DRILL HOLES

BORDER REV: DATE: June 1, 2004

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing Traffic Control Signal with interconnect at the intersection of MD 355 (Rockville Pike) and Pooks Hill Rd in Montgomery County. Countdown pedestrian signals with audible pushbuttons shall be installed at this location. MD 355 (Rockville Pike) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA four-phase, semi-actuated mode, with the MD 355 (Rockville Pike) approaches running concurrently. The Exclusive left turn phase for the northbound approach of MD 355 (Rockville Pike) shall remain in operation. The pedestrian phase with pushbutton actuation across the south leg of MD 355 (Rockville Pike) shall now be a Countdown pedestrian phase with audible pushbutton actuation. The pedestrian phases across Pooks Hill Rd on recall shall now be a Countdown pedestrian phase with audible pushbuttons. Pooks Hill Rd shall continue to run in its own phase. The southbound MD 355 (Rockville Pike) right turn concurrent phase shall remain in operation.

2. The existing full-traffic-actuated, eight-phase controller with all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be utilized at this intersection.

3. Montgomery County signal shop shall install APS control unit into controller cabinet. The Contractor shall deliver the Control Unit and audible pushbuttons to the Montgomery County 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 Montgomery County Forces. Contact Kamal Hamud at (240) 777-8761 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. APS will function as follows:

FOR MD 355 (ROCKVILLE PIKE)

a When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be " Wait to cross Rockville Pike at Pooks Hill Road."

b. When WALK phase begins, the message will be a rapid tick which will last for the duration of the WALK phase.

FOR POOKS HILL ROAD

a When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be " Wait to cross Pooks Hill Road at Rockville Pike."

b. When WALK phase begins, the message will be a rapid tick which will last for the duration of the WALK phase.

The contact persons for District #3 (Montgomery County) are as follows:

Mr. Jeff Wentz
Assistant District Engineer - Traffic
Phone: (301) 513-7358

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: (301) 513-7304

Mr. Augie Rebish
District Engineer - Utility
Phone: (301) 513-7350

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

Mr.Keith Lord
Montgomery County Signal Shop
(301) 674-8965

Mr. Sonny Bailey
Sign Shop
410-787-7676

EQUIPMENT LIST

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

ITEM NO.	DESCRIPTION	QUANTITY
9570	Sheet aluminum signs to consist of: (ground mount)	11 SF
	(1) R4-7 'KEEP RIGHT" sign, (24"x30").	
	(4) Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS ROCKVILLE PIKE")	
	(2) Pedestrian education R10-3(1) sign. (Notet Sign to read "PUSHBUTTON TO CROSS POOKS HILL RD")	

EQUIPMENT LIST (CONT.)

B. EEQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	1 EA
2001	Class 2 Excavation.	3 C.Y.
2002	Test Pit Excavation	6 C.Y.
5003	12" white heat applied permanent preformed thermoplastic pavement marking.	115 L.F.
5004	24" white heat applied permanent preformed thermoplastic pavement marking.	25 L.F.
5005	Removal of existing permanent pavement line markings	135 L.F.
6001	Standard type A combination curb and gutter 12" gutter pan 8" depth.	135 L.F.
6002	4" concrete sidewalk.	1025 S.F.
8003	2 wire Central Control unit	1 EA
8010	Audible/tactile pedestrian pushbutton station & signs.	6 EA
8011	Breakaway pedestal pole (10').	4 EA
8011	Breakaway pedestal pole (5').	2 EA
8014	LED 16" countdown pedestrian signal heads.	6 EA
8017	Remove and dispose of existing material & equipment per assignment.	1 EA
8026	Schedule 80 rigid PVC conduit up tp 4" - trenched.	110 L.F.
8027	Detectable warning surfaces	84 S.F.
8030	Concrete for signal foundation.	4.2 CY
8031	Wood sign supports 4"x4".	16 L.F.
8033	No. 6 AWG stranded bare copper ground wire.	120 L.F.
8045	Install ground mounted sign.	11 SF
8052	Ground rod¾" dia. x 10' length.	1 EA
8058	Electrical cable - 2 conductor (No. 14 AWG).	850 L.F.
8060	Electrical cable - 5 conductor (No. 14 AWG).	890 L.F.

