PROJECT DESCRIPTION

GENERAL
THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF ACCESSIBLE PEDESTRIAN SIGNALS (APS) AND COUNTDOWN PEDESTRIAN SIGNALS (CPS) FOR ALL LEGS OF THE INTERSECTION OF MD 157 (MERRITT BOULEVARD/PENINSULA EXPRESSWAY) AND MERRITT AVENUE IN BALTIMORE COUNTY. MD 157 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION
THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA EIGHT-PHASE, FULLY TRAFFIC-ACTUATED MODE. CONCURRENT MAINLINE AND ALTERNATIVE SIDE STREET PEDESTRIANS PHASES ARE PROPOSED. ALL EXCLUSIVE LEFT TURN MOVEMENTS WILL REMAIN.

CONTROLLER REQUIREMENTS
THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL REMAIN. THE SHA SIGNAL SHOP WILL INSTALL ONE (1) 2 WIRE CENTRAL CONTROL UNIT WITHIN THE CABINET.

APS WILL FUNCTION AS FOLLOWS:

TO CROSS MERRITT BOULEVARD

A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS MERRITT BOULEVARD AT PENINSULA AND MERRITT AVENUE, WAIT".

B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

TO CROSS MERRITT AVENUE

A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS MERRITT AVENUE AT MERRITT BOULEVARD, WAIT".

B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

TO CROSS PENINSULA EXPRESSWAY

A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS PENINSULA AT MERRITT, WAIT".

B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

THE CONTACT PERSONS FOR DISTRICT #4 ARE AS FOLLOWS:

Ms. Erin Kuhn
Assistant District Engineer - Traffic
Phone: 410-229-2381

Mr. Michael Pasquariello
District Utility Engineer
Phone: 410-229-2421

Mr. Andre Futrell
Assistant District Engineer - Maintenance
Phone: 410-229-2361

OFFICE OF TRAFFIC AND SAFETY:

Ms. Corren Johnson
Chief, Traffic Operations Division
Phone: 410-787-7630

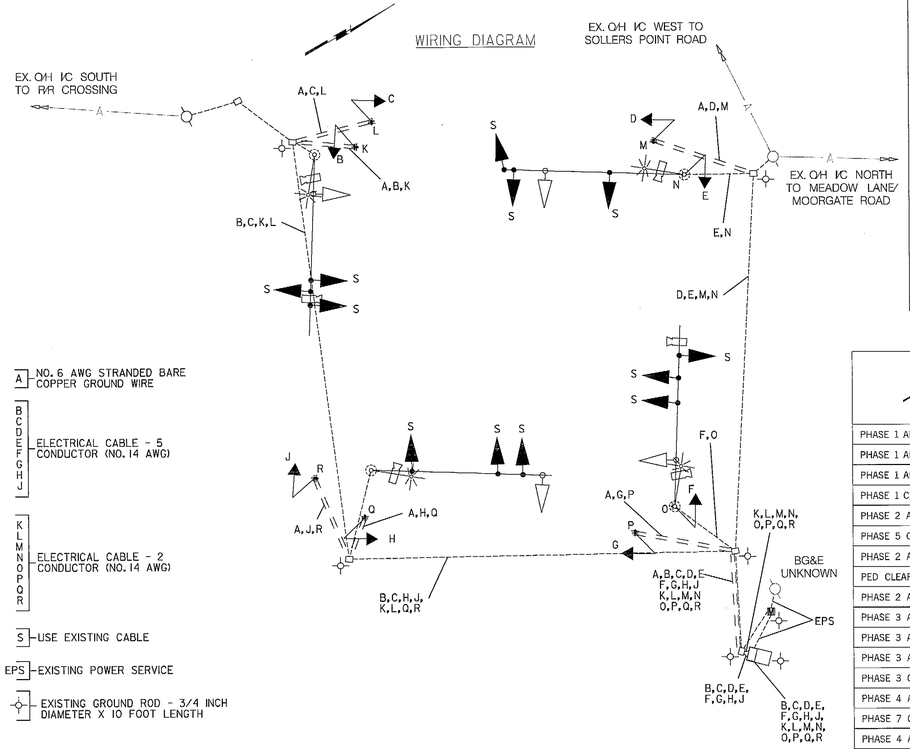
Mr. Robert Snyder
Assistant Division Chief, Traffic Operations
410-787-7630

