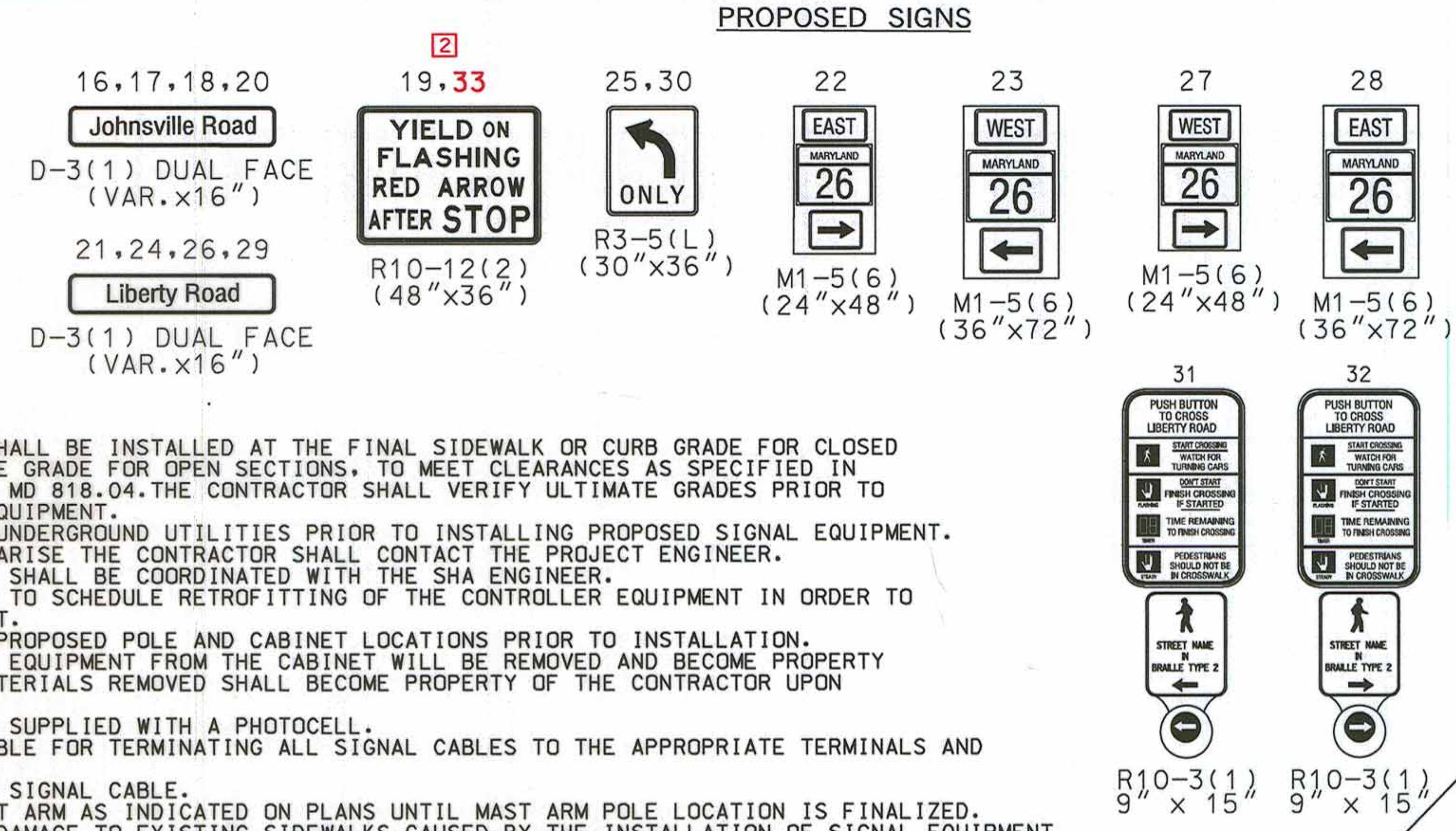
PROPOSED SIGNS



MD 26 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION

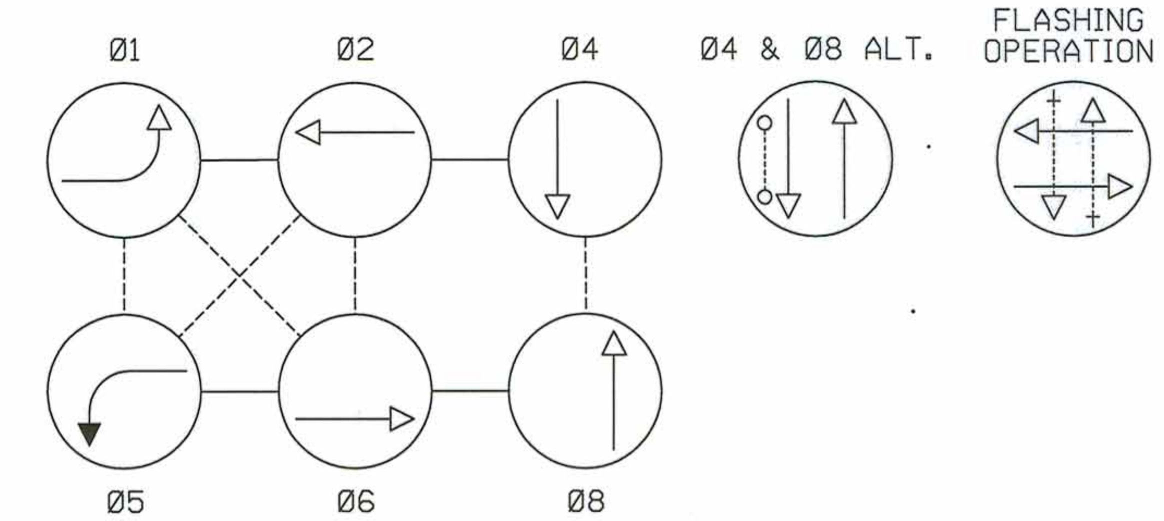
GENERAL NOTES

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 CONTACT SHA TO SCHEDULE RETROFITTING OF THE CONTROLLER EQUIPMENT IN ORDER TO OPERATE VIDEO DETECTION EQUIPMENT.
5. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
6. EXISTING CONTROLLER AND AUXILARY EQUIPMENT FROM THE CABINET WILL BE REMOVED AND BECOME PROPERTY OF SHA. ANY ADDITIONAL SIGNAL MATERIALS REMOVED SHALL BECOME PROPERTY OF THE CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
7. ALL PROPOSED LUMINAIRES SHALL BE SUPPLIED WITH A PHOTOCELL.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
9. REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
10. THE CONTRACTOR SHALL NOT CUT MAST ARM AS INDICATED ON PLANS UNTIL MAST ARM POLE LOCATION IS FINALIZED.
11. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
12. REFER TO TSP-2 DRAWING FOR DIMENSIONS OF SIGNAL EQUIPMENT, SIDEWALKS AND PAVEMENT MARKINGS WITHIN INTERSECTION.
13. 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%.
14. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
15. 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.

SPECIAL NOTES:

