

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 80 (FINGERBOARD ROAD) AND MD 75 (SPRING VALLEY ROAD) (WEST INTERSECTION) AND THE MODIFICATION OF THE EXISTING CONTROL SIGNAL AT THE INTERSECTION OF MD 80 AND MD 75 (EAST INTERSECTION) IN FREDERICK COUNTY, MARYLAND. MD 80 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 80 APPROACHES OPERATING CONCURRENTLY AND THE MD 75 APPROACH OPERATING ALONE.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER WITH SYSTEM PACKAGE, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS) AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

PHONE DROP

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 THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.02-01 (SHOULDER WORK) STANDARD NO. MD-104.02-09 (FLAGGING OPERATION)
STANDARD NO. MD-104.02-03 (LANE SHIFT) STANDARD NO. MD-104.02-13 (INTERSECTION FLAGGING OPERATION)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 624-8140/8141

MS. ANDREA ABEND
DISTRICT UTILITY ENGINEER
PHONE: (301) 624-8115/8116

MR. RAY JOHNSON
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 624-8105/8106

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9016	1 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9044	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
9086	1 EACH	VIDEO INTERFACE EQUIPMENT: 1-4 CAMERAS
9571	133 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : - 1 EACH D-3(1) SIGN (VARIABLE X 16 IN.) DUAL FACED - MAST ARM MOUNT - 1 EACH W3-3 SIGN (48 IN. X 48 IN.) WITH "NEW" PANEL (24 IN. X 24 IN.) AND FLAG - GROUND MOUNT - 1 EACH W3-3 SIGN (36 IN. X 36 IN.) WITH "NEW" PANEL (24 IN. X 24 IN.) AND FLAG - GROUND MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 75, LEFT ARROW" (36 IN. X 75 IN.) - GROUND MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 75, LEFT ARROW" (36 IN. X 75 IN.) AND M4-5 (24 IN X 12 IN.) - POLE MOUNT - 1 EACH M95-1 (MOD.) SIGN (78 IN. X 40 IN.) - MAST ARM MOUNT - 1 EACH W3-3 SIGN FY (48 IN. X 48 IN.) - POLE MOUNT - 1 EACH D3-1(2) SIGN B/Y (VARIABLE X 16 IN.) - POLE MOUNT
9547	192 S.F.	EXTRUDED ALUMINUM SIGNS TO CONSIST OF : - 4 EACH D3-2(2) SIGN (96 IN. X 72 IN.) - GROUND MOUNT

EQUIPMENT LIST "C"

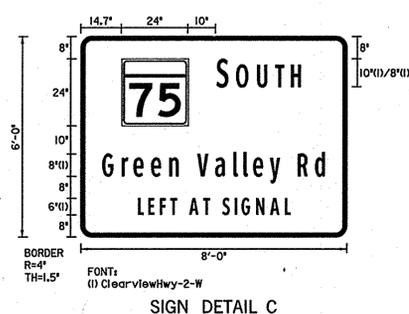
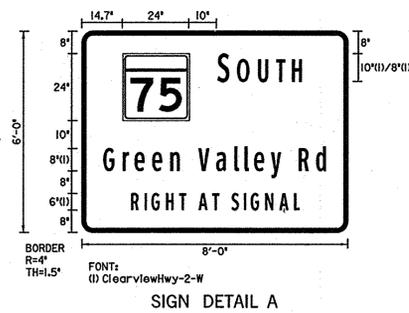
NO EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

EQUIPMENT LIST "B"

