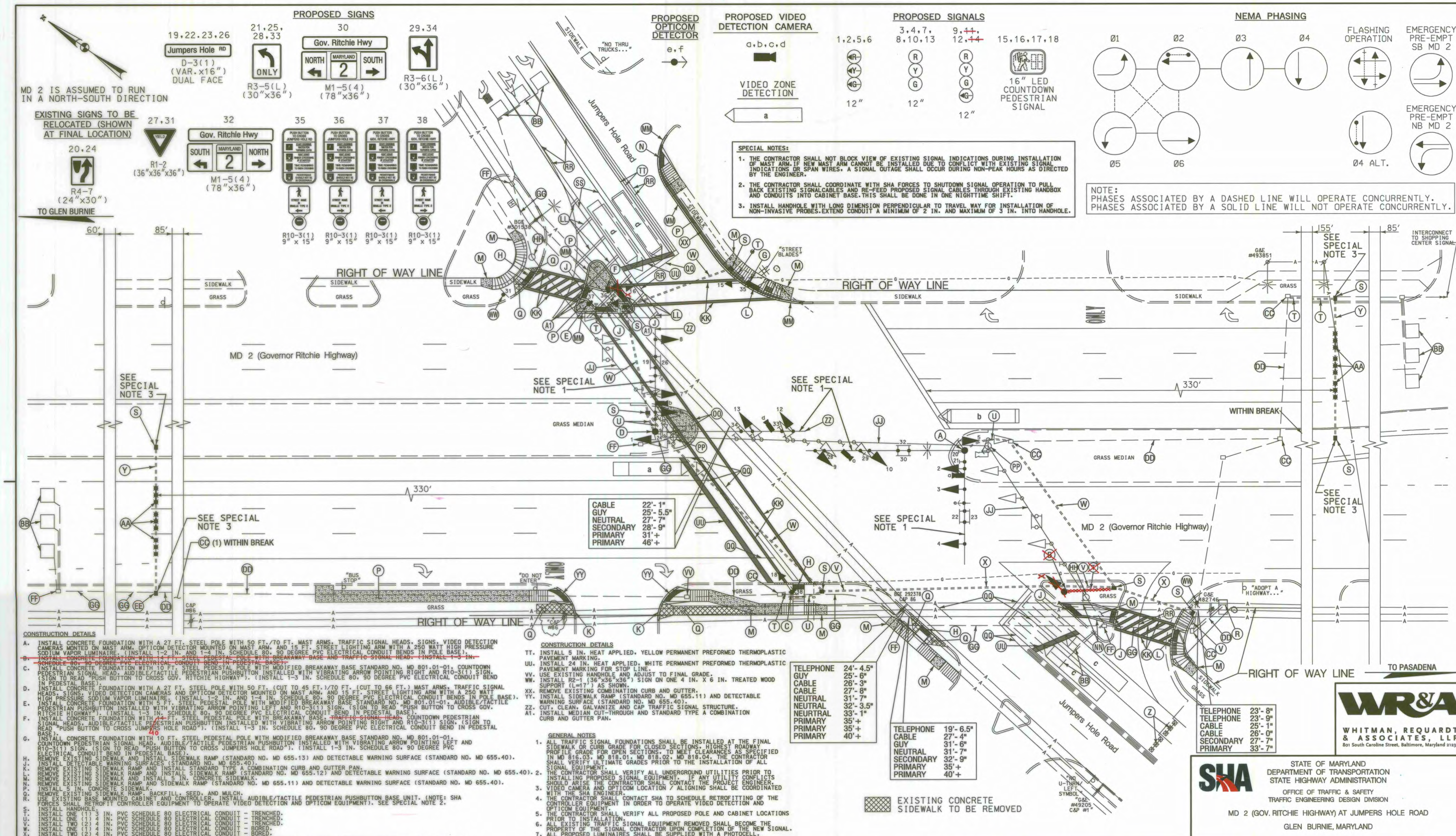

SPECIAL NOTES:

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. THE CONTRACTOR SHALL COORDINATE WITH SHA FORCES TO SHUTDOWN SIGNAL OPERATION TO PULL BACK EXISTING SIGNALCABLES AND RE-FEED PROPOSED SIGNAL CABLES THROUGH EXISTING HANDBOX AND CONDUITS INTO CABINET BASE. THIS SHALL BE DONE IN ONE NIGHTTIME SHIFT.
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.

