PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF U.S. 40 AND LEWIS LANE IN HARFORD COUNTY, MARYLAND. U.S. 40 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE U.S. 40 APPROACHES OPERATING CONCURRENTLY AND THE LEWIS LANE APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE LEFT-TURN PHASING IS PROVIDED FOR EASTBOUND AND WESTBOUND U.S. 40 APPROACHES.

EMERGENCY PRE-EMPTION IS PROVIDED ON THE LEWIS LANE APPROACHES

AN ALTERNATE PEDESTRIAN PHASE WILL BE PROVIDED ACROSS EAST LEG OF U.S. 40.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED. THE CONTROLLER WILL BE RETROFITTED TO OPERATE VIDEO DETECTION EQUIPMENT AND APS EQUIPMENT.

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.

APS MESSAGES

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

US 40 (PULASKI HIGHWAY EB) AND LEWIS LANE- EAST LEG

INTERSECTION WITH ANGLED CROSSING

WAIT: "WAIT TO CROSS PULASKI AT LEWIS. CROSSWALK ANGLES RIGHT. WAIT." **

WALK: RAPID TICK

US 40 (PULASKI HIGHWAY WB) AND LEWIS LANE- EAST LEG

INTERSECTION WITH ANGLED CROSSING

WAIT: "WAIT TO CROSS PULASKI AT LEWIS. CROSSWALK ANGLES LEFT. WAIT." **

WALK: RAPID TICK

* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'
** MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. ERIN KUHN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 229-2381

MR. ANDRE FUTRELL
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 229-2361

MR. MIKE PASQUARIELLO
DISTRICT UTILITY ENGINEER
PHONE: (410) 321-2841

MR. ROBERT SNYDER
ASSISTANT CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7631

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

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

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-104.04-01 (SHOULDER WORK)
STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE)
STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE)
STANDARD NO. MD-104.04-07 (CENTER LANE CLOSURE)
STANDARD NO. MD-104.02-09 (FLAGGING OPERATION)
STANDARD NO. MD-104.02-13 (INTERSECTION FLAGGING OPERATION)
STANDARD NO. MD-104.04-13 (LEFT TURN BAY CLOSURE)
STANDARD NO. MD-104.04-15 (INTERSECTION LEFT LANE, TURN BAY)

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9571	4 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF (POLE MOUNT) :
		- 4 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS PULASKI HIGHWAY"

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

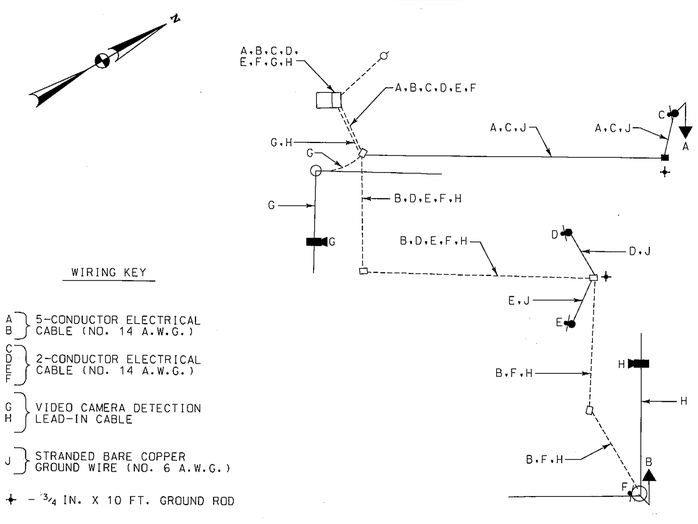
ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2002	3 C.Y.	TEST PIT EXCAVATION
5003	220 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5004	220 L.F.	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
8002	1 EACH	2 WIRE CENTRAL CONTROL UNIT
8008	4 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8009	3 EACH	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8016	2 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8024	1 EACH	REM & DISPOSE MAT & EQUIP PER ASSIGN
8029	2 EACH	VIDEO DETECTION CAMERA & CABLE UP TO 500 FT
8038	80 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8042	10 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8044	130 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8048	1 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8055	1000 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8057	510 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

