PROJECT DESCRIPTION

GENERAL

This project involves the modification of the existing traffic control signal at MD 193 and Mission Drive in Prince George's County. For this project, additional left turn lanes will be added on the northbound and westbound approaches. MD 193 is assumed to run in a east-west direction.

The contractor shall be responsible for terminating all signal cable, excluding interconnect, to the appropriate terminals and properly labeling each cable.

INTERSECTION OPERATIONS

The addition of the northbound left turn lane, together with the existing shared left-through lane, requires the northbound and southbound approaches to be converted to split-phasing. The eastbound and westbound approaches will be converted from exclusive-permissive to exclusive left turn phasing due to the introduction of double left-turn lanes on the westbound approach.

APS OPERATION

For MD 193 (Greenbelt Rd.

A. When a Pedestrian locates and presses the pushbutton for an extended time, the pushbutton Message will be "Wait to cross Greenbelt at Mission and East Gate Wait."
B. When the walk phase begins, the message will be a rapid tick which will last for the duration of the walk phase.
C. APS Central Control Units and Audible Pedestrian Pushbutton Units can be purchased from Polara.

MAINTENANCE OF TRAFFIC

THE FOLLOWING WORK ZONE TRAFFIC CONTROL STANDARDS SHALL BE USED FOR THE PROJECT:

STANDARD NO. MD-104.04-04 (LEFT LANE CLOSURE)

STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE)

STANDARD NO. MD-104.04-13 (LEFT TURN BAY CLOSURE)

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

MS. FELECIA MURPHY
ADE TRAFFIC, D3
(301) 513-7409

MR. KEVIN NOWAK
MR. DUANE BERNARD
ADE CONSTRUCTION, D3
(301) 513-7336

MR. RICHARD DAFF
DIVISION CHIEF, TOD
(410) 787-7630

MR. EDWARD RODENHIZER
CHIEF OF SIGNAL OPERATIONS
(410) 787-7650

POWER COMPANY REPRESENTATIVE:

MR. BENNY WARD
BALTIMORE GAS & ELECTRIC COMPANY
7317 PARKWAY DRIVE SOUTH
HANOVER, MD 21076

CONTROLLER REQUIREMENTS

A. Install a fully-traffic-actuated eight phase traffic signal controller with a video detection system, intersection monitor with battery back-up for phone drop, isolation board, telemetry equipment, four channel loop detector amplifier and associated harnesses housed in a NEMA size "6" base-mounted cabinet.
B. All new traffic signal controllers and cabinets shall be purchased from Eurolite Control Products.

SPECIAL NOTE

A. Upon completion of this project the contractor shall notify Mr. Robert Snyder of SHA at 410-787-7635 to arrange for the phone line installation. The contractor is to provide Mr. Snyder with the nearest street address, zip code, and telephone number.
B. Controller and APS units shall be delivered for testing and programming to MDSHA Traffic Signal Shop, Contact Mr. Ed Rodenheizer at 410-787-7650 prior to delivery and scheduling.

