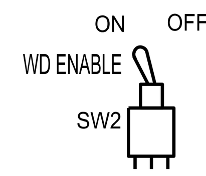
Docusign Envelope ID: 8962AF5D-E634-810F-83E5-D813A57E22C0

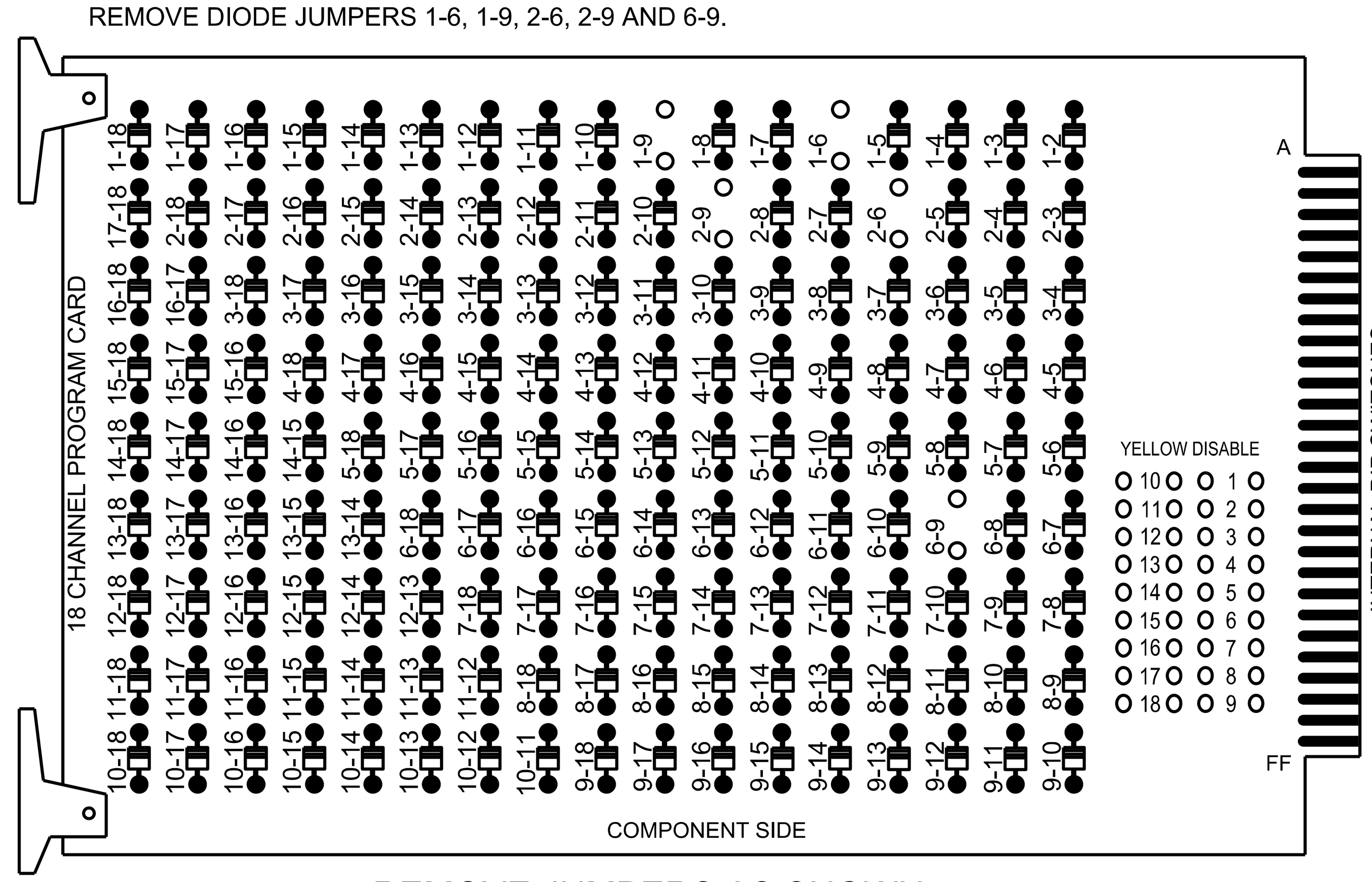
PROJECT REFERENCE NO.	SHEET NO.
I-2513AC	Sig. 5.1

