

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 2-4 AND OLD FIELD LANE IN CALVERT COUNTY. MD 2-4 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION. THIS WORK IS NECESSITATED BY THE ADDITION OF THE FOURTH LEG OF THE INTERSECTION AND WILL INVOLVE THE INSTALLATION OF DETECTORS, SIGNAL HEADS AND EXCLUSIVE LEFT TURN PHASES FOR NORTHBOUND AND SOUTHBOUND MD 2-4.

CONTROLLER OPERATION

THE EXISTING EIGHT-PHASE, FULLY ACTUATED NEMA CONTROLLER HOUSED IN A BASE MOUNTED CABINET WILL BE USED. THE CONTROLLER CURRENTLY OPERATES AS A THREE PHASE FULL-TRAFFIC-ACTUATED CONTROLLER. INSTALL ONE-FOUR CHANNEL LOOP DETECTOR AMPLIFIER INTO THE EXISTING BASE MOUNTED CABINET.

PHASE CHART

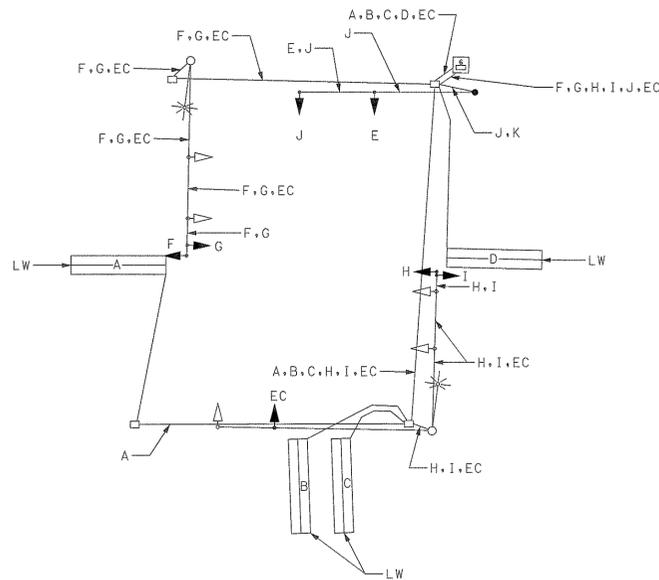
	1	2	3	4	5	6	7	8	9	10	11	12	13
PHASE 1 & 5	G	G	R	R	G	G	R	R	R	R	R	R	R
1 & 5 CHANGE	PHASE 1 & 5 CHANGE MAY CHANGE TO PHASE 1 & 6, 2 & 5 OR 2 & 6												
PHASE 1 & 6	G	G	G	G	R	R	R	R	R	R	R	R	R
1 & 6 CHANGE	Y	Y	G	G	R	R	R	R	R	R	R	R	R
PHASE 2 & 5	R	R	R	R	G	G	R	R	R	R	R	R	R
2 & 5 CHANGE	R	R	R	R	Y	Y	G	G	R	R	R	R	R
PHASE 2 & 6	R	R	G	G	R	R	G	G	R	R	R	R	R
2 & 6 CHANGE	R	R	Y	Y	R	R	Y	Y	R	R	R	R	R
PHASE 4 & 8	R	R	R	R	R	R	R	G	G	G	G	G	G
4 & 8 CHANGE	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y
PRE-EMPTION	R	R	R	R	R	R	R	R	R	R	R	R	R
CHANGE	R	R	R	R	R	R	R	R	R	R	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	FL/R

EQUIPMENT LIST

EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2001	1 CY	TEST PIT EXCAVATION
5002	350 LF	FURNISH AND INSTALL 5 IN. WHITE HEAT APPLIED PERMANENT PREFORM THERMOPLASTIC PAVEMENT MARKING
5004	110 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED PERMANENT PREFORM THERMOPLASTIC PAVEMENT MARKING
5005	8 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT PREFORM THERMOPLASTIC PAVEMENT MARKING LETTER
5006	4 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT PREFORM THERMOPLASTIC PAVEMENT MARKING ARROW
5007	170 LF	REMOVE EXISTING PAVEMENT MARKINGS
8001	5 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8021	560 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8022	15 LF	FURNISH AND INSTALL 1 IN. ELECTRICAL CONDUIT-GALVANIZED SLEEVE
8023	30 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8027	10 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8034	1 EA	FURNISH AND INSTALL GROUND ROD -3/4" X 10'
8040	1950 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8041	530 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8044	30 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
8045	980 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
8048	25 LF	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8060	1 EA	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
8078	1 EA	FURNISH AND INSTALL MAST ARM POLE AND 60 FT. MAST ARM
----	4 EA	FURNISH AND INSTALL 12 IN., ONE-WAY, THREE-SECTION (RA,YA,GA) VEHICLE TRAFFIC SIGNAL HEAD - MAST ARM MOUNT
----	1 EA	FURNISH AND INSTALL 8 IN., ONE-WAY, THREE-SECTION (R,Y,G) VEHICLE TRAFFIC SIGNAL HEAD - MAST ARM MOUNT
----	1 EA	FURNISH AND INSTALL R3-5R SIGN (30 IN. X 36 IN.) MAST ARM MOUNT
----	1 EA	FURNISH AND INSTALL ROUTE MARKER ASSEMBLY "NORTH/MD 2-4/LT.ARROW" (36'X75") GROUND MOUNT
----	2 EA	FURNISH AND INSTALL D3-2 SIGN "OLD FIELD LN" (VAR. X 16 IN.) - MAST ARM MOUNT
----	1 EA	FURNISH AND INSTALL D3-2 SIGN "SOLOMANS IS RD" (VAR. X 16 IN.) - MAST ARM MOUNT
----	4 EA	ADJUST HANDHOLE TO PROPOSED GRADE
----	1 EA	FURNISH AND INSTALL FOUR CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER (RACK MOUNT)
----	1 EA	FURNISH AND INSTALL ROUTE MARKER ASSEMBLY "SOUTH/MD 2-4/RT.ARROW" (24'X51") GROUND MOUNT
----	1 EA	FURNISH AND INSTALL 12 IN., ONE-WAY, FOUR-SECTION (R,Y,G,GA) VEHICLE TRAFFIC SIGNAL HEAD - MAST ARM MOUNT
----	1 EA	FURNISH AND INSTALL LOAD SWITCH
----	2 EA	FURNISH AND INSTALL 12 IN., ONE-WAY, THREE-SECTION (R,Y,G) VEHICLE TRAFFIC SIGNAL HEAD - MAST ARM MOUNT

WIRING DIAGRAM



WIRING KEY

- A-D 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
- E 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- F-J 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- K STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- LW LOOP WIRE (NO. 14 A.W.G.)
- EC EXISTING CABLE

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #5 ARE AS FOLLOWS:

MR. PAUL ARMSTRONG
DISTRICT ENGINEER
PHONE: (410) 841-5450

MR. LAWRENCE ELLIOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-5450

MR. RAYMOND HUTZLER
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 841-5461

MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER - UTILITY
PHONE: (410) 841-5450

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 2-4 AND OLD FIELD LANE

DRAWN BY: T.M.Z	F.A.P. NO.	TS NO.	
CHECKED BY: K.W.S	S.H.A. NO.	3921A GI	SHEET NO.
SCALE: NONE	COUNTY: CALVERT	T.I.M.S. NO.	
DATE: 6-23-00	LOG MILE:	D-758	2 OF 2