DRILL HOLES

BORDER REV: DATE: June 1, 2004

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new Traffic Control Signal with street lighting and interconnect at the intersection of MD 108 (Olney Latonsville Rd) and Fieldcrest Rd in Montgomery County. Mast arm poles with video detection and LED signal heads shall be installed at this location. MD 108 (Olney Latonsville Rd) is assumed to run an east-west direction.

II. INTERSECTION OPERATION

1. The intersection is to operate in a NEMA six-phase, semi-actuated mode, with the MD 108 (Olney Latonsville Rd) approaches running concurrently. Exclusive/Permissive left turn phases shall be provided for both approaches of MD 108 (Olney Latonsville Rd) . A right turn overlap phase shall be provided northbound approach of Fieldcrest Road. The Fieldcrest Road approaches shall also run concurrently.

2. A full-traffic-actuated, eight-phase controller with one (1) four channel, rack mount loop detector amplifiers, video interface and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

III. SPECIAL NOTES

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

2. Disconnecting and splicing of interconnect cable shall be performed by Montgomery County Forces. The contractor shall run the interconnect cable into the base of each cabinet and properly tag the cable. All controller cabinet wiring will be performed by Montgomery County Forces. Contact Dr. Wilhelm DerMinassian at (240) 777-8795 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

Mr. Ed Rodenhizer
Signal Shop
410-787-7652

Mr. Sonny Bailey
Sign Shop
410-787-7670

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

The power company representative is:

Mr. Steve Custer
PEPCO Customer Design
201 W Guide Dr.,
Rockville, MD 20850
Phone: 301 548-4333

EQUIPMENT LIST

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

ITEM NO.	DESCRIPTION	QUANTITY
9042	Controller ASC II with telemetry	1 EA
9044	Controller cabinet, size "6" with 4 channel rack.	1 EA
9086	Video detection interface equipment: 1-4 cameras (To be installed by signal shop).	1 EA
9570	Sheet aluminum signs to consist of: (ground mount)	48 SF
	W3-3 NEW "SIGNAL AHEAD" sign, (48" x 48") ground mounted with hardware.	3 EA
9571	Sheet aluminum signs to consist of: (mast arm or pole mount)	129.5 SF
	D3-2 "Fieldcrest Rd (arrow)/ (arrow) Fieldcrest Rd" (vaiable x 16") (dual faced) mast arm.	2 EA
	D3-2 "Olney Laytonsville Rd " sign, (vaiable x 16") (dual faced) mast arm.	2 EA
	R3-5R "RIGHT TURN ONLY" sign, (30" x 36") mast arm	2 EA
	GUIDE SHIELD ASSEMBLY (48"x75") pole mounted. M3-4 "WEST"(30"X15") M1-5 "MD 108 (48"X36") M6-1 "left arrow "(30"X24")	1 EA
	GUIDE SHIELD ASSEMBLY (30"x51") pole mounted. M3-2 "EAST"(24"X12") M1-5 "MD 108"(30"X24") M6-1 "right arrow "(21"X15")	1 EA
	GUIDE SHIELD ASSEMBLY (48"x75") pole mounted. M3-2 "EAST"(30"X15") M1-5 "MD 108 (48"X36") M6-1 "left arrow "(30"X24")	1 EA

EQUIPMENT LIST (CONT.)

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

ITEM NO.	DESCRIPTION	QUANTITY
	GUIDE SHIELD ASSEMBLY (30"x51") pole mounted. M3-4 "WEST"(24"X12") M1-5 "MD 108"(30"X24") M6-1 "right arrow "(21"X15")	1 EA

