

**PROJECT DESCRIPTION**  
**GENERAL**

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC SIGNAL AT THE INTERSECTION OF MD 543 AT CRESWELL ROAD/ TOBIN CROSSING IN HARFORD COUNTY, MD 543 IS CONSIDERED TO RUN IN NORTH/SOUTH DIRECTION.

**INTERSECTION OPERATION**

A BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS LOCATION. THE INTERSECTION WILL OPERATE IN A FULLY ACTUATED MODE USING 6 NEMA PHASES. THERE WILL BE AN EXCLUSIVE LEFT TURN PHASE FOR BOTH THE NORTH AND SOUTHBOUND MOVEMENTS OF MD 543. THE MD 543 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY. THE CRESWELL ROAD/TOBIN CROSSING MOVEMENTS WILL OPERATE AS A SIDE STREET SPLIT OPERATION.

**SPECIAL NOTES**

1. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

**PROJECT CONTACTS:**

MS. ERIN KUHN, ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: 410-321-2781  
MR. DONALD SCHAFFER, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION  
PHONE: (410) 321-2821  
MR. ANDRE FUTRELL, ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: 410-321-2761  
MR. MICHAEL PASOARIELLO, UTILITY ENGINEER  
PHONE: 410-321-2841  
MR. RICHARD L. DUFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630  
MR. EDWARD RODENHIZER, SUPERVISOR, SIGNAL OPERATIONS  
PHONE: (410) 787-7652

**THE POWER COMPANY REPRESENTATIVE IS:**

BALTIMORE GAS & ELECTRIC  
7317 PARKWAY DRIVE SOUTH  
HANDWER, MD 21076  
410-859-9070  
WMS# 0001874431

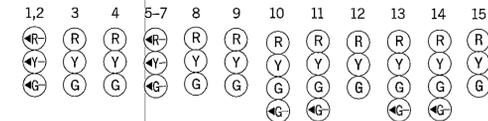
2. ALL INTERNAL CABINET WIRING SHALL BE PERFORMED BY THE SHA SIGNAL SHOP. CONTRACTOR SHALL CONTACT ED RODENHIZER 72 HOURS PRIOR TO CONSTRUCTION.

**EQUIPMENT LIST**

- A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.  
NDNE.
- B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

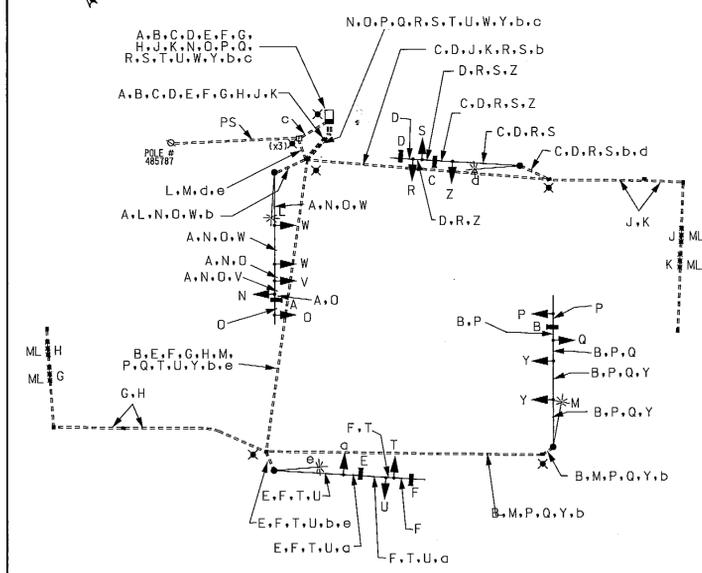
QUANTITY	UNITS	DESCRIPTION	QUANTITY	UNITS	DESCRIPTION
LUMP SUM	LS	MAINTENANCE OF TRAFFIC	4	CY	TEST PIT EXCAVATION
LUMP SUM	LS	MOBILIZATION	10	EA	HANDHOLE
1	EA	27 FT. STEEL MAST ARM POLE WITH 60 FT. MAST ARM	75	LF	1-CONDUCTOR (NO. 8 A.W.G.)
3	EA	27 FT. STEEL MAST ARM POLE WITH 70 FT. MAST ARM	830	LF	2-CONDUCTOR TRAY CABLE (NO. 12 AWG)
4	EA	20 FT. LUMINARIE ARM	725	LF	5-CONDUCTOR CABLE (NO. 14 AWG)
4	EA	250W HPS LAMP AND LUMINARIE	1995	LF	7-CONDUCTOR CABLE (NO. 14 AWG)
1	EA	STANDARD S.H.A. TRAFFIC SIGNAL CONTROLLER, BASE MOUNTED NEMA 6 CABINET, VIDEO DETECTION INTERFACE, AND ONE (1) - FOUR-CHANNEL LOOP DETECTOR AMPLIFIER [Note: CONTROLLER AND CABINET SHALL BE PURCHASED FROM ECONDLITE AND DELIVERED TO THE S.H.A. SIGNAL SHOP FOR WIRING AND TESTING. CONTACT MR. ED RODENHIZER (410) 787-7650]	430	LF	BARE COPPER GROUND WIRE (NO. 6 AWG)
6	EA	TERRA VIDEO DETECTOR CAMERA	170	LF	2 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
1800	LF	TERRA VIDEO DETECTOR CAMERA CABLE	660	LF	3 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
4	EA	NON-INVASIVE PROBE (SET OF 3) WITH 1000 FT. LEAD-IN CABLE	100	LF	3 IN. PVC CONDUIT [SCHEDULE 80] - BORED
6	EA	12 IN. 3-SECTION LED SIGNAL HEAD - MAST	40	LF	4 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
5	EA	12 IN. 3-SECTION LED SIGNAL HEAD (RA, YA, GA) - MAST	375	LF	4 IN. PVC CONDUIT [SCHEDULE 80] - BORED
4	EA	12 IN. 4-SECTION LED SIGNAL HEAD - MAST	21.50	CY	CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT
1	EA	30 IN. X 30 IN. R1-2 REGULATORY SIGN - GROUND MOUNTED	8	EA	GROUND ROD - 3/4 IN. X 10 FT. LENGTH
4	EA	30 IN. X 36 IN. R3-5(L) REGULATORY SIGN - MAST ARM	1	EA	EMBEDDED ELECTRICAL SERVICE PEDESTAL (100 AMPS)
1	EA	30 IN. X 36 IN. R3-6(L) REGULATORY SIGN - MAST ARM	200	LF	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKING - STOP LINE
4	EA	16 IN. X VAR. D-3(1) FACED SIGN - MAST ARM			
2	EA	48 IN. X 48 IN. W3-3 "NEW" SIGN - GROUND			
2	EA	48 IN. X 75 IN. SHIELD ASSEM. SIGN - POLE			
2	EA	30 IN. X 51 IN. SHIELD ASSEM. SIGN - POLE			
90	LF	4 IN. X 6 IN. WOOD SIGN SUPPORTS			
15	LF	4 IN. X 4 IN. WOOD SIGN SUPPORTS			

