PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 201 (KENILWORTH AVENUE) AND PONTIAC STREET/ WESTCHESTER PARK DRIVE IN PRINCE GEORGE'S COUNTY.

MD 201 (KENILWORTH AVENUE) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE PROPOSED TRAFFIC SIGNAL SHALL HAVE A BASE-MOUNTED CABINET AND CONTROLLER WITH ALL THE NECESSARY EQUIPMENT AT THE INTERSECTION. THE INTERSECTION WILL OPERATE IN A FULLY-ACTUATED MODE USING 6 NEMA PHASES. THE MD 201 APPROACHES SHALL OPERATE CONCURRENTLY WITH NORTHBOUND AND SOUTHBOUND EXCLUSIVE LEFT-TURN PHASE. PONTIAC STREET SHALL OPERATE CONCURRENTLY WITH A LEAD EXCLUSIVE/PERMISSIVE LEFT TURN FOR WESTBOUND WESTCHESTER PARK DRIVE.

VIDEO CAMERAS SHALL PROVIDE THE PRESENCE DETECTION; STREET NAME SIGNS SHALL BE UPDATED TO CURRENT STANDARDS. THE INTERSECTION HAS BEEN ADJUSTED TO BE ADA COMPLIANT.

1. APS WILL FUNCTION AS FOLLOWS:

WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE:

FOR MD 201 (KENILWORTH AVENUE) – SOUTH LEG, FROM SOUTHWEST ISLAND TO MEDIAN:
"WAIT TO CROSS KENILWORTH AT PONTIAC AND WESTCHESTER PARK. CROSSWALK ANGLES RIGHT. SECOND PUSHBUTTON IN MEDIAN. WAIT"

FOR MD 201 (KENILWORTH AVENUE) – SOUTH LEG, FROM MEDIAN TO SOUTHWEST ISLAND:
"WAIT TO CROSS KENILWORTH AT PONTIAC AND WESTCHESTER PARK. CROSSWALK ANGLES RIGHT. WAIT"

FOR MD 201 (KENILWORTH AVENUE) – SOUTH LEG, FROM SOUTHEAST ISLAND TO MEDIAN:
"WAIT TO CROSS KENILWORTH AT PONTIAC AND WESTCHESTER PARK. SECOND PUSHBUTTON IN MEDIAN. WAIT"

FOR MD 201 (KENILWORTH AVENUE) – SOUTH LEG, FROM MEDIAN TO SOUTHEAST ISLAND:
"WAIT TO CROSS KENILWORTH AT PONTIAC AND WESTCHESTER PARK. WAIT"

WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

2. THE CONTRACTOR SHALL PURCHASE AND DELIVER THE "APS" CENTRAL CONTROL UNIT FOR THE CONTROLLER TO THE SHA SIGNAL SHOP AT 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. MR. EDWARD RODENHIZER AT 410-787-7652 CONTACT AT LEAST THREE (3) DAYS PRIOR TO DELIVERY.

3. THE CONTRACTOR SHALL NOTIFY MR. ED RODENHIZER, SIGNAL SHOP SUPERVISOR, 72 HOURS PRIOR TO BEGINNING THE SIGNAL WORK.

PROJECT CONTACTS:

1. THE FOLLOWING ARE THE CONTACT PERSONS FOR THIS PROJECT:

MS. FELECIA MURPHY, ASSISTANT DISTRICT ENGINEER – TRAFFIC
PHONE: (301) 513-7358

MR. KEVIN NOWAK, ASSISTANT DISTRICT ENGINEER – CONSTRUCTION
PHONE: (301) 513-7385

MR. VERNON STINNETT, ASSISTANT DISTRICT ENGINEER – MAINTENANCE
PHONE: (310) 513-7304

MR. VICTOR GRAFTON, UTILITY ENGINEER
PHONE: (310) 513-7350

MR. RICHARD DAFF, SR., CHIEF – TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

MR. EDWARD RODENHIZER, CHIEF – SIGNAL SHOP
PHONE: (410) 787- 7652

MR. SONNY BAILEY, CHIEF – SIGN SHOP
PHONE: (410) 787- 7676

THE POWER COMPANY REPRESENTATIVE:

POTOMAC ELECTRIC POWER COMPANY
8300 OLD MARLBORO PIKE
UPPER MARLBORO, MD 20772
(301) 961-5325

2. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE STANDARD PLATES FOR TRAFFIC CONTROL FROM SECTION MD 104.00 OF THE SHA BOOK OF STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES.

