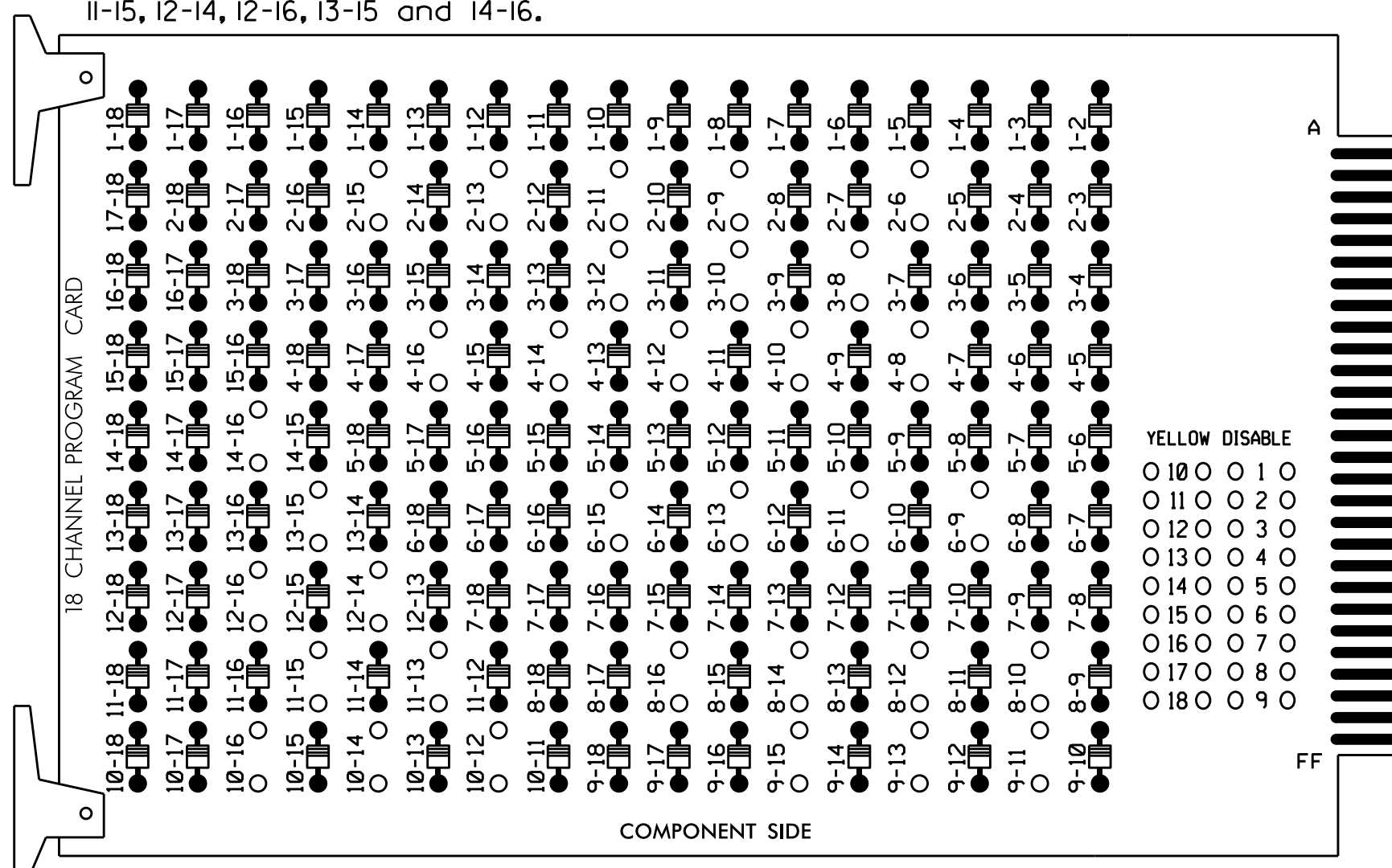


EDI MODEL 2018ECL-NC CONFLICT MONITOR

PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 2-6, 2-9, 2-11, 2-13, 2-15, 3-8, 3-10, 3-12, 4-8, 4-10, 4-12, 4-14, 4-16, 6-9, 6-11, 6-13, 6-15, 8-10, 8-12, 8-14, 8-16, 9-11, 9-13, 9-15, 10-12, 10-14, 10-16, 11-13, 11-15, 12-14, 12-16, 13-15 and 14-16.



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.
- Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.

