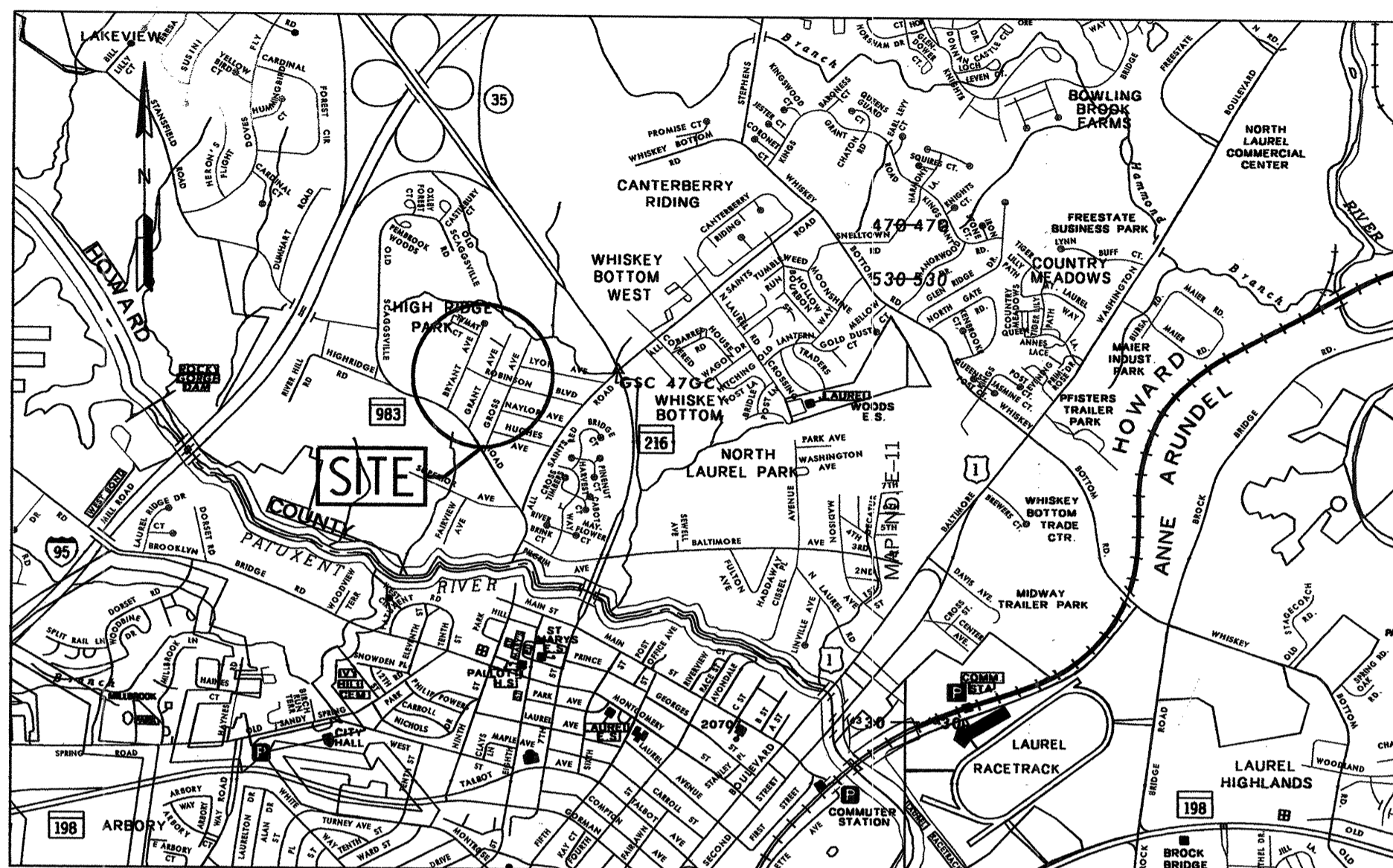


INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET (TI-1)
2-4A	TYPICAL SECTIONS (TS-1 - TS-3)
5	ROADWAY DETAILS (DE-1)
6	BASELINE GEOMETRICS (GS-1)
7-IIA	ROADWAY PLANS (PS-1 - PS-5)
12	ROADWAY PROFILE (PR-1)
13-14	STORM DRAIN PROFILES (PP-1 - PP-2)
15	DRAINAGE DETAILS (DD-1)
16-18	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS (ED-1 - ED-3)
19-23A	EROSION AND SEDIMENT CONTROL PLANS (EP-1 - EP-5)
24	MAINTENANCE OF TRAFFIC PLAN (TP-1)

CONVENTIONAL SIGNS

MAILBOX		M.B.	
EXISTING FENCE LINE		PROPOSED PIPE/CULVERT	
EXISTING RIGHT OF WAY LINE		EXISTING PIPE/CULVERT	
BASE LINE		UTILITY POLE	
FIRE HYDRANT		HEDGE / TREE LINE	
PROPOSED FULL DEPTH PAVEMENT		BUSH / DECIDUOUS TREE	
PROPOSED GRINDING & HMA PAVEMENT OVERLAY		CONIFEROUS TREE	
PROPOSED CONCRETE SIDEWALK, DRIVEWAY ENTR.		RIP-RAP	
WATER LINE			
GAS LINE			
SAN. SEWER			
UG ELECTRIC			
UG TV CABLE			
FILL LINE			

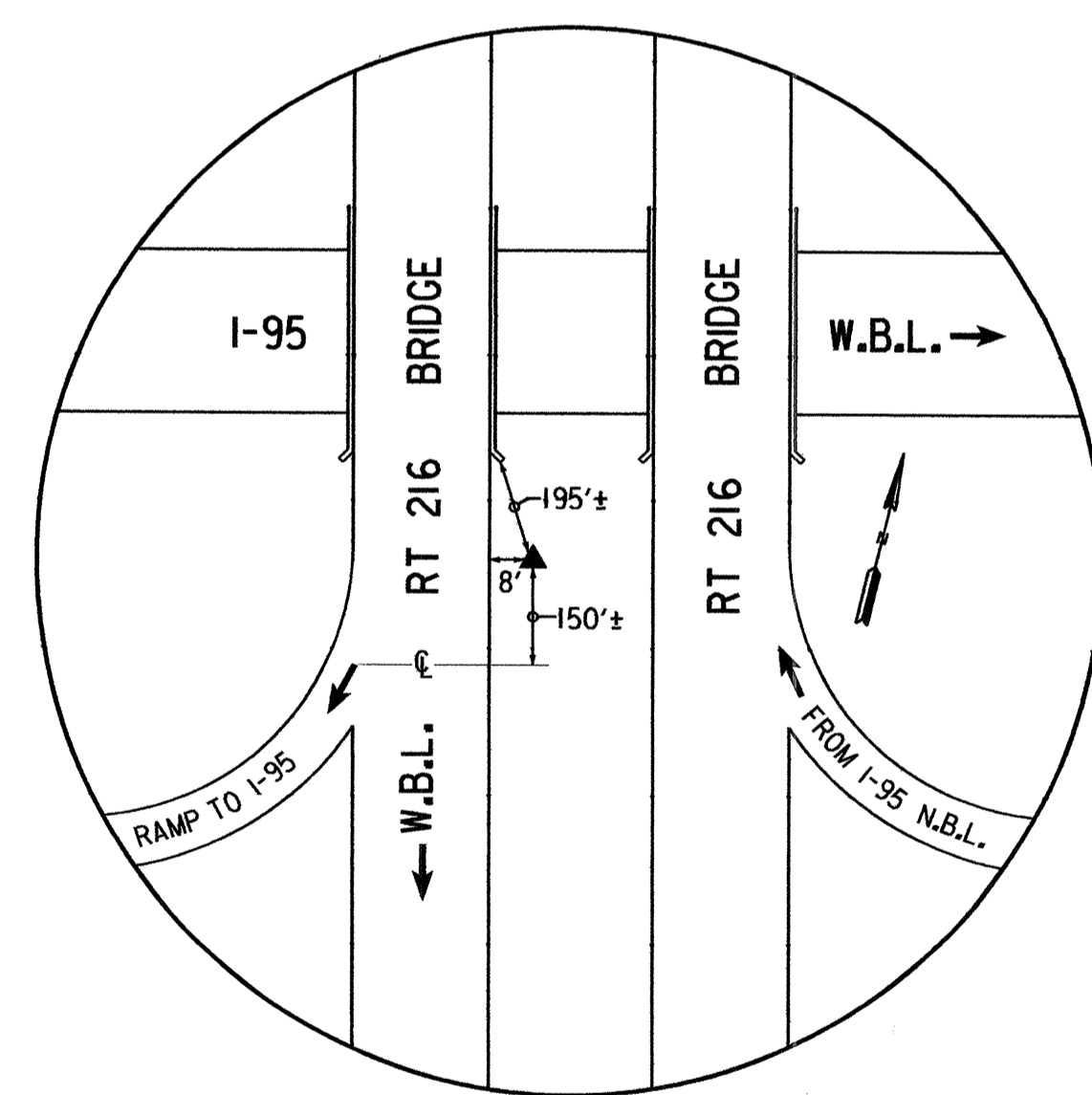


LOCATION MAP  
SCALE 1" = 2000'

