PROJECT DESCRIPTION

I. GENERAL:

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 7 AND GOLDEN RING ROAD (MD 588) IN BALTIMORE COUNTY. FIREHOUSE PRE-EMPTION CABLE MUST BE PULLED BACK FROM THE EXISTING CABINET/CONTROLLER, STORED, AND REROUTED FROM THE HANDHOLE NEAR THE FIRE STATION NORTH OF THE INTERSECTION TO THE NEW CABINET/CONTROLLER.

MD 7 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION:

THE INTERSECTION WILL OPERATE IN A NEMA SEVEN-PHASE, FULL-ACTUATED MODE. VIDEO CAMERA AND PROBES SHALL PROVIDE DETECTION. NAVIGATOR AUDIBLE PUSHBUTTON PEDESTRIAN MOVEMENTS ARE PROVIDED TO CROSS THE NORTH AND EAST LEGS OF THE INTERSECTION. MD 588 APPROACHES SHALL OPERATE IN A SPLIT PHASE. MD 7 APPROACHES SHALL OPERATE CONCURRENTLY WITH EXCLUSIVE/PERMISSIVE LEFT TURNS FOR BOTH DIRECTIONS.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

QUANTITY	DESCRIPTION
1 EA	NEMA EIGHT PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH VIDEO DETECTION UNIT. 1- FOUR CHANNEL RACK MOUNTED AMPLIFIER AND ALL NECESSARY EQUIPMENT.
76 SF	FLAT SHEET ALUMINUM SIGNS CONSISTING OF:
3 EA	R3-5(R) (30"X36")
1 EA	R3-5(L) (30"X36")
1 EA	R3-6(L) (30"X36")
2 EA	MD 7 SHIELD ASSEMBLY (30" X 51")
2 EA	MD 7 SHIELD ASSEMBLY (48" X 75")
4 EA	R 10-4(1) MOD

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. RANDALL SCOTT
ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: 410-321-2781/2885

MR. STEVE MARCISZEWSKI
ASSISTANT DISTRICT ENGINEER-CONSTRUCTION
410-321-2821

MR. DANIEL WITT
ASSISTANT DISTRICT ENGINEER-MAINTENANCE
410-321-2761

MR. MIKE PAQUARILLO
DISTRICT UTILITY ENGINEER
410-321-2841

THE CONTACT PERSONS FOR
OFFICE OF TRAFFIC AND SAFETY:

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATION SECTION
PHONE: 410-787-7652

MR. ROBERT SNYDER
ASST. CHIEF, TRAFFIC OPERATION DIVISION
410-787-7631

MR. JAY THAKER
PROJECT MANAGER, TRAFFIC
ENGINEERING DESIGN DIVISION
410-582-5682

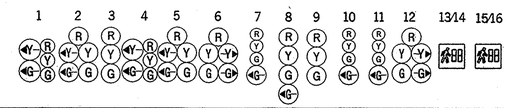
EQUIPMENT LIST "A"

