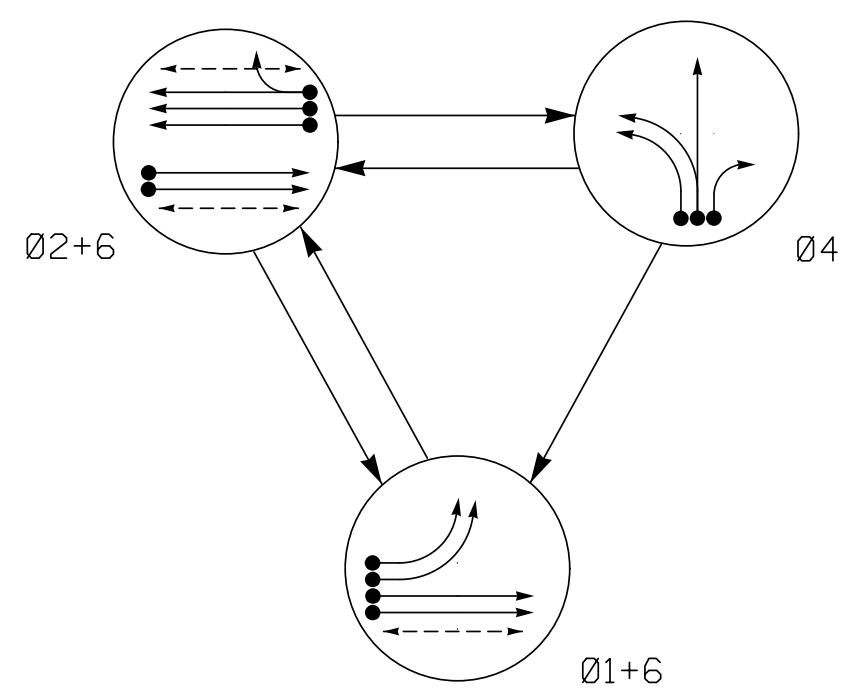


PHASING DIAGRAM



EV PREEMPT PHASES
(Medium Priority)

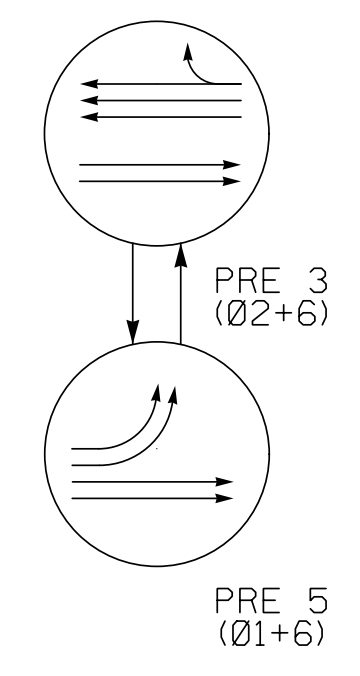


TABLE OF OPERATION

| SIGNAL FACE | PHASE | | | | | |
|-------------|------------|------------|-----|-----------|-----------|-----------|
| | Ø 1 + 6 | Ø 2 + 6 | Ø 4 | P RE 3 | P RE 5 | P RE 6 |
| 11, 12 | ← | ← | ← | ← | ← | ← |
| 21, 22 | R | ↑ | R | ↑ | R | Y |
| 23, 24 | R | G | R | G | R | Y |
| 61, 62 | ↑ | ↑ | R | ↑ | ↑ | Y |
| 41 | ← | ← | ← | ← | ← | ← |
| 42 | R | R | G | R | R | R |
| 43 | R | R | G | R | R | R |
| P21, P22 | DW | W | DW | DW | DW | DRK |
| P61, P62 | W | W | DW | DW | DW | DRK |

