PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 124 (WOODFIELD ROAD) AT CYPRESS HILL DRIVE/RICKENBACKER DRIVE IN MONTGOMERY COUNTY. MD 124 IS ASSUMED TO RUN IN A NORTH SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A SEMI-ACTUATED MODE USING FOUR NEMA PHASES. SEMI-ACTUATED MODE WITH THE MD 124 APPROACHES RUNNING CONCURRENTLY. THE RICKENBACKER DRIVE/CYPRESS HILL DRIVE APPROACHES WILL BE SPLIT PHASED.

PEDESTRIAN OPERATION

NAVIGATOR AUDIBLE PEDESTRIAN PUSHBUTTON MOVEMENTS TO CROSS THE WEST AND SOUTH LEGS OF THE INTERSECTION ARE TO BE PROVIDED.
WHEN THE PEDESTRIAN LOCATES AND PRESSES THE PUSH BUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE:
WEST: "WAIT TO CROSS RICKENBACKER AT WOODFIELD."
SOUTH: "WAIT TO CROSS WOODFIELD AT RICKENBACKER/CYPRESS HILL."

SPECIAL NOTES

1. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

   PROJECT CONTACTS:

   MR. JEFFREY WENTZ, ASSISTANT DISTRICT ENGINEER - TRAFFIC
   PHONE: (301) 513-7358
   MR. DUANE BERNDARD, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
   PHONE: (301) 513-7336
   MR. WAYNE A. MOWDY, ASSISTANT DISTRICT ENGINEER - MAINTENANCE
   PHONE: (301) 513-7304
   MR. AUGIE REBISH, UTILITY ENGINEER
   PHONE: (301) 513-7350
   MR. ROBERT SNYDER, SR. CHIEF TRAFFIC OPERATIONS DIVISION
   PHONE: (410) 787-7630

   MR. KAMAL HAMUD
   MONTGOMERY COUNTY
   240-777-8761

   MR. STEVE CUSTER
   PEPCO CUSTOMER DESIGN
   201 W. GUIDE DR.
   ROCKVILLE, MD 20850
   PHONE: (301) 548-4333

2. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE FOLLOWING STANDARD PLATES FOR TRAFFIC CONTROL: 104.00 - 30, 104.12 - 01, 104.13 - 01, 104.31 - 01, 104.32 - 01, 104.81- 02

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
816110	TRAFFIC SIGNAL CABINET NEMA SIZE 6	EA	1
900000	TRAFFIC SIGNAL CONTROLLER WITH VIDEO DETECTION INTERFACE EQUIPMENT	EA	1
900000	MONTGOMERY COUNTY INTERCONNECT SPLICE CABINET	EA	1
963010	FOUR CHANNEL LOOP DETECTOR AMPLIFIER, RACK MOUNT	EA	1
973023	FLAT SHEET ALUMINUM SIGNS CONSISTING OF:	SF	82
	R10-3(1) (9"X15") POLE MOUNT SIGN TO READ "PUSH BUTTON TO CROSS"- 3 EACH		
	D3-1(1) (VAR."X16")MAST ARM MOUNT - 3 EACH (DUAL FACED)		
	ASSOCIATED SHIELD ASSEMBLY (30"X51") 4"X4" WOOD POST MOUNT - 1 EACH		
	ASSOCIATED SHIELD ASSEMBLY (48"X75") 4"X4" WOOD POST MOUNT- 1 EACH		

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

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
120500	MAINTENANCE OF TRAFFIC	EA	1
203030	TEST PIT EXCAVATION	CY	2
585452	24 INCH WHITE PERMANENT PREFORMED PAVEMENT MARKINGS	LF	95
800000	ELECTRICAL CABLE - 1 CONDUCTOR (250 KCMIL)	LF	210
800000	AUDIBLE/TACTILE PEDESTRIAN PUSH BUTTON STATION AND SIGN (5"X7" WITH BRAILE DENOTING CROSSING STREET)	EA	3
800000	INSTALL COUNTY INTERCONNECT SPLICE CABINET	EA	1
800000	6 PAIR COMMUNICATION CABLE	LF	15
800000	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNT	EA	6
800000	METERED SERVICE PEDESTAL	EA	1
801004	CONCRETE FOR SIGNAL FOUNDATION	CY	14
801607	INSTALL SHEET ALUMINUM SIGN	SF	40
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	590
805135	3" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	120
805140	4" SCHEDULE 80 RIGID PVC CONDUIT -TRENCHED	LF	120
805155	4" SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	LF	720
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	6
813015	INSTALL OVERHEAD SIGN	SF	43
818004	10 FOOT BREAKAWAY PEDESTAL POLE	EA	3
816001	VIDEO DETECTION CAMERA	EA	2
816005	VIDEO DETECTION CABLE, 250 FT	EA	2
818052	STEEL POLE WITH A SINGLE 70 FOOT MAST ARM	EA	2
831010	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE	EA	2