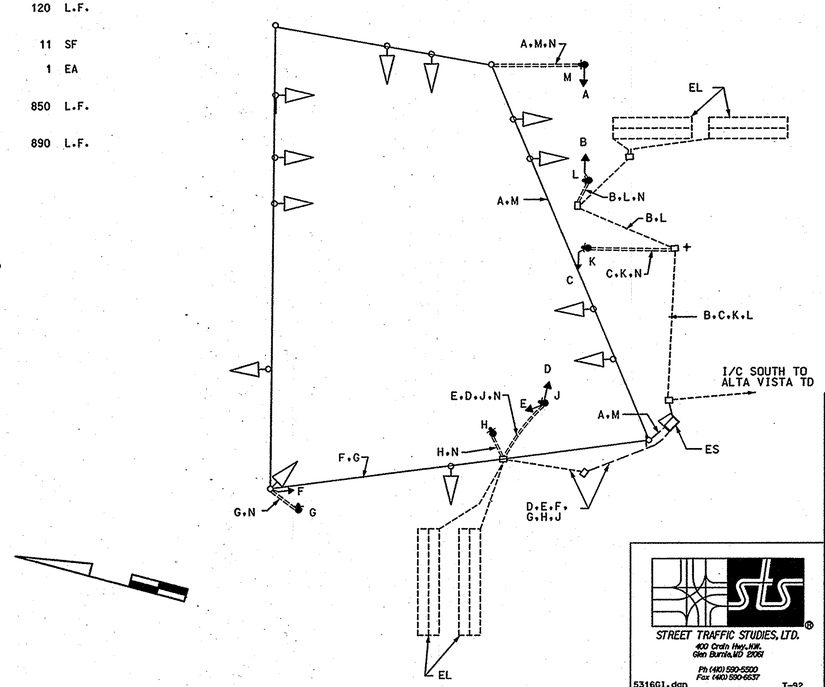
C. EQUIPMENT TO BE REMOVED

All 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 & 5	◄R-	G	◄R-	◄R-	G	G	G	G	G	R	R	R	DW	DW	DW	DW	WK	WK
PED CLEAR / COUNTDOWN	◄R-	G	◄R-	◄R-	G	G	G	G	G	R	R	R	DW	DW	DW	DW	FL/DW	FL/DW
2 & 5 CHANGE	◄R-	G	◄R-	◄R-	G	G	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 & 6	◄G-	G	◄G-	◄G-	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
2 & 6 CHANGE	◄Y-	Y	◄Y-	◄Y-	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4	◄R-	R	◄R-	◄R-	R	R	R	R	R/-G►	G	G	G	DW	DW	DW	DW	DW	DW
4 CHANGE	◄R-	R	◄R-	◄R-	R	R	R	R	R/-Y►	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4 ALT	◄R-	R	◄R-	◄R-	R	R	R	R	R/-G►	G	G	G	WK	WK	WK	WK	DW	DW
PED CLEAR / COUNTDOWN	◄R-	R	◄R-	◄R-	R	R	R	R	R/-G►	G	G	G	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW
4 ALT CHANGE	◄R-	R	◄R-	◄R-	R	R	R	R	R/-Y►	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/◄R	FL/Y	FL/◄R	FL/◄R	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

A, B, C, D, E } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

G, H, J, K, L, M } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

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

EL - LOOP WIRE (NO. 14 A.W.G.) EXISTING

ES - EXISTING SERVICE TO BE MAINTAINED BY PEPECO

+ - GROUND ROD

TOD No: AT925-28
SHA No: MO281A5E/C5E
MD 355 @ Pooks Hill Road

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 355 (ROCKVILLE PIKE) AND POOKS HILL RD

GENERAL INFORMATION SHEET

SCALE NONE DATE 9/4/07 CONTRACT NO. AT9255185

DESIGNED BY JWA COUNTY MONTGOMERY
DRAWN BY RC LOGMILE 15035503.83
CHECKED BY WSW TIMS NO. I129
F.A.P. NO. TOD NO.

TS NO.4299B G1 | DRAWING NO. 2 OF 2 | SHEET NO. OF

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy.NW.
Glen Burnie,MD 21061
Ph (410) 590-5500
Fax (410) 590-5537

5316G1.dgn T-92

PLOTTED: $DATETIME$
FILE: $FILE$

...\5000's\5316\V8\5316g1.dgn 9/4/2007 10:02:33 AM