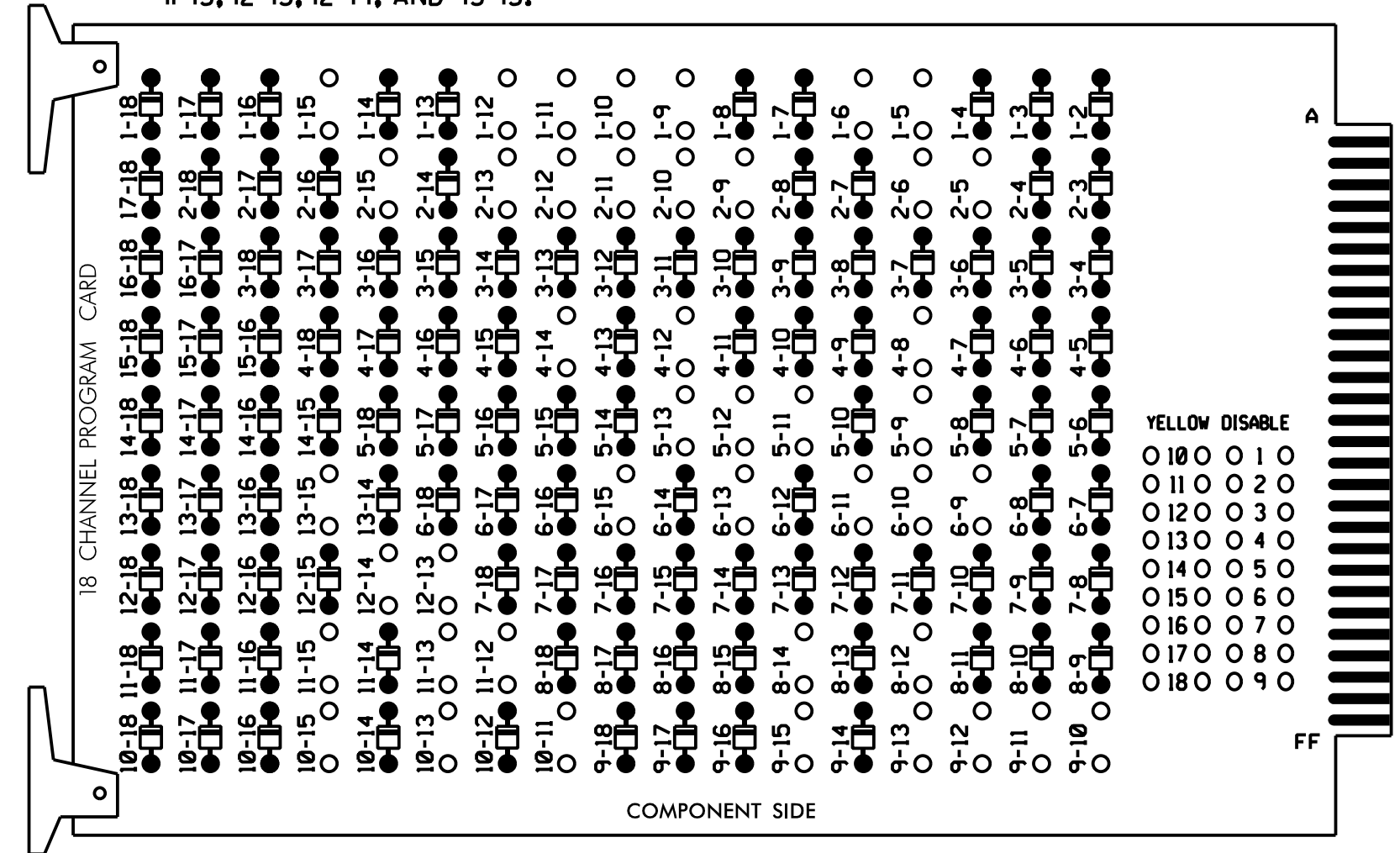


### 18 CHANNEL CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

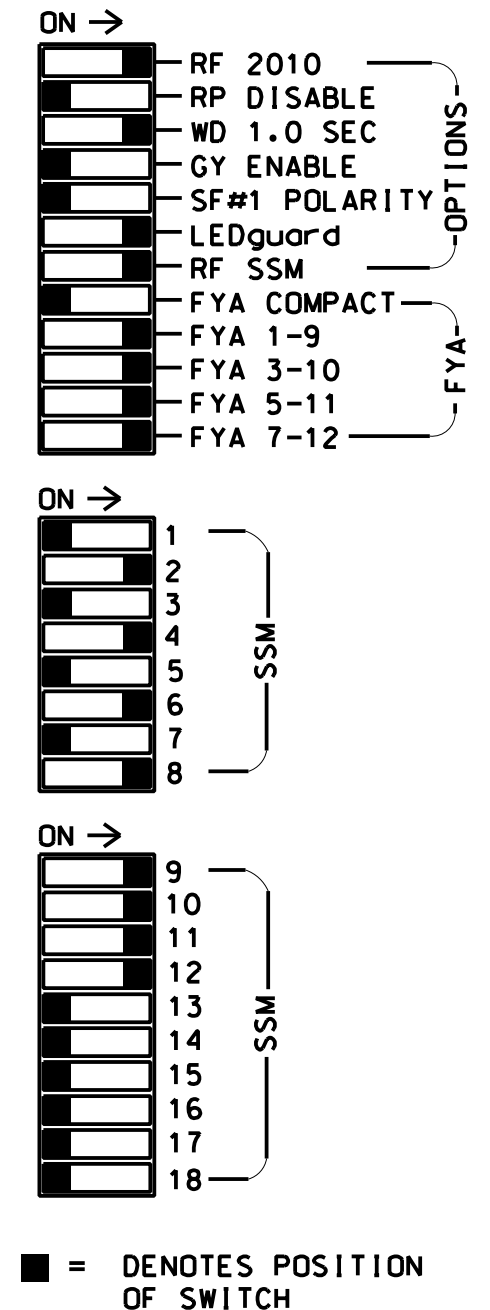
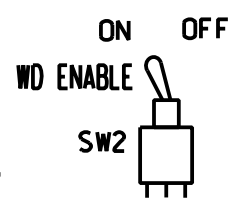
REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-10, 1-11, 1-12, 1-15, 2-5, 2-6, 2-9, 2-10, 2-11, 2-12, 2-13, 2-15, 4-8, 4-12, 4-14, 5-9, 5-11, 5-12, 5-13, 6-9, 6-10, 6-11, 6-15, 6-16, 8-12, 8-14, 9-10, 9-11, 9-12, 9-13, 9-15, 10-11, 10-13, 10-15, 11-12, 11-13, 11-15, 12-13, 12-14, AND 13-15.



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 are present on the monitor board.
- Ensure that Red Enable is active all times during normal operation.
- Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.



### 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.
- Program phases 4 and 8 for Dual Entry.
- Enable Simultaneous Gap-Out for all Phases.
- Program phases 2 and 6 for Startup In Green.
- Program phases 2 and 6 for Yellow Flash, and overlaps 1 and 2 as Wag Overlaps.
- The cabinet and controller are part of the Wilmington Signal System.

### EQUIPMENT INFORMATION

CONTROLLER.....2070  
 CABINET.....332 W/ AUX  
 SOFTWARE.....ECONOLITE OASIS  
 CABINET MOUNT.....BASE  
 OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE LOAD SWITCHES USED.....S1,S2,S3,S5,S6,S7,S8,S9,S11, AUX S1,AUX S2,AUX S4,AUX S5  
 PHASES USED.....1,2,2 PED,4,4 PED,5,6,6 PED,8  
 OVERLAP "A".....1+2  
 OVERLAP "B".....6  
 OVERLAP "C".....5+6  
 OVERLAP "D".....4+5

