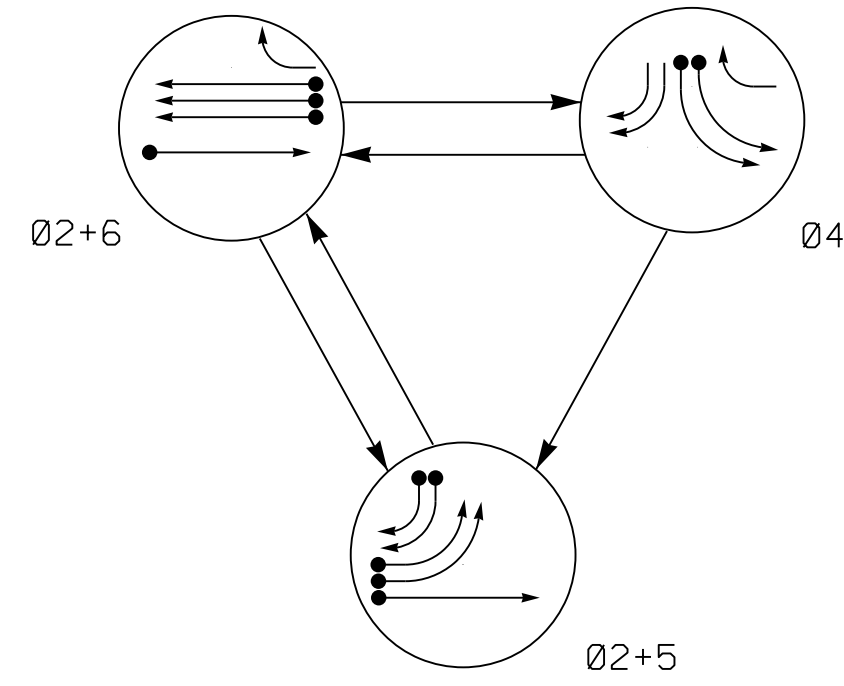


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

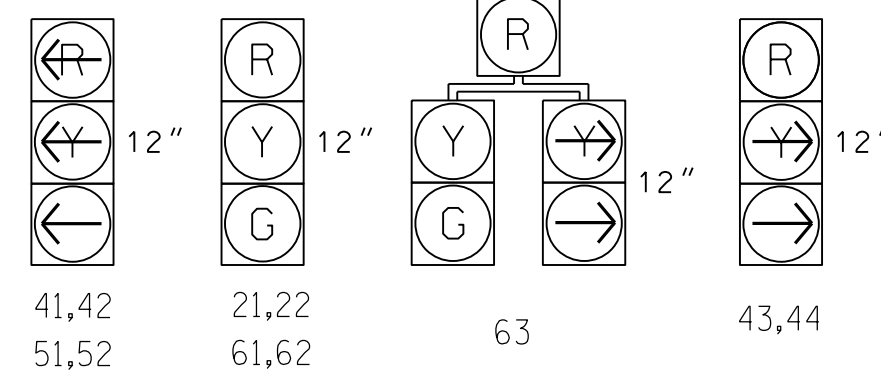
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

| SIGNAL FACE | PHASE | | | |
|-------------|-------|----|------|------|
| | 02+5 | 04 | 02+6 | 02+5 |
| 21,22 | G | G | R | Y |
| 41,42 | R | R | Y | R |
| 43,44 | Y | Y | R | R |
| 51,52 | R | R | Y | R |
| 61,62 | R | G | R | Y |
| 63 | R | G | R | Y |

SIGNAL FACE I.D.

All Heads L.E.D.



