

**PROJECT DESCRIPTION**

**GENERAL**

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 650 AND SLIGO CREEK PARKWAY IN PRINCE GEORGE'S COUNTY, MARYLAND. MD 650 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

**INTERSECTION OPERATION**

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 650 APPROACHES OPERATING CONCURRENTLY AND THE SLIGO CREEK APPROACH OPERATING ALONE.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR NORTHBOUND MD 650 APPROACH.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS NORTH LEG OF MD 650 AND PEDESTRIAN INDICATIONS ARE PROVIDED ACROSS SLIGO CREEK PARKWAY.

**CONTROLLER REQUIREMENTS**

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "S" BASE MOUNTED CABINET.

**PHONE DROP**

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

**MAINTENANCE OF TRAFFIC**

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

- STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE)
- STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE)
- STANDARD NO. MD-104.04-07 (CENTER LANE CLOSURE)
- STANDARD NO. MD-104.04-13 (LEFT TURN BAY CLOSURE)
- STANDARD NO. MD-104.04-15 (INTERSECTION LEFT LANE, TURN BAY)

**PROJECT CONTACTS**

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. ANYESHA MOOKHERJEE  
 MS. FELEETA MURPHY  
 PHONE: (301) 513-7409/7358  
 ASSISTANT DISTRICT ENGINEER - TRAFFIC  
 PRINCE GEORGE'S (MONTGOMERY)

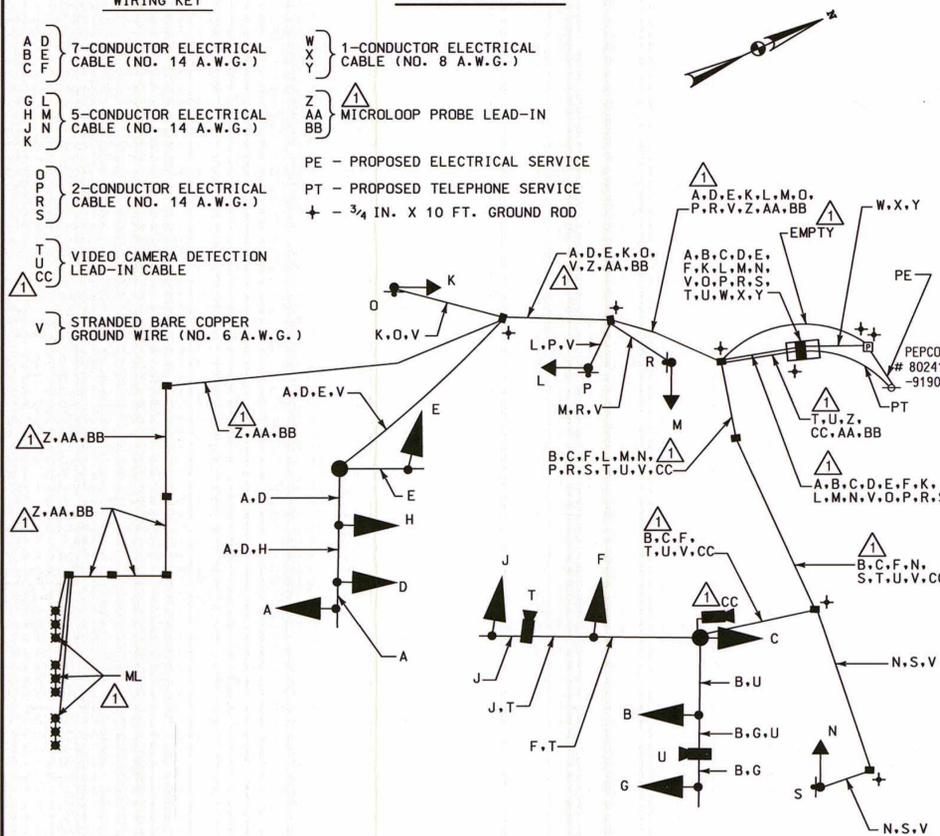
MR. VICTOR GRAFTON  
 ASSISTANT DISTRICT UTILITY ENGINEER  
 PHONE: (301) 513-7350

MS. CORREN JOHNSON  
 CHIEF, TRAFFIC OPERATIONS DIVISION  
 PHONE: (410) 787-7630

**WIRING KEY**

- A, D, E, F } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- G, L, H, M, J, N, K } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- O, P, R, S } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- T, U, V } VIDEO CAMERA DETECTION LEAD-IN CABLE
- W, X, Y } 1-CONDUCTOR ELECTRICAL CABLE (NO. 8 A.W.G.)
- Z, AA, BB } MICROLOOP PROBE LEAD-IN
- PE - PROPOSED ELECTRICAL SERVICE
- PT - PROPOSED TELEPHONE SERVICE
- + - 3/4 IN. X 10 FT. GROUND ROD

