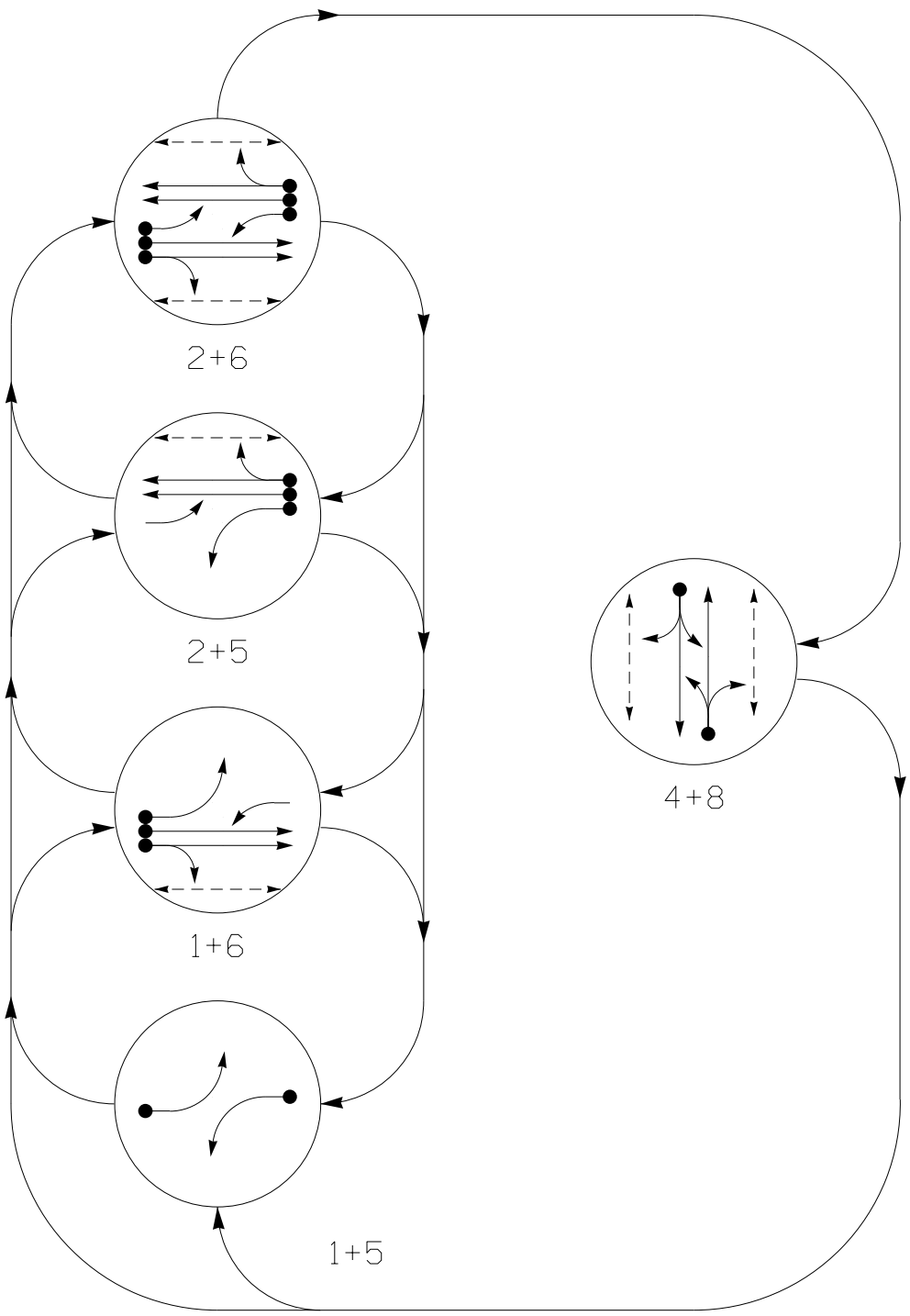


PHASING DIAGRAM



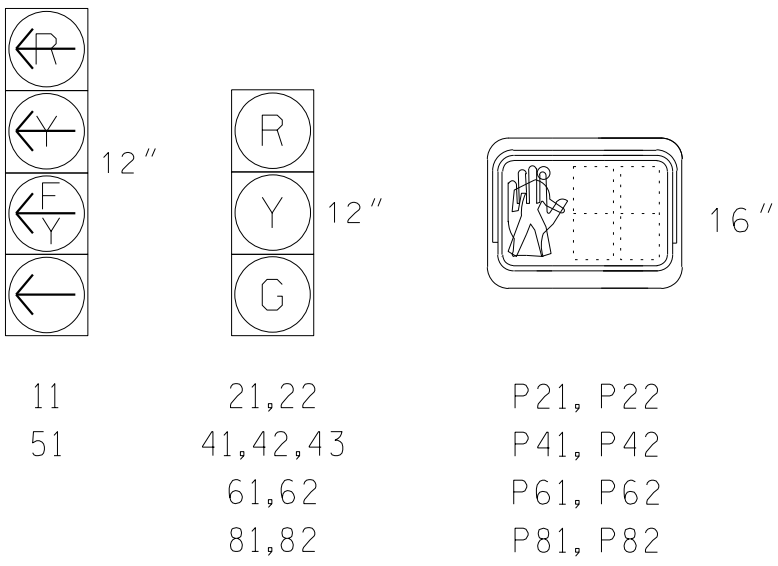
PHASING DIAGRAM DETECTION LEGEND

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

| SIGNAL FACE | PHASE |       |       |       |       |       |
|-------------|-------|-------|-------|-------|-------|-------|
|             | 1 + 5 | 1 + 6 | 2 + 5 | 2 + 6 | 4 + 8 | FLASH |
| 11          | ←     | ←     | ←     | ←     | ←     | ←     |
| 21,22       | R     | R     | G     | G     | R     | R     |
| 41,42,43    | R     | R     | R     | R     | G     | R     |
| 51          | ←     | ←     | ←     | ←     | ←     | ←     |
| 61,62       | R     | G     | R     | G     | R     | R     |
| 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   |
| P81,P82     | DW    | DW    | DW    | DW    | W     | DRK   |

SIGNAL FACE I.D.

All Heads L.E.D.



