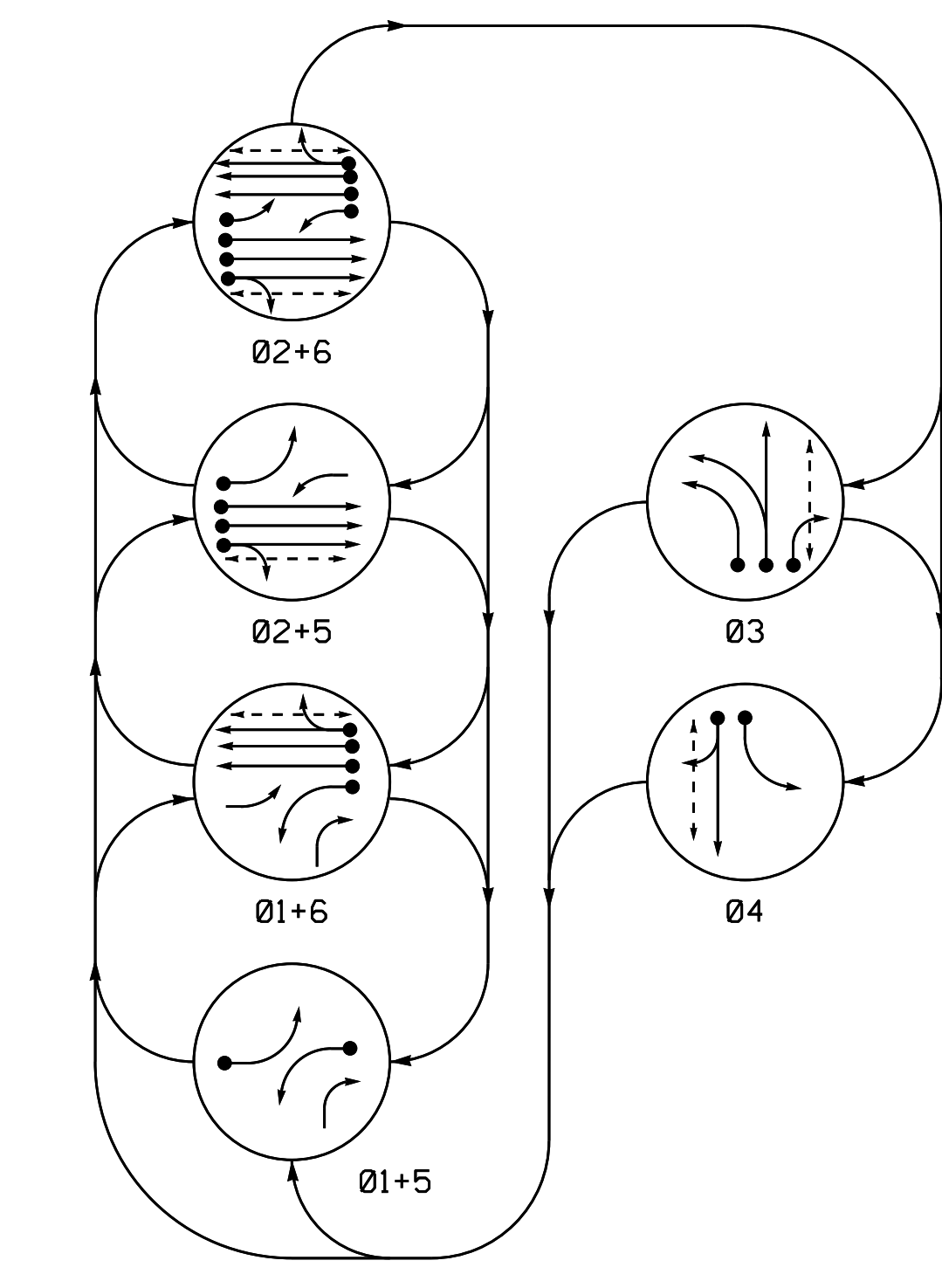


PHASING DIAGRAM



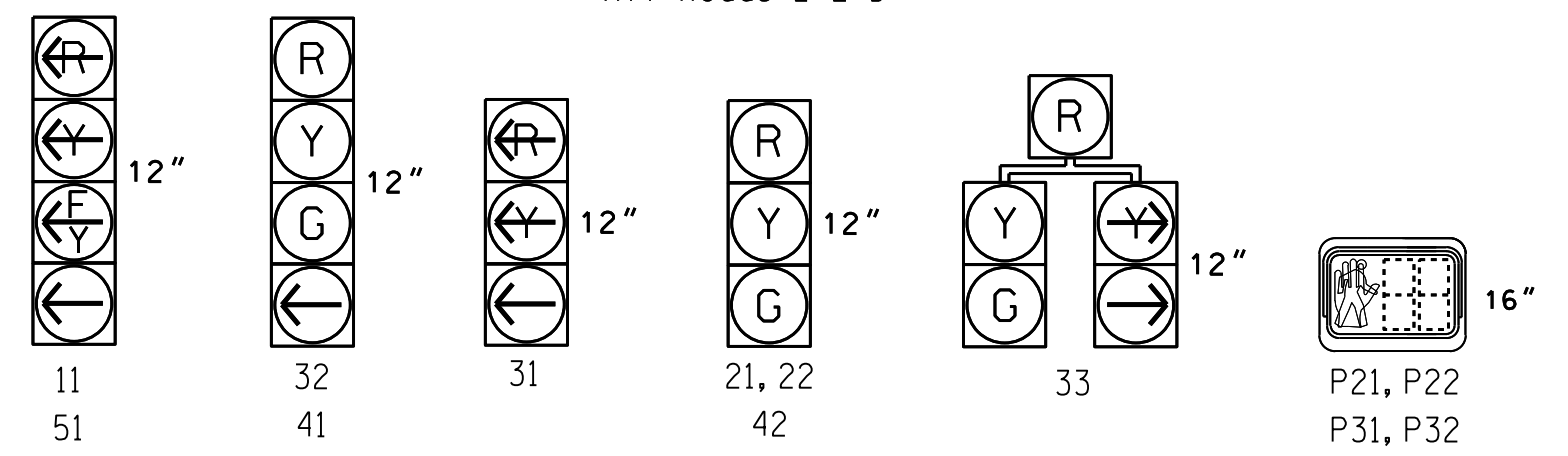
PHASING DIAGRAM DETECTION LEGEND
 ● DETECTED MOVEMENT
 ○ UNDETECTED MOVEMENT (OVERLAP)
 - - - UNSIGNALIZED MOVEMENT
 - - - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

| SIGNAL FACE | PHASE | | | | | |
|-------------|-------|------|------|------|----|-----|
| | 01+5 | 01+6 | 02+5 | 02+6 | 03 | 04 |
| 11 | ← | ← | ← | ← | ← | ← |
| 21,22 | R | R | G | G | R | Y |
| 31 | ← | ← | ← | ← | ← | ← |
| 32 | R | R | R | R | G | R |
| 33 | R | R | R | R | G | R |
| 41 | R | R | R | R | R | G |
| 42 | R | R | R | R | R | G |
| 51 | ← | ← | ← | ← | ← | ← |
| 61,62 | R | G | R | G | R | Y |
| P21,P22 | DW | DW | W | W | DW | DRK |
| P31,P32 | DW | DW | DW | DW | W | DRK |
| P41,P42 | DW | DW | DW | DW | DW | DRK |
| P61,P62 | DW | W | DW | W | DW | DRK |

SIGNAL FACE I.D.

All Heads L.E.D.



ASC/3 DETECTOR INSTALLATION CHART

