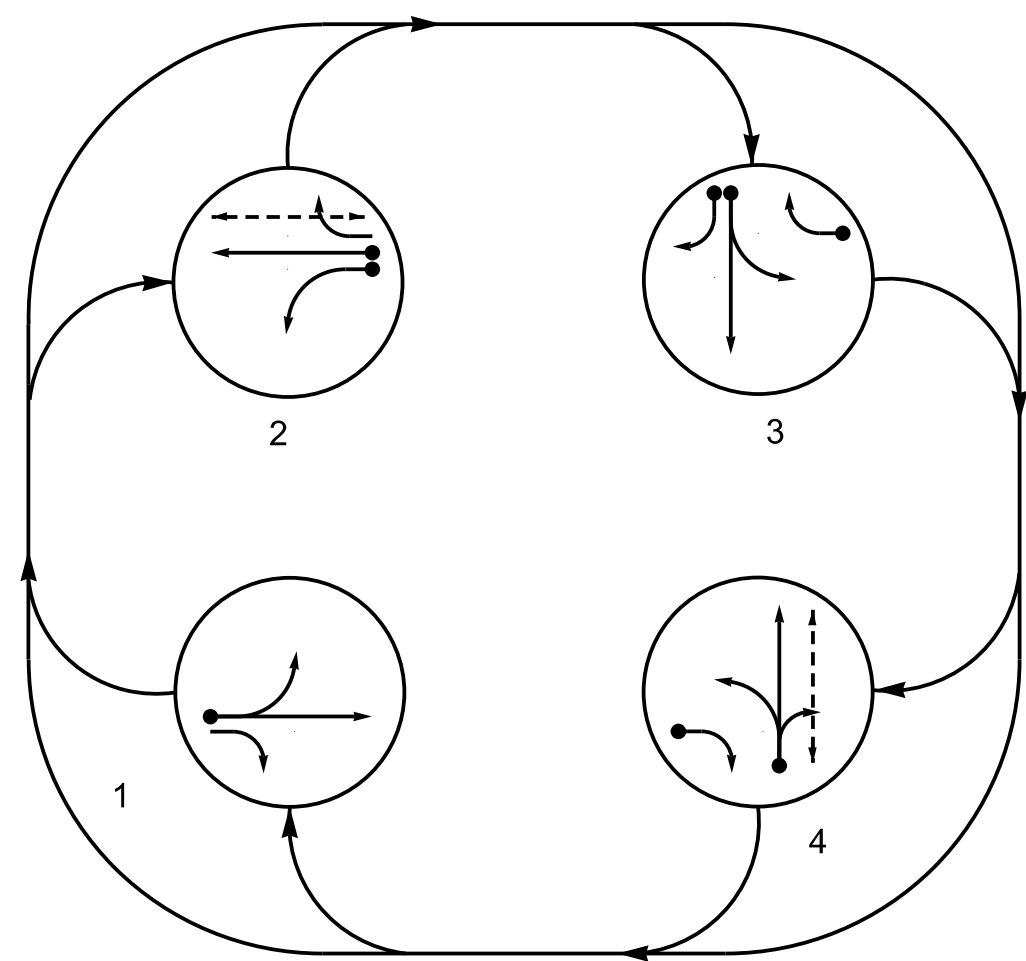


PROJECT REFERENCE NO.	SHEET NO.
HL-0065	Sig. 3.0

PHASING DIAGRAM



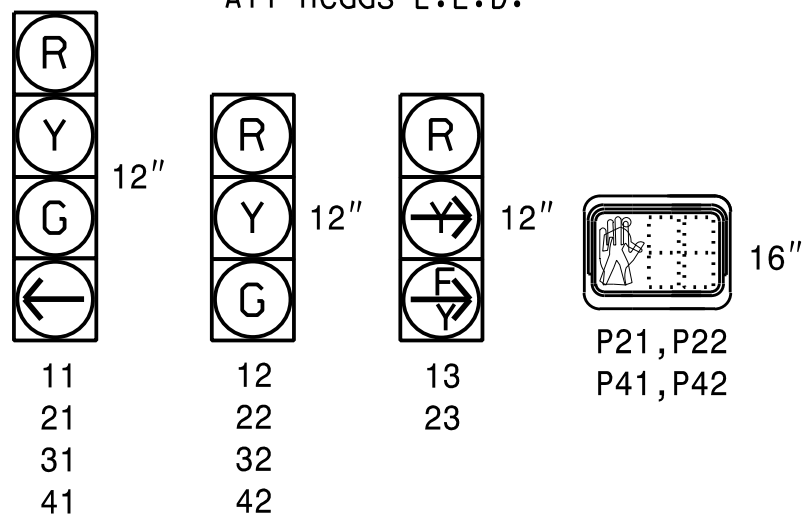
PHASING DIAGRAM DETECTION LEGEND

- | | | |
|---|-------------------------------|------------|
|  | DETECTED MOVEMENT | |
| | UNDETECTED MOVEMENT (OVERLAP) | |
|  | UNSIGNALIZED MOVEMENT | $R/W \geq$ |
|  | PEDESTRIAN MOVEMENT | |

TABLE OF OPERATION						
SIGNAL FACE	PHASE					
	1	2	3	4	FLASH	
11	<u>G</u>	R	R	R	R	
12	G	R	R	R	R	
13	<u>F</u>	R	R	<u>F</u>	R	
21	R	<u>G</u>	R	R	R	
22	R	G	R	R	R	
23	R	<u>F</u>	<u>F</u>	R	R	
31	R	R	<u>G</u>	R	R	
32	R	R	G	R	R	
