL PLUG ALL EXISTING PIPE ENDS THAT ARE EXPOSED OR CREATED DURING PIPE TRENCH EXCAVATION, REMOVAL OF EXISTING INLETS, REMOVAL OF EXISTING PIPE, OR ANY OTHER WORK DURING THE PROPOSED DRAINAGE IMPROVEMENTS. AS SPECIFIED IN THE CONTRACT DOCUMENTS, PRIOR TO PLUGGING THE UPSTREAM ENDS, EXISTING STORM DRAINS TO BE ABANDONED SHALL BE FILLED WITH FLOWABLE BACKFILL. THIS ITEM WILL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE BID PER CUBIC YARD.
28. ALL GRADED AREAS ARE TO BE STABILIZED IMMEDIATELY WITH SOD, SOIL STABILIZATION MATTING OR CONCRETE.

I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, line and grade, and elevations, shown  #



Daniel J. Maletic  
Maryland Registered Professional  
Engineer No. 13759

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

*Jim Meyer* 2/9/04  
NATURAL RESOURCE CONSERVATION SERVICE DATE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*John R. Roberts* 2/9/04  
HOWARD SOIL CONSERVATION DISTRICT DATE

*[Signature]*  
2-3-04

**OWNER'S/DEVELOPER'S CERTIFICATION:**

"I/We hereby certify that all clearing, grading, construction and/or development will be done pursuant to this plan and that any responsible personnel involved in the construction project will have a certificate of attendance of a Maryland Department of the Environment approved training program for the control of sediment and erosion before beginning the project. I hereby authorize the right of entry for periodic on-site evaluation by State of Maryland, Department of the Environment, Compliance Inspectors.

2/11/04  
Date

*[Signature]*  
Owner/Developer Signature -  
HOWARD COUNTY

*Emmett G. Lapsom, Chief, Bur. of Engineering*  
Printed Name and Title -

**DESIGN CERTIFICATIONS:**

"I hereby certify that this plan has been designed in accordance with the 1991 Standards and Specifications for Soil Erosion and Sediment Control or current revisions thereof, and Department of the Environment Stormwater Management Regulations.

2-3-04  
Date

*[Signature]*  
Designer's Signature

Md. Registration No. 11892  
P.E., R.L.S. or R.L.A. (circle) FRANK L. GRABOWSKI  
Printed Name

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]* 2/10/04  
DIRECTOR OF PUBLIC WORKS DATE

*[Signature]* 2/10/04  
CHIEF, BUREAU OF ENGINEERING DATE

*[Signature]* 2/10/04  
CHIEF, BUREAU OF HIGHWAYS DATE

*[Signature]* 2/10/04  
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE

**STV Incorporated**  
engineers / architects / planners / scientists / construction managers  
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

DES: BCH					
DRN: BCH					
CHK: FLC					
DATE: JUNE 2002	BY: NO	REVISION	DATE	SCALE: AS SHOWN	JOB NO.: 01408-03

TITLE SHEET

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT No. 0-1118-12

DRAWING NO.  
SHEET NO.  
1 of 16

BASELINE OF CONSTRUCTION DATA

POINT NUMBER	R. CONSTRUCTION	STATION	BEARING	DISTANCE	COORDINATES	
					NORTH	EAST
POB	DUNLOGGIN ROAD	0+00.00	S74°04'29.04"W	477.13'	584658.63751	1362754.207117
PI (TP13)	DUNLOGGIN ROAD	4+77.00	S22°53'32.74"E	179.14'	584527.7211	1362295.3895
PI (TP12)	DUNLOGGIN ROAD	6+56.00	S18°04'09.67"W	675.06'	584362.6949	1362365.0736
PI (TP10)	DUNLOGGIN ROAD	13+31.00	S01°44'54.92"W	293.46'	583720.931	1362155.6927
POE (TP9)	DUNLOGGIN ROAD	16+25.00			583427.6045	1362146.738
POB (TP12)	OVERHILL DRIVE	100+00.00	N88°32'02.42"E	244.05'	584362.6949	1362365.0736
PI (TP24)	OVERHILL DRIVE	102+44.00	S59°01'44.97"E	192.37'	584368.93848409	1362609.03956543
PI (TP23)	OVERHILL DRIVE	104+42.00	S05°36'38.13"W	221.60'	584269.94362108	1362773.98476269
POE (TP22)	OVERHILL DRIVE	106+53.00			584049.4031607	1362752.31941908

CONTROL DATA

POINT NUMBER	NORTH	EAST	ELEVATION	DESCRIPTION
8	583194.78650000	1362096.13210000	423.924	* MAG NAIL
9	583427.60450000	1362146.73800000	423.711	* MAG NAIL
10	583720.93100000	1362155.69270000	396.230	* MAG NAIL
11	583970.87710000	1362258.49110000	387.568	* MAG NAIL
12	584362.69490000	1362365.07360000	350.101	* MAG NAIL
13	584527.72110000	1362295.38950000	333.183	* R&C
20	583649.37027729	1362427.09094551	417.023	* MAG NAIL
21	583767.73313341	1362619.18309913	417.453	* MAG NAIL
22	584049.40316070	1362752.31941908	406.967	* MAG NAIL
23	584259.94362108	1362773.98476269	380.128	* MAG NAIL
24	584368.93848409	1362609.03956543	364.494	* MAG NAIL
25	583859.93237378	1362662.76270071	415.393	* MAG NAIL
26	584645.24452721	1362707.27087425	320.474	* MAG NAIL
243	581299.86800000	1360713.75100000	365.390	* 24F3 HOW.CO.DISC
244	582298.63400000	1360570.98700000	386.164	* 24F4 HOW.CO.DISC

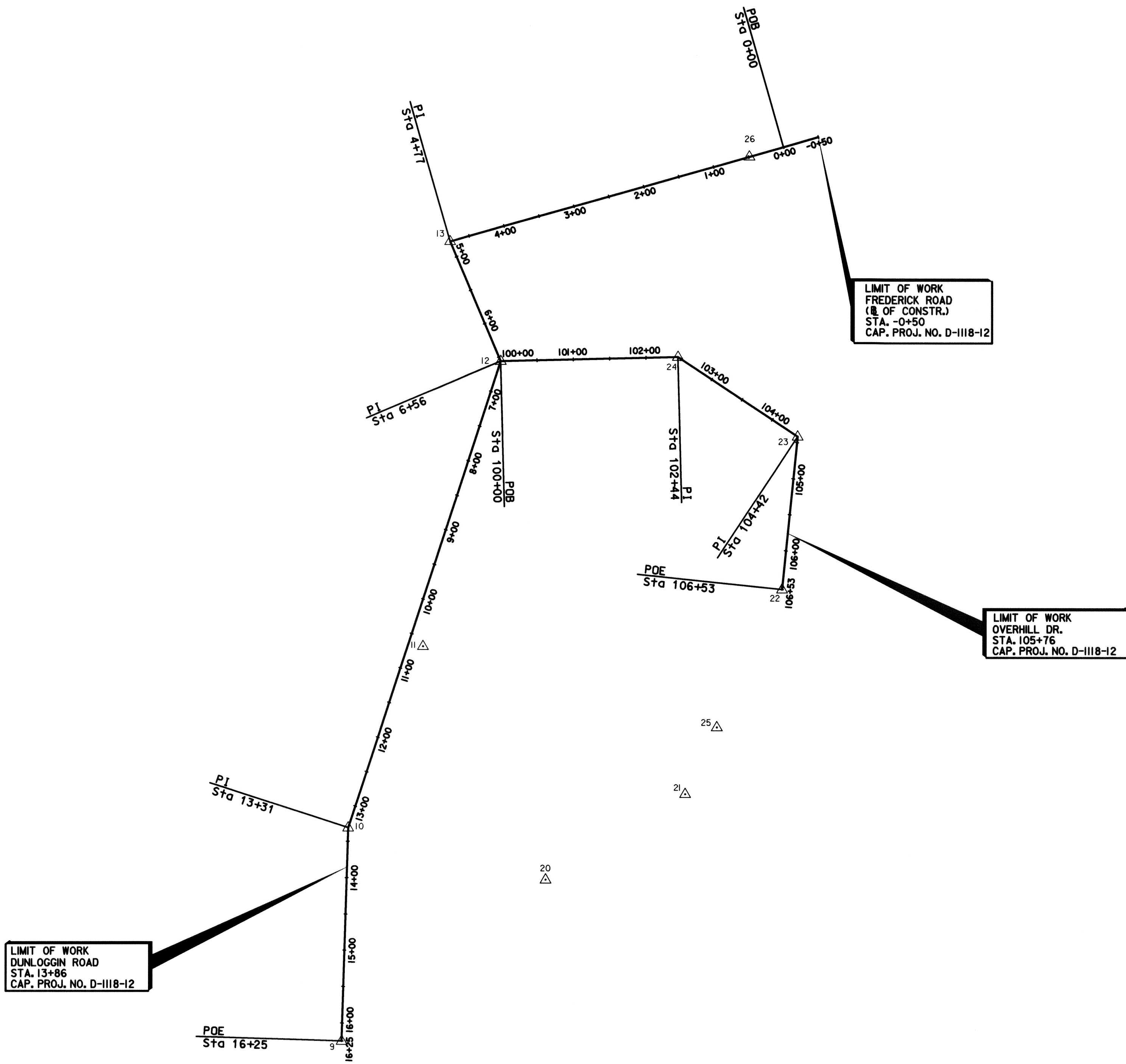
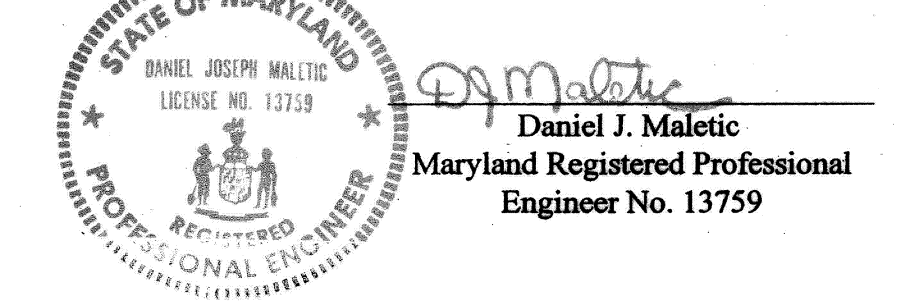
NOTE: CONTROL POINTS FOR SURVEY TAKEN FROM HOW. CO. DISC 24F3 (PT. 243) AND HOW. CO. DISC 24F4 (PT. 244)

TEST HOLE RESULTS

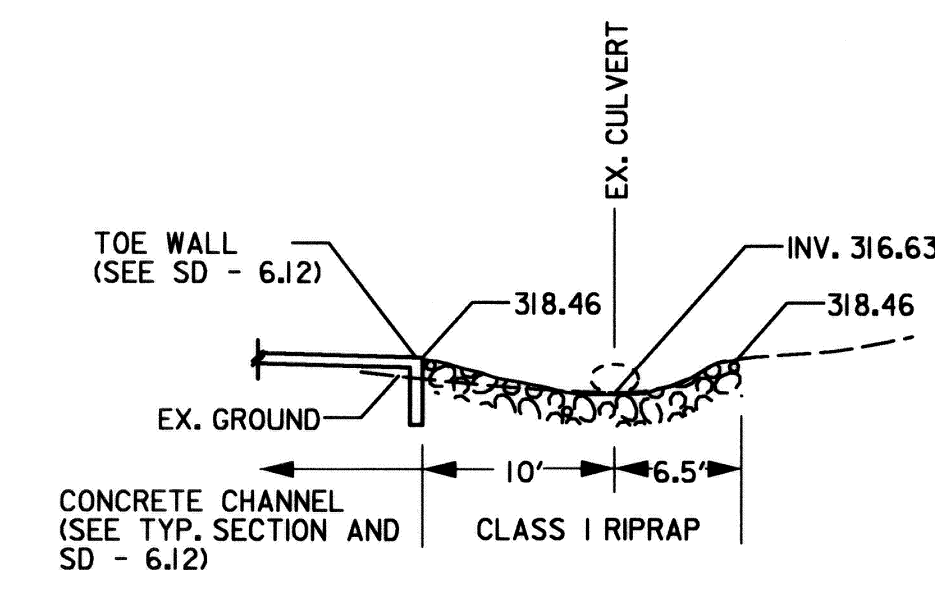
TEST HOLE NO.	UTILITY TYPE	SIZE	MATERIAL	DEPTH, FT.
1	WATER	12"	DUCTILE IRON	5.33
2	TELEPHONE	12"	CONC. DUCT	4.30
3	TELEPHONE	18"	CONC. DUCT	2.34
4	WATER	8"	DUCTILE IRON	4.58
5	WATER	8"	DUCTILE IRON	5.26
6	WATER	6"	DUCTILE IRON	5.56
7	WATER	6"	DUCTILE IRON	5.98
8	CABLE-TELEPHONE	2"	DIRECT BURIED	2.09
9	WATER	6"	DUCTILE IRON	5.84
10	WATER	6"	DUCTILE IRON	3.18
11	WATER	6"	DUCTILE IRON	4.85
12	WATER	8"	DUCTILE IRON	6.52
13	GAS	2"	WRAPPED STEEL	3.50
14	WATER	8"	DUCTILE IRON	4.76
15	WATER	8"	DUCTILE IRON	6.16
16	GAS - TEE	2"	WRAPPED STEEL	2.64
17	WATER - TEE	6" x 8"	DUCTILE IRON	5.92

NOTE: TEST HOLES WERE DUG BETWEEN THE DATES OF 04/02/01 AND 05/09/01

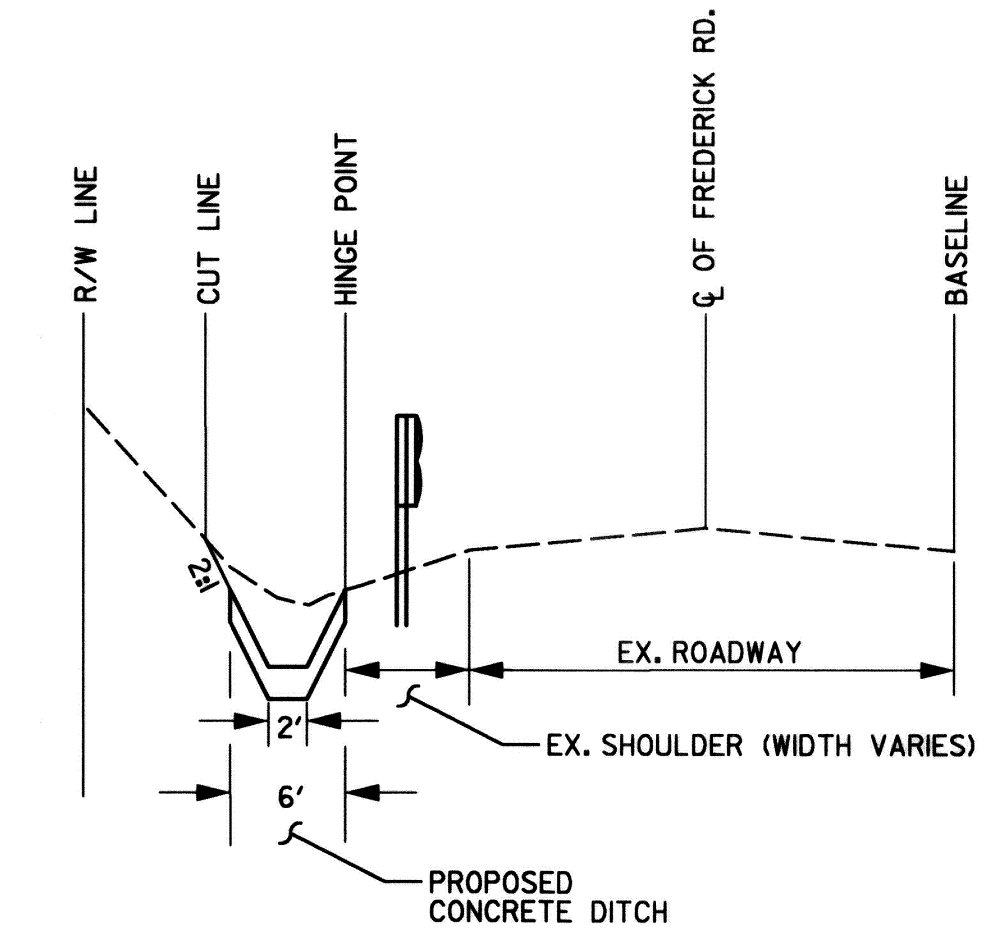
I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, materials, and grade, and elevations, shown [ # ]



BASELINE OF CONSTRUCTION SCHEMATIC  
SCALE: 1"=100'



CULVERT ENTRANCE  
NOT TO SCALE



TYPICAL ROADWAY SECTION  
NOT TO SCALE

**AS-BUILT**  
March 23rd, 2006

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*David L. ...* 2/11/04  
DIRECTOR OF PUBLIC WORKS DATE

*Paul B. ...* 2/11/04  
CHIEF, BUREAU OF ENGINEERING DATE

*Steve ...* 2/11/04  
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE

**STV Incorporated**  
engineers / architects / planners / scientists / construction managers

7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

DES: BCH				
DRN: BCH				
CHK: FLG				
DATE: JUNE 2002				
BY: NO.	REVISION	DATE	SCALE: AS SHOWN	JOB NO: 01408-03

GEOMETRIC LAYOUT  
AND TYPICAL SECTIONS

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT No. D-1118-12

DRAWING NO.  
SHEET NO.  
2 of 16

**INSTALL SOIL STABILIZATION MATTING (SSM)**  
(SEE DETAIL - SHEET 12 OF 16)

STA. 0+36 TO STA. 4+23 LT. 90 SY  
STA. 100+24 TO STA. 100+74 RT. 135 SY

**CONSTRUCT SOD TRAPEZOIDAL CHANNEL**  
HO. CO. STD. SD-6.12

STA. 100+24 TO STA. 101+74 RT. 135 SY

**CONSTRUCT 5" CONCRETE TRAPEZOIDAL CHANNEL**  
HO. CO. STD. SD-6.12

STA. 0+49 TO STA. 3+60 LT. 220 SY

**INSTALL GUARD RAIL W-BEAM**  
HO. CO. STD. R-7.01

STA. 0+00 TO STA. 3+53 LT. 358 LF

**INSTALL W-BEAM END TREATMENT**  
HO. CO. STD. R-7.05

STA. -0+50 TO STA. 0+00 LT. 50 LF  
STA. 3+53 TO STA. 3+91 LT. 40 LF

**REMOVE EXISTING INLET**

STA. 6+63 RT., - 1 EA.  
STA. 100+69 RT., - 1 EA.  
STA. 101+02 RT., - 1 EA.  
STA. 102+50 LT., - 1 EA.  
STA. 102+62 RT., - 1 EA.

**REMOVE EXISTING TIMBER PLANTER**

STA. 101+10 RT., - 1 EA.

