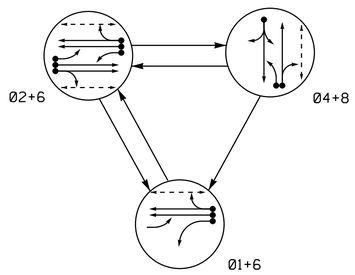
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| U-4715 B | Sig.220.0 |

## PHASING DIAGRAM




PHASING DIAGRAM DETECTION LEGEND

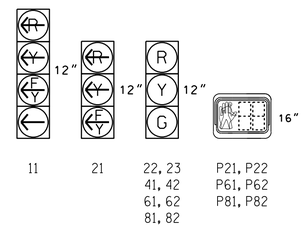
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

## TABLE OF OPERATION

| SIGNAL FACE | PHASE 01+6 | PHASE 02+6 | PHASE 04+8 | FLASH |
|---|---|---|---|---|
| 11 | ←, ~~F Y~~ | ~~F Y~~ | ~~R~~ | ~~Y~~ |
| 21 | ~~F Y~~ | ~~F Y~~ | ~~R~~ | ~~Y~~ |
| 22, 23 | R | G | R | Y |
| 41, 42 | R | R | G | R |
| 61, 62 | G | G | R | Y |
| 81, 82 | R | R | G | R |
| P21, P22 | DW | W | DW | DRK |
| P61, P62 | W | W | DW | DRK |
| P81, P82 | DW | DW | W | DRK |

## SIGNAL FACE I.D.

All Heads L.E.D.



