

PROJECT DESCRIPTION

I. GENERAL

This portion of the project involves the rephasing of the existing traffic signal at the intersection of MD 28 (Key West Ave.) and Shady Grove Road in Montgomery County, Maryland. MD 28 is considered to run in an east/west direction.

II. INTERSECTION OPERATION

The intersection currently operates in a NEMA SIX (6) phase, semi-traffic-actuated mode where Shady Grove Road is the mainline. The Shady Grove Road through movements operate concurrently with a concurrent pedestrian phase across the east and west legs of the intersection. There is an exclusive left turn phase for both the east and westbound movements of MD 28 (Key West Ave.). The MD 28 through movements operate concurrently with a concurrent pedestrian phase across the south leg of the intersection.

The intersection will be modified to operate in a NEMA six (6) phase, semi-traffic-actuated mode where MD 28 (Key West Ave.) is the mainline. There will be an exclusive left turn phase for both the east and westbound movements of MD 28. The MD 28 through movements will operate concurrently with a concurrent pedestrian phase across the south leg of the intersection. The Shady Grove Road through movements will operate concurrently with a concurrent pedestrian phase across both the east and west legs of the intersection.

The existing cabinet/controller will be utilized. Six 4-channel rack mounted loop detector amplifiers are to be installed into the existing base mounted cabinet.

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	10 ft. steel pedestal pole with break away transformer base [Note: four 1 in. x 40 in. anchor bolts].
1	EA	814	12 in. one-way, two section, (Symbolic DW, WK) adjustable pedestrian signalhead with post top mounting hardware and cut-away visors.
2	EA	---	Detector rack retrofit.
2	EA	---	Detector rack power supply.
6	EA	---	4-channel rack mounted loop detector amplifier.

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.
3	EA	811	Handhole.
1175	LF	815	Sawcut for signal loop detector.
4475	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
4100	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
35	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
125	LF	810	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
80	LF	810	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
130	LF	810	2 in. polyvinyl chloride [Schedule 80] electrical conduit - pushed.
60	LF	810	4 in. polyvinyl chloride [Schedule 80] electrical conduit - pushed.
30	LF	810	12 in. wide HAPPTPM for crosswalk - white.
1	EA	814	Relocate existing traffic signal head on existing span wire.
1	EA	---	Remove existing traffic signal equipment.
1	EA	---	As-built for S.H.A. (on CADD)

The contact persons for District #3 are as follows:

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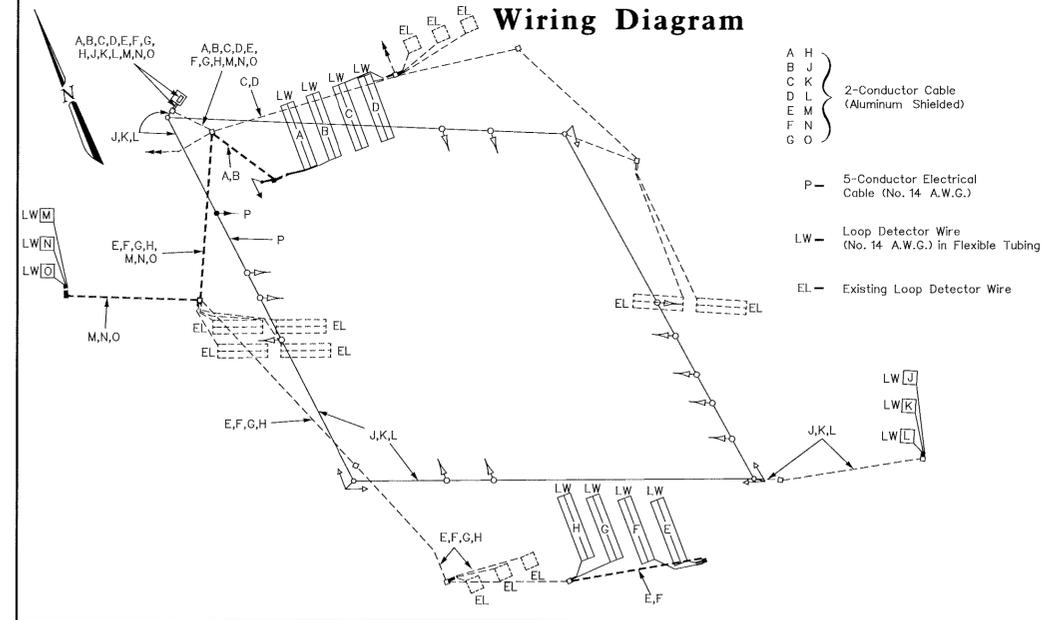
Mr. Randy Brown
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Phase Chart

	1	2	3	4	5	6	7	8	9	10	11	12	13	14,15	16-19
Phase 1 & 5	←G←	←G←	←G←	R	R	←G←	←G←	R	R	R	R	R	R	DW	DW
1 & 5 Change to Phase 1 & 6 or Phase 2 & 5	←G←	←G←	←G←	G	G	←R←	←R←	R	R	R	R	R	R	DW	DW
Phase 1 & 6	←G←	←G←	←G←	G	G	←R←	←R←	R	R	R	R	R	R	DW	DW
1 Change	←Y←	←Y←	←Y←	G	G	←R←	←R←	R	R	R	R	R	R	DW	DW
Phase 2 & 5	←R←	←R←	←R←	R	R	←G←	←G←	G	G	R	R	R	R	DW	DW
5 Change	←R←	←R←	←R←	R	R	←Y←	←Y←	G	G	R	R	R	R	DW	DW
Phase 2 & 6	←R←	←R←	←R←	G	G	←R←	←R←	G	G	R	R	R	R	WK	DW
Ped Clearance	←R←	←R←	←R←	G	G	←R←	←R←	G	G	R	R	R	R	FL/DW	DW
2 & 6 Change	←R←	←R←	←R←	Y	Y	←R←	←R←	Y	Y	R	R	R	R	DW	DW
Phase 4 & 8	←R←	←R←	←R←	R	R	←R←	←R←	R	R	G	G	G	G	DW	WK
Ped Clearance	←R←	←R←	←R←	R	R	←R←	←R←	R	R	G	G	G	G	DW	FL/DW
4 & 8 Change	←R←	←R←	←R←	R	R	←R←	←R←	R	R	Y	Y	Y	Y	DW	DW
Flashing Operation	←FL←	←FL←	←FL←	FL/Y	FL/Y	←FL←	←FL←	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK

Wiring Diagram



MDOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

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(General Information)
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SCALE: N/A S.H.A. NO. BW996M82 1189C-GI 2 of 2

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