PROJECT DESCRIPTION

I. GENERAL
THIS PROJECT INVOLVES INSTALLATION OF APS/CPS PEDESTRIAN EQUIPMENT ON THE NORTH, SOUTH, EAST, AND WEST LEGS OF THE INTERSECTION OF MD 28 (KEY WEST AVENUE) AT MD 119 (GREAT SENECA HIGHWAY) IN MONTGOMERY COUNTY. MD 28 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION
THIS INTERSECTION OPERATES IN A NEMA EIGHT-PHASE SEMI-TRAFFIC-ACTUATED MODE. EXCLUSIVE LEFT-TURN PHASES ARE PROVIDED FOR NORTHBOUND AND SOUTHBOUND MD 119 AND EASTBOUND AND WESTBOUND MD 28. THE MD 28 THROUGH MOVEMENTS OPERATE CONCURRENTLY WITH CONCURRENT PEDESTRIAN MOVEMENTS ACROSS THE NORTH AND SOUTH LEGS. THE MD 119 THROUGH MOVEMENTS OPERATE CONCURRENTLY WITH AN ACTUATED PEDESTRIAN MOVEMENTS ACROSS THE EAST AND WEST LEGS.

III. PEDESTRIAN OPERATION
NAVIGATOR AUDIBLE PEDESTRIAN PUSHBUTTONS TO CROSS THE NORTH, SOUTH, EAST, AND WEST LEGS OF THE INTERSECTION ARE TO BE PROVIDED. WHEN THE PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE:

NORTH: "WAIT TO CROSS GREAT SENECA AT KEY WEST, WAIT."
SOUTH: "WAIT TO CROSS GREAT SENECA AT KEY WEST, WAIT."
EAST: "WAIT TO CROSS KEY WEST AT GREAT SENECA, WAIT."
WEST: "WAIT TO CROSS KEY WEST AT GREAT SENECA, WAIT."

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

CONTACT PERSONS

THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

DISTRICT 3

MS. ANYESHA MOOKHERJEE (MO)
ASSISTANT DISTRICT ENGINEER - TRAFFIC
301-513-7404/301-513-7358

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

MR. DUANE BERNARD
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
301-513-7385

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

MONTGOMERY COUNTY

MR. ROBERT RICKETTS
TECHNICAL CENTER SUPERVISOR
PHONE NUMBER 240-876-3681

MR. KAMAL HAMUD
MONTGOMERY COUNTY-TRAFFIC ENGINEERING
PHONE NUMBER 301-777-8761

OFFICE OF TRAFFIC AND SAFETY

MS. CORREN JOHNSON
CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ED RODENHIZER
CHEIF SIGNAL OPERATIONS
410-787-7650

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

MR. MIKE STOCKER
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE FOLLOWING STANDARD PLATES FOR TRAFFIC CONTROL: MD 104.03-11, MD 104.04-13 THROUGH MD 104.04-16.

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
			NONE

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

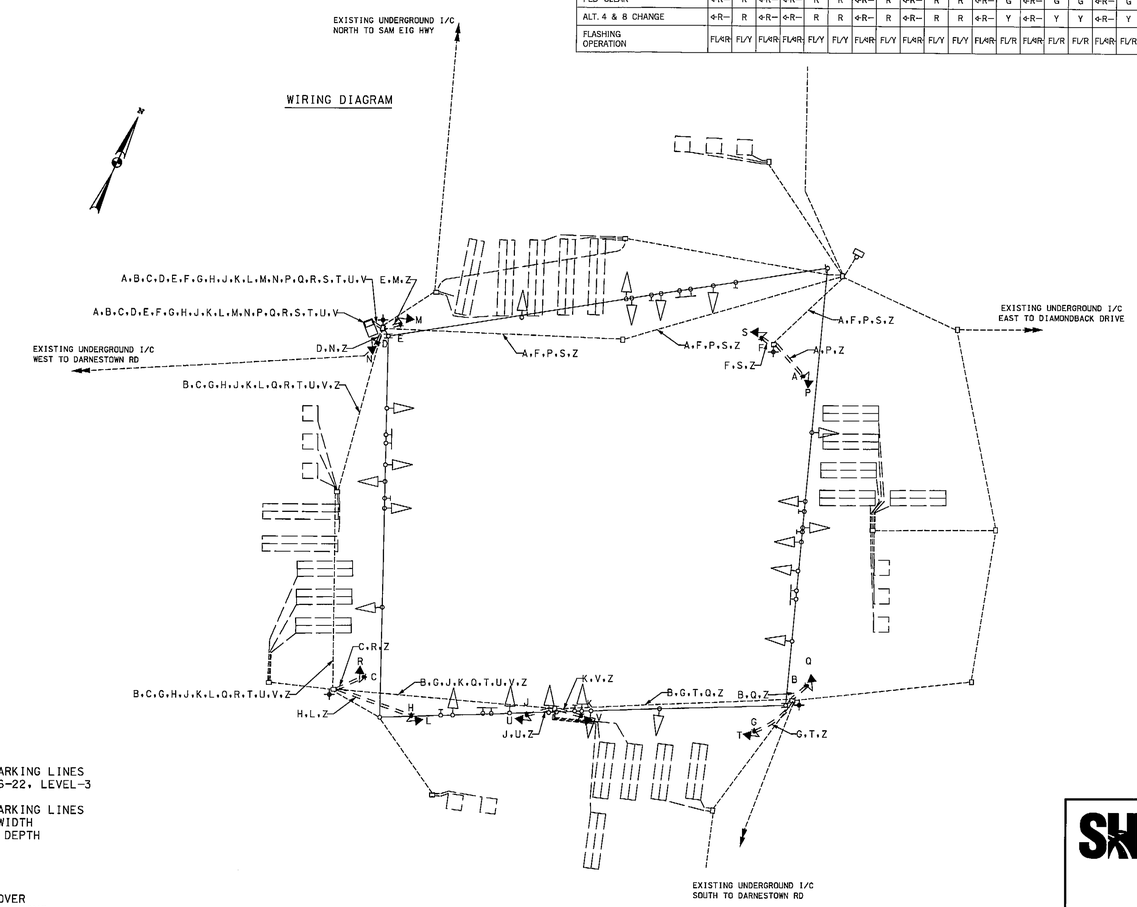
ITEM NO.	QUANTITY	UNIT	DESCRIPTION
100000	1	EA	MAINTENANCE OF TRAFFIC (PER INTERSECTION)
201032	50	CY	CLASS 2 EXCAVATION
203030	5	CY	TEST PIT EXCAVATION
500000	270	LF	10 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
504150	4	TON	HOT MIX ASPHALT SUPERPAVE 9.5MM FOR SURFACE, PG76-22, LEVEL-3
520109	11	SY	3 INCH GRADED AGGREGATE BASE COURSE
585621	910	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585700	800	LF	REMOVAL OF EXISTING PAVEMENT MARKING LINES, ANY WIDTH
600000	220	LF	TYPE A COMBINATION CURB AND GUTTER ANY HEIGHT OR DEPTH
600000	200	LF	TYPE A CURB ANY HEIGHT OR DEPTH
655105	1590	SF	5 INCH CONCRETE SIDEWALK
655120	160	SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
800000	2	EA	2-WIRE APS CENTRAL CONTROL UNIT
800000	3	EA	ADJUST HANDHOLE TO GRADE AND REPLACE FRAME AND COVER
800000	10	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
800000	10	EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	10	EA	5 FOOT OR 10 FOOT PEDESTAL POLE WITH BREAKAWAY COUPLINGS, FOUNDATION & GROUND ROD
800000	1	EA	REMOVE & DISPOSE OF EXISTING SIGNAL EQUIPMENT (PER SIGNALIZED INTERSECTION LOCATION)
800000	170	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
800000	1	EA	THIRD PARTY CONCRETE TESTING (PER INTERSECTION)
802501	810	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
861105	2290	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	2340	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

C. ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASING CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
PHASE 1 & 5	G	R	G	G	R	R	G	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
1 & 5 CHANGE	THE CONTROLLER MAY SKIP TO PHASES 1 & 6, 2 & 5, OR 2 & 6.																															
PHASE 1 & 6	G	G	G	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
1 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 5	R	R	R	R	R	R	G	G	G	G	G	G	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
2 & 5 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 6	R	G	R	R	G	G	R	G	R	G	G	R	R	R	R	R	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW	WK	WK
PED CLEAR	R	G	R	R	G	G	R	G	R	G	G	G	R	R	R	R	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW	FL/DW	FL/DW
2 & 6 CHANGE	R	Y	R	R	Y	Y	R	Y	R	Y	Y	Y	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 7	R	R	R	R	R	R	R	R	R	R	R	G	R	G	R	R	G	R	G	G	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
3 & 7 CHANGE	THE CONTROLLER MAY SKIP TO PHASES 3 & 8, 4 & 7, OR 4 & 8.																															
PHASE 3 & 8	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
3 & 8 CHANGE	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 7	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
4 & 7 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	R	R	R	R	R	R	R	R	R	R	R	R	G	R	G	G	R	G	R	R	G	G	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
4 & 8 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	Y	Y	R	Y	R	R	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PHASE ALT. 4 & 8	R	R	R	R	R	R	R	R	R	R	R	R	G	R	G	G	R	G	R	R	G	G	DW	DW	DW	DW	WK	WK	WK	WK	DW	DW
PED CLEAR	R	R	R	R	R	R	R	R	R	R	R	R	G	R	G	G	R	G	R	R	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW
ALT. 4 & 8 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	Y	Y	R	Y	R	R	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/AR	FL/Y	FL/AR	FL/AR	FL/Y	FL/Y	FL/AR	FL/Y	FL/AR	FL/Y	FL/Y	FL/AR	FL/R	FL/AR	FL/R	FL/R	FL/AR	FL/R	FL/AR	FL/AR	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

A,B,C,D,E,F,G,H,J,K - ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
L,M,N,P,Q,R,S,T,U,V - ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
Z - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE.
⏚ - GROUND ROD

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

MD 28 (KEY WEST AVENUE) AT
MD 119 (GREAT SENECA HIGHWAY)
ROCKVILLE, MARYLAND

GENERAL INFORMATION SHEET

SCALE N.T.S. ADVERTISED DATE MARCH 2013 CONTRACT NO. XY1515185

DESIGNED BY AMH/JVB
DRAWN BY JVB
CHECKED BY JFL
F.A.P. NO. -
COUNTY MONTGOMERY
LOGMILE 15002818.62
TIMS NO. L735
TOD NO. -

TS NO.3803F GI | DRAWING SG-3 OF 3 | SHEET NO. 15 OF 24

PLOTTED: "10:26 AM on Tuesday, April 02, 2013"
FILE: M:\2009\01090619.87\drawings\pSG-P005_MD28GI.dgn
BORDER REV: DATE: March 27, 2007
BY: Joost Van Boekhold Division: P068 Highway Traff GMA Emp