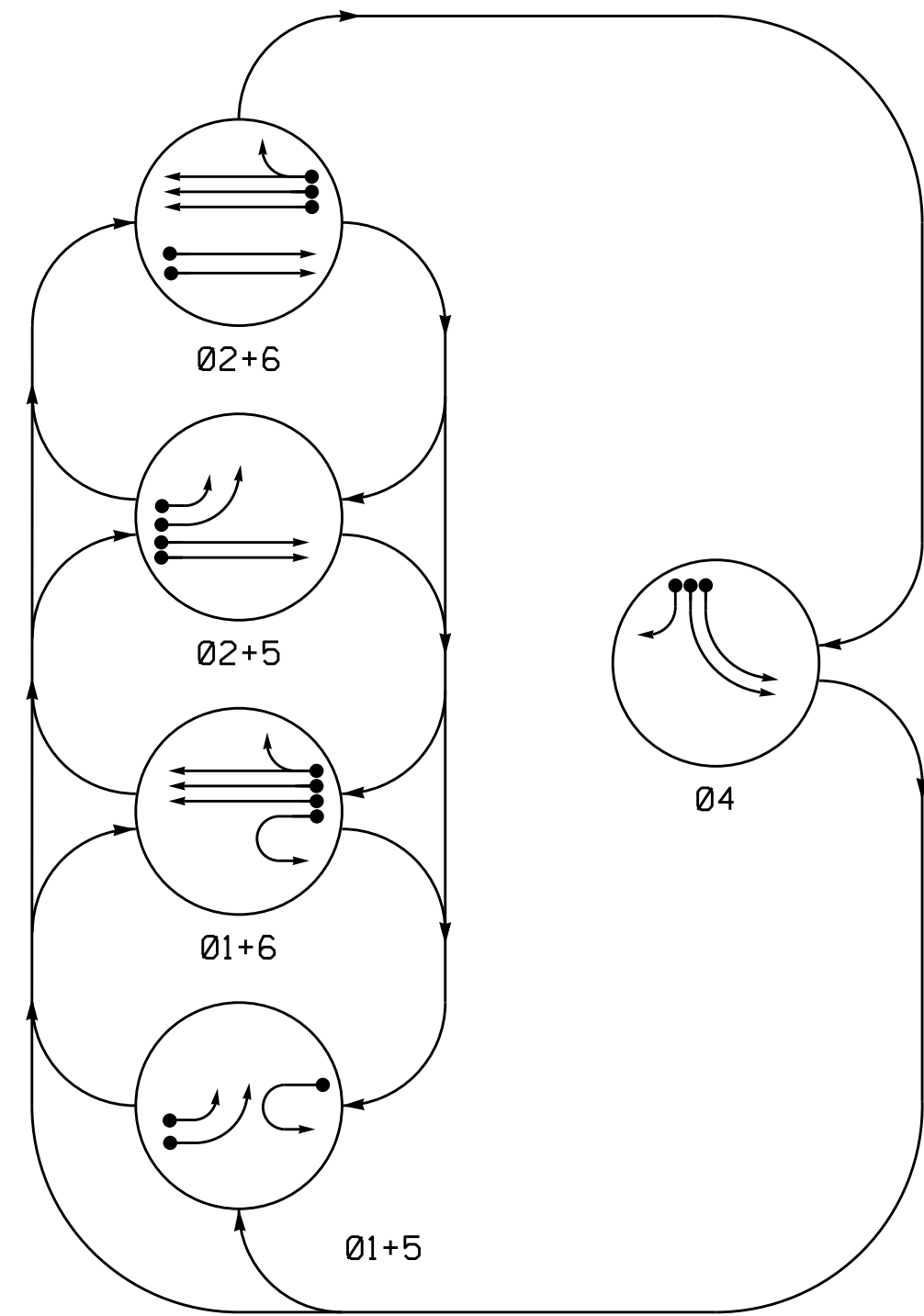


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

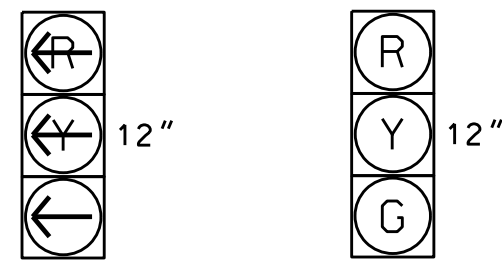
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- ⚡ PEDESTRIAN MOVEMENT

