PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF US29 (GEORGIA AVE) AND WAYNE AVENUE IN MONTGOMERY COUNTY. EXCLUSIVE PERMISSIVE LEFT TURNS WILL BE ADDED FOR BOTH WAYNE AVE APPROACHES. NEW PEDESTAL POLES WITH COUNTDOWN PEDESTRIAN SIGNALS AND APS STATIONS SHALL BE INSTALLED. EXISTING INTERCONNECT AND FIBER FOR A MONTGOMERY COUNTY SURVEILLANCE CAMERA SHALL BE REROUTED. US 29 (GEORGIA AVE) IS ASSUMED TO RUN IN THE NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION

1. THE INTERSECTION SHALL OPERATE IN A NEMA EIGHT-PHASE, FULL TRAFFIC ACTUATED MODE. THE US 29 APPROACHES SHALL OPERATE CONCURRENTLY AS WILL THE WAYNE AVENUE APPROACHES. THE EXISTING EXCLUSIVE LEFT TURN PHASE SHALL REMAIN FOR US 29. AN EXCLUSIVE PERMISSIVE LEFT TURN PHASE SHALL BE PROVIDED FOR WAYNE AVENUE. COUNTDOWN PEDESTRIAN PHASES WITH AUDIBLE PUSHBUTTON ACTUATION SHALL OPERATE ACROSS US 29 AND ALSO ACROSS WAYNE AVENUE.

2. USE EXISTING FULL TRAFFIC ACTUATED, EIGHT PHASE CONTROLLER WITH L.A.U. AND L.A.U. PANEL HOUSED IN A NEMA SIZE "6" BASE-MOUNTED CABINET. INSTALL APS CENTRAL CONTROL UNIT.

III. SPECIAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES, EXCLUDING INTERCONNECT, TO THE APPROPRIATE TERMINALS AND SHALL PROPERLY LABEL EACH CABLE.

2. DISCONNECTING AND SPLICING OF INTERCONNECT CABLE SHALL BE PERFORMED BY MONTGOMERY COUNTY FORCES. THE CONTRACTOR SHALL RUN THE INTERCONNECT CABLE INTO THE BASE OF EACH CABINET AND PROPERLY TAG THE CABLE. ALL CONTROLLER CABINET WIRING WILL BE PERFORMED BY MONTGOMERY COUNTY FORCES. CONTACT KAMAL HAMUD AT (240) 777-8761 SEVENTY-TWO HOURS IN ADVANCE OF INTENDED WORK.

3. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
	NONE	

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
203030	TEST PIT EXCAVATION	2 CY
585448	12" WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING (CROSSWALK)	630 LF
585452	24" WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING (STOPLINE)	70 LF
585462	REMOVE EXISTING PAVEMENT MARKINGS	700 LF
600000	REMOVE & RESET BRICK PAVERS	145 SF
655120	DETECTABLE WARNING SURFACES	56 SF
800000	16 INCH PEDESTRIAN COUNTDOWN SIGNAL HEAD - POLE MOUNTED	8 EA
800000	F&I APS PUSHBUTTON AND ASSY.	8 EA
800000	FURNISH & DELIVER 2-WIRE APS CENTRAL CONTROL UNIT	1 EA
800000	REMOVE AND DISPOSE OF EXISTING MATERIALS AND EQUIPMENT	1 LS
801004	CONCRETE FOR SIGNAL FOUNDATION	4 CY
801605	PEDESTRIAN EDUCATION R10-4(1) MOD SIGN. (NOTE: SIGN TO READ "PUSH BUTTON TO CROSS GEORGIA AVENUE")	4 EA
801605	PEDESTRIAN EDUCATION R10-4(1) MOD SIGN. (NOTE: SIGN TO READ "PUSH BUTTON TO CROSS WAYNE AVENUE")	4 EA
801607	INSTALL SHEET ALUMINUM SIGN	8 EA
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	80 LF
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	70 LF
811001	F&I ELECTRICAL HANDHOLE	2 EA
811002	REMOVAL OF HANDHOLE	2 EA
816001	VIDEO DETECTION CAMERA	2 EA
816005	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	1 EA
816010	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	1 EA
818004	5 FOOT BREAKAWAY PEDESTAL POLE	4 EA
837001	GROUND ROD -3/4INCH DIAMETER X 10 FOOT LENGTH	2 EA
860284	FURNISH AND INSTALL 12 INCH VEHICULAR LED TRAFFIC SIGNAL HEAD (R, Y, G)	7 EA

