

PROJECT DESCRIPTION

THIS PROJECT INVOLVES INSTALLING APS, RELOCATING A MAST ARM POLE, INSTALLATION OF NEW TRAFFIC SIGNAL CABINET, INSTALLATION OF PEDESTAL POLES AND SIDEWALK RAMP RECONSTRUCTION. MD 528 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 AND SOUTH LEGS OF THE INTERSECTION. THE MD 528 LEFT TURNS OPERATE IN EXCLUSIVE-PERMISSIVE PHASING.

CONTROLLER REQUIREMENTS

A NEW FULL-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL BE INSTALLED. AN APS CENTRAL CONTROL UNIT SHALL BE FURNISHED BY THE CONTRACTOR AND INSTALLED BY SHA.

CONTACT PERSONS FOR DISTRICT #1 ARE AS FOLLOWS:

MR. GENE COFIELL ASSISTANT DISTRICT ENGINEER-TRAFFIC PHONE: (410) 677-4040
 MR. RAVINDRA GANVIR ASSISTANT DISTRICT ENGINEER - CONSTRUCTION PHONE: (410) 677-4020

MR. JAMES WRIGHT ASSISTANT DISTRICT ENGINEER - MAINTENANCE PHONE: (410) 677-4010

CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

MR. RICHARD L. DAFF, SR. CHIEF, TRAFFIC OPERATIONS DIVISION PHONE: (410)787-7630
 MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF TRAFFIC OPERATIONS PHONE: (410)787-7630

MR. ED RODENHIZER CHIEF, SIGNAL OPERATIONS PHONE: (410)787-7650
 MR. EUGENE BAILEY CHIEF, SIGN OPERATIONS PHONE: (410)787-7676

SPECIAL NOTES

APS WILL FUNCTION AS FOLLOWS:

TO CROSS COASTAL HIGHWAY (NORTH LEG):

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS COASTAL HIGHWAY AT 118TH. CROSSWALK ANGLES RIGHT".

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

TO CROSS COASTAL HIGHWAY (SOUTH LEG):

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS COASTAL HIGHWAY AT 118TH. CROSSWALK ANGLES LEFT".

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

WIRING KEY

A,B,C	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
D,E,F,G	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
H,I,J,P	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
K,L,M	500' VIDEO DETECTION CAMERA CABLE
N	1-CONDUCTOR ELECTRICAL CABLE (NO. 4 AWG) - 3 RUNS
ICN, ICS	12-PAIR COMMUNICATION CABLE, SELF-SUPPORTING (OVERHEAD)
EXR	EXISTING CABLE TO BE DISCONNECTED, PULLED BACK & REROUTED
EX	EXISTING CABLE TO REMAIN
PF	PROPOSED OVERHEAD POWER SERVICE BY DELMARVA
Z	STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
⊕	EXISTING GROUND ROD
⊕	PROPOSED GROUND ROD

EQUIPMENT LIST "A"

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
9042	CONTROLLER ASC II WITH TELEMETRY	EA	1
9044	CONTROLLER CABINET, SIZE 6	EA	1
9086	VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS	EA	1
9571	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN 2 - D-3(1) (96"x16")	SF	22

EQUIPMENT LIST "B"

