

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 650 AND ADELPHI RD./DILSTON RD. IN MONTGOMERY COUNTY. THE WORK IS NECESSITATED BY GEOMETRIC IMPROVEMENTS TO THE INTERSECTION. MD 650 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FIVE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH AN EXCLUSIVE LEFT TURN PHASE FOR S.B. MD 650, CONCURRENT SIDE STREET PHASING AND AN ADELPHI RD. RIGHT TURN OVERLAP PHASE. AN ALTERNATE PEDESTRIAN PHASE WILL BE PROVIDED ACROSS THE SOUTH LEG OF THE INTERSECTION.

CONTROLLER REQUIREMENTS

THE EXISTING EIGHT-PHASE, FULLY-ACTUATED CONTROLLER HOUSED IN A NEMA "6" BASE MOUNTED CABINET WILL BE USED. A 2-WIRE APS CENTRAL CONTROL UNIT WILL BE FURNISHED BY THE CONTRACTOR & INSTALLED BY SHA. IP-BASED VIDEO DETECTION INTERFACE EQUIPMENT WILL BE FURNISHED AND INSTALLED BY MONTGOMERY COUNTY.

SPECIAL NOTES

- MONTGOMERY COUNTY SIGNAL SHOP SHALL INSTALL APS CONTROL UNIT INTO CONTROLLER CABINET. THE APS PUSH BUTTONS SHALL BE PROGRAMMED BY THE MANUFACTURER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND SHALL PROPERLY LABEL EACH CABLE.
- ALL CONTROLLER CABINET WIRING WILL BE PERFORMED BY MONTGOMERY COUNTY FORCES. CONTACT KAMAL HAMUD AT (240) 777-8761 72 HOURS IN ADVANCE OF INTENDED WORK.

APS WILL FUNCTION AS FOLLOWS:

FOR NEW HAMPSHIRE AVENUE

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS NEW HAMPSHIRE AT ADELPHI AND DILSTON, WAIT".

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

FOR ADELPHI ROAD

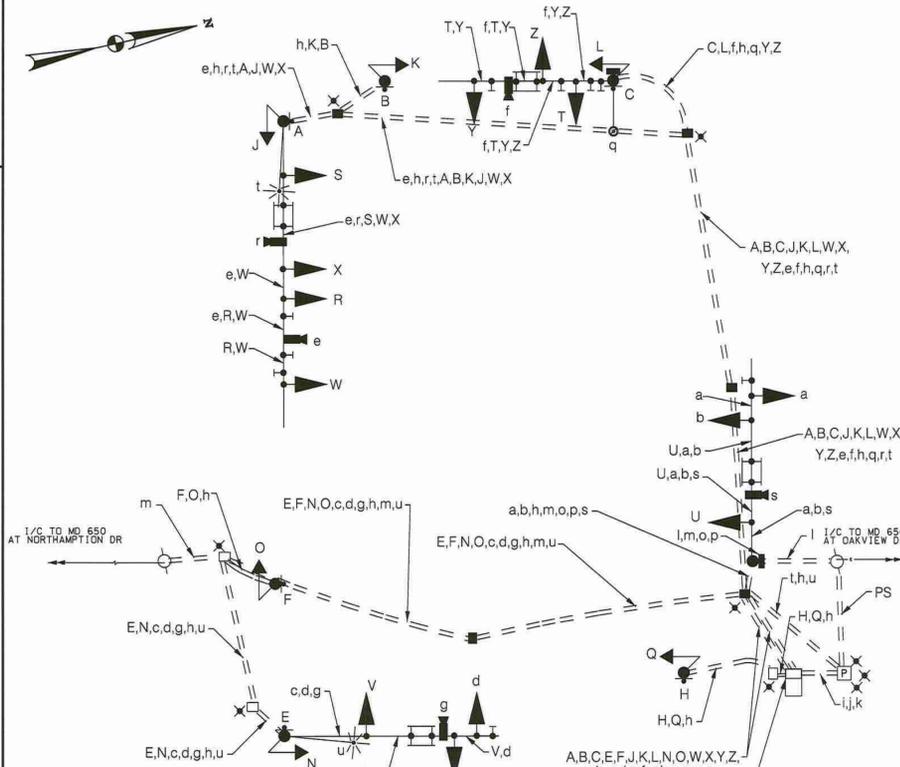
A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS ADELPHI AT NEW HAMPSHIRE, WAIT".

