PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 2 (RITCHIE HIGHWAY) AND AQUAHART ROAD/FITZALLEN ROAD IN ANNE ARUNDEL COUNTY, MARYLAND.MD 2 (RITCHIE HIGWAY 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 AQUAHART ROAD/FITZALLEN ROAD - EAST LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS RITCHIE AT AQUAHART AND FITZALLEN, 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

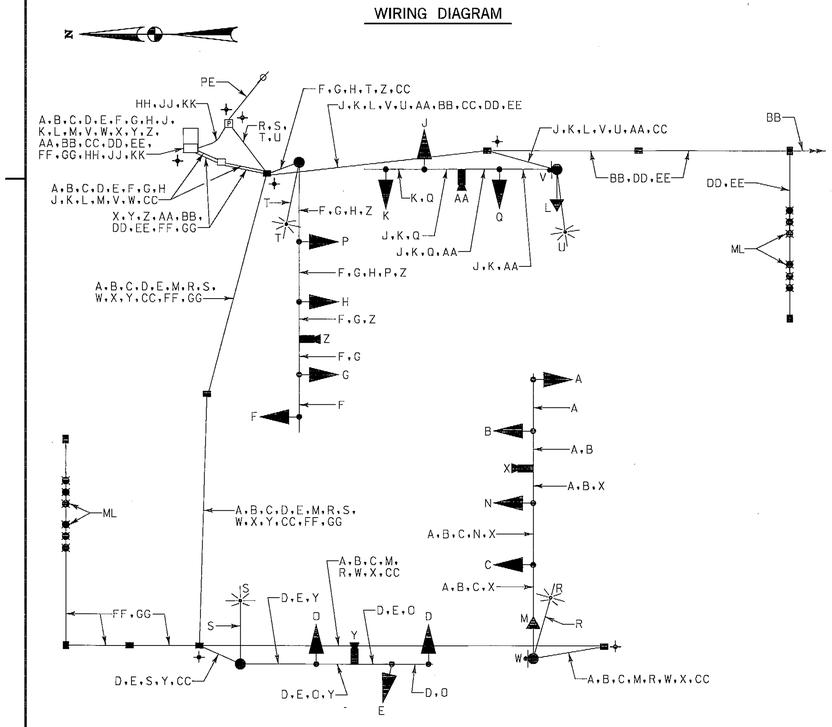
THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED. THE CONTROLLER WILL BE RETROFITTED TO OPERATE VIDEO DETECTION EQUIPMENT.

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)

WIRING DIAGRAM



WIRING KEY

A F G H J C D E K — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

L M N O P Q — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

R S T U — 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE

V W — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) -

X Y Z AA — VIDEO CAMERA DETECTION LEAD-IN CABLE

BB — 12-PAIR COMMUNICATION CABLE (JELLY-FILLED)

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

DD EE FF GG — MICROLOOP PROBE LEAD-IN

HH JJ KK — 1-CONDUCTOR ELECTRICAL CABLE (NO. 8 A.W.G.)

PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE

ML - MICROLOOP PROBE SET

⏚ - 3/4 IN. X 10 FT. GROUND ROD

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	118 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
	- 4 EACH	D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT
	- 1 EACH	R3-5(L) (30 IN. x 36 IN.) - MAST ARM MOUNT
	- 1 EACH	R3-5(R) (30 IN. x 36 IN.) - MAST ARM MOUNT
	- 2 EACH	R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS RITCHIE HIGHWAY"
	- 1 EACH	ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 2, RIGHT ARROW" (24 IN. x 51 IN.) - POLE MOUNT
	- 1 EACH	ASSOCIATED SHIELD ASSEMBLY "NORTH, MD , 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

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

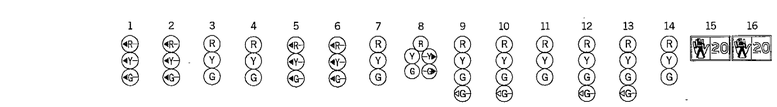
MS. KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-1019

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

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 + 5	←G—	←G—	R	R	←G—	←G—	R	R	R	R	R	R	R	R	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
1 + 6 CHANGE	←Y—	←Y—	G	G	←R—	←R—	R	R	R	R	R	R	R	R	DW	DW
PHASE 2 + 5	←R—	←R—	R	R	←G—	←G—	G	G	R	R	R	R	R	R	DW	DW
2 + 5 CHANGE	←R—	←R—	R	R	←Y—	←Y—	G	G	R	R	R	R	R	R	DW	DW
PHASE 2 + 6	←R—	←R—	G	G	←R—	←R—	G	G	R	R	R	R	R	R	DW	DW
2 + 6 CHANGE	←R—	←R—	Y	Y	←R—	←R—	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 3	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	←G—	←G—	G	DW	DW
3 CHANGE	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	Y	Y	Y	DW	DW
PHASE 4	←R—	←R—	R	R	←R—	←R—	R	R→G	←G	←G	G	R	R	R	DW	DW
4 CHANGE	←R—	←R—	R	R	←R—	←R—	R	R→Y	Y	Y	Y	R	R	R	DW	DW
PHASE 4 ALT	←R—	←R—	R	R	←R—	←R—	R	R→G	←G	←G	G	R	R	R	WK	WK
PED CLEARANCE	←R—	←R—	R	R	←R—	←R—	R	R→Y	G	G	G	R	R	R	FL/DW	FL/DW
4 ALT CHANGE	←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

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1003	2 EACH	MAINTENANCE OF TRAFFIC
2001	2 C.Y.	CLASS 2 EXCAVATION
2002	5 C.Y.	TEST PIT EXCAVATION
5003	440 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	580 L.F.	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	36 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	450 S.F.	5 INCH CONCRETE SIDEWALK
6003	20 S.F.	DETECTABLE WARNING SURFACES
8001	48 EACH	12 INCH LED SIGNAL HEAD SECTION
8002	1 EACH	2 WIRE CENTRAL CONTROL UNIT
8007	4 EACH	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP & LUMINAIRE
8008	2 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8012	1 EACH	EMBEDDED METERED SERVICE PEDESTAL
8016	2 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8019	1 EACH	MAST ARM POLE & 50' MAST ARM ANY 'T' DIMENSION
8021	3 EACH	MAST ARM POLE & 70 FT MAST ARM ANY 'T' DIMENSION
8023	4 EACH	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000'
8024	1 EACH	REM & DISPOSE MAT & EQUIP PER ASSIGN
8028	4 EACH	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
8030	1100 L.F.	12 - PAIR COMMUNICATION CABLE, OVERHEAD/UNDERGROUND
8034	375 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8036	1150 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8037	49 L.F.	WOOD SIGN SUPPORTS UP TO 4 X 6
8038	146 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8040	475 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8043	90 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG - THHN/THWN
8044	11 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8049	1 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8051	485 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8053	620 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8054	2590 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8055	860 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TC

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

MD 2 (Ritchie Highway) and Aquahart Road/Fitzallen Road
Glen Burnie, MD

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

GENERAL INFORMATION SHEET

SCALE NONE ADVERTISED DATE 11/02/2010 CONTRACT NO. XX3535168

DESIGNED BY S. Bloss
DRAWN BY S. Bloss
CHECKED BY N. Leary
F.A.P. NO.
COUNTY Anne Arundel
LOGMILE 02000235.59
TIMS NO. K592
TOD NO.

TS NO. 4768D | DRAWING TSP-4 OF 4 | SHEET NO. 4 OF 4

PLOTTED: 11-04-2010
FILE: N:\31869-087\CADD\pSG-N004_mdf2.dgn

BY: sbloss