

**PROJECT DESCRIPTION**

**I. GENERAL:**

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING INTERSECTION CONTROL BEACON TO LED FULL COLOR SIGNAL OPERATION WITH VIDEO DETECTION CAMERAS AND NON-INVASIVE PROBES FOR FULL ACTUATION AT MD 6 (CHARLES STREET) AND OLIVERS SHOP/ TRINITY CHURCH ROADS IN CHARLES COUNTY. SHIELD ASSEMBLY SIGNS, STREET LIGHTING AND A BASE- MOUNTED CABINET SHALL BE INSTALLED. A WESTBOUND "SIGNAL AHEAD" HAZARD IDENTIFICATION BEACON SHALL BE INSTALLED APPROXIMATELY 1220' EAST OF THE INTERSECTION.

MD 6 IS ASSUMED TO RUN IN AN EAST- WEST DIRECTION.

**II. INTERSECTION OPERATION:**

THE INTERSECTION SHALL OPERATE A NEMA FOUR- PHASE, FULL- ACTUATED MODE, WITH THE ADVANCE "SIGNAL AHEAD" STRUCTURE'S SIGNAL HEADS FLASHING CONTINUOUSLY BUT POWERED SEPARATELY.

**III. SPECIAL NOTES:**

A NEMA EIGHT-PHASE, FULL-ACTUATED CONTROLLER WITH ALL NECESSARY EQUIPMENT HOUSED IN A BASE-MOUNTED CABINET SHALL BE INSTALLED AT THE INTERSECTION.

THE CONTRACTOR SHALL CONTACT ROBERT SNYDER AT OOTS OPERATION DIVISION 410-787-7631 TO ARRANGE FOR A PHONE DROP. CONTRACTOR SHALL PROVIDE THE NEAREST ADDRESS AND ALLOW 3 DAYS ADVANCE NOTICE PRIOR TO PROJECT'S COMPLETION

**PROJECT CONTACTS**

THE CONTACT PERSONS FOR THE SHA ARE AS FOLLOWS:

- |  |  |
|--|--|
| MRS. KIMBERLY TRAN<br>ASSISTANT DISTRICT ENGINEER-<br>TRAFFIC<br>PHONE: 410-842-1003 | MR. ROBERT SNYDER<br>ASSISTANT DIVISION CHIEF,<br>TRAFFIC OPERATIONS DIVISION<br>PHONE: 410-787-7631 |
| MR. JOHN MAYS<br>ASSISTANT DISTRICT ENGINEER-<br>MAINTENANCE<br>PHONE: 410-841-1039  | MR. EDWARD RODENHIZER<br>CHIEF, SIGNAL OPERATIONS SECTION<br>PHONE: 410-787-7652                     |
| MR. JOE HORTY<br>DISTRICT UTILITY ENGINEER<br>PHONE: 410-841-1005                    | BILL STROUD<br>PROJECT MANGER -<br>TRAFFIC ENGINEERING<br>DESIGN DIVISION<br>PHONE: 410-787-4036     |
| MR. JAMES FOLDEN<br>DISTRICT CONSTRUCTION ENGINEER<br>PHONE: 410-841-1031            |  |

**EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE SUPPLIED BY SHA AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
9016	1 EA	4 CHANNEL DETECTOR AMPLIFIER
9037	1 EA	CABINET "G" TYPE POLE MOUNTED
9044	1 EA	NEMA BASE MOUNTED CABINET AND CONTOLLER
9086	1 EA	VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
9570	142 SF	SHEET ALUMINIUM SIGNS GROUND MOUNTED
	3 EA	W3-3MOD "NEW" SIGNAL AHEAD SYMBOL (36" x 36") WITH FLAGS
	2 EA	R1-2 "YIELD" SIGN (36" x 36")
	1 EA	D3-2(2) "LEFT ARROW, Olivers Shop Rd/ Trinity Church Rd, RIGHT ARROW/ NEXT SIGNAL", WHITE ON GREET (VAR x 48")
	1 EA	D3-2(2) "LEFT ARROW, Trinity Church Rd/ Olivers Shop Rd, RIGHT ARROW/ NEXT SIGNAL", WHITE ON GREEN (VAR x 48")
		SHIELD ASSEMBLY SIGNS
	1 EA	"WEST, MD 6, LEFT ARROW" (36" x 75")
	1 EA	"EAST, MD 6, LEFT ARROW" (36" x 75")
	1 EA	"WEST, MD 6, RIGHT ARROW" (24" x 51")
	1 EA	"EAST, MD 6, RIGHT ARROW" (24" x 51")
9571	45 SF	SHEET ALUMINIUM MAST ARM/ POLE MOUNTED SIGNS
	1 EA	W3-3 "SIGNAL AHEAD" SYMBOL (36" x 36")
	2 EA	D-3(1) "Charles ST" (VAR x 16") DUAL FACED
	1 EA	D-3(1) "ARROW, Olivers Shop RD/ Olivers Shop RD, ARROW" (VAR x 16") DUAL FACED
	1 EA	D-3(1) "ARROW, Trinity Church RD/ Trinity Church RD, ARROW" (VAR x 16") DUAL FACED
	1 EA	R1-2(R) RIGHT ARROW, ONLY (36" x 30")