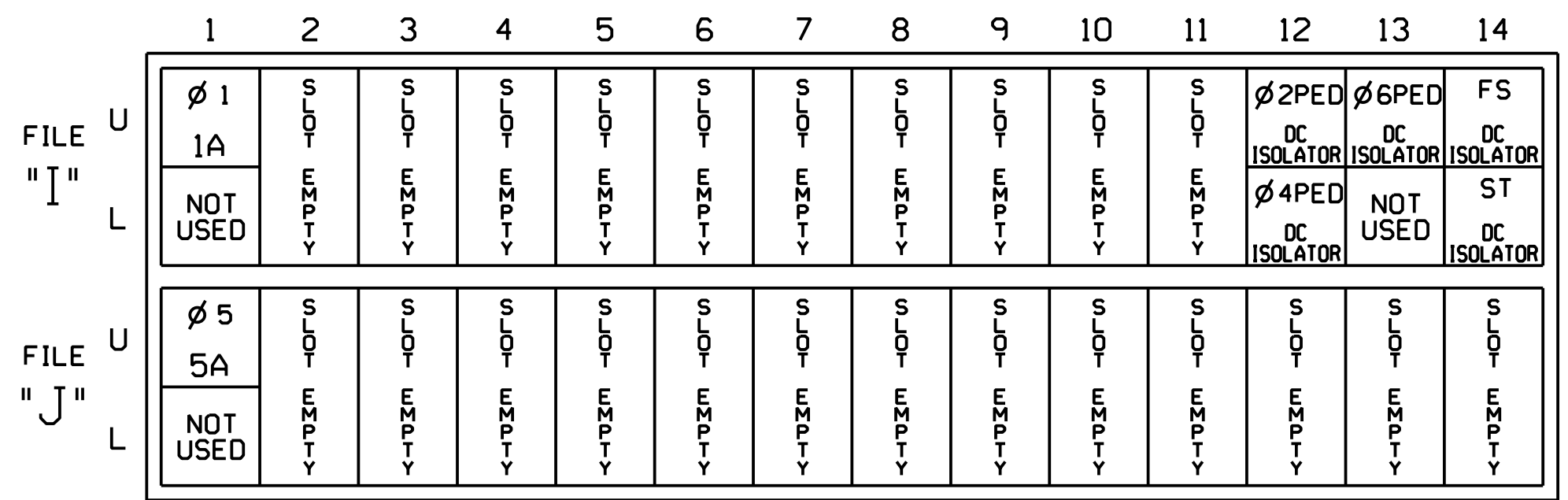
### SIGNAL HEAD HOOK-UP CHART

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	21,22	P21, P22	NU	41,42	P41, P42	51	61,62	P61, P62	NU	81,82	NU	11	63	NU	51	43	NU
RED		128			101			134			107			A124			A101	
YELLOW	*	129			102		*	135			108							
GREEN		130			103			136			109							
RED ARROW														A121			A114	
YELLOW ARROW														A122	A125		A115	A102
FLASHING YELLOW ARROW														A123	A126		A116	A103
GREEN ARROW	127																	
Hand icon				113		104			119									
Person icon				115		106			121									

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

### INPUT FILE POSITION LAYOUT

(front view)



EX.: 1A, 2A, ETC. = LOOP NO.'S  