**REMOVE EXISTING PAVEMENT**

STA. 102+50 LT., 1 CY  
STA. 102+62 RT., 3 CY

**PLACE CLASS '1' RIPRAP**

STA. 0+33 LT. TO STA. 0+49 LT., 10 SY



**LIMIT OF WORK**  
FREDERICK ROAD  
(R. OF CONSTR.)  
STA. -0+50  
CAP. PROJ. NO. D-1118-12

**EX. LEGEND**

- GV GAS VALVE
- SDMH STORM DRAIN MANHOLE
- SSMH SAN. SEWER MANHOLE
- WM WATER METER
- WV WATER VALVE
- EJB ELECTRIC JUNCTION BOX
- TC TERRA COTTA
- RCP REINFORCED CONCRETE PIPE (DRAIN)
- CONCRETE
- BRICK WALK
- SLATE WALK
- FIRE HYDRANT
- EX. CATCH BASIN/DRAIN INLET
- YARD LIGHT
- UTILITY POLE
- MANHOLE
- SIGN
- EX. CURB
- TELEPHONE (UNDERGROUND)
- SANITARY SEWER
- EX. STORM DRAIN
- WATER LINE
- UNDERGROUND ELECTRIC
- DIRECTION OF FLOW
- TELEPHONE CABLE BOX
- SURVEY TRAVERSE
- ELEC. TRANSFORMER & MAILBOX
- BUSH
- EVERGREEN TREE
- DECIDUOUS TREE
- LANDSCAPE AREA

**NOTES:**

- 1 SOIL STABILIZATION MATTING (SSM) SHALL BE USED IN LIEU OF SOD FOR STABILIZING THE PROPOSED CHANNEL.
- 2 FILL ABANDONED STORM DRAINS WITH FLOWABLE BACKFILL.
- 3 CONTRACTOR TO VERIFY LOCATION OF UNDERGROUND TELEPHONE PRIOR TO INSTALLATION OF GUARDRAIL AND ADJUST THE LOCATION ACCORDINGLY.
- 4 ALL GRADED AREAS ARE TO BE STABILIZED IMMEDIATELY WITH SOD, SOIL STABILIZATION MATTING OR CONCRETE.

**STRUCTURE SCHEDULE**

NO.	℄	STATION	OFFSET	TYPE	TOP ELEV.	INV. IN	INV. OUT	STD. NO.
EW-1	CONSTR.	3+60	LT.	24" RCP TYPE 'E'	330.65	NA	327.90	HO.CO. SD - 5.31
					331.54		328.50	

**INLET SCHEDULE**

NO.	℄	STATION	OFFSET	TYPE	GRATE ELEV./TOP ELEV.	INV. IN	INV. OUT	STD. NO.
I-1	CONSTR.	5+27.0	26.3' LT.	PRECAST STD. A-10	334.00 / 334.04	330.19	329.12	HO.CO. SD - 4.41
I-2	CONSTR.	5+39.0	15.8' RT.	PRECAST STD. A-10	330.90 / 337.48	NA	332.80	HO.CO. SD - 4.41
I-3	CONSTR.	100+26.0	1.4' RT.	PRECAST STD. A-10	352.51 / 353.35	NA	348.50	HO.CO. SD - 4.41
I-4	CONSTR.	100+30.3	29.2' RT.	YARD INLET	353.50 / 354.04	NA	350.54	HO.CO. SD - 4.41
I-5	CONSTR.	102+50.7	3.5' LT.	PRECAST STD. A-10	355.90 / 360.09	NA	362.14	HO.CO. SD - 4.41
I-9	CONSTR.	7+25.0	3.7' LT.	PRECAST STD. A-10	356.55 / 358.14	NA	352.14	HO.CO. SD - 4.41
							330.74	

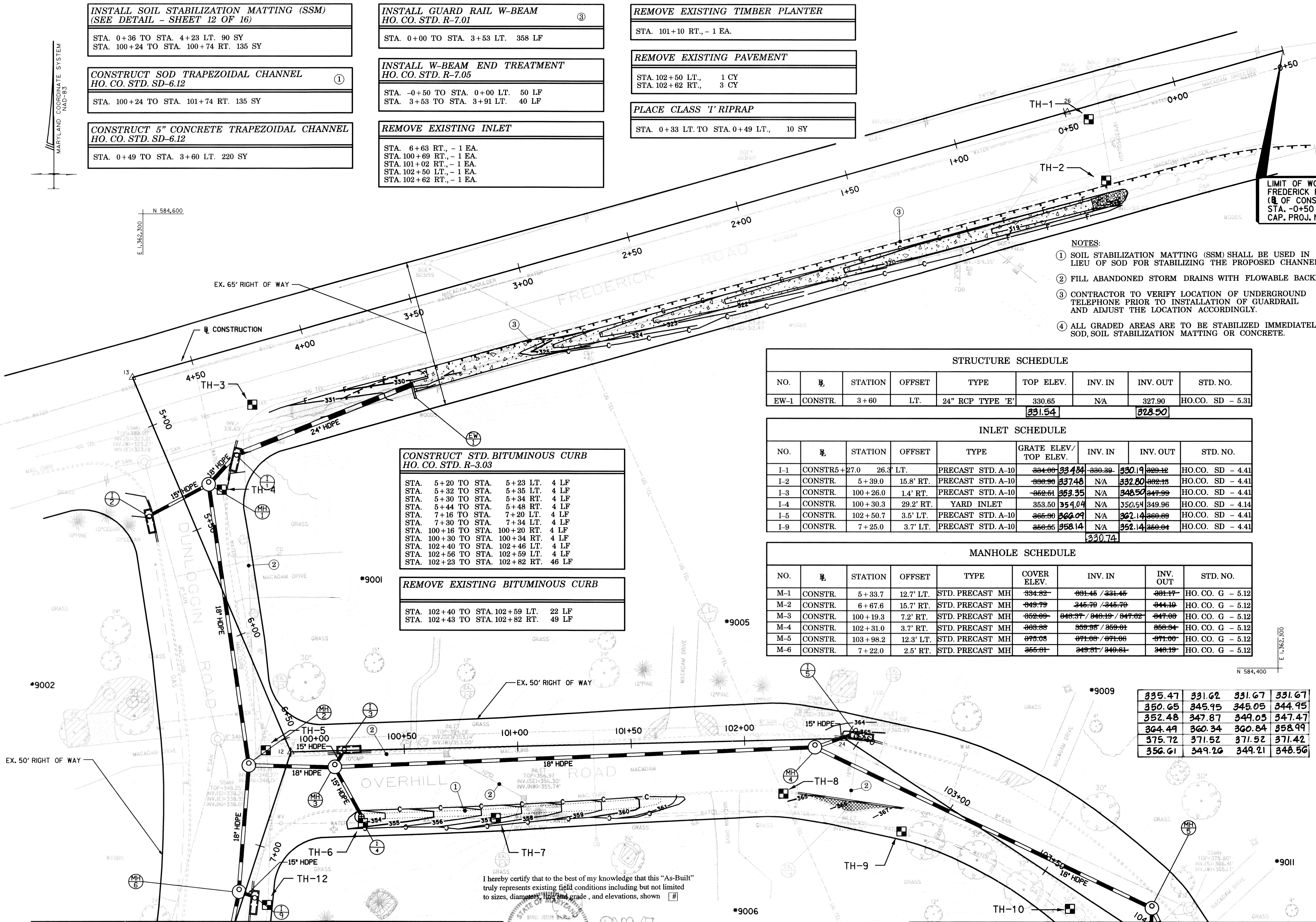
**MANHOLE SCHEDULE**

NO.	℄	STATION	OFFSET	TYPE	COVER ELEV.	INV. IN	INV. OUT	STD. NO.
M-1	CONSTR.	5+33.7	12.7' LT.	STD. PRECAST MH	334.82	331.45 / 331.45	331.17	HO. CO. G - 5.12
M-2	CONSTR.	6+67.6	15.7' RT.	STD. PRECAST MH	349.79	345.79 / 345.79	344.10	HO. CO. G - 5.12
M-3	CONSTR.	100+19.3	7.2' RT.	STD. PRECAST MH	352.99	348.37 / 348.19 / 347.02	347.99	HO. CO. G - 5.12
M-4	CONSTR.	102+31.0	3.7' RT.	STD. PRECAST MH	359.88	359.95 / 359.01	356.94	HO. CO. G - 5.12
M-5	CONSTR.	103+98.2	12.3' LT.	STD. PRECAST MH	375.05	371.06 / 371.06	371.06	HO. CO. G - 5.12
M-6	CONSTR.	7+22.0	2.5' RT.	STD. PRECAST MH	355.81	349.81 / 349.81	348.19	HO. CO. G - 5.12

335.47	331.62	331.67	331.67
350.65	345.95	345.05	344.95
352.48	347.87	349.03	347.47
364.49	360.34	360.84	358.99
375.72	371.52	371.52	371.42
356.61	349.26	349.21	348.56

**PROP. LEGEND**

- PROP. HDPE STORM DRAIN
- SOIL STABILIZATION MATTING (SSM)
- PROP. GUARD RAIL
- PROP. CONCRETE CHANNE
- PROP. PAVEMENT REMOVAL
- PROP. CLASS '1' RIPRAP
- PROP. SOD



**CONSTRUCT STD. BITUMINOUS CURB**  
HO. CO. STD. R-3.03

STA. 5+20 TO STA. 5+23 LT. 4 LF  
STA. 5+32 TO STA. 5+35 LT. 4 LF  
STA. 5+30 TO STA. 5+34 RT. 4 LF  
STA. 5+44 TO STA. 5+48 RT. 4 LF  
STA. 7+16 TO STA. 7+20 LT. 4 LF  
STA. 7+30 TO STA. 7+34 LT. 4 LF  
STA. 100+16 TO STA. 100+20 RT. 4 LF  
STA. 100+30 TO STA. 100+34 RT. 4 LF  
STA. 102+40 TO STA. 102+46 LT. 4 LF  
STA. 102+56 TO STA. 102+59 LT. 4 LF  
STA. 102+23 TO STA. 102+82 RT. 46 LF

**REMOVE EXISTING BITUMINOUS CURB**

STA. 102+40 TO STA. 102+59 LT. 22 LF  
STA. 102+43 TO STA. 102+82 RT. 49 LF

I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, line and grade, and elevations, shown.

Daniel J. Maletic  
Maryland Registered Professional Engineer No. 13759

MATCH LINE - SHEET 4 OF 16

MATCH LINE - SHEET 5 OF 16

**AS-BUILT**  
March 23rd, 2006

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: [Signature] DATE: 2/11/04  
Chief, Bureau of Engineering: [Signature] DATE: 2/11/04  
Chief, Bureau of Highways: [Signature] DATE: 2/11/04  
Chief, Transportation and Special Projects Division: [Signature] DATE: 2/11/04

**STV Incorporated**  
engineers / architects / planners / scientists / construction managers  
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

DES: BCH  
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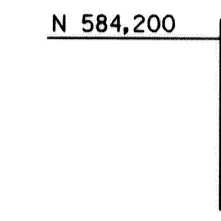
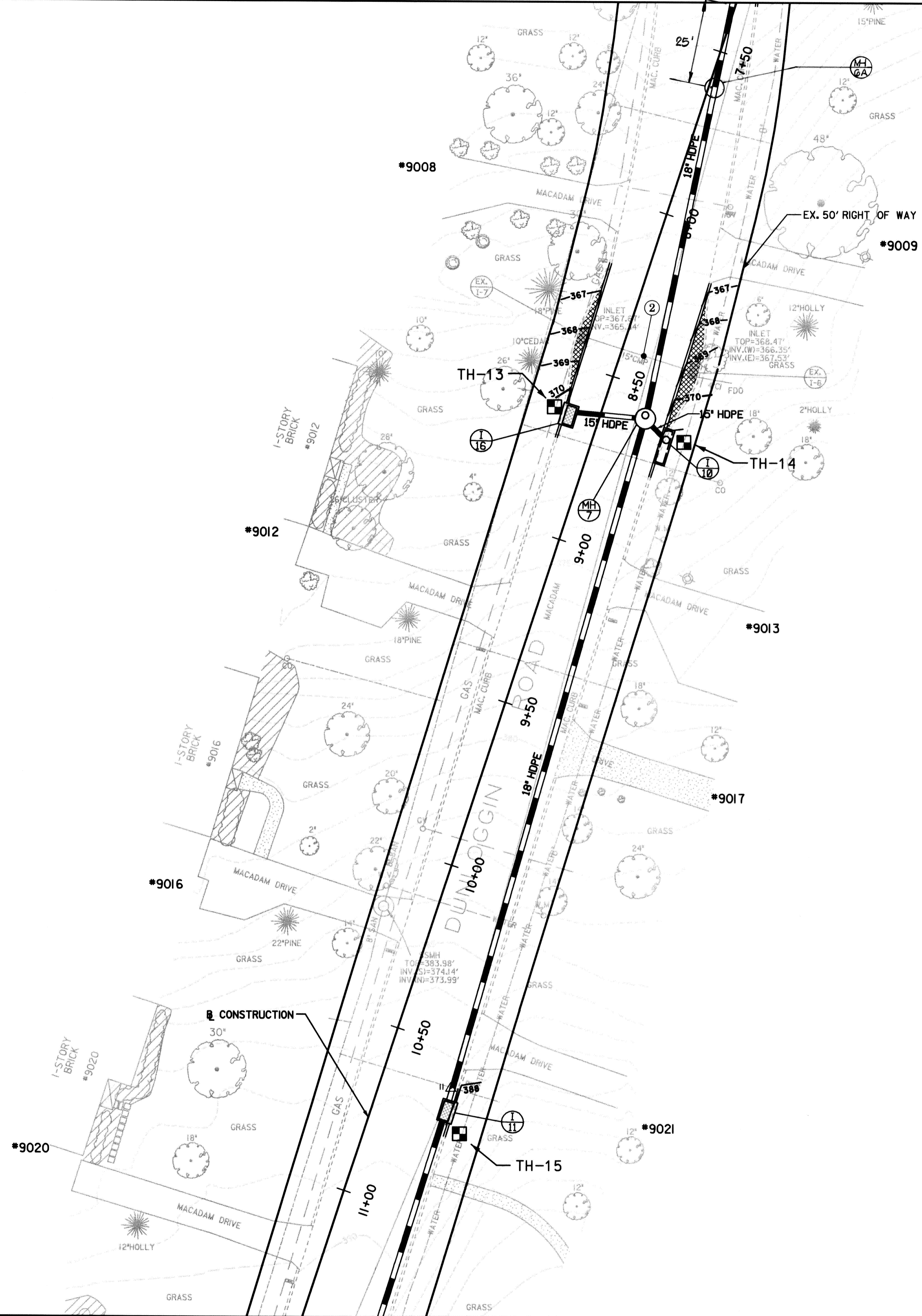
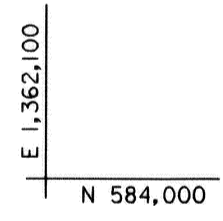
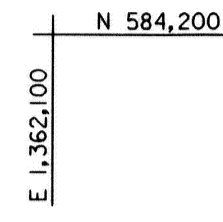
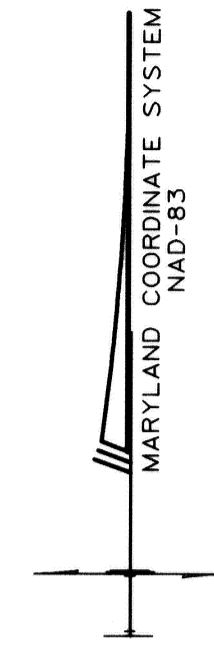
BY: NO. REVISION DATE SCALE: 1" = 20' JOB NO: 01408-03

PLAN 1

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**

HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT No. D-1118-12

DRAWING NO. SHEET NO. 3 of 16



INLET SCHEDULE								
NO.	℄	STATION	OFFSET	TYPE	TOP ELEV.	INV. IN	INV. OUT	STD. NO.
I-10	CONSTR.	8+65.0	18.9' LT.	PRECAST STD. A-10	<del>371.89</del>	NA	<del>364.91</del>	HO. CO. SD - 4.41
I-11	CONSTR.	10+68.6	22.4' LT.	PRECAST WR	<del>368.00</del>	<del>361.70</del>	<del>361.01</del>	HO. CO. SD - 4.35
I-16	CONSTR.	8+64.7	9.8' RT.	PRECAST WR	<del>370.09</del>	NA	<del>366.95</del>	HO. CO. SD - 4.35
					<b>372.00</b>	<b>365.65</b>	<b>365.65</b>	
					<b>368.68</b>	<b>362.98</b>	<b>362.88</b>	
					<b>371.31</b>		<b>367.51</b>	

MANHOLE SCHEDULE								
NO.	℄	STATION	OFFSET	TYPE	COVER ELEV.	INV. IN	INV. OUT	STD. NO.
M-7	CONSTR.	8+58.9	12.9' LT.	STD. PRECAST MH	<del>370.46</del>	<del>364.46 / 364.46 / 364.46</del>	362.00	HO. CO. G - 5.12
					<b>370.89</b>	<b>365.34 / 364.55 / 364.74</b>	<b>362.43</b>	
M-6A	CONSTR.	7+61.0		STD. PRECAST MH	<b>361.32</b>	<b>355.60</b>	<b>353.27</b>	HO. CO. SD - 4.41

**REMOVE EXISTING INLET**

STA. 8+42 LT., - 1 EA.  
STA. 8+42 RT., - 1 EA.

**REMOVE EXISTING PAVEMENT**

STA. 8+42 LT., 4 CY  
STA. 8+42 RT., 2 CY

**CONSTRUCT STD. BITUMINOUS CURB  
HO. CO. STD. R-3.03**

STA. 8+15 TO STA. 8+61 RT. 46 LF  
STA. 8+68 TO STA. 8+72 RT. 4 LF  
STA. 8+15 TO STA. 8+59 LT. 44 LF  
STA. 8+70 TO STA. 8+74 LT. 4 LF  
STA. 10+61 TO STA. 10+65 LT. 4 LF  
STA. 10+71 TO STA. 10+76 LT. 4 LF

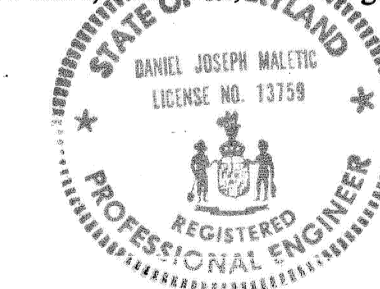
**REMOVE EXISTING BITUMINOUS CURB**

STA. 8+19 TO STA. 8+72 RT. 53 LF  
STA. 8+15 TO STA. 8+74 LT. 59 LF

**NOTES**

1. ALL GRADED AREAS ARE TO BE STABILIZED IMMEDIATELY WITH SOD, SOIL STABILIZATION MATTING OR CONCRETE

I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, dimensions, line and grade, and elevations, shown [ # ]



Daniel J. Maletic  
Maryland Registered Professional Engineer No. 13759

**AS-BUILT**  
March 23rd, 2008

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Carroll P. Brown* 2/11/04  
DIRECTOR OF PUBLIC WORKS DATE

*Steve Shaver* 2/11/04  
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE

**STV Incorporated**  
engineers / architects / planners / scientists / construction managers  
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

DES:	BCH				
DRN:	BCH				
CHK:	FLG				
DATE:	JUNE 2002	BY:	NO.	REVISION	DATE

PLAN 2

SCALE: 1" = 20'

JOB NO. 01408-03

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT No. D-1118-12

DRAWING NO.