ASC/3 DETECTOR INSTALLATION CHART

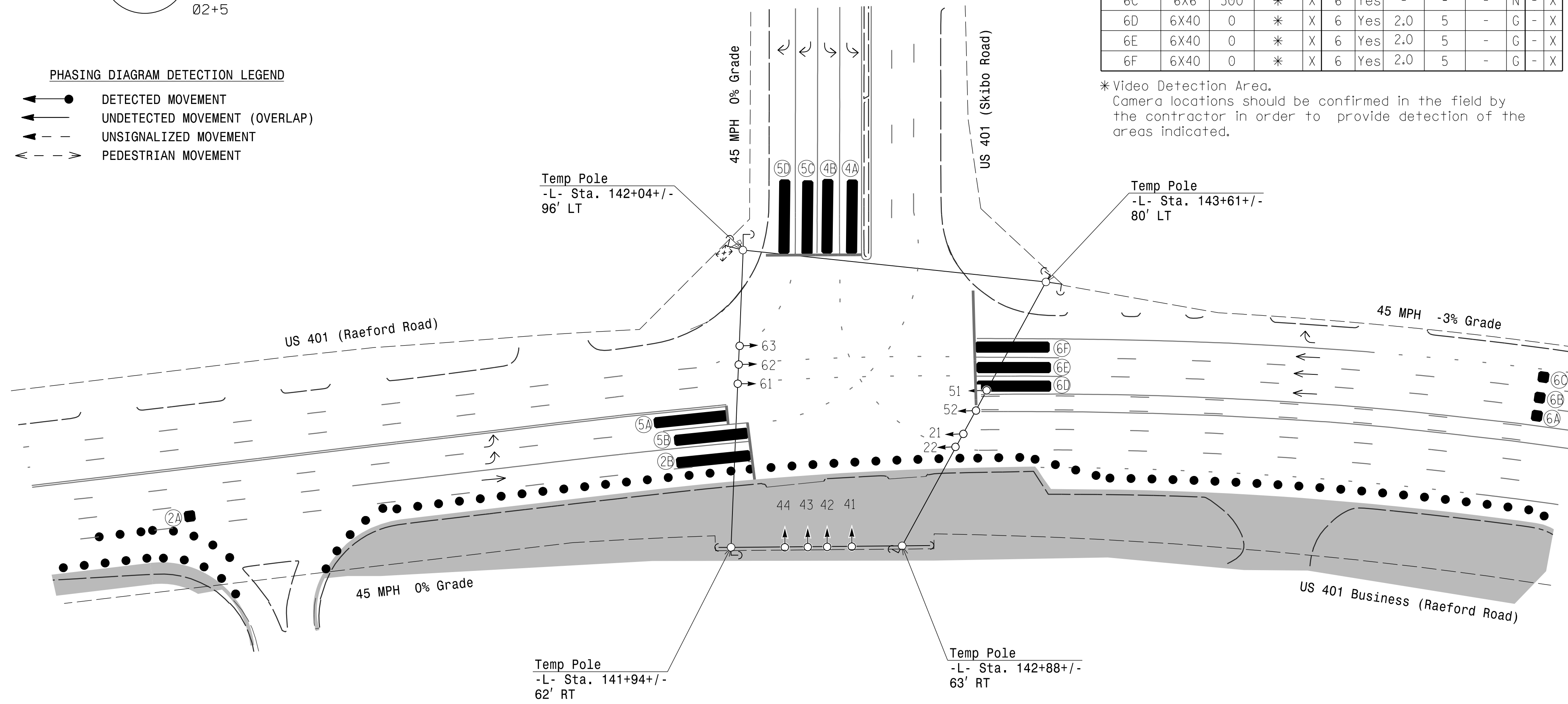
| LOOP | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | NEW LOOP | PROGRAMMING | | | | | | | |
|------|-----------|----------------------------|-------|----------|-------------|---------|-------------|------------|-------------------|------|-------------|----------|
| | | | | | PHASE | CALLING | EXTEND TIME | DELAY TIME | USE ADDED INITIAL | TYPE | SYSTEM LOOP | NEW CARD |
| 2A | 6X6 | 300 | * | X | 2 | Yes | - | - | - | N | - | X |
| 2B | 6X40 | 0 | * | X | 2 | Yes | 2.0 | 5 | - | G | - | X |
| 4A | 6X40 | 0 | * | X | 4 | Yes | - | - | - | S | - | X |
| 4B | 6X40 | 0 | * | X | 4 | Yes | - | - | - | S | - | X |
| 5A | 6X40 | 0 | * | X | 5 | Yes | - | - | - | S | - | X |
| 5B | 6X40 | 0 | * | X | 5 | Yes | - | - | - | S | - | X |
| 5C | 6X40 | 0 | * | X | 5 | Yes | - | 15 | - | S | - | X |
| 5D | 6X40 | 0 | * | X | 5 | Yes | - | 15 | - | S | - | X |
| 6A | 6X6 | 300 | * | X | 6 | Yes | - | - | - | N | - | X |
| 6B | 6X6 | 300 | * | X | 6 | Yes | - | - | - | N | - | X |
| 6C | 6X6 | 300 | * | X | 6 | Yes | - | - | - | N | - | X |
| 6D | 6X40 | 0 | * | X | 6 | Yes | 2.0 | 5 | - | G | - | X |
| 6E | 6X40 | 0 | * | X | 6 | Yes | 2.0 | 5 | - | G | - | X |
| 6F | 6X40 | 0 | * | X | 6 | Yes | 2.0 | 5 | - | G | - | X |