 FS = FLASH SENSE  
 ST = STOP TIME

### SPECIAL DETECTOR NOTE

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

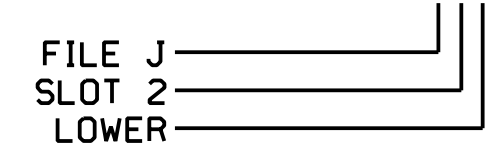
### INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
1A	T82-1,2	I1U	56	18	1	1	Y	Y			15
	-	J4U	48	10★	26	6	Y	Y			
	-	I1U	56	18★	51	1	Y	Y			
5A	T83-1,2	J1U	55	17	5	5	Y	Y			15
	-	I4U	47	9★	22	2	Y	Y			
	-	J1U	55	17★	55	5	Y	Y			
PED PUSH BUTTONS											
P21,P22	T88-4,6	I12U	67	29	PED 2	2 PED					
P41,P42	T88-5,6	I12L	69	31	PED 4	4 PED					
P61,P62	T88-7,9	I13U	68	30	PED 6	6 PED					

NOTE:  
 INSTALL DC ISOLATORS IN INPUT FILE SLOTS 112 AND 113.

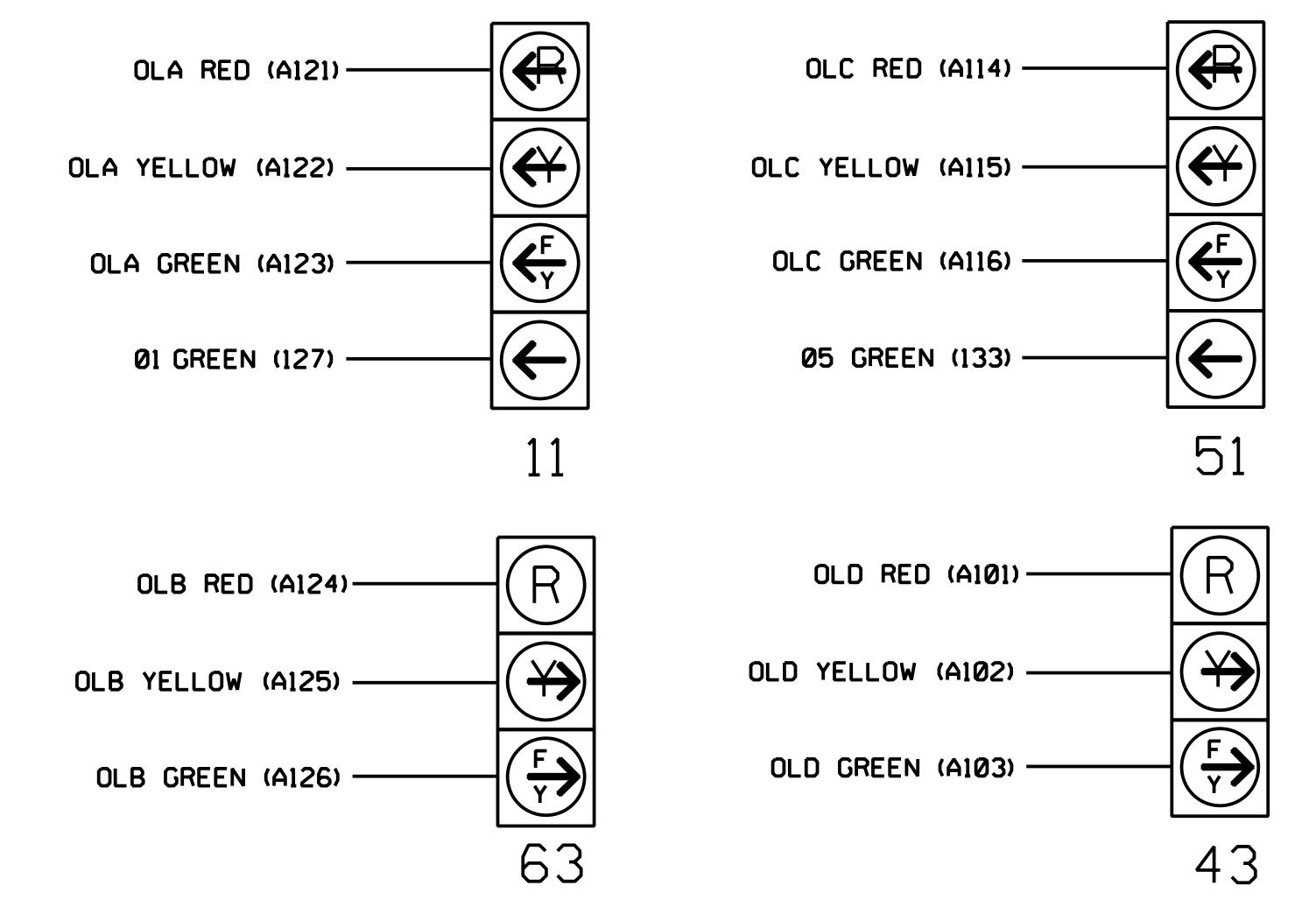
\* See Input Page Assignment programming details on sheets 3 and 4.