■ = DENOTES POSITION OF SWITCH

NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. Verify that signal heads flash in accordance with the signal plans.
- Program controller to Start Up in phases 2 and 6 green.
- Set power-up flash time to 0 seconds within the controller programming. The conflict monitor will govern startup flash. Ensure STARTUP "RED START" is set to 0 seconds.
- Enable Simultaneous Gap-Out feature for all phases.
- Program all timing information into phase banks 1, 2, and 3 unless otherwise noted.
- Set phase bank 3 maximum limit to 250 seconds for phases used.
- Program phases 4 and 8 for Double Entry.
- Ensure start up flash phases are coordinated with flash program block assignments.
- Program Startup Ped Calls for phases 2, 4, 6, and 8.
- Set the Red Revert interval on the controller to 1 second.
- This cabinet and controller are part of the Durham Signal System.

EQUIPMENT INFORMATION

CONTROLLER.....2070E
 CABINET.....332 W/ AUX
 SOFTWARE.....McCain 2033
 CABINET MOUNT.....BASE
 OUTPUT FILE POSITIONS...18 WITH AUX FILE
 LOAD SWITCHES USED.....S2,S3,S4,S5,S6,S8,S9,S11,S12,
 AUX S1,AUX S2,AUX S4,AUX S5
 PHASES USED.....2,3,4,6,8,2 PED,4 PED,6 PED,8 PED
 OVERLAP 1.....2
 OVERLAP 2.....*
 OVERLAP 3.....6
 OVERLAP 4.....8

* See FYA PPLT Programming Detail on Sheet 2.

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	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	NU	22,23	P21, P22	31	42,43	P41, P42	NU	62,63	P61, P62	NU	81,82	P81, P82	61	31	NU	21	41	NU
RED		128			101			134			107							
YELLOW		129		*	102			135			108							
GREEN		130			103			136			109							
RED ARROW													A121	A124		A114	A101	
YELLOW ARROW													A122	A125		A115	A102	
FLASHING YELLOW ARROW													A123	A126		A116	A103	
GREEN ARROW																		
Hand				113		104			119			110						
Person				115		106			121			112						

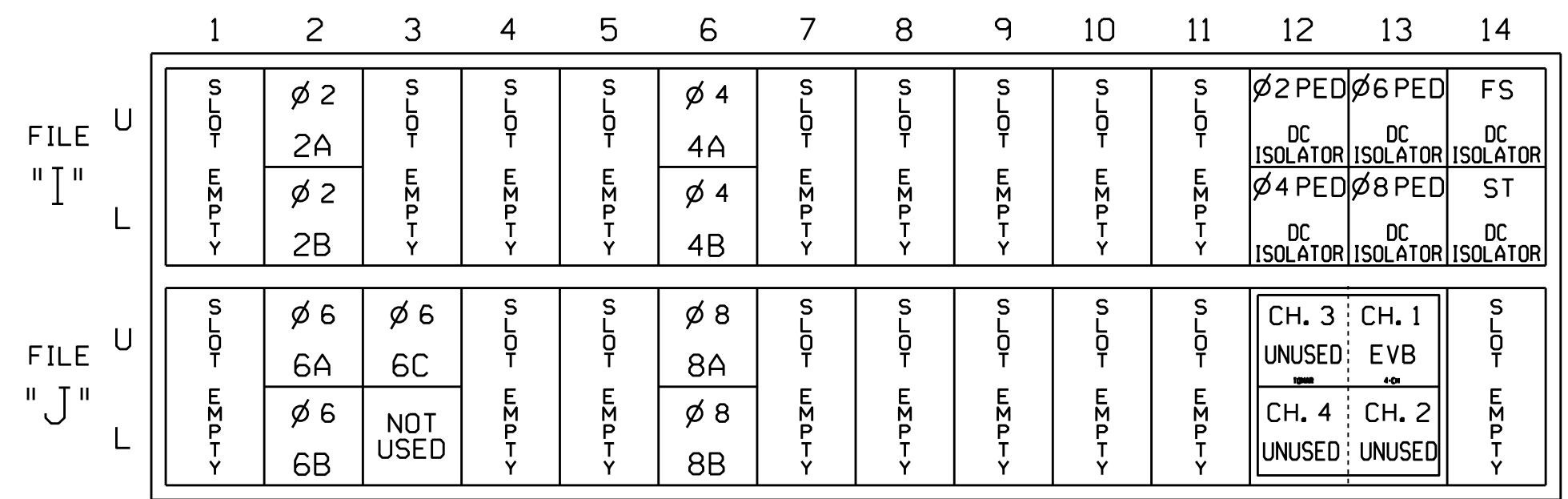
NU = Not Used

* Denotes install load resistor. See load resistor installation detail this sheet.

* See pictorial of head wiring in detail below.