**Phase Chart**



PHASE 1 AND 5	←G-	R	R	←G-	R	R	R	R	R	R	R	R	R	R	R
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6															
PHASE 1 AND 6	←G-	G	G	←R-	R	R	R	R	R	R	R	R	R	R	R
1 CHANGE	←Y-	G	G	←R-	R	R	R	R	R	R	R	R	R	R	R
PHASE 2 AND 5	←R-	R	R	←G-	G	G	R	R	R	R	R	R	R	R	R
5 CHANGE	←R-	R	R	←Y-	G	G	R	R	R	R	R	R	R	R	R
PHASE 2 AND 6	←R-	G	G	←R-	G	G	R	R	R	R	R	R	R	R	R
2 AND 6 CHANGE	←R-	Y	Y	←R-	Y	Y	R	R	R	R	R	R	R	R	R
PHASE 3	←R-	R	R	←R-	R	R	R	R	R	R	R	←GG	←GG	G	
3 CHANGE	←R-	R	R	←R-	R	R	R	R	R	R	R	Y	Y	Y	
PHASE 4	←R-	R	R	←R-	R	R	←GG	←GG	G	R	R	R	R	R	
4 CHANGE	←R-	R	R	←R-	R	R	Y	Y	Y	R	R	R	R	R	
FLASHING OPERATION	FL/←R-	FL/Y	FL/Y	FL/←R-	FL/Y	FL/Y	FL/R								

**Wiring Diagram**



- KEY**
- AD } VIDEO DETECTOR CABLE
  - BE } VIDEO DETECTOR CABLE
  - CF } VIDEO DETECTOR CABLE
  - GJ } NON-INVASIVE MICRO-LOOP DETECTOR LEAD-IN CABLE
  - HK } NON-INVASIVE MICRO-LOOP DETECTOR LEAD-IN CABLE
  - LM } 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
  - NO } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
  - PS } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
  - WZ } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
  - b } BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
  - c } 1-CONDUCTOR (NO. 8 A.W.G.) (3 PIECES) FOR TRAFFIC SIGNAL ELECTRICAL SERVICE
  - PS } PROPOSED ELECTRICAL SERVICE BY BGE-WMS# 0001874431
  - x } PROPOSED GROUNDING ROD
  - ML } MICRO-LOOP DETECTOR (NON-INVASIVE)

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

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RIVERSIDE, MD

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"Merging Innovation and Excellence"®

**GENERAL INFORMATION PLAN**

SCALE	NA	DATE	August 19, 2010	CONTRACT NO.	BW986M82
DESIGNED BY	Frank Hoeckel	COUNTY	Harford		
DRAWN BY	Frank Hoeckel	LOGMILE	12054302.16		
CHECKED BY		TMS NO.	K-007		
F.A.P. NO.	NA	TOD NO.			
TS NO.	4767	DRAWING	GI-01	OF	01
		SHEET NO.	2	OF	2

BY: FHoeckel