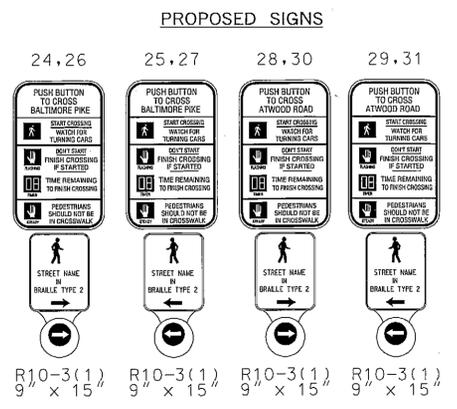
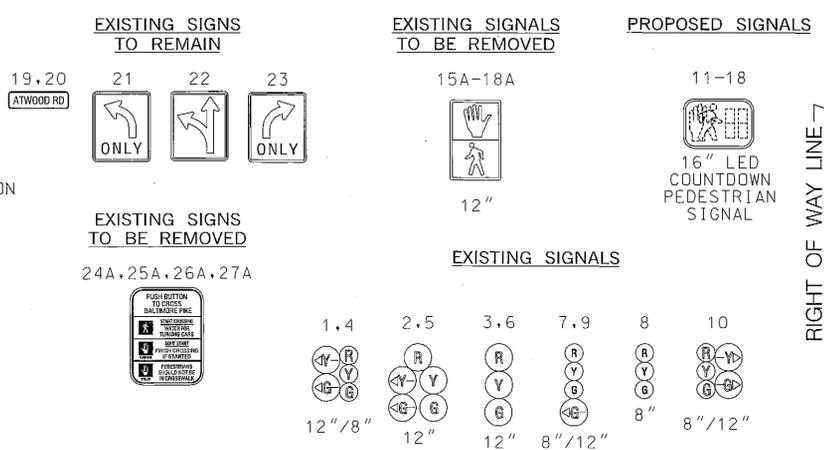


US 1 BUSINESS IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

PROPOSED VIDEO DETECTION CAMERAS
a, b, c, d

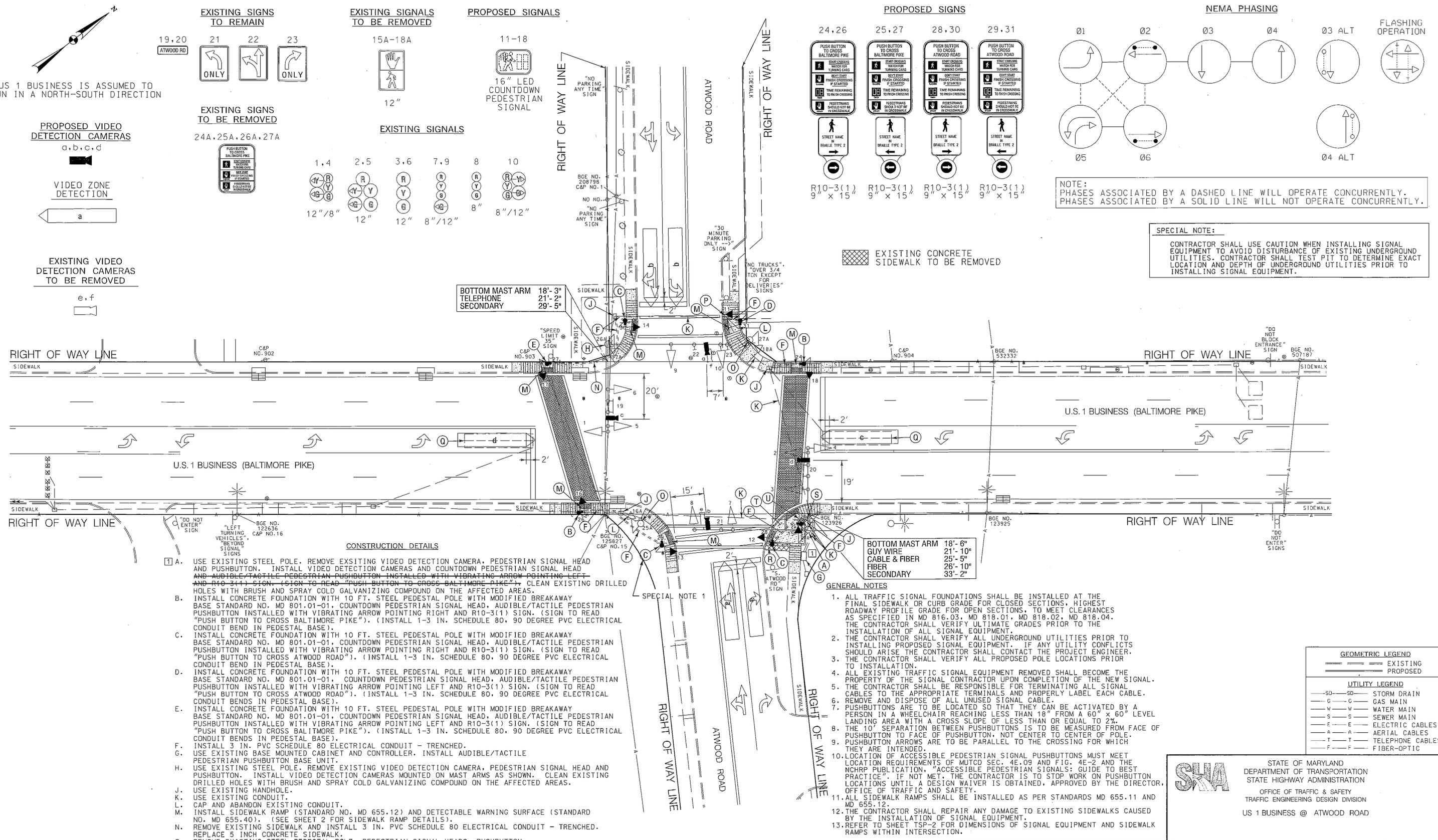
VIDEO ZONE DETECTION
a

EXISTING VIDEO DETECTION CAMERAS TO BE REMOVED
e, f



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

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.



