PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 450 AND MD 953 IN PRINCE GEORGE'S COUNTY. MD 450 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA SIX-PHASE, SEMI-TRAFFIC-ACTUATED MODE. THERE IS AN EXCLUSIVE LEFT TURN PHASE FOR BOTH THE EAST AND WEST APPROACHES OF MD 450. MD 450 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY AND MD 953 THROUGH MOVEMENTS WILL RUN CONSECUTIVELY. THERE IS A PEDESTRIAN PHASE FOR THE NORTH LEG ON THE INTERSECTION AND THERE IS ALTERNATE PEDESTRIAN PHASE FOR THE EAST LEG OF THE INTERSECTION.

EQUIPMENT LIST FOR CONTRACT NO. XX4395185

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADIMISTRATION

ITEM	QUANTITY	UNIT	DESCRIPTION
9042	1	EA	[UPDATED] CONTROLLER ASC III WITH TELEMETRY
9044	1	EA	[UPDATED] CONTROLLER CABINET, SIZE S
9087	1	EA	[UPDATED] VIDEO DETECTION INTERFACE EQUIPMENT: 5-8 CAMERAS
9570	34	SF	[UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN
	1	EA	SHIELD ASSEMBLY (30"x 48")
	1	EA	SHIELD ASSEMBLY (48"x 72")
9571	162	SF	[UPDATED] SHEET ALUMINUM MAST ARM/ POLE MOUNTED SIGN
	8	EA	D-3(1) (VAR. x 16") MAST ARM MOUNTED
	3	EA	R3-5(L) (30"x 36") MAST ARM MOUNTED
	2	EA	R3-5(R) (30"x 36") MAST ARM MOUNTED
	4	EA	R10-3(1) (9"x 15") POLE MOUNTED
	1	EA	SHIELD ASSEMBLY (30"x 48") POLE MOUNTED
	1	EA	SHIELD ASSEMBLY (48"x 72") POLE MOUNTED

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

ITEM	QUANTITY	UNIT	DESCRIPTION
1001	1	EA	MAINTENANCE OF TRAFFIC
2001	4	CY	CLASS 2 EXCAVATION
2002	1	CY	TEST PIT EXCAVATION
5001	950	LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	400	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MAKING LINES
5005	85	LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MAKING LINES
6001	235	LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	1025	SF	5 INCH CONCRETE SIDEWALK
6003	60	SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8001	45	EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8002	1	EA	2-WIRE CENTRAL CONTROL UNIT
8004	6	EA	8 INCH LED SIGNAL HEAD SECTION
8007	3	EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP AND LUMINAIRE
8008	4	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8009	3	EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8012	1	EA	EMBEDDED METERED SERVICE PEDESTAL
8014	1	EA	INSTALL CONTROLLER AND CABINET BASE MOUNT (ANY SIZE)
8016	4	EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8018	1	EA	MAST ARM POLE & 38' MAST ARM ANY 'T' DIMENSION
8019	1	EA	MAST ARM POLE & 50' MAST ARM ANY 'T' DIMENSION
8021	2	EA	MAST ARM POLE & 70' MAST ARM ANY 'T' DIMENSION
8023	6	EA	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000'
8024	1	EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8029	6	EA	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
8034	1550	LF	DISCONNECT, PULL-BACK & REROUTE CABLES
8035	700	LF	ELECTRICAL CABLE - CONDUCTOR (NO. 12 AWG) TYPE T/C
8038	450	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
8040	275	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8041	40	LF	WOOD SIGN SUPPORTS UP TO 4' X 6'
8042	196	SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8044	650	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8047	15	LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
8048	8	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8055	900	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8057	1000	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8058	3050	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

