PROJECT DESCRIPTION

I. General

This project involves the reconstruction of an existing traffic control signal at the intersection of MD 410 (East-West Hwy) and the Entrance to Prince George's Plaza and Metro Station in Prince George's County.

MD 410 (East-West Hwy) is assumed to run an east-west direction.

II. Intersection Operation

1. The intersection shall continue to operate in a NEMA six-phase, full-actuated mode, with the MD 410 (East-West Hwy) approaches continuing to run concurrently. Exclusive/Permissive left turn phases shall continue to be provided for both approaches of MD 410 (East-West Hwy). The pedestrian phase with pushbutton actuation shall remain in operation across the east leg of MD 410 (East-West Hwy). Split phase operation will remain for the northbound and southbound driveway entrance.

2. A full-traffic-actuated, eight-phase controller with all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall remain in operation at this intersection.

III. Special Notes

1. The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.

2. All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7650 seventy-two hours in advance of intended work.

EQUIPMENT LIST

A. Equipment to be Supplied by the Administration.

Item No.	Description	Unit	Quantity
9571	SHEET ALUMINUM OVERHEAD MAST ARM / POLE MOUNTED SIGN	SF	165
	Associated shield assembly (48"x 75") POLE MOUNTED	EA	2
	D-3(1) (Prince George's Plaza -->) (VAR.X16") MAST ARM MOUNTED	EA	1
	D-3(1) (<-- Prince George's Plaza) (VAR.X16") MAST ARM MOUNTED	EA	1
	D-3(1) (Hyattsville Merto Sta.-->) (VAR.X16") MAST ARM MOUNTED	EA	1
	D-3(1) (<--Hyattsville Metro Sta.) (VAR.X16") MAST ARM MOUNTED	EA	1
	Associated shield assembly (30"x 51") POLE MOUNTED	EA	2
	R3-5(L) (30"x 36") MAST ARM MOUNTED	EA	3
	R3-5(R) (30"x 36") MAST ARM MOUNTED	EA	1
9570	SHEET ALUMINUM GROUND MOUNTED	SF	12
	W11A-2 (36"x 36") GROUND MOUNTED	EA	1
	W1-6(1)R (21"x 15") GROUND MOUNTED	EA	1
9045	Controller, Master ASC 10,000 w/ Telemetry	EA	1
9000	QUICK CONNECT BLOCK	EA	1
9000	[UPDATED] VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS	EA	1

B. Equipment to be Furnished and/or installed by the Contractor

Item No.	Description	Unit	Quantity
~~1002~~	~~Maintenance of Traffic~~	~~EA~~	~~2~~
2002	Test Pit Excavation	CY	4
5005	F & I 12" Heat Applied White Permanent Preformed Thermoplastic Pavement Markings	LF	100
6003	F & I Standard Type A Combination Curb and Gutter 12" Gutter Pan 8" Depth	LF	18
6005	F & I 4" Concrete Sidewalk	SF	200
8001	F & I Concrete Foundation	CY	11
8003	F & I 12" Red or Green LED Signal Head	EA	32
8004	F & I 12" Yellow LED Signal Head	EA	16
8019	F & I 16" LED Countdown Pedestrian	EA	2
8011	F & I Conduit Bend in Existing Foundation	EA	2
8013	F & I Control Cable, 200', Video Detection	EA	1
8014	F & I Control Cable, 300', Video Detection	EA	1
8016	F & I Control Cable, 500', Video Detection	EA	2
8026	F & I Ped Pole (Any Size)	EA	1
8027	Remove & Dispose Material & Equipment per Assignment	LS	1
8038	Remove-Reset Decorative Brick Sidewalk	SF	12
8039	F & I Wood Sign Supports 4" x 4"	LF	18
8041	F & I No. 6 AWG Stranded Bare Copper Ground Wire	LF	420
8048	F & I 3" Schedule 80 Rigid PVC Conduit-Bored	LF	340
8049	F & I 4" Schedule 80 Rigid PVC Conduit-Bored	LF	360
8051	F & I 3" Schedule 80 Rigid PVC Conduit-Trenched	LF	690
8052	F & I 4" Schedule 80 Rigid PVC Conduit-Trenched	LF	5
8057	F & I Metered Service Pedestal	EA	1
8034	~~F & I Electrical Cable 1 Conductor No. 4 AWG THHN/THWN~~ CABLE- 1 COND, 250 KCML, CU, USE 600V	LF	210
8063	F & I Noninvasive Detector, 500' Lead In Cable	EA	5
8065	F & I Electrical Handhole	EA	8
8067	Install Ground Mounted Sign	SF	12
8068	Install Overhead Sign	SF	165
8069	F & I Video Detection Camera	EA	4
8074	F & I Steel Pole With A Single 38' Mast Arm	EA	1
8075	F & I Steel Pole With A Single 50' Mast Arm	EA	1
8079	F & I Steel Pole With Single 70' Mast Arm	EA	2
8087	F & I Ground Rod -3/4" Diameter x 10' Length	EA	7
8095	F & I Electrical Cable - 2 Conductor (No. 14 AWG)	LF	450
8097	F & I Electrical Cable - 5 Conductor (No. 14 AWG)	LF	575
8098	F & I Electrical Cable - 7 Conductor (No. 14 AWG)	LF	1950
8102	F & I Pushbutton and Sign	EA	2

C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILLIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE S.H.A.

