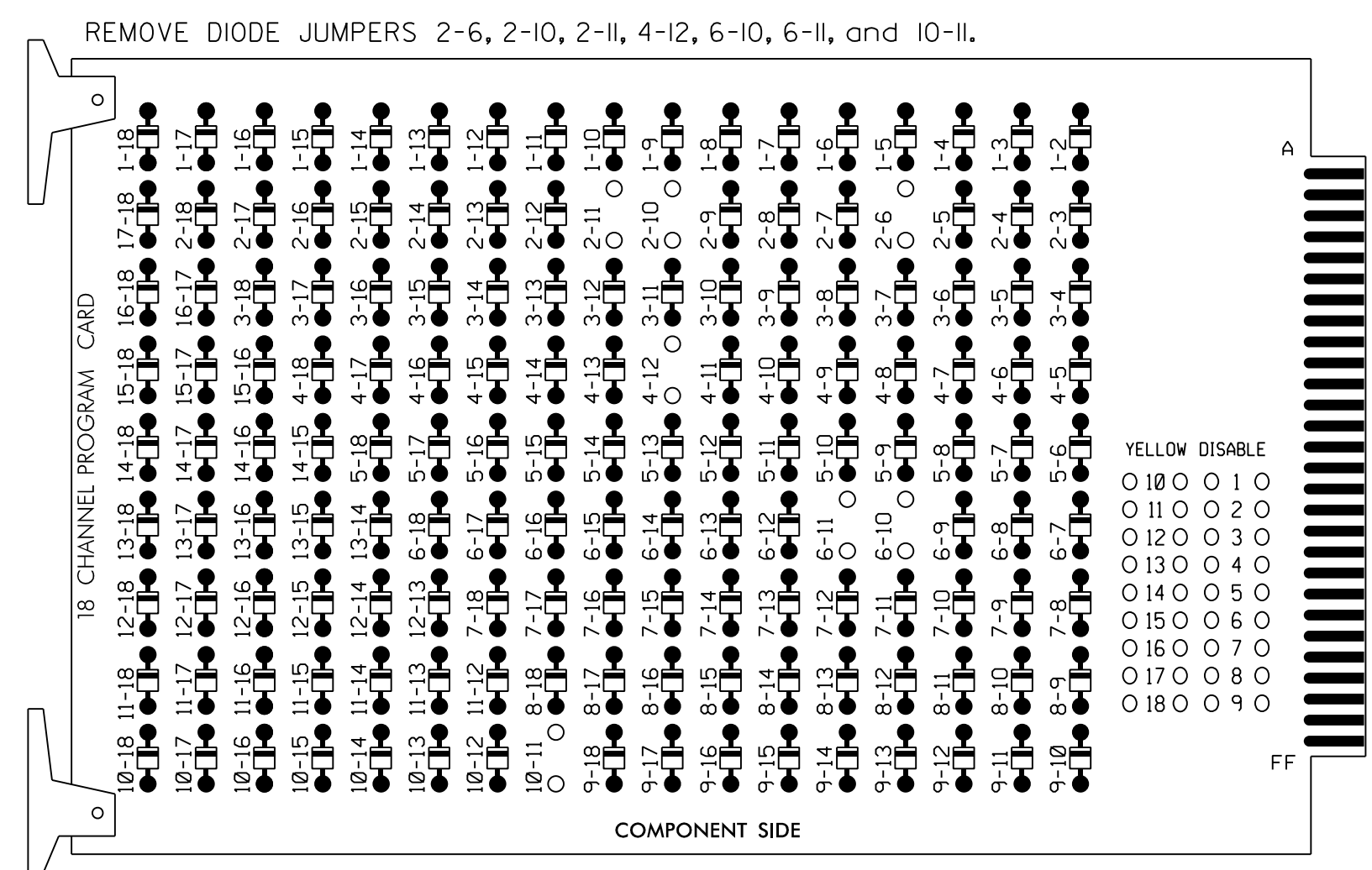


### 18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



**NOTES:**

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that Red Enable is active at all times during normal operation.
- Integrate monitor with Ethernet network in cabinet.

### NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
- Initialize database in Naztec 2070 local software (Apogee) as FULL-CALTRANS. This initialization should be done prior to programming controller.
- Initialize I/O "C1-C11-ABC IO Mode" to USER (MM 1-8-6). Then set "Init 2A" to MODE 5 (MM 1-8-9-3).
- Program phases 2 and 6 for Start Up In Green.
- Program "Start Up Flash" for 0 sec. The conflict monitor will govern start-up flash time.
- Ensure "Local Flash Start" feature is set to "RSt".
- Ensure "InhFYARedSt" feature is set to "ON".
- Ensure "Flash Mode" is set to "CHANNEL" (MM 1-4-1).
- Program all channels in use to flash red (MM 1-8-1).
- Program Start Red Time for 6.0 Seconds.
- Program controller to provide a 1 second delay on the Flash Sense/Local Flash input. Use the following logic statement to provide this functionality:

```
FROM MAIN MENU->1->8->7 (I/O LOGIC)
Result Src.Fcn TimeOp Time
1208 = 01208 DLY 1
```

- Program phases 4 and 8 for Dual Entry.
- The cabinet and controller are part of the Greensboro Signal System.

