

**PROJECT DESCRIPTION**

**I. GENERAL**

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING INTERSECTION CONTROL BEACON AT MD 715 AND HICKORY DRIVE AND A HAZARD IDENTIFICATION BEACON ALONG RAMP 7 IN HARFORD COUNTY. THE SIGNAL WILL BE CONSTRUCTED DURING MOT STAGE 1 AND OPERATIONAL FOR STAGE 2A. MD 715 IS ASSUMED TO RUN IN A NORTH - SOUTH DIRECTION.

**II. INTERSECTION OPERATION**

- THE INTERSECTION IS TO OPERATE IN A FLASHING MODE, WITH MD 715 APPROACHES FLASHING YELLOW AND HICKORY DRIVE APPROACH FLASHING RED.

**NOTES**

- FOR FINAL PAVEMENT MARKINGS, REFER TO THE PAVEMENT MARKING PLANS, AS APPLICABLE; OTHER THAN THOSE DETAILED ON THE PLAN. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH ADMINISTRATION STANDARDS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN THE APPROPRIATE 800 SERIES STANDARD PLATES. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- DISCONNECTING AND SPlicing OF INTERCONNECT CABLE SHALL BE PERFORMED BY SHA FORCES. THE CONTRACTOR SHALL RUN THE INTERCONNECT CABLE INTO THE BASE OF EACH CABINET AND PROPERLY TAG THE CABLE. CONTACT MR. ED RODENHIZER AT (410) 787-7650 SEVENTY-TWO HOURS IN ADVANCE OF INTENDED WORK.
- THE CONTRACTOR SHALL MAINTAIN THE CONTINUOUS OPERATION OF ALL INTERCONNECT, VEHICULAR, PEDESTRIAN DETECTORS, AND LIGHTING DEVICES. IF ANY DEVICE IS DAMAGED BY THE CONTRACTOR, IT SHALL BE REPAIRED WITHIN 72 HOURS BY THE CONTRACTOR AT NO COST TO THE ADMINISTRATION AFTER NOTIFICATION BY THE ENGINEER.
- 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.

**CONTACTS**

<b>DISTRICT</b>	<b>OFFICE OF TRAFFIC AND SAFETY</b>
MR. DAVE PEAKE DISTRICT ENGINEER PHONE: (410) 229-2310	MR. RICHARD DAFF SR. CHIEF, TRAFFIC OPERATIONS 410-787-7630
MS. ERIN KUHN ASSISTANT DISTRICT ENGINEER - TRAFFIC PHONE: (410) 229-2381	MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS 410-787-7630
MR. MIKE PASQUARIELLO DISTRICT ENGINEER - UTILITIES PHONE: (410) 229-2341	MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS 410-787-7650
MR. JESSE FREE ASSISTANT DISTRICT ENGINEER - CONSTRUCTION PHONE: (410) 229-2421	MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS 410-787-7670
MR. ANDRE FUTRELL ASSISTANT DISTRICT ENGINEER - MAINTENANCE PHONE: (410) 229-2361	MR. MIKE STOCKER SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE) 410-787-7668

**EQUIPMENT LIST**

**A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION**

CAT CODE	QUANTITY	DESCRIPTION
900000	1 EA	NEMA SIZE S, EIGHT PHASE (FULLY ACTUATED CONTROLLER AND BASE MOUNTED CABINET) WITH AN UNINTERRUPTED POWER SUPPLY TO BE PROVIDED BY SHA.
971040	1 EA	2 CIRCUIT FLASHER AND POLE MOUNTED CABINET
973023	54 S.F.	SHEET ALUMINUM SIGNS
	1 EA	R3-2 SIGN 30"x30"
	1 EA	R3-1 SIGN 30"x30"
	1 EA	R1-1 SIGN 48"x48"
	1 EA	R5-1 SIGN 30"x30"
	1 EA	R6-1(R) SIGN 36"x12"
	1 EA	R6-1(L) SIGN 36"x12"
	1 EA	W1-1(R) SIGN 36"x36"
	1 EA	W13-1 SIGN 24"x24"

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

CAT CODE	QUANTITY	DESCRIPTION
585625	19 L.F.	FURNISH AND INSTALL 24 IN. WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING (STOP LINE)
120500	1 L.S.	MAINTENANCE OF TRAFFIC
203030	4 C.Y.	TEST PIT EXCAVATION
837001	9 EA.	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIA. X 10 FT. LENGTH.
860284	10 EA.	FURNISH AND INSTALL 12 IN. L.E.D. VEHICULAR TRAFFIC SIGNAL HEAD SECTION.
811001	3 EA.	FURNISH AND INSTALL ELECTRICAL HANDHOLE.
801004	8.1 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
818036	1 EA.	FURNISH AND INSTALL 27 FT STEEL MAST ARM POLE WITH A SINGLE 50 FT MAST ARM
807202	2 EA.	FURNISH AND INSTALL METERED SERVICE PEDESTAL.
818021	1 EA.	FURNISH AND INSTALL 27 FT STEEL MAST ARM POLE WITH TWIN 50 FT MAST ARMS
871202	1 EA.	INSTALL CONTROLLER AND CABINET - BASE MOUNTED
813015	54 S.F.	INSTALL OVERHEAD SIGN.

