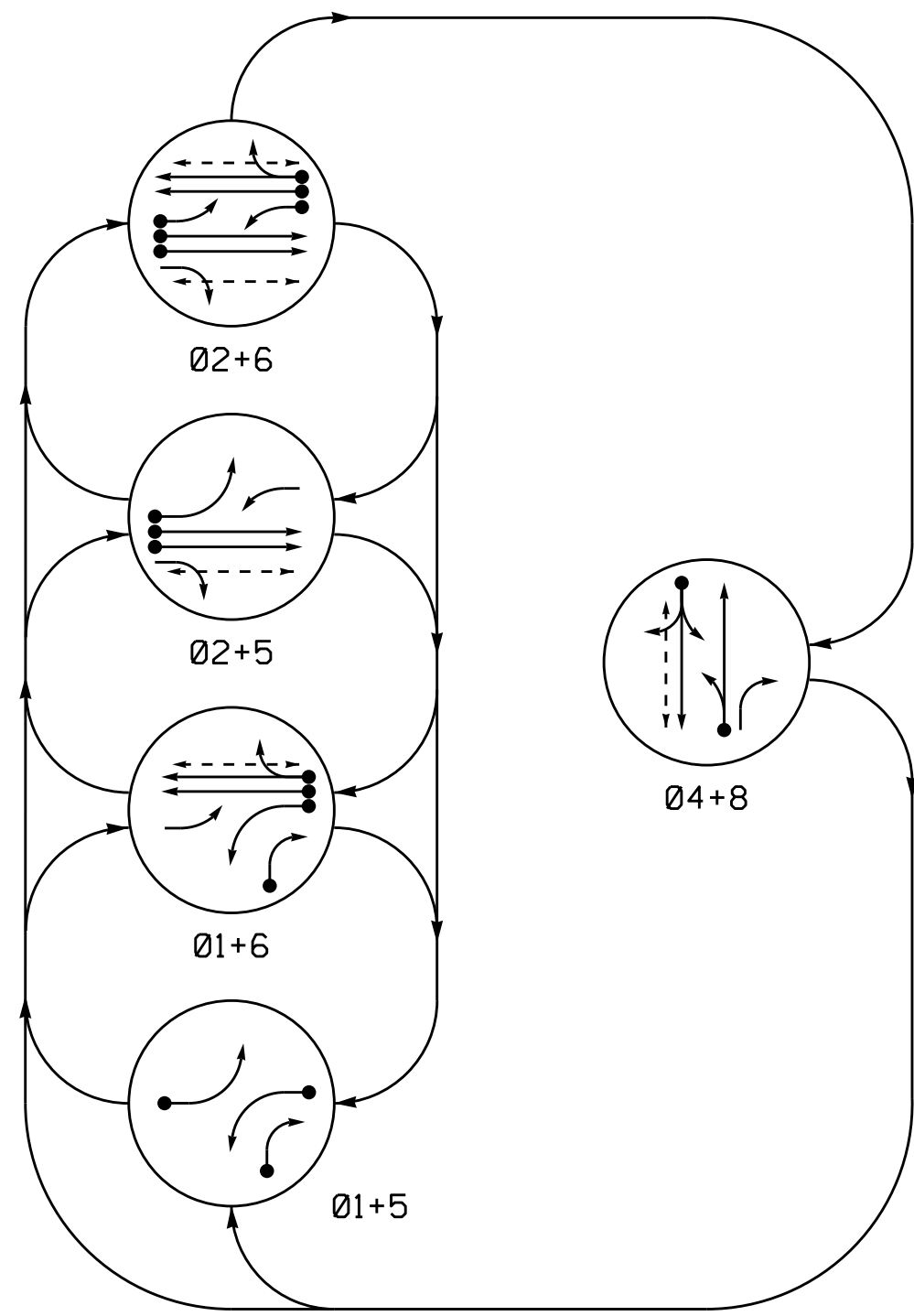
