

## PROJECT DESCRIPTION

## GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE TEMPORARY TRAFFIC SIGNAL AT THE INTERSECTION OF MD 24 AND MD 924 IN HARFORD COUNTY.

## INTERSECTION OPERATION

THE EXISTING BASE MOUNTED CABINET SHALL BE USED AT THIS LOCATION. THE INTERSECTION SHALL OPERATE IN A FULLY ACTUATED MODE USING 4 NEMA PHASES. PRIOR TO COMPLETION OF THIS PROJECT THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT 410-787-7631 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND TELEPHONE NUMBERS.

## SPECIAL NOTES

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

## PROJECT CONTACTS:

MR. RANDALL SCOTT, ASSISTANT DISTRICT ENGINEER-TRAFFIC  
PHONE: (410) 321-2781  
MR. STEVE MARCISZEWSKI, ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (410) 321-2761  
MR. MICHAEL PASQUARIELLO, UTILITY ENGINEER  
PHONE: (410) 321-2841  
MR. RICHARD L. DAFF, SR., CHIEF TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630  
MR. EDWARD RODENHIZER, SIGNAL OPERATIONS CHIEF  
PHONE: (410) 787-7650  
MR. EUGENE BAILEY, SIGN OPERATIONS MANAGER  
PHONE: (410) 787-7676

MS. ROXANE MUKAI, TRAFFIC MANAGER  
MARYLAND TRANSPORTATION AUTHORITY  
PHONE: (410) 537-7848

## EQUIPMENT LIST

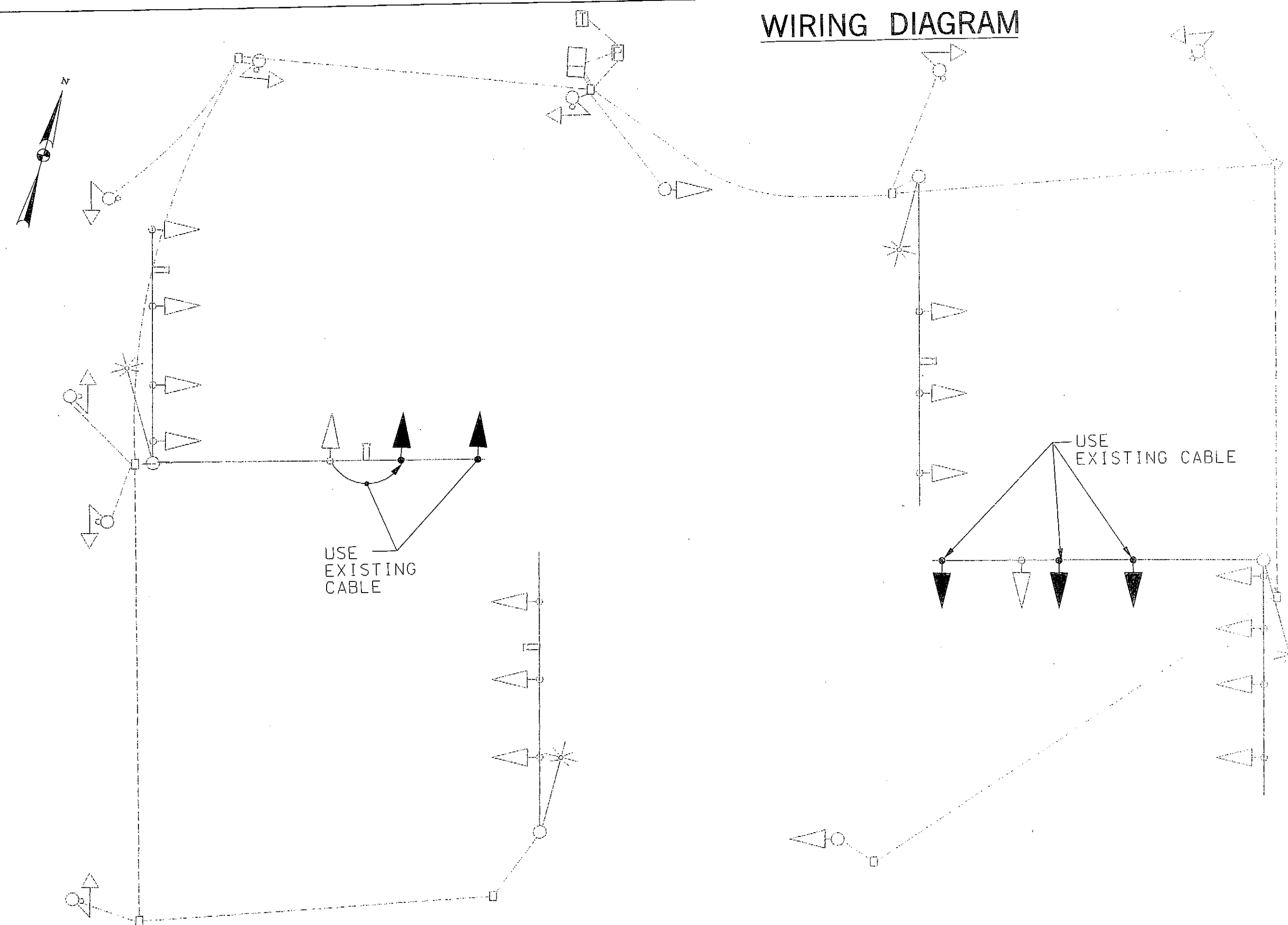
A. EQUIPMENT TO BE SUPPLIED BY THE MARYLAND STATE HIGHWAY ADMINISTRATION.