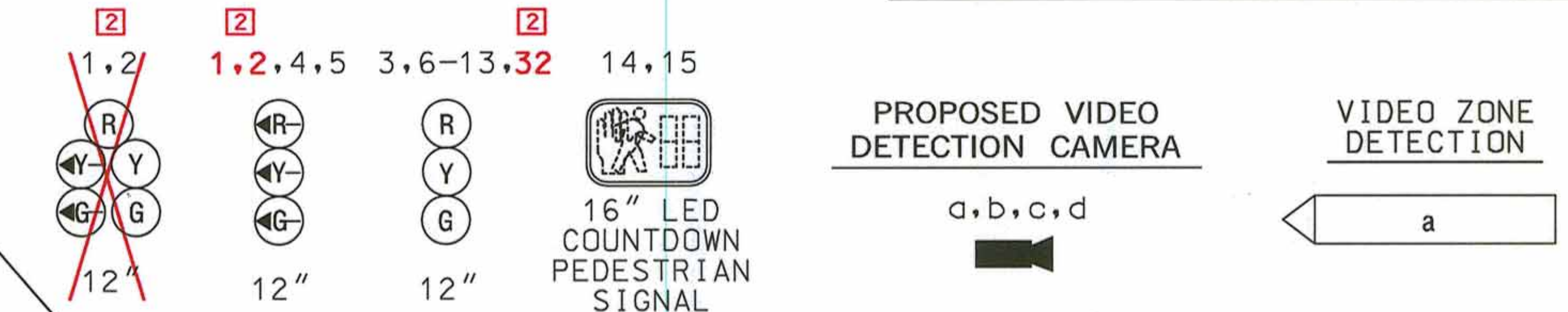
1. THE CONTRACTOR SHALL NOT BLOCK VIEW OF EXISTING SIGNAL INDICATIONS DURING INSTALLATION OF MAST ARM. IF NEW MAST ARM CANNOT BE INSTALLED DUE TO CONFLICT WITH EXISTING SIGNAL INDICATIONS OR SPAN WIRES, A SIGNAL OUTAGE SHALL OCCUR DURING NON-PEAK HOURS AS DIRECTED BY THE ENGINEER.
2. CONTRACTOR SHALL 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.
3. INSTALL HANDHOLE WITH LONG DIMENSION PERPENDICULAR TO TRAVEL WAY FOR INSTALLATION OF NON-INVASIVE PROBES. EXTEND CONDUIT A MINIMUM OF 2 IN. AND MAXIMUM OF 3 IN. INTO HANDHOLE.
4. THE CONTRACTOR SHALL COORDINATE WITH SHA TRAFFIC OPERATION DIVISION TO CONTACT LOCAL POWER COMPANY TO SET-UP WORK WITH TO DISCONNECT THE EXISTING ELECTRICAL SERVICE AND HAVE THE NEW SERVICE ENERGIZED.

