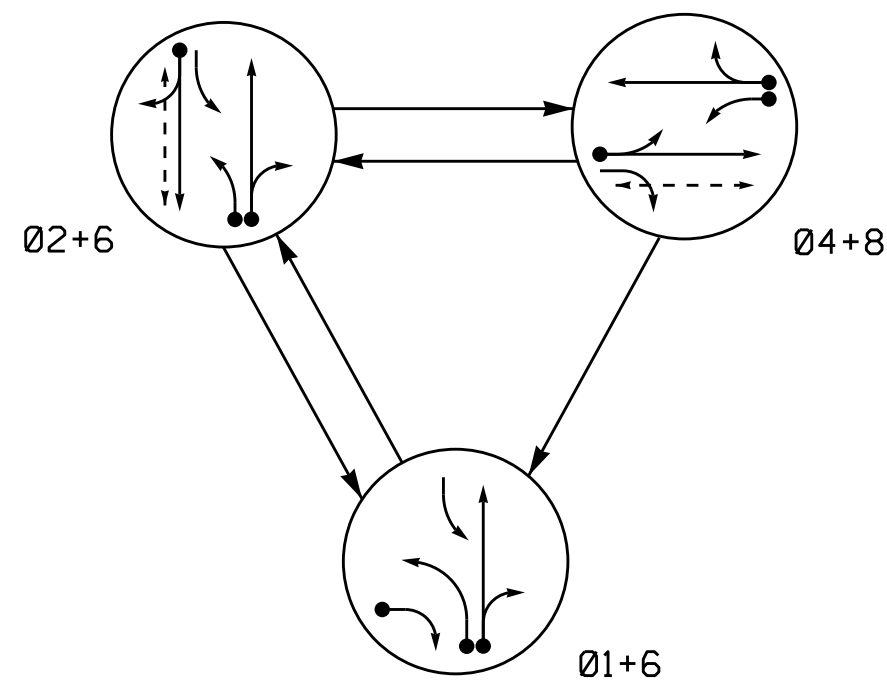


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

| SIGNAL FACE | PHASE |      |      |     |   |
|-------------|-------|------|------|-----|---|
|             | Ø1+6  | Ø2+6 | Ø4+8 | F   | F |
| 11          | ←     | ←    | ←    | ←   | ← |
| 21, 22, 24  | R     | G    | R    | Y   |   |
| 23          | ←     | ←    | ←    | ←   | ← |
| 41, 42      | R     | R    | G    | R   |   |
| 61, 62      | G     | G    | R    | Y   |   |
| 81          | R     | R    | G    | R   |   |
| 82          | ←     | ←    | ←    | ←   | ← |
| P21, P22    | DW    | W    | DW   | DRK |   |
| P81, P82    | DW    | DW   | W    | DRK |   |

W - Walk  
 DW - Don't Walk  
 DRK - Dark

SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART

| LOOP NO. | SIZE (ft) | TURNS | DIST. FROM STOPBAR (ft) | NEW EXISTING | ASSIGNED PHASE | DETECTOR PROGRAMMING |                  |                |            |        |        |        |          |              |               |     |        |     |              |   |        |
|----------|-----------|-------|-------------------------|--------------|----------------|----------------------|------------------|----------------|------------|--------|--------|--------|----------|--------------|---------------|-----|--------|-----|--------------|---|--------|
|          |           |       |                         |              |                | DELAY                | EXTEND (STRETCH) | OPERATION MODE |            |        |        |        |          |              |               |     |        |     | SYSTEM LOOPS |   | STATUS |
|          |           |       |                         |              |                |                      |                  | VEHICLE        | PEDESTRIAN | 1 CALL | STOP A | STOP B | PROTIFEE | LEFT THROUGH | RIGHT THROUGH | AND | SWITCH | NEW | EXISTING     |   |        |
| 1A       | 6X40      | 2-4-2 | 0                       | X            | -              | 1                    | 15 SEC.          | - SEC.         | X          | -      | -      | -      | -        | -            | -             | -   | -      | -   | -            | X | -      |
| 1B       | 6X40      | 2-4-2 | 0                       | X            | -              | 6                    | - SEC.           | - SEC.         | X          | -      | -      | -      | -        | -            | -             | -   | -      | -   | -            | X | -      |
| 2A       | 6X6       | 4     | 70                      | X            | -              | 2                    | - SEC.           | - SEC.         | X          | -      | -      | -      | -        | -            | -             | -   | -      | -   | -            | X | -      |
| 4A       | 6X40      | 2-4-2 | 0                       | X            | -              | 4                    | 3 SEC.           | - SEC.         | X          | -      | -      | -      | -        | -            | -             | -   | -      | -   | -            | X | -      |
| 4B       | 6X40      | 2-4-2 | 0                       | X            | -              | 4                    | 10 SEC.          | - SEC.         | X          | -      | -      | -      | -        | -            | -             | -   | -      | -   | -            | X | -      |
| 6A       | 6X6       | 4     | 70                      | X            | -              | 6                    | - SEC.           | - SEC.         | X          | -      | -      | -      | -        | -            | -             | -   | -      | -   | -            | X | -      |
| 8A       | 6X40      | 2-4-2 | 0                       | X            | -              | 8                    | 3 SEC.           | - SEC.         | X          | -      | -      | -      | -        | -            | -             | -   | -      | -   | -            | X | -      |

