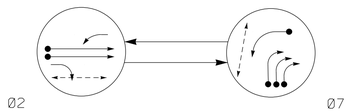
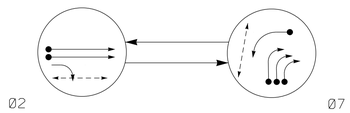
DocuSign Envelope ID: E3EA628B-49C0-463F-9B2F-F638C02B769B

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| W-5520 | Sig. 6.0 |

## DEFAULT PHASING DIAGRAM




## ALTERNATE PHASING DIAGRAM




### DEFAULT PHASING TABLE OF OPERATION

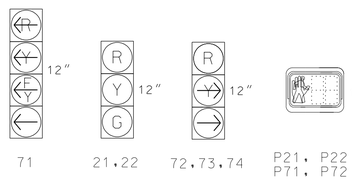
| SIGNAL FACE | PHASE Ø2 | PHASE Ø7 | FLASH |
|---|---|---|---|
| 21,22 | G | R | Y |
| 71 | F Y | ← | Y |
| 72,73,74 | R | → | R |
| P21,P22 | W | DW | DRK |
| P71,P72 | DW | W | DRK |

### ALTERNATE PHASING TABLE OF OPERATION

| SIGNAL FACE | PHASE Ø2 | PHASE Ø7 | FLASH |
|---|---|---|---|
| 21,22 | G | R | Y |
| 71 | R | ← | Y |
| 72,73,74 | R | → | R |
| P21,P22 | W | DW | DRK |
| P71,P72 | DW | W | DRK |

## SIGNAL FACE I.D.

All Heads L.E.D.




### PHASING DIAGRAM DETECTION LEGEND

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

### OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

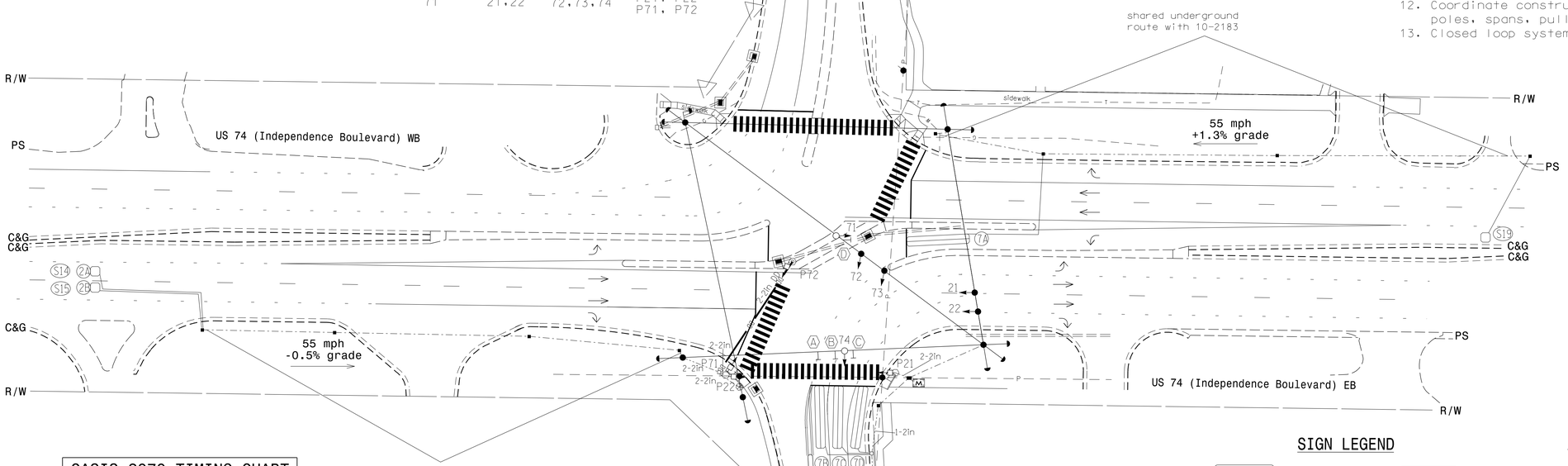
| INDUCTIVE LOOPS | | | | | DETECTOR PROGRAMMING | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOOP | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | NEW LOOP | PHASE | CALLING | EXTENSION | FULL TIME DELAY | STRETCH TIME | DELAY TIME | SYSTEM LOOP | NEW CARD |
| 2A/S14 | 6X6 | 420 | 5 | Y | 2 | Y | Y | - | - | - | Y | Y |
| 2B/S15 | 6X6 | 420 | 5 | Y | 2 | Y | Y | - | - | - | Y | Y |
| 7A | 6X40 | 0 | 2-4-2 | Y | 7 | Y | Y | - | - | 15* | - | Y |
| 7B | 6X40 | 0 | 2-4-2 | Y | 7 | Y | Y | - | - | 10 | - | Y |
| 7C | 6X40 | 0 | 2-4-2 | Y | 7 | Y | Y | - | - | 10 | - | Y |
| 7D | 6X40 | 0 | 2-4-2 | Y | 7 | Y | Y | - | - | 10 | - | Y |
| S16 | 6X6 | 180 | 4 | Y | – | – | – | - | - | - | Y | Y |
| S17 | 6X6 | 180 | 4 | Y | – | – | – | - | - | - | Y | Y |
| S18 | 6X6 | 180 | 4 | Y | – | – | – | - | - | - | Y | Y |
| S19 | 6X6 | 375 | 6 | Y | – | – | – | - | - | - | Y | Y |

