

FHWA REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD			

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 355 AND HUBBARD DR./EAST WEST ST. IN MONTGOMERY COUNTY. THIS MODIFICATION IS REQUIRED DUE TO NEW GEOMETRICS ON THE EAST LEG OF THE INTERSECTION. MD 355 IS CONSIDERED TO RUN IN A NORTH/SOUTH DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION PRESENTLY OPERATES IN A NEMA FOUR (4) PHASE, SEMI-TRAFFIC-ACTUATED MODE. THE NORTH AND SOUTHBOUND MOVEMENTS OF MD 355 OPERATE CONCURRENTLY WITH A CONCURRENT PEDESTRIAN MOVEMENT ACROSS THE WEST LEG OF THE INTERSECTION. THE HUBBARD DRIVE/EAST WEST STREET MOVEMENTS OPERATE CONCURRENTLY. THERE IS AN ACTUATED PEDESTRIAN MOVEMENT ACROSS THE NORTH LEG OF THE INTERSECTION.

THE INTERSECTION IS TO BE MODIFIED TO OPERATE IN A NEMA FIVE (5) PHASE, SEMI-TRAFFIC-ACTUATED MODE AND WILL INCLUDE THE ADDITION OF AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE FOR SOUTHBOUND MD 355 AND A CONCURRENT PEDESTRIAN MOVEMENT ACROSS THE WEST LEG OF THE INTERSECTION. THE HUBBARD DRIVE/EAST WEST STREET MOVEMENTS WILL REMAIN UNCHANGED. THE EXISTING CONTROLLER IS TO BE UTILIZED.

SPECIAL NOTE

THE MONTGOMERY COUNTY SIGNAL SHOP WILL PERFORM ALL INTERNAL WIRING AND MODIFICATIONS TO THE CABINET. THE CONTRACTOR WILL RUN AND TAG ALL CABLE INTO THE CABINET AND CONTACT MR. EMIL WOLANIN AT (301) 217-2208, SEVENTY-TWO (72) HOURS PRIOR TO REQUIRING THE WIRING OF THE EXISTING CABINET.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A. AND INSTALLED BY THE CONTRACTOR.

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
2	EA	816	2-CHANNEL LOOP DETECTOR AMPLIFIER WITH TIME DELAY OUTPUT WITH DETECTOR PANEL AND HARNESS
1	EA	813	36" X 42" R10-12 SIGN - SPAN WIRE MOUNT
1	EA	814	12" ONE-WAY, FIVE SECTION (R,Y,Y,G,G,A) ADJUSTABLE TRAFFIC SIGNAL HEAD HAVING PROPER SPAN WIRE MOUNTING HARDWARE, AND TUNNEL VISORS
1	EA	814	12"/8" ONE-WAY, FIVE SECTION (12" Y,G,G,A - 8" R,Y,G) ADJUSTABLE TRAFFIC SIGNAL HEAD HAVING PROPER SPAN WIRE MOUNTING HARDWARE, AND TUNNEL VISORS
2	EA	814	12" ONE-WAY, TWO-SECTION (W, DW) SYMBOLIC PEDESTRIAN SIGNAL HEAD HAVING PROPER POLE MOUNTING HARDWARE, AND CUT-AWAY VISORS
2	EA	816	LOAD SWITCH

