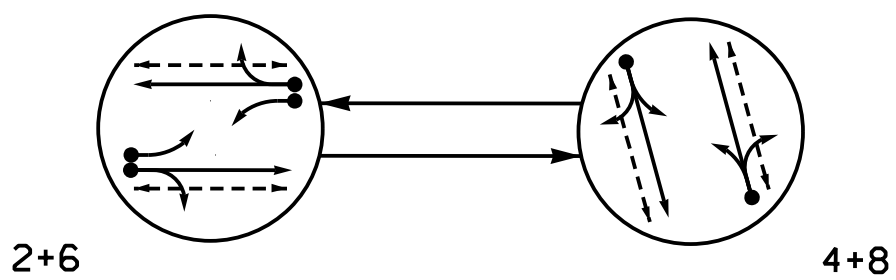


PHASING DIAGRAM



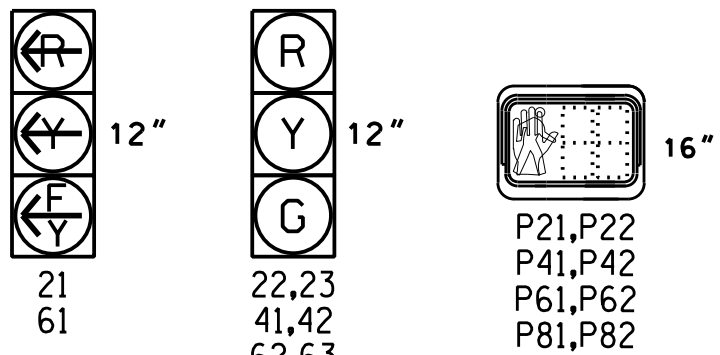
PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE	PHASE		
	2+6	4+8	FLASH
21	F	R	R
22,23	G	R	R
41,42	R	G	R
61	F	R	R
62,63	G	R	R
81,82,83	R	G	R
P21,P22	W	DW	DRK
P41,P42	DW	W	DRK
P61,P62	W	DW	DRK
P81,P82	DW	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