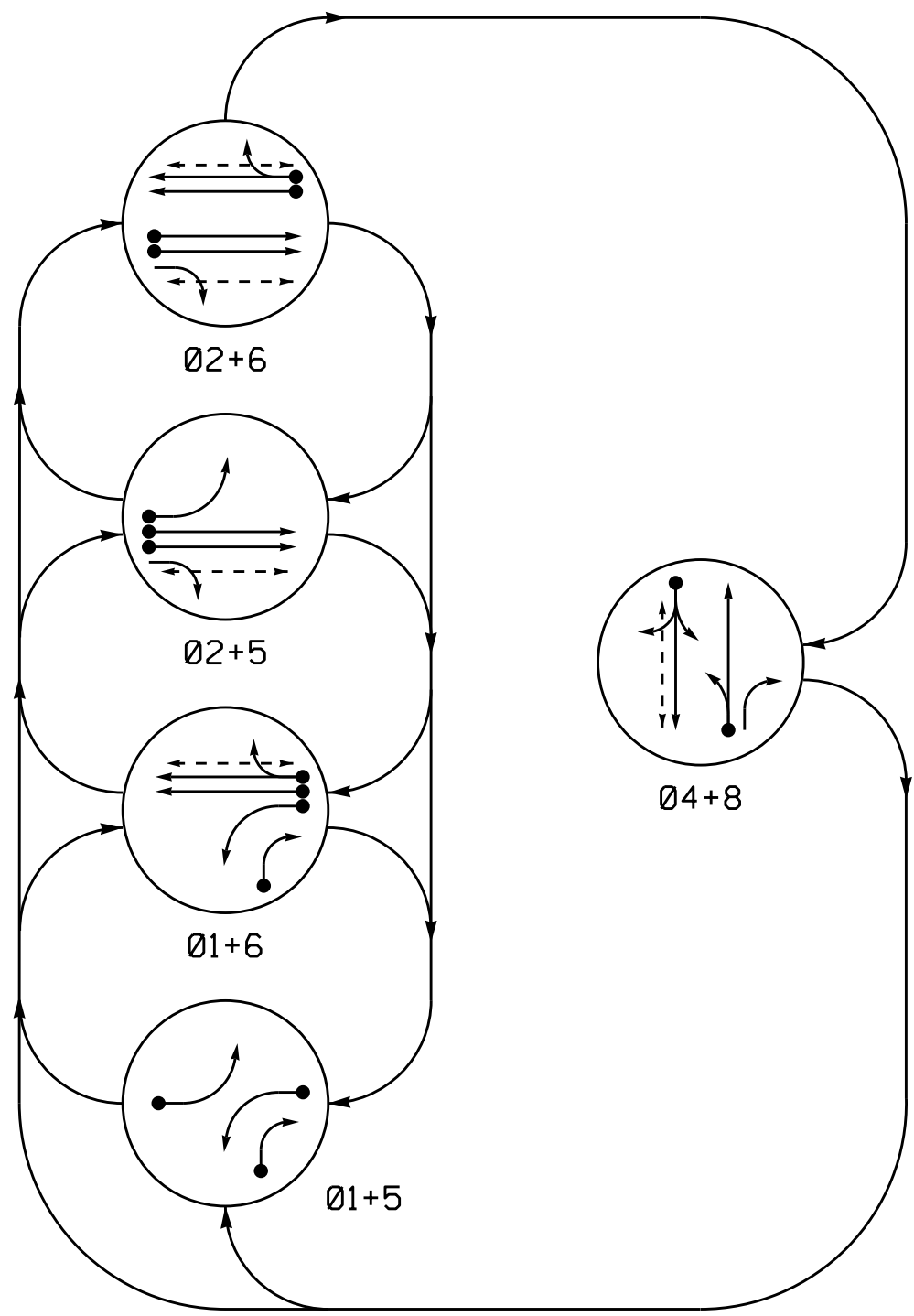


DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	04+8	FLASH
11	—	—	—	—	—	—
21, 22	R	R	G	G	R	Y
41, 42	R	R	R	R	G	R
51	—	—	—	—	—	—
61, 62	R	G	R	G	R	Y
81	R	R	R	R	G	R
82	R	R	R	R	G	R
P21, P22	DW	DW	W	W	DW	DRK
P41, P42	DW	DW	DW	DW	W	DRK
P61, P61	DW	W	DW	W	DW	DRK

ALTERNATE PHASING TABLE OF OPERATION

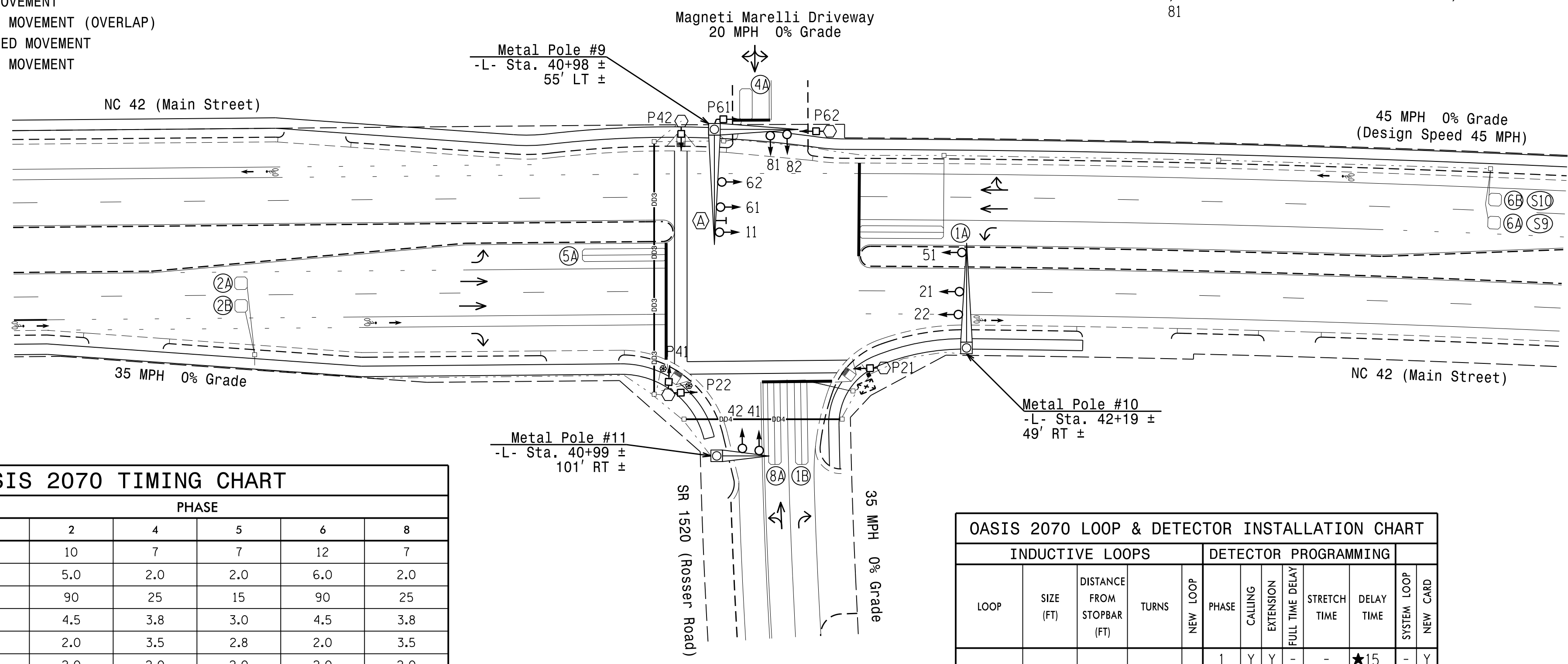
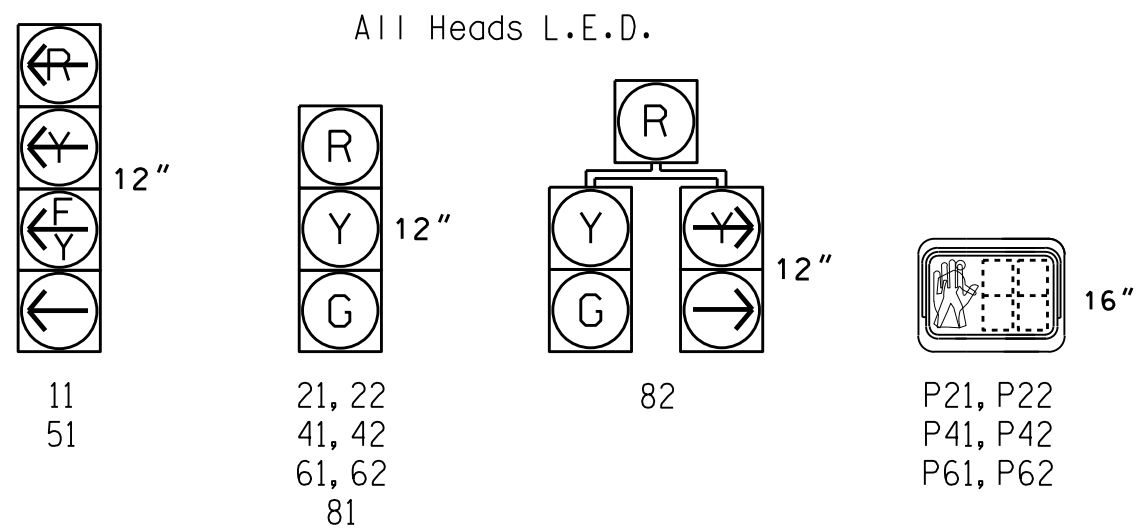
SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	04+8	FLASH
11	—	—	—	—	—	—
21, 22	R	R	G	G	R	Y
41, 42	R	R	R	R	G	R
51	—	—	—	—	—	—
61, 62	R	G	R	G	R	Y
81	R	R	R	R	G	R
82	R	R	R	R	G	R
P21, P22	DW	DW	W	W	DW	DRK
P41, P42	DW	DW	DW	DW	W	DRK
P61, P61	DW	W	DW	W	DW	DRK

