

PROJECT DESCRIPTION

I. GENERAL:

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 458 (SILVER HILL ROAD) AND SUTLAND PARKWAY/METRO STATION ENTRANCE IN PRINCE GEORGE'S COUNTY.

MD 458 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION:

THE PROPOSED TRAFFIC SIGNAL WILL CONTINUE TO OPERATE IN A SEMI-ACTUATED MODE USING FOUR (4) NEMA PHASES.

MAINLINE MD 458 OPERATES CONCURRENTLY WITH A LEFT TURN PROHIBITION IN BOTH DIRECTIONS. A CONCURRENT PEDESTRIAN MOVEMENT FOR THE NORTH AND SOUTH LEGS OPERATES DURING THIS PHASE. SUTLAND PARKWAY AND THE METRO STATION ENTRANCE OPERATE IN A SIDE STREET SPLIT PHASE MODE WITH AN ACTUATED ADVANCE PEDESTRIAN PHASE ACROSS THE WEST LEG OF THE INTERSECTION. A NEW ACTUATED PEDESTRIAN MOVEMENT WILL BE ADDED FOR THE EAST LEG OF THE INTERSECTION. THIS INTERSECTION IS PART OF THE MD 458 INTERCONNECT SIGNAL SYSTEM.

TWO POLES WILL BE REPLACED AND ALL REMAINING SIGNAL HEADS WILL BE UPGRADED TO LED. VIDEO DETECTION CAMERAS WILL BE INSTALLED, AND NON-INVASIVE PASSAGE DETECTORS WILL BE INSTALLED FOR THE MAINLINE APPROACHES. PEDESTRIAN FACILITIES WILL BE UPGRADED INCLUDING ADA RAMPS AND SPACED SIGNALS. A NEW PEDESTRIAN CROSSING WILL BE PROVIDED FOR THE EAST LEG OF THE INTERSECTION. VIDEO INTERFACE EQUIPMENT AND A NEW 2-WIRE CENTRAL CONTROL UNIT WILL BE INSTALLED IN THE EXISTING CABINET.

AUDIBLE PUSHBUTTON FUNCTION SHALL BE AS FOLLOWS:

1. WHEN A PEDESTRIAN PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE:

FOR EAST AND WEST LEG RAMPS, "WAIT TO CROSS SILVER HILL AT SUTLAND PARKWAY AND METRO, WAIT."
FOR NORTH LEG RAMP, "WAIT TO CROSS METRO AT SILVER HILL, WAIT"
FOR SOUTH LEG RAMP, "WAIT TO CROSS SUTLAND PARKWAY RAMP AT SILVER HILL, WAIT"

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

PROJECT CONTACTS

THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

MR. VENU NEMANI ASST. DISTRICT ENGINEER-TRAFFIC PHONE: 301-513-7404	MR. EDWARD RODENHIZER CHIEF-SIGNAL OPERATIONS SECT. PHONE: 410-787-7650	802501 200 LF
MR. TOM FOUNTAIN ASST. DISTRICT ENGINEER-MAINTENANCE PHONE: 301-513-7304	MR. SONNY BAILEY CHIEF-SIGN SHOP PHONE: 410-787-7670	805115 170 LF
MR. VICTOR GRAFTON UTILITY ENGINEER PHONE: 301-513-7350	MR. MIKE STOCKER SUPERVISOR, SIGNAL WAREHOUSE PHONE: 410-787-7668	805125 145 LF
MR. AVJIT MAJI CHIEF-TRAFFIC OPERATIONS DIV. PHONE: 410-787-7630	POWER COMPANY REPRESENTATIVE - PEPCO (PG): MR. RICHARD CHILCOAT, SERVICE ASSOCIATE PEPCO ENGINEERING 8300 OLD MARLBORO PIKE UPPER MARLBORO MARYLAND 20772 PHONE: 301-967-5805, FAX: 301-967-5820 EMAIL: RACHILCOAT@PEPCO.COM	805135 55 LF

MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE STANDARD PLATES FOR TRAFFIC CONTROL FROM SECTION MD 104.00 OF THE SHA BOOK OF STANDARDS FOR HIGHWAYS & INCIDENTAL STRUCTURES.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.
9124 VIDEO INTERFACE EQUIPMENT 1-8 CAMERAS

EQUIPMENT LIST "B"