Mr. Edward Rodenhizer
Chief Signal Operations
Phone: 410-787-7650

Mr. Eugene Bailey
Chief Sign Operations
410-787-7670

The Power Company is:
BG&E CO.
7317 Parkway Dr. South
Hanover, MD
Phone: 410-859-9062

WIRING DIAGRAM



A - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE

B C D E F G H J - ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

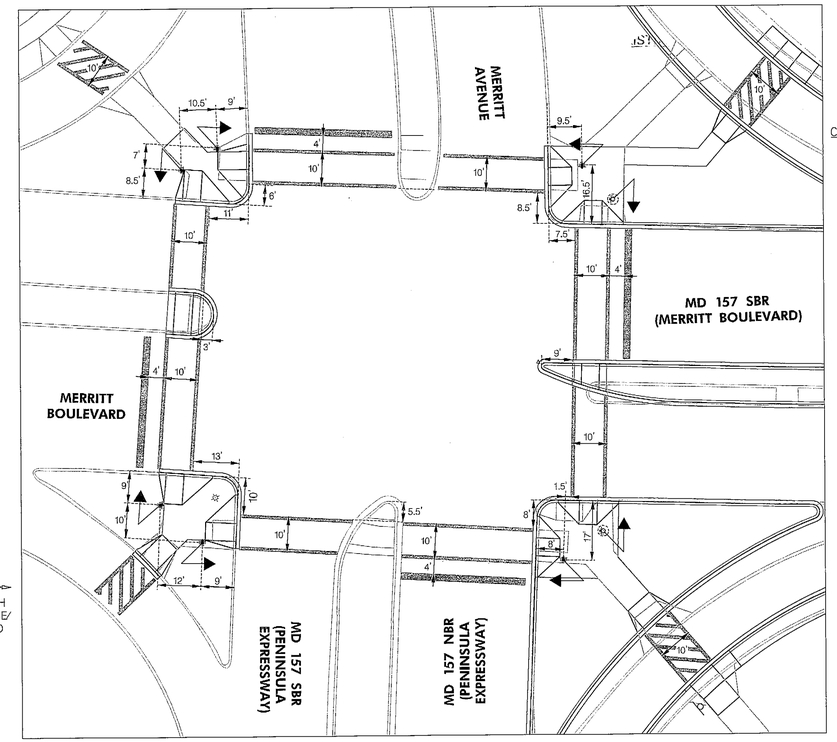
K L M N O P Q R - ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)

S - USE EXISTING CABLE

EPS - EXISTING POWER SERVICE

EXISTING GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH

PROPOSED SIGNAL EQUIPMENT AND PAVEMENT MARKING LAYOUT - 1"=20'



PHASE CHART

	1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	WALK PEDESTRIAN CLEARANCE	WALK PEDESTRIAN CLEARANCE	WALK PEDESTRIAN CLEARANCE	WALK PEDESTRIAN CLEARANCE	WALK PEDESTRIAN CLEARANCE	WALK PEDESTRIAN CLEARANCE	WALK PEDESTRIAN CLEARANCE	WALK PEDESTRIAN CLEARANCE
PHASE 1 AND 5	G	G	R	R	G	G	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6																								
PHASE 1 AND 6	G	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	DW	DW
PHASE 1 CHANGE	Y	Y	G	G	R	R	R	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	DW	DW
PHASE 2 AND 5	R	R	R	R	G	G	G	G	R	R	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	DW	DW
PHASE 5 CHANGE	R	R	R	R	Y	Y	G	G	R	R	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	DW	DW
PHASE 2 AND 6	R	R	G	G	R	R	G	G	R	R	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEARANCE	R	R	G	G	R	R	G	G	R	R	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
PHASE 2 AND 6 CHANGE	R	R	Y	Y	R	R	Y	Y	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 AND 7	R	R	R	R	R	R	R	R	G	G	R	R	G	G	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 AND 7 CHANGE TO 3 AND 8, 4 AND 7, OR 4 AND 8																								
PHASE 3 AND 8	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 7	R	R	R	R	R	R	R	R	G	G	G	G	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 7 CHANGE	R	R	R	R	R	R	R	R	Y	Y	G	G	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8	R	R	R	R	R	R	R	R	R	R	G	G	R	R	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8 CHANGE	R	R	R	R	R	R	R	R	R	R	Y	Y	R	R	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8 ALT.	R	R	R	R	R	R	R	R	R	R	G	G	R	R	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE	R	R	R	R	R	R	R	R	R	R	G	G	R	R	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
PHASE 4 AND 8 ALT. CHANGE	R	R	R	R	R	R	R	R	R	R	Y	Y	R	R	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/RA	FL/RA	FL/Y	FL/Y	FL/RA	FL/RA	FL/Y	FL/Y	FL/RA	FL/RA	FL/R	FL/R	FL/RA	FL/RA	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

