PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL WITH INTERCONNECT AT THE INTERSECTION OF MD 202 (LANDOVER RD) AND KENT TOWN PL/ 75TH AVE IN PRINCE GEORGE'S COUNTY. THE RECONSTRUCTION WILL REPLACE THE EXISTING CABINET. REPLACE EXISTING STRAIN POLES & SIGNAL HEADS. UPGRADE THE PEDESTRIAN SIGNALS AND ADD VIDEO AND ADVANCE DETECTION. MD 202 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION

1. THE INTERSECTION OPERATES IN A NEMA SIX (6) PHASE. FULLY-ACTUATED MODE WITH EXCLUSIVE-PERMISSIVE LEFT TURN PHASES ALONG NORTHBOUND AND SOUTHBOUND MD 202 OPERATING CONCURRENTLY. BOTH NORTHBOUND AND SOUTHBOUND APPROACHES OF MD 202 OPERATE CONCURRENTLY. BOTH EASTBOUND AND WESTBOUND APPROACHES OF 75TH AVE/ KENT TOWN PL SHALL OPERATE CONCURRENTLY. THERE IS AN ALTERNATE ACTUATED PEDESTRIAN PHASE WITH AUDIBLE PEDESTRIAN SIGNALS ACROSS THE SOUTH SIDE OF MD 202 AS WELL AS ACROSS 75TH AVE AND KENT TOWN PL.

2. A PROPOSED NEMA FULL-TRAFFIC-ACTUATED. SIX (6) PHASE CONTROLLER IN A NEMA SIZE "S" CABINET SHALL BE INSTALLED AT THIS LOCATION. VIDEO DETECTION INTERFACE EQUIPMENT SHALL BE INSTALLED INTO THE CABINET BY SHA FORCES.

III. SPECIAL NOTES

APS FUNCTIONS AS FOLLOWS:
TO CROSS MD 202 (LANDOVER RD)

1. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME. THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE: "WAIT TO CROSS LANDOVER AT KENT TOWN AND 75TH. WAIT."
2. WHEN THE WALK PHASE BEGINS. THE PUSHBUTTON UNIT WILL PROVIDE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS FUNCTIONS AS FOLLOWS:
TO CROSS KENT TOWN PL

1. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME. THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE: "WAIT TO CROSS KENT TOWN AT LANDOVER. WAIT."
2. WHEN THE WALK PHASE BEGINS. THE PUSHBUTTON UNIT WILL PROVIDE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS FUNCTIONS AS FOLLOWS:
TO CROSS 75TH AVE

1. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME. THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE: "WAIT TO CROSS 75TH AT LANDOVER. WAIT."
2. WHEN THE WALK PHASE BEGINS. THE PUSHBUTTON UNIT WILL PROVIDE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADIMISTRATION

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
900000	2	EA	4 CHANNEL DETECTER AMPLIFIER
900000	1	EA	CONTROLLER CABINET. SIZE 'S' W/ CONTROLLER. VIDEO INTERFACE EQUIP. 1-8 CAMERAS
900000	102.5	SF	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN
			1 EA D-3(1) '<- KENT TOWN PL/KENT TOWN PL->' DUAL FACED (VAR.x16")
			1 EA D-3(1) '<- 75TH AVE/75TH AVE ->' DUAL FACED (VAR.x16")
			1 EA D-3(1) 'LANDOVER RD' DUAL FACED (VAR.x16")
			1 EA M1-5(6) 'NORTH MD 202 <--' (48"x72")
			1 EA M1-5(6) 'SOUTH MD 202 <--' (48"x72")
			2 EA R3-5(L) (30"x36")
			8 EA R10-3(1) PUSHBUTTON SIGN (9"x15")
900000	18.5	SF	SHEET ALUMINUM GROUND MOUNTED SIGN
			1 EA M3-1 (24"x12"); M1-5 (30"x24"); M6-1R (21"x15")
			1 EA M3-3 (24"x12"); M1-5 (30"x24"); M6-1R (21"x15")

