BORDER REV. DATE: June 1, 2004

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL WITH DETECTION UPGRADE AT THE INTERSECTION OF MD 279 (ELKTON RD) AND MD 213 (BRIDGE ST) IN CECIL COUNTY. THE MODIFICATION WILL UPGRADE EXISTING PASSAGE DETECTION LOOPS TO NON-INVASIVE DETECTION AND ADD VIDEO DETECTION CAMERAS. PRESENCE DETECTION LOOPS WILL BE RE-INSTALLED FOR THE WESTBOUND MD 213 APPROACH. MD 279 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION

1. THE INTERSECTION OPERATES IN A NEMA EIGHT (8) PHASE, FULLY ACTUATED MODE. THE MD 279 MOVEMENTS WILL OPERATE CONCURRENTLY WITH CONCURRENT PEDESTRIAN MOVEMENTS ACROSS THE SOUTH LEG OF THE INTERSECTION. MD 213 MOVEMENTS WILL OPERATE CONCURRENTLY WITH AN ACTUATED PEDESTRIAN MOVEMENT ACROSS THE WEST LEG OF THE INTERSECTION.

2. AN EXISTING NEMA FULL-TRAFFIC-ACTUATED, EIGHT (8) PHASE CONTROLLER IN A NEMA SIZE "6" BASE MOUNTED CABINET SHALL BE UTILIZED AT THIS LOCATION. VIDEO DETECTION INTERFACE SHALL BE INSTALLED INTO THE CABINET BY SHA FORCES.

CONTACTS

DISTRICT (DISTRICT 2)

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DISTRICT ENGINEER
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ASSISTANT DISTRICT ENGINEER - TRAFFIC
410-810-3240

MR. BARRY CLOTHIER
DISTRICT UTILITY ENGINEER
410-810-3275

MR. WM NORRIS EMBERT
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
410-810-3270

MR. MIKE LEWIS
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
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OFFICE OF TRAFFIC AND SAFETY

MS. CORREN JOHNSON
CHIEF, TRAFFIC OPERATIONS
410-787-7630

VACANT
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
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MR. EDWARD RODENHIZER
CHIEF, SIGNAL OPERATIONS SECTION
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CHIEF, SIGN OPERATIONS SECTION
410-787-7670

MR. MICHAEL STOCKER
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7696

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO.	QUANTITY	DESCRIPTION
9013	1 EA	[UPDATED] 20' LIGHTING ARM, CLAMP ON
9086	1 EA	[UPDATED] VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
9571	20 SF	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN
		1 EA M1-5(6) 'NORTH MD 279 ->' (30"x48")
		1 EA M1-5(6) 'SOUTH MD 279 ->' (30"X48")

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
8011	2 EA	CONDUIT BEND IN EXISTING FOUNDATION BASE (ANY SIZE)
8022	2 EA	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1,000'
8023	1 EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8028	3 EA	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
8029	70 LF	1" DETECTOR SLEEVE GALVANIZED OR FLEXIBLE LIQUID TIGHT CONDUIT
8037	140 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
8038	185 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8040	20 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8046	4 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8052	600 LF	ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8057	1050 LF	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8058	355 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)

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 SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL MODIFICATIONS.