### SIGNAL HEAD HOOK-UP CHART

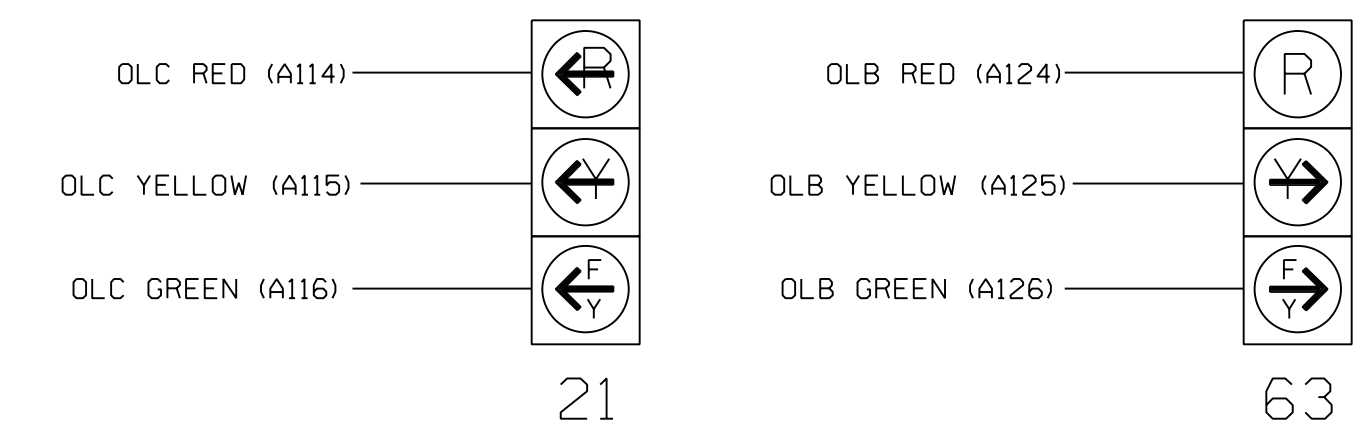
| LOAD SWITCH NO.       | S1 | S2    | S3    | S4 | S5    | S6    | S7 | S8    | S9    | S10 | S11 | S12   | AUX S1 | AUX S2 | AUX S3 | AUX S4 | AUX S5 | AUX S6 |
|-----------------------|----|-------|-------|----|-------|-------|----|-------|-------|-----|-----|-------|--------|--------|--------|--------|--------|--------|
| CMU CHANNEL NO.       | 1  | 2     | 13    | 3  | 4     | 14    | 5  | 6     | 15    | 7   | 8   | 16    | 9      | 10     | 17     | 11     | 12     | 18     |
| PHASE                 | 1  | 2     | 2 PED | 3  | 4     | 4 PED | 5  | 6     | 6 PED | 7   | 8   | 8 PED | OLA    | OLB    | SPARE  | OLC    | OLD    | SPARE  |
| SIGNAL HEAD NO.       | NU | 22,23 | NU    | NU | 42,43 | NU    | NU | 61,62 | NU    | NU  | NU  | NU    | NU     | 63*    | NU     | 21*    | 41     | NU     |
| RED                   |    | 128   |       |    | 101   |       |    | 134   |       |     |     |       |        | A124   |        |        |        |        |
| YELLOW                |    | 129   |       |    |       |       |    | 135   |       |     |     |       |        |        |        |        |        |        |
| GREEN                 |    | 130   |       |    |       |       |    | 136   |       |     |     |       |        |        |        |        |        |        |
| RED ARROW             |    |       |       |    |       |       |    |       |       |     |     |       |        |        |        | A114   | A101   |        |
| YELLOW ARROW          |    |       |       |    | 102   |       |    |       |       |     |     |       | A125   |        |        | A115   | A102   |        |
| FLASHING YELLOW ARROW |    |       |       |    |       |       |    |       |       |     |     |       | A126   |        |        | A116   |        |        |
| GREEN ARROW           |    |       |       |    |       | 103   |    |       |       |     |     |       |        |        |        |        |        | A103   |

NU = Not Used

\* See pictorial of head wiring in detail below.