CAPITAL PROJECT NO. D-1150

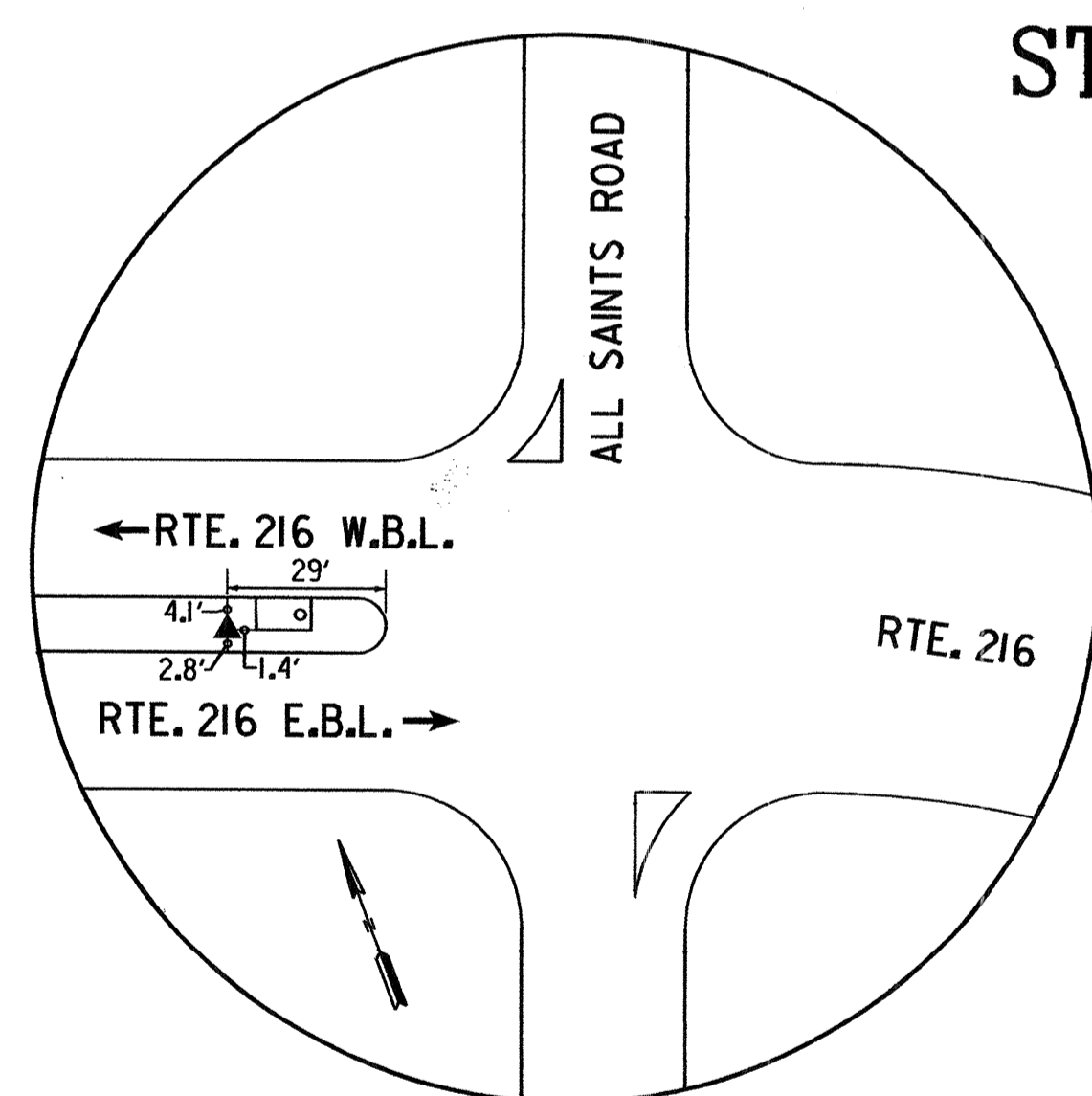
BRYANT AVENUE AND GRANT AVENUE  
STORM DRAIN IMPROVEMENTS

HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS



0051  
OLD "47CA"

HOWARD COUNTY SURVEY CONTROL



47GC  
CONCRETE MONUMENT

- GENERAL NOTES
- ALL INFORMATION AND DETAILS ON THESE DRAWINGS SHALL BE CONSTRUCTED AS PER THE PLANS OR AS DIRECTED BY THE HOWARD COUNTY ENGINEER.
  - ALL STATIONING AND DIMENSIONING ARE TO BE FIELD VERIFIED BY THE CONTRACTOR
  - STORM DRAINAGE SLOPES ARE TO BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE HOWARD COUNTY ENGINEER
  - APPROXIMATE LOCATIONS OF EXISTING UTILITIES ARE SHOWN. THESE LOCATIONS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.

AT&T	1-800-252-1133
COMCAST	410-461-1362
BC&E (CONTRACTOR SERVICES)	410-850-4620
BC&E (UNDERGROUND DRAINAGE CONTROL)	410-787-9068
MISS UTILITY	1-800-257-7777
HOWARD COUNTY BUREAU OF UTILITIES	410-313-4900
HOWARD COUNTY DIVISION OF CONSTRUCTION INSPECTION	410-313-1880
VERIZON	1-800-743-0033/410-224-9210

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

- PROPOSED/EXISTING RIGHT-OF-WAY.
- UTILITY RELOCATION.
- MAINTENANCE OF TRAFFIC DURING CONSTRUCTION.
- EROSION/SEDIMENT CONTROL CERTIFICATION AND PERMIT.
- HORIZONTAL/VERTICAL SURVEY CONTROL.
- GRADING PERMIT.

SEE HOWARD COUNTY STANDARD DETAILS NO'S G-1.01 AND G-1.02 FOR STANDARD SYMBOLS.

HORIZONTAL COORDINATES ARE BASED ON MD NAD 83/91 DATUM AND VERTICAL ELEVATIONS ARE BASED ON NAVD 1988 ELEVATIONS, TRANSFERRED FROM N.G.S. AND HOWARD COUNTY CONTROL STATIONS:

COUNTY MONUMENT 47GC (HORIZONTAL AND VERTICAL)  
N 528,939.75  
E 1,354,223.5  
ELEV. 226.27

COUNTY MONUMENT 0051 (OLD "47CA") (HORIZONTAL ONLY) PID NO. A18508  
N 532,404.18  
E 1,351,627.37  
ELEV. 349.70

- A STAGING AND STOCKPILE AREA WILL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE HOWARD COUNTY ENGINEER. STOCKPILING WILL NOT BE PERMITTED ON SITE.
- TOPOGRAPHY SURVEY INFORMATION BASED ON FIELD SURVEY PERFORMED BY JOHNSON, MIRMIRAN & THOMPSON DATED MAY 2005.
- UTILITY TEST HOLES PERFORMED BY KCI TECHNOLOGIES, JULY 2008, AUGUST 2008, MARCH 2010 AND APRIL 2010.
- STATIONS FOR TYPE 'S' COMBINATION INLETS ARE GIVEN TO THE GEOMETRIC CENTER OF THE STRUCTURE. OFFSETS ARE GIVEN TO THE FACE OF THE INLET HEADPIECE (FLOWLINE OF MODIFIED COMBINATION CURB AND GUTTER). TOP OF CURB (T.C.) ELEVATIONS ARE GIVEN TO THE TOP OF THE INLET HEADPIECE.
  - STATIONS FOR PRECAST STD. TYPE A-5 & STD. TYPE A-10 INLETS ARE GIVEN TO THE GEOMETRIC CENTER OF THE STRUCTURE. OFFSETS ARE GIVEN TO THE FACE OF THE CURB. TOP ELEVATIONS ARE GIVEN TO THE TOP OF CURB (T.C.).
  - STATIONS AND OFFSETS FOR 48" DIA. PRECAST MANHOLES ARE GIVEN TO THE GEOMETRIC CENTER OF THE STRUCTURE. TOP ELEVATIONS ARE GIVEN TO THE TOP OF MANHOLE RIM (T.R.).

By the Developer:

"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

*Marshall N. Davidson, P.E.*  
Date: 1/16/14

MARSHALL N. DAVIDSON

Signature of Developer  
Print name below Signature

By the Engineer:

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

*Paul F. Clement*  
Date: 01/16/14

PAUL F. CLEMENT  
Signature of Engineer  
Print name below Signature

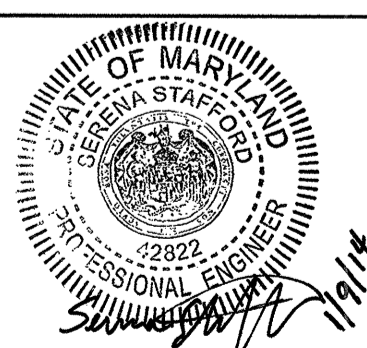
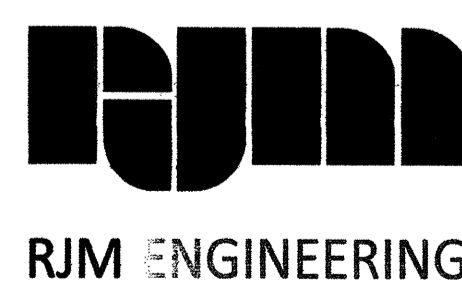
APPROVED FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS  
DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

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

*John K. Robertson*  
Howard Soil Conservation District  
Date: 1/16/14  
EP-10-016

"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 42822, EXPIRATION DATE: 11/2/014."



"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15464, EXPIRATION DATE: 07/16/16."



DES:	BY:	NO.	DATE
VRM	[ ]	REDLINE REVISION NO. 1	01/20/15
DRN:	JMB		
CHK:	SAM		
DATE:	DEC 2013		

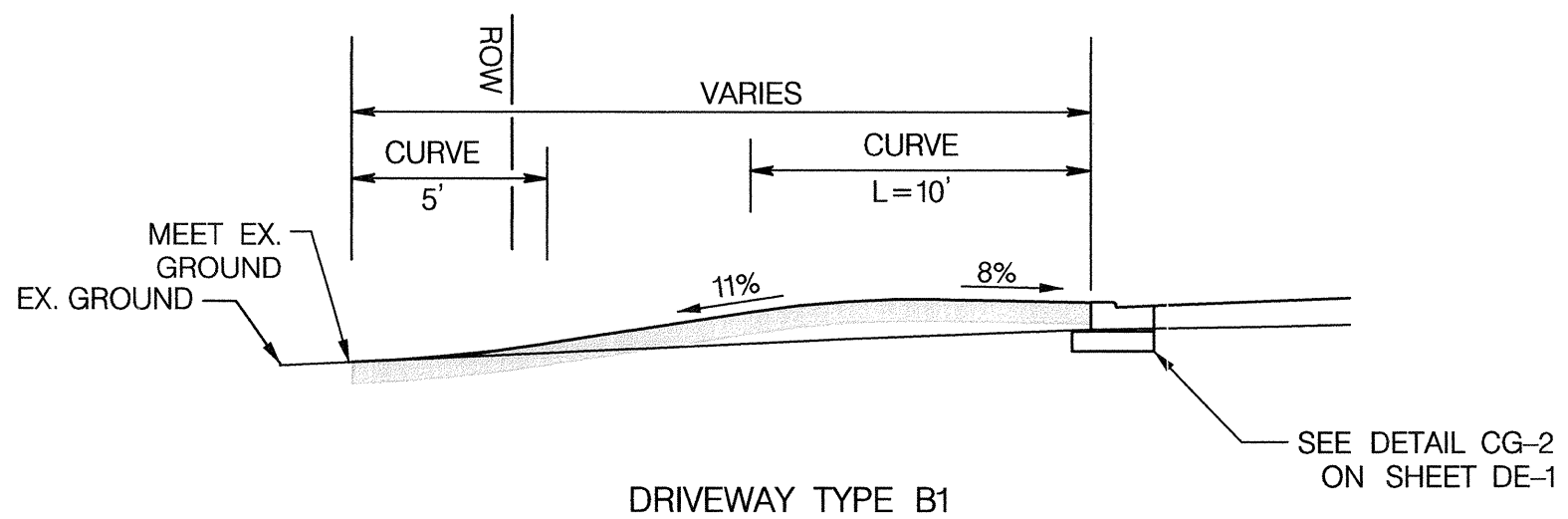
CAPITAL PROJECT NO.  
D-1150

MAP NO. BLOCK NO.

