PROJECT DESCRIPTION
GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF A EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 117 (DIAMONDAVENUE) AND BUREAU DRIVE IN MONTGOMERY COUNTY.

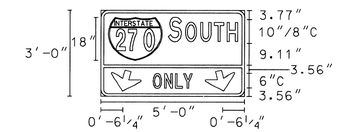
INTERSECTION OPERATION

A SYSTEM CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS LOCATION. THE INTERSECTION WILL OPERATE IN A FULLY ACTUATED MODE USING 6 NEMA PHASES.

SPECIAL NOTES

1. THE FOLLOWING CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:
   PROJECT CONTACTS:
   MR. LEE STARKLOFF, ASSISTANT DISTRICT ENGINEER - TRAFFIC
   PHONE: (301) 513-7359
   MR. RALEIGH MEDLEY, ASSISTANT DISTRICT ENGINEER-MAINTENANCE
   PHONE: (301) 513-7300
   MR. DENNIS McMAHON, ASSISTANT DISTRICT ENGINEER- CONSTRUCTION
   PHONE: (301) 513-7345
   MR. AUGI REBISH, UTILITY ACCESS ENGINEER
   PHONE: (301) 513-7300
   MR. RICHARD L. DAFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION
   PHONE: (410) 787-7630
2. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR USING THE STANDARD PLATES FOR TRAFFIC CONTROL.

OH-1 SIGN LAYOUT



LAYOUT OF OH-01

SHIELD: M1-1(30"X24") 75% SCALE
C-1 ARROW 40% SCALE, CANT AT 15 DEGREE

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.	SF	200
	D-3(1) (VAR. X 16") (DUAL FACE)	EA	4
	OH-01 (60"X36")	EA	1
	R3-5(L) (30"X36")	EA	1
	R3-5(R) (30"X36")	EA	2
	R3-6 (30"X36")	EA	2
	R10-12 (30"X36")	EA	2
	GUIDE SHIELD ASSEMBLY (30"X51")	EA	2
	GUIDE SHIELD ASSEMBLY (48"X75")	EA	2
	R10-4 (MOD) (12"X9")	EA	4

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

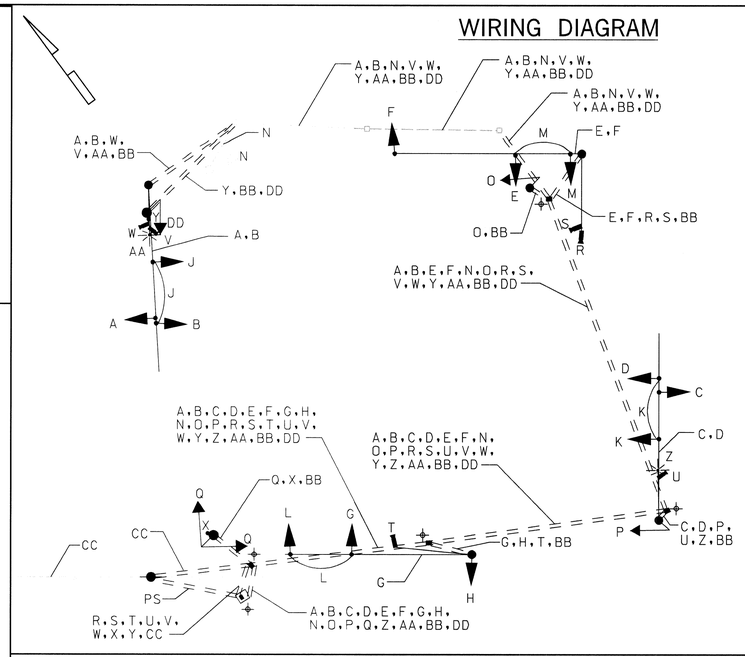
CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
203030	TEST PIT EXCAVATION	CY	7
585620	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS	LF	600
585624	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS	LF	210
801004	CONCRETE FOR SIGNAL FOUNDATION	CY	23
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	445
813015	INSTALL OVERHEAD SIGN	SF	200
805032	3 INCH U-GUARD PVC SCHEDULE 80 CONDUIT RISER	LF	25
805125	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	60
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	300
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	100
805155	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	LF	350
807400	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS	EA	1
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	4
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
818004	10 FOOT BREAKAWAY BASE PEDESTAL POLE	EA	2
818041	STEEL POLE WITH A SINGLE 60 FOOT MAST ARM	EA	3
818052	STEEL POLE WITH A SINGLE 70 FOOT MAST ARM	EA	1
831010	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE WITH PHOTOCELL	EA	2
802501	STRANDED BARE COPPER GROUND WIRE, NO. 6 AWG	LF	750
837001	GROUND ROD -5/8INCH DIAMETER X 10 FOOT LENGTH	EA	6
860272	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	48
860278	12 PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNT	EA	6
860282	12 PEDESTRIAN SIGNAL HEAD SECTION PEDESTAL POLE MOUNT	EA	6
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	550
861106	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)	LF	750
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	600
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	3000
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	LF	700
861117	3 WIRE - 1 CONDUCTOR, NO. 4 AWG,	LF	175
865001	PUSHBUTTON AND SIGN	EA	2
866103	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	3
871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	EA	1
800000	REMOVE AND DISPOSE OF EXISTING SIGNAL EQUIPMENT	LS	1

