BORDER REV: DATE: June 1, 2004

DRILL HOLES

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BY: Kurgansky –

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL WITH STREET LIGHTING, INTERCONNECT AND FIREHOUSE PRE-EMPTION AT THE INTERSECTION OF MD 201 (KENILWORTH AVE) AND CRESCENT RD IN PRINCE GEORGE'S COUNTY. THE RECONSTRUCTION WILL REPLACE EXISTING STRAIN POLES WITH MAST ARM SIGNAL POLES AND UPGRADE THE PEDESTRIAN CROSSING ON THE NORTH LEG. MD 201 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. BOTH NORTHBOUND AND SOUTHBOUND MD 201 APPROACHES OPERATE CONCURRENTLY WITH EXCLUSIVE LEADING LEFT TURNS FOR BOTH APPROACHES. BOTH EASTBOUND AND WESTBOUND CRESCENT RD APPROACHES OPERATE CONCURRENTLY. AN ALTERNATIVE PEDESTRIAN PHASE WITH AUDIBLE PEDESTRIAN ACTUATION SHALL BE PROVIDED TO CROSS NORTHERN CROSSING OF MD 201.

2. A PROPOSED NEMA FULL-TRAFFIC-ACTUATED, EIGHT (8) PHASE CONTROLLER IN A NEMA TYPE "S" BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS LOCATION.

III. SPECIAL NOTES

APS WILL FUNCTION AS FOLLOWS:
TO CROSS MD 201 (KENILWORTH AVE) AT CRESCENT 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 KENILWORTH AT CRESCENT, 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.

CONTACTS

DISTRICT (DISTRICT 3 - PRINCE GEORGE'S)	OFFICE OF TRAFFIC AND SAFETY
MR. BRIAN YOUNG DISTRICT ENGINEER 301-513-7311	MS. CORREN JOHNSON CHIEF, TRAFFIC OPERATIONS 410-787-7630
MR. VENU NEMANI ASSISTANT DISTRICT ENGINEER - TRAFFIC 301-513-7404	VACANT ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS 410-787-7630
MR. VICTOR GRAFTON DISTRICT UTILITY ENGINEER 301-513-7350	MR. EDWARD RODENHIZER CHIEF, SIGNAL OPERATIONS SECTION 410-787-7650
MR. KEVIN NOWAK & MR. DUANE BERNARD ASSISTANT DISTRICT ENGINEER - CONSTRUCTION 301-513-7336	MR. EUGENE BAILEY CHIEF, SIGN OPERATIONS SECTION 410-787-7670
MR. TOM FOUNTAIN ASSISTANT DISTRICT ENGINEER - MAINTENANCE 301-513-7304	MR. MICHAEL STOCKER SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE) 410-787-7696

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADIMISTRATION

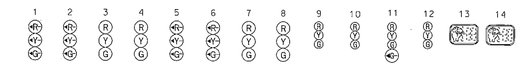
ITEM NO.	QUANTITY	DESCRIPTION
9104	1 EA	CONTROLLER GABINET, SIZE "S" W/CTRL, VIDEO INT: 1-8 CAM
9571	65 SF	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN
	2 EA	M1-5(4) (78"x36")
	1 EA	D-3(1) '<- CRESCENT RD' (VAR.x16")
	1 EA	D-3(1) 'CRESCENT RD ->' (VAR.x16")
	4 EA	R10-3(1) (9"x15")

