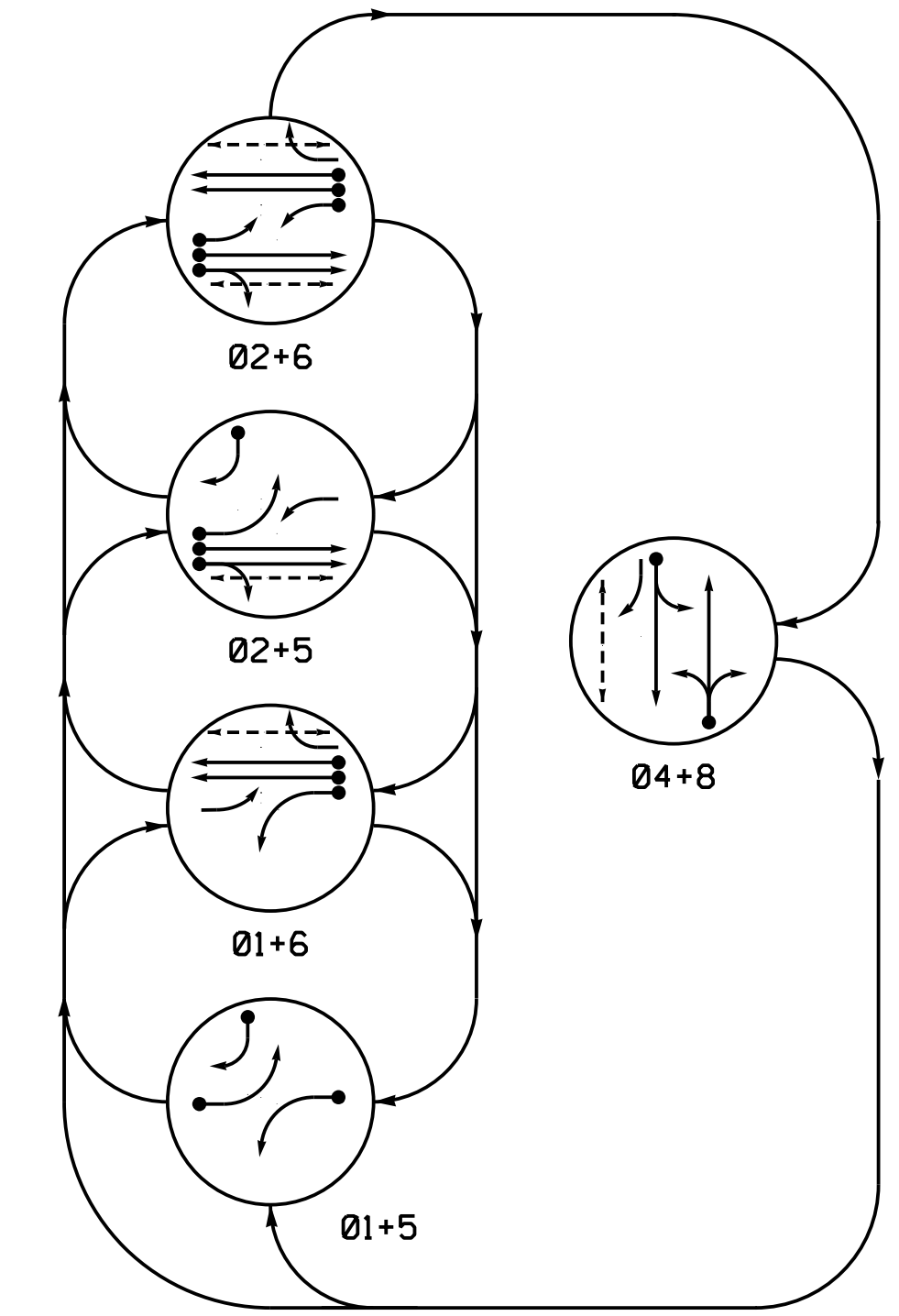
