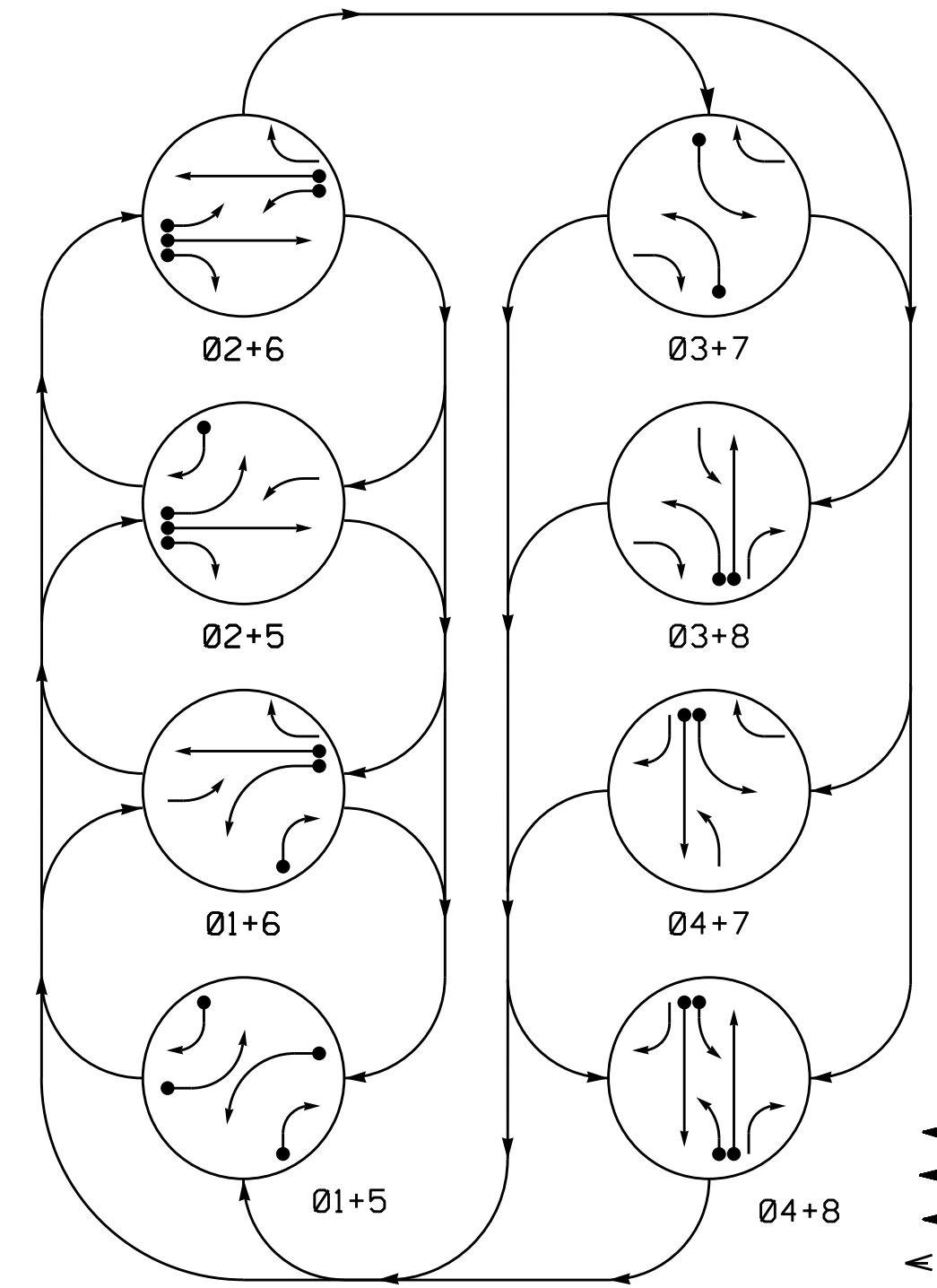


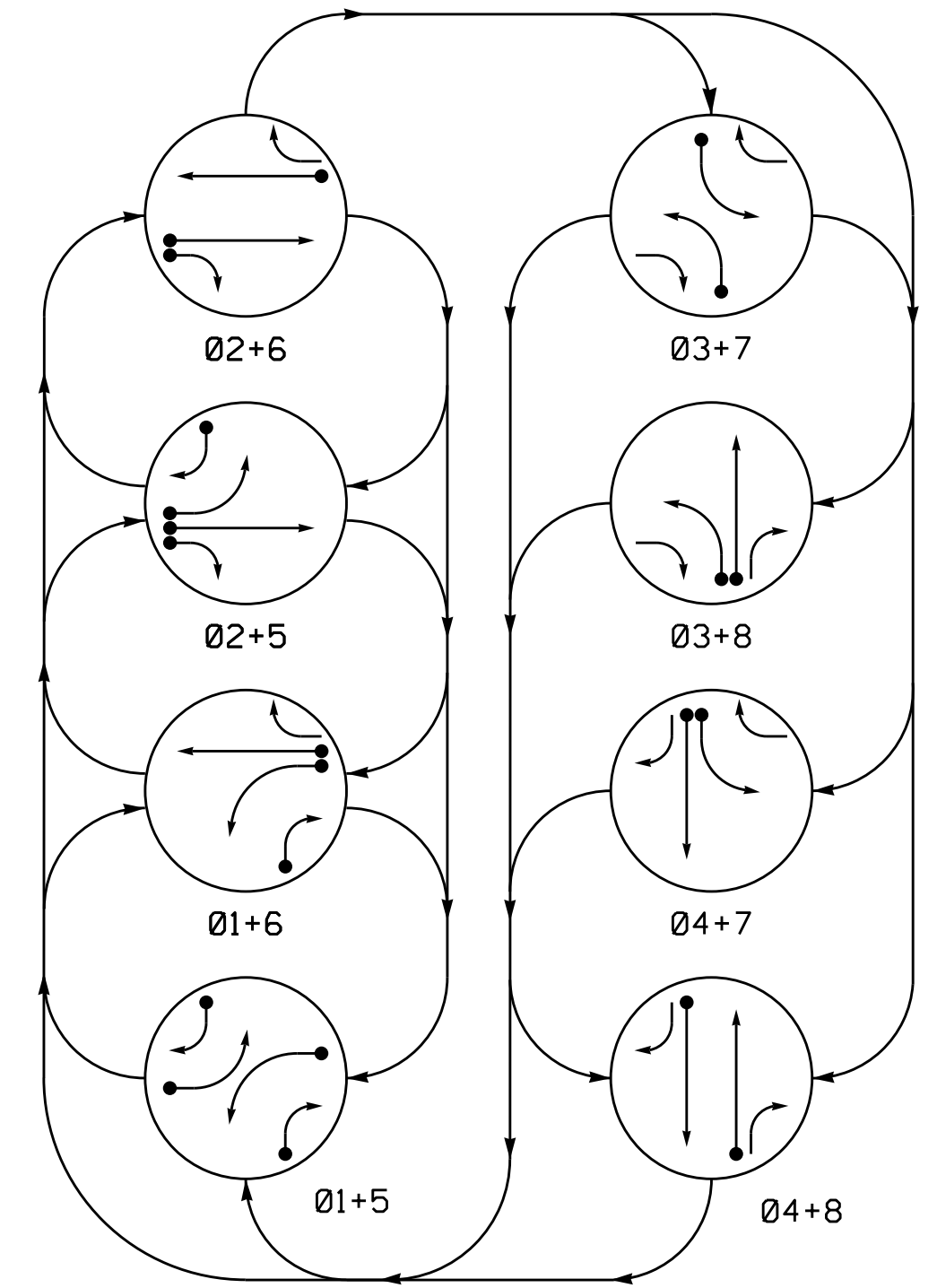
**DEFAULT PHASING DIAGRAM**



**DEFAULT PHASING TABLE OF OPERATION**

| SIGNAL FACE | PHASE |      |      |      |      |      |      |      |
|-------------|-------|------|------|------|------|------|------|------|
|             | 01+5  | 01+6 | 02+5 | 02+6 | 03+7 | 03+8 | 04+7 | 04+8 |
| 11          | ←     | ←    | ←    | ←    | ←    | ←    | ←    | ←    |
| 21, 23      | R     | R    | G    | G    | R    | R    | R    | Y    |
| 22          | R     | R    | G    | G    | R    | R    | R    | Y    |
| 31          | ←     | ←    | ←    | ←    | ←    | ←    | ←    | ←    |
| 41          | R     | R    | R    | R    | R    | R    | G    | G    |
| 42          | R     | R    | R    | R    | R    | R    | G    | G    |
| 51          | ←     | ←    | ←    | ←    | ←    | ←    | ←    | ←    |
| 61, 63      | R     | G    | R    | G    | R    | R    | R    | Y    |
| 62          | R     | G    | R    | G    | R    | R    | R    | Y    |
| 71          | ←     | ←    | ←    | ←    | ←    | ←    | ←    | ←    |
| 81          | R     | R    | R    | R    | R    | G    | R    | G    |
| 82          | R     | R    | R    | R    | R    | G    | R    | G    |

