

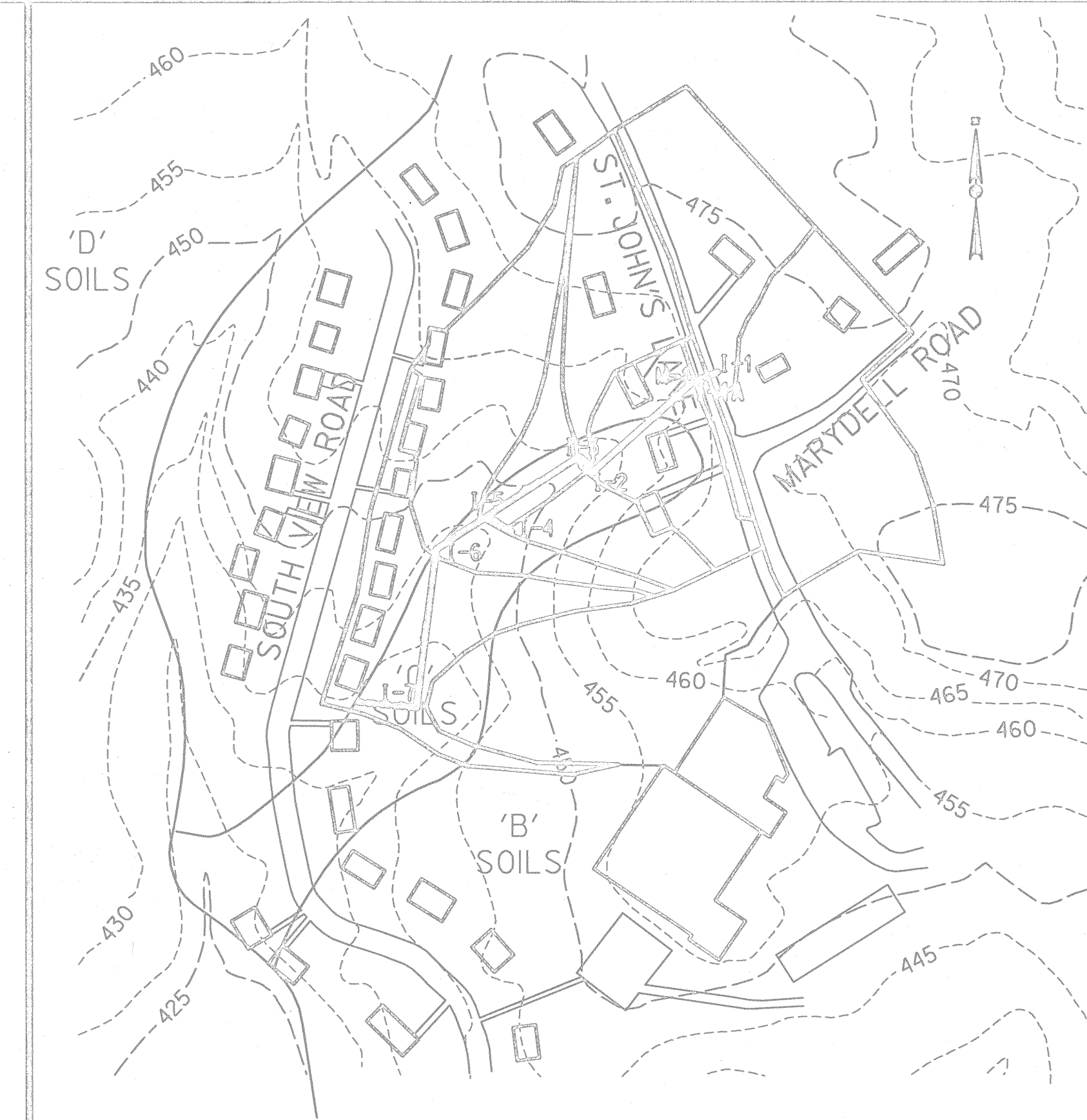
ST. JOHN'S LANE

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
- 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.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- 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.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM.
- STORMWATER QUANTITY MANAGEMENT IS NOT PROVIDED FOR THIS PROJECT DUE TO INSIGNIFICANT INCREASE IN PAVED AREA.
- 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.
- THERE IS NO 100-YEAR FLOODPLAIN ON SITE.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEAL LEVEL DATUM, 1929.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- 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.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT \odot ELEVATIONS.
- 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.
- PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
- NO WETLAND AREAS EXIST WITHIN THE PROJECT LIMIT OF DISTURBANCE. AREAS OF OBSERVED SATURATION ARE LOCATED WITHIN MANICURED LAWNS

INDEX OF SHEETS

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- GEOMETRIC LAYOUT
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- STORM DRAIN PROFILES 1
- STORM DRAIN PROFILES 2
- SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
- SEDIMENT AND EROSION CONTROL PLAN 1
- SEDIMENT AND EROSION CONTROL PLAN 2



DRAINAGE AREA, SOIL, & VICINITY MAP
SCALE: 1"=200'

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 at 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."

Date _____
 Owner/Developer Signature - *Paul J. Lepsom*
 HOWARD COUNTY
 Card No. _____
 Printed Name and Title - *Ronald G. Lepsom, Chief, Bur. of Emrg.*
 INSPECTOR

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."

Date 01-10-01
 Designer's Signature *Frank L. Grabowski*
 Md. Registration No. 11892 FRANK L. GRABOWSKI
 (P.E., R.L.S. or R.L.A. (circle)) Printed Name

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

Jim Meyers 1/17/01
 NATURAL RESOURCE CONSERVATION SERVICE DATE

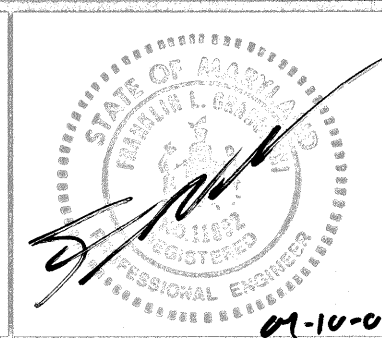
THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Robertson 1/17/01
 HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Paul J. Lepsom 1/12/01
 CHIEF, BUREAU OF ENGINEERS DATE
Richard M. Quella 1-12-01
 CHIEF, BUREAU OF HIGHWAYS DATE
Paul J. Lepsom 1/12/01
 CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

STV Incorporated
 Engineers / Architects / Planners / Surveyors
 21 Governor's Court
 Beltsville, Maryland 21204-2722
 (410) 344-9112 Fax: (410) 250-2754

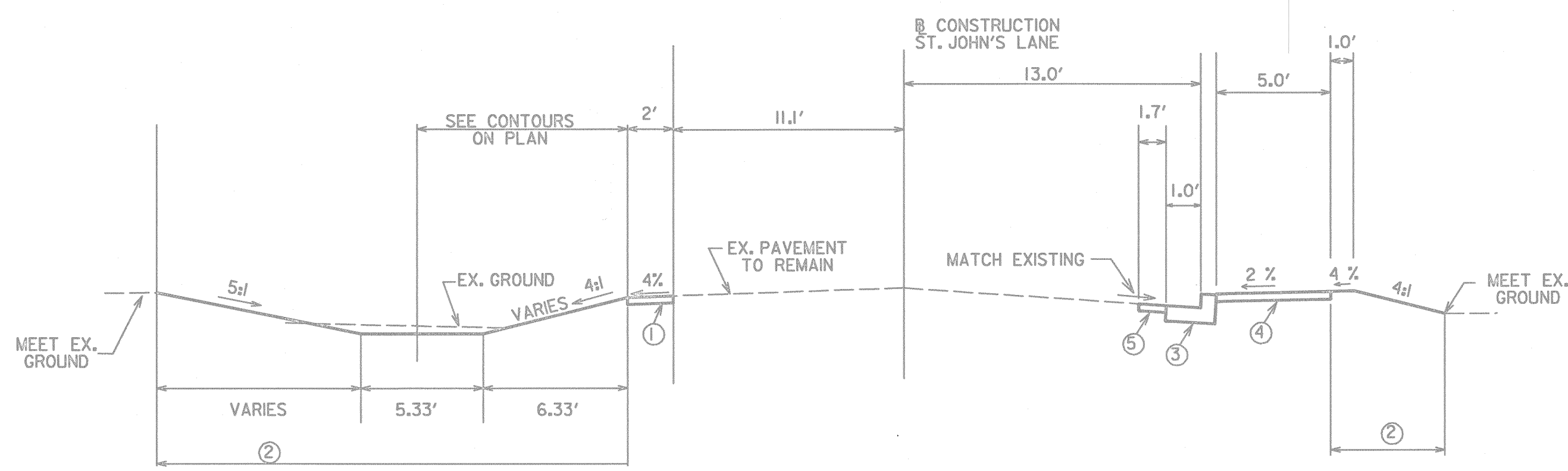


DES:	BCH				
DRN:	BCH				
CHK:	FLG				
DATE:	JAN 2001	BY:	NO.	REVISION	DATE
600' SCALE MAP NO.		BLOCK NO.			

TITLE SHEET

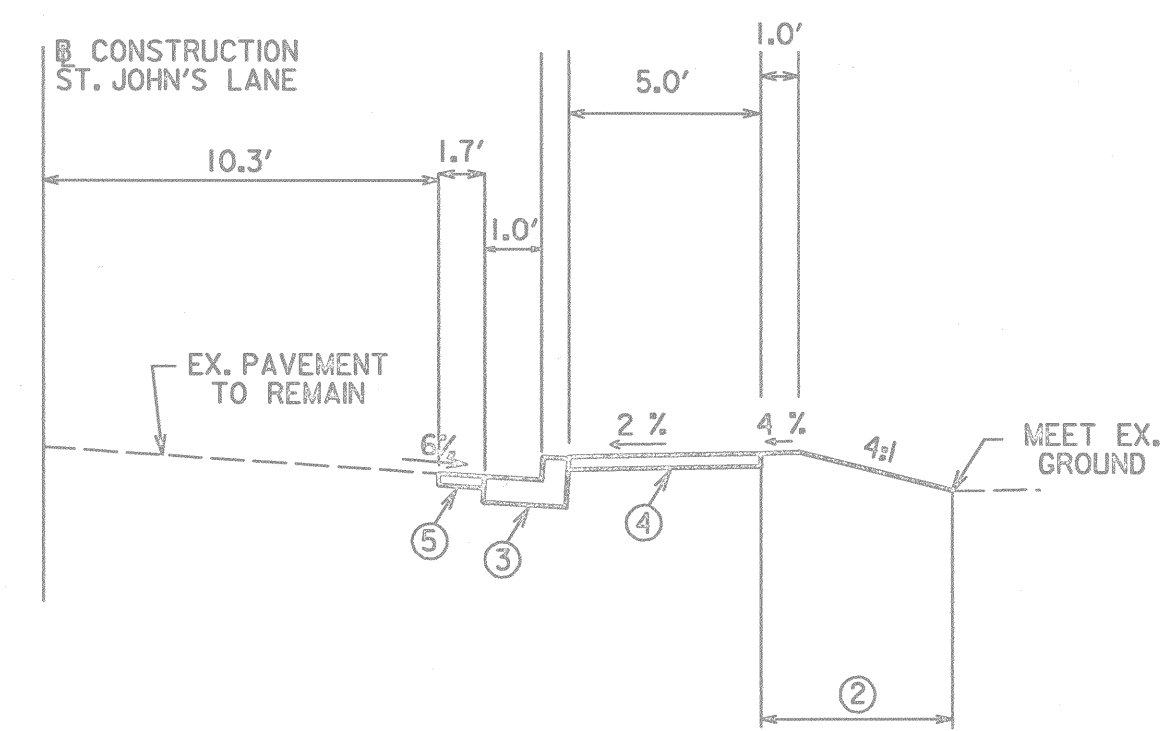
DRAINAGE IMPROVEMENTS
 ST. JOHN'S LANE
 ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CAPITAL PROJECT No. D-1118-13

SCALE AS SHOWN
 SHEET 1 OF 12



ST. JOHN'S LANE STA. 0+39 TO STA. 2+00

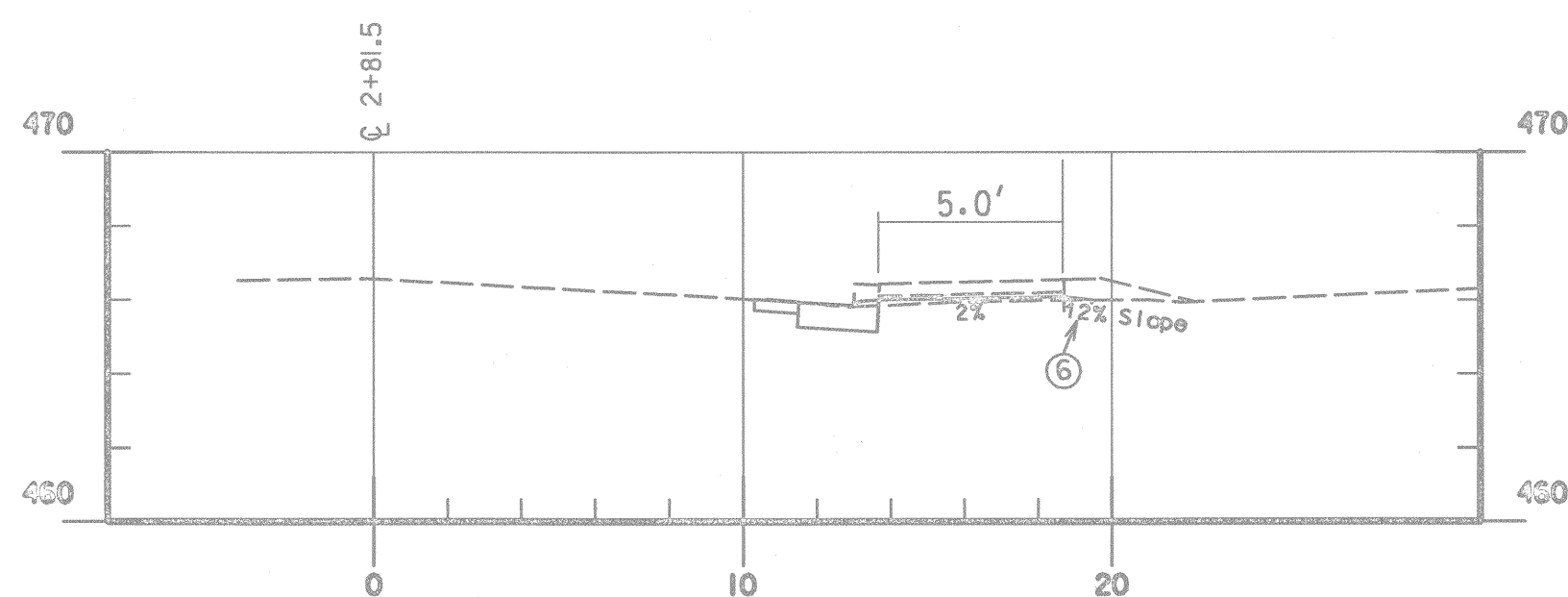
SCALE: 1"=5'



ST. JOHN'S LANE STA. 2+00 TO STA. 3+21

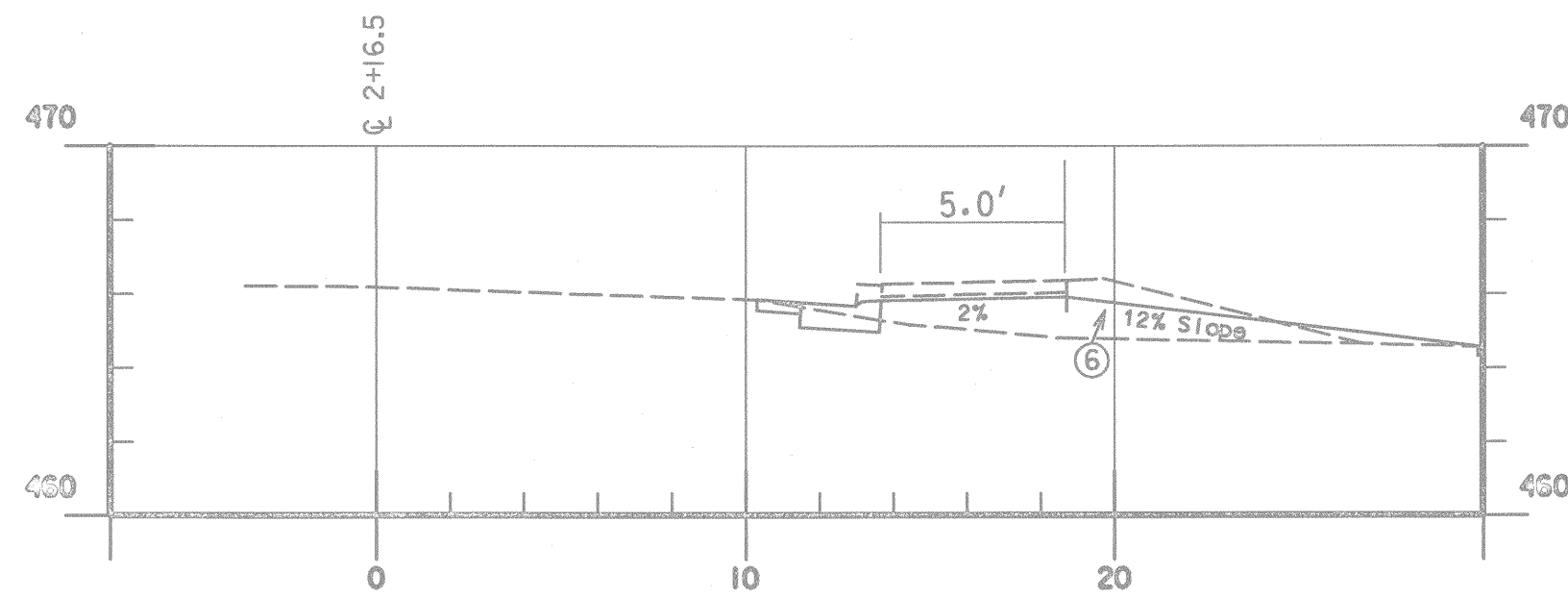
SCALE: 1"=5'