C. MATERIALS TO BE REMOVED BY THE CONTRACTOR.

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

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY

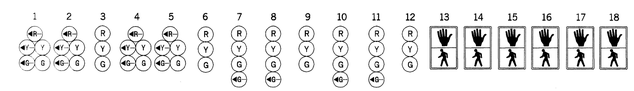
WIRING DIAGRAM



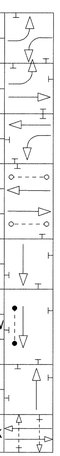
KEY

A B C D E F G H	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
J K L M N Q	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
O P DD	3 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) FOR PEDESTRIAN SIGNAL HEADS
X Y	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) FOR PEDESTRIAN PUSHBUTTONS
Z AA	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TRAY CABLE
R S V W	VIDEO DETECTION CABLE (500 FT LEAD IN CABLE)
T U	VIDEO DETECTION CABLE (250 FT LEAD IN CABLE)
BB	1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
CC	50 PAIR JELLY FILLED INTERCONNECT SEE INTERCONNECT SHEET
PS	POWER SERVICE UNDERGROUND
⏚	GROUND ROD

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PHASE 1 AND 5	◄G/R	◄G/R	R	◄G/R	◄G/R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6																		
PHASE 1 AND 6	◄GG	◄GG	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 AND 6 CHANGE	◄Y/G	◄Y/G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 AND 5	R	R	R	◄GG	◄GG	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
2 AND 5 CHANGE	R	R	R	◄Y/G	◄Y/G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	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	DW	DW
PHASE 3	R	R	R	R	R	R	R	R	R	G ◄G	G ◄G	G	DW	DW	DW	DW	DW	DW
PHASE 3 CHANGE	R	R	R	R	R	R	R	R	R	Y ◄Y	Y ◄Y	Y	DW	DW	DW	DW	DW	DW
ALT PHASE 3	R	R	R	R	R	R	R	R	R	G ◄G	G ◄G	G	DW	DW	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	R	R	R	R	R	G ◄G	G ◄G	G	DW	DW	DW	DW	FL/DW	FL/DW
ALT PHASE 3 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	G ◄G	G ◄G	G	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	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	DARK	DARK



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

MD 117 AT BUREAU DRIVE / ENTRANCE TO NATIONAL INSTITUTE OF STANDARDS (N.I.S.T.)

DRAWN BY: S. SMITH	F.A.P. NO.		TS NO. TS-2029 E	SHEET NO.
CHECKED BY: K. RINIKER	S.H.A. NO.	M0813517I		
SCALE: 1" = 20'	COUNTY:	MONTGOMERY	T.I.M.S. NO. E844	58 OF 90
DATE: MARCH 2003	LOG MILE:	15011711.45		