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

CATEGORY	CODE NO.	QUANTITY	DESCRIPTION
	201032	32 CY	CLASS 2 EXCAVATION
	203030	2 CY	TEST PIT EXCAVATION
	585621	745 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
	585625	175 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
	585700	450 LF	REMOVAL OF EXISTING PAVEMENT MARKING LINES, ANY WIDTH
	634300	305 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
	648150	10 LF	MONOLITHIC CONCRETE MEDIAN 4 FEET 0 INCH WIDE TYPE A-3
	655105	1355 SF	5 INCH CONCRETE SIDEWALK
	655120	164 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS (RED)
	800000	1 EA	2-WIRE CENTRAL CONTROL UNIT
	800000	6 EA	FURNISH AND INSTALL 8 INCH LED SIGNAL HEAD SECTION
	800000	8 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION
	800000	8 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
	800000	1 EA	LED LUMINAIRE
	800000	1 EA	REMOVE AND DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
	800000	3 EA	VIDEO DETECTION CAMERA AND CABLE, ANY LENGTH
	801004	11 CY	CONCRETE FOR SIGNAL FOUNDATION
	801104	40 LF	WOOD SIGN SUPPORTS 4 INCH X 4 INCH
	801106	32 LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
	801605	109 SF	SHEET ALUMINUM SIGNS CONSISTING OF: W16-7p(R) RIGHT DIAGONAL ARROW (24" X 12") GROUND MOUNT W16-7p(L) LEFT DIAGONAL ARROW (24" X 12") GROUND MOUNT W11-2 PEDESTRIAN TRAFFIC (30" X 30") GROUND MOUNT R4-7 SYMBOLIC KEEP RIGHT (18" X 24") GROUND MOUNT R6-1R ONE WAY (30" X 12") GROUND MOUNT R6-1L ONE WAY (30" X 12") GROUND MOUNT R3-5(L) LEFT ONLY (30" X 36") MAST ARM MOUNT R3-5(R) LEFT ONLY (30" X 36") MAST ARM MOUNT R10-11b "NO TURN ON RED" (30" X 30") MAST ARM MOUNT 3-32 NO LEFT OR U-TURN (30" X 30") MAST ARM MOUNT D-3(1) (VAR. X 16") "Silver Hill Rd" DUAL SIDED, MAST ARM MOUNT R10-3(1) PUSHBUTTON SIGN (9" X 15") "TO CROSS METRO ENTRANCE," POLE MOUNT R10-3(1) PUSHBUTTON SIGN (9" X 15") "TO CROSS SUTLAND PKWY RAMP," POLE MOUNT R10-3(1) PUSHBUTTON SIGN (9" X 15") "TO CROSS SILVER HILL ROAD," POLE MOUNT M1-5(6) GUIDE SHIELD ASSEMBLY (30" X 48") "EAST", "MARYLAND 458", RIGHT ARROW, POLE MOUNT M1-5(6) GUIDE SHIELD ASSEMBLY (48" X 72") "EAST", "MARYLAND 458", LEFT ARROW, POLE MOUNT