INPUT FILE POSITION LAYOUT

(front view)



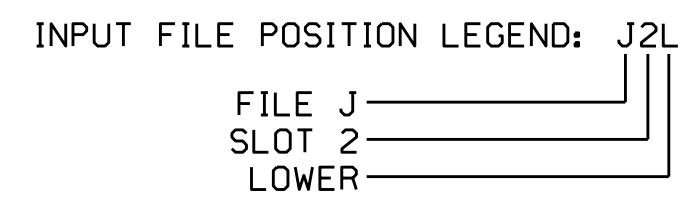
EX.: 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
 ST = STOP TIME
 EVx = EMERGENCY VEHICLE PREEMPT

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	DETECTOR NO.	PIN NO.	ATTRIBUTES	NEMA PHASE
2A	TB2-5,6	I2U	1	39	5 7	2
2B	TB2-7,8	I2L	5	43	5 7	2
4A	TB4-9,10	I6U	3	41	5 7	4
4B	TB4-11,12	I6L	7	45	5 7	4
6A	TB3-5,6	J2U	2	40	5 7	6
6B	TB3-7,8	J2L	6	44	5 7	6
6C	TB3-9,10	J3U	22	64	5 7	6
8A	TB5-9,10	J6U	4	42	5 7	8
8B	TB5-11,12	J6L	8	46	5 7	8
PED PUSH BUTTONS						
P21,P22	TB8-4,6	I12U	25	67	2	2 PED
P41,P42	TB8-5,6	I12L	27	69	2	4 PED
P61,P62	TB8-7,9	I13U	26	68	2	6 PED
P81,P82	TB8-8,9	I13L	28	70	2	8 PED

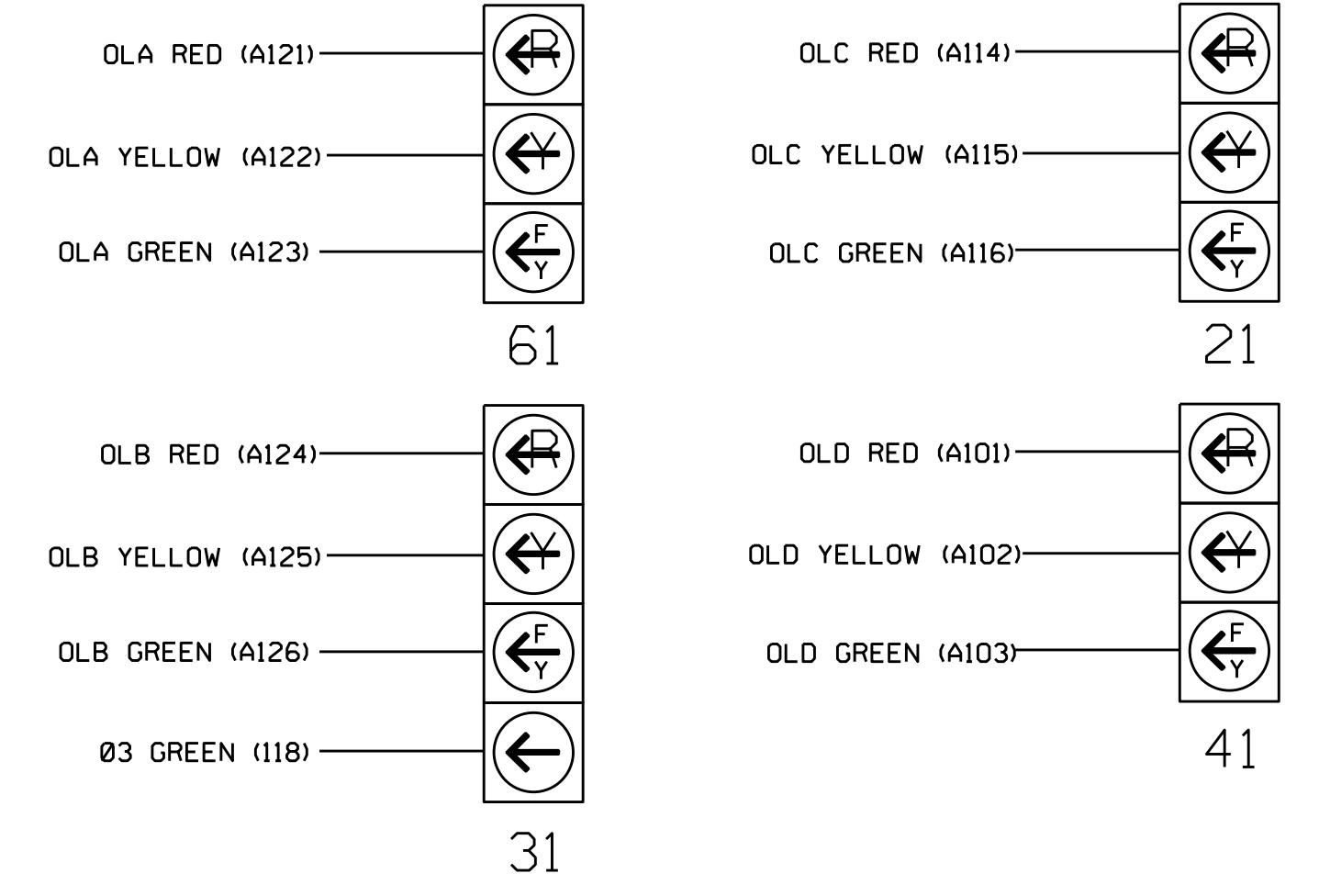
NOTE: PROGRAM DETECTOR DELAY AND CARRYOVER TIMES AS SPECIFIED ON SIGNAL DESIGN PLANS.



