PROJECT DESCRIPTION
GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF A TRAFFIC SIGNAL AT THE INTERSECTION OF MD 650 (NEW HAMPSHIRE AVENUE) AND MAHAN ROAD / SCHINDLER 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 6 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: (301) 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 MOMAHON, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (301) 513-7336

2. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR USING 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, VIDOE INTERFACE EQUIPMENT, LAU PANEL AND RELAY PACKAGE WIRED TO MONTGOMERY COUNTY SPECIFICATIONS.	EA	1
973023	FLAT SHEET ALUMINUM SIGNS	SF	~~262~~ 264 [1]
	D-3(1) (VAR. X 32")	EA	4
	D-3(1) (VAR. X 16")	EA	2
	~~R10-12 (36"X42")~~	~~EA~~	~~2~~
	R3-5L (30"X36")	EA	~~2~~ 5 [1]
	R3-5R (30"X36")	EA	2
	R10-4(MOD.)(12"X9")	EA	2
	GUIDE SHIELD ASSEMBLY (30"X51")	EA	2
	GUIDE SHIELD ASSEMBLY (48"X75")	EA	2

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

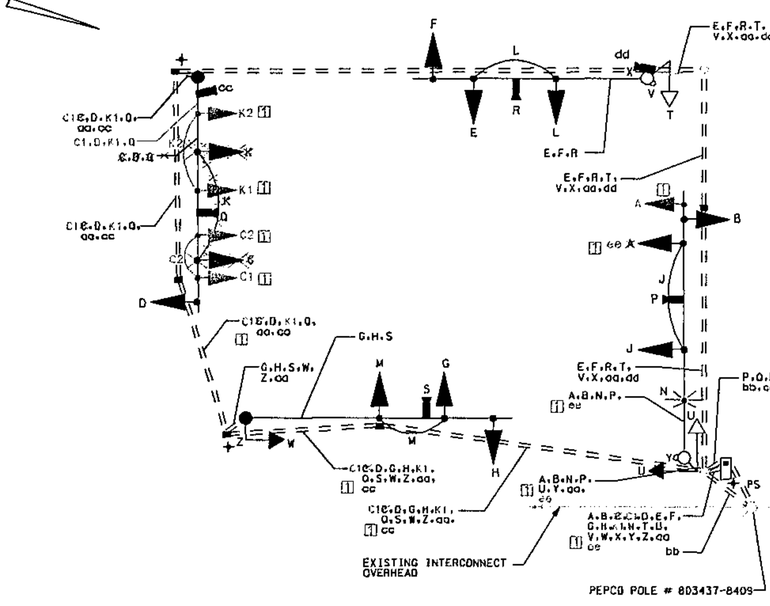
CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
203030	TEST PIT EXCAVATION	CY	3
585620	12" HEAT APPL. WHT. THER. PVT. MAR.	LF	575
585624	24" HEAT APPL. WHT. THER. PVT. MAR.	LF	250
801004	CONCRETE FOR SIGNAL FOUNDATION	CY	16
813015	INSTALL OVERHEAD SIGN	SF	~~262~~ 264 [1]
805155	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	LF	600
~~805125~~	~~2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED~~	~~LF~~	~~40~~ [1]
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	60
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	~~65~~ 105 [1]
807400	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS	EA	1
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	4
800000	RELOCATE VIDEO DETECTION CAMERA	EA	6
816005	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	EA	4
816010	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	EA	2
818036	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM	EA	1
818041	STEEL POLE WITH A SINGLE 60 FOOT MAST ARM	EA	1
831010	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE WITH PHOTOCELL	EA	1
802501	STRANDED BARE COPPER GROUND WIRE, NO 6 AWG	LF	650
837001	GROUND ROD - 3/4 INCH X 10 FOOT LENGHT	EA	3
860272	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	~~40~~ 52 [1]
860278	12 INCH PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNT	EA	4
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	210
861106	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)	LF	400
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	~~750~~ 915 [1]
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	~~1600~~ 1620 [1]
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	LF	375
861117	ELECTRICAL CABLE - 3 WIRE (NO. 4 AWG)	LF	70
866103	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	1
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

NOTE: QUANTITIES FOR MAST ARM POLES ARE INCLUDED IN MOT 2B, SEE SIGNAL SHEET SG 18

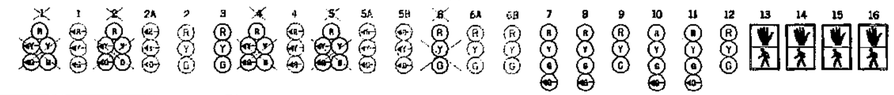
C. MATERIALS TO BE REMOVED BY THE CONTRACTOR.

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILLIARY EQUIPMENT FROM THE CONTROLLER CABINET .THE CABINET AND ALL OTHE MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

WIRING DIAGRAM



PHASE CHART



PHASE 1 AND 5	G	G	G	G	R	R	G	G	G	G	G	R	R	R	R	R	R	R	R	DW	DW	DW	DW	
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6																								
PHASE 1 AND 6	GG	G	GG	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	WK	WK	DW	DW	
PED CLEARANCE	GG	G	GG	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	FL/DW	FL/DW	DW	DW	
1 AND 6 CHANGE	YG	Y	YG	Y	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	
PHASE 2 AND 5	R	R	R	R	R	R	GG	G	GG	G	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW	
2 AND 5 CHANGE	R	R	R	R	R	R	YG	Y	YG	Y	Y	G	Y	Y	R	R	R	R	R	DW	DW	DW	DW	
PHASE 2 AND 6	G	R	G	R	G	G	G	R	G	R	R	G	G	G	R	R	R	R	R	WK	WK	DW	DW	
PED CLEARANCE	G	R	G	R	G	G	G	R	G	R	R	G	G	G	R	R	R	R	R	FL/DW	FL/DW	DW	DW	
2 AND 6 CHANGE	Y	R	Y	R	Y	Y	Y	R	Y	R	R	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW	
PHASE 3	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	
3 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	
PHASE 4	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	DW	DW	DW	DW	
4 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	
PHASE 4 ALT	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	DW	DW	WK	WK	
PED CLEARANCE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	DW	DW	FL/DW	FL/DW	
4 ALT CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	
FLASHING OPERATION	FL/Y	FL/R	FL/Y	FL/R	FL/Y	FL/Y	FL/Y	FL/R	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	

SG 4

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

MD 650 (NEW HAMPSHIRE AVENUE) AND MAHAN ROAD /SCHINDLER DRIVE

DRAWN BY: S. SMITH	F.A.P. NO. SEE TITLE SHEET	TS NO. 701 B	SHEET NO.
CHECKED BY: K. RINKER	S.H.A. NO. MO5005171		
SCALE: NTS	COUNTY: MONTGOMERY	T.I.M.S. NO. E986	
DATE: MARCH 2003	LOG MILE: 15065002.04		161 OF 223

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