

PROJECT DESCRIPTION

GENERAL
 THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC CONTROL SIGNAL DUE TO UPGRADES OF PEDESTRIAN FACILITIES AT THE INTERSECTION OF US 1 (WASHINGTON BLVD) AND TROY HILL DRIVE IN HOWARD COUNTY. INSTALLATION OF ACCESSIBLE PEDESTRIAN SIGNALS AND COUNTDOWN PEDESTRIAN SIGNAL HEADS IS PROPOSED ALONG THE WEST LEG OF THE INTERSECTION. ADDITIONALLY, MODIFICATION OF THE EXISTING PEDESTRIAN RAMPS IS PROPOSED TO MEET CURRENT ADA REQUIREMENTS.

US 1 IS ASSUMED TO RUN IN A NORTH/SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA 4 PHASE, FULL TRAFFIC ACTUATED MODE.

CONTROLLER REQUIREMENTS

EXISTING CABINET AND CONTROLLER WILL BE UTILIZED. SHA FORCES WILL INSTALL ONE (1) 2-WIRE CENTRAL CONTROL UNIT.

SHA FORCES SHALL PERFORM ALL INTERNAL CABINET WIRING.

APS OPERATION

FOR TROY HILL DRIVE
 A. WHEN PEDESTRIAN LOCATES AND PASSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS TROY HILL AT WASHINGTON, WAIT"
 B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

THE CONTRACTOR SHALL CONTACT ED RODENHIZER AT THE SIGNAL SHOP 410-787-7650 TO DELIVER APS EQUIPMENT FOR TESTING.

THE CONTACT PERSONS FOR DISTRICT #7 ARE AS FOLLOWS:

Mr. John Concannon
 Assistant District Engineer - Traffic
 Phone: 301-624-8140

Ms. Andrea Abend
 District Utility Engineer
 Phone: 301-624-8115

Ms. Sue Palmer
 Assistant District Engineer - Maintenance
 Phone: 301-624-8108

Mr. John Huchrowski
 Assistant District Engineer - Construction
 Phone: 301-624-8201

THE CONTACT PERSONS FOR OFFICE OF TRAFFIC AND SAFETY ARE AS FOLLOWS:

Mr. Edward Rodenhizer
 Chief, SHA Traffic Signal Shop
 Phone: 410-787-7650

Mr. Richard L. Daff Sr.
 Chief, Traffic Operations Division
 Phone: 410-787-7630

Mr. Robert Snyder
 Asst. Chief, Traffic Operations Division
 Phone: 410-787-7631

The Power Company Representative is:
 Baltimore Gas & Electric Company
 7317 Parkway Drive South
 Hanover, MD 21076
 Phone: 410-859-9062

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
973023	41 SF	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGNS:
		3 EACH: W11-2 (36 IN. x 36 IN.) POLE MOUNT
		1 EACH: W13-4(1) (36 IN. x 24 IN.) POLE MOUNT "ACROSS RAMP"
		2 EACH: W16-7D (21 IN. x 15 IN.) POLE MOUNT "SYM: 45° ARROW, LEFT"
		2 EACH: R10-3(1) (9 IN. x 15 IN.) POLE MOUNT, "PUSH BUTTON TO CROSS TROY HILL DRIVE"

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
		ALL REMOVED MATERIALS ARE TO BECOME THE PROPERTY OF THE CONTRACTOR

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

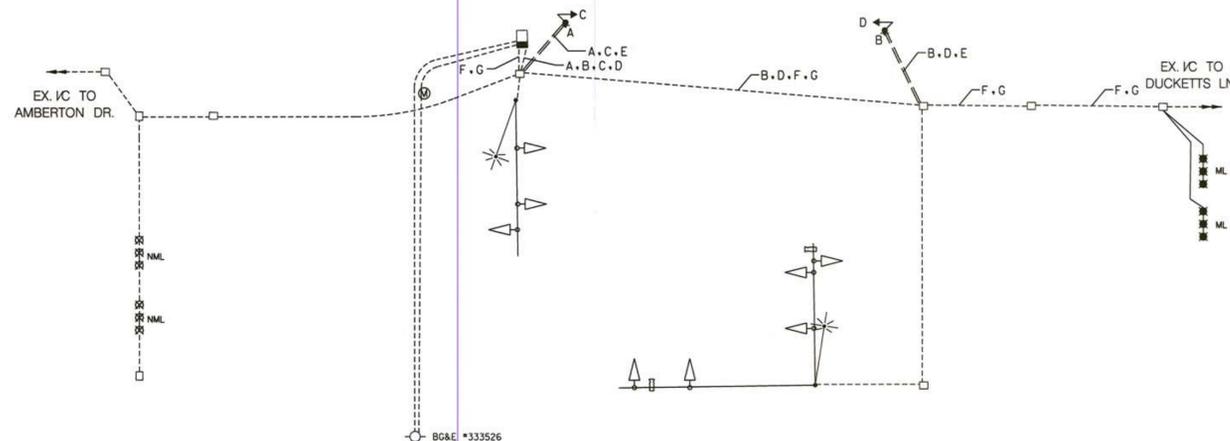
CONTRACT NO: C-0285-02

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
203030	2 EA	TEST PIT EXCAVATION
585408	110 LF	10 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585621	165 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	20 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585700	270 LF	REMOVAL OF EXISTING PAVEMENT MARKING LINES, ANY WIDTH
800000	2 EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	2 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON AND SIGN
800000	1 EA	2-WIRE CENTRAL CONTROL UNIT
801004	1 CY	CONCRETE FOR SIGNAL FOUNDATION
801106	32 LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
801607	41 SF	INSTALL SHEET ALUMINUM SIGN
802145	1 EA	ADJUST EXISTING HANDHOLE
802501	120 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805135	60 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805160	20 LF	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
810555	2 EA	MICROLOOP PROBE, 1000 FOOT LEAD IN CABLE
812002	16 LF	WOOD SIGN SUPPORTS 6 INCH X 6 INCH
818004	2 EA	10 FOOT BREAKAWAY PEDESTAL POLE
861105	310 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	330 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
862102	65 LF	SAW CUT FOR SIGNAL LOOP DETECTOR