EQUIPMENT LIST (CONT'D)

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
860284	FURNISH AND INSTALL 12 INCH VEHICULAR LED TRAFFIC SIGNAL HEAD (R, Y, G, YA, GA) (LEFT)	4 EA
860284	FURNISH AND INSTALL 12 INCH VEHICULAR LED TRAFFIC SIGNAL HEAD (RA, YA, GA) (LEFT)	4 EA
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	1490 LF
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	1365 LF
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	810 LF
873001	REMOVAL AND SALVAGE OF ANY SIGNAL HEAD	21 EA
873001	REMOVAL AND SALVAGE OF SIGNS LESS THAN 50SF	3 EA

The following contact persons for District #3 are as follows:

Kamal Hamud
Engineer III (Montgomery County)
Phone #(240) 777-8761

Mr. Wayne Mowdy
Asst. District Engineer-Maintenance
Phone #(301) 513-7304

Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone #(410) 787-7630

Mr. Steve Custer
PEPCO Customer Design
201 W. Guide Dr.
Rockville, MD 20850
Phone #(301) 548-4333

Mr. Jeff Wentz
Assistant District Engineer-Traffic
Phone #(301) 513-7358

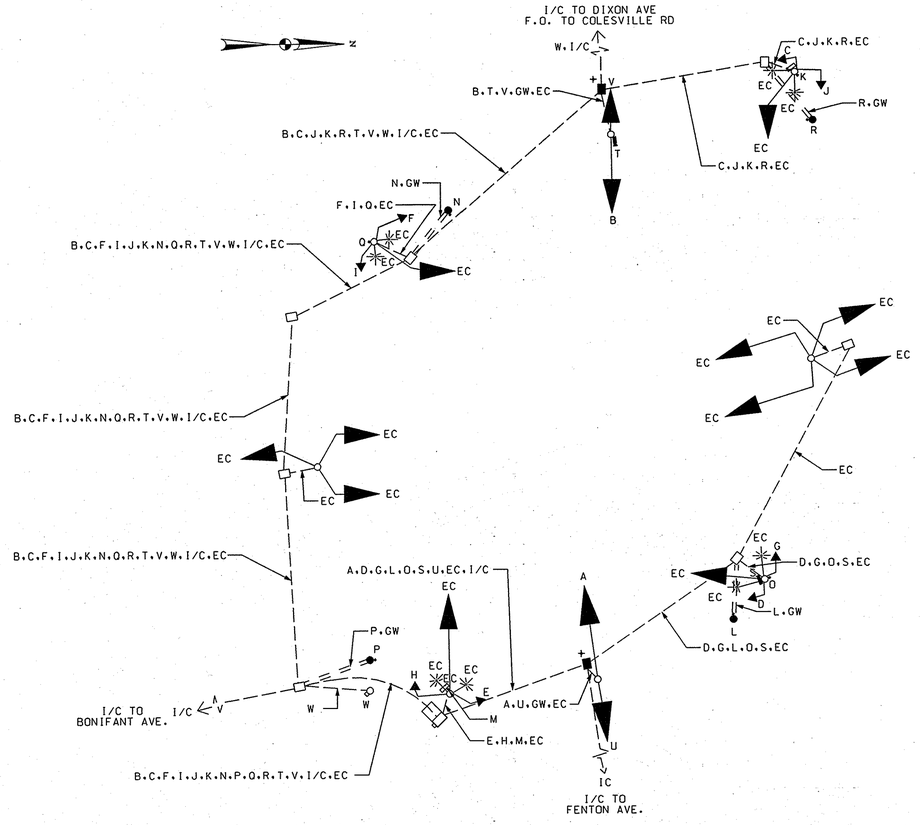
Mr. Augustine Rebish
District Engineer-Utility
Phone #(301) 513-7350