**ALTERNATE PHASING DIAGRAM**



**ALTERNATE PHASING TABLE OF OPERATION**

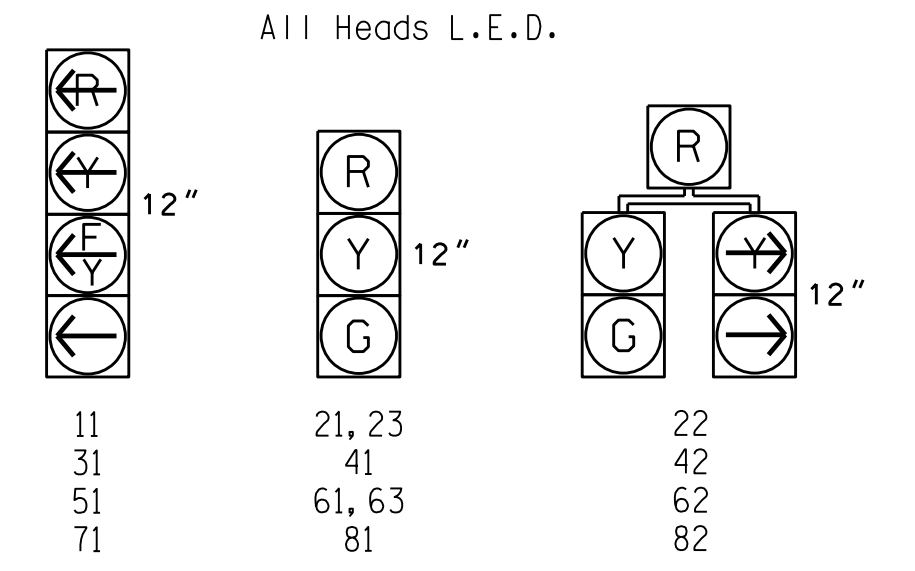
| SIGNAL FACE | PHASE |      |      |      |      |      |      |      |
|-------------|-------|------|------|------|------|------|------|------|
|             | 01+5  | 01+6 | 02+5 | 02+6 | 03+7 | 03+8 | 04+7 | 04+8 |
| 11          | ←     | ←    | ←    | ←    | ←    | ←    | ←    | ←    |
| 21, 23      | R     | R    | G    | G    | R    | R    | R    | Y    |
| 22          | R     | R    | G    | G    | R    | R    | R    | Y    |
| 31          | ←     | ←    | ←    | ←    | ←    | ←    | ←    | ←    |
| 41          | R     | R    | R    | R    | R    | R    | G    | G    |
| 42          | R     | R    | R    | R    | R    | R    | G    | G    |
| 51          | ←     | ←    | ←    | ←    | ←    | ←    | ←    | ←    |
| 61, 63      | R     | G    | R    | G    | R    | R    | R    | Y    |
| 62          | R     | G    | R    | G    | R    | R    | R    | Y    |
| 71          | ←     | ←    | ←    | ←    | ←    | ←    | ←    | ←    |
| 81          | R     | R    | R    | R    | R    | G    | R    | G    |
| 82          | R     | R    | R    | R    | R    | G    | R    | G    |

