

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE U.S. 40 (PULASKI HIGHWAY) AND MD 755 (EDGEWOOD ROAD) INTERSECTION IN HARFORD COUNTY. U.S. 40 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 EASTBOUND AND WESTBOUND U.S. 40 MOVEMENTS RUNNING CONCURRENTLY AND THE MD 755 APPROACHES OPERATING AS SPLIT PHASES. EXCLUSIVE LEFT TURN PHASING WILL BE PROVIDED ON THE U.S. 40 APPROACHES RUNNING CONCURRENTLY.

THIS INTERSECTION WILL OPERATE AS PART OF AN INTERCONNECT SYSTEM BETWEEN WOODBRIDGE CENTER DRIVE AND MD 755 (EDGEWOOD ROAD) USING 12-PAIR COMMUNICATION CABLE. THE SYSTEM CABINET IS LOCATED AT WOODBRIDGE CENTER DRIVE.

CONTROLLER REQUIREMENTS

INSTALL A FULLY-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER WITH VIDEO INTERFACE EQUIPMENT FOR 1-4 CAMERAS, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, ISOLATION BOARD, TELEMETRY EQUIPMENT, FOUR CHANNEL LOOP DETECTOR AMPLIFIER AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA 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 TELEPHONE NUMBER.

PROJECT CONTACTS

CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MR. RANDALL SCOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
410-321-2781 OR 410-321-2885

MS. SUENETTE POPE
UTILITY ENGINEER
410-321-2841

MR. STEVE MARCISZEWSKI
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
410-321-2764

CONTACT PERSONS FOR THE OFFICE OF TRAFFIC AND SAFETY ARE AS FOLLOWS:

MR. RICHARD DAFF SR.
CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATIONS
410-787-7650

MR. EUGENE BAILEY
CHIEF, SIGN OPERATIONS
410-787-7676

MR. MIKE STOCKER
SIGNAL SHOP WAREHOUSE
410-787-7696

THE POWER COMPANY REPRESENTATIVE:

MR. GARY SMITH
BGE
410-859-9433

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CATEGORY	CODE NO.	QUANTITY	DESCRIPTION
	971017	1 EA.	EIGHT PHASE (FULLY ACTUATED) CONTROLLED AND CABINET-BASE MOUNT NEMA SIZE SIX
	963010	1 EA.	FOUR CHANNEL LOOP DETECTOR AMPLIFIER, RACK MOUNT
	900000	1 EA.	VIDEO INTERFACE EQUIPMENT FOR 1-4 CAMERAS
	973023	49 S.F.	SHEET ALUMINUM SIGN (POLE MOUNT)
		- 1 EACH	ASSOCIATED SHIELD ASSEMBLY (24" x 51") - POLE MOUNT M3-2 "EAST" (24" x 12") M1-4 "40" (24" x 24") M6-1(R) (21" x 15")
		- 1 EACH	ASSOCIATED SHIELD ASSEMBLY (24" x 51") - POLE MOUNT M3-4 "WEST" (24" x 12") M1-4 "40" (24" x 24") M6-1(R) (21" x 15")
		- 1 EACH	ASSOCIATED SHIELD ASSEMBLY (36" x 75") - POLE MOUNT M3-4 "WEST" (30" x 15") M1-4 "40" (36" x 36") M6-1(L) (30" x 24")
		- 1 EACH	ASSOCIATED SHIELD ASSEMBLY (36" x 75") - POLE MOUNT M3-2 "EAST" (30" x 15") M1-4 "40" (36" x 36") M6-1(L) (30" x 24")
	973023	45 S.F.	SHEET ALUMINUM SIGN (POLE MOUNT)
		- 1 EACH	D3-2 DUAL FACE (16"XVAR.) - MAST ARM MOUNT
		- 1 EACH	D3-2 DUAL FACE (16"XVAR.) - MAST ARM MOUNT
		- 1 EACH	R3-5 (L) (30"X36") - MAST ARM MOUNT
		- 1 EACH	R3-5 (L) (30"X36") - MAST ARM MOUNT
		- 1 EACH	R3-5 (R) (30"X36") - MAST ARM MOUNT

EQUIPMENT LIST "B"

