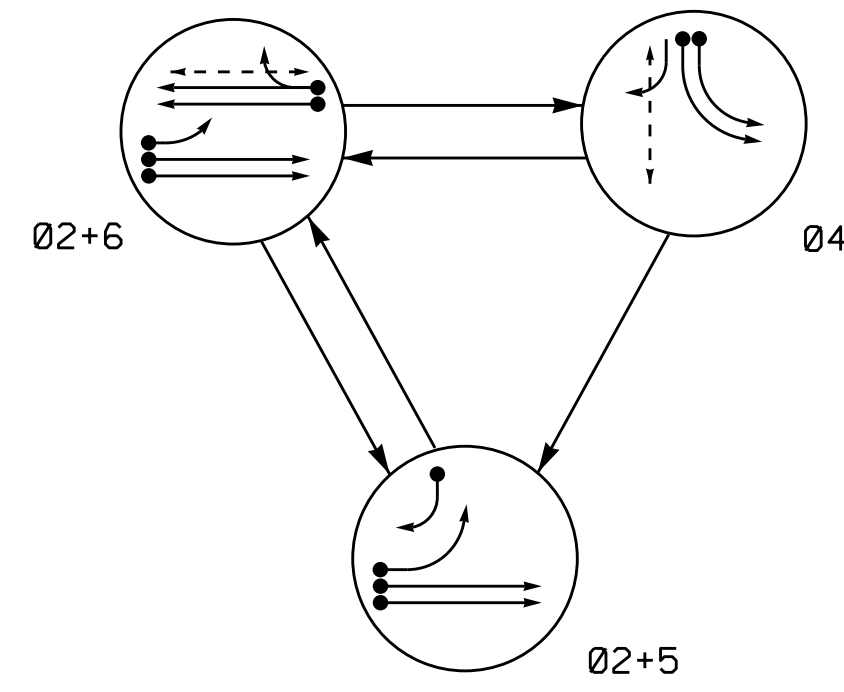


PHASING DIAGRAM



| SIGNAL FACE | PHASE | | | |
|-------------|-------|------|----|---------|
| | 02+5 | 02+6 | 04 | FL HEAD |
| 21, 22 | G | G | R | Y |
| 41 | R | R | G | R |
| 42 | R | R | G | R |
| 51 | ← | ← | ← | ← |
| 61, 62 | R | G | R | Y |
| P41, P42 | DW | DW | W | DRK |
| P61, P62 | DW | W | DW | DRK |