**PHASING DIAGRAM DETECTION LEGEND**

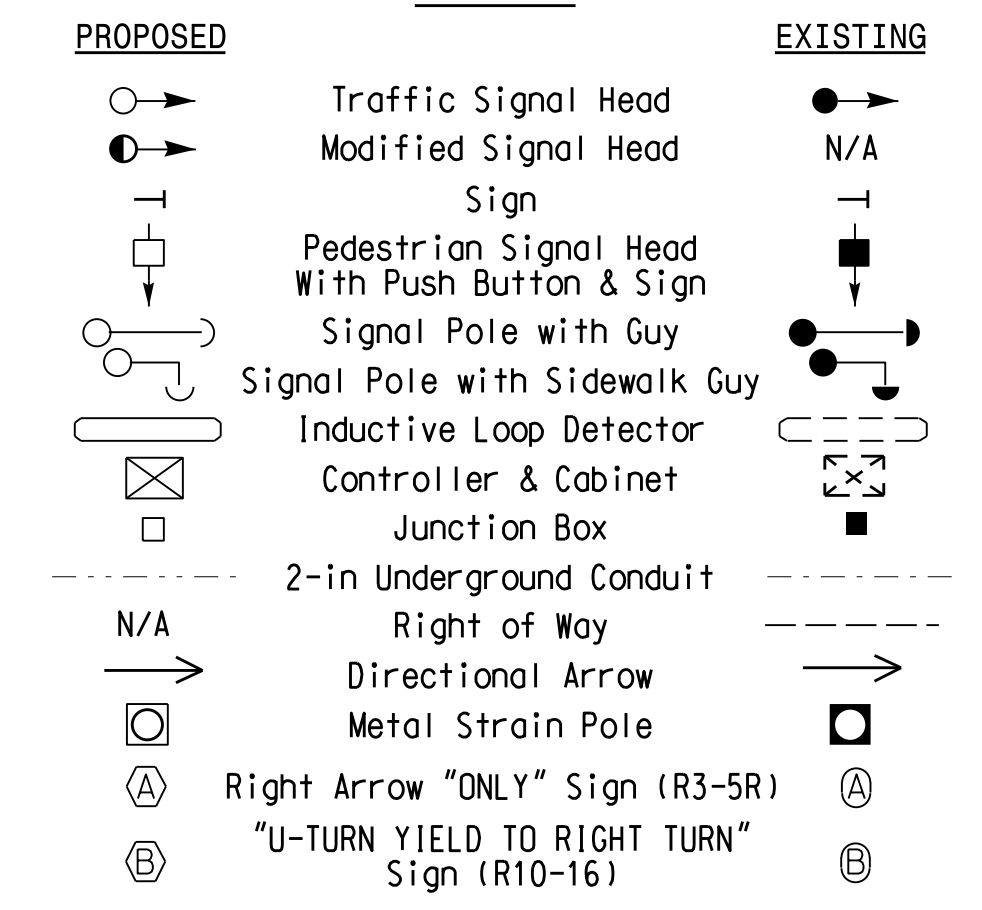
- DETECTED MOVEMENT
- ← UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

- NOTES**
- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
  - Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
  - Phase 1 and/or phase 5 may be lagged.
  - Phase 3 and/or phase 7 may be lagged.
  - Set all detector units to presence mode.
  - Install new controller in existing cabinet.
  - Pavement markings are existing unless otherwise shown.
  - The Division Traffic Engineer will determine the hours of use for each phasing plan.
  - Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
  - Closed loop system data:  
Master Asset #: 10928.  
Controller Asset #: 1128.

**SIGNAL FACE I.D.**



**LEGEND**



**MAXTIME TIMING CHART**

| FEATURE                 | PHASE |            |     |     |     |            |     |     |
|-------------------------|-------|------------|-----|-----|-----|------------|-----|-----|
|                         | 1     | 2          | 3   | 4   | 5   | 6          | 7   | 8   |
| Walk *                  | -     | -          | -   | -   | -   | -          | -   | -   |
| Ped Clear               | -     | -          | -   | -   | -   | -          | -   | -   |
| Min Green *             | 7     | 12         | 7   | 7   | 7   | 12         | 7   | 7   |
| Passage *               | 2.0   | 6.0        | 2.0 | 6.0 | 2.0 | 6.0        | 2.0 | 6.0 |
| Max 1 *                 | 20    | 90         | 20  | 45  | 20  | 90         | 20  | 45  |
| Yellow Change           | 3.0   | 4.7        | 3.0 | 4.6 | 3.0 | 4.7        | 3.0 | 4.6 |
| Red Clear               | 3.3   | 1.9        | 3.1 | 1.5 | 3.5 | 1.9        | 3.1 | 1.5 |
| Added Initial *         | -     | 2.5        | -   | -   | -   | 2.5        | -   | -   |
| Maximum Initial *       | -     | 34         | -   | -   | -   | 34         | -   | -   |
| Time Before Reduction * | -     | 15         | -   | 15  | -   | 15         | -   | 15  |
| Time to Reduce *        | -     | 30         | -   | 15  | -   | 30         | -   | 15  |
| Minimum Gap             | -     | 3.0        | -   | 3.0 | -   | 3.0        | -   | 3.0 |
| Advance Walk            | -     | -          | -   | -   | -   | -          | -   | -   |
| Non Lock Detector       | X     | -          | X   | 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.

