

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE TRAFFIC SIGNAL AT THE INTERSECTION OF US 13 BUSINESS IN SALISBURY BOULEVARD) AT CHURCH STREET IN WICOMICO COUNTY. IN ADDITION, A SIDE STREET ALTERNATIVE PEDESTRIAN PHASE IS PROPOSED WITH APS AND COUNTDOWN PEDESTRIAN SIGNALS. US 13 BUSINESS IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL TRAFFIC-ACTUATED MODE. THE EXISTING PRE-EMPTION PHASE WILL REMAIN. A SIDE STREET ALTERNATIVE PEDESTRIAN PHASE IS PROPOSED.

APS WILL FUNCTION AS FOLLOWS:

FOR NORTH SALISBURY BOULEVARD

- A. WHEN A PEDESTRIAN LOCATES AND PASSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS NORTH SALISBURY BOULEVARD".
- B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

CONTROLLER REQUIREMENTS

THE CONTRACTOR SHALL INSTALL A NEW BASE MOUNTED CABINET AND FOUNDATION. THE SHA SIGNAL SHOP WILL INSTALL THE CONTROLLER, 2 WIRE CENTRAL CONTROL UNIT, VIDEO DETECTION INTERFACE, AND OPTICOM DETECTOR EQUIPMENT WITHIN THE CABINET.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE SHA SIGNAL SHOP AT 410-787-7630 FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

THE CONTACT PERSONS FOR DISTRICT #1 / OOTS ARE AS FOLLOWS:

District 1

Mr. Gene Coffell
Assistant District Engineer - Traffic
Phone: 410-677-4040

Mr. Bruce Poole
District Utility Engineer
Phone: 410-677-4082

Mr. Ravindra Ganvir
Assistant District Engineer - Construction
Phone: 410-677-4020

Mr. James Wright
Assistant District Engineer - Maintenance
Phone: 410-677-4010

Office of Traffic and Safety

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Robert Snyder
Assistant Division Chief, Traffic Operations
Phone: 410-787-7630

Mr. Edward Rodenhizer
Team Leader Signal Operations
Phone: 410-787-7650

Mr. Eugene Bailey
Team Leader Sign Operations
Phone: 410-787-7670

The Power Company Representative is:
Delmarva Power
2530 N Salisbury Blvd.
Salisbury, Maryland
1-800-375-7117

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

CATEGORY CODE	QUANTITY	DESCRIPTION
900000	1 EA	VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
971017	1 EA	EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT
973023	101 SF	SHEET ALUMINUM SIGNS: 1 EA - R3-1 (30 IN. x 30 IN.) 2 EA - R3-2 (30 IN. x 30 IN.) 2 EA - R3-5(L) (30 IN. x 36 IN.) 2 EA - R10-3(I) (9 IN. x 15 IN.) "N. SALISBURY BLVD." 2 EA - W11-2 (30 IN. x 30 IN.), FY 2 EA - M6-2(MOD) (21 IN. x 15 IN.), FY 1 EA - D-3(I) (96 IN. x 16 IN.) "CHURCH ST." (DUAL FACED) 1 EA - D-3(I) (96 IN. x 16 IN.) "N. SALISBURY BLVD." 1 EA - SHIELD ASSEMBLY (24 IN. x 51 IN.) "SOUTH, US 13 BUSINESS, RIGHT ARROW" 1 EA - SHIELD ASSEMBLY (36 IN. x 75 IN.) "NORTH, US 13 BUSINESS, LEFT ARROW"

