BORDER REV: DATE: Mcnein127200807
DRILL HOLES
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BY: John Borkowski Division: P068 Highway Traff GMA Emp

PROPOSED SIGNALS

MD 45 IS ASSUMED TO RUN IN A NORTH/SOUTH DIRECTION

3,6,9 — 12" LED
2,5,8,11 — 12" LED
1,4,7,10 — 12"/8" LED
12 — 12" LED
13–18 — 16" LED COUNTDOWN PEDESTRIAN SIGNAL
19 — PUSH BUTTON TO CROSS YORK ROAD
20 — PUSH BUTTON TO CROSS YORK ROAD
21,24 — PUSH BUTTON TO CROSS WARREN ROAD
22,23 — PUSH BUTTON TO CROSS WARREN ROAD
39 — TO SOUTH MARYLAND 83 M1-5(6) (MOD.) (24"x60") (MOUNT ON SIGNAL POLE)
40 — TO SOUTH INTERSTATE 83 M1-5(6) (MOD.) (36"x84") (MOUNT ON SIGNAL POLE)
31 — NORTH MARYLAND 45 M1-5(6) (24"x48")
34 — NORTH MARYLAND 45 M1-5(6) (36"x72")
33 — SOUTH MARYLAND 45 M1-5(6) (24"x48")
32 — SOUTH MARYLAND 45 M1-5(6) (36"x72")
36,38 — W11-2 30"X30" W16-7dR 24"X12" W16-7dL 24"X12"
37 — W11-2 30"X30" OM1-3 18"X18"
35

R10-3(1) 9" x 15" R10-3(1) 9" x 15" R10-3(1) 9" x 15" R10-3(1) 9" x 15"

PROPOSED SIGNS

26,30 — ONLY R3-5R (30"x36")
28,29 — York RD D-3(1) (VAR.x16") DUAL FACED
25c — Warren Rd D-3(1) (VAR.x16")
25b — Warren Rd D-3(1) (VAR.x16")
a,b,c,d,e,f — PROPOSED VIDEO DETECTION

EXISTING SIGNALS TO BE REMOVED

3A,6A,9A — 12"
2A,5A,8A,11A — 12"
12A — 12"
1A,4A,7A,10A — 12"/8"
13A–18A — 16" LED COUNTDOWN PEDESTRIAN SIGNAL

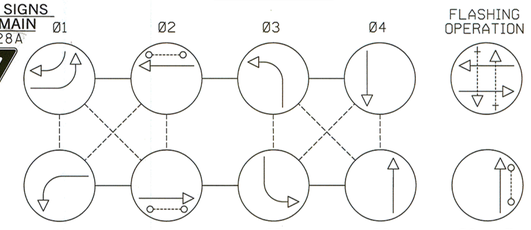
EXISTING SIGNS TO BE REMOVED

19A,20A — ONLY R3-5R (30"x36")
21A,22A — Warren Road D-3(2) (VAR.X16")
23A,24A — York Rd. D-3(2) (VAR.X16")
25A — TO SOUTH MARYLAND 83 M1-5(6) (MOD.)
26A — TO SOUTH MARYLAND 83 M1-5(6) (MOD.)
g,h,j — EXISTING VIDEO DETECTION TO BE REMOVED

EXISTING SIGNS TO REMAIN

27A,28A — YIELD

NEMA PHASING



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

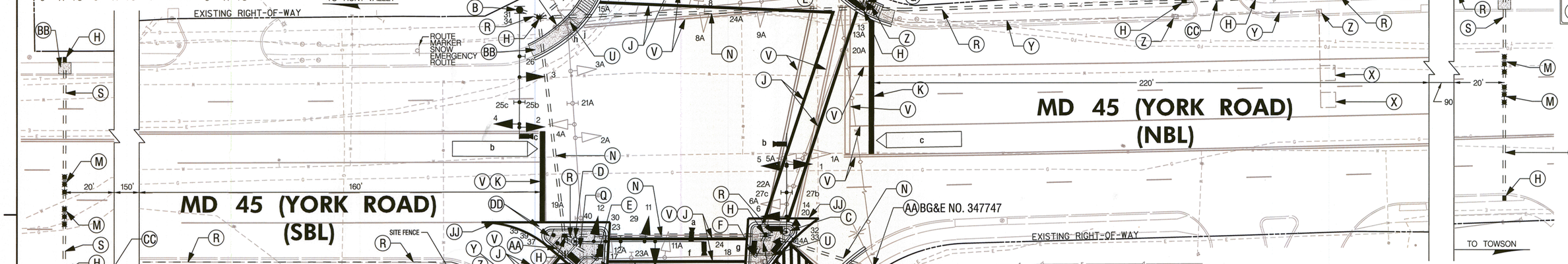
PROPOSED SIGNS

27c — Warren Rd W → D-3(1) (VAR.x16")
27b — ← Warren Rd W D-3(1) (VAR.x16")

EXISTING SIGN TO BE RELOCATED

29A — LIGHT RAIL P →

BORE CONDUIT THROUGH THE DRIVEWAY WITHIN THE BREAK.