- ① P-8 PAVED SHOULDER, FULL DEPTH BITUMINOUS CONCRETE STD. R-2.02
- ② INDICATES 2" TOPSOIL, SEED AND MULCH
- ③ STD. 7" COMBINATION CURB AND GUTTER HO. CO. STD. R-3.01
- ④ NEW CONCRETE SIDEWALK WITH 1/2" BITUMINOUS EXPANSION MATERIAL ADJACENT TO CURB
- ⑤ P-5 PAVING SECTION, FULL DEPTH BITUMINOUS CONCRETE STD. R-2.02
- ⑥ MATCH EXISTING DRIVEWAY CROSS SLOPE



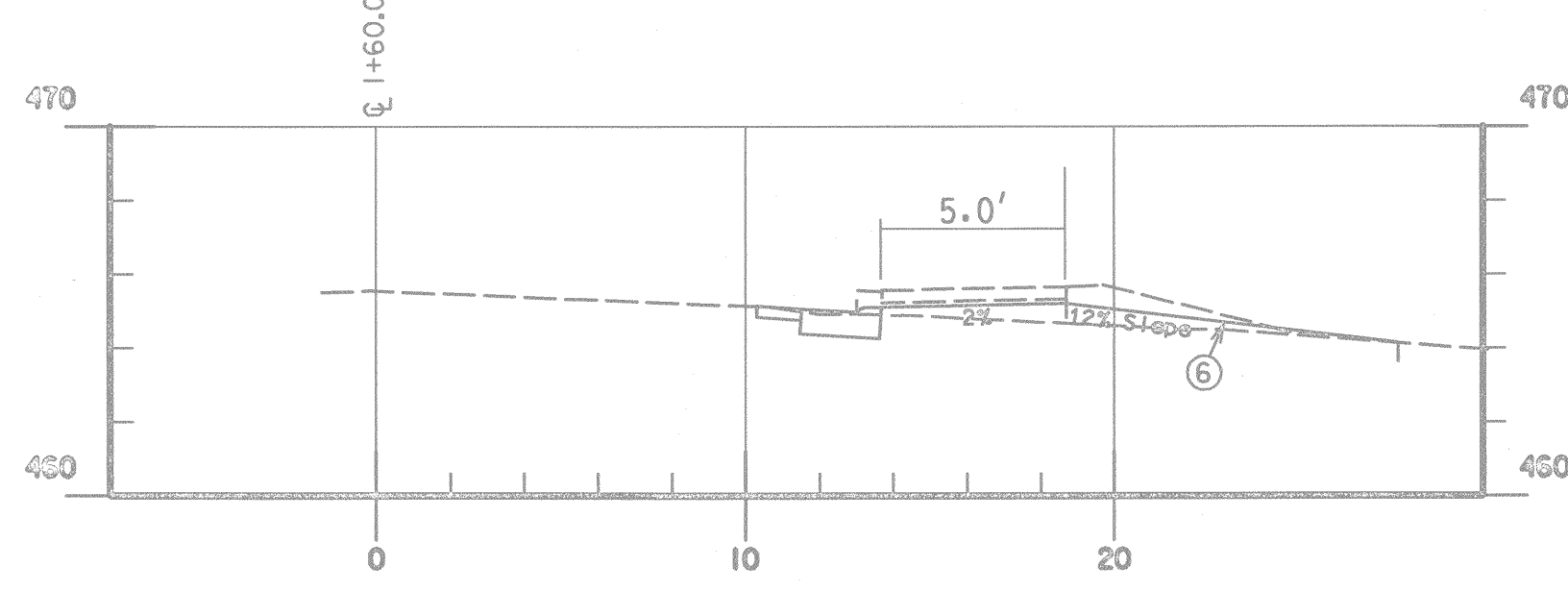
DRIVEWAY TO # 2800 ST. JOHN'S LANE

SCALE: 1"=5'



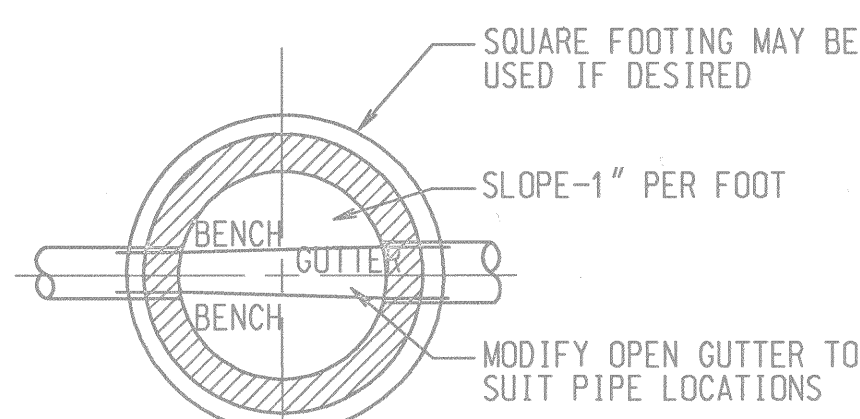
DRIVEWAY TO # 2896 ST. JOHN'S LANE

SCALE: 1"=5'

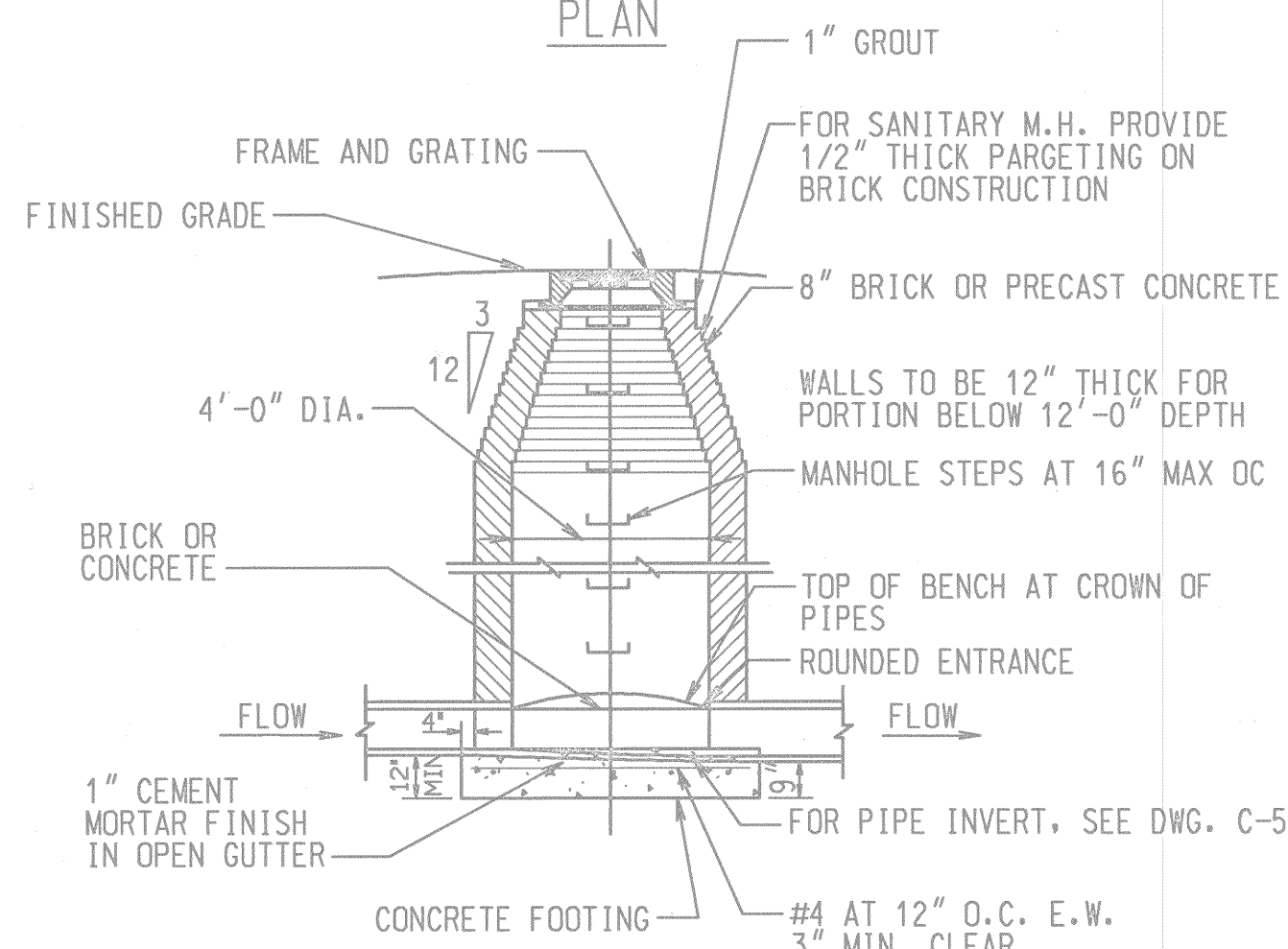


DRIVEWAY TO # 2886 ST. JOHN'S LANE

SCALE: 1"=5'



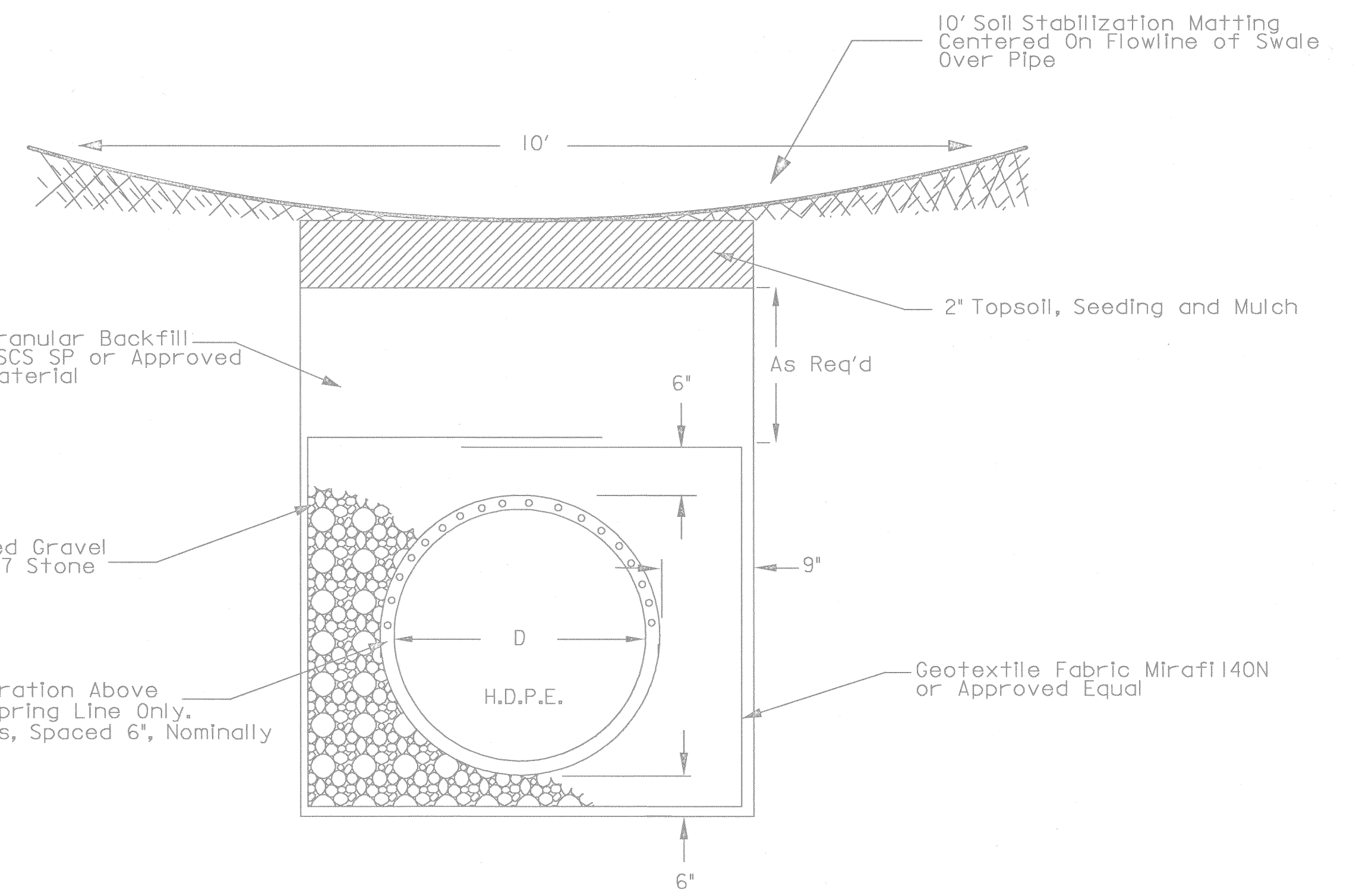
PLAN



SECTION

MANHOLE

N.T.S.



PERFORATED PIPE TRENCH DETAIL

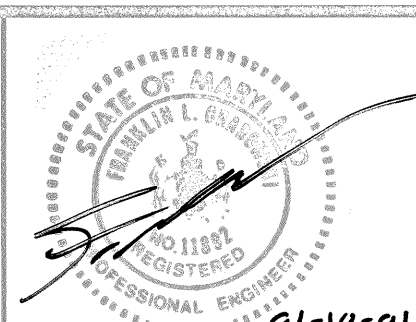
N.T.S.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. ... 1/16/01
PUBLIC WORKS
Andrew M. ... 1-12-01
CHIEF, BUREAU OF HIGHWAYS

Robert ... 1/12/01
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS
Ed ... 1/12/01
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS

STV Incorporated
Engineers / Architects / Planners / Surveyors
21 Governor's Court
Baltimore, Maryland 21244-2722
(410)944-9112 Fax: (410)288-2794



DES:	BCH				
DRN:	BCH				
CHK:	FLG				
DATE:	JAN 2001	BY	NO.	REVISION	DATE

TYPICAL SECTIONS
& C.L. OF DRIVES

DRAINAGE IMPROVEMENTS
ST. JOHN'S LANE
ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CAPITAL PROJECT No. D-1118-13

SCALE AS SHOWN
SHEET 2 OF 12

TRAVERSE DATA

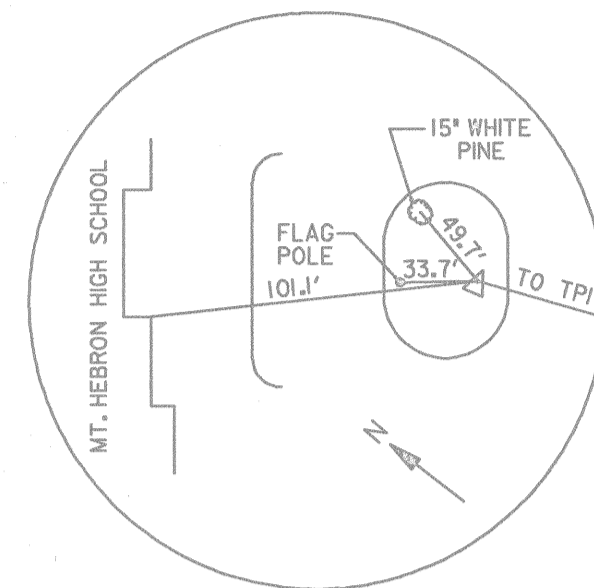
POINT NUMBER	ELEVATION	BEARING	DISTANCE	COORDINATES		REMARKS
				NORTH	EAST	
TP16	454.23	N73°04'51.9"E	1868.35'	593813.9200	1355731.8617	BRASS DISC, Ho. Co. 17EB
TP17	479.52	S14°35'49.3"W	750.88'	594357.6446	1357519.3476	BRASS DISC, Ho. Co. 17EA
TP1	483.25	S16°59'38.9"E	534.17'	593631.0013	1357330.1115	PK NAIL
TP2	477.69	S62°06'21.4"E	699.68'	593120.1532	1357486.2364	PK NAIL
TP3	473.82	S88°58'16.4"E	1050.68'	592792.8167	1358104.6226	REBAR & CAP
TP4	469.18	S24°59'43.0"E	637.82'	592773.9523	1359155.1343	REBAR & CAP
TP5	464.49	S48°00'01.8"W	486.58'	592195.8688	1359424.6411	REBAR & CAP
TP6	445.57	S22°51'22.8"W	292.15'	591870.2897	1359063.0426	REBAR & CAP
TP7	435.97	N72°09'33.4"E	346.79'	591601.0792	1358949.5653	REBAR & CAP
TP8	459.08	N41°04'42.9"E	289.49'	591707.3253	1359279.6766	REBAR & CAP
TP9	467.16	N9°30'16.6"W	274.08'	591925.5469	1359469.8998	REBAR & CAP
TP5	464.49			592195.8688	1359424.6411	REBAR & CAP

