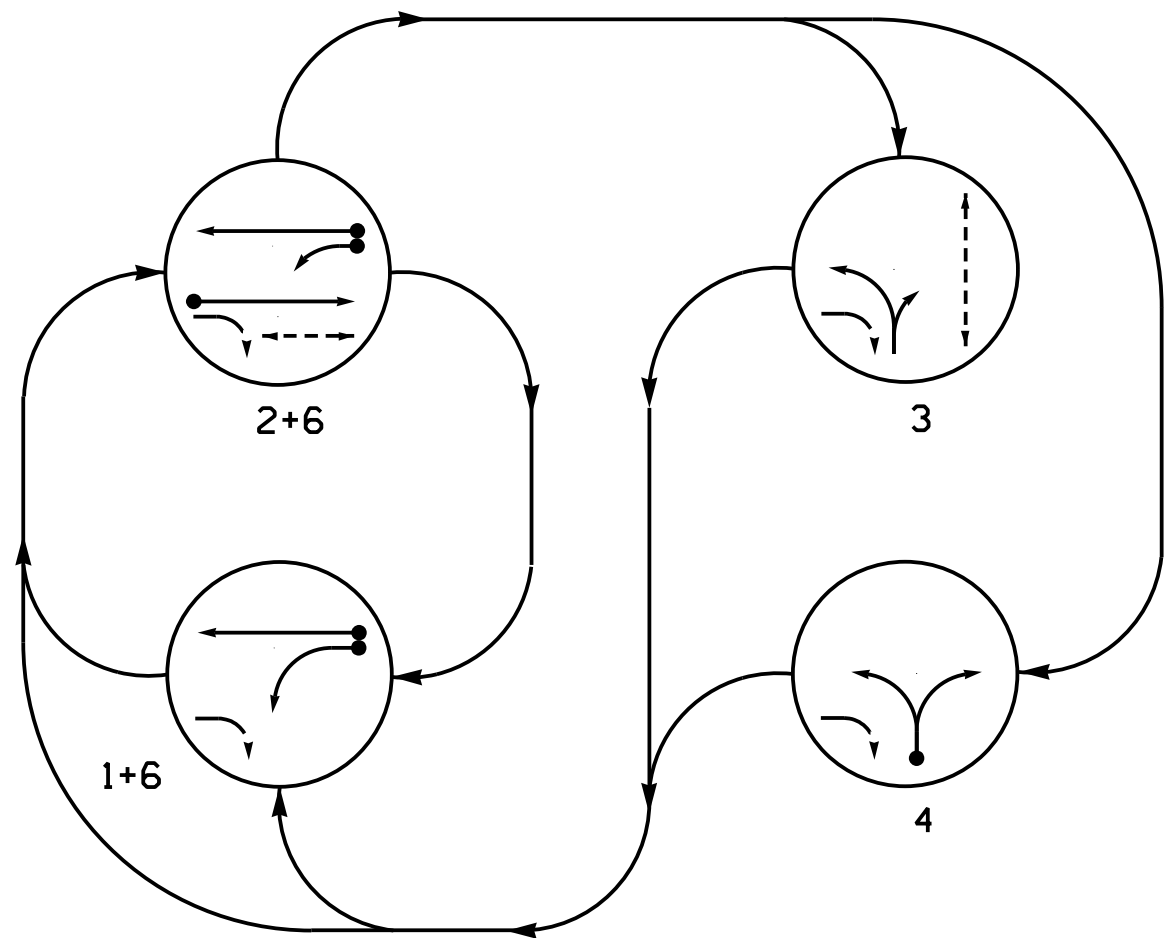


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

EV PREEMPT PHASES

(Medium Priority)

