

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING TRAFFIC SIGNAL WITH APS AND CPS UPGRADES AT THE INTERSECTION OF MD 193 (UNIVERSITY BLVD) AND SLIGO CREEK PARKWAY IN MONTGOMERY COUNTY, MD 193 IS CONSIDERED TO RUN IN AN EAST-WEST DIRECTION. VIDEO DETECTION IS TO BE USED ON THE WESTBOUND AND NORTHBOUND APPROACHES.

INTERSECTION OPERATION

A SYSTEM CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS LOCATION. THE INTERSECTION WILL OPERATE IN NEMA 4 PHASE SEMI-ACTUATED MODE. THE WESTBOUND LEFT-TURNS AND NORTHBOUND RIGHT-TURNS WILL OPERATE WITH PROTECTED/PERMISSIVE PHASING. AUDIBLE PEDESTRIAN SIGNALS SHALL BE INSTALLED IN THE NORTHEAST, AND SOUTHEAST QUADRANTS OF THE INTERSECTION AND SHALL CONTROL CROSSING ALONG THE EAST LEG OF THE INTERSECTION ONLY. NEW CURB AND GUTTER AND SIDEWALK WITH ADA RAMPS AND DETECTABLE WARNING SURFACE MATERIAL SHALL BE INSTALLED IN THE NORTHEAST, SOUTHEAST AND SOUTHWEST QUADRANTS OF THE INTERSECTION.

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 CONTRACTOR.
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.
4. APS WILL FUNCTION AS FOLLOWS:
 - A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS UNIVERSITY AT SLIGO CREEK".
 - B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

TO CROSS MD 193

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

MR. JEFFREY WENTZ, ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 513-7318
MR. AUGIE REBISH, ASSISTANT DISTRICT ENGINEER - UTILITY
PHONE: (301) 513-7350
MR. VERNON STINNETT, ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 513-7304
MR. RICHARD L. DAFF, CHIEF - TRAFFIC OPERATIONS DIVISIONS
PHONE: (410) 787-7630

THE POWER COMPANY REPRESENTATIVE IS:
MR. STEVE CUSTER
POTOMAC ELECTRIC POWER COMPANY
8300 OLD MARLBORO PIKE
UPPER MARLBORO, MARYLAND 20772
PHONE: (301) 548-4333
MR. KAMAL HAMUD, CHIEF TRAFFIC OPERATIONS DIVISION
MONTGOMERY COUNTY
PHONE: (240) 777-8761
MR. KEITH LORD
MONTGOMERY COUNTY
PHONE: (301) 279-1291
MR. SONY BAILEY
SIGN SHOP
PHONE: (410) 787-7676

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
900000	MASTER LOCAL CONTROLLER AND CABINET SIZE 6	EA	1
900000	VIDEO DETECTION INTERFACE EQUIPMENT (1-4 CAMERAS)	EA	1
973023	FLAT SHEET ALUMINUM SIGNS CONSISTING OF: R10-3(1) (9"x15") POLE MOUNT D-3(1) (18"x16") MAST ARM MOUNT M95-1 (78"x24") MAST ARM MOUNT	SF EA EA EA	45 2 4 2

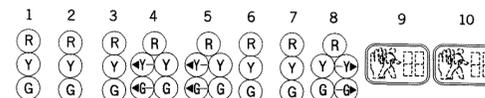
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
203030	TEST PIT EXCAVATION	CY	5
585412	12 INCH WHITE HEAT APPLIED PREFORMED THERMOPLASTIC PAVEMENT MARKING	LF	260
585424	24 INCH WHITE HEAT APPLIED PREFORMED THERMOPLASTIC PAVEMENT MARKING	LF	110
800000	REMOVE AND DISPOSE OF EXISTING EQUIPMENT	LS	1
800000	ELECTRICAL CABLE - 1 CONDUCTOR (NO. 4 AWG THHN/THWN)	LF	25
800000	2-WIRE CENTRAL CONTROL UNIT	EA	1
800000	1 CONDUCTOR 250 KCML ELECTRICAL CABLE	LF	100
800000	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION	EA	2
800000	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON AND SIGN	EA	2
800000	15 FOOT "T" STEEL POLE WITH TWIN 70 AND 50 FOOT MAST ARMS	EA	1
800000	15 FOOT "T" STEEL POLE WITH A SINGLE 50 FOOT MAST ARM	EA	1
801004	CONCRETE FOR SIGNAL FOUNDATIONS	CY	12
801607	INSTALL SHEET ALUMINUM SIGN	SF	45
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	350
805029	2 IN. U-GUARD PVC RISER	LF	40
805118	4 INCH SCHED. 80 PVC CONDUIT-BORED	LF	200
805125	2 INCH SCHED. 80 PVC CONDUIT-TRENCHED	LF	40
805135	3 INCH SCHED. 80 PVC CONDUIT-TRENCHED	LF	75
805140	4 INCH SCHED. 80 PVC CONDUIT-TRENCHED	LF	30
807202	METERED SERVICE PEDESTAL	EA	1
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	3
816001	VIDEO DETECTION CAMERA	EA	2
816010	CONTROL CABLE, 500 FOOT VIDEO DETECTION CAMERA TO CONTROLLER	EA	2
818004	10 FOOT BREAKAWAY PEDESTAL POLE	EA	2
822002	12 PAIR COMMUNICATION CABLE, JELLY-FILLED UNDERGROUND	LF	150
837001	GROUND ROD - 3/4 INCH DIA. X 10 FOOT LENGTH	EA	7
860284	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	25
860292	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE	EA	1
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	250
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	550
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	800
871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	EA	1

