

**PROJECT DESCRIPTION**

**I. GENERAL**

THIS PROJECT INVOLVES THE INSTALLTION OF A BOLLARD ACTIVATED HAZARD IDENTIFICATION BEACON FOR A PEDESTRIAN CROSSING. THE LOCATION IS IN A SCHOOL ZONE ALONG U.S. 29 CROSSING THE RAMP TO I-495 EASTBOUND IN MONTGOMERY COUNTY.

**SPECIAL NOTES**

- THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

**PROJECT CONTACTS:**

MR. LEE STARKLOFF, ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 513-7358

MR. DENNIS MCMAHON, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION  
PHONE: (301) 513-7336

MR. WAYNE MOWDY, ASSISTANT DISTRICT ENGINEER- MAINTENANCE  
PHONE: (301) 513-7304

MR. AUGIE REBISH, UTILITY ENGINEER  
PHONE: (301) 513-7350

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

MR. ROBERT GONZALES, MONTGOMERY COUNTY TMC  
PHONE: (240) 777-8761

MR. CURTIS FASICK, LIGHTGUARD SYSTEMS INC. SALES REPRESENTATIVE  
PHONE: (703) 304-5463 OR (703)-406 9013

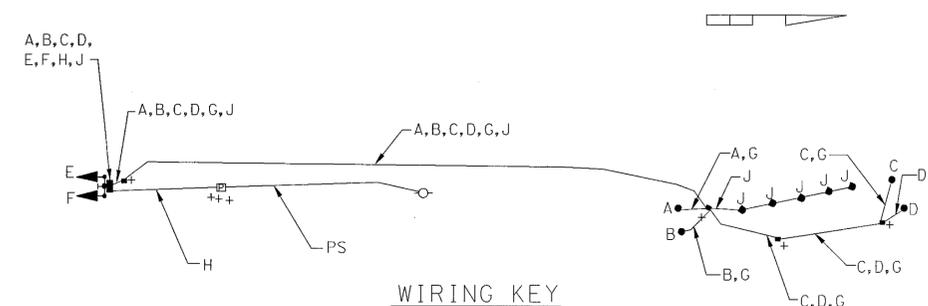
MR. ED RODENHIZER, SIGNAL OPERATIONS  
PHONE: (410) 787-7652

MR. SONNY BAILEY, SIGN OPERATIONS  
PHONE: (410) 787-7676

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION		
ITEM NO.	QUANTITY	DESCRIPTION
9012	1 EA	[UPDATED] 2 CIRCUIT FLASHER W 120V RELAY
9037	1 EA	[UPDATED] CABINET "G" TYPE POLE MOUNT
9571	15 SF	[UPDATED] SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR		
ITEM NO.	QUANTITY	DESCRIPTION
1001	2 EA	MAINTENANCE OF TRAFFIC
2001	1.5 CY	CLASS 2 EXCAVATION
2002	5 CY	TEST PIT EXCAVATION
6004	100 SF	4 INCH CONCRETE SIDEWALK
8000	1 EA	NEG - APPROVED - FURNISH AND INSTALL POWER CONTROL UNIT
8000	4 EA	NEG - APPROVED - FURNISH AND INSTALL BOLLARD ACTIVATION UNIT
8000	5 EA	NEG - APPROVED - FURNISH AND INSTALL LIGHT 14 INCH IRWL6B-HD14
8000	2 EA	NEG - APPROVED - FURNISH AND INSTALL SPARE LED
8001	2 CY	CONCRETE FOUNDATION
8018	1 EA	PED POLE (ANY SIZE)
8019	1 EA	REM & DISPOSE MAT & EQUIP PER ASSIGN
8030	400 LF	NO. 6 AWG STANDARD BARE COPPER GROUND WIRE
8036	40 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8038	60 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8039	100 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT- TRENCHED
8040	65 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8044	5 LF	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8045	1 EA	METERED SERVICE PEDESTAL
8047	350 LF	ELECTRICAL CABLE 1- CONDUCTOR NO. 4 AWG-THHN/THWN
8048	240 LF	ELECTRICAL CABLE 1- CONDUCTOR NO. 8 AWG-THHN/THWN
8053	4 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8056	15 SF	INSTALL OVERHEAD SIGN
8072	1 EA	CONNECTOR KIT - TYPE I
8073	1 EA	CONNECTOR KIT - TYPE II
8074	7 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
8075	2 EA	8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8083	50 LF	ELECTRICAL CABLE - 3 CONDUCTOR NO. 14 AWG
8085	1300 LF	ELECTRICAL CABLE - 7 CONDUCTOR NO. 14 AWG
8087	1050 LF	LOOP WIRE ENCASED IN FLEXIBLE TUBING NO. 14 AWG
8088	50 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)
8094	1 EA	INSTALL CONTROLLER AND CABINET - POLE MOUNT