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

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
100000	1	EA	MAINTENANCE OF TRAFFIC
203030	11	CY	TEST PIT EXCAVATION
600000	90	LF	TYPE 'A' COMBINATION CURB AND GUTTER ANY HEIGHT OR DEPTH
600000	60	LF	TYPE 'A' CURB ANY HEIGHT OR DEPTH
600000	20	SF	REMOVE & RESET DECORATIVE BRICK SIDEWALK
655105	720	SF	5 IN. CONCRETE SIDEWALK
655120	65	SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
655383	20	SF	BRICK SIDEWALKS
800000	1	EA	2 WIRE CENTRAL CONTROL UNIT
800000	8	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
800000	8	EA	IP-BASED VIDEO DETECTION CAMERA AND ANY LENGTH LEAD-IN CABLE
800000	8	EA	RELOCATE EXISTING SIGNAL HEAD INCLUDING NEW MOUNTING HARDWARE
800000	6	EA	5 FT. OR 10 FT. PEDESTAL POLE WITH BREAKAWAY COUPLINGS. FOUNDATION & GROUND ROD
800000	1	EA	MAST ARM POLE & 50 FT. MAST ARM ANY 'T' DIMENSION. FOUNDATION & GROUND ROD
800000	1	EA	MAST ARM POLE & 60 FT. MAST ARM ANY 'T' DIMENSION. FOUNDATION & GROUND ROD
800000	1	EA	MAST ARM POLE & 50 FT./50 FT. MAST ARMS ANY 'T' DIMENSION. FOUNDATION & GROUND ROD
800000	1	EA	100 AMP EMBEDDED METERED SERVICE PEDESTAL. CONCRETE COLLAR & GROUND ROD
800000	6	EA	NONINVASIVE DETECTOR WITH ANY LENGTH LEAD-IN CABLE UP TO 1000'
800000	1	EA	REMOVE & DISPOSE MATERIAL AND EXISTING EQUIPMENT PER ASSIGNMENT
800000	1	EA	INSTALL CONTROLLER & CABINET BASE MOUNTED (ANY SIZE) INCLUDING F & I FOUNDATION AND GROUND ROD
800000	1000	LF	DISCONNECT. PULL BACK AND REROUTE EXISTING CABLES
800000	715	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED OR SLOTTED
800000	610	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
800000	34	LF	WOOD SIGN SUPPORTS UP TO 4 INCH X 6 INCH
800000	121	SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
800000	1	EA	THIRD PARTY CONCRETE TESTING
802501	750	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805050	2	EA	WEATHER HEAD. 3 INCH
810022	65	LF	ELECTRICAL CABLE - 1 CONDUCTOR NO. 8 AWG - THHN/THWN
811001	10	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
833060	60	LF	3 INCH DIAMETER POLYVINYL CHLORIDE CONDUIT. SCHEDULE 80. RISER
860284	44	EA	12" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861105	1450	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	1560	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	2290	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

CONTACTS

DISTRICT (DISTRICT 3 - PRINCE GEORGE'S)

MR. BRIAN YOUNG
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MR. VENU NEMANI
ASSISTANT DISTRICT ENGINEER - TRAFFIC
301-513-7404

MR. VICTOR GRAFTON
DISTRICT UTILITY ENGINEER
301-513-7350

MR. KEVIN NOWAK & MR. DUANE BERNARD
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
301-513-7336

MR. TOM FOUNTAIN
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
301-513-7304

OFFICE OF TRAFFIC AND SAFETY

MS. CORREN JOHNSON
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MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF. TRAFFIC OPERATIONS
410-787-7630

MR. EDWARD RODENHIZER
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410-787-7650