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

FOR DILSTON ROAD

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS DILSTON AT NEW HAMPSHIRE, WAIT".

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



- NOTES:**
- ALL UNUSED CABLE SHALL BE REMOVED
 - THE EXISTING INTERCONNECT CABLES (l AND m) SHALL BE SPliced TO THE PROPOSED INTERCONNECT CABLES (o AND p) IN THE 'G' TYPE POLE MOUNTED CABINET.

WIRING KEY

A,B,C,E,F,H	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	l,m	EXISTING INTERCONNECT CABLE
J,K,L,N,O,Q,R,S,T,U,V	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	o,p	12-PAIR VOICE GRADE INTERCONNECT CABLE
W,X,Y,Z,a,b,c,d	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	q	MONTGOMERY COUNTY CAMERA CABLE
e,f,g,r,s	VIDEO DETECTION CABLE	t,u	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE
h	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)	PS	PROPOSED ELECTRIC SERVICE 3-1/2" # 250 KCMIL
ijk	1-CONDUCTOR ELECTRICAL CABLE (NO. 4)	X	GROUND ROD

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
973023	177 SF	SHEET ALUMINUM SIGNS TO CONSIST OF THE FOLLOWING: 2 EA - D3-1 DUAL FACE SIGN (VAR. X 16") - MAST ARM MOUNT 1 EA - R10-11B SIGN (36" X 36") - MAST ARM MOUNT 4 EA - R3-5(L) SIGN (30" X 36") - MAST ARM MOUNT 2 EA - R3-5(R) SIGN (30" X 36") - MAST ARM MOUNT 2 EA - R3-18 SIGN (36" X 36") - MAST ARM MOUNT 4 EA - M1-5(4) (78" X 36") - MAST ARM MOUNT 6 EA - R10-3(1) (8" X 15") - POLE MOUNTED
900000	1 EA	'G' TYPE POLE MOUNTED CABINET
900000	1 EA	IP-BASED VIDEO DETECTION INTERFACE EQUIPMENT

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
203030	8 CY	TEST PIT EXCAVATION
585621	1500 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	185 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
800000	6 EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	6 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
800000	1 LS	REMOVE & DISPOSE OF EXISTING SIGNAL EQUIPMENT
800000	5 EA	TERRA VIDEO DETECTION CAMERA & CABLE
800000	1 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE FRAME AND COVER & ADJUST TO GRADE
800000	300 LF	DISCONNECT, PULL BACK & REROUTE EXISTING CABLE
800000	2 EA	FURNISH & INSTALL CONDUIT BEND IN EXISTING FOUNDATION
800000	1 EA	RELOCATE EXISTING POLE MOUNTED CABINET
800000	1 EA	INSTALL TYPE G POLE MOUNTED CABINET
800000	250 LF	FURNISH & INSTALL MONTGOMERY COUNTY CAMERA CABLE
800000	1 EA	FURNISH & INSTALL 2-WIRE APS CENTRAL CONTROL UNIT
800000	1 EA	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM (T DIMENSION = 15')
818041	1 EA	STEEL POLE WITH A SINGLE 60 FOOT MAST ARM
800000	230 LF	ELECTRICAL CABLE - 1 CONDUCTOR 250 KCMIL CABLE
801004	19 CY	CONCRETE FOR SIGNAL FOUNDATION
802501	825 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805050	3 EA	WEATHER HEAD, 3 INCH
805125	100 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805135	155 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	95 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805155	435 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
807500	1 EA	EMBEDDED METERED SERVICE PEDESTAL
810010	120 LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THNN/THWN
811001	5 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	177 SF	INSTALL OVERHEAD SIGN
818004	3 EA	10 FOOT BREAKAWAY PEDESTAL POLE
818036	1 EA	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM
818052	1 EA	STEEL POLE WITH SINGLE 70 FOOT MAST ARM
822002	150 LF	12-PAIR COMMUNICATION CABLE, JELLY FILLED (UNDERGROUND)
831010	2 EA	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
833060	90 LF	3 INCH DIAMETER POLYVINYL CHLORIDE CONDUIT, SCHEDULE 80, RISER
837001	10 EA	GROUND ROD - 1/2" INCH DIAMETER X 10 FOOT LENGTH
860284	41 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861105	1330 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	1510 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	2140 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	630 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
866103	3 EA	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

