

PROJECT DESCRIPTION
GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 202 AND LOTTSFORD ROAD IN PRINCE GEORGE'S COUNTY, MD. MD 202 (LANDOVER ROAD) IS CONSIDERED TO RUN IN NORTH/SOUTH DIRECTION.

PHASE 4 OF MOT TRAFFIC SIGNAL CONSTRUCTION INCLUDES ROADWAY CONSTRUCTION TO CONSIST OF BUILDING THE NORTHBOUND ISLAND ON MD 202 (LANDOVER ROAD) TO EASTBOUND LOTTSFORD ROAD IMPROVEMENTS. INSTALL NEW MAST ARM IN THE SOUTHEAST QUADRANT. REMOVE EXISTING STEEL STRAIN POLES AND SPAN WIRE FOR THE TEMPORARY SIGNAL. INSTALL PEDESTRIAN SIGNAL POLES, PEDESTRIAN SIGNALS IN THE MEDIAN OF MD 202 (LANDOVER ROAD). IN THE ISLAND IN THE SOUTHEAST QUADRANT REMOVE TEMPORARY RAMPS, CROSSWALK AND PEDESTRIAN CROSSING FOR THE NORTH LEG PEDESTRIAN CROSSING. AT THE END OF THIS PHASE THE NORTH LEG PEDESTRIAN CROSSING IS TO BE DEACTIVATED, AND THE SOUTHBOUND LEGS CROSSING TO BE ACTIVATED.

INTERSECTION OPERATION

THE EXISTING NEMA 6 CONTROLLER/CABINET SHALL BE UTILIZED AT THIS LOCATION. THE INTERSECTION OPERATION WILL REMAIN UNCHANGED WITH THE EXCEPTION OF THE PEDESTRIAN MOVEMENTS. THE CURRENT PEDESTRIAN MOVEMENT ACROSS THE NORTH LEG WILL BE ELIMINATED AT THE END OF THIS PHASE OF CONSTRUCTION. THE MD 202 THROUGH MOVEMENTS WILL OPERATE WITH CONCURRENT PEDESTRIAN MOVEMENTS ACROSS THE EAST AND WEST LEGS OF THE INTERSECTION. THE LOTTSFORD ROAD MOVEMENTS WILL OPERATE WITH AN ACTUATED PEDESTRIAN MOVEMENT ACROSS THE SOUTH LEG OF THE INTERSECTION. ALL FINAL PEDESTRIAN CROSSING SHALL BE APS/CPS/ADA COMPLIANT.

* EXTENDED SIGNAL TIMING WILL BE PROVIDED FOR STADIUM EVENT TRAFFIC ALONG EASTBOUND LOTTSFORD ROAD THROUGH SAMPLING DETECTORS DURING NEMA PHASE

SPECIAL NOTES

1. THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

PROJECT CONTACTS:

- MS. FELECIA MURPHY, ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 513-7358
- MR. DUANE BERNARD, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (301) 513-7336
- MR. VERNON STINNETT, ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 615-7304
- MR. AUGIE REBISH, UTILITY ENGINEER
PHONE: (301) 513-7350
- MR. RICHARD L. DUFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630
- MR. EDWARD RODENHIZER, SUPERVISOR, SIGNAL OPERATIONS
PHONE: (410) 787-7652

2. ALL INTERNAL CABINET WIRING SHALL BE PERFORMED BY THE SHA SIGNAL SHOP. CONTRACTOR SHALL CONTACT ED RODENHIZER 72 HOURS PRIOR TO CONSTRUCTION.

3. APS WILL FUNCTION AS FOLLOWS:

FOR MD 202 (LANDOVER ROAD)

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS LANDOVER AT LOTTSFORD, ADDITIONAL BUTTON IN MEDIAN".
- B. WHEN WALK PHASE BEGINS, THE AUDIBLE SOUND WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

FOR MD 202 (LANDOVER ROAD) (IN MEDIAN)

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS LANDOVER AT LOTTSFORD".
- B. WHEN WALK PHASE BEGINS, THE AUDIBLE SOUND WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

FOR LOTTSFORD

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS LANDOVER AT LOTTSFORD, ADDITIONAL BUTTON IN MEDIAN".
- B. WHEN WALK PHASE BEGINS, THE AUDIBLE SOUND WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

