

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of the existing traffic control signal at the intersection of MD 140 and Woodholme Center Circle in Baltimore County, Maryland. MD 140 is considered to run in a north/south direction.

II. INTERSECTION OPERATION

The intersection currently operates in a NEMA four (4) phase, full-traffic-actuated mode. There is an exclusive/permissive left turn phase for the southbound movement of MD 140. The MD 140 through movements operate concurrently. The Woodholme Center Cir. movement operates alone.

The intersection phasing is to be modified to a NEMA six (6) phase, full-traffic-actuated mode with an exclusive/permissive left turn phase for both the northbound and southbound movements of MD 140. The MD 140 through movements will operate concurrently. The Woodholme Center Cir. and Brighton Gardens Entr. through movements will operate in a side street split mode.

The existing cabinet/controller will be utilized. The existing 2-channel loop detector amplifiers will be replaced with 4-channel rack mounted loop detector amplifier equipment.

CONTACT LIST

The contact persons for District #4 are as follows:

Mr. David J. Malkowski
District Engineer
410-321-8210

Mr. Randal Scott
Assistant District Engineer - Traffic
410-321-8210

Mr. Joseph McMahon
Assistant District Engineer - Utility
410-321-8210

Mr. Dave Ramsey
Assistant District Engineer - Maintenance
410-321-8210

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

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.

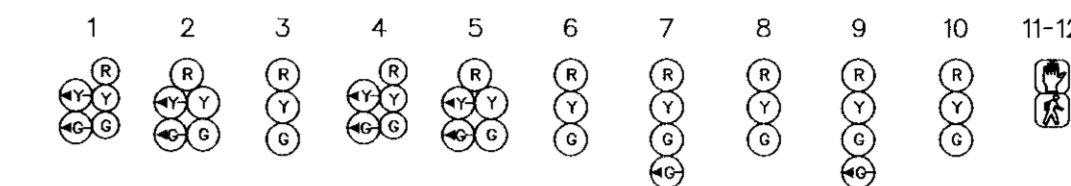
Quantity	Units	Specification Section	Description
1	EA	814	12 in., one-way, five section (R,Y,YA,G,GA) adjustable traffic signal head with span wire mounting hardware and tunnel visors.
2	EA	814	12 in./8 in., one-way, five section (12 in. YA,GA/ 8 in. R,Y,G) adjustable traffic signal head with span wire mounting hardware and tunnel visors.
1	EA	814	12 in., one-way, three section (R,Y,G,) adjustable traffic signal head with span wire mounting hardware and tunnel visors.
2	EA	814	12 in., one-way, four section (R,Y,G,GA) adjustable traffic signal head with span wire mounting hardware and tunnel visors.
2	EA	814	12 in., one-way, two section (symbolic WK,DW) adjustable pedestrian signal head with pole mounting hardware and cut-away visors.
1	EA	813	36 in. x 42 in. R 10-12 sign with span wire mounting hardware.
1	EA	813	30 in. x 36 in. R 3-5(L) sign with span wire mounting hardware.
1	EA	813	30 in. x 36 in. R 3-5(R) sign with span wire mounting hardware.
1	EA	813	30 in. x 36 in. R 3-6(L) sign with span wire mounting hardware.
1	EA	813	16 in. x 96 in. (Dual Faced) D 3-2 sign with span wire mounting hardware.
2	EA	813	9 in. x 12 in. R 10-3C sign with pole mounting hardware.
1	EA	813	21 in. x 15 in. M 6-2(L) sign for ground mounting.
1	EA	813	30 in. x 30 in. W 11A-2 sign for ground mounting.
2	EA	813	24 in. x 30 in. R 4-7 sign for ground mounting.
2	EA	817	Pedestrian pushbutton assembly.
3	EA	816	NEMA load switch.
3	EA	---	4-channel rack mounted loop detector amplifier.
* 1	EA	---	Rack mounted loop detector amplifier retrofit.
1	EA	---	Power supply for rack mounted loop detector amplifiers.

* To be installed by the MD-SHA Signal Shop.

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.

