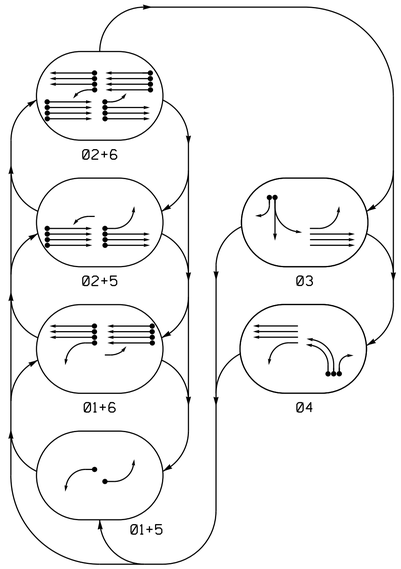
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-5742 | Sig.59.0 |

## PHASING DIAGRAM




PHASING DIAGRAM DETECTION LEGEND

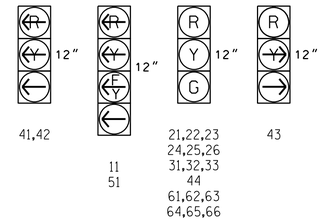
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

## TABLE OF OPERATION

| SIGNAL FACE | PHASE 01+5 | 01+6 | 02+5 | 02+6 | 03 | 04 | FLASH |
|---|---|---|---|---|---|---|---|
| 11 | ← | ← | F Y | F Y | ~~R~~ | ← | ~~Y~~ |
| 21,22,23 | R | R | G | G | G | R | Y |
| 24,25,26 | R | R | G | G | R | R | Y |
| 31,32,33 | R | R | R | R | G | R | R |
| 41,42 | ~~R~~ | ~~R~~ | ~~R~~ | ~~R~~ | ~~R~~ | ← | ~~R~~ |
| 43 | R | R | R | R | R | → | R |
| 44 | R | R | R | R | R | G | R |
| 51 | ← | F Y | ← | F Y | ← | ~~R~~ | ~~Y~~ |
| 61,62,63 | R | G | R | G | R | G | Y |
| 64,65,66 | R | G | R | G | R | R | Y |

## SIGNAL FACE I.D.

All Heads L.E.D.