CONSTRUCTION DETAILS

A. INSTALL CONCRETE FOUNDATION WITH A 20 FOOT SIGNAL POLE, 50 FOOT MAST ARM, TRAFFIC SIGNAL HEADS, SIGNS, AND VIDEO DETECTION CAMERAS, (1–3" CONDUIT BEND).
B. INSTALL CONCRETE FOUNDATION WITH A 20 FOOT SIGNAL POLE, 50 FOOT MAST ARM, TRAFFIC SIGNAL HEADS, VIDEO DETECTION CAMERA AND SIGNS (1–3" CONDUIT BEND).
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 (1–3" CONDUIT BEND).
D. INSTALL CONCRETE FOUNDATION WITH A 20 FOOT SIGNAL POLE, AND A 50 FOOT MAST ARM, TRAFFIC SIGNAL HEADS, VIDEO DETECTION CAMERAS AND SIGNS (1–3" CONDUIT BEND).
E. INSTALL AN 18"X36" CONCRETE FOUNDATION WITH A 10 FOOT PEDESTAL POLE, PEDESTRIAN SIGNAL HEAD, APS PUSHBUTTON AND SIGN (1–2" CONDUIT BEND), (STANDARD NO. MD 801.01–01).
F. INSTALL AN 18"X36" CONCRETE FOUNDATION WITH A 10 FOOT PEDESTAL POLE (CUT TO 5 FOOT), APS PUSHBUTTON, AND SIGN (1–2" CONDUIT BEND) (STANDARD NO. MD 801.01–01)
G. INSTALL A NEMA SIZE "S" BASE MOUNTED CABINET WITH UNINTERRUPTABLE POWER SUPPLY, BATTERY PACK, AND CONTROLLER. INSTALL APS CENTRAL CONTROL UNIT (NOTE: 2–4 INCH AND 2–2 INCH PVC SCHEDULE 80 CONDUIT BENDS).
H. INSTALL ELECTRICAL HANDHOLE.
J. INSTALL 12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES.
K. INSTALL 24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES.
M. FURNISH AND INSTALL NON-INVASIVE DETECTORS.
N. FURNISH AND INSTALL 4 INCH SCHEDULE 80 RIGID PVC CONDUIT – SLOTTED.
P. FURNISH AND INSTALL 4 INCH SCHEDULE 80 RIGID PVC CONDUIT – TRENCHED.
Q. FURNISH AND INSTALL 2 INCH SCHEDULE 80 RIGID PVC CONDUIT – TRENCHED.
R. FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT – TRENCHED.
S. FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT – SLOTTED.
T. USE EXISTING METERED SERVICE PEDESTAL.
U. REMOVE EXISTING TRAFFIC SIGNAL STRAIN POLE.
V. REMOVE EXISTING PAVEMENT LINE MARKINGS.
W. REMOVE EXISTING BASE MOUNTED CABINET. REMOVE AND SALVAGE EXISTING CONTROLLER.
X. ABANDON EXISTING LOOP DETECTOR.
Y. CAP AND ABANDON EXISTING CONDUIT.
Z. REMOVE EXISTING HANDHOLE.
AA. PULL BACK EXISTING INTERCONNECT CABLE AND REROUTE.
BB. INSTALL CONCRETE SIDEWALK.
CC. FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT – BORED.
DD. INSTALL GROUND MOUNTED SIGN ON 4"X4" WOOD POST.
EE. RELOCATE EXISTING GROUND MOUNTED SIGN ON NEW 4"X4" WOOD POST.
FF. USE EXISTING HANDHOLE
GG. INSTALL 5 INCH HEAT APPLIED WHITE PERMANENT PAVEMENT MARKINGS.
HH. INSTALL 5 INCH BROKEN (10 FOOT LINE, 30 FOOT SPACE) HEAT APPL PERMANENT PAVEMENT MARKINGS.
JJ. INSTALL 10 INCH WHITE PERMANENT PAVEMENT MARKINGS, (2–5 INCH HEAT APPLIED WHITE PERMANENT PAVEMENT MARKINGS).

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.

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

1 REDLINE NO. 1
REPLACE SHEET
MAY 24 2013
Cedric Wad 6/6/13

KCI TECHNOLOGIES
ENGINEERS
PLANNERS
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CONSTRUCTION MANAGERS
936 RIDGEBROOK ROAD
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APPROVALS
TEAM LEADER
ASST. DIV. CHIEF
DIVISION CHIEF
OFFICE DIRECTOR
ORIGINAL ON FILE

REVISIONS

© TRAFFIC SIGNAL RECONSTRUCTION 04/2013
TIMS NO. L674, CONTRACT NO. XY1255185
KCI | | RPB | MLP | CJW
B. REVISION BY BALTIMORE COUNTY THEY MAINTAINED AT TIME 2/1069
GMY | JEW | CN

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

TRAFFIC SIGNAL PLAN

SCALE 1" = 20' ADVERTISED DATE 04/04/1983 CONTRACT NO. B-714-501-495

DESIGNED BY D.J. DODA
DRAWN BY E.S.
CHECKED BY DZ
F.A.P. NO.
COUNTY BALTIMORE
LOGMILE 03004507.66
TIMS NO.
TOD NO.

TS NO. 1439C | DRAWING SG-1 OF 3 | SHEET NO. 4 OF 9

PLOTTED: "03:09 PM on Wednesday, May 22, 2013"
FILE: M:\2009\01090619.84\drawings\pSG-P001_MD45&Warren-Option 4.dgn