ASC/3 DETECTOR INSTALLATION CHART

| LOOP | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | PROGRAMMING | | | | | | | | |
|------|-----------|----------------------------|-------|-------------|-------|---------|-------------|------------|-------------------|------|-------------|----------|
| | | | | NEW LOOP | PHASE | CALLING | EXTEND TIME | DELAY TIME | USE ADDED INITIAL | TYPE | SYSTEM LOOP | NEW CARD |
| 1A | 6x40 | 0 | 2-4-2 | X | 1 | Yes | - | - | - | S | - | X |
| 1B | 6x40 | 0 | 2-4-2 | X | 1 | Yes | - | - | - | S | - | X |
| 2A | 6x6 | 70 | 3 | X | 2 | Yes | - | - | - | S | - | X |
| 2B | 6x6 | 70 | 3 | X | 2 | Yes | - | - | - | S | - | X |
| 2C | 6x6 | 70 | 3 | X | 2 | Yes | - | - | - | S | - | X |
| 4A | 6x40 | 0 | 2-4-2 | X | 4 | Yes | - | - | - | S | - | X |
| 4B | 6x40 | 0 | 2-4-2 | X | 4 | Yes | - | - | - | S | - | X |
| 4C | 6x40 | 0 | 2-4-2 | X | 4 | Yes | - | 15 | - | S | - | X |
| 6A | 6x6 | 70 | 5 | X | 6 | Yes | - | - | - | S | - | X |
| 6B | 6x6 | 70 | 5 | X | 6 | Yes | - | - | - | S | - | X |
| S9 | 6x6 | +145 | 4 | X | - | No | - | - | - | N | X | X |
| S10 | 6x6 | +145 | 4 | X | - | No | - | - | - | N | X | X |
| S20 | 6x6 | +125 | 4 | X | - | No | - | - | - | N | X | X |
| S21 | 6x6 | +125 | 4 | X | - | No | - | - | - | N | X | X |
| S22 | 6x6 | +125 | 4 | X | - | No | - | - | - | N | X | X |
| S23 | 6x6 | +125 | 4 | X | - | No | - | - | - | N | X | X |

3 Phase Fully Actuated w/ Emergency Vehicle Preemption
SR 1007 (Mebane Oaks Rd) CLS
Signal System: 10705

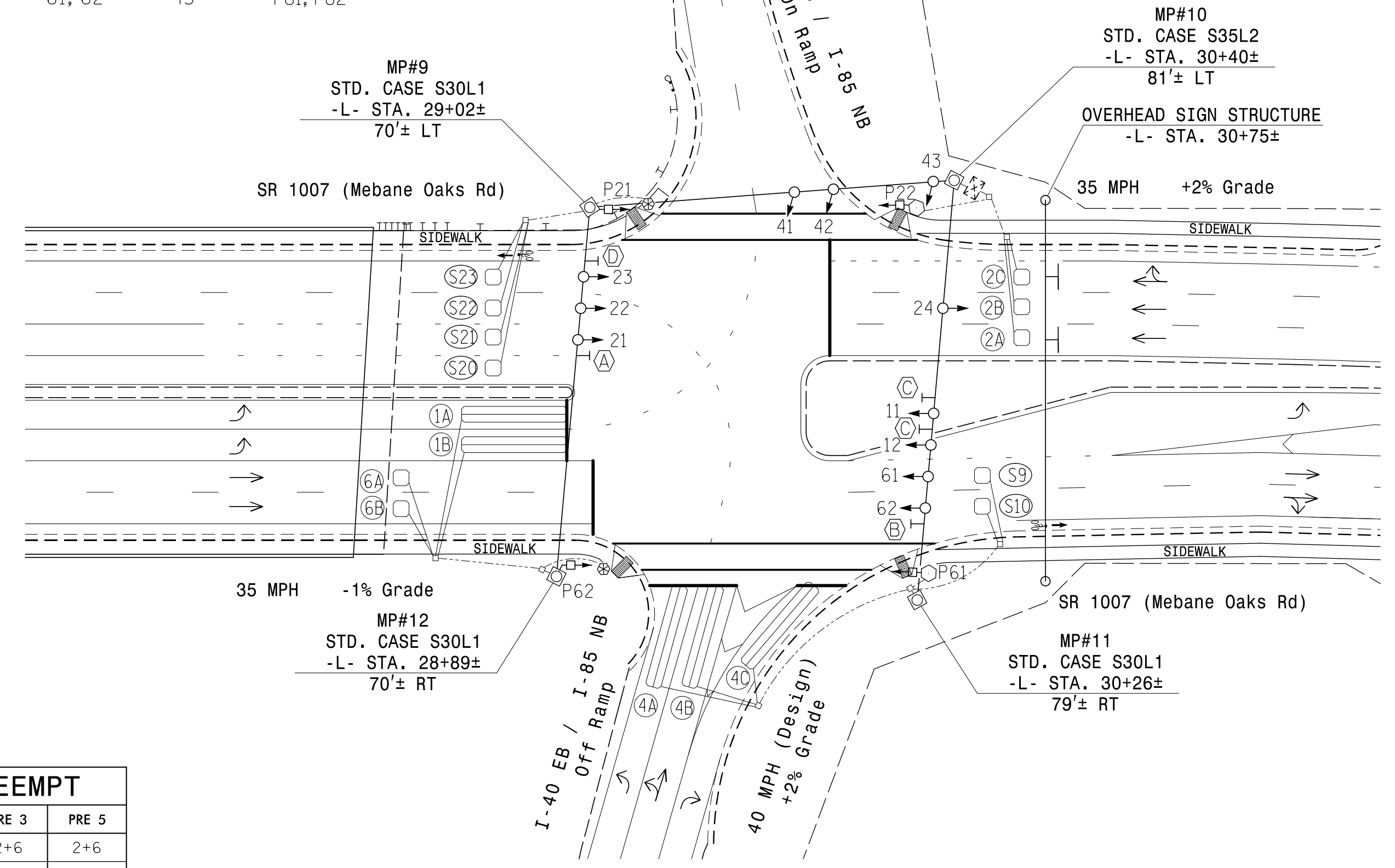
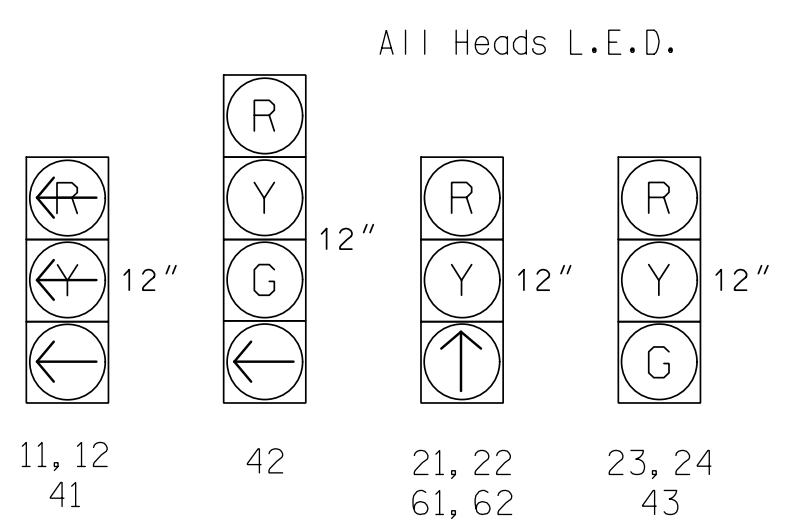
NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
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. 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. This intersection features a GPS Emergency Vehicle Preemption system.
8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
9. Closed loop system data:
Controller Asset #: 2025.

PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- ← UNDETECTED MOVEMENT (OVERLAP)
- ← UNSIGNALED MOVEMENT
- ← PEDESTRIAN MOVEMENT

SIGNAL FACE I.D.



LEGEND

- PROPOSED**
- Traffic Signal Head
- Sign
- Pedestrian Signal Head With Push Button & Sign
- Inductive Loop Detector
- Controller & Cabinet
- Junction Box
- 2-in Underground Conduit
- N/A Right of Way
- Directional Arrow
- Metal Strain Pole
- Type I Pushbutton Post
- Type II Signal Pedestal
- N/A Curb Ramp
- N/A Guardrail
- Ⓐ No U Turn / No Left Turn Sign (R3-18)
- Ⓑ No Right Turn Sign (R3-1)
- Ⓒ Left Arrow "ONLY" Sign (R3-5L)
- Ⓓ Right "TURNING VEHICLES" Yield "TO" Pedestrians Sign (R10-15R)
- EXISTING**
- Traffic Signal Head
- Sign
- Pedestrian Signal Head With Push Button & Sign
- Junction Box
- 2-in Underground Conduit
- N/A Right of Way
- Directional Arrow
- Metal Strain Pole
- Type I Pushbutton Post
- Type II Signal Pedestal
- N/A Curb Ramp
- N/A Guardrail
- Ⓐ No U Turn / No Left Turn Sign (R3-18)
- Ⓑ No Right Turn Sign (R3-1)
- Ⓒ Left Arrow "ONLY" Sign (R3-5L)
- Ⓓ Right "TURNING VEHICLES" Yield "TO" Pedestrians Sign (R10-15R)

