DRILL HOLES

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BORDER REV. DATE: June 1, 2004

TERMINAL RETURN ROAD IS ASSUMED TO RUN IN A NORTH - SOUTH DIRECTION

EXISTING SIGNS (TO REMAIN)

25 — 195 (NORTHBOUND) 95 (WESTBOUND) 295 — LEFT AT SIGNAL

15,16 — Elm RD

17,19 — Elm RD

24 — Terminal RD

20 — ONLY — R3-5L (30"x36")

27 — R3-4 (30"x30")

26,28 — R4-7 (24"x30") — OMI-3 (18"x18")

29 — STOP — R1-1 (24"x24") — BWI TRAIL

EXISTING SIGNALS (TO REMAIN)

8 — R Y G — 12"

1,2,5-7 — R Y G — 12"

3,4 — R Y G — 12"

EXISTING SIGNS (TO BE REMOVED)

21,22,23 — PUSH BUTTON TO CROSS TERMINAL ROAD — R10-3d (9"x12")

PROPOSED SIGNS

30,37 — W11-15 (30"x30") — W16-7P(L) (21"x15")

35,36 — W11-15 (30"x30") — W16-7P(R) (21"x15")

31,33 — PUSH BUTTON TO CROSS TERMINAL ROAD — STREET NAME IN SPACE TYPE D

32,34 — PUSH BUTTON TO CROSS TERMINAL ROAD — STREET NAME IN SPACE TYPE D

R10-3(1) 9" x 15"

EXISTING SIGNALS (TO BE REMOVED)

9,10 — 12"

PROPOSED SIGNALS

11,12 — LED 16" COUNTDOWN PEDESTRIAN SIGNAL HEAD

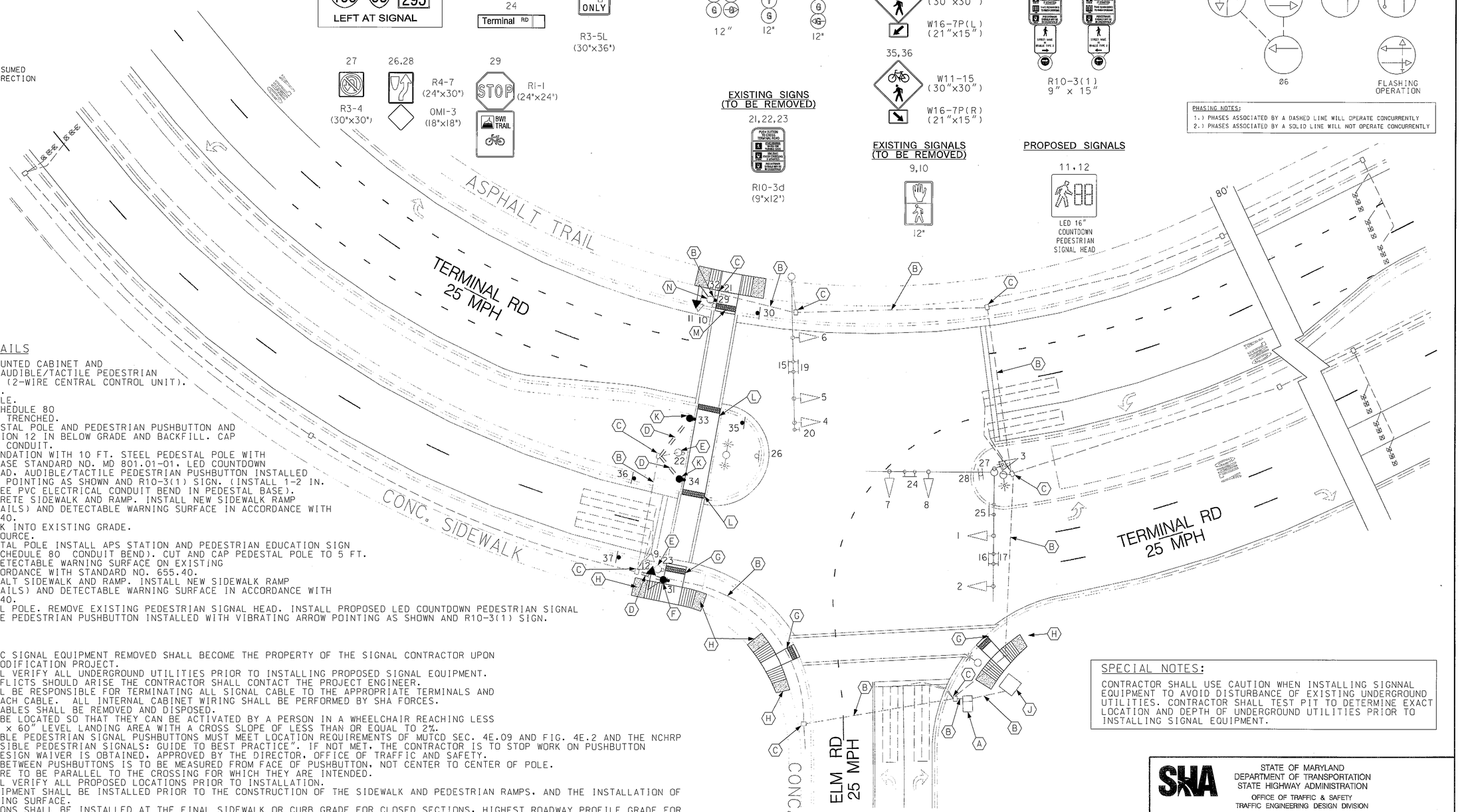
NEMA PHASING

Ø1 Ø2 Ø4 Ø4 ALT Ø6

FLASHING OPERATION

PHASING NOTES:

1.) PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY
2.) PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY



CONSTRUCTION DETAILS

A. USE EXISTING BASE MOUNTED CABINET AND CONTROLLER. INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE UNIT (2-WIRE CENTRAL CONTROL UNIT).
B. USE EXISTING CONDUIT.
C. USE EXISTING HAND HOLE.
D. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
E. REMOVE EXISTING PEDESTAL POLE AND PEDESTRIAN PUSHBUTTON AND SIGN. REMOVE FOUNDATION 12 IN BELOW GRADE AND BACKFILL. CAP AND ABANDON EXISTING CONDUIT.
F. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING AS SHOWN AND R10-3(1) SIGN. (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
G. REMOVE EXISTING CONCRETE SIDEWALK AND RAMP. INSTALL NEW SIDEWALK RAMP (SEE SHEET 2 FOR DETAILS) AND DETECTABLE WARNING SURFACE IN ACCORDANCE WITH STANDARD NO. MD 655.40.
H. TIE PROPOSED SIDEWALK INTO EXISTING GRADE.
J. USE EXI^TING POWER SOURCE.
K. INSTALL 10 FT. PEDESTAL POLE INSTALL APS STATION AND PEDESTRIAN EDUCATION SIGN (NOTE: 1-2 IN. PVC SCHEDULE 80 CONDUIT BEND). CUT AND CAP PEDESTAL POLE TO 5 FT.
L. INSTALL "STICK-ON" DETECTABLE WARNING SURFACE ON EXISTING ADA CURB RAMP IN ACCORDANCE WITH STANDARD NO. 655.40.
M. REMOVE EXISTING ASPHALT SIDEWALK AND RAMP. INSTALL NEW SIDEWALK RAMP (SEE SHEET 2 FOR DETAILS) AND DETECTABLE WARNING SURFACE IN ACCORDANCE WITH STANDARD NO. MD 655.40.
N. USE EXISTING PEDESTAL POLE. REMOVE EXISTING PEDESTRIAN SIGNAL HEAD. INSTALL PROPOSED LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING AS SHOWN AND R10-3(1) SIGN.

GENERAL NOTES

1. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE MODIFICATION PROJECT.
2. THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITIY CONFLICTS SHOULD ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING EACH CABLE. ALL INTERNAL CABINET WIRING SHALL BE PERFORMED BY SHA FORCES.
4. ALL UNUSED SIGNAL CABLES SHALL BE REMOVED AND DISPOSED.
5. 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%.
6. 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.
7. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM 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. THE CONTRACTOR SHALL VERIFY ALL PROPOSED LOCATIONS PRIOR TO INSTALLATION.
10. PROPOSED SIGNAL EQUIPMENT SHALL BE INSTALLED PRIOR TO THE CONSTRUCTION OF THE SIDEWALK AND PEDESTRIAN RAMPS, AND THE INSTALLATION OF THE DETECTABLE WARNING SURFACE.
11. ALL 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, AND MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
12. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
13. REFER TO SHEET 2 FOR DIMENSIONS OF SIGNAL EQUIPMENT AND PAVEMENT MARKINGS WITHIN INTERSECTION.

SPECIAL NOTES:

CONTRACTOR SHALL USE CAUTION WHEN INSTALLING SIGNNAL 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
PROPOSED
EXISTING

LEGEND OF UNDERGROUND AND OVERHEAD UTILITIES

AERIAL CABLE	A	A
ELECTRIC	E	E
TELEPHONE	T	T
GAS	G	G
SEWER	S	S
WATER	W	W
CABLE TV	TV	TV

T3 DESIGN, P.C.
3927 OLD LEE HWY
SUITE 101-C
FAIRFAX, VA 22030
PHONE: 703-359-5861
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TOD NO: XY139-03
SHA NO: AA189B53
MD 162, MD 170, MD 176 @ Various Locations

APPROVALS	REVISIONS
TEAM LEADER	
ASST. DIV. CHIEF	(B) APS AND CPS UPGRADES — TIMS NO. L653 — SHA NO. XY139B185 — AJM — 1-14-13
DIVISION CHIEF	A — SHA NO. AT3575185 SIGNAL HEAD MODIFICATION — 5-04
OFFICE DIRECTOR	KMP MAR WAS BAL

ORIGINAL ON FILE

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

TERMINAL RETURN ROAD AND ELM ROAD

LINTHICUM HEIGHTS, MARYLAND

TRAFFIC SIGNAL PLAN

SCALE 1"= 20' DATE OCT. 03, 2000 CONTRACT NO. AT3575185

DESIGNED BY B. PECK — COUNTY ANNE ARUNDEL
DRAWN BY B. PECK — LOGMILE 02M17000.1
CHECKED BY D. GERHARDT — T.I.M.S. NO. E167
F.A.P. NO. — TOD NO.

TS NO. TS-4045B — SHEET NO. 25 OF 33

PLOTTED: FEBRUARY 11, 2013
FILE: N:\31869-237\CADD\DATA IN\T3 PSE- PLANS\PSG-P201_TS*4045.DGN

BY: bdrooway