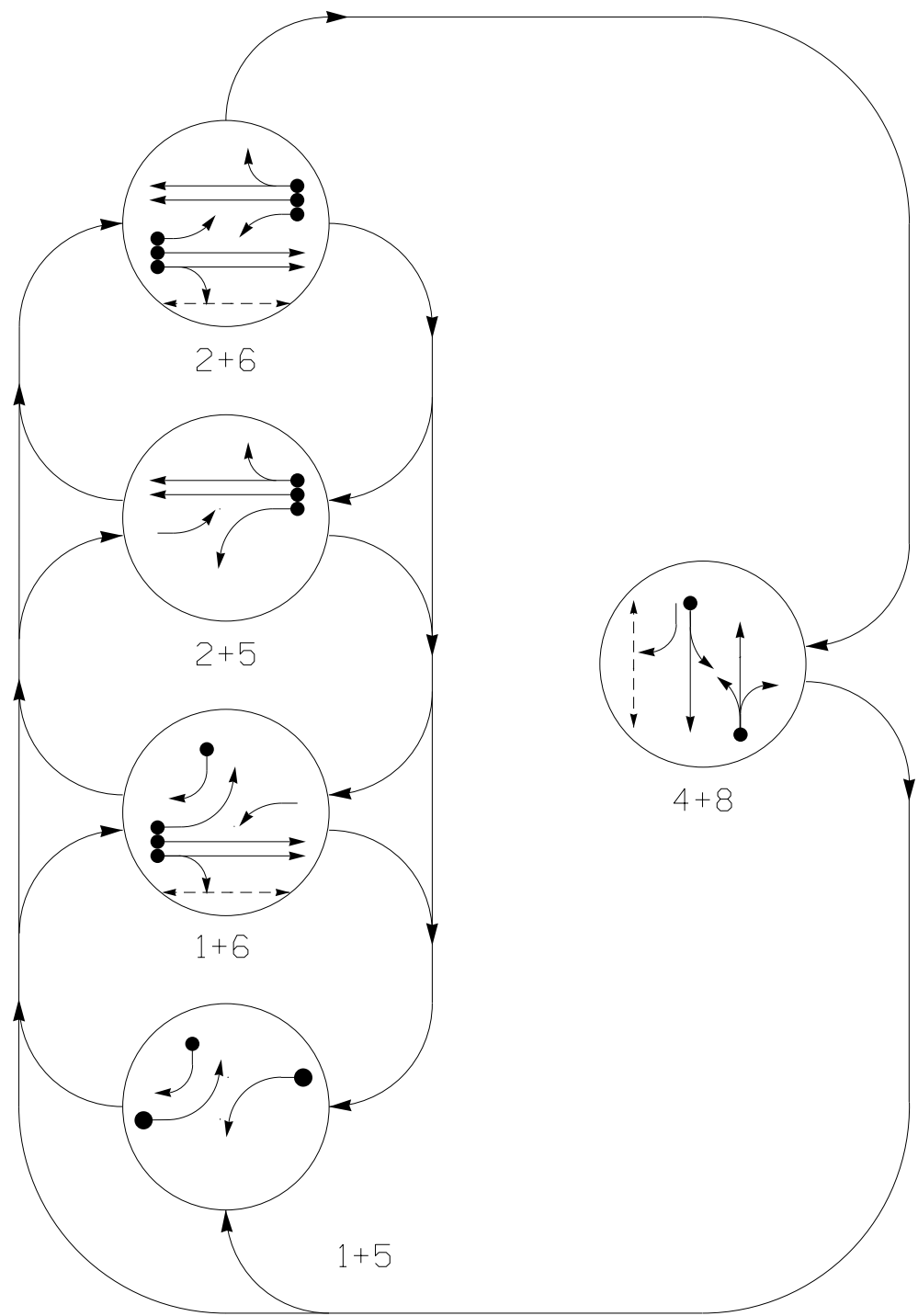


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

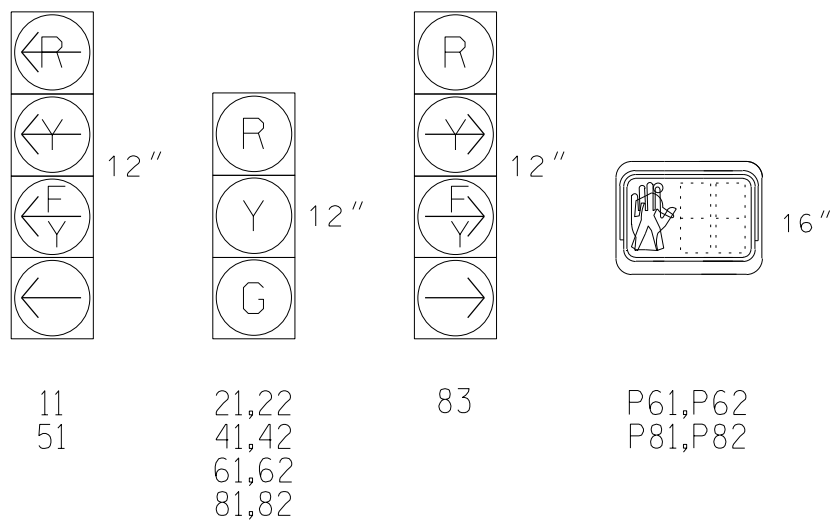
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE					
	1 + 5	1 + 6	2 + 5	2 + 6	4 + 8	FLASH
11	←	←	←	←	←	R
21,22	R	R	G	G	R	R
41,42	R	R	R	R	G	R
51	←	←	←	←	←	R
61,62	R	G	R	G	R	R
81,82	R	R	R	R	G	R
