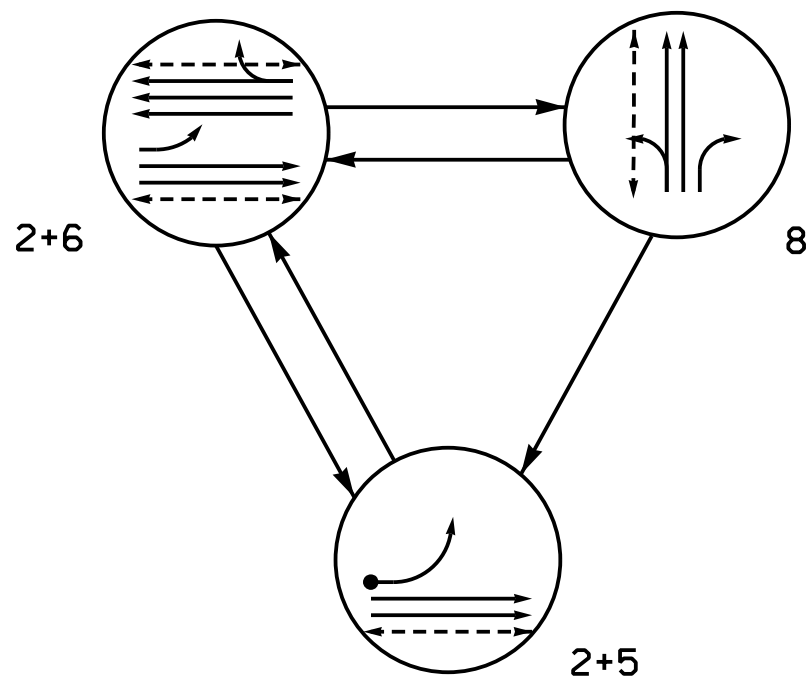
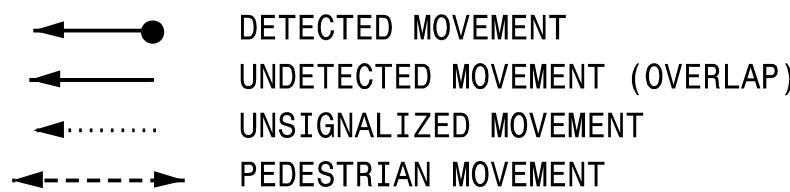


PHASING DIAGRAM

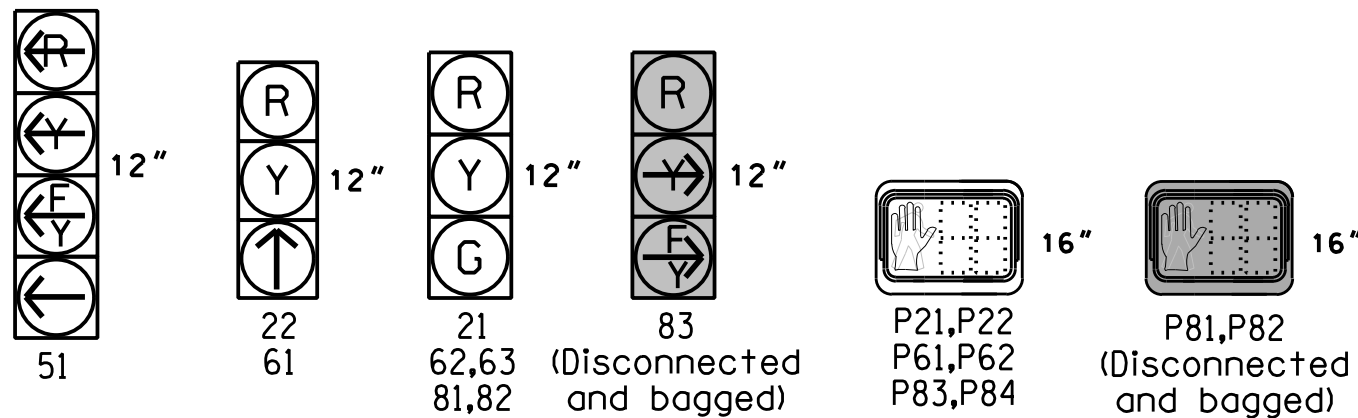


PHASING DIAGRAM DETECTION LEGEND



SIGNAL FACE I.D.

