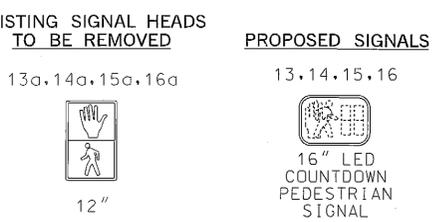
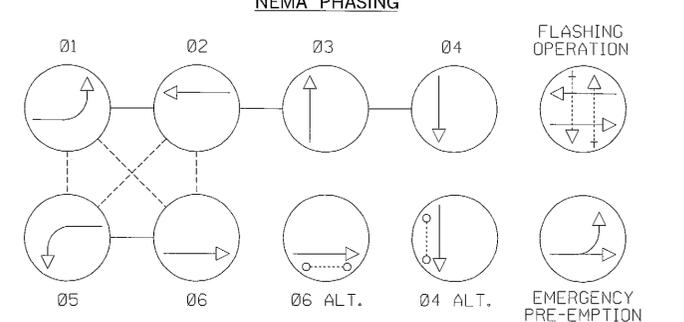
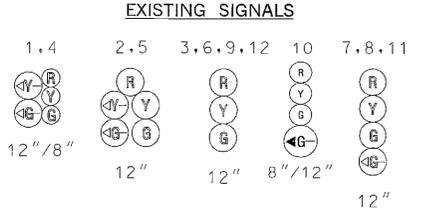
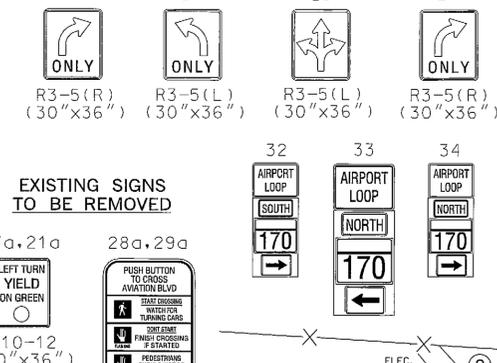
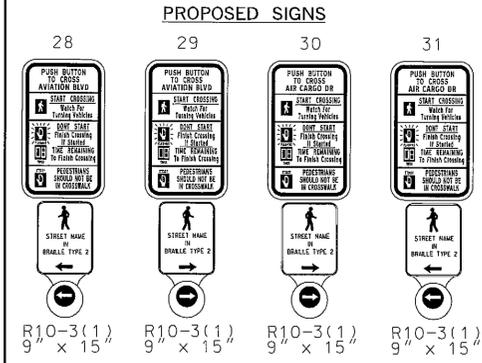


MD 170 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION



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 EQUIPMENT TO AVOID DISTURBANCE OF EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL TEST PIT TO DETERMINE EXACT LOCATION AND DEPTH OF UNDERGROUND UTILITIES PRIOR TO INSTALLING SIGNAL EQUIPMENT.

