

PROJECT DESCRIPTION
GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC SIGNAL AT THE INTERSECTION OF US 1 AT HOLLYWOOD ROAD IN PRINCE GEORGE'S COUNTY. US 1 (BALTIMORE AVE) IS CONSIDERED TO RUN IN A NORTH/SOUTH DIRECTION.

INTERSECTION OPERATION

A SYSTEM CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS LOCATION. THE INTERSECTION WILL OPERATE IN A FULLY ACTUATED MODE USING 6 NEMA PHASES. THERE WILL BE AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE FOR BOTH THE NORTH AND SOUTHBOUND MOVEMENTS OF US 1. THE US 1 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY WITH A CONCURRENT PEDESTRIAN MOVEMENT ACROSS THE EAST LEG OF THE INTERSECTION. THE HOLLYWOOD ROAD/DRIVEWAY ENTRANCE MOVEMENTS WILL OPERATE CONCURRENTLY WITH AN ACTUATED PEDESTRIAN MOVEMENT ACROSS THE NORTH LEG OF THE INTERSECTION.

THIS INTERSECTION WILL BE INTERCONNECTED TO THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF US 1 AND FOX STREET.

SPECIAL NOTES

1. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

PROJECT CONTACTS:

MR. FELECIA MURPHY, ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 513-7358
MR. DUANE BERNARD, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (301) 513-7336
MR. VERNON STINNETT, ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 615-7304
MR. AUGIE REBISH, UTILITY ENGINEER
PHONE: (301) 513-7350
MR. RICHARD L. DAFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630
MR. EDWARD RODENHIZER, SUPERVISOR, SIGNAL OPERATIONS
PHONE: (410) 787-7652

2. APS WILL FUNCTION AS FOLLOWS:

TO CROSS US 1 (BALTIMORE AVENUE) @ HOLLYWOOD ROAD
A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS BALTIMORE AT HOLLYWOOD".
B. WHEN WALK PHASE BEGINS, THE AUDIBLE SOUND WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

TO CROSS HOLLYWOOD ROAD @ US 1 (BALTIMORE AVENUE)
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B. WHEN WALK PHASE BEGINS, THE AUDIBLE SOUND WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

3. THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT 410-787-7635 TO ARRANGE FOR THE PHONE DROP INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET NUMBER, ZIP CODE, AND TELEPHONE NUMBER.

GENERAL NOTES

- VIDEO CAMERA LOCATION/ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
- PAVEMENT MARKINGS DETAILED ARE PROPOSED AND ARE TO BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH MD-SHA STANDARDS. ALL OTHER PAVEMENT MARKINGS ARE TO BE CONSIDERED AS EXISTING.
- GEOMETRICS SHALL BE CONFIRMED PRIOR TO THE INSTALLATION OF SIGNAL EQUIPMENT. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS. HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PROJECT ENGINEER IMMEDIATELY. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18 IN. FROM A 60 IN. x 60 IN. LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- THE 10 FT. SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
- PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- THE LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 & FIG 4E-2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- ALL UNUSED CABLE SHALL BE REMOVED.

EQUIPMENT LIST

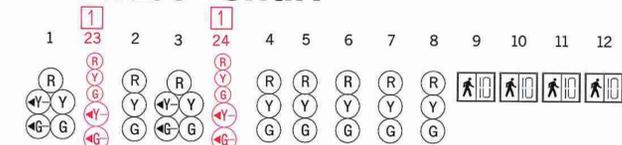
A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

NONE.