CONTACTS

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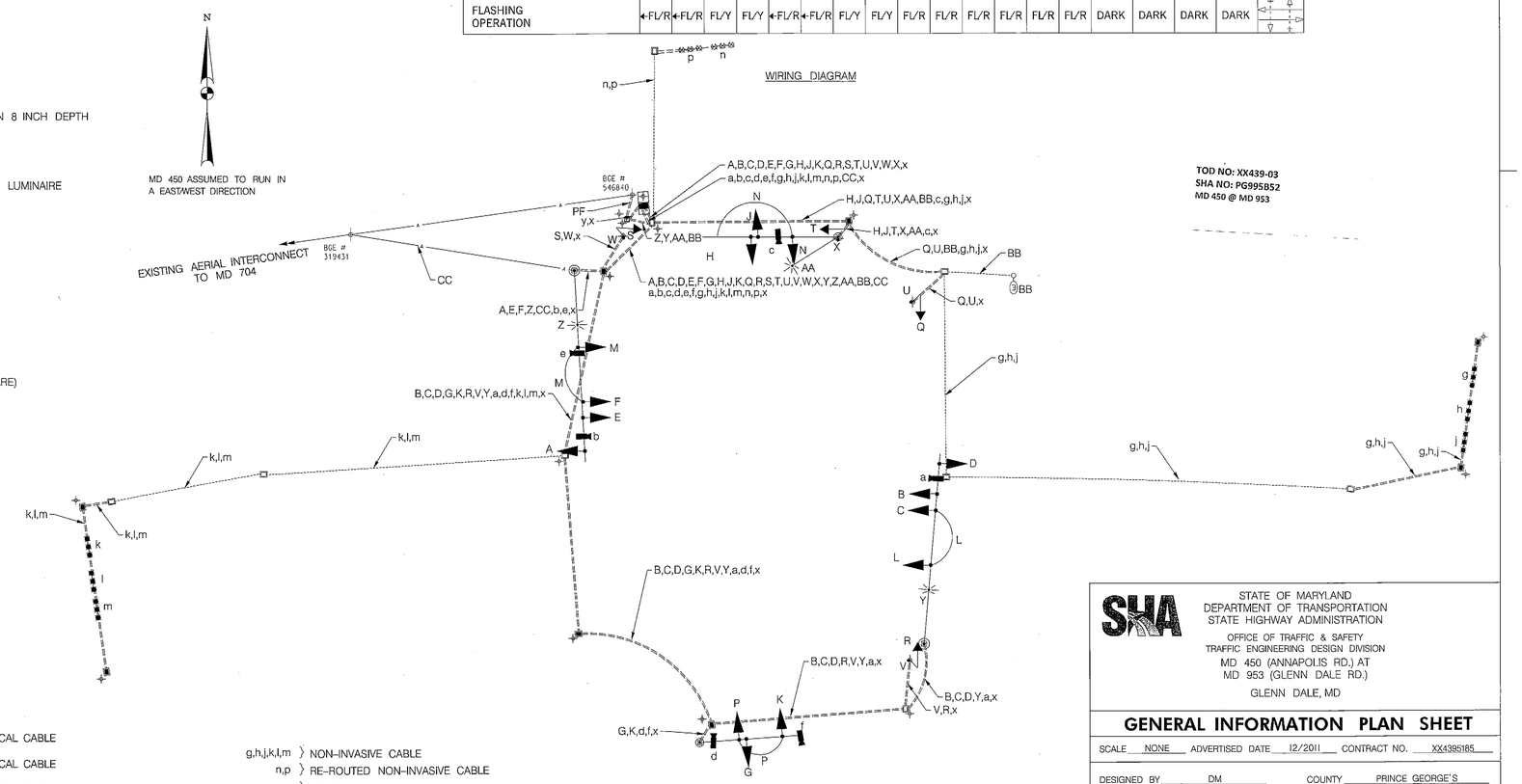
PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PHASE 1 AND 5	←G	←G	R	R	←G	←G	R	R	R	R	R/G→	R	R	R	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	DW	DW	DW	DW
PHASE 1 AND 6 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 5	R	R	R	R	←G	←G	G	G	R	R	R/G→	R	R	R	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	←G	←G	G	G	R	R	R/G→	R	R	R	DW	DW	FL/DW	FL/DW
PHASE 2 AND 5 CHANGE	R	R	R	R	←Y	←Y	G	G	R	R	R/Y→	R	R	R	DW	DW	DW	DW
PHASE 2 AND 6	R	R	G	G/G→	R	R	G	G	R	R	R	R	R	R	DW	DW	WK	WK
PED CLEARANCE	R	R	G	G/G→	R	R	G	G	R	R	R	R	R	R	DW	DW	FL/DW	FL/DW
PHASE 2 AND 6 CHANGE	R	R	Y	Y/Y→	R	R	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 3	R	R	R	R/G→	R	R	R	R	←G/G	←G/G	G/G→	R	R	R	DW	DW	DW	DW
PHASE 3 CHANGE	R	R	R	Y/Y→	R	R	R	R	Y	Y	Y/Y→	R	R	R	DW	DW	DW	DW
PHASE 3 ALT.	R	R	R	R/G→	R	R	R	R	←G/G	←G/G	G	R	R	R	WK	WK	DW	DW
PED CHANGE	R	R	R	R/G→	R	R	R	R	←G/G	←G/G	G	R	R	R	FL/DW	FL/DW	DW	DW
PHASE 3 ALT. CHANGE	R	R	R	Y/Y→	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	R	R	R	R	R	←G/G	←G/G	←G/G	DW	DW	DW	DW
PHASE 4 CHANGE	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	←FL/R	←FL/R	FL/Y	FL/Y	←FL/R	←FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

WIRING DIAGRAM



TOD NO: XX439-03
SHA NO: PG995B52
MD 450 @ MD 953

WIRING KEY

A,B,C,D,E F,G,H,J,K } 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
L,M,N,P Q,R,S,T } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
U,V,W,X } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
Y,Z,AA,BB } ELECTRICAL CABLE - CONDUCTOR (NO. 12 AWG) TYPE T/C
CC } RE-ROUTED INTERCONNECT CABLE
a,b,c,d,e,f } VIDEO CAMERA CABLE
g,h,j,k,l,m } NON-INVASIVE CABLE
n,p } RE-ROUTED NON-INVASIVE CABLE
x } NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
y } 2 WIRE, ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
PF } PROPOSED POWER FEED
+ GROUND ROD

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STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 450 (ANNAPOLIS RD.) AT
MD 953 (GLENN DALE RD.)
GLENN DALE, MD

GENERAL INFORMATION PLAN SHEET

SCALE NONE ADVERTISED DATE 12/2011 CONTRACT NO. XX4395185

DESIGNED BY DM
DRAWN BY DM
CHECKED BY RM
F.A.P. NO.
COUNTY PRINCE GEORGE'S
LOGMILE 1604507.9
TIMS NO. K992
TOD NO.

TS NO. 3083D | DRAWING - OF | SHEET NO. 3 OF 3

PLOTTED: Monday, December 05, 2011 AT 07:59 AM
FILE: P:\09-002 TEDD\Task 67 MD 450 @ MD 953\Drawings\CADD\Working\pGG-P003_M450@M953.dgn

BY: davidma -