

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL WITH STREET LIGHTING AT MD 97 AND GOLD MINE ROAD IN MONTGOMERY COUNTY. MD 97 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC ACTUATED MODE, WITH THE MD 97 APPROACHES RUNNING CONCURRENTLY AND THE GOLD MINE ROAD APPROACHES RUNNING CONCURRENTLY.

THIS INTERSECTION WILL BE HARDWARE INTERCONNECTED TO THE INTERSECTION OF MD 97 AND PRINCE PHILLIP DR./QUEEN ELIZABETH DR.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH FOUR (4) TWO-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, AND L.A.U. AND L.A.U. PANEL WITH ASSOCIATED HARNESS HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER AT (410)787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

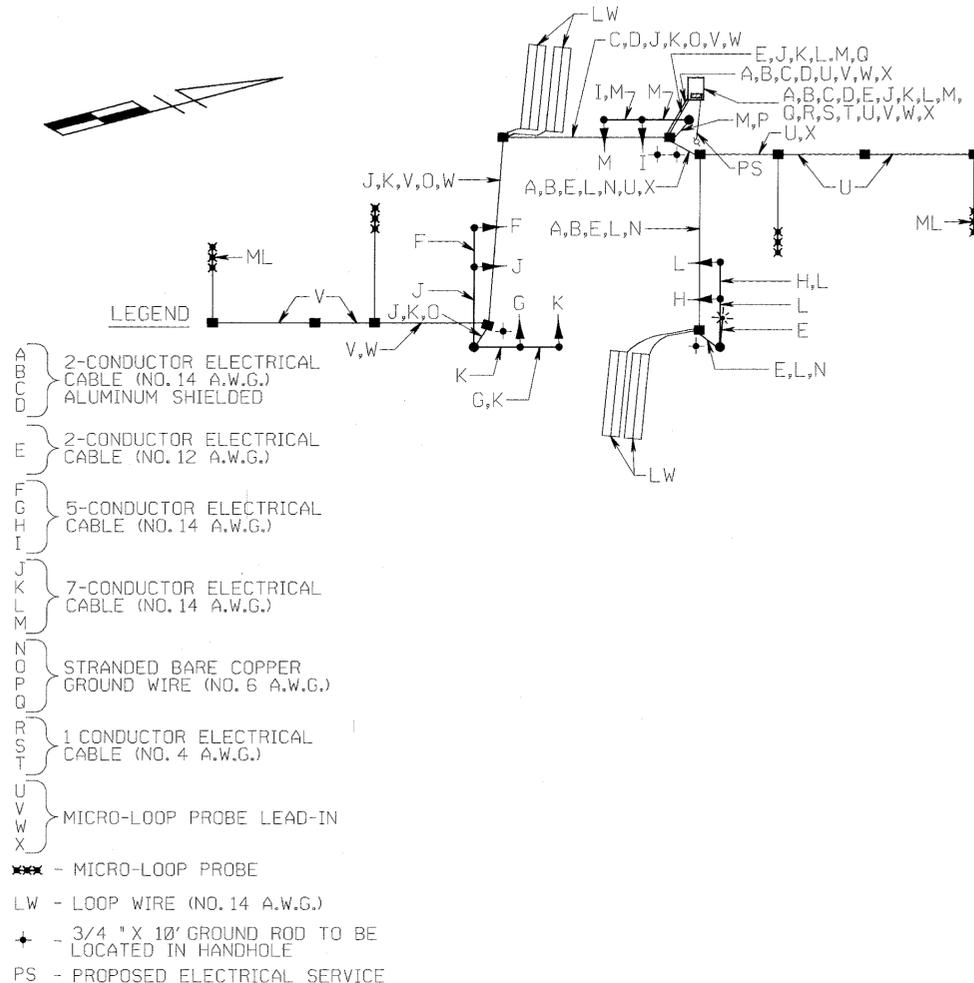
ITEM NO.	QUANTITY	DESCRIPTION
9001	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH FOUR (4) TWO-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, AND L.A.U. AND L.A.U. PANEL WITH ASSOCIATED HARNESS HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.
9002	8 EACH	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
9003	121 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : - 2 EACH W3-3 SIGN (48 IN. X 48 IN.) WITH "NEW" PANEL (30 IN. X 30 IN.) AND FLAGS GROUND MOUNTED. - 2 EACH D3-2 DUAL FACED SIGN (VARIABLE X 16 IN.) MAST ARM MOUNT. - 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 97, RIGHT ARROW" (24 IN. X 51 IN.) GROUND MOUNT. - 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 97, LEFT ARROW" (36 IN. X 75 IN.) GROUND MOUNT. - 1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 97, RIGHT ARROW" (24 IN. X 51 IN.) GROUND MOUNT. - 1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 97, LEFT ARROW" (36 IN. X 75 IN.) GROUND MOUNT.
9004	4 EACH	MICRO-LOOP PROBE SET WITH 1000 FT. LEAD-IN.