CENTURY ENGINEERING
CONSULTING ENGINEERS – PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031

Revision 'G' CEI # 26265.21

BY: jhenkel

EQUIPMENT LIST 'A'

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
900000	1 EA	MASTER/LOCAL CONTROLLER AND CABINET SIZE 6 W/ ALL NECESSARY EQUIPMENT HOUSED IN A BASE MOUNTED CABINET
900000	1 EA	VIDEO DETECTION INTERFACE UNIT 5-6 CAMERAS
900000	106 SF	FLAT SHEET ALUMINUM SIGNS CONSISTING OF:
	2 EA	R1-2 (36"x36") "YIELD" GROUND-MOUNTED SIGN
	1 EA	R3-5L (30"x36") "LEFT ONLY" MAST ARM-MOUNTED SIGN
	3 EA	OM1-3 (18"x18") OBJECT MARKER GROUND-MOUNTED SIGN
	1 EA	R6-1R (12"x36") "ONE WAY" GROUND-MOUNTED SIGN
	1 EA	R6-1L (12"x36") "ONE WAY" GROUND-MOUNTED SIGN
	2 EA	R10-3(1)R (9"x15") COUNTDOWN PEDESTRIAN PUSHBUTTON SIGN "TO CROSS KENILWORTH" RIGHT ARROW
	2 EA	R10-3(1)L (9"x15") COUNTDOWN PEDESTRIAN PUSHBUTTON SIGN "TO CROSS KENILWORTH" LEFT ARROW
	2 EA	W11-2(R) (36"x36") PEDESTRIAN CROSSING GROUND-MOUNTED SIGN
	2 EA	W11-2(L) (36"x36") PEDESTRIAN CROSSING GROUND-MOUNTED SIGN
	2 EA	W16-7pR (24"x12") RIGHT DIAGONAL ARROW GROUND-MOUNTED SIGN
	2 EA	W16-7pL (24"x12") RIGHT DIAGONAL ARROW GROUND-MOUNTED SIGN
	1 EA	D-3(1) (16"xVAR.) "Westchester Park Dr.", RIGHT ARROW
	1 EA	D-3(1) (16"xVAR.) "Pontiac Street", RIGHT ARROW
	2 EA	D-3(1) (16"xVAR.) "Kenilworth Avenue"
	96 SF	SHIELD ASSEMBLY SIGNS CONSISTING OF:
	1 EA	M1-5(6) (48"x72") GROUND-MOUNTED "NORTH, MD 201, RIGHT ARROW"
	1 EA	M1-5(6) (48"x72") GROUND-MOUNTED "SOUTH, MD 201, RIGHT ARROW"
	1 EA	M1-5(6) (48"x72") GROUND-MOUNTED "NORTH, MD 201, ADVANCE LEFT ARROW"
	1 EA	M1-5(6) (48"x72") GROUND-MOUNTED "SOUTH, MD 201, ADVANCE LEFT ARROW"

EQUIPMENT LIST 'B'

ITEM NO.	QUANTITY		DESCRIPTION
1003	2	EA	MAINTENANCE OF TRAFFIC
2002	2	CY	TEST PIT EXCAVATION
5004	420	LF	12" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5005	40	LF	24" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5007	430	LF	REMOVAL OF EXISTING PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6002	1350	SF	5" CONCRETE SIDEWALK
8003	3	EA	8"LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8004	1	EA	ADJUST EXISTING HANDHOLE TO GRADE W/ COLLAR
8006	2	EA	ANY SIZE LIGHTING ARM ON SIGNAL STRUCTURE WITH 250 WATT HPS LUMINAIRE
8007	4	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8008	4 ~~3~~	EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8013	4	EA	16" LED COUNTDOWN PEDESTRIAN SIGNAL HEADS
8020	5	EA	NON-INVASIVE PROBES ANY LENGTH LEAD-IN CABLE
8021	1	EA	REMOVE & DISPOSE MATERIAL & EQUIPMENT PER JOB
8024	2	EA	TWIN MAST ARM POLE & 50'/70' ARMS ANY "T" DIM.
8025	4	EA	VIDEO DETECTION CAMERA & CABLE UP TO 500'
8030	200 ~~100~~	LF	CABLE 1-CONDUTOR NO. 2/0 AWG -THHN/THWN (ALUMINUM SHIELDED)
8034	170 ~~280~~	LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" – SLOTTED
8035	1185 ~~1120~~	LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" – TRENCHED
8036	320	SF	WOOD SIGN SUPPORTS UP TO 4" X 6"
8037	90	SF	DETECTABLE WARNING SURFACES
8038	202	LF	INSTALL OVERHEAD OR GROUND-MOUNTED SIGNS INCLUDING HARDWARE
8040	540	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8042	1	EA	METERED SERVICE PEDESTAL EMBEDDED (100 OR 200 AMP)
8045	60	LF	ELECTRICAL CABLE 1-CONDUTOR NO. 8 AWG – THHN/THWN
8046	12 ~~11~~	EA	FURNISH & INSTALL ELECTRICAL HANDHOLE
8050	40	LF	12" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8056	870	LF	ELECTRICAL CABLE 5-CONDUCTOR NO. 14 AWG
8057	2550	LF	ELECTRICAL CABLE 7- CONDUCTOR NO. 14 AWG
8058	570	LF	ELECTRICAL CABLE 2- CONDUCTOR NO. 12 AWG TRAY CABLE
8054	850	EA	ELECTRICAL CABLE 2-CONDUCTOR NO. 14 AWG
8065	1	EA	INSTALL CONTROLLER AND CABINET, BASE-MOUNTED
8052	2	EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8033	200	EA	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES – BORED
6001	580	EA	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH

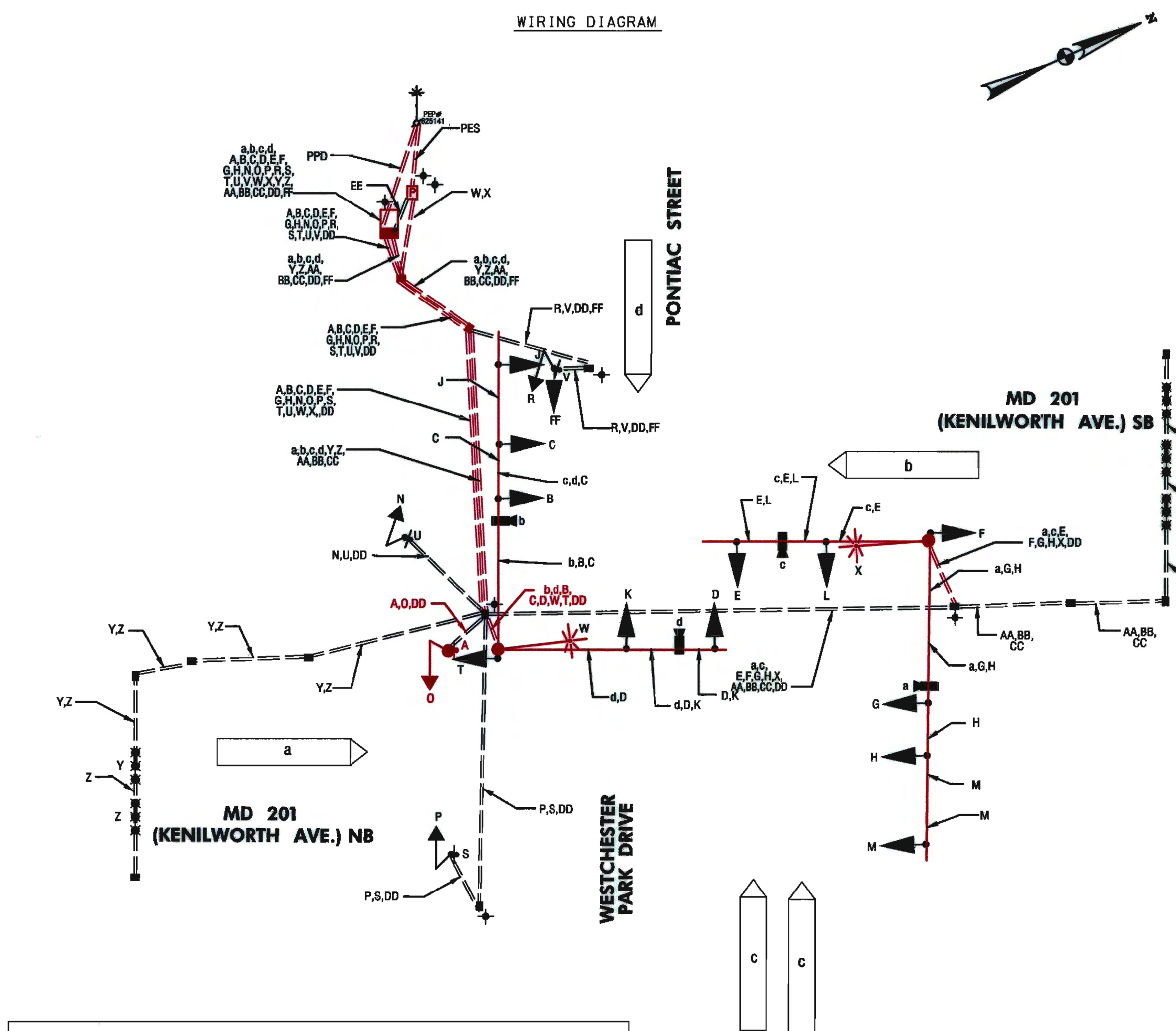
EQUIPMENT LIST 'C'