SHEET NO.  
4 of 16

FILE: \A\PROJECTS\0408\91\case03\PS02\408.dgn  
DATE: 20-Jun-03 13:46

INLET SCHEDULE								
NO.	B.L.	STATION	OFFSET	TYPE	TOP ELEV.	INV. IN	INV. OUT	STD. NO.
I-6	CONSTR.	104+17.5	14.3' RT.	PRECAST STD. A-10	<del>-378.79</del>	NA	<del>-374.24</del>	HO. CO. SD - 4.41
I-7	CONSTR.	105+22.1	36.7' LT.	PRECAST STD. A-10	<del>-381.00</del>	388.24	<del>-387.97</del>	HO. CO. SD - 4.41
I-8	CONSTR.	105+68.8	19.2' LT.	PRECAST STD. A-10	<del>-397.34</del>	NA	<del>-398.84</del>	HO. CO. SD - 4.41

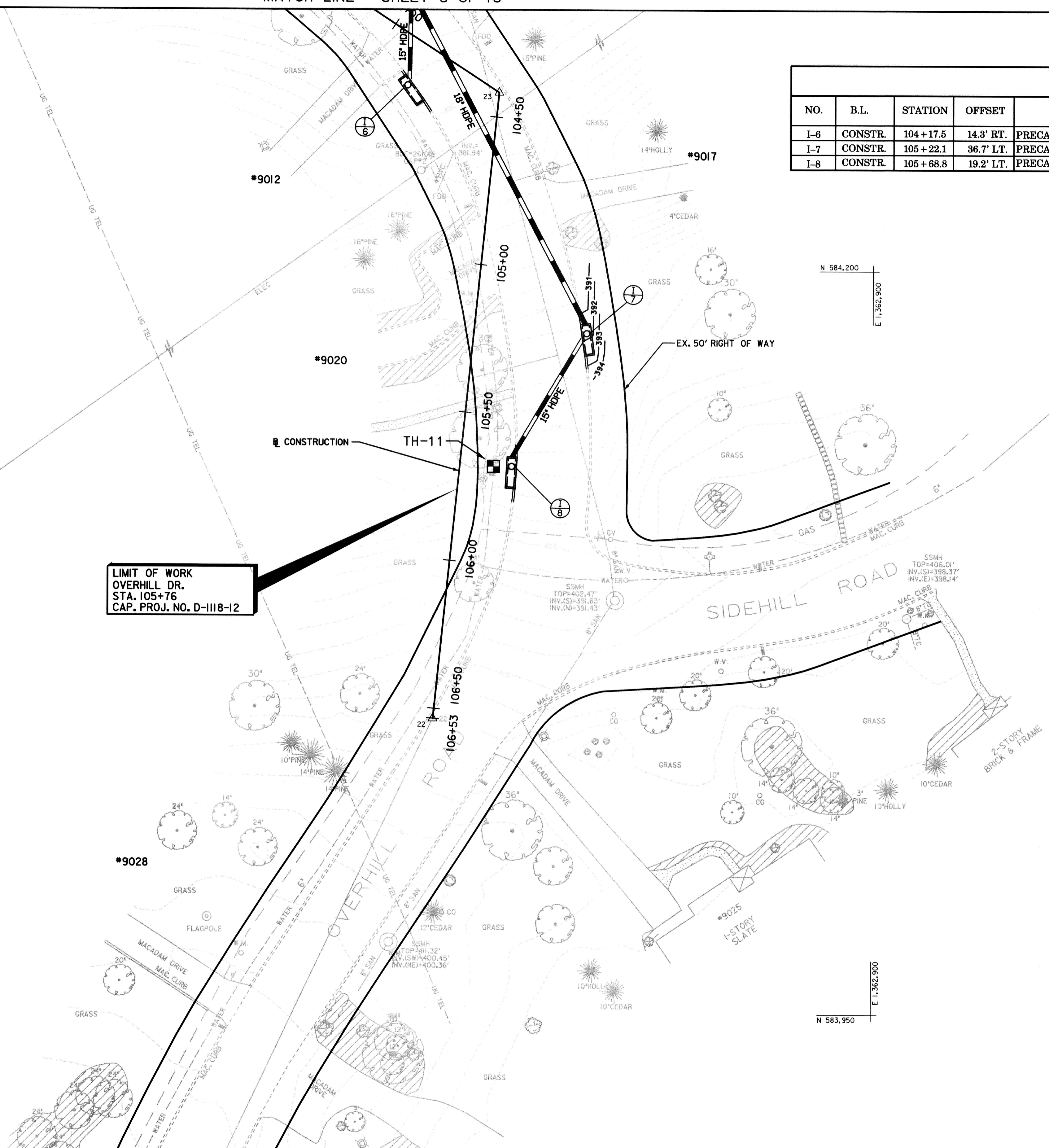
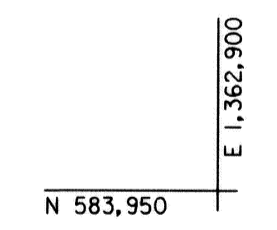
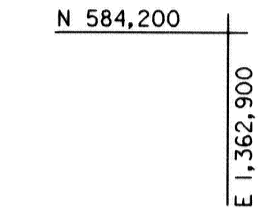
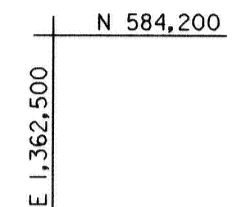
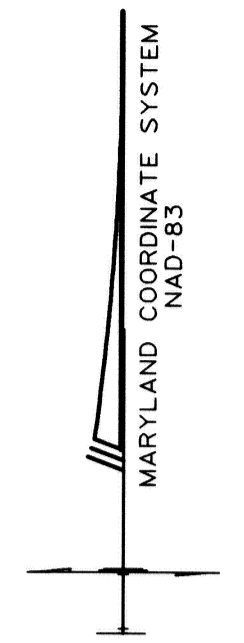
390.88	376.08	369.57	391.43
393.52			
396.13			

CONSTRUCT STD. BITUMINOUS CURB  
HO. CO. STD. R-3.03

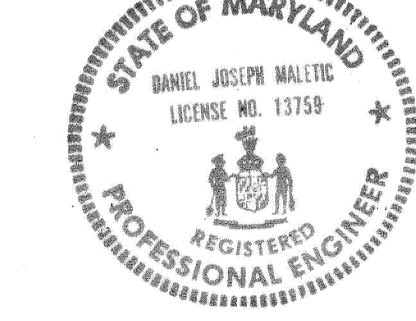
STA. 104+11 TO STA. 104+12 RT. 2 LF  
 STA. 104+23 TO STA. 104+26 RT. 4 LF  
 STA. 105+13 TO STA. 105+17 LT. 4 LF  
 STA. 105+27 TO STA. 105+31 LT. 4 LF  
 STA. 105+59 TO STA. 105+63 LT. 4 LF  
 STA. 105+74 TO STA. 105+78 LT. 4 LF

**NOTE**

1. ALL GRADED AREAS ARE TO BE STABILIZED IMMEDIATELY WITH SOD, SOIL STABILIZATION MATTING OR CONCRETE



I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, type and grade, and elevations, shown [ # ]



Daniel J. Maletic  
Maryland Registered Professional Engineer No. 13759

**AS-BUILT**  
March 23rd, 2006

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* 2/11/04  
 Chief, Bureau of Engineering: *[Signature]* 2/11/04  
 Chief, Bureau of Highways: *[Signature]* 2-11-04  
 Chief, Transportation and Special Projects Division: *[Signature]* 2/11/04

**STV Incorporated**  
engineers / architects / planners / scientists / construction managers  
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

DES.	BCH				
DRN.	BCH				
CHK.	FLG				
DATE:	JUNE 2002	BY:	NO.	REVISION	DATE

PLAN 3  
SCALE: 1" = 20'  
JOB NO.: 01408-03

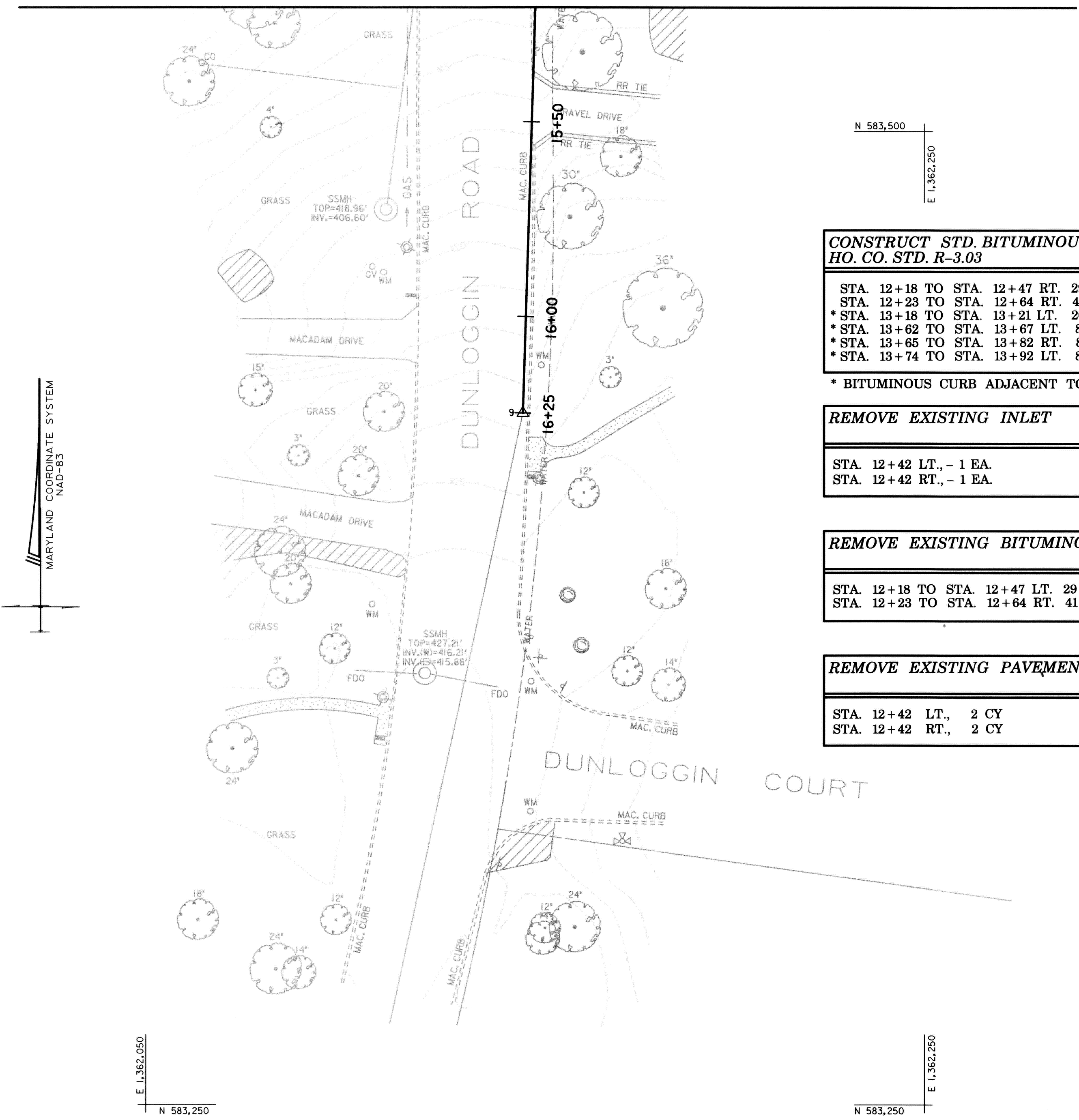
DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT No. D-1118-12

DRAWING NO.  
SHEET NO.  
5 of 16

MANHOLE SCHEDULE								
NO.	B.L.	STATION	OFFSET	TYPE	COVER ELEV.	INV. IN	INV. OUT	STD. NO.
M-9	CONSTR.	13+20.8	24.1' LT.	STD. PRECAST MH	396.58	391.07 / 390.73	390.55	HO. CO. G - 5.12
M-10	CONSTR.	13+67.1	14.3' LT.	STD. PRECAST MH	397.70	394.30 / 393.24	392.88	HO. CO. G - 5.12

MATCH LINE - SHEET 4 OF 16

MATCH LINE - THIS SHEET



**CONSTRUCT STD. BITUMINOUS CURB**  
HO. CO. STD. R-3.03

STA. 12+18 TO STA. 12+47 RT. 29 LF  
 STA. 12+23 TO STA. 12+64 RT. 41 LF  
 \* STA. 13+18 TO STA. 13+21 LT. 20 LF  
 \* STA. 13+62 TO STA. 13+67 LT. 8 LF  
 \* STA. 13+65 TO STA. 13+82 RT. 8 LF  
 \* STA. 13+74 TO STA. 13+92 LT. 8 LF

\* BITUMINOUS CURB ADJACENT TO INLETS.

**REMOVE EXISTING INLET**

STA. 12+42 LT., - 1 EA.  
 STA. 12+42 RT., - 1 EA.

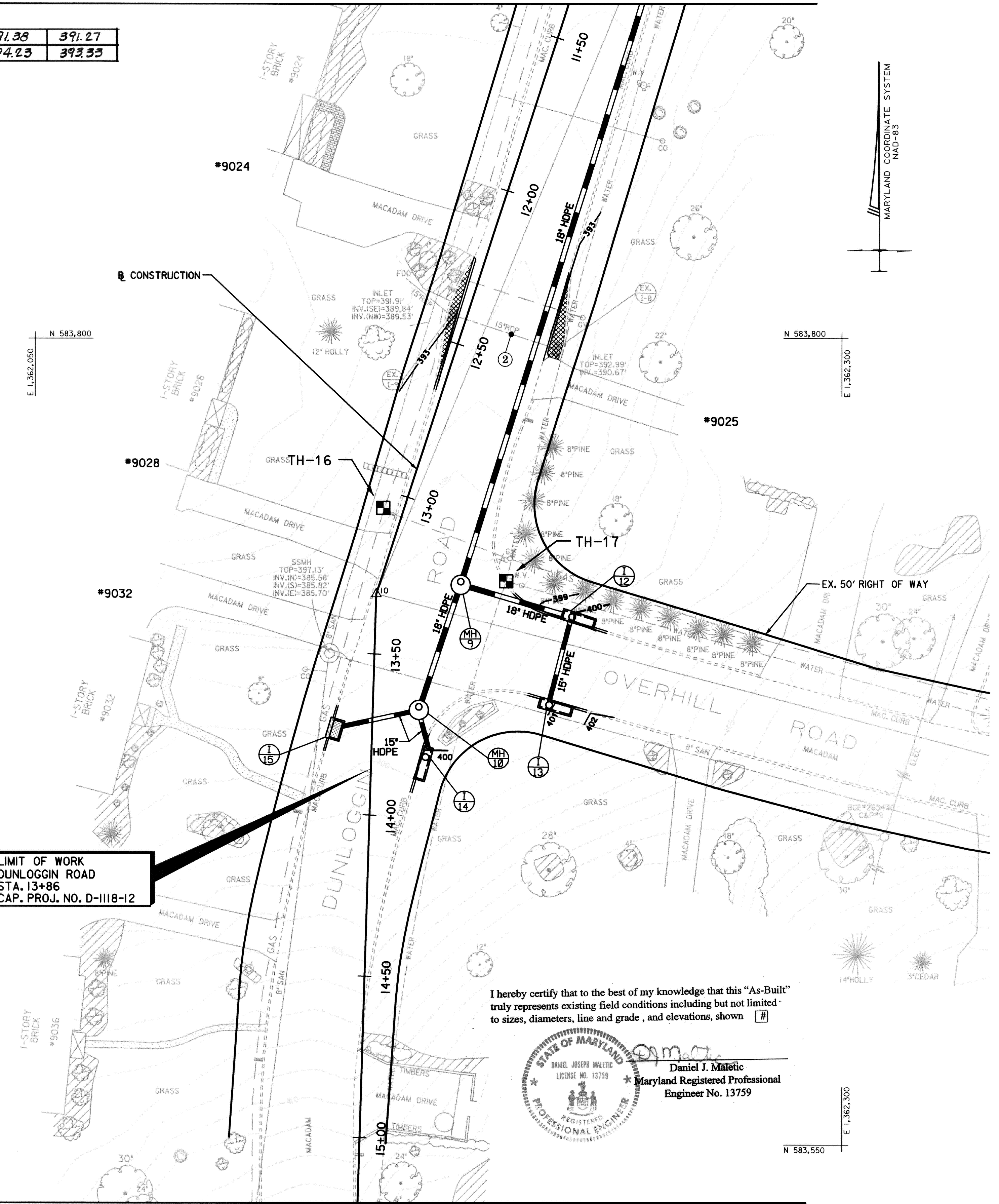
**REMOVE EXISTING BITUMINOUS CURB**

STA. 12+18 TO STA. 12+47 LT. 29 LF  
 STA. 12+23 TO STA. 12+64 RT. 41 LF

**REMOVE EXISTING PAVEMENT**

STA. 12+42 LT., 2 CY  
 STA. 12+42 RT., 2 CY

**LIMIT OF WORK**  
DUNLOGGIN ROAD  
STA. 13+86  
CAP. PROJ. NO. D-1118-12



MATCH LINE - THIS SHEET

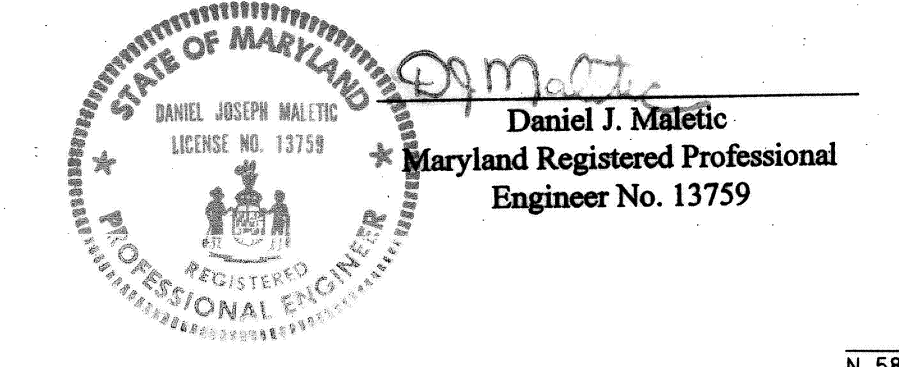
INLET SCHEDULE								
NO.	B.L.	STATION	OFFSET	TYPE	TOP ELEV.	INV. IN	INV. OUT	STD. NO.
I-12	CONSTR.	13+21.0	82.3' LT.	PRECAST STD. A-10	<del>399.88</del>	<del>395.57</del>	<del>394.95</del>	HO. CO. SD - 4.41
I-13	CONSTR.	13+63.1	57.3' LT.	PRECAST STD. A-10	<del>400.01</del>	N/A	<del>396.44</del>	HO. CO. SD - 4.41
I-14	CONSTR.	13+83.5	14.7' LT.	PRECAST STD. A-10	<del>400.17</del>	N/A	<del>395.24</del>	HO. CO. SD - 4.41
I-15	CONSTR.	13+73.5	12.5' RT.	PRECAST WR	<del>399.95</del>	N/A	<del>394.00</del>	HO. CO. SD - 4.35

**NOTES**

1. ALL GRADED AREAS ARE TO BE STABILIZED IMMEDIATELY WITH SOD, SOIL STABILIZATION MATTING OR CONCRETE.

TOP ELEV.	INV. IN	INV. OUT
400.74	396.49	396.09
401.62	N/A	397.65
400.30	N/A	396.01
399.53	N/A	396.33

I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, line and grade, and elevations, shown [ # ]



