PROJECT DESCRIPTION
GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE TRAFFIC SIGNAL AT THE INTERSECTION OF MD 185 (CONNECTICUT AVENUE) AND MD 586 (VEIRS MILL ROAD) 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 8 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. DENNIS McMAHON ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (301) 513-7300
MR. AUGI 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

2. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR USING THE SHA STANDARD PLATES.

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 VIDEO INTERFACE EQUIPMENT, SSM 12 E CONFLICT MONITOR, POWER SUPPLY FOR RACK MOUNTED DETECTION, LAU PANEL AND RELAY PACKAGE WIRED TO MONTGOMERY COUNTY SPECIFICATIONS. WITH ADDITIONAL VIDEO PANEL AND SERIAL CABLE.	EA	1
973023	FLAT SHEET ALUMINUM SIGNS.	SF	140
	D-3(1) (VAR. X16")	EA	4
	R10-12 (36"X42")	EA	1
	R3-5 (30"x36")	EA	5
	R-10-4(1) MOD (12"X9")	EA	4

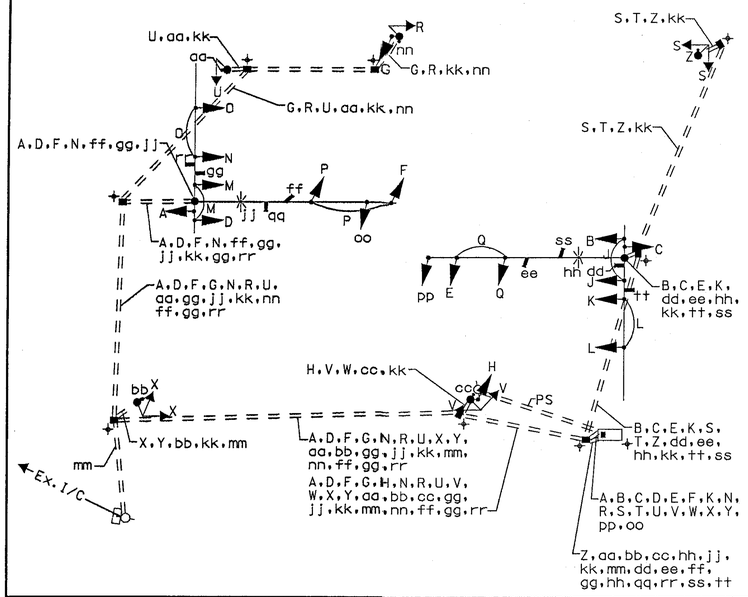
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
203030	TEST PIT EXCAVATION	CY	7
585624	24" WHITE HEAT APPL. THERMO. PAVEMENT MARK.	LF	233
585620	12" WHITE HEAT APPL. THERMO. PAVEMENT MARK	LF	966
800000	REMOVE AND DISPOSE OF EXISTING SIGNAL EQUIPMENT	LS	1
801004	CONCRETE FOR SIGNAL FOUNDATIONS	CY	12
805125	2" SCHED. 80 PVC CONDUIT - TRENCHED	LF	126
805140	4" SCHED. 80 PVC CONDUIT - TRENCHED	LF	22
805135	3" SCHED. 80 PVC CONDUIT - TRENCHED	LF	112
805155	4" SCHED. 80 PVC CONDUIT - SLOTTED	LF	670
807400	ELEC. UTILITY SER. EQUIP. 120/240V 60 AMP	EA	1
811001	HANDHOLE	EA	8
813015	INSTALL OVERHEAD SIGN	SF	140
816001	VIDEO DETECTION CAMERA	EA	4
816010	CONTROL CABLE FROM CAMERA TO CONTROLLER (500' LENGTH CABLE)	EA	4
800000	STEEL POLE WITH TRIPLE 70', 50' AND 38' MAST ARMS	EA	2
818010	14' PEDESTAL POLE WITH BREAKAWAY BASE	EA	4
822002	12 PAIR COMMUNICATION CABLE	LF	120
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	935
837001	GROUND ROD 3/4" DIAMETER X 10' LENGTH	EA	9
860272	12" SIGNAL HEAD SECTION	EA	61
860278	12' PEDESTRIAN SIGNAL HEAD SECTION MAST ARM POLE MOUNT	EA	16
860292	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE	EA	1
861105	2-COND., NO. 14 AWG ELECT. CABLE	LF	1490
861106	3-COND., NO. 14 AWG ELECT. CABLE	LF	2040
861107	5-COND., NO. 14 AWG ELECT. CABLE	LF	1048
861108	7-COND., NO. 14 AWG ELECT. CABLE	LF	2184
861116	2-COND., NO. 12 AWG ELECT CABLE	LF	489
865001	PUSHBUTTON AND SIGNS	EA	4
861117	3 WIRE NO. 4 AWG (ELECTRICAL CABLE)	LF	70
871202	INSTALL CONTROLLER AND CABINET - BASE MT	EA	1
818009	14" X 32' STRAIN POLE	EA	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.

