## PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 140 AND CHATSWORTH AVENUE IN BALTIMORE COUNTY.

THE MODIFICATION INVOLVES THE INSTALLATION OF AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE ALONG SOUTHBOUND MD 140 AT CHATSWORTH AVENUE.

INTERSECTION OPERATION

THIS INTERSECTION IS EQUIPPED WITH AN EIGHT PHASE CONTROLLER HOUSED IN A POLE MOUNTED CABINET. THE CONTROLLER WILL USE FIVE PHASES OUT OF EIGHT WITH EXCLUSIVE/PERMISSIVE LEFT TURN PHASE FOR SOUTHBOUND MD 140. CHATSWORTH AVENUE APPROACHES WILL OPERATE CONCURRENTLY.

CONTROLLER REQUIREMENTS

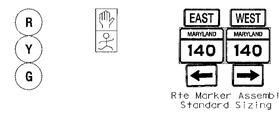
THE EXISTING POLE MOUNTED CABINET / CONTROLLER SHALL BE USED.

## MAINTENANCE OF TRAFFIC

MARYLAND BOOK OF STANDARAD SECTION MD-104

## EXISTING SIGNALS & SIGNS

1-2,4-8 9-16 18

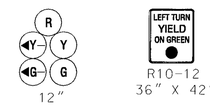



17

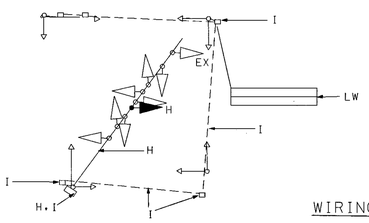
Chatsworth Ave

## PROPOSED SIGNALS & SIGNS

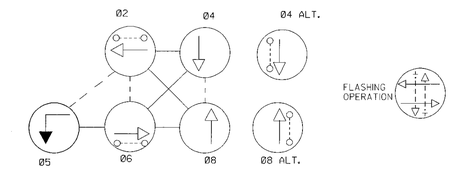
3 19




## WIRING DIAGRAM




## NEMA PHASING




## NEMA NOTES

PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY

PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY

## PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. RANDALL SCOTT
ASST. DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 321-2780

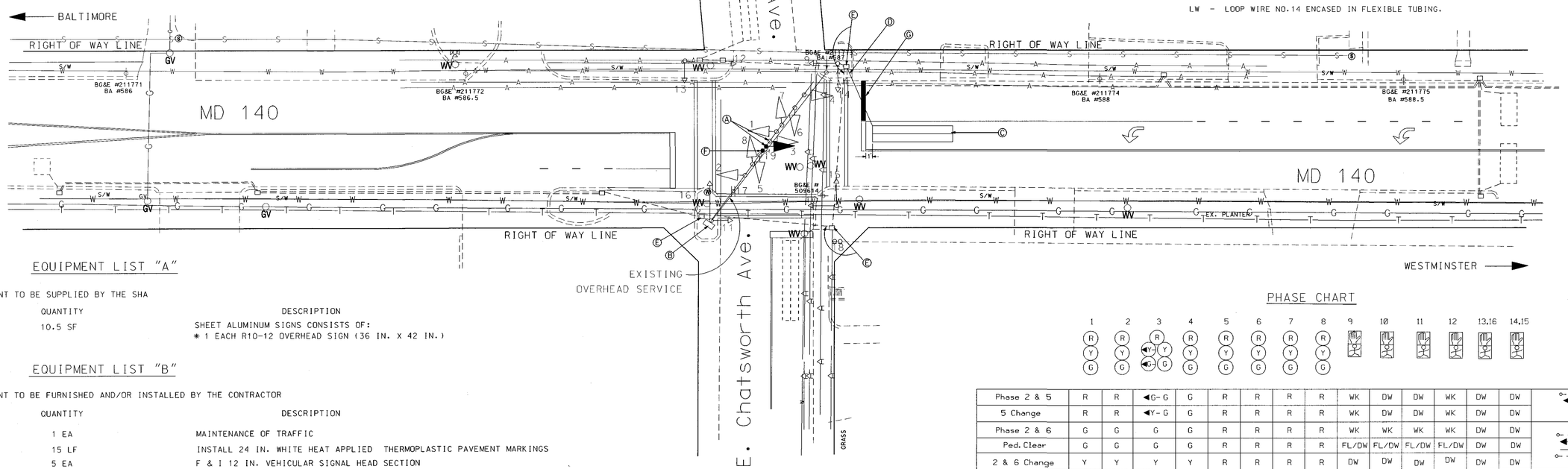
MR. DAVE RAMSEY
ASST. DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 321-2761

MR. JOE McMAHON
DISTRICT UTILITY ENGINEER
PHONE: (410) 321-2841

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

## WIRING KEY

EX - 5 CONDUCTOR ELECTRICAL CABLE NO. 14 AWG
H - 7 CONDUCTOR ELECTRICAL CABLE NO. 14 AWG
I - 2 CONDUCTOR ALUMINUM SHIELDED CABLE NO. 14 AWG.
LW - LOOP WIRE NO.14 ENCASED IN FLEXIBLE TUBING.




## EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

| ITEM NO. | QUANTITY | DESCRIPTION |
|---|---|---|
| 9504 | 10.5 SF | SHEET ALUMINUM SIGNS CONSISTS OF:<br>* 1 EACH R10-12 OVERHEAD SIGN (36 IN. X 42 IN.) |

## EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

| ITEM NO. | QUANTITY | DESCRIPTION |
|---|---|---|
| 1001 | 1 EA | MAINTENANCE OF TRAFFIC |
| 8005 | 15 LF | INSTALL 24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKINGS |
| 8011 | 5 EA | F & I 12 IN. VEHICULAR SIGNAL HEAD SECTION |
| 8048 | 1 EA | REMOVE & DISPOSE MATERIAL & EQUIPMENT PER ASSIGNMENT |
| 8068 | 5 LF | FURNISH AND INSTALL 1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE |
| 8075 | 10.5 SF | INSTALL OVERHEAD SIGN (R10-12) |
| 8085 | 85 LF | FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG) |
| 8087 | 475 LF | FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG) |
| 8088 | 175 LF | FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR) |

## EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

| ITEM NO. | QUANTITY | DESCRIPTION |
|---|---|---|

ALL REMOVED SIGNAL MATERIALS WILL BECOME PROPERTY OF THE CONTRACTOR.

## PHASE CHART

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13,16 | 14,15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phase 2 & 5 | R | R | ◀G-G | G | R | R | R | R | WK | DW | DW | WK | DW | DW |
| 5 Change | R | R | ◀Y-G | G | R | R | R | R | WK | DW | DW | WK | DW | DW |
| Phase 2 & 6 | G | G | G | G | R | R | R | R | WK | WK | WK | WK | DW | DW |
| Ped. Clear | G | G | G | G | R | R | R | R | FL/DW | FL/DW | FL/DW | FL/DW | DW | DW |
| 2 & 6 Change | Y | Y | Y | Y | R | R | R | R | DW | DW | DW | DW | DW | DW |
| Phase 4 & 8 | R | R | R | R | G | G | G | G | DW | DW | DW | DW | DW | DW |
| 4 & 8 Change | R | R | R | R | Y | Y | Y | Y | DW | DW | DW | DW | DW | DW |
| 4 & 8 Alt. | R | R | R | R | G | G | G | G | DW | DW | DW | DW | WK | WK |
| Ped. Clear | R | R | R | R | G | G | G | G | DW | DW | DW | DW | FL/DW | FL/DW |
| 4 & 8 Alt. Change | R | R | R | R | Y | Y | Y | Y | DW | DW | DW | DW | DW | DW |
| Flashing Operation | FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/R | FL/R | FL/R | DARK | DARK | DARK | DARK | DARK | DARK |

## UTILITY LEGEND

| | |
|---|---|
| G — G | GAS MAIN |
| W — W | WATER MAIN |
| S — S | SEWER MAIN |
| E — E | ELECTRIC CABLES |
| A — A | AERIAL CABLES |
| T — T | TELEPHONE CABLES |

## CONSTRUCTION DETAIL

A. REMOVE EXISTING 3 SECTION SIGNAL HEAD AND INSTALL NEW 5 SECTION SIGNAL HEAD.
B. USE EXISTING POLE MOUNTED CABINET AND CONTROLLER.
C. INSTALL NEW 6' X 30' QUADRUPOLE LOOP DETECTOR (3-6-3 TURNS).
D. INSTALL 1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT - DETECTOR SLEEVE.
E. USE EXISTING CONDUIT AND HANDHOLE.
F. INSTALL R10-12 SIGN AS SHOWN.
G. INSTALL 24 IN. WHITE THERMOPLASTIC MARKINGS (STOP LINE).

| REVISIONS | APPROVALS |
|---|---|
| (B) MAY 14, 2002<br>INSTALL E/P LT FROM SB MD 140 TO CHATSWORTH AVE.<br>S.H.A. NO.: XX1065385<br>GCP | TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION<br>ASST. CHIEF TRAFFIC ENGINEERING DESIGN DIVISION<br>CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION |
| (A) NOVEMBER 15, 1994<br>REBUILD AND INSTALL INTERCONNECT.<br>S.H.A. NO.: B-156-501-485<br>JJD | DIRECTOR, TRAFFIC & SAFETY |

ORIGINAL ON FILE

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
*Office of Traffic & Safety*
TRAFFIC ENGINEERING DESIGN DIVISION

MD 140 AT CHATSWORTH AVENUE

| | | | | | |
|---|---|---|---|---|---|
| DRAWN BY: W. R. | F.A.P. NO. N/A | | TS NO. 822 (B) | SHEET NO. |
| CHECKED BY: M. R. | S.H.A. NO. BALT. 159 | | | |
| SCALE: 1' = 20' | COUNTY: BALTIMORE | | T.I.M.S. NO. F-043 | 1 OF 1 |
| DATE: 9-20-1973 | LOG MILE: 03014009.73 | | | |