

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

- GENERAL NOTES:**
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
 - THE PAVEMENT MARKINGS SHOWN ON THIS PLAN SHALL BE INSTALLED IN ACCORDANCE WITH MSHA STANDARDS.
 - ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
 - VIDEO CAMERA LOCATION /ALIGNING SHALL BE COORDINATED WITH THE SHA SIGNAL TECHNICIAN.
 - 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.
 - 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 816.01, MD 816.02, MD 816.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
 - THE CONTRACTOR SHALL CONTACT ED RODENHIZER AT SIGNAL SHOP (410)787-7650 TO DELIVER APS EQUIPMENT FOR TESTING.
 - PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60"X60" 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 ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
 - LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 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.
 - CONTRACTOR SHALL COORDINATE POLICE CONTROL OF THE INTERSECTION DURING CONSTRUCTION ACTIVITIES THAT WILL REQUIRE THE SIGNAL TO BE TEMPORARILY OUT OF SERVICE. TO MINIMIZE THE SIGNAL DOWNTIME, CONTRACTOR SHALL INSTALL ALL CONDUIT AND HANDBOXES PRIOR TO DISCONNECTING SIGNAL.

CONSTRUCTION DETAILS:

- (A) INSTALL 3 INCH SCHEDULE 80 PVC CONDUIT - TRENCHED PRIOR TO SIDEWALK CONSTRUCTION.
- (B) INSTALL 6 FT X 30 FT QUADRUPLE TYPE (3-6-3) LOOP DETECTOR ENCASED IN 1/4 INCH FLEXIBLE TUBING.
- (C) INSTALL 12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, FOR 10' WIDE CROSSWALK.
- (D) INSTALL 24 INCH WHITE PREFORMED PAVEMENT MARKINGS, FOR STOP LINE.
- (E) EXISTING LOOP DETECTOR TO BE ABANDONED.
- (F) MAINTAIN EXISTING HANDHOLE/CONDUIT.

GEOMETRIC LEGEND

----- EXISTING
===== PROPOSED

UTILITY LEGEND

SD-----SD----- STORM DRAIN
G-----G----- GAS MAIN
W-----W----- WATER MAIN
S-----S----- SEWER MAIN
E-----E----- ELECTRIC CABLES
A-----A----- AERIAL CABLES
T-----T----- TELEPHONE CABLES
F-----F----- FIBER-OPTIC