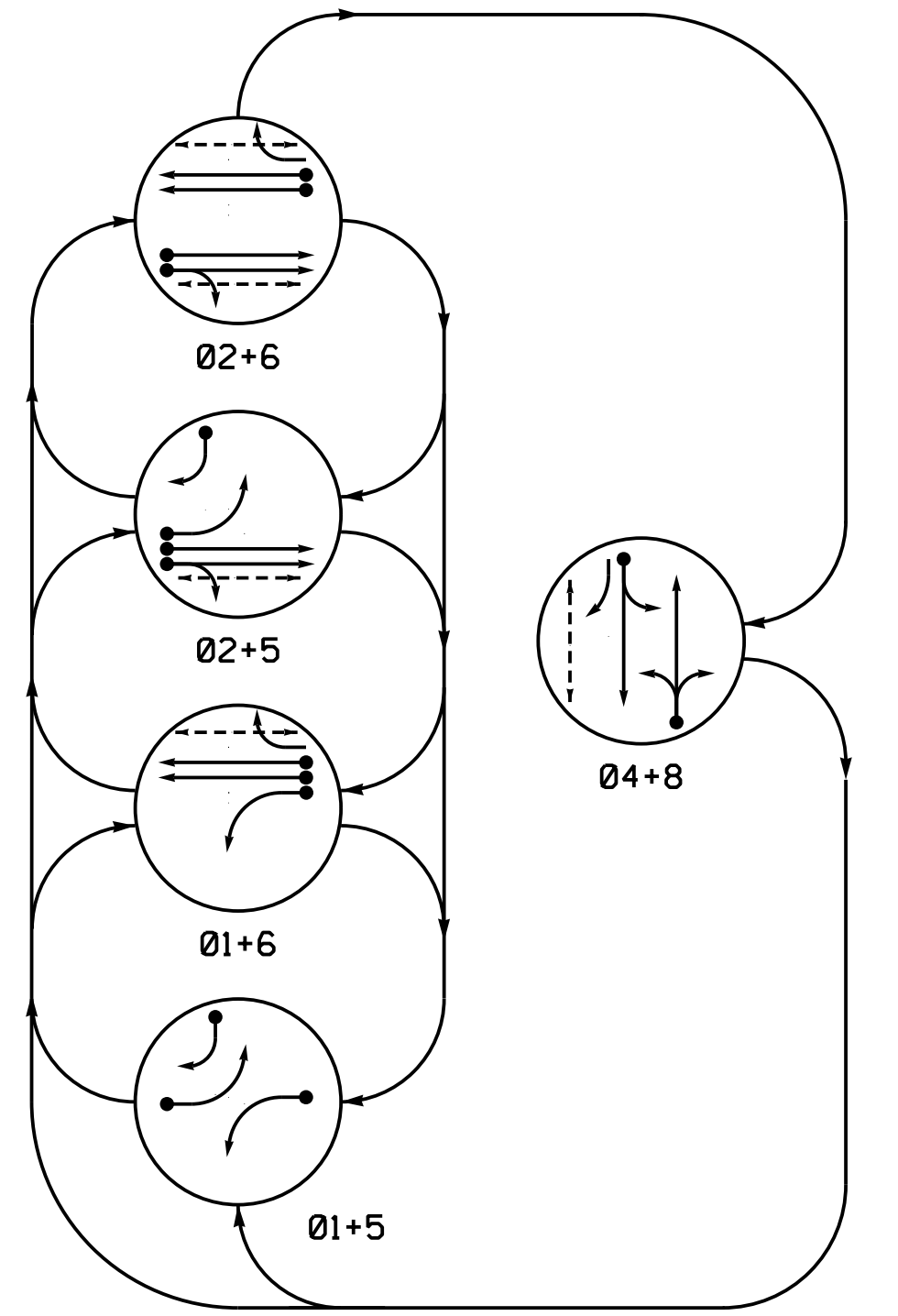