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

CATEGORY CODE	QUANTITY	DESCRIPTION
120500	1 LS	MAINTENANCE OF TRAFFIC
203030	3 CY	TEST PIT EXCAVATION
585621	375 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	85 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
655105	50 SF	5 INCH CONCRETE SIDEWALK
1 800000	1 EA	2 IN. CONDUIT BEND IN EXISTING FOUNDATION
800000	1 EA	2 WIRE CENTRAL CONTROL UNIT
800000	2 EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL - POLE MOUNT
800000	2 EA	ACCESSIBLE PEDESTRIAN PUSHBUTTON
800000	1 LS	REMOVE AND DISPOSE OF TRAFFIC SIGNAL EQUIPMENT
1 800000	1 EA	RELOCATE EXISTING VIDEO DETECTION CAMERA
800000	1 EA	SOLO (TERRA) VIDEO DETECTION CAMERA
801004	10 CY	CONCRETE FOR SIGNAL FOUNDATION
801104	30 LF	WOOD SIGN SUPPORTS 4 INCH X 4 INCH
802501	500 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805105	60 LF	2 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
1 805118	300 LF - 390 LF	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
1 805125	180 LF - 150 LF	2 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805135	75 LF	3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805140	70 LF	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
807202	1 EA	METERED SERVICE PEDESTAL
1 810010	80 LF - 50 LF	ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 AWG, THHN/THWN
1 811001	4 EA - 6 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	17 SF	INSTALL GROUND MOUNTED SIGN
813015	84 SF	INSTALL OVERHEAD SIGN
816201	1 EA	DISCRIMINATOR MODULE, 4 CHANNEL, NO. 764
816210	1 EA	OPTICOM EMMITTER SYSTEM, 700 SERIES
816215	1 EA	OPTICOM NO. 721 DETECTOR EYE
818004	2 EA	10 FOOT BREAKAWAY PEDESTAL POLE
818036	1 EA	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM
818050	1 EA	STEEL POLE WITH TWIN 50 FOOT AND 60 FOOT MAST ARMS
831010	1 EA	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
837001	7 EA	GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH
860284	21 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860288	105 LF	FURNISH AND INSTALL 4 CONDUCTOR OPTICOM CABLE
860292	1 EA	CUT, CLEAN, CAP AND GALVANIZE TRAFFIC SIGNAL STRUCTURE
861105	315 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
1 861106	100 LF - 400 LF	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
861107	900 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861116	310 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG), TC
866104	1 EA	20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
871117	1 EA	INSTALL EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT

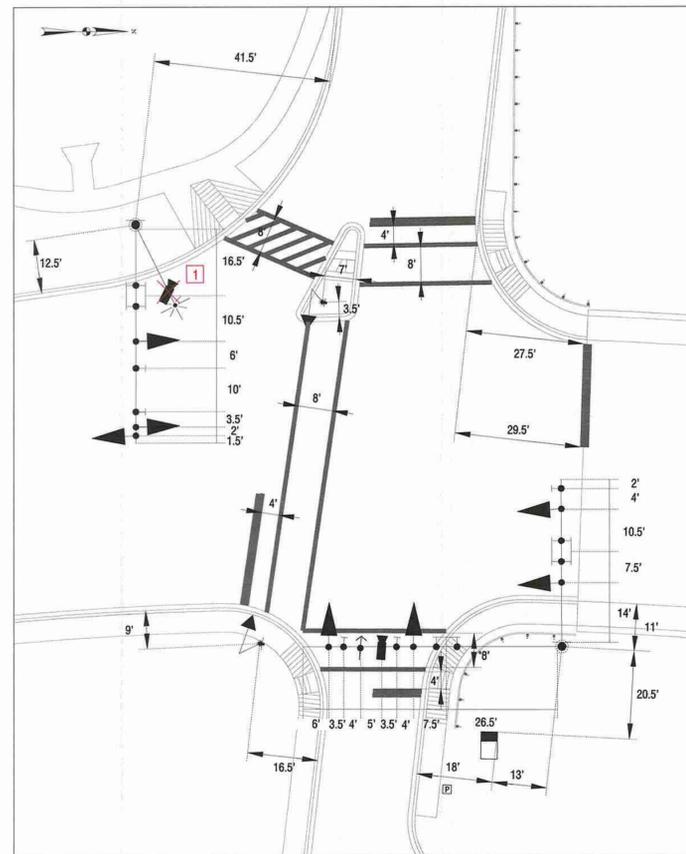
EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