EQUIPMENT LIST

- A. EQUIPMENT TO BE SUPPLIED BY THE STATE HIGHWAY ADMINISTRATION.
NONE.
- B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

| QUANTITY | UNITS | DESCRIPTION |
|----------|-------|---|
| LUMP SUM | LS | MAINTENANCE OF TRAFFIC |
| LUMP SUM | LS | MOBILIZATION |
| 1 | EA | 27 FT. STEEL MAST ARM POLE WITH 70 FT. MAST ARM |
| 3 | EA | 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY TRANSFORMER BASE |
| 1 | EA | 20 FT. LUMINARIES ARM |
| 1 | EA | 250W HPS LAMP AND LUMINARIE WITH PHOTO CELL. |
| 1 | EA | "TERRA" TYPE VIDEO DETECTOR CAMERA (ECONDLITE INC) |
| 320 | LF | VIDEO DETECTOR CAMERA CABLE |
| 2 | EA | 16 IN. 1-SECTION, 1-WAY LED (COUNTDOWN) PEDESTRIAN SIGNAL HEAD - POST TOP |
| 2 | EA | 16 IN. 1-SECTION, 1-WAY LED (COUNTDOWN) PEDESTRIAN SIGNAL HEAD - POLE |
| 4 | EA | AUDIBLE PEDESTRIAN PUSHBUTTON ASSEMBLY WITH PUSHBUTTON SIGN |
| 1 | EA | AUDIBLE PEDESTRIAN PUSHBUTTON ASSEMBLY - POLE |
| 4 | CY | TEST PIT EXCAVATION |
| 340 | LF | 5-CONDUCTOR CABLE (NO. 14 AWG) |
| 400 | LF | 2-CONDUCTOR CABLE (NO. 14 AWG) |
| 80 | EA | 3 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED |
| 15 | EA | BARE COPPER GROUND WIRE (NO. 6 AWG) |
| 5.0 | CY | CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT |
| 1 | EA | GROUND ROD - 3/4 IN. X 10 FT. LENGTH |
| 830 | LF | 12 IN. WHITE THERMOPLASTIC PAVEMENT MARKING - CROSSWALK |
| 280 | LF | 24 IN. WHITE THERMOPLASTIC PAVEMENT MARKING - STOP LINE |
| 2 | EA | 30 IN. X 36 IN. R3-5(L) REGULATORY SIGN - MAST ARM |
| 1 | EA | 30 IN. X 36 IN. R3-6(L) REGULATORY SIGN - MASTARM |
| 2 | EA | 20 IN. X VAR. D-3(1) OVERSIZED SIGN - MASTARM |
| LUMP SUM | LS | REMOVE EXISTING SIGNAL EQUIPMENT |

GENERAL NOTES

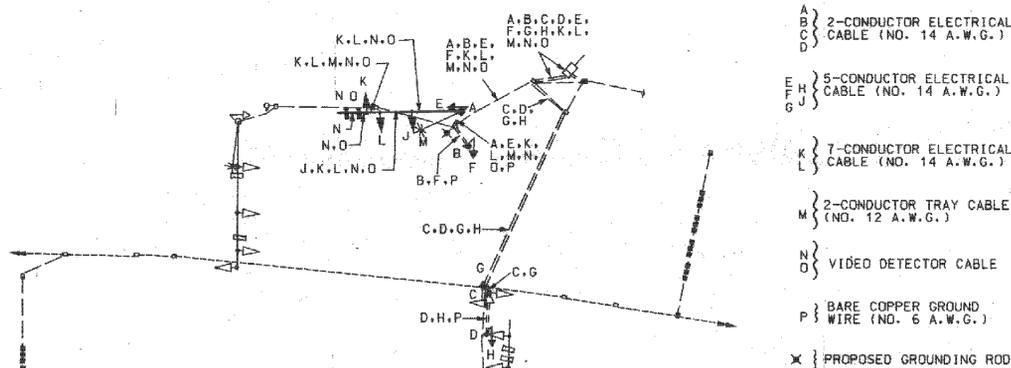
1. VIDEO CAMERA LOCATION/ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
2. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
3. PAVEMENT MARKINGS DETAILED ARE PROPOSED AND ARE TO BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH MD-SHA STANDARDS. ALL OTHER PAVEMENT MARKINGS ARE TO BE CONSIDERED AS EXISTING.
4. GEOMETRICS SHALL BE CONFIRMED PRIOR TO THE INSTALLATION OF SIGNAL EQUIPMENT. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT 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.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PROJECT ENGINEER IMMEDIATELY.
6. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18 IN. FROM A 60 IN. X 60 IN. LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
7. THE 10 FT. SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
8. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
9. THE LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 & 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.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERING APS EQUIPMENT FOR PROGRAMMING TO MD-SHA SIGNAL SHOP.
11. ALL UNUSED ELECTRICAL SIGNAL CABLES SHALL BE REMOVED FROM CONDUITS, HANDHOLES AND STRUCTURES.

