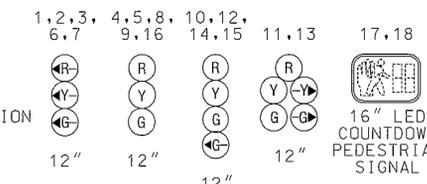
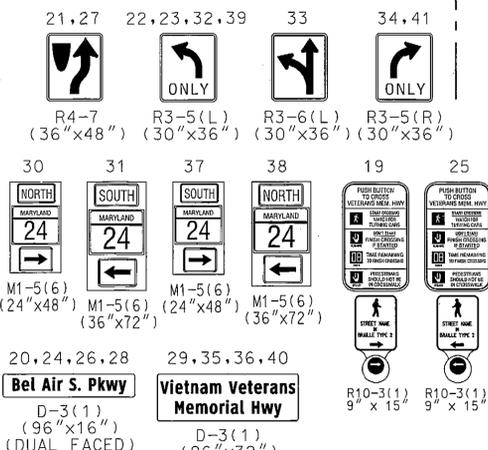


PROPOSED SIGNALS



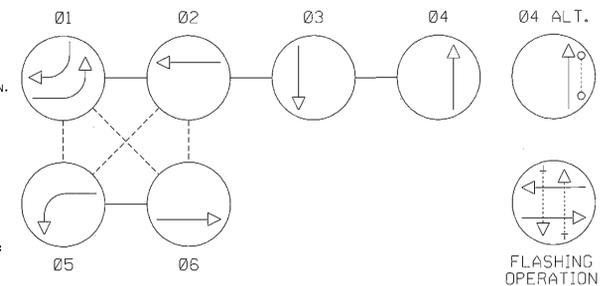
PROPOSED SIGNS



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 81B.03, MD 81B.01, MD 81B.02, MD 81B.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. VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
4. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
5. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
6. ALL PROPOSED LUMINAIRES SHALL BE SUPPLIED WITH A PHOTOCELL.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
8. REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
9. THE CONTRACTOR SHALL NOT CUT MAST ARM AS INDICATED ON PLANS UNTIL MAST ARM POLE LOCATION IS FINALIZED.
10. 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%.
11. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
12. 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.
13. REFER TO SHEET 2 FOR DIMENSIONS OF SIGNAL EQUIPMENT AND PAVEMENT MARKINGS WITHIN INTERSECTION.
14. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MSHA STANDARDS.

NEMA PHASING



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

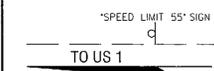
MD 24 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

EXISTING SIGNS TO REMAIN



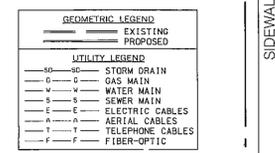
SPECIAL NOTES:

1. 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.
2. INSTALL HANDHOLE WITH LONG DIMENSION PERPENDICULAR TO TRAVEL WAY FOR INSTALLATION OF NON-INVASIVE PROBES. EXTEND CONDUIT A MINIMUM OF 2 IN. AND MAXIMUM OF 3 IN. INTO HANDHOLE.
3. THE CONTRACTOR SHALL COORDINATE WITH SHA TRAFFIC OPERATION DIVISION TO CONTACT LOCAL POWER COMPANY TO SET-UP WORK WITH TO DISCONNECT THE EXISTING ELECTRICAL SERVICE AND HAVE THE NEW SERVICE ENERGIZED.