TITLE SHEET  
BRYANT AVENUE & GRANT AVENUE  
- STORM DRAIN IMPROVEMENTS  
ELECTION DISTRICT 6  
HOWARD COUNTY, MARYLAND

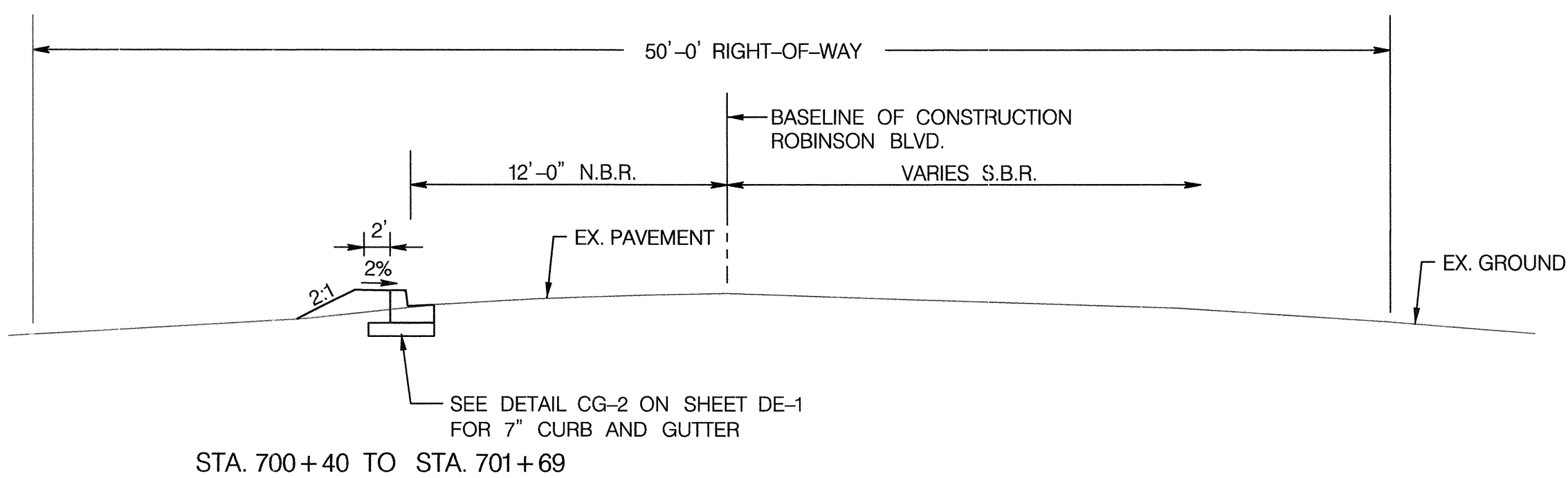
TI-1

SHEET  
1 OF 24

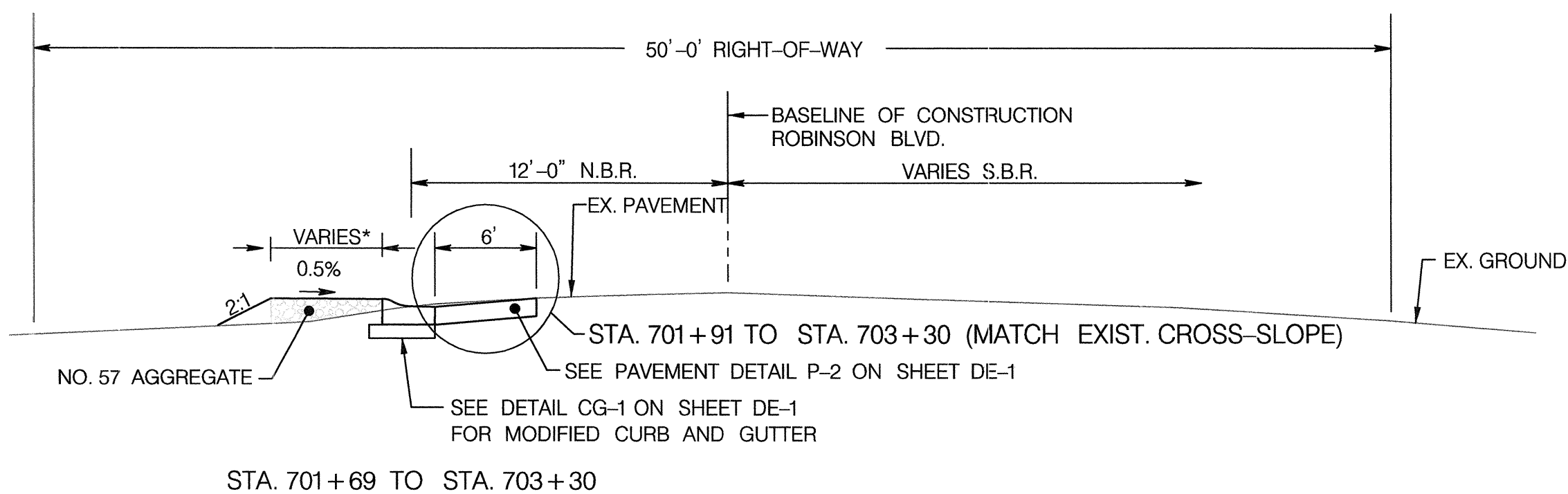


DRIVEWAY TYPE B1

ROBINSON BLVD. AT DRIVEWAYS TYPICAL SECTIONS



STA. 700+40 TO STA. 701+69



STA. 701+69 TO STA. 703+30

\*MATCH EX. WIDTH OF GRAVEL PARKING AREA.

- NOTES:  
 1. SEE CURB GEOMETRY SCHEDULE ON PS-1 THRU PS-6 FOR CURB OFFSETS.  
 2. ALL DISTURBED AREAS BEYOND PAVEMENT SHALL BE STABILIZED WITH 4" TOPSOIL, SEED AND MULCH UNLESS OTHERWISE NOTED ON PLANS.

ROBINSON BLVD. TYPICAL SECTION

\*PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 15466, EXPIRATION DATE: JULY 15, 2015

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DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

CHIEF, TRANSPORTATION AND  
 SPECIAL PROJECTS DIVISION

CHIEF, BUREAU OF ENGINEERING  
 DEPUTY DIRECTOR OF PUBLIC WORKS



DES:	BY	NO.	DATE
DRN:		1	6/1/2015
CHK:			
DATE:	DEC 2013		

CAPITAL PROJECT NO.

D-1150

MAP NO. BLOCK NO.

TYPICAL SECTIONS

BRYANT AVENUE & GRANT AVENUE  
 - STORM DRAIN IMPROVEMENTS

ELECTION DISTRICT 6

HOWARD COUNTY, MARYLAND

TS-4

SCALE  
 NONE

SHEET  
 4A OF 24

MOD. COMBINATION CURB AND GUTTER (STD. NO. R-3.0I)		
FROM	TO	LENGTH (L.F.)
STA. 505+00, LT.	STA. 508+87, LT.	387

STD. 7" COMBINATION CURB AND GUTTER (STD. NO. R-3.0I)			
FROM	TO	LENGTH (L.F.)	REMARKS
STA. 505+00, RT.	STA. 506+47, RT.	162	NOSE DOWN AT STA. 506+47, RT (STD. NO. R-3.02)
STA. 506+75, RT.	STA. 508+91, RT.	232	NOSE DOWN AT STA. 506+75, RT (STD. NO. R-3.02)

DRAINAGE STRUCTURE SCHEDULE					
NO.	STATION	OFFSET	TYPE	STD. NO.	DEPTH
I-8	506+19.3	15.0', RT.	TYPE 'S' COMB. INLET	SD-4.32	7.05'
I-9	507+47.2	15.0', RT.	PRECAST STD. TYPE A-5 INLET	SD-4.01	4.71'
I-10	508+82.9	14.8', RT.	PRECAST STD. TYPE A-10 INLET	SD-4.01	5.49'
E-6	508+36.2	18.2', LT.	STD. CONC. END SECTION - 12" RCP	D-5.51	---
E-7	508+49.7	18.8', LT.	STD. CONC. END SECTION - 12" RCP	D-5.51	---

GRINDING EXISTING ASPHALT PAVEMENT - 1.5 INCH DEPTH  
1208 S.Y. - STA. 505+00 TO STA. 508+91, RT. - LT.

FULL DEPTH ASPHALT PAVEMENT  
174 S.Y. - STA. 505+57 TO STA. 508+50, RT. - LT.

PIPE SCHEDULE				
FROM	TO	TYPE	LENGTH	
I-8	I-9	15" RCP, CL. IV	123 L.F.	
I-9	I-10	18" RCP, CL. IV	128 L.F.	
I-10	EX. I-3	18" RCP, CL. IV	7 L.F.	
E-6	E-7	12" RCP, CL. IV	14 L.F.	

RIPRAP OUTLET PROTECTION				
LOCATION	CLASS	LENGTH	WIDTH	QUANTITY
E-7	I	10'	5'	4 S.Y.

RIPRAP CUTOFF WALL		
LOCATION	CLASS	LENGTH
E-7	I	5 L.F.