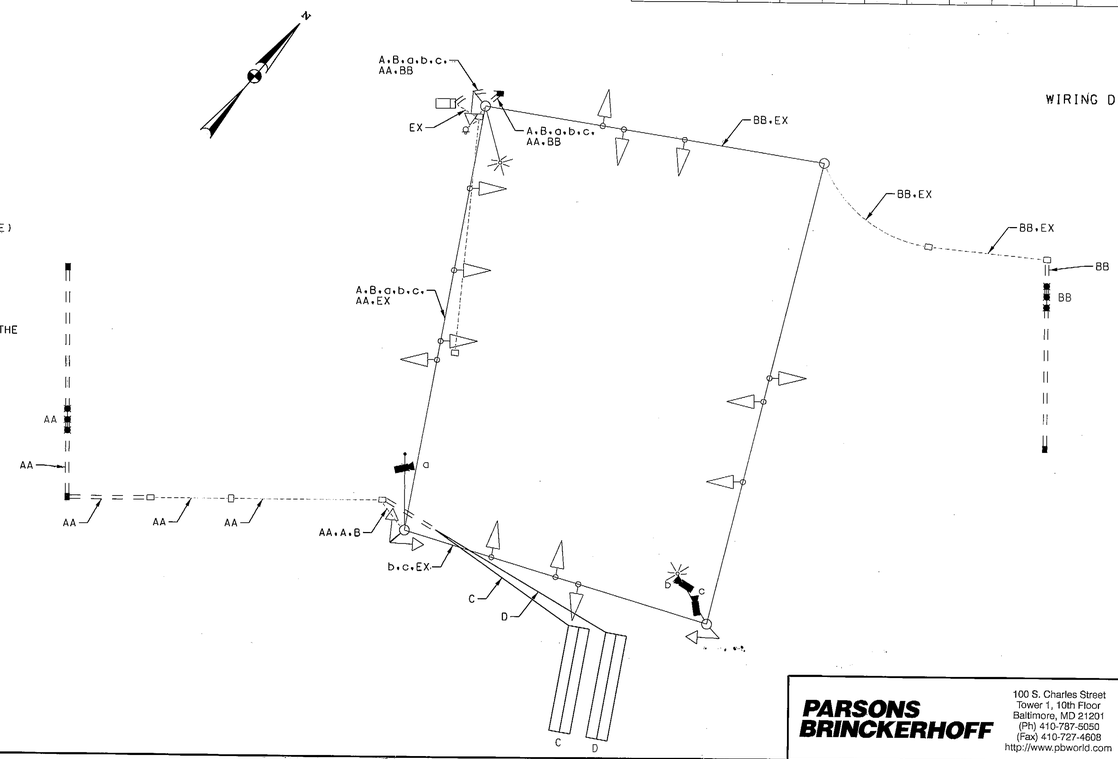
PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Phase 1 & 5	◄G-/R	◄G-/R	R	◄G-/R	◄G-/R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 & 5 Change	The Controller May Skip to Phases 1 & 6 or 2 & 5 or 2 & 6																
Phase 1 & 6	R	R	R	◄G-/G	◄G-/G	G	G	R	R	R	R	R	R	DW	DW	DW	DW
1 Change	R	R	R	◄Y-/G	◄Y-/G	G	G	R	R	R	R	R	R	DW	DW	DW	DW
Phase 2 & 5	◄G-/G	◄G-/G	G	R	R	R	R	R	R	R	R	R	R	WK	WK	DW	DW
5 Change	◄Y-/G	◄Y-/G	G	R	R	R	R	R	R	R	R	R	R	WK	WK	DW	DW
Phase 2 & 6	G	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	DW	DW
Ped. Clear	G	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	DW	DW
2 & 6 Change	Y	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
Phase 3 & 7	R	R	R	R	R	R	R	◄G-/R	◄G-/R	R	◄G-/R	◄G-/R	R	DW	DW	DW	DW
3 & 7 Change	The Controller May Skip to Phases 1 & 6 or 2 & 5 or 2 & 6																
Phase 3 & 8	R	R	R	R	R	R	R	R	R	R	◄G-/G	◄G-/G	G	DW	DW	WK	WK
3 Change	R	R	R	R	R	R	R	R	R	R	◄Y-/G	◄Y-/G	G	DW	DW	WK	WK
Phase 4 & 7	R	R	R	R	R	R	R	◄G-/G	◄G-/G	G	R	R	R	DW	DW	DW	DW
7 Change	R	R	R	R	R	R	R	◄Y-/G	◄Y-/G	G	R	R	R	DW	DW	DW	DW
Phase 4 & 8	R	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW
4 & 8 Change	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
4 & 8 Alt.	R	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	WK	WK
Ped. Clear	R	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	FL/DW	FL/DW
4 & 8 Alt. Change	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
Flashing Operation	FL/Y	FL/Y	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

FIRE HOUSE PRE-EMPTION

Pre-Emption Phase 6	R	R	R	◄G-/G	◄G-/G	G	G	R	R	R	R	R	R	DW	DW	DW	DW
Pre-Emption Clearance	R	R	R	◄Y-/G	◄Y-/G	G	G	R	R	R	R	R	R	DW	DW	DW	DW
Phase 2 & 6 Normal Operation	G	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	DW	DW

WIRING DIAGRAM



TOD NO: XX661-49
SHA NO: CE401B5D
MD 279 from US 40 to Bell Hill Road

WIRING KEY

A.B	- ELECTRICAL CABLE 2-CONDUCTOR, NO. 14 A.W.G. (ALUMINUM SHIELDED)
C.D	- LOOP WIRE (NO. 14 A.W.G.)
a.b.c.	- VIDEO DETECTION LEAD-IN CABLE
AA.BB	- NON-INVASIVE PROBE LEAD-IN CABLE
EX	- EXISTING SIGNAL CABLE

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

MD 279 (ELKTON RD) AT MD 213 (BRIDGE ST)

ELKTON, MD

GENERAL INFORMATION SHEET

SCALE NTS DATE JUNE 26, 2013 CONTRACT NO. XX6615185

DESIGNED BY JEK
DRAWN BY JEK
CHECKED BY LFW
F.A.P. NO.

COUNTY CECIL
LOGMILE 070207901.18
TIMS NO. L876
TOD NO.

TS NO. 274J-GI | DRAWING SG - 02 OF 02 | SHEET NO. 02 OF 02

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FILE: T:\173\SHA-TrafficDesignServices\TRP\141\Plans\pSG_N001-MD 279 @ MD 213.dgn

DRILL

BY: kurgansky