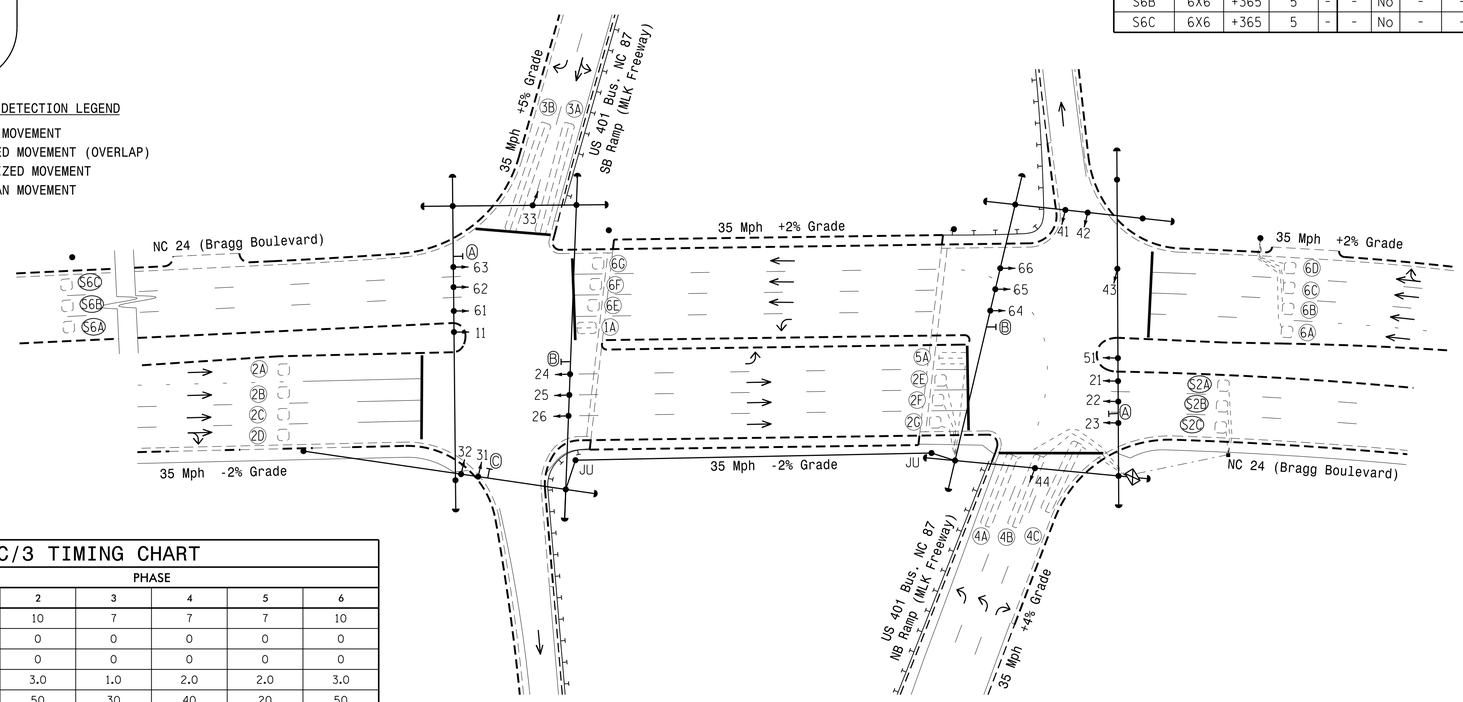

## ASC/3 DETECTOR INSTALLATION CHART

| DETECTOR | | | | | PROGRAMMING | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LOOP | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | NEW LOOP | PHASE | CALLING | EXTEND TIME | DELAY TIME | TYPE | SYSTEM LOOP | NEW CARD |
| 1A | 6X10 | 0 | 2-4-2 | - | 1 | Yes | - | 15 | S | - | X |
| | | | | | 6 | Yes | - | - | S | - | X |
| 2A,2B | 6X6 | 70 | 4 | - | 2 | Yes | - | - | S | - | X |
| 2C,2D | 6X6 | 70 | 4 | - | 2 | Yes | - | - | S | - | X |
| 2E,2F,2G | 6X6 | 12 | 4 | - | 2 | Yes | - | - | S | - | X |
| 3A | 6X60 | 0 | 2-4-2 | - | 3 | Yes | - | - | S | - | X |
| 3B | 6X60 | 0 | 2-4-2 | - | 3 | Yes | - | 15 | S | - | X |
| 4A | 6X60 | 0 | 2-4-2 | - | 4 | Yes | - | - | S | - | X |
| 4B | 6X60 | 0 | 2-4-2 | - | 4 | Yes | - | - | S | - | X |
| 4C | 6X60 | +5 | 2-4-2 | - | 4 | Yes | - | 15 | S | - | X |
| 5A | 6X15 | 0 | 2-4-2 | - | 5 | Yes | - | 15 | S | - | X |
| | | | | | 2 | Yes | - | - | S | - | X |
| 6A,6B | 6X6 | 70 | 4 | - | 6 | Yes | - | - | S | - | X |
| 6C,6D | 6X6 | 70 | 4 | - | 6 | Yes | - | - | S | - | X |
| 6E,6F,6G | 6X6 | 6 | 4 | - | 6 | Yes | - | - | S | - | X |
| S2A | 6X6 | +365 | 5 | - | - | No | - | - | N | X | X |
| S2B | 6X6 | +365 | 5 | - | - | No | - | - | N | X | X |
| S2C | 6X6 | +365 | 5 | - | - | No | - | - | N | X | X |
| S6A | 6X6 | +365 | 5 | - | - | No | - | - | N | X | X |
| S6B | 6X6 | +365 | 5 | - | - | No | - | - | N | X | X |
| S6C | 6X6 | +365 | 5 | - | - | No | - | - | N | X | X |

## 6 Phase
## Fully Actuated
## Fayetteville Signal System

### NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 5 may be lagged.
4. The order of phase 3 and phase 4 may be reversed.
5. Set all detector units to presence mode.
6. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
7. Pavement markings are existing.
8. 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 | |
| | Modified Signal Head | N/A |
| | Sign | |
| | Pedestrian Signal Head With Push Button & Sign | |
| | Signal Pole with Guy | |
| | Signal Pole with Sidewalk Guy | |
| | Inductive Loop Detector | |
| | Controller & Cabinet | |
| | Junction Box | |
| | 2-in Underground Conduit | |
| N/A | Right of Way | |
| | Directional Arrow | |
| Ⓐ | No Right Turn Sign (R3-1) | Ⓐ |
| Ⓑ | No Left Turn Sign (R3-2) | Ⓑ |
| Ⓒ | Combined Through and Left Arrow Sign (R3-6L) | Ⓒ |

## ASC/3 TIMING CHART

| FEATURE | PHASE 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Min Green * | 7 | 10 | 7 | 7 | 7 | 10 |
| Walk * | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped Clear | 0 | 0 | 0 | 0 | 0 | 0 |
| Veh. Extension * | 2.0 | 3.0 | 1.0 | 2.0 | 2.0 | 3.0 |
| Max 1 * | 20 | 50 | 30 | 40 | 20 | 50 |
| Yellow | 3.0 | 4.0 | 3.6 | 3.6 | 3.0 | 4.0 |
| Red Clear | 2.6 | 2.0 | 2.2 | 2.7 | 2.9 | 2.0 |
| 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.

Signal Upgrade

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

# NC 24 (Bragg Boulevard) At US 401 Bus. NC 87 (MLK Freeway) Ramps

Division 6 Cumberland County Fayetteville

| PLAN DATE: November 2015 | REVIEWED BY: JPG |
|---|---|
| PREPARED BY: Jeff Spence | REVIEWED BY: |

SCALE 0 40 1"=40'

| REVISIONS | INIT. | DATE |
|---|---|---|
| | | |

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029904 ENGINEER JASON P. GALLOWAY

DocuSigned by: Jason P. Galloway 7/20/2016
F700EA704818410... DATE

SIG. INVENTORY NO. 06-0244

29-JUL-2016 11:31
S:*ITS\ASC\ITS Signals\Signal Design Section\Eastern Region\Div-06\U-5742 Fayetteville ASC3\06-0244\06-0244_sig_dsn_2015mdd.dgn
jrspence