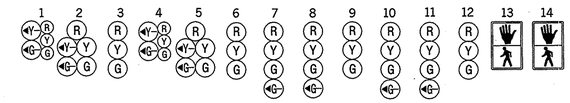
Item No.	Description	Unit	Quantity
	CABINET AND CONTROLLER	EA	1

PROJECT CONTACTS

The contact persons for District #3 are as follows:

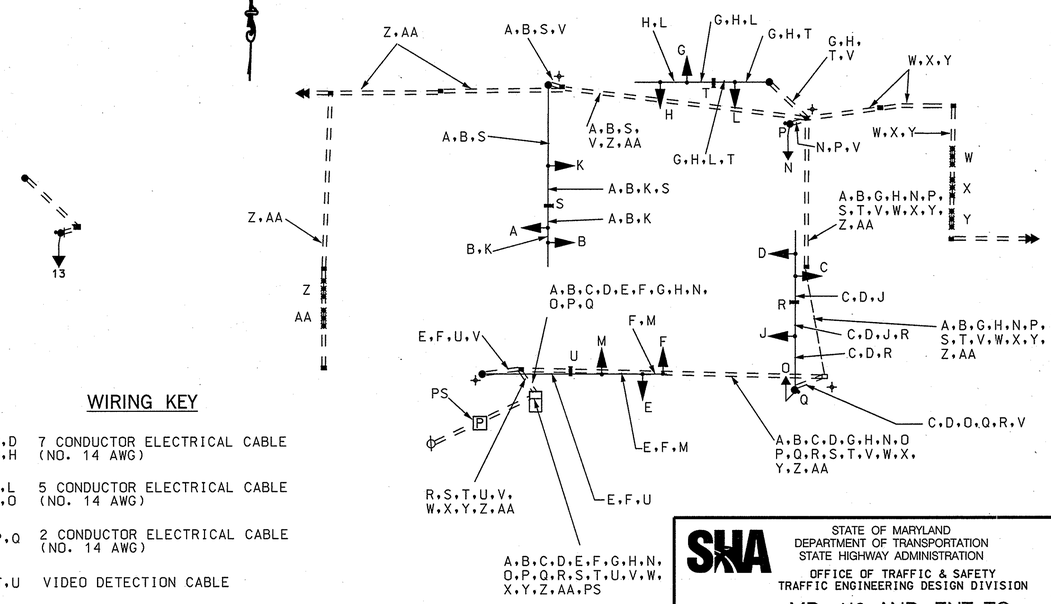
Mr. Majid Shakib
Assistant District Engineer - Traffic
Phone: (301 513-7358
Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: (301) 513-7304
Mr. Augie Rebish
Assistant District Engineer - Utility
Phone: (301) 513-7350
Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630
Mr. Sonny Bailey
Supervisor Sign Operations
Phone: 410-787-7670
Mr. Ed Rodenhizer
Supervisor, Signal Operations
Phone: 410-787-7650

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 1 & 5	◄G-R	◄G-R	R	◄G-R	◄G-R	R	R	R	R	R	R	R	DW	DW
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6														
PHASE 1 & 6	◄G-G	◄G-G	G	R	R	R	R	R	R	R	R	R	DW	DW
1 & 6 CHANGE	◄Y-G	◄Y-G	G	R	R	R	R	R	R	R	R	R	DW	DW
PHASE 2 & 5	R	R	R	◄G-G	◄G-G	G	R	R	R	R	R	R	DW	DW
2 & 5 CHANGE	R	R	R	◄Y-G	◄Y-G	G	R	R	R	R	R	R	DW	DW
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 4	R	R	R	R	R	R	R	R	R	◄G-G	◄G-G	G	DW	DW
4 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW
PHASE 3	R	R	R	R	R	R	◄G-G	◄G-G	G	R	R	R	DW	DW
3 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW
PHASE 3 ALT	R	R	R	R	R	R	◄G-G	◄G-G	G	R	R	R	WK	WK
PED CLEARANCE	R	R	R	R	R	R	◄G-G	◄G-G	G	R	R	R	FL/DW	FL/DW
3 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	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

WIRING DIAGRAM



WIRING KEY

A,B,C,D E,F,G,H	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
J,K,L M,N,O	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
P,Q	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
R,S,T,U	VIDEO DETECTION CABLE
V	1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
W,X,Y,Z, AA	NON-INVASIVE MICRO-LOOP CABLE LEAD-IN
PS	PROPOSED UNDERGROUND SERVICE BY PEPCO
+	GROUND ROD

BAI
BRUDIS & ASSOCIATES, INC.
CONSULTING ENGINEERS
9220 RUMSEY ROAD SUITE 110
COLUMBIA, MARYLAND 21045
410-884-3607 410-884-3609(FAX)

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

MD 410 AND ENT. TO HYATTSVILLE METRO STATION/ PRINCE GEORGE'S PLAZA

SCALE [illegible] DATE [illegible] CONTRACT NO. [illegible]

DESIGNED BY [illegible] COUNTY [illegible]
DRAWN BY [illegible] LOGMILE 16041002.05
CHECKED BY [illegible] T.I.M.S. NO. [illegible]
F.A.P. NO. [illegible] TOD NO. [illegible]

DRAWING NO. 841 OF SHEET NO. 2 OF 2

TOD No: AT720-01
SHA: PG641A51/B51

BY: $USERNAME$