F H W A REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD			

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW INTERSECTION CONTROL BEACON AT THE INTERSECTION OF MD 2/4 AND MD 497 IN CALVERT COUNTY. MD 2/4 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A FLASHING MODE WITH MD 2/4 SIGNAL INDICATIONS FLASHING YELLOW AND MD 497 SIGNAL INDICATIONS FLASHING RED.

CONTROLLER REQUIREMENTS

INSTALL A NEMA SIZE "6" BASE-MOUNTED CABINET WITH A TWO-CIRCUIT FLASHER UNIT WITH PHOTO-CELL, DIMMER SWITCH AND INTERSECTION MONITOR II, WITH BATTERY BACK-UP FOR PHONE DROP.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410)787-7631 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

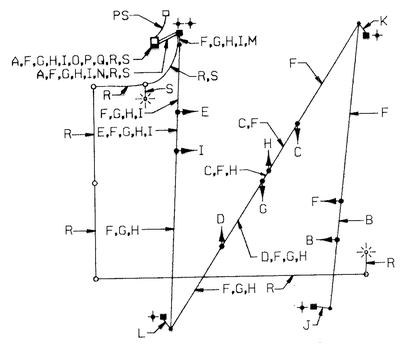
CATEGORY CODE NO.	SPECIFICATION SECTION	QUANTITY	DESCRIPTION
960011	814	4 EACH	12 IN., ONE-WAY, ONE SECTION (R) SIGNAL HEAD-SPAN MOUNT
960012	814	4 EACH	12 IN., ONE-WAY, ONE SECTION (Y) SIGNAL HEAD-SPAN MOUNT
973023	813	91 S.F.	SHEET ALUMINUM SIGNS
			– 1 EACH M3-3 SIGN (24 IN. X 12 IN.) GROUND MOUNT
			– 1 EACH M3-1 SIGN (24 IN. X 12 IN.) GROUND MOUNT
			– 2 EACH M1-6 SIGN (24 IN. X 24 IN.) GROUND MOUNT
			– 2 EACH M6-1 SIGN (21 IN. X 15 IN.) GROUND MOUNT
			– 1 EACH "LEFT TURN USE MERGE LANE" SIGN (48 IN. X 48 IN.) GROUND MOUNT
			– 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 4, RIGHT ARROW" (24 IN. X 51 IN.) POLE MOUNT
			– 1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 4, LEFT ARROW" (36 IN. X 75 IN.) POLE MOUNT
			– 1 EACH R3-3B SIGN (36 IN. X 36 IN.) GROUND MOUNT
			– 1 EACH W9-2A (48 IN. X 48 IN.) + W9-2B (29 IN. X 30 IN.) SIGNS – GROUND MOUNT
900000	816	1 EACH	TWO CIRCUIT FLASHER UNIT WITH PHOTO-CELL, DIMMER SWITCH AND INTERSECTION MONITOR II WITH BATTERY BACK-UP FOR PHONE DROP HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET

EQUIPMENT LIST "B"

