PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 2 (RITCHIE HIGHWAY) AND JUMPERS HOLE ROAD IN ANNE ARUNDEL COUNTY, MARYLAND. MD 2 (GOVERNOR RITCHIE HIGHWAY) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATION WILL REMAIN THE SAME.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

MD 2 (RITCHIE HIGHWAY) AND JUMPERS HOLE ROAD - NORTH LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS GOVERNOR RITCHIE AT JUMPERS HOLE, WAIT." *

WALK: RAPID TICK

JUMPERS HOLE ROAD AND MD 2 (RITCHIE HIGHWAY) - EAST LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS JUMPERS HOLE AT GOVERNOR RITCHIE, 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.

CONTROLLER REQUIREMENTS

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

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	4R 4Y 4G	4R 4Y 4G	R Y G	R Y G	4R 4Y 4G	4R 4Y 4G	R Y G	R Y G	R Y G 4G	R Y G	R Y G 4G	R Y G 4G	R Y G	R Y G 4G	W 20	W 20	W 20	W 20
PHASE 1 + 5	←G—	←G—	R	R	←G—	←G—	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 + 5 CHANGE	PHASE 1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5 OR PHASE 2 + 6																	
PHASE 1 + 6	←G—	←G—	G	G	←R—	←R—	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 + 6 CHANGE	←Y—	←Y—	G	G	←R—	←R—	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 5	←R—	←R—	R	R	←G—	←G—	G	G	R	R	R	R	R	R	DW	DW	DW	DW
2 + 5 CHANGE	←R—	←R—	R	R	←Y—	←Y—	G	G	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 6	←R—	←R—	G	G	←R—	←R—	G	G	R	R	R	R	R	R	WK	WK	DW	DW
2 + 6 CHANGE	←R—	←R—	Y	Y	←R—	←R—	Y	Y	R	R	R	R	R	R	FL/DW	FL/DW	DW	DW
PHASE 3	←R—	←R—	R	R	←R—	←R—	R	R	G G	G	G G	R	R	R	DW	DW	DW	DW
3 CHANGE	←R—	←R—	R	R	←R—	←R—	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW
PHASE 4	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	G G	G	G G	DW	DW	DW	DW
4 CHANGE	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW
PHASE 4 ALT	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	G G	G	G G	DW	DW	WK	WK
PED CLEARANCE	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	G G	G	G G	DW	DW	FL/DW	FL/DW
4 ALT CHANGE	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	Y	Y	Y	DW	DW	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	DARK	DARK
EMERGENCY PRE-EMPTION																		
PRE-EMPTION 1	←G—	←G—	G	G	←R—	←R—	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PRE-EMPTION 1 CLEARANCE	←Y—	←Y—	G	G	←R—	←R—	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PRE-EMPTION 2	←R—	←R—	R	R	←G—	←G—	G	G	R	R	R	R	R	R	DW	DW	DW	DW
PRE-EMPTION 2 CLEARANCE	←R—	←R—	R	R	←Y—	←Y—	G	G	R	R	R	R	R	R	DW	DW	DW	DW

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9086	1 EACH	VIDEO INTERFACE EQUIPMENT: 1-8 CAMERAS
9571	169 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
	- 2 EACH	D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT
	- 2 EACH	M1-4(5) (78 IN. x 36 IN.) - MAST ARM MOUNT
	- 4 EACH	R3-5(L) (30 IN. x 36 IN.) - MAST ARM MOUNT
	- 2 EACH	R3-6(L) (30 IN. x 36 IN.) - MAST ARM MOUNT
	- 2 EACH	R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS GOV. RITCHIE HWY"
	- 2 EACH	R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS JUMPERS HOLE RD"
	- 1 EACH	ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 2, RIGHT ARROW" (24 IN. x 51 IN.) - POLE MOUNT
	- 1 EACH	ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 2, LEFT ARROW" (36 IN. x 75 IN.) - POLE MOUNT
	- 1 EACH	ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 2, RIGHT ARROW" (24 IN. x 51 IN.) - POLE MOUNT
	- 1 EACH	ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 2, LEFT ARROW" (36 IN. x 75 IN.) - POLE MOUNT
	- 1 EACH	R1-2 SIGN (36 IN x 36 IN. x 36 IN.) - GROUND MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

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-104.04-13 (LEFT TURN BAY CLOSURE)
STANDARD NO. MD-104.04-15 (INTERSECTION LEFT LANE, TURN BAY)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-1019