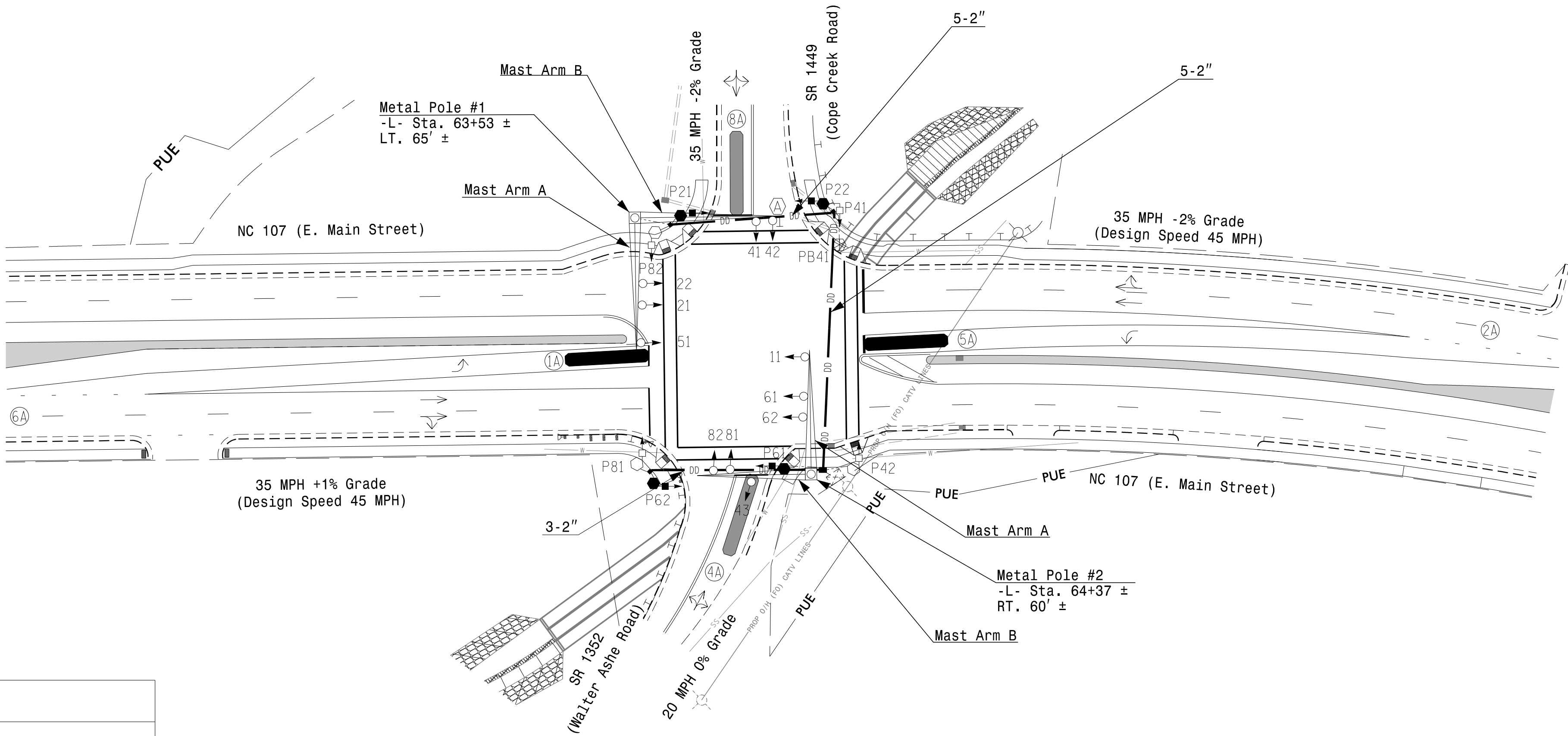
| MAXTIME DETECTOR INSTALLATION CHART |           |                            |      |          |             |            |             |        |               |      |                    |          |
|-------------------------------------|-----------|----------------------------|------|----------|-------------|------------|-------------|--------|---------------|------|--------------------|----------|
| DETECTOR                            |           |                            |      |          | PROGRAMMING |            |             |        |               |      |                    |          |
| LOOP                                | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | URNS | NEW LOOP | CALL PHASE  | DELAY TIME | EXTEND TIME | EXTEND | ADDED INITIAL | CALL | DELAY DURING GREEN | NEW CARD |
| 1A                                  | *         | 0                          | *    | X        | 1           | 15.0       | -           | X      | -             | X    | -                  | *        |
| 4A                                  | *         | 0                          | *    | X        | 4           | 5.0        | -           | X      | -             | X    | -                  | *        |
| 5A                                  | *         | 0                          | *    | X        | 5           | 15.0       | -           | X      | -             | X    | -                  | *        |
| 8A                                  | *         | 0                          | *    | X        | 8           | 5.0        | -           | X      | -             | X    | -                  | *        |

\*Multi-Zone Microwave Detection Zone

5 Phase Fully Actuated (Time Based Coordination)

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.