- CONSTRUCTION DETAILS**
- USE EXISTING STEEL POLE. REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, PUSHBUTTON, AND R10-4(1) SIGN. INSTALL NEW L.E.D. COUNTDOWN PEDESTRIAN SIGNAL HEAD. DISCONNECT AND REMOVE EXISTING PUSHBUTTON AND SIGNAL HEAD ELECTRICAL CABLES AND CONNECT NEW ELECTRICAL CABLE TO NEW PEDESTRIAN SIGNAL HEAD. CLEAN EXISTING DRILLED HOLES WITH BRUSH AND SPRAY COLD GALVANIZING COMPOUND ON THE AFFECTED AREAS.
  - USE EXISTING STEEL POLE. REMOVE EXISTING PEDESTRIAN SIGNAL HEADS, PUSHBUTTON, AND R10-4(1) SIGN. INSTALL NEW L.E.D. COUNTDOWN PEDESTRIAN SIGNAL HEADS. DISCONNECT AND REMOVE EXISTING PUSHBUTTON AND SIGNAL HEAD ELECTRICAL CABLES AND CONNECT NEW ELECTRICAL CABLES TO NEW PEDESTRIAN SIGNAL HEADS. CLEAN EXISTING DRILLED HOLES WITH BRUSH AND SPRAY COLD GALVANIZING COMPOUND ON THE AFFECTED AREAS.
  - USE EXISTING STEEL POLE. REMOVE EXISTING PEDESTRIAN SIGNAL HEAD. INSTALL NEW L.E.D. COUNTDOWN PEDESTRIAN SIGNAL HEAD. DISCONNECT AND REMOVE EXISTING SIGNAL HEAD ELECTRICAL CABLE AND CONNECT ELECTRICAL CABLE TO NEW PEDESTRIAN SIGNAL HEAD. CLEAN EXISTING DRILLED HOLES WITH BRUSH AND SPRAY COLD GALVANIZING COMPOUND ON THE AFFECTED AREAS.
  - INSTALL CONCRETE FOUNDATION WITH 5 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801-01-01. AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS AVIATION BLVD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
  - INSTALL CONCRETE FOUNDATION WITH 5 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801-01-01. AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS AIR CARGO DR"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
  - INSTALL CONCRETE FOUNDATION WITH 5 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801-01-01. AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS AIR CARGO DR"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
  - INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
  - USE EXISTING HANDHOLE.
  - USE EXISTING CONDUIT.
  - USE EXISTING BASE MOUNTED CABINET AND CONTROLLER. INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE UNIT (2-WIRE CENTRAL CONTROL UNIT).
  - REMOVE EXISTING AND INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.
  - REMOVE EXISTING AND INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
  - REMOVE EXISTING SIDEWALK RAMP AND COMBINATION CURB AND GUTTER. INSTALL SIDEWALK RAMP (SEE SHEET TSP-5 FOR DETAILS) AND DETECTABLE WARNING SURFACE IN ACCORDANCE WITH STANDARD NO. MD 655.40.
  - INSTALL STANDARD TYPE "A" CONCRETE CURB.
  - REMOVE EXISTING CONCRETE SIDEWALK AND INSTALL 5 IN. CONCRETE SIDEWALK.
  - REMOVE EXISTING BRICK SIDEWALK AND INSTALL 5 IN. CONCRETE SIDEWALK.
  - REMOVE EXISTING SIDEWALK RAMP. BACKFILL, SEED, AND MULCH.
  - INSTALL 5 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING. (3 FT. LINE WITH 3 FT. GAP)

TOD NO: XY139-03  
SHA NO: AA189B53  
MD 162, MD 170, MD 176 @ Various Locations

**GENERAL NOTES**

- 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.
- 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.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION. 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 CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
- REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
- 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 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.
- THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
- REFER TO SHEET TSP-5 FOR DIMENSIONS OF SIGNAL EQUIPMENT AND PAVEMENT MARKINGS WITHIN INTERSECTION.

**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

**APPROVALS**

TEAM LEADER  
ASST. DIV. CHIEF  
DIVISION CHIEF  
OFFICE DIRECTOR

**REVISIONS**

1. INSTALL APS, CPS, AND ADA COMPLIANT CURB RAMPS. SHA NO. XY1395185 TMS L653 01/2018

2. INSTALL OPTICOM TMS NO. 6304 MARCH 2004

3. ADD SAMPLING STATIONS SHA NO. XX1085185 5/10/02

**WR&A**

**WHITMAN, REQUARDT & ASSOCIATES, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 170 (AVIATION BOULEVARD) AT  
AIR CARGO DRIVE / ELKRIDGE LANDING ROAD  
(LINTHICUM HEIGHTS, MD)

**SIGNALIZATION PLAN SHEET**

SCALE 1" = 20' DATE JUNE 13, 1995 CONTRACT NO. BW 801-801-512

DESIGNED BY COUNTY ANNE ARUNDEL  
DRAWN BY LOGMILE 02017008-18  
CHECKED BY TMS NO.  
F.A.P. NO. TOD NO.

TS NO. 1227F DRAWING TSP-4 OF 33 SHEET NO. 4 OF 33