PHASE CHART

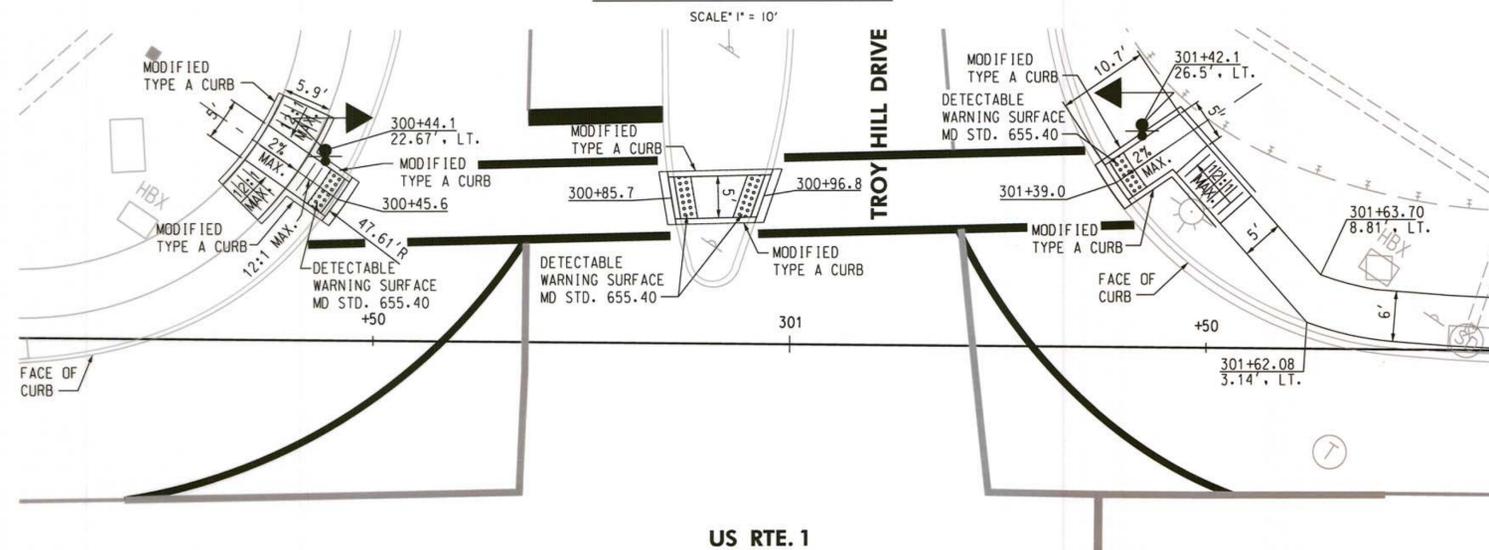
	1	2	3	4	5	6	7	8	9	10
PHASE 1 + 6	+	+	+	+	+	+	+	+	+	+
1 CHANGE	+	+	+	+	+	+	+	+	+	+
PHASE 2 + 6	+	+	+	+	+	+	+	+	+	+
PHASE 2 + 6 CHANGE	+	+	+	+	+	+	+	+	+	+
PHASE 4	+	+	+	+	+	+	+	+	+	+
PHASE 4 CHANGE	+	+	+	+	+	+	+	+	+	+
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK

WIRING DIAGRAM



- A, B - ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
- C, D - ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
- E - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- F, G - MICROLOOP LEAD IN CABLE
- ML - MICROLOOP PROBE
- NML - EXISTING NON-INVASIVE MICROLOOP PROBE
- ± - 3/4 IN. X 10 FT. GROUND ROD

SIGNAL AND RAMP DETAILS



REDLINE [3] APPROVAL

SHA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF TRAFFIC & SAFETY
 TRAFFIC ENGINEERING DESIGN DIVISION
 US 1 CORRIDOR REVITALIZATION
 US 1 AT TROY HILL DRIVE

RJM ENGINEERING, INC.
 CONSULTING ENGINEERS
 ELLICOTT CITY, MARYLAND

GENERAL INFORMATION SHEET

SCALE: N.T.S. ADVERTISED DATE: AUG, 2011 CONTRACT NO: C-0285-02

DESIGNED BY: P.WESTCOTT COUNTY: HOWARD
 DRAWN BY: P.WESTCOTT LOGMILE: 13000108.24
 CHECKED BY: J.WANG TMS NO: KB12
 F.A.P. NO. TOD NO.

TS NO. 4427A DRAWING SG-06 OF 08 SHEET NO. 22 OF 24

PLOTTED: Friday, October 21, 2011 AT 09:56 AM
 FILE: P:\SHA\US 1 at Troy Hill Dr\Redline Revision\SG-N002 US1-TroyHill.dgn