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 97 (Georgia Avenue) and MD 192 (Forest Glen Road) in Montgomery County. Countdown pedestrian signal heads shall be installed across all legs of this intersection and a crosswalk shall be installed across the south leg of MD 97. MD 97 (Georgia Avenue) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. The intersection is to operate in a NEMA eight-phase, fully-actuated mode, with the MD 97 (Georgia Avenue) approaches continuing to run concurrently. Exclusive/Permissive left turn phases shall continue to be provided for both approaches of MD 97 (Georgia Avenue). A new pedestrian phase with pushbutton actuation shall be provided across the south leg of MD 97 (Georgia Avenue). The pedestrain phase across the north leg of MD 97 (Georgia Avenue) shall remain in operation. The pedestrian phases across MD 192 (Forest Glen Road) shall remain on recall. Exclusive left turn phases shall be provided for both approaches of MD 192 (Forest Glen Road). The MD 192 (Forest Glen Road) approaches shall also continue to run concurrently.

2. A existing full-traffic-actuated, eight-phase controller with two (2) four channel, rack mount loop detector amplifiers, L.A.U. and 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. Contact Mr. 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.

EQUIPMENT LIST

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

ITEM NO.	DESCRIPTION	QUANTITY
9570	Sheet aluminum signs to consist of: (ground mount)	14 SF
	R4-7 "KEEP RIGHT (symbolic)" sign, (24" x 30")	1 EA
	GUIDE SIGN	
	M3-4 "WEST"(24"X12")	1 EA
	M1-5 "MD 192"(30"X24")	1 EA
	M6-1 "left 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.	1 EA
2001	Class 2 Excavation.	4 C.Y.
5001	5" white heat applied permanent preformed thermoplastic pavement marking.	35 L.F.
5003	Removal of existing permanent pavement line markings	50 L.F.
5004	Removal of existing permanent marking arrows	2 EA
5005	12" white heat applied permanent preformed thermoplastic pavement marking.	450 L.F.
5006	24" white heat applied permanent preformed thermoplastic pavement marking.	45 L.F.
6001	Depressed curb and gutter.	70 L.F.
6002	Standard type A combination curb and gutter 12" gutter pan 8" depth.	25 L.F.
6004	4" concrete sidewalk.	250 S.F.
8019	Remove and dispose of existing material and equipment per assignment.	1 EA
8027	Detectable warning system (truncated domes).	48 SF

EQUIPMENT LIST (CONT.)

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

ITEM NO.	DESCRIPTION	QUANTITY
8029	Furnish and install wood sign supports 4" x 4".	55 L.F.
8045	Furnish and install 1" liquid tight flexible non-metallic conduit for detector sleeve.	5 L.F.
8056	Install ground mounted sign.	14 S.F.
8057	Install overhead fiber optic sign.	15 S.F.
8083	Furnish and install electrical cable - 2 conductor (No. 14 AWG).	520 L.F.
8085	Furnish and install electrical cable - 5 conductor (No. 14 AWG).	1925 L.F.
8088	Furnish and install loop wire encased in flexible tubing (No. 14 AWG).	420 L.F.
8089	Furnish and install saw cut for signal (loop detector).	110 L.F.
8090	Pedestrian pushbutton and R10-4(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS GEORGIA AVE".)	2 EA
Neg.	Furnish Fiber Optic sign (including mounting hardware). R3-6R "RIGHT TURN AND THRU/ RIGHT TURN ONLY (symbolic)" Fiber Optic sign. (30"x36") .	2 EA

C. EQUIPMENT TO BE REMOVED

All removed materials are to become property of the Contractor.