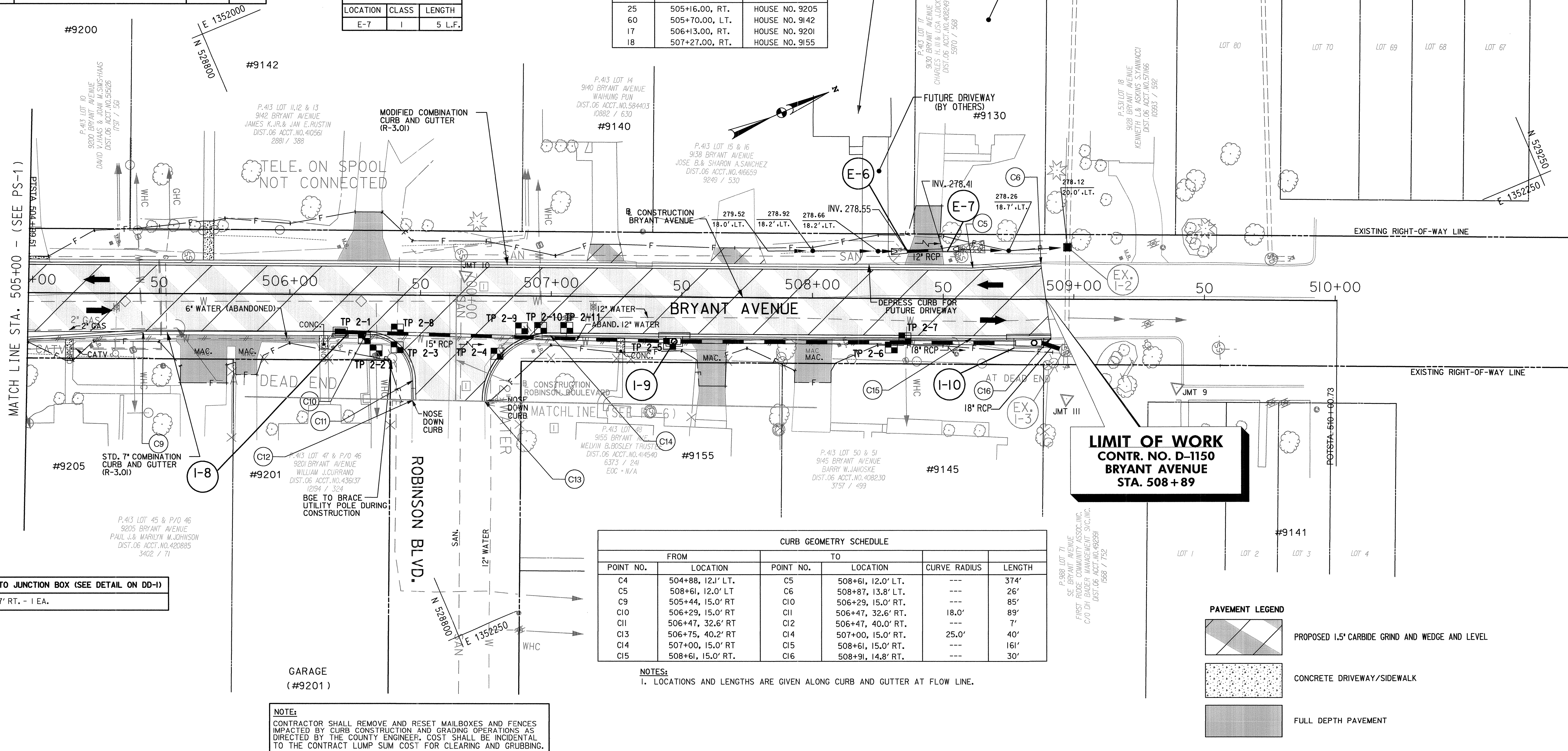
UTILITY TEST PIT SCHEDULE			
NO.	LOCATION	UTILITY	DEPTH
TP 2-1	STA. 506+29, 16.6' RT.	6" WATER	3.88'
TP 2-2	STA. 506+33, 21.3' RT.	1" WATER	3.10'
TP 2-3	STA. 506+41, 20.0' RT.	1" ELECTRIC	2.60'
TP 2-4	STA. 506+79, 22.2' RT.	8" WATER	5.40'
TP 2-5	STA. 507+45, 18.0' RT.	6" WATER	4.44'
TP 2-6	STA. 508+30, 18.8' RT.	6" WATER	4.52'
TP 2-7	STA. 508+35, 15.3' RT.	3/4" WATER	4.08'
TP 2-8	STA. 506+41, 13.2' RT.	(3) 1/2" ELECTRIC	2.94'
TP 2-9	STA. 506+89, 12.3' RT.	12" WATER	5.46'
TP 2-10	STA. 506+96, 12.1' RT.	1/2" WATER	4.31'
TP 2-11	STA. 507+06, 12.0' RT.	8" WATER	4.14'

5 INCH CONCRETE WALK/STEPS (SEE DETAILS, SHEET TS-3)		
QUANTITY (S.F.)	LOCATION	COMMENTS
25	505+16.00, RT.	HOUSE NO. 9205
60	505+70.00, LT.	HOUSE NO. 9142
17	506+13.00, RT.	HOUSE NO. 9201
18	507+27.00, RT.	HOUSE NO. 9155

TREE NOTE:  
ALL TREES AND SHRUBS WITHIN THE LOD ARE TO REMAIN IN PLACE AND UNHARMED; UNLESS OTHERWISE DIRECTED BY THE COUNTY ENGINEER.

NOTE:  
GRATE FOR EXISTING INLET EX. I-2 TO BE REPLACED WITH HOWARD COUNTY STANDARD YARD INLET GRATE.

DITCH LINING SCHEDULE								
DITCH NO.	FROM	TO	SSI (H/HV)	SS2 (H/HV)	d (FT)	w (FT)	TYPE	QUANTITY
DD 2-1	STA. 507+85, LT. (BRYANT AVE.)	STA. 508+98, LT. (BRYANT AVE.)	3	3	1.0	0	TYPE 'A' MATTING	56 S.Y.



CONVERT EXISTING INLET TO JUNCTION BOX (SEE DETAIL ON DD-1)  
EX. I-3 STA. 508+97, 19.7' RT. - 1 EA.

CURB GEOMETRY SCHEDULE					
POINT NO.	FROM	POINT NO.	TO	CURVE RADIUS	LENGTH
C4	504+88, 12.1' LT.	C5	508+61, 12.0' LT.	---	374'
C5	508+61, 12.0' LT	C6	508+87, 13.8' LT.	---	26'
C9	505+44, 15.0' RT	C10	506+29, 15.0' RT.	---	85'
C10	506+29, 15.0' RT	C11	506+47, 32.6' RT.	18.0'	89'
C11	506+47, 32.6' RT	C12	506+47, 40.0' RT.	---	7'
C13	506+75, 40.2' RT	C14	507+00, 15.0' RT.	25.0'	40'
C14	507+00, 15.0' RT	C15	508+61, 15.0' RT.	---	161'
C15	508+61, 15.0' RT.	C16	508+91, 14.8' RT.	---	30'

NOTES:  
1. LOCATIONS AND LENGTHS ARE GIVEN ALONG CURB AND GUTTER AT FLOW LINE.

NOTE:  
CONTRACTOR SHALL REMOVE AND RESET MAILBOXES AND FENCES IMPACTED BY CURB CONSTRUCTION AND GRADING OPERATIONS AS DIRECTED BY THE COUNTY ENGINEER. COST SHALL BE INCIDENTAL TO THE CONTRACT LUMP SUM COST FOR CLEARING AND GRUBBING.

\*PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15466, EXPIRATION DATE: JULY 15, 2015

PAVEMENT LEGEND	
	PROPOSED 1.5" CARBIDE GRIND AND WEDGE AND LEVEL
	CONCRETE DRIVEWAY/SIDEWALK
	FULL DEPTH PAVEMENT

0 10 20  
5 15 40  
SCALE IN FEET

PS-2

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS  
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION

CHIEF, BUREAU OF HIGHWAYS  
CHIEF, BUREAU OF ENGINEERING  
DEPUTY DIRECTOR OF PUBLIC WORKS



DES:	VRM	BY	NO.	DATE
DRN:	JMB			01/20/15
CHK:	SAM			
DATE:	DEC 2013			

CAPITAL PROJECT NO.  
D-1150

MAP NO. BLOCK NO.

ELECTION DISTRICT 6

ROADWAY PLAN  
BRYANT AVENUE & GRANT AVENUE  
- STORM DRAIN IMPROVEMENTS

HOWARD COUNTY, MARYLAND

SCALE  
1" = 20'  
SHEET  
8 OF 24

UTILITY TEST PIT SCHEDULE							
NO.	LOCATION	UTILITY	DEPTH	NO.	LOCATION	UTILITY	DEPTH
TP 4-1	STA. 607+08, 2.0' RT.	3/4" TELE.	1.58'	TP 4-13	STA. 609+26, 9.3' LT.	12" WATER	4.13'
TP 4-2	STA. 607+09, 5.2' RT.	(3) 1/2" ELECTRIC	1.54'	TP 4-14	STA. 609+24, 3.6' LT.	(4) 1/2" ELECTRIC	2.21'
TP 4-3	STA. 607+08, 15.1' RT.	2" GAS	4.06'	TP 4-15	STA. 609+35, 6.1' RT.	(4) 1/2" ELECTRIC	2.67'
TP 4-4	STA. 607+08, 19.8' RT.	3/4" TELE.	1.60'	TP 4-16	STA. 609+43, 5.7' RT.	1" WATER	4.00'
TP 4-5	STA. 607+59, 6.3' RT.	12" WATER	5.96'	TP 4-17	STA. 609+48, 5.9' RT.	(3) 1/2" ELECTRIC	3.76'
TP 4-6	STA. 607+97, 6.7' RT.	1" WATER	4.31'	TP 4-18	STA. 609+50, 5.8' RT.	1" GAS	3.39'
TP 4-7	STA. 608+18, 6.7' RT.	1 1/2" ELECTRIC	1.80'	TP 4-19	STA. 607+20, 15.6' RT.	3" GAS	3.85'
TP 4-8	STA. 608+20, 6.6' RT.	2" GAS	3.29'				
TP 4-9	STA. 608+21, 6.6' RT.	1 1/4" TELE.	2.43'	TP 4-21	STA. 609+46, 14.3' LT	1/2" GAS	2.46'
TP 4-10	STA. 608+28, 7.3' RT.	1" GAS	3.10'	TP 4-22	STA. 609+45, 14.2' LT	(3) 1/2" ELECTRIC	2.66'
TP 4-11	STA. 608+46, 7.5' RT.	1" WATER	4.00'	TP 4-23	STA. 609+82, 24.4' RT	3" GAS	5.52'
TP 4-12	STA. 608+97, 6.6' RT.	1" WATER	4.34'	TP 4-24	STA. 610+01, 18.7' RT	1" WATER	4.17'