BASELINE DATA

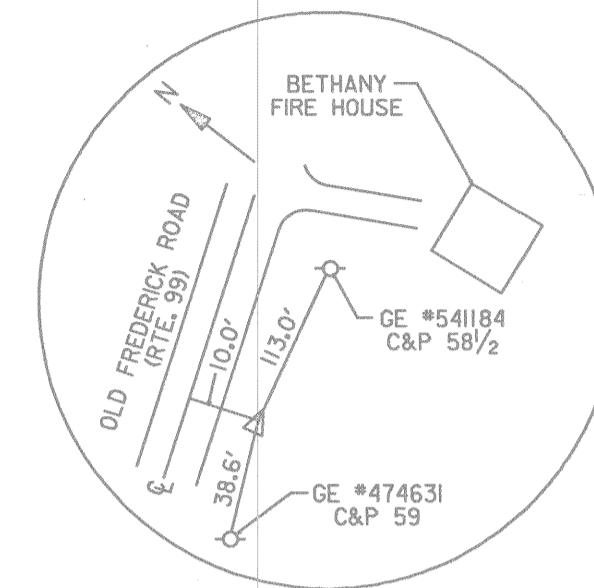
POINT NUMBER	CONSTRUCTION	STATION	BEARING	DISTANCE	COORDINATES	
					NORTH	EAST
POB	ST. JOHN'S LANE	0+00.00	S17°36'59.34"E	374.51'	592251.6256	1359387.1555
POE	ST. JOHN'S LANE	3+74.51			591894.682	1359500.4977
POB10	STORM DRAIN	100+00.00	N7°09'32.29"E	248.04'	591656.749	1358968.483
PI11	STORM DRAIN	102+48.04	N57°01'23.85"E	261.88'	591902.852	1358999.394
PI12	STORM DRAIN	105+09.92	S44°00'59.12"W	31.72'	592045.390	1359219.08
PI13	STORM DRAIN	105+41.64	N48°03'11.67"E	202.52'	592022.580	1359241.12
PI14	STORM DRAIN	107+44.16	N48°03'11.66"E	26.31'	592157.955	1359391.751
PI20	STORM DRAIN	107+70.47			592175.5384	1359411.3159

STAKEOUT TIES

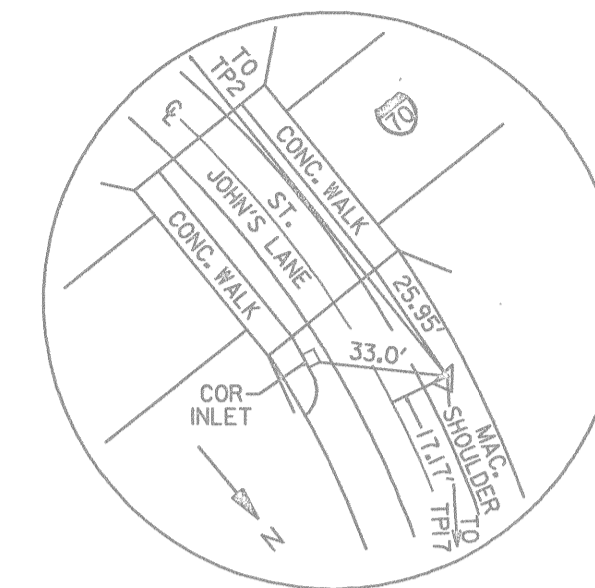
TRAVERSE POINT	CONSTRUCTION	STATION	BEARING	DISTANCE
TP5	ST. JOHN'S LANE	0+00.00	N33°54'47"W	67.19'
TP5	ST. JOHN'S LANE	0+79.83	S33°14'31"W	24.31'
TP5	ST. JOHN'S LANE	3+74.51	S14°08'11"E	310.59'
TP7	STORM DRAIN	100+00.00	N18°46'08"E	58.80'
TP6	STORM DRAIN	102+48.04	N62°54'22"W	71.49'
TP6	STORM DRAIN	105+09.92	N41°42'19"E	234.54'
TP6	STORM DRAIN	105+41.64	N49°27'48"E	234.31'
TP5	STORM DRAIN	107+44.16	S40°56'29"W	50.19'



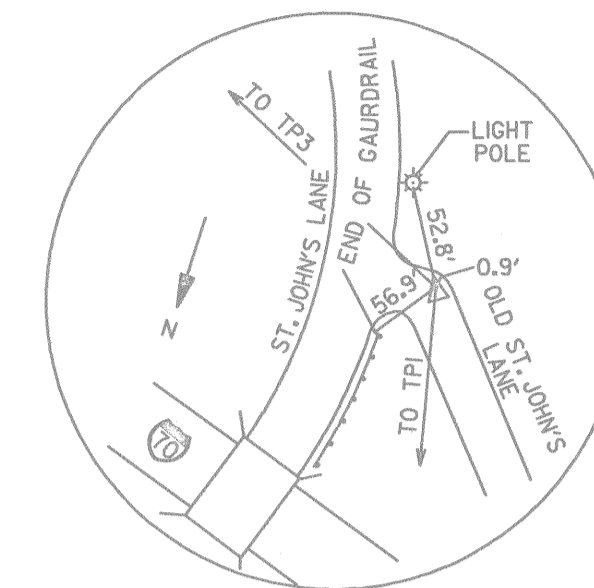
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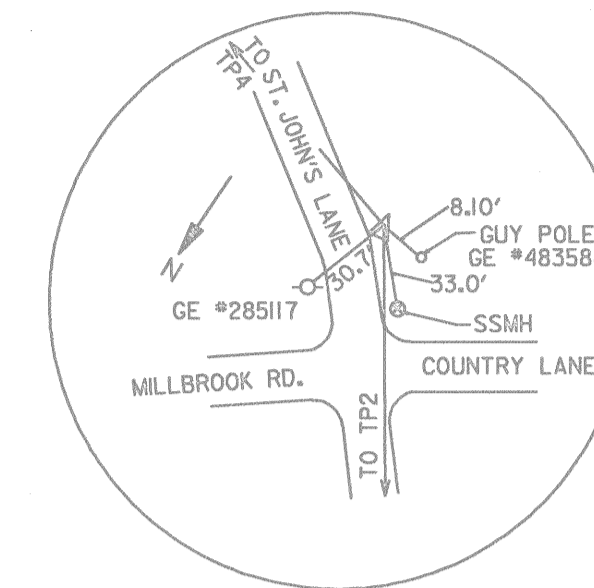
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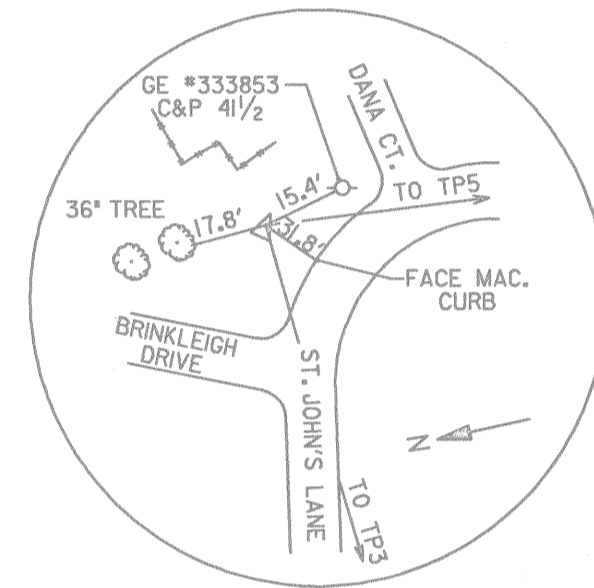
TRAVERSE POINT #1



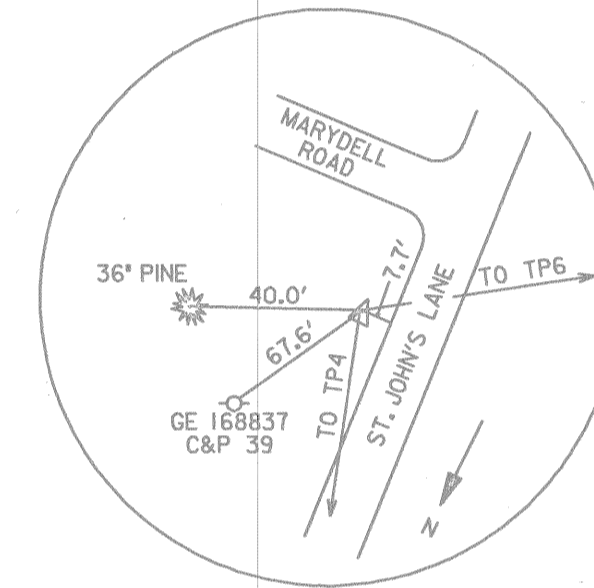
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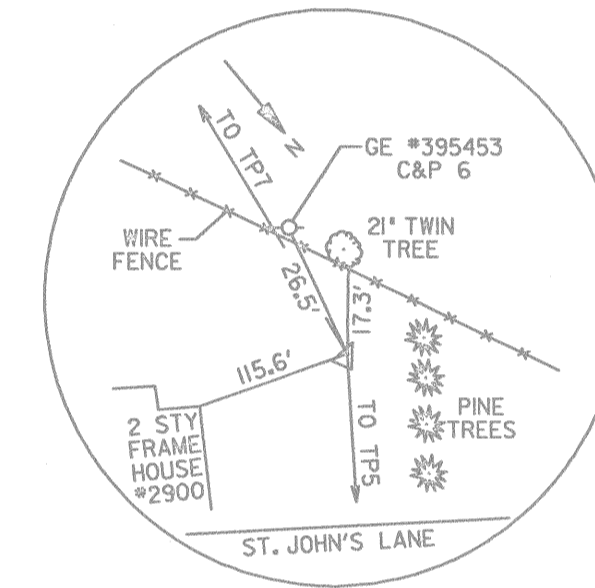
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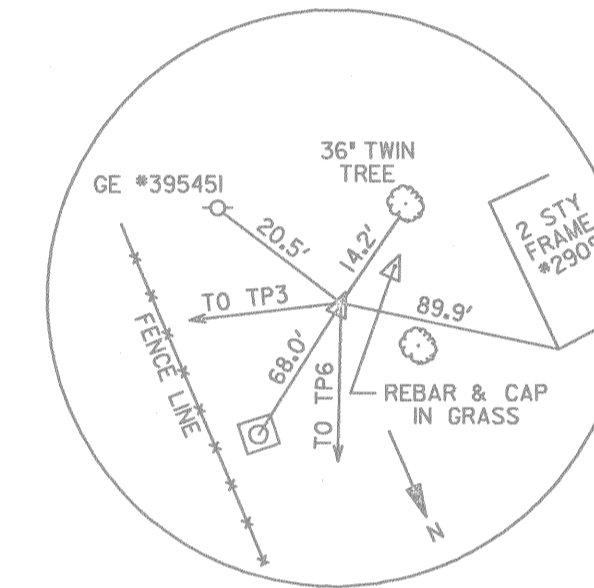
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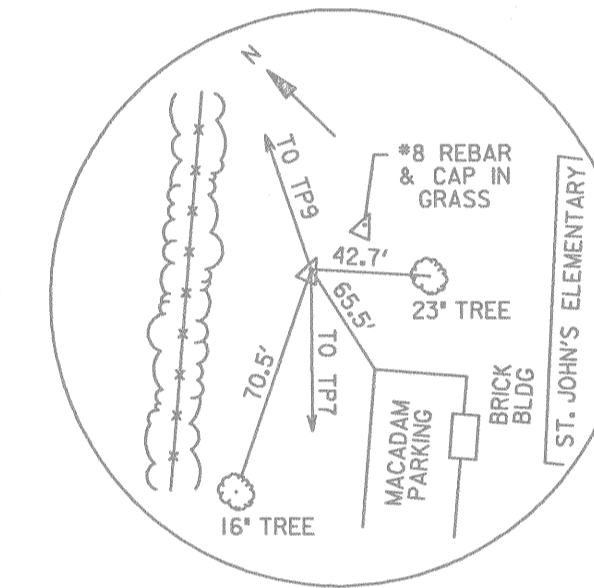
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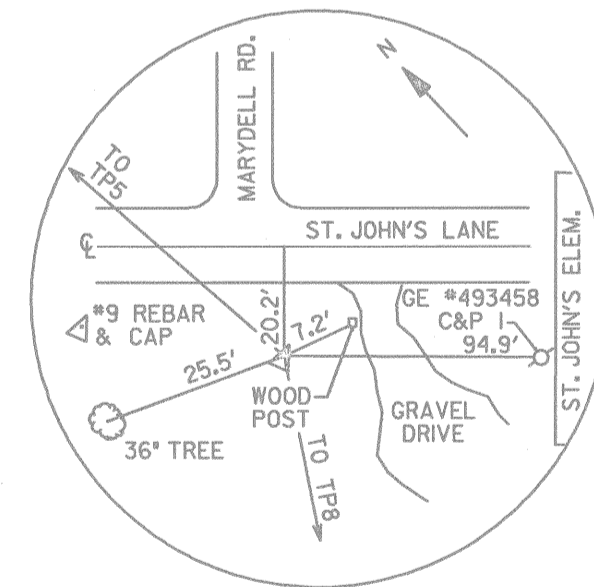
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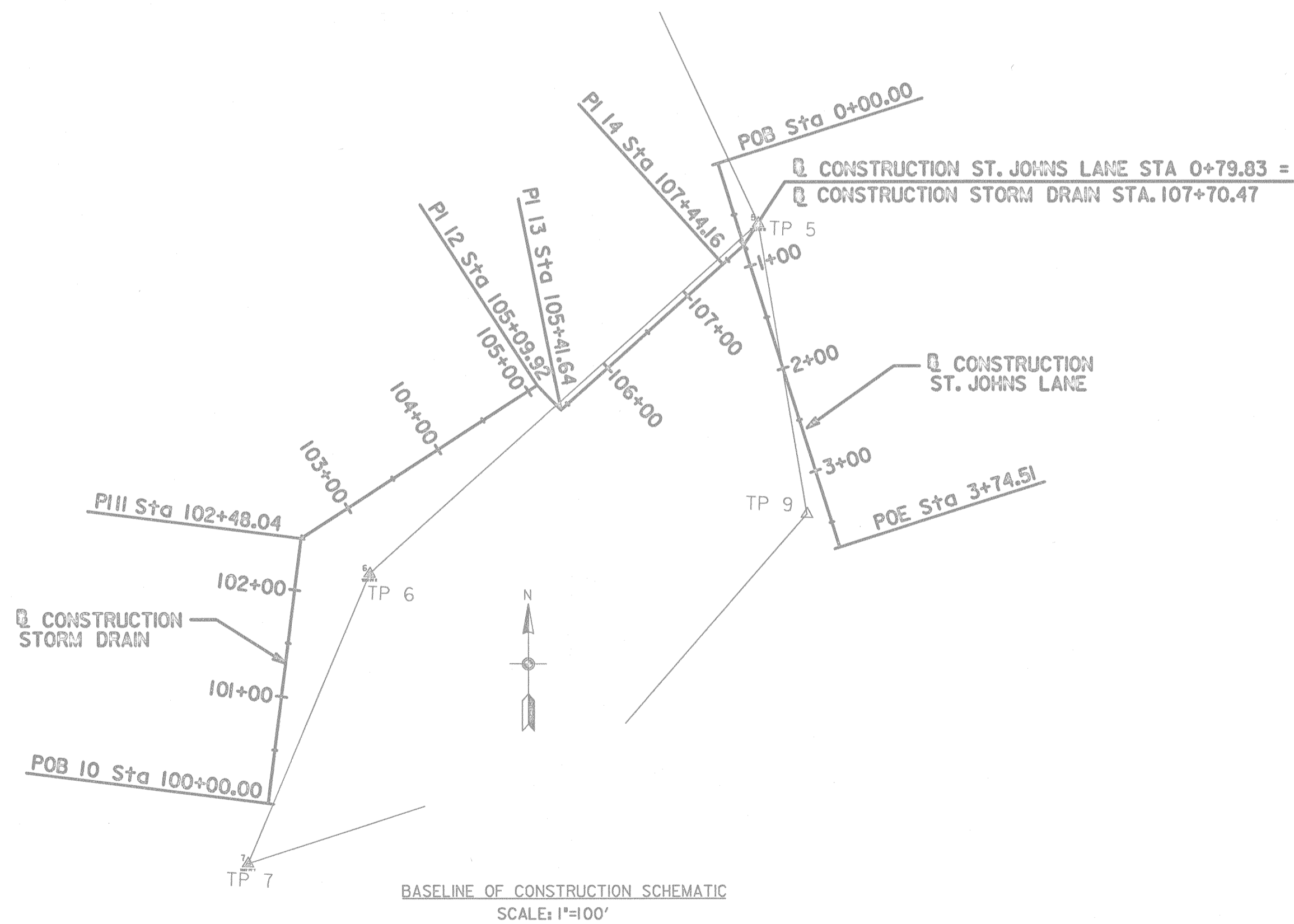
TRAVERSE POINT #7