| LOOP | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | NEW LOOP | PROGRAMMING | | | | | | |
|----------|-----------|----------------------------|-------|----------|-------------|---------|-------------|------------|------|-------------|---|
| | | | | | PHASE | CALLING | EXTEND TIME | DELAY TIME | TYPE | SYSTEM LOOP | |
| 1A | 6X40 | 0 | 2-4-2 | - | 1 | Yes | - | 15 | S | - | X |
| | | | | | 6 | Yes | - | - | S | - | X |
| 2A,2B,2C | 6X6 | 70 | 3 | - | 2 | Yes | - | - | S | - | X |
| 3A | 6X40 | 0 | 2-4-2 | - | 3 | Yes | - | 3 | S | - | X |
| 3B | 6X40 | 0 | 2-4-2 | - | 3 | Yes | - | - | S | - | X |
| 3C | 6X40 | 0 | 2-4-2 | - | 3 | Yes | - | 15 | S | - | X |
| 4A | 6X40 | 0 | 2-4-2 | - | 4 | Yes | - | 3 | S | - | X |
| 4B | 6X40 | 0 | 2-4-2 | - | 4 | Yes | - | 10 | S | - | X |
| 5A | 6X40 | 0 | 2-4-2 | - | 5 | Yes | - | 15 | S | - | X |
| | | | | | 2 | Yes | - | - | S | - | X |
| 6A,6B,6C | 6X6 | 70 | 4 | - | 6 | Yes | - | - | S | - | X |