- Phase 1 and/or phase 5 may be lagged.
- Unbag and reconnect existing pedestrian heads and pushbuttons P21 and P22.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrians heads to countdown the flashing "Don't Walk" time only.
- This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



LEGEND

- | PROPOSED                                       | EXISTING |
|------------------------------------------------|----------|
| Traffic Signal Head                            | N/A      |
| Modified Signal Head                           | N/A      |
| Sign                                           | N/A      |
| Pedestrian Signal Head With Push Button & Sign | N/A      |
| Signal Pole with Guy                           | N/A      |
| Signal Pole with Sidewalk Guy                  | N/A      |
| Inductive Loop Detector                        | N/A      |
| Controller & Cabinet                           | N/A      |
| Junction Box                                   | N/A      |
| Oversized Junction Box                         | N/A      |
| 2-in Underground Conduit                       | N/A      |
| Right of Way                                   | N/A      |
| Directional Arrow                              | N/A      |
| Non-Intrusive Detection Zone                   | N/A      |
| Directional Drill                              | N/A      |
| Metal Pole with Mastarm                        | N/A      |
| Permanent Utility Easement                     | N/A      |
| Guardrail                                      | N/A      |
| U/G Sanitary Sewer                             | N/A      |
| U/G Water Line                                 | N/A      |
| O/H Pwr. & Util. Lines                         | N/A      |
| Utility Pole                                   | N/A      |
| Construction Zone                              | N/A      |

