PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF US 1 (RHODE ISLAND AVE) AND 41st PLACE/CHARLES L. ARMENTROUT WAY IN PRINCE GEORGE'S COUNTY. THE EXISTING SIGNAL MODULES SHALL BE REPLACED WITH NEW LED SIGNAL MODULES. PEDESTRIAN SIGNAL HEADS WILL BE REPLACED WITH 16" LED COUNTDOWN PEDESTRIAN HEADS AND AUDIBLE/TACTILE PEDESTRIAN SIGNALS WILL BE INSTALLED. US 1 (RHODE ISLAND AVE) IS ASSUMED TO RUN IN THE NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION

1. THE INTERSECTION OPERATES IN A NEMA EIGHT-PHASE FULLY ACTUATED MODE WITH AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE FOR THE SOUTHBOUND MOVEMENT OF US 1 AND AN EXISTING RIGHT TURN OVERLAP PHASE FOR CHARLES L. ARMENTROUT WAY HEADING NORTH ON US 1. THE US 1 MOVEMENTS OPERATE CONCURRENTLY AND AN ACTUATED AUDIBLE PEDESTRIAN PHASE WILL BE INSTALLED FOR THE SOUTH LEG. THE 41st PLACE AND CHARLES L. ARMENTROUT WAY MOVEMENTS OPERATE CONCURRENTLY.

2. THE EXISTING NEMA SIZE "6" CABINET AND FULL-TRAFFIC-ACTUATED EIGHT PHASE CONTROLLER WITH VIDEO DETECTION EQUIPMENT AND TELEMETRY SHALL REMAIN.

III. APS NOTE

TO CROSS US 1

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON WILL ANNOUNCE "WAIT TO CROSS RHODE ISLAND AT 41st AND CHARLES L. ARMENTROUT."

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADIMISTRATION

ITEM NO.	QUANTITY	DESCRIPTION
9570	5 SF	SHEET ALUMINUM GROUND MOUNTED SIGN 1 EA R4-7 "KEEP RIGHT" (24"X30")
9571	43 SF	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN 4 EA R10-3(1) "PUSH BUTTON TO CROSS RHODE ISLAND AVE" (9"X15") 1 EA M1-5(4) "RHODE ISLAND AVE" "< NORTH, US1, SOUTH >" (78"X36") 1 EA M1-5(4) "RHODE ISLANS AVE" "< SOUTH, US1, NORTH >" (78"X36")

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
1002	620 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS - ANY WIDTH
1003	1 EA	REMOVAL OF EXISTING PAVEMENT LETTERS, SYMBOLS, ARROWS AND NUMBERS
2001	10 CY	CLASS 2 EXCAVATION
2002	2 CY	TEST PIT EXCAVATION
5002	170 LF	F & I 12" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
5003	140 LF	F & I 24" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
6001	145 LF	F & I STANDARD TYPE A COMBINATION CURB & GUTTER, 12" GUTTER PAN 8" DEPTH
6002	455 SF	F & I 5" CONCRETE SIDEWALK
8003	1 EA	F & I 2 WIRE CENTRAL CONTROL UNIT
8010	4 EA	F & I AUDIBLE/TACTILE PEDESTRIAN PUSH BUTTON STATION & SIGN
8011	4 EA	F & I BREAKAWAY PEDESTAL POLE (ANY SIZE)
8014	4 EA	F & I LED 16" COUNTDOWN PEDESTRIAN SIGNAL HEAD
8015	36 EA	F & I LED SIGNAL HEAD MODULES (ANY SIZE)
8016	1 EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8018	2 EA	REMOVE FOUNDATION 12" DEPTH
8027	105 LF	F & I UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8028	46 SF	F & I DETECTABLE WARNING SURFACES
8031	15 LF	F & I WOOD SIGN SUPPORTS 4" x 4"
8033	110 LF	F & I NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8045	5 SF	INSTALL GROUND MOUNTED SIGN
8046	43 SF	INSTALL MAST ARM/POLE MOUNTED SIGN
8055	480 LF	F & I ELECTRICAL CABLE - 2 CONDUCTOR (NO.14 AWG)
8057	500 LF	F & I ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
NEG	1 EA	REMOVE EXISTING TREE STUMP