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2001	13 CY	CLASS 2 EXCAVATION
2002	6 CY	TEST PIT EXCAVATION
5003	425 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	285 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	155 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	135 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	675 SF	5 INCH CONCRETE SIDEWALK
6003	52 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
6005	1 EA	TYPE C TRAFFIC BARRIER END TREATMENT
8001	25 EA	12 INCH LED SIGNAL HEAD SECTION
8002	1 EA	2-WIRE CENTRAL CONTROL UNIT
8004	12 EA	8 INCH LED SIGNAL HEAD SECTION
8007	1 EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH LED LUMINAIRE
8008	4 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8009	3 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8013	1 EA	EMBEDDED METERED SERVICE PEDESTAL WITH BYPASS SWITCH
8015	1 EA	INSTALL CONTROLLER AND CABINET BASE MOUNT (ANY SIZE)
8018	2 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8021	1 EA	MAST ARM POLE & 50' MAST ARM ANY 'T' DIMENSION
8026	7 EA	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000'
8027	1 EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8030	1 EA	TWIN MAST ARM POLE & 50'/70' MAST ARMS ANY 'T' DIMENSION
8032	4 EA	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
8034	240 LF	1-CONDUCTOR ELECTRICAL CABLE, NO. 2/0 AWG/THHN
8036	300 LF	4 CONDUCTOR OPTICOM CABLE
8037	1000 LF	DISCONNECT, PULL-BACK & REROUTE CABLES
8038	300 LF	ELECTRICAL CABLE - 2-CONDUCTOR (NO. 12 AWG) TYPE T/C
8041	675 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
8043	320 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8045	65 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8047	750 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8050	105 LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
8051	11 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8052	1 EA	DISCRIMINATOR MODULE, 4 CHANNEL, NO. 764
8054	1 EA	OPTICOM NO. 721 DETECTOR EYE
8058	910 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8060	1065 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8061	1650 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
NEG.	37 SY	TURFGRASS ESTABLISHMENT

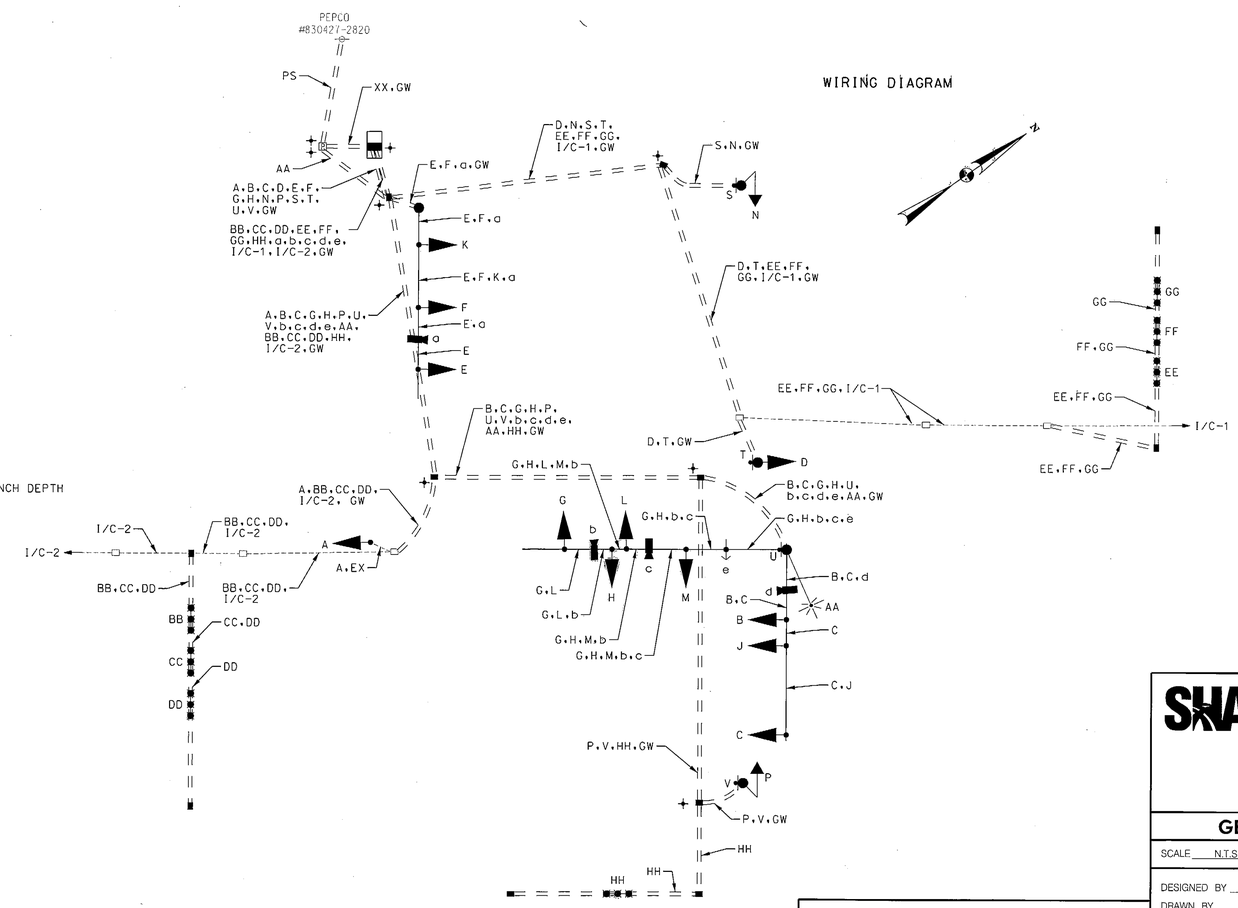
C. IF THE CABINET IS TO BE REMOVED SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 1 & 5	◄G–	◄G–	R	R	◄G–	◄G–	R	R	R	R	R	R	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	◄R–	◄R–	R	R	R	R	R	R	DW	DW
1 & 6 CHANGE	◄Y–	◄Y–	G	G	◄R–	◄R–	R	R	R	R	R	R	DW	DW
PHASE 2 & 5	◄R–	◄R–	R	R	◄G–	◄G–	G	G	R	R	R	R	DW	DW
2 & 5 CHANGE	◄R–	◄R–	R	R	◄Y–	◄Y–	G	G	R	R	R	R	W	DW
PHASE 2 & 6	◄R–	◄R–	G	G	◄R–	◄R–	G	G	R	R	R	R	DW	DW
2 & 6 CHANGE	◄R–	◄R–	Y	Y	◄R–	◄R–	Y	Y	R	R	R	R	DW	DW
PHASE 4 & 8	◄R–	◄R–	R	R	◄R–	◄R–	R	R	G	G	G	G	DW	DW
4 & 8 CHANGE	◄R–	◄R–	R	R	◄R–	◄R–	R	R	Y	Y	Y	Y	DW	DW
PHASE 4 ALT & 8	◄R–	◄R–	R	R	◄R–	◄R–	R	R	G	G	G	G	WK	WK
PED. CLEARANCE	◄R–	◄R–	R	R	◄R–	◄R–	R	R	G	G	G	G	FL/DW	FL/DW
4 ALT & 8 CHANGE	◄R–	◄R–	R	R	◄R–	◄R–	R	R	Y	Y	Y	Y	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	DARK	DARK
PRE-EMPTION	◄R–	◄R–	R	R	◄R–	◄R–	R	R	R	R	G/◄G–	G	DW	DW