**B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR (CONTINUED).**

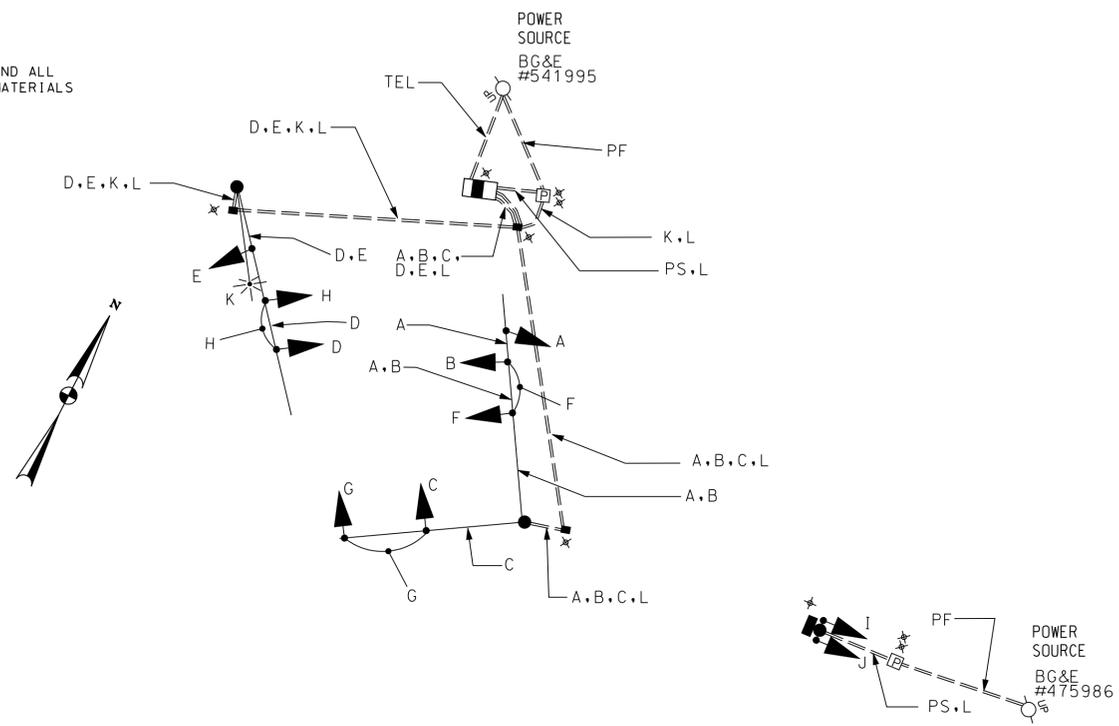
CAT CODE	QUANTITY	DESCRIPTION
871040	1 EA.	INSTALL 2 CIRCUIT FLASHER AND POLE MOUNTED CABINET.
805125	30 L.F.	FURNISH AND INSTALL 2 IN. DIA. PVC ELECTRICAL CONDUIT SCHEDULE 80 - TRENCHED.
805135	50 L.F.	FURNISH AND INSTALL 3 IN. DIA. PVC ELECTRICAL CONDUIT SCHEDULE 80 - TRENCHED.
805140	120 L.F.	FURNISH AND INSTALL 4 IN. DIA. PVC ELECTRICAL CONDUIT SCHEDULE 80 - TRENCHED.
805118	110 L.F.	FURNISH AND INSTALL 4 IN. DIA. PVC ELECTRICAL CONDUIT SCHEDULE 80 - BORED.
861116	125 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG).
861107	800 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG).
802501	250 L.F.	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG).
861102	90 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE 3-WIRE 1 CONDUCTOR (NO. 8 AWG).
831010	1 EA.	FURNISH AND INSTALL 250 WATT HPS LAMP AND LUMINAIRE.
866104	1 EA.	FURNISH AND INSTALL 20 FT. LIGHTING ARM ON SIGNAL STRUCTURE.
818010	1 EA.	FURNISH AND INSTALL 14 FT. BREAKAWAY PEDESTAL POLE.

C. IF THE CABINET IS TO BE REMOVED 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.

CAT CODE	QUANTITY	POLE MOUNTED CABINET	DESCRIPTION
800000	1 EA.		POLE MOUNTED CABINET

**PHASE CHART**

	1	2	3	4	5	6	7	8	9	10
	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(R)	(R)	(Y)	(Y)
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y



**WIRING DIAGRAM**

KEY	
A } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	L } 1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
B } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	PS } POWER SERVICE UNDERGROUND 3-WIRE 1 CONDUCTOR (NO. 8 AWG)
C } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	PF } POWER FEED BY OTHERS
D } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	TEL } TELEPHONE DROP
E } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	+ } GROUND ROD
F } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	
G } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	
H } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	
I } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	
J } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	
K } 2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TRAY CABLE	

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 715 (SHORT LANE) AT HICKORY DRIVE  
ABERDEEN, MARYLAND

**GENERAL INFORMATION SHEET**

SCALE	NONE	DATE	MAY 8, 2012	CONTRACT NO.	BW-460-802-412
DESIGNED BY	CGM	COUNTY	HARFORD		
DRAWN BY	CGM	LOGMILE	12071500.41		
CHECKED BY	GAB	TMS NO.	K307		
FAP NO.	SEE TITLE SHEET	TOD NO.			
TS NO.	3211A	<b>SG - 20 OF 22</b>	SHEET NO.	21 OF 23	

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