**AS-BUILT**  
March 23rd, 2006

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: [Signature] 2/11/04  
 Chief, Bureau of Engineering: [Signature] 2/11/04  
 Chief, Bureau of Highways: [Signature] 2-11-04  
 Chief, Transportation and Special Projects Division: [Signature] 2/11/04

**STV Incorporated**  
engineers / architects / planners / scientists / construction managers  
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

DES: BCH  
 DRN: BCH  
 CHK: FLG  
 DATE: JUNE 2002

PLAN 4

SCALE: 1" = 20'

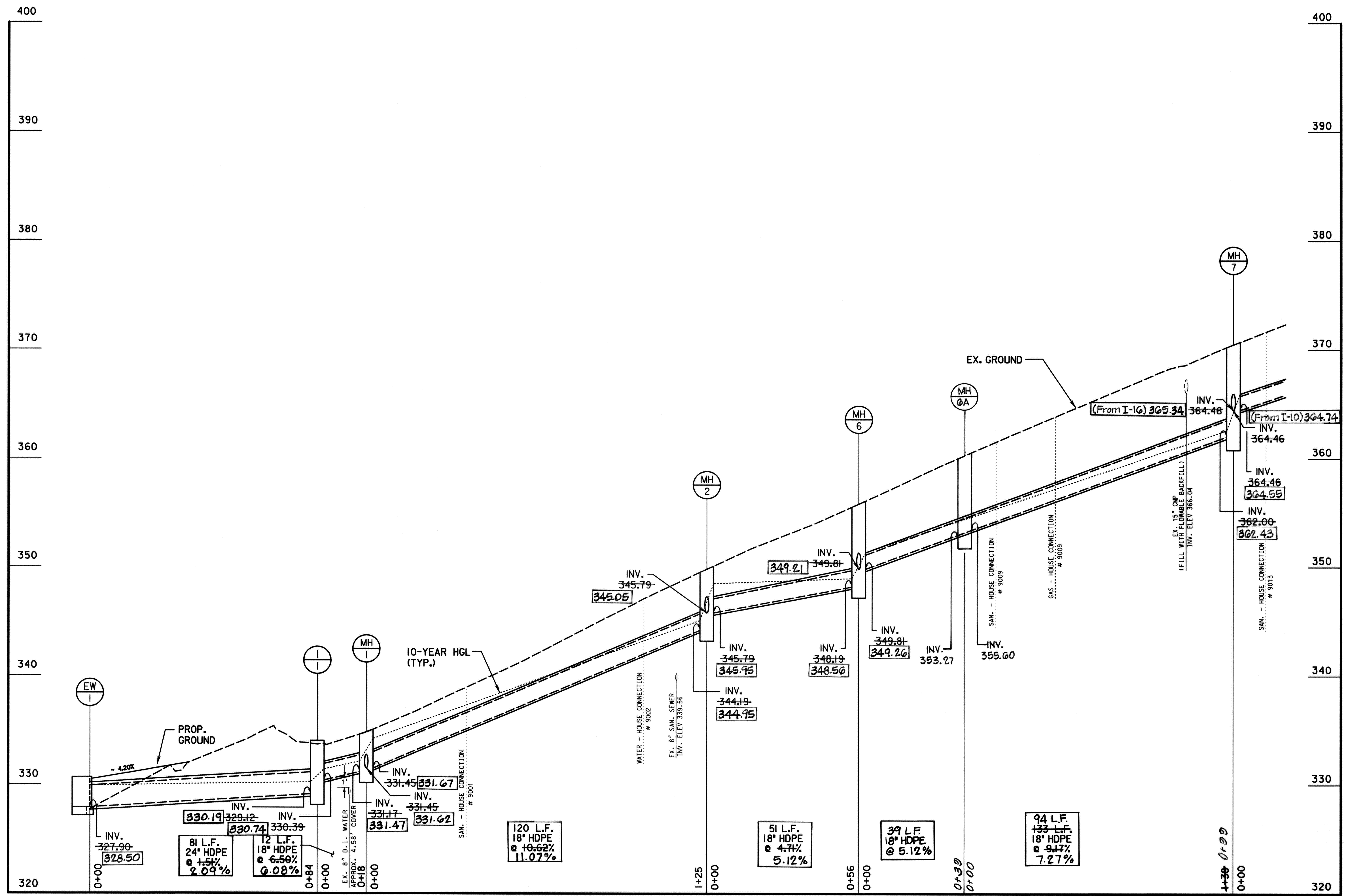
JOB NO: 01408-03

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**

HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT No. D-1118-12

DRAWING NO. [Blank]  
 SHEET NO. 6 of 16

FILES: H:\PROJECTS\0408\Phase03\F504\408.dgn  
DATE: 20-Jun-03 14:03



SCALE: H: 1" = 20'  
V: 1" = 5'

NOTE:  
LOCATIONS OF HOUSE CONNECTIONS ARE APPROXIMATE. VERTICAL DEPTH IS NOT SPECIFIED, AND ADDITIONAL HOUSE CONNECTIONS MAY EXIST. CONTRACTOR SHALL ADHERE TO THE GENERAL NOTES AS SPECIFIED ON SHEET 1 OF 16.

I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, flow and grade, and elevations, shown [ ]

**Daniel J. Maletic**  
Maryland Registered Professional Engineer No. 13759

**AS-BUILT**  
March 23rd, 2006

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Jan 2 2006*  
DIRECTOR OF PUBLIC WORKS

*Steve Sharan 2/11/04*  
CHIEF, BUREAU OF HIGHWAYS

**STV Incorporated**  
engineers / architects / planners / scientists / construction managers  
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

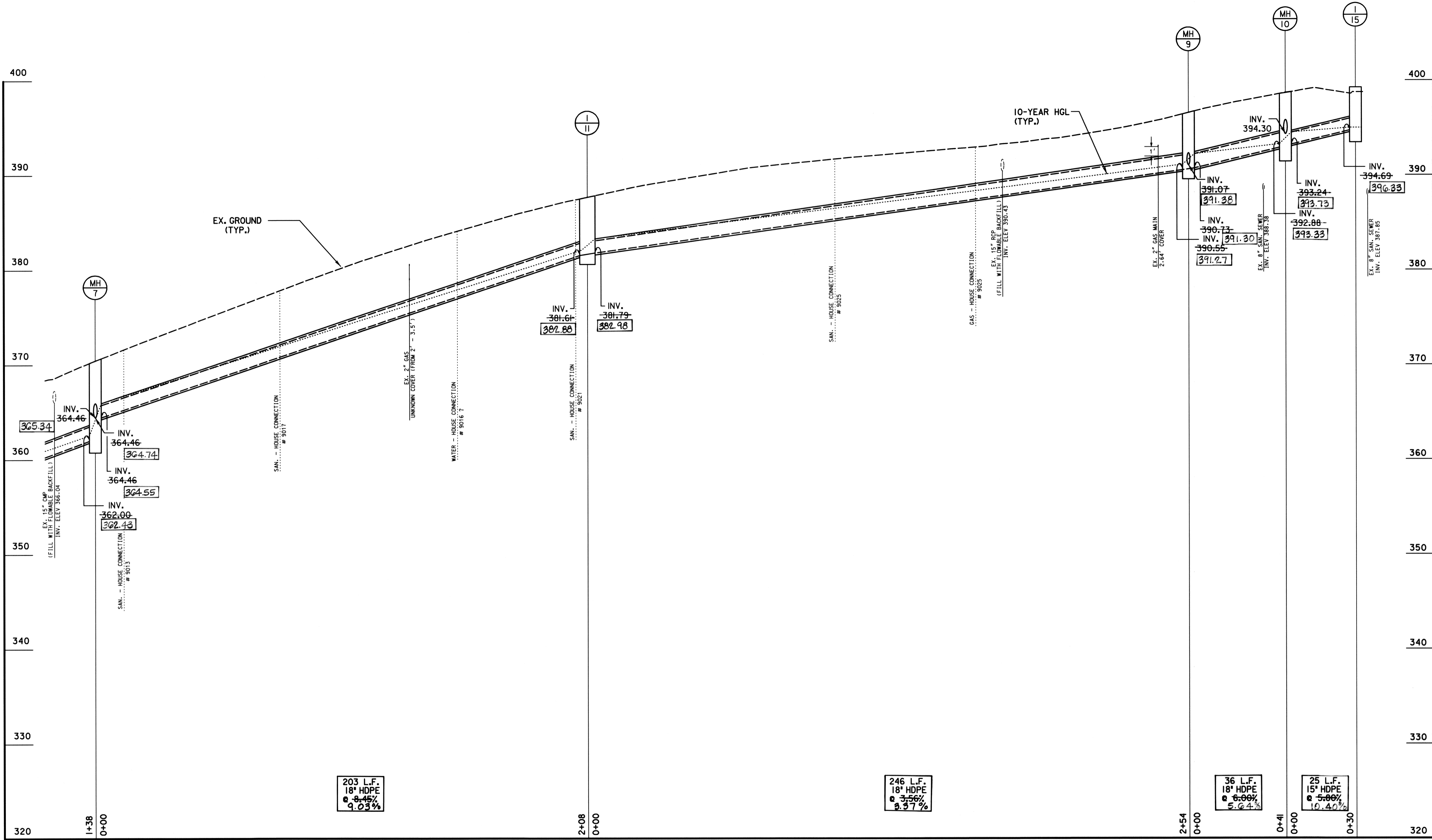
DES:	BCH				
DRN:	BCH				
CHK:	FLG				
DATE:	JUNE 2002	BY:	NO.	REVISION	DATE

STORM DRAIN  
PROFILES 1

SCALE: AS SHOWN  
JOB NO: 01408-03

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT No. D-1118-12

DRAWING NO.  
SHEET NO.  
7 of 16



203 L.F.  
18" HDPE  
@ 3.45%  
9.03%

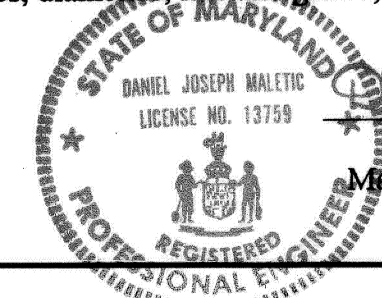
246 L.F.  
18" HDPE  
@ 3.56%  
9.37%

36 L.F.  
18" HDPE  
@ 6.00%  
5.64%

25 L.F.  
15" HDPE  
@ 5.00%  
10.40%

SCALE: H: 1" = 20'  
V: 1" = 5'

I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, materials, and elevations, shown.



Daniel J. Maletic  
Maryland Registered Professional  
Engineer No. 13759

**AS-BUILT**  
March 23rd, 2006

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Director of Public Works: *William F. ...* 2/11/04  
Chief, Bureau of Engineering: *Steve ...* 2/11/04  
Chief, Transportation and Special Projects Division

**STV Incorporated**  
engineers / architects / planners / scientists / construction managers  
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

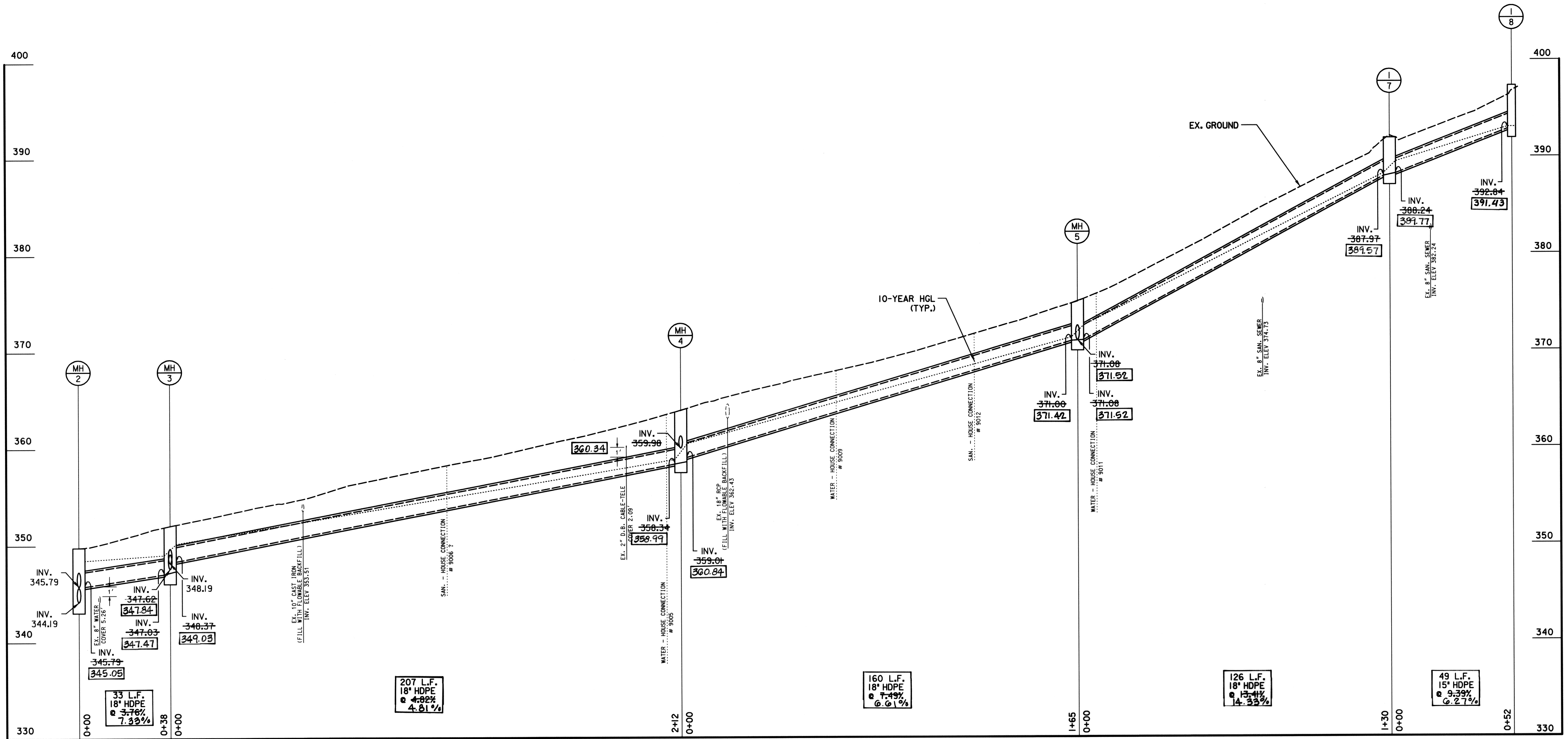
DES:	BCH				
DRN:	BCH				
CHK:	FLG				
DATE:	JUNE 2002	BY:	NO.	REVISION	DATE

STORM DRAIN  
PROFILES 2  
SCALE: AS SHOWN  
JOB NO. 01408-03

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT No. D-1118-12

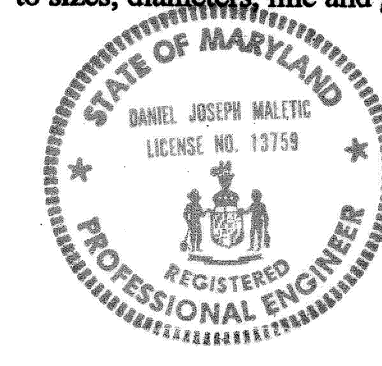
DRAWING NO.  
SHEET NO.  
8 of 16





I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, line and grade, and elevations, shown [ # ]

SCALE: H: 1" = 20'  
V: 1" = 5'



*DJ Maletic*  
Daniel J. Maletic  
Maryland Registered Professional Engineer No. 13759

**AS-BUILT**

March 23rd, 2006

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Director of Public Works: *William F. ...* 2/11/06  
Chief, Bureau of Engineering: *Steve Sheeran* 2/11/06  
Chief, Transportation and Special Projects Division

