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 (Wisconsin Ave) and Wisconsin Circle / Willard Avenue in Montgomery County. Countdown pedestrian signal heads with audible pushbuttons shall be installed at this location. MD 355 (Wisconsin Ave) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. The intersection shall continueto operate in a NEMA six-phase, pre-timed mode, with the MD 355 (Wisconsin Ave) approaches running concurrently. The Exclusive left turn phases for both appraoches of MD 355 (Wisconsin Ave) shall remain in operation The existing pedestrian phases on recall across MD 355 (Wisconsin Ave) shall now be Countdown pedestrian phases with audible pushbuttons. The existing pedestrian phases across Wisconsin Circle and Willard Avenue shall now be Countdown pedestrian phases with audible pushbutton actuation. The right turn overlap phase for the Willard Avenue approach shall remain in operation. The Wisconsin Circle / Willard Avenue approaches shall also run concurrently.
2. The full-traffic-actuated, eight-phase controller with all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be installed 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 (WISCONSIN AVENUE)

a When pedestrian locates gnd presses pushbutton for an extended time, the pushbutton unit will be " Wait to cross Wisconsin Avenue at Wisconsin Circle"

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

FOR MD 355 (WISCONSIN AVENUE)

a When pedestrian locates gnd presses pushbutton for an extended time, the pushbutton unit will be " Wait to cross Wisconsin Avenue at Willard Avenue"

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

FOR WILLARD AVENUE

a When pedestrian locates gnd presses pushbutton for an extended time, the pushbutton unit will be " Wait to cross Willard Avenue at Wisconsin Avenue."

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

FOR WISCONSIN CRICLE

a When pedestrian locates gnd presses pushbutton for an extended time, the pushbutton unit will be " Wait to cross Wisconsin Circle at Wisconsin Avenue."

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

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

Mr. Keith Lord
Montgomery County Signal Shop
(301) 279-1291

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

Mr. Sonny Bailey
Sign Shop
410-787-7676

EQUIPMENT LIST

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

ITEM NO.	DESCRIPTION	QUANTITY
9571	Sheet aluminum signs to consist of: (pole mount)	8 SF
	Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS WISCONSIN AVENUE")	4 EA
	Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS WISCONSIN CIRCLE")	2 EA
	Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS WILLARD AVENUE")	2 EA

EQUIPMENT LIST (CONT.)

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	2 EA
2001	Class 2 Excavation.	2 C.Y.
2002	Test Pit Excavation	7 C.Y.
5003	12" white heat applied permanent preformed thermoplastic pavement marking.	465 L.F.
5005	Removal of existing permanent pavement line markings	450 L.F.
6001	Standard type A combination curb and gutter 12" gutter pan 8" depth.	115 L.F.
6002	4" concrete sidewalk.	1200 S.F.
8001	12" LED signal head section.	3 EA
8003	2 wire Central Control unit	1 EA
8009	Adjust existing handhole to grade.	4 EA
8010	Audible/tactile pedestrian pushbutton station & signs.	8 EA
8011	Breakaway pedestal pole (20')	1 EA
8011	Breakaway pedestal pole (10')	5 EA
8011	Breakaway pedestal pole (5')	1 EA
8014	LED 16" countdown pedestrian signal heads.	8 EA
8017	Remove and dispose of existing material & equipment per assignment.	1 EA
8025	Schedule 80 rigid PVC conduit up tp 4" - slotted.	25 L.F.
8026	Schedule 80 rigid PVC conduit up tp 4" - trenched.	105 L.F.
8027	Detectable warning surfaces	108 S.F.
8028	Relocate existing sign.	15 S.F.
8029	Remove - reset decorative brick sidewalk.	150 SF
8030	Concrete for signal foundation.	4.4 CY
8031	Wood sign supports 4"x4".	16 L.F.
8033	No. 6 AWG stranded bare copper ground wire.	100 L.F.
8046	Install overhead sign.	8 SF
8052	Ground rod $\frac{3}{4}$" dia. x 10' length.	1 EA
8058	Electrical cable - 2 conductor (No. 14 AWG).	1145 L.F.
8060	Electrical cable - 5 conductor (No. 14 AWG).	1180 L.F.
8061	Electrical cable - 7 conductor (No. 14 AWG).	140 L.F.

