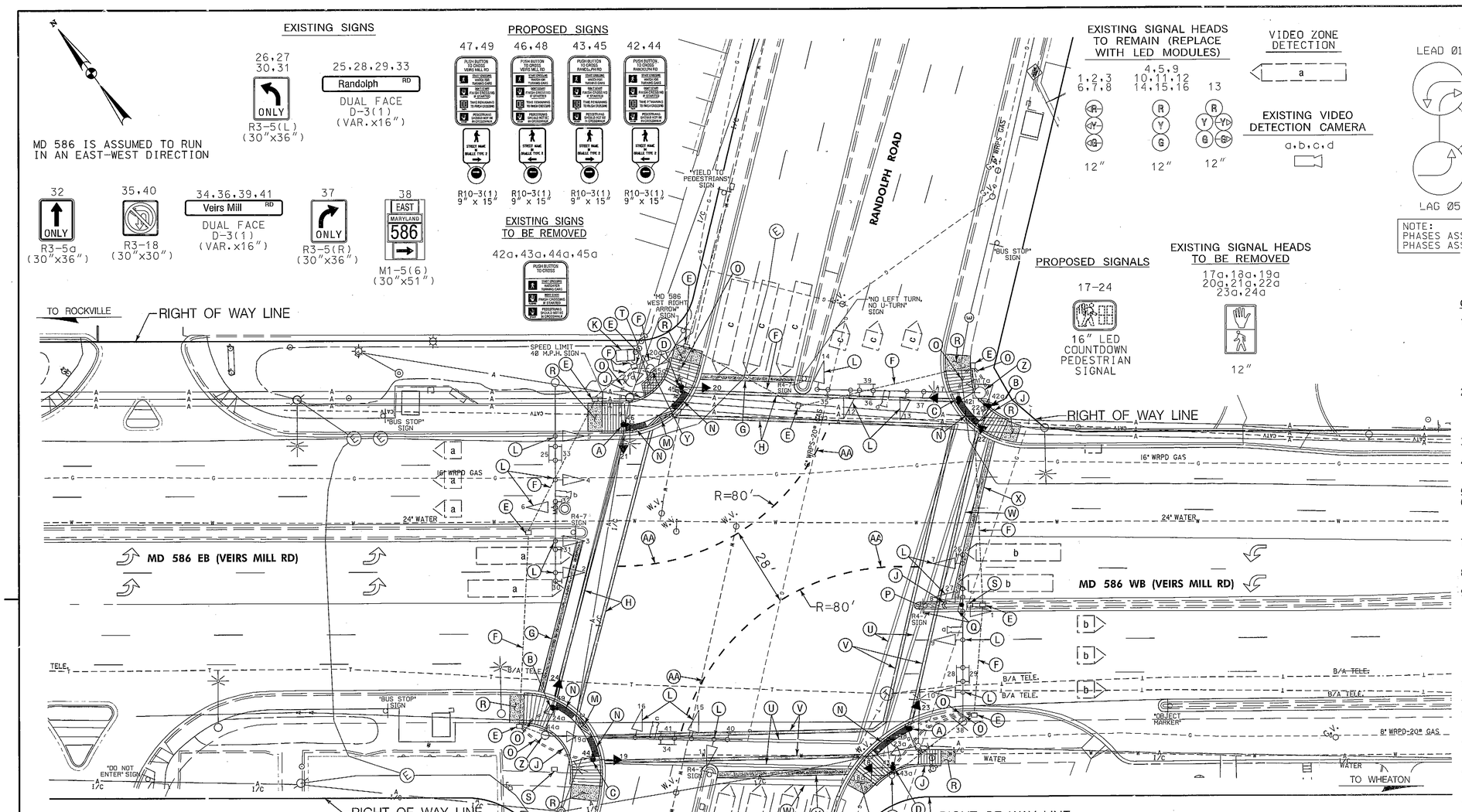
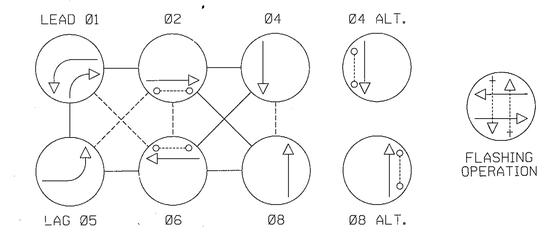