**DEFAULT PHASING DIAGRAM**



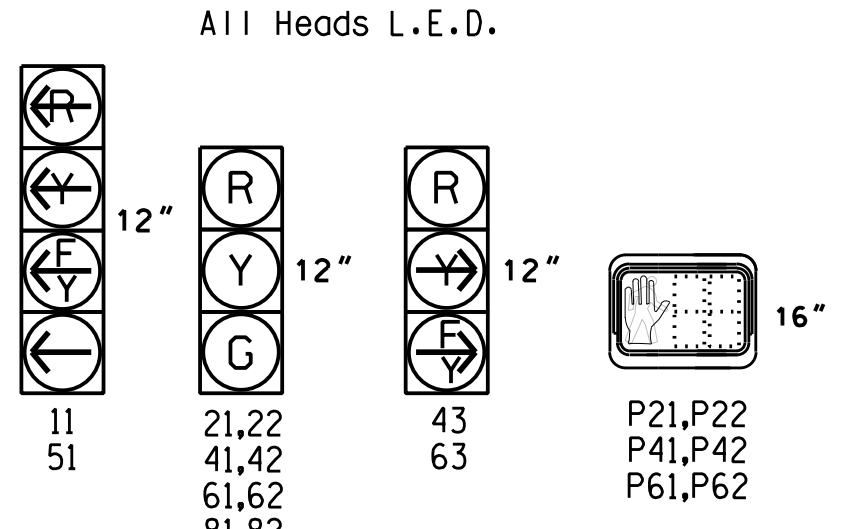
**ALTERNATE PHASING DIAGRAM**



**PHASING DIAGRAM DETECTION LEGEND**

- ← ● DETECTED MOVEMENT
- ← ○ UNDETECTED MOVEMENT (OVERLAP)
- ← - - UNSIGNALIZED MOVEMENT
- ← - - - PEDESTRIAN MOVEMENT

**SIGNAL FACE I.D.**



**OASIS 2070 LOOP & DETECTOR INSTALLATION CHART**

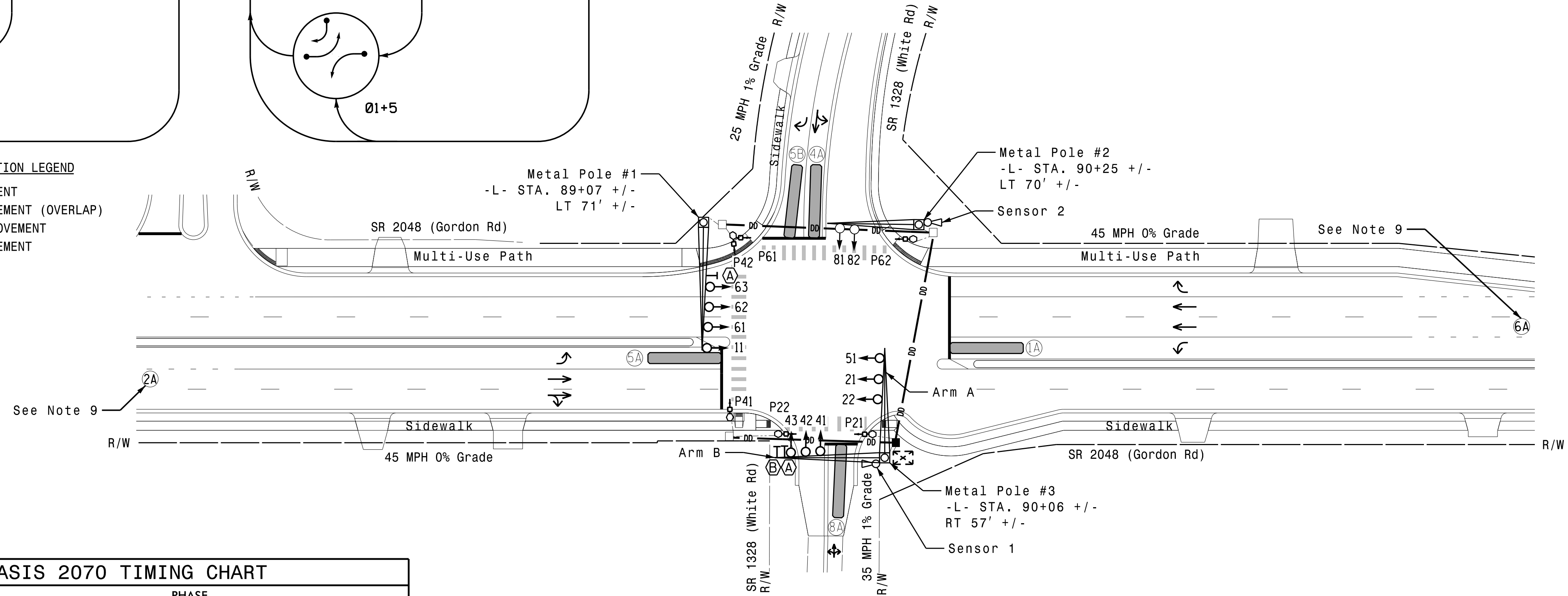
ZONE	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING				SYSTEM LOOP	NEW CARD
					PHASE	CALLING	EXTENSION	FULL TIME DELAY		
1A	6x40	0	*	*	1	Y	-	-	15**	-
4A	6x40	0	*	*	6#	Y	Y	-	-	-
5A	6x40	0	*	*	5	Y	Y	-	-	15**
5B	6x40	0	*	*	5	Y	Y	-	-	15
8A	6x40	0	*	*	8	Y	Y	-	-	10

- \* Multizone Microwave Detection
- \*\* Disable delay during alternate phasing operation.
- # Disable phase call for loop(s) during alternate phasing.

**5 Phase Fully Actuated Wilmington Signal System**

**NOTES**

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 5 may be lagged.
4. Set all detector units to presence mode.
5. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. All pedestrian pushbuttons shall be located in the field by the Division Traffic Engineer before installation.
8. The Division (City) Traffic Engineer will determine the hours of use for each phasing plan.
9. This intersection uses multizone microwave detection. Install the detectors according to the manufacturer's instructions to achieve the desired detection.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
11. Signal system data: Controller Asset #0893.



