PROJECT DESCRIPTION

GENERAL:

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 26 (LIBERTY ROAD) AND KELOX ROAD IN BALTIMORE COUNTY. THE INTERSECTIONIS PART OF THE EXISTING MD 26 TRAFFIC SIGNAL SYSTEM.

MD 26 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION:

THE INTERSECTION OPERATES A NEMA FOUR PHASE, FULL-ACTUATED MODE. MD 26 THROUGH MOVEMENTS OPERATE CONCURRENTLY. WITH VIDEO CAMERA DETECTION AND NAVIGATOR AUDIBLE PUSHBUTTON PEDESTRIAN CROSSING OF THE SOUTH AND EAST LEGS OF THE INTERSECTION. KELOX ROAD MOVEMENTS OPERATE CONCURRENTLY.

CONTROLLER INFORMATION:

A NEMA EIGHT-PHASE, FULL-ACTUATED CONTROLLER WITH ALL NECESSARY EQUIPMENT HOUSED IN A BASE-MOUNTED CABINET SHALL BE INSTALLED AT THE INTERSECTION.

SEE THE PLAN SHEET'S GENERAL NOTES FOR INSTRUCTIONS IN REGARD TO THE NAVIGATOR CENTRAL CONTROL UNIT.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
9000	1 EA	NEMA EIGHT PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH TELEMETRY, VIDEO DETECTION UNIT, CENTRAL CONTROL NAVIGATOR UNIT,2- FOUR CHANNEL AMPLIFIERS AND ALL NECESSARY EQUIPMENT HOUSED IN A BASE- MOUNTED CABINET.
9071	49 SF	SHEET ALUMINUM FOR MAST ARM MOUNTING
	1 EA	D3-2 "BELL SYMBOL, Kelox RD" (VARIABLE x 16") DUAL FACED
	1 EA	M95-1(MOD) "Liberty RD/ EAST, ARROW, MD 26, WEST,ARROW" (VARIABLE x 42")
	1 EA	M95-1(MOD) "Liberty RD/ WEST, ARROW, MD 26, EAST, ARROW (VARIABLE x 42")
	4 EA	S2-1 "PEDESTRIAN CROSSING" (30" x30")
	2 EA	M6-2 "RIGHT ARROW" (21"x15")
	2 EA	M6-2 "LEFT ARROW" (21"x15")

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND SUPPLIED BY THE CONTRACTOR.

