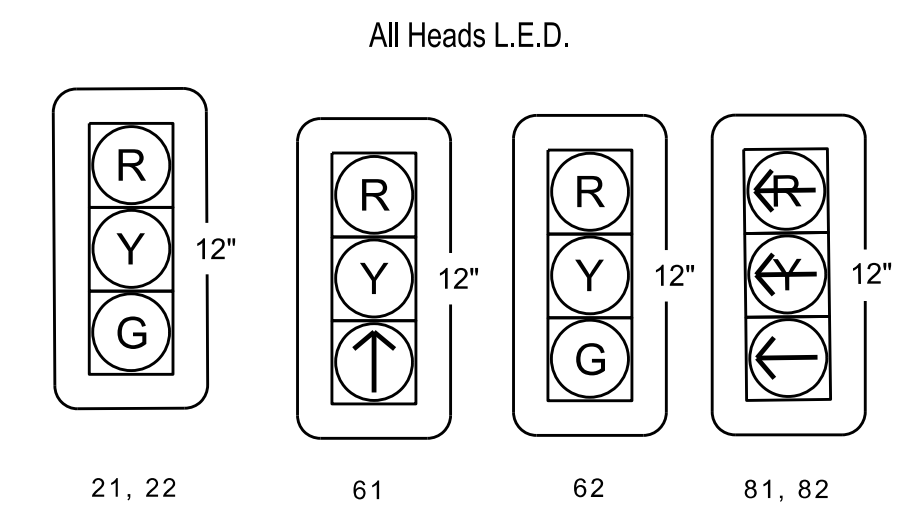


PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION			
SIGNAL FACE	PHASE 2	PHASE 6	PHASE 8
21, 22	G	R	R
61	↑	R	R
62	G	R	R
81, 82	←	←	←

SIGNAL FACE I.D.



SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART																			
LOOP NO.	SIZE (FT)	TURNS	DIST. FROM STOP LINE (FT)	NEW	EXISTING	ASSIGNED PHASE	DETECTOR PROGRAMMING												
							TIMING		OPERATION MODE							STATUS			
							DELAY	EXTEND (STRETCH)	VEHICLE	PEDESTRIAN	1 CALL	STOP A	STOP B	PROT/PER LEFT	PROT/PER THROUGH	AND	SWITCH	SYSTEM LOOPS	NEW
8A	*	-	0	X	-	8	-	-	X	-	-	-	-	-	-	-	-	-	X