MR. JOHN S. MAYS
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 841-1013

MR. MIKE HUBER
DISTRICT UTILITY ENGINEER
PHONE: (410) 841-1039

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

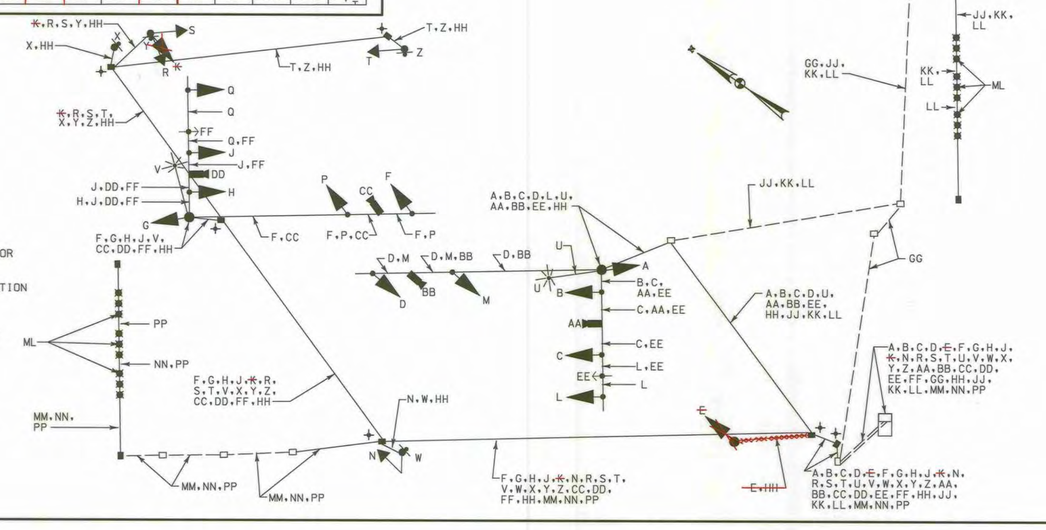
EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1003	3 EACH	MAINTENANCE OF TRAFFIC
2001	15 C.Y.	CLASS 2 EXCAVATION
2002	2 5 ~~6~~ C.Y.	TEST PIT EXCAVATION
5002	435 L.F.	5" HEAT APPLIED WHITE OR YELLOW PERMANENT PAVEMENT MARKINGS
5003	735 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	685 L.F.	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	120 L.F.	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	450 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	2800 S.F.	5 INCH CONCRETE SIDEWALK
6003	160 S.F.	DETECTABLE WARNING SURFACES FOR CURB RAMPS
8001	2 38 ~~46~~ EACH	12 INCH LED SIGNAL HEAD SECTION
8002	1 EACH	2 WIRE CENTRAL CONTROL UNIT
8005	1 EACH	ADJUST HANDHOLE TO GRADE INCLUDING COLLAR
8007	2 EACH	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP & LUMINAIRE
8008	4 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8009	2 4 ~~5~~ EACH	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8016	4 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8023	6 EACH	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000'
8024	1 EACH	REMOVE & DISPOSE MAT & EQUIP PER ASSIGN
8027	2 EACH	TWIN MAST ARM POLE & 50 FOOT/70 FOOT MAST ARM
8028	4 EACH	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
8031	600 L.F.	4 CONDUCTOR OPTICOM CABLE
8034	595 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8036	2 260 ~~280~~ L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8037	34 L.F.	WOOD SIGN SUPPORTS UP TO 4' X 6'
8038	179 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8040	650 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8044	10 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8049	2 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8047	2 EACH	OPTICOM NO. 721 DETECTOR EYE
8051	1485 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8053	2785 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8054	2 2400 ~~2930~~ L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8055	600 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TC

REVISION NO. 2
REMOVE FAR-SIDE SIGNAL HEADS
4/28/2011

WIRING DIAGRAM



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

MD 2 (GOV. RITCHIE HIGHWAY) AT JUMPERS HOLE ROAD
GLEN BURNIE, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE ADVERTISED DATE 12/20/2010 CONTRACT NO. XX3535168

DESIGNED BY L.WAESCHE
DRAWN BY L.WAESCHE
CHECKED BY
F.A.P. NO.

COUNTY ANNE ARUNDEL
LOGMILE 02000233.27
TIMS NO. K594
TOD NO.

TS NO. 155K | DRAWING TSP-3 OF 3 | SHEET NO. 3 OF 3

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

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BY: lwaesche