PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF U.S. 50 AND MD 313 IN WICOMICO COUNTY. U.S. 50 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE U.S. 50 APPROACHES OPERATING CONCURRENTLY AND THE MD 313 APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR EASTBOUND AND WESTBOUND U.S. 50 APPROACHES.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS THE WEST LEG OF U.S. 50.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH THREE(3) FOUR-CHANNEL, TIME-DELAY-OUTOUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 487-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER OF THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

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-104.37-01 (LEFT LANE CLOSURE)
STANDARD NO. MD-104.38-01 (RIGHT LANE CLOSURE)
STANDARD NO. MD-104.41-01 (INTERSECTION FAR-RIGHT LANE CLOSURE)
STANDARD NO. MD-104.43-01 (SHOULDER WORK)
STANDARD NO. MD-104.44-01 (LEFT LANE CLOSURE)
STANDARD NO. MD-104.45-01 (RIGHT LANE CLOSURE)
STANDARD NO. MD-104.46-01 (CENTER LANE CLOSURE)
STANDARD NO. MD-104.48-01 (INTERSECTION TURN BAY LANE CLOSURE)
STANDARD NO. MD-104.49-01 (SHOULDER WORK)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. DONNIE DREWER
DISTRICT ENGINEER
PHONE: (410) 677-4006

MR. GENE COFIELL
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 667-4040

MR. JAMES WRIGHT
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 543-6715

MR. BRUCE POOLE
DISTRICT UTILITIES ENGINEER
PHONE: (410) 677-4082

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
9000	1 EACH	27 FT. MAST ARM POLE AND 34 FOOT MAST ARM
9000	2 EACH	27 FT. MAST ARM POLE AND 64 FOOT MAST ARM
9000	1 EACH	27 FT. MAST ARM POLE AND 70 FOOT MAST ARM
9002	3 EACH	FOUR CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER
9081	1 EACH	EIGHT PHASE, FULL TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR AND HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
9089	102 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
		- 2 EACH D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT
		- 2 EACH R10-12 SIGN (36 IN. x 42 IN.) - MAST ARM MOUNT
		- 1 EACH M6-2(L) SIGN (21 IN. x 15 IN.) - POLE MOUNT
		- 2 EACH M6-2(R) SIGN (21 IN. X 15 IN.) - GROUND MOUNT
		- 3 EACH S1-1 SIGN (36 IN. X 36 IN.) - GROUND MOUNT
		- 1 EACH S1-1 SIGN (36 IN. X 36 IN.) - POLE MOUNT
		- 1 EACH M6-6 SIGN (21 IN. x 15 IN.) - GROUND MOUNT
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY " EAST, U.S. 50, RIGHT ARROW (24 IN. x 51 IN.) - POLE MOUNT
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "EAST, U.S. 50, LEFT ARROW (36 IN. x 75 IN.) - POLE MOUNT
9096	2 EACH	PEDESTRIAN PUSHBUTTON AND R10-4(1) SIGN (NOTE: SIGN TO READ "PUSHBUTTON TO CROSS OCEAN GATEWAY")