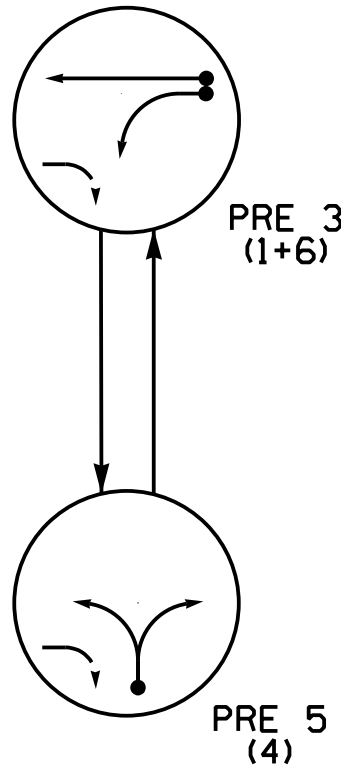
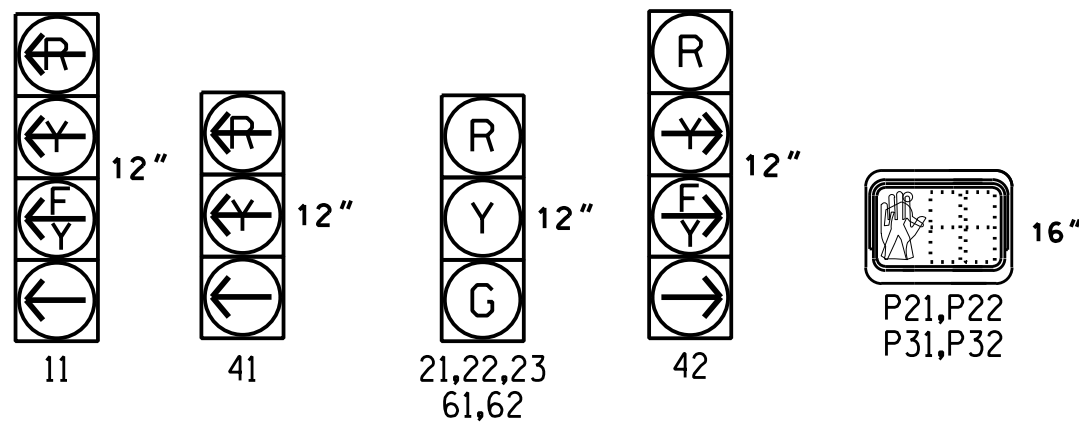


TABLE OF OPERATION

SIGNAL FACE	PHASE							
	1+6	2+6	3	4	PRE 3	PRE 5	FLASH	
11	—	—	—	—	—	—	—	
21,22,23	R	G	R	R	R	R	R	
41	—	—	—	—	—	—	—	
42	R	R	—	—	—	—	—	
61,62	G	G	R	G	R	R	R	
P21,P22	DW	W	DW	DW	DW	DRK		
P31,P32	DW	DW	W	DW	DW	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
1A	6X40	0	2-4-2	X	1	15.0	-	X	-
2A	6X6	70	3	X	2	-	-	X	-
4A	6X40	0	2-4-2	X	4	5.0	-	X	-
6A	6X6	70	3	X	6	-	-	X	-

4 Phase

Fully Actuated with EVP

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.
- Omit phase 4 during phase 3 on.
- Phase 1 may be lagged.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- To provide a leading pedestrian interval on Phase 3, program FYA heads numbered 41 and 42 to delay for 7 seconds after the start of the phase 4 walk interval. See Electrical Details for programming.
- The Division Traffic Engineer will determine the Delay Before Preempt and Preempt Dwell Min Green time for the emergency vehicle preemption timing.
- This intersection features an optical preemption system. Shown locations of the optical detectors are conceptual only.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

