

BY: John Borkowski Division: P068 Highway Traff GMA Emp

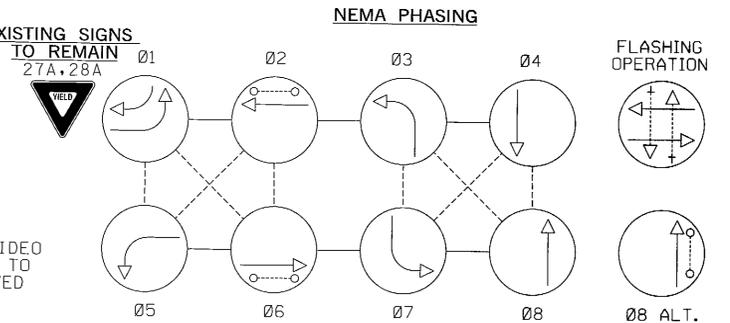
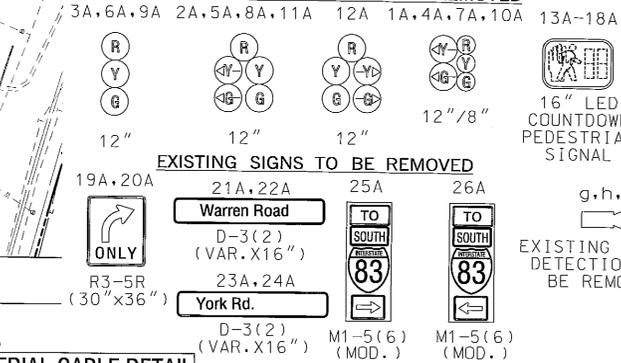
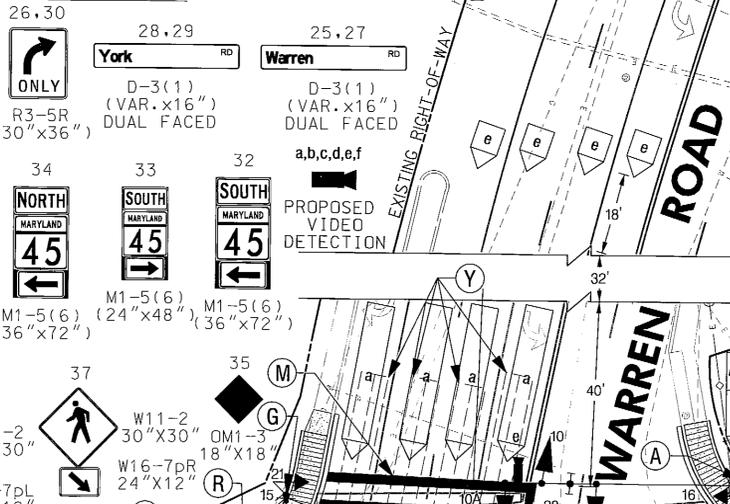
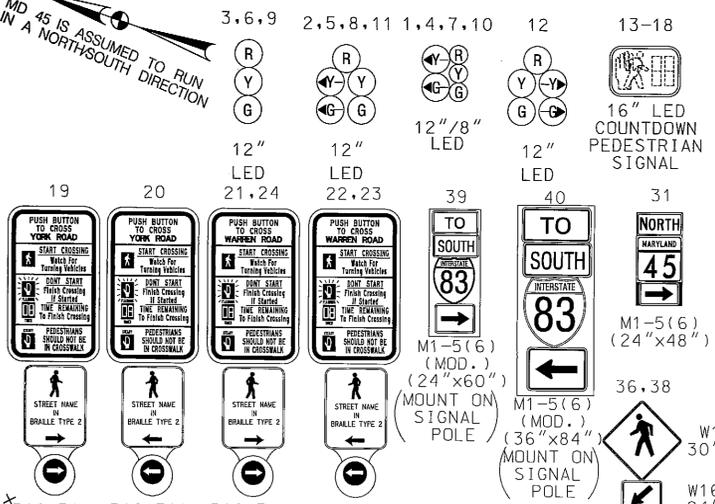
BORDER REV. DATE: Mon/11/27/2008