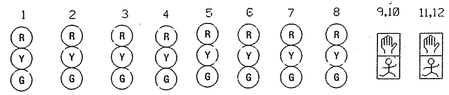
CATEGORY CODE	QUANTITY	DESCRIPTION
120662	500 LF	REMOVAL OF EXISTING PAINTED STRIP MARKING-ANY WIDTH
203030	4 CY	TEST PIT EXCAVATION
585616	22 LF	5" WHITE HEAT APPLIED THERMOPLASTIC PERMANENT PREFORMED PAVEMENT MARKING
585620	330 LF	12" WHITE HEAT APPLIED THERMOPLASTIC PERMANENT PREFORMED PAVEMENT MARKING
585624	120 LF	24" WHITE HEAT APPLIED THERMOPLASTIC PERMANENT PREFORMED PAVEMENT MARKING
600000	24 SF	BRICK PAVERS
634300	112 LF	STANDARD TYPE A COMBINATION CURB ANG GUTTER (12" GUTTER PAN-8" DEPTH)
655105	425 SF	5" CONCRETE SIDEWALK
801004	7 CY	CONCRETE FOR SIGNAL FOUNDATION
801104	30 LF	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4"x4"
802501	425 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805010	30 LF	FURNISH AND INSTALL 1" ELECTRICAL CONDUIT GALVANIZED RISER
805125	55 LF	2" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-TRENCHED
805135	95 LF	3" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-TRENCHED
805140	20 LF	4" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-TRENCHED
805145	115 LF	FURNISH AND INSTALL 2" SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
805155	170 LF	FURNISH AND INSTALL 4" SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
807202	1 EA	SERVICE METERED PEDESTAL
811001	6 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	17 SF	INSTALL GROUND MOUNTED SIGN
813015	32 SF	INSTALL OVERHEAD SIGN
821003	3 EA	FURNISH AND INSTALL BREAKAWAY BASE SUPPORT SYSTEM FOR SIGNAL STRUCTURE
837001	9 EA	GROUND ROD ¾"DIA. X 10' LENGTH
800000	24 EA	FURNISH AND INSTALL 12" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
871202	1 EA	INSTALL CONTROLLER CABINET BASE- MOUNTED
800000	1 EA	2 WIRE NAVIGATOR CENTRAL CONTROL UNIT
861105	300 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR NO. 14 AWG
865001	4 EA	FURNISH AND INSTALL PUSHBUTTON AND SIGN
818052	1 EA	FURNISH AND INSTALL STEEL POLE WITH SINGLE 70' MAST ARM
800000	8 EA	16" LED CLAM SHELL COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION
810550	4 EA	MICRO LOOP PROBE WITH 500' LEAD -IN CABLE
816001	2 EA	VIDEO DETECTOR CAMERA
816005	2 EA	250' VIDEO CAMERA LEAD- IN CABLE TO CONTROLLER
805050	1 EA	3" WEATHER HEAD
810010	360 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1- CONDUCTOR NO.4 AWG- THHN/THWN
822001	5000 LF	FURNISH AND INSTALL 12- PAIR COMMUNICATION CABLE, SELF-SUPPORTING (OVERHEAD)
800000	1700 LF	FURNISH AND INSTALL 12- PAIR COMMUNICATION CABLE, SELF-SUPPORTING (REMOVE SELF-SUPPORTING FOR UNDERGROUND INSTALLATION)
831010	1 EA	FURNISH AND INSTALL 250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
861107	425 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5- CONDUCTOR NO. 14 AWG
861108	335 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7- CONDUCTOR NO. 14 AWG
861116	95 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2- CONDUCTOR NO. 12 AWG TRAY CABLE
862102	460 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL EQUIPMENT
866103	1 EA	FURNISH AND INSTALL 15' LIGHTING ARM ON SIGNAL STRUCTURE
805160	24 LF	FURNISH AND INSTALL 1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
818004	3 EA	10' PEDESTAL POLE W/ BREAKAWAY BASE

NOTE: THIS GENERAL INFORMATION SHEET INDICATES THE TOTAL QUANITIES FOR THE 12 PAIR INTERCONNECT CABLE FOR THIS PROJECT. (INTERCONNECT SHEETS 24-27 OF 28)

EQUIPMENT LIST "C"

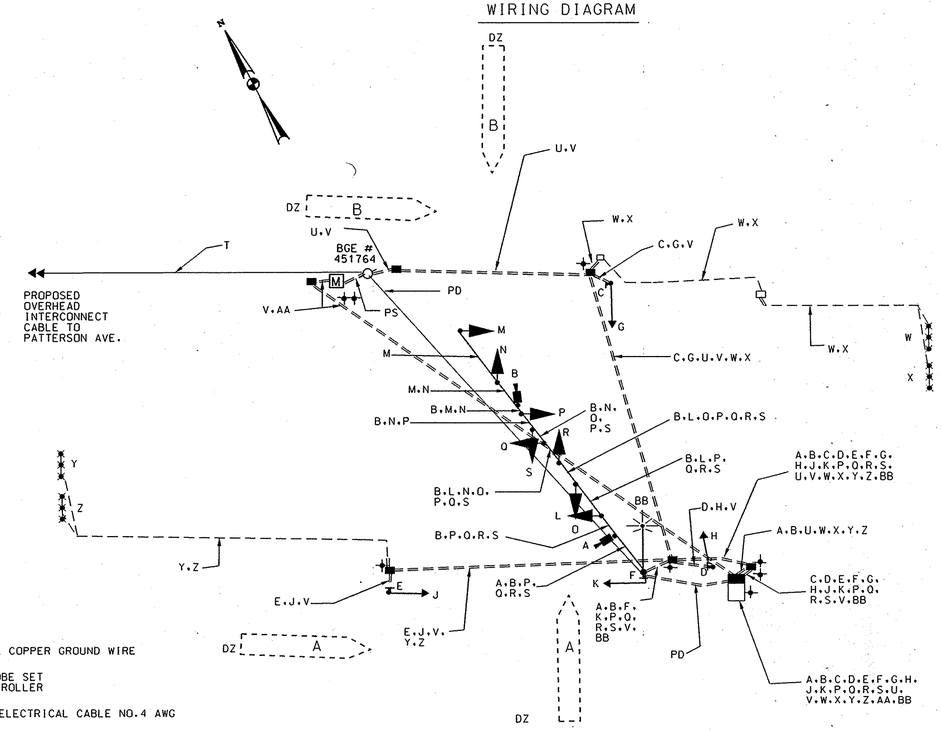
SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR

