PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING HAZARD IDENTIFICATION BEACON TO AN ACTIVE DEVICE ON SOUTHBOUND US 1 APPROACHING WHISKEY BOTTOM ROAD IN HOWARD COUNTY. US 1 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATION SHALL REMAIN THE SAME WITH THE ADDITION OF PEDESTRIAN PUSH BUTTONS AND INDICATIONS TO CROSS THE SOUTH LEG OF US 1 CONCURRENTLY WITH EAST AND WEST WHISKEY BOTTOM ROAD THROUGH MOVEMENTS.

CONTROLLER REQUIREMENTS

A TWO-CIRCUIT FLASHER, ASSOCIATED HARNESSES AND A RELAY PACKAGE WILL BE INSTALLED IN A TYPE G CABINET AT THE PROPOSED HIB LOCATION. THE SHA SIGNAL SHOP WILL INSTALL THE RELAY PACKAGE AT THE EXISTING WHISKEY BOTTOM ROAD CONTROLLER.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY SHA.

ITEM NO.	QUANTITY	DESCRIPTION
9003*	1 EA	[UPDATED] (CONT/CAB/ADD) RELAY (110/120 VOLT) 11 PIN
9012	1 EA	[UPDATED] 2 CIRCUIT FLASHER
9037	1 EA	[UPDATED] CABINET "G" TYPE POLE MOUNT
9571	66 SF	[UPDATED] SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN
		1 EA - W3-3 SIGN (48"X48") POLE MOUNT
		1 EA - W3-3(2) SIGN (120"X60") MAST ARM MOUNT.

* TO BE INSTALLED BY SHA

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR
ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO OOTS FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
2002	6 CY	TEST PIT EXCAVATION
8001	7 CY	CONCRETE FOUNDATION
8002	2 EA	12 INCH PED SIG HEAD SECTION
8013	2 EA	PED POLE (ANY SIZE)
8014	1 EA	REMOVE AND DISPOSE MATERIAL AND EQUIPMENT PER ASSIGNEMENT
8022	1820 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8028	193 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8029	200 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8031	950 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8034	336 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
8036	6 LF	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8038	1 EA	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS
8042	2 EA	MICROLOOP PROBE, 1000 FOOT LEAD IN CABLE
8045	10 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8058	1 EA	STEEL POLE WITH A SINGLE 60 FOOT MAST ARM
8063	1700 LF	12 PAIR COMMUNICATION CABLE, SELF SUPPORTING (UNDERGROUND)
8069	3 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
8071	2 EA	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8077	140 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8078	150 LF	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
8083	200 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)
8084	2 EA	PUSHBUTTON AND SIGN
8089	1 EA	INSTALL CONTROLLER AND CABINET - POLE MOUNT
8091	1 EA	CONDUIT BEND IN EXISTING FOUNDATION (ANY SIZE)

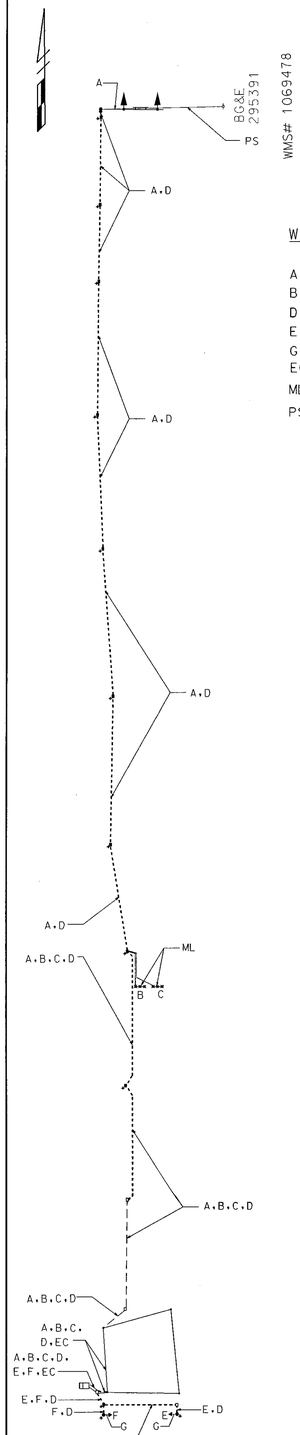
EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

EQUIPMENT LIST "D"

ALL EQUIPMENT REMOVED AND NOT RETURNED TO SHA WILL BECOME THE PROPERTY OF THE CONTRACTOR.