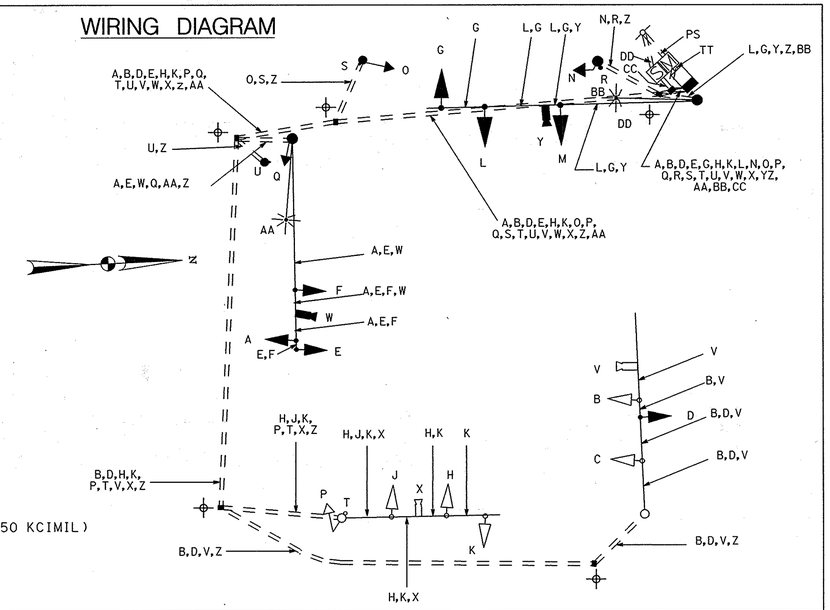
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.CONT...

CATEGORY	DESCRIPTION	UNITS	QUANTITY
832017	CABLE-1CONDUCTOR, NO 4 AWG. TYPE USE, 600V	LF	35
833062	4 INCH DIAMETER POLYVINYL CHLORIDE, SCHEDULE 80, RISER	LF	20
837001	GROUND ROD - 3/4 INCH DIAMETER X 10-FOOT LENGTH	EA	5
860284	12" VEHICULAR LED TRAFFIC SIGNAL HEAD SECTION	EA	21
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	750
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	3000
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TRAY CABLE	LF	800
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	850
866101	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	1
866104	20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	1

KEY

A,E,L,G	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
B,C,D,F,H,J, K,M,N,O,P,Q	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
AA,BB	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TRAY CABLE
R,S,U,T	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
V,W,X,Y	VIDEO DETECTION CONTROL CABLE
Z	1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
TT	POWER SERVICE UNDERGROUND 3 WIRE 1 CONDUCTOR (NO.4 AWG)
	GROUND ROD
PS	3-1 CONDUCTOR ELECTRICAL CABLES (250 KCIMIL)
CC	6-PAIR INTERCONNECT CABLE
DD	2-12-PAIR INTERCONNECT CABLES

WIRING DIAGRAM



PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	R	R	R	R	R	R	R	R	R	R	R	R				
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y				
	G	G	G	G	G	G	G	G	G	G	G	G				
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	DW	DW
PED CLEARENCE	G	G	G	G	G	G	R	R	R	R	R	R	FL/ DW	FL/ DW	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 AND 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW
4 AND 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 AND 8 ALT	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	WK	WK
PED CLEARENCE	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	FL/ DW	FL/ DW
PHASE 4 AND 8 CHANGE ALT	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

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

MD 124 (WOODFIELD RD) AND CYPRESS HILL DRIVE /RICKENBACKER DRIVE

STAGE I

GENERAL INFORMATION SHEET

SCALE 1" = 20' DATE N/A CONTRACT NO. M06325171

DESIGNED BY AH COUNTY MONTGOMERY
DRAWN BY AF LOGMILE 15012407.96
CHECKED BY JFL TIMS NO. H079
FAP NO. TOD NO.

TS NO. 4104-A | DRAWING SP-16 OF 39 | SHEET NO. 274 OF 377

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BY: Aaron Hottenstein Division: 0101 Transportation