

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 648E (BALTIMORE ANNAPOLIS BOULEVARD) AND THE NORTH ENTRANCE TO CROWELL FIELD SHOPPING CENTER AND THE ENTRANCE TO CROMWELL STATION/GLEN BURNIE LIGHT RAIL STATION IN ANNE ARUNDEL COUNTY, MARYLAND. MODIFICATIONS INCLUDE THE INSTALLATION OF AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTONS FOR THE SOUTH LEG OF MD 648E. MD 648E IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA FIVE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 648E APPROACHES OPERATING CONCURRENTLY AND THE NORTH ENTRANCE TO CROWELL FIELD SHOPPING CENTER AND THE ENTRANCE TO CROMWELL STATION/GLEN BURNIE LIGHT RAIL STATION APPROACHES OPERATING CONCURRENTLY. LIGHT RAIL CLEARANCE PHASING IS PROVIDED FOR THE WEST LEG OF THE CROMWELL STATION/GLEN BURNIE LIGHT RAIL STATION ENTRANCE. PROTECTED/PERMITTED LEFT-TURN PHASING IS PROVIDED FOR SOUTHBOUND MD 648E. AN AUDIBLE PUSHBUTTON ACTUATED PEDESTRIAN PHASE WILL BE PROVIDED ACROSS THE SOUTH LEG OF MD 648E.

APS MESSAGE FOR CROSSING OF MD 648E (BALTIMORE ANNAPOLIS BOULEVARD) FROM SOUTHEAST CURBSIDE:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS BALTIMORE ANNAPOLIS AT CROMWELL FIELD, WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS MESSAGE FOR CROSSING OF MD 648E (BALTIMORE ANNAPOLIS BOULEVARD) FROM SOUTHWEST CURBSIDE:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS BALTIMORE ANNAPOLIS AT CROMWELL FIELD, WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTROLLER REQUIREMENTS

THE EXISTING NEMA SIZE '6' BASE MOUNTED CABINET AND EIGHT-PHASE CONTROLLER AND ALL ASSOCIATED EQUIPMENT WILL CONTINUE TO BE USED. A 2-WIRE CENTRAL CONTROL UNIT WILL BE ADDED TO THE CABINET.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA:

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
9570	2	SF	[UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN - 2 EACH R10-3(1) (9"x15")

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
2002	1	CY	TEST PIT EXCAVATION
8001	2	EA	FURNISH AND INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8002	1	EA	FURNISH AND INSTALL BREAKAWAY PEDESTAL POLE - ANY SIZE
8005	1	EA	REMOVE AND DISPOSE PER ASSIGNMENT
8008	25	LF	FURNISH AND INSTALL UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8012	25	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8015	2	SF	INSTALL GROUND MOUNTED SIGN
8020	300	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. KIMBERLY TRAN ASSISTANT DISTRICT ENGINEER - TRAFFIC PHONE: (410) 841-1019	MR. MIKE HUBER ASSISTANT DISTRICT ENGINEER - UTILITY PHONE: (410) 841-1039
MR. JOHN MAYS ASSISTANT DISTRICT ENGINEER - MAINTENANCE PHONE: (410) 841-1013	MR. ROBERT SNYDER ASSISTANT CHIEF, TRAFFIC OPERATIONS DIVISION PHONE: (410) 787-7630
MR. ED RODENHIZER SUPERVISOR - SIGNAL SHOP PHONE: (410) 787-7650	

