



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

**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.
- VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
- ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
- ALL PROPOSED LUMINAIRES SHALL BE SUPPLIED WITH A PHOTOCCELL.
- 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.
- THE CONTRACTOR SHALL NOT CUT MAST ARM AS INDICATED ON PLANS UNTIL MAST ARM POLE LOCATION IS FINALIZED.
- REFER TO SHEET 2 FOR DIMENSIONS OF SIGNAL EQUIPMENT WITHIN INTERSECTION.

- CONSTRUCTION DETAILS**
- INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A TWIN 50 FT. (CUT TO 45 FT.) 50 FT. MAST ARMS, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS 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).
  - INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A TWIN 50 FT. (CUT TO 45 FT.) 50 FT. MAST ARMS, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS 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).
  - INSTALL NEMA SIZE "6" BASE MOUNTED CABINET AND CONTROLLER WITH CONCRETE PAD. (INSTALL 2-2 IN. AND 2-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN CABINET BASE.)
  - INSTALL EMBEDDED METERED SERVICE PEDESTAL WITH 2-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BENDS IN PEDESTAL BASE.
  - INSTALL HANDHOLE.
  - INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
  - INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
  - INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
  - INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED.
  - INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE.
  - INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE.
  - INSTALL 4 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - BORED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE.
  - INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - BORED FOR PROPOSED UNDERGROUND TELEPHONE SERVICE. CAP AND MARK CONDUIT 2 FT. ABOVE GRADE AT UTILITY POLE FOR USE BY OTHERS.
  - INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - BORED FOR PROPOSED UNDERGROUND TELEPHONE SERVICE. CAP AND MARK CONDUIT 2 FT. ABOVE GRADE AT UTILITY POLE FOR USE BY OTHERS.
  - INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - BORED FOR PROPOSED UNDERGROUND TELEPHONE SERVICE. CAP AND MARK CONDUIT 2 FT. ABOVE GRADE AT UTILITY POLE FOR USE BY OTHERS.
  - USE EXISTING HANDHOLE.
  - USE EXISTING CONDUIT.
  - CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE.
  - USE EXISTING HANDHOLE. PULL BACK EXISTING MICROLOOP PROBE CABLES ALONG MD 152 AND RE-FEED IN CONDUIT TO NEW BASE MOUNTED CABINET. (SEE WIRING DIAGRAM FOR ADDITIONAL MICROLOOP PROBE CABLE DETAILS).
  - SHA SIGNAL SHOP SHALL BE NOTIFIED TO REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CABINET. Z. EXISTING OVERHEAD ELECTRICAL FEED TO BE REMOVED BY OTHERS.
  - USE EXISTING HANDHOLE. PULL BACK EXISTING MICROLOOP PROBE CABLES ALONG MD 147 AND RE-FEED IN CONDUIT TO NEW BASE MOUNTED CABINET. (SEE WIRING DIAGRAM FOR ADDITIONAL MICROLOOP PROBE CABLE DETAILS).
  - INSTALL M3-1 (24"x12"), M1-5 (30"x24") AND M5-1 (21"x15") SIGNS ON ONE 4 IN. X 6 IN. TREATED WOOD SUPPORT (L=17') APPROXIMATELY 430 FT. IN ADVANCE OF THE INTERSECTION ON MD 147.
  - INSTALL M3-3 (24"x12"), M1-5 (30"x24") AND M5-2 (21"x15") SIGNS ON ONE 4 IN. X 6 IN. TREATED WOOD SUPPORT (L=17') APPROXIMATELY 430 FT. IN ADVANCE OF THE INTERSECTION ON MD 147.
  - INSTALL M3-1 (24"x12"), M1-5 (30"x24") AND M5-1 (21"x15") SIGNS ON ONE 4 IN. X 6 IN. TREATED WOOD SUPPORT (L=17') APPROXIMATELY 240 FT. IN ADVANCE OF THE INTERSECTION ON MD 147.
  - INSTALL M3-3 (24"x12"), M1-5 (30"x24") AND M5-2 (21"x15") SIGNS ON ONE 4 IN. X 6 IN. TREATED WOOD SUPPORT (L=17') APPROXIMATELY 240 FT. IN ADVANCE OF THE INTERSECTION ON MD 147.
  - INSTALL M3-1 (24"x12"), M1-5 (30"x24") AND M5-1 (21"x15") SIGNS ON ONE 4 IN. X 6 IN. TREATED WOOD SUPPORT (L=17') APPROXIMATELY 240 FT. IN ADVANCE OF THE INTERSECTION ON MD 147.
  - INSTALL M3-3 (24"x12"), M1-5 (30"x24") AND M5-2 (21"x15") SIGNS ON ONE 4 IN. X 6 IN. TREATED WOOD SUPPORT (L=17') APPROXIMATELY 240 FT. IN ADVANCE OF THE INTERSECTION ON MD 147.
  - INSTALL ASSOCIATED SHIELD ASSEMBLY (24"x48") NORTH, MD 147, RIGHT ARROW" AND ASSOCIATED SHIELD ASSEMBLY (48"x72") "NORTH, MD 152, LEFT ARROW" ON TWO 4 IN. X 6 IN. TREATED WOOD SUPPORT (L=19 FT.).
  - INSTALL ASSOCIATED SHIELD ASSEMBLY (24"x48") SOUTH, MD 147, RIGHT ARROW" AND ASSOCIATED SHIELD ASSEMBLY (48"x72") "SOUTH, MD 152, LEFT ARROW" ON TWO 4 IN. X 6 IN. TREATED WOOD SUPPORT (L=19 FT.).
  - REMOVE EXISTING ROUTE MARKERS AND WOOD SUPPORTS.

**SPECIAL NOTE:**

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, A SIGNAL OUTAGE SHALL OCCUR DURING NON-PEAK HOURS AS DIRECTED BY THE ENGINEER.

**GEOMETRIC LEGEND**

18"-10"	TELEPHONE
20"-8"	TELEPHONE
20"-8"	TELEPHONE
21"-10"	FIBER
27"-5"	TWIST PRIMARY
33"-9"	SECONDARY
36"-11"	PRIMARY

**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

**WR&A**

**WHITMAN, REQUARDT & ASSOCIATES, LLP**

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**SHA** STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION

MD 152 (Mountain Road/Fallston Road) and MD 147 (Harford Road) Fallston, Maryland

APPROVALS		REVISIONS	
TEAM LEADER		F RECONSTRUCT TRAFFIC SIGNAL TMS NO. 819	03/10/2011
ASST. DIV. CHIEF		SRE	
DIVISION CHIEF		E INSTALL NON-INVASIVE PROBES? ASBUILT - TMS J631	10/30/2009
OFFICE DIRECTOR		SRB	
		D UPGRADE SIGNAL TO VIDEO DETECTION	10/23/2009
		TH	

**TRAFFIC SIGNALIZATION PLAN**

SCALE 1" = 20' ADVERTISED DATE 11/6/973 CONTRACT NO. H660X-485

DESIGNED BY F. Debullis COUNTY Harford

DRAWN BY F. Debullis LOGMILE 12014701.87

CHECKED BY A. Budnickuck TMS NO.

F.A.P. NO. TOD NO.

TS NO. 966 F DRAWING TSP-1 OF 3 SHEET NO. 1 OF 3

BY: sbloss