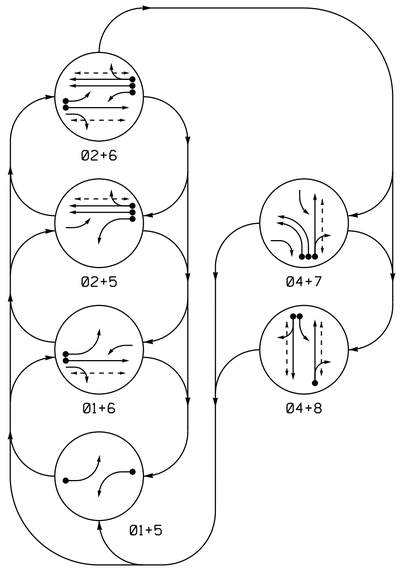
PROJECT REFERENCE NO.	SHEET NO.
I-5711	Sig 22.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

EV PREEMPT PHASES

(Medium Priority)

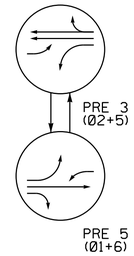


TABLE OF OPERATION

SIGNAL FACE	PHASE								
	Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø4+7	Ø4+8	PRE 3	PRE 5	FLASH
11	←—	←—	F Y	F Y	~~R~~	~~R~~	F Y	←—	~~Y~~
21, 22	R	R	G	G	R	R	G	R	Y
41, 42	R	R	R	R	G	G	R	R	R
51	←—	F Y	←—	F Y	~~R~~	~~R~~	←—	F Y	~~Y~~
61, 62	R	G	R	G	R	R	R	G	Y
63	R	F Y	R	F Y	→—	R	R	F Y	~~Y~~
71, 72	~~R~~	~~R~~	~~R~~	~~R~~	←—	~~R~~	~~R~~	~~R~~	~~R~~
81	~~R~~	~~R~~	~~R~~	~~R~~	F Y	F Y	~~R~~	~~R~~	~~R~~
82, 83	R	R	R	R	R	G	R	R	R
P21, P22	DW	DW	W	W	DW	DW	DW	DW	DRK
P41, P42	DW	DW	DW	DW	W	W	DW	DW	DRK
P61, P62	DW	W	DW	W	DW	DW	DW	DW	DRK
P81, P82	DW	DW	DW	DW	DW	W	DW	DW	DRK

ASC/3 DETECTOR INSTALLATION CHART

DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	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	-	15	-	S	-	X
					6	Yes	-	3	-	G	-	X
2A/S13	6X6	300	5	X	2	Yes	-	-	X	N	X	X
2B/S14	6X6	300	5	X	2	Yes	-	-	X	N	X	X
4A	6X40	0	2-4-2	X	4	Yes	-	10	-	S	-	X
5A	6X40	0	2-4-2	X	5	Yes	-	15	-	S	-	X
					2	Yes	-	3	-	G	-	X
6A/S11	6X6	300	6	X	6	Yes	-	-	X	N	X	X
7A	6X40	0	2-4-2	X	7	Yes	-	3	-	S	-	X
7B	6X40	0	2-4-2	X	7	Yes	-	-	-	S	-	X
8A	6X40	0	2-4-2	X	8	Yes	-	3	-	S	-	X
8B	6X40	0	2-4-2	X	8	Yes	-	10	-	S	-	X
S12	6x6	300	6	X	-	No	-	-	-	N	X	X
S15	6x6	+160	5	X	-	No	-	-	-	N	X	X
S16	6x6	+160	5	X	-	No	-	-	-	N	X	X

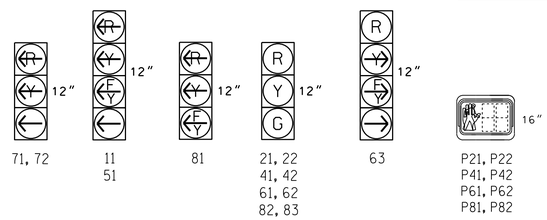
6 Phase
Fully Actuated
w/ Emergency Vehicle Preemption
SR 1007 (Mebane Oaks Rd) CLS
Signal System: 10705