Phase Chart



| PHASE 1 AND 5 | +G- | +G- | R | R | +G- | +G- | +G- | R | R | R | R | R | R | R | R | R | R | DW | DW |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| 1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6 | | | | | | | | | | | | | | | | | | | |
| PHASE 1 AND 6 | +G- | +G- | G | G | +R- | +R- | +R- | R | R | R | R | R | R | R | R | R | R | DW | DW |
| 1 CHANGE | +Y- | +Y- | G | G | +R- | +R- | +R- | R | R | R | R | R | R | R | R | R | R | DW | DW |
| PHASE 2 AND 5 | +R- | +R- | R | R | +G- | +G- | +G- | G | G | R | R | R | R | R | R | R | R | DW | DW |
| 5 CHANGE | +R- | +R- | R | R | +Y- | +Y- | +Y- | G | G | R | R | R | R | R | R | R | R | DW | DW |
| PHASE 2 AND 6 | +R- | +R- | G | G | +R- | +R- | +R- | G | G | R | R | R | R | R | R | R | R | WK | DW |
| PED CLEARANCE | +R- | +R- | G | G | +R- | +R- | +R- | G | G | R | R | R | R | R | R | R | R | FLDW | DW |
| 2 AND 6 CHANGE | +R- | +R- | Y | Y | +R- | +R- | +R- | Y | Y | R | R | R | R | R | R | R | R | DW | DW |
| PHASE 3 | +R- | +R- | R | R | +R- | +R- | +R- | R | R | R | R | R | R | R | R | R | R | DW | DW |
| 3 CHANGE | +R- | +R- | R | R | +R- | +R- | +R- | R | R | R | R | R | R | R | R | R | R | DW | DW |
| PHASE 4 | +R- | +R- | R | R | +R- | +R- | +R- | R | R | R | R | R | R | R | R | R | R | DW | DW |
| 4 CHANGE | +R- | +R- | R | R | +R- | +R- | +R- | R | R | R | R | R | R | R | R | R | R | DW | DW |
| PHASE 4 ALT | +R- | +R- | R | R | +R- | +R- | +R- | R | R | R | R | R | R | R | R | R | R | DW | WK |
| PED CLEARANCE | +R- | +R- | R | R | +R- | +R- | +R- | R | R | R | R | R | R | R | R | R | R | DW | FLDW |
| 4 ALT CHANGE | +R- | +R- | R | R | +R- | +R- | +R- | R | R | R | R | R | R | R | R | R | R | DW | DW |
| FLASHING OPERATION | FLY | DARK | DARK |

Wiring Diagram



MOT PHASE 4 OF CONSTRUCTION MOT-04

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 202 (LANDOVER ROAD)
AND LOTTSFORD ROAD
LANDOVER, MARYLAND

GENERAL INFORMATION PLAN

| | | | | | |
|-------------|-------------|---------|----------------|--------------|----------|
| SCALE | NA | DATE | JUNE 1, 2010 | CONTRACT NO. | BW996M82 |
| DESIGNED BY | F. BROWNLEY | COUNTY | PRINCE GEORGES | | |
| DRAWN BY | F. BROWNLEY | LOGMILE | 16020208.78 | | |
| CHECKED BY | Jale Gillo | TMS NO. | J-981 | | |
| F.A.P. NO. | | TOD NO. | | | |

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