| CATEGORY<br>CODE NO. | DESCRIPTION                                                                                                                                     | UNITS          | QUANTITY    |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|
| 973023               | SHEET ALUMINUM SIGNS CONSISTING OF:<br>R3-6(1) (30"x54") MAST ARM MOUNT<br>R3-5(2) (30"x54") MAST ARM MOUNT<br>R3-6(L) (30"x36") MAST ARM MOUNT | EA<br>EA<br>EA | 1<br>1<br>2 |

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

| CATEGORY<br>CODE NO. | DESCRIPTION                                              | UNITS | QUANTITY |
|----------------------|----------------------------------------------------------|-------|----------|
| 585620               | 12 IN HEAT APPL WHITE PERM PREF THERMO PAVEMENT MARKINGS | LF    | 380      |
| 585624               | 24 IN HEAT APPL WHITE PERM PREF THERMO PAVEMENT MARKINGS | LF    | 320      |
| 813015               | INSTALL OVERHEAD SIGN                                    | SF    | 38       |
| 860265               | RELOCATE EXISTING SIGNAL HEAD                            | EA    | 1        |
| 860284               | 12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION        | EA    | 14       |

## WIRING DIAGRAM



## PHASE CHART

| PHASE CHART        |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |
|--------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
|                    | 1                                               | 2                                               | 3                                               | 4                                               | 5                                               | 6                                               | 7                                               | 8                                               | 9                                               | 10                                              | 11                                              | 12                                              | 13                                              | 14                                              | 15                                              | 16                                              | 17                                              | 18                                              | 19                                              | 20                                              | 21                                              | 22                                              | 23                                              | 24                                              | 25                                              | 26                                              | 27                                              | 28                                              | 29                                              | 30                                              |                                                 |
|                    | <div><div>R</div><div>Y</div><div>G</div></div> | <div><div>R</div><div>Y</div><div>G</div></div> | <div><div>R</div><div>Y</div><div>G</div></div> | <div><div>R</div><div>Y</div><div>G</div></div> | <div><div>⌚</div><div>⌚</div><div>⌚</div></div> | <div><div>⌚</div><div>⌚</div><div>⌚</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>⌚</div><div>⌚</div><div>⌚</div></div> | <div><div>⌚</div><div>⌚</div><div>⌚</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>Y</div><div>Y</div><div>G</div></div> | <div><div>⌚</div><div>⌚</div><div>⌚</div></div> | <div><div>⌚</div><div>⌚</div><div>⌚</div></div> | <div><div>⌚</div><div>⌚</div><div>⌚</div></div> | <div><div>⌚</div><div>⌚</div><div>⌚</div></div> | <div><div>⌚</div><div>⌚</div><div>⌚</div></div> | <div><div>⌚</div><div>⌚</div><div>⌚</div></div> | <div><div>⌚</div><div>⌚</div><div>⌚</div></div> | <div><div>⌚</div><div>⌚</div><div>⌚</div></div> |
| PHASE A            | G                                               | G                                               | G                                               | G                                               | <G-                                             | <G-                                             | G                                               | G                                               | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | R                                               | <div><div>R</div><div>G</div></div>             | <div><div>R</div><div>G</div></div>             | R                                               | R                                               | R                                               | R                                               | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              |                                                 |
| CHANGE A           | Y                                               | Y                                               | Y                                               | G                                               | <G-                                             | <G-                                             | G                                               | G                                               | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | R                                               | <div><div>R</div><div>G</div></div>             | <div><div>R</div><div>G</div></div>             | R                                               | R                                               | R                                               | R                                               | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              |                                                 |
| PHASE A ALT        | G                                               | G                                               | G                                               | G                                               | <G-                                             | <G-                                             | G                                               | G                                               | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | R                                               | R                                               | R                                               | R                                               | R                                               | R                                               | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | WK                                              | WK                                              | DW                                              |                                                 |
| PED CLEARANCE      | G                                               | G                                               | G                                               | G                                               | <G-                                             | <G-                                             | G                                               | G                                               | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | R                                               | R                                               | R                                               | R                                               | R                                               | R                                               | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | FLDW                                            | FLDW                                            | DW                                              |                                                 |
| CHANGE A ALT       | Y                                               | Y                                               | Y                                               | G                                               | <G-                                             | <G-                                             | G                                               | G                                               | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | R                                               | R                                               | R                                               | R                                               | R                                               | R                                               | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              |                                                 |
| PHASE B            | R                                               | R                                               | R                                               | G                                               | <G-                                             | <G-                                             | G                                               | G                                               | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | <div><div>G</div><div>G</div></div>             | <div><div>G</div><div>G</div></div>             | R                                               | R                                               | R                                               | R                                               | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              |                                                 |
| CHANGE B           | R                                               | R                                               | R                                               | Y                                               | <Y-                                             | <Y-                                             | Y                                               | Y                                               | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | Y                                               | <div><div>Y</div><div>Y</div></div>             | R                                               | R                                               | R                                               | R                                               | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              |                                                 |
| PHASE B ALT        | R                                               | R                                               | R                                               | G                                               | <G-                                             | <G-                                             | G                                               | G                                               | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | <div><div>G</div><div>G</div></div>             | <div><div>G</div><div>G</div></div>             | R                                               | R                                               | R                                               | R                                               | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | WK                                              | DW                                              | DW                                              | WK                                              |