#### INPUT FILE POSITION LEGEND: J2L



### FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



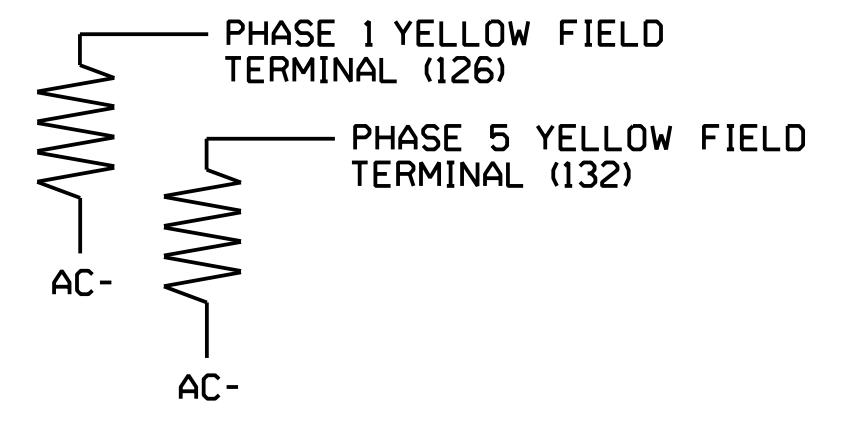
#### NOTE

The sequence display for signal heads 11 and 51 require special logic programming. See sheet 2 for programming instructions.

### LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown below)

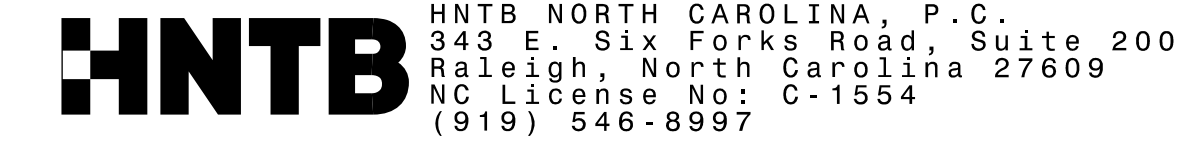
VALUE (ohms)	WATTAGE
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)



### COUNTDOWN PEDESTRIAN SIGNAL OPERATION

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 03-0893  
 DESIGNED: May 2022  
 SEALED: 5/17/2024  
 REVISED:



Signal Upgrade - Final Design  
 Electrical Detail - Sheet 1 of 5

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:  
  
 SR 2048 (Gordon Rd) at SR 1328 (White Rd)  
 Division 3 New Hanover County Wilmington  
 PLAN DATE: August 2023 REVIEWED BY: N.K. Vlanich  
 PREPARED BY: E.E. Tiller REVIEWED BY: N.R. Simmons  
 REVISIONS: INIT. DATE  
 DocuSigned by:   
 5/17/2024  
 SIGNATURE DATE  
 SIG. INVENTORY NO. 03-0893