5 Phase Fully Actuated (US 421 - NC 87 (Sanford Byp) CLS) Signal System #: D08-23_Sanford

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 and/or phase 5 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. The Division Traffic Engineer will determine the hours of use for each phasing plan.
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 #: 1018.
10. All signal heads shall be black in color with black visors.
11. Metal poles and pedestals shall be black in color as specified in the project special provisions.

SIGNAL FACE I.D.



OASIS 2070 TIMING CHART

FEATURE	PHASE					
	1	2	4	5	6	8
Min Green 1 *	7	10	7	7	12	7
Extension 1 *	2.0	5.0	2.0	2.0	6.0	2.0
Max Green 1 *	15	90	25	15	90	25
Yellow Clearance	3.0	4.5	3.8	3.0	4.5	3.8
Red Clearance	2.9	2.0	3.5	2.8	2.0	3.5
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	7	7	-	7	-
Don't Walk 1	-	18	27	-	6	-
Seconds Per Actuation *	-	1.5	-	-	1.5	-
Max Variable Initial *	-	24	-	-	34	-
Time Before Reduction *	-	15	-	-	15	-
Time To Reduce *	-	34	-	-	34	-
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	ON

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING				SYSTEM LOOP	NEW CARD	
					PHASE	CALLING	EXTENSION	STRETCH TIME DELAY			
1A	6X40	0	2-4-2	Y	1	Y	Y	-	★15	-	Y
1B	6X40	0	2-4-2	Y	1	Y	Y	-	3	-	Y
2A	6X6	200	3	Y	2	Y	Y	-	-	-	Y
2B	6X6	200	3	Y	2	Y	Y	-	-	-	Y
4A	6X20	0	2-4-2	Y	4	Y	Y	-	10	-	Y
5A	6X40	0	2-4-2	Y	5	Y	Y	-	★15	-	Y
6A/S9	6X6	300	6	Y	6	Y	Y	-	-	-	Y
6B/S10	6X6	300	6	Y	6	Y	Y	-	-	-	Y
8A	6X40	0	2-4-2	Y	8	Y	Y	-	3	-	Y

LEGEND

PROPOSED	EXISTING
○ Traffic Signal Head	● N/A
○ Modified Signal Head	○ N/A
— Sign	— N/A
○ Pedestrian Signal Head	○ 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
→ Right of Way	→ N/A
→ Directional Arrow	→ N/A
→ Curb Ramp	→ N/A
⊗ Metal Pole with Mastarm	⊗ N/A
○ Directional Drill	○ N/A
⊗ Type I Pushbutton Post	⊗ N/A
○ Type II Signal Pedestal	○ N/A
⊗ "U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	⊗ N/A

* 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.

★ Disable Delay during Alternate Phasing Operation.
Disable Phase(s) call during Alternate Phasing Operation.

Signal Upgrade - Final Design

Prepared in the Offices of:

 TRANSPORTATION MOBILITY AND SAFETY SOLUTIONS, INC.
 STATE OF NORTH CAROLINA
 PROFESSIONAL ENGINEER
 SIGNAL DESIGN SECTION

NC 42 (Main Street) at SR 1520 (Rosser Road) and Magneti Marelli Driveway

Division 8 Lee County Sanford

PLAN DATE: March 2022 REVIEWED BY: J.A. Lohr

PREPARED BY: J.A. Lohr REVIEWED BY:

SCALE: 1" = 40'

REVISIONS: INIT. DATE

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER ROBERT J. ZITKA SEAL 026486

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DATE: 04/19/2022

SIG. INVENTORY NO. 08-1018