7 INCH PORTLAND CEMENT CONCRETE PAVEMENT FOR DRIVEWAY, MIX 6 (STD. NO. R-6.03)		
QUANTITY (S.Y.)	LOCATION	COMMENTS
20	606+33, LT.	HOUSE NO. 9204
35	606+90, RT.	HOUSE NO. 9201
16	607+93, LT.	HOUSE NO. 9160
32	608+13, RT.	HOUSE NO. 9157
5	608+75, LT.	HOUSE NO. 9150
6	609+32, LT.	HOUSE NO. 9144
26	610+11, RT.	HOUSE NO. 9135
19	610+14, LT.	HOUSE NO. 9140
13	610+65, LT.	HOUSE NO. 9130
27	610+65, RT.	HOUSE NO. 9127
4	610+85, RT.	HOUSE NO. 9125

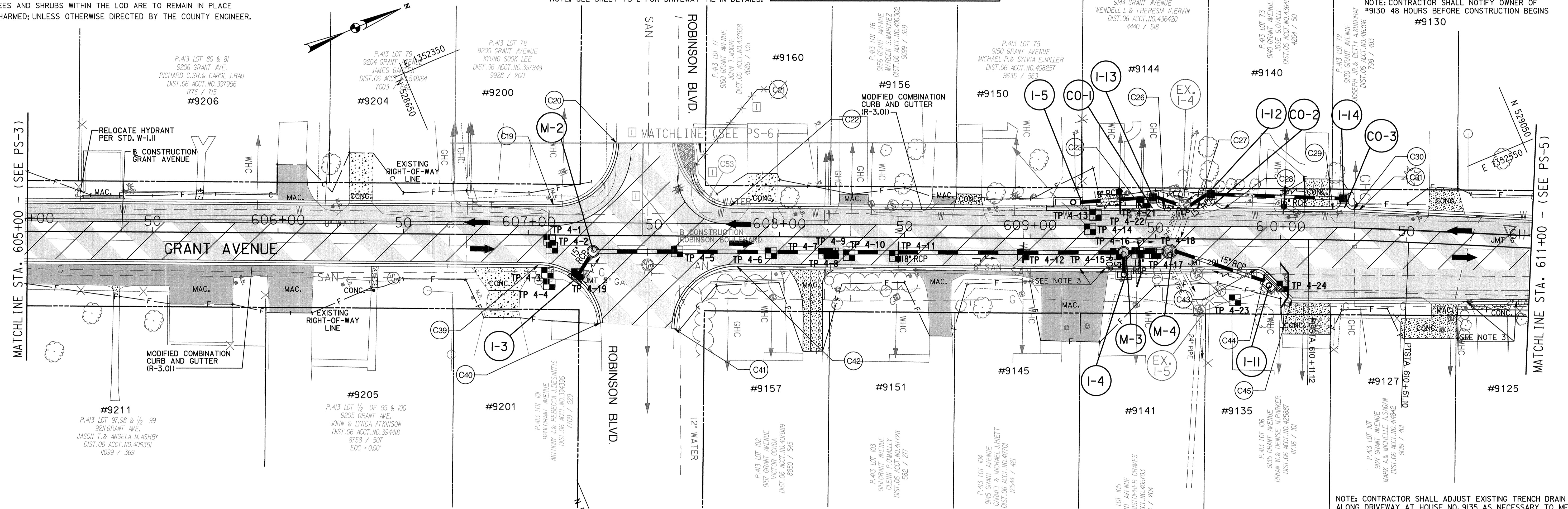
STD. 7" COMBINATION CURB AND GUTTER (STD. NO. R-3.01)			
FROM	TO	LENGTH (L.F.)	REMARKS
STA. 607+02, RT.	STA. 607+16, RT.	15	10' TRANSITION TO MODIFIED CURB BEGINS AT STA. 607+02 RT.
STA. 607+21, RT.	STA. 607+29, RT.	15	10' TRANSITION TO MODIFIED CURB ENDS AT STA. 607+29 RT.
STA. 609+19, RT.	STA. 609+34, RT.	15	10' TRANSITION TO MODIFIED CURB BEGINS AT STA. 609+19 RT.
STA. 609+41, RT.	STA. 609+56, RT.	15	10' TRANSITION TO MODIFIED CURB ENDS AT STA. 609+56 RT.
STA. 609+84, RT.	STA. 609+97, RT.	15	10' TRANSITION TO MODIFIED CURB BEGINS AT STA. 609+84 RT.
STA. 610+02, RT.	STA. 610+05, RT.	4	4' TRANSITION FROM INLET I-11 TO MODIFIED CURB ENDS AT STA. 610+05 RT.
STA. 608+94, LT.	STA. 609+09, LT.	15	10' TRANSITION TO MODIFIED CURB BEGINS AT STA. 608+94 LT.
STA. 609+21, LT.	STA. 609+36, LT.	15	10' TRANSITION TO MODIFIED CURB ENDS AT STA. 609+36 LT.

PIPE SCHEDULE			
FROM	TO	TYPE	LENGTH
I-11	M-4	15" RCP, CL. IV	37 L.F.
I-13	EX. I-4	15" RCP, CL. IV	9 L.F.
I-12	EX. I-4	15" RCP, CL. IV	8 L.F.
M-3	M-4	18" RCP, CL. IV	14 L.F.
I-4	M-3	15" RCP, CL. IV	6 L.F.
M-2	M-3	18" RCP, CL. IV	208 L.F.
I-3	M-2	15" RCP, CL. IV	9 L.F.
I-5	I-13	15" RCP, CL. IV	28 L.F.
I-14	I-12	15" RCP, CL. IV	50 L.F.

**TREE NOTE:**  
ALL TREES AND SHRUBS WITHIN THE LOD ARE TO REMAIN IN PLACE AND UNHARMED; UNLESS OTHERWISE DIRECTED BY THE COUNTY ENGINEER.

NOTE: SEE SHEET TS-2 FOR DRIVEWAY TIE-IN DETAILS.

NOTE: CONTRACTOR SHALL NOTIFY OWNER OF #9130 48 HOURS BEFORE CONSTRUCTION BEGINS



STANDARD CURB OPENING (MSHA STD. NO. MD 640.02)			
NO.	LOCATION	TYPE	NOTE
C0-1	609+49, LT.	ON GRADE	5" CONCRETE GUTTER TO MEET I-13
C0-2	609+72, LT.	ON GRADE	5" CONCRETE GUTTER TO MEET I-12
C0-3	610+24, LT.	ON GRADE	5" CONCRETE GUTTER TO MEET I-14

5 INCH CONCRETE WALK/STEPS (SEE DETAILS, SHEET TS-3)		
QUANTITY (S.F.)	LOCATION	COMMENTS
11	605+36, RT.	HOUSE NO. 9211
10	605+69, LT.	HOUSE NO. 9206
22	606+38, RT.	HOUSE NO. 9205

**CONVERT EXISTING INLET TO JUNCTION BOX (SEE DETAIL ON DD-1)**  
EX. I-4 STA. 609+62, 14.2' LT. - I.E.A.

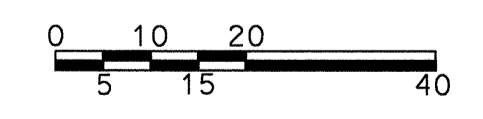
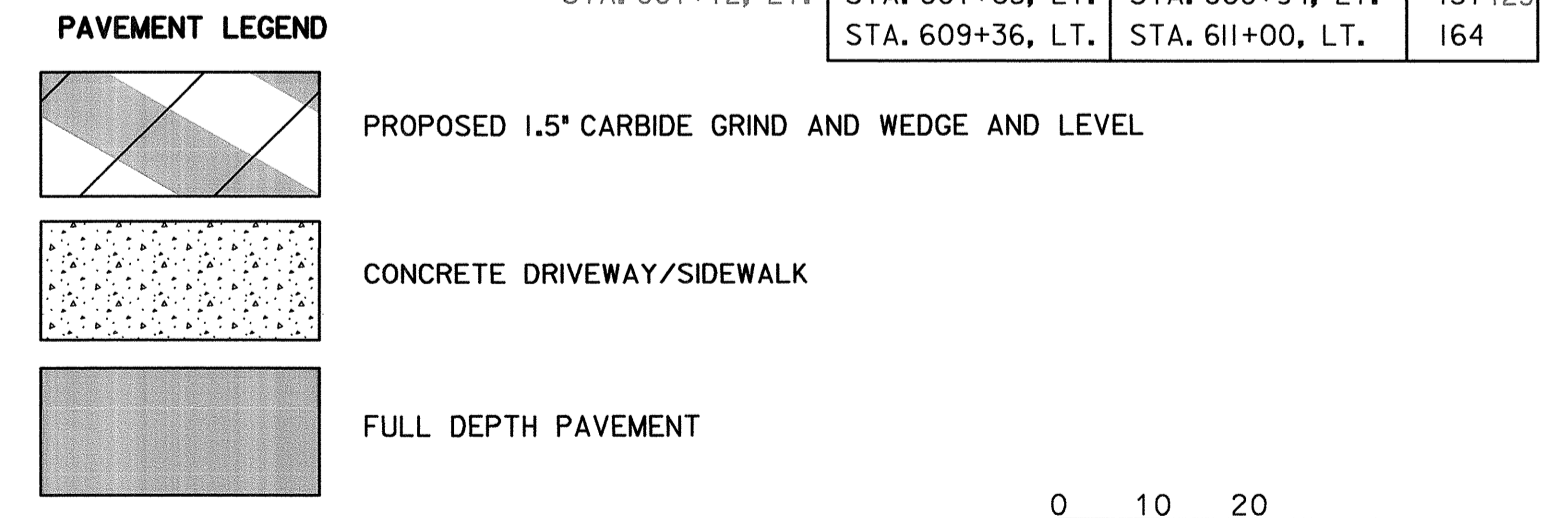
DRAINAGE STRUCTURE SCHEDULE					
NO.	STATION	OFFSET	TYPE	STD. NO.	DEPTH
I-3	607+18.8	17.2', RT.	TYPE 'S' COMB. INLET	D-4.32	4.42
I-4	609+37.5	12.4', RT.	PRECAST STD. TYPE A-5 INLET	D-4.01	5.19
I-5	609+15.0	12.4', LT.	PRECAST STD. TYPE A-10 INLET	D-4.03	3.64
I-11	609+96.8	17.0', RT.	PRECAST STD. TYPE A-5 INLET	D-4.01	4.24
M-2	607+25.7	6.5', RT.	48" STD. PRECAST MANHOLE	G-5.12	4.56
M-3	609+37.4	5.6', RT.	48" STD. PRECAST MANHOLE	G-5.12	5.58
I-12	609+71.9	17.8', LT.	TYPE 'K' INLET	D-4.12	3.73
I-13	609+49.0	16.5', LT.	TYPE 'K' INLET	D-4.12	3.97
I-14	610+24.7	16.6', LT.	TYPE 'K' INLET	D-4.12	4.55
M-4	609+55.7	5.1', RT.	60" STD. PRECAST MANHOLE	G-5.11	5.98

**NOTE:**  
CONTRACTOR SHALL REMOVE AND RESET MAILBOXES AND FENCES IMPACTED BY CURB CONSTRUCTION AND GRADING OPERATIONS AS DIRECTED BY THE COUNTY ENGINEER. COST SHALL BE INCIDENTAL TO THE CONTRACT LUMP SUM COST FOR CLEARING AND GRUBBING.