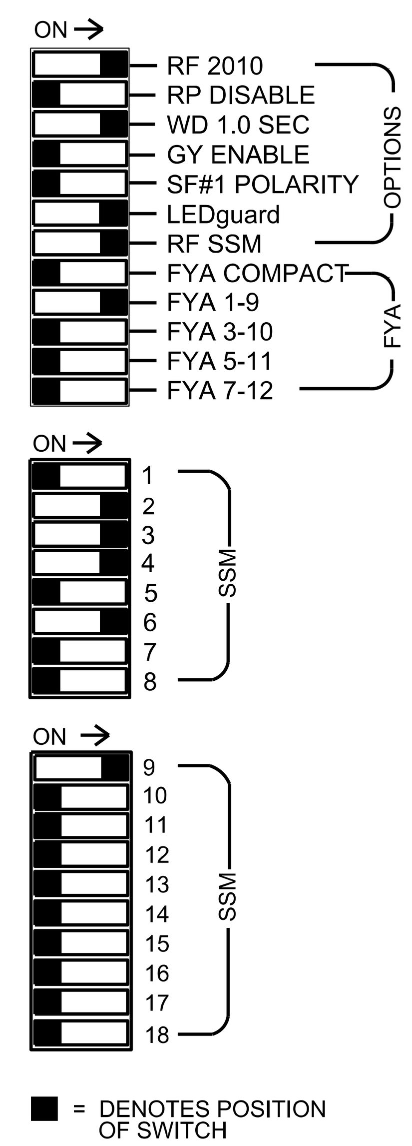
18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



REMOVE DIODE JUMPERS 1-6, 1-9, 2-6, 2-9 AND 6-9.





REMOVE JUMPERS AS SHOWN

NOTES:

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

NOTES

1. To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
2. Program controller to start up in phase 2 Green No Walk and phase 6 Green No Walk.
3. If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.
4. The cabinet and controller are part of the D13-02 Asheville System.

EQUIPMENT INFORMATION

Controller..2070LX
Cabinet...332 w/ Aux
Software...Q-Free MAXTIME
Cabinet Mount...................................Base
Output File Positions..........................18 With Aux. Output File
Load Switches Used...........................S1, S2, S4, S5, S8, AUX S1
Phases Used......................................1, 2, 3, 4, 6
Overlap "1"..*
Overlap "2"..Not Used
Overlap "3"..Not Used
Overlap "4"..Not Used

* See OVERLAP PROGRAMMING DETAILS 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.	11★	21	22,24	23	NU	31,32	41	42,43	NU	NU	61	62	NU	NU	NU	NU	11★	NU	NU	NU	NU	NU
RED		128	128	128		116		101			134	134										
YELLOW	*	129	129					102			135	135										
GREEN			130					103			136											
RED ARROW							101										A121					
YELLOW ARROW				129		117	102										A122					
FLASHING YELLOW ARROW																	A123					
GREEN ARROW	127	130		130		118	103					136										

NU = Not Used

* Denotes install load resistor. See LOAD RESISTOR INSTALLATION DETAIL this sheet.

★ See pictorial of head wiring in FYA SIGNAL WIRING DETAIL this sheet.

INPUT FILE POSITION LAYOUT

(front view)

		1	2	3	4	5	6	7	8	9	1O	11	12	13	14
FILE "I"	U	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	FS DC ISOLATOR
	L														ST DC ISOLATOR
FILE "J"	U	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	L														

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

FS = FLASH SENSE
ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	-	-	-	*	33 ★	1	15.0		X		X	
				-	125 ★	6			X		X	
2A	-	-	-	*	38	2			X		X	
2B	-	-	-	*	39	2			X		X	
3A	-	-	-	*	34	3			X		X	
4A	-	-	-	*	44	4			X		X	
4B	-	-	-	*	45	4			X		X	
6A	-	-	-	*	54	6			X		X	
6B	-	-	-	*	55	6			X		X	

* For Input Point numbers, see SDLC Non-Intrusive Detection Chart detail on this sheet.