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

CATEGORY CODE NO.	SPECIFICATION SECTION	QUANTITY	DESCRIPTION
120500	104	LUMP SUM	MAINTENANCE OF TRAFFIC
120610	104.07	7 U.D.	ARROW PANEL
120625	104.08	300 S.F.	TEMPORARY TRAFFIC SIGNS HIGH PERFORMANCE WIDE ANGLE RETROREFLECTIVE
130850	108	LUMP SUM	MOBILIZATION
230030	205	5 C.Y.	TEST PIT EXCAVATION
585407	553	300 L.F.	5 IN. WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585409	553	2250 L.F.	5 IN. YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585442	555	90 L.F.	8 IN. WHITE PERMANENT PREFORMED MARKING TAPE
585444	555	30 L.F.	16 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
585445	555	50 L.F.	24 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
585448	555	1 EACH	PERMANENT PREFORMED PAVEMENT MARKING ARROW
801004	801	20 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
801104	812	136 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 4 IN.
802501	810	60 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
805125	805	30 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 40 RIGID PVC CONDUIT-TRENCHED
805135	805	30 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 40 RIGID PVC CONDUIT-TRENCHED
805140	805	25 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 40 RIGID PVC CONDUIT – TRENCHED
807205	807	1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
810010	810	30 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G. THHN/THWN
811011	811	4 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
812002	812	16 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 6 IN. X 6 IN.
813014	813	91 S.F.	INSTALL GROUND MOUNTED SIGN
818009	818	4 EACH	FURNISH AND INSTALL 14 IN. X 32 FT. STRAIN POLE (2 PLY) ANCHOR BOLTS WILL BE 2 1/4 IN.X 96 IN.
822500		1 EACH	AS-BUILT FOR TRAFFIC SIGNAL
837001	804	5 EACH	FURNISH AND INSTALL GROUND ROD – 3/4 IN. DIAMETER X 10 FT. LENGTH
860011	814	4 EACH	INSTALL 12 IN., ONE-WAY, ONE-SECTION (R) SIGNAL HEAD-SPAN MOUNT
860012	814	4 EACH	INSTALL 12 IN., ONE-WAY, ONE-SECTION (Y) SIGNAL HEAD-SPAN MOUNT
861106	810	60 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE-3 CONDUCTOR (NO. 14 A.W.G)
861107	810	150 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE-5 CONDUCTOR (NO. 14 A.W.G.)
861108	810	1500 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE-7 CONDUCTOR (NO. 14 A.W.G.)
861116	810	550 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE – 2 CONDUCTOR (NO. 12 A.W.G.)
869102	819	640 L.F.	FURNISH AND INSTALL STEEL SPAN WIRE 3/8 IN. DIAMETER
871202	816	1 EACH	INSTALL CONTROLLER AND CABINET-BASE MOUNTED
800000		1 EACH	FURNISH AND INSTALL PHOTO-CELL
800000	805	1 EACH	INSTALL 3 IN. SCHEDULE 40 PVC CONDUIT BEND IN EXISTING STREET LIGHTING FOUNDATION

WIRING DIAGRAM



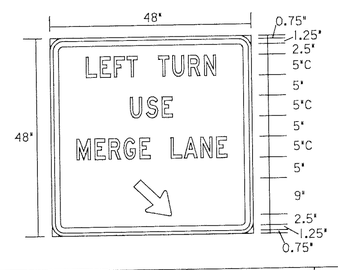
LEGEND

- A – 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B, C, D, E – 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- F, G, H, I – 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- J, K, L, M, N – STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- O, P, Q – 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- R, S – 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
- ⏚ – 3/4 " X 10' GROUND ROD
- PS – PROPOSED UNDERGROUND ELECTRIC SERVICE

PHASE CHART

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

SIGN LAYOUT



WIDTH	HEIGHT	COLOR LEG.	COLOR BKGD	BORDER WIDTH	BORDER RADIUS	ARROW	SHIELD	REMARKS
48"	48"	BLK	W	OFFSET 0.75 WIDTH 1.25	3"	6" AROTAIL @45	---	SHEET ALUMINUM

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

WR&A
Whitman, Requardt and Associates
ENGINEERS AND PLANNERS
2315 Saint Paul Street
Baltimore, Maryland 21218
(410) 235-3450

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

GENERAL INFORMATION SHEET
MD 2/4 AND MD 497

DATE: 11-29-95	DRAWN BY: S. BLOSS	F.A.P. NO.		PLAN SHEET NO.: T5-3530GI	SHEET NO. ___ OF ___
SCALE: NONE	DESIGNED BY: T. ZAYDEL	S.H.A. NO.			
APPROVED BY:	CHECKED BY: T. HANNAN	COUNTY	CALVERT		

M:\94002\30486GIS.DGN