**PROFESSIONAL CERTIFICATION:** I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15466, EXPIRATION DATE: JULY 15, 2015

**WATER SERVICE NOTE:**  
RELOCATE WATER SERVICE AS SHOWN IN PLAN. SPLICE SERVICE CONNECTION AT BOTH ENDS. SEE PROFILE FOR VERTICAL LOCATION.

CURB GEOMETRY SCHEDULE					
POINT NO.	LOCATION	POINT NO.	LOCATION	CURVE RADIUS	LENGTH
C18	600+54, 12.0' LT.	C19	607+10, 12.0' LT.	---	656'
C19	607+10, 12.0' LT.	C20	607+35, 36.9' LT.	25'	39'
C20	607+35, 36.9' LT.	C21	607+80, 12.0' LT.	15'	24' 9"
C21	607+80, 12.0' LT.	C22	609+45, 12.0' LT.	---	164'
C22	609+45, 12.0' LT.	C23	609+67, 12.0' LT.	---	13'
C23	609+67, 12.0' LT.	C24	610+21, 12.0' LT.	---	44'
C24	610+21, 12.0' LT.	C25	610+31, 12.2' LT.	---	2'
C25	610+31, 12.2' LT.	C26	607+29, 34.8' RT.	25'	37'
C26	607+29, 34.8' RT.	C27	607+83, 12.0' RT.	25'	39'
C27	607+83, 12.0' RT.	C28	609+90, 12.0' RT.	---	207'
C28	609+90, 12.0' RT.	C29	609+94, 13.5' RT.	5'	4'
C29	609+94, 13.5' RT.	C30	610+05, 24.2' RT.	---	15'



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS \_\_\_\_\_ CHIEF, BUREAU OF HIGHWAYS \_\_\_\_\_  
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION \_\_\_\_\_ CHIEF, BUREAU OF ENGINEERING DEPUTY DIRECTOR OF PUBLIC WORKS \_\_\_\_\_

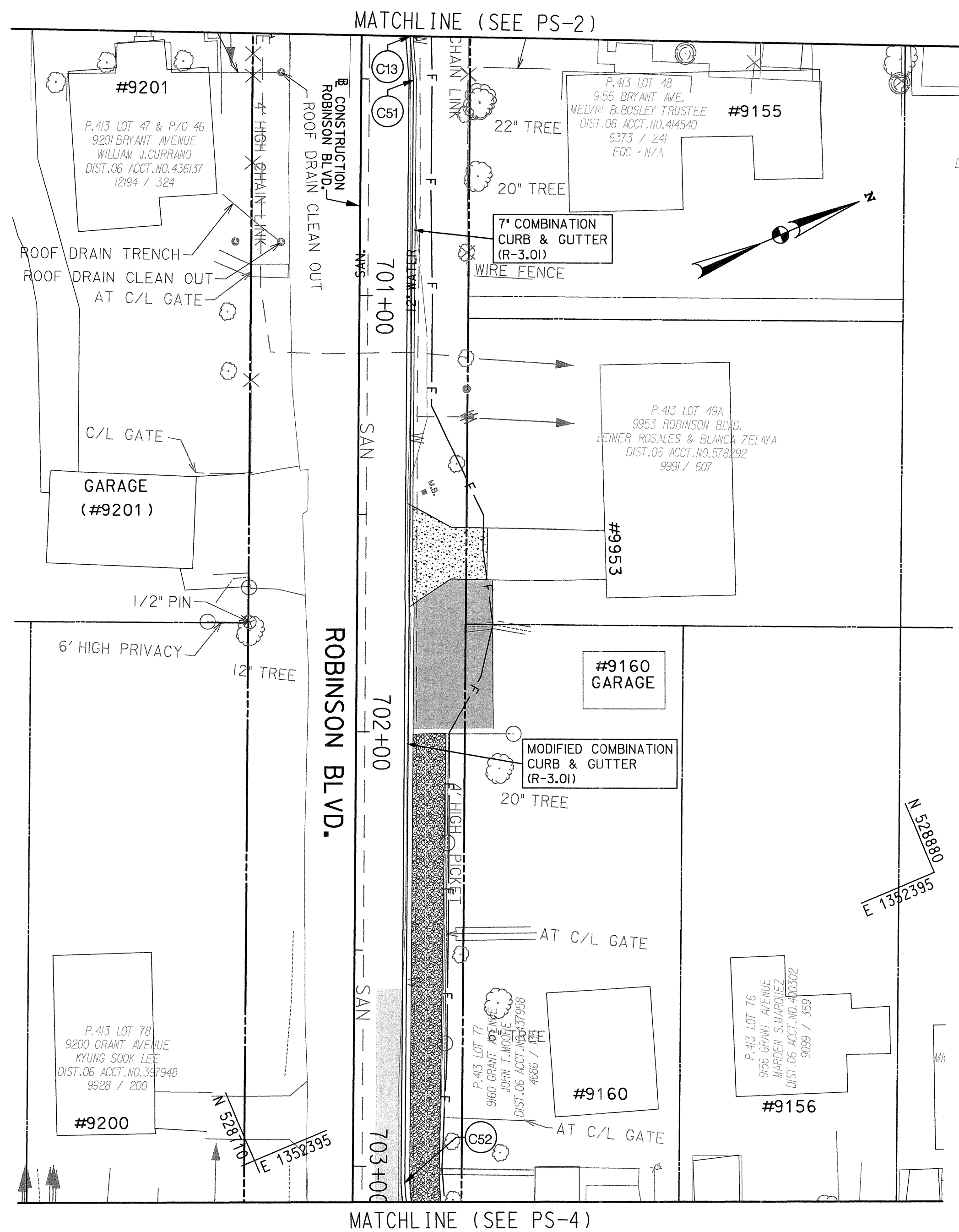


DES:	VRM	BY	NO.	DATE
DRN:	JMB			9/2/2015
CHK:	SAM			
DATE:	DEC 2013			

CAPITAL PROJECT NO.  
**D-1150**

ROADWAY PLAN  
**BRYANT AVENUE & GRANT AVENUE - STORM DRAIN IMPROVEMENTS**  
ELECTION DISTRICT 6  
HOWARD COUNTY, MARYLAND

SCALE  
1" = 20'  
SHEET  
10 OF 24



MOD. COMBINATION CURB AND GUTTER - (STD. NO. R-3.01)			
FROM	TO	LENGTH (L.F.)	REMARKS
STA. 701+69, LT.	STA. 703+30, LT.	165	MEET TANGENT OF CURB FROM GRANT AVE. AT STA. 703+30, LT. TRANSITION TO MODIFIED CURB & GUTTER AT STA. 701+69, LT.

- NOTES:**
- LOCATIONS AND LENGTHS ARE GIVEN ALONG CURB AND GUTTER AT FLOW LINE.
  - SEE STD. DETAIL R-6.05 FOR RESIDENTIAL DRIVEWAY ENTRANCE.

**TREE NOTE:**  
ALL TREES AND SHRUBS WITHIN THE LOD ARE TO REMAIN IN PLACE AND UNHARMED; UNLESS OTHERWISE DIRECTED BY THE COUNTY ENGINEER.

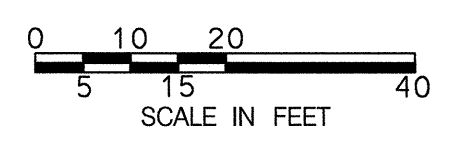
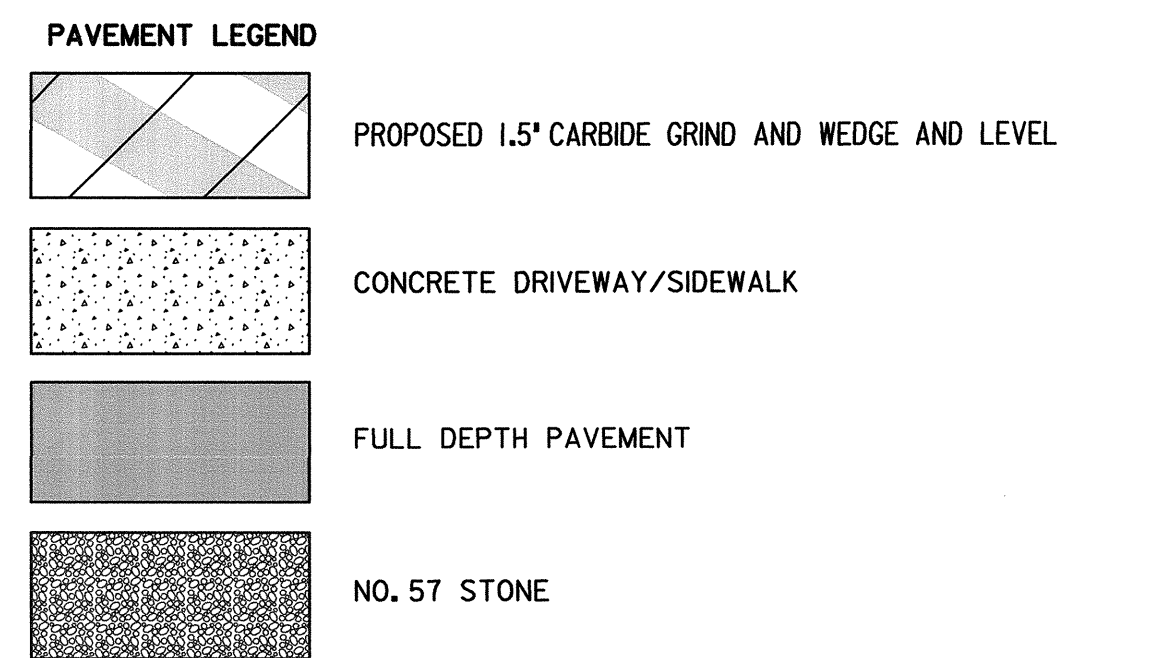
STD. 7" COMBINATION CURB AND GUTTER (STD. NO. R-3.01)			
FROM	TO	LENGTH (L.F.)	REMARKS
STA. 506+75, LT.	STA. 700+50, LT.	10	MEET EXISTING CURB FROM BRYANT AVE. AT STA. 506+75, LT. BEGIN DRIVEWAY ENTRANCE STA. 701+47, LT.
STA. 700+50, LT.	STA. 701+47, LT.	97	DRIVEWAY ENTRANCE - MATCH EXISTING WIDTH
STA. 701+47, LT.	STA. 701+69, LT.	22	