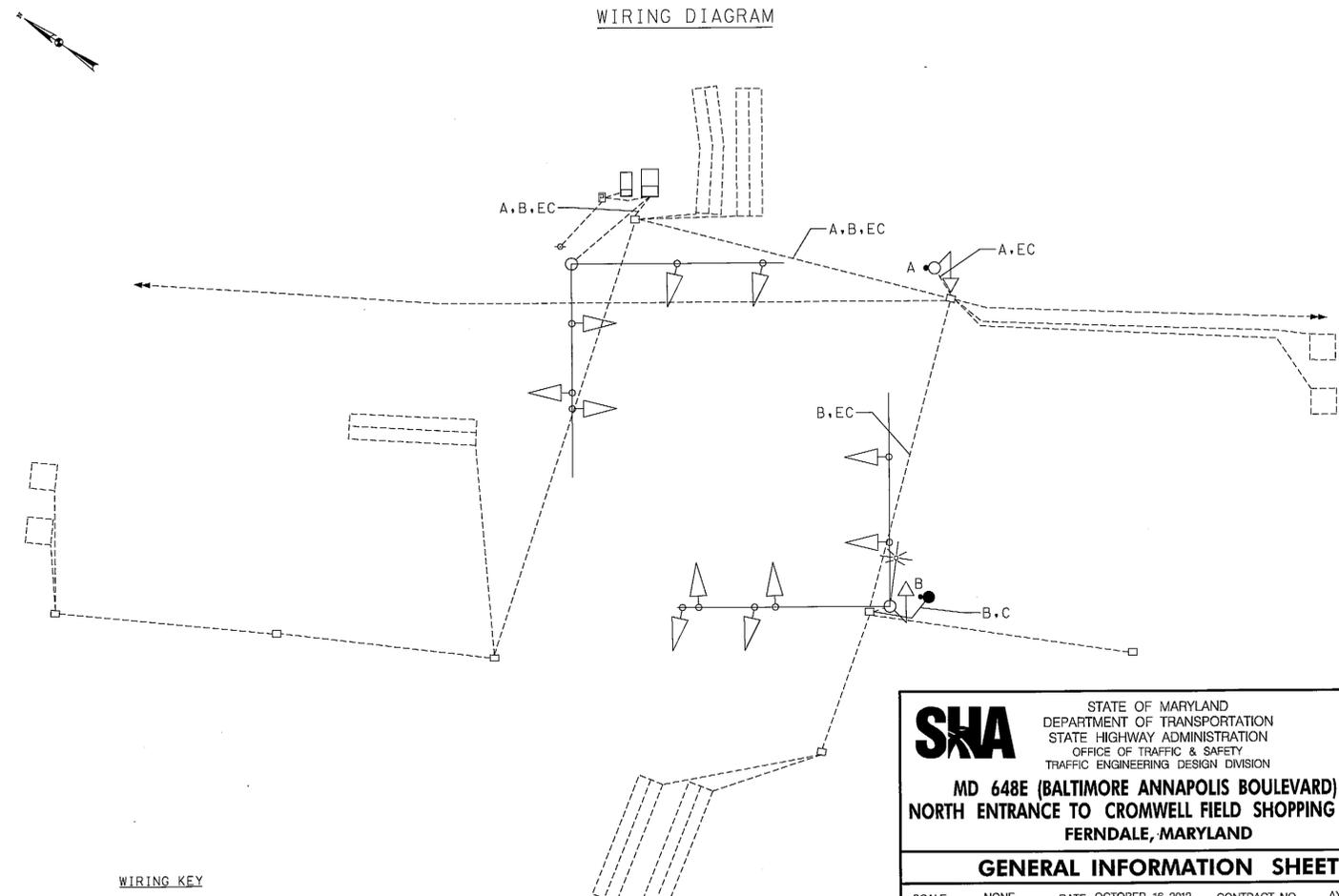
EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA:
NONE.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	16	17
PHASE 2 + 5	R	R	G	G	G	R	R	R	R	R	R	DW	DW	DARK	DARK
2 + 5 CHANGE	R	R	G	G	G	R	R	R	R	R	R	DW	DW	DARK	DARK
PHASE 2 + 6	G	G	G	G	G	R	R	R	R	R	R	DW	DW	DARK	DARK
2 + 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DARK	DARK
PHASE 4 + 8	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DARK	DARK
4 + 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DARK	DARK
PHASE 4 + 8 ALT	R	R	R	R	R	G	G	G	G	G	G	W	W	DARK	DARK
PED CLEARANCE	R	R	R	R	R	G	G	G	G	G	G	FL/DW	FL/DW	DARK	DARK
4 + 8 ALT CLEARANCE	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DARK	DARK
LIGHT RAIL TRACK CLEAR	R	R	R	R	R	R	R	G	R	R	R	DW	DW	DARK	DARK
LIGHT RAIL TRACK CLEAR CHANGE	R	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW	DARK	DARK
LIGHT RAIL PRE-EMPTION	G	G	G	G	G	R	R	R	R	R	R	DW	DW	NO L	NO R
LIGHT RAIL PRE-EMPTION CHANGE	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	NO L	NO R
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

- A.B } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- C } STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
- EC } EXISTING CABLE

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

**MD 648E (BALTIMORE ANNAPOLIS BOULEVARD) AT
NORTH ENTRANCE TO CROMWELL FIELD SHOPPING CENTER
FERNDALE, MARYLAND**

GENERAL INFORMATION SHEET

SCALE NONE DATE OCTOBER 16, 2012 CONTRACT NO. AX6445378

DESIGNED BY NJM COUNTY ANNE ARUNDEL
DRAWN BY NJM LOGMILE 02E64804.09
CHECKED BY BSH T.I.M.S. NO. L323
F.A.P. NO. NA T.O.D. NO.

T.S. NO. 3202B-GI SG-02 OF SG-02 SHEET NO. 7 OF 7

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