PROJECT DESCRIPTION
GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC SIGNAL AT THE INTERSECTION OF MD 650 (NEW HAMPSHIRE AVENUE) AND MICHELSON / NORTHWEST DRIVE IN MONTGOMERY COUNTY.

INTERSECTION OPERATION

A SYSTEM CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS LOCATION. THIS INTERSECTION WILL OPERATE IN A FULLY ACTUATED MODE USING 5 NEMA PHASES.

SPECIAL NOTES

1. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE:

PROJECT CONTACTS:

MR. LEE STARKLOFF, ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: (301) 513-7300
MR. RALEIGH MEDLEY, ASSISTANT DISTRICT ENGINEER-MAINTENANCE
PHONE: (301) 513-7300
MR. AUGIE REBISH, ASSISTANT DISTRICT ENGINEER-UTILITY
PHONE: (310) 513-7300
MR. RICHARD L. DAFF, Sr., CHIEF TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630
MR. BOBBY GONZALES, TRAFFIC ENGINEER MCDPWT
PHONE: (240) 777-2190
MR. DENNIS McMAHON, ASSISTANT DISTRICT ENGINEER-CONSTRUCTION
PHONE: (301) 513-7336

2. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR FOLLOWING THE MDSHA STANDARD PLATES FOR TRAFFIC CONTROL.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
900000	BASE MOUNTED (SIZE 6) CABINET (MSHA SPECIFICATIONS) WITH ECONOLITE ASC II 2100 CONTROLLER, SSM 12 E CONFLICT MONITOR, VIDEO INTERFACE EQUIPMENT, LAU PANEL AND RELAY PACKAGE WIRED TO MONTGOMERY COUNTY SPECIFICATIONS.	EA	1
973023	FLAT SHEET ALUMINUM SIGNS		
	D-3(1) (VAR.X32")	SF	205
	D-3(1) (VAR.X16")	EA	4
	R10-12 (36"X42")	EA	2
	R3-5L (30"x36")	EA	1
	R3-5R (30"X36")	EA	1
	R3-5(MOD.) (30"X36")	EA	1
	R10-4 (MOD.) (12"X9")	EA	1
	GUIDE SHIELD ASSEMBLY (30"X51")	EA	2
	GUIDE SHIELD ASSEMBLY (48"X75")	EA	2
	W3-3 (36"X36")	EA	2
	D95-25 (24"X12")	EA	2
		EA	2

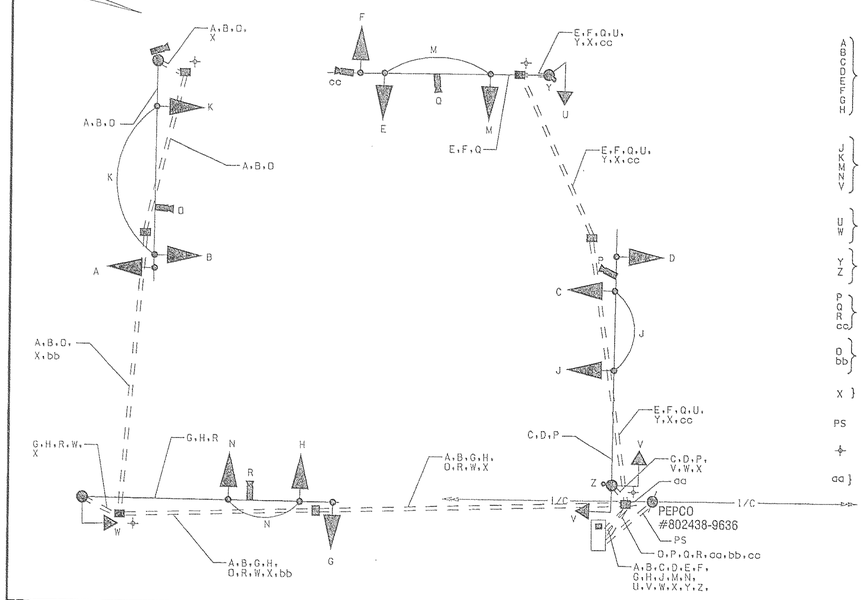
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
203030	TEST PIT EXCAVATION	CY	3
585620	12" HEAT APPL. WHT. RERM. PREF. THER. PVT. MAR.	LF	550
585624	24" HEAT APPL. WHT. PERM. PREF. THER. PVT. MAR.	LF	225
801004	CONCRETE FOR SIGNAL FOUNDATION	CY	21
813014	INSTALL GROUND MOUNTED SIGN	SF	22
813015	INSTALL OVERHEAD SIGN	SF	183
805125	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	210
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	55
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	65
805155	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	LF	460
807400	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS	EA	1
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	7
812002	WOOD SIGN SUPPORTS 6 INCH X 6 INCH	LF	40
816001	VIDEO DETECTION CAMERA	EA	6
816005	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	EA	2
816010	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	EA	4
818041	STEEL POLE WITH SINGLE 60 FOOT MAST ARM	EA	1
818052	STEEL POLE WITH SINGLE 70 FOOT MAST ARM	EA	1
802501	STRANDED BARE COPPER GROUND WIRE, NO 6 AWG	LF	550
837001	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH	EA	3
860272	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	40
860278	12 INCH PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNT	EA	8
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	250
861106	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 12 AWG)	LF	400
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	1200
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	1100
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	LF	480
861117	ELECTRICAL CABLE - 3 WIRE (NO. 4 AWG)	LF	100
865001	PUSHBUTTON AND SIGN	EA	2
871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	EA	1
800000	REMOVE AND DISPOSE OF EXISTING SIGNAL EQUIPMENT	LS	1
860292	CUT CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL POLE	EA	1
800000	SPECIAL "T" POLE WITH A SINGLE 60 FOOT MAST ARM	EA	1
800000	SPECIAL "T" POLE WITH A SINGLE 70 FOOT MAST ARM	EA	1

C. MATERIALS TO BE REMOVED BY THE CONTRACTOR.

NONE

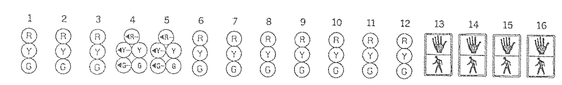
WIRING DIAGRAM



KEY

A B C D E F G H	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
J K M N V	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
U W	3 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
Y Z	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
P Q R cc	VIDEO DETECTION CABLE 250 FOOT
O bb	VIDEO DETECTION CABLE 500 FOOT
X	1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
PS	POWER SERVICE UNDERGROUND 3 WIRE 1-CONDUCTOR # 4 AWG
	GROUND ROD
aa	50 PAIR INTERCONNECT CABLE (SEE INTERCONNECT PLAN)

PHASE CHART



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

SG 6

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION PLAN

MD 650 (NEW HAMPSHIRE AVENUE) AND MICHELSON DRIVE /NORTHWEST DRIVE

SABRA, WANG & ASSOCIATES, INC.
1606 JOH AVENUE
SUITE 160
BALTIMORE, MD 21227
WWW.SABRA-WANG.COM

DRAWN BY: S. SMITH	F.A.P. NO. SEE TITLE SHEET	TS NO. 4242	SHEET NO.
CHECKED BY: K. RINIKER	S.H.A. NO. M0900517I		
SCALE: 1" = 20'	COUNTY: MONTGOMERY	T.I.M.S. NO. E966	(16) OF 23
DATE: MARCH 2003	LOG MILE: 15065002.34		

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