**EQUIPMENT LIST "B"**

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	2 EA	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
2002	4 CY	TEST PIT EXCAVATION
5001	800 LF	5" HEAT APPLIED WHITE PERMANENT PREFORMED THEROMPLASTIC PAVEMENT MARKINGS
5003	90 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKING - ANY WIDTH
5006	45 LF	24" HEAT APPLIED WHITE PERMANENT PREFORMED THEROMPLASTIC PAVEMENT MARKINGS
5008	1 EA	HEAT APPLIED WHITE PERMANENT PREFORMED THEROMPLASTIC PAVEMENT MARKINGS ARROWS
8001	38 EA	12" LED SIGNAL HEAD SECTION
8011	2 EA	EMBEDDED METERED SERVICE PEDESTAL
8016	2 EA	MAST ARM POLE AND 50' MAST ARM, ANY "T" DIMENSION
8020	4 EA	NON-INVASIVE DETECTIVE, UP TO 1000' LEAD IN CABLE
8021	1 EA	PEDESTAL POLE (ANY SIZE)
8022	1 EA	REM & DISPOSE MAT AND EQUIP PER ASSIGN
8025	1 EA	TWIN MAST ARM POLE AND 50'/70' MAST ARMS, ANY "T" DIMENSION
8027	2 EA	VIDEO DETECTION CAMERA AND CABLE
8032	460 LF	UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT - BORED
8034	1500 LF	UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8035	170 LF	WOOD SIGN SUPPORTS UP TO 4" x 6"
8038	600 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8043	150 LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN
8044	19 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8045	142 SF	INSTALL GROUND MOUNTED SIGN
8046	45 SF	INSTALL OVERHEAD SIGN
8052	3 EA	250 WATT HPS LAMP AND LUMINAIRE
8058	105 LF	ELECTRICAL CABLE - 5 CONDUCTOR NO. 14 AWG
8059	1770 LF	ELECTRICAL CABLE - 7 CONDUCTOR NO. 14 AWG
8060	725 LF	ELECTRICAL CABLE - 2 CONDUCTOR NO. 12 AWG/ TC
8063	3 EA	15' LIGHTING ARM ON SIGNAL STRUCTURE
8066	1 EA	INSTALL CONTROLLER AND CABINET - POLE MOUNTED
8067	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNTED

**EQUIPMENT LIST "C"**

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.