ASC/3 TIMING CHART

| FEATURE | PHASE | | | |
|-------------------------|-------|-------------|-----|-------------|
| | 1 | 2 | 4 | 6 |
| Min Green * | 7 | 10 | 7 | 10 |
| Walk * | 0 | 7 | 0 | 7 |
| Ped Clear | 0 | 24 | 0 | 27 |
| Veh. Extension * | 2.0 | 3.0 | 2.0 | 3.0 |
| Max 1 * | 35 | 60 | 35 | 60 |
| Yellow | 3.0 | 3.7 | 4.0 | 3.9 |
| Red Clear | 3.5 | 1.0 | 2.5 | 2.0 |
| Red Revert | 2.0 | 2.0 | 2.0 | 2.0 |
| Actuations B4 Add * | - | - | - | - |
| Seconds / Actuation * | - | - | - | - |
| Max Initial * | - | - | - | - |
| Time Before Reduction * | - | - | - | - |
| Time To Reduce * | - | - | - | - |
| Minimum Gap | - | - | - | - |
| Locking Detector | - | X | - | X |
| Recall Position | - | VEH. RECALL | - | VEH. RECALL |
| Dual Entry | - | - | - | - |
| Simultaneous Gap | X | X | X | X |

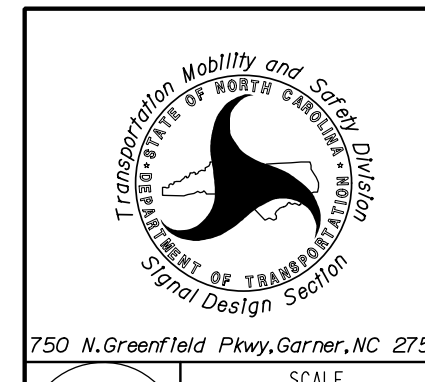
ASC/3 EV PREEMPT

| FUNCTION | PRE 3 | PRE 5 |
|------------------------------|-------|-------|
| Exit Phase(s) | 2+6 | 2+6 |
| Preempt Override | OFF | OFF |
| Delay Time | 0 | 0 |
| Ped Clear Through Yellow | Y | Y |
| Terminate Phases | N | N |
| Entrance Walk | 1 | 1 |
| Entrance Ped Clear | 14 | 14 |
| Entrance Min Green | 1 | 1 |
| Entrance Yellow Clear | 25.5* | 25.5* |
| Entrance Red Clear | 25.5* | 25.5* |
| Min Dwell Time | 7 | 7 |
| Preempt Input Extension Time | 2 | 2 |
| Preempt Max Time | 120 | 120 |
| Exit Yellow Clear | 25.5* | 25.5* |
| Exit Red Clear | 25.5* | 25.5* |

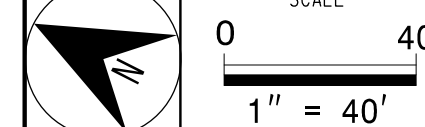
* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

* Time defaults to time used for phase during normal operation

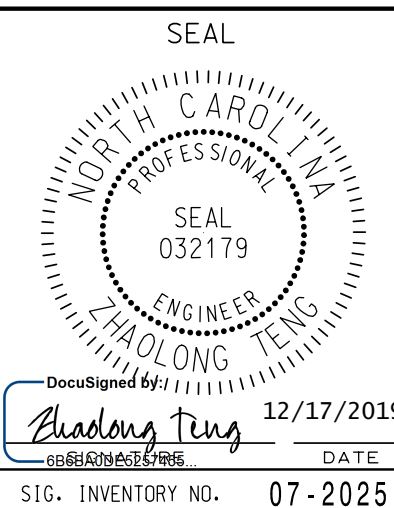
Signal Upgrade - Final Design



SR 1007 (Mebane Oaks Road)
at
I-40 EB / I-85 NB Ramps
Division 7 Alameda County Mebane
PLAN DATE: November 2019 REVIEWED BY: Z. "Gavin" Teng
PREPARED BY: Z. "Gavin" Teng REVIEWED BY:



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



750 N. Greenfield Pkwy, Garner, NC 27529
SCALE 0 40
1" = 40'

REVISIONS INIT. DATE
12/17/2019
DATE
SIG. INVENTORY NO. 07-2025

PREPARED IN THE OFFICE OF:
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Cary, NC 27511
Tel: 919.263.5678 Fax: 919.263.5687
NC License No. P-1442