PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing Traffic Control Signal with street lighting at the intersection of MD 103 (Montgomery Rd / Meadowridge Rd) and Montgomery Rd / Brightfield Rd in Montgomery County. All signal heads shall be changed to Black Faced LED signal heads. Additionally, the the Exclusive / Permissive left turn phases for the Montgomery Rd / Brightfield Rd approaches shall now be Exclusive left turn phases.
MD 103 (Montgomery Rd / Meadowridge Rd) is assumed to run a east-west direction.

II. INTERSECTION OPERATION

1. The intersection is to operate in a NEMA eight-phase, fully-actuated mode, with the MD 103 (Montgomery Rd / Meadowridge Rd) approaches continuing to run concurrently. The Exclusive/Permissive left turn phase shall remain in operation for the eastbound approach of MD 103 (Montgomery Rd). The Exclusive left turn phase for the westbound approach of MD 103 (Meadowridge Rd) shall also remain in operation. The Countdown pedestrian phase with audible pushbutton actuation across the east leg of MD 103 (Meadowridge Rd) shall remain in operation. The Countdown pedestrian phase with audible pushbuttons across Brightfield Rd shall remain on recall. Exclusive left turn phases for the Montgomery Rd / Brightfield Rd approaches shall now be provided. The Montgomery Rd / Brightfield Rd approaches shall also continue to run concurrently. Right turn Overlap phases shall continue to be provided for both approaches of MD 103 (Montgomery Rd / Meadowridge Rd). The right turn overlap phase for the northbound Brightfield Rd approach shall alos remain in operation.

2. The existing full-traffic-actuated, eight-phase controller with 2-wire control unit 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 S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7650 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 #7 are as follows:

Mr. John Concannon
Assistant District Engineer - Traffic
Phone: (310) 624-8141

Mr. Ray Johnson
Assistant District Engineer - Maintenance
Phone: (310) 624-8105

Ms Andrea Abend
District Engineer - Utility
Phone: (301) 624-8116

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

Mr. Ed Rodenhizer
Manager, Signal Operations Section
410-787-7652

Mr. Sonny Bailey
Manager, Sign Shop Operations
410-787-7676

The power company representative is:

Baltimore Gas and Electric
7317 Parkway Drive South
Hanover, MD 21076
410-850-4620

EQUIPMENT LIST

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

ITEM NO.	DESCRIPTION	QUANTITY
9571	Sheet aluminum signs to consist of: (mast arm or pole mount)	136 SF
	R3-5L "LEFT TURN ONLY" sign, (30" x 36") mast arm mounted.	1 EA
	R10-12(2) "YILED ON FLASHING RED ARROW AFTER STOP" sign, (48"x36") mast arm mounted.	2 EA
	D-3(1) "(arrow) Montgomery RD/ Montgomery RD (arrow)" sign, (dual faced) (variable x 16") mast arm mounted.	2 EA
	D-3(1) "(arrow) Brightfield RD/ Brightfield RD (arrow)" sign, (dual faced) (variable x 16") mast arm mounted.	1 EA
	D-3(1) "(arrow) Meadowridge RD/ MeadowridgeRD (arrow)" sign, (dual faced) (variable x 16") mast arm mounted.	1 EA
	M1-5(6) GUIDE SHIELD ASSEMBLY (48"x72") pole mounted. WEST / MD 103 / LEFT ARROW	1 EA
	M1-5(6) GUIDE SHIELD ASSEMBLY (48"x72") pole mounted. EAST / MD 103 / LEFT ARROW	1 EA
	M1-5(6) GUIDE SHIELD ASSEMBLY (30"x48") pole mounted. EAST / MD 103 / RIGHT ARROW	1 EA
	M1-5(6) GUIDE SHIELD ASSEMBLY (30"x48") pole mounted. WEST / MD 103 / RIGHT ARROW	1 EA

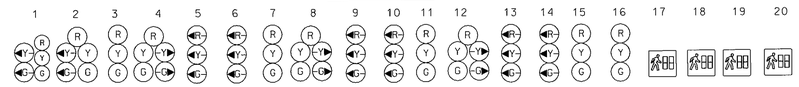
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	1 EA
8001	12" LED signal head section.	55 EA
8007	8" LED signal head section.	3 EA
8016	Remove and dispose of existing material & equipment per assignment.	1 EA
8029	Relocate existing sign.	20 S.F.
8046	Install overhead sign.	136 SF
8057	Electrical cable - 5 conductor (No. 14 AWG).	420 L.F.

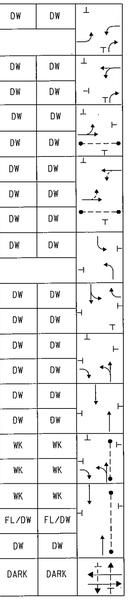
C. EQUIPMENT TO BE REMOVED

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

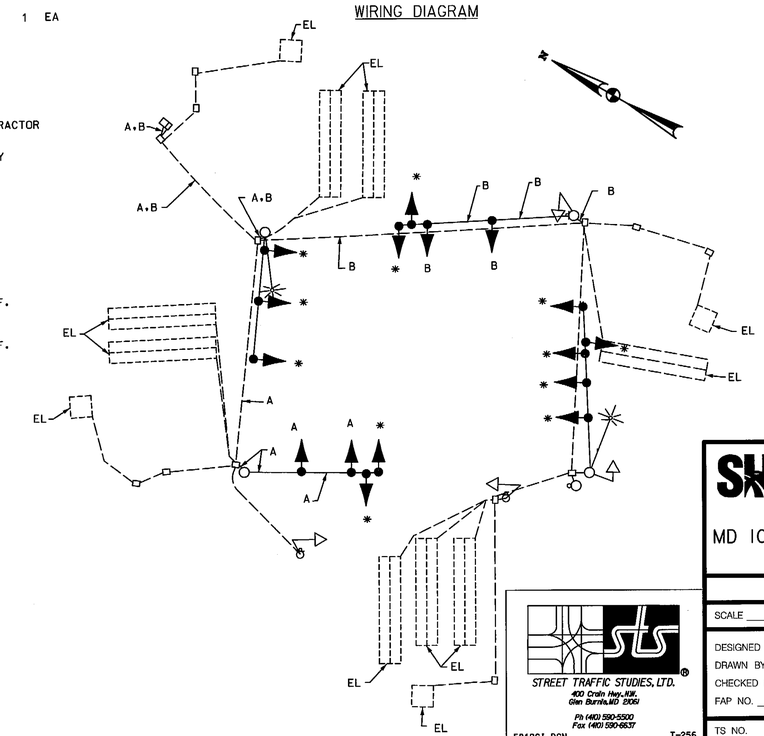
PHASE CHART



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



WIRING DIAGRAM



WIRING KEY

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

* - USE EXISTING CABLE

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

PS- EXISTING SERVICE TO BE MAINTAINED BY BGE

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 103 @ MONTGOMERY RD/BRIGHTFIELD RD

ELLICOTT CITY, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE 1/6/2010 CONTRACT NO. XX4495185

DESIGNED BY JWA
DRAWN BY RC
CHECKED BY
FAP NO.

COUNTY HOWARD
LOGMILE 13010303.62
TIMS NO. K096
TOD NO.

TS NO. | DRAWING 2 OF 2 | SHEET NO. OF

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

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