PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 4 (PENNSYLVANIA AVE.) AND FORESTVILLE ROAD IN PRINCE GEORGES COUNTY. MD 4 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 MD 4 APPROACHES OPERATING CONCURRENTLY AND THE FORESTVILLE ROAD APPROACHES OPERATING SPLIT.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS THE WEST LEG OF MD 4 AND PEDESTRIAN INDICATIONS ARE PROVIDED ACROSS THE SOUTHLEG OF FORESTVILLE ROAD.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE AND TWO (2) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE 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-104.37-01 (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:

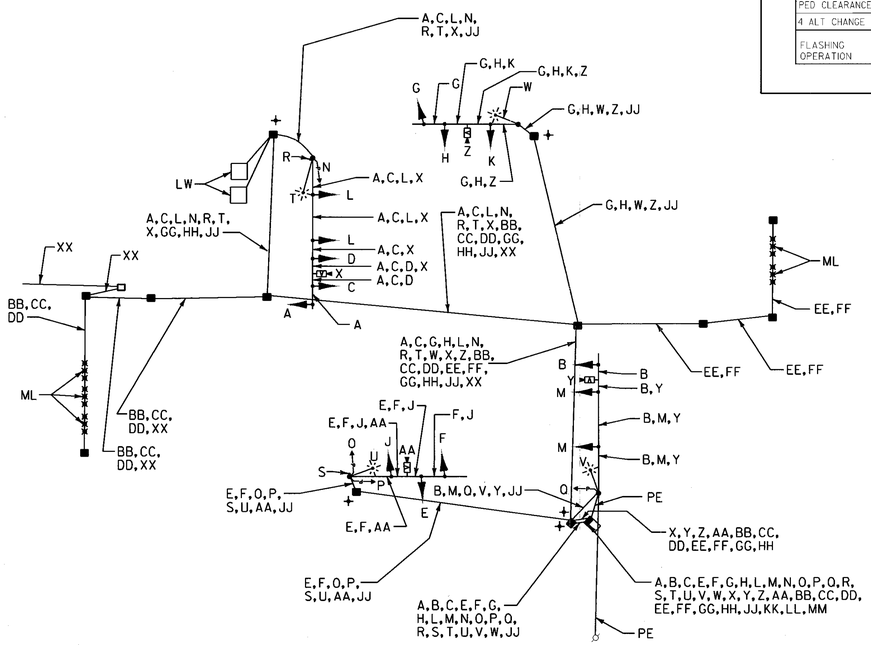
MR. MAJIB SHAKIB
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (310) 513-7358

MR. RALEIGH MEDLEY
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (310) 513-7304

MR. AUGIE REBISH
DISTRICT UTILITIES ENGINEER
PHONE: (301) 513-7350

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

WIRING DIAGRAM



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
9087	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
9089	86 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
	- 2 EACH	D-3(1) SIGN "FORESTVILLE RD" (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT
	- 2 EACH	M95-1 (72 IN. X 24 IN.) - MAST ARM MOUNT
	- 5 EACH	R3-5L (30 IN. X 36 IN.) - MAST ARM MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTOLLER CABINET. ALL OTHER REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PHASE 1 + 5	←G—	←G—	R	R	←G—	←G—	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 + 5 CHANGE	←Y—	←Y—	R	R	←Y—	←Y—	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 1 + 6	←G—	←G—	G	G	←R—	←R—	R	R	R	R	R	R	R	R	WK	WK	DW	DW
1 + 6 CHANGE	←Y—	←Y—	G	G	←R—	←R—	R	R	R	R	R	R	R	R	WK	WK	DW	DW
PHASE 2 + 5	←R—	←R—	R	R	←G—	←G—	G	G	R	R	R	R	R	R	DW	DW	DW	DW
2 + 5 CHANGE	←R—	←R—	R	R	←Y—	←Y—	G	G	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 6	←R—	←R—	G	G	←R—	←R—	G	G	R	R	R	R	R	R	WK	WK	DW	DW
PED CLEARANCE	←R—	←R—	G	G	←R—	←R—	G	G	R	R	R	R	R	R	FL/DW	FL/DW	DW	DW
2 + 6 CHANGE	←R—	←R—	Y	Y	←R—	←R—	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 3	←R—	←R—	R	R	←R—	←R—	R	R	G ←G—	G ←G—	G	R	R	R	DW	DW	DW	DW
3 CHANGE	←R—	←R—	R	R	←R—	←R—	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW
PHASE 4	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	G ←G—	G ←G—	G	DW	DW	DW	DW
4 CHANGE	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW
PHASE 4 ALT	←R—	←R—	R	R	←R—	←R—	R	R	G ←G—	G ←G—	G	R	R	R	DW	DW	WK	WK
PED CLEARANCE	←R—	←R—	R	R	←R—	←R—	R	R	G	G	G	R	R	R	DW	DW	FL/DW	FL/DW
4 ALT CHANGE	←R—	←R—	R	R	←R—	←R—	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW
FLASHING OPERATION	←FL/R→	←FL/R→	FL/Y	FL/Y	←FL/R→	←FL/R→	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