TRAVERSE POINT #8



TRAVERSE POINT #9



BASELINE OF CONSTRUCTION SCHEMATIC
SCALE: 1"=100'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

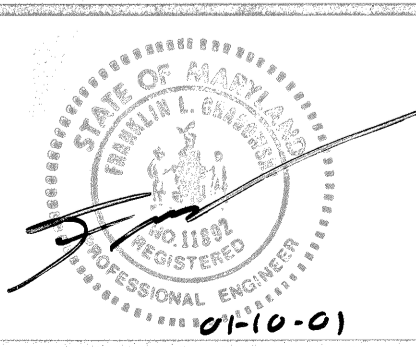
Kevin J. Shaw 1/12/01
DIRECTOR OF PUBLIC WORKS DATE

Richard M. Davis 1/12/01
CHIEF, BUREAU OF HIGHWAYS DATE

Richard J. Sporn 1/12/01
CHIEF, BUREAU OF STREETS DATE

John A. ... 1/12/01
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

STV Incorporated
Engineers / Architects / Planners / Surveyors
21 Governor's Court
Beltsville, Maryland 21244-2122
(410)944-9112 Fax: (410)298-2794



DES:	BCH				
DRN:	BCH				
CHK:	FLG				
DATE:	JAN 2001	BY:	NO.	REVISION	DATE

GEOMETRIC LAYOUT

600' SCALE MAP NO. _____ BLOCK NO. _____

DRAINAGE IMPROVEMENTS
ST. JOHN'S LANE
ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CAPITAL PROJECT No. D-1118-13

SCALE AS SHOWN
SHEET 3 OF 12

**CONSTRUCT DRIVEWAY ENTRANCE
(REFER TO DRIVEWAY DETAIL)**

STA. 1+60 (13' RT) - 40 SY	7" REINF. CONC.
STA. 2+16 (13' RT) - 39 SY	7" REINF. CONC.
STA. 2+81 (13' RT) - 19 SY	7" REINF. CONC.

CONSTRUCT CONCRETE SIDEWALK 5' WIDTH

STA. 0+39 TO STA. 1+43 RT.	104 LF
STA. 1+74 TO STA. 2+03 RT.	29 LF
STA. 2+31 TO STA. 2+68 RT.	37 LF
STA. 2+94 TO STA. 3+21 RT.	27 LF

**CONSTRUCT STD. 7" COMBINATION
CURB & GUTTER HO. CO. STD. R-3.01**

STA. 0+39 TO STA. 3+21 RT.	282 LF
----------------------------	--------

LIMIT OF WORK
AT ST. JOHN'S LANE
STA. 0+34+/-
CAP. PROJ. NO. D-1118.13

LIMIT OF WORK
AT ST. JOHN'S LANE
STA. 3+26+/-
CAP. PROJ. NO. D-1118.13

NOTE: ALL LOCATIONS OF
EXISTING UTILITIES ARE
APPROXIMATIONS. TEST
PITS ARE NECESSARY.
APPROXIMATIONS BASED ON
WHITMAN, REQUARDT &
ASSOCIATES, CONTRACT NO.
130-S, DRAWING 12 OF 16

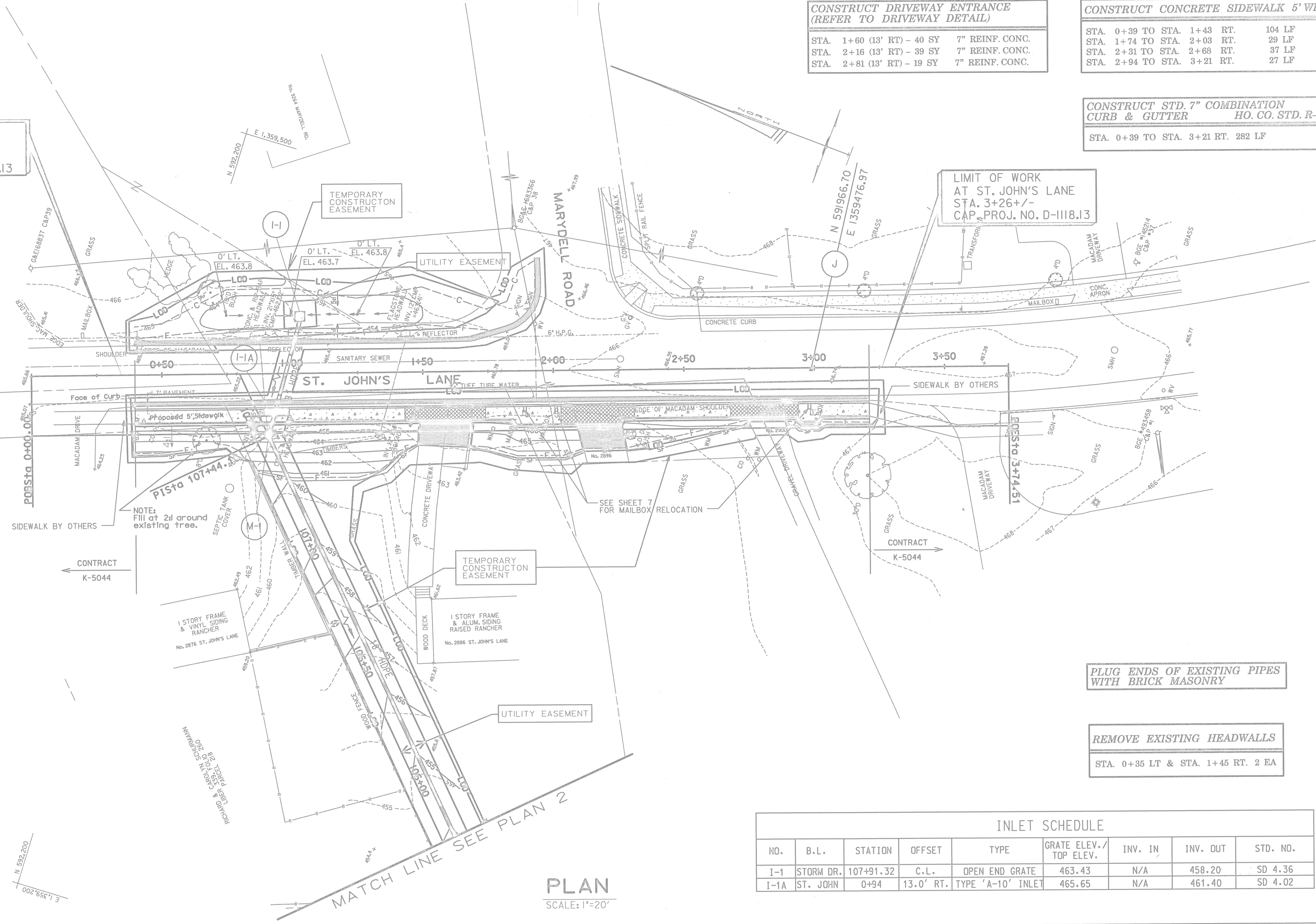
NOTE: CURB, GUTTER, PAVEMENT,
AND SIDEWALK CONSTRUCTION IS TO BE
COORDINATED WITH HOWARD COUNTY
SIDEWALK CONTRACT K-5044.

PLUG ENDS OF EXISTING PIPES
WITH BRICK MASONRY

REMOVE EXISTING HEADWALLS
STA. 0+35 LT & STA. 1+45 RT. 2 EA

LEGEND

- PROPOSED STORM DRAIN
- PROPOSED SIDEWALK
- PROPOSED PAVEMENT
- PROPOSED CURB
- CONCRETE APRON FOR DRIVEWAY
- TREE TO BE REMOVED



PLAN
SCALE: 1"=20'

INLET SCHEDULE

NO.	B.L.	STATION	OFFSET	TYPE	GRATE ELEV./TOP ELEV.	INV. IN	INV. OUT	STD. NO.
I-1	STORM DR.	107+91.32	C.L.	OPEN END GRATE	463.43	N/A	458.20	SD 4.36
I-1A	ST. JOHN	0+94	13.0' RT.	TYPE 'A-10' INLET	465.65	N/A	461.40	SD 4.02

MANHOLE SCHEDULE

NO.	B.L.	STATION	OFFSET	TYPE	COVER ELEV.	INV. IN	INV. OUT	STD. NO.
M-1	STORM DR.	107+44.32	C.L.	STD. MH	464.10	461.3/457.1	456.40	SEE DETAIL

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. Quinn 1/12/01
CHIEF, BUREAU OF HIGHWAYS
Richard M. Quinn 1-12-01
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS

STV Incorporated
Engineers / Architects / Planners / Surveyors
21 Governor's Court
Baltimore, Maryland 21244-2722
(410)944-9112 Fax: (410)258-2734



DES: BCH	BY: NO.	NO.	REVISION	DATE	600' SCALE MAP NO.	BLOCK NO.
DRN: BCH						
CHK: FLG						
DATE: JAN 2001						

PLAN I

DRAINAGE IMPROVEMENTS
ST. JOHN'S LANE
ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CAPITAL PROJECT No. D-1118-13

SCALE AS SHOWN
SHEET 4 OF 12

NOTE: ALL LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATIONS. TEST PITS ARE NECESSARY. APPROXIMATIONS BASED ON WHITMAN, REQUARDT & ASSOCIATES, CONTRACT NO. 130-S, DRAWING 12 OF 16



LEGEND

- PROPOSED STORM DRAIN
- PROPOSED SIDEWALK
- PROPOSED PAVEMENT
- PROPOSED CURB
- CONCRETE APRON FOR DRIVEWAY
- TREE TO BE REMOVED

PLAN
SCALE 1"=20'

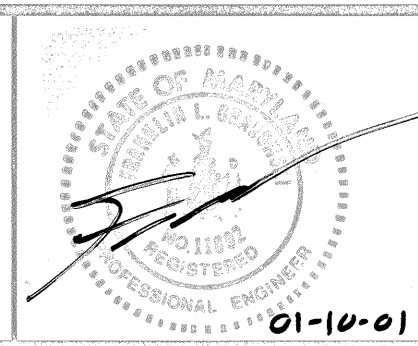
INLET SCHEDULE								
NO.	B.L.	STATION	OFFSET	TYPE	GRATE ELEV.	INV. IN	INV. OUT	STD. NO.
I-2	STORM DR.	105+41.64	C.L.	OPEN END GRATE	452.80	449.60	449.10	SD 4.36
I-3	STORM DR.	105+10.26	C.L.	OPEN END GRATE	452.00	448.50	448.00	SD 4.36
I-4	STORM DR.	103+60.58	41.49 RT.	OPEN END GRATE	447.50	---	443.70	SD 4.36
I-5	STORM DR.	103+40.20	C.L.	OPEN END GRATE	446.00	442.10	440.30	SD 4.36
I-6	STORM DR.	102+46.04	C.L.	OPEN END GRATE	442.00	438.50	438.00	SD 4.36
I-7	STORM DR.	100+02.10	C.L.	OPEN END GRATE	434.50	431.40	430.70	SD 4.36

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Andrew M. Daulton 1/12/01
DIRECTOR OF PUBLIC WORKS
1-12-01
CHIEF, BUREAU OF HIGHWAYS

Robert D. Sapon 1/12/01
CHIEF, BUREAU OF ENGINEERING
Ed Calala 1/12/01
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS

STV Incorporated
Engineers / Architects / Planners / Surveyors
211 Governor's Court
Beltsville, Maryland 21104-2122
(410) 944-5112 FAX (410) 298-2754



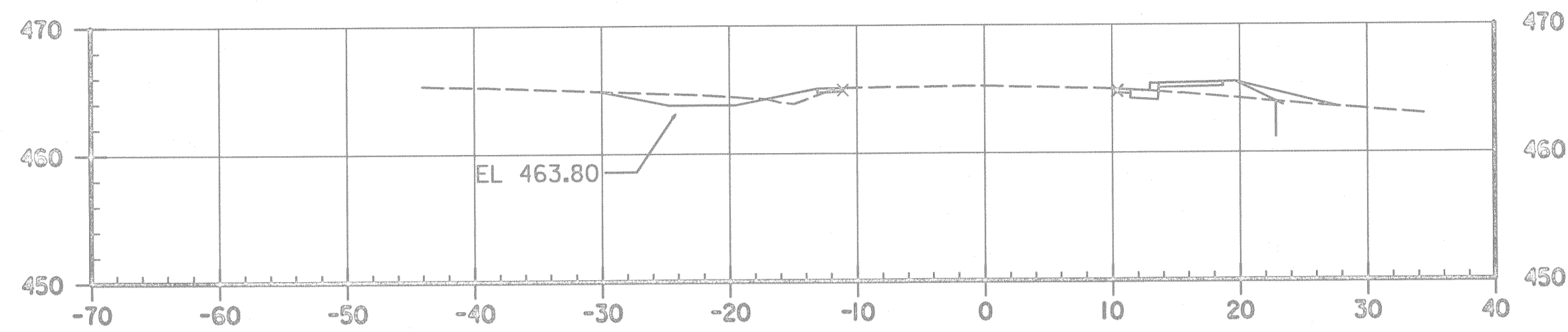
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DRN: BCH			
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DATE: JAN 2001	BY: NO.	REVISION	DATE

PLAN 2

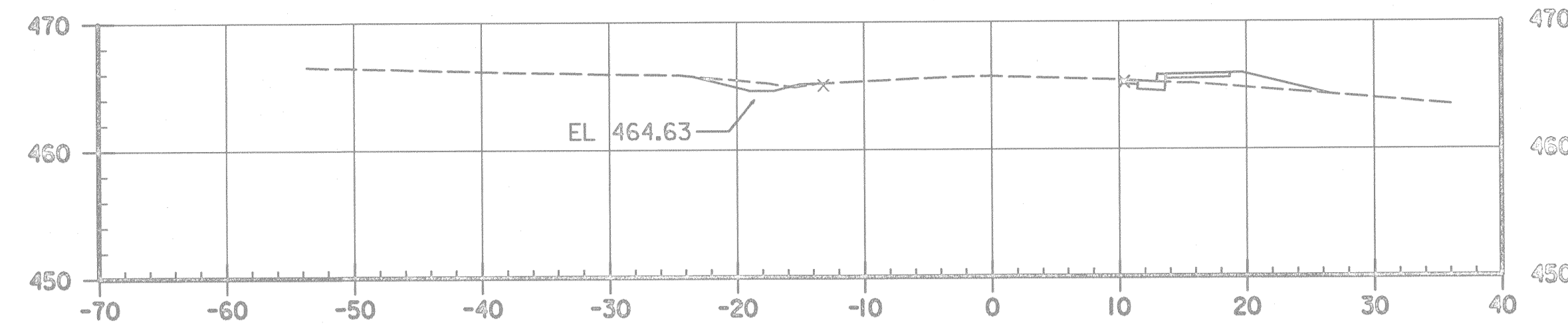
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DRAINAGE IMPROVEMENTS
ST. JOHN'S LANE
ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CAPITAL PROJECT No. D-1118-13