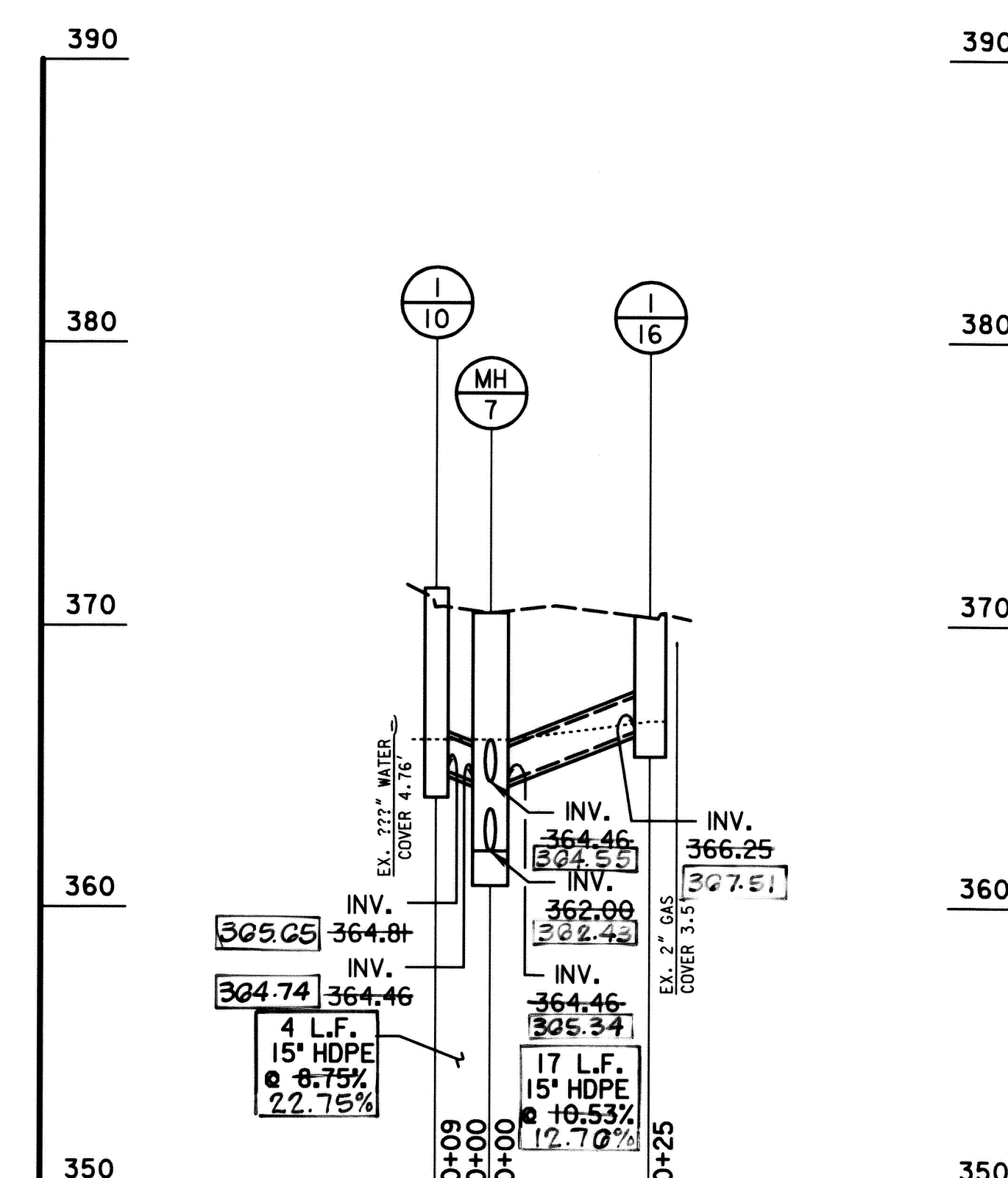
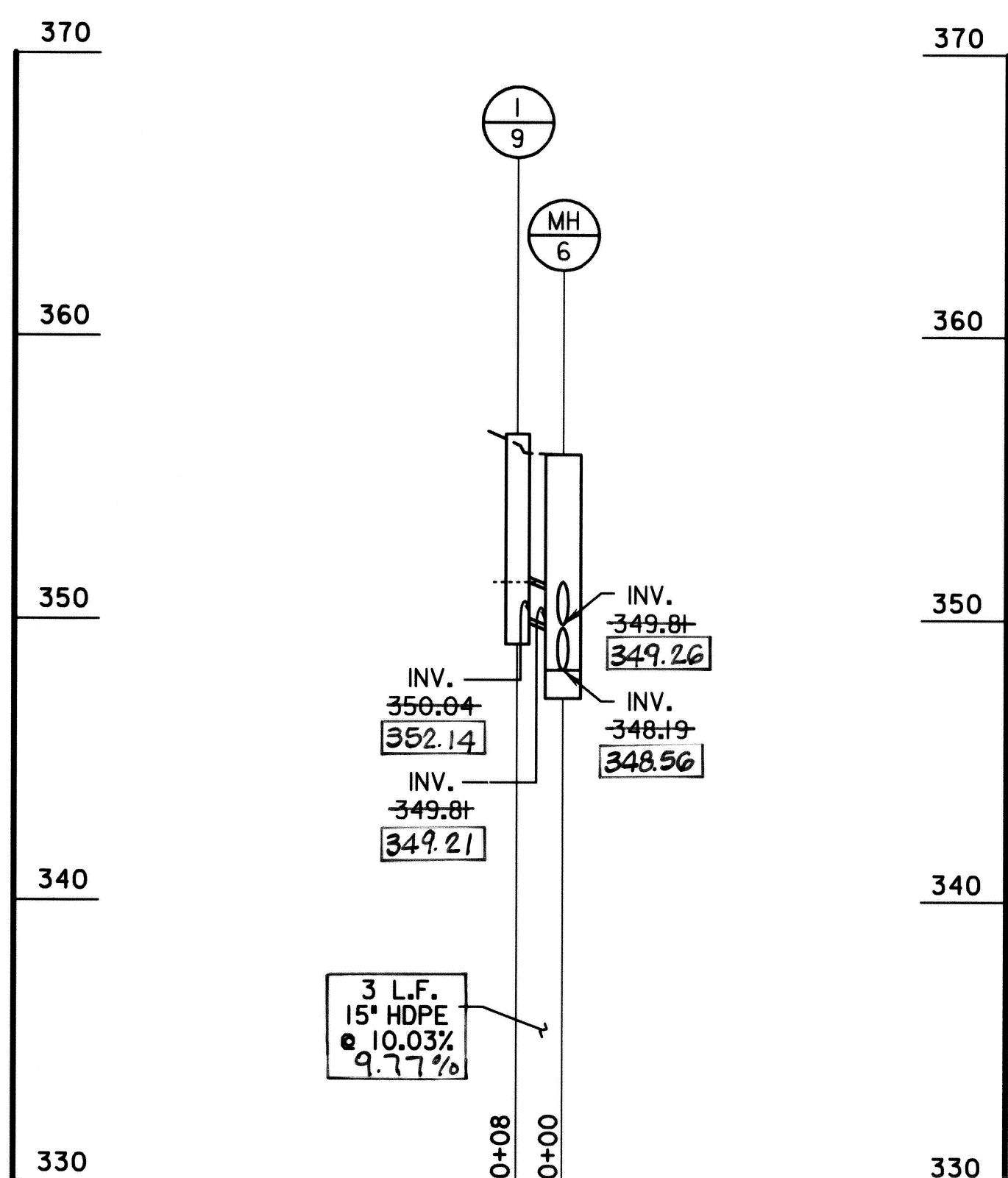
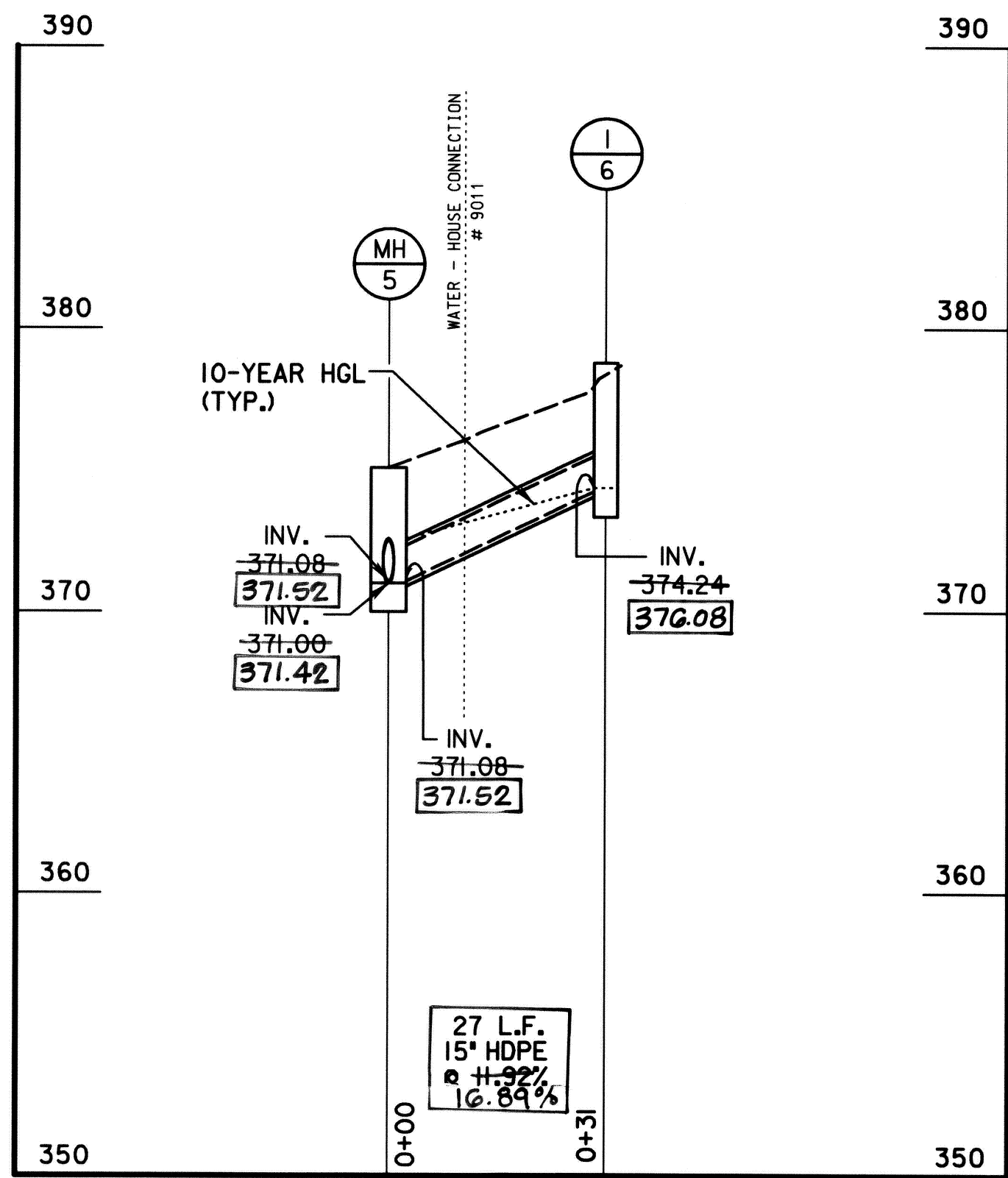
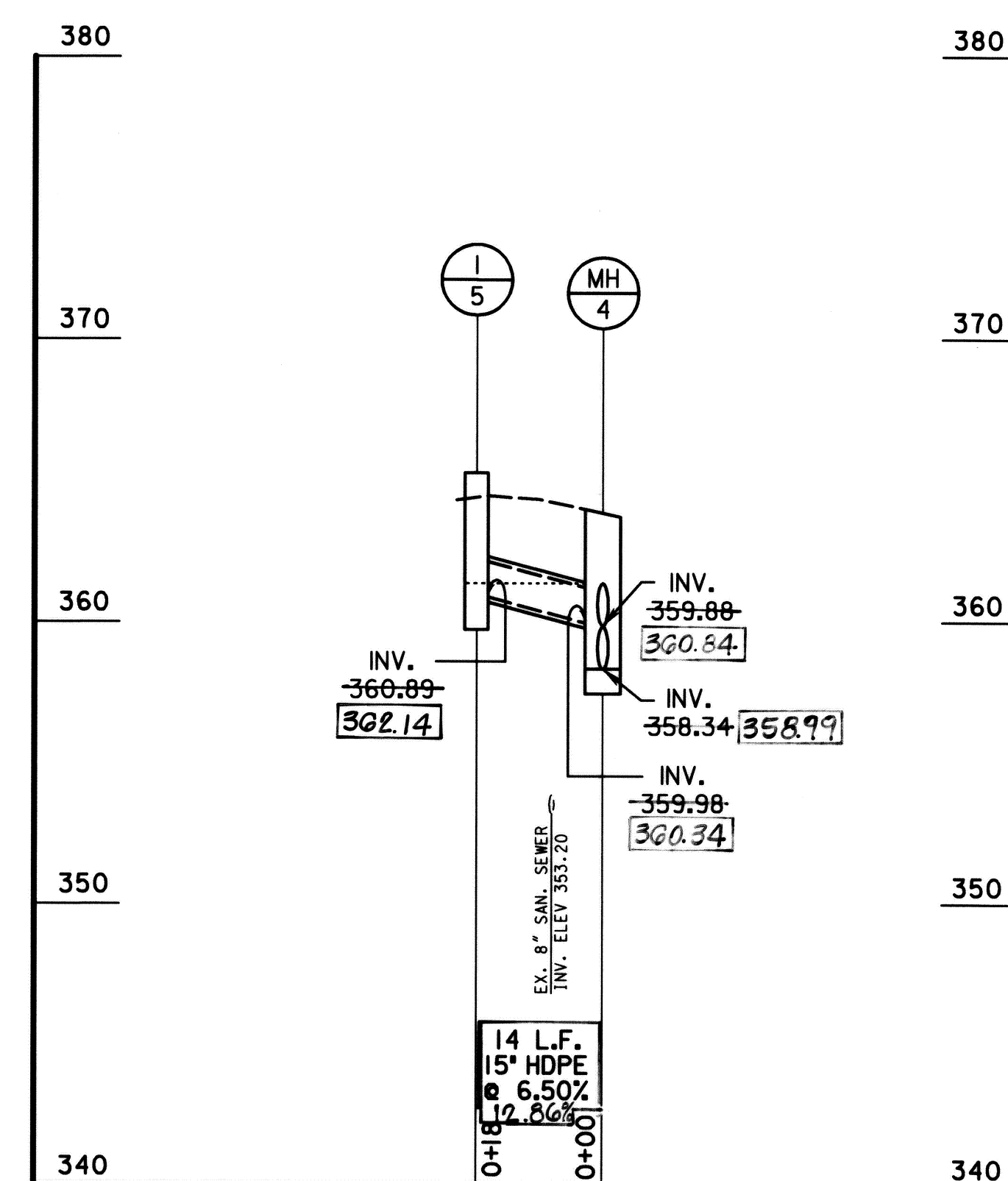
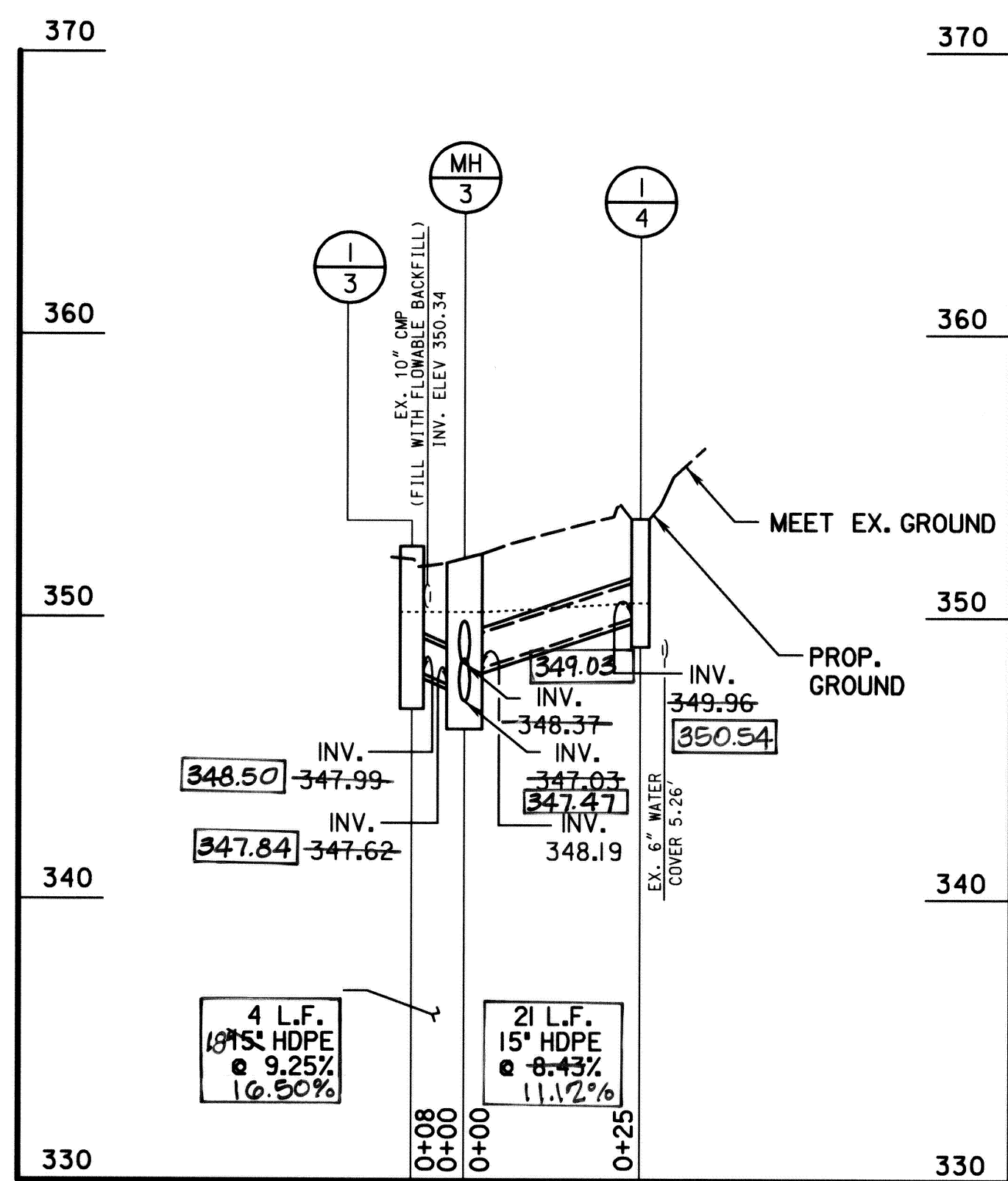
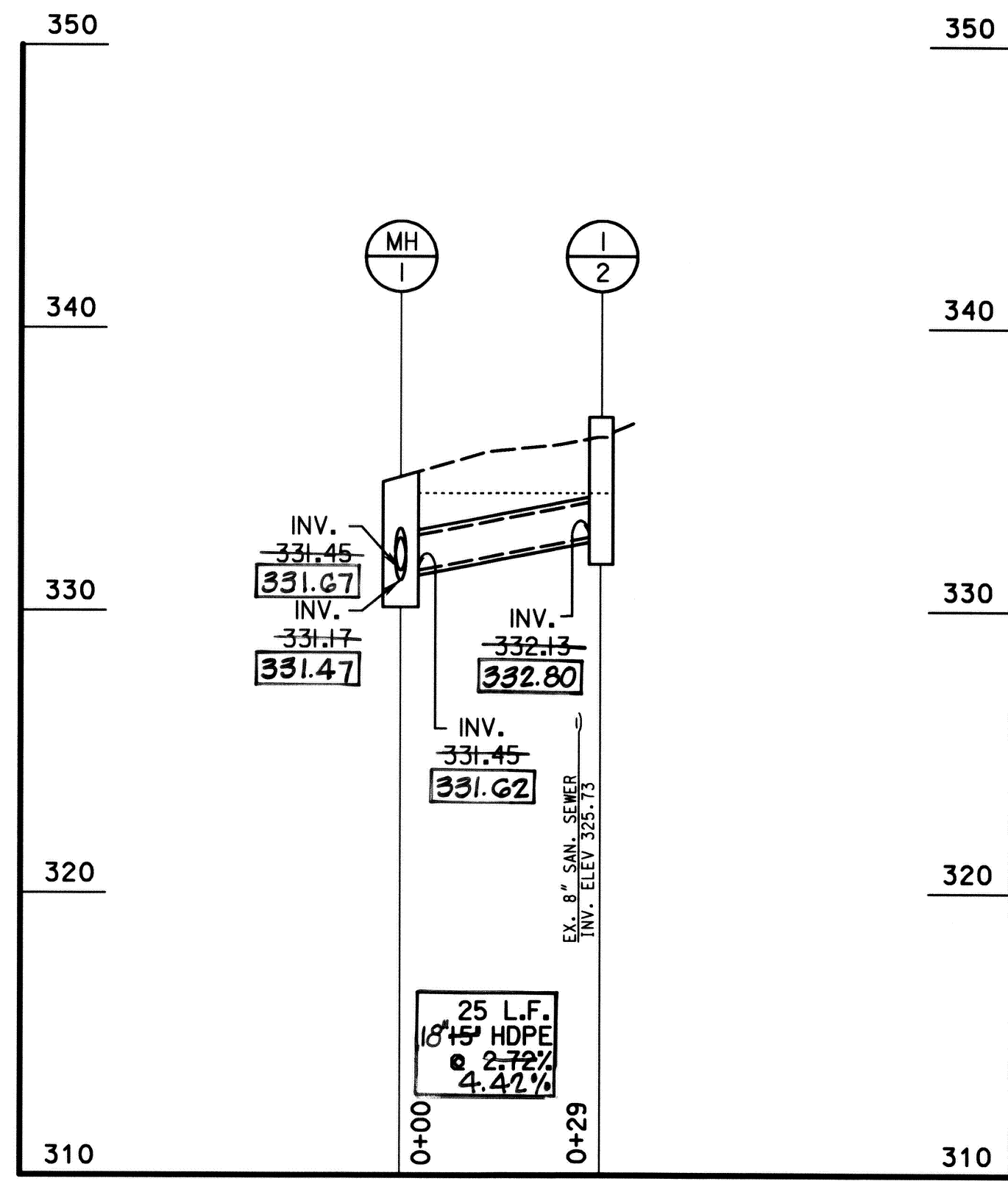
**STV Incorporated**  
engineers / architects / planners / scientists / construction managers  
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

DES:	BCH				
DRN:	BCH				
CHK:	FLG				
DATE:	JUNE 2002	BY:	NO:	REVISION:	DATE:

STORM DRAIN PROFILES 3

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT No. D-1118-12

DRAWING NO.  
SHEET NO.  
9 of 16



I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, and grade, and elevations, shown [ # ]

