

PROJECT DESCRIPTION

EQUIPMENT LIST "A, B & C"

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING CHANNELIZED ISLAND, INSTALLATION OF COUNTDOWN PEDESTRIAN SIGNAL HEADS, APS PUSHBUTTONS AND SIGNS ALONG THE WEST LEG OF THE INTERSECTION. US 220 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THIS INTERSECTION WILL OPERATE IN A NEMA FIVE-PHASE FULL-TRAFFIC-ACTUATED MODE WITH AN ALTERNATE PEDESTRIAN PHASE FOR THE NORTH LEG OF THE INTERSECTION. A CONCURRENT PEDESTRIAN PHASE IS PROVIDED FOR THE WEST LEG OF THE INTERSECTION. THE US 220 SOUTHBOUND LEFT TURNS OPERATE IN EXCLUSIVE-PERMISSIVE PHASING.

CONTROLLER REQUIREMENTS

THE EXISTING FULL-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER WITH TELEMETRY CABLE HOUSED IN A BASE MOUNTED CABINET SHALL REMAIN. A 2-WIRE APS CENTRAL CONTROL UNIT SHALL BE FURNISHED BY THE CONTRACTOR AND INSTALLED BY SHA.

SPECIAL NOTES

APS WILL FUNCTION AS FOLLOWS:

TO CROSS MD 53 (WINCHESTER RD):

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS WINCHESTER AT McMULLEN. WAIT."

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

CONTACT PERSONS FOR DISTRICT #6 ARE AS FOLLOWS:

MR. GEORGE SMALL
ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: (301) 729-8444

MR. DWAYNE BITTNER
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 729-8457

MR. STEPHEN BUCY
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (301) 729-8411

CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

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

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410)787-7631

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CHIEF, SIGNAL OPERATIONS
(410)787-7650

MR. EUGENE BAILEY
CHIEF, SIGN OPERATIONS
(410)787-7676

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
9570	SHEET ALUMINUM GROUND MOUNTED SIGN	SF	23
	1 - W11-2 FY 30"X30" 1 - R5-1 30"X30"		
	1 - M6-2 FY 21"X15" 1 - R6-1R 36"X12"		
	1 - R6-1L 36"X12" 1 - OM1-3 FY 18"X18"		
9571	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN	SF	2
	2 - R10-3(1) 9"X15"		

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

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1001	MAINTENANCE OF TRAFFIC	EA	1
5003	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS	LF	150
5004	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF	60
5005	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF	15
6001	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH	LF	50
6002	5 INCH CONCRETE SIDEWALK	SF	102
6003	DETECTABLE WARNING SURFACE FOR CURB RAMPS	SF	21
8002	2-WIRE CENTRAL CONTROL UNIT	EA	1
8005	ADJUST HANDHOLE TO GRADE WITH NEW FRAME AND COVER	EA	1
8008	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS	EA	2
8009	BREAKAWAY PEDESTAL POLE (ANY SIZE)	EA	2
8015	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD	EA	1
8023	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)	EA	1
8038	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	LF	25
8039	WOOD SIGN SUPPORTS UP TO 4' X 6'	LF	45
8040	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)	SF	25
8042	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	40
8051	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE	EA	1
8053	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	250
8055	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	100

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
PHASE 2 AND 5	R	R	G	G	G	R	R	R	R	WK	WK	DW	DW
2 AND 5 CHANGE	R	R	G	G	G	R	R	R	R	WK	WK	DW	DW
PHASE 2 AND 6	G	G	G	G	G	R	R	R	R	WK	WK	DW	DW
PED CLEARANCE	G	G	G	G	G	R	R	R	R	FL/DW	FL/DW	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW
PHASE 4 AND 8	R	R	R	R	R	G	G	G	G	DW	DW	DW	DW
4 AND 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 AND 8 ALT	R	R	R	R	R	G	G	G	G	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	R	G	G	G	G	DW	DW	FL/DW	FL/DW
4 AND 8 ALT CHANGE	R	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

