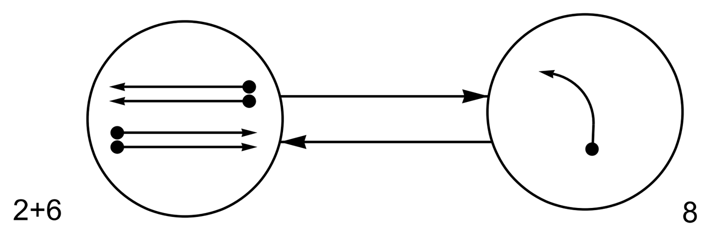
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| I-5716 | Sig. 8.0 |

## PHASING DIAGRAM




PHASING DIAGRAM DETECTION LEGEND

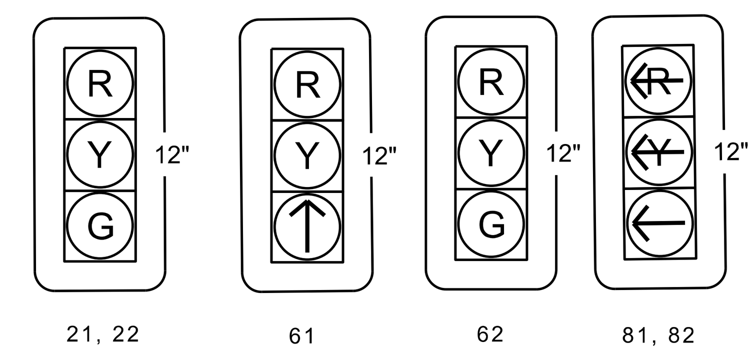
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

### TABLE OF OPERATION

| SIGNAL FACE | 2+6 | 8 | FLASH |
|---|---|---|---|
| 21, 22 | G | R | R |
| 61 | ↑ | R | R |
| 62 | G | R | R |
| 81, 82 | ~~R~~ | ← | ~~R~~ |

## SIGNAL FACE I.D.

All Heads L.E.D.




### SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART

| INDUCTIVE LOOP | | | | | | DETECTOR PROGRAMMING | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | TIMING | | OPERATION MODE | | | | | | | | | | STATUS | |
| | | | | | | | | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | |
| LOOP NO. | SIZE (FT) | TURNS | DIST. FROM STOP LINE (FT) | NEW | EXISTING | ASSIGNED PHASE | DELAY | EXTEND (STRETCH) | VEHICLE | PEDESTRIAN | 1 CALL | STOP A | STOP B | PROT/PER LEFT | PROT/PER THROUGH | AND | SWITCH | SYSTEM LOOPS | NEW | EXISTING |
| 8A | * | - | 0 | - | X | 8 | - | - | X | - | - | - | - | - | - | - | - | - | - | X |

* Multi -Zone Microwave Detection

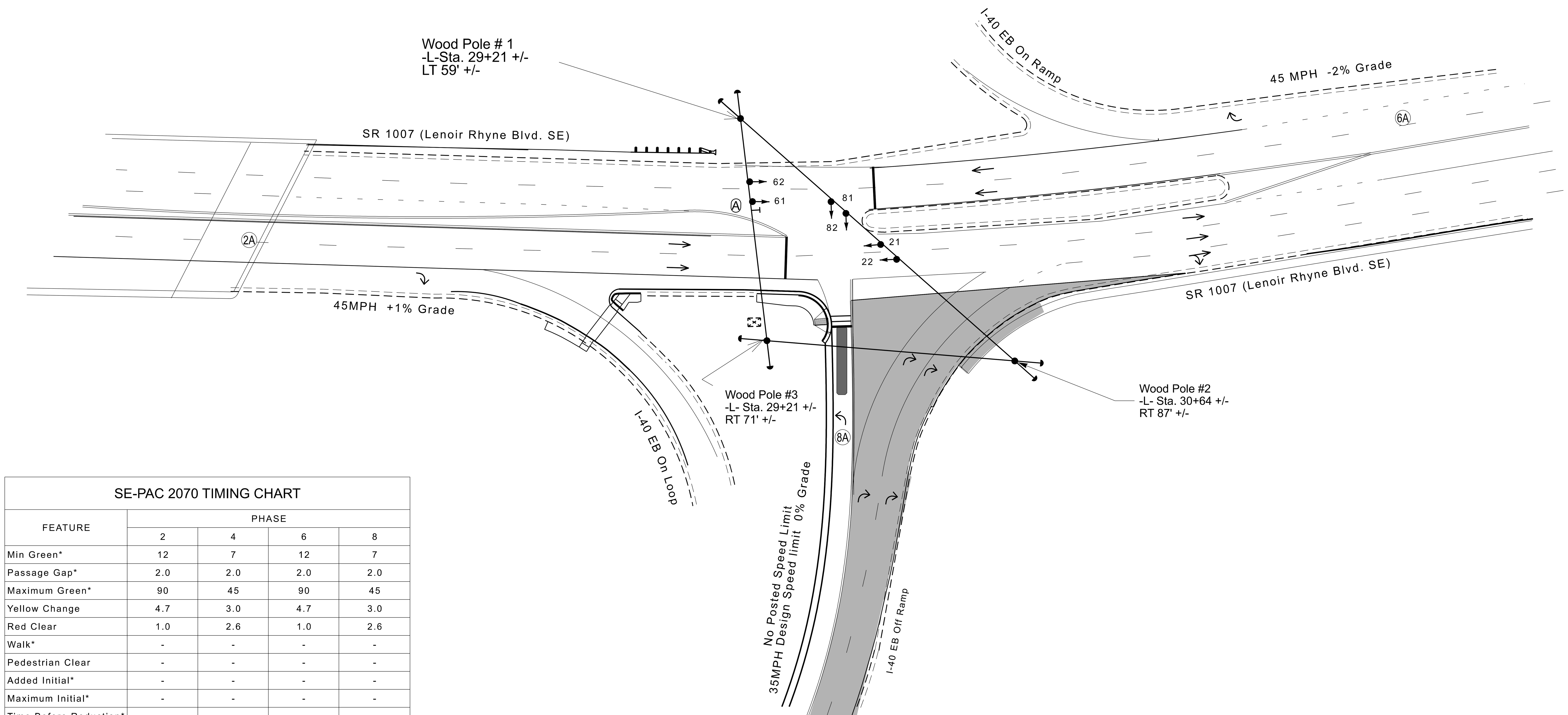
2-Phase
Fully Actuated
Hickory City Signal System

### Microwave Detection

| FUNCTION | 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 | - |

## 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. Set all detector units to presence mode
4. This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
5. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
6. Program phase 4 as a dummy phase for ring 1.




## LEGEND

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

### SE-PAC 2070 TIMING CHART

| FEATURE | 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.

## Signal Upgrade -Temporary Design 2 (TMP Phase 5B)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Offices of: Transportation Mobility and Safety Division, Signal Design Section
750 N. Greenfield Pkwy, Garner, NC 27529

# I-40 EB Ramp at & SR 1007 (Lenoir Rhyne Blvd) & 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: | |

SCALE 0 40 — 1" = 40'

REVISIONS | INIT. | DATE

SEAL — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 043914 RICHARD N. ZINSER

DocuSigned by: R. Nicholas Zinser 04/09/2026
F1388973472246F
DATE

SIG. INVENTORY NO. 12-0308T2

9-APR-2026 13:40