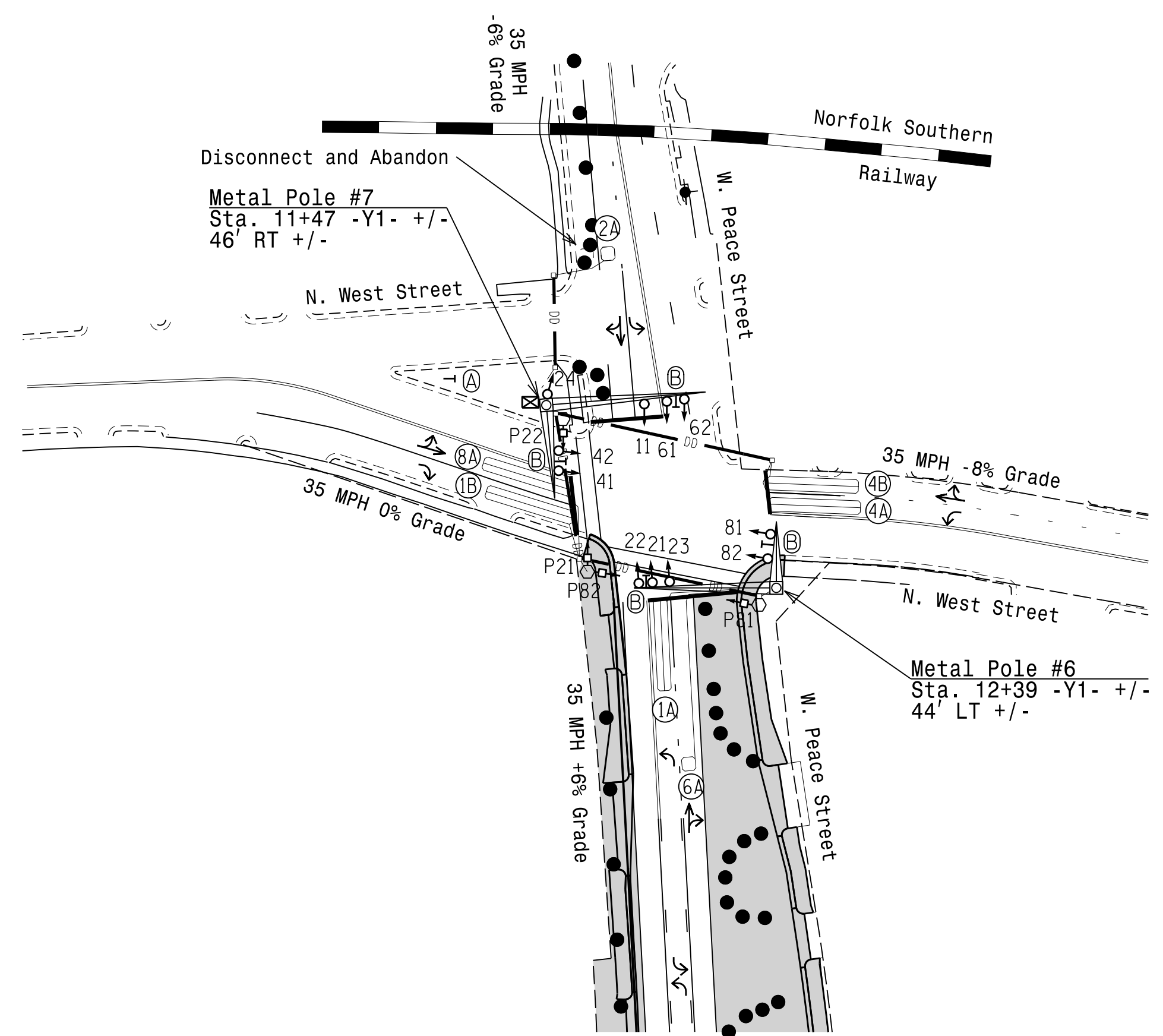
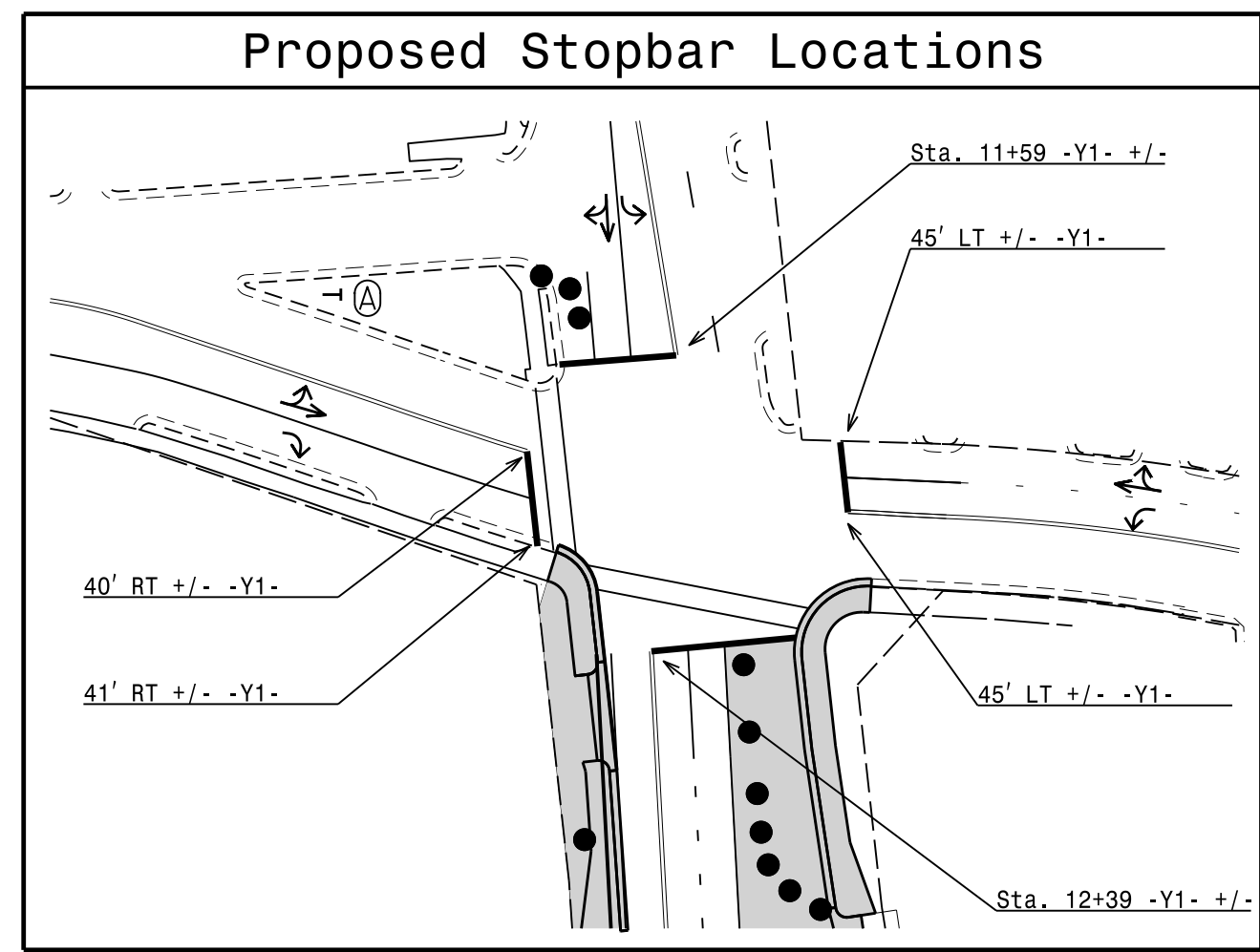
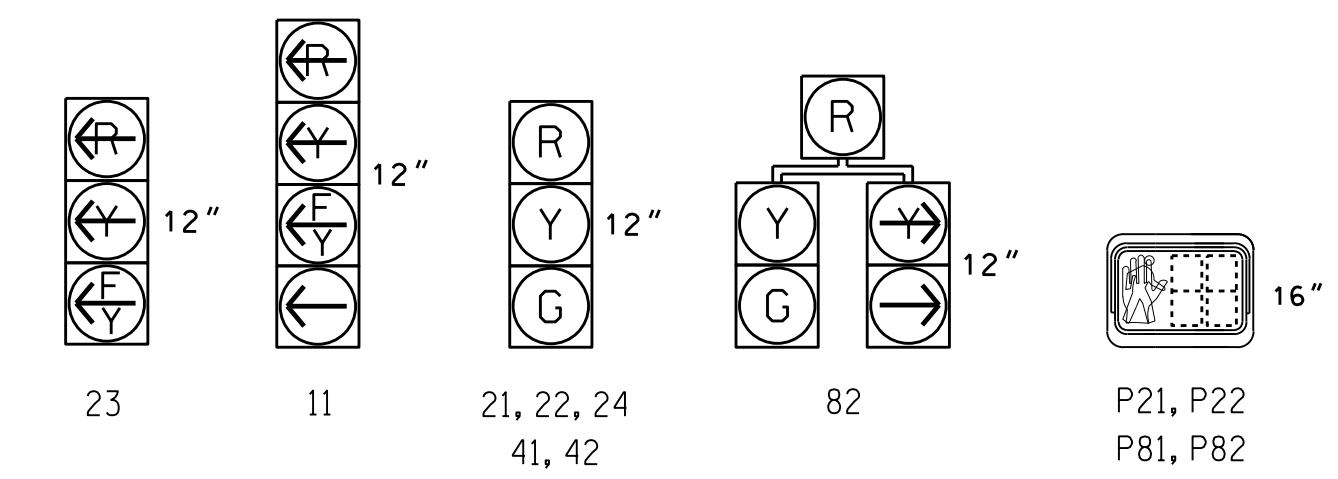
3 Phase Fully Actuated (Raleigh Signal System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 may be lagged.
- Disconnect and abandon existing loop 2B.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Pedestrian pedestals are conceptual and shown for reference only. See sheets P1-P3 for pushbutton location details.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Relocate existing street signs or install new signs as provided by the city of Raleigh.

