

BORDER REV. DATE: June 11, 2004

DRILL HOLES

DRILL HOLES

DRILL HOLES

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing mast arm Traffic Control Signal with street lighting and interconnect at the intersection of MD 235 (Three Notch Rd) and Expedition Park Drive in St Mary's County. Countdown pedestrian signal heads with audible pushbuttons shall be installed at this location. The existing signal heads shall be replaced with the proposed LED signal heads. MD 235 (Three Notch Rd) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

- 1. The intersection shall continue to operate in a NEMA seven-phase, semi-actuated mode, with the MD 235 (Three Notch Rd) approaches running concurrently as well as exclusively. The Exclusive left turn phase for the southbound approach of MD 235 (Three Notch Rd) shall continue to be provided. A Countdown pedestrian phase with audible pushbuttons on recall shall be installed across the east leg of Expedition Park Drive. The existing pedestrian phase across the north leg of MD 235 (Three Notch Rd) shall now be a Countdown pedestrian phase with audible pushbutton actuation. For side sampling stations shall continue to be provided for the south leg MD 235 (Three Notch Rd) at this intersection. The Expedition Park Drive westbound approach shall continue to operate in its own phase. The eastbound Expedition park Drive approach will continue to operate as a right turn only.
2. A existing full-traffic-actuated, eight-phase controller with all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be utilized at this intersection.
3. SHA signal shop shall install APS control unit into controller cabinet. The Contractor shall deliver the Control Unit and audible pushbuttons to the SHA Signal Shop for testing and programming.

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. APS will function as follows:

FOR THREE NOTCH ROAD

- a. When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be "Wait to cross Three Notch Road at Expedition Park Dr."
b. When WALK phase begins, the message will be a rapid tick which will last for the duration of the WALK phase.

FOR EXPEDITION PARK DRIVE

- a. When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be "Wait to cross Expedition Park Drive at Three Notch Rd."
b. When WALK phase begins, the message will be a rapid tick which will last for the duration of the WALK phase.

The contact persons for District #5 are as follows:

- Ms. Kim Tran
Assistant District Engineer - Traffic
Phone: (410) 841-1003
Mr. Andre Futrell
Assistant District Engineer - Maintenance
Phone: (410) 841-1002
Mr. John Mays
Assistant District Engineer - Utility
Phone: (410) 841-1005
Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630
Mr. Ed Rodenhizer
Signal Shop
410-787-7652
Sonny Bailey
Sign Shop
410-787-7670

EQUIPMENT LIST

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

Table with 3 columns: ITEM NO., DESCRIPTION, QUANTITY. Includes items like Sheet aluminum signs, Pedestrian education R10-4(1) red sign, and Pedestrian education R10-4(1) red sign.

EQUIPMENT LIST (CONT.)

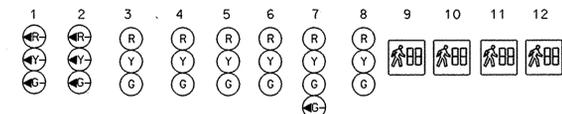
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

Table with 3 columns: ITEM NO., DESCRIPTION, QUANTITY. Includes items like Maintenance of traffic per assignment, Test Pit Excavation, Standard type A combination curb and gutter, 4" concrete sidewalk, Detectable warning surfaces, 12" LED signal head section, 2 wire Central Control unit, Audible/tactile pedestrian pushbutton station & signs, Breakaway pedestal pole, LED 16" countdown pedestrian signal heads, Remove and dispose of existing material & equipment, Schedule 80 rigid PVC conduit, No. 6 AWG stranded bare copper ground wire, Install overhead sign, Electrical cable - 2 conductor, Electrical cable - 5 conductor.