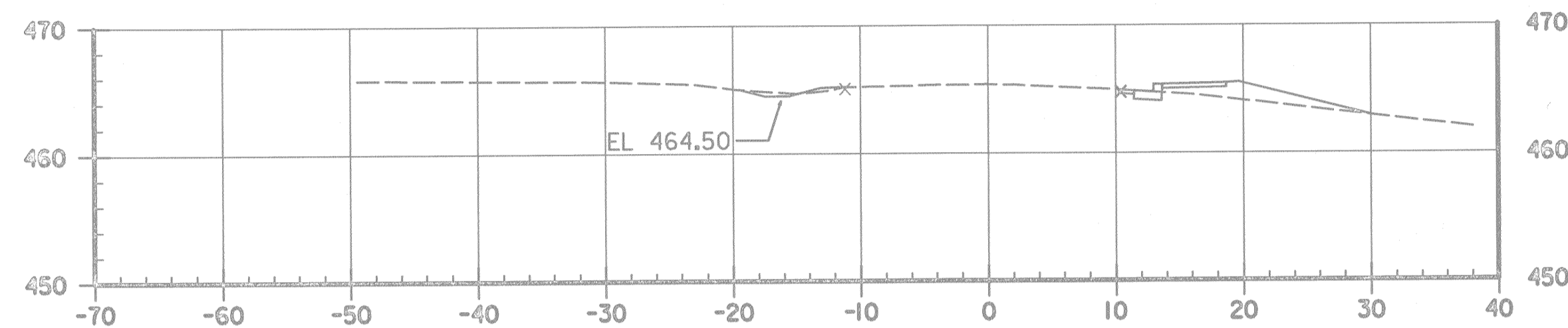
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SHEET 5 OF 12



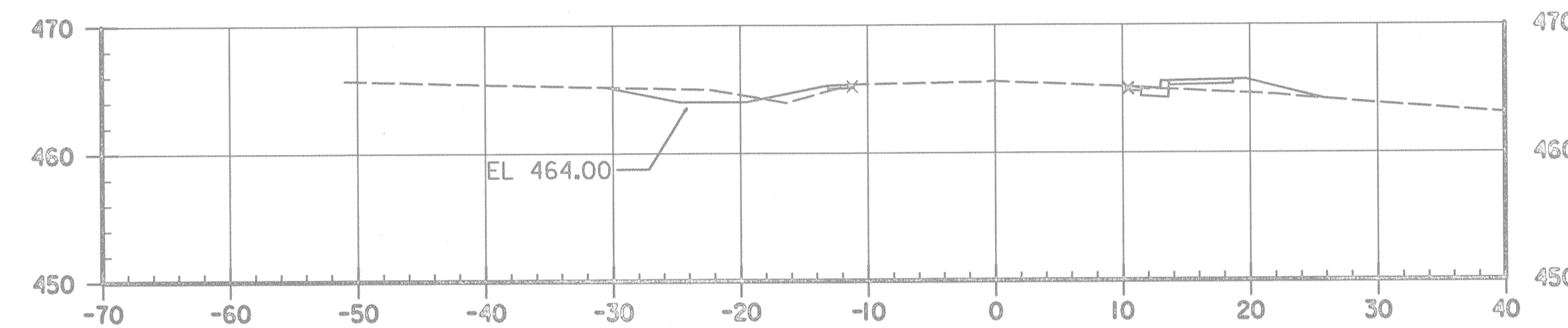
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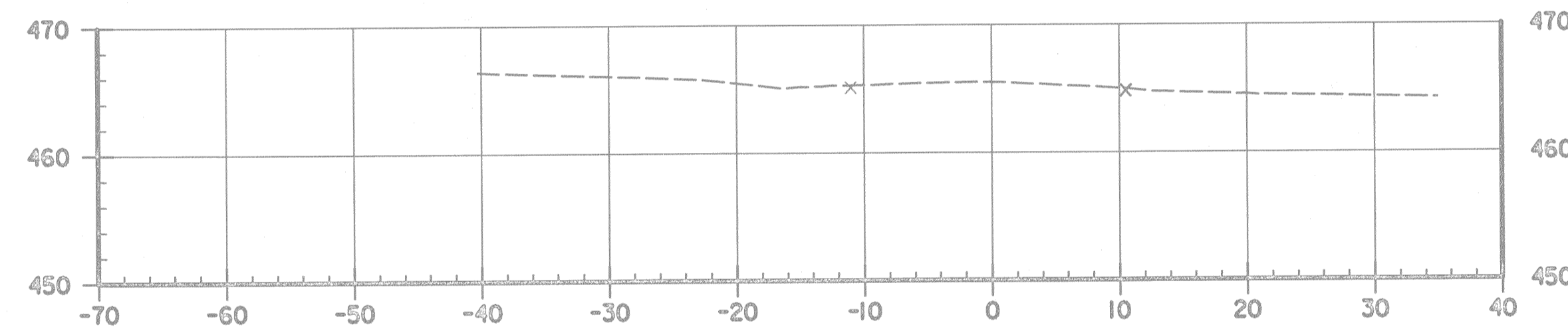
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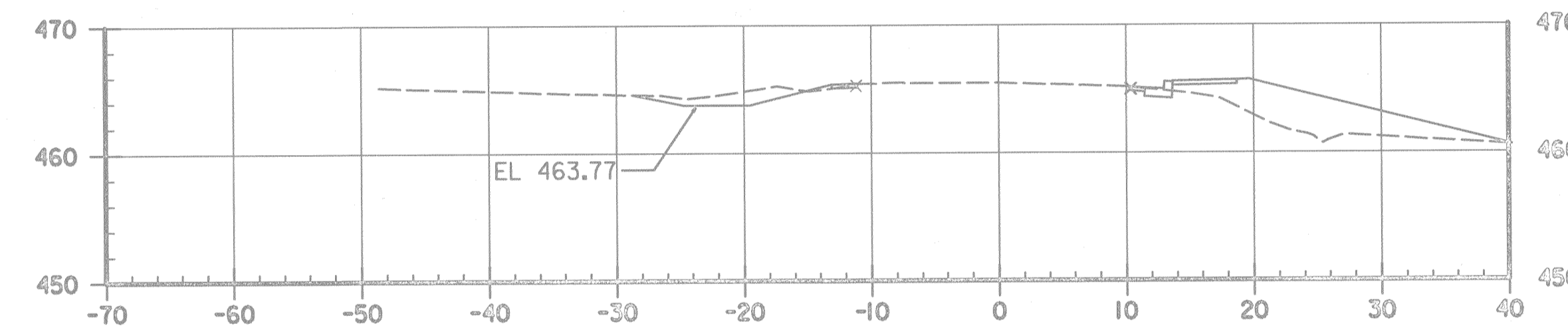
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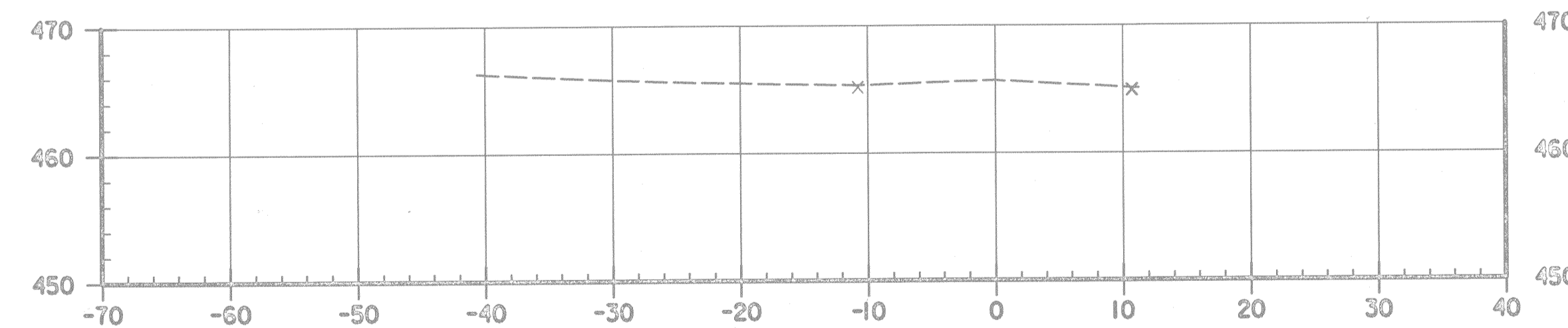
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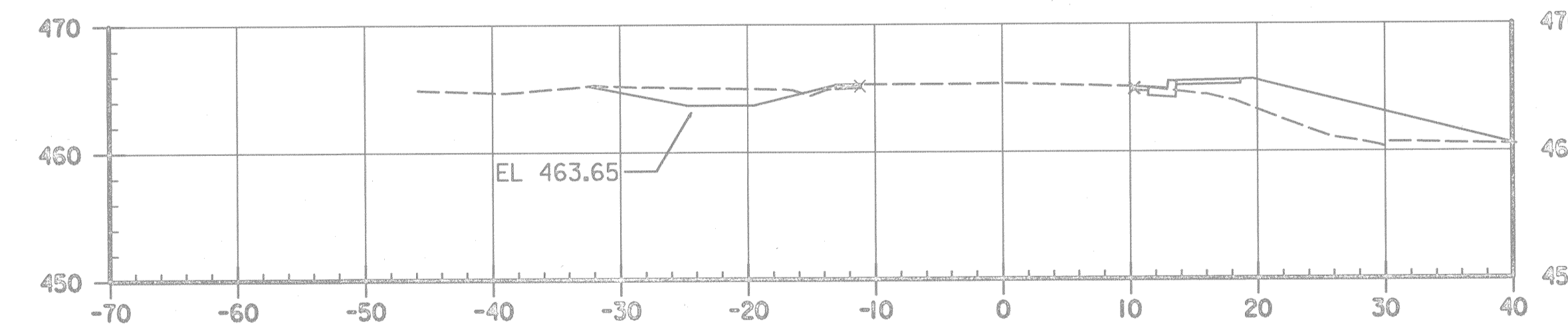
0+25



1+25



0+00



1+00

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John J. Clark 1/12/01
CHIEF, BUREAU OF HIGHWAYS
DATE

Robert J. Seaman 1/12/01
CHIEF, BUREAU OF ENGINEERING
DATE

STV Incorporated
Engineers / Architects / Planners / Surveyors
21 Governor's Court
Beltsville, Maryland 21244-2722
1-410-344-3112 Fax: 1-410-328-2194



DES:	BCH			
DRN:	BCH			
CHK:	FLG			
DATE:	JAN 2001	BY:	NO.	
		REVISION		

ROADWAY SECTIONS I
STA. 0+00 TO STA. 1+75

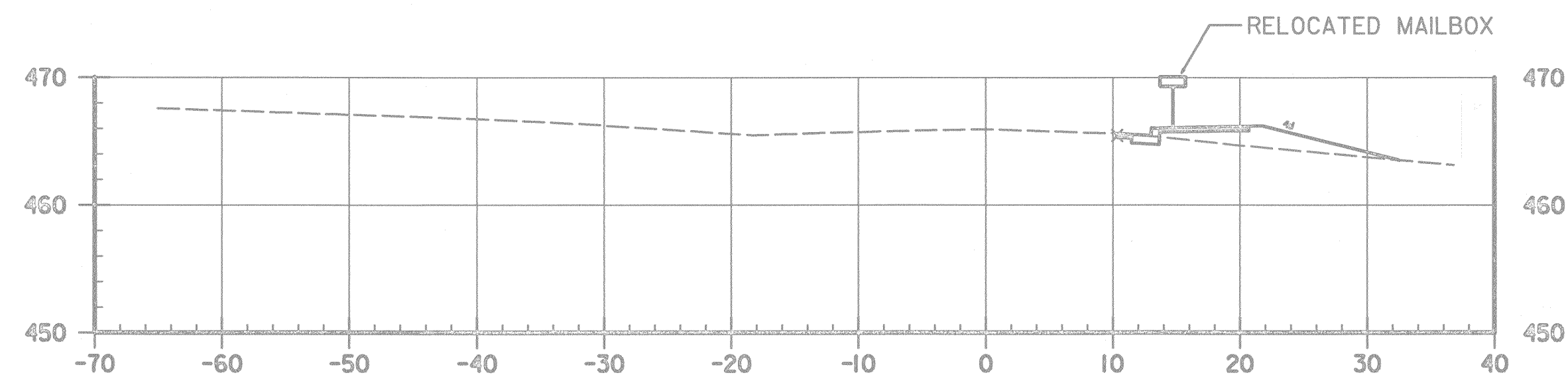
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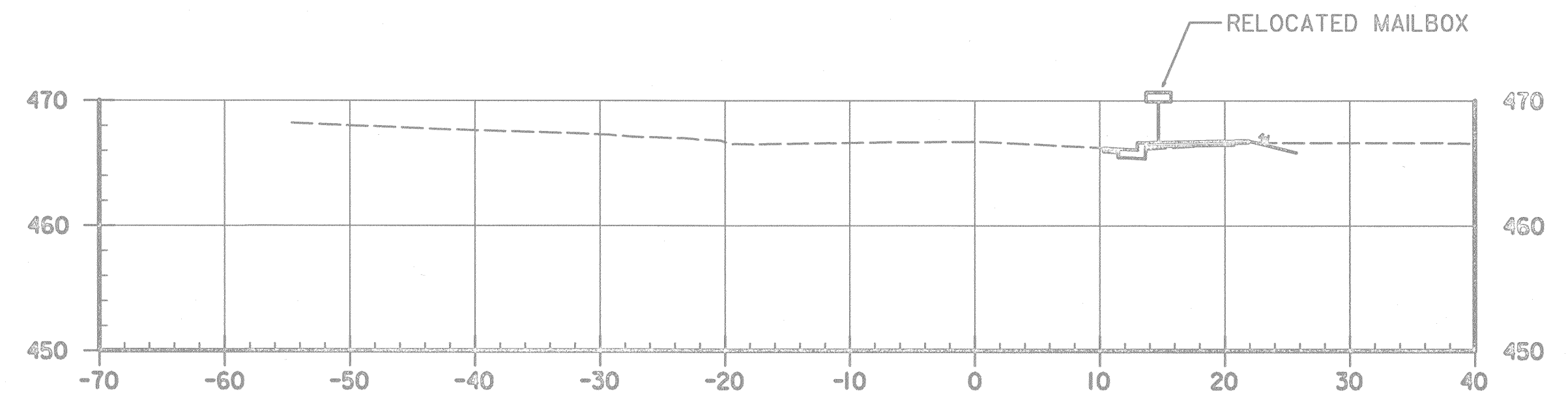
DRAINAGE IMPROVEMENTS
ST. JOHN'S LANE
ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CAPITAL PROJECT No. D-1118-13