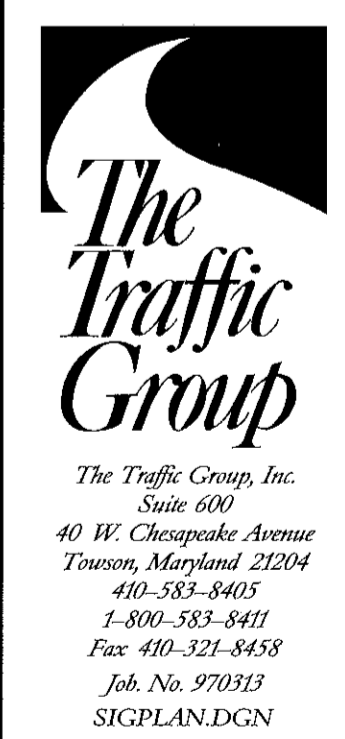
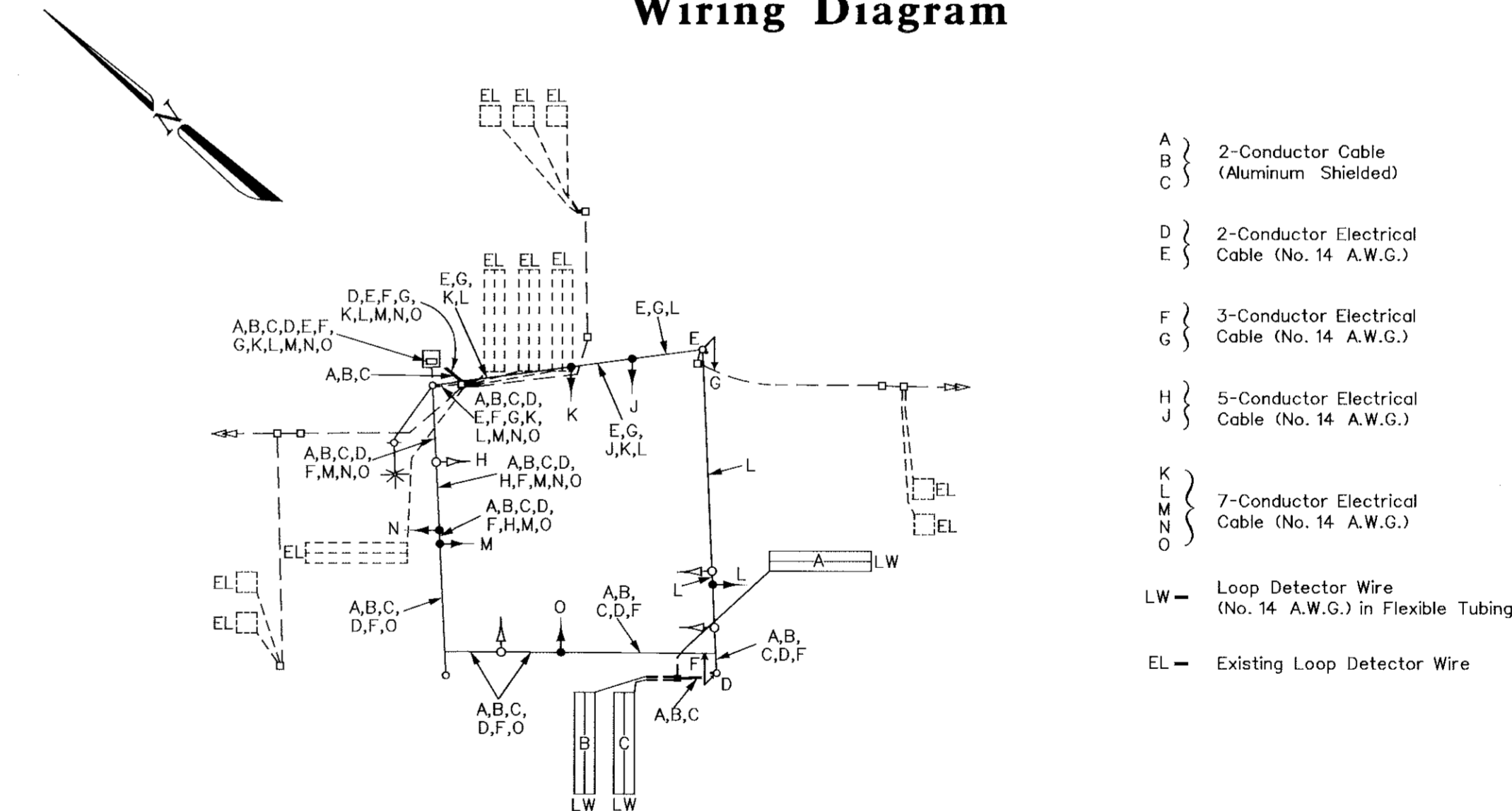
Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
1	EA	811	Handhole.
365	LF	815	Sawcut for signal loop detector.
1425	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
845	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
405	LF	810	2-conductor electrical cable (No. 14 A.W.G.).
400	LF	810	3-conductor electrical cable (No. 14 A.W.G.).
50	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
670	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
30	LF	805	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
15	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
1	EA	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit bend installed in existing base.
1	EA	805	2 in. weatherhead.
460	LF	500	5 in. wide pavement marking - white (paint).
350	LF	500	5 in. wide pavement marking - double yellow (paint).
255	LF	556	12 in. wide HAPPTPM - white for crosswalk.
115	LF	556	24 in. wide HAPPTPM - white for stop line.
1	EA	556	HAPPTPM symbol - white "Left Arrow".
1	EA	556	HAPPTPM symbol - white "Thru Left Arrow".
45	LF	812	4 in. x 4 in. wood sign support.
300	LF	---	Remove existing pavement markings by grinding.
Lump Sum	LS	---	Remove existing traffic signal equipment.
Lump Sum	LS	---	As-built for S.H.A. (on CADD).

Phase Chart



Phase	1	2	3	4	5	6	7	8	9	10	11-12	Direction
Phase 1 & 5	R	R	R	R	R	R	R	R	R	R	R	DW
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	DW
Phase 1 & 6	G	G	G	R	R	R	R	R	R	R	R	DW
1 Change	Y	Y	Y	G	R	R	R	R	R	R	R	DW
Phase 2 & 5	R	R	R	G	G	G	R	R	R	R	R	DW
5 Change	R	R	R	Y	Y	Y	G	R	R	R	R	DW
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	R	DW
2 & 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	R	DW
Phase 3	R	R	R	R	R	R	R	R	G	G	G	DW
3 Change	R	R	R	R	R	R	R	R	Y	Y	Y	DW
Phase 4	R	R	R	R	R	R	G	G	R	R	R	DW
4 Change	R	R	R	R	R	R	Y	Y	R	R	R	DW
Phase Alt. 4	R	R	R	R	R	R	G	G	R	R	R	WK
Ped Clearance	R	R	R	R	R	R	G	G	R	R	R	FL/DW
Alt. 4 Change	R	R	R	R	R	R	Y	Y	R	R	R	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	DARK

Wiring Diagram



MDOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information)
MD 140 at Woodholme Center Circle and Brighton Gardens Ent.

DATE: September 28, 1998 LOG MILE: 03014002.35

DRAWN BY: Jamie Storck PLAN SHEET NO.: SHEET NO.
CHK. BY: Jamie Storck S.H.A. NO. BW996M82 2309D-GI 2 of 2
SCALE: N/A COUNTY: BALTIMORE