WIRING DIAGRAM



WIRING KEY

A, B — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

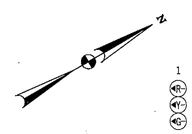
C, D, E, F — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

G, H — VIDEO CAMERA DETECTION LEAD-IN CABLE

J — STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

⏚ - 3/4 IN. X 10 FT. GROUND ROD

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 AND 5	←G-	←G-	R	R	←G-	←G-	R	R	R	R	R	R	R	R	DW	DW
1 AND 5 CHANGE	PHASE 1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5 OR PHASE 2 + 6															
PHASE 1 AND 6	←G-	←G-	G	G	←R-	←R-	R	R	R	R	R	R	R	R	DW	DW
1 AND 6 CHANGE	←Y-	←Y-	G	G	←R-	←R-	R	R	R	R	R	R	R	R	DW	DW
PHASE 2 AND 5	←R-	←R-	R	R	←G-	←G-	G	G	R	R	R	R	R	R	DW	DW
2 AND 5 CHANGE	←R-	←R-	R	R	←Y-	←Y-	G	G	R	R	R	R	R	R	DW	DW
PHASE 2 AND 6	←R-	←R-	G	G	←R-	←R-	G	G	R	R	R	R	R	R	DW	DW
2 AND 6 CHANGE	←R-	←R-	Y	Y	←R-	←R-	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 4 AND 8	←R-	←R-	R	R	←R-	←R-	R	R	G	G	G	G	G	G	DW	DW
4 AND 8 CHANGE	←R-	←R-	R	R	←R-	←R-	R	R	Y	Y	Y	Y	Y	Y	DW	DW
PHASE 4 AND 8 ALT	←R-	←R-	R	R	←R-	←R-	R	R	G	G	G	G	G	G	W/K	W/K
PED CLEARANCE	←R-	←R-	R	R	←R-	←R-	R	R	G	G	G	G	G	G	FL/DW	FL/DW
4 AND 8 ALT CHANGE	←R-	←R-	R	R	←R-	←R-	R	R	Y	Y	Y	Y	Y	Y	DW	DW
EMERGENCY PER-EMPTION 1	←R-	←R-	R	R	←R-	←R-	R	R	R	R	R	G	G	G	DW	DW
	←R-	←R-	R	R	←R-	←R-	R	R	R	R	R	Y	Y	Y	DW	DW
EMERGENCY PER-EMPTION 1	←R-	←R-	R	R	←R-	←R-	R	R	G	G	G	R	R	R	DW	DW
	←R-	←R-	R	R	←R-	←R-	R	R	Y	Y	Y	R	R	R	DW	DW
FLASHING OPERATION	←FL/R	←FL/R	FL/Y	FL/Y	←FL/R	←FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK

TOD NO: XY125-04
SHA NO: HA400B52
US 40 @ Lewis Lane

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

US 40 (PULASKI HIGHWAY) AND LEWIS LANE

HAVRE DE GRACE, MARYLAND

WHITMAN, REQUARDT & ASSOCIATES, LLP
801 South Caroline Street, Baltimore, Maryland 21231

GENERAL INFORMATION SHEET

SCALE NONE | DATE 03/15/2012 | CONTRACT NO. XY1255185

DESIGNED BY B. DONOWAY | COUNTY HARFORD
DRAWN BY B. DONOWAY | LOGMILE 12004017.17
CHECKED BY N. Leary | TIMS NO. L 170 -
F.A.P. NO. | TOD NO.

TS NO. 1836 D | DRAWING TSP-2 OF 2 | SHEET NO. 2 OF 2

PLOTTED: March 14, 2012
FILE: N:\31669-203\CADD\pSG-N002_L170.dgn

BY: bdonoway