

**PROJECT DESCRIPTION**  
GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF SPECTRUM DRIVE AT HOLIDAY DRIVE IN FREDERICK COUNTY, MD. SPECTRUM DRIVE IS CONSIDERED TO RUN IN AN EAST/WEST DIRECTION.

A PEDESTRIAN CROSSING IS TO BE ADDED TO THE EAST LEG OF THE INTERSECTION.

**INTERSECTION OPERATION**

EXISTING CONTROLLER AND CABINET TO BE UTILIZED. THE INTERSECTION WILL CONTINUE TO OPERATE IN A FULLY ACTUATED MODE USING 6 NEMA PHASES. THERE IS AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE FOR THE EAST AND WESTBOUND MOVEMENTS OF SPECTRUM DRIVE. THE SPECTRUM DRIVE THROUGH MOVEMENTS OPERATE CONCURRENTLY WITH A CONCURRENT PEDESTRIAN MOVEMENT ACROSS THE NORTH LEG OF THE INTERSECTION. THE HOLIDAY DRIVE MOVEMENTS WILL OPERATE IN A SIDE STREET SPLIT MODE WITH A NEW ACTUATED PEDESTRIAN MOVEMENT ACROSS THE EAST LEG OF THE INTERSECTION.

**SPECIAL NOTES**

1. THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

**PROJECT CONTACTS:**

MR. GREG JONES, FREDERICK COUNTY TRAFFIC ENGINEERING  
PHONE: (301) 696-2928  
MR. JOHN CONCANNON, ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 624-8140  
MR. JOHN HUCHROWSKI, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION  
PHONE: (301) 624-8200  
MR. RAYMOND F. JOHNSON, ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (301) 624-8105  
MS. ANDREA ABEND, UTILITY ENGINEER  
PHONE: (301) 624-8115  
MR. RICHARD L. DAFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630  
MR. EDWARD RODENHIZER, SUPERVISOR, SIGNAL OPERATIONS  
PHONE: (410) 787-7652

2. ALL INTERNAL CABINET WIRING SHALL BE PERFORMED BY THE SHA SIGNAL SHOP. CONTRACTOR SHALL CONTACT ED RODENHIZER 72 HOURS PRIOR TO CONSTRUCTION.

3. APS WILL FUNCTION AS FOLLOWS:

**FOR SPECTRUM DRIVE**

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS SPECTRUM AT HOLIDAY CROSSWALK ANGLES RIGHT WAIT"
- B. WHEN WALK PHASE BEGINS, THE AUDIBLE SOUND WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

**FOR HOLIDAY DRIVE (EXISTING TO REMAIN)**

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE CHANGED TO SAY "WAIT TO CROSS HOLIDAY AT SPECTRUM WAIT"
- B. WHEN WALK PHASE BEGINS, THE AUDIBLE SOUND WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

4. THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT 410-787-7635 TO ARRANGE FOR THE PHONE DROP INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET NUMBER, ZIP CODE, AND TELEPHONE NUMBER.

**EQUIPMENT LIST**

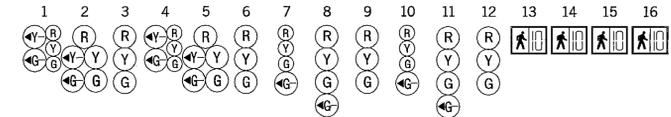
A. EQUIPMENT TO BE SUPPLIED BY THE MARYLAND STATE HIGHWAY ADMINISTRATION.

NONE.