**WIRING DIAGRAM**



**EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CATEGORY CODES	QUANTITY	DESCRIPTION
900000	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED ASC III CONTROLLER
900000	1 EACH	NEMA SIZE "S" BASE MOUNTED CABINET WITH INTERSECTION MONITOR
900000	1 EACH	VIDEO INTERFACE EQUIPMENT: 1-8 CAMERAS
963010	1 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
973023	14 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF (GROUND MOUNT) : - 6 EACH D11-1(1) SIGN (24 IN. x 6 IN.) - GROUND MOUNT - 2 EACH D11-1 SIGN (24 IN. X 18 IN.) - GROUND MOUNT - 1 EACH R9-5 SIGN (12 IN. X 18 IN.) - GROUND MOUNT
	69 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF (POLE MOUNT) : - 2 EACH D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT - 1 EACH M1-5(3) "NORTH, LEFT ARROW, MD, SOUTH, RIGHT ARROW" (108 IN. x 36 IN.) - MAST ARM MOUNT - 2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS SLIGO CREEK PKWY" - 2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS NEW HAMPSHIRE AVE" - 1 EACH R3-5(L) SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT - 1 EACH R3-5(R) SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT

**EQUIPMENT LIST "C"**

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

- EXISTING VIDEO DETECTION CAMERAS AND INTERFACE EQUIPMENT SHALL BE RETURNED TO SHA.
- ALL OTHER REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

**APS - PEDESTRIAN MESSAGES**

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

MD 650 (NEW HAMPSHIRE AVE) AND SLIGO PARKWAY - NORTH LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS NEW HAMPSHIRE AT SLIGO, CROSSWALK ANGLES RIGHT, WAIT." \*\*  
 WALK: RAPID TICK

SLIGO PARKWAY AND MD 650 (NEW HAMPSHIRE AVENUE - WEST LEG

STREET AT 90 DEGREES

WAIT: "WAIT TO CROSS SLIGO AT NEW HAMPSHIRE, WAIT."  
 WALK: RAPID TICK

\*\* MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

**PHASE CHART**

	1	2	3	4	5	6	7	8	9	10	11	12	13
PHASE 1 + 6	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW
1 + 6 CHANGE	Y	Y	Y	G	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	WK	WK	DW	DW
PED CLEARANCE	G	G	G	G	G	G	R	R	R	FLOW	FLOW	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	G	G	G	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW
PHASE 4 ALT.	R	R	R	R	R	R	G	G	G	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	R	R	G	G	G	DW	DW	FLOW	FLOW
4 ALT. CHANGE	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FLR	FLR	FLR	DARK	DARK	DARK	DARK

**EQUIPMENT LIST "B"**

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CAT. CODES	QUANTITY	DESCRIPTION
120500	1 EACH	MAINTENANCE OF TRAFFIC
203030	3 C.Y.	TEST PIT EXCAVATION
585621	670 L.F.	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	120 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
801004	14 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
801130	3 EACH	SQUARE PERFORATED TUBULAR STEEL SIGN POSTS
802501	415 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805125	130 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805135	420 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	100 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805155	200 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
805160	6 L.F.	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
807202	1 EACH	METERED SERVICE PEDESTAL
810022	100 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
810555	3 EACH	MICROLOOP PROBE, 1000 FOOT LEAD IN CABLE
811001	10 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	14 S.F.	INSTALL GROUND MOUNTED SIGN
813015	69 S.F.	INSTALL OVERHEAD SIGN
818004	4 EACH	10 FOOT BREAKAWAY PEDESTAL POLE
818051	1 EACH	STEEL POLE WITH TWIN 50 AND 70 FOOT MAST ARMS
832018	140 L.F.	CABLE - 1 CONDUCTOR, NO. 2 AWG, TYPE USE 600V
837001	8 EACH	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860284	31 EACH	12 IN. LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860290	2 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
861105	760 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	860 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1440 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
862102	90 L.F.	SAWCUT FOR SIGNAL (LOOP DETECTOR)
871202	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
800000	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
800000	4 EACH	16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	4 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION
800000	1 EACH	2-WIRE CENTRAL CONTROL UNIT
800000	1 EACH	16.5 FT. STEEL "T" POLE WITH TWIN 50 FOOT AND 50 FOOT MAST ARMS
800000	3 EACH	VIDEO DETECTION CAMERA AND CABLE

REDLINE NO. 1  
 REVISED TRAFFIC SIGNAL PLAN  
 ADDENDUM NO. 1  
 REVISED TRAFFIC SIGNAL  
 9/20/2012

**SHA** STATE OF MARYLAND  
 DEPARTMENT OF TRANSPORTATION  
 STATE HIGHWAY ADMINISTRATION  
 OFFICE OF TRAFFIC & SAFETY  
 TRAFFIC ENGINEERING DESIGN DIVISION  
 DECK REPLACEMENT AND SUBSTRUCTURE REHABILITATION  
 STEEL BEAM BRIDGE NO. 1501300  
 ON MD 650 (NEW HAMPSHIRE AVENUE)  
 OVER SLIGO CREEK

**GENERAL INFORMATION SHEET**

SCALE NONE ADVERTISED DATE 8/20/2012 CONTRACT NO. MO4235180

DESIGNED BY B. DONOWAY COUNTY MONTGOMERY  
 DRAWN BY B. DONOWAY LOGMILE 15065000.43  
 CHECKED BY N. Leary TMS NO. 1587  
 F.A.P. NO. TOD NO.

TS NO. DRAWING TSP-3 OF 3 SHEET NO. 45 OF 72

**WR&A**  
 WHITMAN, REQUARDT & ASSOCIATES, LLP  
 801 South Caroline Street, Baltimore, Maryland 21231