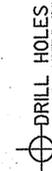
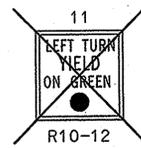


BORDER REV. DATE: June 1, 2004

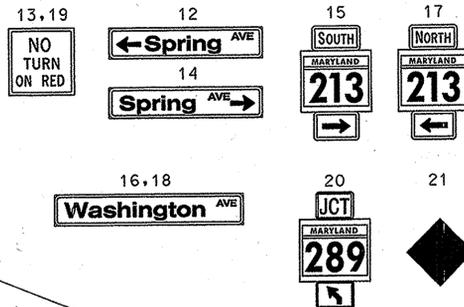


MD 213 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

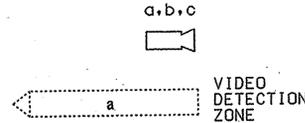
EXISTING SIGNS TO BE REMOVED



EXISTING SIGNS TO REMAIN



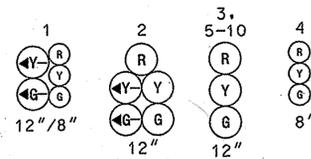
EXISTING VIDEO DETECTION



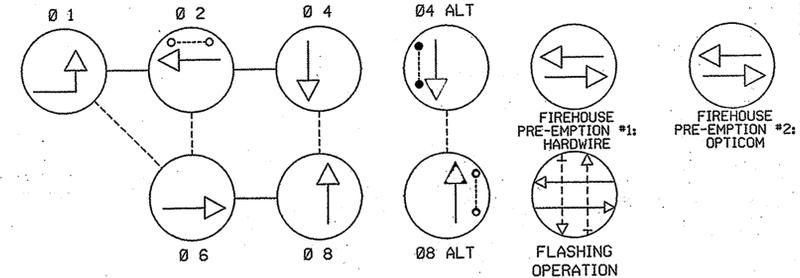
EXISTING OPTICOM DETECTOR



PROPOSED LED SIGNAL HEADS



NEMA PHASING



PHASING NOTES: 1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY. 2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

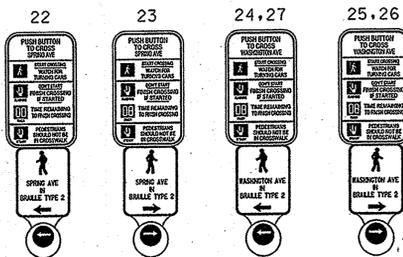
PROPOSED SIGNALS



PROPOSED VIDEO DETECTION CAMERA



PROPOSED SIGNS



PUSHBUTTON NUMBERS INDICATE THE ASSOCIATED PEDESTRIAN SIGNAL HEAD NUMBERS.

NAVIGATOR PEDESTRIAN PUSHBUTTON AND SIGN

GENERAL NOTES

- 1. 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.
2. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTION, TO MEET CLEARANCES AS SPECIFIED IN MD STD. 816.03, MD STD. 818.01, MD 818.02, AND MD STD. 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL PROPOSED SIGNAL EQUIPMENT.
3. PUSHBUTTONS ARE TO BE SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM A 60" x 60" LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THEN OR EQUAL TO 2%.
4. 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.
5. PROPOSED SIGNAL EQUIPMENT SHALL BE INSTALLED PRIOR TO THE CONSTRUCTION OF THE SIDEWALK, AND PEDESTRIAN RAMPS, AND THE INSTALLATION OF THE DETECTABLE WARNING SURFACE.
6. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SIGNAL OPERATION DURING THE COMPLETE CONSTRUCTION PERIOD.
7. CONTRACTOR IS RESPONSIBLE FOR THE PURCHASE AND DELIVERY OF THE CENTRAL CONTROL NAVIGATOR UNIT FOR THE CONTROLLER TO THE SHA SIGNAL SHOP AT 7491 CONNELLEY DRIVE, HANOVER, MD 21076. MR EDWARD RODENHIZER AT (410) 787-7652 SHALL BE CONTACTED SEVENTY-TWO (72) HOURS PRIOR TO DELIVERY.

GENERAL NOTES (cont.)

- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
9. VIDEO CAMERA LOCATION/ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
10. PUSHBUTTONS ARE TO BE LOCATED SO THAT A PEDESTRIAN IN A WHEELCHAIR LOCATED ON THE LEVEL LANDING AREA, DOES NOT HAVE TO REACH MORE THAN 18".
11. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
12. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
13. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
A. INSTALL MODIFIED PEDESTAL BASE PER STANDARD NO. MD 801.01-01 WITH 5 FT. BREAKAWAY PEDESTAL POLE WITH APS STATION AND PEDESTRIAN EDUCATION SIGN. (NOTE: 1-3 IN. PVC SCHEDULE 80 CONDUIT BEND).
B. INSTALL CONCRETE FOUNDATION WITH 10 FT. BREAKAWAY PEDESTAL POLE WITH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, APS STATION, AND PEDESTRIAN EDUCATION SIGN. (NOTE: 1-3 IN. PVC SCHEDULE 80 CONDUIT BEND).
C. INSTALL TWO 16 IN. LED COUNTDOWN PEDESTRIAN SIGNAL HEADS ON EXISTING SIGNAL POLE. REMOVE ALL EXISTING SIGNAL HEADS AND REPLACE WITH LED SIGNAL HEADS.
D. MODIFY EXISTING HANDHOLE TO MATCH GRADE OF PROPOSED RAMP.
E. INSTALL 5 FT. WIDE CUT-THROUGH IN ISLAND IN ACCORDANCE WITH SHA STANDARD NO. MD 655.21. MODIFY CONCRETE PAD BY CABINET TO ACCOMMODATE CUT-THROUGH. INSTALL DETECTABLE WARNING SURFACES IN ACCORDANCE WITH SHA STANDARD NO. MD 655.40 AND TRIM AROUND EXISTING HANDHOLE.
F. WIDEN EXISTING MEDIAN/ISLAND CUT-THROUGH TO 5 FT. WIDTH. INSTALL DETECTABLE WARNING SURFACES IN ACCORDANCE WITH SHA STANDARD NO. MD 655.40.
G. INSTALL 3 IN. PVC SCHEDULE 80 CONDUIT - TRENCHED.
H. INSTALL 4 IN. PVC SCHEDULE 80 CONDUIT - SLOTTED.
J. USE EXISTING CONDUIT.
K. USE EXISTING HANDHOLE.
L. INSTALL HANDHOLE.
M. USE EXISTING POLE MOUNTED CONTROLLER CABINET. INSTALL WIRE INTO BASE OF POLE. UP TO TOP OF POLE, THEN OUT A 3 IN. WEATHERHEAD AND DOWN A 3 IN. RISER INTO THE BOTTOM OF THE CABINET.
N. REMOVE "NO TURN ON RED" PANEL (SIGN 19) FROM SIGNAL POLE AND RELOCATE TO MAST ARM AS SHOWN. RELOCATE MD SHIELD ASSEMBLY (SIGN 20) BY RAISING SIGN ELEVATION 2.5 FT. DIRECTLY UNDER SIGNAL HEAD 4.
O. INSTALL VIDEO DETECTION CAMERA ON EXISTING MAST ARM WITH 250' LEAD-IN CABLE.
P. INSTALL 12 IN. WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES.
Q. REMOVE EXISTING R10-12 SIGN FROM MAST ARM.
R. INSTALL 16 IN. LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, APS STATION, AND PEDESTRIAN EDUCATION SIGN ON EXISTING SIGNAL POLE. REMOVE ALL EXISTING SIGNAL HEADS AND REPLACE WITH LED SIGNAL HEADS.
S. INSTALL ADA CURB RAMP IN ACCORDANCE WITH SHA STANDARD NO. MD 655.12, WITH 8 FT. WIDE LANDING AND DETECTABLE WARNING SURFACE IN ACCORDANCE WITH SHA STANDARD NO. MD 655.40.

GEOMETRIC LEGEND

----- EXISTING

UTILITY LEGEND

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

Table with columns for APPROVALS and REVISIONS. Includes signatures and dates for various project stages.

TOD NO: XX340-08
SHA NO: KE461A51/B51
MD 213@ SPRING AVE

SHA STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION MD 213 (WASHINGTON AVE) AT SPRING AVENUE CHESTERTOWN, MARYLAND

SIGNAL PLAN table with columns for SCALE, DATE, CONTRACT NO., DESIGNED BY, DRAWN BY, CHECKED BY, F.A.P. NO., DRAWING NO., SHEET NO.

M CENTURY ENGINEERING CONSULTING ENGINEERS - PLANNERS 10710 GILROY ROAD HUNT VALLEY, MD 21031

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BY: SUBSERVANCES