

F.H.W.A. REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD			

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT IS LOCATED AT THE INTERSECTION OF MD 458 AND SWANN ROAD IN PRINCE GEORGE'S COUNTY, MARYLAND AND INVOLVES ROADWAY IMPROVEMENTS, THE RECONSTRUCTION OF AN EXISTING SIGNAL THAT IS EFFECTED BY THESE IMPROVEMENTS. MD 458 IS ASSUMED TO RUN IN AN EAST/WEST DIRECTION.

II. INTERSECTION OPERATION

THE PROPOSED TRAFFIC SIGNAL WILL OPERATE IN A NEMA SIX (6) PHASE, FULLY TRAFFIC ACTUATED MODE. THE MD 458 APPROACHES WILL OPERATE CONCURRENTLY WITH EXCLUSIVE LEFT TURN PHASES. THE SWANN ROAD APPROACHES WILL OPERATE CONCURRENTLY.

A NEW EIGHT PHASE FULLY TRAFFIC ACTUATED CONTROLLER WITH TWO (2) FOUR CHANNEL RACK MOUNTED LOOP DETECTOR AMPLIFIERS, TELEMETRY MODULE, AND INTERSECTION MONITOR WITH BATTERY BACK UP HOUSED IN A NEMA SIZE SIX (6) BASE MOUNTED CABINET.

III. SPECIAL NOTES

- THE SIGNAL SHOP WILL BE NOTIFIED TO PERFORM INTERNAL WIRING OF THE CABINET AT MD 458 AND SWANN ROAD. ALL CABLE SHALL BE IDENTIFIED AND BROUGHT INTO THE CONTROLLER BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY MR. EDWARD RODENHIZER, SHA SIGNAL SHOP AT (410) 787-7650 SEVENTY-TWO (72) HOURS IN ADVANCE OF THIS WORK.
- MOT PLATES FOR THIS PROJECT WILL BE AS FOLLOWS: 104.00 TO 104.00-12, 104.02-01, 104.03-01

EQUIPMENT LIST

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

ITEM NO.	QUANTITY	DESCRIPTION
900001	1 EA	FURNISH NEMA SIZE 6 BASE MOUNTED CABINET & CONTROLLER
900001	8 EA	12" 1-WAY, 3-SECTION (R,Y,G) TRAFFIC SIGNAL HEAD - SPAN MOUNT
900001	4 EA	12" 1-WAY, 3-SECTION (RA,YA,GA) TRAFFIC SIGNAL HEAD - SPAN MOUNT
900001	1 EA	12" 1-WAY, 2-SECTION (DON'T WALK, WALK) PEDESTRIAN SIGNAL HEAD - POLE MOUNT
900001	2 EA	12" 2-WAY, 2-SECTION (DON'T WALK, WALK) PEDESTRIAN SIGNAL HEAD - POLE MOUNT
900001	3 EA	PEDESTRIAN PUSH BUTTON AND SIGN
900001	150 SF	SHEET ALUMINUM SIGNS
	3 EA.	R3-5L SIGN (30 IN. X 36 IN.) 'LEFT TURN ONLY'
	1 EA.	SHIELD ASSEMBLY 'EAST, MD 458, LEFT ARROW' (48 IN. X 75 IN.) - POLE MOUNT
	1 EA.	SHIELD ASSEMBLY 'EAST, MD 458, RIGHT ARROW' (30 IN. X 51 IN.) - POLE MOUNT
	1 EA.	SHIELD ASSEMBLY 'WEST, MD 458, LEFT ARROW' (48 IN. X 75 IN.) - POLE MOUNT
	1 EA.	SHIELD ASSEMBLY 'WEST, MD 458, RIGHT ARROW' (30 IN. X 51 IN.) - POLE MOUNT