SCALE
AS
SHOWN

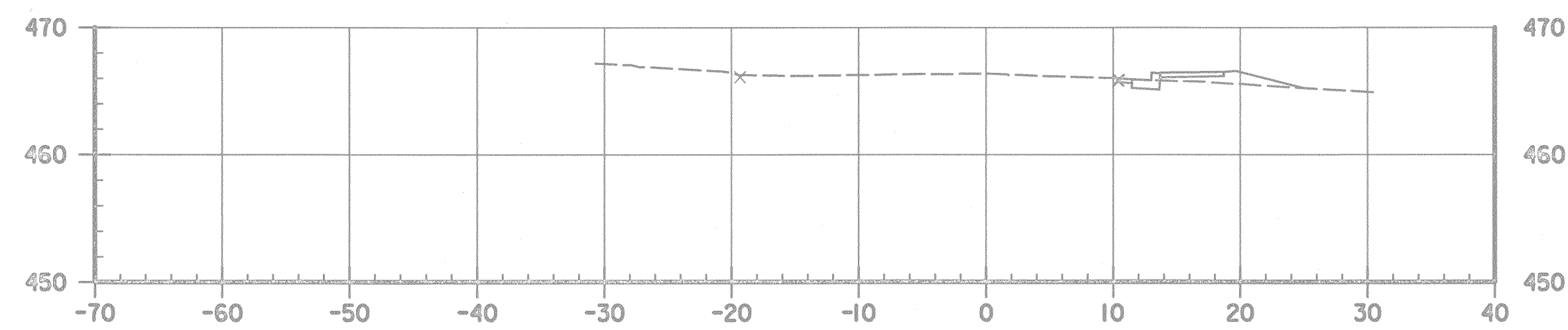
SHEET
6 OF 12



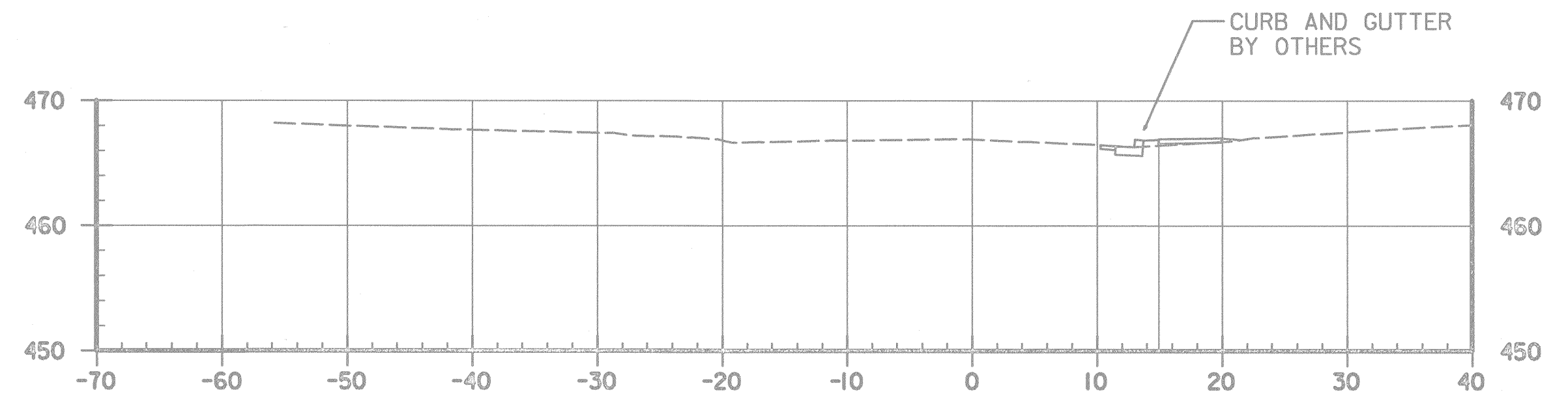
MAILBOXES AT STA 1+89, 2+01



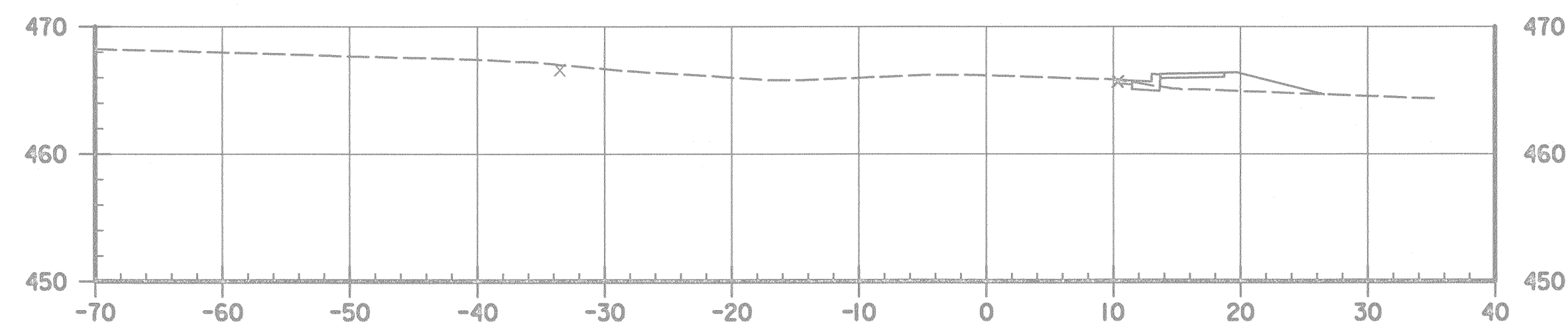
MAILBOX AT STA 2+98



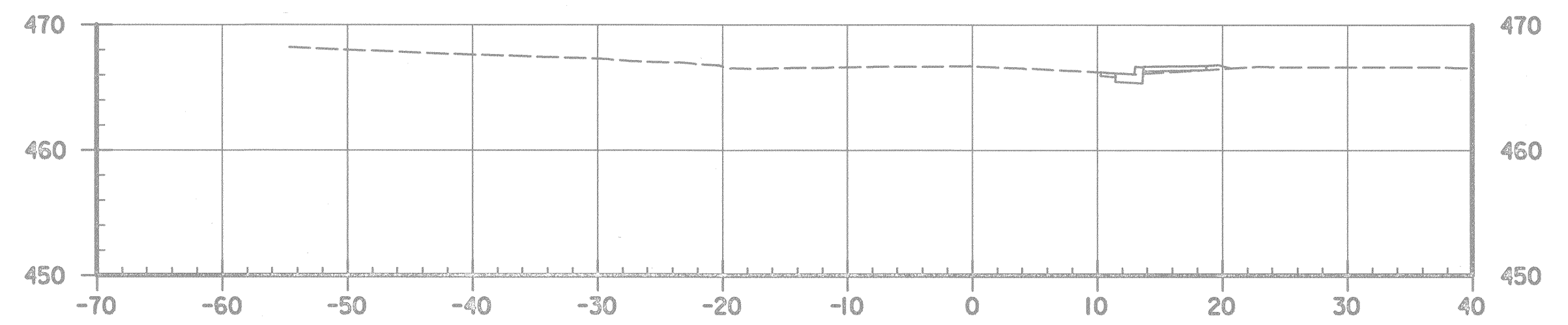
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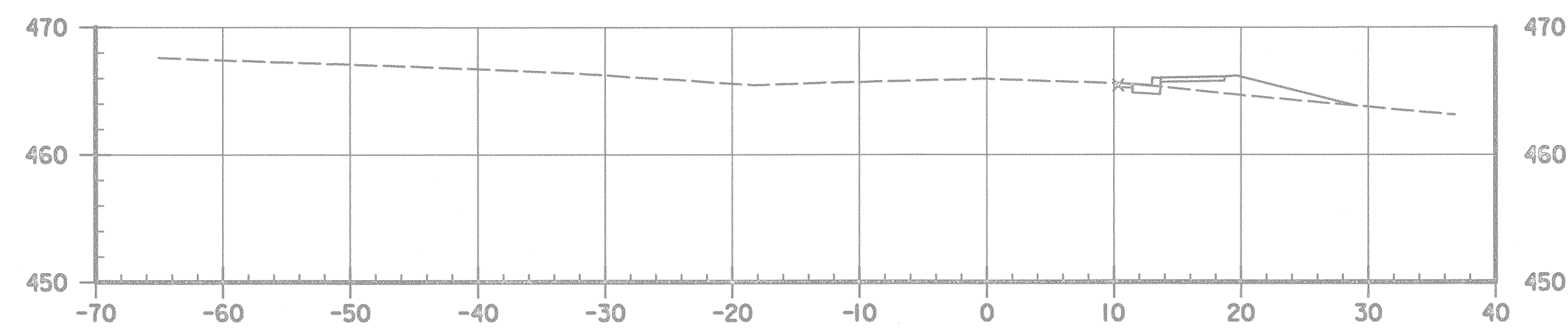
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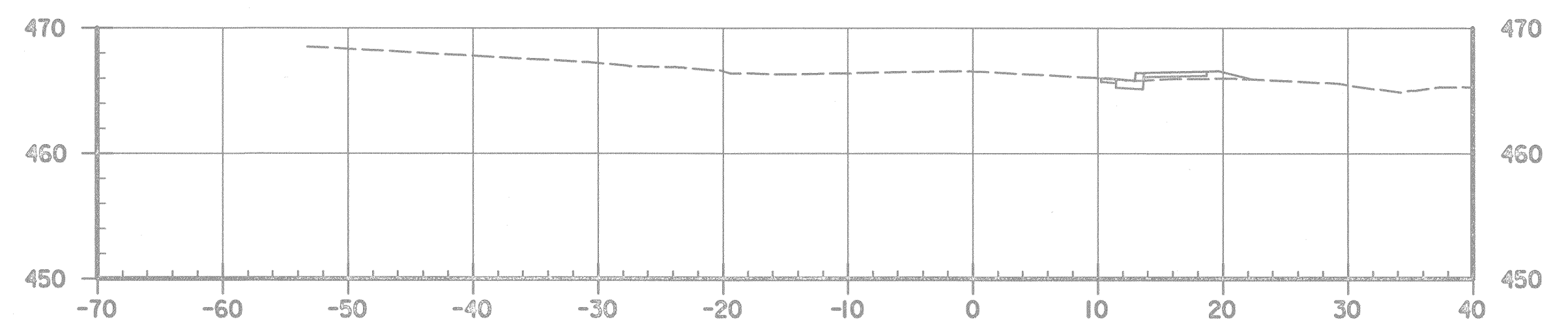
2+25



3+00



2+00



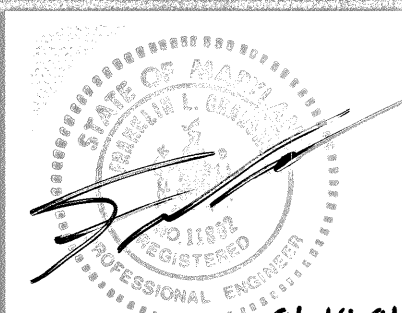
2+75

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James G. Clark
DIRECTOR OF PUBLIC WORKS
DATE: 1-12-01

Paul J. Seaman
CHIEF, BUREAU OF DESIGN
DATE: 1/12/01

STV Incorporated
Engineers / Architects / Planners / Surveyors
21 Governor's Court
Beltsville, Maryland 21244-2122
(410)394-3112 FAX: (410)298-2194



DES:	BCH				
DRN:	BCH				
CHK:	FLG				
DATE:	JAN 2001	BY:	NO.	REVISION	DATE

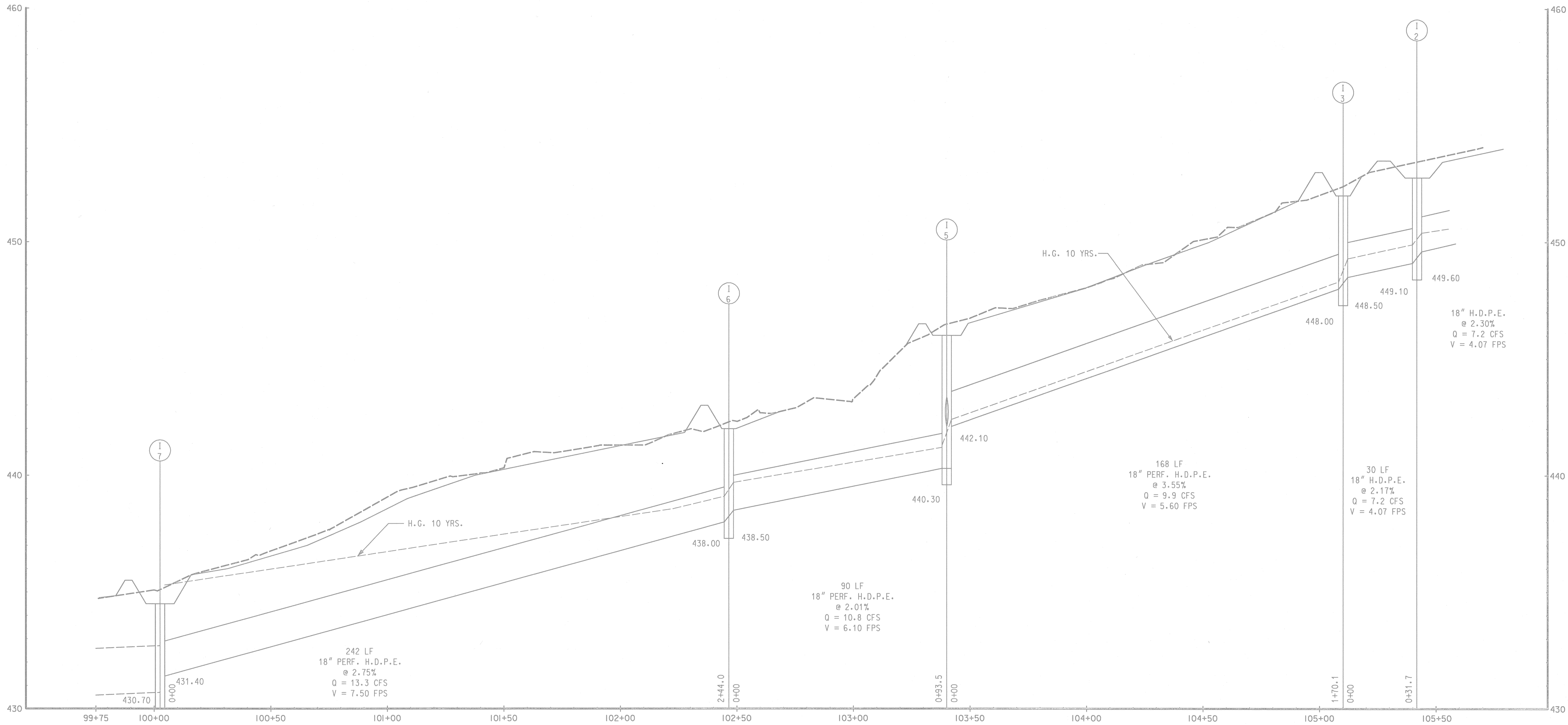
ROADWAY SECTIONS 2
STA. 2+00 TO STA. 3+25
SCALE: 1"= 10'

DRAINAGE IMPROVEMENTS
ST. JOHN'S LANE
ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CAPITAL PROJECT No. D-1118-13

SCALE
AS
SHOWN

SHEET
7 OF 12

NOTE: ALL LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATIONS. TEST PITS ARE NECESSARY. APPROXIMATIONS BASED ON WHITMAN, REQUARDT & ASSOCIATES, CONTRACT NO. 130-S, DRAWING 12 OF 16



SCALE: HORIZ. 1" = 20'
VERT. 1" = 2'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

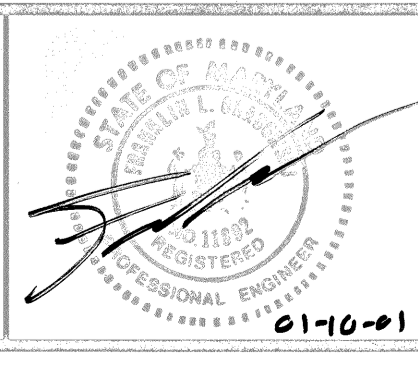
James P. ... 1/16/01
DIRECTOR OF PUBLIC WORKS

Robert M. ... 1-12-01
CHIEF, BUREAU OF HIGHWAYS

Robert ... 1/12/01
CHIEF, BUREAU OF UTILITIES

Ed ... 4/2/01
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS

STV Incorporated
Engineers / Architects / Planners / Surveyors
211 Governor's Court
Baltimore, Maryland 21244-2722
(410)944-9112 Fax: (410)298-2794



DES:	BCH
DRN:	BCH
CHK:	FLG
DATE:	JAN 2001
BY:	NO.
REVISION:	
DATE:	