All Heads L.E.D.



EV PREEMPT PHASES

(Medium Priority)

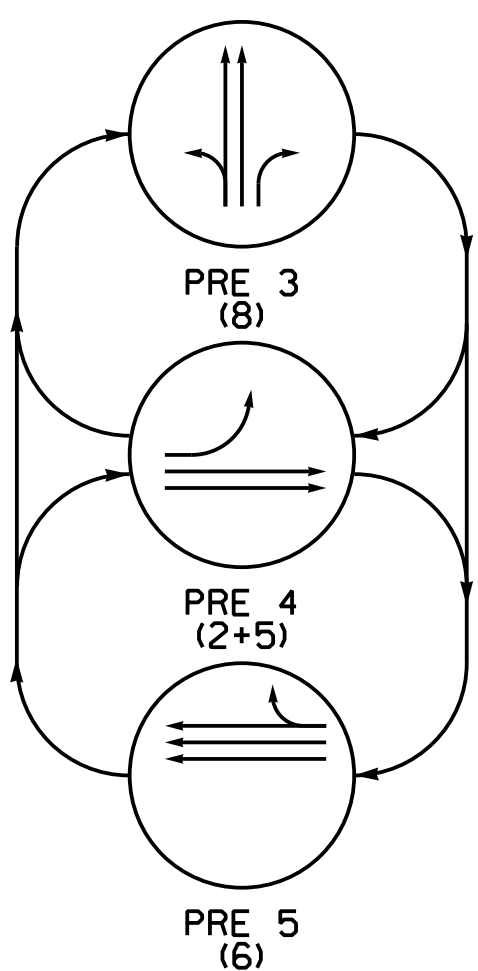


TABLE OF OPERATION

SIGNAL FACE	PHASE									
	2+5	2+6	8	PRE 3	PRE 4	PRE 5	FLASH			
21	G	G	R	R	G	R	R			
22	↑	↑	R	R	↑	R	R			
51	←	←	←	←	←	←	←			
61	R	↑	R	R	R	↑	R			
62,63	R	G	R	R	R	G	R			
81,82	R	R	G	G	R	R	R			
P21,P22	W	W	DW	DW	DW	DW	DRK			
P61,P62	DW	W	DW	DW	DW	DW	DRK			
P83,P84	DW	DW	W	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							SWITCH	SYSTEM LOOPS	STATUS	
						DELAY	EXTEND (STRETCH)	VEHICLE	PEDESTRIAN	1 CALL	2	3	4	5			NEW	EXISTING
5A*	6X40	*	0	*	-	5	15 SEC.	-	SEC.	X	-	-	-	-	-	-	*	-

* Multizone Microwave Detection

3 Phase with EVP
Pre-Timed
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 5 may be lagged.
- Reposition existing signal heads numbered 22, 61, and 62 and PRE 4 and 5, and signs A and B.
- Disconnect and bag existing signal head numbered 83 and pedestrian heads numbered P81 and P82.
- 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 the 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.
- Program phase 4 as a dummy phase for Ring 1.
- Hickory Signal System Data: Controller Asset #0316.

