

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE SIDEWALK RAMPS, INSTALLATION OF LED COUNTDOWN PEDESTRIAN SIGNAL HEADS, APS PUSHBUTTONS AND SIGNS AT THE INTERSECTION OF MD 528 (COASTAL HWY) AND 41ST STREET. MD 528 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THIS INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE FULL-TRAFFIC- ACTUATED MODE. THE MD 528 NORTHBOUND AND SOUTHBOUND LEFT TURNS OPERATE IN EXCLUSIVE-PERMISSIVE PHASING. ALTERNATE PEDESTRIAN PHASES ARE PROVIDED FOR THE NORTH AND SOUTH LEGS OF THE INTERSECTION.

CONTROLLER REQUIREMENTS

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

SPECIAL NOTE

APS WILL FUNCTION AS FOLLOWS:

TO CROSS COASTAL HWY:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS COASTAL AT 41ST, 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 #1 ARE AS FOLLOWS:

MR. KENNETH CIMINO ASSISTANT DISTRICT ENGINEER-TRAFFIC PHONE: (410) 677-4040	MR. GREG HOLSEY ASSISTANT DISTRICT ENGINEER - CONST. PHONE: (410) 677-4020
MR. BRUCE POOLE DISTRICT UTILITY ENGINEER PHONE: (410) 677-4082	MR. JAMES WRIGHT ASSISTANT DISTRICT ENGINEER - MAINT. PHONE: (410) 677-4010
MR. TERRY MCGEAN TOWN OF OCEAN CITY - CITY ENGINEER PHONE: (410) 289-8845	

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 (410)787-7630	MR. JOHN GOVER OFFICE OF HIGHWAY DESIGN TRAFFIC OPERATIONS PHONE: (410) 545-8766
MR. ED RODENHIZER CHIEF, SIGNAL OPERATIONS (410)787-7650	MR. EUGENE BAILEY CHIEF, SIGN OPERATIONS (410)787-7676	

EQUIPMENT LIST "A,B & C"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA	
ITEM NO.	DESCRIPTION
9571	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN 4 - R10-3(1) - 9"X15"
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR	
ITEM NO.	DESCRIPTION
1002	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS, ANY WIDTH
5005	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
8001	FURNISH AND INSTALL AUDIBLE / TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8002	FURNISH AND INSTALL BREAKWAY PEDESTAL POLE - ANY SIZE
8003	FURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8004	REMOVE AND DISPOSE PER ASSIGNMENT
8007	FURNISH AND INSTALL UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8009	ADJUST EXISTING HANDHOLE
8010	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8013	INSTALL GROUND MOUNTED SIGN
8017	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8018	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8019	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

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

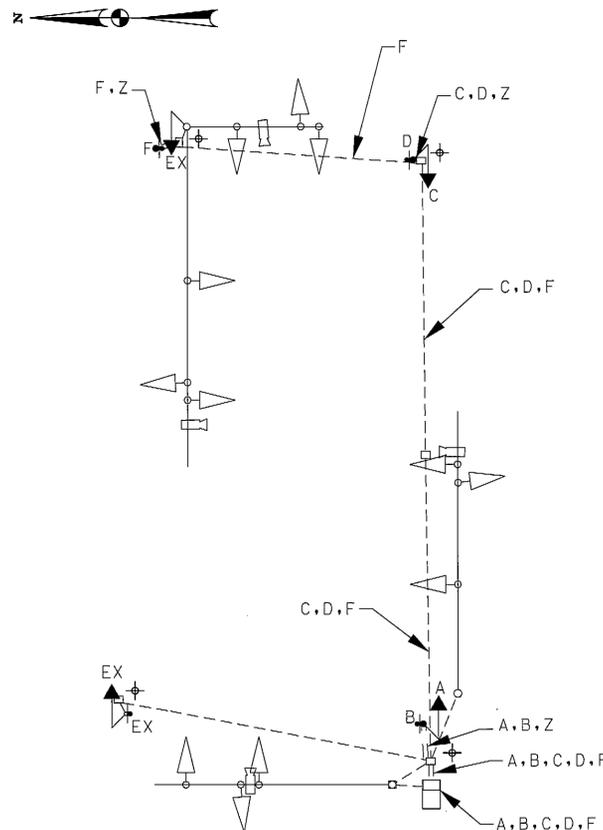
PHASING CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 & 5	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
1 & 5 CHANGE	CHANGES TO PHASE 1 & 6, 2 & 5 OR 2 & 6															
PHASE 1 & 6	R	R	R	G	G	G	R	R	R	R	R	R	R	R	R	R
1 & 6 CHANGE	R	R	R	G	G	G	R	R	R	R	R	R	R	R	R	R
PHASE 2 & 5	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R
2 & 5 CHANGE	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	R	R	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	R	R	R	R
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	G	G	G	G
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PHASE 4 & 8 ALT	R	R	R	R	R	R	G	G	G	G	G	G	G	G	G	G
PED. CLEARANCE/COUNTDOWN	R	R	R	R	R	R	G	G	G	G	G	G	G	G	G	G
4 & 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R									

GENERAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING 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.
- LOCATION OF ACCESSIBLE PEDESTRIAN PUSHBUTTONS MUST MEET THE LOCATION REQUIREMENTS OF THE MUTCD, SECTION 4E-09 AND FIGURE 4E-2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNAL: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL THE CONFLICT HAS BEEN RESOLVED. IF NEEDED, A DESIGN WAIVER SHALL BE 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 FROM 60"x60" LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN 2%.
- PUSHBUTTON ARROWS AND SIGNS ARE TO BE ORIENTED PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
- ADA REQUIRES THAT ANY ABRUPT CHANGE IN ELEVATION IN SIDEWALK BE LESS THAN 1/4".
- 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.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL ENSURE ALL UNDERGROUND UTILITIES ARE MARKED PRIOR TO TRAFFIC SIGNAL STAKEOUT. THE CONTRACTOR SHALL ENSURE ALL UNDERGROUND UTILITIES ARE MARKED AND STAKEOUT HAS OCCURED PRIOR TO TRAFFIC SIGNAL TURN OFF.



WIRING KEY	
EX	USE EXISTING CABLE
A,C	5-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
B,D,F	2-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
Z	STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
+	EXISTING GROUND ROD

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 528 (COASTAL HWY) AT 41ST STREET/
CONVENTION CENTER ENTRANCE
OCEAN CITY, MARYLAND

REVISIONS	GENERAL INFORMATION SHEET		
	SCALE NONE	DATE JUNE 2012	CONTRACT NO. XXI285133
DESIGNED BY	AMR	COUNTY	WORCESTER
DRAWN BY	AMR	LOGMILE	23052805.93
CHECKED BY	BJG	TMS NO.	L367
FAP NO.		TOD NO.	
TS NO. 3728D-G1	DRAWING SP-2	OF 2	SHEET NO. 10 OF 26

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FILE: SFILES

BY: \$USER\$