41	R	R	R	<u>G</u>	R	
42	R	R	R	G	R	
P21,P22	DW	W	DW	DW	DRK	
P41,P42	DW	DW	DW	W	DRK	

SIGNAL FACE I.D.

All Heads L.E.D.



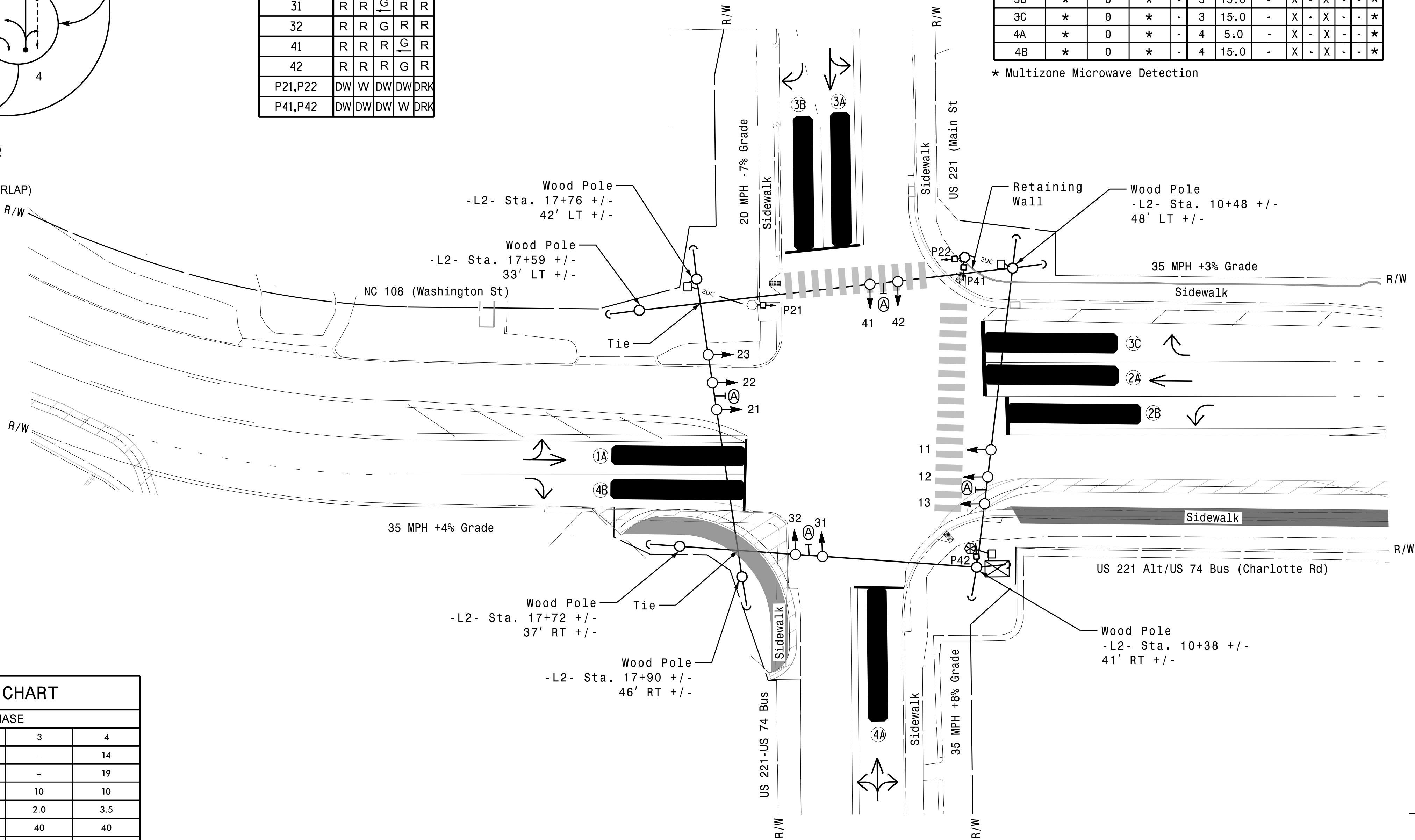
MAXTIME DETECTOR INSTALLATION CHART														
DETECTOR					PROGRAMMING									
ZONE	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED	INITIAL	CALL	DELAY DURING GREEN	SYSTEM LOOP	NEW CARD
1A	*	0	*	-	1	-	-	X	-	X	-	-	-	*
2A	*	0	*	-	2	-	-	X	-	X	-	-	-	*
2B	*	0	*	-	2	-	-	X	-	X	-	-	-	*
3A	*	0	*	-	3	3:0	-	X	-	X	-	-	-	*
3B	*	0	*	-	3	15:0	-	X	-	X	-	-	-	*
3C	*	0	*	-	3	15:0	-	X	-	X	-	-	-	*
4A	*	0	*	-	4	5:0	-	X	-	X	-	-	-	*
4B	*	0	*	-	4	15:0	-	X	-	X	-	-	-	*