CURB GEOMETRY SCHEDULE						
POINT NO.	FROM		TO		CURVE RADIUS	LENGTH
	LOCATION	POINT NO.	LOCATION	POINT NO.		
C13	506+75, 40.2' RT.	C51	700+50, 12.0' LT.	---	10'	
C51	700+50, 12.0' LT.	C52	703+04, 12.0' LT.	---	254'	
C52	703+04, 12.0' LT.	C53	607+72, 14.8' LT.	34'	32'	

7 INCH PORTLAND CEMENT CONCRETE PAVEMENT FOR DRIVEWAY, MIX 6 (STD. NO. R-6.03)		
QUANTITY (S.Y.)	LOCATION	HOUSE NUMBER
28	STA. 701+58, LT.	9953

- FULL DEPTH ASPHALT PAVEMENT**  
 \*121 S.Y. - STA. 700+00 TO STA. 703+36, LT.  
 \*INCLUDES DRIVEWAY STA. 701+82, LT. (HOUSE NO. 9160)
- NO. 57 STONE FOR PARKING AREA**  
 13 TON - STA. 702+00 TO STA. 703+21, LT.

BASELINE CONSTRUCTION CONTROL POINTS					
	POINT NO.	STATION	NORTH	EAST	BEARING
ROBINSON BLVD.	POT	700+00	528,850.1725	1,352,130.0392	S 66° 27' 06.00" E
	POT	703+45.17	528,712.2702	1,352,446.4625	



\*PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15466, EXPIRATION DATE: JULY 15, 2015

FILE: 0:\3101\064644\_03\_Basement.dwg and CP: C:\DTP\user\1006\_2008\basement.dwg  
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<b>DEPARTMENT OF PUBLIC WORKS</b> HOWARD COUNTY, MARYLAND  DIRECTOR OF PUBLIC WORKS _____ CHIEF, BUREAU OF HIGHWAYS _____  CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION _____ CHIEF, BUREAU OF ENGINEERING DEPUTY DIRECTOR OF PUBLIC WORKS _____	 <b>JOHNSON, MIRMIRAN &amp; THOMPSON</b> <i>Engineering A Brighter Future</i> 72 Loveton Circle Baltimore, Maryland 21152-0949		DES: VRM BY NO. [ ] DATE: 01/2015 DRN: JMB CHK: SAM DATE: DEC 2013	CAPITAL PROJECT NO. <b>D-1150</b>	<b>ROADWAY PLAN</b> <b>BRYANT AVENUE &amp; GRANT AVENUE</b> <b>- STORM DRAIN IMPROVEMENTS</b> ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND	SCALE: 1" = 20' SHEET: 11A OF 24
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HOWARD SOIL CONSERVATION DISTRICT  
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 (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 2011 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) 3 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 7 days as to all other disturbed or graded areas on the project site.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. B-4-5), temporary seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization with mulch alone can 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.
- Site Analysis:
 

Total Area of Site	3.17	3.02	Acres
Area Disturbed	3.04	2.95	Acres
Area to be roofed or paved	2.04	1.98	Acres
Area to be vegetatively stabilized	1.0	0.97	Acres
Total Cut	428		Cu. Yds.
Total Fill	652	615	Cu. Yds.
Off-site waste/borrow area locations:	UNKNOWN		
- Any sediment control practice which is disturbed by grading activity 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 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 shall be back-filled and stabilized by the end of each workday, whichever is shorter.
- Any changes or revisions to the sequence of construction must be reviewed and approved by the plan approval authority prior to proceeding with construction.
- A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage of 20 ac. per grading unit) at a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the enforcement authority. Unless otherwise specified and approved by the approval authority, no more than 30 acres cumulatively may be disturbed at a given time.

B-4-4 STANDARDS AND SPECIFICATIONS  
FOR  
TEMPORARY STABILIZATION

Definition

To stabilize disturbed soils with vegetation for up to 6 months.

Purpose

To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

Criteria

- Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
- For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
- When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

Temporary Seeding Summary

Hardiness Zone (from Figure B.3): 6B				Fertilizer Rate (10-20-20)	Lime Rate
Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths		
Annual Ryegrass	40	3-1 to 5-15 and 8-1 to 10-15	0.5 in.	436 lb/ac (10lb/1000 sf)	2 tons/ac (90 lb/1000 sf)
Foxtail Millet	30	5-16 to 7-31	0.5 in.		
Pearl Millet	20	5-16 to 7-31	0.5 in.		

B-4-5 STANDARDS AND SPECIFICATIONS  
FOR  
PERMANENT STABILIZATION

Definition

To stabilize disturbed soils with permanent vegetation.

Purpose

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for 6 months or more.

Criteria

A.

Seeding Mixtures

1. General Use

- Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
- Additional planting specifications for exceptional sites such as shorelines, stream banks or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
- For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.
- For areas receiving low maintenance, apply urea form Fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.

Permanent Seeding Summary

Hardiness Zone (from Figure B.3): 6B				Fertilizer Rate (10-20-20)			Lime Rate
Seed Mixture (from Table B.3):				N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	
Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths				
Switch Grass	10	3-1 to 5-15 and 5-16 to 6-15	0.5 in.				
Creeping Red Fescue	15	3-1 to 5-15 and 5-16 to 6-15	0.5 in.	45 lb/ac (1.0lb/1000 sf)	90 lb/ac (2.0lb/1000 sf)	90 lb/ac (2.0lb/1000 sf)	2 tons /ac (90 lb/1000 sf)
Wild Indigo	2	3-1 to 5-15 and 5-16 to 6-15	0.5 in.				

2. Turfgrass Mixtures

- Areas where turfgrass may be desired include lawns, parks, playgrounds and commercial sites which will receive a medium to high level of maintenance.
- Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
  - Kentucky Bluegrass/Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
  - Kentucky Bluegrass/Perennial Ryegrass/Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
  - Tall Fescue/Kentucky Bluegrass/Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
  - Kentucky Bluegrass/Fine Fescue/ Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes: Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.

Notes:

Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77 "Turfgrass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection, and assures a pure genetic line.

c. Ideal Times of Seeding for Turf Grass Mixtures

Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6B)

- Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.
- If soil moisture is deficient, supply new seedlings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons or on adverse sites.

\*PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15466, EXPIRATION DATE: JULY 15, 2015

B-4-1 STANDARDS AND SPECIFICATIONS  
FOR  
INCREMENTAL STABILIZATION

Definition

Establishment of vegetative cover on cut and fill slopes

Purpose

To provide timely vegetative cover on cut and fill slopes as work progresses.