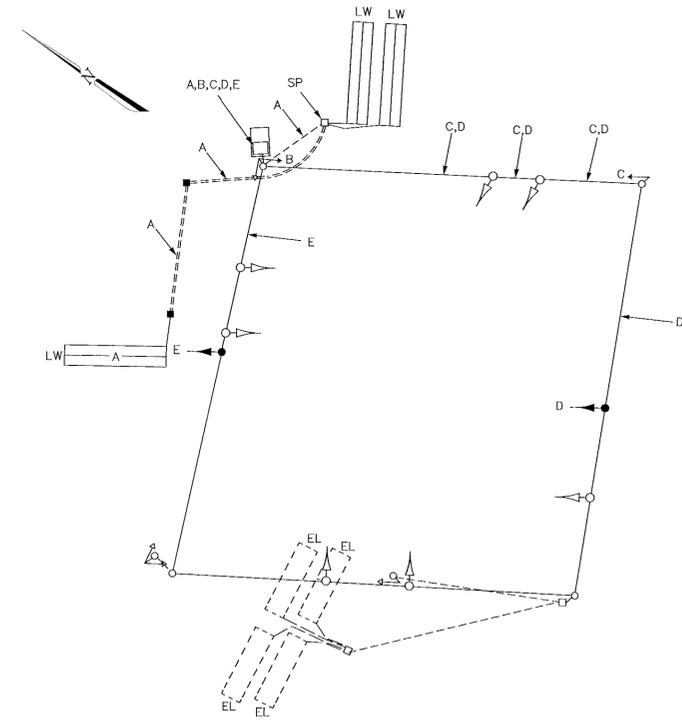
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
LUMPSUM	LS	108	MOBILIZATION
LUMPSUM	LS	108	MAINTENANCE OF TRAFFIC (TRAFFIC CONTROL)
100	SF	104	TEMPORARY CONSTRUCTION SIGNS
2	EA	811	HANDHOLE
425	LF	815	SAW CUT
1050	LF	810	LOOP DETECTOR WIRE (NO. 14 A.W.G.) ENCASED IN 1/4" FLEXIBLE TUBING
110	LF	810	2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED)
230	LF	810	3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
360	LF	810	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
20	LF	805	1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR LOOP DETECTOR LEAD-IN
50	LF	805	3" POLYVINYL CHLORIDE (SCHEDULE 40) ELECTRICAL CONDUIT - TRENCHED DURING CONSTRUCTION
55	LF	805	3" POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - SLOTTED IN THE ROADWAY
200	LF	555	PREFORMED PAVEMENT MARKING - WHITE, 12" WIDE FOR CROSSWALK
30	LF	555	PREFORMED PAVEMENT MARKING - WHITE 24" WIDE FOR STOP LINE
LUMP SUM	LS	----	REMOVE AND SALVAGE EXISTING TRAFFIC SIGNAL EQUIPMENT

PHASE CHART

	1	2	3	4	5	6	7	8	9	10-13	14,15
Phase 2 & 5	R	R	G	G	G	R	R	R	R	DW	DW
5 Change	R	R	G	G	G	R	R	R	R	DW	DW
Phase 2 & 6	G	G	G	G	G	R	R	R	R	WK	DW
Ped Clearance	G	G	G	G	G	R	R	R	R	FL/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 Alt 4 & 8	R	R	R	R	R	G	G	G	G	DW	WK
Ped clearance	R	R	R	R	R	G	G	G	G	DW	FL/DW
Alt 4 & 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

WIRING DIAGRAM



WIRING NOTES

- A - 2-CONDUCTOR CABLE (ALUMINUM SHIELDED)
- B } 3-CONDUCTOR CABLE (NO. 14 A.W.G.)
- C }
- D } 7-CONDUCTOR CABLE (NO. 14 A.W.G.)
- E }
- LW - LOOPWIRE (NO. 14 A.W.G.) IN FLEXIBLE TUBING
- EL - EXISTING LOOPWIRE
- SP - SPLICE NEW LOOPWIRE TO EXISTING ALUMINUM SHIELDED CABLE



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

DRAWN BY: Atri Amin	(General Information)
DES. BY: Arti Amin	MD 355 at Hubbard Drive/ East West Street
CHK. BY:	COUNTY: MONTGOMERY LOG MILE * 15035506.86
DATE: April 29, 1996	F.A.P. NO. N/A TS/STD. NO. SHEET NO.
SCALE: N/A	S.H.A. NO. BW900M81 2690A-GI 2 of 2