NEMA PHASING



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

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 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.
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. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
5. REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
6. 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%.
7. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
8. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
9. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SECS. 4E.08 AND 4E.10 AND FIGS. 4E-3 AND 4E-4 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.
10. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
11. REFER TO SHEET NOS. TSP-02 AND TSP-03 FOR DIMENSIONS OF SIGNAL EQUIPMENT AND PAVEMENT MARKINGS WITHIN INTERSECTION.
12. CALL MONTGOMERY COUNTY TRANSPORTATION MANAGEMENT CENTER (TMC) 72 HOURS PRIOR TO ANY DIGGING TO MARK THE EXISTING TRAFFIC SIGNAL EQUIPMENT.
13. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
14. CONTRACTOR SHALL DELIVER APS PUSHBUTTONS AND CENTRAL CONTROL UNIT TO MR. ROBERT RICKETTS AT MONTGOMERY COUNTY TECHNICAL CENTER AT 1283 SEVEN LOCKS ROAD, ROCKVILLE, MD 20854 AT LEAST 3 WEEKS PRIOR TO BEGINNING WORK. CONTRACTOR SHALL HAVE THE APS MESSAGES PROGRAMMED FROM THE FACTORY AND DELIVER THE APS WAVE FILES TO MR. ROBERT RICKETTS.
15. THE CONTRACTOR SHALL NOT DEACTIVATE OR MAKE ACTIVE ANY PEDESTRIAN SIGNAL WITHOUT COORDINATING WITH MONTGOMERY COUNTY TRAFFIC ENGINEER.

CONSTRUCTION DETAILS

A. 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 VEIRS MILL RD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
B. 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 VEIRS MILL RD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
C. 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 RANDOLPH RD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
D. 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 RANDOLPH RD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
E. USE EXISTING HANDHOLE.
F. USE EXISTING CONDUIT.
G. REMOVE EXISTING AND INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
H. REMOVE EXISTING AND INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.
J. INSTALL STANDARD TYPE A CONCRETE CURB.
K. USE EXISTING BASE MOUNTED CABINET AND CONTROLLER. INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE UNIT.
L. USE EXISTING MAST ARM. USE EXISTING SIGNAL HEADS AND REPLACE BULBS WITH LED MODULES.
M. RAISE CURB AND 24 INCHES OF SIDEWALK EQUALLY 12:1 MAX TO PROVIDE SEPARATION BETWEEN RAMPS. (SEE SHEET NOS. TSP-2 AND TSP-3 FOR DETAILS).
N. REMOVE EXISTING SIDEWALK RAMP AND COMBINATION CURB AND GUTTER. INSTALL SIDEWALK RAMP, COMBINATION CURB AND GUTTER. (SEE SHEET NOS. TSP-2 AND TSP-3 FOR DETAILS) AND DETECTABLE WARNING SURFACE IN ACCORDANCE WITH STANDARD NO. MD 655.40.
O. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
P. REMOVE EXISTING CONCRETE MEDIAN AND INSTALL 5 IN. CONCRETE SIDEWALK FLUSH WITH ROADWAY AS SHOWN ON SHEET NO. TSP-2.
Q. RELOCATE EXISTING R4-7 SIGN AND REMOVE EXISTING WOOD SIGN SUPPORT. INSTALL RELOCATED R4-7 SIGN ON ONE 4 IN. x 4 IN. TREATED WOOD SIGN SUPPORT (L=15') AS SHOWN WITHIN A PVC SLEEVE IN MEDIAN.
R. REMOVE EXISTING CONCRETE SIDEWALK AND INSTALL 5 IN. CONCRETE SIDEWALK.
S. REMOVE EXISTING HANDHOLE.
T. REMOVE EXISTING SIDEWALK. BACKFILL, SEED, AND MULCH.
U. REMOVE EXISTING PAVEMENT MARKING FOR CROSSWALKS.
V. INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.
W. REMOVE EXISTING PAVEMENT MARKING FOR STOP LINE.
X. INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
Y. REMOVE EXISTING PEDESTRIAN POLE, PEDESTRIAN SIGNAL HEADS, PUSHBUTTON, AND SIGN. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
Z. EXISTING STEEL POLE TO REMAIN. REMOVE EXISTING PEDESTRIAN SIGNAL HEADS, PUSHBUTTON, AND SIGN.
AA. INSTALL 5 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING. (3 FT. LINE WITH 3 FT. GAP)

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.

GEOMETRIC LEGEND

EXISTING
PROPOSED

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
A I/C — AERIAL INTERCONNECT

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

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 586 (VEIRS MILL ROAD) AND RANDOLPH ROAD
(SILVER SPRING, MD)

TRAFFIC SIGNALIZATION PLAN

APPROVALS: TEAM LEADER / ASST. DIV. CHIEF / DIVISION CHIEF / OFFICE DIRECTOR — ORIGINAL ON FILE

REVISIONS
B. UPGRADE ALL PEDESTRIAN RAMPS & APS/CPS INSTALLATION ON ALL LEGS SHA NO. XY132515B TIMS L-86 1/13
A. REBUILD SIGNAL FOR GEOMETRIC CHANGES SHA NO. MO8175171

RRZ	LOG	MAR	DAZ		TH

SCALE 1" = 20' DATE MARCH 2003 CONTRACT NO. MO8175171

DESIGNED BY ____ COUNTY MONTGOMERY
DRAWN BY ____ I.OGMILE 15058603.48
CHECKED BY ____ TIMS NO. E905
F.A.P. NO. ____ TOD NO. ____

TS NO. 4035B | DRAWING TSP-01 OF 4 | SHEET NO. 1 OF 4

PLOTTED: March 19, 2013
BY: jrasmussen