PROJECT DESCRIPTION
GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 704(MARTIN LUTHER KING JR. HWY.) AT SHERIFF ROAD IN PRINCE GEORGE'S 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. THE LEFT TURN PHASES ALONG EASTBOUND AND WESTBOUND MD 704 SHALL OPERATE WITH EXCLUSIVE/PERMISSIVE LEFT TURN PHASING; THE SHERIFF ROAD NORTHBOUND AND SOUTHBOUND SHALL OPERATE WITH SPLIT PHASING.

SPECIAL NOTES

1. THE FOLLOWING CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

   PROJECT CONTACTS:

   MR. MAJID SHAKIB, ASSISTANT DISTRICT ENGINEER - TRAFFIC
   PHONE: (301) 513-7359
   MR. DENNIS MCMAHON, ASSISTANT DISTRICT ENGINEER- MAINTENANCE
   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

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

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
971017	EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT, SYSTEM READY, WITH VIDEO INTERFACE EQUIPMENT AND RACK MOUNTED AMPLIFIERS	EA	1
973023	FLAT SHEET ALUMINUM SIGNS (BLUE OR GREEN)	SF	76
	R10-12 (36"X42") MAST ARM MOUNT	EA	2
	R3-5 (L) (30"x36") MAST ARM MOUNT	EA	1
	R3-6 (30"x36") MAST ARM MOUNT	EA	2
	D3-2 (16" X VAR.) MAST ARM MOUNT	EA	4

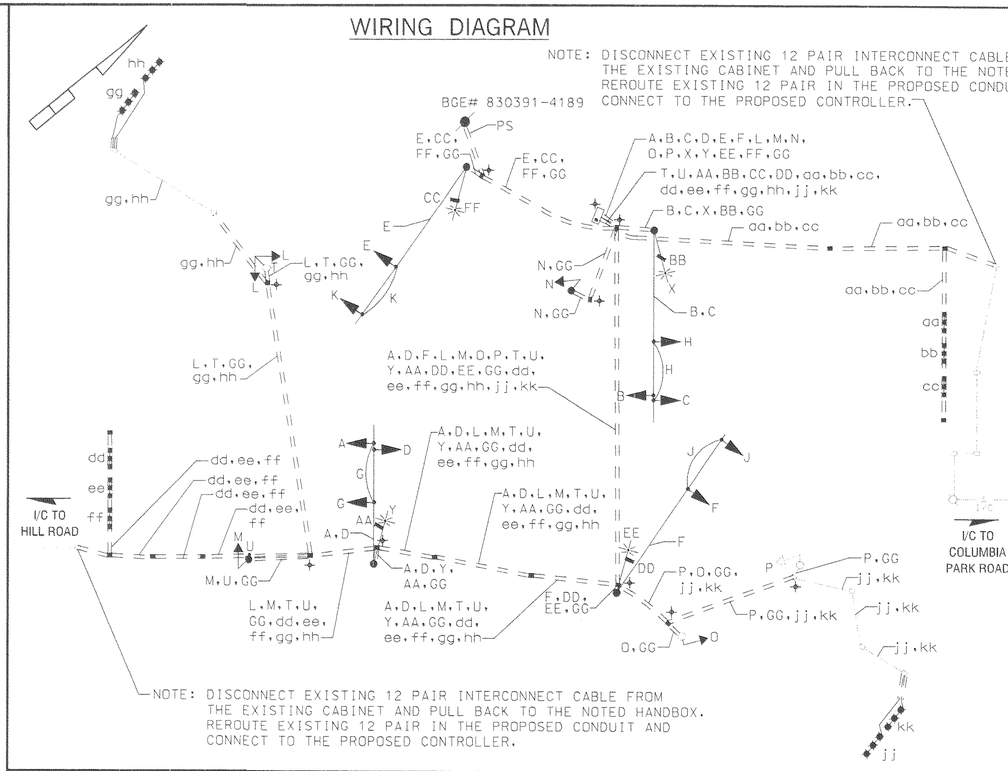
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
203030	TEST PIT EXCAVATION	CY	4
585462	REMOVAL OF PERMANENT PAVEMENT LINE	LF	300
585620	12 INCH HEAT APPL. WHITE PERMANENT PREFORMED THERMO. PAVEMENT MARKING	LF	700
585624	24 INCH HEAT APPL. WHITE PERMANENT PREFORMED THERMO. PAVEMENT MARKING	LF	100
801004	CONCRETE FOR SIGNAL FOUNDATIONS	CY	20
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	700
805125	2 INCH SCHED. 80 PVC CONDUIT-TRENCHED	LF	70
805135	3 INCH SCHED. 80 PVC CONDUIT-TRENCHED	LF	1300
805150	3 INCH SCHED. 80 PVC CONDUIT-SLOTTED	LF	250
805140	4 INCH SCHED. 80 PVC CONDUIT-TRENCHED	LF	40
805155	4 INCH SCHED. 80 PVC CONDUIT-SLOTTED	LF	450
805160	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT	LF	50
807400	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS, 60 AMPS	EA	1
810550	MICROLOOP PROBE, 500 FOOT LEAD IN CABLE	EA	6
811001	F&I ELECTRICAL HANDHOLE	EA	18
813015	INSTALL OVERHEAD SIGN	SF	76
816001	VIDEO DETECTOR CAMERA	EA	4
816005	CONTROL CABLE, 250 FOOT VIDEO DETECTION CAMERA TO CONTROLLER	EA	2
816010	CONTROL CABLE, 500 FOOT VIDEO DETECTION CAMERA TO CONTROLLER	EA	2
818004	10 FOOT BREAKAWAY PEDESTAL POLE	EA	1
818052	STEEL POLE WITH A SINGLE 70 FOOT MAST ARM	EA	3
818041	STEEL POLE WITH A SINGLE 60 FOOT MAST ARM	EA	1
831010	250 WATT HPS LAMP AND LUMINAIRE WITH PHOTOCELL	EA	4
832017	CABLE 1-CONDUCTOR, NO. 4 AWG, TYPE USE, 600V	LF	50
837001	GROUND ROD - 3/4 INCH DIA. X 10 FOOT LENGTH	EA	9
860272	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	40
860282	12 INCH PEDESTRIAN SIGNAL HEAD SECTION PEDESTAL POLE MOUNT	EA	10
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	830
861106	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)	LF	1025
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	590
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	1530
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	LF	800
862102	SAW CUT FOR SIGNAL (LOOP DECTOR)	LF	100
865001	PUSHBUTTON AND SIGN	EA	1
866103	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	4
871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	EA	1
873001	REMOVE AND SALVAGE EXISTING EQUIPMENT	LS	1
800000	DISCONNECT EXISTING I/C CABLE AND REINSTALL IN PROPOSED CONDUIT	LF	1600