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

120500	1 EA	MAINTENANCE OF TRAFFIC
203030	5 CY	TEST PIT EXCAVATION
585624	190 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS (STOPLINE) REMOVE AND DISPOSE OF EXISTING MATERIALS
800000	LS	250 FOOT VIDEO DETECTION CABLE TO CONTROLLER
800000	1 EA	500 FOOT VIDEO DETECTION CABLE TO CONTROLLER
800000	3 EA	CONCRETE FOR SIGNAL FOUNDATION
801004	18 CY	NO. 6 AWG STRANDED BARE COPPER GROUND
802501	450 LF	WEATHER HEAD, 3 INCH
805050	1 EA	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805115	130 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805125	50 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805135	450 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805140	50 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
805155	350 LF	1 INCH LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT
805160	20 LF	DETECTOR WIRE SLEEVE
807405	1 EA	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 100 AMP
810555	4 EA	MICRO-LOOP PROBE, 1000 FOOT LEAD IN CABLE
811001	10 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	94 SF	INSTALL OVERHEAD SIGN
818030	1 EA	STEEL POLE WITH SINGLE 38 FOOT MAST ARM
818041	1 EA	STEEL POLE WITH SINGLE 60 FOOT MAST ARM
818052	2 EA	STEEL POLE WITH SINGLE 70 FOOT MAST ARM
831010	2 EA	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE WITH PHOTOCELL
832017	50 LF	CABLE - 1 CONDUCTOR, NO. 4 A.W.G., TYPE USE 600 V
837001	8 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT
860272	46 EA	12 INCH VEHICULAR SIGNAL HEAD SECTION
861107	2000 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1700 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	520 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
862102	130 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)
800000	1 EA	RELOCATE EXISTING EIGHT PHASE (FULL ACTUATED) CONTROLLER AND CABINET - BASE MOUNT
866103	2 EA	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
816001	4 EA	VIDEO DETECTION CAMERA
655105	44 SF	5 INCH CONCRETE SIDEWALK
807202	1 EA	METERED SERVICE PEDESTAL
811002	2 EA	REMOVE ELECTRICAL HANDHOLE

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076.

