PROJECT DESCRIPTION

I. GENERAL

This project involves the partial reconstruction of the existing traffic control signal at the intersection of US 1 at MD 103 (Dorsey Rd./ Meadow Ridge Rd.) in Howard County, Maryland.
US 1 is considered to run in a north/south direction.

II. INTERSECTION OPERATION

The intersection shall be modified to operate in a NEMA six (6) phase, full-traffic-actuated mode. There is an Exclusive/Permissive left turn phase for both the north and southbound movements of US 1.
The US 1 through movements will operate concurrently. MD 103 movement operates in a side street split mode.
An actuated pedestrian phase will be added to cross the south leg of US 1.

The existing cabinet with controller are to be utilized. Video detection and APS hardware are to be installed in the existing cabinet.

EQUIPMENT LIST

A. S.H.A. furnished equipment material.

None.

B. Equipment to be furnished and/or installed by the Contractor.
All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
3	CY	205	Test pit excavation.
1	EA	818	27 ft. steel mast arm pole with 70 ft mast arm.
1	EA	818	27 ft. steel mast arm pole with 70 ft and 50 ft mast arms.
2	EA	818	10 ft. steel pedestal pole with break away transformer base
1	EA	816	Video detection retrofit interface equipment.
1	EA	---	Central control unit for audible pedestrian pushbutton.
1	EA	814	12 in., one-way, five section L.E.D. (R,Y,G,YA,GA) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	814	12 in., one-way, four section L.E.D. (R,Y,G,GA) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
3	EA	814	12 in., one-way, three section L.E.D. (R,Y,G) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
1	EA	814	8 in./12 in., one-way, five section L.E.D. (R,Y,G-8")(YA,GA-12") adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	814	8 in./12 in., one-way, four section L.E.D. (R,Y,G-8")(GA-12") adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	814	16 in. L.E.D., one way, one section countdown pedestrian signal head with post top mounting hardware.
2	EA	817	APS (Audible Pedestrian Signal) pushbutton station and sign.
2	EA	817	9 in. x 15 in. R10-4(1) MOD. Pedestrian Education sign.
2	EA	813	30 in. x 36 in. R 3-5(L) sign with mast arm mounting hardware.
2	EA	813	30 in. x 36 in. R 3-5(R) sign with mast arm mounting hardware.
1	EA	813	30 in. x 36 in. R3-6(L) sign with mast arm mounting hardware.
1	EA	---	Remove and relocate existing mast arm mounted street name sign.
1	EA	806	15 ft. luminaire arm.
1	EA	806	250 W H.P.S. lamp and luminarie.
2	EA	811	Handhole.
335	LF	810	2-conductor electrical tray cable (No. 12 A.W.G.).
460	LF	810	2-conductor electrical cable (No. 14 A.W.G.).
525	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
2100	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
6	EA	---	Video detector camera and cable 1- 200 LF, 2- 300 LF, 3- 400 LF)
325	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
45	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
40	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
170	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
10.7	CY	801	Concrete foundation for traffic signal equipment.
3	EA	804	Ground rod -3/4in. diameter x 10 ft. length.
180	LF	556	12 in. wide HAPPTPM - white for crosswalk.
130	LF	556	24 in. wide HAPPTPM - white for stop line.
50	LF	---	Removal of existing stop line by grinding
1	EA	---	Cut, clean and cap mast arm pole
Lump Sum	LS	---	Disconnect, pull back and reroute detection cable (approx. 360 ft.)
Lump Sum	LS	---	Removal of existing traffic signal equipment.
Lump Sum	LS	---	As-built for S.H.A. (on CADD).