SCALE: H: 1" = 20'  
 V: 1" = 5'

**Daniel J. Maletic**  
 Maryland Registered Professional Engineer No. 13759

**AS-BUILT**  
 March 23rd, 2006

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Director of Public Works: [Signature] 2/1/04  
 Chief, Bureau of Engineering: [Signature] 2/1/04  
 Chief, Transportation and Special Projects Division: [Signature] 2/1/04

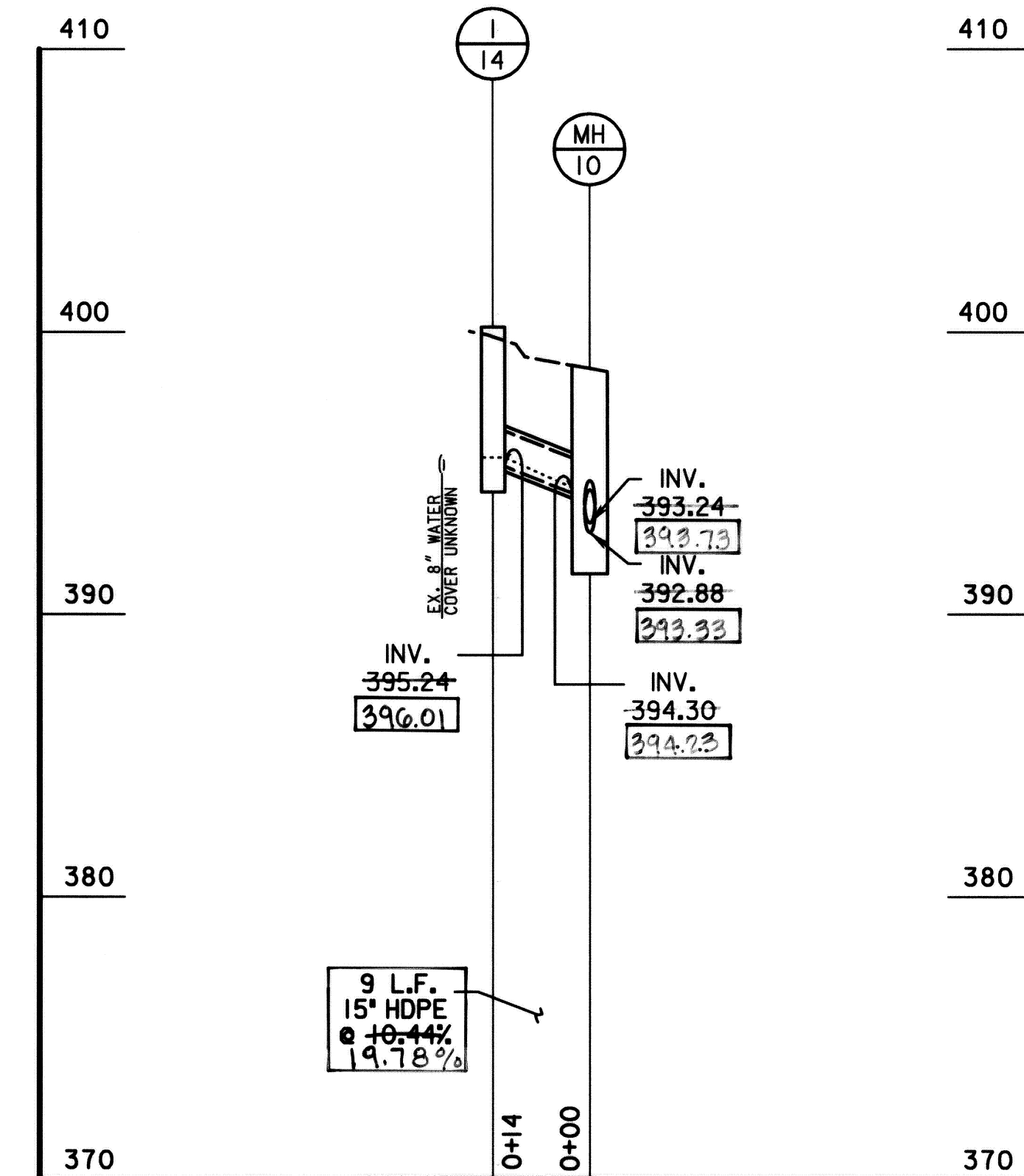
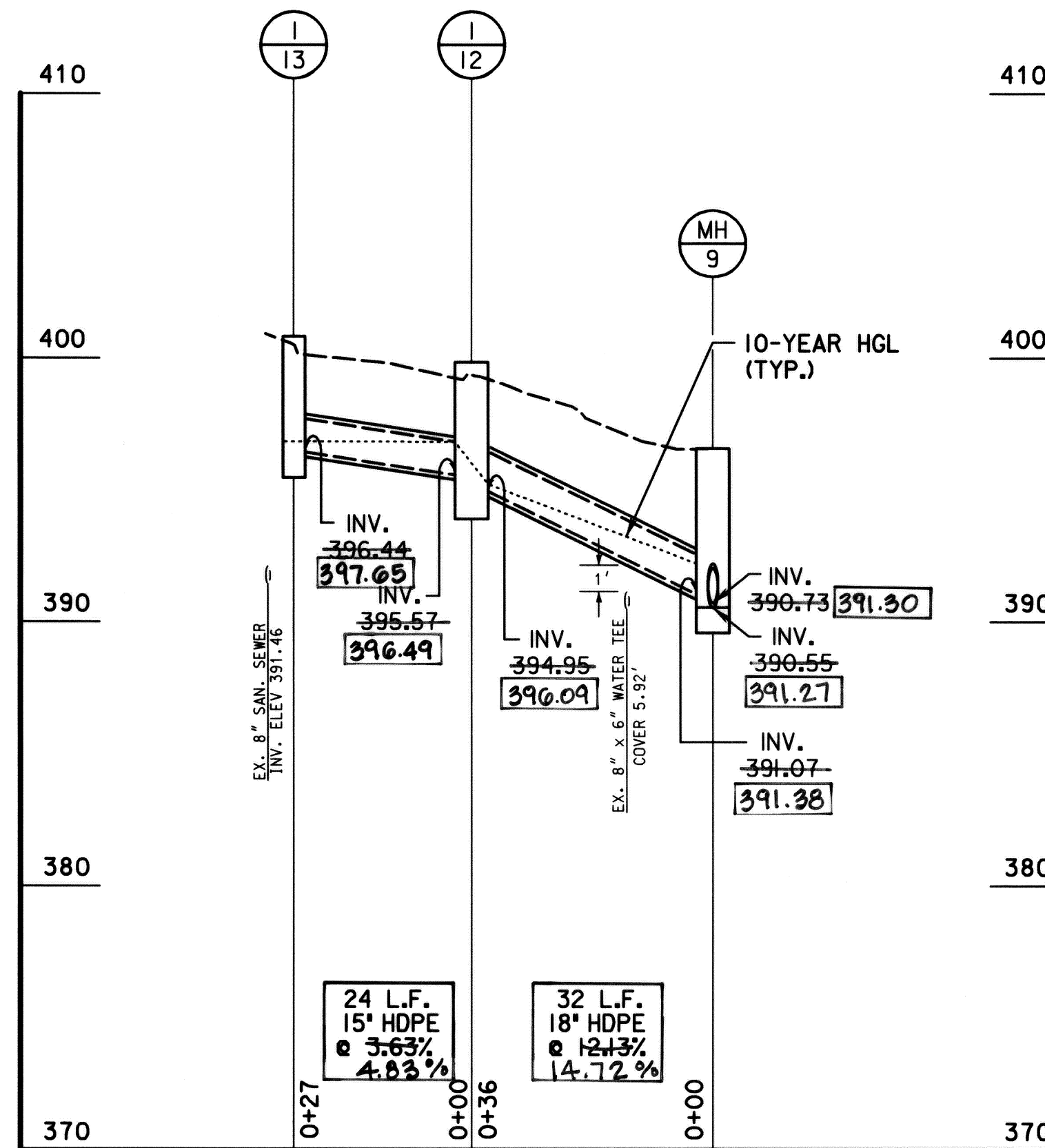
**STV Incorporated**  
 engineers / architects / planners / scientists / construction managers  
 7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

DES:	BCH				
DRN:	BCH				
CHK:	FLG				
DATE:	JUNE 2002	BY:	NO.	REVISION	DATE

STORM DRAIN PROFILES 4

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**  
 HOWARD COUNTY, MARYLAND  
 CAPITAL PROJECT No. D-1118-12

DRAWING NO.  
 SHEET NO.  
 10 of 16



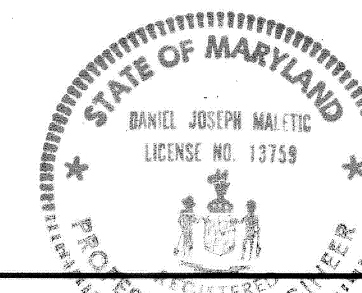
SCALE: H: 1" = 20'  
V: 1" = 5'

PIPE SCHEDULE			
FROM	TO	SIZE*	LENGTH (FT.)
EW 1	I-1	24"	81
I-1	MH-1	18"	12
MH-1	MH-2	18"	120
MH-2	MH-6	18"	51
MH-6	MH-6A	18"	39
MH-7	I-11	18"	203
I-11	MH-9	18"	246
MH-9	MH-10	18"	36
MH-10	I-15	15"	25
MH-2	MH-3	18"	33
MH-4	MH-5	18"	160
MH-5	I-7	18"	126
I-7	I-8	15"	49
MH-1	I-2	15"	25
I-3	MH-3	15"	4
MH-3	I-4	15"	21
I-5	MH-4	15"	14
MH-5	I-6	15"	27
<del>MH-5</del>	<del>I-6</del>	<del>15"</del>	<del>27</del>
I-9	MH-6	15"	3
I-10	MH-7	15"	4
MH-7	I-16	15"	17
I-13	I-12	15"	24
I-12	MH-9	18"	32
I-14	MH-10	15"	9

MH-6A	MH-7	18"	94 L.F.
MH-3	MH-4	18"	207 L.F.

\*ALL PROPOSED PIPE SHALL BE HDPE

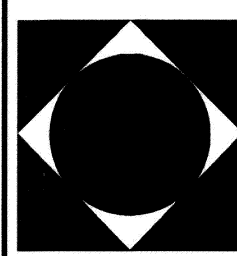
I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, line and grade, and elevations, shown [ # ]



Daniel J. Maletic  
Maryland Registered Professional Engineer No. 13759

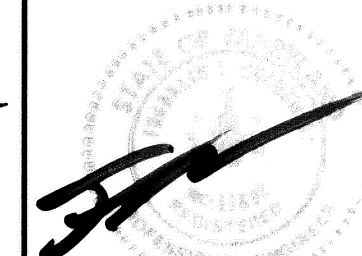
**AS-BUILT**  
March, 23rd, 2006

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Director of Public Works: [Signature] 2/11/04  
Chief, Bureau of Engineering: [Signature] 2/11/04  
Chief, Transportation and Special Projects Division: [Signature] 2/11/04



**STV Incorporated**  
engineers / architects / planners / scientists / construction managers

7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112



DES:	BCH				
DRN:	BCH				
CHK:	FLG				
DATE:	JUNE 2002				
BY:	NO.				
REVISION:					
DATE:					

STORM DRAIN PROFILES 5

SCALE: AS SHOWN JOB NO: 01406-03

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT No. D-II18-12

DRAWING NO.  
SHEET NO.  
11 of 16

# EROSION AND SEDIMENT CONTROL

## STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION AT 410-313-1855.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN A 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, B14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT CONTROL TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOLUME 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCH (SEC. G). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITIES FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF PERIMETER EROSION AND SEDIMENT CONTROLS BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER. ALL SPOIL MATERIAL FROM THE TRENCHING OPERATION IS TO BE PLACED ON THE UPHILL SIDE OF THE TRENCH.
- OFF-SITE SPOIL AND/OR BORROW AREAS ON STATE OR FEDERAL PROPERTY MUST HAVE PRIOR APPROVAL BY MDE AND OTHER APPLICABLE STATE, FEDERAL AND LOCAL AGENCIES OTHERWISE, APPROVAL MUST BE GRANTED BY THE LOCAL AUTHORITIES. ALL WASTE AND BORROW AREAS OFFSITE MUST BE PROTECTED BY SEDIMENT CONTROL MEASURES AND STABILIZED.

## SEQUENCE OF OPERATION

- OBTAIN A GRADING PERMIT PRIOR TO THE START OF CONSTRUCTION.
- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION BY THE CONTRACTOR PRIOR TO THE START OF ANY CONSTRUCTION AT (410) 313-1855.
- THE CONTRACTORS LAYDOWN/STOCKPILE AREA SHALL BE PROTECTED WITH SEDIMENT CONTROL MEASURES AT ALL TIMES AS REQUIRED BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- INSTALL CONCRETE DITCH ALONG FREDERICK ROAD AS SHOWN ON THE PLANS AND PROVIDE SOIL STABILIZATION MATTING (SSM) ALONG THE DISTURBED SIDE-SLOPE WITHIN 24 HOURS OF INITIAL DISTURBANCE.
- INSTALL END WALL (EW-1), STORM DRAIN INLETS (EXCEPT '1-5'), PIPES (EXCEPT '15' HDPE CONNECTION BETWEEN '1-5' AND 'MH-3'), AND PROPOSED CURB AS SPECIFIED BY THE STANDARD UTILITY INSTALLATION NOTE.
- STABILIZE DISTURBED AREAS ASSOCIATED WITH EACH INLET INSTALLATION AND GRADING IMMEDIATELY WITH SOD.
- INSTALL YARD INLET '1-5' AND PROVIDE '15' HDPE CONNECTION TO MH-3.
- PROVIDE STANDARD INLET PROTECTION (SIP) FOR '1-5' WHEN INSTALLED.
- COMPLETE GRADING AROUND I-5 AND THE ADJOINING GRASS DITCH. PROVIDE IMMEDIATE STABILIZATION USING SOIL STABILIZATION MATTING (SSM) WITHIN 24 HRS.
- STABILIZE ALL REMAINING DISTURBED AREAS WITH TOPSOIL, SEED, AND MULCH AS SPECIFIED.
- WITH APPROVAL FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, THE CONTRACTOR MAY REMOVE THE EROSION CONTROL MEASURES AND STABILIZE ALL DISTURBED AREAS.

## SITE ANALYSIS:

TOTAL AREA OF SITE	4.00	ACRES
AREA DISTURBED	0.45	ACRES
AREA TO BE ROOFED OR PAVED	0.04	ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.10	ACRES
TOTAL CUT	55	CU. YDS.
TOTAL FILL	20	CU. YDS.
OFFSITE WASTE/BORROW AREA LOCATION	UNKNOWN (MUST HAVE APPROVED & ACTIVE GRADING PERMIT)	

## STANDARD UTILITY INSTALLATION PROCEDURES:

- CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH.
- ALL SPOIL MATERIAL FROM THE TRENCHING OPERATION IS TO BE PLACED ON THE UPHILL SIDE OF THE TRENCHES.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

## ESTIMATED TIME

AS SPECIFIED
AS SPECIFIED
---
WITHIN 1 WEEK
WITHIN 90 DAYS
AS SPECIFIED
WITHIN 1 WEEK
AS SPECIFIED
WITHIN 1 DAY
WITHIN 1 DAY
AS SPECIFIED

## PERMANENT SEEDING SPECIFICATIONS

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS USE ONE OF THE FOLLOWING SCHEDULES:  
 A. PREFERRED - APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS/ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ.FT.)  
 B. ACCEPTABLE - APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 1000 LBS/ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 TO APRIL 30, AND AUGUST 1 TO OCTOBER 15, SEED WITH 60 LBS./ACRE (1.4 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 TO JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS/ACRE (.05 LBS/1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 TO FEBRUARY 28, PROTECT SITE BY, OPTION 1 - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION 2 - USE SOD. OPTION 3 - SEED WITH 60 LBS/ACRE KENTUCKY 30 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

## TEMPORARY SEEDING SPECIFICATIONS

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RE-DISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