WIRING DIAGRAM



KEY

A C E F H K N pp oo	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
B D G J L M O P Q S V X	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
R U	3 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
Z aa bb cc nn	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
dd ee ff gg qq rr ss tt	VIDEO DETECTION CABLE
hh jj	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TRAY CABLE
kk	1 CONDUCTOR (NO. 6 WAG) STRANDED COPPER GROUND WIRE
mm	12 PAIR INTERCONNECT CABLE
PS	POWER SERVICE UNDERGROUND 3 WIRE 1-CONDUCTOR NO.4 AWG.
+	GROUND ROD

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
PHASE 1 AND 5	←G	←G	←G	R	R	←G	←G	←G	R	R	←R	R	R	←R	←R	R	R	R	R	DW	DW	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	←G	←G	←G	G	G	←R	←R	←R	R	R	←R	R	R	←R	←R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 AND 6 CHANGE	←Y	←Y	←Y	G	G	←R	←R	←R	R	R	←R	R	R	←R	←R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 AND 5	←R	←R	←R	R	R	←G	←G	←G	G	G	←R	R	R	←R	←R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
2 AND 5 CHANGE	←R	←R	←R	R	R	←Y	←Y	←Y	G	G	←R	R	R	←R	←R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 AND 6	←R	←R	←R	G	G	←R	←R	←R	G	G	←R	R	R	←R	←R	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEARANCE	←R	←R	←R	G	G	←R	←R	←R	G	G	←R	R	R	←R	←R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2 AND 6 CHANGE	←R	←R	←R	Y	Y	←R	←R	←R	Y	Y	←R	R	R	←R	←R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 AND 7	←R	←R	←R	R	R	←R	←R	←R	R	R	←G	R	R	←G	←G	←G/R	R	←G/R	←G/R	DW	DW	DW	DW	DW	DW	DW	DW
3 AND 7 CHANGE TO 3 AND 8,4 AND 7,OR 4 AND 8																											
PHASE 3 AND 8	←R	←R	←R	R	R	←R	←R	←R	R	←R	←G	G	G	←G	←G	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
3 AND 8 CHANGE	←R	←R	←R	R	R	←R	←R	←R	R	←R	←Y	Y	Y	←Y	←Y	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 7	←R	←R	←R	R	R	←R	←R	←R	R	←R	←R	R	R	←R	←R	←G/G	G	←G/G	←G/G	DW	DW	DW	DW	DW	DW	DW	DW
4 AND 7 CHANGE	←R	←R	←R	R	R	←R	←R	←R	R	←R	←R	R	R	←R	←R	←Y/G	Y	←Y/G	←Y/G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8	←R	←R	←R	R	R	←R	←R	←R	R	←R	←R	G	G	←R	←R	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8 CHANGE	←R	←R	←R	R	R	←R	←R	←R	R	←R	←R	Y	Y	←R	←R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8 ALT	←R	←R	←R	R	R	←R	←R	←R	R	←R	←R	G	G	←R	←R	G	G	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE	←R	←R	←R	R	R	←R	←R	←R	R	←R	←R	Y	Y	←R	←R	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
PHASE 4 AND 8 ALT CHANGE	←R	←R	←R	R	R	←R	←R	←R	R	←R	←R	R	R	←R	←R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	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 185 (CONNECTICUT AVENUE) AND
MD 586 (VEIRS MILL ROAD)

DRAWN BY: S. SMITH	F.A.P. NO.		TS NO.	SHEET NO.
CHECKED BY: K. RINIKER	S.H.A. NO.	M081751?1	401SC	
SCALE: NTS	COUNTY:	MONTGOMERY	T.I.M.S. NO.	
DATE: MARCH 2003	LOG MILE:	15018505.92	E904	OF

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