83	→	→	R	R	←	R
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

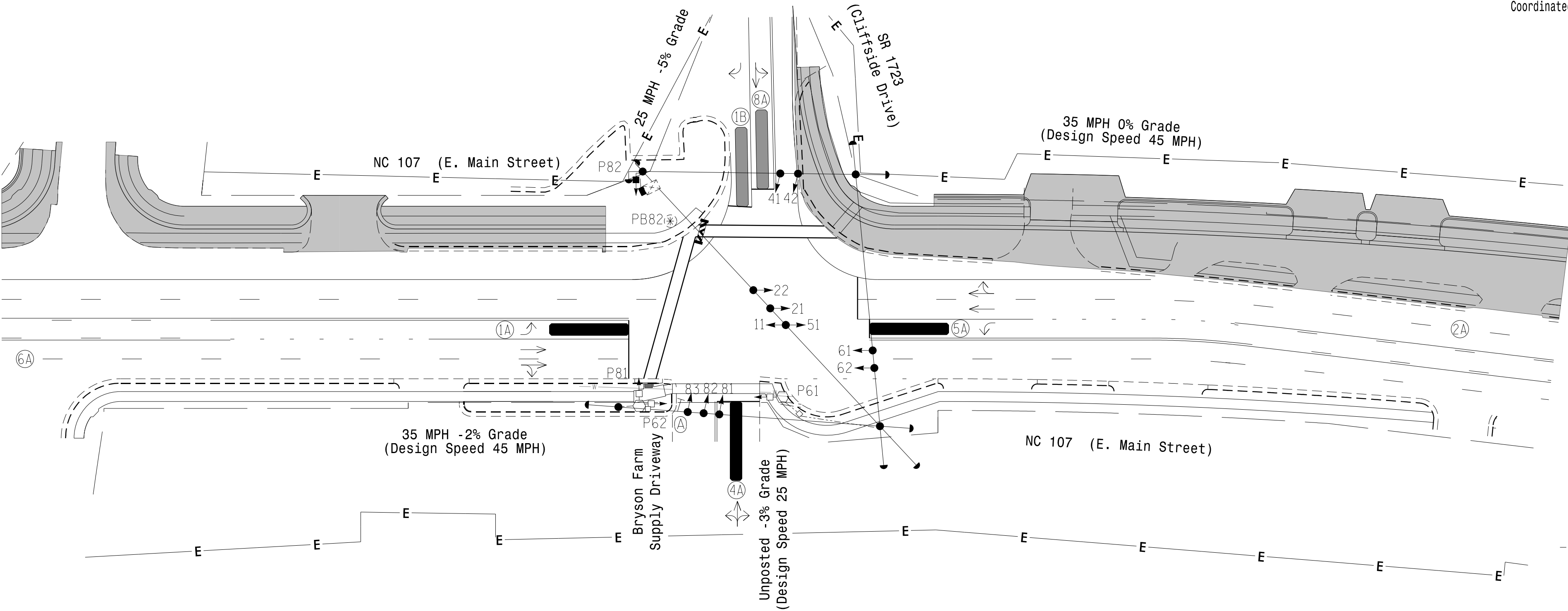
DETECTOR				PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	NEW CARD
1A	*	0	*	X	1	15.0	-	X	-	X	*
1B	*	0	*	X	1	15.0	-	X	-	X	*
4A	*	0	*	X	4	3.0	-	X	-	X	*
5A	*	0	*	X	5	15.0	-	X	-	X	*
8A	*	0	*	X	8	3.0	-	X	-	X	*