* Omit delay during Alternate Phasing Operation.

## 2 Phase
## Fully Actuated
## US 74 - Indian Trail CLS #1

## 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. Reposition existing signal heads numbered 72 and 73.
4. Set all detector units to presence mode.
5. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. Pedestrian pedestals are conceptual and shown for reference only. See sheets P1-P3 for pushbutton location details.
8. Pushbutton locations shall be located by the Division Traffic Engineer.
9. The Division Traffic Engineer will determine the hours of use for each phasing plan.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
11. Tether signs A, B, and C. Install appropriate sign hardware and additional messenger cable.
12. Coordinate construction with signal 10-2183 - shared poles, spans, pullboxes and conduit runs.
13. Closed loop system data: Controller Asset #2184.

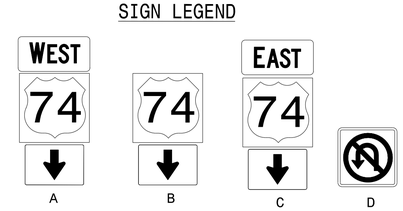



### OASIS 2070 TIMING CHART

| FEATURE | PHASE 2 | PHASE 7 |
|---|---|---|
| Min Green 1 * | 14 | 7 |
| Extension 1 * | 6.0 | 2.0 |
| Max Green 1 * | 90 | 30 |
| Yellow Clearance | 5.3 | 3.0 |
| Red Clearance | 1.1 | 3.7 |
| Red Revert | 2.0 | 2.0 |
| Walk 1 * | 7 | 7 |
| Don't Walk 1 | 22 | 19 |
| Seconds Per Actuation * | 1.5 | - |
| Max Variable Initial * | 46 | - |
| Time Before Reduction * | 15 | - |
| Time To Reduce * | 30 | - |
| Minimum Gap | 3.4 | - |
| Recall Mode | MIN RECALL | - |
| Vehicle Call Memory | YELLOW | - |
| Dual Entry | - | - |
| Simultaneous Gap | ON | ON |

* These values may be field adjusted. Do not adjust Min Green and Extension times for phase 2 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

## SIGN LEGEND




## LEGEND

| PROPOSED | | EXISTING |
|---|---|---|
| | Traffic Signal Head | |
| | Modified Signal Head | N/A |
| | Sign | |
| | Pedestrian Signal Head With Push Button & Sign | |
| | Type I Pushbutton Post | |
| | Type II Signal Pedestal | |
| | Signal Pole with Guy | |
| | Signal Pole with Sidewalk Guy | |
| | Inductive Loop Detector | |
| | Controller & Cabinet | |
| | Master Controller & Cabinet | |
| | Junction Box | |
| | Oversized Junction Box | |
| | 2-in Underground Conduit | |
| | Directional Drill | N/A |
| N/A | Right of Way | |
| N/A | Underground Water Line | |
| N/A | Underground Power Line | |
| N/A | Underground Telephone Fiber Optic Cable | |
| N/A | Underground Telephone Cable | |
| N/A | Underground Gas Line | |
| | Directional Arrow | |
| | See Sign Legend | |

Signal Upgrade - Final Design

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

*PLANS PREPARED BY:*

DRMP
ENGINEERS • PLANNERS • SCIENTISTS

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CHARLOTTE, NC 28210
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*Prepared for the Offices of:*
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

US 74 (Independence Boulevard) Eastbound
at
SR 1008 (Indian Trail Road)

Division 10 Union County Indian Trail

| | | | |
|---|---|---|---|
| PLAN DATE: | June 2015 | REVIEWED BY: | L Moon |
| PREPARED BY: | D Ondieki | REVIEWED BY: | J Beck |

SCALE 0 40 1"=40'

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

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 022516 ENGINEER LISA M. MOON

Lisa M. Moon 11/11/2016
DATE

SIG. INVENTORY NO. 10-2184

11-NOV-2016 13:00
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lmoon AT CAR-LMOON1-W7