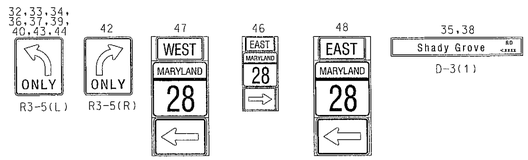
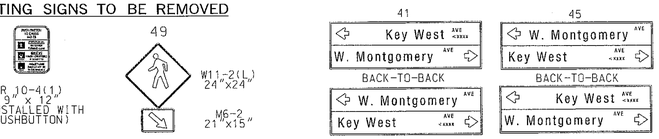
EXISTING SIGNS



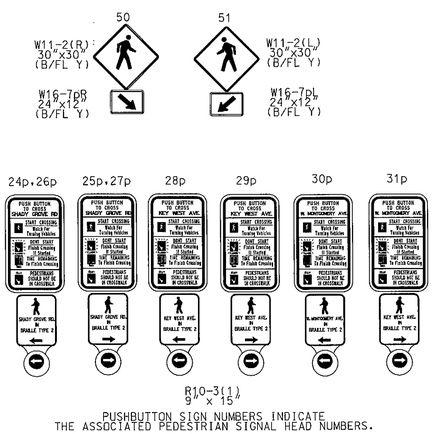
SHIELD ASSEMBLIES

MD 28 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION

EXISTING SIGNS TO BE REMOVED



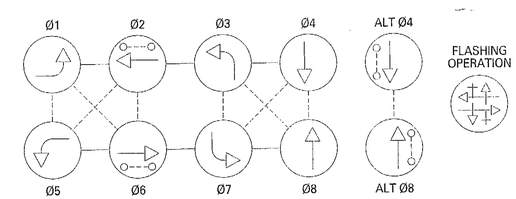
PROPOSED SIGNS



PUSHBUTTON SIGN NUMBERS INDICATE THE ASSOCIATED PEDESTRIAN SIGNAL HEAD NUMBERS.

EXISTING SIGNALS

NEMA PHASING



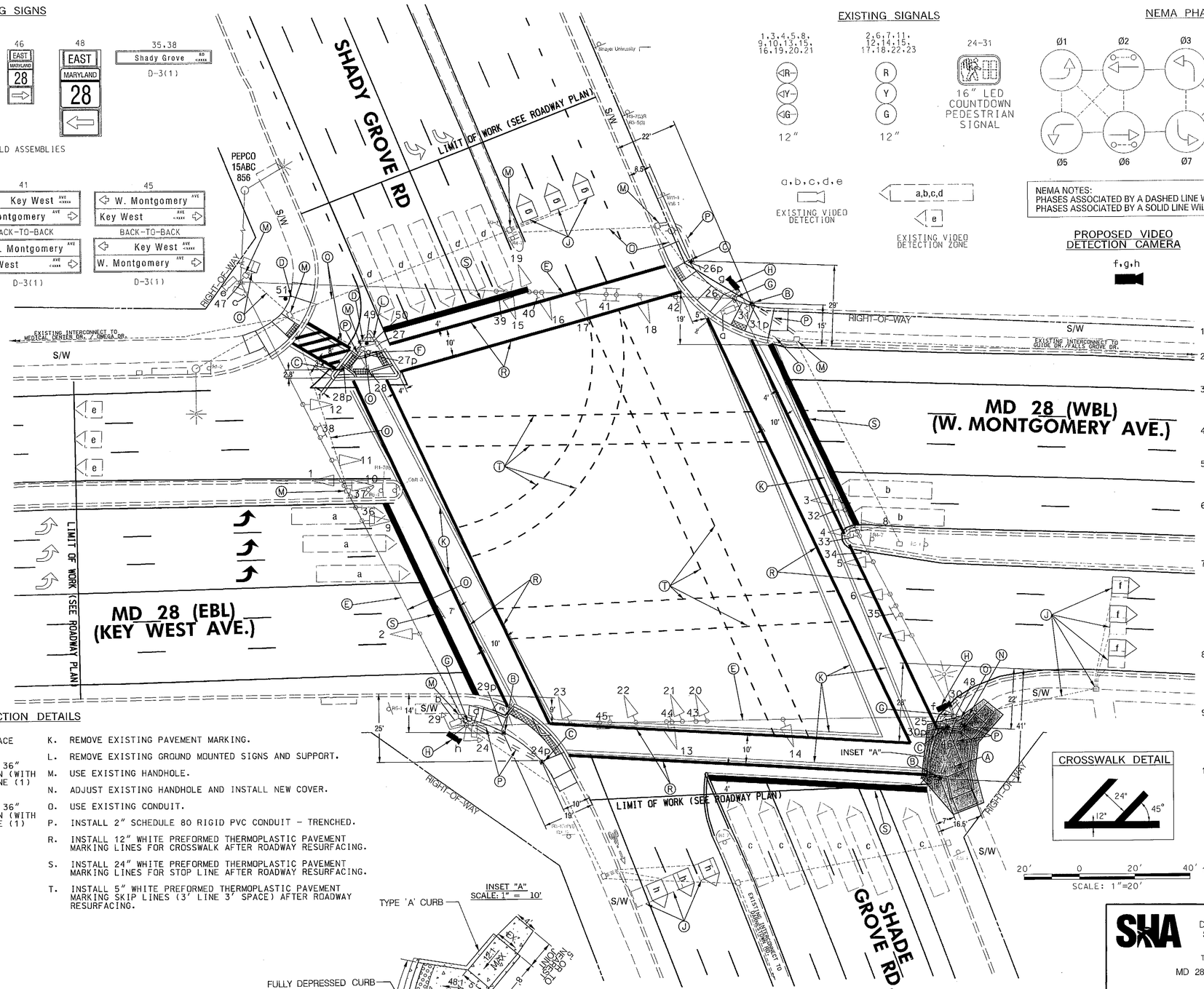
NEMA NOTES:
PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.
PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

