PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF TWO EXISTING TRAFFIC CONTROL SIGNALS AT THE INTERSECTIONS OF MD 2-4(SOLOMONS ISLAND RD) AND MD 231 (HALLOWING POINT RD)/CHURCH STREET, AND MD 2-4 (SOLOMONS ISLAND ROAD) AND OLD FIELD LANE IN CALVERT COUNTY. MD 2-4 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

1. MD 2-4 (SOLOMONS ISLAND ROAD) AND MD 231 (HALLOWING POINT ROAD)

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL TRAFFIC ACTUATED MODE WITH THE MD 2-4 APPROACHES OPERATING CONCURRENTLY AND THE MD 231 APPROACHES OPERATING SPLIT.

ALTERNATE PEDESTRIAN PHASE WILL BE PROVIDED ACROSS THE NORTH LEG OF MD 2-4 (SOLOMONS ISLAND ROAD) ACROSS BOTH LEGS OF MD 231 (HALLOWING POINT RD).

2. MD 2-4 (SOLOMONS ISLAND ROAD) AND OLD FIELD LANE.

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL ACTUATED MODE WITH THE MD 2-4 APPROACHES OPERATING CONCURRENTLY AND THE OLD FIELD LANE APPROACHES OPERATING CONCURRENTLY.

CONTROLLER REQUIREMENTS

1. MD 2-4 (SOLOMONS ISLAND ROAD) AND MD 231 (HALLOWING POINT ROAD)

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO (2) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

2. MD 2-4 (SOLOMONS ISLAND ROAD) AND OLD FIELD LANE.

USE EXISTING BASE MOUNTED CABINET AND CONTROLLER CONTROLLER

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

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-104.04-13 (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:

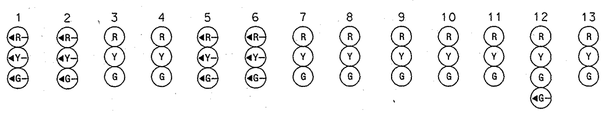
MS. KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-1019

MR. CHUCK E. GEORGE
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 841-1013

MR. JOHN S. MAYS
DISTRICT UTILITY ENGINEER
PHONE: (410) 841-1039

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

PHASE CHART - MD 2-4 AND OLD FIELD LANE



	1	2	3	4	5	6	7	8	9	10	11	12	13
PHASE 1 + 5	←G—	←G—	R	R	←G—	←G—	R	R	R	R	R	R	R
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
1 CHANGE	←Y—	←Y—	G	G	←R—	←R—	R	R	R	R	R	R	R
PHASE 2 + 5	←R—	←R—	R	R	←G—	←G—	G	G	R	R	R	R	R
5 CHANGE	←R—	←R—	R	R	←Y—	←Y—	G	G	R	R	R	R	R
PHASE 2 + 6	←R—	←R—	G	G	←R—	←R—	G	G	R	R	R	R	R
2 + 6 CHANGE	←R—	←R—	Y	Y	←R—	←R—	Y	Y	R	R	R	R	R
PHASE 4 + 8	←R—	←R—	R	R	←R—	←R—	R	R	G	G	G	G	G
4 + 8 CHANGE	←R—	←R—	R	R	←R—	←R—	R	R	Y	Y	Y	Y	Y
EMERGENCY	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	←G G—	G
PRE-EMPTION	←R—	←R—	R	R	←R—	←R—	R	R	R	R	R	Y	Y
EMERGENCY	←G—	←G—	G	G	←R—	←R—	R	R	R	R	R	R	R
PRE-EMPTION	←Y—	←Y—	G	G	←R—	←R—	R	R	R	R	R	R	R
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