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

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Phase 1 & 5	◄G–	◄G–	R	R	◄G–	◄G–	R	R	R	R	R	R	R	DW	DW	DW	DW
1 & 5 Change	PHASE 1 & 5 MAY CHANGE TO PHASE 1 & 6, PHASE 2 & 5, OR PHASE 2 & 6													DW	DW	DW	DW
Phase 1 & 6	◄G–	◄G–	G	G	◄R–	◄R–	R	R	R	R	R	R	R	DW	DW	DW	DW
1 Change	◄Y–	◄Y–	G	G	◄R–	◄R–	R	R	R	R	R	R	R	DW	DW	DW	DW
Phase 2 & 5	◄R–	◄R–	R	R	◄G–	◄G–	G	G	R	R	R	R	R	DW	DW	DW	DW
5 Change	◄R–	◄R–	R	R	◄Y–	◄Y–	G	G	R	R	R	R	R	DW	DW	DW	DW
Phase 2 & 6	◄R–	◄R–	G	G	◄R–	◄R–	G	G	R	R	R	R	R	DW	DW	DW	DW
2 & 6 Change	◄R–	◄R–	Y	Y	◄R–	◄R–	Y	Y	R	R	R	R	R	DW	DW	DW	DW
Phase 3 & 8	◄R–	◄R–	R	R	◄R–	◄R–	R	R	◄G–/G	G ◄G–	G	R	R	DW	DW	DW	DW
3 Change	◄R–	◄R–	R	R	◄R–	◄R–	R	R	◄Y–/G	G ◄Y–	G	R	R	DW	DW	DW	DW
Phase 4 & 8	◄R–	◄R–	R	R	◄R–	◄R–	R	R	G	G	G	G	G	DW	DW	DW	DW
4 & 8 Change	◄R–	◄R–	R	R	◄R–	◄R–	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW
Phase 4 ALT & 8	◄R–	◄R–	R	R	◄R–	◄R–	R	R	G	G	G	G	G	WK	WK	WK	WK
Ped Clearance	◄R–	◄R–	R	R	◄R–	◄R–	R	R	G	G	G	G	G	FL/DW	FL/DW	FL/DW	FL/DW
4 ALT & 8 Change	◄R–	◄R–	R	R	◄R–	◄R–	R	R	Y	Y	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	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

a,b,c,d – e,f	VIDEO DETECTION CAMERA WITH 3 CONDUCTOR NO. 18 AWG LEAD-IN CABLE
A,B,C,D,– E,F,G,H,FF	7 CONDUCTOR NO. 14 AWG ELEC. CABLE
J,K,L,M	– 5 CONDUCTOR NO. 14 AWG ELEC. CABLE (JUMPER)
N,O,P,R	– 5 CONDUCTOR NO. 14 AWG ELEC. CABLE
S,T,U,V	– 2 CONDUCTOR NO. 14 AWG ELEC. CABLE
W,X	– 2 CONDUCTOR NO. 12 AWG TC ELEC. CABLE
Y,Z,AA, BB,CC	– PROPOSED NON-INVASIVE PROBE LEAD-IN
DD	– NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
EE	– 1 CONDUCTOR NO. 8 AWG THHN/THWN ELEC. CABLE
PES	– 1 CONDUCTOR NO. 2/0 AWG THHN/THWN (ALUMINUM) (THREE RUNS) ELEC. CABLE
PPD	– PROPOSED PHONE DROP
✦	– GROUND ROD (3/4" DIA.x 10' LENGTH)

1 REDLINE 1 TEDD APPROVAL *Jeff Henkel*
RELOCATE CABINET AND POLES IN MEDIAN DUE TO WATER LINE AND VERIZON DUCT BANK 7/13/11

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

MD 201 (KENILWORTH AVENUE) AT
PONTIAC STREET/WESTCHESTER PARK DRIVE
BERWYN, MARYLAND

GENERAL INFORMATION SHEET

SCALE NTS ADVERTISED DATE APRIL 13, 2011 CONTRACT NO. XX3515168

DESIGNED BY	ENB	COUNTY	PRINCE GEORGE'S
DRAWN BY	ENB	LOGMILE	16020205.77
CHECKED BY	NR *JAH 7/13/11*	TIMS NO.	K-045
F.A.P. NO.		TOD NO.	

TS NO. 519 G-GI | DRAWING SG-2 OF 2 | SHEET NO. 2 OF 2

PLOTTED: Wednesday, July 13, 2011 AT 09:03 AM
FILE: J:\DATA\K045\Redline1\Toms_Changes_pSG-P002_MD201@PONTIAC.dgn