PROPOSED VIDEO DETECTION CAMERA

f,g,h

PROPOSED VIDEO ZONE DETECTION

f,g,h



CROSSWALK DETAIL

20' 0 20' 40'
SCALE: 1"=20'

GENERAL NOTES

1. VIDEO CAMERA LOCATION/ALIGNMENT SHALL BE COORDINATED WITH THE SHA ENGINEER.
2. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE 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.
4. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING UNUSED CABLES FROM EXISTING HANDHOLES AND CONDUITS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINAL AND FOR PROPERLY LABELING EACH CABLE.
6. THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITY LOCATIONS. IF ANY CONFLICTS ARISE BETWEEN THE UTILITIES AND THE PROPOSED SIGNAL EQUIPMENT, THE CONTRACTOR SHALL STOP WORK AND CONTACT THE PROJECT ENGINEER.
7. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, AND THE 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.
8. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSINGS FOR WHICH THEY ARE INTENDED. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLES.
9. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18 INCHES FROM A 60" X 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
10. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MdMUTCD SECTION 4E.09 TO 4E.13 AND FIGURE 4E-3 AND 4E-4, AND THE NCHRP PUBLICATION "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET, THE CONTRACTOR SHALL STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR OF THE OFFICE OF HIGHWAY DEVELOPMENT.
11. SEE RAMP RECONSTRUCTION DETAIL SHEETS DE-3 THROUGH DE-5 FOR PROPOSED ADA RAMP.

CONSTRUCTION DETAILS

A. INSTALL PEDESTRIAN RAMP WITH DETECTABLE WARNING SURFACE (MD STD. 655.40) (SEE INSET "A").

B. INSTALL 10' (CUT DOWN TO 5') PEDESTAL POLE AND 18" X 36" FOUNDATION WITH AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON (WITH VIBRATING ARROW POINTING RIGHT) AND R10-3(1) SIGN (ONE (1) 2" SCHEDULE 80 PVC 90° BEND).

C. INSTALL 10' (CUT DOWN TO 5') PEDESTAL POLE AND 18" X 36" FOUNDATION WITH AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON (WITH VIBRATING ARROW POINTING LEFT) AND R10-3(1) SIGN (ONE (1) 2" SCHEDULE 80 PVC 90° BEND).