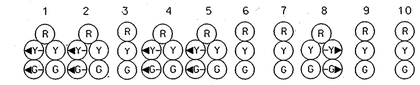
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	3 EA
2002	Test Pit Excavation	6 C.Y.
5001	5" white heat applied permanent preformed thermoplastic pavement marking.	825 L.F.
5003	Removal of existing permanent pavement line markings	585 L.F.
5008	Heat applied white permanent preformed thermoplastic pavement marking arrow. (Left).	4 EA
5006	24" white heat applied permanent preformed thermoplastic pavement marking.	150 L.F.
8001	Concrete foundation.	16 C.Y.
8003	12" red or green LED signal head section.	25 EA
8004	12" yellow LED signal head section.	15 EA
8013	Control cable, 100', video detection camera to controller	1 EA
8014	Control cable, 200', video detection camera to controller	2 EA
8015	Control cable, 300', video detection camera to controller	1 EA
8029	Remove and dispose of existing material and equipment per assignment.	1 EA
8034	3" electrical conduit riser (PVC).	60 LF
8037	Cable - 1 conductor (No. 250 KCMIL), Cu, USE	400 L.F.
8043	Wood sign supports 4"x6".	96 L.F.
8044	No. 6 AWG stranded bare copper ground wire.	510 L.F.
8047	Weatherhead, 3 inch	2 EA
8050	4" schedule 80 rigid polyvinyl chloride conduit - bored.	495 L.F.
8051	2" schedule 80 rigid polyvinyl chloride conduit - trenched.	20 L.F.
8052	3" schedule 80 rigid polyvinyl chloride conduit - trenched.	155 L.F.
8053	4" schedule 80 rigid polyvinyl chloride conduit - trenched.	20 L.F.
8058	200A Metered service pedestal.	1 EA
8061	Electrical cable 1-conductor No. 4 AWG THHN/THWN.	25 L.F.
8067	Furnish and install electrical handhole.	5 EA
8069	Install ground mounted sign.	48 SF
8070	Install overhead sign.	129.5 SF
8071	Video detector camera.	4 EA
8076	Steel pole with a single 38' mast arm.	4 EA
8082	12-pair communication cable self-supporting (overhead).	3640 L.F.
8084	250 watt HPS lamp and luminare.	2 EA
8091	Ground rod3/4" dia. x 10' length.	8 EA
8101	Electrical cable - 5 conductor (No. 14 AWG).	95 L.F.
8102	Electrical cable - 7 conductor (No. 14 AWG).	1285 L.F.
8103	Electrical cable - 2 conductor (No. 12 AWG) tray cable.	325 L.F.
8107	15' lighting arm on signal structure.	2 EA
8112	Install controller and cabinet base mount.	1 EA

C. EQUIPMENT TO BE REMOVED

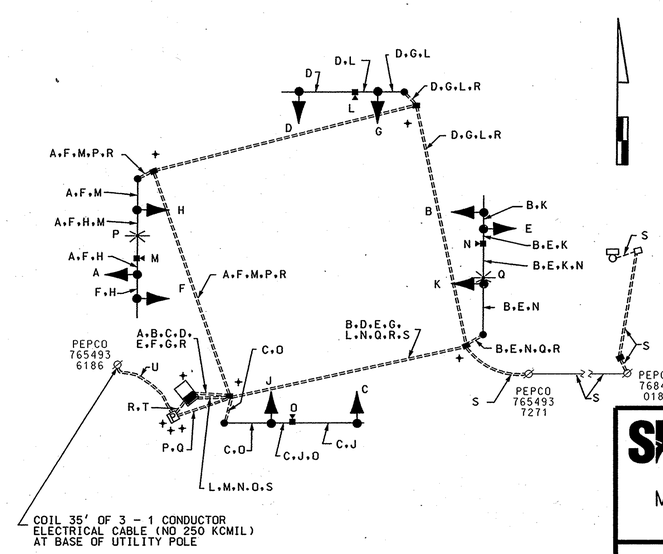
Any material removed from the intersection is to become property of the Contractor.

PHASE CHART



	1	2	3	4	5	6	7	8	9	10
PHASE 1 & 5	◄G-/R	◄G-/R	R	◄G-/R	◄G-/R	R	R	R/-G►	R	R
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
1 & 6 CHANGE	◄Y-/G	◄Y-/G	G	R	R	R	R	R	R	R
PHASE 2 & 5	R	R	R	◄G-/G	◄G-/G	G	R	R/-G►	R	R
2 & 5 CHANGE	R	R	R	◄Y-/G	◄Y-/G	G	R	R/-Y►	R	R
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM



WIRING KEY

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

H, J, K } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

L - CONTROL CABLE 300' (CAMERA TO CONTROLLER)

M, N } CONTROL CABLE 200' (CAMERA TO CONTROLLER)

O - CONTROL CABLE 100' (CAMERA TO CONTROLLER)

P, Q } 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G)

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

S - 12-PAIR VOICE GRADE INTERCONNECT CABLE (SELF SUPPORTING)

T - 2-1 CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)

U - 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 250 KCMIL)

+ - GROUND ROD

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 108 AND FIELDCREST ROAD

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

4902GI.dgn D6-48

PLOTTED: $DATETIME$
FILE: $FILE$

SCALE NONE	DATE 8/30/05	CONTRACT NO. AT7185185	
DESIGNED BY J.A.		COUNTY MONTGOMERY	
DRAWN BY R.C.		LOGMILE 15010809.46	
CHECKED BY		TIMS NO. G997	
F.A.P. NO.		TOD NO.	
TS NO. 4440GI	DRAWING NO. OF	SHEET NO. 2 OF 4	

TOD No: AT718-16
SHA: MO314A5C/B5C