- CONSTRUCTION DETAILS**
- USE EXISTING STEEL POLE. REMOVE EXISTING VIDEO DETECTION CAMERA, PEDESTRIAN SIGNAL HEAD AND PUSHBUTTON. INSTALL VIDEO DETECTION CAMERAS AND COUNTDOWN PEDESTRIAN SIGNAL HEAD AND AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS BALTIMORE PIKE"). CLEAN EXISTING DRILLED HOLES WITH BRUSH AND SPRAY COLD GALVANIZING COMPOUND ON THE AFFECTED AREAS.
 - 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 BALTIMORE PIKE"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
 - 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 ATWOOD ROAD"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
 - 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 ATWOOD ROAD"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN PEDESTAL BASE).
 - 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 BALTIMORE PIKE"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN PEDESTAL BASE).
 - INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
 - USE EXISTING BASE MOUNTED CABINET AND CONTROLLER. INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE UNIT.
 - USE EXISTING STEEL POLE. REMOVE EXISTING VIDEO DETECTION CAMERA, PEDESTRIAN SIGNAL HEAD AND PUSHBUTTON. INSTALL VIDEO DETECTION CAMERAS MOUNTED ON MAST ARMS AS SHOWN. CLEAN EXISTING DRILLED HOLES WITH BRUSH AND SPRAY COLD GALVANIZING COMPOUND ON THE AFFECTED AREAS.
 - USE EXISTING HANDHOLE.
 - USE EXISTING CONDUIT.
 - CAP AND ABANDON EXISTING CONDUIT.
 - INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.12) AND DETECTABLE WARNING SURFACE (STANDARD NO. MD 655.40). (SEE SHEET 2 FOR SIDEWALK RAMP DETAILS).
 - REMOVE EXISTING SIDEWALK AND INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED. REPLACE 5 INCH CONCRETE SIDEWALK.
 - REMOVE EXISTING STEEL PEDESTAL POLE, PEDESTRIAN SIGNAL HEADS, PUSHBUTTON, AND SIGNS. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
 - USE EXISTING HANDHOLE. ADJUST TO FINAL GRADE.
 - ABANDON EXISTING LOOP DETECTOR. DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
 - REMOVE EXISTING SIDEWALK RAMP. BACKFILL, SEED AND MULCH. INSTALL STANDARD TYPE A COMBINATION CURB AND GUTTER.
 - REMOVE EXISTING SIDEWALK. BACKFILL, SEED AND MULCH.
 - INSTALL SIDEWALK RAMP (STANDARDS NO. MD 655.12 AND MD 655.21) AND DETECTABLE WARNING SURFACE (STANDARD NO. MD 655.40). (SEE SHEET 2 FOR SIDEWALK RAMP DETAILS).
 - INSTALL CONCRETE FOUNDATION WITH 5 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 BALTIMORE PIKE"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).

GENERAL NOTES

- 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.
- 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.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
- ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE. REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
- 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%.
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
- PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- 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.
- ALL SIDEWALK RAMP SHALL BE INSTALLED AS PER STANDARDS MD 655.11 AND MD 655.12.
- THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
- REFER TO SHEET TSP-2 FOR DIMENSIONS OF SIGNAL EQUIPMENT AND SIDEWALK RAMP WITHIN INTERSECTION.

BOTTOM MAST ARM
18'-6"
GUY WIRE 21'-10"
CABLE & FIBER 25'-5"
FIBER 26'-10"
SECONDARY 33'-2"

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

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
US 1 BUSINESS @ ATWOOD ROAD

APPROVALS

TEAM LEADER	ASST. DIV. CHIEF	DIVISION CHIEF	OFFICE DIRECTOR
-------------	------------------	----------------	-----------------

REVISIONS

1	REDLINE NO. 1 ADDED 5 FT. PEDESTAL POLE. SHA. CONTRACT NO. XX4275185 1/10/2011	TIMS #K235
2	UPGRADE TO APS/CPS SHA. CONTRACT NO. XX4275185 TIMS #K235 08/10/2010	
3	INSTALL VIDEO DETECTION SHA. CONTRACT NO. 01 2005 TIMS #H394 11/05	

TRAFFIC SIGNALIZATION PLAN

SCALE 1" = 20' ADVERTISED DATE 09/2002 CONTRACT NO. AT9155185

DESIGNED BY _____ COUNTY HARFORD
DRAWN BY DAVE ANDREWS LOGMILE 12000102.15
CHECKED BY _____ TMS NO. K235
F.A.P. NO. _____ TOD NO. _____

TS NO. 1962 DRAWING TSP-1 OF 3 SHEET NO. 1 OF 3

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

PLOTTED: 01-10-2011
FILE: R:\91629-007\GADD\redline_01.10.2011\pssg-p001_K235_FL.dgn