- DETECTOR ATTRIBUTES LEGEND:
- 1-FULL TIME DELAY
 - 2-PED CALL
 - 3-RESERVED
 - 4-COUNTING
 - 5-EXTENSION
 - 6-TYPE 3
 - 7-CALLING
 - 8-ALTERNATE

4 SECTION FYA PPLT SIGNAL WIRING DETAIL

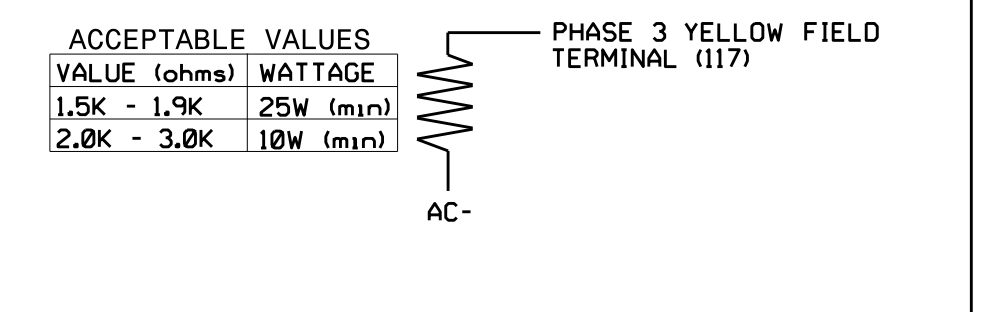
(wire signal heads as shown)



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 05-1030
 DESIGNED: September 2014
 SEALED: 4-02-15
 REVISED: N/A

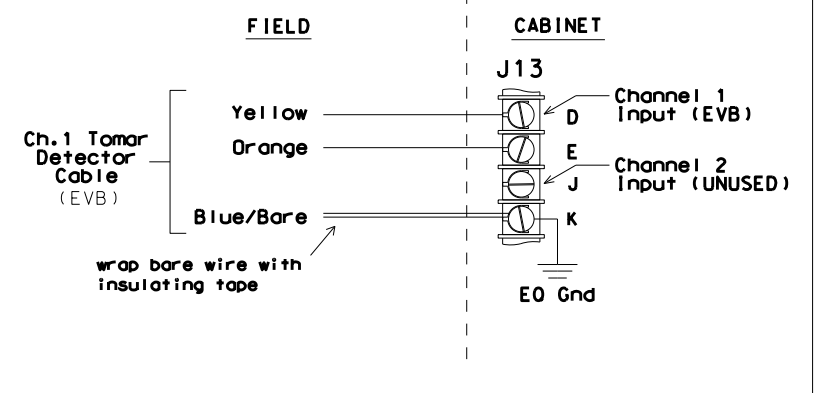
LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown below)



TYPICAL TOMAR FIELD WIRE DETAIL

(input file, rear view)



Electrical Detail - Sheet 1 of 2

Electrical and Programming Details For: **NC 55 (South/North Alston Avenue) at E. Main St.**

Prepared In the Offices of: **Transylvania Mobility and Safety Solutions**

Division 5 Durham County, Durham

PLAN DATE: November 2014 REVIEWED BY: **JTR**

PREPARED BY: James Peterson REVIEWED BY:

REVISIONS: INIT. DATE

DocuSigned by: **John T. Rowe, Jr.** 4/2/2015

SIG. INVENTORY NO. 05-1030

01-10-2015 11:15 AM
 S:\IT\SSM\15_Signal\work\ppl\051030_sml.ele_20141230.dgn
 J.peterson