CAT. CODE	QUANTITY	DESCRIPTION
203030	4 CY	TEST PIT EXCAVATION
800000	4 EA	AUDIBLE TACTILE PEDESTRIAN PUSHBUTTON
800000	1 EA	2 WIRE NAVIGATOR CENTRAL CONTROL UNIT
800000	8 EA	16" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION
800000	600 LF	PULL BACK AND INSTALL EXISTING INTERCONNECT CABLE
801004	23 CY	CONCRETE FOR SIGNAL FOUNDATION
805125	50 LF	2" SCHEDULE 80 PVC CONDUIT-TRENCHED
805135	580 LF	3" SCHEDULE 80 PVC CONDUIT-TRENCHED
805140	100 LF	4" SCHEDULE 80 PVC CONDUIT-TRENCHED
805150	140 LF	3" SCHEDULE 80 PVC CONDUIT-SLOTTED
805155	200 LF	4" SCHEDULE 80 PVC CONDUIT-SLOTTED
807202	1 EA	METERED SERVICE PEDESTAL
810010	100 LF	ELEC CABLE - 1 CONDUCTOR NO. 4 AWG-THHN/THWN
810601	3 EA	NON-INVASIVE PROBE WITH 1000' LEAD-IN CABLE
811001	8 EA	FURNISH & INSTALL ELECTRICAL HANDHOLE
813015	76 SF	INSTALL SHEET ALUMINUM SIGN
816001	4 EA	VIDEO DETECTOR CAMERA
816005	3 EA	CONTROL CABLE, 250', VIDEO DETECTOR CAMERA TO CONT.
816010	1 EA	CONTROL CABLE, 500', VIDEO DETECTOR CAMERA TO CONT.
818004	2 EA	10' BREAKAWAY PEDESTAL POLE
818036	2 EA	STEEL POLE WITH SINGLE 50' MAST ARM
818041	1 EA	STEEL POLE WITH SINGLE 60' MAST ARM
818052	1 EA	STEEL POLE WITH SINGLE 70' MAST ARM
821003	2 EA	BREAKAWAY BASE SUPPORT SYSTEM FOR SIGNAL STRUCTURE
831010	4 EA	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
832020	620 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
837001	8 EA	GROUND ROD (3/4 " DIA X 10' LENGTH)
860270	12 EA	8" LED SIGNAL HEAD SECTION
860272	40 EA	12" LED SIGNAL HEAD SECTION
861105	425 LF	ELECTRICAL CABLE 2 - CONDUCTOR NO. 14 AWG
861107	500 LF	ELECTRICAL CABLE 5 - CONDUCTOR NO. 14 AWG
861108	1740 LF	ELECTRICAL CABLE 7 - CONDUCTOR NO. 14 AWG
861116	240 LF	ELECTRICAL CABLE 2 - CONDUCTOR NO. 12 AWG TRAY CABLE
866104	4 EA	20' LIGHTING ARM ON SIGNAL STRUCTURE
871202	1 EA	INSTALL CONTROLLER AND CABINET-BASE MOUNT
873001	1 EA	REMOVE AND DISPOSE OF EXISTING EQUIPMENT / PROJECT

EQUIPMENT LIST "C"