LEGEND

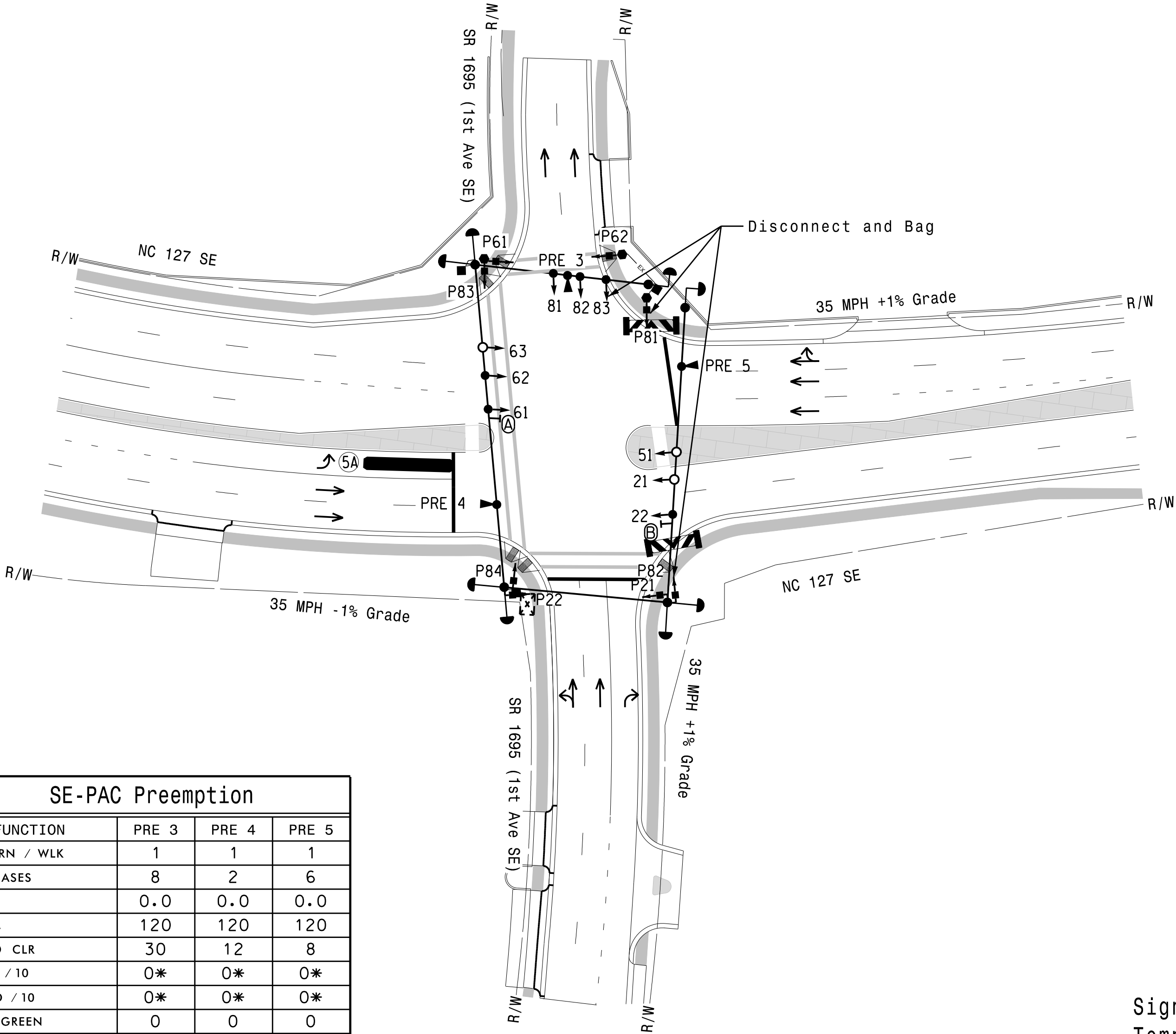
PROPOSED	EXISTING
	N/A
	N/A
	N/A
	N/A

SE-PAC 2070 TIMING CHART					
FEATURE	PHASE				
	2	4	5	6	8
Min Green *	10	7	7	10	7
Passage Gap *	-	-	-	-	-
Maximum Green *	40	40	20	40	40
Yellow Change	3.9	3.8	3.0	3.9	3.8
Red Clear	2.8	2.8	3.7	2.8	2.8
Walk *	14	-	-	14	14
Pedestrian Clear	13	-	-	9	31
Advance Walk *	7	-	-	7	7
Added Initial *	-	-	-	-	-
Maximum Initial *	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-
Time To Reduce *	-	-	-	-	-
Minimum Gap	-	-	-	-	-
Recall Mode	MAX/PED RECALL	MAX RECALL	-	MAX/PED RECALL	MAX/PED RECALL
Vehicle Call Memory	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK
Dual Entry	-	-	-	-	-
Simultaneous Gap	ON	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	8	2	6	
DELAY	0.0	0.0	0.0	
MXCALL	120	120	120	
SEL PED CLR	30	12	8	
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.



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 1692 (1st Ave SE)		
	Division 12 Catawba County Hickory		
	PLAN DATE: October 2023	REVIEWED BY: N.K. Vianich	
	PREPARED BY: E.E. Tiller	REVIEWED BY: N.R. Simmons	
REVISIONS		INIT.	DATE
0 40 1"=40'			
DocuSigned by: Natasha R. Simmons 9/6/2024		DATE	
SIC. INVENTORY NO. 12-095475			

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