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

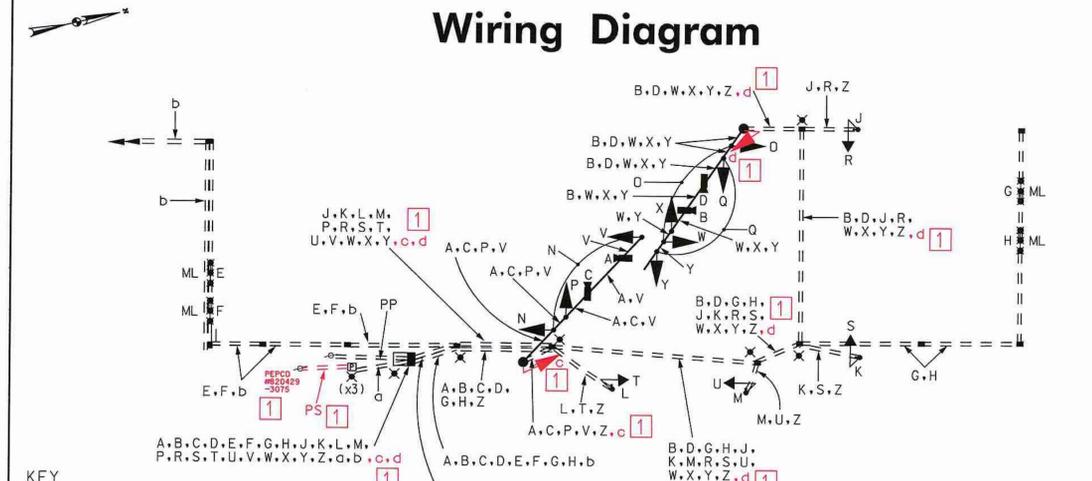
QUANTITY	UNITS	DESCRIPTION
LUMP SUM	LS	MAINTENANCE OF TRAFFIC
LUMP SUM	LS	MOBILIZATION
4	EA	10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY BASE (USE SHA STANDARD MD 801.01-01 FOR FOUNDATION)
2	EA	16.5 FT. SPECIAL "T" STEEL POLE WITH 50 FT. MONOCURE MAST ARM
1	EA	STANDARD S.H.A. TRAFFIC SIGNAL CONTROLLER, BASE MOUNTED NEMA 6 CABINET, VIDEO DETECTION INTERFACE, TELEMETRY INTERFACE EQUIPMENT, ONE-FOUR-CHANNEL LOOP DETECTOR AMPLIFIER AND VIDEO DETECTION EQUIPMENT [Note: CONTROLLER AND CABINET SHALL BE PURCHASED FROM ECONOLITE AND DELIVERED TO THE S.H.A. SIGNAL SHOP FOR WIRING AND TESTING. CONTACT MR. ED RODENHIZER (410) 787-7650]
4	EA	TERRA VIDEO DETECTOR CAMERA
850	LF	TERRA VIDEO DETECTOR CAMERA CABLE (NO. 18 A.W.G.)
4	EA	AUDIBLE PEDESTRIAN PUSHBUTTON ASSEMBLY WITH PUSHBUTTON SIGN
1	EA	APS 2-WIRE CENTRAL CONTROL UNIT
6	EA	12 IN. 3-SECTION LED SIGNAL HEAD - MAST ARM MOUNT
2	EA	12 IN. 5-SECTION LED SIGNAL HEAD - MAST ARM MOUNT
4	EA	16 IN. 1-SECTION, 1-WAY LED (COUNTDOWN) PEDESTRIAN SIGNAL HEAD - POST TOP MOUNT
1	EA	16 IN. X VAR. D-3(1) DUAL FACED SIGN - MAST ARM MOUNT
1	EA	24 IN. X 48 IN. SHIELD ASSEMBLY SIGN - POLE MOUNT
1	EA	36 IN. X 72 IN. SHIELD ASSEMBLY SIGN - POLE MOUNT
2	EA	48 IN. X 48 IN. W3-3 "NEW" SIGN - GROUND
72	LF	4 IN. X 6 IN. WOOD SIGN SUPPORT
6	CY	TEST PIT EXCAVATION
13	EA	HANDHOLE
75	LF	1-CONDUCTOR CABLE (NO. 8 AWG)
625	LF	2-CONDUCTOR CABLE (NO. 14 AWG)
825	LF	5-CONDUCTOR CABLE (NO. 14 AWG)
1000	LF	7-CONDUCTOR CABLE (NO. 14 AWG)
300	LF	BARE COPPER GROUND WIRE (NO. 6 AWG)
40	LF	2 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
600	LF	3 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
125	LF	3 IN. PVC CONDUIT [SCHEDULE 80] - BORED
210	LF	3 IN. PVC CONDUIT [SCHEDULE 80] - SLOTTED
100	LF	4 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
100	LF	4 IN. PVC CONDUIT [SCHEDULE 80] - SLOTTED
4	EA	NON-INVASIVE PROBE (SET OF 3) WITH 1000 FT. LEAD-IN CABLE
14.0	CY	CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT
9	EA	GROUND ROD - 3/4 IN. X 10 FT. LENGTH
1	EA	CONTROL & DISTRIBUTION EQUIPMENT FOR ELECTRICAL SERVICE
200	LF	12 IN. WHITE THERMOPLASTIC PAVEMENT MARKING - CROSSWALK
110	LF	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKING - STOP LINE
1	EA	REMOVE EXISTING GROUND MOUNTED SIGN
1	EA	4 IN. PVC CONDUIT [SCHEDULE 80] - BORED.
1	EA	# 2 A.W.G. WIRE - FOR PEPCO ELECTRICAL SERVICE.
1	EA	8 IN./12 IN. 5-SECTION LED (INLINE) SIGNAL HEAD - POLE MOUNT.

