PROJECT DESCRIPTION

I. GENERAL

This project involves the addition of a northbound Exclusive/ Permissive left turn to the existing traffic signal at the intersection of MD 424 and Duke of Kent Dr./ Hyman Lane in Anne Arundel County.

MD 424 is assumed to run in an north-south direction.

II. INTERSECTION OPERATION

1. The intersection shall operate as a five-phase, full-actuated-mode with a leading Exclusive/ Permissive left turn for northbound MD 424. MD 424 approaches shall operate together and Duke of Kent Dr./ Hyman Lane shall operate together. A pushbutton actuated pedestrian movement is existing across the south leg of MD 424.

2. The existing eight-phase controller housed in a NEMA size "6" base-mounted cabinet shall be used and retro fitted. A NEMA load switch and four 4-channel rack mounted amplifiers with power supply and panel shall be installed into the existing cabinet.

III. SPECIAL NOTES:

1. The Contractor shall be responsible for terminating all signal cables to the appropriate terminals and shall properly lable each cable. The Contractor shall contact Mr.Ed Rodenhizer (410- 787-5200) Chief of the Signal Shop 72 hours in advance to the internal controller wiring to have a Signal Shop representive present.

EQUIPMENT LISTS

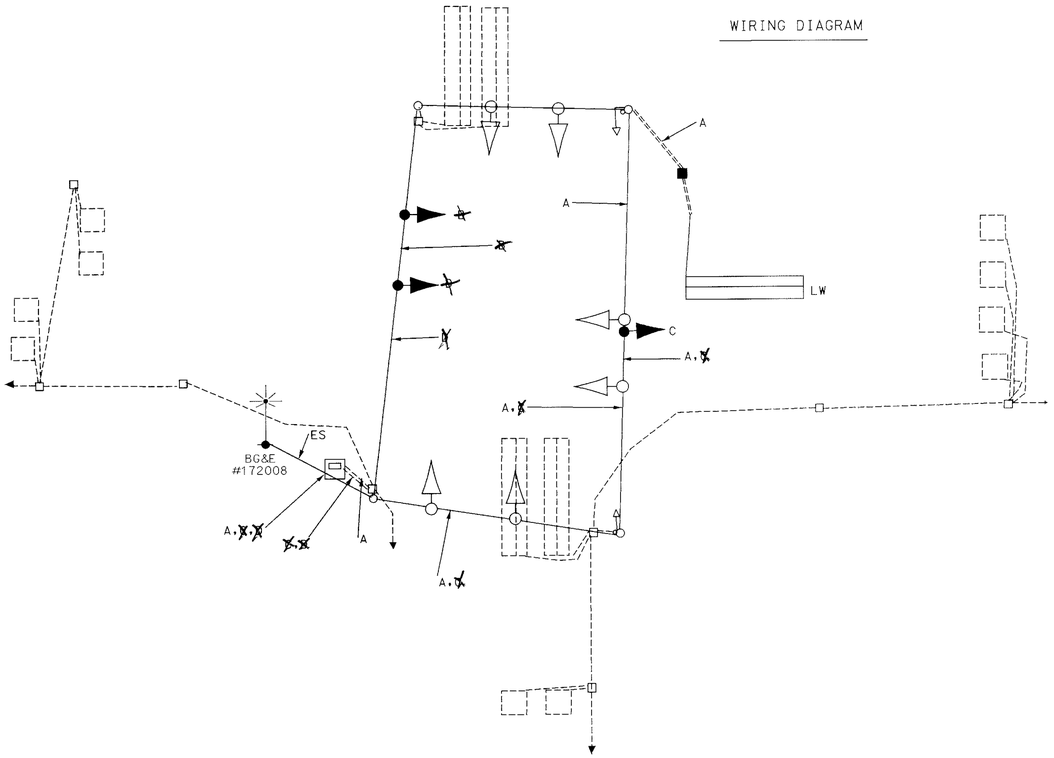
A. EQUIPMENT TO BE SUPPLIED BY SHA AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
9000	1 EA.	Detector rack retrofit.
9002	4 EA.	Detector amplifiers 4-channel rack mounted.
9003	1 EA.	Detector panel.
9004	1 EA.	Rack power supply.
9007	1 EA.	NEMA load switch.

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA.	Maintenance of Traffic.
1002	1 EA.	Mobilization.
5004	140 L.F.	Removal of existing pavement line markings.
5005	8 EA.	Heat applied white permanent performed thermoplastic pavement marking letters.
5006	4 EA.	Heat applied white permanent preformed thermoplastic pavement marking arrows.
~~8015~~	~~10 EA.~~	~~12" vehicular traffic signal head section.~~
~~8020~~	~~3 EA.~~	~~8" vehicular traffic signal head section.~~
8022	1 EA.	Conduit bend in existing base.
8031	30 L.F.	2" Schedule 80 rigid PVC conduit- trenched.
8039	12 L.F.	1" electrical conduit galvanized sleeve.
8049	1 EA.	Electrical handhole.
8059	300 L.F.	Electrical cable 2-conductor, aluminum shielded.
~~8062~~	~~25 L.F.~~	~~Electrical cable 5-Conductor, (NO. 14 AWG).~~
~~8063~~	~~300 L.F.~~	~~Electrical cable 7-Conductor (NO. 14 AWG).~~
8064	450 L.F.	Loop wire encased in flexible tubing (NO.14 AWG).
8065	120 L.F.	Sawcut for signal loop detector.
NEG.	300 L.F.	5" white lead free reflective thermoplastic pavement marking.

WIRING DIAGRAM



Wiring Key

A- 2- Conductor (NO. 14 AWG) electrial cable -aluminum shielded.

~~B- 5-Conductor (NO. 14 AWG) electrical cable.~~

~~C) 7-Conductor (NO. 14 AWG) electrical cable.~~

LW- Loop wire (NO. 14 AWG).

ES- Existing overhead service to be maintained.

NOTE: Existing electrical cables to be maintained and undisturbed.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11
PHASE 2 & 5	G G	G G	G	R	R	R	**R**	R	**R**	DW	DW
5 CHANGE	G Y	G Y	G	R	R	R	R	R	R	DW	DW
PHASE 2 & 6	G	G	G	G	G	R	R	R	R	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	DW	DW
PHASE 4 & 8	R	R	R	R	R	G	G	G	G	DW	DW
4 & 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	DW	DW
PHASE 8 ALT	R	R	R	R	R	G	G	G	G	WK	WK
PED CLEARANCE	R	R	R	R	R	G	G	G	G	FL/DW	FL/DW
ALT 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK

REVISION "D"

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MARYLAND DOT - STATE HIGHWAY ADMINISTRATI
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 424 AND DUKE
OF KENT DRIVE/HYMAN LANE

DRAWN BY: EMM	F.A.P. NO.	TS NO. 2380D	SHEET
CHECKED BY: RRZ(FOR STS)	S.H.A. NO. 23554750		
SCALE: NONE	COUNTY: ANNE ARUNDEL	T.I.M.S. NO. D 793	2 OF
DATE: 8-23-00	LOG MILE: 02042407.81		