WIRING DIAGRAM

A = 12-PAIR COMMUNICATION CABLE
B,C = MICRO-LOOP PROBE LEAD-IN
D = STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
E,F = 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
G = 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
EC = EXISTING CABLE
ML = MICRO-LOOP PROBE
PS = OVERHEAD POWER SOURCE

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	33-34
Phase 1 & 5	◄G-R	◄G-R	R	◄G-R	◄G-R	R	R	R	R	R	R	R	DW
1 & 5 Change	THE CONTROLLER MAY SKIP TO PHASES 1 & 6 OR 2 & 5 OR 2 & 6												
Phase 1 & 6	G	G	G	R	R	R	R	R	R	R	R	R	DW
1 & 6 Change	◄Y-G	◄Y-G	G	R	R	R	R	R	R	R	R	R	DW
Phase 2 & 5	R	R	R	◄G-G	◄G-G	G	R	R	R	R	R	R	DW
2 & 5 Change	R	R	R	◄Y-G	◄Y-G	G	R	R	R	R	R	R	DW
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	DW
2 & 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW
Phase 3 & 7	R	R	R	R	R	R	◄G-R	◄G-R	R	◄G-R	◄G-R	R	DW
3 & 7 Change	THE CONTROLLER MAY SKIP TO PHASES 3 & 8 OR 4 & 7 OR 4 & 8												DW
Phase 3 & 8	R	R	R	R	R	R	R	R	R	◄G-G	◄G-G	G	DW
3 & 8 Change	R	R	R	R	R	R	R	R	R	◄Y-G	◄Y-G	G	DW
Phase 4 & 7	R	R	R	R	R	R	◄G-G	◄G-G	G	R	R	R	DW
4 & 7 Change	R	R	R	R	R	R	◄Y-G	◄Y-G	G	R	R	R	DW
Phase 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW
4 & 8 Change	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW
4 & 8 Alt.	R	R	R	R	R	R	G	G	G	G	G	G	WK
Ped. Clear	R	R	R	R	R	R	G	G	G	G	G	G	FL/DW
4 & 8 Alt. Change	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK

EMERGENCY VEHICLE PRE-EMPTION

Pre-Emption Phase 2 & 5	R	R	R	◄G-G	◄G-G	G	R	R	R	R	R	R	DW
Pre-Emption Clearance	R	R	R	◄Y-G	◄Y-G	G	R	R	R	R	R	R	DW
Phase 2 & 6 Normal Operation	G	G	G	G	G	G	R	R	R	R	R	R	DW

PROJECT CONTACTS

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: 301-624-8140

MR. JAMES BUCKALEW
DISTRICT UTILITY ENGINEER
PHONE: 301-624-8115

MR. DAVE COYNE
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: 301-624-8105

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: 410-787-6730

MR. EDWARD RODENHIZER.
CHIEF, SHA - TRAFFIC SIGNAL SHOP
PHONE: 410-787-7650

THE POWER COMPANY REPRESENTATIVE IS:
MR. DOUG EDWARDS
BALTIMORE GAS & ELECTRIC COMPANY
7317 PARKWAY DRIVE SOUTH
HANOVER, MD 21076
PHONE: 410-859-9041

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET

US 1 AT WHISKEY BOTTOM ROAD

SHA #HO.995A5A/B5A TOD #: AT358-26

DRAWN BY: JWB	F.A.P. NO.	T.S. NO. 791-K GI	SHEET NO.
CHECKED BY: AKB	S.H.A. NO.		
SCALE: NONE	COUNTY: HOWARD	T.I.M.S. NO. F765	OF
DATE: NOVEMBER, 2003	LOG MILE: 13000100.97		