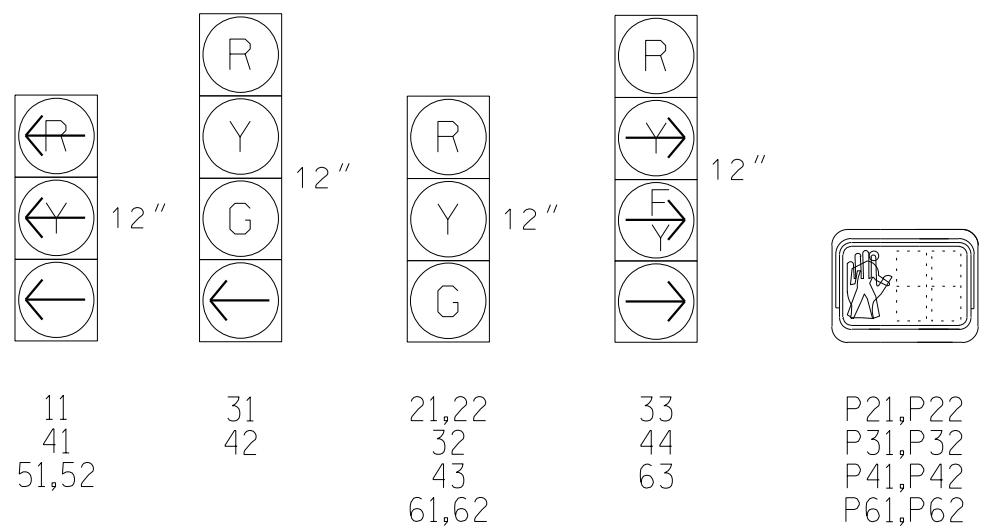


Figure 1 illustrates a directed graph representing the evolution of a system. The graph consists of eight circular nodes arranged in two columns. The left column contains four nodes labeled $2+6$, $2+5$, $1+6$, and $1+5$ from top to bottom. The right column contains two nodes labeled 3 and 4 . Directed edges connect the nodes: $2+6 \rightarrow 2+5$, $2+5 \rightarrow 1+6$, $1+6 \rightarrow 1+5$, $1+5 \rightarrow 3$, $3 \rightarrow 4$, $4 \rightarrow 2+6$, $4 \rightarrow 2+5$, $4 \rightarrow 1+6$, and $4 \rightarrow 1+5$. Each node contains a diagram of a system with particles (dots) and arrows indicating their movement.

	DETECTED MOVEMENT
	UNDETECTED MOVEMENT (OVERLAP)
	UNSIGNALIZED MOVEMENT
	PEDESTRIAN MOVEMENT

TABLE OF OPERATION							
SIGNAL FACE	PHASE						
	1 + 5	1 + 6	2 + 5	2 + 6	3	4	FL SH
11	←	←	R	R	R	R	R
21,22	R	R	G	G	R	R	R
31	R	R	R	R	G	R	R
32	R	R	R	R	G	R	R
33	→	→	R	R	F	R	R
41	←	←	R	R	R	←	←
42	R	R	R	R	R	G	R
43	R	R	R	R	R	G	R
44	R	R	R	R	R	F	R
51,52	←	←	←	←	←	←	←
61,62	R	G	R	G	R	R	R
63	R	F	R	F	R	→	R
P21,P22	DW	DW	W	W	DW	DW	DRK
P31,P32	DW	DW	DW	DW	W	DW	DRK
P41,P42	DW	DW	DW	DW	DW	W	DRK
P61,P62	DW	W	DW	W	DW	DW	DRK

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	DELAY GREEN	NEW CARD
1A	*	0	*	-	1	-	-	X	-	X	-	*
1B	*	0	*	X	1	15.0	-	X	-	X	-	*
3A	*	0	*	X	3	3.0	-	X	-	X	-	*
4A	*	0	*	-	4	-	-	X	-	X	-	*
4B	*	0	*	-	4	-	-	X	-	X	-	*
4C	*	0	*	-	4	15.0	-	X	-	X	-	*
5A	*	0	*	X	5	-	-	X	-	X	-	*
5B	*	0	*	X	5	-	-	X	-	X	-	*

