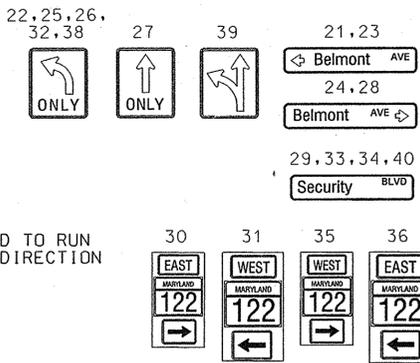
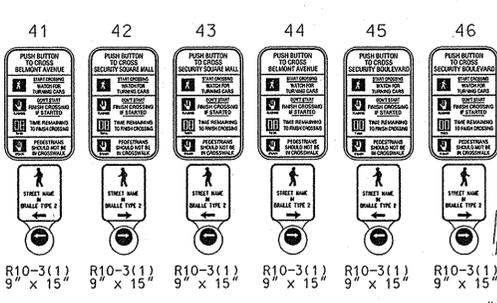


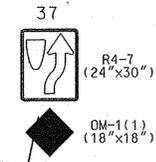
**EXISTING SIGNS**



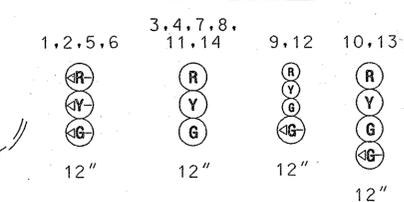
**PROPOSED SIGNS**



**EXISTING SIGNS TO BE RELOCATED**



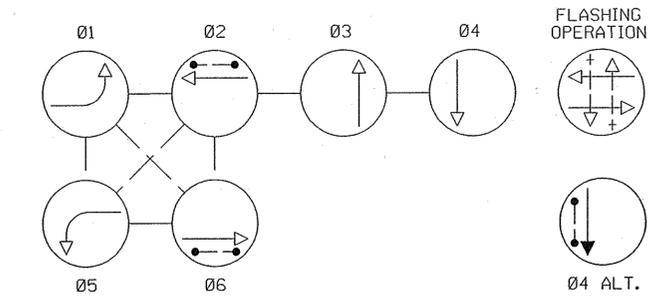
**EXISTING SIGNALS**



**PROPOSED SIGNALS**



**NEMA PHASING**



MD 122 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION

**CONSTRUCTION DETAILS**

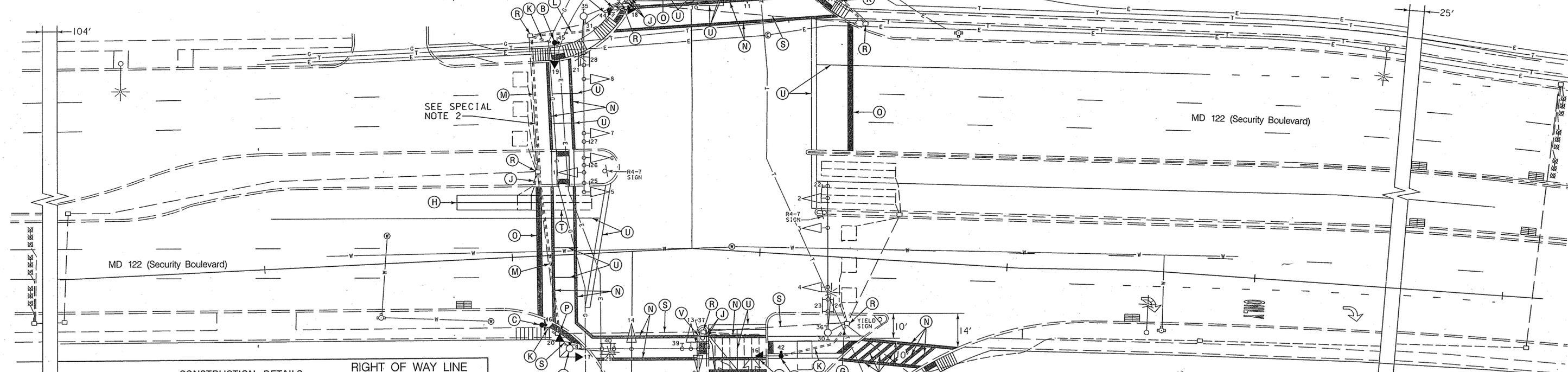
- A. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY BASE, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT, R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS SECURITY SQUARE MALL"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
- B. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE (SEE MODIFIED PEDESTAL POLE FOUNDATION DETAIL ON SHEET 3), COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT, R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS SECURITY BOULEVARD"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
- C. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE (CUT TO 5 FEET) WITH BREAKAWAY BASE, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS SECURITY BOULEVARD"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN PEDESTAL BASE).