* Multi-Zone Microwave Detection Zone

5 Phase Fully Actuated (Time Based Coordination)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Reposition existing signal heads numbered 11, 21, 22, 51, 61, 62, 81 and 83.
- Disconnect and bag existing pedestrian heads P21 and P22 and pushbutton PB21.
- Unbag and reconnect existing signal head P82 and pushbutton PB82.
- Set all detectors units to presence mode.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
- 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 | N/A |
| Modified Signal Head | N/A |
| Signal | N/A |
| Pedestrian Signal Head | N/A |
| Signal Pole with Guy | N/A |
| Signal Pole with Sidewalk Guy | N/A |
| Non-Intrusive Detection Zone | N/A |
| Controller & Cabinet | N/A |
| Junction Box | N/A |
| Oversized Junction Box | N/A |
| 2-in Underground Conduit | N/A |
| Right of Way | N/A |
| Directional Arrow | N/A |
| Directional Drill | N/A |
| Metal Pole with Mastarm | N/A |
| Construction Easement | N/A |
| Construction Zone | N/A |
| Curb Ramp | N/A |
| Temporary Pedestrian Post with Ped Push Button & Sign | N/A |
| Type II Signal Pedestal | N/A |
| Underground Water Line | N/A |
| Abandon 12" Utility Pipe | N/A |
| Pedestrian Barricade | N/A |
| "RIGHT TURN SIGNAL" Sign (R10-10) | N/A |

MAXTIME TIMING CHART

FEATURE	PHASE					
	1	2	4	5	6	8
Walk *	-	-	-	-	14	14
Ped Clear	-	-	-	-	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	2.9	2.1	2.9	2.9	2.1	2.9
Added Initial *	-	-	-	-	-	-
Maximum Initial *	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-
Advance Walk	-	-	-	-	7	7
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

FUNCTION	Sensor 1		Sensor 2	
	2A	6A	2A	6A
Channel	1	1	1	1
Phase	2	6	2	6
Direction of Travel	NB	SB	NB	SB
Type	Priority	Priority	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 3 - TMP Ph2, S1, Part 1



NC 107 (E. Main Street) at SR 1723 (Cliffside Drive) / Bryson Farm Supply Driveway			
Division 14 Jackson County Sylva		August 2025	
Prepared by: DS Griffith		Reviewed by: ZM Esposito	
Revisions		INIT. DATE	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
SEAL	
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052936 BRITANNY N. GROOM	
Signed by: Brittany Groom	
8/26/2025	
SIC. INVENTORY NO. 14-120013	