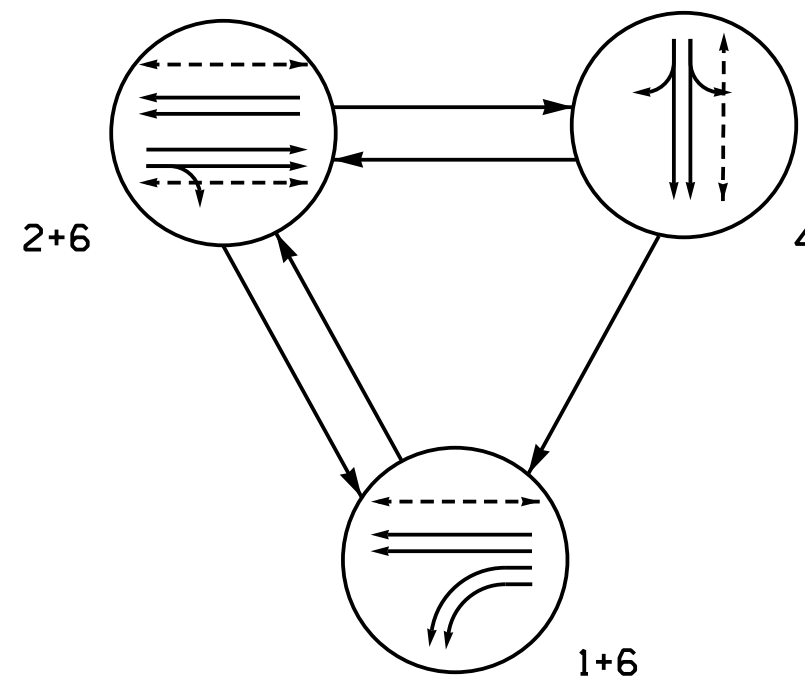
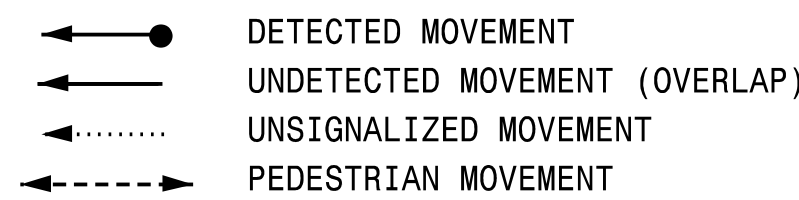


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND



EV PREEMPT PHASES

(Medium Priority)

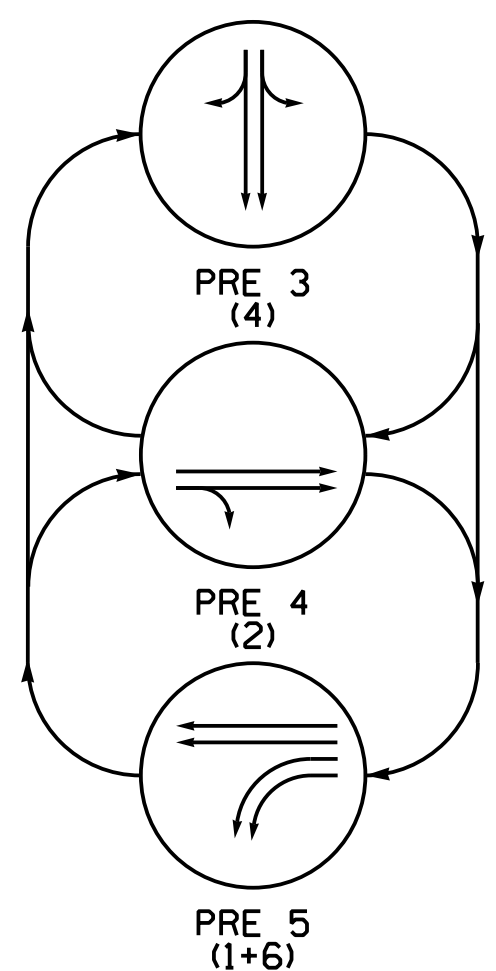


TABLE OF OPERATION

SIGNAL FACE	PHASE						
	1 + 6	2 + 6	4	PRE 3	PRE 4	PRE 5	FLASH
11,12	---	---	---	---	---	---	---
21	R	↑	R	R	↑	R	R
22	R	G	R	R	G	R	R
41,42	R	R	G	G	R	R	R
61	G	G	R	R	R	G	R
62	↑	↑	R	R	R	↑	R
P21,P22	DW	W	DW	DW	DW	DW	DRK
P43,P44	DW	DW	W	DW	DW	DW	DRK
P61,P62	W	W	DW	DW	DW	DW	DRK

SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING													
ZONE	SIZE (ft)	TURNS	DIST. FROM STOP LINE (ft)	NEW EXISTING	ASSIGNED PHASE	TIMING		OPERATION MODE										STATUS
						DELAY	EXTEND (STRETCH)	VEHICLE	PEDESTRIAN	1 CALL	2	3	4	5	6	7	AND	
1A*	6X40	*	0	*	-	1	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	*
1B*	6X40	*	0	*	-	1	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	*

* Multizone Microwave Detection

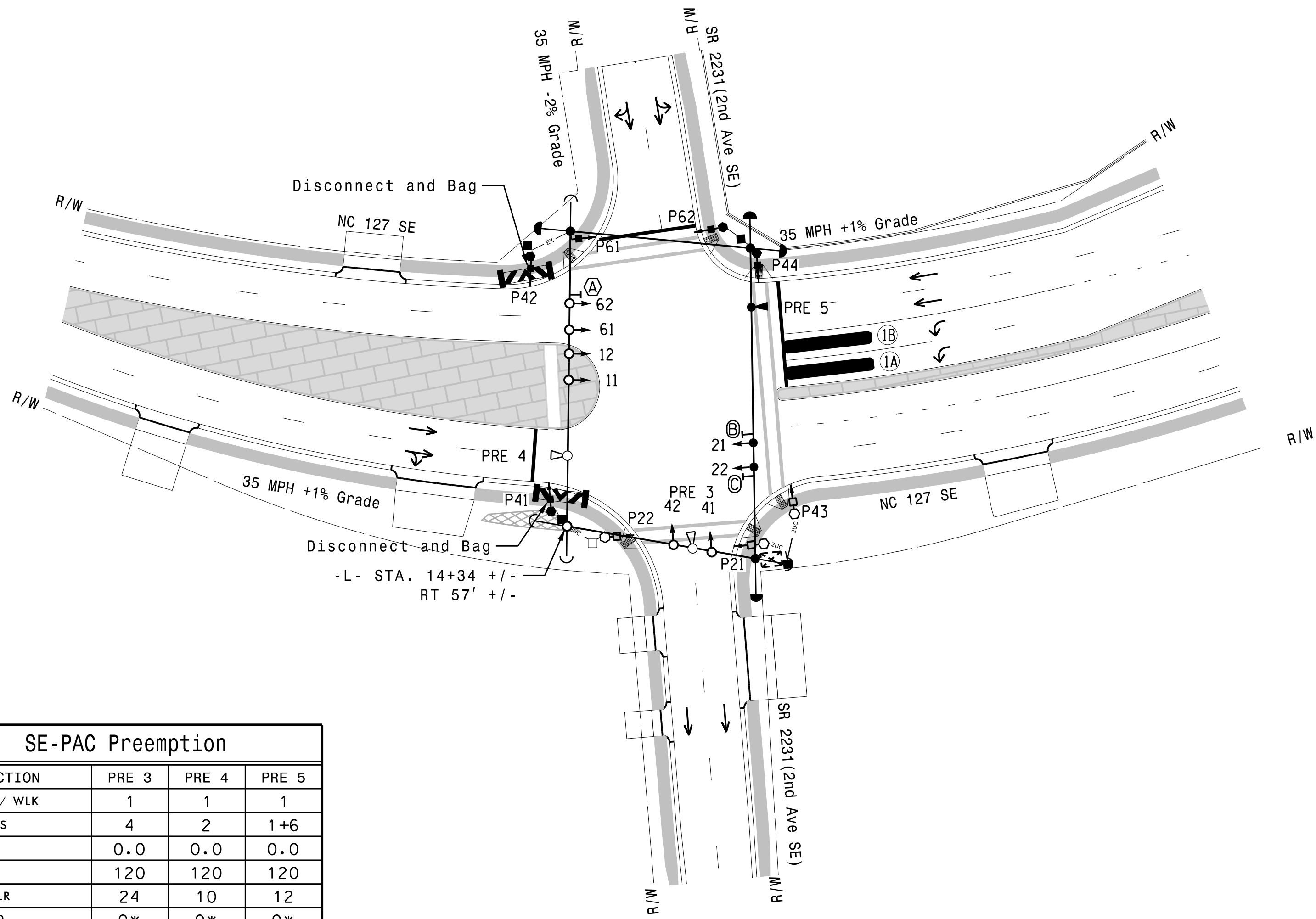
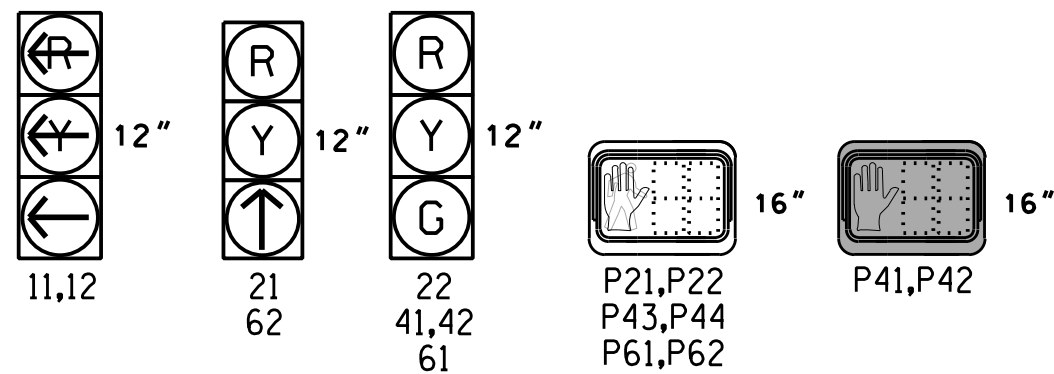
3 Phase with EVP
Semi-Actuated
Hickory City Signal System