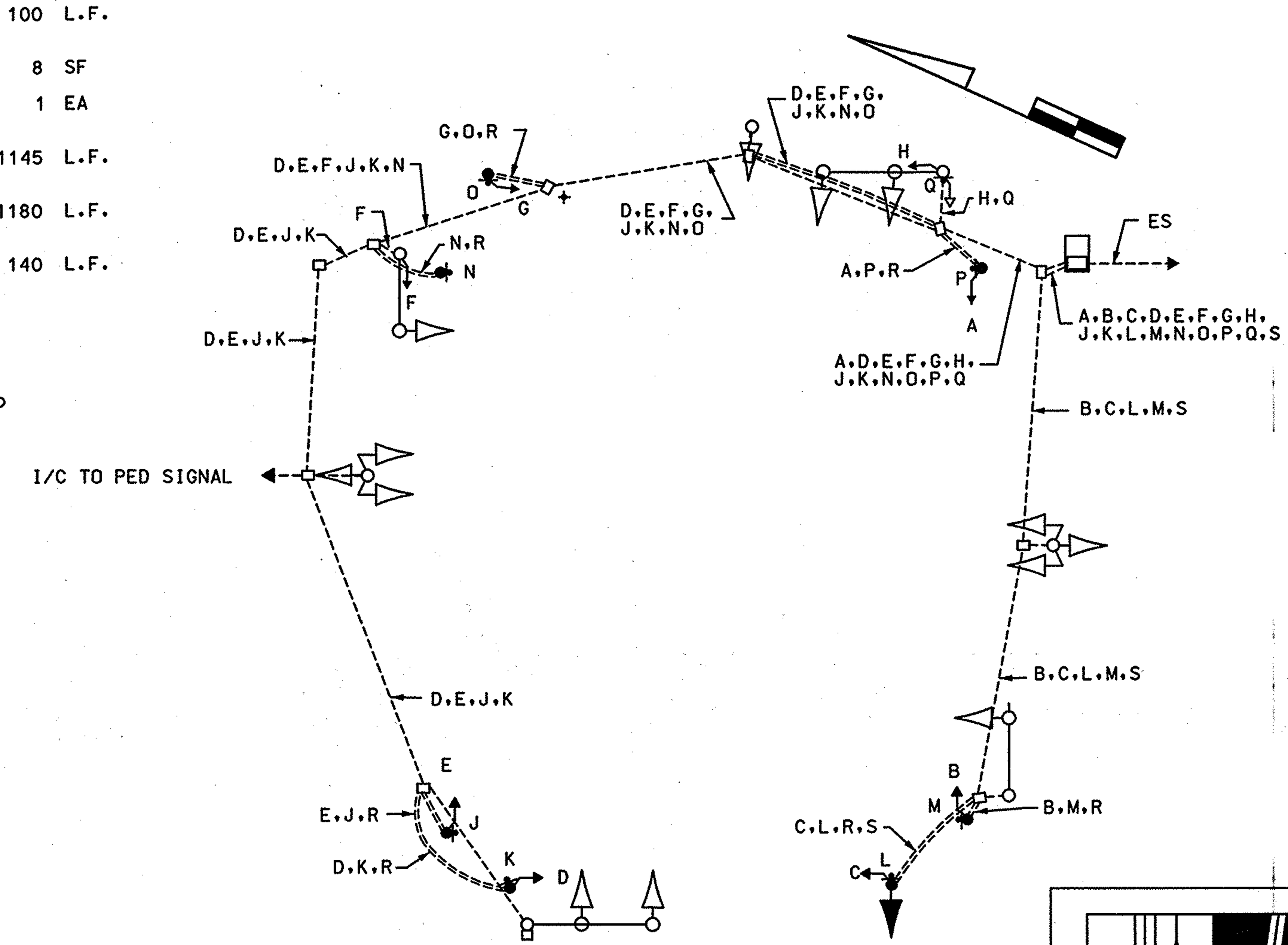
C. EQUIPMENT TO BE REMOVED

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	19	20	21	22
PHASE 1 & 5	◄R–	◄R–	R	R	◄G–	◄G–	G	G	–G►	R	R	–G►	R	R	DW	DW	DW	DW	DW	DW	DW	DW
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6																						
PHASE 1 & 6	◄R–	◄R–	R	R	◄G–	◄G–	G	G	–G►	R	R	–R►	R	R	WK	DW	DW	WK	DW	DW	DW	DW
1 & 6 CHANGE	◄R–	◄R–	R	R	◄Y–	◄Y–	G	G	–Y►	R	R	–R►	R	R	WK	DW	DW	WK	DW	DW	DW	DW
PHASE 2 & 5	◄G–	◄G–	G	G	◄R–	◄R–	R	R	–R►	R	R	–R►	R	R	DW	WK	WK	DW	DW	DW	DW	DW
2 & 5 CHANGE	◄Y–	◄Y–	G	G	◄R–	◄R–	R	R	–R►	R	R	–R►	R	R	DW	WK	WK	DW	DW	DW	DW	DW
PHASE 2 & 6	◄R–	◄R–	G	G	◄R–	◄R–	G	G	–R►	R	R	–R►	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEAR / COUNTDOWN	◄R–	◄R–	G	G	◄R–	◄R–	G	G	–R►	R	R	–R►	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2 & 6 CHANGE	◄R–	◄R–	Y	Y	◄R–	◄R–	Y	Y	–R►	R	R	–R►	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	◄R–	◄R–	R	R	◄R–	◄R–	R	R	–G►	G	G	–G►	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 & 8 CHANGE	◄R–	◄R–	R	R	◄R–	◄R–	R	R	–Y►	Y	Y	–Y►	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8 ALT	◄R–	◄R–	R	R	◄R–	◄R–	R	R	–G►	G	G	–G►	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEAR / COUNTDOWN	◄R–	◄R–	R	R	◄R–	◄R–	R	R	–G►	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–	◄R–	R	R	–Y►	Y	Y	–Y►	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/◄R	FL/◄R	FL/Y	FL/Y	FL/◄R	FL/◄R	FL/Y	FL/Y	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, E, F, G, H - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

J, K, L, M, N, O, P, Q - 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

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

S - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

ES - EXISTING UNDERGROUND SERVICE TO BE MAINTAINED BY PEPCO

+ - GROUND ROD

TOD NO: AT925-31
SHA NO: MO281A5G/C5G
MD355@WISCONSIN
CR./WILLARD

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy.,N.W.
Glen Burnie,MD 21061
Ph (410) 590-5500
Fax (410) 590-6637
5195gi.dgn T-61

PLOTTED: $DATETIME$
FILE: $FILE$

SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 355 AND WISCONSIN CIR/ WILLARD AVE

GENERAL INFORMATION SHEET

SCALE NONE DATE 11/5/07 CONTRACT NO. AT9255185

DESIGNED BY JWA COUNTY MONTGOMERY
DRAWN BY RC LOGMILE 15035500.06
CHECKED BY TIMS NO. I068
F.A.P. NO. TOD NO.

TS NO. 4348BGI DRAWING NO. 2 OF 2 SHEET NO. OF

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