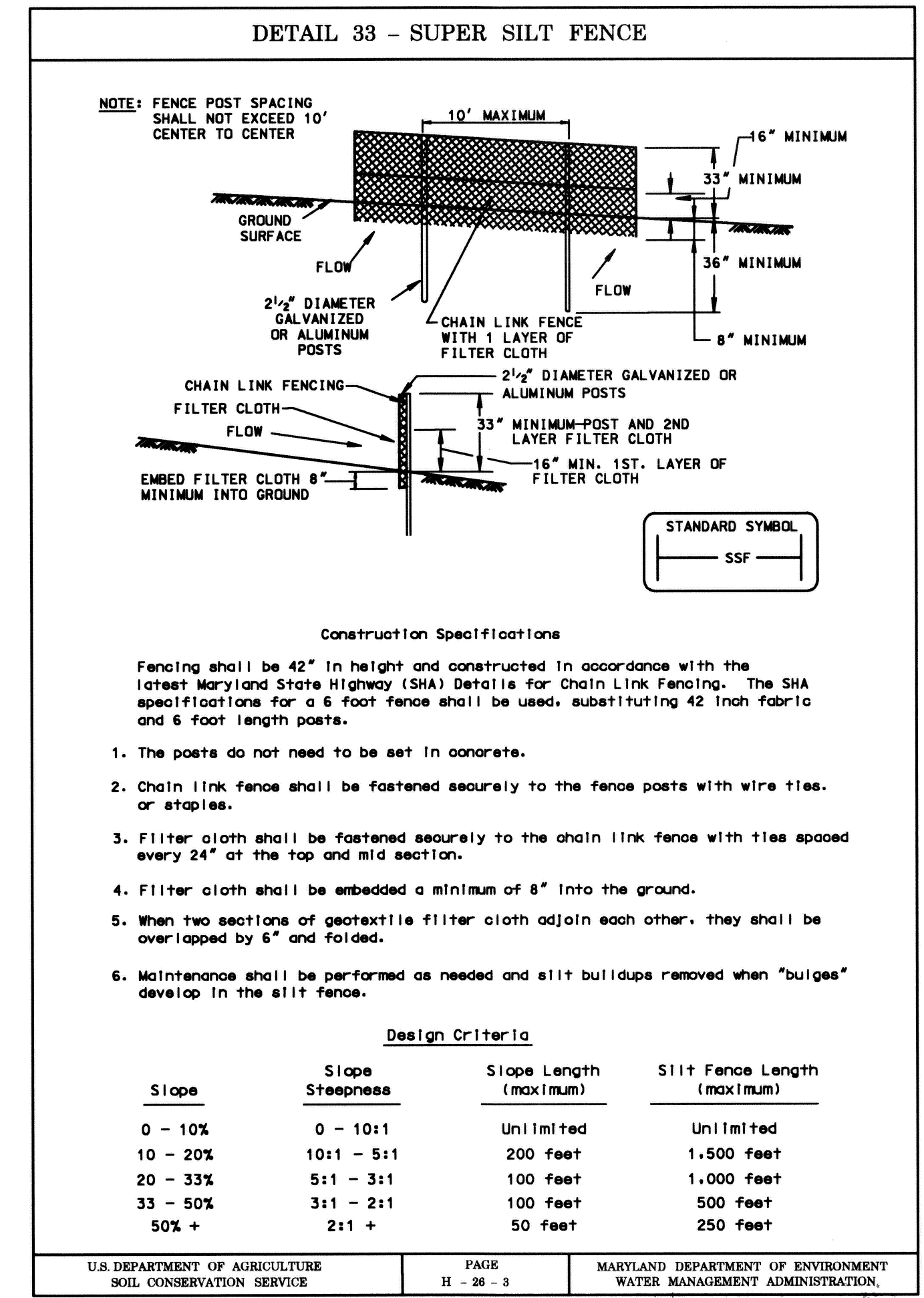
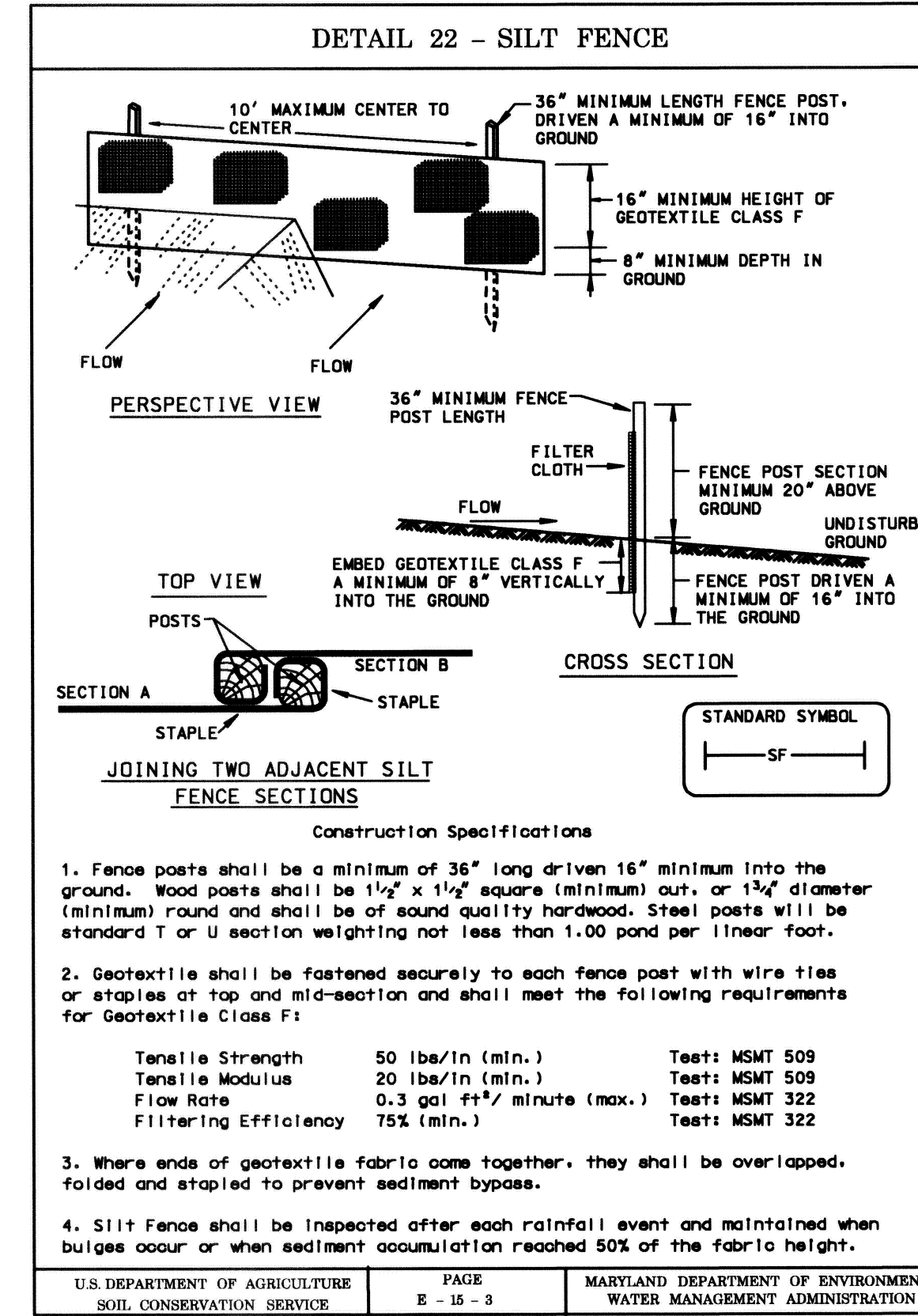
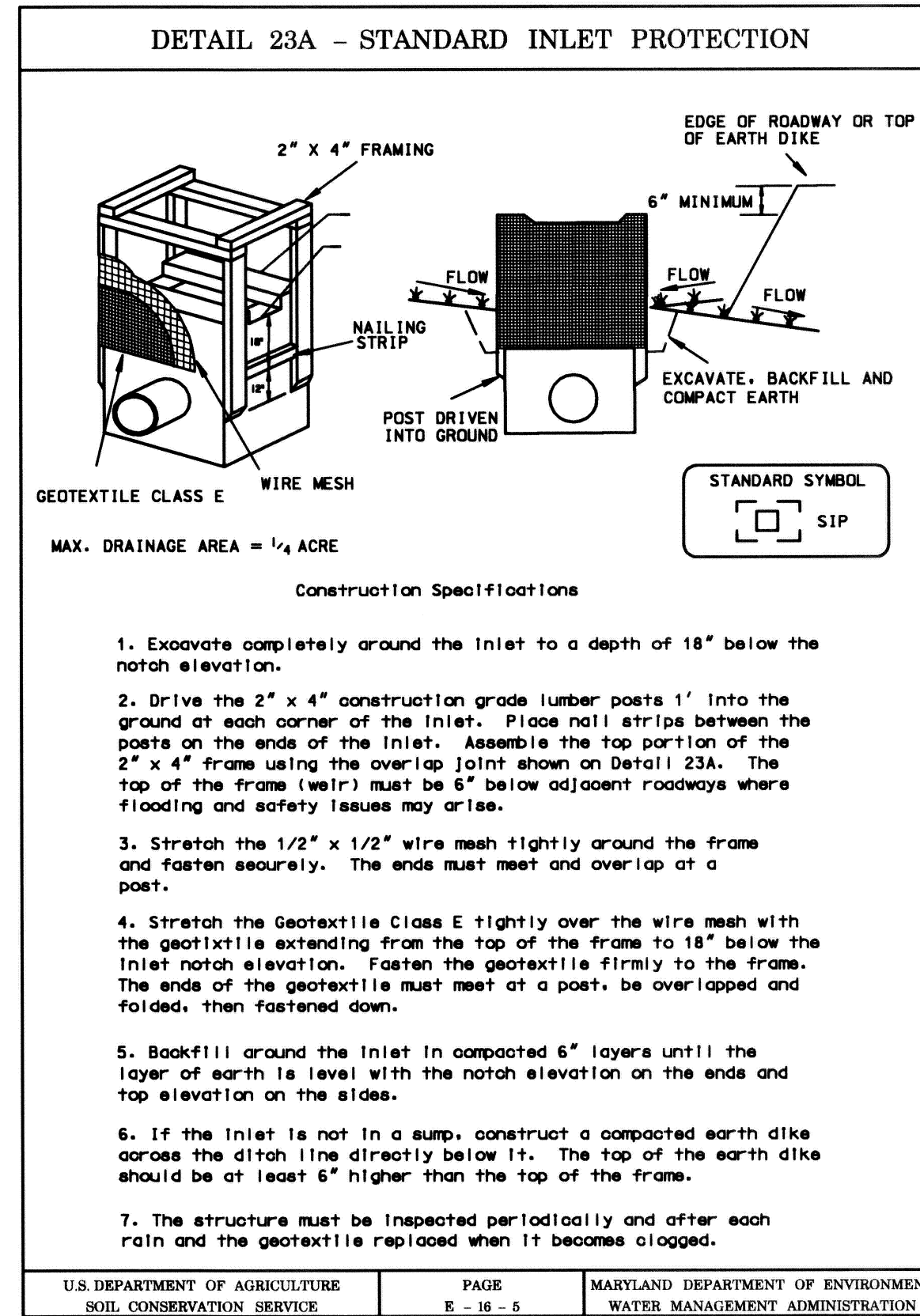
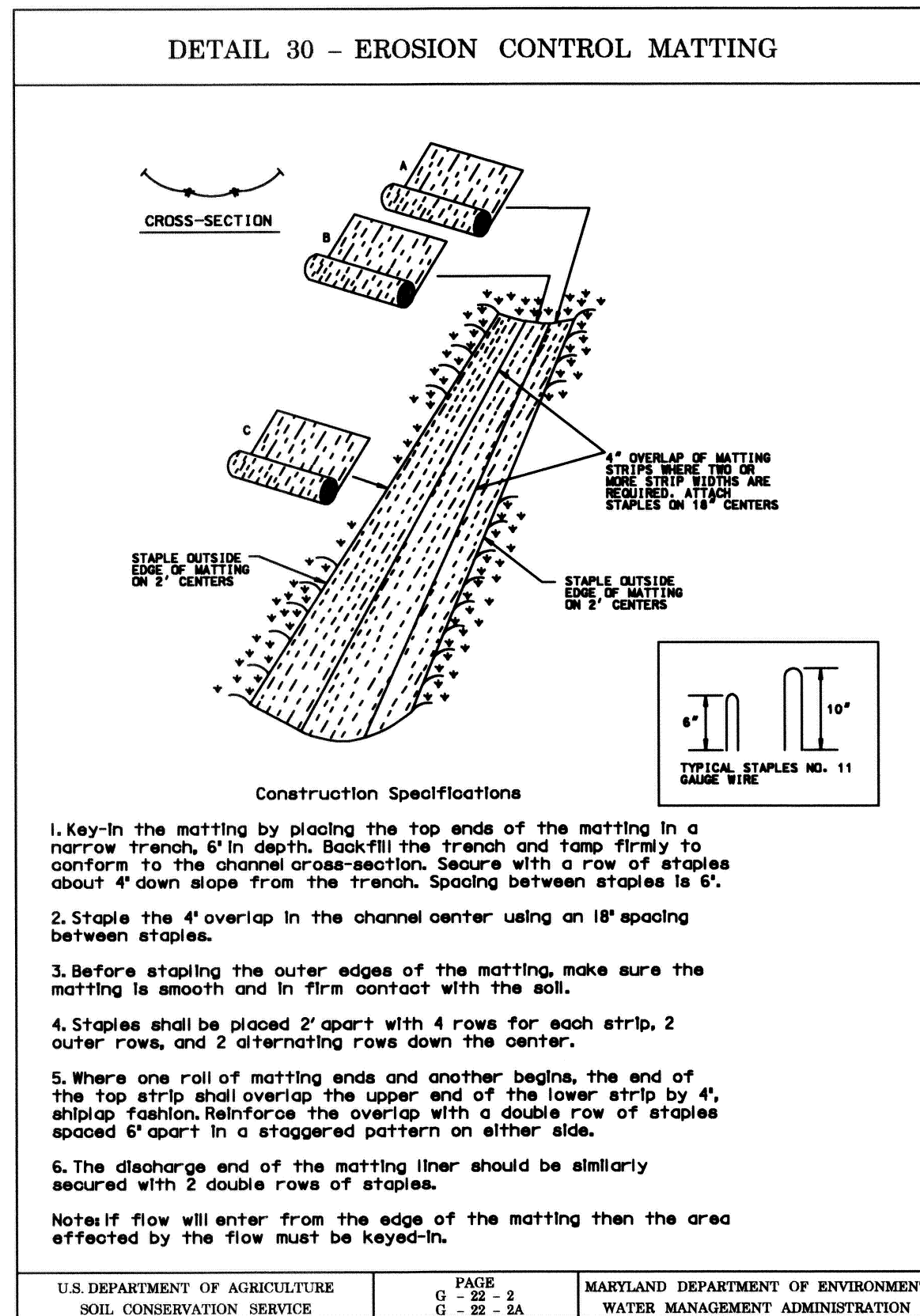
SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: 600 LBS/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.)

SEEDING - FOR THE PERIODS MARCH 1 TO APRIL 30, AND AUGUST 15 TO OCTOBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ.FT.). FOR THE PERIOD MAY 1 TO AUGUST 14, SEED WITH 3 LBS/ACRE WEEPING LOVEGRASS (.07 LBS/1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 TO FEBRUARY 28, PROTECT SITE BY APPLY 2 TONS/ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING - APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.



THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.  
 Jim Meyer 2/19/04  
 NATURAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
 John H. Hester 2/19/04  
 HOWARD SOIL CONSERVATION DISTRICT

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

Director of Public Works: William E. Walker, Jr. 2-11-04  
 Chief, Bureau of Engineering: Steve Strawn 2/11/04  
 Chief, Transportation and Special Projects Division

**STV Incorporated**  
 engineers / architects / planners / scientists / construction managers  
 7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

DES: BCH  
 DRN: BCH  
 CHK: FLG  
 DATE: JUNE 2002

SEDIMENT AND EROSION CONTROL NOTES & DETAILS

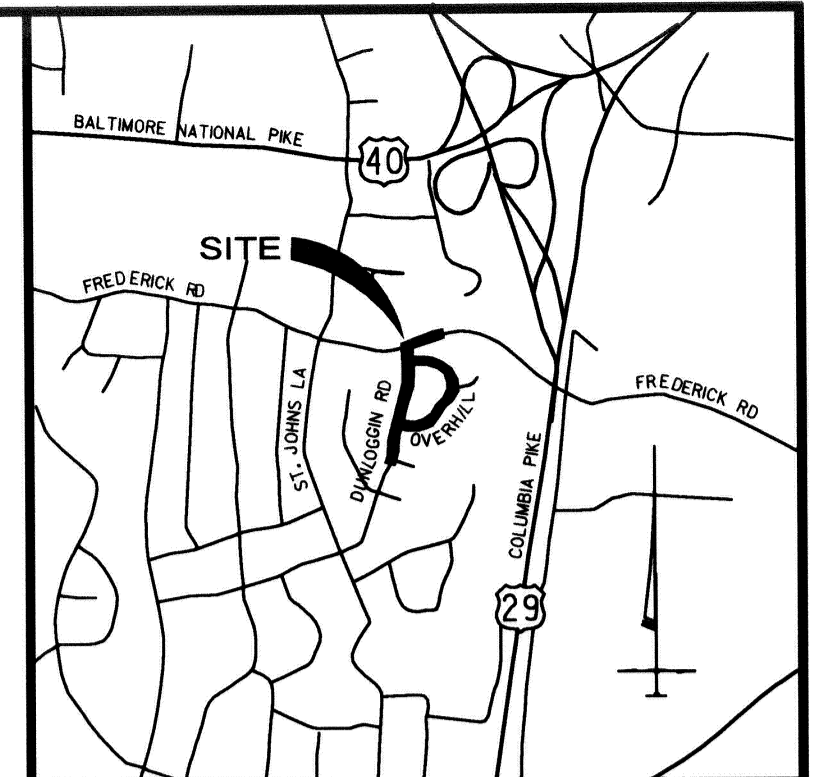
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 JOB NO: 01408-03

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**

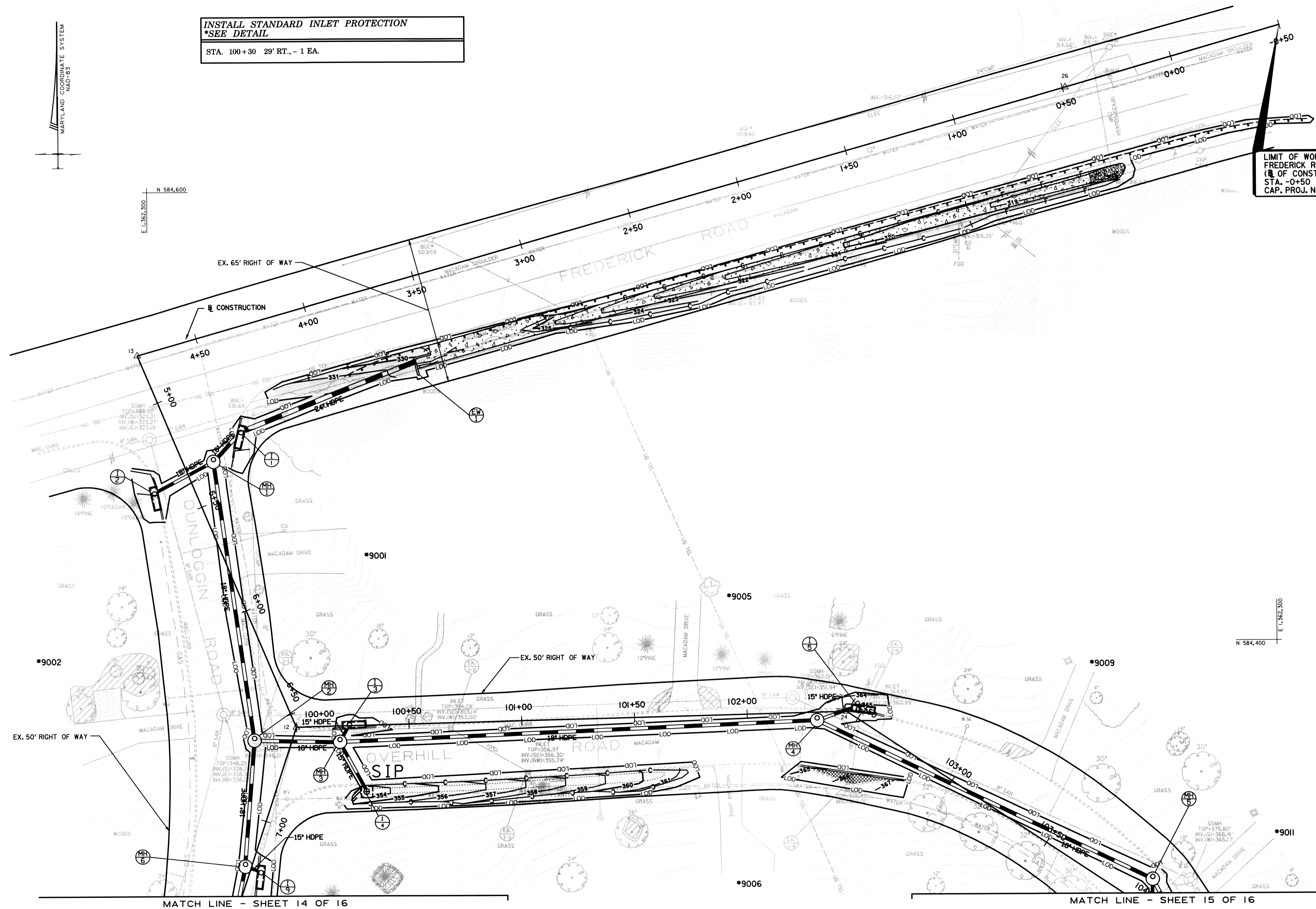
HOWARD COUNTY, MARYLAND  
 CAPITAL PROJECT No. D-1118-12

DRAWING NO.  
 SHEET NO.  
 12 of 16

INSTALL STANDARD INLET PROTECTION  
 \*SEE DETAIL  
 STA. 100+30 29' RT., - 1 EA.