MAXTIME TIMING CHART

| FEATURE                 | PHASE |            |     |     |            |     |
|-------------------------|-------|------------|-----|-----|------------|-----|
|                         | 1     | 2          | 4   | 5   | 6          | 8   |
| Walk *                  | -     | 14         | 12  | -   | 14         | 13  |
| Ped Clear               | -     | 13         | 23  | -   | 14         | 25  |
| Min Green *             | 7     | 12         | 7   | 7   | 12         | 7   |
| Passage *               | 3.0   | 2.0        | 2.0 | 2.0 | 2.0        | 2.0 |
| Max 1 *                 | 15    | 70         | 20  | 15  | 70         | 20  |
| Yellow Change           | 3.0   | 4.7        | 4.0 | 3.0 | 4.7        | 4.0 |
| Red Clear               | 2.8   | 2.0        | 3.5 | 2.8 | 2.0        | 3.5 |
| Added Initial *         | -     | -          | -   | -   | -          | -   |
| Maximum Initial *       | -     | -          | -   | -   | -          | -   |
| Time Before Reduction * | -     | -          | -   | -   | -          | -   |
| Time To Reduce *        | -     | -          | -   | -   | -          | -   |
| Minimum Gap             | -     | -          | -   | -   | -          | -   |
| Advance Walk            | -     | 7          | 5   | -   | 7          | 6   |
| Non Lock Detector       | X     | -          | X   | X   | -          | X   |
| Vehicle Recall          | -     | MIN RECALL | -   | -   | MIN RECALL | -   |
| Dual Entry              | -     | -          | X   | -   | -          | X   |

\* 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.

Microwave Detection

| Microwave Detection              |          |         |          |         |
|----------------------------------|----------|---------|----------|---------|
|                                  | (2A)     |         | (6A)     |         |
| FUNCTION                         | Sensor 1 |         | Sensor 2 |         |
| Channel                          | 1        |         | 1        |         |
| Phase                            | 2        |         | 6        |         |
| Direction of Travel              | WB       |         | EB       |         |
| Type                             | Priority |         | Priority |         |
| Level                            | 2        | QUEUE   | 2        | QUEUE   |
| Detection Zone (ft)              | <750     | —       | <750     | —       |
| Range (ft)                       | 600–100  | 150–100 | 600–100  | 150–100 |
| Enable Speed                     | Y        | Y       | Y        | Y       |
| Speed Range (mph)                | 35–100   | 1–35    | 35–100   | 1–35    |
| Enable Estimated Time of Arrival | Y        | N       | Y        | N       |
| Estimated Time of Arrival (sec)  | 2.5–6.5  | —       | 2.5–6.5  | —       |

Signal Upgrade Temporary Design 4 - TMP Ph3, S1



|                                                                                                 |                                  |                        |                          |
|-------------------------------------------------------------------------------------------------|----------------------------------|------------------------|--------------------------|
| Prepared for: NC 107 (E. Main Street) at SR 1352 (Walter Ashe Road) / SR 1449 (Cope Creek Road) | Division 14 Jackson County Sylva | PLAN DATE: August 2025 | REVIEWED BY: ZM Esposito |
| PREPARED BY: KA Jones                                                                           | REVIEWED BY: BN Groome           | REVISIONS              | INIT. DATE               |
| Signed by: Brittany Groome                                                                      |                                  | 8/26/2025              |                          |
| DATE                                                                                            |                                  | DATE                   |                          |
| SIC. INVENTORY NO. 14-069414                                                                    |                                  | DATE                   |                          |