MAXTIME PREEMPTION CHART

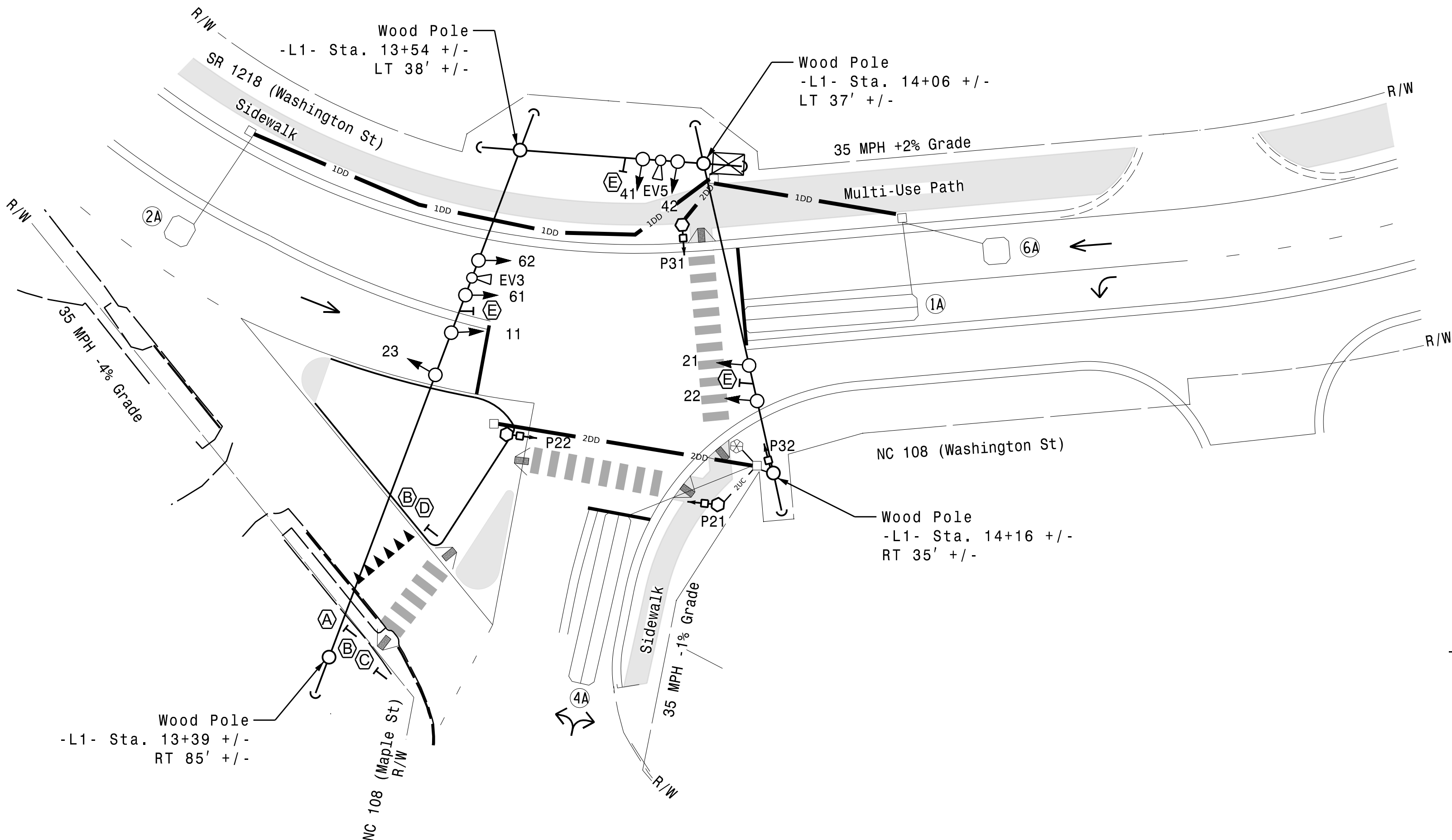
FUNCTION	PRE 3	PRE 5
Type	EMERG. VEH	EMERG. VEH
Exit Phases	1,6	4
Call Extend Time	2.0	2.0
Delay	**	**
Max Presence	120	120
Enter Min Green	1	1
Enter Walk	255*	255*
Enter Ped Clear	255*	255*
Enter Yellow Change	25.5*	25.5*
Enter Red Clear	25.5*	25.5*
Track Green	0	0
Track Yellow Change	25.5*	25.5*
Track Red Clear	25.5*	25.5*
Dwell Green	**	**
Exit Min Green	255*	255*
Exit Yellow Change	25.5*	25.5*
Exit Red Clear	25.5*	25.5*
Exit Type	EXIT PHASES	EXIT PHASES
Ped Clear Through Yellow	Y	Y
Require All Red Entry	-	-

* Directs controller to use default phase timing.
** See Note 10.

MAXTIME TIMING CHART

FEATURE	PHASE				
	1	2	3	4	6
Walk *	-	13	14	-	-
Ped Clear	-	7	11	-	-
Min Green *	7	10	7	7	10
Passage *	2.0	3.0	2.0	2.0	3.0
Max I *	20	40	30	30	40
Yellow Change	3.0	4.1	3.0	3.0	4.1
Red Clear	1.8	1.1	1.8	1.8	1.1
Red Revert	2.0	2.0	2.0	2.0	2.0
Added Initial *	-	-	-	-	-
Maximum Initial *	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-
Time To Reduce *	-	-	-	-	-
Minimum Gap	-	-	-	-	-
Advance Walk	-	6	**	-	-
Non Lock Detector	X	-	X	X	-
Vehicle Recall	-	MIN RECALL	-	-	MIN RECALL
Dual Entry	-	-	-	-	-

* 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.
** See Note 9.



LEGEND

PROPOSED	EXISTING
Traffic Signal Head	N/A
Modified Signal Head	N/A
Sign	N/A
Pedestrian Signal Head	N/A
Signal Pole with Guy	N/A
Signal Pole with Sidewalk Guy	N/A
Inductive Loop Detector	N/A
Controller & Cabinet	N/A
Junction Box	N/A
Type I Pushbutton Post	N/A
Type II Signal Pedestal	N/A
Directional Drill	N/A
2-in Underground Conduit	N/A
Right of Way	N/A
Directional Arrow	N/A
Curb Ramp	N/A
"YIELD" Sign (R1-2)	N/A
Pedestrian Crossing Sign (W11-2)	N/A
Left Downward Diagonal Arrow Plaque (W16-7pL)	N/A
Right Downward Diagonal Arrow Plaque (W16-7pR)	N/A
Street Name Sign	N/A

New Installation

Prepared for:

Department of Transportation

State of North Carolina

Signal Design Section

SR 1218/NC 108 (Washington St) at NC 108 (Maple 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

NORTH CAROLINA PROFESSIONAL ENGINEER

W11SHA R. SIMMONS

SEAL 031464

DocuSigned by: Natasha R. Simmons

SIGNATURE DATE

SIG. INVENTORY NO. 13-1351

HNTB

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