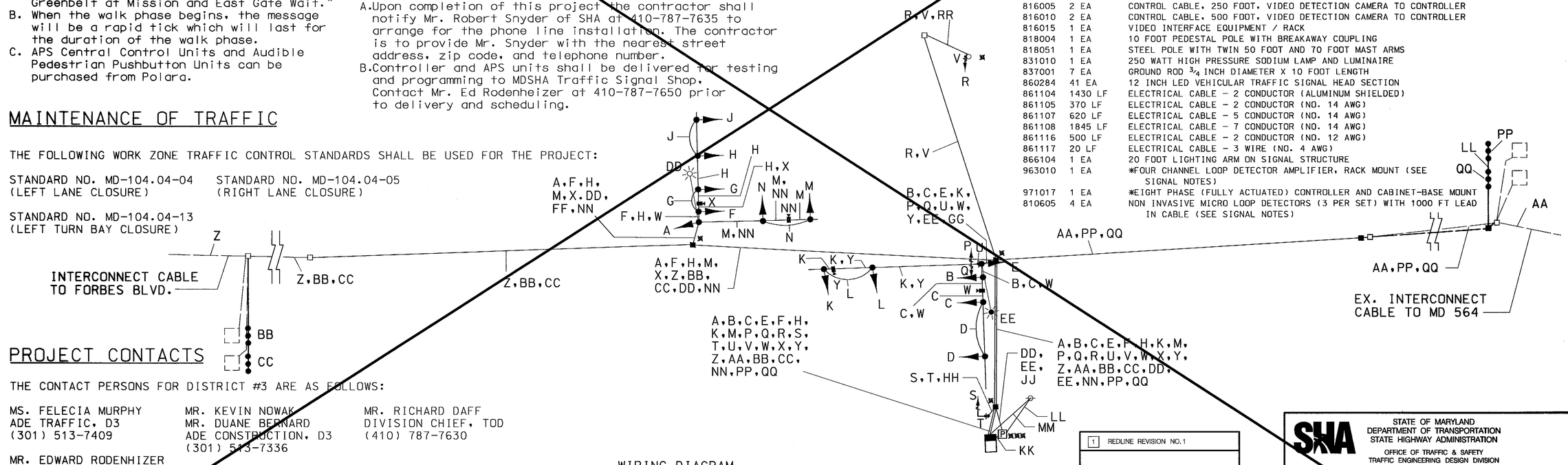
PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PHASE 1 + 5	G	G	R	R	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW
1 + 5 CHANGE to 1 + 6, 2 + 5, or 2 + 6																	
PHASE 1 + 6	G	G	G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 + 6 CHANGE	Y	Y	G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 5	R	R	R	R	G	G	G	G	G	R	R	R	R	DW	DW	DW	DW
2 + 5 CHANGE	R	R	R	R	Y	Y	Y	G	G	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 6	R	R	G	G	R	R	R	G	G	R	R	R	R	DW	DW	DW	DW
2 + 6 CHANGE	R	R	Y	Y	R	R	R	Y	Y	R	R	R	R	DW	DW	DW	DW
PHASE 3	R	R	R	R	R	R	R	R	R	R	R	G G	G G	DW	DW	DW	DW
3 CHANGE	R	R	R	R	R	R	R	R	R	R	R	Y	Y	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	R	R	R	G G	G	R	R	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	R	R	DW	DW	DW	DW
PHASE 4 ALT	R	R	R	R	R	R	R	R	R	G G	G	R	R	W	W	W	W
PED. CLEAR	R	R	R	R	R	R	R	R	R	G G	G	R	R	FL/DW	FL/DW	FL/DW	FL/DW
4 ALT CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	R	R	DW	DW	DW	DW
FLASHING OPERATION	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

EQUIPMENT LIST B

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR SHALL BE TO THE LATEST STANDARD AND SPECIFICATION OF THE MARYLAND STATE HIGHWAY ADMINISTRATION

