

The diagram illustrates the exchange of two particles between two systems. On the left, a circle labeled '2+6' contains two particles (represented by black dots) and two horizontal dashed lines. On the right, a circle labeled '4+8' contains two particles and two vertical dashed lines. Two horizontal arrows point from the left circle to the right circle, indicating the transfer of the two particles.

←●	DETECTED MOVEMENT
←	UNDETECTED MOVEMENT (OVERLAP)
← - -	UNSIGNALIZED MOVEMENT
← - - →	PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	2 + 6	4 + 8	F L A S H
21	$\overline{F}$	$\overline{R}$	$\overline{R}$
22,23	G	R	R
41	$\overline{R}$	$\overline{F}$	$\overline{R}$
42,43	R	G	R
61	$\overline{F}$	$\overline{R}$	$\overline{R}$
62,63	G	R	R
81	$\overline{R}$	$\overline{F}$	$\overline{R}$
82,83	R	G	R
P21,P22	W	DW	DRK
P41,P42	DW	W	DRK
P61,P62	W	DW	DRK

Diagram illustrating the dimensions and placement of signs:

- Sign 1 (Square): 12" height. Dimensions: 21, 41, 61, 81.
- Sign 2 (Vertical Rectangular): 12" height. Dimensions: 22, 23, 42, 43, 62, 63, 82, 83.
- Sign 3 (Rectangular): 16" height. Dimensions: P21, P22, P41, P42, P61, P62.

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
2A	*	70	*	-	2	-	-	X	-	X	-	-	*
2B	*	0	*	-	2	-	-	X	-	X	-	-	*
4A	*	0	*	-	4	3.0	-	X	-	X	-	-	*
4B	*	0	*	-	4	10.0	-	X	-	X	-	-	*
6A	*	70	*	-	6	-	-	X	-	X	-	-	*
6B	*	0	*	-	6	-	-	X	-	X	-	-	*
8A	*	0	*	-	8	3.0	-	X	-	X	-	-	*
8B	*	0	*	-	8	10.0	-	X	-	X	-	-	*

2 Phase
Fully Actuated
Isolated

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. Set all detector units to presence mode.
4. Renumber existing signal heads 41 and 42 to 42 and 43, respectively.
5. Locate new cabinet so as to not obstruct sight distance of vehicles turning right on red.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
9. See HL-0065 TMP Phase II for pavement markings.

MAXTIME TIMING CHART				
FEATURE	PHASE			
	2	4	6	8
Walk *	12	13	12	–
Ped Clear	10	9	9	–
Min Green *	10	7	10	7
Passage *	3.0	2.0	3.0	2.0
Max l *	45	25	45	25
Yellow Change	3.0	4.2	3.0	4.2
Red Clear	3.1	3.0	3.1	3.0
Red Revert	2.0	2.0	2.0	2.0
Added Initial *	–	–	–	–
Maximum Initial *	–	–	–	–
Time Before Reduction *	–	–	–	–
Time To Reduce *	–	–	–	–
Minimum Gap	–	–	–	–
Advance Walk	5	6	5	–
Non Lock Detector	–	X	–	X
Vehicle Recall	MIN RECALL	–	MIN RECALL	–
Dual Entry	–	X	–	X

HNTB

Signal Upgrade
Temporary Design 1
(Construction Phase 2)

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	
— X-DD —	Directional Drill	— DD —
.. X-UC ..	2-in Underground Conduit	.. UC ..
N/A	Right of Way	— — — — —
N/A	Permanent Easement	— PE —
N/A	Construction Easement	— E —
	Directional Arrow	
	Curb Construction	
N/A	Curb Ramp	
	Left "TURNING VEHICLES" Yield "TO" Pedestrians Sign (R10-15L)	
	Right "TURNING VEHICLES" Yield "TO" Pedestrians Sign (R10-15R)	
	Street Name Sign	

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL



cuSigned by:

Natasha R. Simmons 5/12/2026
SIGNATURE DATE

FIG. INVENTORY NO. 13-0176