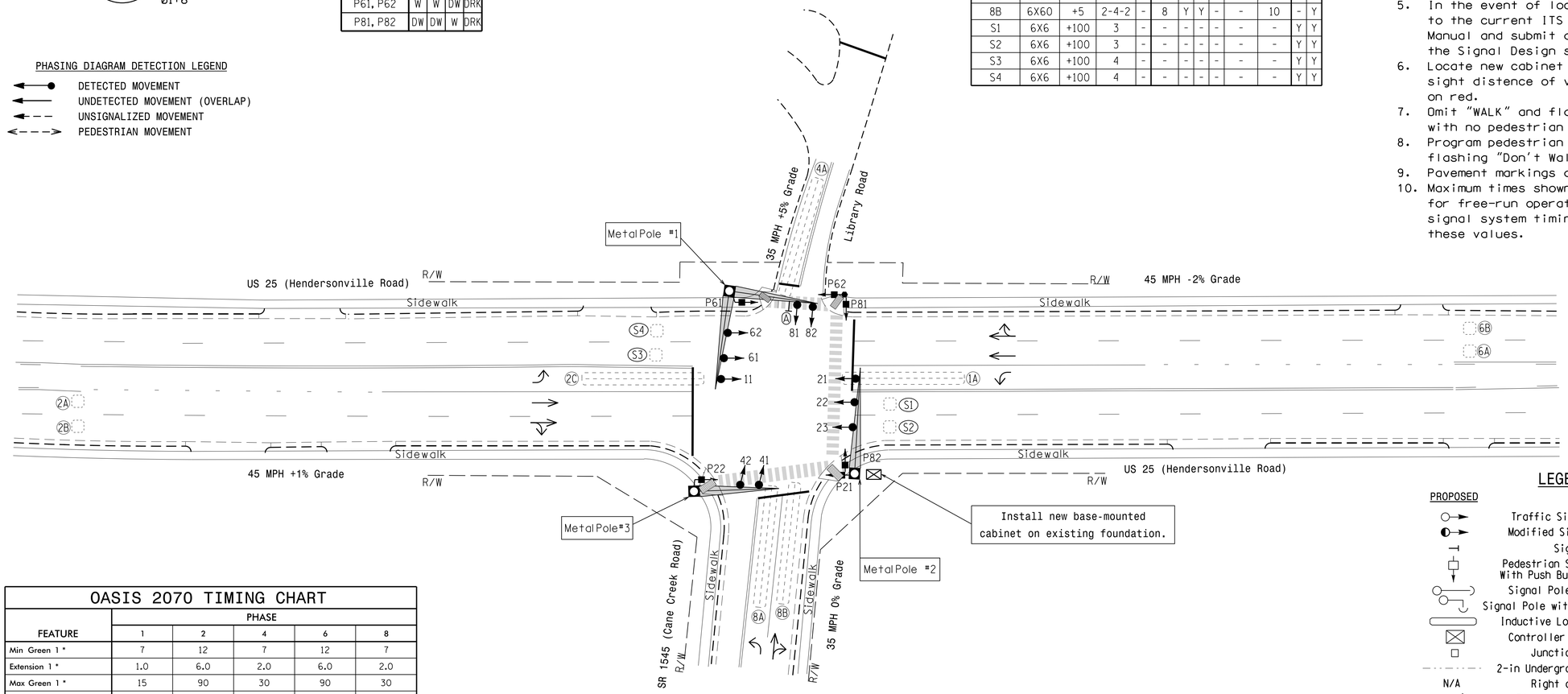

## OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

| 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 |
| 1A | 6X60 | +5 | 2-4-2 | - | 1 | Y | Y | - | - | 15 | - | Y |
| | | | | | 6 | Y | Y | Y | - | 3 | - | Y |
| 2A | 6X6 | 300 | 5 | - | 2 | Y | Y | - | - | - | - | Y |
| 2B | 6X6 | 300 | 5 | - | 2 | Y | Y | - | - | - | - | Y |
| 2C | 6X60 | +5 | 2-4-2 | - | 2 | Y | Y | Y | - | 3 | - | Y |
| 4A | 6X60 | +5 | 2-4-2 | - | 4 | Y | Y | - | - | 10 | - | Y |
| 6A | 6X6 | 300 | 5 | - | 6 | Y | Y | - | - | - | - | Y |
| 6B | 6X6 | 300 | 5 | - | 6 | Y | Y | - | - | - | - | Y |
| 8A | 6X60 | +5 | 2-4-2 | - | 8 | Y | Y | - | - | 3 | - | Y |
| 8B | 6X60 | +5 | 2-4-2 | - | 8 | Y | Y | - | - | 10 | - | Y |
| S1 | 6X6 | +100 | 3 | - | - | - | - | - | - | - | Y | Y |
| S2 | 6X6 | +100 | 3 | - | - | - | - | - | - | - | Y | Y |
| S3 | 6X6 | +100 | 4 | - | - | - | - | - | - | - | Y | Y |
| S4 | 6X6 | +100 | 4 | - | - | - | - | - | - | - | Y | Y |

# 3 Phase
# Fully Actuated
# Asheville 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 may be lagged.
4. Set all detector units to presence mode.
5. 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.
6. Locate new cabinet so as not to obstruct sight distence of vehicle turning right on red.
7. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
8. Program pedestrian heads to countdown flashing "Don't Walk" time only.
9. Pavement markings are existing.
10. 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 | |
| | Metal Pole with Mastarm | |
| | Type II Signal Pedestal | |
| N/A | Wheelchair Ramp | |
| | "LEFT TURN YIELD ON GREEN" Sign (R10-12) | |

## OASIS 2070 TIMING CHART

| FEATURE | PHASE 1 | PHASE 2 | PHASE 4 | PHASE 6 | PHASE 8 |
|---|---|---|---|---|---|
| Min Green 1 * | 7 | 12 | 7 | 12 | 7 |
| Extension 1 * | 1.0 | 6.0 | 2.0 | 6.0 | 2.0 |
| Max Green 1 * | 15 | 90 | 30 | 90 | 30 |
| Yellow Clearance | 3.0 | 4.7 | 3.8 | 4.7 | 3.8 |
| Red Clearance | 2.4 | 1.0 | 1.9 | 1.0 | 1.9 |
| Red Revert | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Walk 1 * | - | 4 | - | 4 | 4 |
| Don't Walk 1 | - | 12 | - | 4 | 18 |
| Seconds Per Actuation * | - | 1.5 | - | 1.5 | - |
| Max Variable Initial * | - | 34 | - | 34 | - |
| Time Before Reduction * | - | 15 | - | 15 | - |
| Time To Reduce * | - | 30 | - | 30 | - |
| Minimum Gap | - | 3.0 | - | 3.0 | - |
| Recall Mode | - | MIN RECALL | - | MIN RECALL | - |
| Vehicle Call Memory | - | YELLOW | - | YELLOW | - |
| Dual Entry | - | - | ON | - | ON |
| Simultaneous Gap | ON | ON | ON | ON | ON |

* These values may be field adjusted. Do not adjust Min Green and Extension times for phase 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

# US 25 (Hendersonville Road) at SR 1545 (Cane Creek Road) / Library Road

Division 14 Henderson County Fletcher

| | | | |
|---|---|---|---|
| PLAN DATE: | May 2016 | REVIEWED BY: | T. Williams |
| PREPARED BY: | M. Mahbooba | REVIEWED BY: | |

SCALE 0 30 1"=30'

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

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 024393 ENGINEER TIMOTHY J. WILLIAMS

DocuSigned by: T. J. Williams 8/10/2016
07A07929EB594CA
DATE

SIG. INVENTORY NO. 14-0585

10-AUG-2016 07:50
S:*TISGSP\ITS Signals\Signal Design Section\Eastern Region\Div-13\U-4715B (Asheville Signal System)\Signal Designs\14-0585\140585_sig_dsn_20160810.dgn
mmahbooba