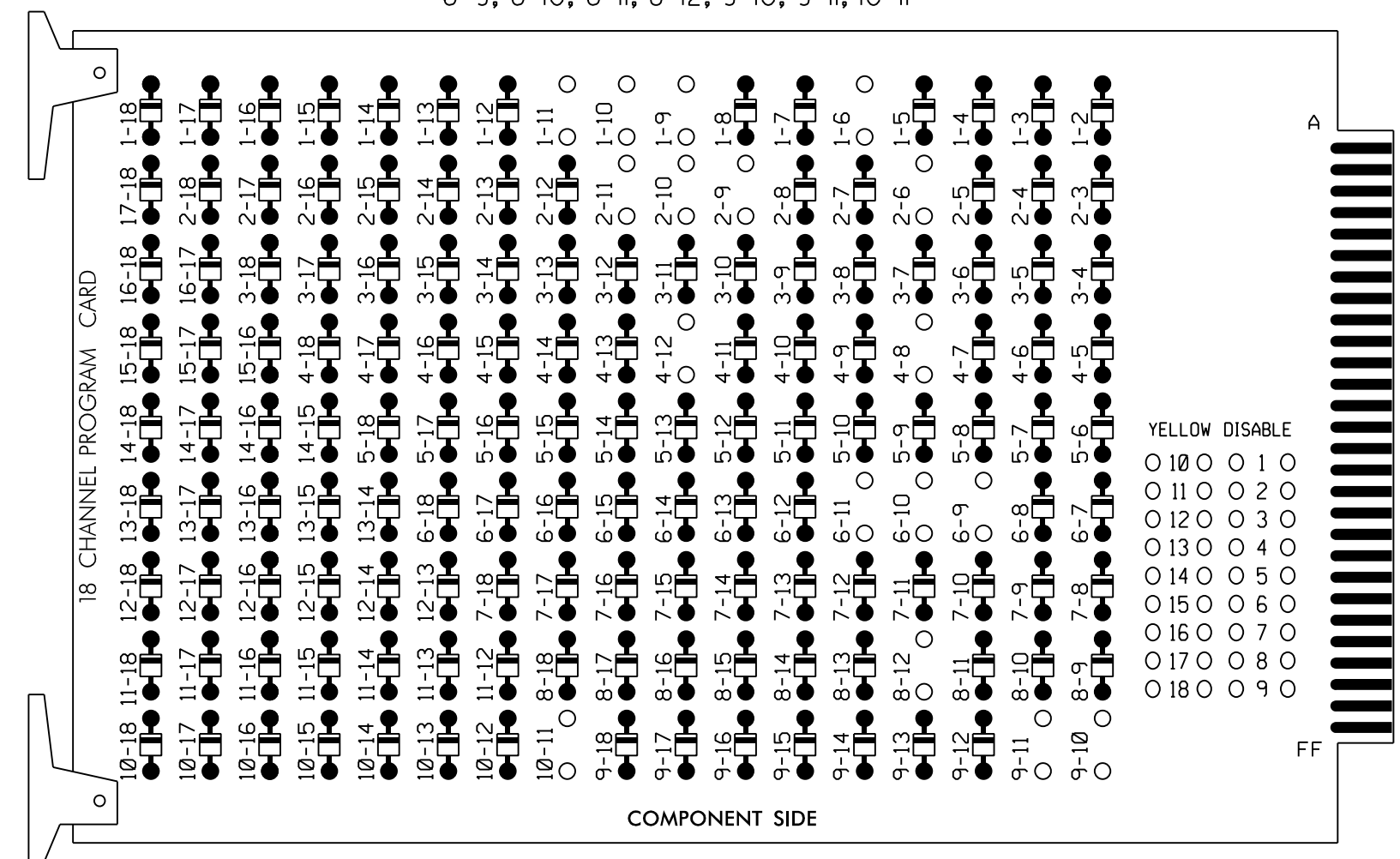


### 18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

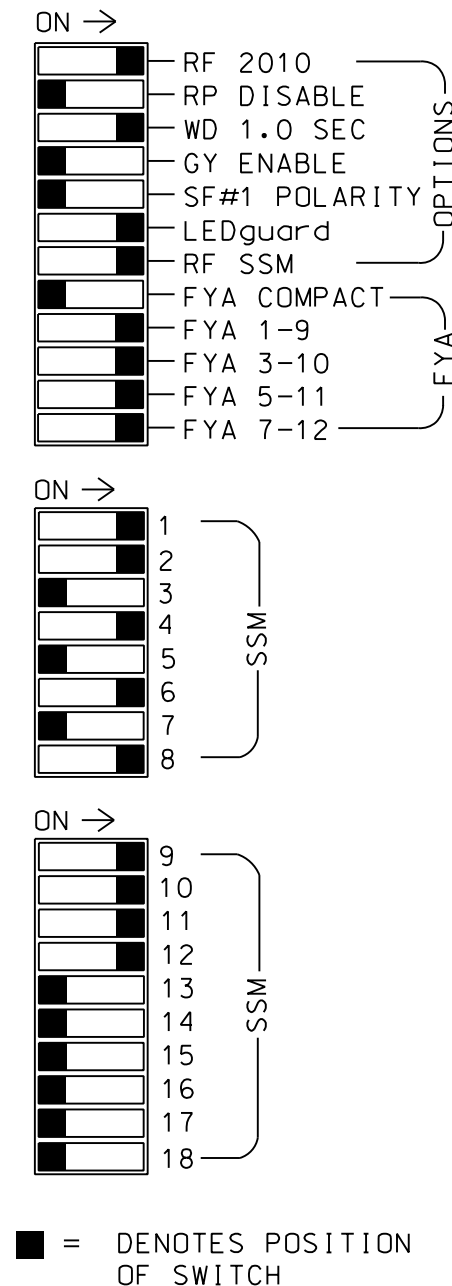
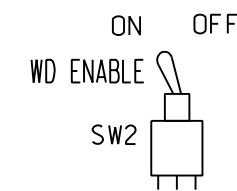
REMOVE DIODE JUMPERS 1-6, 1-9, 1-10, 1-11, 2-6, 2-9, 2-10, 2-11, 4-8, 4-12, 6-9, 6-10, 6-11, 8-12, 9-10, 9-11, 10-11



REMOVE JUMPERS 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.

11. 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.

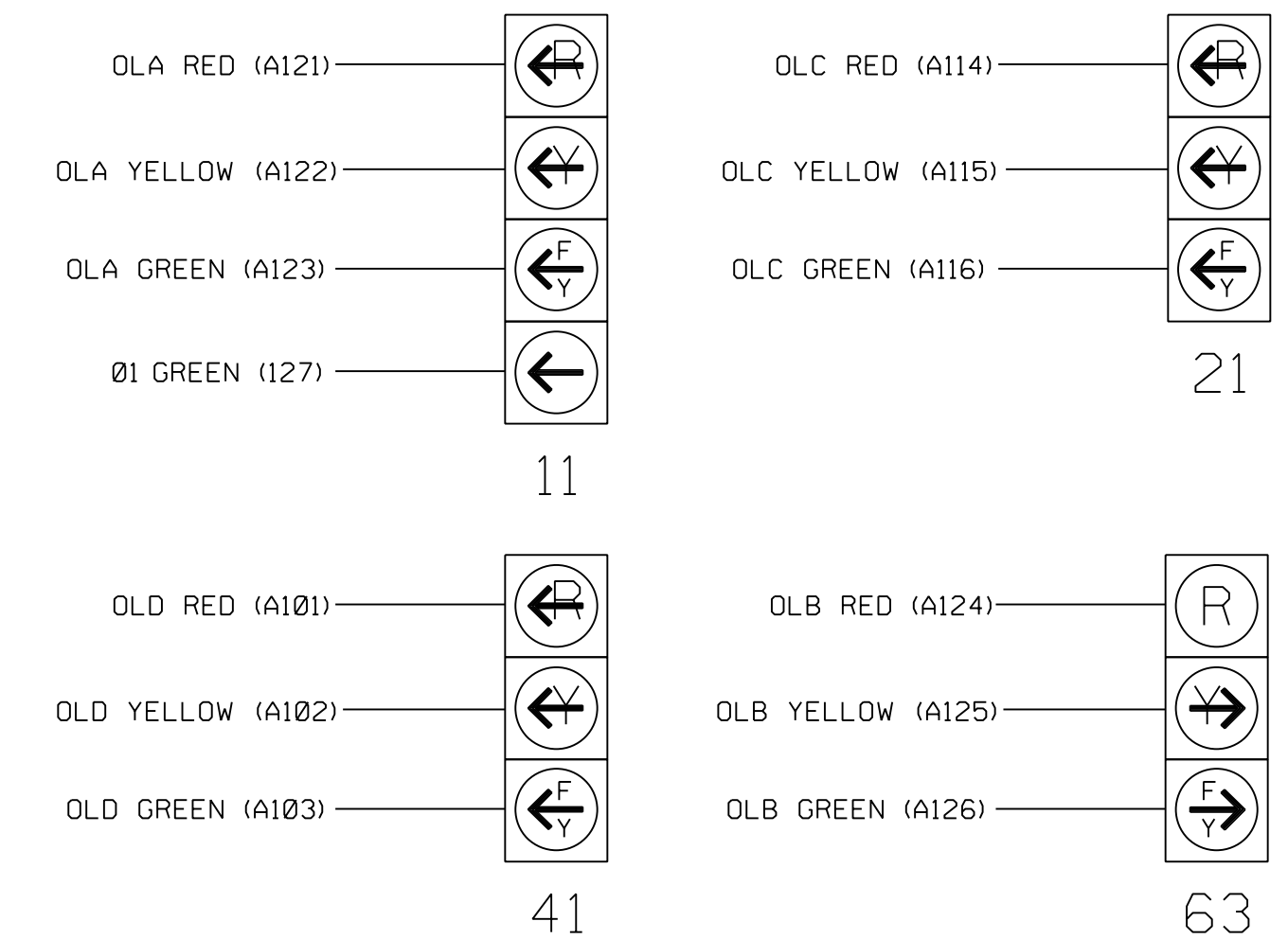
### SIGNAL HEAD HOOK-UP CHART

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.	11	82	22,23	NU	NU	42,43	NU	NU	61,62	NU	NU	81,82	NU	11	63	NU	21	41
RED	*	128				101			134			107			A124			
YELLOW		129				102			135			108						
GREEN		130				103			136			109						
RED ARROW															A121		A114	A101
YELLOW ARROW		126													A122	A125	A115	A102
FLASHING YELLOW ARROW															A123	A126	A116	A103
GREEN ARROW	127	127																