**GENERAL NOTES**

1. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS. HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
2. THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS SHOULD ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
3. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM A 60"x60" LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%. PUSHBUTTON IS TO BE LOCATED SO THAT A PEDESTRIAN IN A WHEELCHAIR LOCATED ON THE LEVEL LANDING AREA, DOES NOT HAVE TO REACH MORE THAN 18 IN.

NOTE: PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

**SPECIAL NOTE:**  
CONTRACTOR SHALL USE CAUTION WHEN INSTALLING SIGNAL CONDUIT TO AVOID DAMAGING OF EXISTING LOOP DETECTORS.



**CONSTRUCTION DETAILS**

- D. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY BASE, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS BELMONT AVENUE"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN PEDESTAL BASE).
- E. USE EXISTING STEEL POLE. INSTALL COUNTDOWN PEDESTRIAN SIGNAL HEAD.
- F. USE EXISTING STEEL POLE. INSTALL COUNTDOWN PEDESTRIAN SIGNAL HEADS, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS SECURITY SQUARE MALL").
- G. REMOVE EXISTING CONCRETE MEDIAN AND INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED. REPLACE 4 INCH CONCRETE MEDIAN.
- H. INSTALL 6 FT. x 30 FT. (3-6-3 WINDING) QUADRUPOLE TYPE LOOP DETECTOR ENCASED IN 1/4 IN. FLEXIBLE TUBING.
- I. INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE NON-METALLIC ELECTRICAL CONDUIT. (FOR DETECTOR WIRE SLEEVE)
- J. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- K. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- L. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- M. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - SLOTTED.
- N. INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.
- O. INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
- P. USE EXISTING HANDHOLE AND ADJUST TO GRADE.
- Q. USE EXISTING BASE MOUNTED CONTROLLER AND CABINET. INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE UNIT.
- R. USE EXISTING HANDHOLE.
- S. USE EXISTING CONDUIT.
- T. ABANDON EXISTING LOOP DETECTOR. DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
- U. REMOVE EXISTING PAVEMENT MARKINGS.
- V. RELOCATE EXISTING R4-7 (24"x30") AND OM-1(1) (18"x18") SIGNS AND SUPPORT.
- W. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE (CUT TO 5 FEET) WITH BREAKAWAY BASE, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS BELMONT AVENUE"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN PEDESTAL BASE).

**GENERAL NOTES**

7. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
8. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
9. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 4E-02 AND THE LATEST EDITION OF THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET, THE CONTRACTOR IS TO STOP WORK UNTIL THE CONFLICT IS RESOLVED. IF NECESSARY, A WAIVER SHALL BE OBTAINED, SIGNED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
10. THE CONTRACTOR SHALL DELIVER APS CONTROL UNIT TO SHOP FOR TESTING AND PROGRAMMING.
11. INSTALL CONDUIT AND LOOP DETECTORS PRIOR TO THE INSTALLATION OF PAVEMENT MARKINGS.
12. VERIFY PROPOSED GEOMETRICS PRIOR TO INSTALLING SIGNAL EQUIPMENT.
13. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
14. REFER TO SHEET 2 FOR DIMENSIONS OF SIGNAL EQUIPMENT AND PAVEMENT MARKINGS WITHIN INTERSECTION.

**WR&A**  
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Baltimore, Maryland 21231  
410-235-3450

APPROVALS	
TEAM LEADER	
ASST. DIV. CHIEF	
DIVISION CHIEF	
OFFICE DIRECTOR	

REVISIONS	
D	ADD AUDIBLE PEDESTRIAN SIGNALS AND CROSSWALKS CONTRACT NO. AX1735133 3/1/2007
SRB	NM (Red) 1/21/07 1/21/07
C	REDLINE REVISION TO S.H.A. NO. XX1005885 9/4/2000
EMM	
B	RECONSTRUCT, ADD 1/C AND SAMPLING DETECTION S.H.A. NO. XX1005885 4/4/2000
EMM	

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 122 (Security Boulevard) and  
Belmont Avenue Entrance to Security Square Mall

TRAFFIC SIGNALIZATION PLAN			
SCALE	1" = 20'	DATE	3/4/2000
DESIGNED BY	S.T.S.	COUNTY	Baltimore
DRAWN BY	S.T.S.	LOGMILE	03012200.27
CHECKED BY	S.T.S.	TIMS NO.	D670
FAP NO.		TOD NO.	
TS NO. 3457D	DRAWING	OF	SHEET NO. 1 OF 3

PLOTTED: 09-11-2007  
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