6 Phase Fully Actuated Fayetteville Signal System

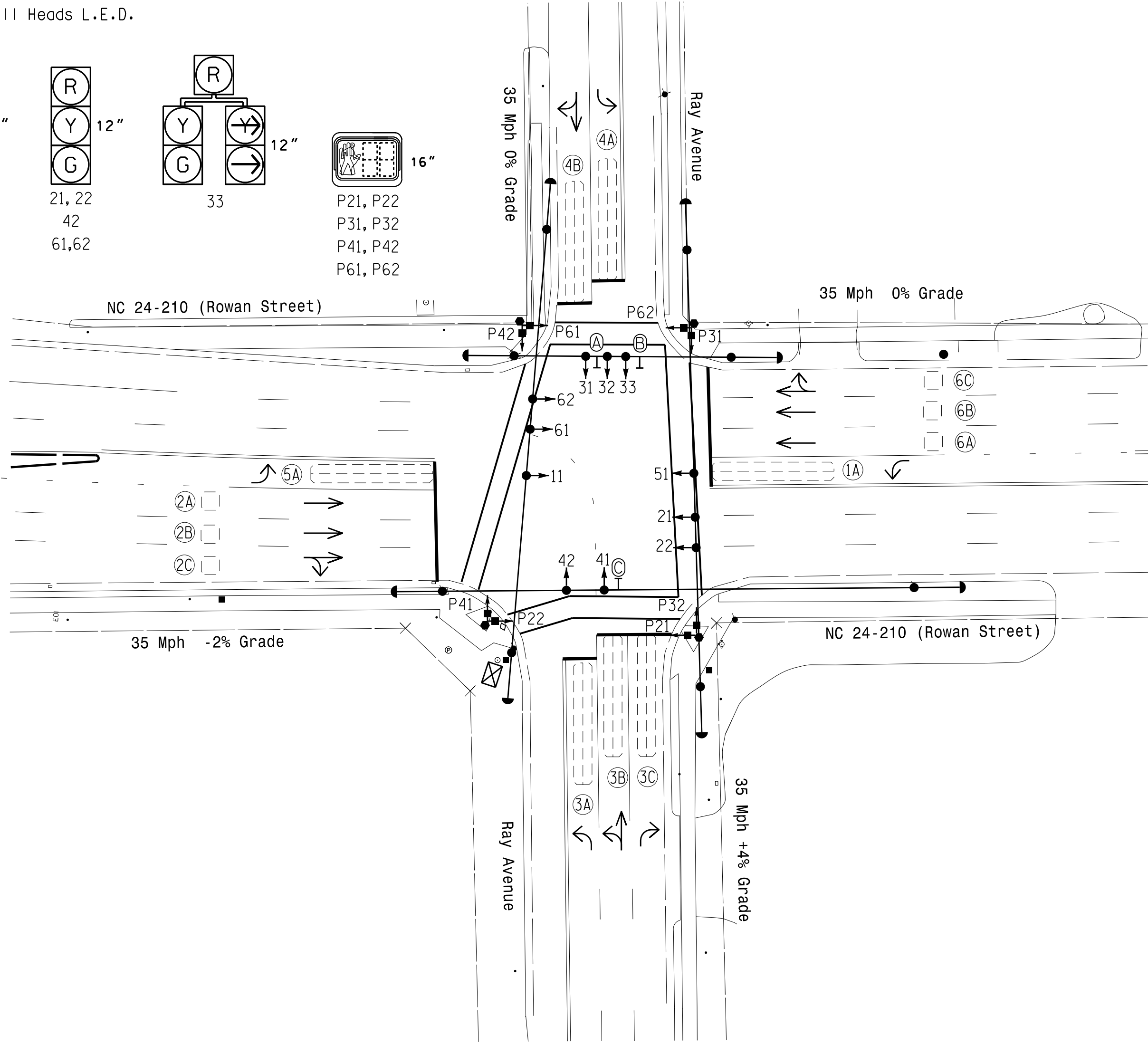
NOTES

- 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 and/or phase 5 may be lagged.
- The order of phase 3 and phase 4 may be reversed.
- 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.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

ASC/3 TIMING CHART

| FEATURE | PHASE | | | | | |
|-------------------------|-------|-------------|-----|-----|-----|-------------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Min Green * | 7 | 10 | 7 | 7 | 7 | 10 |
| Walk * | 0 | 7 | 7 | 7 | 0 | 7 |
| Ped Clear | 0 | 15 | 23 | 22 | 0 | 9 |
| Veh. Extension * | 2.0 | 3.0 | 2.0 | 2.0 | 2.0 | 3.0 |
| Max I * | 15 | 45 | 25 | 30 | 10 | 45 |
| Yellow | 3.0 | 4.1 | 3.6 | 3.8 | 3.0 | 4.1 |
| Red Clear | 2.4 | 1.8 | 2.0 | 2.0 | 2.8 | 1.8 |
| Actuations B4 Add * | - | - | - | - | - | - |
| Seconds / Actuation * | - | - | - | - | - | - |
| Max Initial * | - | - | - | - | - | - |
| Time Before Reduction * | - | - | - | - | - | - |
| Time To Reduce * | - | - | - | - | - | - |
| Minimum Gap | - | - | - | - | - | - |
| Locking Detector | - | X | - | - | - | X |
| Recall Position | - | VEH. RECALL | - | - | - | VEH. RECALL |
| Dual Entry | - | - | - | - | - | - |
| Simultaneous Gap | X | X | X | X | 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.



LEGEND

| PROPOSED | EXISTING |
|--|--|
| ○ → Traffic Signal Head | ● → Traffic Signal Head |