★ For the detectors to work as shown on the signal design plan, see the Vehicle Detector Setup Programming Detail for Alternate Phasing on sheet 2.

INPUT FILE POSITION LEGEND: J2L

FILE J
SLOT 2
LOWER

SDLC NON-INTRUSIVE DETECTION CHART

Input Point	DETECTOR RACK #3 Det # (Index)	DETECTOR RACK #3 Detector Zone	DETECTOR RACK #4 Det # (Index)	DETECTOR RACK #4 Detector Zone
1	33	1A	49	NU
2	34	3A	50	NU
3	35	NU	51	NU
4	36	NU	52	NU
5	37	NU	53	NU
6	38	2A	54	6A
7	39	2B	55	6B
8	40	NU	56	NU
9	41	NU	57	NU
10	42	NU	58	NU
11	43	NU	59	NU
12	44	4A	60	NU
13	45	4B	61	NU
14	46	NU	62	NU
15	47	NU	63	NU
16	48	NU	64	NU

NU = Not Used

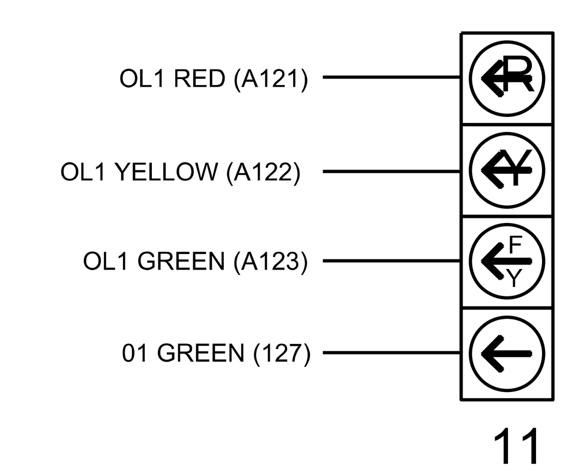
SPECIAL DETECTOR NOTE

Install a video detection system for vehicle detection. Perform installation according to manufacturer's directions and NCDOT engineer -approved mounting locations to accomplish the detection schemes shown on the Signal Design Plans.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 13-1116T4
DESIGNED: May 2026
SEALED: 08/07/2026
REVISED: N/A

FYA SIGNAL WIRING DETAIL

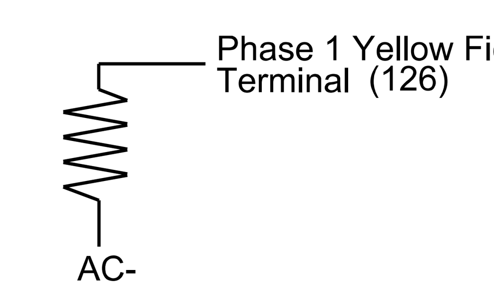
(wire signal head as shown)



LOAD RESISTOR INSTALLATION DETAIL

(install resistor as shown)

ACCEPTABLE VALUES	
Value (ohms)	Wattage
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)



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Phone: 919-461-1100

Temporary Design 4 (TMP Phase II Step 4)
Electrical Detail - Sheet 1 of 3

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Electrical and Programming Details For:

Prepared for the Offices of: Transportation Mobility and Safety Division, ITS & Signals Management Section, State of North Carolina Department of Transportation

750 N. Greenfield Pkwy, Garner, NC 27529

NC 191 (Brevard Road)
at
I-26 WB / I-240 EB Ramps

Division 13 | Buncombe County | Asheville

PLAN DATE:	May 2026	REVIEWED BY:	J O Deaton
PREPARED BY:	M W Yalch	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 07438 ENGINEER JAMES O. DEATON

DocuSigned by: James O. Deaton 8/10/2026
40FF8AC430BD40F...
DATE

SIG. INVENTORY NO. 13-1116T4

$$$$$$SYSTIME$$$$$ $$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$ $$$$USERNAME$$$$