C. 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. **THE CONTROLLER AND CABINET EQUIPMENT SHALL BE RETURNED TO MONTGOMERY COUNTY.**

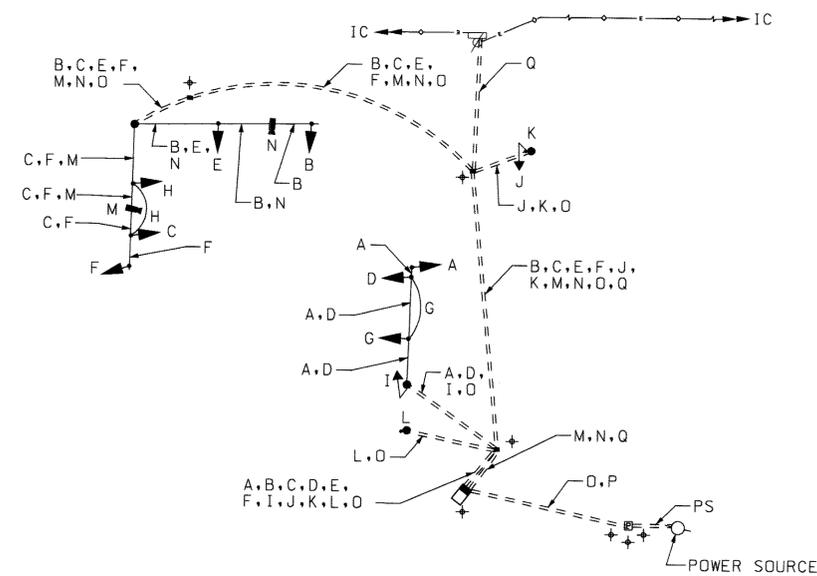
CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
	CONTROLLER	EA	1

PHASE CHART



PHASE	1	2	3	4	5	6	7	8	9	10
PHASE 2 AND 5	R	R	R	G	G	G	R	R	DW	DW
5 CHANGE	R	R	R	G	G	G	R	R	DW	DW
PHASE 2 AND 6	G	G	G	G	G	G	R	R	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	DW	DW
PHASE 4	R	R	R	R	R	R	G	G	DW	DW
4 CHANGE	R	R	R	R	R	R	Y	Y	DW	DW
PHASE 4 ALT.	R	R	R	R	R	R	G	G	WK	WK
PED CLEARANCE	R	R	R	R	R	R	G	G	FLDW	FLDW
4 ALT. CHANGE	R	R	R	R	R	R	Y	Y	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK

WIRING DIAGRAM



MD 193 IS CONSIDERED TO RUN IN AN EAST-WEST DIRECTION

KEY

- A,B,C,D,E,F } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- G,H,I,J } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- K,L } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) {PUSHBUTTON}
- M,N } VIDEO DETECTION CAMERA LEAD-IN CABLE
- Q } STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
- P } POWER SERVICE UNDERGROUND 1 CONDUCTOR (NO. 4 AWG)-3 RUNS
- Q } 12 PAIR JELLY-FILLED COMMUNICATION CABLE
- IC } EXISTING INTERCONNECT CABLE
- PS } POWER SERVICE, 1 CONDUCTOR 250 KCML ELECTRICAL CABLE GROUND ROD

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 193 (WEST UNIVERSITY BOULEVARD)
AT SLIGO CREEK PARKWAY
WHEATON, MARYLAND

TRAFFIC SIGNAL - GENERAL INFORMATION

SCALE NONE ADVERTISED DATE NOVEMBER 2008 CONTRACT NO. MO2935176

DESIGNED BY MEV COUNTY MONTGOMERY
DRAWN BY JRS LOGMILE 15019302.74
CHECKED BY JWH TMS NO. J198
F.A.P. NO. SEE TITLE SHEET TDD NO.

TS NO. 786B DRAWING SG-08 OF 10 SHEET NO. OF