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	3 C.Y.	TEST PIT EXCAVATION
5006	130 L.F.	4 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5009	130 L.F.	24 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
8001	11 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8005	7295 LBS	FURNISH AND INSTALL MAST ARM POLE AND ARM - 21 FT. POLE WITH TWIN 60/50 FT. ARMS - 27 FT. POLE WITH 44 FT. ARM - 21 FT. POLE WITH 44 FT. ARM
8011	8 EACH	INSTALL SIGNAL HEAD
8015	4 EACH	INSTALL MICRO-LOOP PROBE SET
8019	1 EACH	INSTALL CONTROLLER AND CABINET-BASE MOUNT
8022	500 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8024	70 L.F.	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8025	770 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 40 RIGID PVC CONDUIT-TRENCHED
8031	70 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 40 RIGID PVC CONDUIT-TRENCHED
8033	230 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT-BORED
8035	11 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8036	1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
8037	4 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8041	5950 L.F.	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE, SELF-SUPPORTING (OVERHEAD)
8043	1380 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8044	480 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 A.W.G.)
8047	90 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE-5 CONDUCTOR (NO. 14 A.W.G.)
8048	670 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE-7 CONDUCTOR (NO. 14 A.W.G.)
8049	200 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR (NO. 12 A.W.G.)
8052	350 L.F.	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
8053	60 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE-1 CONDUCTOR (NO. 4 A.W.G. - THHN/THWN)
8054	150 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS (4 IN. X 4 IN.)
8056	100 S.F.	INSTALL GROUND MOUNTED SIGN
8057	21 S.F.	INSTALL OVERHEAD SIGN
8059	1 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
8060	1 EACH	FURNISH AND INSTALL 20 FT. LIGHTING BRACKET FOR TRAFFIC SIGNAL STRUCTURE
8067	1 EACH	USE EXISTING DISK AND AS-BUILT TRAFFIC CONTROL DEVICES
NEG.	2 EACH	REMOVE R1-1 SIGN AND SUPPORTS
NEG.	60 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 40 RIGID PVC CONDUIT-RISER

WIRING DIAGRAM



PHASE CHART

	1	2	3	4	5	6	7	8
PHASE 2 + 6	(R)							
2 + 6 CHANGE	(Y)	(Y)	(Y)	(Y)	(R)	(R)	(R)	(R)
PHASE 4 + 8	(R)	(R)	(R)	(R)	(G)	(G)	(G)	(G)
4 + 8 CHANGE	(R)	(R)	(R)	(R)	(Y)	(Y)	(Y)	(Y)
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

WR&A
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 (410) 235-3450

REVISIONS	APPROVALS	REVISIONS
	CHEF, SIGNAL DESIGN SECTION	
	ASST. DISTRICT ENGINEER, TRAFFIC	
	CHEF, TRAFFIC ENGINEERING DESIGN DIVISION	
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY	

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
 Office of Traffic & Safety
 TRAFFIC ENGINEERING DESIGN DIVISION
 GENERAL INFORMATION SHEET
 MD 97 (GEORGIA AVE.) AND GOLD MINE ROAD

DATE: 9-29-95	DRAWN BY: S. BLOSS	F.A.P. NO. STPG-000S(30)E	PLAN
SCALE: NONE	DESIGNED BY: T. ZAYDEL	S.H.A. NO. AW-793-479-385	SHEET NO.:
APPROVED BY: [Signature]	CHECKED BY: T. HANNAN	COUNTY: MONTGOMERY	SHEET NO. OF