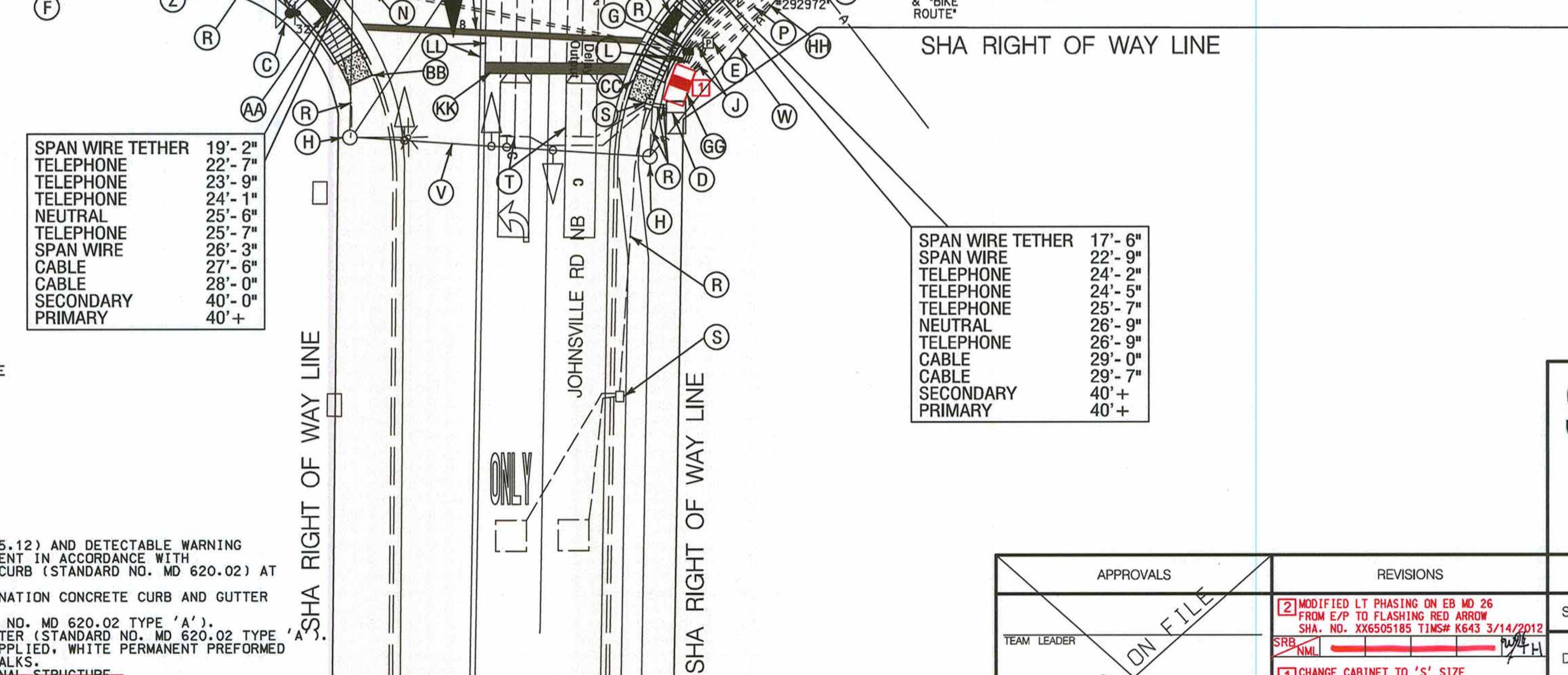
NEMA PHASING



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

PROPOSED SIGNALS





SPAN WIRE TETHER	19'- 2"
TELEPHONE	22'- 7"
TELEPHONE	23'- 9"
TELEPHONE	24'- 1"
NEUTRAL	25'- 6"
TELEPHONE	25'- 7"
SPAN WIRE	26'- 3"
CABLE	27'- 6"
CABLE	28'- 0"
SECONDARY	40'- 0"
PRIMARY	40'+

SPAN WIRE TETHER	17'- 6"
SPAN WIRE	22'- 9"
TELEPHONE	24'- 2"
TELEPHONE	24'- 5"
TELEPHONE	25'- 7"
NEUTRAL	26'- 9"
TELEPHONE	26'- 9"
CABLE	29'- 0"
CABLE	29'- 7"
SECONDARY	40'+
PRIMARY	40'+

CONSTRUCTION DETAILS

2 A. INSTALL CONCRETE FOUNDATION WITH A 16.5 FT. (15'-0" T) STEEL POLE WITH A TWIN 70 FT./50 FT. ~~(CUT TO 47 FT)~~ MAST ARMS, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS MOUNTED ON MAST ARMS (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).

B. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A TWIN 60 FT./50 FT. MAST ARMS, TRAFFIC SIGNAL HEADS, SIGNS, 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 LIBERTY ROAD"), VIDEO DETECTION CAMERAS MOUNTED ON MAST ARMS AND 15 FT. STREET LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE 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 RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).

D. REMOVE EXSTING BASE MOUNTED CABINET AND CONTROLLER. REMOVE EXSITING FOUNDATION 12 INCHES BELOW GRADE AND BACKFILL. THE CONTRACTOR SHALL NOTIFY SHA SIGNAL SHOP TO REMOVE THE CONTROLLER AND ALL AUXILARY EQUIPMENT FROM THE CABINET.

E. INSTALL EMBEDDED METERED SERVICE PEDESTAL WITH 2-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BENDS IN PEDESTAL BASE (SEE SPECIAL NOTE 4).

F. USE EXISTING CONDUIT.

G. INSTALL HANDHOLE.

H. REMOVE EXISTING STRAIN POLE. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.

J. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.

K. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.

L. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.

M. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED.

N. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED.

P. INSTALL 4 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE. CAP AND MARK CONDUIT 2 FT. ABOVE GRADE FOR USE BY BGE FORCES.

Q. USE EXISTING HANDHOLE. DISCONNECT AND PULL BACK EXISTING INTERCONNECT CABLE AND RE-FEED IN NEW CONDUIT TO PROPOSED BASE MOUNTED CABINET.

