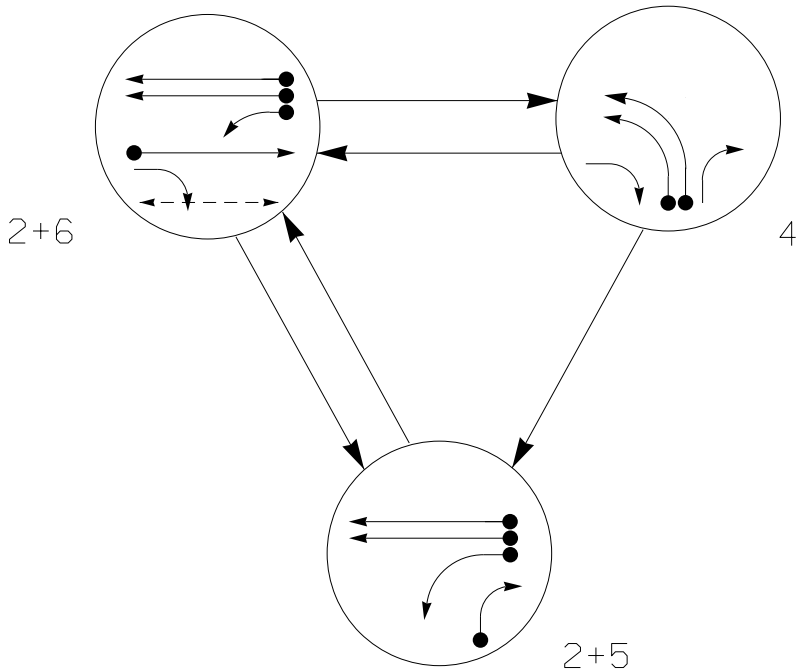
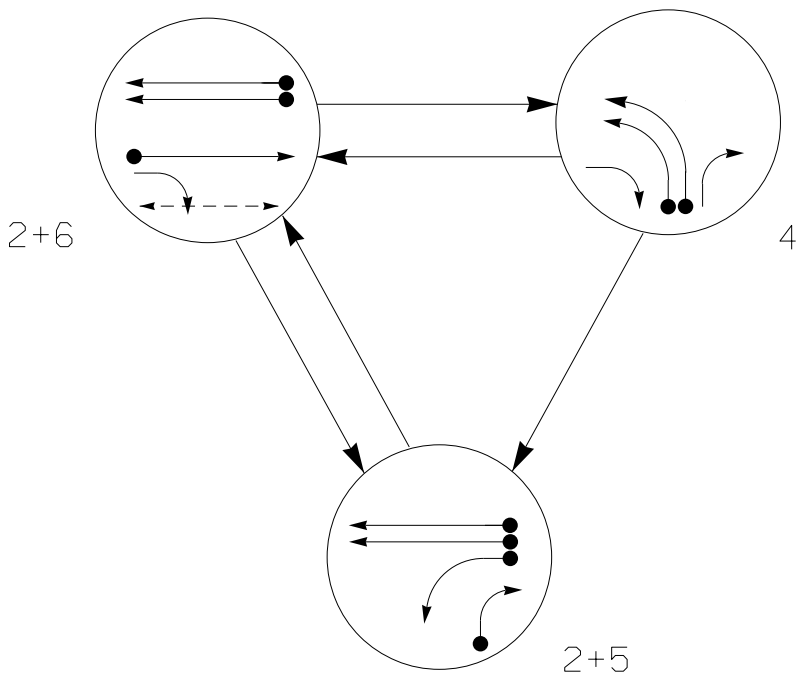


26-AUG-2025, 12:21
D:\w\proj\usgs01\HQR_US_Est+07\Documents\NCDOT\NCDOT_Materials\NCDOT_14-041111_Sig.dgn, 2025mdd.dgn
Fernando Vazquez AT CHA-FAZ02UEZ

DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

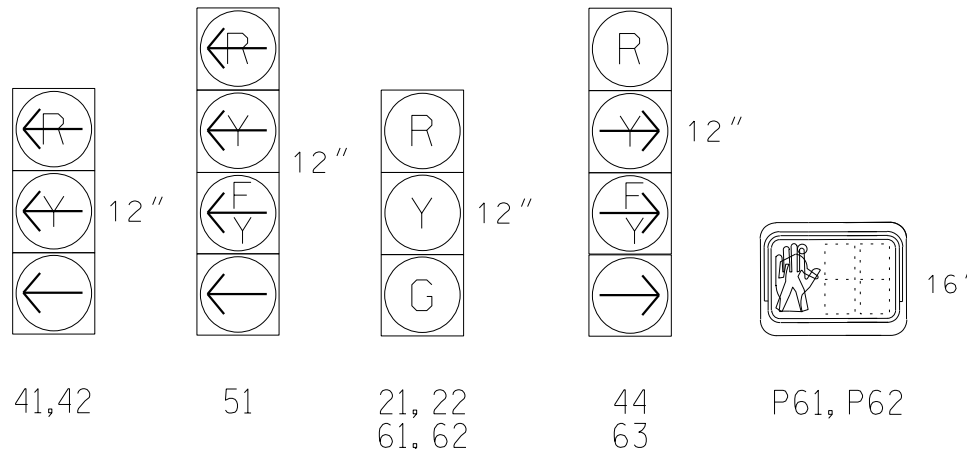
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

DEFAULT PHASING TABLE OF OPERATION					
SIGNAL FACE	PHASE				FLASH
	2 + 5	2 + 6	4		
21, 22	G	G	R	R	
41, 42	R	R	L	L	
44	R	F	R		
51	L	F	R		
61, 62	R	G	R	R	
63	R	F	R		
P61, P62	DW	W	DW	DRK	

ALTERNATE PHASING TABLE OF OPERATION					
SIGNAL FACE	PHASE				FLASH
	2 + 5	2 + 6	4		
21, 22	G	G	R	R	
41, 42	R	R	L	L	
44	R	F	R		
51	L	F	R		
61, 62	R	G	R	R	
63	R	F	R		
P61, P62	DW	W	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	CALL DURING GREEN	NEW CARD
4A	*	0	*	X	4	3.0	-	X	-	X	*
4B	*	0	*	X	4	-	-	X	-	X	*
5A	*	0	*	X	5	15.0**	-	X	-	X	*
5B	*	0	*	X	5	15.0	-	X	-	X	*

- * Multi-Zone Microwave Detection Zone
- ** Disable delay during Alternate Phase Operation.
- # Disable Phase call for loop during Alternate Phasing Operation.

3 Phase
Fully Actuated
w/ Alternate Phasing Operation
(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 5 may be lagged.
- Bag and disconnect pushbutton for P42.
- 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 6, program FYA heads numbered 51 and 63 to delay for 7 seconds after the start of the phase 6 walk interval. See Electrical Details for programming.
- The Division Traffic Engineer will determine the hours of use for each phasing plan.
- 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	
	Modified Signal Head	
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	Oversized Junction Box	
	2-in Underground Conduit	
	Right of Way	
	Directional Arrow	
	Directional Drill	
	Temporary Pedestrian Post with Ped Push Button Sign	
	Type I Pushbutton Post	
	Type II Signal Pedestal	
	Construction Zone	
	Construction Drums	
	Barricade	
	Non-Intrusive Detection Zone	
	Perm. Utility Easement	
	Construction Easement	
	O/H Pwr. & Util. Lines	
	Gas Line	
	U/G Water Line	
	U/G Telephone Cable	
	U/G TV Cable	
	18" Water Line	
	"RIGHT TURN SIGNAL" Sign (R10-10R)	
	Right Arrow "ONLY" Sign (R3-5R)	

MAXTIME TIMING CHART

FEATURE	PHASE			
	2	4	5	6
Walk *	-	-	-	14
Ped Clear *	-	-	-	20
Min Green	12	7	7	12
Passage *	2.0	2.0	2.0	2.0
Max 1 *	90	40	45	90
Yellow Change	4.6	3.0	3.0	4.6
Red Clear	2.0	2.9	2.8	2.0
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Advance Walk	-	-	-	**
Non Lock Detector	-	X	X	-
Vehicle Recall	MIN RECALL	-	-	MIN RECALL
Dual Entry	-	-	-	-

- * 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.
- ** See note #8

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	2	2	2
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 1 - TMP Ph1, S1A



Prepared for:

NC 107 (E Main Street)
at
NC 116 (Webster Road) /
Alexander Street

Division 14 Jackson County Sylva

PLAN DATE: August 2025 REVIEWED BY: ZM Esposito

PREPARED BY: DS Griffith REVIEWED BY: BN Groome

REVISIONS

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

Signed by: *Brittany Groome* 8/26/2025
DATE
SIC. INVENTORY NO. 14-04111