Phase Chart



PHASE 1 AND 5	+GR	+GR	R	+GR	+GR	R	R	R	R	R	R	DW	DW	DW	DW
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6															
PHASE 1 AND 6	+GG	+GG	G	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 CHANGE	+YG	+YG	G	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 5	R	R	R	+GG	+GG	G	R	R	R	R	R	DW	DW	DW	DW
5 CHANGE	R	R	R	+YG	+YG	G	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	R	WK	WK	DW	DW
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	FLDW	FLDW	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 AND 8	R	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW
4 AND 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 AND 8 ALT	R	R	R	R	R	R	G	G	G	G	G	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	G	DW	DW	FLDW	FLDW
4 AND 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

Wiring Diagram



- KEY**
- AC } VIDEO DETECTOR CABLE
 - BD } VIDEO DETECTOR CABLE
 - EG } NON-INVASIVE MICRO-LOOP DETECTOR LEAD-IN CABLE
 - FH } NON-INVASIVE MICRO-LOOP DETECTOR LEAD-IN CABLE
 - JL } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
 - KM } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
 - NR } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
 - OS } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
 - PT } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
 - QU } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
 - VV } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
 - Wd } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
 - Z } BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
 - a } 1-CONDUCTOR (NO. 8 A.W.G.) (3 PIECES) FOR TRAFFIC SIGNAL ELECTRICAL SERVICE
 - b } 12-PAIR VOICE GRADE TELEMETRY INTERCONNECT CABLE (NO. 19 A.W.G.) (HOLLYWOOD ROAD - FOX STREET RUN)
 - PS } PROPOSED UNDERGROUND ELECTRICAL SERVICE BY PEPCO -(3 pieces # 2 A.W.G.)
 - PP } PROPOSED PHONE SERVICE BY VERIZON
 - * } PROPOSED GROUNDING ROD
 - ML } MICRO-LOOP DETECTOR (NON-INVASIVE)

Red-Line Revision 1

SHA MDOT-SHA O.O.T.S.

John W. Palle 3/3/2011
G.H.A. Approval Date
T.S. - 4683 Log Mile-160000105.95
T.I.M.S. No. - J-180

The Traffic Group, Inc.
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SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
US 1 (Baltimore Avenue) at Hollywood Road
COLLEGE PARK, MARYLAND

GENERAL INFORMATION PLAN

SCALE	N/A	DATE	December 7, 2010	CONTRACT NO.	BW996M82
DESIGNED BY	John Dimdorfer/th	COUNTY	Prince George's		
DRAWN BY	Sarah Dimdorfer	LOGMILE	16000105.95		
CHECKED BY		TIMS NO.	J-180		
F.A.P. NO.	N/A	TOD NO.			