STORM DRAIN PROFILES I

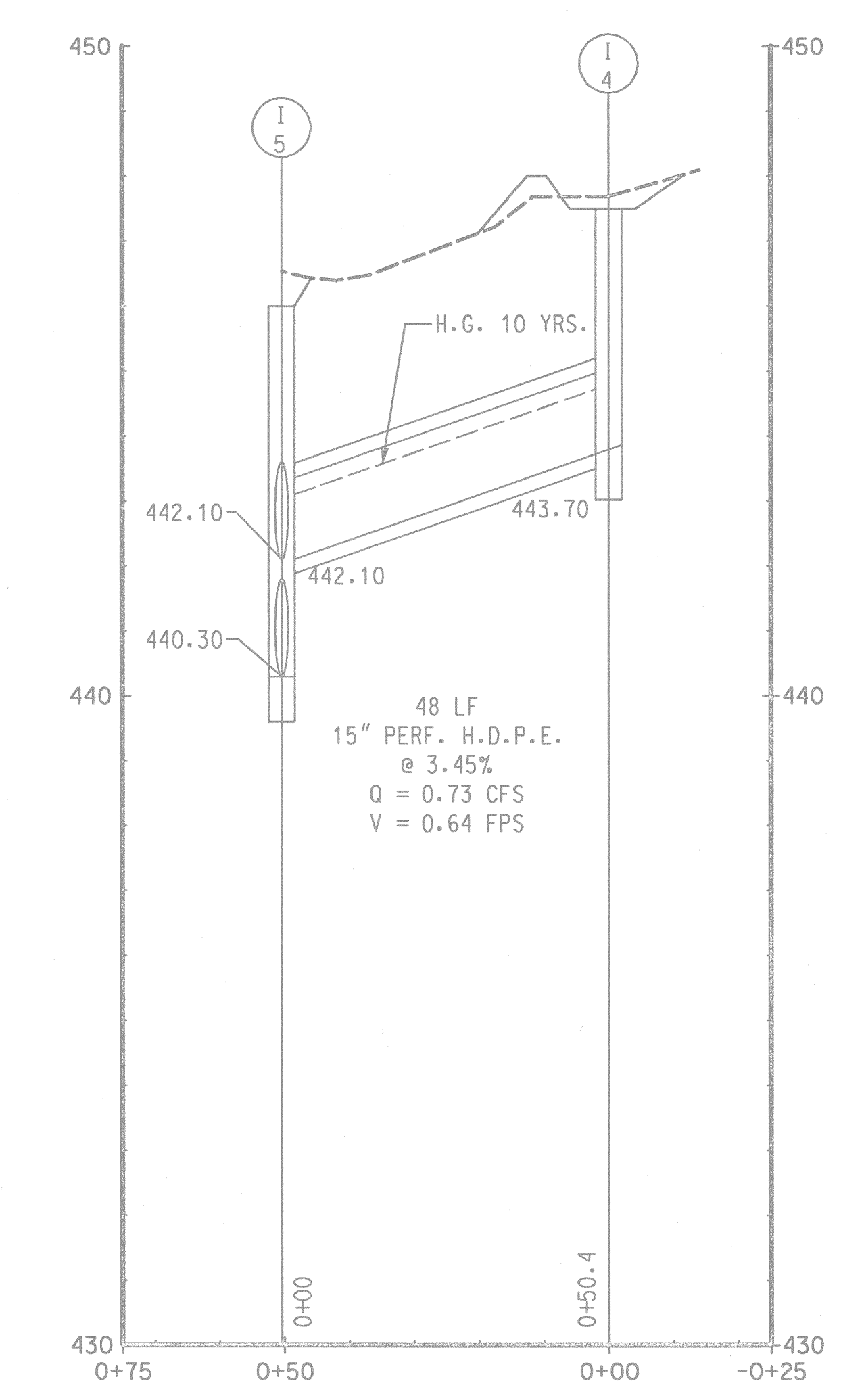
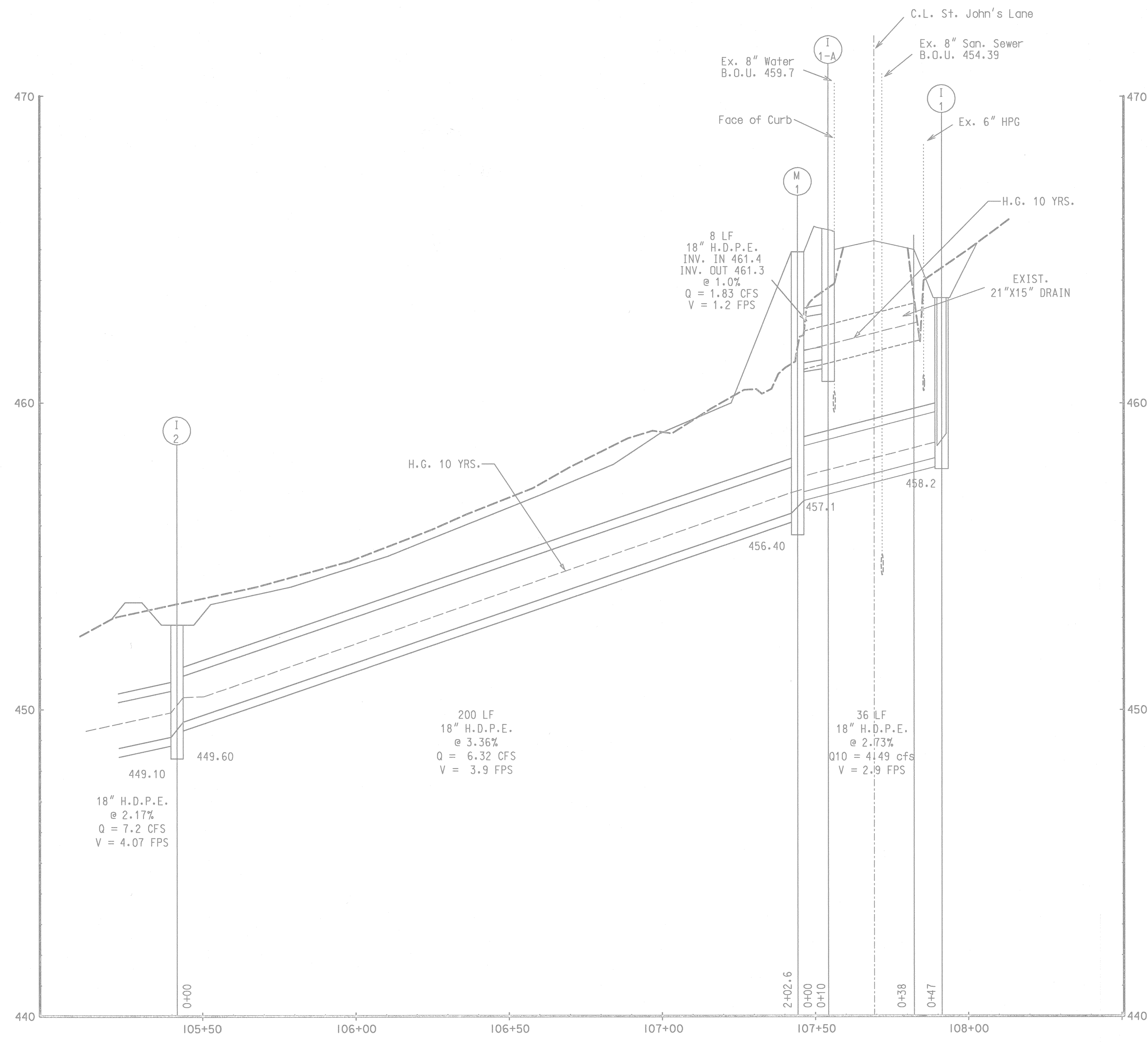
600' SCALE MAP NO. _____ BLOCK NO. _____

DRAINAGE IMPROVEMENTS
ST. JOHN'S LANE
ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CAPITAL PROJECT No. D-1118-13

SCALE AS SHOWN
SHEET 8 OF 12

DATE: 08-Jan-01 10:52
FILE: \\PROJECTS\408\FINAL\PP00JOHN.dgn

NOTE: ALL LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATIONS. TEST PITS ARE NECESSARY. APPROXIMATIONS BASED ON WHITMAN, REQUARDT & ASSOCIATES, CONTRACT NO. 130-S, DRAWING 12 OF 16



SCALE: HORIZ. 1" = 20'
VERT. 1" = 2'

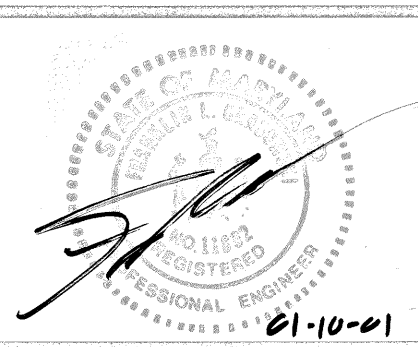
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James J. ... 1/12/01
DIRECTOR OF PUBLIC WORKS

Paul J. ... 1/12/01
CHIEF, BUREAU OF HIGHWAYS

... 1-20-01
CHIEF, BUREAU OF HIGHWAYS

STV Incorporated
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21 - Governor's Court
Baltimore, Maryland 21244-2722
(410)944-9112 Fax: (410)290-2754



DES:	BCH				
DRN:	BCH				
CHK:	FLG				
DATE:	JAN 2001	BY:	NL	REVISION:	

STORM DRAIN
PROFILES 2

DATE: 600' SCALE MAP NO. BLOCK NO.

DRAINAGE IMPROVEMENTS
ST. JOHN'S LANE
ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CAPITAL PROJECT No. D-1118-13

SCALE AS SHOWN
SHEET 9 OF 12

EROSION AND SEDIMENT CONTROL

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 UREA-FORM 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 1/2 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 1/2 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.

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, B) 14 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 PLACE-MENT 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 INSTALLATION 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.
- 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.
- PLACE STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON THE PLANS.
- INSTALL STORM DRAIN INLETS AND PIPES AS SPECIFIED BY THE STANDARD UTILITY INSTALLATION NOTE.
- PROVIDE INLET PROTECTION FOR INLETS AS THEY ARE INSTALLED.
- REMOVE EXISTING HEAD WALLS, PLUG PIPES, AND COMPLETE THE GRADING AROUND I-1 ON THE NORTH SIDE OF ST. JOHN'S LANE AND STABILIZE WITHIN 24 HOURS.
- INSTALL SILT FENCE AS SHOWN ON THE PLANS.
- PERFORM REMAINING GRADING AS SHOWN ON THE PLANS AND STABILIZE WITHIN 24 HOURS.
- PERFORM THE WIDENING OF ST. JOHN'S LANE, INSTALL CURB AND GUTTER, MAKE DRIVEWAY ENTRANCE ADJUSTMENTS, RELOCATE MAILBOXES, AND CONSTRUCT SIDEWALK AS INDICATED.
- 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.