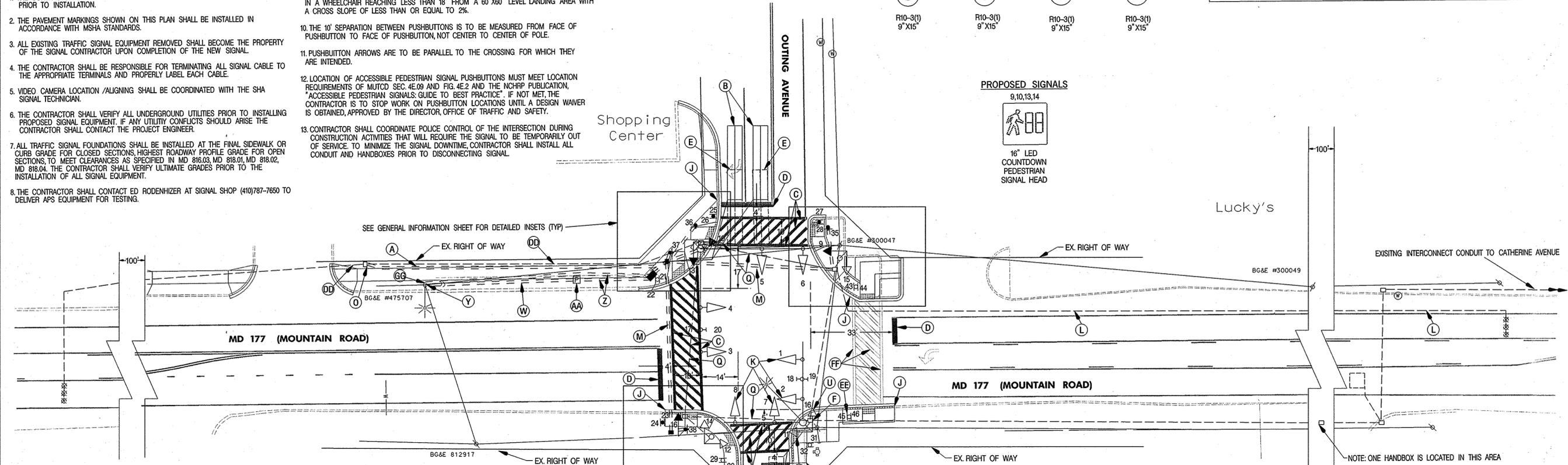
- (G) INSTALL 10 FOOT BREAKAWAY PEDESTAL POLE WITH BREAKAWAY COUPLING AND MODIFIED SHALLOW PEDESTAL FOUNDATION (MD STD 801.01) WITH NEW 16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD AND NEW AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON SYSTEM WITH VIBRATING ARROW AND R10-4(1) SIGN TO READ "PUSHBUTTON TO CROSS OUTING AVE." (NOTE: ONE 3 INCH SCHEDULE 80 PVC 90 DEGREE ELBOW IN BASE).
- (H) REMOVE AND REPLACE EXISTING PEDESTRIAN SIGNAL HEAD WITH 16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD.
- (I) REMOVE AND RELOCATE EXISTING GROUND MOUNTED SCHOOL CROSSING SIGNS.
- (J) SEE SITE PLANS FOR NEW SIDEWALK AND RAMP CONSTRUCTION. RAMP SHALL BE INSTALLED ACCORDING TO SHA STANDARD NO. MD 655.11 AND MD 655.12.
- (K) REWIRE EXISTING SIGNAL EQUIPMENT THROUGH NEW CONDUIT AND HANDHOLE TO EXISTING CONTROLLER CABINET.
- (L) REMOVE AND REPLACE MICRO-LOOP CABLE AND CONNECT TO NEW BASE-MOUNTED CABINET.
- (M) INSTALL 4 INCH SCHEDULE 80 PVC CONDUIT - BORED.
- (N) INSTALL ELECTRICAL HANDHOLE.
- (O) EXTEND CONDUIT INTO EXISTING HANDHOLE.
- (P) REMOVE EXISTING HANDHOLE.
- (Q) CAP AND ABANDON EXISTING CONDUIT.

CONSTRUCTION DETAILS CONT.:

- (R) REMOVE EXISTING POLE, SIGNAL EQUIPMENT AND FOUNDATION 12 INCHES BELOW GRADE AND BACKFILL.
- (S) INSTALL 10 FOOT BREAKAWAY PEDESTAL POLE WITH BREAKAWAY COUPLING AND MODIFIED SHALLOW PEDESTAL FOUNDATION (MD STD 801.01) WITH NEW 16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD AND NEW AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON SYSTEM WITH VIBRATING ARROW AND R10-4(1) SIGN TO READ "PUSHBUTTON TO CROSS MOUNTAIN RD." (NOTE: ONE 3 INCH SCHEDULE 80 PVC 90 DEGREE ELBOW IN BASE).
- (T) INSTALL 1 INCH SCHEDULE 40 RIGID STEEL CONDUIT-GALVANIZED SLEEVE PRIOR TO SIDEWALK CONSTRUCTION.
- (U) REMOVE EXISTING PEDESTRIAN SIGNAL HEAD.
- (V) INSTALL 6 FT X 30 FT QUADRUPLE TYPE (3-6-3) LOOP DETECTOR ENCASED IN 1/4 INCH FLEXIBLE TUBING. CONNECT TO EXISTING 2-CONDUCTOR ALUMINUM SHIELDED ELECTRICAL CABLE.
- (W) INSTALL 4 INCH SCHEDULE 80 PVC CONDUIT - TRENCHED PRIOR TO SIDEWALK CONSTRUCTION.
- (X) INSTALL NEW NEMA SIZE "6" BASE MOUNTED CONTROLLER CABINET, WITH CONCRETE PAD SHORTENED TO 1 FOOT, WITH CONTROLLER HARDWARE AND 2-WIRE CONTROL UNIT FOR AUDIBLE TACTILE PEDESTRIAN PUSHBUTTON (NOTE: FOUNDATION SHALL HAVE TWO 2 INCH AND TWO 4 INCH 90 DEGREE CONDUIT ELBOWS).

