

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new traffic control signal at the intersection of MD 924 (Emmorton Road) and Patterson Mill Road/Barrington Pl. in Harford County, Maryland. MD 924 is considered to run in a north/south direction.

II. INTERSECTION OPERATION

The intersection is to operate in a NEMA six (6) phase, full-traffic-actuated mode. There will be an exclusive/permissive left turn phase for both the north and southbound movements of MD 924. The MD 924 through movements will operate concurrently. The Patterson Mill Road/Barrington Pl. through movements will operate concurrently.

An eight phase, full-traffic-actuated, solid state digital controller with intersection monitor and harness, battery back-up, video detection equipment, and (1) four-channel rack mounted time delay output loop detector amplifier housed in a base mounted cabinet are to be installed at this location.

III. SPECIAL NOTE:

The Contractor shall notify Mr. Robert Snyder of SHA at 410-787-7635 to arrange for the phone drop installation.

The Contractor is to provide Mr. Snyder with the nearest street number, zip code, and telephone number.

CONTACT LIST

The contact persons for District #4 are as follows:

Mr. Randall Scott
Assistant District Engineer - Traffic
410-321-2781

Ms. Suenette Pope
Assistant District Engineer - Utility
410-321-3460

Mr. Steve Markiszewski
Assistant District Engineer - Maintenance
410-321-2781

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

The Power Company Representative is:
Baltimore Gas and Electric Company
Mr. Gary Smith
7317 Parkway Drive South
Hanover, Maryland 21076
410-859-99433
WMS # 1203239

Phase Chart

	1	2	3	4	5	6	7	8	9	10	11
Phase 1 & 5	R	R	R	R	R	R	R	R	R	R	R
1 & 5 Change to Phase 1 & 6 or Phase 2 & 5 or Phase 2 & 6	G	G	G	G	G	G	G	G	G	G	G
Phase 1 & 6	G	G	G	R	R	R	R	R	R	R	R
1 Change	G	G	G	R	R	R	R	R	R	R	R
Phase 2 & 5	R	R	R	R	R	R	R	R	R	R	R
5 Change	R	R	R	R	R	R	R	R	R	R	R
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	R
2 & 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	R
Phase 4 & 8	R	R	R	R	R	R	G	G	G	G	G
4 & 8 Change	R	R	R	R	R	R	Y	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	FL/R

EQUIPMENT LIST

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

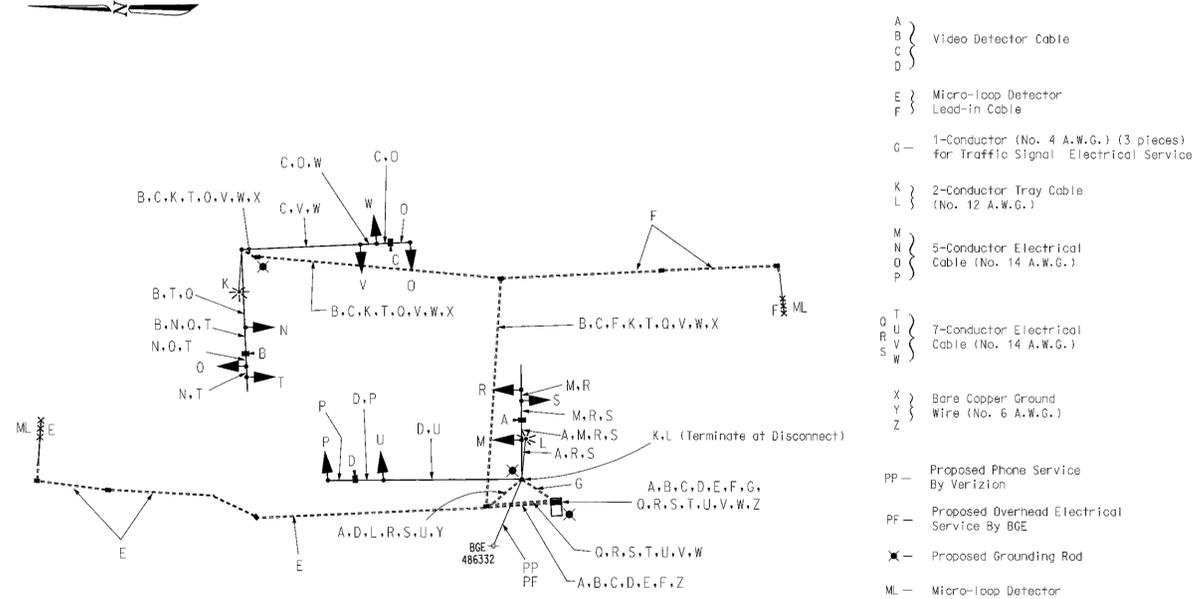
None.