TABLE OF OPERATION

| SIGNAL FACE | PHASE | | | | | |
|-------------|-------|------|------|------|----|------|
| | 01+5 | 01+6 | 02+5 | 02+6 | 04 | ISOP |
| 11 | ← | ← | ← | ← | ← | ← |
| 21,22 | R | R | G | G | R | Y |
| 41,42 | R | R | R | R | G | R |
| 51,52 | ← | ← | ← | ← | ← | ← |
| 61,62 | R | G | R | G | R | Y |

SIGNAL FACE I.D.

All Heads L.E.D.



11 21, 22
51, 52 41, 42
61, 62

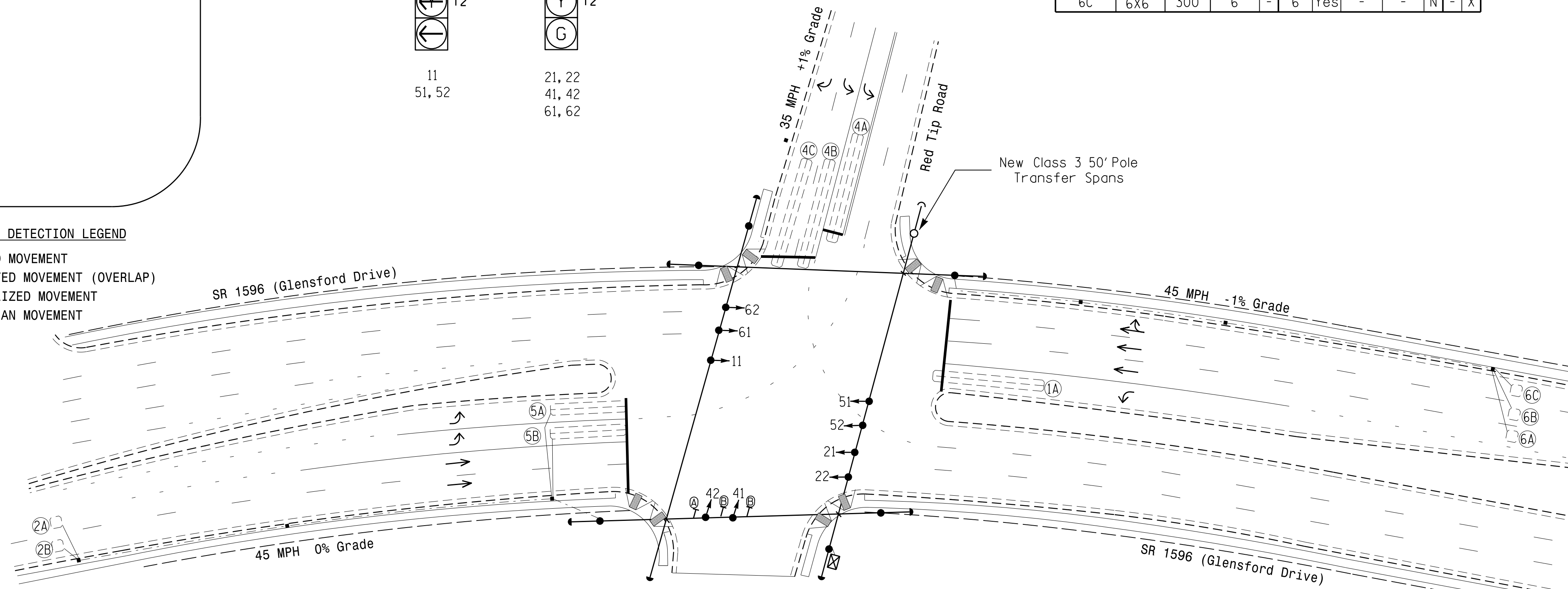
ASC/3 DETECTOR INSTALLATION CHART

| LOOP | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | NEW LOOP | PROGRAMMING | | | | | | |
|------|-----------|----------------------------|-------|----------|-------------|---------|-------------|------------|------|-------------|----------|
| | | | | | PHASE | CALLING | EXTEND TIME | DELAY TIME | TYPE | SYSTEM LOOP | NEW CARD |
| 1A | 6X60 | +5 | 2-4-2 | - | 1 | Yes | - | - | S | - | X |
| 2A | 6X6 | 300 | 5 | - | 2 | Yes | - | - | N | - | X |
| 2B | 6X6 | 300 | 5 | - | 2 | Yes | - | - | N | - | X |
| 4A | 6X60 | +5 | 2-4-2 | - | 4 | Yes | - | - | S | - | X |
| 4B | 6X60 | +5 | 2-4-2 | - | 4 | Yes | - | - | S | - | X |
| 4C | 6X60 | +5 | 2-4-2 | - | 4 | Yes | - | 10 | S | - | X |
| 5A | 6X40 | 0 | 2-4-2 | - | 5 | Yes | - | - | S | - | X |
| 5B | 6X40 | 0 | 2-4-2 | - | 5 | Yes | - | - | S | - | X |
| 6A | 6X6 | 300 | 6 | - | 6 | Yes | - | - | N | - | X |
| 6B | 6X6 | 300 | 6 | - | 6 | Yes | - | - | N | - | X |
| 6C | 6X6 | 300 | 6 | - | 6 | Yes | - | - | N | - | X |

5 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.
- Set all detector units to presence mode.
- In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- 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 | 4 | 5 | 6 | |