SIGNAL FACE I.D.

All Heads L.E.D.



SE-PAC 2070 TIMING CHART

| FEATURE                 | PHASE    |            |          |            |          |
|-------------------------|----------|------------|----------|------------|----------|
|                         | 1        | 2          | 4        | 6          | 8        |
| Min Green *             | 7        | 10         | 7        | 10         | 7        |
| Passage Gap *           | 2.0      | 3.0        | 1.0      | 3.0        | 2.0      |
| Maximum Green *         | 15       | 30         | 20       | 30         | 20       |
| Yellow Change           | 3.0      | 4.3        | 4.5      | 4.3        | 3.8      |
| Red Clear               | 2.1      | 1.6        | 1.6      | 1.6        | 1.5      |
| Walk *                  | -        | 7          | -        | -          | 4        |
| Pedestrian Clear        | -        | 9          | -        | -          | 13       |
| Added Initial *         | -        | -          | -        | -          | -        |
| Maximum Initial *       | -        | -          | -        | -          | -        |
| Time Before Reduction * | -        | -          | -        | -          | -        |
| Time To Reduce *        | -        | -          | -        | -          | -        |
| Minimum Gap             | -        | -          | -        | -          | -        |
| Recall Mode             | -        | MIN RECALL | -        | MIN RECALL | -        |
| Vehicle Call Memory     | NON-LOCK | LOCK       | NON-LOCK | LOCK       | NON-LOCK |
| Dual Entry              | -        | -          | ON       | -          | ON       |
| Simultaneous Gap        | 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.

LEGEND

- | PROPOSED | EXISTING |
|----------|----------|
|          |          |
|          | N/A      |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |
|          | N/A      |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Signal Upgrade - Temp. Design 1 (TMP Area II, Phase I, Stage I)

**W. Peace Street at N. West Street**

Division 5 Wake County Raleigh

PLAN DATE: December 2015 REVIEWED BY:

PREPARED BY: I. O. Umozurike REVIEWED BY:

REVISIONS: \_\_\_\_\_ INIT. DATE

SCALE 0 50

1"=50'

1/29/2016

SIG. INVENTORY NO. R-0046T1

05-SEP-2016 12:23  
 P:\IT\Projects\05121\05317\Signal\04611\_1.swg\_dsn\_20160129.dgn  
 RZ:BERTO