MR. CEDRIC WARD ASSISTANT DISTRICT ENGINEER-TRAFFIC PHONE: (301) 513-7318
MR. KEVIN NOWAK ASSISTANT DISTRICT ENGINEER - CONSTRUCTION (301) 513-7336

MR. VERNON STINNETT ASSISTANT DISTRICT ENGINEER - MAINTENANCE (301) 513-7304

CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

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

MR. ED RODENHIZER CHIEF, SIGNAL OPERATIONS (410)787-7650
MR. EUGENE BAILEY CHIEF, SIGNAL OPERATIONS (410)787-7676

CONTACT PERSONS FOR MONTGOMERY COUNTY ARE AS FOLLOWS:

MR. KAMAL HAMUD TRAFFIC ENGINEER PHONE: (240) 777-8761

PHASING CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
PHASE 2 & 5	R	R	←G	←G	←G	G	G	R	R	R	R	R	R	FL-DW	DW	DW	FL-DW	DW	DW
2 & 5 CHANGE	R	R	←Y	←Y	←Y	G	G	R	R	R	R	R	R	DW	DW	DW	FL-DW	DW	DW
PHASE 2 & 6	G	G	←R	←R	←R	G	G	R	R	R	R	R	R	FL-DW	FL-DW	FL-DW	FL-DW	DW	DW
2 & 6 CHANGE	G	G	←R	←R	←R	G	G	R	R	R	R	R	R	FL-DW	FL-DW	FL-DW	FL-DW	DW	DW
PHASE 4 & 8	R	R	←R	←R	←R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW
4 & 8 CHANGE	R	R	←R	←R	←R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4 ALT & 8	R	R	←R	←R	←R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	WK	WK
PED CLEAR	R	R	←R	←R	←R	R	R	G	G	G	G	G	G	DW	DW	DW	FL-DW	FL-DW	FL-DW
4 ALT & 8 CHANGE	R	R	←R	←R	←R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FLY	FLY	←FLR	←FLR	←FLR	FLY	FLY	FLR	FLR	FLR	FLR	FLR	FLR	DARK	DARK	DARK	DARK	DARK	DARK

SHA STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION
MD 650 (NEW HAMPSHIRE AVENUE) AT ADELPHI ROAD & DILSTON ROAD ADELPHI, MARYLAND

REVISIONS	GENERAL INFORMATION SHEET
SCALE NONE DATE DECEMBER 2010 CONTRACT NO. MD3915176	DESIGNED BY T. ZAYDEL COUNTY MONTGOMERY DRAWN BY T. ZAYDEL LOGMILE 15065000.33 CHECKED BY K. SCHMID TMS NO. H413 FAP NO. TOD NO.
TS NO. 19D-GI	DRAWING SG-2 OF 3 SHEET NO. 42 OF 58

TRAFFIC CONCEPTS INC.
325 Gambrills Road Suite E Gambrills, MD 21054 (410) 923-7101 FAX (410) 923-6473 EMAIL TRAFFIC.CONCEPTS@COMCAST.NET

PLOTTED: Thursday, February 03, 2011 AT 07:00 AM
FILE: \\frcv\p2009\2009\0807_0480\Task_04_MD_650 Re-Adv\CADD\p209-0002_MD650@Adelphi_GI.dgn