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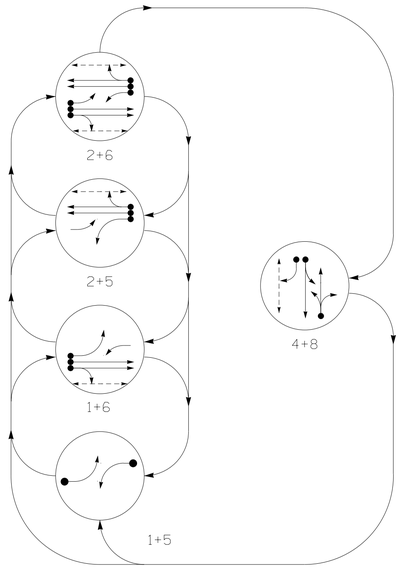
PROJECT REFERENCE NO.	SHEET NO.
R-5600	Sig-29.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

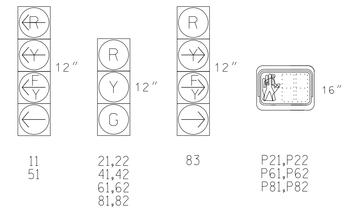
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE 1+5	1+6	2+5	2+6	4+8	FLASH
11	←	←	←F	←F	←R	←R
21,22	R	R	G	G	R	R
41,42	R	R	R	R	G	R
51	←	←F	←	←F	←R	←R
61,62	R	G	R	G	R	R
81,82	R	R	R	R	G	R
83	R	R	R	R	F→	R
P21,P22	DW	DW	W	W	DW	DRK
P61,P62	DW	W	DW	W	DW	DRK
P81,P82	DW	DW	DW	DW	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



MAXTIME DETECTOR INSTALLATION CHART

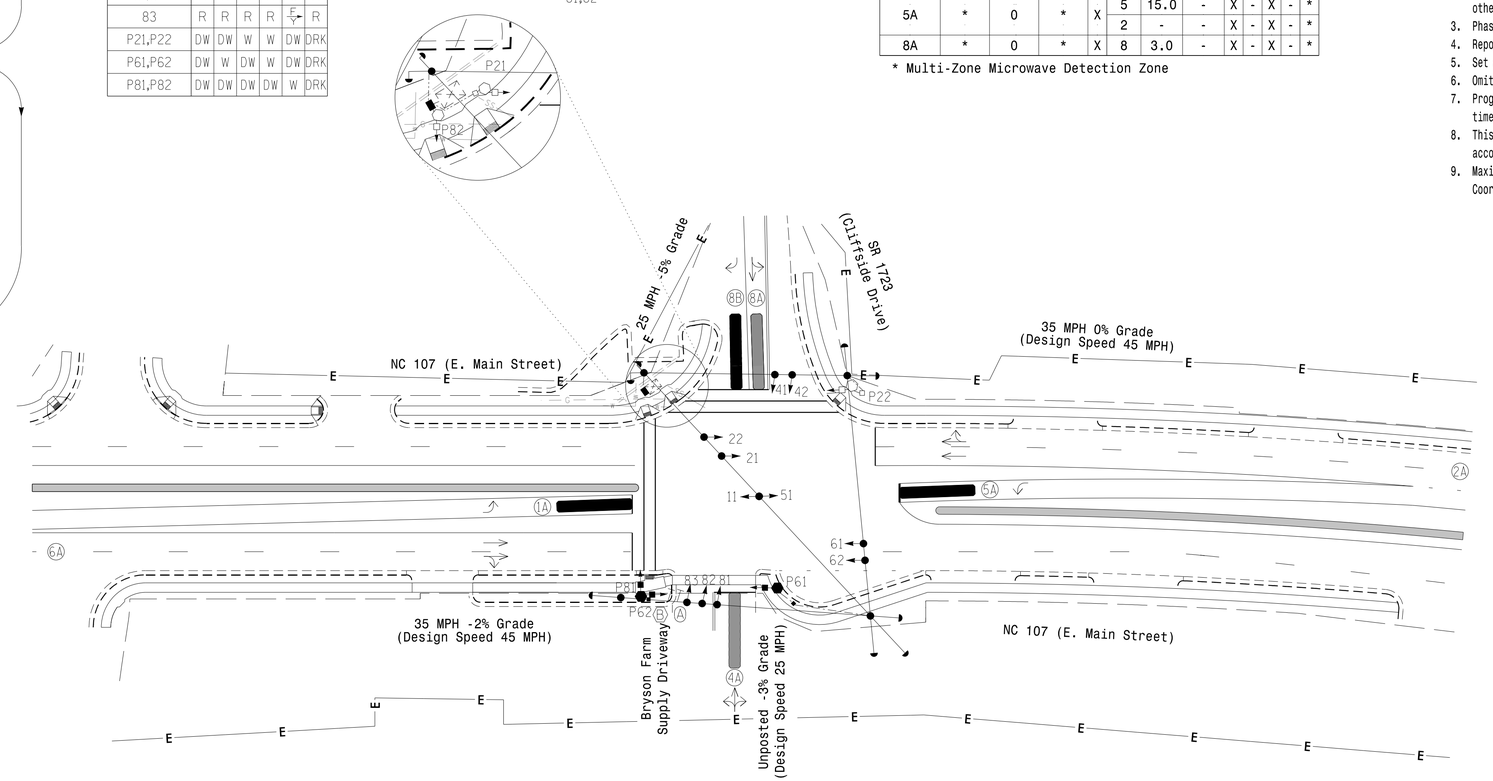
DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN	NEW CARD
1A	*	0	*	X	1	15.0	-	X	-	X	-	*
					6	-	-	X	-	X	-	*
1B	*	0	*	X	1	15.0	-	X	-	X	-	*
4A	*	0	*	X	4	3.0	-	X	-	X	-	*
5A	*	0	*	X	5	15.0	-	X	-	X	-	*
					2	-	-	X	-	X	-	*
8A	*	0	*	X	8	3.0	-	X	-	X	-	*