PHASING DIAGRAM DETECTION LEGEND

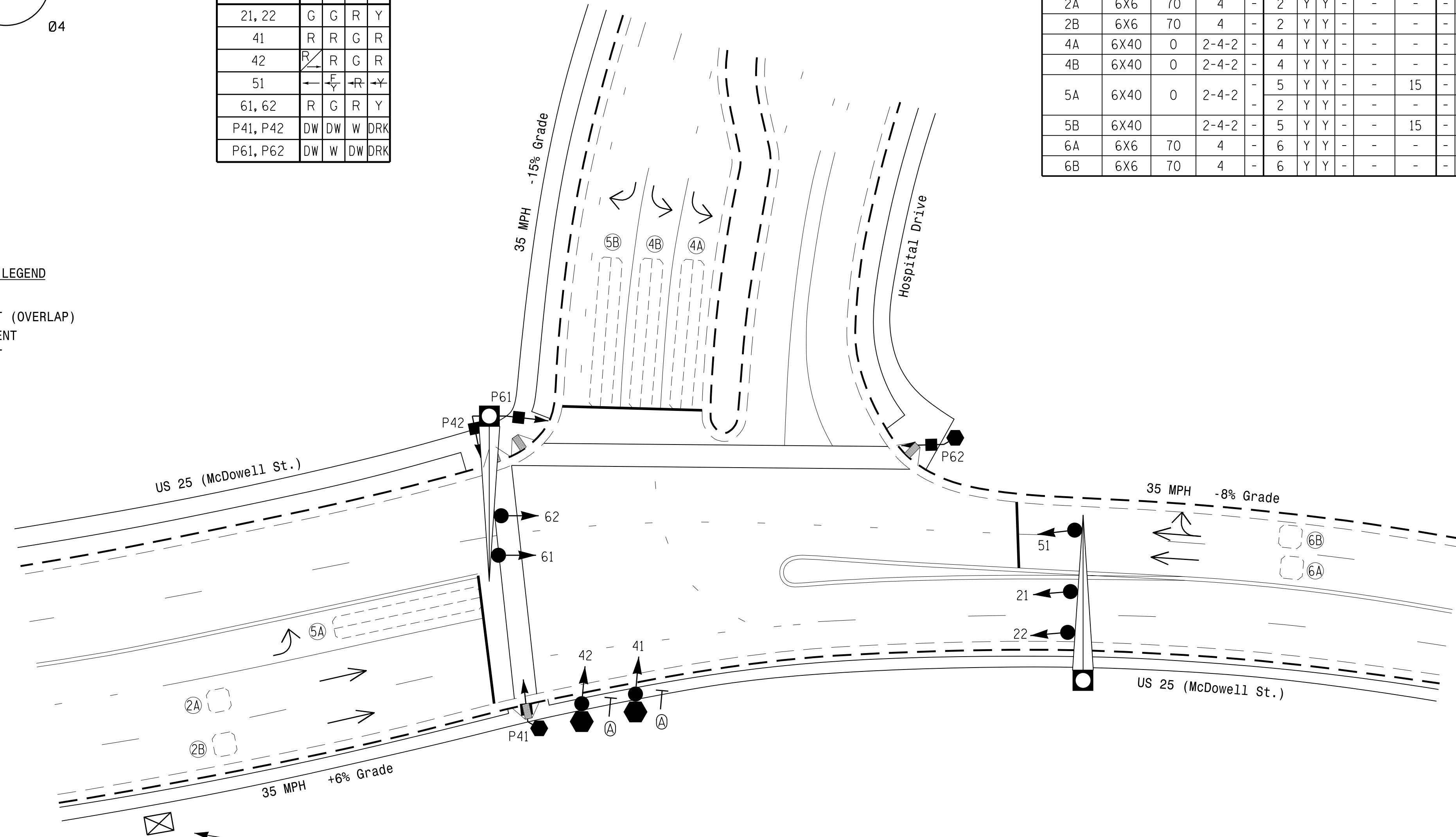
- ←● DETECTED MOVEMENT
- ← UNDETECTED MOVEMENT (OVERLAP)
- ←- - UNSIGNALIZED MOVEMENT
- ←- - - PEDESTRIAN MOVEMENT

| OASIS 2070 LOOP & DETECTOR INSTALLATION CHART | | | | | | | | | | | | |
|---|-----------|----------------------------|-------|----------|----------------------|---------|-----------|-----------------|--------------|------------|-------------|----------|
| LOOP | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | NEW LOOP | DETECTOR PROGRAMMING | | | | | | | |
| | | | | | PHASE | CALLING | EXTENSION | FULL TIME DELAY | STRETCH TIME | DELAY TIME | SYSTEM LOOP | NEW CARD |
| 2A | 6X6 | 70 | 4 | - | 2 | Y | Y | - | - | - | - | Y |
| 2B | 6X6 | 70 | 4 | - | 2 | Y | Y | - | - | - | - | Y |
| 4A | 6X40 | 0 | 2-4-2 | - | 4 | Y | Y | - | - | - | - | Y |
| 4B | 6X40 | 0 | 2-4-2 | - | 4 | Y | Y | - | - | - | - | Y |
| 5A | 6X40 | 0 | 2-4-2 | - | 5 | Y | Y | - | - | 15 | - | Y |
| 5B | 6X40 | | 2-4-2 | - | 5 | Y | Y | - | - | 15 | - | Y |
| 6A | 6X6 | 70 | 4 | - | 6 | Y | Y | - | - | - | - | Y |
| 6B | 6X6 | 70 | 4 | - | 6 | Y | Y | - | - | - | - | Y |

3 Phase Fully Actuated Asheville 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 5 may be lagged.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