C. EQUIPMENT TO BE REMOVED

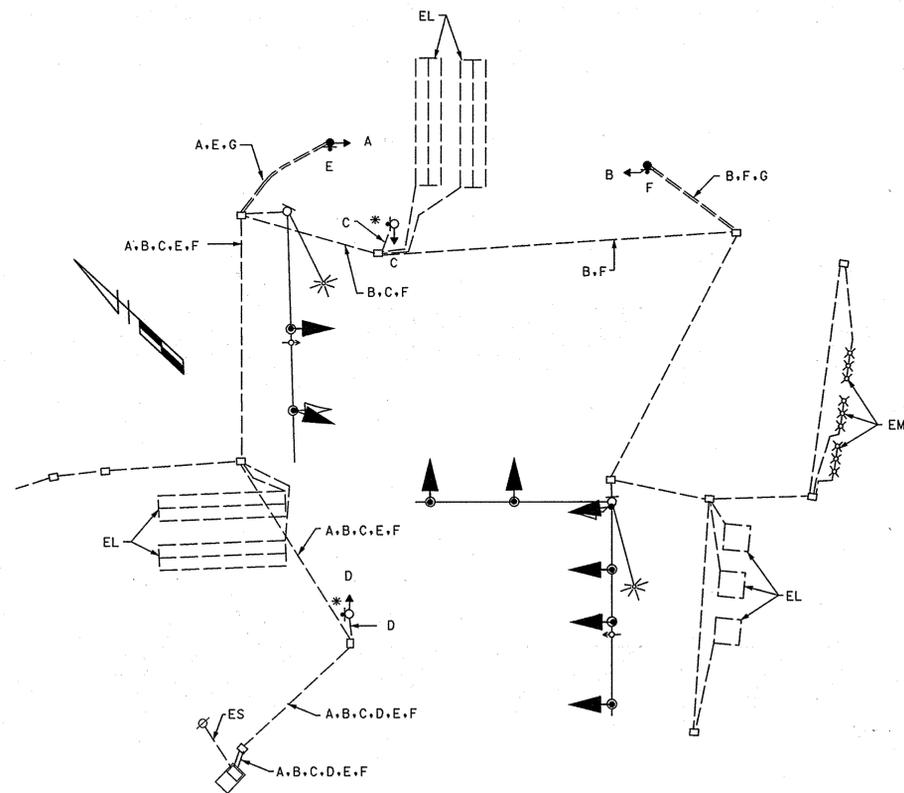
All removed signal materials are to become property of the contractor.

PHASE CHART



Phase chart table with columns for phases 1-12 and rows for various phase changes (e.g., PHASE 1 & 5, PHASE 1 & 6, 1 CHANGE, PHASE 2 & 5, 5 CHANGE, PHASE 2 & 6, PED CLEAR, 2 & 6 CHANGE, PHASE 3, 3 CHANGE, PHASE 4 & 8, 4 & 8 CHANGE, PHASE 4 & 8 ALT, PED CLEARANCE, 4 & 8 ALT CHANGE, PRE EMPT 1, PRE EMPT 1 CHANGE, PRE EMPT 2, PRE EMPT 2 CHANGE, FLASHING OPERATION).

WIRING DIAGRAM



WIRING KEY
A, B, C } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
D } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
E } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
G - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
EM- EXISTING MICROLOOP LEAD-IN CABLE
EL- EXISTING WIRE (NO. 14 A.W.G.) EXISTING
ES- EXISTING UNDERGROUND SERVICE TO BE MAINTAINED SMECO

SHA STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION
MD 235 (THREE NOTCH RD) @ EXPEDITION PARK DRIVE/ EXPLORATION PARK DRIVE
GENERAL INFORMATION SHEET
SCALE NONE DATE 6/5/07 CONTRACT NO. AT9135185
DESIGNED BY JWA COUNTY ST. MARY'S
DRAWN BY RC LOGMILE 18023513.13
CHECKED BY TIMS NO. 1970
F.A.P. NO. TOD NO.
TS NO. 3738B DRAWING NO. 2 OF 2 SHEET NO. OF