CATEGORY CODE	QUANTITY	DESCRIPTION
973023	25 SF	SHEET ALUMINUM SIGNS:
		2 EA - R10-3(1) (9 IN. X 15 IN.) "PUSH BUTTON TO CROSS MERRITT AVENUE"
		2 EA - R10-3(1) (9 IN. X 15 IN.) "PUSH BUTTON TO CROSS PENINSULA EXPWY"
		4 EA - R10-3(1) (9 IN. X 15 IN.) "PUSH BUTTON TO CROSS MERRITT BLVD"
		1 EA - R3-5L (30 IN. X 36 IN.)
		1 EA - M1-5(6) (30 IN. X 48 IN.) "NORTH, MD 157, LEFT ARROW"

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

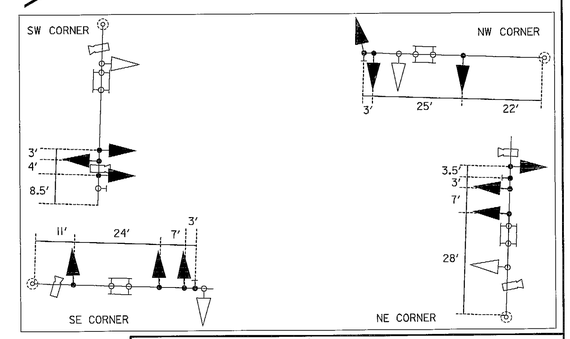
CATEGORY CODE	QUANTITY	DESCRIPTION
203030	2 CY	TEST PIT EXCAVATION
585621	900 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
585625	170 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
585700	32 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS - ANY WIDTH
800000	8 EA	ACCESSIBLE PEDESTRIAN PUSHBUTTON
800000	15 SF	RELOCATE EXISTING OVERHEAD SIGN
800000	1 LS	REMOVE AND DISPOSE EXISTING EQUIPMENT
800000	1 EA	2 WIRE CENTRAL CONTROL UNIT
800000	8 EA	16 IN. LED COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION
801004	2 CY	CONCRETE FOR SIGNAL FOUNDATION
802145	2 EA	ADJUST EXISTING HANDHOLE
802501	250 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805118	90 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805125	155 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
813015	25 SF	INSTALL OVERHEAD SIGN
818004	6 EA	10 FOOT BREAKAWAY PEDESTAL POLE
860265	12 EA	RELOCATE EXISTING SIGNAL HEAD
861105	1,750 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	1,800 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

CATEGORY CODE	QUANTITY	DESCRIPTION
NONE - ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR		

PROPOSED MAST ARM DETAIL - 1"=20'



STV
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7125 Ambassador Road, Suite 200
Baltimore, MD 21244
www.stvinc.com

BY: tarnovk -

SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 157 (MERRITT BOULEVARD) AND
MD 157 (PENINSULA EXPRESSWAY)MERRITT AVENUE
DUNDALK, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE ADVERTISED DATE 03/2013 CONTRACT NO. BA3325177

DESIGNED BY KXT
DRAWN BY KXT
CHECKED BY SDY
F.A.P. NO.
COUNTY BALTIMORE
LOGMILE 03015702.73
TIMS NO. L069
TOD NO.

TS NO. 4685F-GI | DRAWING SG-02 OF 08 | SHEET NO. 67 OF 100

PLOTTED: Monday, March 18, 2013 AT 01:59 PM
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