120500	LUMP SUM	MAINTENANCE OF TRAFFIC
130850	LUMP SUM	MOBILIZATION
203030	2 CY	TEST PIT EXCAVATION
585448	50 LF	12 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKINGS
585452	150 LF	24 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKINGS
585462	120 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
800000	LUMP SUM	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
800000	3 EA	*APS PUSHBUTTON AND ASSEMBLY (SEE SPECIAL NOTES)
800000	1 EA	*APS CENTRAL CONTROL UNIT (SEE SPECIAL NOTES)
800000	2 EA	16 INCH ONE WAY LED COUNTDOWN PEDESTRIAN SIGNAL, POLE MOUNT
800000	2 EA	16 INCH ONE WAY LED COUNTDOWN PEDESTRIAN SIGNAL, POST TOP MOUNT
800000	800 LF	PULL BACK AND REROUTE EXISTING CABLE
800000	1 EA	INSTALL 3 INCH CONDUIT BEND IN EXISTING SIGNAL BASE
801004	6 CY	CONCRETE FOR SIGNAL FOUNDATION
801605	85 SF	SHEET ALUMINUM SIGNS
		3 EA R10-3(1) (9"x15") PEDESTAL POLE MOUNT
		3 EA R3-5(L) (30"x36") MAST ARM MOUNT
		1 EA R3-6(L) (30"x36") MAST ARM MOUNT
		1 EA R3-5(R) (30"x36") MAST ARM MOUNT
		2 EA M95-1 (78"x24") MAST ARM MOUNT
		2 EA D3-2 (VARx16") MAST ARM MOUNT
		1 EA R4-7 (24"x30") SIGNAL POLE MOUNT
802501	50 LF	NO 6 AWG STRANDED BARE COPPER GROUND WIRE
805115	70 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805118	355 LF	4 IN. SCHEDULE 80 RIGID PVC CONDUIT (BORED)
805125	55 LF	2 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)
805135	440 LF	3 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)
805140	30 LF	4 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)
807202	1 EA	METERED SERVICE PEDESTAL
811001	5 EA	ELECTRICAL HANDHOLE
816001	4 EA	VIDEO DETECTION CAMERA, TERRA TYPE
816005	2 EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
816010	2 EA	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
816015	1 EA	VIDEO INTERFACE EQUIPMENT / RACK
818004	1 EA	10 FOOT PEDESTAL POLE WITH BREAKAWAY COUPLING
818051	1 EA	STEEL POLE WITH TWIN 50 FOOT AND 70 FOOT MAST ARMS
831010	1 EA	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
837001	7 EA	GROUND ROD 3/4 INCH DIAMETER X 10 FOOT LENGTH
860284	41 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861104	1430 LF	ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
861105	370 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	620 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1845 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	500 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
861117	20 LF	ELECTRICAL CABLE - 3 WIRE (NO. 4 AWG)
866104	1 EA	20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
963010	1 EA	*FOUR CHANNEL LOOP DETECTOR AMPLIFIER, RACK MOUNT (SEE SIGNAL NOTES)
971017	1 EA	*EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET-BASE MOUNT
810605	4 EA	NON INVASIVE MICRO LOOP DETECTORS (3 PER SET) WITH 1000 FT LEAD IN CABLE (SEE SIGNAL NOTES)



WIRING DIAGRAM

A,B,C,E,F,H,K,M	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
D,G,J,L,N,P,Q,R,S	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
T,U,V	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
W,X,Y,NN	VIDEO DETECTION CABLE
Z,AA	EXISTING INTERCONNECT CABLE
BB,CC,PP,QQ	NON INVASIVE MICRO LOOP DETECTORS
DD,EE	2-CONDUCTOR ELECTRICAL CABLE TYPE T/C (NO. 12 A.W.G.)
FF,GG,HH,JJ,RR	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
KK	1-CONDUCTOR ELECTRICAL CABLE NO. 4 A.W.G.-THHN/THWN (3 RUNS)
LL	ELECTRICAL POWER SERVICE (BY BGE)
MM	TELEPHONE COMMUNICATION (BY VERIZON)
*	3/4 IN. X 10 FT. STRANDED BARE COPPER GROUND ROD (NO. 6 A.W.G.)

1	REDLINE REVISION NO. 1
DATE	2/29/2012
DESCRIPTION OF WORK	REVISE AND REPLACE WITH NEW PLAN SHEETS, ADDED BATTERY BACKUP CABINET
TEDD APPROVAL	
TEDD APPROVAL	2/28/12

These plans are approved for construction for a period of one (1) year from date of approvals. Should construction not begin within this time limit these documents shall become null and void without a review from the SHA's Traffic Engineering Design Division.

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

MD 193 at Mission Drive / Ent. to Eastgate S.C.

GENERAL INFORMATION PLAN

SCALE N.T.S.	DATE 5/9/11	CONTRACT NO. BW 996M82	
DESIGNED BY EAP		COUNTY Prince George's	
DRAWN BY EAP		LOGMILE 16019312.00	
CHECKED BY JDS		T.I.M.S. NO. HY05	
F.A.P. NO.		TOD NO.	
T.S. NO. 3327-A-GI		SHEET NO. 3 OF 9	

BORDER REV: DATE: June 1, 2004

PLOTTED: Monday, February 27, 2012 AT 03:13 PM
FILE: J:\TRANS\6544 - Eastgate\Final CADD for OCTS 12-12-06\sTP-02-MD193\BEG.dgn