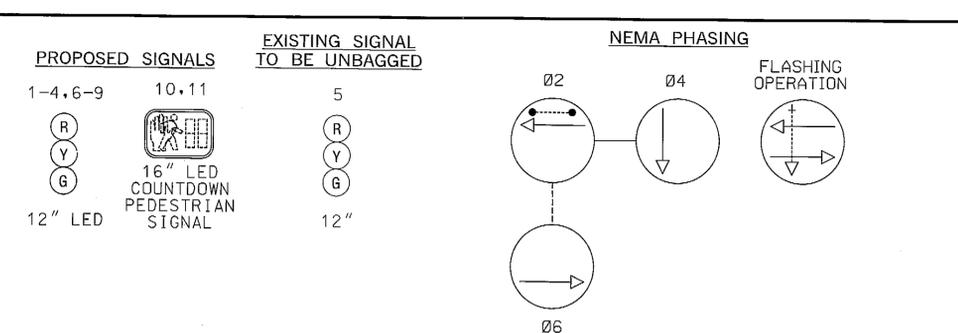
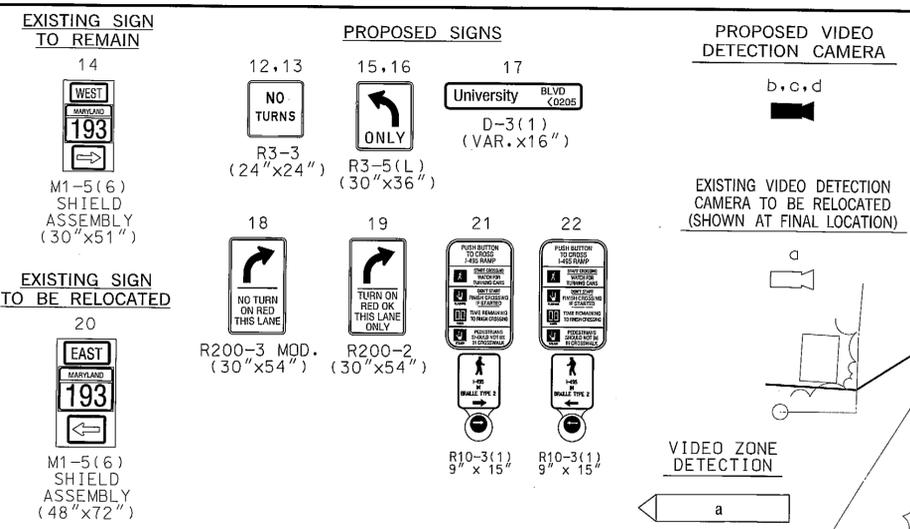


MD 193 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION

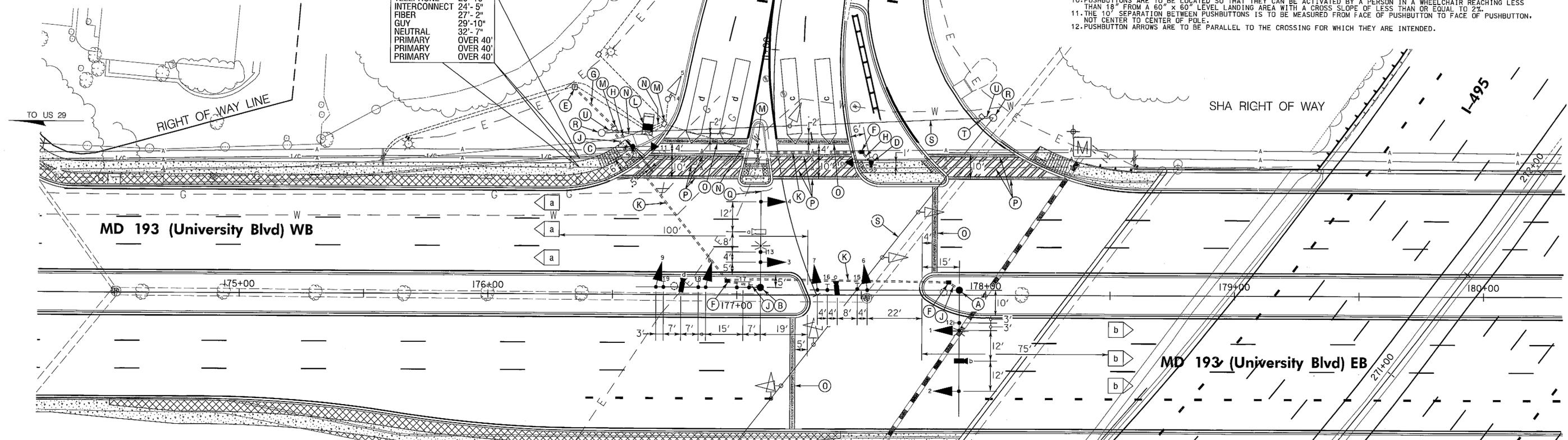


NOTE: PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

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.
- VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER AND MONTGOMERY COUNTY TRAFFIC.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
- ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
- ALL PROPOSED LUMINAIRES SHALL BE SUPPLIED WITH A PHOTOCELL.
- 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.
- THE CONTRACTOR SHALL NOT CUT MAST ARM AS INDICATED ON PLANS UNTIL MAST ARM POLE LOCATION IS FINALIZED.
- 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.