WIRING KEY

- A, B, C, E, F, G, H — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D, J, K, L, M — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- N, O, P, Q — 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- R, S — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- T, U, V, W — 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TC
- X, Y, Z, AA — VIDEO DETECTION LEAD-IN WIRE
- BB, CC, DD, EE, FF — MICROLOOP PROBE LEAD-IN
- GG, HH — 2-CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO. 14 A.W.G.)
- JJ — STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- KK, LL, MM — 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- XX — EXISTING COMMUNICATION CABLE

LW - LOOP WIRE (NO. 14 A.W.G.)

ML - MICROLOOP PROBE SET

PE - PROPOSED AERIAL ELECTRICAL SERVICE

⏚ - 3/4 IN. X 10 FT. GROUND ROD

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2002	5 CY	TEST PIT EXCAVATION
6004	20 SF	4 INCH CONCRETE SIDEWALK
8001	2 EA	FURNISH AND INSTALL 250 FT. VIDEO CABLE TO CONTROLLER
8003	2 EA	FURNISH AND INSTALL 500 FT. VIDEO CABLE TO CONTROLLER
8010	8 EA	FURNISH AND INSTALL 12 IN. PEDESTIAN TRAFFIC SIGNAL HEAD SECTION
8011	40 EA	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8013	4 EA	FURNISH AND INSTALL 15 FT. BRACKET ARM FOR SIGNAL STRUCTURE
8014	4 EA	FURNISH AND INSTALL 250W HPS LUMINAIRE WITH PHOTOCELL
8015	1 EA	FURNISH AND INSTALL 3 IN. WEATHERHEAD
8019	6 EA	FURNISH AND INSTALL 8 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8020	1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT FOR SIGNAL
8022	2 EA	FURNISH AND INSTALL MAST ARM POLE AND 50 FT. MAST ARM
8023	1 EA	FURNISH AND INSTALL MAST ARM POLE AND 60 FT. MAST ARM
8024	1 EA	FURNISH AND INSTALL MAST ARM POLE AND 70 FT. MAST ARM
8032	2 EA	FURNISH AND INSTALL PUSHBUTTON AND SIGN
8043	5 EA	FURNISH AND INSTALL NON-INVASIVE MICROLOOP PROBE SET WITH 1000 FT. LEAD-IN CABLE
8047	6 EA	REMOVE AND DISPOSE FOUNDATION 12 IN. BELOW GRADE
8048	1 EA	REMOVE AND DISPOSE MATERIAL & EQUIPMENT PER ASSIGNMENT
8049	4 EA	FURNISH AND INSTALL VIDEO DETECTION CAMERA
8050	1 EA	FURNISH AND INSTALL VIDEO INTERFACE EQUIPMENT
8051	540 LF	FURNISH AND INSTALL 3 IN. SCHEUDLE 80 RIGID PVC CONDUIT - TRENCHED
8052	550 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
8053	170 LF	FURNISH AND INSTALL 4 IN. SCHEUDLE 80 RIGID PVC CONDUIT - TRENCHED
8059	18 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8062	740 LF	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8064	20 LF	FURNISH AND INSTALL 1 IN. ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8066	140 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
8072	50 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 A.W.G - THHN/THWN
8074	12 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8077	86 SF	INSTALL OVERHEAD SIGN
8082	5 EA	FURNISH AND INSTALL GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
8083	700 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8084	520 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G)
8085	690 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 A.W.G)
8086	1000 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G)
8087	2000 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G)
8088	860 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G) TC
8089	330 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN 1/4 INCH FLEXIBLE TUBING (NO. 14 A.W.G)
8090	120 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8093	500 LF	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8095	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
NEG.	720 LF	PULL BACK AND RE-FEED 12-PAIR COMMUNICATION CABLE. (UNDERGROUND)

WR&A
Whitman, Requardt and Associates, LLP
801 South Caroline Street
Baltimore, Maryland 21231
(410) 235-3450

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

GENERAL INFORMATION SHEET
MD 4 (PENNSYLVANIA AVE.) AND FORESTVILLE ROAD

DRAWN BY: B. MARTINE	F.A.P. NO.	TS NO. TS-4D	SHEET NO.
CHECKED BY: N. LEARY	S.H.A. NO. X410652B5		
SCALE: NONE	COUNTY: PRINCE GEORGES	T.I.M.S. NO. E937	2 OF 2
DATE: 5/9/02	LOG MILE: 16.00 & 09.80		

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