DRILL HOLES

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BORDER REV: DATE: June 1, 2004

PROJECT DESCRIPTION

I. GENERAL

This project involves the reconstruction of an existing mast arm Traffic Control Signal with street lighting at the intersection of MD 208 (Hamilton St) /Hamilton St and MD 208 (38th Ave) / 38 th Ave in Prince George's County. The new structure shall include video detection, street lighting and audible pushbuttons. MD 208 (Hamilton St) is assumed to run an east-west direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA five-phase, fully-actuated mode, with the MD 208 (Hamilton St) / Hamilton Street approaches running concurrently. Countdown pedestrian phases with pushbutton actuation shall be provided across the MD 208 (Hamilton St) and Hamilton Street legs. The Countdown pedestrian phases with audible pushbuttons across MD 208 (38th Ave) and 38th Ave shall be on recall. The Exclusive/Permissive left turn phase for the northbound MD 208 (38th Ave) approach shall remain in operation. The MD 208 (38th Ave) and 38th Ave approaches shall also continue to run concurrently.

2. A full-traffic-actuated, eight-phase controller with video interface, 2-wire Control Unit, and all necessary equipment housed in a Type "S" base-mounted cabinet shall be installed at this intersection.

3. SHA signal shop shall install APS control unit into controller cabinet. The Contractor shall deliver the Control Unit and audible pushbuttons to the SHA Signal Shop for testing and programming.

III. SPECIAL NOTES

1. The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.

2. All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7652 seventy-two hours in advance of intended work.

3. All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility 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 will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

4. Upon completion of this project, the Contractor shall notify Mr. Robert Snyder at (410) 787-7631 to arrange for the phone line installation. The Contractor is to provide Mr. Robert Snyder with the nearest street address, zip code and phone number.

The contact persons for District #3 (Prince George's County) and SHA are as follows:

Ms. Felecia Murphy
Assistant District Engineer - Traffic
Phone: (301) 513-7404

Mr. Vernon Stinnett
District Engineer - Maintenance
Phone: (301) 513-7304

Mr. Victor Grafton
Assistant District Engineer - Utility
Phone: (301) 513-7350

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

Mr. Ed Rodenhizer
Manager, Signal Operations Section
410-787-7652

Mr. Sonny Bailey
Manager, Sign Shop Operations
410-787-7676

The power company representative is:

Mr Richard Chilcoat
PEPCO
8300 Old Marlboro Pike
Upper Marlboro, MD 20772
Phone:301-967-5805

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A..

ITEM NO.	QUANTITY	DESCRIPTION
9104	1 EA	Cabinet size "S" with ASC III controller and video interface equipment: 1-8 cameras.
9570	20 SF	Sheet aluminum signs to consist of: (ground mount)
	1 EA	GUIDE SIGN M3-4 "WEST"(24"X12") M1-5 "MD 208"(30"X24") M6-1 "right arrow "(21"X15")
	1 EA	GUIDE SIGN M3-2 "EAST"(24"X12") M1-5 "MD 208"(30"X24") M6-3 "straight arrow "(21"X15")
9571	71.5 SF	Sheet aluminum signs to consist of: (mast arm or pole mount)
	2 EA	D-3(1) "38th AVE " sign, (variable x 16") mast arm mount dual faced.
	2 EA	D-3(1) "Hamilton ST " sign, (variable x 16") mast arm mount dual faced.
	1 EA	R3-5L "LEFT TURN ONLY" sign, (30" x 36") mast arm mount.
	1 EA	R10-11b "NO TURN ON RED" sign, (24"x24").
	4 EA	Pedestrian education R10-3(1) sign (9"x15"). (Note: Sign to read "PUSHBUTTON TO CROSS HAMILTON STREET".)

EQUIPMENT LIST (CONT.)

A. EQUIPMENT TO BE SUPPLIED BY S.H.A..

ITEM NO.	QUANTITY	DESCRIPTION
	4 EA	Pedestrian education R10-3(1) sign (9"x15"). (Note: Sign to read "PUSHBUTTON TO CROSS 38TH AVENUE".)

