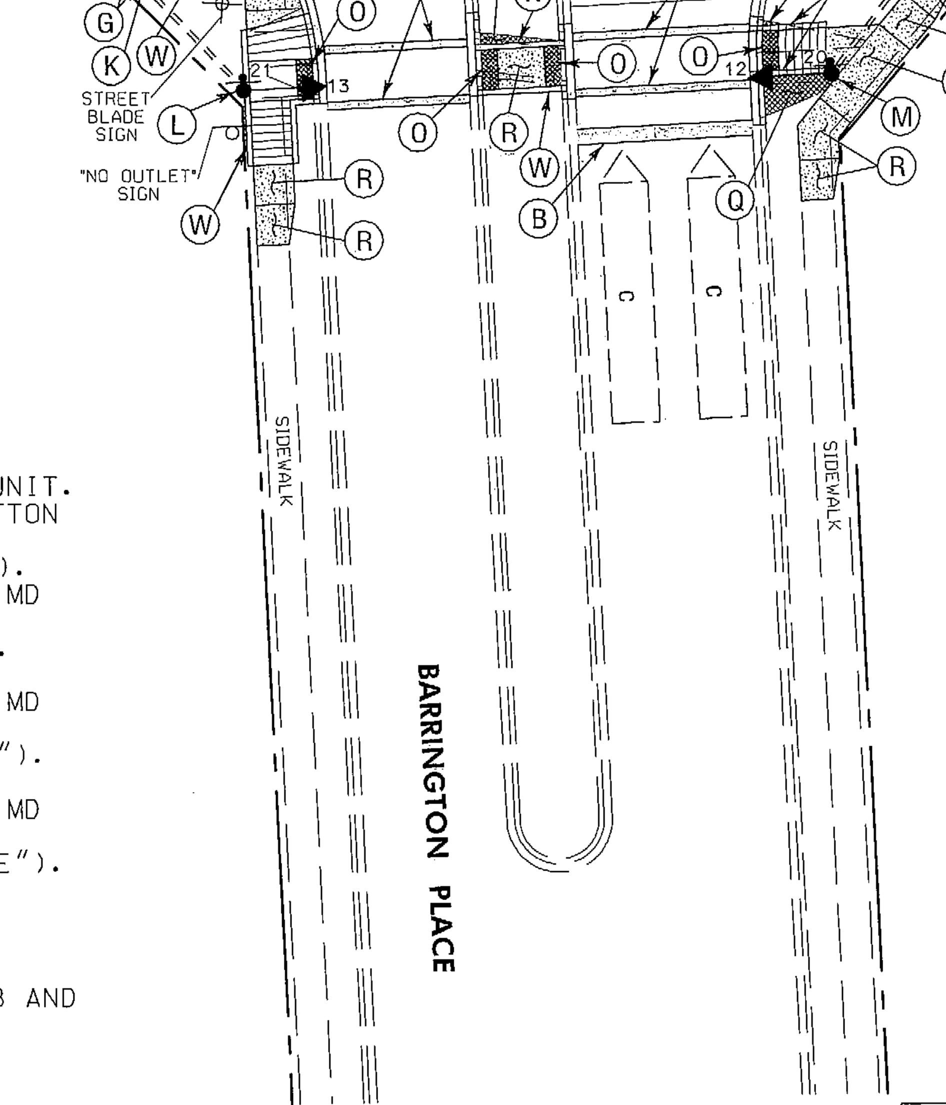
TOD NO: XY137-01
SHA NO: HA300B51
MD 924 @ Patterson Mill Rd/Barrington Place