B. EQUIPMENT TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
585443	830 LF	FURNISH AND INSTALL 12" WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE (CROSSWALK)
585445	145 LF	FURNISH AND INSTALL 24" WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE (STOP BAR)
801004	12.3 CY	FURNISH AND INSTALL CONCRETE SIGNAL FOUNDATION
805011	50 LF	FURNISH AND INSTALL 1 IN. ELECTRICAL CONDUIT - GALVANIZED SLEEVE
805105	55 LF	FURNISH AND INSTALL 2 IN. SCHEDULE 80 PVC CONDUIT - BORED
805125	10 LF	FURNISH AND INSTALL 2 IN. SCHEDULE 80 PVC CONDUIT - TRENCHED
805135	20 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 PVC CONDUIT - TRENCHED
805140	20 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 PVC CONDUIT - TRENCHED
805160	15 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT SLEEVE
811001	1 EA	FURNISH AND INSTALL HANDHOLE
813010	4 EA	BAND SIGN TO SIGN SUPPORT
813015	46.50 SF	INSTALL OVERHEAD SIGN
814004	8 EA	REMOVE AND SALVAGE EXISTING SIGNAL HEAD
818005	2 EA	REMOVE AND SALVAGE STRAIN POLE
819001	270 LF	REMOVE SPAN WIRE AND ASSOCIATED WIRING
831010	1 EA	FURNISH AND INSTALL 250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
832020	70 LF	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
838003	1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240V, 1 PH, 3 W)
860002	8 EA	INSTALL 12 IN. 1-WAY 3-SECTION (R,Y,G) SIGNAL HEAD - SPAN MOUNT
860003	4 EA	INSTALL 12 IN. 1-WAY 3-SECTION (RA,YA,GA) SIGNAL HEAD - SPAN MOUNT
860068	2 EA	INSTALL 12 IN. 1-WAY 2-SECTION PEDESTRIAN SIGNAL HEAD - POLE MOUNT
860069	1 EA	INSTALL 12 IN. 2-WAY 2-SECTION PEDESTRIAN SIGNAL HEAD - POLE MOUNT
861116	70 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2 CONDUCTOR NO.12
861104	1200 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR ALUMINUM SHIELDED
861105	700 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR NO 14 AWG
861106	700 LF	FURNISH AND INSTALL ELECTRICAL CABLE 3-CONDUCTOR NO 14 AWG
861107	1000 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR NO 14 AWG
861108	300 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR NO.14 AWG
862101	2550 LF	FURNISH AND INSTALL LOOP WIRE IN FLEXIBLE TUBING
862102	750 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
865201	3 EA	INSTALL PUSHBUTTON AND SIGN
866104	1 EA	FURNISH AND INSTALL 20 FT. LIGHTING ARM ON SIGNAL STRUCTURE
869102	285 LF	FURNISH AND INSTALL STEEL SPAN WIRE - 3/8" DIAMETER
800000	2 EA	FURNISH AND INSTALL STRAIN POLE 12 IN. X 32 FT.
800000	2 EA	FURNISH AND INSTALL MICROLOOP PROBE SET 500 FT. LEAD IN.
871202	1 EA	INSTALL NEMA 6 BASE MOUNTED CABINET

THE FOLLOWING CONTACT PERSONS FOR DISTRICT # 3 ARE AS FOLLOWS:

Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
(410) 787-7630

Mr. Majib Shakhb
Asst. District Engineer - Traffic
(301) 513-7358

Mr. Augustine Rebish
Acting Engineer - Utility
(301) 513-7350

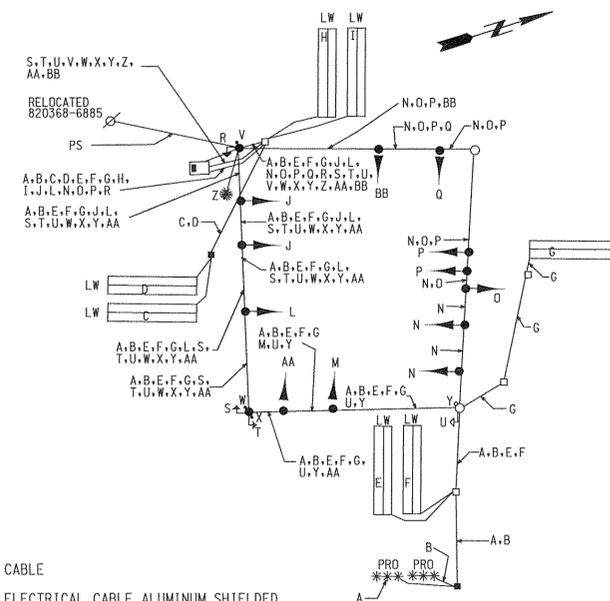
Mr. Charles Watkins
District Engineer
(301) 513-7311