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

CONSTRUCTION DETAILS

A. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH 50 FT./70 FT. MAST ARMS, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS MONTED ON MAST ARM, OPTICOM DETECTOR MOUNTED ON MAST ARM, 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).
~~B. INSTALL CONCRETE FOUNDATION WITH 14 FT. STEEL PEDESTAL POLE WITH BREAKAWAY BASE AND TRAFFIC SIGNAL HEAD. (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL 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 GOV. RITCHIE HIGHWAY"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
D. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH 50 FT. (CUT TO 45 FT.)/70 FT. (CUT TO 66 FT.) MAST ARMS, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS AND OPTICOM DETECTOR MOUNTED ON MAST ARM, 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).
E. INSTALL CONCRETE FOUNDATION WITH 5 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS GOV. RITCHIE HIGHWAY"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
F. INSTALL CONCRETE FOUNDATION WITH ~~14~~ 40 FT. STEEL PEDESTAL POLE WITH BREAKAWAY BASE, ~~TRAFFIC SIGNAL HEAD,~~ COUNTDOWN PEDESTRIAN SIGNAL HEADS, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS JUMPERS HOLE ROAD"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
G. 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 JUMPERS HOLE ROAD"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
H. REMOVE EXISTING SIDEWALK AND INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.13) AND DETECTABLE WARNING SURFACE (STANDARD NO. MD 655.40).
J. INSTALL DETECTABLE WARNING SURFACES (STANDARD NO. MD 655.40).
K. REMOVE EXISTING SIDEWALK RAMP AND INSTALL STANDARD TYPE A COMBINATION CURB AND GUTTER PAN.
L. REMOVE EXISTING SIDEWALK RAMP AND INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.12) AND DETECTABLE WARNING SURFACE (STANDARD NO. MD 655.40).
M. REMOVE EXISTING SIDEWALK AND INSTALL 5 IN. CONCRETE SIDEWALK.
N. REMOVE EXISTING SIDEWALK RAMP AND SIDEWALK RAMP (STANDARD NO. MD 655.11) AND DETECTABLE WARNING SURFACE (STANDARD NO. MD 655.40).
P. INSTALL 5 IN. CONCRETE SIDEWALK.
Q. REMOVE EXISTING SIDEWALK RAMP. BACKFILL, SEED, AND MULCH.
R. USE EXISTING BASE MOUNTED CABINET AND CONTROLLER. INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE UNIT. (NOTE: SHA FORCES SHALL RETROFIT CONTROLLER EQUIPMENT TO OPERATE VIDEO DETECTION AND OPTICOM EQUIPMENT). SEE SPECIAL NOTE 2.
S. INSTALL HANDHOLE.
T. INSTALL ONE (1) 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
U. INSTALL ONE (1) 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
V. INSTALL TWO (2) 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
W. INSTALL ONE (1) 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED.
X. INSTALL TWO (2) 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED.
Y. INSTALL ONE (1) 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED.
Z. ABANDON EXISTING PROBES. DISCONNECT AND REMOVE PROBE CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
AA. INSTALL NON-INVASIVE MICROLOOP PROBE SET WITH 1,000 FT. LEAD-IN IN PROPOSED 3 IN. CONDUIT (IN THRU LANES ONLY).
BB. ABANDON EXISTING LOOP DETECTOR. DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
CC. USE EXISTING HANDHOLE.
DD. USE EXISTING CONDUIT.
EE. INSTALL HANDHOLE ON TOP OF EXISTING CONDUIT LEAVING 6 IN. PROTRUDING INTO HANDHOLE.
FF. REMOVE EXISTING HANDHOLE.
GG. CAP AND ABANDON EXISTING CONDUIT.
HH. REMOVE EXISTING STRAIN POLE. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
JJ. REMOVE EXISTING SPAN WIRE AND ALL ASSOCIATED EQUIPMENT.
KK. INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.
LL. REMOVE EXISTING PAVEMENT MARKINGS (HATCHING).
MM. INSTALL COMBINATION CONCRETE CURB AND GUTTER (STANDARD NO. MD 620.02 TYPE 'A').
NN. REMOVE EXISTING CONCRETE RAMP AND SIDEWALK AND INSTALL MEDIAN CUT-THROUGH AND STANDARD TYPE A COMBINATION CURB AND GUTTER PAN.
OO. REMOVE EXISTING COMBINATION CURB AND GUTTER AND INSTALL 5 IN. DEPRESSED CONCRETE SIDEWALK (FLUSH WITH ROADWAY).
PP. REMOVE EXISTING STRAIN POLE. RELOCATE EXISTING R4-7 SIGN AND BAND TO PROPOSED SIGNAL POLE AS SHOWN. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
QQ. REMOVE EXISTING PAVEMENT MARKINGS BEYOND STOPLINE.
RR. REMOVE EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS.
SS. INSTALL 5 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING.