LIMIT OF WORK  
 FREDERICK ROAD  
 (R. OF CONSTR.)  
 STA. -0+50  
 CAP. PROJ. NO. D-1118-12



THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.  
*Jim Meyer* 2/19/04  
 NATURAL RESOURCE CONSULTANT SERVICE DATE  
 THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
*Jim Meyer* 2/19/04  
 HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*William J. Mahan* 2-11-04  
 DIRECTOR OF PUBLIC WORKS DATE  
*Steve Shanley* 2/10/04  
 CHIEF, BUREAU OF ENGINEERING DATE  
*Steve Shanley* 2/10/04  
 CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE

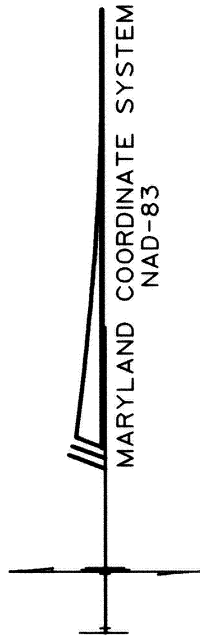
**STV Incorporated**  
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 7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

DES: BCH					
DRN: BCH					
CHK: FLG					
DATE: JUNE 2002	BY	NO.	REVISION	DATE	

SEDIMENT AND EROSION CONTROL PLAN 1  
 SCALE: 1" = 20'

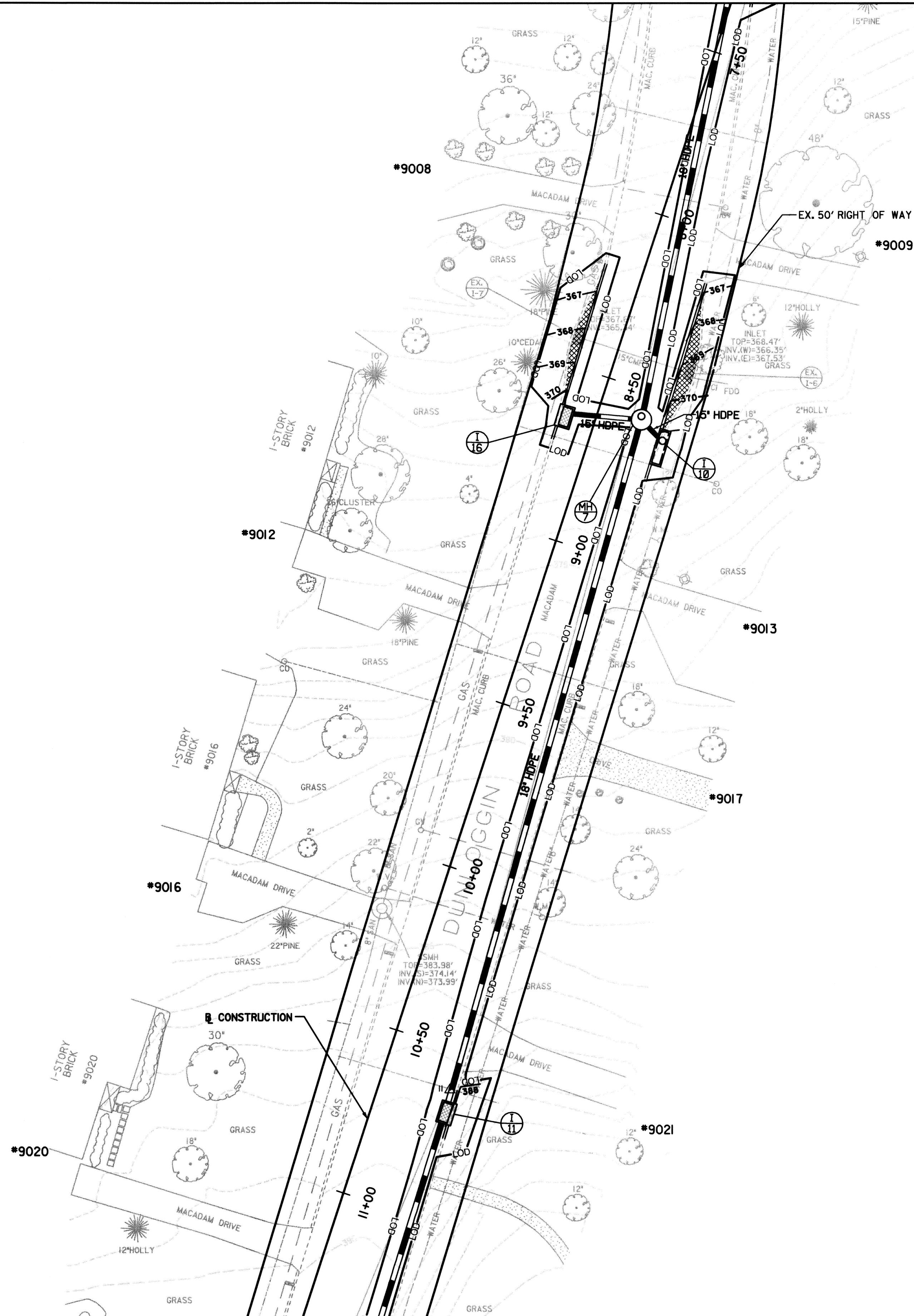
DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**  
 HOWARD COUNTY, MARYLAND  
 CAPITAL PROJECT No. D-1118-12

DRAWING NO.  
 SHEET NO.  
 13 of 16



E 11,362,100  
N 584,200

E 11,362,500  
N 584,200



E 11,362,100  
N 584,000

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.  
*John M. ...* / DATE 2/9/04  
 NATURAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
*John L. ...* / DATE 2/9/04  
 HOWARD SOIL CONSERVATION DISTRICT

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*William E. ...* 2/11/04  
 DIRECTOR OF PUBLIC WORKS DATE  
*Steve Sherman* 2/11/04  
 CHIEF, BUREAU OF ENGINEERING DATE  
*Steve Sherman* 2/11/04  
 CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE

**STV Incorporated**  
 engineers / architects / planners / scientists / construction managers  
 7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

DES.	BCH				
DRN.	BCH				
CHK.	FLG				
DATE:	JUNE 2002	BY	NO.	REVISION	DATE

SEDIMENT AND EROSION CONTROL PLAN 2  
 SCALE: 1" = 20'  
 JOB NO.: 01408-03

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**  
 HOWARD COUNTY, MARYLAND  
 CAPITAL PROJECT No. D-1118-12

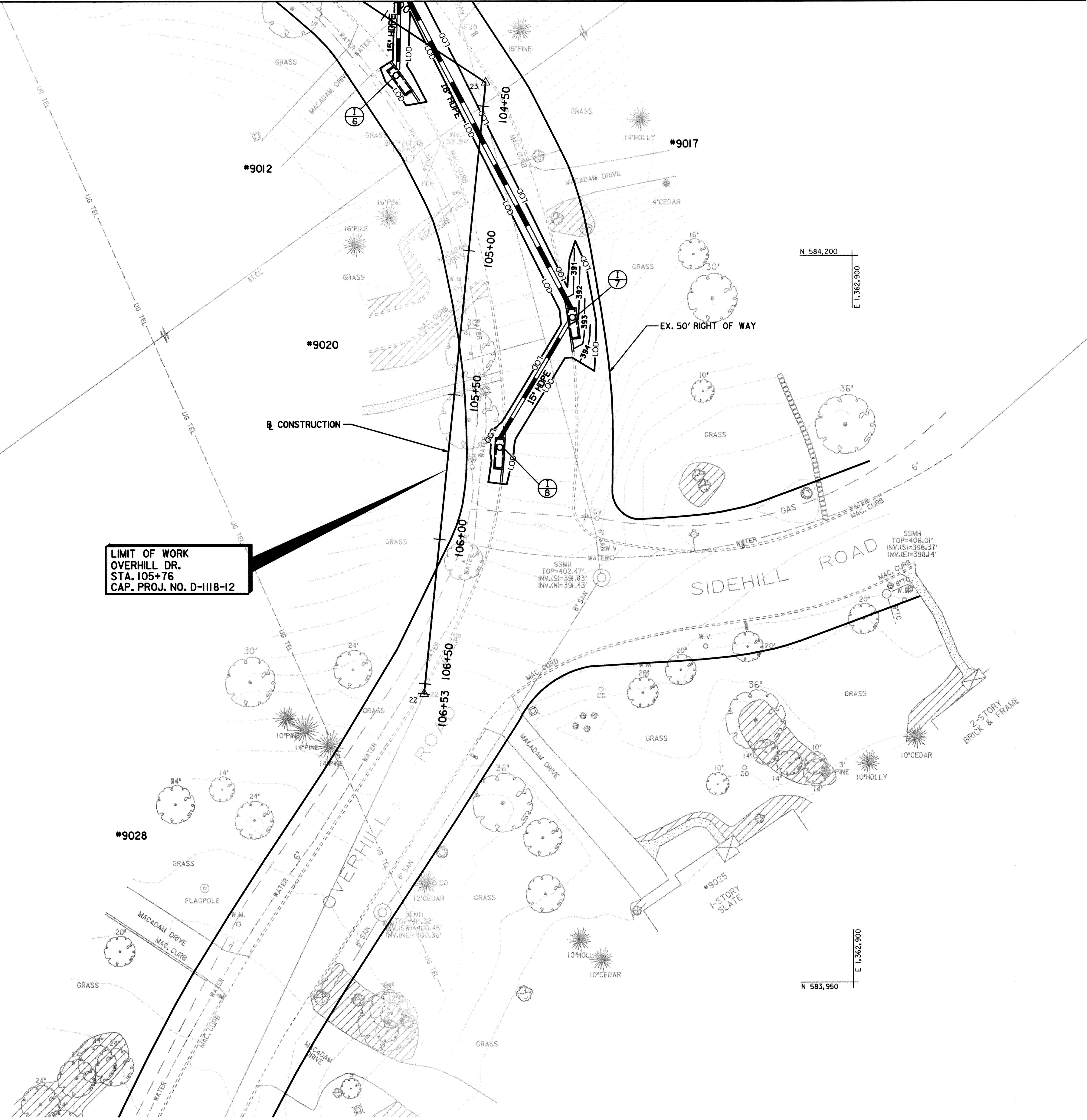
DRAWING NO.  
 SHEET NO.  
 14 of 16

E 1,362,500  
N 584,200

MARYLAND COORDINATE SYSTEM  
NAD-83

N 584,200  
E 1,362,900

N 583,950  
E 1,362,900



**LIMIT OF WORK**  
OVERHILL DR.  
STA. 105+76  
CAP. PROJ. NO. D-1118-12

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.  
*Jim M... 2/19/04*  
NATURAL RESOURCE CONSERVATION SERVICE DATE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
*Jim M... 2/19/04*  
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*William J. Whelan* 2/11/04  
DIRECTOR OF PUBLIC WORKS DATE

*Steve Shaner* 2/16/04  
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE

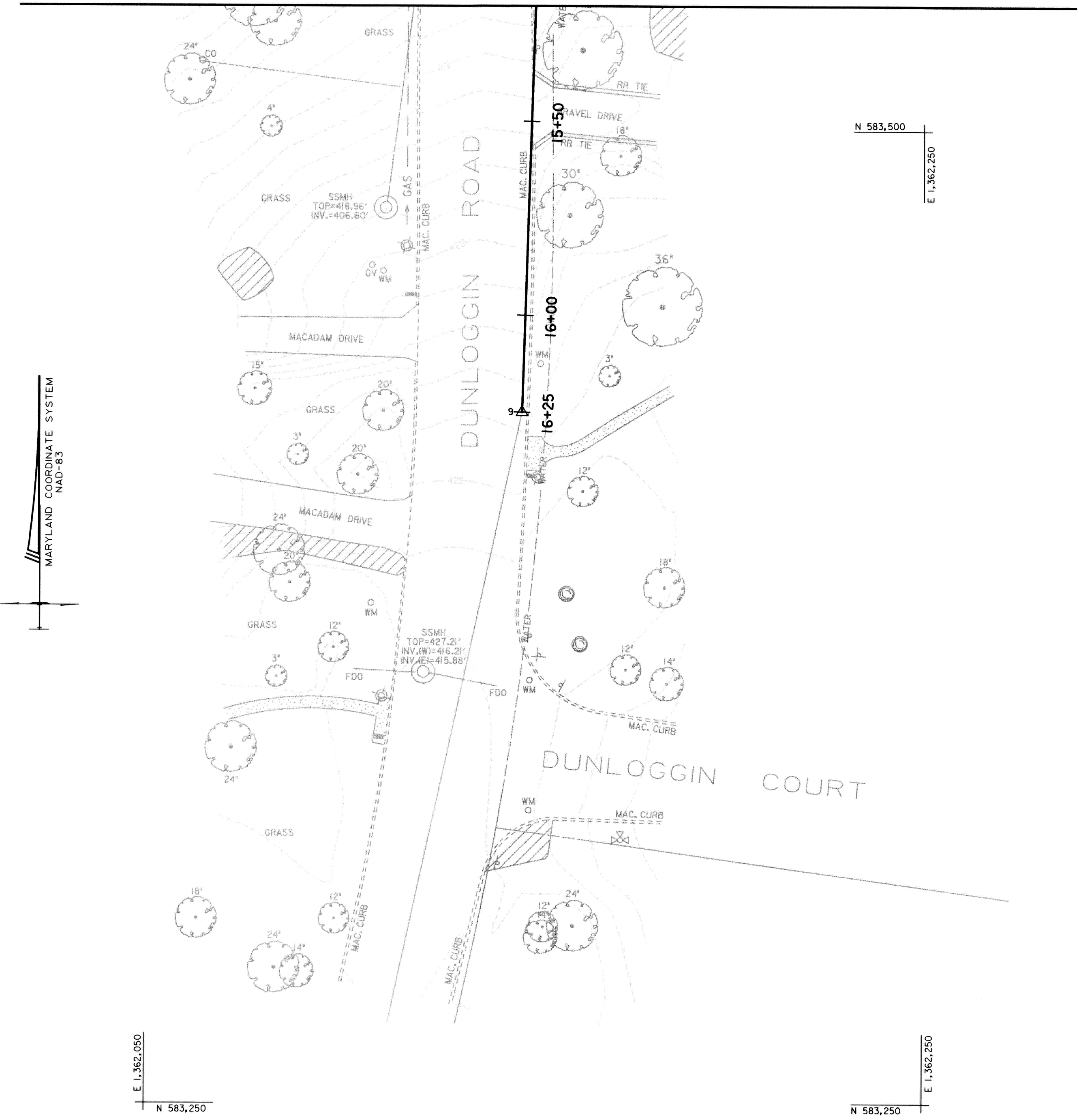
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engineers / architects / planners / scientists / construction managers  
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

DES: BCH					
DRN: BCH					
CHK: FLG					
DATE: JUNE 2002	BY:	NO.	REVISION	DATE	SCALE: 1" = 20'

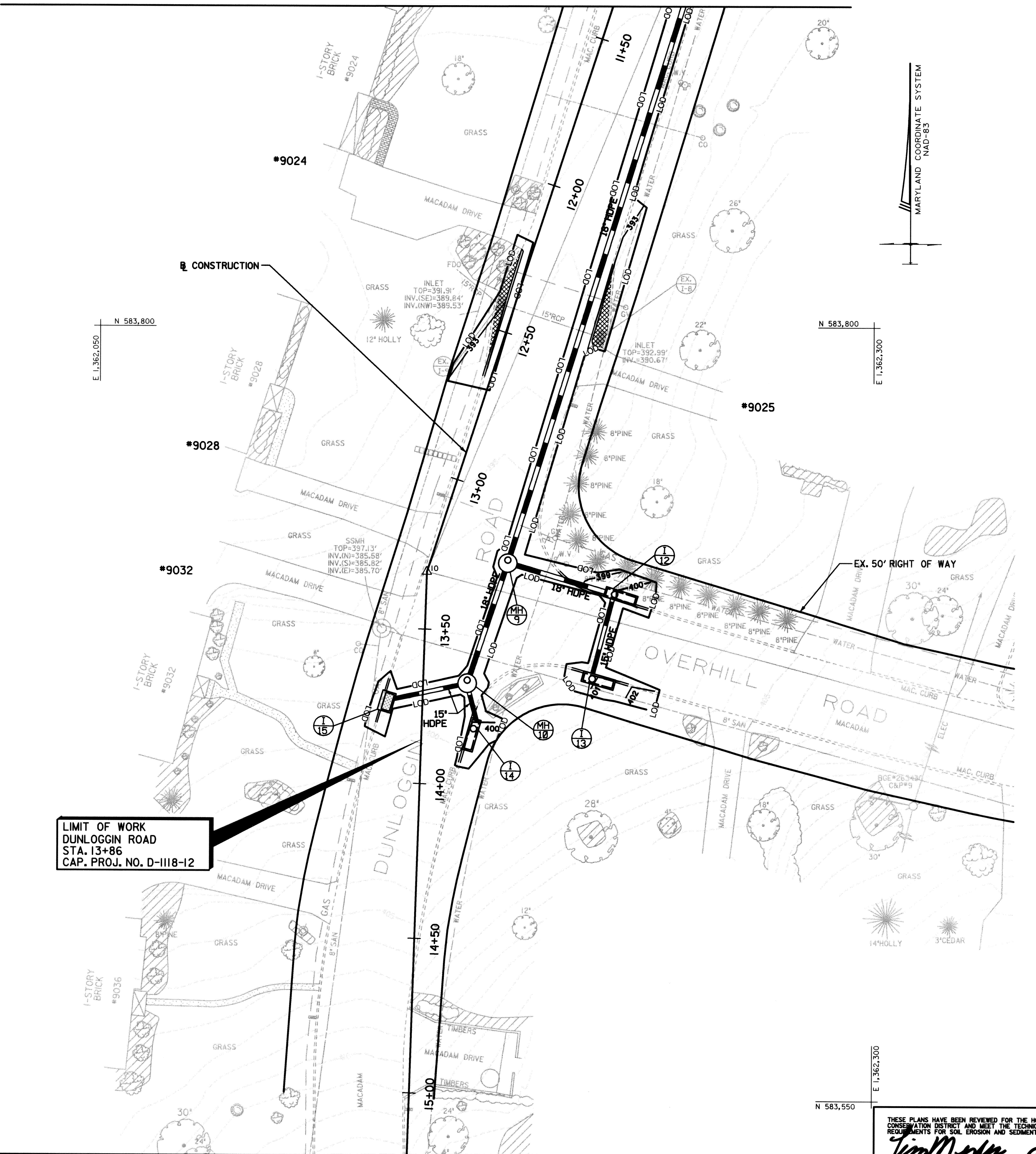
SEDIMENT AND EROSION CONTROL PLAN 3

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT No. D-1118-12

DRAWING NO.  
SHEET NO.  
15 of 16



LIMIT OF WORK  
DUNLOGGIN ROAD  
STA. 13+86  
CAP. PROJ. NO. D-1118-12



THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.  
*John M. [Signature]* 2/19/04  
NATURAL RESOURCE CONSERVATION SERVICE DATE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.  
*John M. [Signature]* 2/19/04  
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*William F. [Signature]* 2/11/04  
DIRECTOR OF PUBLIC WORKS DATE

*Steve Shanan 2/10/04*  
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE

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DES	BCH				
DRN	BCH				
CHK	FLG				
DATE	JUNE 2002	BY	NO.	REVISION	DATE

SEDIMENT AND EROSION CONTROL PLAN 4  
SCALE: 1" = 20'  
JOB NO.: 01408-03

DRAINAGE IMPROVEMENTS  
**DUNLOGGIN ROAD**  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT No. D-1118-12

DRAWING NO.  
SHEET NO.  
16 of 16