| ○ → Modified Signal Head | ○ → Modified Signal Head |
| ⊥ Sign | ⊥ Sign |
| ⊥ Pedestrian Signal Head With Push Button & Sign | ⊥ Pedestrian Signal Head With Push Button & Sign |
| ⊥ Signal Pole with Guy | ⊥ Signal Pole with Guy |
| ⊥ Signal Pole with Sidewalk Guy | ⊥ Signal Pole with Sidewalk Guy |
| ⊥ Inductive Loop Detector | ⊥ Inductive Loop Detector |
| ⊥ Controller & Cabinet | ⊥ Controller & Cabinet |
| ⊥ Junction Box | ⊥ Junction Box |
| ⊥ 2-in Underground Conduit | ⊥ 2-in Underground Conduit |
| - - - Right of Way | - - - Right of Way |
| → Directional Arrow | → Directional Arrow |
| (A) Combined Through and Left Arrow Sign (R3-6L) | (A) Combined Through and Left Arrow Sign (R3-6L) |
| (B) Right Arrow "ONLY" Sign (R3-5R) | (B) Right Arrow "ONLY" Sign (R3-5R) |
| (C) Left Arrow "ONLY" Sign (R3-5L) | (C) Left Arrow "ONLY" Sign (R3-5L) |

Signal Upgrade

Prepared in the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

NC 24-210 (Rowan Street) at Ray Avenue

Division 6 Cumberland County Fayetteville

PLAN DATE: June 2016 REVIEWED BY: JPG

PREPARED BY: Jeff Spence REVIEWED BY:

REVISIONS INIT. DATE

SCALE 0 30 1"=30'

DocuSigned by: Jason P. Gallaway 7/20/2016

SIG. INVENTORY NO. 06-0039

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

20-JUL-2016 13:08
 S:\Projects\5742 Fayetteville\Signal Design\Section\Eastern Region\01-06\U-5742 Fayetteville ASC/3\06-0039\060039_sfg.dsn_2016mmds.dgn
 J. Spence