Mr. Randy Brown
Asst. District Engineer - Maintenance
(301) 513-7304

The Power Company Representative is:

POTOMAC ELECTRIC POWER COMPANY
8300 OLD MARLBORO PIKE
UPPER MARLBORO MARYLAND 20772
(301) 961-5325

WIRING DIAGRAM



WIRING KEY

- AB MICRO PROBE CABLE
- C-I 2 CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED
- J,L-Q 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- R-U 3 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- V-Y 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- Z 2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG TYPE T/C)
- AA, BB 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- LW MICRO LOOP PROBES
- PS LOOP WIRE
- PRO POWER SOURCE

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 & 5	⊖	⊖	R	R	⊖	⊖	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 1 & 5 CHANGE TO PHASE 1 & 6 OR 2 & 5																
PHASE 1 & 6	⊖	⊖	G	G	-R	-R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 1 & 6 CHANGE	-Y	-Y	G	G	-R	-R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 & 5	-R	-R	R	R	⊖	⊖	G	G	R	R	R	R	DW	DW	DW	DW
PHASE 2 & 5 CHANGE	-R	-R	R	R	-Y	-Y	G	G	R	R	R	R	DW	DW	DW	DW
PHASE 2 & 6	-R	-R	G	G	-R	-R	G	G	R	R	R	R	W	W	DW	DW
PED CLEAR	-R	-R	G	G	-R	-R	G	G	R	R	R	R	FL/DW	FL/DW	DW	DW
PHASE 2 & 6 CHANGE	-R	-R	Y	Y	-R	-R	Y	Y	R	R	R	R	DW	DW	DW	DW
PHASE 4 & 8	-R	-R	R	R	-R	-R	R	R	G	G	G	G	DW	DW	DW	DW
PHASE 4 & 8 CHANGE	-R	-R	R	R	-R	-R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 & 8 ALT	-R	-R	R	R	-R	-R	R	R	G	G	G	G	DW	DW	W	W
PED CLEAR	-R	-R	R	R	-R	-R	R	R	G	G	G	G	DW	DW	FL/DW	FL/DW
PHASE 4 & 8 ALT. CHANGE	-R	-R	R	R	-R	-R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/R	DARK	DARK	DARK	DARK										

<p>REVISIONS</p> <p>APPROVALS</p> <p>DESIGN SECTION</p> <p>ASST. DISTRICT ENGINEER - TRAFFIC</p> <p>CHEF, TRAFFIC ENGINEERING DESIGN DIVISION</p> <p>DIRECTOR, TRAFFIC & SAFETY</p>		<p>MARYLAND DOT - STATE HIGHWAY ADMINISTRATION</p> <p>Office of Traffic & Safety</p> <p>TRAFFIC ENGINEERING DESIGN DIVISION</p> <p>MD 458 (SILVER HILL ROAD) @ SWANN ROAD</p> <p>LOG MILE: 16045801.22</p>	
<p>9/98 PD215170 UPGRADE SIGNAL DUE TO GEOMETRIC IMPROVEMENTS</p> <p>8/91 SIAK NO. 855-2003141 REPLACE LOOP DETECTORS</p> <p>11/5/73 REDRAW AS BUILT</p> <p>3/3/71 AS BUILT</p>	<p>STEVE RENZI</p> <p>1" = 20'</p> <p>11/5/73</p>	<p>F.A.P. NO. US 9692 (1)</p> <p>S.H.A. NO. P 332-001-385</p> <p>COUNTY PRINCE GEORGE'S</p>	<p>GI NO. 247-D</p> <p>SHEET NO. OF</p>