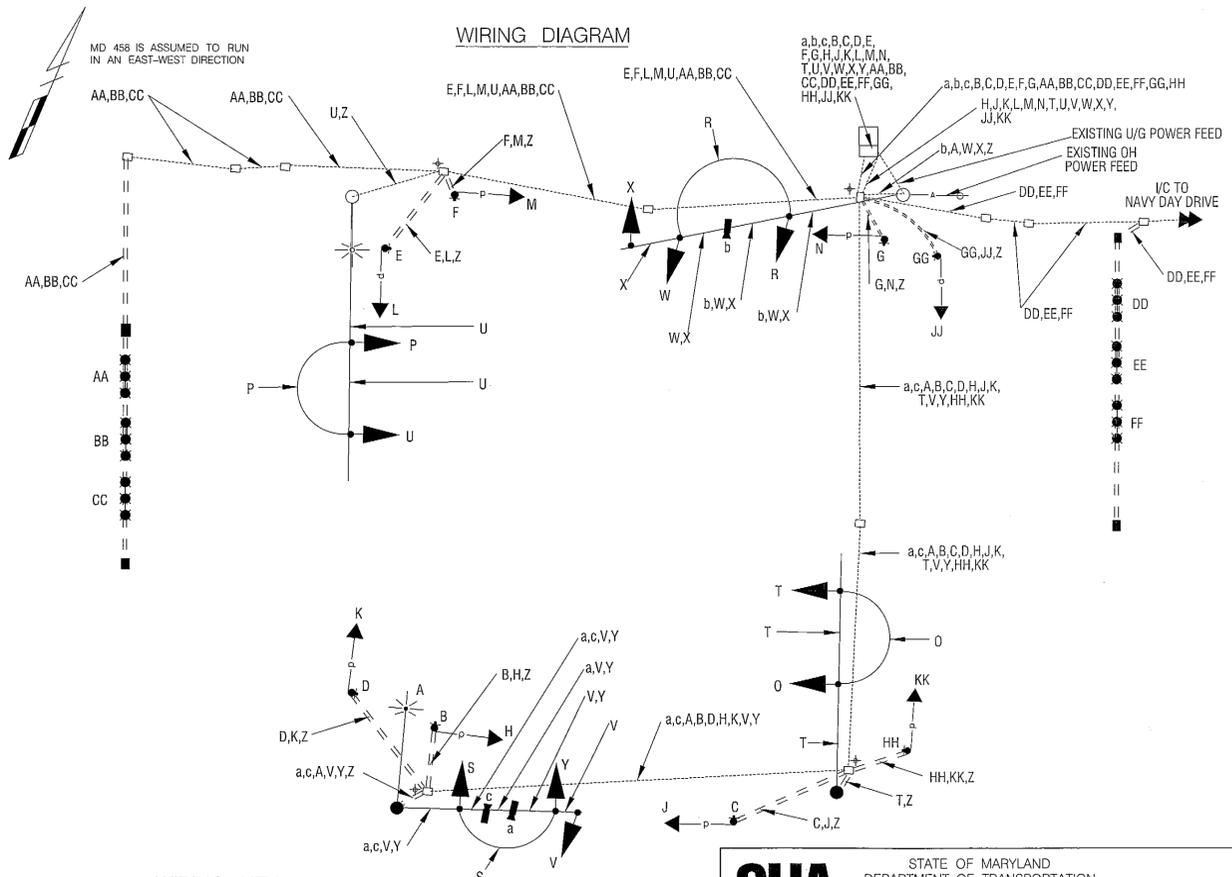
EQUIPMENT LIST "C"

ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PHASE 2 & 6	G	G	G	G	R	R	R	R	R	R	DW	DW	WK	WK	WK	WK	DW	DW
PED CLEAR & COUNTDOWN	G	G	G	G	R	R	R	R	R	R	DW	DW	FLW	FLW	FLW	FLW	DW	DW
PHASE 2 & 6 CHANGE	Y	Y	Y	Y	R	R	R	R	R	R	DW							
PHASE 3	R	R	R	R	G	G	G	R	R	R	DW							
PHASE 3 CHANGE	R	R	R	R	Y	Y	Y	R	R	R	DW							
PHASE 4	R	R	R	R	R	R	R	G	G	G	DW							
PHASE 4 CHANGE	R	R	R	R	R	R	R	Y	Y	Y	DW							
PHASE 4 ALT (LEAD PED)	R	R	R	R	R	R	R	G	G	G	W	W	DW	DW	DW	DW	WK	WK
PED CLEAR & COUNTDOWN	R	R	R	R	R	R	R	G	G	G	FLW	FLW	DW	DW	DW	DW	FLW	FLW
PHASE 4 ALT CHANGE	R	R	R	R	R	R	R	Y	Y	Y	DW							
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR	FLR	FLR	DARK							

WIRING DIAGRAM



WIRING KEY

- a,b,c - VIDEO DETECTION LEAD IN CABLE
- A - 2 CONDUCTOR NO. 12 AWG TRAY CABLE
- B,C,D,E,F,G, GG,HH } 2 CONDUCTOR NO. 14 AWG ELECTRICAL CABLE
- H,J,K,L,M,N, O,P,R,S,J,J,K,K } 5 CONDUCTOR NO. 14 AWG ELECTRICAL CABLE
- T,U,V,W,X,Y - 7 CONDUCTOR NO. 14 AWG ELECTRICAL CABLE
- Z - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- AA,BB,CC } NON INVASIVE DETECTOR LEAD
- DD,EE,FF } NON INVASIVE DETECTOR LEAD
- + - EXISTING GROUND ROD

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 458 (SILVER HILL ROAD)
AT SUTLAND PARKWAY/METRO ENTRANCE
SUTLAND, MARYLAND

GENERAL INFORMATION PLAN

SCALE NONE ADVERTISED DATE 01-2013 CONTRACT NO. PG7865777

DESIGNED BY PMH COUNTY PRINCE GEORGE'S
DRAWN BY PMH LOGMILE 18045800.91
CHECKED BY W5 TIMS NO. K099
F.A.P. NO. TOD NO.

TS NO. 995-C DRAWING SG-07 OF 23 SHEET NO. OF

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