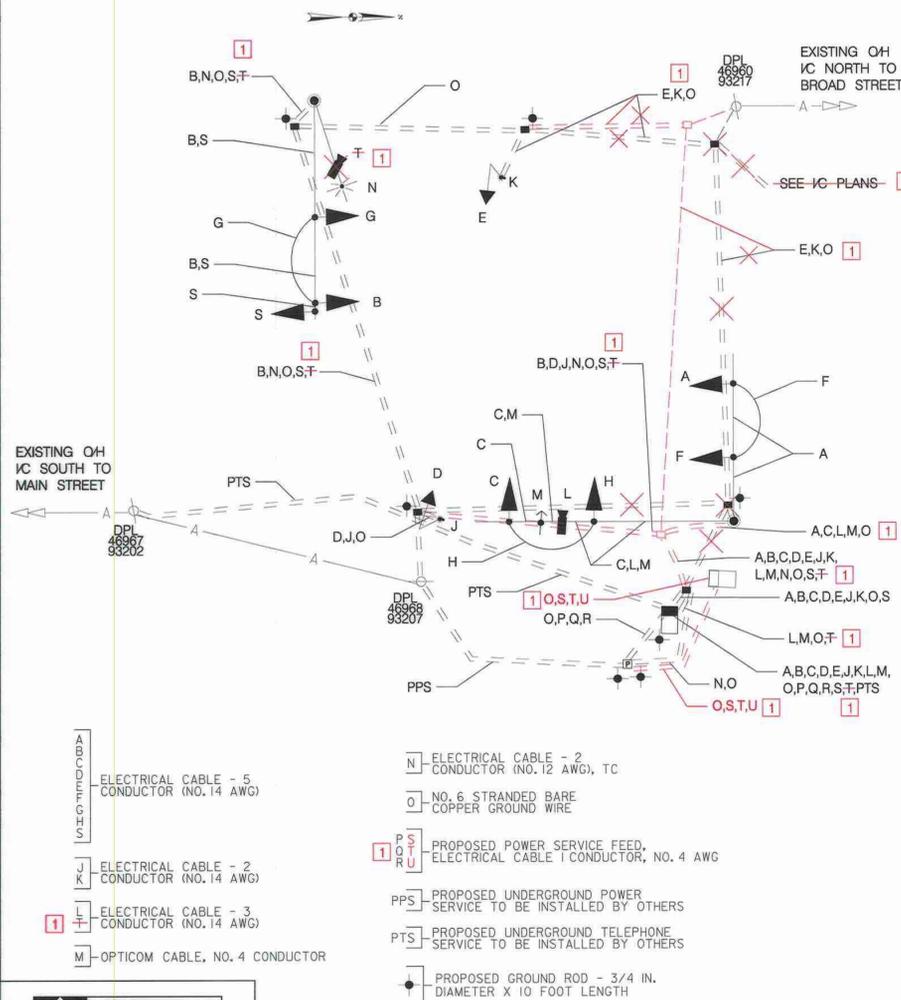
CATEGORY CODE QUANTITY DESCRIPTION

NONE - ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR

SIGNAL POLE, SIGNAL HEADS, CROSSWALK AND STOP LINE LAYOUT DETAIL



WIRING DIAGRAM



- N - ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG), TC
- O - NO. 6 STRANDED BARE COPPER GROUND WIRE
- 1 P - PROPOSED POWER SERVICE FEED, ELECTRICAL CABLE 1 CONDUCTOR, NO. 4 AWG
- PPS - PROPOSED UNDERGROUND POWER SERVICE TO BE INSTALLED BY OTHERS
- PTS - PROPOSED UNDERGROUND TELEPHONE SERVICE TO BE INSTALLED BY OTHERS
- PROPOSED GROUND ROD - 3/4 IN. DIAMETER X 10 FOOT LENGTH

UTILITY LEGEND

- E - E - ELECTRIC CABLES
- A - A - AERIAL CABLES
- T - T - TELEPHONE CABLES
- F - F - FIBER-OPTIC
- SD - SD - STORM DRAIN
- G - G - GAS MAIN
- W - W - WATER MAIN
- S - S - SEWER MAIN

PHASE CHART

	1	2	3	4	5	6	7	8	9
PHASE 2 AND 6	G	G	G	G	G	R	R	DW	DW
PHASE 2 AND 6 CHANGE	Y	Y	Y	Y	Y	R	R	DW	DW
PHASE 4	R	R	R	R	R	G	G	DW	DW
PHASE 4 CHANGE	R	R	R	R	R	Y	Y	DW	DW
PHASE 4 ALT.	R	R	R	R	R	G	G	W	W
PED. CLEARANCE	R	R	R	R	R	G	G	FDW	FDW
PHASE 4 ALT. CHANGE	R	R	R	R	R	Y	Y	DW	DW
PHASE 4 PRE-EMPTION	R	R	R	R	R	G	G	DW	DW
PHASE 4 PRE-EMPT. CHANGE	R	R	R	R	R	Y	Y	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK

1 REDLINE REVISION NO. 1 JANUARY 2010
TEDD APPROVAL SHA NO. W16491580

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
US 13 BUSINESS (N. SALISBURY BOULEVARD)
AT CHURCH STREET
ULTIMATE SIGNAL

GENERAL INFORMATION

SCALE NONE ADVERTISED DATE 12/16/2008 CONTRACT NO. W16491580

DESIGNED BY MCG COUNTY WICOMICO
DRAWN BY MCG LOGMILE 22B01305.58
CHECKED BY BAB TIMS NO. J116
F.A.P. NO. TOD NO.

TS NO. 1942-E3-GI DRAWING SG-08 OF 10 SHEET NO. OF

STV
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