CONTACT LIST

The contact persons for District #7 are as follows:

Mr. John Concannon
Assistant District Engineer - Traffic
301-624-8140

Mr. Andrea Abend
Assistant District Engineer - Utility
301-624-8115

Mr. Raymond F. Johnson
Assistant District Engineer - Maintenance
301-624-8105

Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

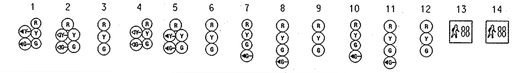
Mr. Ed Rodenhizer
Supervisor, Signal Shop
410 787-7650

C. Existing equipment to be removed by the Contractor and delivered to the MDSHA Office of Traffic and Safety, Traffic Operations Division, Traffic Signal Shop, 7491 Connelley Drive, Hanover MD, 21076. A twenty-four (24) hour notice is required prior to delivery. Please contact Mr. Ed Rodenhizer at (410) 787-7650.

None

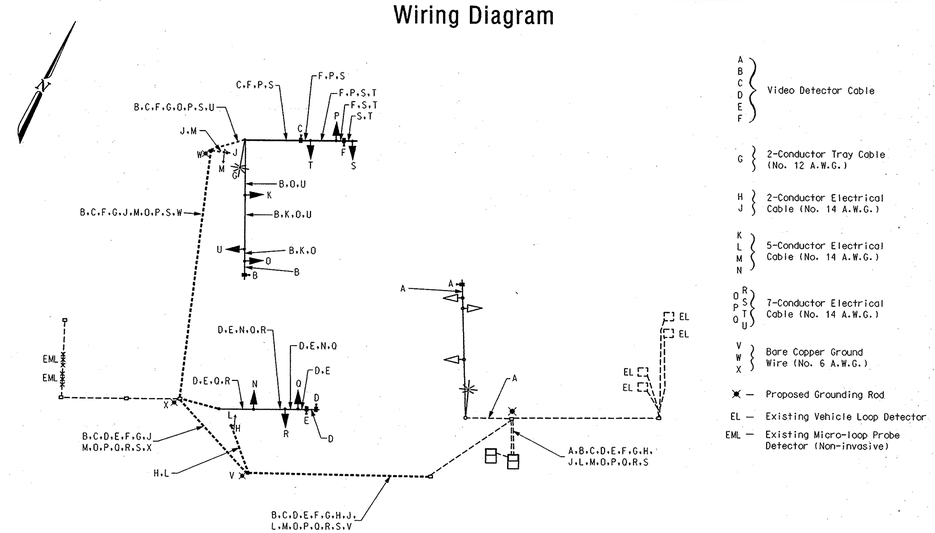
Note: All equipment and/or material not listed above shall become the property of the Contractor.

Phase Chart



	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Phase 1 & 5	G	G	R	G	G	R	R	R	R	R	R	R	DW	DW
1 & 5 Change to Phase 1 & 6 or Phase 2 & 5 or Phase 2 & 6														
Phase 1 & 6	G	G	G	R	R	R	R	R	R	R	R	R	DW	DW
1 Change	Y	Y	G	R	R	R	R	R	R	R	R	R	DW	DW
Phase 2 & 5	R	R	R	G	G	G	R	R	R	R	R	R	DW	DW
5 Change	R	R	R	Y	Y	G	R	R	R	R	R	R	DW	DW
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW
2 & 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW
Phase 3	R	R	R	R	R	R	R	R	R	G	G	G	DW	DW
3 Change	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW
Phase 4	R	R	R	R	R	R	G	G	G	R	R	R	DW	DW
4 Change	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW
Phase 4 Alt.	R	R	R	R	R	R	G	G	G	R	R	R	WK	WK
PED Clearance	R	R	R	R	R	R	G	G	G	R	R	R	FL/DW	FL/DW
4 Alt. Change	R	R	R	R	R	R	Y	Y	Y	R	R	R	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	DARK	DARK

Wiring Diagram



REVISION "F"

The Traffic Group
The Traffic Group, Inc.
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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)
US 1 at MD 103 Dorsey Rd./ Meadow Ridge Rd.

DRAWN BY: B. Kilian	F.A.P. NO. N/A	TS NO. 962F-GI	SHEET NO. 2 OF 2
CHECKED BY:	S.H.A. NO. BW996M82		
SCALE: N/A	COUNTY: Howard	T.I.M.S. NO. H-991	
DATE: June 20, 2006	LOG MILE: 13000107.05		

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