

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of the existing traffic control signal at the intersection of MD 24 and Singer Road in Harford County, Maryland. MD 24 is considered to run in a north/south direction.

II. INTERSECTION OPERATION

The intersection will operate in NEMA eight (8) phase, full-traffic-actuated mode. There will be exclusive left turn phases for both the north and southbound movements of MD 24. MD 24 through movements will operate concurrently. There will be an exclusive/permissive left turn phases for both the east and westbound movements of Singer Road. The Singer Road through movements will operate concurrently.

Existing cabinet/Controller will be utilized. Install one additional 4- channel rack mounted loop detector amplifier.

EQUIPMENT LIST

A. Approved S.H.A. equipment to be purchased by the Developer 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
1	EA	818	12 in. x 30 ft. steel strain pole [Note: four 1-3/4 in. x 90 in. anchor bolts].
2	EA	814	12 in., one-way, three section (R,Y,G) adjustable traffic signal head with span wire mounting hardware and tunnel visors.
1	EA	814	12 in., one-way, three section (G,YA,GA) adjustable signal head with span wire mounting hardware and tunnel visors.
2	EA	814	12 in., one-way, five section (R,Y,YA,G,GA) adjustable traffic signal head with span wire mounting hardware and tunnel visors.
2	EA	813	36 in. x 42 in. R 10-12 sign with span wire mounting hardware.
2	EA	813	30 in. x 36 in. R 3-5(R) sign with span wire mounting hardware.
1	EA	806	15 ft. luminaire arm.
1	EA	806	250 W H.P.S. lamp and luminaire.

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	CY	205	Test pit excavation.
2	EA	811	Handhole.
950	LF	815	Sawcut for signal loop detector.
3500	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
1080	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
310	LF	810	2-conductor electrical tray cable (No. 12 A.W.G.).
375	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
390	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
25	LF	810	3-wire (No. 8 A.W.G.) electrical cable.
275	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
120	LF	819	3/8 in. steel span wire.
55	LF	805	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
120	LF	805	2 in. polyvinyl chloride [Schedule 40] electrical conduit - trenched.
15	LF	805	3 in. polyvinyl chloride [Schedule 40] electrical conduit - trenched.
2.65	CY	801	Concrete foundation for traffic signal equipment.
1	EA	804	Ground rod - 3/4 in. diameter x 10 ft. length.
135	LF	550	24 in. wide pavement marking - white (thermoplastic).
Lump Sum	LS	---	As-built for S.H.A. (on CADD).

CONTACT LIST

The contact persons for District #4 are as follows:

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

Mr. Graydon Tobery
Assistant District Engineer - Utility
410-321-3480

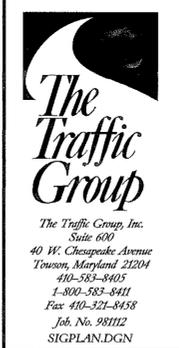
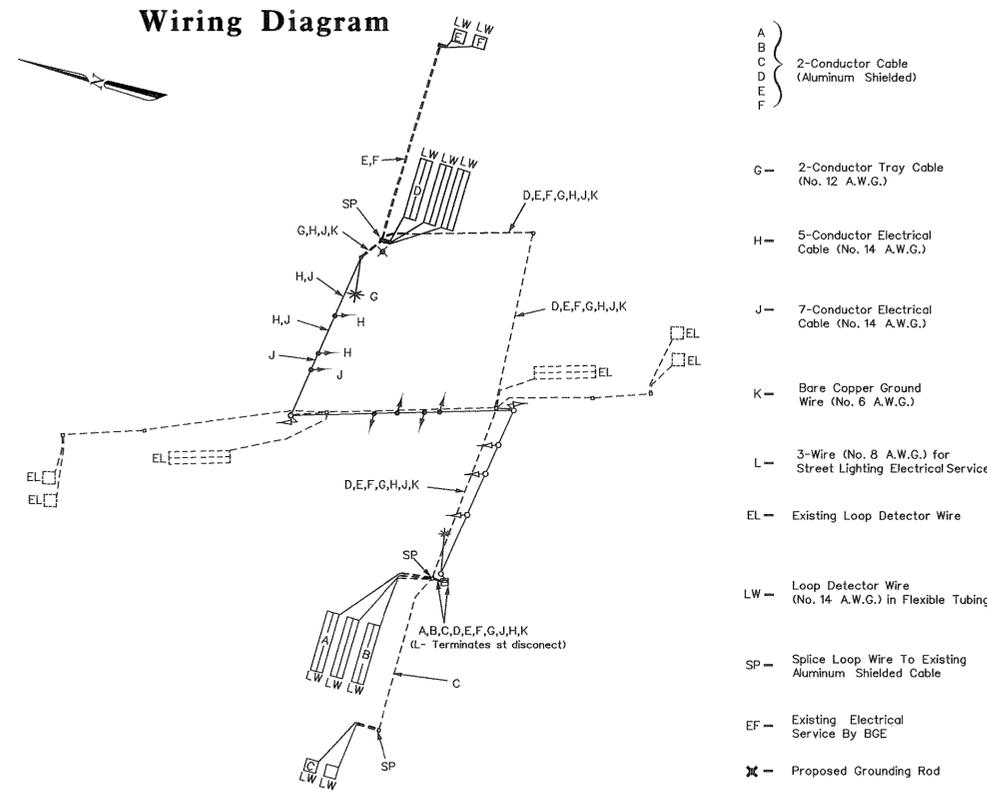
Mr. Dave Ramsey
Assistant District Engineer - Maintenance
410-321-2781

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

Phase Chart

	1	2	3	4	5	6	7	8	9	10	11	12
Phase 1 & 5	←G	←G	R	R	←G	←G	R	R	R	R	R	R
1 & 5 Change to Phase 1 & 6 or Phase 2 & 5 or Phase 2 & 6												
Phase 1 & 6	←G	←G	G	G	←R	←R	R	R	R	R	R	R
1 Change	←Y	←Y	G	G	←R	←R	R	R	R	R	R	R
Phase 2 & 5	←R	←R	R	R	←G	←G	G	G	R	R	R	R
5 Change	←R	←R	R	R	←Y	←Y	G	G	R	R	R	R
Phase 2 & 6	←R	←R	G	G	←R	←R	G	G	R	R	R	R
2 & 6 Change	←R	←R	Y	Y	←R	←R	Y	Y	R	R	R	R
Phase 3 & 7	←R	←R	R	R	←R	←R	R	R	←G	←G	R	R
3 & 7 Change	←R	←R	R	R	←R	←R	R	R	←Y	←Y	R	R
Phase 3 & 8	←R	←R	R	R	←R	←R	R	R	←G	←G	R	R
3 & 8 Change	←R	←R	R	R	←R	←R	R	R	←Y	←Y	R	R
Phase 4 & 7	←R	←R	R	R	←R	←R	R	R	←G	←G	R	R
4 & 7 Change	←R	←R	R	R	←R	←R	R	R	←Y	←Y	R	R
Phase 4 & 8	←R	←R	R	R	←R	←R	R	R	G	G	G	G
4 & 8 Change	←R	←R	R	R	←R	←R	R	R	Y	Y	Y	Y
Flashing Operation	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

Wiring Diagram



MDOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information)

MD 24 at Singer Road

DATE: October 14, 1999 LOG MILE: 12002405.20

DRAWN BY: F. Hoeckel	F.A.P. NO. N/A	PLAN SHEET NO.:	SHEET NO.
CHK. BY:	S.H.A. NO. BW996M82	2493B-G1	2 of 2
SCALE: N/A	COUNTY: HARFORD		

REV: 130 14 1999