CONSTRUCTION DETAILS CONT.:

- (Y) PROPOSED POWER SOURCE TO BE SUPPLIED BY BG&E. INSTALL 4 INCH RISER AND WEATHER HEAD TO EXISTING UTILITY POLE (BG&E #475707). STUB NEW CONDUIT UP TO EXISTING UTILITY POLE BASE.
- (Z) INSTALL 2 INCH SCHEDULE 80 PVC CONDUIT - TRENCHED.
- (AA) INSTALL 200 AMP, 1PH, 3 WIRE METERED SERVICE PEDESTAL.
- (BB) REMOVE EXISTING POLE MOUNTED CONTROLLER CABINET.
- (CC) INSTALL CONDUIT BEND INTO EXISTING FOUNDATION AND CONNECT TO NEW CONDUIT.
- (DD) REMOVE EXISTING MICRO-LOOP CABLE FROM EXISTING CONTROLLER CABINET TO NEAREST HANDHOLE. REROUTE CABLE THROUGH NEW CONDUIT TO NEW BASE-MOUNTED CABINET.
- (EE) REMOVE EXISTING GROUND MOUNTED SIGN AND SUPPORT.
- (FF) REMOVE EXISTING CROSSWALK PAVEMENT MARKINGS.
- (GG) PROPOSED COMMUNICATION SOURCE TO BE SUPPLIED BY VERIZON. STUB NEW 2 INCH CONDUIT FOR PHONE DROP UP EXISTING UTILITY POLE 2 FEET ABOVE SURFACE.



REVISION C CONSULTANT

WALLACE, MONTGOMERY & ASSOCIATES, LLP
 CIVIL AND STRUCTURAL ENGINEERS
 110 West Road, Suite 300
 Towson, Maryland 21204
 (410) 494-9093, (410) 825-5714 Fax
 www.WallaceMontgomery.com

APPROVALS	REVISIONS
<p>ORIGINAL</p> <p>FILE</p>	<p>SHA NO. A33745133 02/2008 INSTALL APS/SPS EQUIPMENT NEW BASE-MOUNTED CABINET & REMOVE PED X-WALKS</p> <p>MMA [Signature]</p> <p>INSTALL X-WALKS PED SIGNAL INDICATORS, AND PUSH BUTTONS. 03/2004</p> <p>CJW</p> <p>A WIDEN SB OUTING AVENUE AND ADD PEDESTRIAN PHASE 09/1997</p> <p>TMZ</p>

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

MD 177 (MOUNTAIN ROAD) AT OUTING AVENUE PASADENA, MARYLAND

TRAFFIC SIGNAL PLAN

SCALE 1"=20' DATE FEBRUARY, 1994 CONTRACT NO. _____

DESIGNED BY _____ COUNTY ANNE ARUNDEL
 DRAWN BY P. DOOR LOGMILE 02017702.77
 CHECKED BY _____ T.I.M.S. NO. 1718
 F.A.P. NO. N/A T.S. NO. 3369-C

DRAWING NO. _____ OF _____ SHEET NO. 1 OF 3

PLOTTED: Friday, July 11, 2008 AT 02:05 PM
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