| PED CLEARANCE      | R                                               | R                                               | R                                               | G                                               | <G-                                             | <G-                                             | G                                               | G                                               | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | <div><div>G</div><div>G</div></div>             | <div><div>G</div><div>G</div></div>             | R                                               | R                                               | R                                               | R                                               | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | FLDW                                            | DW                                              | DW                                              | FLDW                                            |
| CHANGE B ALT       | R                                               | R                                               | R                                               | Y                                               | <Y-                                             | <Y-                                             | Y                                               | Y                                               | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | Y                                               | <div><div>Y</div><div>Y</div></div>             | R                                               | R                                               | R                                               | R                                               | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              |                                                 |
| PHASE C            | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | G                                               | G                                               | G                                               | G                                               | <G-                                             | <G-                                             | G                                               | G                                               | R                                               | R                                               | R                                               | R                                               | R                                               | R                                               | WK                                              | FLDW                                            | FLDW                                            | WK                                              | DW                                              | DW                                              | DW                                              | DW                                              |                                                 |
| PED CLEARANCE      | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | G                                               | G                                               | G                                               | G                                               | <G-                                             | <G-                                             | G                                               | G                                               | R                                               | R                                               | R                                               | R                                               | R                                               | R                                               | WK                                              | DW                                              | DW                                              | WK                                              | DW                                              | DW                                              | DW                                              | DW                                              |                                                 |
| CHANGE C           | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | R                                               | R                                               | Y                                               | G                                               | <G-                                             | <G-                                             | G                                               | G                                               | R                                               | R                                               | <div><div>G</div><div>G</div></div>             | G                                               | G                                               | G                                               | WK                                              | DW                                              | DW                                              | WK                                              | DW                                              | DW                                              | DW                                              | DW                                              |                                                 |
| PHASE D            | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | R                                               | R                                               | R                                               | G                                               | <G-                                             | <G-                                             | G                                               | G                                               | R                                               | R                                               | <div><div>G</div><div>G</div></div>             | G                                               | G                                               | G                                               | FLDW                                            | DW                                              | DW                                              | FLDW                                            | DW                                              | DW                                              | DW                                              | DW                                              |                                                 |
| PED CLEARANCE      | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | R                                               | R                                               | R                                               | G                                               | <G-                                             | <G-                                             | G                                               | G                                               | R                                               | R                                               | <div><div>G</div><div>G</div></div>             | G                                               | G                                               | G                                               | FLDW                                            | DW                                              | DW                                              | FLDW                                            | DW                                              | DW                                              | DW                                              | DW                                              |                                                 |
| CHANGE D           | R                                               | R                                               | R                                               | R                                               | <R-                                             | <R-                                             | R                                               | R                                               | R                                               | R                                               | R                                               | Y                                               | <Y-                                             | <Y-                                             | Y                                               | Y                                               | R                                               | R                                               | Y                                               | Y                                               | Y                                               | Y                                               | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              | DW                                              |                                                 |
| FLASHING OPERATION | FLY                                             | FLY                                             | FLY                                             | FLY                                             | <FLR-                                           | <FLR-                                           | FLY                                             | FLY                                             | FLY                                             | FLY                                             | FLY                                             | FLY                                             | <FLR-                                           | <FLR-                                           | FLY                                             | FLY                                             | FLR                                             | FLR                                             | FLR                                             | FLR                                             | FLR                                             | FLR                                             | DARK                                            | DARK                                            | DARK                                            | DARK                                            | DARK                                            | DARK                                            | DARK                                            | DARK                                            |                                                 |