CONSTRUCTION DETAILS

TT. INSTALL 5 IN. HEAT APPLIED, YELLOW PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING.
UU. INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
VV. USE EXISTING HANDHOLE AND ADJUST TO FINAL GRADE.
WW. INSTALL R2-1 (36"x36"x36") SIGN ON ONE 4 IN. X 6 IN. TREATED WOOD SUPPORT (L=17') AS SHOWN.
XX. REMOVE EXISTING COMBINATION CURB AND GUTTER.
YY. INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.11) AND DETECTABLE WARNING SURFACE (STANDARD NO. MD 655.40).
ZZ. CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE.
A1. INSTALL MEDIAN CUT-THROUGH AND STANDARD TYPE A COMBINATION CURB AND GUTTER PAN.

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 AND OPTICOM 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 AND OPTICOM EQUIPMENT.
5. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
6. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL 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. ACCESSIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO THE SHA SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION. CONTACT MR. ED RODENHIZER 410-787-7652 TO COORDINATE.
11. 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%.
12. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
13. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
14. 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.
15. ALL SIDEWALK RAMPS SHALL BE INSTALLED AS PER STANDARD MD 655.11.
16. REFER TO SHEET TSP-2 FOR DIMENSIONS OF SIGNAL EQUIPMENT AND PAVEMENT MARKINGS WITHIN INTERSECTION.

EXISTING CONCRETE SIDEWALK TO BE REMOVED

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

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

REVISIONS
2 REMOVE FAR-SIDE SIGNAL HEADS REVISION NO. 2 — 4/28/2011 — LFW/NML
K TRAFFIC SIGNAL RECONSTRUCTION AND APS/CPS INSTALLATION TIMS K594 CONTRACT NO. XX3535168 12/20/2010 — LFW/NML
G RELOCATE POLES & ADD LOOP DETECTORS SHA CONTRACT #855-25005 02/07/86 — JJD SR TH

WHITMAN, REQUARDT & ASSOCIATES, LLP
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STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 2 (GOV. RITCHIE HIGHWAY) AT JUMPERS HOLE ROAD
GLEN BURNIE, MARYLAND

TRAFFIC SIGNALIZATION PLAN

SCALE 1" = 20' ADVERTISED DATE 4/4/1973 CONTRACT NO. AA-810-2-576

DESIGNED BY		COUNTY	ANNE ARUNDEL
DRAWN BY	F. DEBELIUS	LOGMILE	02000233.27
CHECKED BY		TIMS NO.	K594
F.A.P. NO.		TOD NO.	

TS NO. 155K — DRAWING TSP-1 OF 3 — SHEET NO. 1 OF 3

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BY: lwaesche