DRILL HOLES

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BORDER REV: DATE: June 1, 2004

## PROJECT DESCRIPTION

### I. GENERAL

This project involves the installation of a new mast arm Traffic Control Signal with street lighting and video detection at the intersection of MD 223 (Woodyard Rd) and Dower House Rd in Prince George's County. MD 223 (Woodyard Rd) is assumed to run a north-south direction.

### II. INTERSECTION OPERATION

1. The intersection is to operate in a NEMA five-phase, fully-actuated mode, with the MD 223 (Woodyard Rd) approaches running concurrently. An Exclusive/Permissive left turn phase shall be provided for the northbound approach of MD 223 (Woodyard Rd). The Dower House Rd approaches shall run in a side street split phase.

2. A full-traffic-actuated, eight-phase controller with video interface, one (1) four channel, rack mount loop detector amplifier and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

### III. SPECIAL NOTES

1. The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.

2. All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7650 seventy-two hours in advance of intended work.

3. All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility 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 will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

4. Upon completion of this project, the Contractor shall notify Mr. Robert Snyder at (410) 787-7631 to arrange for the phone line installation. The Contractor is to provide Mr. Robert Snyder with the nearest street address, zip code and phone number.

The contact persons for District #3 (Prince George's County) are as follows:

Mr. Brian Young
Assistant District Engineer - Traffic
Phone: (301) 513-7318

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: (301) 513-7304

Mr. Augie Rebish
Assistant District Engineer - Utility
Phone: (301) 513-7350

Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630

Mr. Ed Rodenhizer
Signal Shop
410-787-7652

Mr. Sonny Bailey
Sign Shop
410-787-7670

The power company representative is:
Mr Richard Chilcoat
PEPCO
8300 Old Marlboro Pike
Upper Marlboro, MD 20772

## EQUIPMENT LIST

### A. EQUIPMENT TO BE SUPPLIED BY S.H.A.

| ITEM NO. | DESCRIPTION | QUANTITY |
|---|---|---|
| 9042 | Controller ASC II with telemetry | 1 EA |
| 9044 | Controller cabinet, size "6" | 1 EA |
| 9086 | Video detection interface equipment: 1-4 cameras (To be installed by signal shop). | 1 EA |
| 9570 | Sheet aluminum signs to consist of: (ground mount) | 42.5 SF |
| | W3-3 NEW "SIGNAL AHEAD" sign, (36" x 36") ground mounted with hardware. | 2 EA |
| | W3-3 NEW "SIGNAL AHEAD" sign, (30" x 30") ground mounted with hardware. | 2 EA |
| | D3-3 "Dower House Rd/ NEXT SIGNAL" sign, (24"X72") ground mounted with hardware. | 2 EA |
| 9571 | Sheet aluminum signs to consist of: (mast arm or pole mount) | 57.5 SF |
| | D3-2 "Woodyard Rd " sign, (variable x 16") mast arm. | 2 EA |
| | D3-2 "Dower House Rd " sign, (variable x 16") mast arm. | 1 EA |
| | M95-2 NORTH (lt arrow) / MD 223 / SOUTH (rt arrow)" sign, (78" x 36"). | 1 EA |
| | M95-2 SOUTH (lt arrow) / MD 223 / NORTH (rt arrow)" sign, (78" x 36"). | 1 EA |

### B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

| ITEM NO. | DESCRIPTION | QUANTITY |
|---|---|---|
| 1001 | Maintenance of traffic per assignment. | 2 EA |
| 2002 | Test Pit Excavation | 4 C.Y. |
| 5001 | 5" heat applied yellow permanent preformed thermoplastic pavement marking. | 50 L.F. |
| 5002 | Removal of existing permanent pavement line markings | 140 L.F. |
| 5005 | 24" heat applied white permanent preformed thermoplastic pavement marking. | 110 L.F. |