PROPOSED SIGNALS

PROPOSED SIGNS

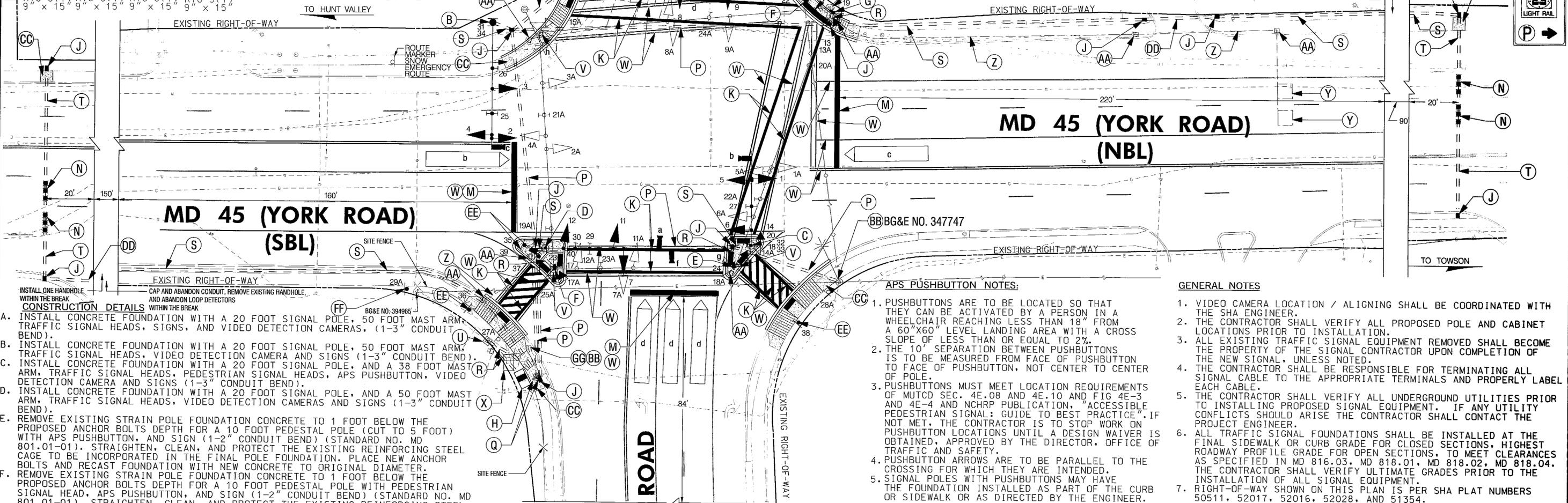
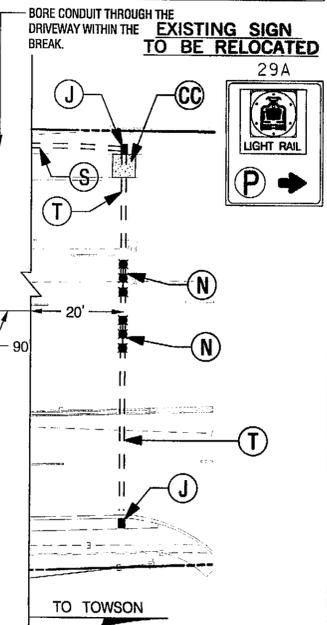
EXISTING SIGNALS TO BE REMOVED

NEMA PHASING



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

SPECIAL NOTE: CONTRACTOR MUST CLOSE ACCESS TO SIDEWALKS PRIOR TO INSTALLATION OF PEDESTAL POLES CONTAINING PEDESTRIAN PUSHBUTTONS, SIGNS, AND COUNTDOWN PEDESTRIAN SIGNAL HEADS IN THE ISLANDS LOCATED IN THE NORTHWEST AND SOUTHWEST QUADRANTS OF THE INTERSECTION. CONTRACTOR SHALL REFER TO MD STANDARD PLATES FOR PEDESTRIAN TRAFFIC CONTROL: MD 104.06-09A THROUGH MD 104.06-09D.



