

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AND STREET LIGHTING AT THE INTERSECTION OF MD 152 AND WATERVALE ROAD IN HARFORD COUNTY, MD 152 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 152 APPROACHES OPERATING CONCURRENTLY AND THE WATERVALE ROAD APPROACHES RUNNING CONCURRENTLY.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASES FOR NORTHBOUND AND SOUTHBOUND MD 152 WILL BE PROVIDED.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO (2) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS AND INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410)787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA

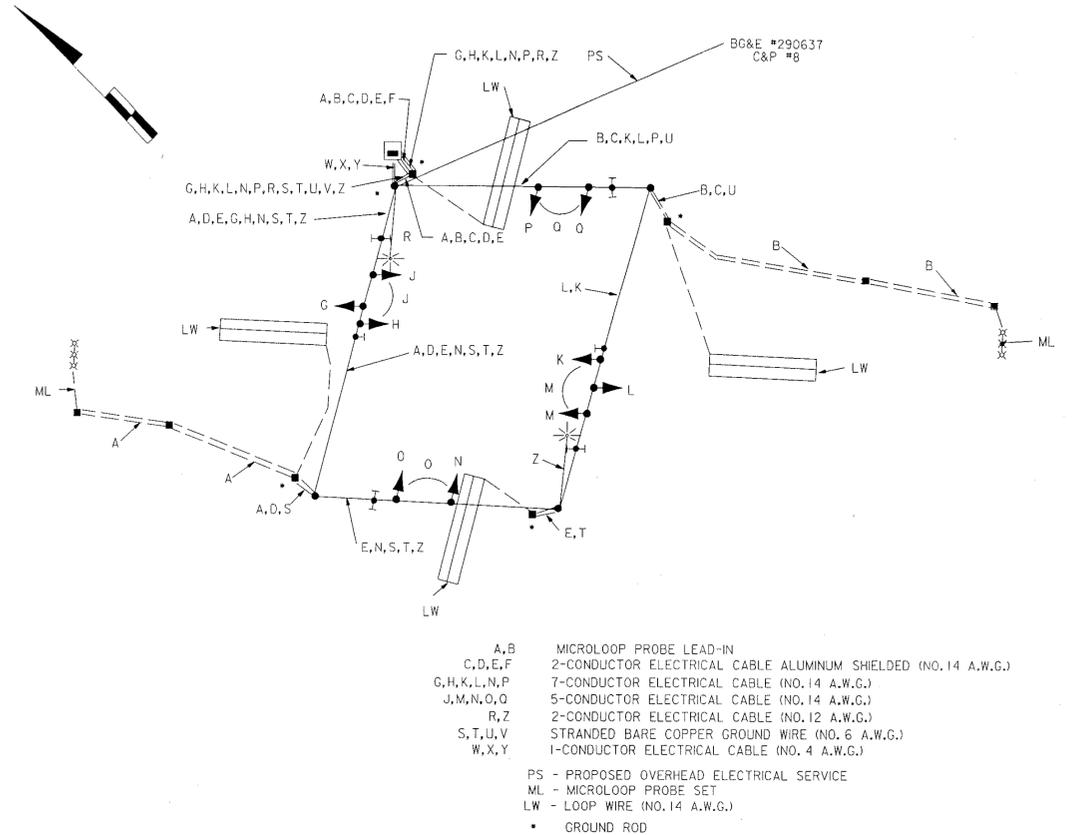
ITEM NO.	QUANTITY	DESCRIPTION
9002	2 EACH	FOUR-CHANNEL, LOOP DETECTOR AMPLIFIER (DELAY OUTPUT).
9044	6 EACH	12 IN., ONE-WAY, THREE-SECTION (R.Y.G) TRAFFIC SIGNAL HEAD - SPAN WIRE.
9051	2 EACH	12 IN., ONE-WAY, FIVE-SECTION (R.Y.YA.GA) TRAFFIC SIGNAL HEAD - SPAN WIRE (WITH TETHER CLAMP).
9053	2 EACH	8 IN/12 IN., ONE-WAY, FIVE-SECTION (8" R.Y.G, 12" YA.GA) TRAFFIC SIGNAL HEAD - SPAN WIRE. (WITH TETHER CLAMP)
9079	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER AND INTERSECTION MONITOR, 11 WITH BATTERY BACK-UP FOR PHONE DROP HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.
9089	103 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : - 2 EACH R10-12 SIGN (36 IN. X 42 IN.) - SPAN WIRE. - 2 EACH D3-2 SIGN "WATERVALE RD" (VARIABLE X 16 IN.) DUAL FACED - SPAN WIRE. - 2 EACH D3-2 SIGN "MOUNTAIN RD" (VARIABLE X 16 IN.) DUAL FACED - SPAN WIRE. - 2 EACH W3-3 SIGN (48 IN. X 48 IN.) WITH "NEW" PANEL (30 IN. X 30 IN.) - GROUND MOUNT - 2 EACH W3-3 SIGN (36 IN. X 36 IN.) WITH "NEW" PANEL (30 IN. X 30 IN.) AND FLAGS - GROUND MOUNT