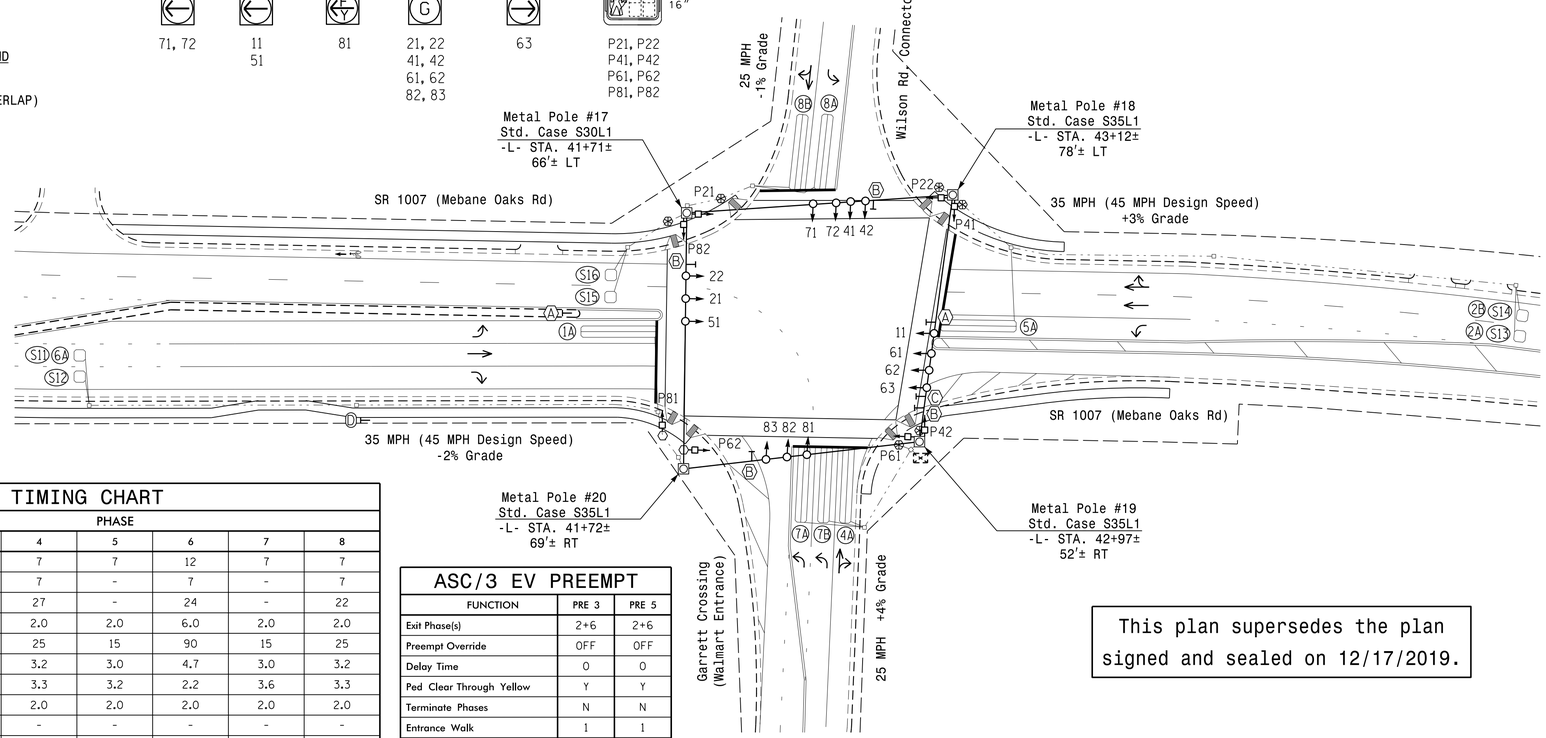
NOTES

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 and/or phase 5 may be lagged.
4. Phase 7 may be lagged.
5. Set all detector units to presence mode.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. This intersection features a GPS Emergency Vehicle Preemption system.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
10. Closed loop system data:
    Controller Asset #: 2060.

SIGNAL FACE I.D.

All Heads L.E.D.





This plan supersedes the plan signed and sealed on 12/17/2019.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
	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 Strain Pole	
	Type I Pushbutton Post	
	Type II Signal Pedestal	
N/A	Curb Ramp	
Ⓐ	No U Turn Sign (R3-4)	Ⓐ
Ⓑ	Right "TURNING VEHICLES" Yield "TO" Pedestrians Sign (R10-15R)	Ⓑ
Ⓒ	Right Arrow "ONLY" Sign (R3-5R)	Ⓒ
Ⓓ	"RIGHT LANE MUST TURN RIGHT" Sign (R3-7R)	Ⓓ

ASC/3 TIMING CHART

FEATURE	PHASE 1	2	4	5	6	7	8
Min Green *	7	12	7	7	12	7	7
Walk *	-	7	7	-	7	-	7
Ped Clear	-	22	27	-	24	-	22
Veh. Extension *	2.0	6.0	2.0	2.0	6.0	2.0	2.0
Max 1 *	15	90	25	15	90	15	25
Yellow	3.0	4.7	3.2	3.0	4.7	3.0	3.2
Red Clear	3.5	2.2	3.3	3.2	2.2	3.6	3.3
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-	-	-	-
Seconds /Actuation *	-	1.5	-	-	2.5	-	-
Max Initial *	-	34	-	-	34	-	-
Time Before Reduction *	-	15	-	-	15	-	-
Time To Reduce *	-	30	-	-	30	-	-
Minimum Gap	-	3.0	-	-	3.0	-	-
Locking Detector	-	X	-	-	X	-	-
Recall Position	-	VEH. RECALL	-	-	VEH. RECALL	-	-
Dual Entry	-	-	X	-	-	-	-
Simultaneous Gap	X	X	X	X	X	X	X

* 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.

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*

* Time defaults to time used for phase during normal operation

Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared In the Offices of:
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SR 1007 (Mebane Oaks Rd.)
at
Garrett Crossing and
Wilson Rd. Connector

Division 7 Alamance County Mebane

PLAN DATE: September 2020 REVIEWED BY:
PREPARED BY: J.A. Lohr REVIEWED BY:

SCALE 0 40 1" = 40'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. TEMBA

DocuSigned by: 12/15/2020
DOCUSIGNED SIGNATURE DATE

SIG. INVENTORY NO. 07-2060

16-DEC-2020 10:29
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