* Multizone Microwave Detection

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

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 2 may be lagged.
4. Phase 3 and/or phase 4 may be lagged.
5. Set all detector units to presence mode.
6. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
7. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
8. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
9. To provide a leading pedestrian interval on phase 2 program FYA head numbered 24 to delay for 7 seconds after the start of the phases 2 walk interval. See Electrical Details for programming.
10. This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
11. Maximum times shown in the timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
12. See HL-0065 TMP Phase 1 for Pavement Marking.
13. Relocate existing street name signs.



MAXTIME TIMING CHART				
FEATURE	PHASE			
	1	2	3	4
Walk *	—	14	—	14
Ped Clear	—	11	—	19
Min Green *	10	7	10	10
Passage *	2.0	3.0	2.0	3.5
Max 1 *	40	40	40	40
Yellow Change	3.6	3.7	3.2	3.4
Red Clear	1.7	1.4	2.8	1.8
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
Non Lock Detector	X	X	X	X
Vehicle Recall	—	—	—	—
Dual Entry	—	—	—	—

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 | |
| | 2-in Underground Conduit | |
| N/A | Right of Way | |
| | Directional Arrow | |
| | Construction Zone | |
| N/A | Curb Ramp | |
| | Street Name Sign | |

Signal Upgrade
Temporary Design 1
(Construction Phase 1)

Prepared For:  North Carolina Department of Transportation Signal Design Section	US 221 Alt-US 74 Bus (Charlotte Rd)/NC 108 (Washington St) at US 221 (Main St)/US 221-74 Bus Division 13 Rutherford County Rutherfordton	SEAL  NORTH CAROLINA PROFESSIONAL SEAL 031464 ENGINEER NATASHA R. SIMMONS										
750 N. Greenfield Pkwy, Garner, NC 27529	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">PLAN DATE: February 2026</td> <td style="width: 50%;">REVIEWED BY: N.K. Vlanich</td> </tr> <tr> <td>PREPARED BY: E.E. Tiller</td> <td>REVIEWED BY: N.R. Simmons</td> </tr> </table>	PLAN DATE: February 2026	REVIEWED BY: N.K. Vlanich	PREPARED BY: E.E. Tiller	REVIEWED BY: N.R. Simmons	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">REVISIONS</td> <td style="width: 33%;">INIT.</td> <td style="width: 33%;">DATE</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	REVISIONS	INIT.	DATE			
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 0 20 1" = 20'	DocuSigned by:  5/12/2026 SIGNATURE DATE											
SIG. INVENTORY NO. 13-01833T1												