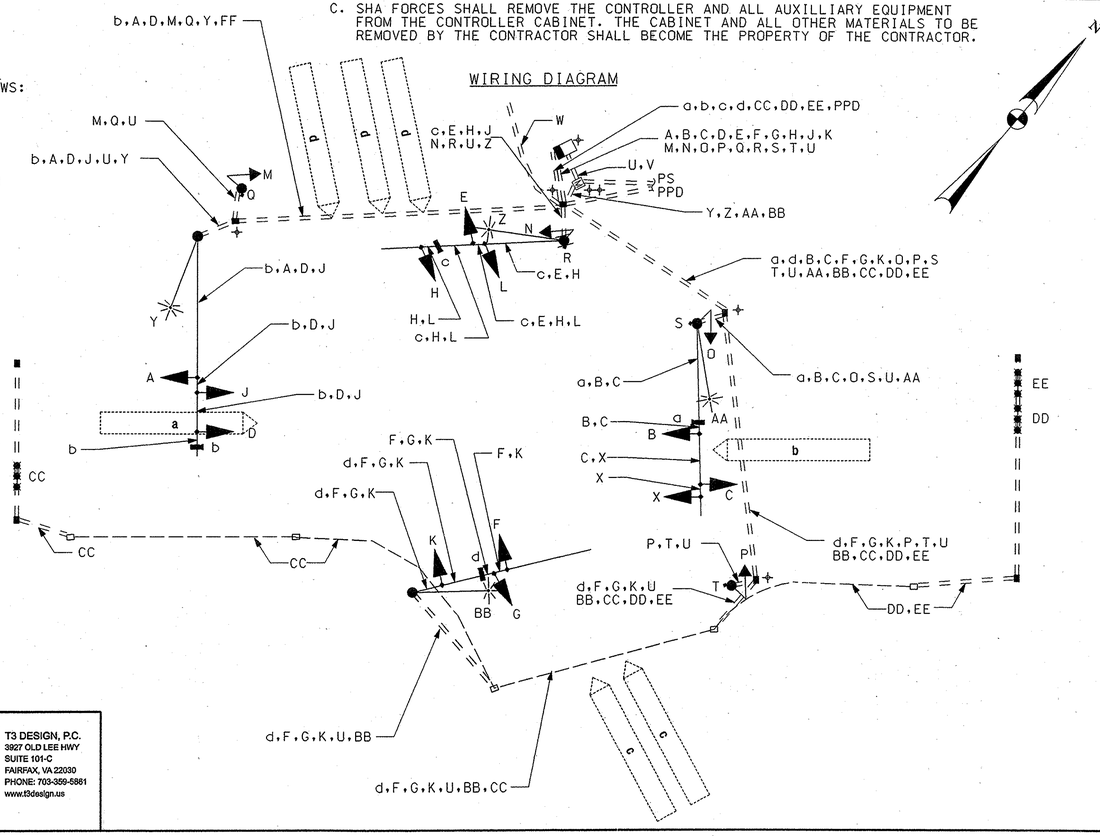
C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILLIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13/14	15/16
PHASE 1 AND 5	←G|R	←G|R	G	←G|R	←G|R	R	R	R	R	R	R	R|G→	DW	DW
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, 2 AND 6, OR 2 ALT AND 6														
PHASE 1 AND 6	←G|G	←G|G	G	R	R	R	R	R	R	R	R	R|G→	DW	DW
1 CHANGE	←Y|G	←Y|G	Y	R	R	R	R	R	R	R	R	R|Y→	DW	DW
PHASE 2 AND 5	R	R	R	←G|G	←G|G	G	R	R	R	R	R	R	DW	DW
5 CHANGE	R	R	R	←Y|G	←Y|G	G	R	R	R	R	R	R	DW	DW
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	R	R	WK	DW
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 3	R	R	R	R	R	R	G ←G	G ←G	G	R	R	R	DW	DW
3 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW
PHASE 3 ALT	R	R	R	R	R	R	G ←G	G ←G	G	R	R	R	DW	WK
PED CLEARANCE	R	R	R	R	R	R	G ←G	G ←G	G	R	R	R	DW	FL/DW
3 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW
PHASE 4	R	R	R	R	R	R|G→	R	R	R	G ←G	G ←G	G	DW	DW
4 CHANGE	R	R	R	R	R	R|Y→	R	R	R	Y	Y	Y	DW	DW
FIREHOUSE PREEMPTION	R	R	R	R	R	R|R→	R	R	R	G	G	G	DW	DW
PREEMPTION CHANGE	R	R	R	R	R	R|R→	R	R	R	Y	Y	Y	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK

WIRING DIAGRAM



WIRING KEY

a, b, c, d	VIDEO DETECTION CABLE
A, B, C, D, E, F, G, H, J, K	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
X, L, M, N, O, P	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
Q, R, S, T	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
Y, Z, AA, BB	2 CONDUCTOR ELEC. CABLE (NO. 12 AWG) TRAY CABLE
CC, DD, EE	NON-INVASIVE PROBE WITH 1000' LEAD-IN
U	1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
V	(3-WIRES) 1 CONDUCTOR ELECTRICAL CABLE NO. 4 AWG
W	DISCONNECT EXISTING PRE-EMPTION CABLE FROM EXISTING CONTROLLER/ CABINET. PULL BACK TO HANDHOLE AND REROUITE TO PROPOSED C/C.
PS	PROPOSED UNDERGROUND SERVICE FEED
PPD	PROPOSED PHONE DROP
+	GROUND ROD
M	METERED SERVICE PEDESTAL

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STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 7 (PHILADELPHIA RD)
AND MD 588 (GOLDEN RING RD)

GENERAL INFORMATION SHEET

SCALE 1" = 20' DATE 10-11-06 CONTRACT NO. BA6885185

DESIGNED BY AJM
DRAWN BY WMD
CHECKED BY PAT
F.A.P. NO.
COUNTY BALTIMORE
LOGMILE 03000702.25
T.I.M.S. NO. F189
TOD NO.

DRAWING NO. TS-1158J SG-9 OF 9 SHEET NO. 170 OF

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