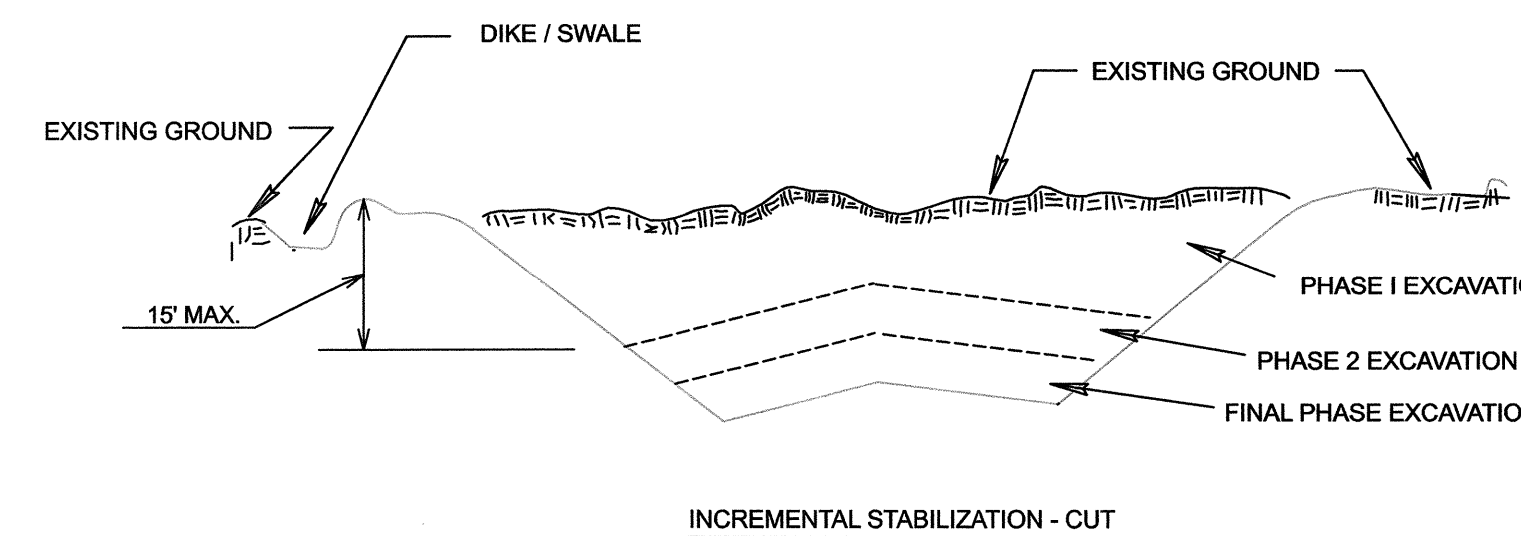
Conditions Where Practice Applies

Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

Criteria

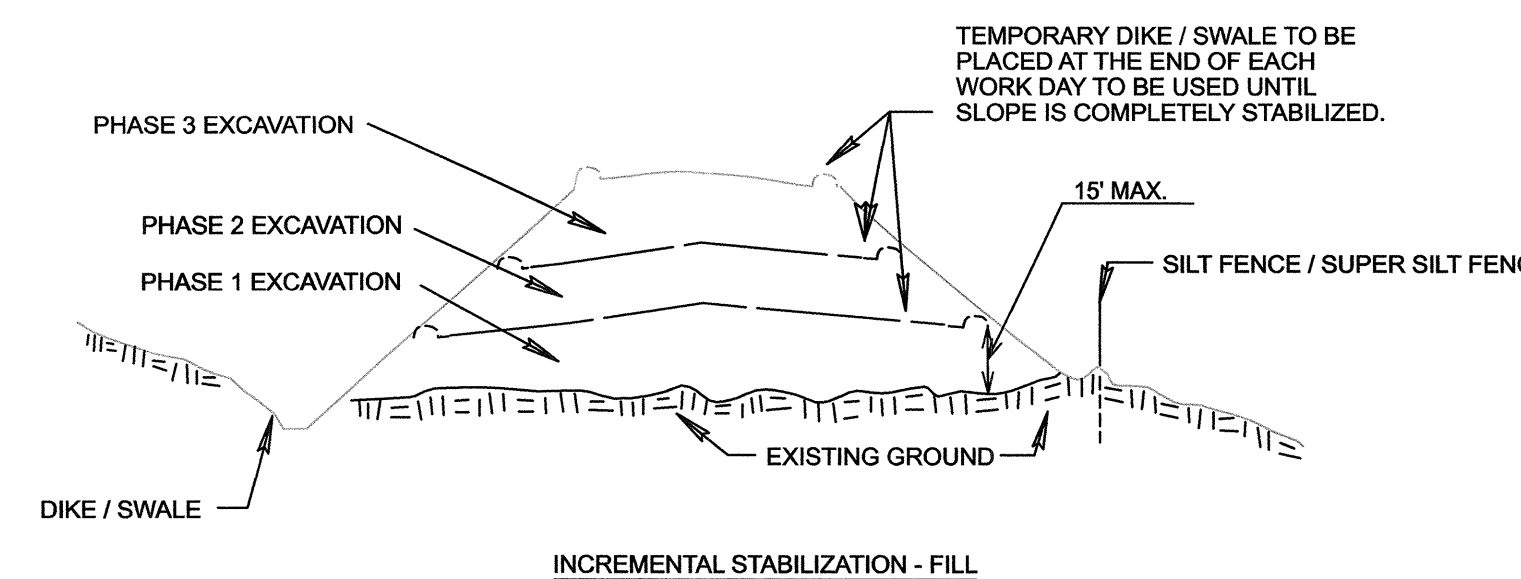
A. Incremental Stabilization - Cut Slopes

- Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all cut slopes as the work progresses.
  - Construction sequence example (Refer to Figure B.1):
    - Construct and stabilize all temporary swales or dikes that will be used to convey runoff around the excavation.
    - Perform Phase 1 excavation, prepare seedbed, and stabilize.
    - Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as necessary.
    - Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.
- Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.



B. Incremental Stabilization - Fill Slopes

- Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses.
  - Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading operation ceases as prescribed in the plans.
  - At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
  - Construction sequence example (Refer to Figure B.2):
    - Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fill. Construct silt fence on low side of fill unless other methods shown on the plans address this area.
    - At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
    - Place Phase 1 fill, prepare seedbed, and stabilize.
    - Place Phase 2 fill, prepare seedbed, and stabilize.
    - Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.
- Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.



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

HOWARD SOIL CONSERVATION DISTRICT \_\_\_\_\_ DATE \_\_\_\_\_

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DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS \_\_\_\_\_

CHIEF, BUREAU OF HIGHWAYS \_\_\_\_\_

CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION \_\_\_\_\_

CHIEF, BUREAU OF ENGINEERING  
DEPUTY DIRECTOR OF PUBLIC WORKS \_\_\_\_\_



DES: VRM	BY: [ ]	NO. [ ]	DATE: 01/22/15
DRN: JMB	REDLINE REVISION NO. 1		
CHK: SAM			
DATE: DEC 2013			

CAPITAL PROJECT NO.

D-1150

MAP NO. \_\_\_\_\_ BLOCK NO. \_\_\_\_\_

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

BRYANT AVENUE & GRANT AVENUE  
- STORM DRAIN IMPROVEMENTS

ELECTION DISTRICT 6

HOWARD COUNTY, MARYLAND

SCALE NONE

SHEET

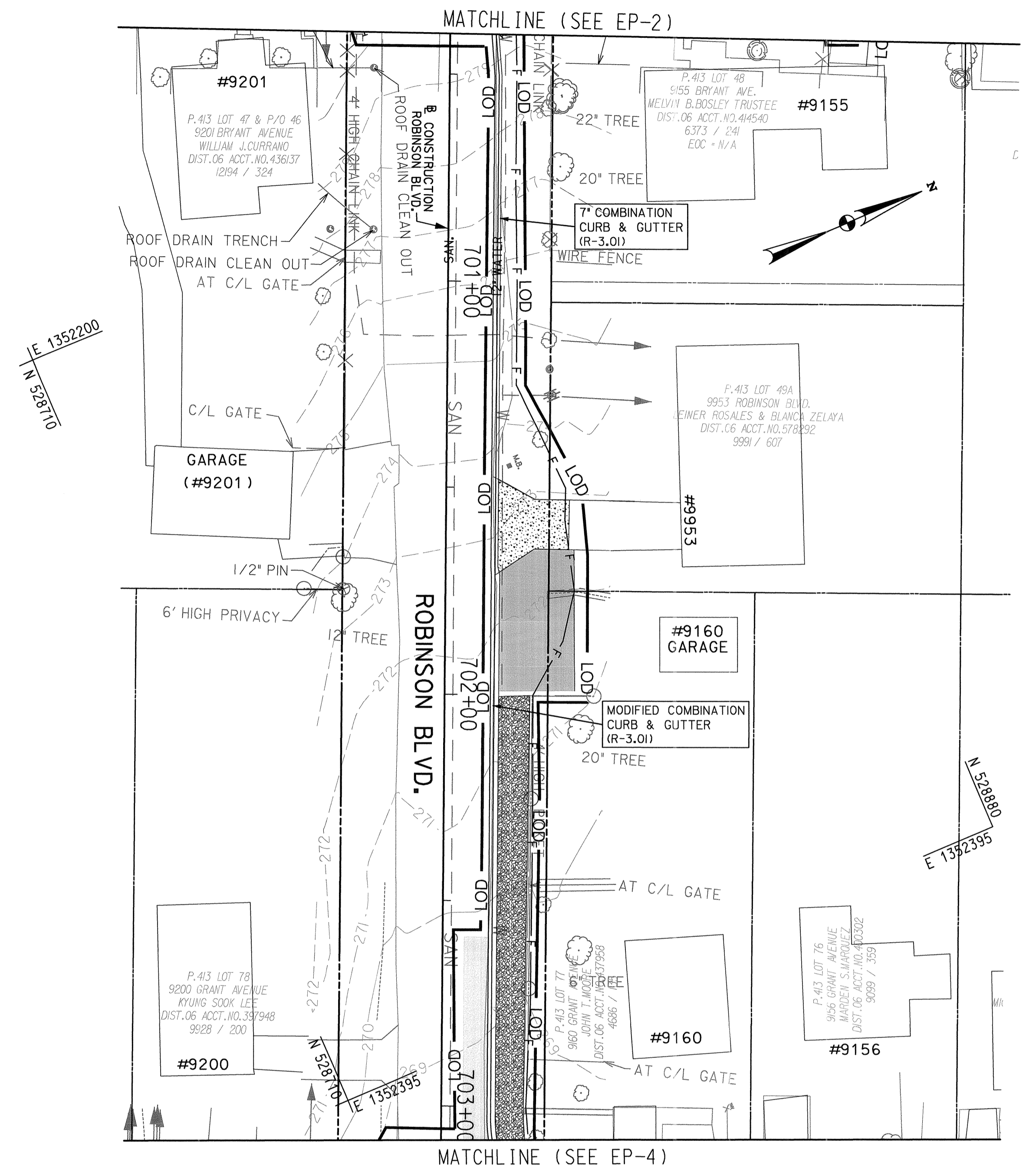
16 OF 24

NOTE:  
TRACKING OF SEDIMENT ONTO ROADS IS NOT PERMITTED. IF SEDIMENT IS TRACKED ONTO ROADS, IT SHOULD BE CLEARED AND HAULED OFF SITE AT THE END OF EACH WORKING DAY.

NOTE:  
NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT UNLESS DIRECTED TO AN MDE APPROVED SEDIMENT CONTROL DEVICE.

NOTE:  
SILT FENCE TO BE INSTALLED AS REQUIRED BY THE SEDIMENT CONTROL INSPECTOR.

NOTE:  
STOCKPILING WILL NOT BE PERMITTED ON SITE.



**PAVEMENT LEGEND**

- PROPOSED 1.5" CARBIDE GRIND AND WEDGE AND LEVEL
- CONCRETE DRIVEWAY/SIDEWALK
- FULL DEPTH PAVEMENT
- NO. 57 STONE

0 10 20 40  
5 15 35  
SCALE IN FEET

\*PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15466, EXPIRATION DATE: JULY 15, 2015

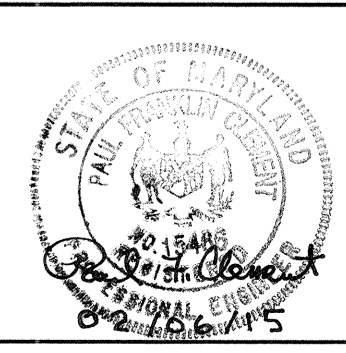
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DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS \_\_\_\_\_ CHIEF, BUREAU OF HIGHWAYS \_\_\_\_\_

CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION \_\_\_\_\_ CHIEF, BUREAU OF ENGINEERING \_\_\_\_\_  
DEPUTY DIRECTOR OF PUBLIC WORKS

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



DES:	BY:	NO.	DATE
VRM			01/2015
DRN:	JMB		
CHK:	SAM		
DATE:	DEC 2013		

CAPITAL PROJECT NO.  
**D-1150**

EROSION AND SEDIMENT CONTROL PLAN  
BRYANT AVENUE & GRANT AVENUE  
- STORM DRAIN IMPROVEMENTS

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

EP-6  
SCALE 1" = 20'  
SHEET 23A OF 24