## EQUIPMENT LIST (CONT.)

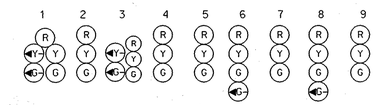
### B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

| ITEM NO. | DESCRIPTION | QUANTITY |
|---|---|---|
| 8001 | 12" LED signal head section. | 32 EA |
| 8004 | 8" LED signal head section. | 9 EA |
| 8007 | Any size lighting arm on signal pole with 250 watt HPS lamp & luminaire. | 1 EA |
| 8019 | 21' Mast arm pole and 50' mast arm. | 1 EA |
| 8021 | Non-invasive detector (any length) lead-in cable up to 1000'. | 2 EA |
| 8023 | 27' Twin mast arm pole and 38'/60' mast. | 1 EA |
| 8026 | Video detection camera & cable up to 500' | 3 EA |
| 8031 | Cable - 1 conductor, 250 KCMIL Cu, USE | 150 LF |
| 8035 | Schedule 80 rigid PVC conduit up tp 4" - trenched. | 450 L.F. |
| 8036 | Schedule 80 rigid PVC conduit up tp 4" - bored. | 475 L.F. |
| 8037 | Wood sign supports up to 4"x6". | 128 L.F. |
| 8039 | Install overhead or ground mounted sign (including hardware). | 100 S.F. |
| 8041 | No. 6 AWG stranded bare copper ground wire. | 215 L.F. |
| 8043 | Metered service pedestal embedded. | 1 EA |
| 8045 | Electrical cable 1-conductor No. 4 AWG THHN/THWN. | 50 L.F. |
| 8047 | Furnish and install electrical handhole. | 8 EA |
| 8056 | Electrical cable - 5 conductor (No. 14 AWG). | 110 L.F. |
| 8057 | Electrical cable - 7 conductor (No. 14 AWG). | 1205 L.F. |
| 8058 | Electrical cable - 2 conductor (No. 12 AWG) tray cable. | 220 L.F. |
| 8065 | Install controller and cabinet base mount. | 1 EA |

### C. EQUIPMENT TO BE REMOVED

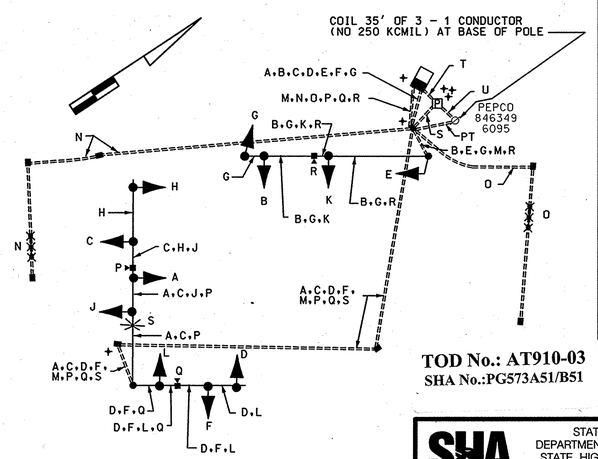
There is no signal equipment to be removed for this project.

## PHASE CHART




| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| PHASE 1 & 6 | ◄G-/G | G | ◄G-/G | R | R | R | R | R | R |
| 1 & 6 CHANGE | ◄G-/G | G | ◄G-/G | R | R | R | R | R | R |
| PHASE 2 & 6 | G | G | G | G | G | R | R | R | R |
| 2 & 6 CHANGE | Y | Y | Y | Y | Y | R | R | R | R |
| PHASE 3 | R | R | R | R | R | G/◄G- | G | R | R |
| 3 CHANGE | R | R | R | R | R | Y | Y | R | R |
| PHASE 4 | R | R | R | R | R | R | R | G/◄G- | G |
| 4 CHANGE | R | R | R | R | R | R | R | Y | Y |
| FLASHING OPERATION | FL/Y | FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/R | FL/R | FL/R |

## WIRING DIAGRAM




**WIRING KEY**

- A, B, C, D, E, F, G — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G )
- H, J, K, L — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G )
- M - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- N, O — NON-INVASIVE MICROLOOP LEAD-IN CABLE
- P, Q, R — CONTROL CABLE
- S - 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G )
- T - 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- U - 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 250 KCMIL)
- PT - PROPOSED TELEPHONE DROP BY SHA
- + - GROUND ROD

**TOD No.: AT910-03**
**SHA No.:PG573A51/B51**

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

# MD 223 (WOODYARD RD) AND DOWER HOUSE RD

## GENERAL INFORMATION SHEET

SCALE NONE DATE 7/14/06 CONTRACT NO. AT9105185

DESIGNED BY JAMES ALLEN Jr. COUNTY PRINCE GEORGE'S
DRAWN BY R.C. LOGMILE 16022310.80
CHECKED BY TIMS NO. H644
F.A.P. NO. TOD NO.

TS NO. 4498 | DRAWING NO. 2 OF 2 | SHEET NO. OF


STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy.,NW.
Glen Burnie,MD 21061
Ph (410) 590-5500
Fax (410) 590-6537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