- CONSTRUCTION DETAILS
A. INSTALL CONCRETE FOUNDATION WITH A 20 FOOT SIGNAL POLE, 50 FOOT MAST ARM, TRAFFIC SIGNAL HEADS, SIGNS, AND VIDEO DETECTION CAMERAS.
B. INSTALL CONCRETE FOUNDATION WITH A 20 FOOT SIGNAL POLE, 50 FOOT MAST ARM, TRAFFIC SIGNAL HEADS, VIDEO DETECTION CAMERA AND SIGNS.
C. INSTALL CONCRETE FOUNDATION WITH A 20 FOOT SIGNAL POLE, AND A 38 FOOT MAST ARM, TRAFFIC SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, APS PUSHBUTTON, VIDEO DETECTION CAMERA AND SIGNS.
D. INSTALL CONCRETE FOUNDATION WITH A 20 FOOT SIGNAL POLE, AND A 50 FOOT MAST ARM, TRAFFIC SIGNAL HEADS, VIDEO DETECTION CAMERAS AND SIGNS.
E. REMOVE EXISTING STRAIN POLE FOUNDATION CONCRETE TO 1 FOOT BELOW THE PROPOSED ANCHOR BOLTS DEPTH FOR A 10 FOOT PEDESTAL POLE.
F. REMOVE EXISTING STRAIN POLE FOUNDATION CONCRETE TO 1 FOOT BELOW THE PROPOSED ANCHOR BOLTS DEPTH FOR A 10 FOOT PEDESTAL POLE WITH PEDESTRIAN SIGNAL HEAD, APS PUSHBUTTON, AND SIGN.
G. INSTALL AN 18"x36" CONCRETE FOUNDATION WITH A 10 FOOT PEDESTAL POLE, PEDESTRIAN SIGNAL HEAD, APS PUSHBUTTON, AND SIGN.
H. INSTALL A NEMA SIZE "S" BASE MOUNTED CABINET WITH UNINTERRUPTABLE POWER SUPPLY, BATTERY PACK, AND CONTROLLER.
I. INSTALL ELECTRICAL HANDHOLE.
J. INSTALL 12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES.
K. INSTALL 24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES.

- APS PUSHBUTTON NOTES:
1. 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%.
2. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
3. PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.08 AND 4E.10 AND FIG 4E-3 AND 4E-4 AND NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNAL: 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.
4. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
5. SIGNAL POLES WITH PUSHBUTTONS MAY HAVE THE FOUNDATION INSTALLED AS PART OF THE CURB OR SIDEWALK OR AS DIRECTED BY THE ENGINEER.

- GENERAL NOTES
1. VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
2. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
3. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL, UNLESS NOTED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
5. 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.
6. 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.
7. RIGHT-OF-WAY SHOWN ON THIS PLAN IS PER SHA PLAT NUMBERS 50511, 52017, 52016, 52028, AND 51354.

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- UTILITY LEGEND
SD - STORM DRAIN
G - GAS MAIN
W - WATER MAIN
S - SEWER MAIN
E - ELECTRIC CABLES
A - AERIAL CABLES
T - TELEPHONE CABLES
F - FIBER-OPTIC
CONSTRUCTION DETAILS CONT.
AA. REMOVE EXISTING HANDHOLE.
BB. PULL BACK EXISTING INTERCONNECT CABLE AND REROUTE.
CC. INSTALL CONCRETE SIDEWALK.
DD. FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - 80.
EE. INSTALL GROUND MOUNTED SIGN ON 4"x4" WOOD POST.
FF. RELOCATE EXISTING GROUND MOUNTED SIGN ON NEW 4"x4" WOOD POST.
GG. USE EXISTING HANDHOLE.

GEOMETRIC LEGEND table with columns for EXISTING and PROPOSED lines, and a UTILITY LEGEND table with symbols for various utilities.

APPROVALS and REVISIONS table with columns for TEAM LEADER, ASST. DIV. CHIEF, DIVISION CHIEF, OFFICE DIRECTOR, and a list of revisions.

SHA logo and project information: STATE OF MARYLAND, DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION, OFFICE OF TRAFFIC & SAFETY, TRAFFIC ENGINEERING DESIGN DIVISION, MD 45 (YORK ROAD) AT WARREN ROAD, COCKEYSVILLE, MARYLAND. Includes TRAFFIC SIGNAL PLAN title, scale, and designer information.