PHASE A CAN CHANGE TO PHASE B OR PHASE B ALT.  
PHASE A ALT SHALL CHANGE TO PHASE B ALT.

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLY DRIVE, HANOVER, MARYLAND 21076. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CATEGORY DESCRIPTION UNITS QUANTITY  
CODE NO. NONE

ULTIMATE



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

MD 24 AT MD 924 (EMMORTON ROAD)  
IMPROVEMENTS TO I-95 AND MD 24 INTERCHANGE  
ABINGDON, MARYLAND

## GENERAL INFORMATION SHEET

SCALE N.T.S. DATE MARCH 2007 CONTRACT NO. KH-271-000-002(R2)

DESIGNED BY A.M./S.D./A.G. COUNTY HARFORD  
DRAWN BY M. RAFFLE LOGMILE  
CHECKED BY K. RINKER TMS NO. H. 810  
FAP NO. NONE TOD NO.

TS NO. 1948 G DRAWING PSG OF N015 SHEET NO. 472 OF 597

SABRA, WANG & ASSOCIATES, INC.  
1504 JOH. AVENUE  
SUITE 150  
BALTIMORE, MD 21227  
(410) 737-6564  
WWW.SABRA-WANG.COM

PLOTTED: Tuesday, October 02, 2007 AT 10:45 AM  
FILE: R:\2008\31 M24 2008-01 pml\_eng KCR\Task 01 M24\_1-95\Drawings\Signal\PSG-N015\_M24.dgn