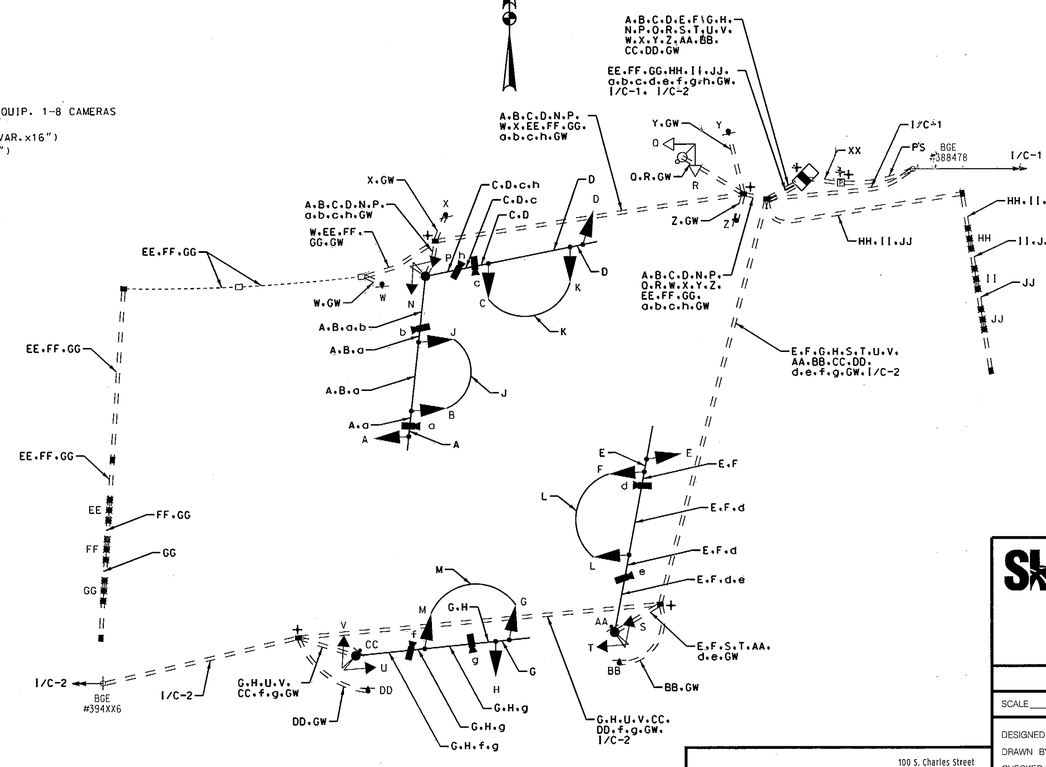
MR. EUGENE BAILEY
CHIEF. SIGN OPERATIONS SECTION
410-787-7670

MR. MICHAEL STOCKER
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7696

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	R Y B	R Y B	R Y G	R Y B	R Y B	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G								
PHASE 1 & 5	◄G→R	◄G→R	R	◄G→R	◄G→R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 & 5 CHANGE	PHASE 1 & 5 CHANGE MAY CHANGE TO PHASE 1 & 6, 2 & 5 OR 2 & 6																			
PHASE 1 & 6	◄G→G	◄G→G	G	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	DW	DW
1 & 6 CHANGE	◄Y→G	◄Y→G	G	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	DW	DW
PHASE 2 & 5	R	R	R	◄G→G	◄G→G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	DW	DW
2 & 5 CHANGE	R	R	R	◄Y→G	◄Y→G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	DW	DW
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED. CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 ALT & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED. CLEARANCE	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
4 ALT & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

A.B.C.D. E.F.G.H	- 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
J.K.L.M N.P.Q.R. S.T.U.V	- 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
W.X.Y.Z. AA.BB.CC. DD	- 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
a.b.c.d. e.f.g.h	- VIDEO DETECTION LEAD-IN CABLE
XX	- 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 8 A.W.G. THHN/THWN)
EE.FF.GG HH.II.JJ	- MICROLOOP PROBE LEAD-IN CABLE
PS	- PROPOSED POWER SERVICE BY OTHERS
I/C-1	- INTERCONNECT TO DODGE PARK RD
I/C-2	- INTERCONNECT TO PINEBROOK AVE
GW	- NO.6 A.W.G STRANDED BARE COPPER GROUND WIRE
+	- PROPOSED 3/4 IN. X 10 FT. GROUND ROD

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.

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

MD 202 (LANDOVER RD) AT KENT TOWN PL /75TH AVE
SIGNAL RECONSTRUCTION
LANDOVER, MD

GENERAL INFORMATION SHEET

SCALE N.T.S. DATE MAY 1, 2013 CONTRACT NO. XY1515165

DESIGNED BY JEK
DRAWN BY JEK
CHECKED BY KMP
F.A.P. NO.

COUNTY PRINCE GEORGE'S
LOGMILE 16020211.72
TIMS NO. L803
TOD NO.

TS NO. 639C-GI | DRAWING SG-03 OF 03 | SHEET NO. 03 OF 03

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FILE: $FILE$

DRILL HOLES
DRILL HOLES
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BORDER REV: DATE: June 1, 2004
BY: $USERNAME$