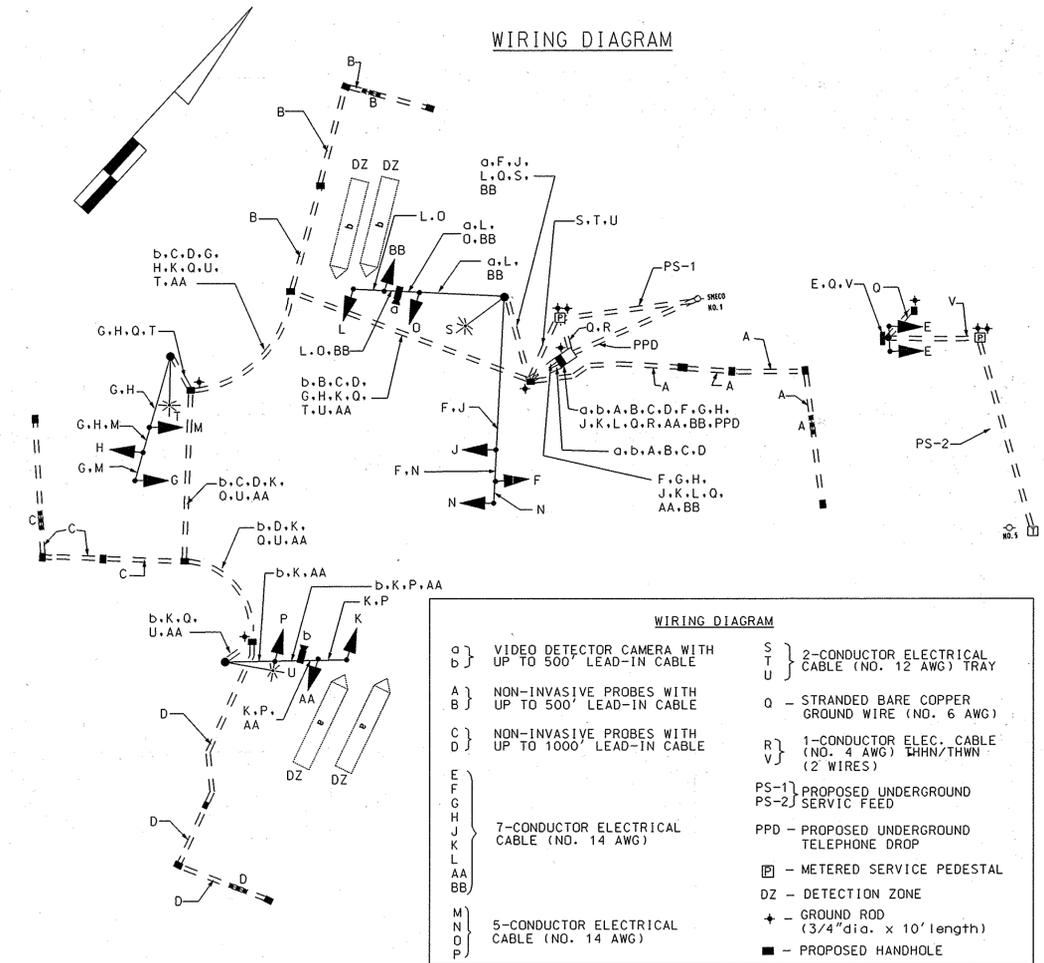
**PHASE CHART**

1	2	3	4*	5*	6	7	8	9	10	11	12	13	14
(R)	(R)	(R)	(Y)	(Y)	(R)								
(Y)	(Y)	(Y)	(G)	(G)	(Y)								
(G)	(G)	(G)			(G)								

Phase 2 & 6	G	G	G	FL/Y	FL/Y	G	G	G	R	R	R	R	R	R	R	R
2 & 6 Change	Y	Y	Y	FL/Y	FL/Y	Y	Y	Y	R	R	R	R	R	R	R	R
Phase 4 & 8	R	R	R	FL/Y	FL/Y	R	R	R	G	G	G	G	G	G	G	G
4 & 8 Change	R	R	R	FL/Y	FL/Y	R	R	R	Y	Y	Y	Y	Y	Y	Y	Y
Flashing	FL/Y	FL/R														
Operation	FL/Y	FL/R														

\* SIGNAL HEADS 4 AND 5 OPERATE SEPARATELY.

**WIRING DIAGRAM**



SHA No: CH315A52/B52  
TOD No: AT913-25M  
MD 6 @ Oliver Shop Rd/Trinity Church Rd

**CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 GILROY ROAD  
HUNT VALLEY, MD 21031

REVISION 'A' 25003.77

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD-6 (CHARLES ST) AT TRINITY CHURCH ROAD  
AND OLIVERS SHOP ROAD

**GENERAL INFORMATION PLAN**

SCALE NONE DATE JAN 2008 CONTRACT NO. AT9135185  
DESIGNED BY EMMENB COUNTY CHARLES  
DRAWN BY EMMENB LOGMILE 080003247  
CHECKED BY IROY M. HOLLOWAY T. I. M. S. NO. L-532  
F. A. P. NO. TOD NO.

TS# 2588A - 02 OF 02 SHEET NO. 2 OF 2

BY: WSTROUD