| Min Green * | 7 | 12 | 7 | 7 | 12 | |
| Walk * | 0 | 0 | 0 | 0 | 0 | |
| Ped Clear | 0 | 0 | 0 | 0 | 0 | |
| Veh. Extension * | 2.0 | 6.0 | 1.0 | 2.0 | 6.0 | |
| Max 1 * | 20 | 90 | 30 | 20 | 90 | |
| Yellow | 3.0 | 4.6 | 3.0 | 3.0 | 4.6 | |
| Red Clear | 3.6 | 1.7 | 3.3 | 4.0 | 1.7 | |
| Actuations B4 Add * | - | 0 | - | - | 0 | |
| Seconds /Actuation * | - | 1.5 | - | - | 1.5 | |
| Max Initial * | - | 34 | - | - | 34 | |
| Time Before Reduction * | - | 15 | - | - | 15 | |
| Time To Reduce * | - | 45 | - | - | 45 | |
| Minimum Gap | - | 3.0 | - | - | 3.0 | |
| Locking Detector | - | X | - | - | X | |
| Recall Position | - | VEH. RECALL | - | - | VEH. RECALL | |
| Dual Entry | - | - | - | - | - | |
| Simultaneous Gap | 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 | ○ | 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 |
| ○ | 2-in Underground Conduit | ○ | N/A |
| ○ | Right of Way | ○ | N/A |
| ○ | Directional Arrow | ○ | N/A |
| ○ | Right Arrow "ONLY" Sign (R3-SR) | ○ | N/A |
| ○ | Left Arrow "ONLY" Sign (R3-5L) | ○ | N/A |

Signal Upgrade

Prepared In the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

SR 1596 (Glensford Drive) at Red Tip Road

Division 6 Cumberland County Fayetteville

PLAN DATE: June 2016 REVIEWED BY: JPG

PREPARED BY: KGP, Jr. REVIEWED BY:

REVISIONS: INIT. DATE

SCALE: 0 40
1"=40'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

Jason P. Gallaway 7/29/2016

SIG. INVENTORY NO. 06-1009

09-Jul-2016 11:36
 S:\ITS\ASU\ITS_Signal\esignal_Section\Eastern_Region\01\U-5742_Fayetteville\11e_ASC3\66-1009\661009_s1a_dsn_2016mmds.dgn
 kgspeed1n