D. INSTALL PROPOSED GROUND MOUNTED SIGNS ON ONE (1) 4" X 4" WOOD SIGN SUPPORT.

E. USE EXISTING SPAN WIRE FOR PROPOSED SIGNAL WIRINGS.

F. DISCONNECT AND REMOVE EXISTING PUSHBUTTON AND SIGN. INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON (WITH VIBRATING ARROW POINTING RIGHT) AND R10-3(1) SIGN. CONNECT PROPOSED EQUIPMENT TO EXISTING PUSHBUTTON CABLE.

G. DISCONNECT AND REMOVE EXISTING PUSHBUTTON AND SIGN.

H. INSTALL VIDEO DETECTION CAMERA TO EXISTING STRAIN POLE.

J. DISCONNECT AND REMOVE EXISTING LOOP DETECTOR CABLES. ABANDON HANDHOLE AND CONNECTED CONDUITS.

K. REMOVE EXISTING PAVEMENT MARKING.

L. REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORT.

M. USE EXISTING HANDHOLE.

N. ADJUST EXISTING HANDHOLE AND INSTALL NEW COVER.

O. USE EXISTING CONDUIT.

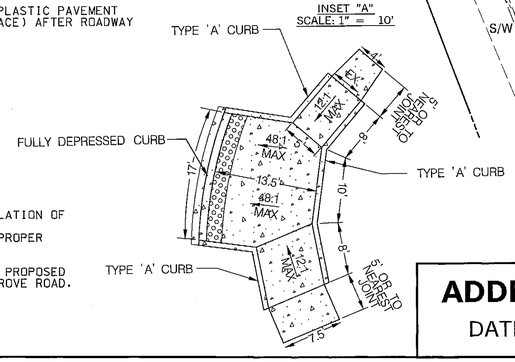
P. INSTALL 2" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED.

R. INSTALL 12" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES FOR CROSSWALK AFTER ROADWAY RESURFACING.

S. INSTALL 24" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES FOR STOP LINE AFTER ROADWAY RESURFACING.

T. INSTALL 5" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING SKIP LINES (3' LINE 3' SPACE) AFTER ROADWAY RESURFACING.

INSET "A"
SCALE: 1" = 10'



SPECIAL NOTES

1. SIGNAL CONTRACTOR SHALL COORDINATE INSTALLATION OF NEW EQUIPMENT WITH THE HIGHWAY CONTRACTOR CONSTRUCTING THE NEW ADA RAMPS TO ENSURE PROPER PLACEMENT OF PUSHBUTTONS AND POLES.
2. SEE SIGNING AND PAVEMENT MARKING PLAN FOR PROPOSED PAVEMENT MARKINGS ALONG MD 28 AND SHADY GROVE ROAD.

ADDENDUM NO. 2

DATE: 04 - - 13

GEOMETRIC LEGEND
EXISTING
PROPOSED

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

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031
PHONE: (443) 589-2400
FAX: (443) 589-2401

REVISION 'K' CEI PROJECT NO. 27257.49

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

REVISIONS
K INSTALLATION OF APS/CPS AND VIDEO DETECTION CAMERAS TIMS NO. L510 SHA NO. M0131S177; FAP AC-NHPP-G-5010(15)E — APR. 19, 2013
J ADD THIRD LEFT TURN LANE TIM 1410 — 10 FEB 2011
I ADD DOUBLE LEFT TO SB SHADY GROVE RD. — FEB 2006

NOG | JES

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 28 (W. MONTGOMERY AVE /KEY WEST AVE)
AT SHADY GROVE ROAD
ROCKVILLE, MARYLAND

TRAFFIC SIGNAL PLAN

SCALE 1" = 20' ADVERTISED DATE APRIL 1991 CONTRACT NO. BW996M82

DESIGNED BY T.E.I. COUNTY MONTGOMERY
DRAWN BY B.C.M. LOGMILE 15028019.30
CHECKED BY N/A TIMS NO.
F.A.P. NO. TOD NO.

TS NO. 1189K | DRAWING SG-01 OF 02 | SHEET NO. 1 OF 2

PLOTTED: Friday, April 19, 2013 AT 11:09 AM
FILE: S:\@hd\Transportation\27257.49 MD 28 Resurfacing\CADD\ACAD SheetSets\MD 28 at Shady Grove Rd\pSG-P000_MD28_Shady.dgn

BY: nrobinson