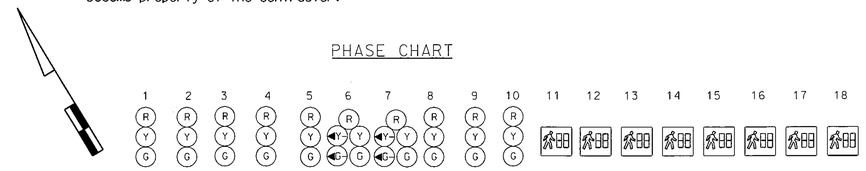
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
2001	4 CY	CLASS 2 EXCAVATION
2002	12 CY	TEST PIT EXCAVATION
5001	2 EA	REMOVAL OF EXISTING PERMANENT PAVEMENT MARKINGS SYMBOLS OR LEGENDS
5003	280 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	350 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	95 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5006	44 SF	WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
6001	315 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	1200 SF	5 INCH CONCRETE SIDEWALK
6003	96 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8001	31 EA	12 INCH LED SIGNAL HEAD SECTION
8002	1 EA	2-WIRE CENTRAL CONTROL UNIT
8004	3 EA	8 INCH LED SIGNAL HEAD SECTION
8007	1 EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP AND LUMINAIRE
8008	8 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8009	8 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8012	1 EA	EMBEDDED METERED SERVICE PEDESTAL WITH BYPASS SWITCH
8014	1 EA	INSTALL CONTROLLER AND CABINET BASE MOUNT (ANY SIZE)
8016	8 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8018	1 EA	MAST ARM POLE & 38' MAST ARM ANY 'T' DIMENSION
8019	1 EA	MAST ARM POLE & 50' MAST ARM ANY 'T' DIMENSION
8024	1 EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8026	1 EA	TWIN MAST ARM POLE & 50'/60' MAST ARMS ANY 'T' DIMENSION
8029	4 EA	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
8031	275 LF	1-CONDUCTOR ELECTRICAL CABLE, NO. 2/0 AWG/THHN
8035	145 LF	ELECTRICAL CABLE - 2-CONDUCTOR (NO. 12 AWG) TYPE T/C
8039	190 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
8040	260 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8041	32 LF	WOOD SIGN SUPPORTS UP TO 4' X 6'
8042	91.5 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8044	470 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8047	50 LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
8048	5 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8053	1 EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8055	895 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8057	1050 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8058	1090 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

C. EQUIPMENT TO BE REMOVED

SHA shall remove the controller and all auxilliary equipment from the controller cabinet. The cabinet and all other removed signal materials are to become property of the contractor.

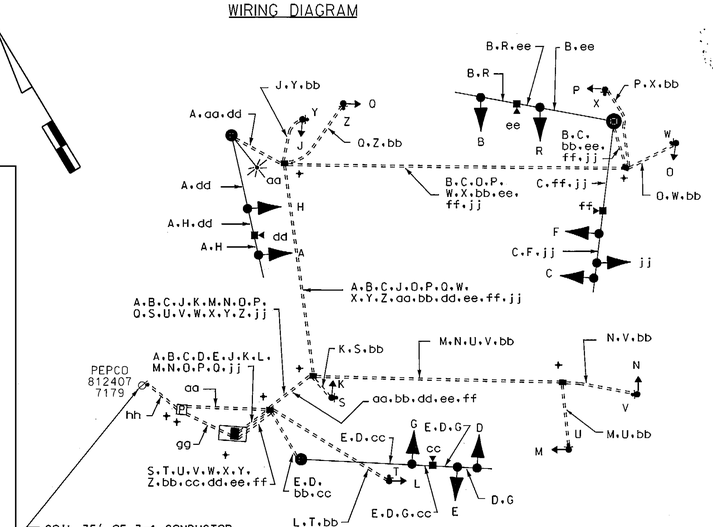
PHASE CHART



	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	G	R	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEAR / COUNTDOWN	G	G	G	G	G	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 8	R	R	R	R	R	◄G~/G	◄G~/G	G	R	R	DW	DW	DW	DW	DW	DW	DW	DW
3 & 8 CHANGE	R	R	R	R	R	◄Y~/G	◄Y~/G	G	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 & 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 8 ALT	R	R	R	R	R	◄G~/G	◄G~/G	G	R	R	DW	DW	DW	DW	DW	WK	WK	DW
3 & 8 ALT CHANGE	R	R	R	R	R	◄Y~/G	◄Y~/G	G	R	R	DW	DW	DW	DW	DW	WK	WK	DW
PHASE 4 & 8 ALT	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEAR / COUNTDOWN	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
4 & 8 ALT CHANGE	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM

TOD NO: XX439-14
SHA NO: PG995B57
MD 208 @ 38th Avenue



WIRING KEY

A, B, C, D, E, jj — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

F, G, H, K, L, M, N, O, P, Q, R — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

S, T, U, V, W, X, Y, Z — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

aa - 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G)

bb - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

cc, dd, ee, ff — CONTROL CABLE (CAMERA TO CONTROLLER)

gg - 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 8 A.W.G.) THHN/THWN

hh - 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 2 A.W.G.) THHN

+ - GROUND RODS

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 208 (HAMILTON STREET) AND 38th AVENUE

HYATTSVILLE, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE 5/14/12 CONTRACT NO. XX4395185

DESIGNED BY R. ZACHERL
DRAWN BY ROB CICCHINI
CHECKED BY
F.A.P. NO.

COUNTY PRINCE GEORGE'S
LOGMILE 16020801.41
TIMS NO. J752
TOD NO.

TS NO. 276B | DRAWING NO. 3 OF 3 | SHEET NO. OF

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy. NW.
Glen Burnie, MD 21061
Ph (410) 590-5500
Fax (410) 590-6637

5903G1.DGN T-79

PLOTTED: WEDNESDAY, MAY 30, 2012 AT 09:02 AM
FILE: J:\DATA\J752\DGN\CORRECTED_NUMBER\5903G1.DGN