**OASIS 2070 TIMING CHART**

FEATURE	PHASE						
	1	2	4	5	6	8	
Min Green 1 *	5	12	5	5	12	5	
Extension 1 *	2.0	2.0	2.0	2.0	2.0	2.0	
Max Green 1 *	20	90	20	20	90	20	
Yellow Clearance	3.0	4.5	3.1	3.0	4.5	3.8	
Red Clearance	2.9	1.8	2.8	2.9	1.8	2.1	
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	
Walk 1 *	-	7	7	-	7	-	
Don't Walk 1	-	10	21	-	21	-	
Advanced Walk *	-	-	-	-	-	-	
Seconds Per Actuation *	-	-	-	-	-	-	
Max Variable Initial *	-	-	-	-	-	-	
Time Before Reduction *	-	-	-	-	-	-	
Time To Reduce *	-	-	-	-	-	-	
Minimum Gap	-	-	-	-	-	-	
Recall Mode	-	MIN RECALL	-	-	MIN RECALL	-	
Vehicle Call Memory	-	YELLOW	-	-	YELLOW	-	
Dual Entry	-	-	ON	-	-	ON	
Simultaneous Gap	ON	ON	ON	ON	ON	ON	

\* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

**RADAR DETECTION SYSTEM**

FUNCTION	Sensor 1	Sensor 2
Channel	1	1
Phase	2	6
Direction of Travel	EB	WB
Detection Zone (ft)	100-600	100-600
Enable Speed	Y	Y
Speed Range (mph)	35-100	35-100
Enable Estimated Time of Arrival	Y	Y
Estimated Time of Arrival (sec)	1.0-6.5	1.0-6.5

**DEFAULT PHASING TABLE OF OPERATION**

SIGNAL FACE	PHASE								FLASH
	01	02	04	05	06	08			
11	-	-	-	-	-	-	-	-	-
21,22	R	R	G	G	R	Y			
41,42	R	R	R	R	G	R			
43	F	F	F	F	F	R			
51	-	-	-	-	-	-	-	-	-
61,62	R	G	R	G	R	Y			
63	R	F	R	F	R	Y			
81,82	R	R	R	R	G	R			
P21,P22	DW	DW	W	W	DW	DRK			
P41,P42	DW	DW	DW	DW	W	DRK			
P61,P62	DW	W	DW	W	DW	DRK			

**ALTERNATE PHASING TABLE OF OPERATION**

SIGNAL FACE	PHASE								FLASH
	01	02	04	05	06	08			
11	-	-	-	-	-	-	-	-	-
21,22	R	R	G	G	R	Y			
41,42	R	R	R	R	G	R			
43	F	F	F	F	F	R			
51	-	-	-	-	-	-	-	-	-
61,62	R	G	R	G	R	Y			
63	R	F	R	F	R	Y			
81,82	R	R	R	R	G	R			
P21,P22	DW	DW	W	W	DW	DRK			
P41,P42	DW	DW	DW	DW	W	DRK			
P61,P62	DW	W	DW	W	DW	DRK			

**LEGEND**

	PROPOSED Traffic Signal Head		EXISTING Traffic Signal Head
	PROPOSED Modified Signal Head		EXISTING Modified Signal Head
	PROPOSED Pedestrian Signal Head		EXISTING Pedestrian Signal Head
	PROPOSED Signal Pole with Guy		EXISTING Signal Pole with Guy
	PROPOSED Signal Pole with Sidewalk Guy		EXISTING Signal Pole with Sidewalk Guy
	PROPOSED Microwave Detection Zone		EXISTING Microwave Detection Zone
	PROPOSED Out of Pavement Detector		EXISTING Out of Pavement Detector
	PROPOSED Controller & Cabinet		EXISTING Controller & Cabinet
	PROPOSED Junction Box		EXISTING Junction Box
	PROPOSED 2-in Underground Conduit		EXISTING 2-in Underground Conduit
	PROPOSED Right of Way		EXISTING Right of Way
	PROPOSED Directional Arrow		EXISTING Directional Arrow
	PROPOSED Directional Drill		EXISTING Directional Drill
	PROPOSED Metal Pole with Mastarm		EXISTING Metal Pole with Mastarm
	PROPOSED Type II Signal Pedestal		EXISTING Type II Signal Pedestal
	PROPOSED Curb Ramp		EXISTING Curb Ramp
	PROPOSED Right Arrow "ONLY" Sign (R3-5R)		EXISTING Right Arrow "ONLY" Sign (R3-5R)
	PROPOSED "RIGHT TURN MUST YIELD TO U-TURN" Sign		EXISTING "RIGHT TURN MUST YIELD TO U-TURN" Sign

**Signal Upgrade - Final Design**

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

750 N. Greenfield Pkwy, Corner, NC 27528

SR 2048 (Gordon Rd)  
at  
SR 1328 (White Rd)

Division 3 New Hanover County Wilmington

PLAN DATE: May 2022 REVIEWED BY: N.K. Vlanich

PREPARED BY: E.E. Tiller REVIEWED BY: N.R. Simmons

SCALE: 1"=40'

SEAL

SEAL 031464

ENGINEER

ASHA R. SIMMONS

5/17/2024

SIG. INVENTORY NO. 03-0893