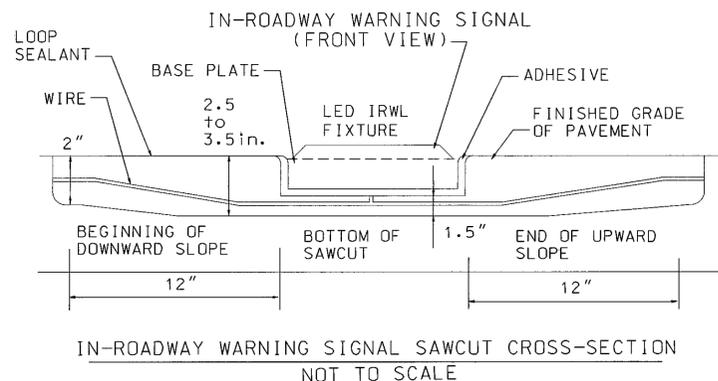
C. MATERIAL TO BE REMOVED AND RETURNED TO SHA  
NONE



**WIRING KEY**

- A,B,C,D } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E,F } 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- G } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- H } 3 - 1/C NO. 8 AWG
- J } (3) PIECES OF 1 CONDUCTOR (NO. 14 AWG) LOOP WIRE ENCASED IN SEPARATE 1/4 IN FLEXIBLE TUBING.
- + - 3/4 IN. x 10 FT. GROUND ROD
- PS - POWER SERVICE UNDERGROUND

NOTE:  
CONTRACTOR SHALL REFER TO LIGHTGUARD INSTALLATION MANUAL FOR FURTHER INSTRUCTIONS FOR WIRING HIGHWAY IN-ROAD LIGHTING SYSTEM.



IN-ROADWAY WARNING SIGNAL SAWCUT CROSS-SECTION  
NOT TO SCALE

EQUIPMENT LEGEND	
●	PEDESTRIAN BOLLARD SENSOR
—	EXISTING
- - -	PROPOSED
UTILITY LEGEND	
SD	STORM DRAIN
G	GAS MAIN
W	WATER MAIN
S	SEWER MAIN
E	ELECTRIC CABLES
A	AERIAL CABLES
T	TELEPHONE CABLES

SHA#: MDC80A26/803 TD#: AT356-08

**MARYLAND DOT - STATE HIGHWAY ADMINISTRATION**  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION  
U.S. 29 NORTHBOUND (COLEVILLE ROAD)  
@ RAMP TO I-495 EAST  
SILVER SPRING, MARYLAND

DRAWN BY: D. EBY	F.A.P. NO. AUGUST, 2004	TS NO. 434A-CF	SHEET NO.
CHECKED BY: M. RUCKER	S.H.A. NO. AT3565185	T.J.M.S. NO.	
SCALE: 1"=20'	COUNTY: MONTGOMERY	F835	
DATE: MARCH, 2004	LOG MILE:		2 OF 2