

Project Description

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC SIGNAL DUE TO THE ADDITION OF THE FOURTH LEG OF THE INTERSECTION AT MD 424 AND UNDERWOOD ROAD IN ANNE AARUNDEL COUNTY. MD 424 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

Controller Operation

THE EXISTING EIGHT-PHASE FULLY ACTUATED NEMA CONTROLLER HOUSED IN A POLE MOUNTED CABINET WILL BE USED. THE CONTROLLER WILL OPERATE AS A FOUR-PHASE SEMI-ACTUATED CONTROLLER WITH THE SIDE STREET MOVEMENTS BEING SPLIT. INSTALL A FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER INTO THE EXISTING POLE MOUNTED CABINET.

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS

MR. PAUL ARMSTRONG
DISTRICT ENGINEER
410-841-1001

MR. LARRY ELLIOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
410-841-1003

MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER - UTILITIES
410-841-1005

MR. CHARLES GEORGE
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
410-841-1002

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF SR.
CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
410-787-7650

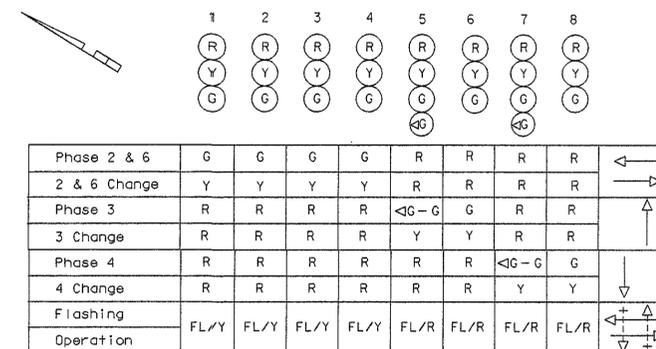
MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
410-787-7676

MR. DAVE SCHWARTZ
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

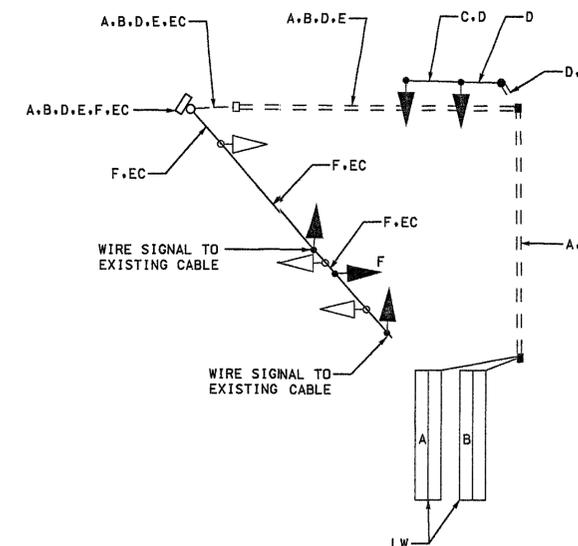
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
5001	175 LF	5 INCH YELLOW HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5002	100 LF	5 INCH WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5004	15 LF	24 INCH WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5006	2 EA	HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROW (RT.)
5006	2 EA	HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROW (LT./THRU)
5007	130 LF	REMOVE EXISTING PAVEMENT MARKINGS
5008	1 EA	REMOVE EXISTING PAVEMENT MARKING ARROW
8001	3 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8006	2 EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8021	240 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8023	15 LF	FURNISH AND INSTALL 1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8024	10 LF	FURNISH AND INSTALL 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8029	140 LF	FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8033	2 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	1 EA	FURNISH AND INSTALL 3/4" X 10' GROUND ROD
8040	870 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8041	360 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8044	25 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO 14 AWG)
8045	180 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO 14 AWG)
8048	100 LF	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
8076	1 EA	FURNISH AND INSTALL MAST ARM POLE AND 38 FT. MAST ARM
----	L.S.	REMOVE AND DISPOSE EXISTING SIGNAL HEAD
----	2 EA.	FURNISH AND INSTALL 12" ONE-WAY, THREE-SECTION (R,Y,G) BLACK FACE TRAFFIC SIGNAL HEAD - MAST ARM MOUNT
----	2 EA.	FURNISH AND INSTALL 12" ONE-WAY, FOUR-SECTION (R,Y,G,GA) BLACK FACE TRAFFIC SIGNAL HEAD - MAST ARM MOUNT
----	1 EA.	FURNISH AND INSTALL FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER
----	2 EA.	FURNISH AND INSTALL R3-5R SIGN (30" X 36") - MAST ARM MOUNT
----	1 EA.	RELOCATE EXISTING SIGNAL HEAD

Phase Chart



WIRING DIAGRAM



WIRE KEY

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

REVISIONS	APPROVALS	MARYLAND DOT - STATE HIGHWAY ADMINISTRATION Office of Traffic & Safety TRAFFIC ENGINEERING DESIGN DIVISION GENERAL INFORMATION SHEET MD 424 AND UNDERWOOD ROAD	
	TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION	DRAWN BY: T.M.Z	F.A.P. NO. 3470C
	ASST. CHIEF TRAFFIC ENGINEERING DESIGN DIVISION	CHECKED BY: K.W.S	S.H.A. NO.
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION	SCALE: NONE	COUNTY: ANNE ARUNDEL
	DIRECTOR, TRAFFIC & SAFETY	DATE: 6-22-00	LOG MILE: 02042404.04
		TS NO. 3470C	SHEET NO. 2 OF 2
		T.I.M.S. NO.	