PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL WITH HARDWIRE INTERCONNECT AT THE INTERSECTION OF MD 328 (MATTHEWSTOWN ROAD) AND ELLIOTT ROAD IN TALBOT COUNTY. MD 328 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

1. NORMAL OPERATION:

   THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 328 APPROACHES OPERATING CONCURRENTLY AND THE ELLIOTT ROAD APPROACH OPERATING ALONE.

2. EMERGENCY PRE-EMPTION:

   A HARDWIRE INTERCONNECT WILL BE PROVIDED TO THE INTERSECTION AT U.S. 50. THE INTERSECTION WILL OPERATE AS INDICATED ABOVE, UNLESS AN EMERGENCY VEHICLE PRE-EMPTS THE TRAFFIC SIGNAL AND STOPS THE ELLIOTT ROAD APPROACH FOR THE MD 328 APPROACHES.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE AND TWO (2), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-30

STANDARD NO. MD-104.31-01 (FLAGGING OPERATION)

STANDARD NO. MD-104.33-01 (SHOULDER WORK)

STANDARD NO. MD-104.35-01 (LANE SHIFT)

STANDARD NO. MD-104.32-02 (INTERSECTION FLAGGING OPERATION)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. RICHARD LINDSAY
DISTRICT #2 ENGINEER
PHONE: (410) 778-3061

MR. ROBERT KIEL
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 778-3061

MR. TERRY WRIGHT
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 778-3061

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DISTRICT #2 UTILITIES ENGINEER
PHONE: (410) 778-3061

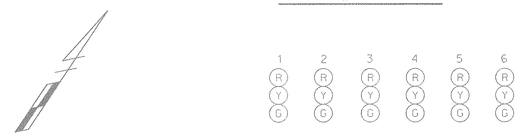
MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9002	2 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9085	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET
9089	72 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
		- 3 EACH W3-3 SIGN (36 IN. X 36 IN.) WITH "NEW" PANEL (30 IN. X30 IN.) AND FLAG - GROUND MOUNT
		- 1 EACH D-3(1) SIGN (VARIABLE X 16 IN.) - MAST ARM MOUNT.
		- 1 EACH M95-1 SIGN (78 IN. X 24 IN.) - MAST ARM MOUNT

PHASE CHART



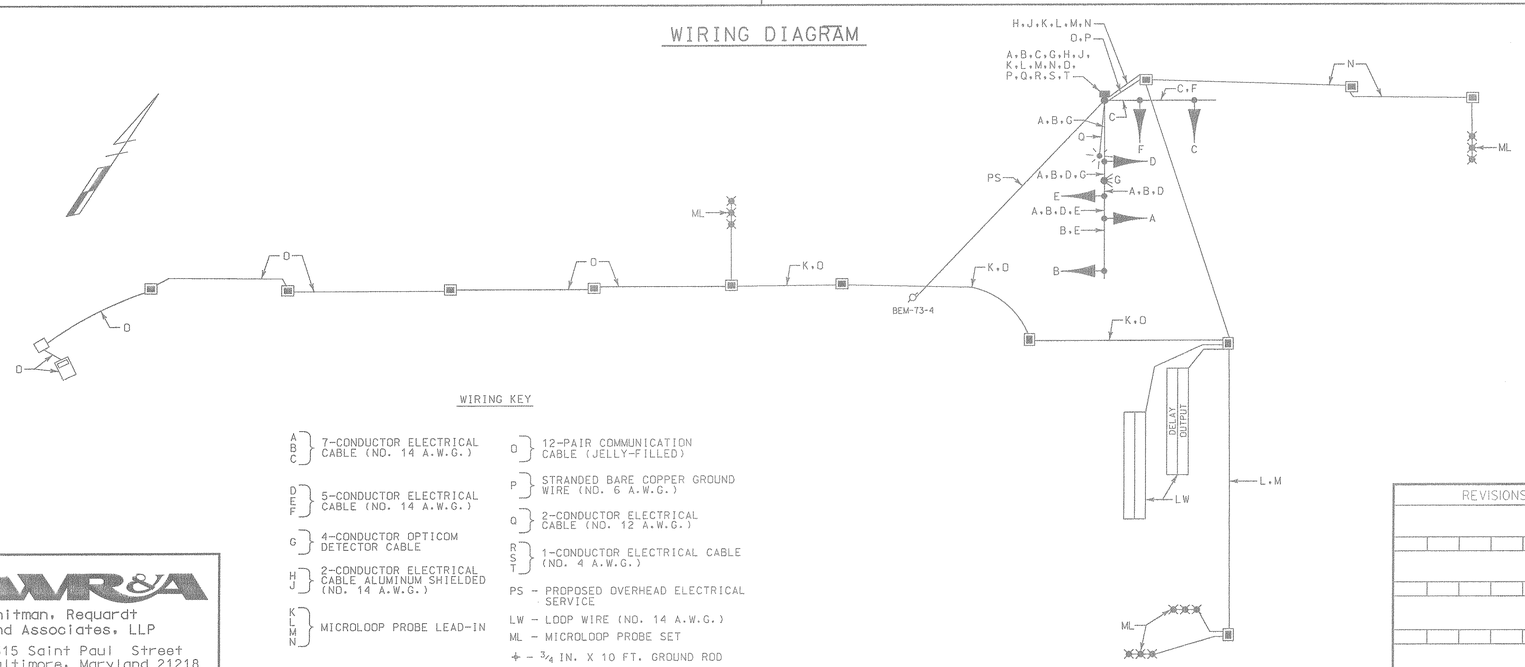
	1	2	3	4	5	6
PHASE 2 + 6	G	G	G	G	R	R
2 + 6 CHANGE	Y	Y	Y	Y	R	R
PHASE 4	R	R	R	R	G	G
4 CHANGE	R	R	R	R	Y	Y
EMERGENCY	G	G	G	G	R	R
PRE-EMPTION	Y	Y	Y	Y	R	R
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R