## CONSTRUCTION DETAILS

A. INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.
B. INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
C. REMOVE EXISTING 12 IN. PAVEMENT MARKINGS FOR CROSSWALKS.
D. REMOVE EXISTING 24 IN. PAVEMENT MARKINGS FOR STOP LINES.
E. USE EXISTING HANDHOLE.
F. USE EXISTING CONDUIT.
G. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
H. USE EXISTING BASE MOUNTED CABINET AND CONTROLLER. INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE UNIT.
J. USE EXISTING STEEL POLE. INSTALL 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 EMMORTON ROAD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
K. 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 EMMORTON ROAD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
L. 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 BARRINGTON PLACE"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
M. 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 BARRINGTON PLACE"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
N. REMOVE EXISTING SIDEWALK RAMP, COMBINATION CURB AND GUTTER AND DETECTABLE WARNING SURFACE. INSTALL SIDEWALK RAMP, COMBINATION CURB AND GUTTER (SEE SHEET NO. TSP-2 FOR DETAILS) AND DETECTABLE WARNING SURFACE CLAY BRICK PAVERS WITH THE PLACEMENT IN ACCORDANCE WITH STANDARD NO. MD 655.40.
O. REMOVE EXISTING SIDEWALK RAMP AND COMBINATION CURB AND GUTTER. INSTALL SIDEWALK RAMP, COMBINATION CURB AND GUTTER (SEE SHEET NO. TSP-2 FOR DETAILS) AND DETECTABLE WARNING SURFACE CLAY BRICK PAVERS WITH THE PLACEMENT IN ACCORDANCE WITH STANDARD NO. MD 655.40.
P. ADJUST VIDEO DETECTION CAMERAS TO ENSURE PROPER DETECTION DUE TO STOP LINE RELOCATION.
Q. REMOVE EXISTING SIDEWALK. BACKFILL, SEED, AND MULCH.
R. REMOVE EXISTING SIDEWALK AND INSTALL 5 IN. CONCRETE SIDEWALK.
S. USE EXISTING HANDHOLE AND ADJUST TO FINAL GRADE.
T. REMOVE EXISTING AND INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
U. REMOVE EXISTING COMBINATION CURB AND GUTTER. INSTALL SIDEWALK RAMP, COMBINATION CURB AND GUTTER (SEE SHEET NO. TSP-2 FOR DETAILS) AND DETECTABLE WARNING SURFACE CLAY BRICK PAVERS WITH THE PLACEMENT IN ACCORDANCE WITH STANDARD NO. MD 655.40.
V. REMOVE EXISTING PAVEMENT LINE MARKING.
W. INSTALL STANDARD TYPE 'A' CONCRETE CURB.
X. RELOCATE EXISTING S1-1 AND W16-7p SIGNS AND REMOVE EXISTING WOOD SIGN SUPPORT. INSTALL RELOCATED S1-1 AND W16-7p SIGNS ON ONE 4 IN. x 6 IN. TREATED WOOD SIGN SUPPORT (L=17') AS SHOWN.

## 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. VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
4. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE 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. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
7. REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
8. 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%.
9. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
10. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
11. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.08 AND 4E.10 AND FIG. 4E-3 AND 4E-4 OF 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.
12. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
13. REFER TO SHEET TSP-2 FOR DIMENSIONS OF SIGNAL EQUIPMENT AND PAVEMENT MARKINGS WITHIN INTERSECTION.

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.

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 924 (EMMORTON ROAD) AND
PATTERSON MILL ROAD / BARRINGTON PLACE
BEL AIR, MARYLAND

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

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

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

REVISIONS
(B) UPGRADE ALL PEDESTRIAN RAMPS AND INSTALL APS/CPS ON NORTH & WEST LEGS. SHA NO. XY1375185 TIMS NO. L861 05/2013
GTP NML
(A) INSTALL FIREHOUSE PRE-EMPTION TIMS NO. J926. SHA. NO. BW996M82 12-1-09
TMZ JKS

# SIGNALIZATION PLAN SHEET

SCALE 1" = 20' DATE SEPTEMBER 23, 2004 CONTRACT NO. BW996M82

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|---|---|---|---|
| DESIGNED BY | FRANK HOECKEL OF TRAFFIC GROUP | COUNTY | HARFORD |
| DRAWN BY | FRANK HOECKEL OF TRAFFIC GROUP | LOGMILE | 1209240 3.27 |
| CHECKED BY | JOHN DIRNDORFER OF TRAFFIC GROUP | TIMS NO. | G264 |
| F.A.P. NO. | | TOD NO. | |

TS NO. 4346B | DRAWING TSP-1 OF 3 | SHEET NO. 1 OF 3

PLOTTED: May 14, 2013
FILE: N:\31669-271\CADD\pSG-P001_PattersonMill.dgn

BY: jrasmussen