NU = Not Used  
 \* Denotes install load resistor. See load resistor installation detail this sheet.  
 ★ See pictorial of head wiring in detail below.

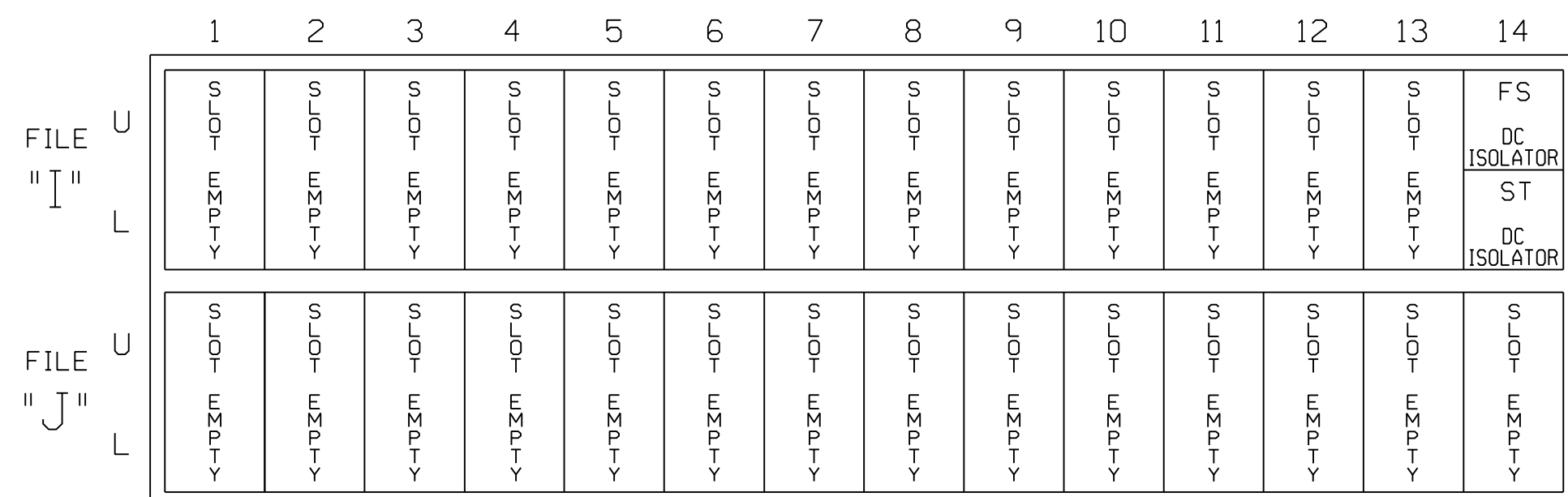
### FYA SIGNAL WIRING DETAIL

(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 (12-STD, 6-AUX)  
 LOAD SWITCHES USED.....S1,S2,S5,S8,S11,AUX S1,  
 AUX S2,AUX S4, AUX S5  
 PHASES USED.....1,2,4,6,8  
 OVERLAP "A".....\*  
 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:

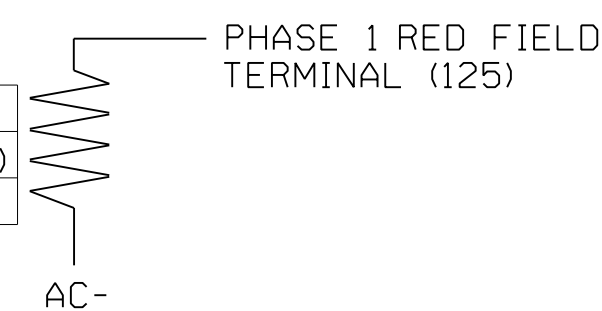
- ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
  - ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
  - REMOVE FLASHER UNIT 2.
- THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

### SPECIAL DETECTOR NOTE

Install a video detection system for vehicle detection for zones 1A, 1B, 2A, 2B, 2C, 4A, 4B, 6A, 6B, and 8A. 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)



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

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

750 N. Greenfield Pkwy, Garner, NC 27529  
 Prepared for the Offices of:  
 North Carolina Department of Transportation  
 Division of Signal Management

SEAL  
 NORTH CAROLINA PROFESSIONAL ENGINEER  
 SEAL 056142  
 PORTER JONES  
 8/22/2024  
 DATE

SIG. INVENTORY NO. 07-1689T1