WIRING DIAGRAM



TOD NO: XX525-04
SHA NO: PG072B53
MD 201 @ Crescent Road

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	- 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
S,T,U,V	- 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
AA	- 2-CONDUCTOR (NO. 12 AWG) TYPE T/C
a,b,c,d	- VIDEO DETECTION LEAD-IN CABLE
e	- OPTICOM DETECTION LEAD-IN CABLE
XX	- 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 8 A.W.G. THHN/THWN)
BB,CC,DD, EE,FF,GG HH	- MICROLOOP PROBE LEAD-IN CABLE
PS	- 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 2 AWG/THHN)
GW	- NO.6 A.W.G STRANDED BARE COPPER GROUND WIRE
EX	- EXISTING STRANDED BARE COPPER GROUND WIRE
⏚	- PROPOSED 3/4 IN. X 10 FT. GROUND ROD
I/C-1	- EXISTING INTERCONNECT TO IVY LN
I/C-2	- EXISTING INTERCONNECT TO I-495 RAMP

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

MD 201 (KENILWORTH AVE) AT CRESCENT RD

GREENBELT, MD

GENERAL INFORMATION SHEET

SCALE N.T.S. DATE JUNE 14, 2013 CONTRACT NO. XX5255185

DESIGNED BY JEK
DRAWN BY JEK
CHECKED BY KMP
F.A.P. NO.
COUNTY PRINCE GEORGE'S
LOGMILE 16020107.45
TIMS NO. L784
TOD NO.

PARSONS BRINCKERHOFF
100 S. Charles Street
Tower 1, 10th Floor
Baltimore, MD 21201
(Ph) 410-767-6050
(Fax) 410-727-4608
http://www.pbworld.com

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