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

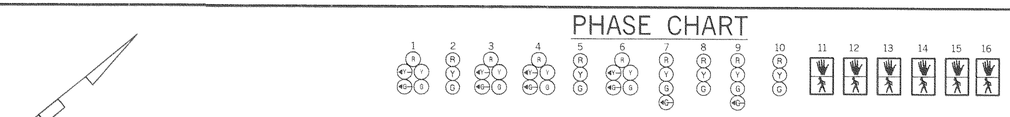
WIRING DIAGRAM



KEY

A, B, C, D, E, F	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
G, H, J, K, L	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
M, N, O, P	3 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
T, U	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
X, Y, EE, FF	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TRAY CABLE
AA, DD	VIDEO DETECTION CABLE (500 FT CABLE LENGTH)
BB, CC	VIDEO DETECTION CABLE (250 FT CABLE LENGTH)
aa, bb, cc, dd, ee, ff	NON-INVASIVE LOOP DETECTOR CABLE LEAD-IN
gg, hh, jj, kk	MICRO LOOP DETECTOR CABLE LEAD-IN
GG	1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
PS	POWER SERVICE UNDERGROUND
+	GROUND ROD

PHASE CHART



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

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

MD 704 (MARTIN LUTHER KING JR. HIGHWAY) AND SHERIFF ROAD

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DRAWN BY: SJ DU	F.A.P. NO. SEE TITLE SHEET	TS NO. 36B	SHEET NO.
CHECKED BY: Keith Rinaker	S.H.A. NO. PG4005176		
SCALE: NTS	COUNTY: PRINCE GEORGES	T.M.S. NO. F465	12 OF 16
DATE: DECEMBER, 2002	LOG MILE: 16070401.51		