*Video Detection Area. Camera locations should be confirmed in the field by the contractor in order to provide detection of the areas indicated.

3 Phase Fully Actuated Fayetteville Signal System

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 5 may be lagged.
- Set all detector units to presence mode.
- Locate new cabinet foundation so as not to obstruct sight distance of vehicles turning right on red. Relocate existing cabinet and controller onto new foundation.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Field adjust temporary poles as needed.



ASC/3 TIMING CHART

| FEATURE | PHASE | | | |
|-------------------------|-------------|-----|-----|-------------|
| | 2 | 4 | 5 | 6 |
| Min Green * | 12 | 7 | 7 | 12 |
| Walk * | - | - | - | - |
| Ped Clear | - | - | - | - |
| Veh. Extension * | 6.0 | 2.0 | 2.0 | 6.0 |
| Max 1 * | 90 | 30 | 35 | 90 |
| Yellow | 4.5 | 3.0 | 3.0 | 4.8 |
| Red Clear | 1.6 | 3.6 | 3.3 | 1.8 |
| Actuations B4 Add * | - | - | - | - |
| Seconds / Actuation * | - | - | - | - |
| Max Initial * | - | - | - | - |
| Time Before Reduction * | 15 | - | - | 15 |
| Time To Reduce * | 45 | - | - | 45 |
| Minimum Gap | 3.0 | - | - | 3.0 |
| Locking Detector | - | - | - | - |
| Recall Position | VEH. RECALL | - | - | VEH. RECALL |
| Dual Entry | - | - | - | - |
| Simultaneous Gap | 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 Traffic Signal Head | | Existing Traffic Signal Head |
| | Proposed Modified Signal Head | | Existing Modified Signal Head |
| | Proposed Pedestrian Signal Head | | Existing Pedestrian Signal Head |
| | Proposed Signal Pole with Guy | | Existing Signal Pole with Guy |
| | Proposed Inductive Loop Detector | | Existing Inductive Loop Detector |
| | Proposed Controller & Cabinet | | Existing Controller & Cabinet |
| | Proposed Junction Box | | Existing Junction Box |
| | Proposed 2-in Underground Conduit | | Existing 2-in Underground Conduit |
| | Proposed Right of Way | | Existing Right of Way |
| | Proposed Directional Arrow | | Existing Directional Arrow |
| | Proposed Video Detection Area | | Existing Video Detection Area |
| | Proposed Construction Zone | | Existing Construction Zone |
| | Proposed Drums | | Existing Drums |

Signal Upgrade Temporary Design 1- TMP Phase I

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Prepared for the Offices of:

 750 N. Greenfield Pkwy, Garner, NC 27526
 SCALE: 0 40
 1" = 40'

US 401/US 401 Business (Raeford Road) at US 401 (Skibo Road)
 Division 6 Cumberland County Fayetteville
 PLAN DATE: March 2018 REVIEWED BY: E D Harris
 PREPARED BY: K Williams REVIEWED BY: B L Watson

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Betsy L. Watson
 DATE: 3/29/2018
 SIG. INVENTORY NO. 06-009611