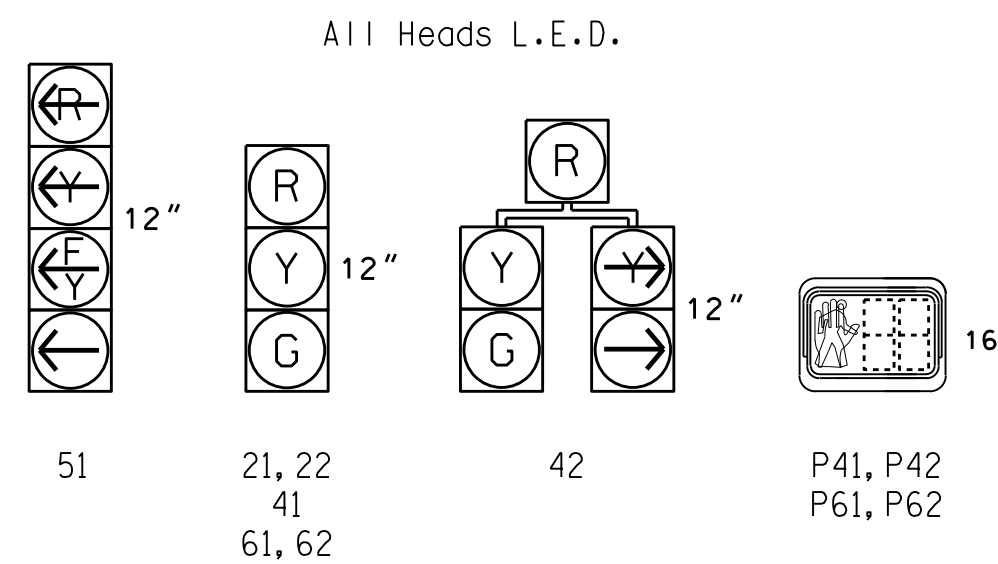
Install new base-mounted cabinet on existing foundation.

OASIS 2070 TIMING CHART

| FEATURE | PHASE | | | |
|-------------------------|------------|-----|-----|------------|
| | 2 | 4 | 5 | 6 |
| Min Green 1 * | 10 | 7 | 7 | 10 |
| Extension 1 * | 3.0 | 2.0 | 2.0 | 3.0 |
| Max Green 1 * | 45 | 25 | 15 | 45 |
| Yellow Clearance | 4.5 | 3.9 | 3.0 | 4.5 |
| Red Clearance | 2.7 | 2.6 | 2.9 | 2.7 |
| Red Revert | 2.0 | 2.0 | 2.0 | 2.0 |
| Walk 1 * | - | 7 | - | 7 |
| Don't Walk 1 | - | 15 | - | 26 |
| Seconds Per Actuation * | - | - | - | - |
| Max Variable Initial * | - | - | - | - |
| Time Before Reduction * | - | - | - | - |
| Time To Reduce * | - | - | - | - |
| Minimum Gap | - | - | - | - |
| Recall Mode | MIN RECALL | - | - | MIN RECALL |
| Vehicle Call Memory | YELLOW | - | - | YELLOW |
| Dual Entry | - | - | - | - |
| Simultaneous Gap | ON | ON | ON | ON |

* 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 FACE I.D.



LEGEND

- | PROPOSED | EXISTING |
|--|-----------|
| ○ → Traffic Signal Head | ● → N/A |
| ○ → 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 |
| N/A → Right of Way | N/A → N/A |
| → → Directional Arrow | → → N/A |
| ○ → Metal Pole with Mastarm | ○ → N/A |
| ○ → Type II Signal Pedestal | ○ → N/A |
| N/A → Curb Ramp | N/A → N/A |
| △ → Left Arrow "ONLY" Sign (R3-5L) | △ → N/A |

Signal Upgrade

Prepared In the Offices of:

 750 N. Greenfield Pkwy, Garner, NC 27529

US 25 (McDowell St.) at Hospital Drive

Division 13 Buncombe County Asheville

PLAN DATE: July 2016 REVIEWED BY: T.J. Williams

PREPARED BY: R.N. Zinser REVIEWED BY:

REVISIONS INIT. DATE

SCALE 0 20 1"=20'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 RICHARD N. ZINSE
 043914
 10/28/2016

SIG. INVENTORY NO. 13-1231

28-001-2016-1056
 S:\11550\11550\SIG\SIG Design\Signal Design\Signal System\Signal Design\13-1231\Sig.dgn, 2016mdd-dgn
 rnz:insr