DRILL HOLES

BORDER REV. DATE: June 1, 2004

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing Traffic Control Signal with street lighting and interconnect at the intersection of MD 124 (Montgomery Village Ave) and Christopher Ave / Lost Knife Rd in Montgomery County. The existng pedestrian signal heads shall be replaced by countdown pedestrian signal heads. MD 124 (Montgomery Village Ave) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA eight-phase, semi-actuated mode, with the MD 124 (Montgomery Village Ave) approaches continuing to run concurrently. An Exclusive/Permissive left turn phase for the northbound approach of MD 124 (Montgomery Village Ave) shall remain in operation. An Exclusive left turn phase for the southbound approach shall remain in operation. The pedestrian phases with pushbutton actuation across both legs of MD124 (Montgomery Village Ave) shall continue to operate. The pedestrian phases across Christopher Ave / Lost Knife Rd shall remain on recall. All pedestrian phases shall now be Countdown Pedestrian phases. Farside sampling stations, via video detection, shall remain in operation on all legs of this intersection. The Exclusive left turn phases for the Christopher Ave / Lost Knife Rd approaches shall continue to operate. The Christopher Ave / Lost Knife Rd approaches shall also continue to run concurrently.

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

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 Montgomery County Contact Mr. Keith Lord at (301) 674-8965 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.

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

Mr. Lee Starkloff
Assistant District Engineer - Traffic
Phone: (301) 513-7318

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

Dr. Wilhelm DerMinassian
Montgomery County
Phone: (240) 777-8795

EQUIPMENT LIST

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

ITEM NO.	DESCRIPTION	QUANTITY
9571	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN	16 S.F.

EQUIPMENT LIST (CONT)

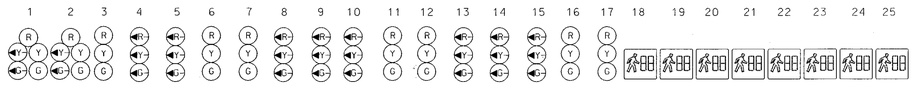
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	1 EA
2001	Class 2 Excavation.	0.5 C.Y.
5001	5" white heat applied permanent preformed thermoplastic pavement marking.	55 L.F.
5003	12" white heat applied permanent preformed thermoplastic pavement marking.	1425 L.F.
6003	4" concrete sidewalk.	20 S.F.
8009	Pedestal pole (10').	3 C.Y.
8011	Pushbutton and R10-4(1) sign (Note: Sign to read "PUSH BUTTON TO CROSS MONTGOMERY VILLAGE AVE")	3 EA
8013	Remove and dispose of existing material and equipment per assignment.	1 EA
8024	Concrete foundation.	3 EA
8026	No. 6 AWG stranded bare copper ground wire.	80 L.F.
8032	3" schedule 80 rigid polyvinyl chloride conduit - trenched.	45 L.F.
8047	Install overhead sign	16 S.F.
8059	Electrical cable - 2 conductor (No. 14 AWG).	550 L.F.
8161	Furnish and install electrical cable -5 conductor (No. 14 AWG).	900 L.F.
8072	Furnish and install 16" LED countdown pedestrian signal head	8 EA

C. EQUIPMENT TO BE REMOVED

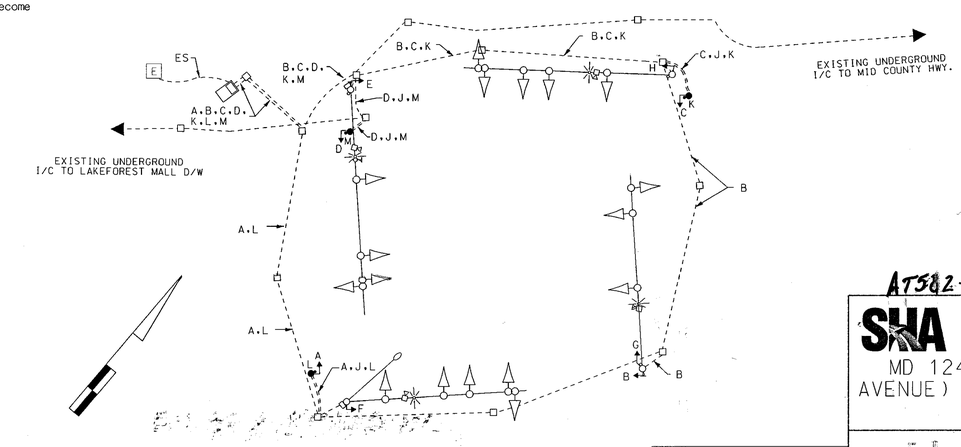
All removed signal materials are to become property of the contractor.