**MAXTIME DETECTOR INSTALLATION CHART**

| LOOP | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS          | NEW LOOP | PROGRAMMING |            |             |        |               |      |                    |          |   |   |
|------|-----------|----------------------------|----------------|----------|-------------|------------|-------------|--------|---------------|------|--------------------|----------|---|---|
|      |           |                            |                |          | CALL PHASE  | DELAY TIME | EXTEND TIME | EXTEND | ADDED INITIAL | CALL | DELAY DURING GREEN | NEW CARD |   |   |
| 1A   | 6X40      | 0                          | 2-4-2          | -        | 1           | 15**       | -           | X      | -             | X    | -                  | -        | - | - |
| 1B   | 6X40      | 0                          | 2-4-2          | -        | 1           | 15         | -           | X      | -             | X    | -                  | -        | - | - |
| 1C   | 6X15      | 0                          | EXIST          | -        | 1           | 15         | -           | X      | -             | X    | -                  | -        | - | - |
| 2A   | 6X6       | 300                        | EXIST          | -        | 2           | -          | -           | X      | X             | X    | -                  | -        | - | - |
| 3A   | 6X40      | 0                          | 2-4-2          | X        | 3           | 15**       | -           | X      | -             | X    | -                  | -        | - | - |
| 4A   | 6X6       | 300                        | 5              | X        | 4           | -          | -           | X      | -             | X    | -                  | -        | - | - |
| 4B   | 6X40      | 0                          | 2-4-2          | X        | 4           | 5          | 2.0         | X      | -             | X    | X                  | -        | - | - |
| 4C** | 4X6       | 0                          | 2-4-2 Diagonal | X        | 4           | -          | -           | X      | -             | X    | -                  | -        | - | - |
| 5A   | 6X40      | 0                          | 2-4-2          | X        | 5           | 15*        | -           | X      | -             | X    | X                  | -        | - | - |
| 5B   | 6X40      | 0                          | 2-4-2          | X        | 5           | 15         | -           | X      | -             | X    | -                  | -        | - | - |
| 5C   | 6X15      | 0                          | 3              | X        | 5           | 15         | -           | X      | -             | X    | -                  | -        | - | - |
| 6A   | 6X6       | 300                        | EXIST          | -        | 6           | -          | -           | X      | X             | X    | -                  | -        | - | - |
| 7A   | 6X40      | 0                          | 2-4-2          | X        | 7           | 15*        | -           | X      | -             | X    | -                  | -        | - | - |
| 8A   | 6X40      | 0                          | 2-4-2          | -        | 8           | 5          | 2.0         | X      | -             | X    | X                  | -        | - | - |
| 8B   | 6X6       | 300                        | 5              | X        | 8           | -          | -           | X      | -             | X    | -                  | -        | - | - |

\* Reduce Delay to 3 seconds during Alternate Phasing Operation.  
 \*\* Disable Delay during Alternate Phasing Operation.  
 # Disable phase call for loop during Alternate Phasing Operation.  
 ## Set sensitivity at appropriate level to detect bicycles.

**Signal Upgrade**

Prepared in the Offices of:  
 Transportation Mobility and Safety Solutions  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 Signal Design Section

750 N. Greenfield Pkwy, Garner, NC 27529

NC 150/SR 4315 (N. Main St.)  
 at  
 NC 150 (Macy Grove Road)

Division 9 Forsyth County Kernersville

PLAN DATE: May 2023 REVIEWED BY:  
 PREPARED BY: J.A. Lohr REVIEWED BY:

REVISIONS: INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 PROFESSIONAL ENGINEER  
 ROBERT J. ZIMMERMAN  
 ENGINEER  
 SEAL 026486  
 DATE 08/10/2023  
 DATE

SIG. INVENTORY NO. 09-1128