Mr. Ed Rodenhizer
Signal Shop Supervisor
Phone #(410) 787-7652

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	◄R- ◄Y- ◄G-	◄R- ◄Y- ◄G-	R Y G	R Y G	◄R- ◄Y- ◄G-	R Y G	◄R- ◄Y- ◄G-	R Y G	R Y ◄G- G	R ◄Y- Y ◄G- G	R ◄Y- Y ◄G- G	R Y G	R ◄Y- Y ◄G- G	R ◄Y- Y ◄G- G	R Y G								
PHASE 1 & 5	◄G-	◄G-	R	R	◄G-	R	◄G-	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6																							
PHASE 1 & 6	◄G-	◄G-	G	G	◄R-	R	◄R-	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	DW	DW
1 & 6 CHANGE	◄Y-	◄Y-	G	G	◄R-	R	◄R-	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	DW	DW
PHASE 2 & 5	◄R-	◄R-	R	R	◄G-	G	◄G-	G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	DW	DW
5 CHANGE	◄R-	◄R-	R	R	◄Y-	G	◄Y-	G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	DW	DW
PHASE 2 & 6	◄R-	◄R-	G	G	◄R-	G	◄R-	G	G	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEAR COUNTDOWN	◄R-	◄R-	G	G	◄R-	G	◄R-	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2 & 6 CHANGE	◄R-	◄R-	Y	Y	◄R-	Y	◄R-	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 7	◄R-	◄R-	R	R	◄R-	R	◄R-	R	R	◄G-/R	◄G-/R	R	◄G-/R	◄G-/R	R	DW	DW	DW	DW	DW	DW	DW	DW
CHANGES TO PHASES 3 & 8, 4 & 7 OR 4 & 8																							
PHASE 3 & 8	◄R-	◄R-	R	R	◄R-	R	◄R-	R	R	R	R	R	◄G-/G	◄G-/G	G	DW	DW	DW	DW	DW	DW	DW	DW
3 & 8 CHANGE	◄R-	◄R-	R	R	◄R-	R	◄R-	R	R	R	R	R	◄Y-/G	◄Y-/G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 7	◄R-	◄R-	R	R	◄R-	R	◄R-	R	R	◄G-/G	◄G-/G	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
7 CHANGE	◄R-	◄R-	R	R	◄R-	R	◄R-	R	R	◄Y-/G	◄Y-/G	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	◄R-	◄R-	R	R	◄R-	R	◄R-	R	R	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 & 8 CHANGE	◄R-	◄R-	R	R	◄R-	R	◄R-	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8 ALT	◄R-	◄R-	R	R	◄R-	R	◄R-	R	R	G	G	G	G	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEAR COUNTDOWN	◄R-	◄R-	R	R	◄R-	R	◄R-	R	R	G	G	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
4 & 8 ALT CHANGE	◄R-	◄R-	R	R	◄R-	R	◄R-	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL◄R-	FL◄R-	FL/Y	FL/Y	FL◄R-	FL/Y	FL◄R-	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

A.B.U.V	7-CONDUCTOR ELECTRICAL CABLE (No.14 AWG) (FOR PEDS)
C.D.E.F.G.H.I.J	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
K.L.M.N.O.P.Q.R	2-CONDUCTOR ELECTRICAL CABLE (No.14 AWG)
S	250' VIDEO DETECTION CONTROL CABLE
T	500' VIDEO DETECTION CONTROL CABLE
W	6 PAIR FIBER OPTIC CABLE (SHA SOC CAMERA)
I/C	12 PAIR VOICEGRADE INTERCONNECT CABLE (JELLY FILLED)
EC	EXISTING CABLE/CONDUIT
GW	No.6 STRANDED BARE COPPER GROUND WIRE
+	GROUND ROD

SHA No.: BW847M83
MD 384 @ Lower Entrance-Silver Spring Transit Center

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

US 29 (GEORGIA AVENUE) AND WAYNE AVE.
SILVER SPRING, MARYLAND

PB 100 YEARS
PARSONS BRINCKERHOFF QUADE & DOUGLAS
100 South Charles Street
Tower One, 10th Floor
Baltimore, MD 21201-2727
Phones 410-727-5050
Fax: 410-727-4608

GENERAL INFORMATION SHEET

SCALE NONE DATE 08252006 CONTRACT NO. BW996M82

DESIGNED BY KMP COUNTY MONTGOMERY
DRAWN BY DG LOGMILE 15002900.67
CHECKED BY KMP T.I.M.S. NO. H588
F.A.P. NO. TOD NO.

TS NO. 4195C-GI | DRAWING NO. 2 OF 2 | SHEET NO. 8 OF 12

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BY: PERMISOHN