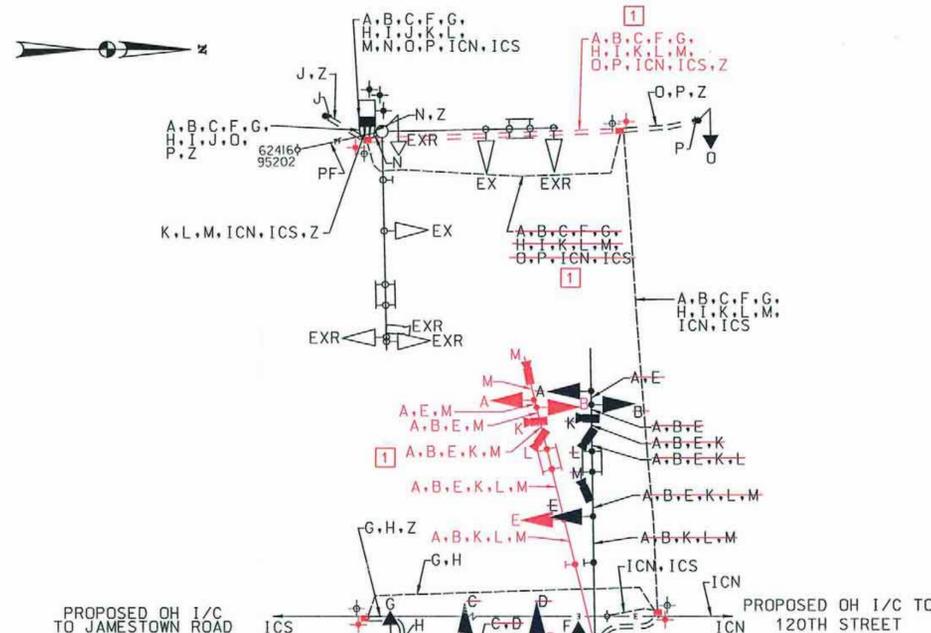
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1003	MAINTENANCE OF TRAFFIC (INCLUDES 118TH & 127TH)	EA	3
2002	TEST PIT EXCAVATION	CY	3
5005	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS ANY WIDTH	LF	680
5006	F & I 12" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF	530
5007	F & I 24" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF	100
6001	F & I STANDARD TYPE A COMBINATION CURB AND GUTTER 12" GUTTER PAN 8" DEPTH	LF	154
6002	F & I 5" CONCRETE SIDEWALK	SF	959
6003	F & I DETECTABLE WARNING SURFACE FOR CURB RAMPS	SF	110-70
8001	F & I 2 WIRE CENTRAL CONTROL UNIT	EA	1
8004	ADJUST EXISTING HANDHOLE TO GRADE INCLUDING COLLAR	EA	4-0
8007	F & I AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS	EA	4
8008	F & I BREAKAWAY PEDESTAL POLE (ANY SIZE)	EA	3
8021	REMOVE & DISPOSE MATERIAL AND EQUIPMENT PER ASSIGNMENT (INCLUDES 118TH & 127TH)	EA	1
8024	F & I TWIN MAST ARM POLE & 50'/70' MAST ARMS ANY 'T' DIMENSION	EA	1
8030	DISCONNECT, PULL-BACK & REROUTE CABLES	LF	200
8033	F & I SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" - SLOTTED	LF	60
8034	F & I SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" - TRENCHED	LF	115
8036	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)	SF	22
8038	F & I NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	110-170
8040	F & I WEATHER HEAD, 3"	EA	1
8042	F & I ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS	EA	1
8043	F & I ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 AWG - THHN/THWN	LF	120
8045	F & I ELECTRICAL HANDHOLE	EA	4
8052	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE	EA	2
8054	F & I ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	825
8056	F & I ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	875
8057	F & I ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	1150
8065	INSTALL CONTROLLER AND CABINET - BASE MOUNT	EA	1
8066-A	12-PAIR COMMUNICATION CABLE, SELF-SUPPORTING (OVERHEAD)	LF	2650
8067-A	RELOCATE EXISTING TRAFFIC SIGNAL (ENTIRE CLUSTER)	EA	5
8068-A	RELOCATE EXISTING PED SIGNAL	EA	3
8069-A	RELOCATE EXISTING VIDEO CAMERA	EA	3
8070-A	F & I 500' VIDEO DETECTION CAMERA CABLE	EA	3
8071-A	RELOCATE EXISTING SIGNS	EA	1
8000-NEG	RELOCATE EXISTING TRASH CAN	EA	1
8000-NEG F & I	6"x6" LANDSCAPE TIMBER	LF	84

PHASING CHART

NO PHASE CHANGE

GENERAL NOTES

- ALL EXISTING FOUNDATION TOPS WITHIN EXISTING SIDEWALK SHALL BE REMOVED 2" BELOW SIDEWALK GRADE.
- ALL PROPOSED FOUNDATION TOPS SHALL BE INSTALLED FLUSH WITH SIDEWALK GRADE.
- ACCESSIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO THE SHA SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION. CONTACT MR. EDWARD RODENHIZER AT 410-787-7652 TO COORDINATE.
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SECTION 4E.09 AND FIGURE 4E.2 AND THE 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 TO CENTER OF POLE.
- PUSHBUTTON ARROWS AND SIGNS ARE TO BE ORIENTED PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- ALL HARDWARE NECESSARY FOR THE INSTALLATION OF RELOCATED TRAFFIC SIGNAL EQUIPMENT SHALL BE INCIDENTAL TO THE PERTINANT RELOCATE PAY ITEM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
- 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.
- RELOCATE TRASH CAN PAY ITEM SHALL INCLUDE REMOVAL OF EXISTING ANCHOR BOLTS FLUSH WITH GRADE, RELOCATION OF EXISTING TRASH CAN AND FURNISHING AND INSTALLING HILTI BOLTS TO ATTACH TRASH CAN TO SIDEWALK. THE CONTRACTOR SHALL VERIFY EXISTING BOLT DIAMETER PRIOR TO ORDERING NEW HILTI BOLTS FOR RELOCATION.
- THE CONTRACTOR SHALL COORDINATE WITH DISTRICT 1 TRAFFIC TO COORDINATE TRAFFIC SIGNAL TURN OFF AND TEMPORARY STOP CONTROL. CONTRACTOR SHALL VERIFY ANY EVENT OR DATE RESTRICTIONS PRIOR TO TRAFFIC SIGNAL TURN OFF.



EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076.

SHA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF TRAFFIC & SAFETY
 TRAFFIC ENGINEERING DESIGN DIVISION
 MD 528 (COASTAL HWY.) AT 118TH ST.
 OCEAN CITY, MARYLAND

REVISIONS	GENERAL INFORMATION SHEET
REDLINE NO. 1 03/25/09 MODIFY DWS. INSTALL SLOTTED CONDUIT ON WEST LEG. ROTATE POLE IN NE CORNER	SCALE 1"=20' DATE DECEMBER 2008 CONTRACT NO. XX4435185 DESIGNED BY BJC COUNTY WORCESTER DRAWN BY BJC LOGMILE 23052801.96 CHECKED BY DAE TMS NO. J609 FAP NO. TOD NO.
	TS NO. 2262A-GI DRAWING SG-2 OF 7 SHEET NO. 2 OF 7

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BY: BJC