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 1 may be lagged.
- Disconnect and bag existing pedestrian heads numbered P41 and P42.
- Reposition existing signal heads numbered 21 and 22. signs ⓑ and ⓒ.
- Set all detector units to presence mode.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
- 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.
- Hickory Signal System Data: Controller Asset #0316.

SIGNAL FACE I.D.

All Heads L.E.D.



SE-PAC 2070 TIMING CHART

FEATURE	PHASE			
	1	2	4	6
Min Green *	7	10	7	10
Passage Gap *	2.0	-	-	-
Maximum Green *	40	40	40	40
Yellow Change	3.0	3.8	4.0	3.8
Red Clear	3.3	2.1	2.7	2.1
Walk *	-	14	13	14
Pedestrian Clear	-	12	25	14
Advance Walk *	-	7	6	7
Added Initial *	-	-	-	-
Maximum Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	-	MAX/PED RECALL	MAX/PED RECALL	MAX/PED RECALL
Vehicle Call Memory	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK
Dual Entry	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON

* 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.

SE-PAC Preemption

FUNCTION	PRE 3	PRE 4	PRE 5
MIN GRN / WLK	1	1	1
EXIT PHASES	4	2	1+6
DELAY	0.0	0.0	0.0
MXCALL	120	120	120
SEL PED CLR	24	10	12
SEL YEL / 10	0*	0*	0*
SEL RED / 10	0*	0*	0*
TRACK GREEN	0	0	0
TRK PED CLR	0	0	0
TRK YEL / 10	0	0	0
TRK RED / 10	0	0	0
DWELL GRN	7	10	10
RET PED CLR	0	0	0
RET YEL / 10	0*	0*	0*
RET RED / 10	0*	0*	0*
PREEMPT EXTEND**	2.0	2.0	2.0

* Time defaults to time used for phase during normal operation.
** Program Timing on Optical Detection Unit.

LEGEND

PROPOSED	EXISTING
	N/A
N/A	Right of Way
	N/A
	N/A
N/A	Curb Ramp
	N/A
Ⓐ	No Right Turn Sign (R3-1)
Ⓑ	No Left Turn Sign (R3-2)
ⓒ	"NO TURN ON RED" Sign (R10-11)

Signal Upgrade -
Temporary Design 5
(Construction Phase 3)

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

 Prepared for: TRANSPORTATION MOBILITY AND SAFETY DIVISION STATE OF NORTH CAROLINA Signal Design Section 750 N. Greenfield Pkwy, Garner, NC 27529	NC 127 SE at SR 2231 (2nd Ave SE) Division 12 Catawba County Hickory PLAN DATE: October 2023 PREPARED BY: E.E. Tiller REVIEWED BY: N.K. Vianich REVIEWED BY: N.R. Simmons	SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 031464 N.R. SIMMONS DocuSigned by: Natasha R. Simmons 9/6/2024 DATE SIG. INVENTORY NO. 12-0945T5
	REVISIONS 0 40 1"=40'	INIT. DATE

HNTB

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