* Multi-Zone Microwave Detection Zone

5 Phase
Fully Actuated
(Time Based Coordination)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
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. Reposition existing signal heads numbered 11, 21, 22 and 51.
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 uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
9. 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	
	Non-Intrusive Detection Zone	
	Controller & Cabinet	
	Junction Box	
	Oversized Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Directional Drill	N/A
	Metal Pole with Mastarm	
N/A	Construction Easement	E
N/A	Curb Ramp	
	Temporary Pedestrian Post with Ped Push Button & Sign	
	Construction Zone	N/A
	Type II Signal Pedestal	
N/A	Underground Water Line	W
N/A	Gas Line	G
N/A	Underground Sanitary Sewer	SS
A	"RIGHT TURN SIGNAL" Sign (R10-10)	A
B	"RIGHT TURN ON RED YIELD TO U-TURN" Sign (R10-30)	B

MAXTIME TIMING CHART

FEATURE	PHASE 1	2	4	5	6	8
Walk *	–	14	–	–	14	12
Ped Clear	–	21	–	–	9	21
Min Green *	7	12	7	7	12	7
Passage *	2.0	2.0	2.0	2.0	2.0	2.0
Max 1 *	20	45	25	20	45	35
Yellow Change	3.0	4.7	3.5	3.0	4.7	3.5
Red Clear	3.1	2.6	2.9	3.4	2.6	2.9
Added Initial *	–	–	–	–	–	–
Maximum Initial *	–	–	–	–	–	–
Time Before Reduction *	–	–	–	–	–	–
Time To Reduce *	–	–	–	–	–	–
Minimum Gap	–	–	–	–	–	–
Advance Walk	–	7	–	–	7	5
Non Lock Detector	X	–	X	X	–	X
Vehicle Recall	–	MIN RECALL	–	–	MIN RECALL	–
Dual Entry	–	–	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.

Microwave Detection

	2A		6A	
FUNCTION	Sensor 1		Sensor 2	
Channel	1		1	
Phase	2		6	
Direction of Travel	NB		SB	
Type	Priority		Priority	
Level	2	QUEUE	2	QUEUE
Detection Zone (ft)	<750	–	<750	–
Range (ft)	600–100	150–100	600–100	150–100
Enable Speed	Y	Y	Y	Y
Speed Range (mph)	35–100	1–35	35–100	1–35
Enable Estimated Time of Arrival	Y	N	Y	N
Estimated Time of Arrival (sec)	2.5–6.5	–	2.5–6.5	–

Signal Upgrade
Temporary Design 5 - TMP Ph 3, S1

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Plans Prepared By:

DRMP
DRMP, INC.
8210 UNIVERSITY EXECUTIVE PARK DR.
SUITE 220
CHARLOTTE, NC 28262
NC LICENSE NO. F-1524 (704) 549-4260

Prepared for:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

NC 107 (E. Main Street)
at
SR 1723 (Cliffside Drive) /
Bryson Farm Supply Driveway

Division 14 Jackson County Sylva

PLAN DATE:	August 2025	REVIEWED BY:	ZM Esposito
PREPARED BY:	DS Griffith	REVIEWED BY:	BN Groome

SCALE 0 40 1"=40'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 052936 ENGINEER BRITTANY N GROOME

Signed by: Brittany Groome 8/26/2025
1E09340E10904484
DATE

SIG. INVENTORY NO. I4-1200T5

21-AUG-2025 12:45
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Fernando.Vazquez AT CHA-FVAZQUEZ