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
971017	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
900000	2 EACH	VIDEO INTERFACE EQUIPMENT: 1-4 CAMERAS
973023	320 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
	- 10 EACH	D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT
	- 8 EACH	R3-5L SIGN (30 IN. x 36 IN.) - MAST ARM MOUNT
	- 2 EACH	R3-6 SIGN (30 IN. x 36 IN.) - MAST ARM MOUNT
	- 6 EACH	R10-3(1) SIGN (9 IN. x 15 IN.) - POLE MOUNT
	- 1 EACH	ASSOCIATED SHIELD ASSEMBLY "NORTH, MD , RIGHT ARROW" (30 IN. x 51 IN.) - POLE MOUNT
	- 2 EACH	ASSOCIATED SHIELD ASSEMBLY "NORTH, MD , LEFT ARROW" (48 IN. x 75 IN.) - POLE MOUNT
	- 2 EACH	ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD , RIGHT ARROW" (30 IN. x 51 IN.) - POLE MOUNT
	- 2 EACH	ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD , LEFT ARROW" (48 IN. x 75 IN.) - POLE MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

EQUIPMENT LIST "B"

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

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
203030	1 EACH	TEST PIT EXCAVATION
585620	520 L.F.	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
585624	270 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
801004	27 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
802501	630 L.F.	NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
805050	1 EACH	WEATHER HEAD, 3 INCH
805115	280 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805118	585 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805125	80 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805135	1815 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805140	125 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
807202	1 EACH	METERED SERVICE PEDESTAL
810601	3 EACH	NONINVASIVE DETECTOR, 500 FOOT LEAD IN CABLE
810605	6 EACH	NONINVASIVE DETECTOR, 1000 FOOT LEAD IN CABLE
811001	22 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813006	160 S.F.	RELOCATE SIGNS FROM EXISTING OVERHEAD STRUCTURES
813015	320 S.F.	INSTALL OVERHEAD SIGN
816001	10 EACH	VIDEO DETECTION CAMERA
816005	5 EACH	CONTROL CABLE, 250 FT. VIDEO DETECTION CAMERA TO CONTROLLER
816010	5 EACH	CONTROL CABLE, 500 FT. VIDEO DETECTION CAMERA TO CONTROLLER
816201	1 EACH	DISCRIMINATOR MODULE, 4 CHANNEL, NO. 764
816215	2 EACH	OPTICOM NO. 721 DETECTOR EYE
818004	2 EACH	10 FOOT BREAKAWAY PEDESTAL POLE
818041	1 EACH	STEEL POLE WITH A SINGLE 60 FT. MAST ARM
818052	4 EACH	STEEL POLE WITH A SINGLE 70 FT. MAST ARM
822002	1780 L.F.	12-PAIR COMMUNICATION CABLE, JELLYFILLED (UNDERGROUND)
831010	5 EACH	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
832017	25 L.F.	CABLE - 1 CONDUCTOR, NO. 4 A.W.G., TYPE USE, 600V
837001	11 EACH	GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH
860284	75 EACH	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860288	475 L.F.	4 CONDUCTOR OPTICOM CABLE
860292	3 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
861105	1420 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G)
861107	1585 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G)
861108	4830 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G)
861116	1220 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G) TC
866103	5 EACH	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
869102	365 L.F.	STEEL SPAN WIRE - 3/8 INCH DIAMETER
871202	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
800000	2 EACH	FURNISH AND INSTALL 40 FT. CLASS II WOOD POLE WITH TWO BACK GUYS
800000	9 EACH	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
800000	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
800000	17 EACH	RELOCATE EXISTING SIGNALS
800000	4 EACH	RELOCATE EXISTING OPTICOM DETECTOR EYE
800000	6 EACH	16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION
800000	6 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION
800000	1 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE UNIT

TSP-7

WR&A
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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 2-4 (SOLOMONS ISLAND RD)
(PRINCE FREDERICK, MD)

DRAWN BY:	B. DONOWAY	F.A.P. NO.		TS NO.	SHEET NO.
CHECKED BY:	N. LEARY	S.H.A. NO.	CA3135170		
SCALE:	NONE	COUNTY:	CALVERT	T.I.M.S. NO.	OF
DATE:	11/28/2006	LOG MILE:			

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