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

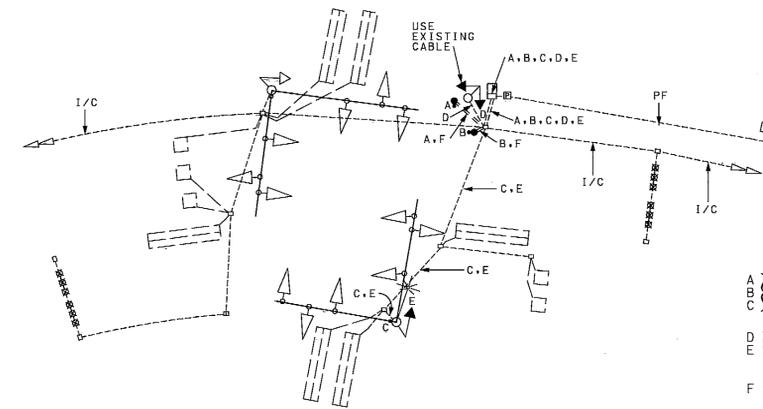
QUANTITY	UNITS	DESCRIPTION
LUMP SUM	LS	MAINTENANCE OF TRAFFIC
LUMP SUM	LS	MOBILIZATION
2	EA	5 FT. STEEL PEDESTAL POLE WITH BREAKAWAY BASE
2	EA	AUDIBLE PEDESTRIAN PUSHBUTTON ASSEMBLY WITH PUSHBUTTON SIGN
1	EA	AUDIBLE PEDESTRIAN PUSHBUTTON MESSAGE CHIP CHANGE OUT
1	EA	16 IN. 1-SECTION, 1-WAY LED (COUNTDOWN) PEDESTRIAN SIGNAL HEAD - POLE
1	EA	16 IN. 1-SECTION, 2-WAY LED (COUNTDOWN) PEDESTRIAN SIGNAL HEAD - POLE
1	EA	30 IN. X 36 IN. R3-6 REGULATORY SIGN - MAST ARM
2	CY	TEST PIT EXCAVATION
210	LF	2-CONDUCTOR CABLE (NO. 14 AWG)
85	LF	5-CONDUCTOR CABLE (NO. 14 AWG)
25	LF	BARE COPPER GROUND WIRE (NO. 6 AWG)
25	LF	2 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
1.4	CY	CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT
250	EA	12 IN. WHITE THERMOPLASTIC PAVEMENT MARKING - CROSSWALK
50	LF	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKING - STOP LINE
LUMP SUM	LS	REMOVE/RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT

**Phase Chart**



PHASE 1 AND 5	←GR	←GR	R	←GR	←GR	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6																		
PHASE 1 AND 6	←GG	←GG	G	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 CHANGE	←YG	←YG	G	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 5	R	R	R	←GG	←GG	G	R	R	R	R	R	R	R	R	DW	DW	DW	DW
5 CHANGE	R	R	R	←YG	←YG	G	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	R	R	R	R	WK	WK	DW	DW
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	R	R	R	FLDW	FLDW	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 3	R	R	R	R	R	R	←G	←G	←G	R	R	R	R	R	DW	DW	DW	DW
3 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW
PHASE 3 ALT	R	R	R	R	R	R	←G	←G	←G	R	R	R	R	R	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	R	R	←G	←G	←G	R	R	R	R	R	DW	DW	FLDW	FLDW
3 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	R	R	R	←G	←G	G	DW	DW	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	DARK	DARK	DARK	DARK							

**Wiring Diagram**



SHA NO: BW667M82  
Spectrum Drive @ Holiday Drive

- A } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- C } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- F } BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- IC } EXISTING INTERCONNECT CABLE
- PF } EXISTING POWER FEED



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
SPECTRUM DRIVE AT HOLIDAY DRIVE

FREDERICK, MARYLAND

**GENERAL INFORMATION PLAN**

SCALE: NA DATE: NOVEMBER 22, 2010 CONTRACT NO. \_\_\_\_\_

DESIGNED BY: F. BROWNLEY COUNTY: FREDERICK

DRAWN BY: F. BROWNLEY LOGMILE: 10000000.20

CHECKED BY: \_\_\_\_\_ TMS NO. \_\_\_\_\_

F.A.P. NO. NA TOD NO. NA

TS NO. 10014A DRAWING: GI-01 OF 01 SHEET NO. 2 OF 2

PLOTTED: Monday, November 22, 2010 AT 10:13 AM  
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