TELEPHONE INTERCONNECT 20'-10"  
FIBER 24'-5"  
GUY 27'-2"  
NEUTRAL 29'-10"  
PRIMARY 32'-7"  
OVER 40'  
OVER 40'



CONSTRUCTION DETAILS

- INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A TWIN 50 FT./60 FT. MAST ARMS, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS MOUNTED ON MAST ARM AND 15' STREET LIGHTING ARM WITH A 280 WATT LED LAMP AND LUMINAIRE. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE). STA. 177+89 LT. 02'
- INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A TWIN 50 FT. MAST ARMS, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS MOUNTED ON MAST ARM AND 15' STREET LIGHTING ARM WITH A 280 WATT LED LAMP AND LUMINAIRE. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE). STA. 177+99 LT. 03'
- INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS I-495 RAMP"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE)
- INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS I-495 RAMP"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE)
- USE EXISTING EMBEDDED METERED SERVICE PEDESTAL.
- INSTALL HANDHOLE.
- INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE FOR STREET LIGHTING. CONDUIT SHALL TIE INTO EXISTING 2 IN. ELBOW IN METERED SERVICE PEDESTAL FOUNDATION THAT WAS USED FOR EXISTING STREET LIGHTING PRIOR TO STAGE 1 MOT.
- INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED.
- REMOVE EXISTING SIZE "6" BASE MOUNTED CABINET AND INSTALL PROPOSED NEMA SIZE "5" BASE MOUNTED CABINET WITH BATTERY BACKUP AND NEW CONCRETE PADS ON EXISTING FOUNDATION.
- USE EXISTING HANDHOLE.
- USE EXISTING CONDUIT.
- INSTALL 1 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
- INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.
- CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE.
- REMOVE EXISTING STRAIN POLE AND ALL ASSOCIATED EQUIPMENT. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
- REMOVE EXISTING SPAN WIRE AND ALL ASSOCIATED EQUIPMENT.
- REMOVE EXISTING HANDHOLE.
- REMOVE EXISTING CONDUIT.
- RELOCATE EXISTING M1-(6) SHIELD ASSEMBLY (48"x72") ON TWO 4 IN. x 6 IN. TREATED WOOD POSTS (L=18.5').
- RELOCATE EXISTING STRAIN POLE AND REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL. RELOCATE EXISTING VIDEO DETECTION CAMERA TO PROPOSED MAST ARM AS SHOWN. DISCONNECT AND PULL BACK EXISTING VIDEO DETECTION CABLE AND RE-FEED UNDERGROUND TO RELOCATED VIDEO DETECTION CAMERA. (SEE WIRING DIAGRAM FOR DETAILS)

GENERAL NOTES CONT.

- 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.
- FOR FINAL PAVEMENT MARKINGS REFER TO THE PAVEMENT MARKING PLANS, OTHER THAN THOSE DETAILED ON THE PLAN. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MSHA STANDARDS.
- VERIFY PROPOSED GEOMETRICS PRIOR TO INSTALLING SIGNAL EQUIPMENT.
- ALL HANDHOLES SHALL BE INSTALLED AT FINAL GRADE.
- THE SIGNAL CONTRACTOR SHALL DETERMINE IF ANY WORK BY OTHER CONTRACTORS CAN NOT BE COMPLETED UNTIL INSTALLATION OF SIGNAL EQUIPMENT IS COMPLETE. THE SIGNAL CONTRACTOR SHALL NOTIFY OTHER CONTRACTORS OF THIS WORK.
- CALL MONTGOMERY COUNTY TRANSPORTATION MANAGEMENT CENTER (TMC) 72 HOURS PRIOR TO ANY DIGGING TO MARK THE EXISTING TRAFFIC SIGNAL EQUIPMENT.

GEOMETRIC LEGEND	
---	EXISTING
---	PROPOSED

UTILITY LEGEND	
---	STORM DRAIN
---	GAS MAIN
---	WATER MAIN
---	SEWER MAIN
---	ELECTRIC CABLES
---	AERIAL CABLES
---	TELEPHONE CABLES
---	FIBER-OPTIC

APPROVALS	REVISIONS
<p>TEAM LEADER</p> <p>ASST. DIR. CHIEF</p> <p>DIVISION CHIEF</p> <p>OFFICE DIRECTOR</p>	<p>REBUILD TRAFFIC SIGNAL EQUIPMENT DUE TO GEOMETRIC IMPROVEMENTS</p> <p>REMOVE TRAFFIC SIGNAL EQUIPMENT DUE TO BRIDGE REPLACEMENT</p>

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 193 (UNIVERSITY BOULEVARD) AND I-495 (CAPITAL BELTWAY)  
SILVER SPRING, MARYLAND

TRAFFIC SIGNALIZATION PLAN - ULTIMATE			
SCALE 1" = 20'	DATE 09/2006	CONTRACT NO. MD6235187	
DESIGNED BY SBS	COUNTY MONTGOMERY		
DRAWN BY SBS	LOGMILE 15019304.84		
CHECKED BY BAR	TMS NO. H314		
F.A.P. NO. SEE TITLE SHEET	TID NO.		
TS NO. 4521B	DRAWING TSP-05 OF 07	SHEET NO. 95 OF 184	

**WR&A**  
Whitman, Reardon and Associates, LLP  
Engineers, Architects and Planners  
801 South Carolina Street  
Baltimore, Maryland 21231  
410-235-3450

BY: jrasnussen