CONSTRUCTION DETAILS

- INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 70 FT. MAST ARM, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERA MOUNTED ON MAST ARM AND 15 FT. STREET LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE.)
- INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 70 FT. MAST ARM, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS MOUNTED ON MAST ARM AND 15 FT. STREET LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE.)
- INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 60 FT. MAST ARM, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS MOUNTED ON MAST ARM AND 15 FT. STREET LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE.)
- INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, COUNTERDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND RIGHT (1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS VETERANS MEM. HWY"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE.)
- INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, COUNTERDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND RIGHT (1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS VETERANS MEM. HWY"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE.)
- INSTALL NEMA 51500 BASE MOUNTED CABINET AND CONTROLLER WITH CONCRETE PAD. (INSTALL 2-2 IN. AND 2-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN CABINET BASE.)
- INSTALL EXISTING MICROLOOP SERVICE PEDESTAL WITH 2-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BENDS IN PEDESTAL BASE.
- INSTALL HANDHOLE.
- USE EXISTING HANDHOLE. PULL BACK EXISTING INTERCONNECT CABLE HEADING TO THE SOUTH AND RE-FEED IN NEW CONDUIT TO PROPOSED BASIC MOUNTED CABINET. REMOVE AND DISPOSE OF ALL UNUSED INTERCONNECT CABLE.
- USE EXISTING HANDHOLE. PULL BACK EXISTING INTERCONNECT CABLE AND NON-INVASIVE MICROLOOP PROBE SET HEADING TO THE NORTH AND RE-FEED IN NEW CONDUIT TO PROPOSED BASIC MOUNTED CABINET. REMOVE AND DISPOSE OF ALL UNUSED INTERCONNECT CABLE.
- INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED.
- INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED.
- INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE.
- INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE.
- REMOVE EXISTING STRAIN POLE AND POLE MOUNTED CABINET AND CONTROLLER. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL. SHA SIGNAL SHOP SHALL BE NOTIFIED TO REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CABINET.
- REMOVE EXISTING PEDESTAL POLE, PEDESTRIAN SIGNAL HEAD, AND PUSHBUTTON. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
- CAP AND ABANDON EXISTING CONDUIT.
- ABANDON EXISTING LOOP DETECTOR. DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
- REMOVE EXISTING SPAN WIRE AND ALL ASSOCIATED EQUIPMENT.
- REMOVE EXISTING HANDHOLE.
- EXISTING UNDERGROUND ELECTRICAL SERVICE TO BE REMOVED BY OTHERS (SEE SPECIAL NOTE 3).
- INSTALL MICROLOOP PROBE SET WITH 1000 FT. LEAD-IN IN PROPOSED 3 IN. CONDUIT (THRU LANE ONLY).
- CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE.
- INSTALL R4-7 (36" X 48") SIGN ON ONE (1) IN. X 4 IN. TREATED WOOD POST (L1 = 17 FT.). R4-7 SIGN SHALL BE INSTALLED AT 15 DEGREE ANGLE WITH LINE OF MAJOR STREET TRAFFIC TO BE MORE VISIBLE TO LEFT-TURNING MOTORISTS FROM SIDWALK SIDE AND SEEN FROM MINIMUM OF 10 FT.
- INSTALL 5 IN. HEAT APPLIED, YELLOW PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING.
- REMOVE EXISTING AND INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
- REMOVE EXISTING AND INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
- INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A TWIN 50 FT. CUT TO 30 FT. 1/60 FT. MAST ARMS, TRAFFIC SIGNAL HEADS.
- INSTALL VIDEO DETECTION CAMERA MOUNTED ON MAST ARM AND 15 FT. STREET LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE.)
- INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.
- REMOVE EXISTING 8" COMBINATION CURB AND GUTTER.



WR&A
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SHA
 STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF TRAFFIC & SAFETY
 TRAFFIC ENGINEERING DESIGN DIVISION
 MD 24 AT BEL AIR SOUTH PARKWAY
 BELAIR, MD

APPROVALS		REVISIONS		TRAFFIC SIGNALIZATION PLAN		
TEAM LEADER	ASST. DIV. CHIEF	① TRAFFIC SIGNAL RECONSTRUCTION	SCALE 1" = 20'	DATE	AUGUST 2, 1999	CONTRACT NO.
DIVISION CHIEF	OFFICE DIRECTOR	② CONSTRUCT DOUBLE LEFT TURN ON SOUTHBOUND MD 24	DESIGNED BY	ELAAQUAR	COUNTY	HARFORD
		③ INSTALL E/P LEFT TURN PHASES ON BEL AIR SOUTH PARKWAY	DRAWN BY	DICKERSON	LOGMILE	12002406.GJ
			CHECKED BY	K SCHMID	TIMS NO.	
			F.A.P. NO.		TOD NO.	
			TS NO.	2571D	DRAWING	TSP-01 OF 3
					SHEET NO.	1 OF 3