PHASE CHART



Phase 2 & 6	G	G	G	G	R	R	R	R	DW	DW	
2 & 6 Change	Y	Y	Y	Y	R	R	R	R	DW	DW	
Phase 2&6 Alt.	G	G	G	G	R	R	R	R	DW	WK	
Ped. Clear Countdown	G	G	G	G	R	R	R	R	DW	FL/DW	
2&6 Alt. Change	Y	Y	Y	Y	R	R	R	R	DW	DW	
Phase 4 & 8	R	R	R	R	G	G	G	G	DW	DW	
4 & 8 Change	R	R	R	R	Y	Y	Y	Y	DW	DW	
Phase 4&8 Alt.	R	R	R	R	G	G	G	G	WK	DW	
Ped. Clear Countdown	R	R	R	R	G	G	G	G	FL/DW	DW	
4&8 Alt. Change	R	R	R	R	Y	Y	Y	Y	DW	DW	
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	

WIRING DIAGRAM



TS 10 OF 10

WIRING KEY

A.B - VIDEO CAMERA W/ 250' LEAD-IN TO CONTROLLER

C.D. E.F } 2 -CONDUCTOR ELECTRICAL CABLE NO. 14 AWG

G.H.J.K. L.M.N.O } 5-CONDUCTOR ELECTRICAL CABLE NO.14 AWG

P.Q. R.S. } 7-CONDUCTOR ELECTRICAL CABLE NO.14 AWG

T - REMOVE EXISTING OVERHEAD I/C CABLE. INSTALL 12-PAIR INTERCONNECT CABLE SELF-SUPPORTING (OVERHEAD)

U - INSTALL 12-PAIR INTERCONNECT CABLE SELF-SUPPORTING (REMOVE SELF-SUPPORT FOR UNDERGROUND INSTALLATION)

V - NO.6 AWG STRANDED BARE COPPER GROUND WIRE

W.X. Y.Z } PROPOSED MICROLOOP PROBE SET WITH 500' LEAD TO CONTROLLER

AA - (3-WIRES) 1-CONDUCTOR ELECTRICAL CABLE NO.4 AWG

BB - 2-CONDUCTOR ELECTRICAL CABLE NO.12 AWG TC

DZ - CAMERA DETECTOR ZONE

PS - PROPOSED UNDERGROUND SERVICE FEED

PD - PROPOSED OVERHEAD PHONE DROP

⏚ ¾" DIA.x 10' LENGTH GROUND ROD

PROJECT CONTACTS:

THE CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

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THE CONTACT PERSONS FOR OFFICE OF TRAFFIC AND SAFTEY:

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ASST. CHIEF, TRAFFIC OPERATION DIVISION
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CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS - PLANNERS
32 WEST ROAD
TOWSON, MARYLAND 21204

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 26 AT KELOX ROAD

DRAWN BY: EMM	F.A.P. NO.		TS NO. 2E	SHEET NO.
CHECKED BY: TH	S.H.A. NO.	BA 4845176		
SCALE: NONE	COUNTY:	BALTIMORE	T.I.M.S. NO. G503	24 OF 28
DATE: 6/27/05	LOG MILE:	030026010.09		

o:*TRANSDWG*23024.12*FINAL DESIGN*G503 GIMD26 KELOX.dgn 6/24/2005