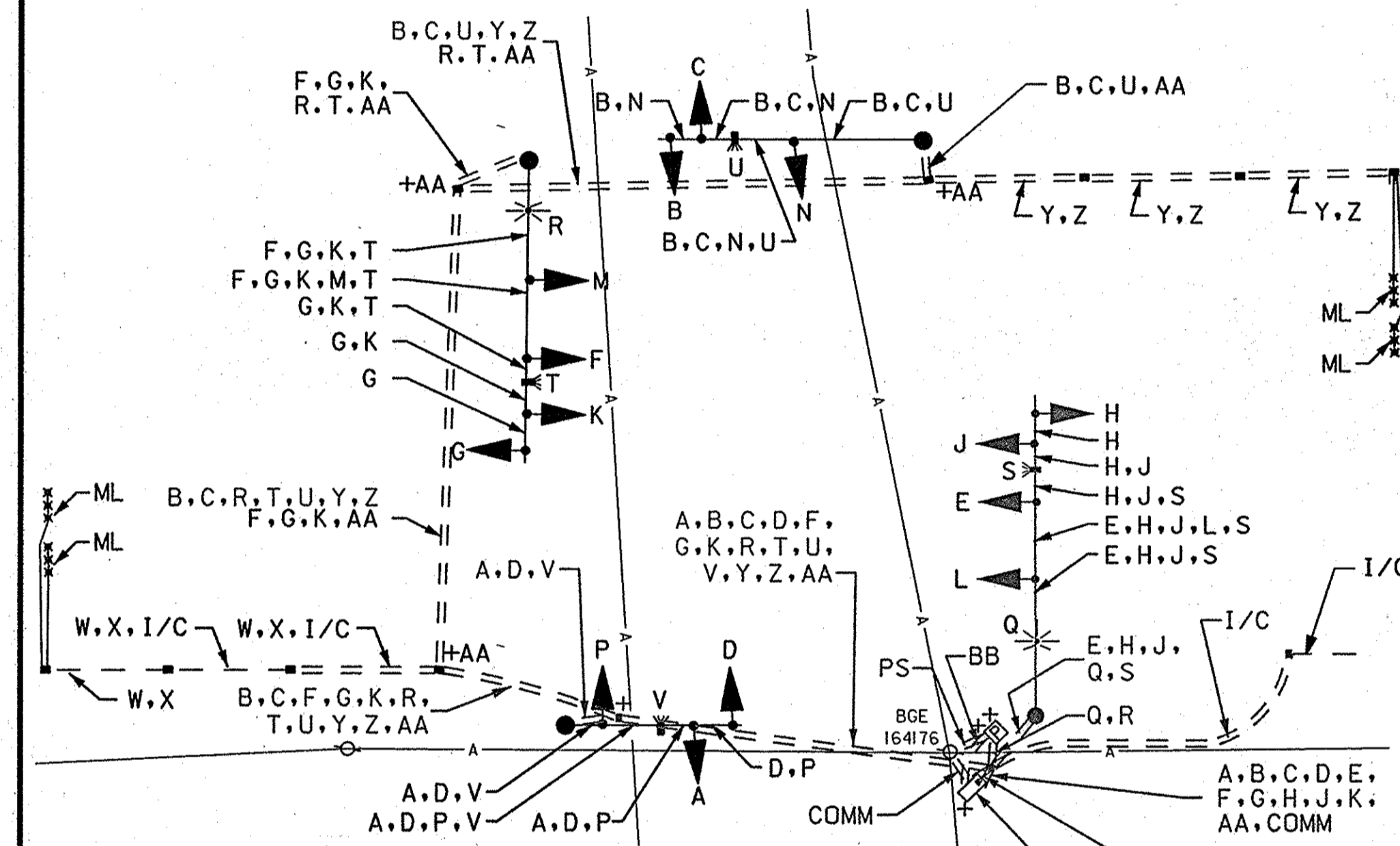
SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 1+5	<G-	<G-	R	R	<G-	<G-	R	R	R	R	R	R	R	R
PHASE 1+6	<G-	<G-	G	G	<R-	<R-	R	R	R	R	R	R	R	R
PHASE 2+5	<R-	<R-	R	R	<G-	<G-	G	G	R	R	R	R	R	R
PHASE 2+6	<R-	<R-	G	G	<Y-	<Y-	G	G	R	R	R	R	R	R
PHASE 3	<R-	<R-	R	R	<R-	<R-	R	R	<G-	<G-	G	R	R	R
PHASE 4	<R-	<R-	R	R	<R-	<R-	R	R	R	R	Y	Y	R	R
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

* IF PHASE 2+5 IS NEXT THEN SIGNAL HEADS 1 AND 2 ARE <G- AND SIGNAL HEADS 5 AND 6 ARE <Y-. IF PHASE 1+6 IS NEXT THEN SIGNAL HEADS 1 AND 2 ARE <Y- AND SIGNAL HEADS 5 AND 6 ARE <G-.

WIRE DIAGRAM (MODIFIED FOR CLARITY)



NOTE: THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL UNUSED ELECTRICAL CABLES.

WIRING LEGEND

- A,B,C,D } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E,F,G,H,J,K,L,M,N,P } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- Q,R } 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
- S,T,U,V } VIDEO DETECTION CAMERA TO CONTROLLER CABLE
- W,X,Y,Z } MICRO-LOOP PROBE LEAD-IN CABLE
- AA } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- BB } THREE RUNS OF 1-CONDUCTOR (NO. 4 A.W.G.)
- + } 3/4" x 10' GROUND ROD
- ML } MICRO-LOOP PROBE SET
- PS } PROPOSED POWER SERVICE OVERHEAD-UNDERGROUND
- COMM } PROPOSED PHONE DROP OVERHEAD-UNDERGROUND
- I/C } INTERCONNECT WIRE

REDLINE REVISION NO. 1
JULY 25, 2006
[Signature]

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SHA MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
U.S.- 40 (PULASKI HIGHWAY) AT MD 755 (EDGEWOOD ROAD)
EDGEWOOD, MARYLAND

GENERAL INFORMATION SHEET

DRAWN BY: S. HOLLIE	F.A.P. NO. HA2765171	SEE TITLE SHEET	TS NO. 3252-D-61
CHECKED BY: D. EBY	S.H.A. NO. HA2765171	COUNTY: HARFORD	T.I.M.S. NO. G897
SCALE: NONE	DATE: MARCH 7, 2005	LOG MILE: 12004000.12	SHEET NO. 55 OF 100