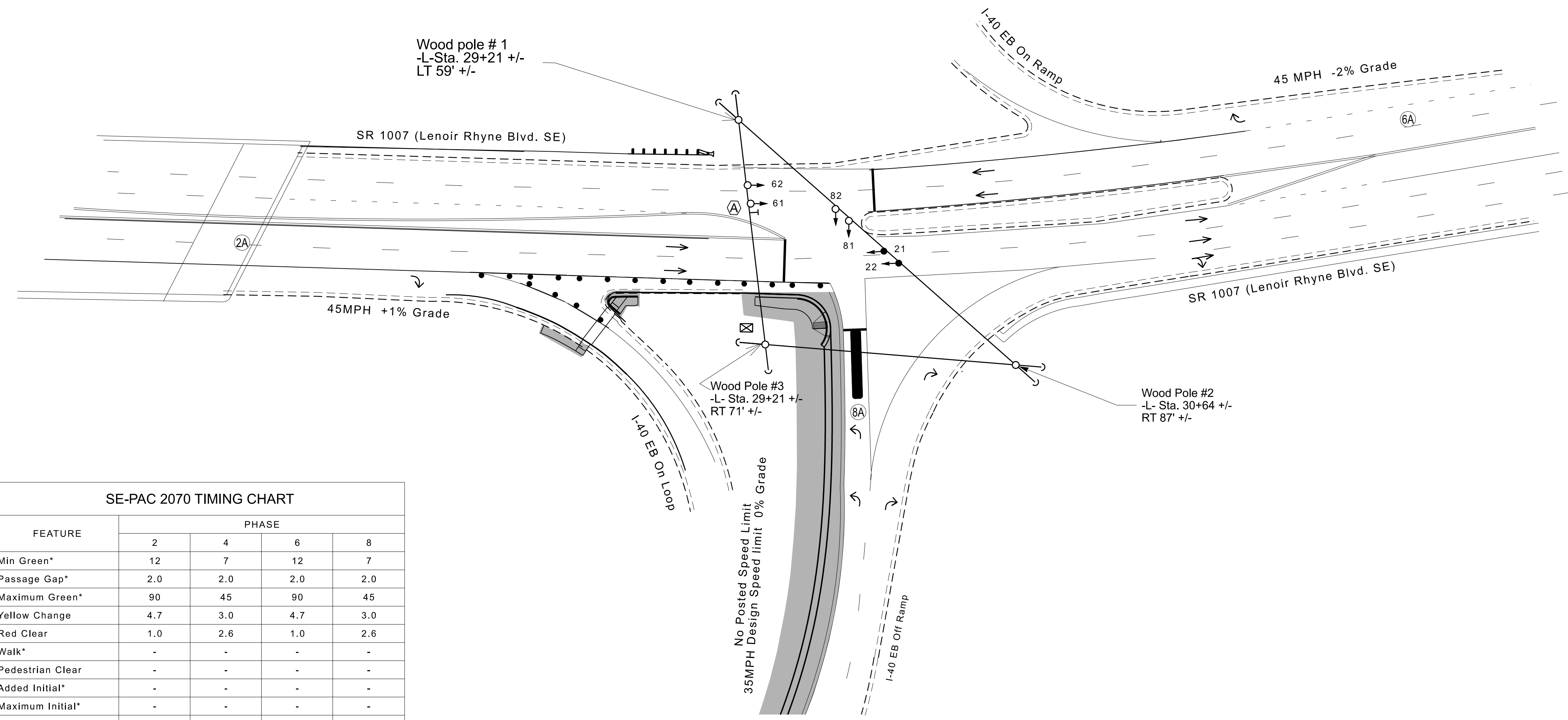
* Multi-Zone Microwave Detection

2-Phase Fully Actuated
Hichory City Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Set all detector units to presence mode
- This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
- Install backplates with retro-reflective sheetings for signal heads 61, 62, 81 and 82.
- Program phase 4 as a dummy phase for Ring 1.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

FUNCTION	Microwave Detection					
	SENSOR 1 (2A)			SENSOR 2 (6A)		
Channel	1			1		
Phase	2			6		
Direction of Travel	SB			NB		
Type	Priority			Priority		
Level	1	2	Queue	1	2	Queue
Discovery Zone (ft)	>= 750	<750	-	>= 750	<750	-
Range	900-100	600-100	150-100	900-100	600-100	150-100
Enable Speed	Y	Y	Y	Y	Y	Y
Speed Range(mph)	35-100	35-100	1-35	35-100	35-100	1-35
Enable Estimated Time of Arrival	Y	Y	N	Y	Y	N
Estimated Time of Arrival (sec)	2.5-10.0	2.5-6.5	-	2.5-10.0	2.5-10.0	-



FEATURE	SE-PAC 2070 TIMING CHART			
	PHASE 2	PHASE 4	PHASE 6	PHASE 8
Min Green*	12	7	12	7
Passage Gap*	2.0	2.0	2.0	2.0
Maximum Green*	90	45	90	45
Yellow Change	4.7	3.0	4.7	3.0
Red Clear	1.0	2.6	1.0	2.6
Walk*	-	-	-	-
Pedestrian Clear	-	-	-	-
Added Initial*	-	-	-	-
Maximum Initial*	-	-	-	-
Time Before Reduction*	-	-	-	-
Time To Reduce*	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	MIN RECALL	-	MIN RECALL	-
Vehicle Call Memory	LOCK	NON-LOCK	LOCK	NON-LOCK
Dual Entry	-	-	-	-
Simultaneous Gap	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.

PROPOSED	LEGEND	EXISTING
	Traffic Signal Head	
	Modified Signal Head	
	Sign	
	Pedestrian Signal Head	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	Non-Intrusive Detection Zone	
	2-in Underground Conduit	
	Right of Way	
	Directional Arrow	
	Construction Zone Drums	
	"NO LEFT TURN" Sign (R3-2)	
	Construction Zone	

Signal Upgrade -Temporary Design 1 (TMP Phase 5A)

Prepared in the Offices of:

 I-40 EB Ramp at SR 1534 (8th St SE) (West Intersection)

 Division 12, Catawba County, Hickory

 PLAN DATE: December 2025 REVIEWED BY: R.N. Zinser

 PREPARED BY: Adja Fall REVIEWED BY:

 REVISIONS:

 SCALE: 1" = 40'

 DATE: 04/09/2026

 SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER RICHARD N. ZINSER

 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

 SIG. INVENTORY NO. 12-0308T1

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