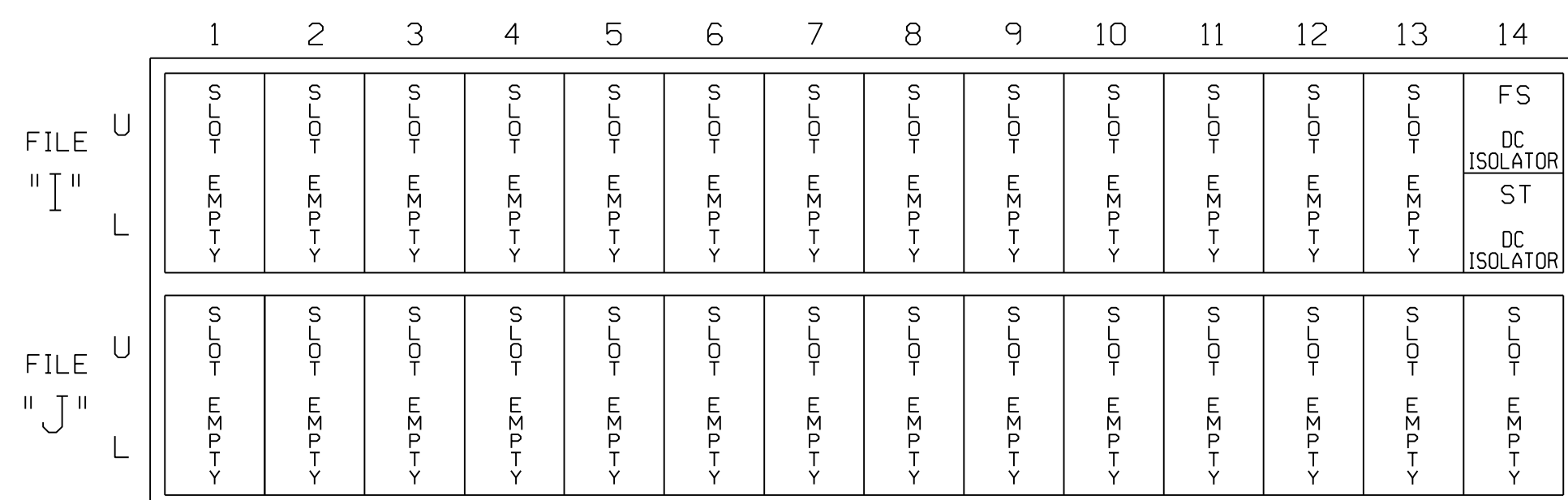
### FYA SIGNAL WIRING DETAIL

(wire signal head as shown)



### INPUT FILE POSITION LAYOUT

(front view)



EX.: 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE  
ST = STOP TIME

### EQUIPMENT INFORMATION

CONTROLLER.....2070  
 CABINET.....332 W/ AUX  
 SOFTWARE.....TRAFFICWARE APOGEE  
 CABINET MOUNT.....BASE  
 OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE  
 LOAD SWITCHES USED.....S2,S5,S8,AUX S2,AUX S4,AUX S5  
 PHASES USED.....2,4,6  
 OVERLAP "A".....NOT USED  
 OVERLAP "B".....\*  
 OVERLAP "C".....\*  
 OVERLAP "D".....\*  
 \* See overlap programming detail on sheet 2.

### FLASHER CIRCUIT MODIFICATION DETAIL

IN ORDER TO ENSURE THAT SIGNALS FLASH CONCURRENTLY ON THE SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

- ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
- ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
- REMOVE FLASHER UNIT 2.

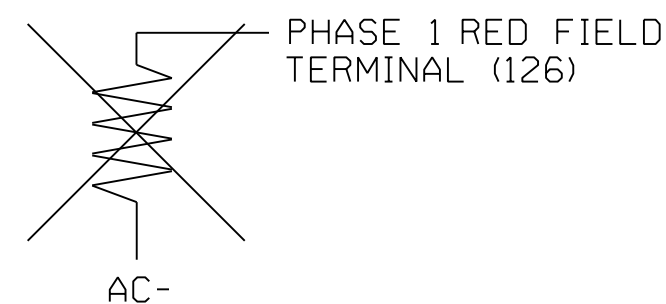
THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

### SPECIAL DETECTOR NOTE

Install a video detection system for vehicle detection for zones 2A, 2B, 2C, 4A, 4B, 6A, and 6B. Perform installation according to manufacturer's directions and NCDOT engineer-approved mounting locations to accomplish the detection schemes shown on the Signal Design Plans.

### LOAD RESISTOR INSTALLATION DETAIL

| ACCEPTABLE VALUES |           |
|-------------------|-----------|
| VALUE (ohms)      | WATTAGE   |
| 1.5K - 1.9K       | 25W (min) |
| 2.0K - 3.0K       | 10W (min) |



NOTE: IF PRESENT, REMOVE THE LOAD RESISTOR FROM PHASE 1 RED FIELD TERMINAL 125.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 07-1689T2  
 DESIGNED: August 2024  
 SEALED: August 22, 2024  
 REVISED:

Signal Upgrade - Temporary Design 2 (TMP Phase I Step 3) - Electrical Detail - Sheet 1 of 2

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

ELECTRICAL AND PROGRAMMING DETAILS FOR: SR 1556 (Gallimore Dairy Rd.) at SR 1554 (Chimney Rock Rd.)/ Simply Southern

Division 7 Guilford County Greensboro

PLAN DATE: August 2024 REVIEWED BY: DT Sears

PREPARED BY: WP Erickson-Jones REVIEWED BY:

REVISIONS: \_\_\_\_\_ INIT. DATE

Seal: PORTER JONES ENGINEER SEAL 056142

DocuSigned by: Porter Jones 8/22/2024

750 N. Greenfield Pkwy, Garner, NC 27529

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