R. CAP AND ABANDON EXISTING CONDUIT.

S. REMOVE EXISTING HANDHOLE.

T. ABANDON EXISTING LOOP DETECTOR. DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.

U. INSTALL NON-INVASIVE MICROLOOP PROBE SET WITH 500 FT. LEAD-IN IN PROPOSED 3 IN. CONDUIT.

V. REMOVE EXISTING SPAN WIRE AND ALL ASSOCIATED EQUIPMENT.

W. EXISTING OVERHEAD ELECTRICAL SERVICE TO BE REMOVED BY OTHERS (SEE SPECIAL NOTE 4).

X. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED. REROUTE EXISTING INTERCONNECT CABLE.

Y. USE EXISTING HANDHOLE.

Z. REMOVE EXISTING PEDESTRIAN POLE. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.

CONSTRUCTION DETAILS CONTINUED

AA. INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.12) AND DETECTABLE WARNING SURFACE CLAY BRICK PAVERS WITH THE PLACEMENT IN ACCORDANCE WITH STANDARD NO. MD 655.40. INSTALL CONCRETE CURB (STANDARD NO. MD 620.02) AT THE BACK OF THE SIDEWALK RAMP.

BB. INSTALL 5 IN. CONCRETE SIDEWALK AND COMBINATION CONCRETE CURB AND GUTTER (STANDARD NO. MD 620.02 TYPE 'A').

CC. INSTALL 5 IN. CONCRETE SIDEWALK (STANDARD NO. MD 620.02 TYPE 'A').

DD. INSTALL COMBINATION CONCRETE CURB AND GUTTER (STANDARD NO. MD 620.02 TYPE 'A').

EE. REMOVE EXISTING AND INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.

2 ~~FF. CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE.~~

1 GG. INSTALL NEMA SIZE ~~'6"~~'S' BASE MOUNTED CABINET AND CONTROLLER WITH ~~CONCRETE PAD.~~ 'S' FOUNDATION STANDARD NO. MD 816.07. (INSTALL 2-2 IN. AND 2-4 IN. SCHEDULE 80, 90 DEGREE ELECTRICAL CONDUIT BENDS IN CABINET BASE).

HH. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT PVC - TRENCHED FOR PROPOSED UNDERGROUND TELEPHONE SERVICE. CAP AND MARK CONDUIT 2 FT ABOVE GRADE FOR USE BY OTHERS.

JJ. REMOVE EXISTING STOP LINE.

KK. INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.

LL. REMOVE EXISTING PAVEMENT MARKINGS BEYOND PROPOSED STOP LINE.

MM. INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.

GEOMETRIC LEGEND

— — —	EXISTING
———	PROPOSED

UTILITY LEGEND

—SD—SD—	STORM DRAIN
—G—G—	GAS MAIN
—W—W—	WATER MAIN
—S—S—	SEWER MAIN
—E—E—	ELECTRIC CABLES
—A—A—	AERIAL CABLES
—T—T—	TELEPHONE CABLES
—F—F—	FIBER-OPTIC

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

BY: sbloss

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

REVISIONS
2 MODIFIED LT PHASING ON EB MD 26 FROM E/P TO FLASHING RED ARROW SHA. NO. XX6505185 TIMS# K643 3/14/2012
SRB NML
1 CHANGE CABINET TO 'S' SIZE REVISION 1 01/31/2012
LFW NML
C TRAFFIC SIGNAL RECONSTRUCTION, MODIFIED LT PHASING ON WB MD 26 FROM E/P TO FLASHING RED ARROW SHA. NO. XX6505185 TIMS# K643 4/26/2011
LFW NML

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 26 (Liberty Road) & Johnsville Road
Eldersburg, MD

TRAFFIC SIGNALIZATION PLAN

SCALE 1" = 20' ADVERTISED DATE 09/1987 CONTRACT NO. 855-25005

DESIGNED BY	D. ANDREWS	COUNTY	Carroll
DRAWN BY	D. ANDREWS	LOGMILE	06002609.48
CHECKED BY	S. RENZI	TIMS NO.	K643
F.A.P. NO.		TOD NO.	

TS NO. 2036 | DRAWING TSP-1 OF 3 | SHEET NO. 1 OF 3

PLOTTED: March 14, 2012
FILE: N:\31669-119\CADD\Redline 2\pSG-P001_Johnsville-RL2.dgn