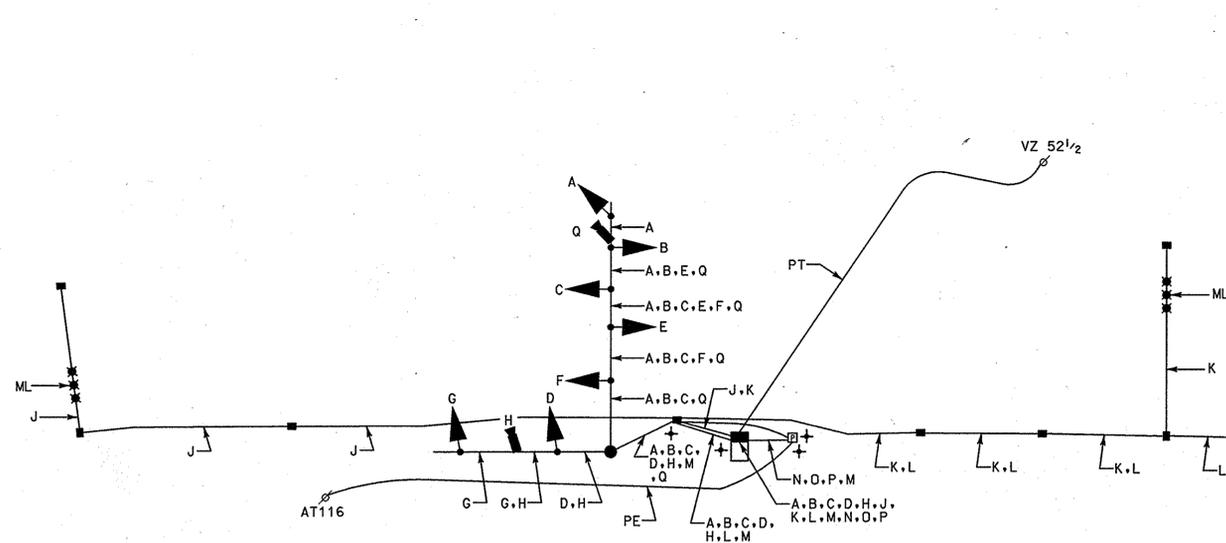
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EACH	MAINTENANCE OF TRAFFIC
2002	3 C.Y.	TEST PIT EXCAVATION
5001	60 L.F.	5 INCH HEAT APPLIED WHT OR YEL PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
5002	260 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5005	50 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
8001	45 EACH	12 INCH LED SIGNAL HEAD SECTION
8004	3 EACH	8 INCH LED SIGNAL HEAD SECTION
8009	1 EACH	BREAKAWAY PEDESTAL POLE ANY SIZE
8021	2 EACH	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000 FT
8022	1 EACH	REM & DISPOSE MAT & EQUIP PER ASSIGN
8023	2 EACH	TWIN MAST ARM POLE & 50 FT/60 FT MAST ARMS ANY 'T' DIMENSION
8027	EACH	VIDEO DETECTION CAMERA & CABLE UP TO 500 FT
8036	1280 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8037	280 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8038	109 L.F.	WOOD SIGN SUPPORTS UP TO 4 X 6
8040	325 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8042	40 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8044	1 EACH	METERED SERVICE PEDESTAL EMBEDDED
8046	75 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN
8048	10 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8053	2 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8057	70 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8058	500 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8065	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8030	1000 LF	12 PAIR COMMUNICATION CABLE-JELLYFILLED OR SELF SUPPORTING
NEG.	152 LF	WOOD SIGN SUPPORTS 6" X 8"

SIGN DETAILS



WIRING DIAGRAM



WIRING KEY

- A, B, C, D } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E, F, G, H } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- I, J, K } MICROLOOP PROBE LEAD-IN
- L } 12-PAIR COMMUNICATION CABLE (JELLY-FILLED)
- M } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- N, O, P } 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- ML - MICROLOOP PROBE SET
- PT - PROPOSED UNDERGROUND TELEPHONE SERVICE
- PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE
- + - 3/4 IN. X 10 FT. GROUND ROD

PHASE CHART

	1	2	3	4	5	6	7
PHASE 2 + 6	G	G	G	G	R	R	R
2 + 6 CHANGE	Y	Y	Y	Y	R	R	R
PHASE 4	R	R	R	R	G	G	G
4 CHANGE	R	R	R	R	Y	Y	Y
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLR	FLR	FLR

TOD NO: AX142-22
SHA NO: FR552A56/BS6
MD 75@ MD80

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 80 (Fingerboard Road) and
MD 75 (Green Valley Road)

GENERAL INFORMATION SHEET

SCALE: NONE	ADVERTISED DATE: 7/14/2008	CONTRACT NO.: AX1425185
DESIGNED BY: S. Bloss	COUNTY: Frederick	
DRAWN BY: S. Bloss	LOGMILE: 10008010.16	
CHECKED BY: N. Leary	TIMS NO.: 1903	
F.A.P. NO.:	TOD NO.:	
TS NO. 4667	DRAWING TSP-6 OF 6	SHEET NO. 6 OF 6

WR&A
Whitman, Reardon and Associates, LLP
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