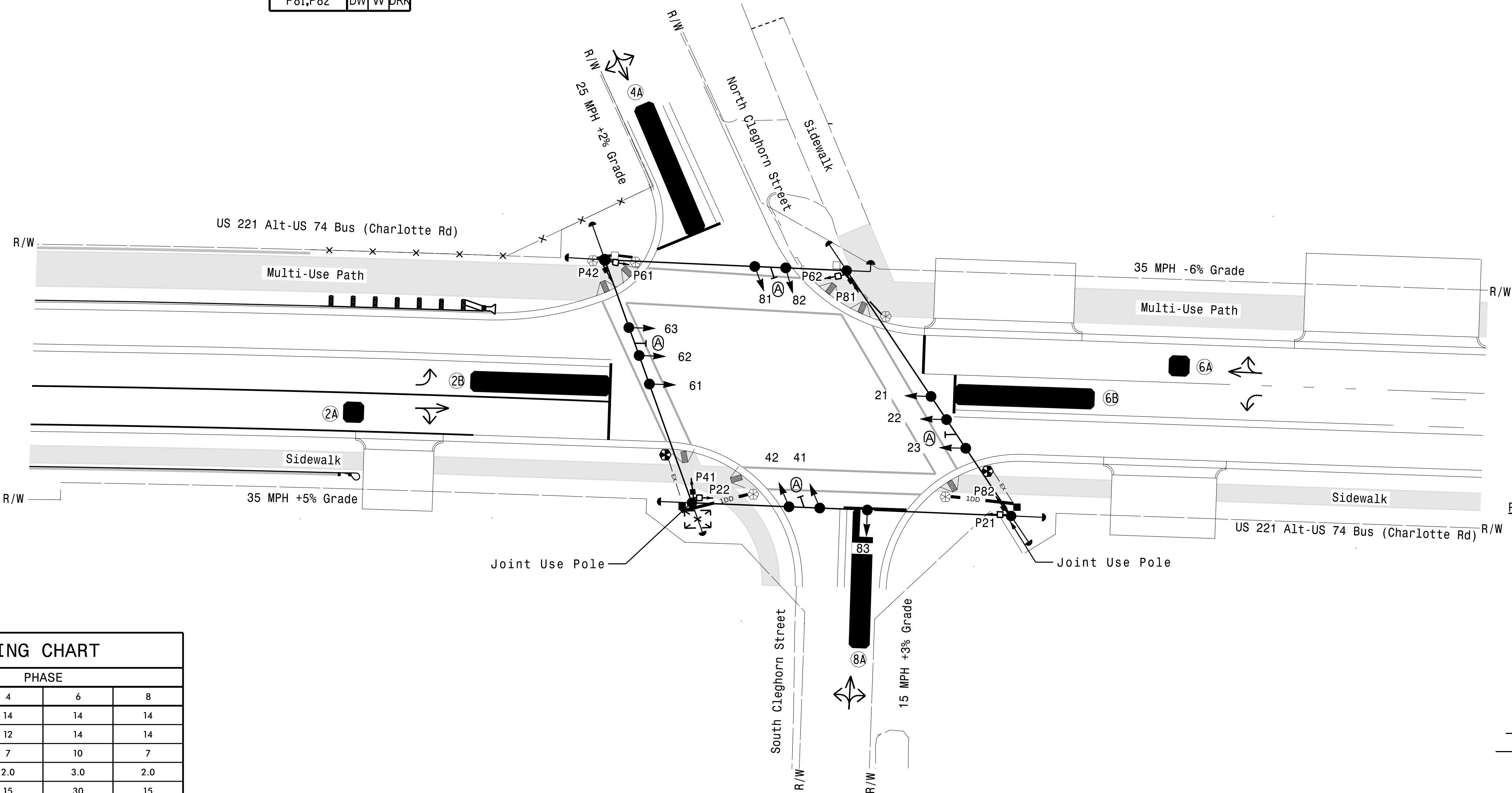
MAXTIME DETECTOR INSTALLATION CHART											
DETECTOR						PROGRAMMING					
ZONE	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	NEW CARD
2A	*	70	*	-	2	-	-	X	-	X	*
2B	*	0	*	-	2	3.0	-	X	-	X	*
4A	*	0	*	-	4	10.0	-	X	-	X	*
6A	*	70	*	-	6	-	-	X	-	X	*
6B	*	0	*	-	6	3.0	-	X	-	X	*
8A	*	0	*	-	8	10.0	-	X	-	X	*

* Multizone Microwave Detection

2 Phase
Fully Actuated
Signal System #: D13-24_Rutherfordton

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector 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.



MAXTIME TIMING CHART				
FEATURE	PHASE			
	2	4	6	8
Walk *	14	14	14	14
Ped Clear	13	12	14	14
Min Green *	10	7	10	7
Passage *	3.0	2.0	3.0	2.0
Max l *	30	15	30	15
Yellow Change	4.3	3.1	4.3	3.1
Red Clear	1.8	3.4	1.8	3.4
Red Revert	2.0	2.0	2.0	2.0
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Advance Walk	7	7	7	7
Non Lock Detector	-	X	-	X
Vehicle Recall	MIN RECALL	-	MIN RECALL	-
Dual Entry	-	X	-	X

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

LEGEND

PROPOSED	EXISTING
Traffic Signal Head	
Modified Signal Head	N/A
Sign	
Pedestrian Signal Head	
Signal Pole with Guy	
Signal Pole with Sidewalk Guy	
Non-Intrusive Detection Zone	
Controller & Cabinet	
Junction Box	
Type I Pushbutton Post	
Type II Signal Pedestal	
Directional Drill	DD
2-in Underground Conduit	UC
Right of Way	
Directional Arrow	
Curb Ramp	
Fence	
Guardrail	
Street Name Sign	

Signal Upgrade - Final Design

Prepared for:

750 N. Greenfield Hwy, Garner, NC 27529

US 221 Alt-US 74 Bus (Charlotte Rd) at S. Cleghorn Street

Division 13 Rutherford County Rutherfordton

PLAN DATE: February 2026 REVIEWED BY: N.K. Vianich

PREPARED BY: E.E. Tiller REVIEWED BY: N.R. Simmons

REVISIONS

INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

DocuSigned by: Natasha R. Simmons 5/12/2026

SIGNATURE DATE

SIG. INVENTORY NO. 13-0629

HNTB

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