EQUIPMENT LIST "B"

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

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
2001	1 C.Y.	TEST PIT EXCAVATION
5004	50 L.F.	24 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5007	50 L.F.	REMOVE EXISTING PAVEMENT MARKING - ANY WIDTH
8001	5 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8006	1 EACH	CUT,CLEAN, GALVZANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8012	1 EACH	FURNISH AND INSTALL 3M OPTICOM #721 DETECTOR EYE
8013	1 EACH	FURNISH AND INSTALL 3M OPTICOM #760 CARD RACK
8014	1 EACH	FURNISH AND INSTALL 3M OPTICOM #762 DISCRIMINATOR
8016	4 EACH	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 500 FT. LEAD-IN
8019	1 EACH	INSTALL CONTROLLER AND CABINET - POLE MOUNT
8021	320 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8023	30 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8024	300 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8025	100 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
8027	740 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8028	140 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
8031	130 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
8033	12 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	1 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8037	80 L.F.	FURNISH AND INSTALL 4 CONDUCTOR OPTICOM DETECTOR CABLE
8039	1075 L.F.	FURNISH AND INSTALL 12 PAIR COMMUNICATION CABLE, JELLY-FILLED (UNDERGROUND)
8040	915 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8041	190 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8044	75 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
8045	220 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
8046	75 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
8048	30 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8049	45 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G. - THHN/THWN
8051	60 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 6 IN.
8052	48 S.F.	INSTALL GROUND MOUNTED SIGN
8053	24 S.F.	INSTALL OVERHEAD SIGN
8055	1 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
8056	1 EACH	FURNISH AND INSTALL 15 FT. LIGHTING BRACKET ARM FOR TRAFFIC SIGNAL STRUCTURE
8060	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT PER ASSIGNMENT
8066	1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240V, 1 PHASE 3 WIRE SYST)
8080	1 EACH	FURNISH AND INSTALL MAST ARM POLE AND TWIN 50 FT./50 FT. MAST ARMS
8084	18 EACH	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION

WIRING DIAGRAM



WIRING KEY

- A, B, C — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D, E, F — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- G — 4-CONDUCTOR OPTICOM DETECTOR CABLE
- H, J — 2-CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO. 14 A.W.G.)
- K, L, M, N — MICROLOOP PROBE LEAD-IN
- O — 12-PAIR COMMUNICATION CABLE (JELLY-FILLED)
- P — STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- Q — 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
- R, S, T — 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- PS - PROPOSED OVERHEAD ELECTRICAL SERVICE
- LW - LOOP WIRE (NO. 14 A.W.G.)
- ML - MICROLOOP PROBE SET
- ⏚ - 3/4 IN. X 10 FT. GROUND ROD

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

REVISIONS	APPROVALS
	ASST. TRAFFIC ENGINEERING DESIGN DIVISION
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION
TRAFFIC SIGNALIZATION PLAN
MD 328 (MATTHEWSTOWN RD) & ELLIOTT RL

DRAWN BY: S.BLOSS	F.A.P. NO. TAH06A51/B51	TS NO. TS-3950	SHEET NO.
CHECKED BY: N.LEARY	S.H.A. NO.		
SCALE: NONE	COUNTY: TALBOT	T.I.M.S. NO. D400	2 OF 2
DATE: 9-27-99	LOG MILE: 20032800.18		

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