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
2001	2 C.Y.	TEST PIT EXCAVATION
5007	800 L.F.	6 IN. YELLOW THERMOPLASTIC PAVEMENT MARKING TAPE
5008	1,300 L.F.	6 IN. WHITE THERMOPLASTIC PAVEMENT MARKING TAPE
5009	280 L.F.	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKING TAPE
5013	3,520 L.F.	REMOVE EXISTING PAVEMENT MARKINGS - ANY WIDTH
8001	14 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8004	4 EACH	FURNISH AND INSTALL 12 IN. 30 FT. STRAIN POLE (4 - 1 3/4" X 90" ANCHOR BOLTS)
8009	375 L.F.	FURNISH AND INSTALL STEEL SPAN WIRE - 3/8 IN. DIAMETER
8010	240 L.F.	FURNISH AND INSTALL STEEL SPAN WIRE - 1/4 IN. DIAMETER
8011	10 EACH	INSTALL SIGNAL HEAD - ANY TYPE
8017	2 EACH	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 1000 FT. LEAD-IN
8020	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8021	650 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
8022	80 L.F.	FURNISH AND INSTALL 1 IN. ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8024	900 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8027	40 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8031	20 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
8033	8 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	5 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8040	2,010 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8041	985 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 A.W.G.)
8044	80 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
8045	1,100 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
8046	400 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
8049	70 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8050	45 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 1 CONDUCTOR NO. 4. A.W.G. - THHN/THWN
8051	136 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 4 IN.
8053	50 S.F.	INSTALL GROUND MOUNTED SIGN
8054	74.5 S.F.	INSTALL OVERHEAD SIGN
8056	2 EACH	FURNISH AND INSTALL 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE WITH PHOTOCELL
8057	2 EACH	FURNISH AND INSTALL LIGHTING BRACKET ARM FOR TRAFFIC SIGNAL STRUCTURE
8070	1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT

WIRING DIAGRAM



PHASE CHART

	1	2	3	4	5	6	7	8	9	10
PHASE 1 + 5	R	R	R	R	R	R	R	R	R	R
1 + 5 CHANGE	1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5 OR PHASE 2 + 6									
PHASE 2 + 5	G	G	G	R	R	R	R	R	R	R
2 + 5 CHANGE	C	C	C	R	R	R	R	R	R	R
PHASE 1 + 6	R	R	R	G	G	G	R	R	R	R
1 + 6 CHANGE	R	R	R	G	G	G	R	R	R	R
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R
PHASE 4 + 8	R	R	R	R	R	R	G	G	G	G
4 + 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

LOG MILE NO. 12015209.29

REVISIONS 	APPROVALS ASST. DIVISION CHIEF, TEDD ASST. DISTRICT ENGINEER, TRAFFIC CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION DIRECTOR, OFFICE OF TRAFFIC & SAFETY	MARYLAND DOT - STATE HIGHWAY ADMINISTRATION Office of Traffic & Safety TRAFFIC ENGINEERING DESIGN DIVISION MD 152 AND WATERVALE ROAD GENERAL INFORMATION SHEET DATE 1 / 1 / 98
DRAWN BY: _____ CHECK BY: _____ SCALE: 1"=20'	F.A.P. NO. AC-STPG-00051589IE S.H.A. NO. AW278 A5E/B5F COUNTY HARFORD	TRAFFIC SIGNAL NO.: _____ SHEET NO. 2 OF 2 TS-3748