ESTIMATED TIME

AS SPECIFIED	
AS SPECIFIED	

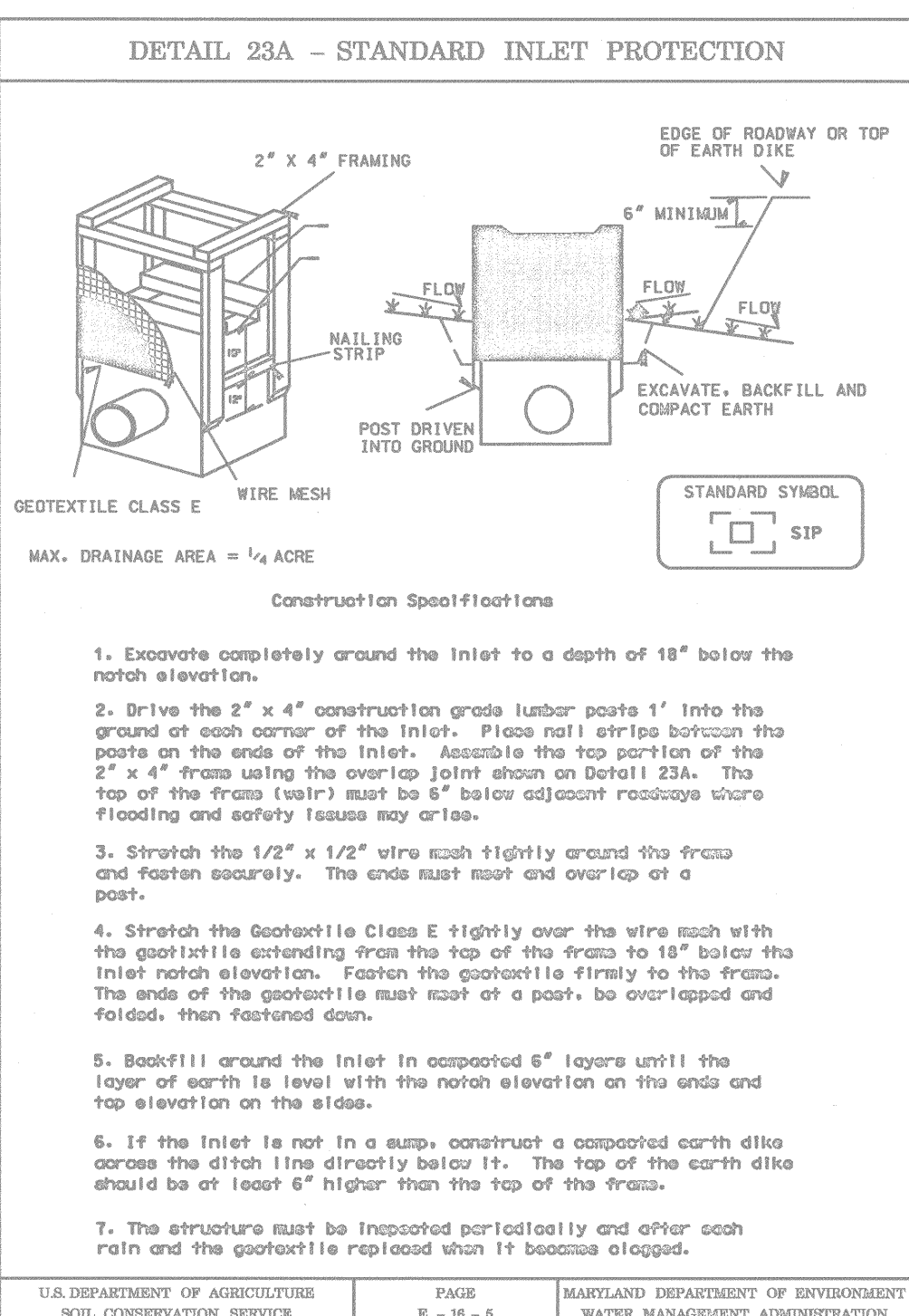
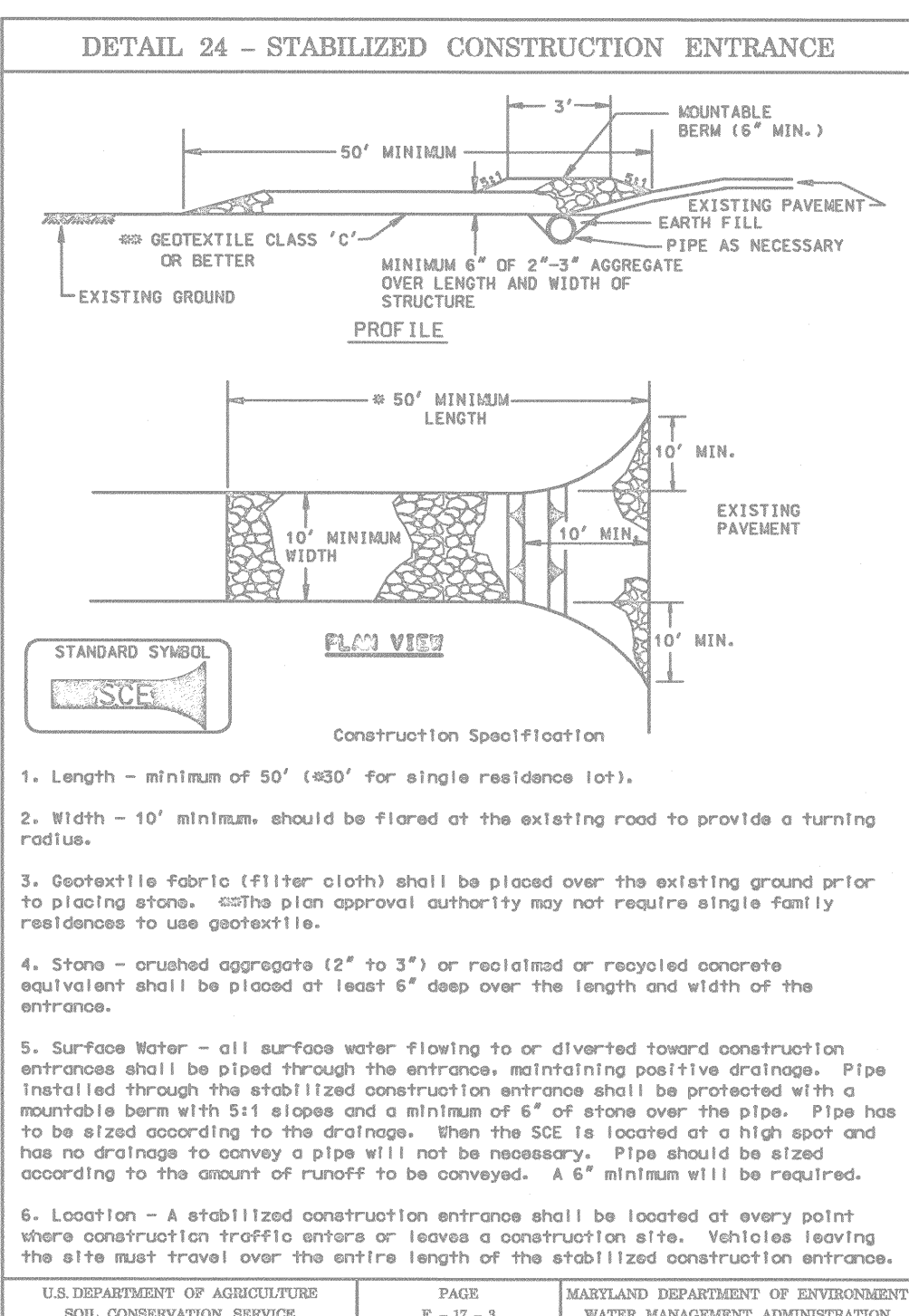
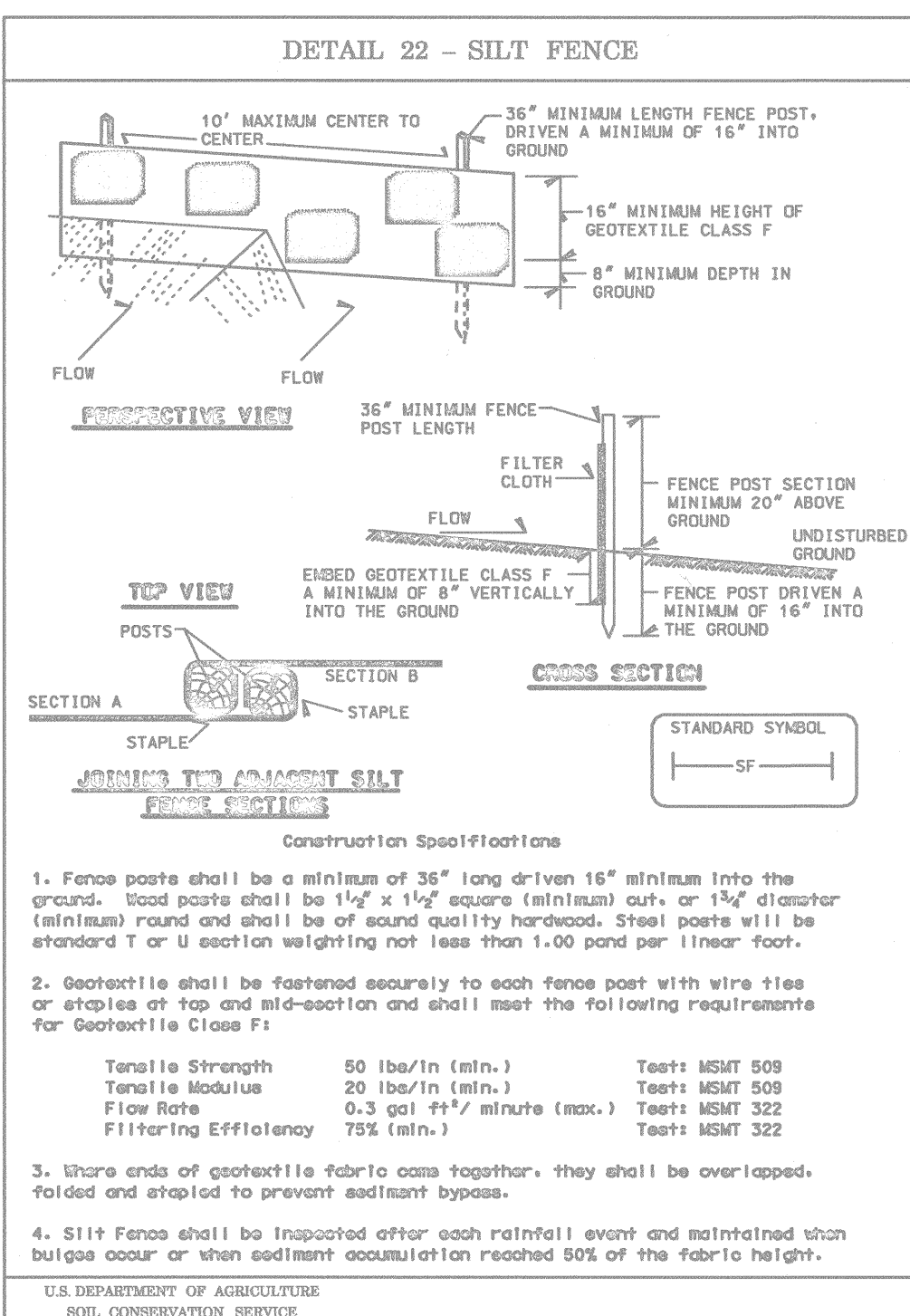
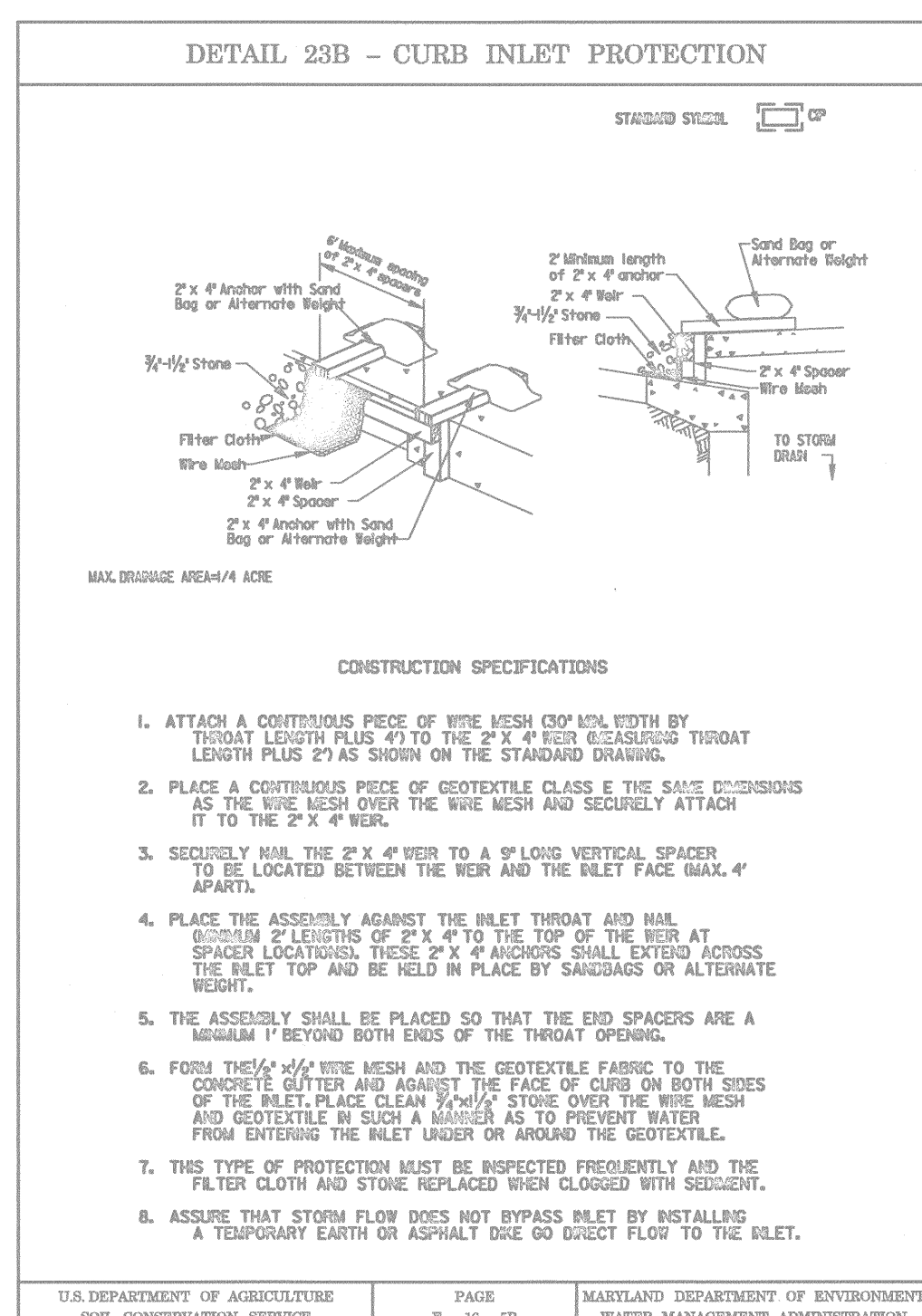
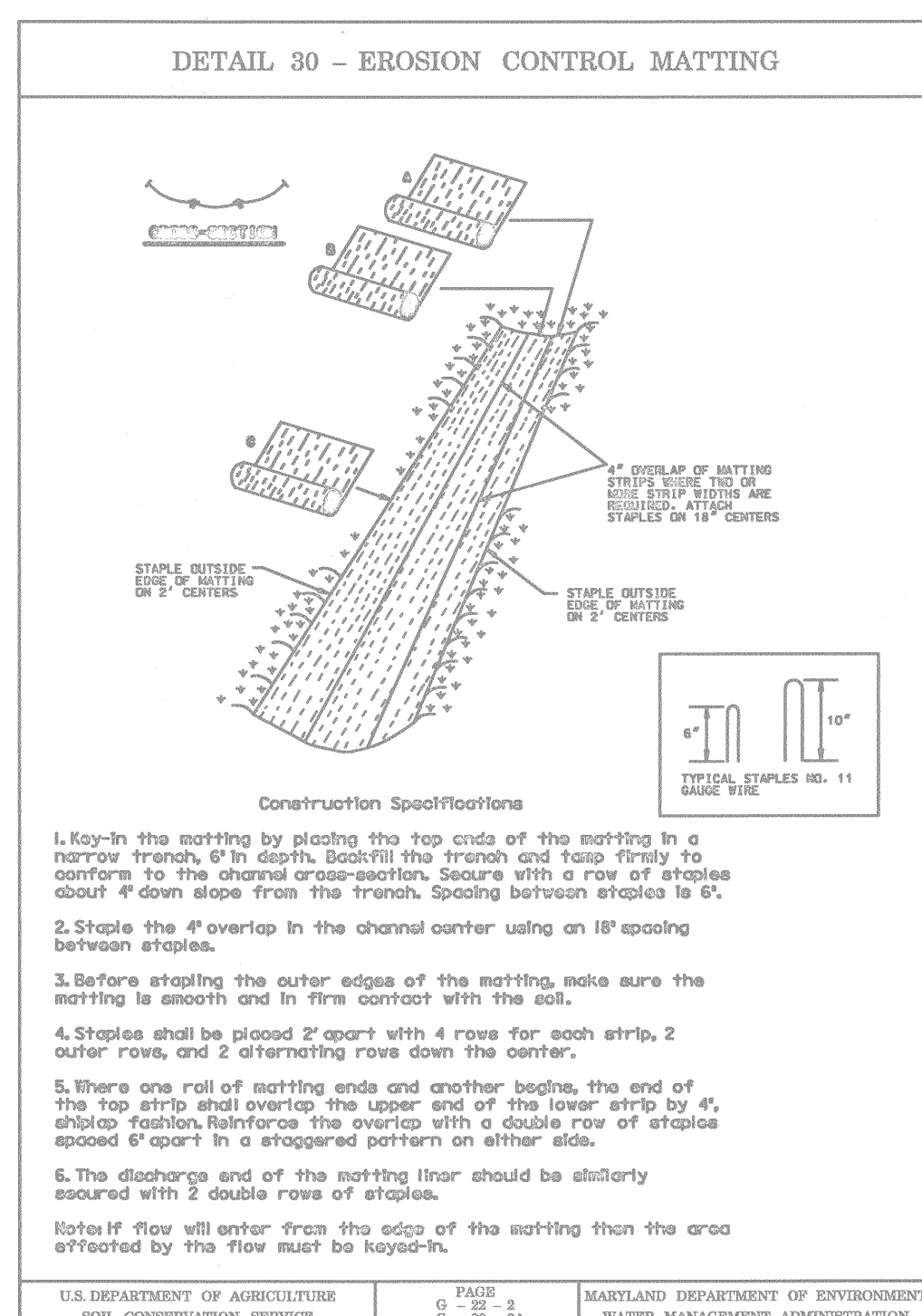
WITHIN 1 DAY	
WITHIN 60 DAYS	
AS SPECIFIED	
WITHIN 1 WEEK	
AS SPECIFIED	
WITHIN 1 WEEK	
WITHIN 60 DAYS	
WITHIN 1 WEEK	
WITHIN 1 DAY	

SITE ANALYSE:

TOTAL AREA OF SITE	0.95	ACRES
AREA DISTURBED	0.70	ACRES
AREA TO BE ROOFED		
OR PAVED	0.05	ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.62	ACRES
TOTAL CUT	40	CU. YDS.
TOTAL FILL	150	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.
- PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.



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

John M. Myers 1/17/01
 NATURAL RESOURCE CONSERVATION DISTRICT

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

John K. Roberts 1/17/01
 HOWARD SOIL CONSERVATION DISTRICT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

John K. Roberts 1/16/01
 CHIEF, BUREAU OF PERMITS

John K. Roberts 1/12/01
 CHIEF, BUREAU OF HIGHWAYS

John K. Roberts 1/12/01
 CHIEF, BUREAU OF PROJECTS AND WATERSHED MANAGEMENT

STV Incorporated
 Engineers / Architects / Planners / Surveyors
 21 Governor's Court
 Beltsville, Maryland 21244-2722
 (410) 944-9112 fax: (410) 298-2794

John K. Roberts 1/10/01
 PROFESSIONAL ENGINEER

DES:	BCH						
DRN:	BCH						
CHK:	FLG						
DATE:	JAN 2001	BY:	NO.	REVISION	DATE	600' SCALE MAP NO.	BLOCK NO.

SEDIMENT AND EROSION CONTROL NOTES & DETAILS

STREAM RESTORATION
 ST. JOHN'S LANE
 ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CAPITAL PROJECT No. D-1118-13

SCALE AS SHOWN
 SHEET 10 OF 12

LEGEND

- SILT FENCE |SF| SF|
- STANDARD INLET PROTECTION [] SIP
- CURB INLET PROTECTION [] CIP
- EROSION CONTROL MATTING ○ ○ ○
- LIMIT OF DISTURBANCE (L.O.D.) -LOD-
- STABILIZED CONSTRUCTION ENTRANCE [SCE]

LIMIT OF WORK
AT ST. JOHN'S LANE
STA. 0+34+/-
CAP. PROJ. NO. D-1118.13

LIMIT OF WORK
AT ST. JOHN'S LANE
STA. 3+26+/-
CAP. PROJ. NO. D-1118.13

NOTE: CURB, GUTTER, PAVEMENT,
AND SIDEWALK CONSTRUCTION IS TO BE
COORDINATED WITH HOWARD COUNTY
SIDEWALK CONTRACT K-5044.

LEGEND

- PROPOSED STORM DRAIN [Symbol]
- PROPOSED SIDEWALK [Symbol]
- PROPOSED PAVEMENT [Symbol]
- PROPOSED CURB [Symbol]
- CONCRETE APRON FOR DRIVEWAY [Symbol]
- TREE TO BE REMOVED [Symbol]

N 592,200
E 1,359,200

N 592,050
E 1,359,200

PLAN
SCALE: 1"=20'

PLAN
SCALE 1"=20'

MATCH LINE SEE S. & E.C. PLAN 2

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

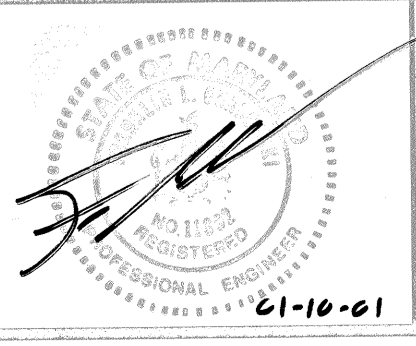
Jim Meyer 1/17/01
NATURAL RESOURCE CONSERVATION SERVICE DATE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
John K. Plut 1/17/01
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James J. ... 1/16/01
DIRECTOR OF PUBLIC WORKS DATE
Robert ... 1/12/01
CHIEF, BUREAU OF ENGINEERS DATE
... 1/12/01
CHIEF, BUREAU OF TRANSPORTATION AND SPECIAL PROJECTS DATE

STV Incorporated
Engineers / Architects / Planners / Surveyors
21 Governor's Court
Beltsville, Maryland 21224-2722
(410)244-2112 Fax: (410)228-2724



DES:	BCH				
DRN:	BCH				
CHK:	FLG				
DATE:	JAN 2001	BY:	NO.	REVISION	DATE

SEDIMENT AND EROSION CONTROL PLAN I

DRAINAGE IMPROVEMENTS
ST. JOHN'S LANE
ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CAPITAL PROJECT No. D-1118-13

SCALE AS SHOWN
SHEET 11 OF 12



LEGEND

- SILT FENCE — SF — SF —
- STANDARD INLET PROTECTION [SIP] SIP
- LIMIT OF DISTURBANCE (L.O.D.) — LOD —
- EROSION CONTROL MATTING ○ ○ ○

PLAN
SCALE 1"=20'

INLET SCHEDULE								
NO.	B.L.	STATION	OFFSET	TYPE	GRATE ELEV.	INV. IN	INV. OUT	STD. NO.
I-2	STORM DR.	105+41.64	C.L.	OPEN END GRATE	452.80	449.60	449.10	SD 4.36
I-3	STORM DR.	105+10.26	C.L.	OPEN END GRATE	452.00	448.50	448.00	SD 4.36
I-4	STORM DR.	103+60.58	41.49 RT.	OPEN END GRATE	447.50	---	443.70	SD 4.36
I-5	STORM DR.	103+40.20	C.L.	OPEN END GRATE	446.00	442.10	440.30	SD 4.36
I-6	STORM DR.	102+46.04	C.L.	OPEN END GRATE	442.00	438.50	438.00	SD 4.36
I-7	STORM DR.	100+02.10	C.L.	OPEN END GRATE	434.50	431.40	430.70	SD 4.36

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

Jim Neugebauer 1/17/01
NATURAL RESOURCE CONSERVATION SERVICE DATE

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

John L. Roberts 1/17/01
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Paul J. Simpson 1/12/01
CHIEF, BUREAU OF HIGHWAYS DATE

Laetitia 1/12/01
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

STV Incorporated
Engineers / Architects / Planners / Surveyors
2110 Governor's Court
Beltsville, Maryland 21044-2122
(410)944-0112 Fax: (410)293-2794

DES: BCH
DRN: BCH
CHK: FLG
DATE: JAN 2001

BY	NO.	REVISION	DATE

SEDIMENT AND EROSION CONTROL PLAN 2

DATE: 600' SCALE MAP NO. _____ BLOCK NO. _____

DRAINAGE IMPROVEMENTS
ST. JOHN'S LANE
ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CAPITAL PROJECT No. D-1118-13

SCALE AS SHOWN
SHEET 12 OF 12