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
PHASE 1 & 5	◄G-/R	◄G-/R	R	◄G-	◄G-	R	R	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6																									
PHASE 1 & 6	◄G-/G	◄G-/G	G	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	DW	WK	WK	DW	DW	DW	DW	DW
1 & 6 CHANGE	◄Y-/G	◄Y-/G	G	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	DW	WK	WK	DW	DW	DW	DW	DW
PHASE 2 & 5	R	R	R	◄G-	◄G-	G	G	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	WK	DW	DW	WK	DW	DW	DW	DW
2 & 5 CHANGE	R	R	R	◄Y-	◄Y-	Y	Y	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	WK	DW	DW	WK	DW	DW	DW	DW
PHASE 2 & 6	G	G	G	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEAR (COUNTDOWN)	G	G	G	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	◄R-	◄R-	Y	Y	◄R-	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 7	R	R	R	◄R-	◄R-	R	R	◄G-	◄G-	◄G-	R	R	◄G-	◄G-	◄G-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
CHANGES TO PHASES 3 & 8, 4 & 7 OR 4 & 8																									
PHASE 3 & 8	R	R	R	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	◄G-	◄G-	◄G-	G	G	DW	DW	DW	DW	DW	DW	DW	DW
3 & 8 CHANGE	R	R	R	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	◄Y-	◄Y-	◄Y-	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 7	R	R	R	◄R-	◄R-	R	R	◄G-	◄G-	◄G-	G	G	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
4 & 7 CHANGE	R	R	R	◄R-	◄R-	R	R	◄Y-	◄Y-	◄Y-	G	G	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 8 ALT	R	R	R	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	◄G-	◄G-	◄G-	G	G	DW	DW	DW	DW	WK	DW	DW	WK
3 & 8 CHANGE ALT	R	R	R	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	◄Y-	◄Y-	◄Y-	Y	Y	DW	DW	DW	DW	WK	DW	DW	WK
PHASE 4 & 7 ALT	R	R	R	◄R-	◄R-	R	R	◄G-	◄G-	◄G-	G	G	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	WK	WK	DW
4 & 7 CHANGE ALT	R	R	R	◄R-	◄R-	R	R	◄Y-	◄Y-	◄Y-	G	G	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	WK	WK	DW
PHASE 4 & 8 ALT	R	R	R	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE (COUNTDOWN)	R	R	R	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
4 & 8 ALT CHANGE	R	R	R	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	Y	Y	◄R-	◄R-	◄R-	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/◄R-	FL/◄R-	FL/Y	FL/Y	FL/◄R-	FL/◄R-	FL/◄R-	FL/R	FL/R	FL/◄R-	FL/◄R-	FL/◄R-	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

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

E, F, G, H } USE EXISTING 5 CONDUCTOR CABLE

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

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

ES- EXISTING UNDERGROUND SERVICE TO BE MAINTAINED

AT582-41 MO409A5F

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 124 (MONTGOMERY VILLAGE AVENUE) AND CHRISTOPHER AVENUE / LOST KNIFE ROAD

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

4851GI.dgn 06-33

PLOTTED: $DATETIME$
FILE: $FILE$

SCALE NONE DATE 5/24/05 CONTRACT NO. AT5825185

DESIGNED BY JA
DRAWN BY RC
CHECKED BY
F.A.P. NO.

COUNTY MONTGOMERY
LOGMILE 15012404.16
TIMS NO. G860
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