* Multi-Zone Microwave Detection Zone

Fully Actuated
(Time Based Coordination)

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or Phase 5 may be lagged.
4. The order of phase 3 and phase 4 may be reversed.
5. Uncover and reconnect existing pedestrian head P31.
6. Reposition existing signal heads numbered 21, 22 and 51.
7. Set all detectors units to presence mode.
8. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
9. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
10. To provide a leading pedestrian interval on phase 3, program FYA head numbered 33 to delay for 7 seconds after the start of the phase 3 walk interval. See Electrical Details for programming.
11. To provide a leading pedestrian interval on phase 4, program FYA head numbered 44 to delay for 6 seconds after the start of the phase 4 walk interval. See Electrical Details for programming.
12. To provide a leading pedestrian interval on phase 6, program FYA head numbered 63 to delay for 7 seconds after the start of the phase 7 walk interval. See Electrical Details for programming.
13. This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
14. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

FEATURE	PHASE					
	1	2	3	4	5	6
Walk *	–	14	14	13	–	14
Ped Clear	–	21	31	26	–	23
Min Green *	7	12	7	7	7	12
Passage *	2.0	2.0	2.0	2.0	2.0	2.0
Max 1 *	20	45	45	40	20	45
Yellow Change	3.0	4.3	4.0	3.2	3.0	4.3
Red Clear	3.4	2.5	3.5	3.7	3.9	2.5
Added Initial *	–	–	–	–	–	–
Maximum Initial *	–	–	–	–	–	–
Time Before Reduction *	–	–	–	–	–	–
Time To Reduce *	–	–	–	–	–	–
Minimum Gap	–	–	–	–	–	–
Advance Walk	–	7	**	***	–	***
Non Lock Detector	X	–	X	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 10

*** See note 11

**** See note 12

PEDESTRIAN DETAIL

Detail for installation of P22 head and pushbutton

Install new pushbuttons and signs. Maintain 10' min between pushbuttons PB41 and PB22.

Labels and Dimensions:

- P22
- Ex. P41
- Transformer Base
- Handhole
- 7' min.-10' max.
- Standard R10-3 (E) Sign
- Pedestrian Pushbutton
- PB22
- 3'-6"
- Wall
- Sidewalk
- C&G
- Ex. PB41
- 3'-6"

Elevation View

—Locate pushbuttons adjacent to truncated domes
—See additional information in —WALL 15—details

Microwave Detection				
	②A		⑥A	
FUNCTION	Sensor 1		Sensor 2	
Channel	1		1	
Phase	2		6	
Direction of Travel	NB		SB	
Type	Priority		Priority	
Level	2	QUEUE	2	QUEUE
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	—

PROPOSED		EXISTING
	Traffic Signal Head	N/A
	Modified Signal Head	
	Sign	N/A
	Pedestrian Signal Head	N/A
	With Push Button & Sign	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
	Oversized Junction Box	N/A
	2-in Underground Conduit	N/A
N/A	Right of Way	N/A
	Directional Arrow	N/A
	Non-Intrusive Detection Zone	N/A
	Directional Drill	N/A
	Type I Pushbutton Post	N/A
	Type II Signal Pedestal	N/A
N/A	Permanent Utility Easement	PUE N/A
	Construction Zone	N/A
	"RIGHT TURN SIGNAL" Sign (R10-10)	A
	"RIGHT TURN ON RED YIELD TO U-TURN" Sign (R10-30)	B
	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	C

Temporary Design 5 - TMP Ph3, S1

Walmart Driveway /
Commercial Driveway

Division 14 Jackson County Sylva

PLAN DATE: August 2025	REVIEWED BY: ZM Esposito
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PREPARED BY: KA Jones	REVIEWED BY: BN Groome
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REVISIONS	INIT.	DATE
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DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SF AI

Signed by: Brittany Groome 8/26/2022

SIG. INVENTORY NO. 14-10221