B. Equipment to be furnished and 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.
1	EA	818	27 ft. steel twin mast arm pole with 70 ft. and 50 ft. mast arms.
1	EA	818	27 ft. steel twin mast arm pole with 60 ft. and 50 ft. mast arms.
1	EA	816	Standard S.H.A. traffic signal controller, base mounted cabinet, and one (1) four-channel loop detector amplifier (Note: Controller and cabinet shall be purchased from Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodenhizer (410) 787-7650).
6	EA	814	12 in., one-way, three section (R,Y,G) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
1	EA	814	8 in., one-way, three section (R,Y,G) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	814	12 in., one-way, five section (R,Y,YA,G,G) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	814	12 in./8 in., one-way, five section (12 in. YA, GA, 8 in. R,Y,G) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
4	EA	---	Video detection camera equipment with specified cables [two - 300 ft., one - 150 ft., one - 100 ft.]
2	EA	813	36 in. x 42 in. R 10-12 sign with mast arm mounting hardware.
3	EA	813	36 in. x 36 in. W 3-3 "NEW" sign for ground mounting.
2	EA	813	16 in. x Var. D 3-(1) sign [Dual Faced] with mast arm mounting hardware.
2	EA	813	30 in. x 51 in. shield assem. sign with pole mounting hardware.
2	EA	813	48 in. x 75 in. shield assem. sign with pole mounting hardware.
2	EA	---	Micro-loop probe (set of 3) with 750 ft. lead-in cable.
2	EA	806	15 ft. luminaire arm.
2	EA	806	250 W H.P.S. lamp and luminaire.
3	CY	205	Test pit excavation.
8	EA	811	Handhole.
35	LF	815	Sawcut for signal loop detector.
45	LF	810	1-conductor electrical cable (No. 4 A.W.G.).
300	LF	810	2-conductor electrical tray cable (No. 12 A.W.G.).
120	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
1400	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
210	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
15	LF	805	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
20	LF	805	1 in. electrical conduit riser - for phone drop.
10	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched
700	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
250	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
30	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
12.0	CY	801	Concrete foundation for traffic signal equipment.
3	EA	804	Ground rod - 3/4 in. diameter x 10 ft. length.
1	EA	807	Electrical utility service equipment (120/240 V, one phase, three wire system) for a type B-4 overhead electrical service.
140	LF	549	24 in. wide HAPPTM - white for stop line.
45	LF	812	4 in. x 6 in. wood sign support.
2	EA	---	Remove existing ground mounted sign.
1	EA	---	Cut, clean, galvanize, and cap mast arms.
Lump Sum	LS	---	As-built for S.H.A. (on CADD).

Wiring Diagram



The Traffic Group
The Traffic Group, Inc.
410-931-6600
Fax 410-931-6601

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)
**MD 924 (Emmorton Rd.) at Patterson Mill Rd/
Barrington Pl.**

DRAWN BY: Frank Hoeckel	F.A.P. NO. N/A	TS NO. 4345-GI	SHEET NO. 2 OF 2
CHECKED BY:	S.H.A. NO. BW996M82	T.I.M.S. NO. G-264	
SCALE: N/A	COUNTY: Harford	LOG MILE: 120924003.22	
DATE: September 23, 2004			

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