C. IF THE CABINET IS TO BE REMOVED 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.

CONTACTS

DISTRICT

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OFFICE OF TRAFFIC AND SAFETY

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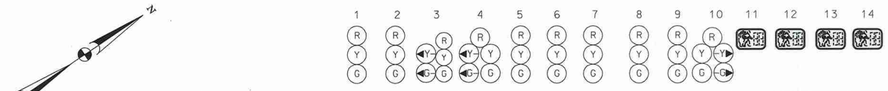
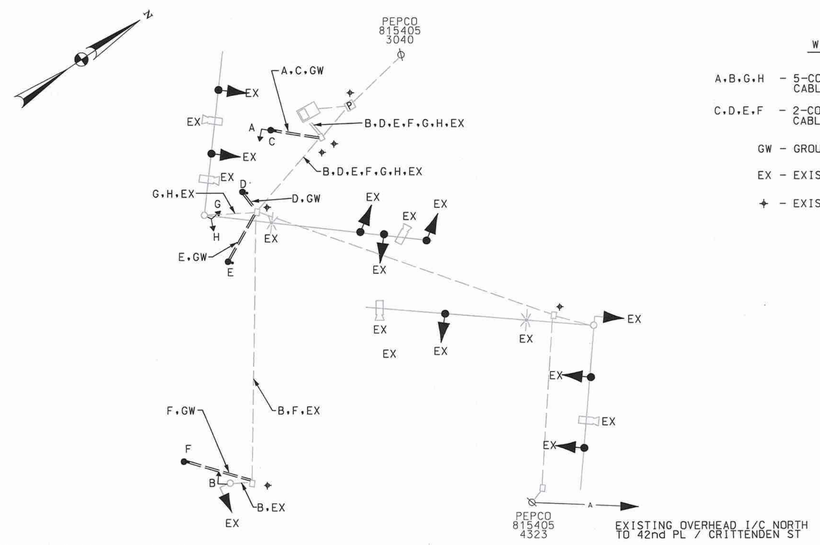
MS. DARLENE EIDE
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 2 & 5	R	R	◄G-/G	◄G-/G	G	R	R	R	R	R/-G►	DW	DW	DW	DW
5 CHANGE	R	R	◄Y-/G	◄Y-/G	G	R	R	R	R	R/-Y►	DW	DW	DW	DW
PHASE 2 & 6	G	G	G	G	G	R	R	R	R	R	DW	DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 & 8 ALT LEAD	R	R	R	R	R	R	R	R	R	R	WK	WK	WK	WK
PHASE 4 & 8 ALT	R	R	R	R	R	G	G	G	G	G	WK	WK	WK	WK
PED CLEARANCE	R	R	R	R	R	G	G	G	G	G	FL/DW	FL/DW	FL/DW	FL/DW
4 & 8 ALT CHANGE	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 & 8	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW
4 & 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW
~~PHASE 4 & 8 ALT~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~G~~	~~G~~	~~G~~	~~G~~	~~WK~~	~~WK~~	~~WK~~	
~~PED CLEARANCE~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~G~~	~~G~~	~~G~~	~~G~~	~~FL/DW~~	~~FL/DW~~	~~FL/DW~~	~~FWKDW~~
~~4 & 8 ALT CHANGE~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~Y~~	~~Y~~	~~Y~~	~~Y~~	~~Y~~	~~DW~~	~~DW~~	~~DW~~	~~DW~~
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

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

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

GW - GROUND WIRE

EX - EXISTING WIRING

✦ - EXISTING GROUND ROD

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

US 1 (RHODE ISLAND AVE) AND 41st PLACE/
CHARLES ARMENTROUT WAY
HYATTSVILLE, MARYLAND

GENERAL INFORMATION PLAN

SCALE 1" = 20' DATE 7 /1 /09 (4/7/10) CONTRACT NO. XX4495185

DESIGNED BY K. PERMISOHN
DRAWN BY M.WAGNER
CHECKED BY D. MACLEAN
FAP NO.

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TIMS NO. J374
TOD NO.

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TS NO. 2545E GI | DRAWING SP -02 OF 2 | SHEET NO. 2 OF 2

PLOTTED: Wednesday, April 07, 2010 AT 10:22 AM
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