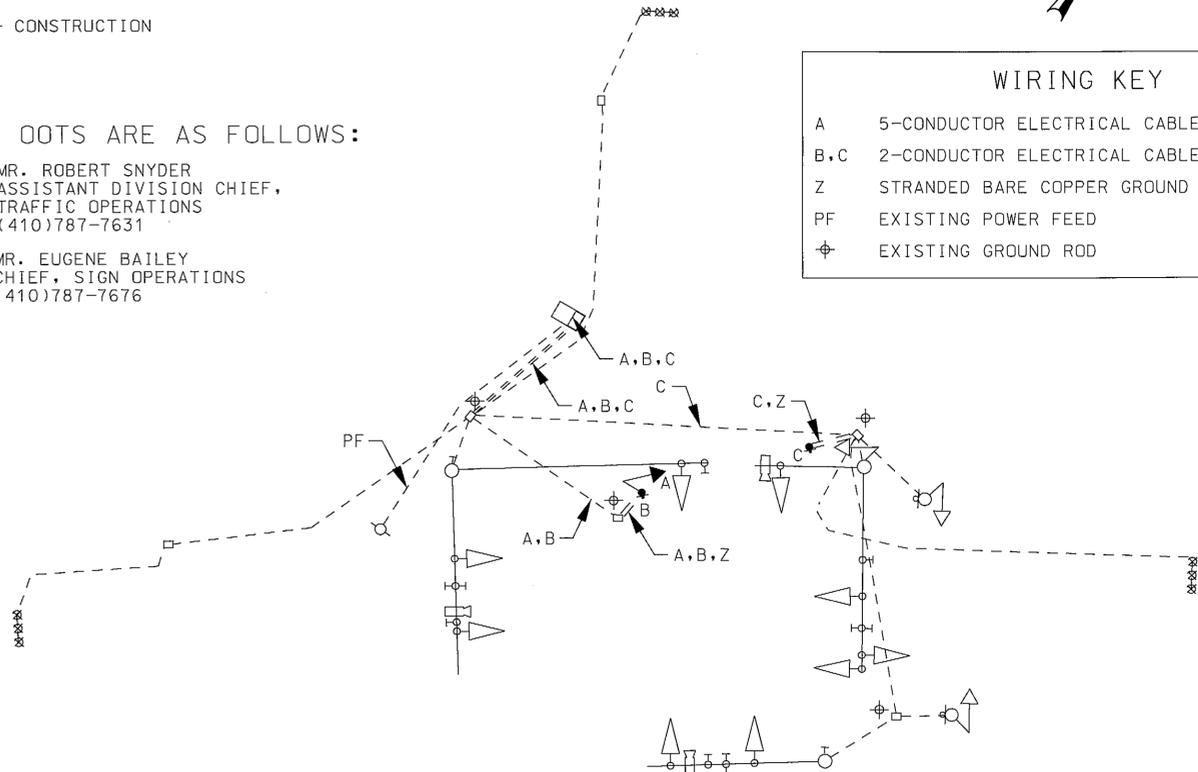
GENERAL NOTES

- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING EACH CABLE.
- ALL UNUSED CABLE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
- UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "MISS UTILITY" PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- ALL PEDESTAL FOUNDATION TOPS SHALL BE INSTALLED FLUSH WITH SIDEWALK GRADE.
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MDMUTC CHAPTER 4E "PEDESTRIAN CONTROL FEATURES" AND FIGURES 4E-3 AND 4E-4, AND THE LATEST NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" X 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON. NOT CENTER OF POLE TO CENTER OF POLE.
- PUSHBUTTON ARROWS AND SIGNS ARE TO BE ORIENTED PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- VIDEO DETECTION CAMERA ALIGNMENT SHALL BE COORDINATED WITH THE ENGINEER.
- THE CONTRACTOR SHALL CAP AND ABANDON CONDUITS FEEDING EXISTING SIGNAL EQUIPMENT THAT IS REMOVED.

TOD NO: XX650-28
SHA NO: AL410B52
MD 36 @ MD 743, MD 135 @ MD 36.
MD 658 @ Linda Way, US 220 @ MD 653

WIRING KEY

A	5-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
B,C	2-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
Z	STRANDED BARE COPPER GROUND WIRE (NO.6 AWG)
PF	EXISTING POWER FEED
⊕	EXISTING GROUND ROD



SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
US 220 (McMULLEN HWY)
AT MD 53 (WINCHESTER RD)
CRESAPTOWN, MARYLAND

REVISIONS	GENERAL INFORMATION SHEET		
	SCALE NONE	DATE MARCH 2013	CONTRACT NO. XX6505185
	DESIGNED BY GS	COUNTY ALLEGANY	
	DRAWN BY GS	LOGMILE 01022014.03	
	CHECKED BY BJB	TIMS NO. L65J	
	FAP NO.	TOD NO.	
TS NO. 516G-GI	DRAWING SP-4	OF 8	SHEET NO. 5 OF 10

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