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

- 1 EACH BASE MOUNTED CABINET AND CONTROLLER

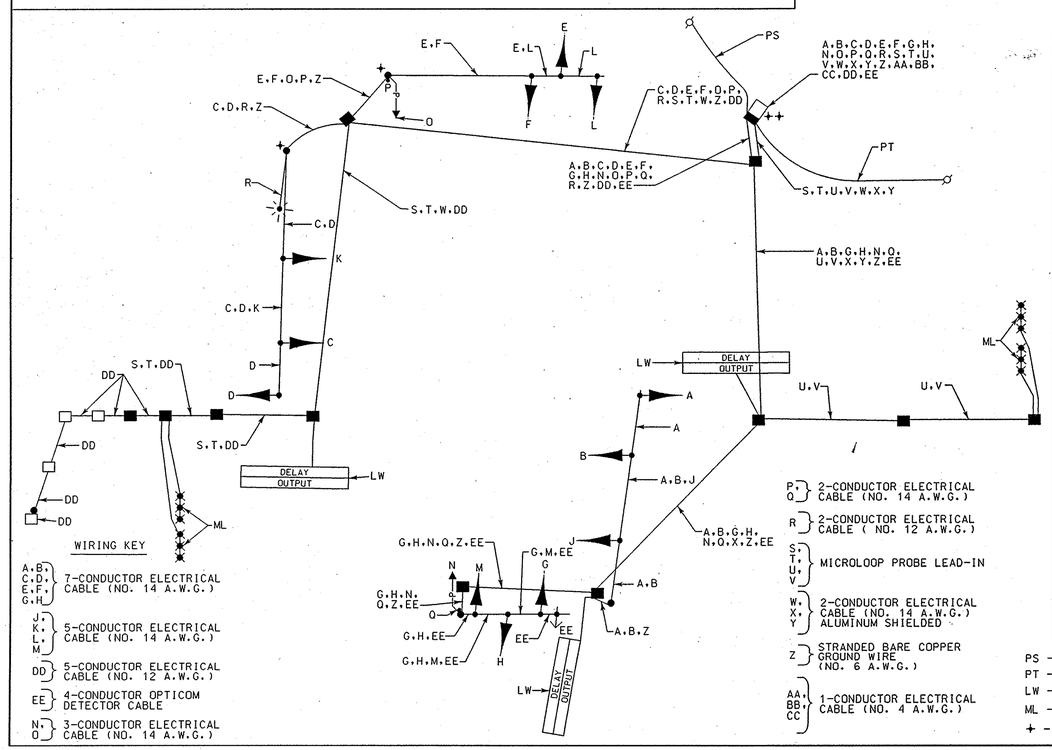
PHASE CHART

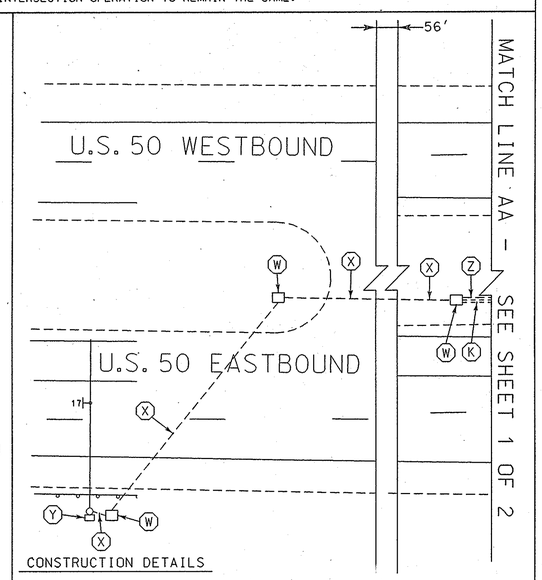
INTERSECTION OPERATION TO REMAIN THE SAME.

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	8 C.Y.	TEST PIT EXCAVATION
6001	150 S.F.	4 INCH CONCRETE SIDEWALK
8001	20 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8006	3 EACH	CUT, CLEAN, GALVANIZE, AND CAP TRAFFIC SIGNAL STRUCTURE
8012	1 EACH	FURNISH AND INSTALL OPTICOM DETECTOR EYE
8013	1 EACH	FURNISH AND INSTALL OPTICOM CARD RACK
8014	1 EACH	FURNISH AND INSTALL OPTICOM DETECTOR DISCRIMINATOR MODULE
8017	4 EACH	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 1000 FOOT LEAD-IN
8018	2 EACH	INSTALL PUSH BUTTON AND SIGN
8020	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8021	850 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8023	80 L.F.	FURNISH AND INSTALL 1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8024	1000 L.F.	FURNISH AND INSTALL 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8027	570 L.F.	FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8030	100 L.F.	FURNISH AND INSTALL 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8032	420 L.F.	FURNISH AND INSTALL 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8033	13 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	7 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 INCH DIAMETER X 10 FT. LENGTH
8037	320 L.F.	FURNISH AND INSTALL 4 CONDUCTOR OPTICOM DETECTOR CABLE
8040	1400 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8041	1200 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8042	300 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.)
8043	300 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 A.W.G.)
8044	120 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
8045	2250 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
8046	250 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.) TYPE IN. TC. IN.
8048	460 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 AWG - THHN.THWN
8050	34 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 INCH X 4 INCH
8052	20 S.F.	INSTALL GROUND MOUNTED SIGN
8053	82 S.F.	INSTALL OVERHEAD SIGN
8055	1 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINARE WITH PHOTOCELL
8056	1 EACH	FURNISH AND INSTALL 15 FOOT LIGHTING BRACKET ARM FOR TRAFFIC SIGNAL STRUCTURE
8057	5 EACH	REMOVE AND DISPOSE OF EXISTING FOUNDATION 12 INCH BELOW GRADE
8058	5 EACH	REMOVAL OF EXISTING CONTROLLER, CABINET AND GALVANIZED SIGNAL STRUCTURE
8059	1 EACH	DELIVERY OF REMOVED CONTROLLER, CABINET AND GALVANIZED SIGNAL STRUCTURE
8060	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT PER ASSIGNMENT
8066	1 EACH	FURNISH AND INSTALL CONTROLL AND DISTRIBUTION EQUIPMENT (120/240 V, 1 PHASE 3 WIRE SYSTEM)
8074	4 EACH	INSTALL STEEL POLE AND SINGLE MAST ARM (ANY SIZE)
8084	34 EACH	FURNISH AND INSTALL 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8085	12 EACH	FURNISH AND INSTALL 8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8087	4 EACH	FURNISH AND INSTALL 12 INCH PEDESTRIAN SIGNAL HEAD SECTION
NEG.	120 L.F.	PULL BACK AND REFEED ELECTRICAL CABLE
NEG.	1700 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 12 A.W.G.)





CONSTRUCTION DETAILS

K. INSTALL 2 IN. SCHEDULE 80, POLYVINYL CHLORIDE ELECTRICAL CONDUIT (TRENCHED).
W. USE EXISTING HANDHOLE.
X. USE EXISTING CONDUIT.
Y. USE EXISTING POLE MOUNTED CABINET AND CONTROLLER.
Z. ABANDON EXISTING CONDUIT.

PS - PROPOSED UNDERGROUND ELECTRICAL SERVICE
PT - PROPOSED UNDERGROUND TELEPHONE 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

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

TRAFFIC SIGNALIZATION PLAN
U.S. 50 @ MD 313

DRAWN BY: J.MONALDI	F.A.P. NO.		TS NO. 504F	SHEET NO.
CHECKED BY: N.LEARY	S.H.A. NO.	AW109-451-199		
SCALE: NONE	COUNTY:	WICOMICO.	T.I.M.S. NO. E625	2 OF 2
DATE: 5/01/2001	LOG MILE:	22005004.53		

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