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

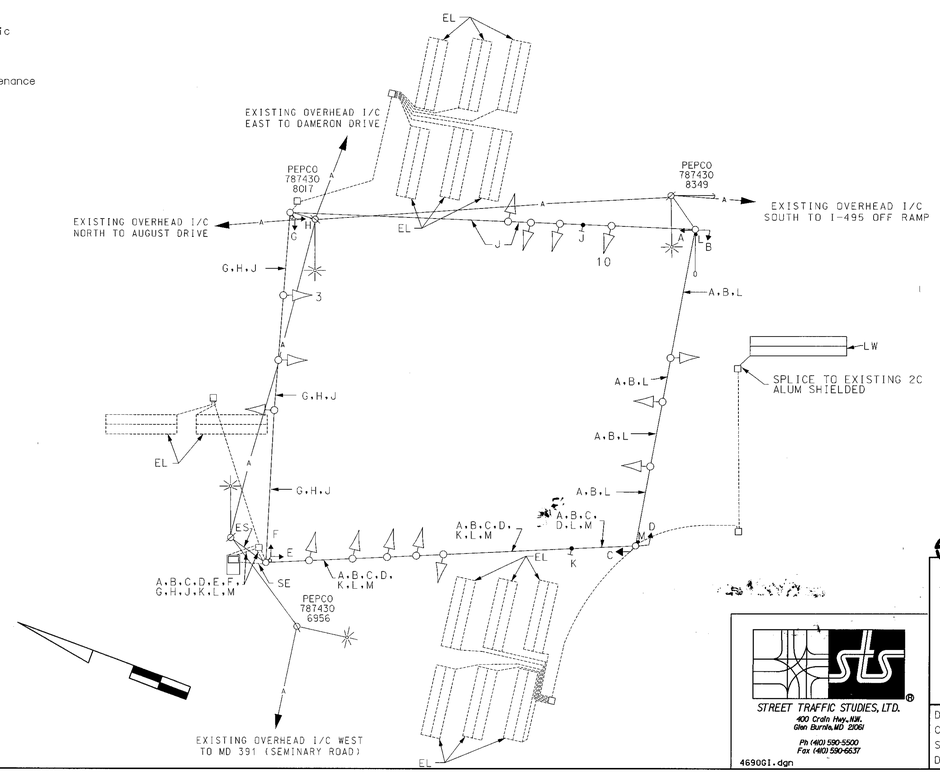
Mr. Ed Rodenhizer
Signal Shop
Phone: (410) 787-7652

Mr. Sonny Bailey
Sign Shop
Phone: (410) 787-7670

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
PHASE 1 & 5	G	G	G	G	G	G	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	WK	WK	WK	WK	DW	DW	DW	DW
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6																							
PHASE 2 & 6	◄G-/R	◄G-/R	R	◄G-/R	◄G-/R	R	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
2 & 6 CHANGE	◄Y-/R	◄Y-/R	R	◄Y-/R	◄Y-/R	R	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 1 & 6	◄G-/G	◄G-/G	G	R	R	R	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	DW	WK	WK	DW	DW	DW	DW	DW
1 & 6 CHANGE	◄Y-/Y	◄Y-/Y	Y	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	G	◄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	Y	◄R-	◄R-	R	R	◄R-	◄R-	◄R-	R	R	WK	DW	DW	WK	DW	DW	DW	DW
PHASE 3 & 7	R	R	R	R	R	R	◄R-	◄R-	R	R	◄G-	◄G-	◄G-	G	G	DW	DW	DW	DW	DW	DW	DW	DW
CHANGES TO 4 & 7 OR 4 & 8																							
PHASE 4 & 7	R	R	R	R	R	R	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 & 7 CHANGE	R	R	R	R	R	R	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	R	R	R	R	R	R	◄G-	◄G-	G	G	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
4 & 8 CHANGE	R	R	R	R	R	R	◄Y-	◄Y-	Y	Y	◄R-	◄R-	◄R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 7 ALT	R	R	R	R	R	R	◄R-	◄R-	R	R	◄G-	◄G-	◄G-	G	G	DW	DW	DW	DW	WK	DW	DW	WK
CHANGES TO 4 & 7 ALT OR 4 & 8																							
PHASE 4 & 7 ALT	R	R	R	R	R	R	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEAR	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 & 7 CHANGE ALT	R	R	R	R	R	R	◄R-	◄R-	G	G	◄R-	◄R-	◄R-	G	G	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	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, E, F, G, H, J, K — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)
- L, M — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)
- EL - LOOP WIRE (NO. 14 A.W.G.) EXISTING
- LW - LOOP WIRE (NO. 14 A.W.G.)
- ES - EXISTING OVERHEAD SERVICE TO BE MAINTAINED BY PEPCO
- SE - EXISTING SERVICE TO BE MAINTAINED BY PEPCO

SHA#: MD486A055/056 TOD#: AT604-19

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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 97 (GEORGIA AVENUE) AND
MD 192 (FOREST GLEN RD) / FOREST GLEN RD
FOREST GLEN, MARYLAND

DRAWN BY:	R.C.	F.A.P. NO.	AC-STPG-000A(19)E	TS NO.	SHEET NO.
CHECKED BY:	J.A.	S.H.A. NO.	AT604585	#1930 D	2 OF 2
SCALE:	NONE	COUNTY:	MONTGOMERY	T.I.M.S. NO.	
DATE:	1/04/05	LOG MILE:	1500970L61	G 485G1	