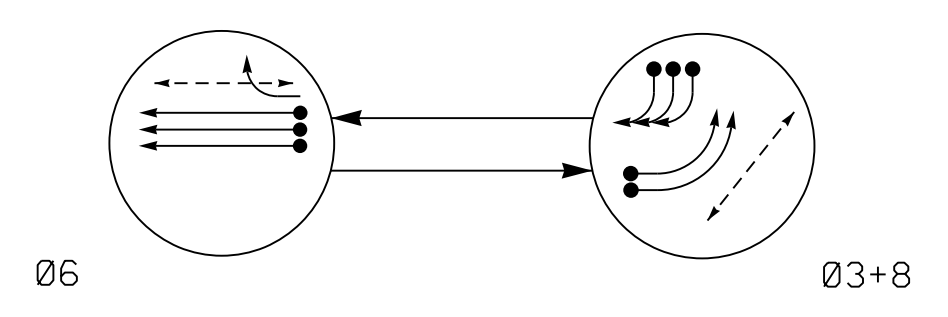


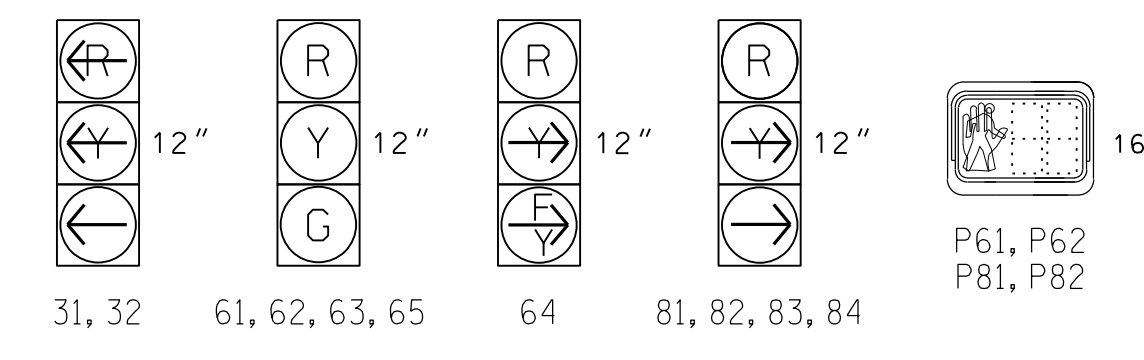
PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND
 ● ← DETECTED MOVEMENT
 ○ ← UNDETECTED MOVEMENT (OVERLAP)
 - ← UNSIGNALIZED MOVEMENT
 - - - ← PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	06	03+8	F L S A
31, 32	←	←	←
61, 62, 63, 65	G	R	R
64	←	R	←
81, 82, 83, 84	R	←	R
P61, P62	W	DW	DRK
P81, P82	DW	W	DRK

SIGNAL FACE I.D.
All Heads L.E.D.



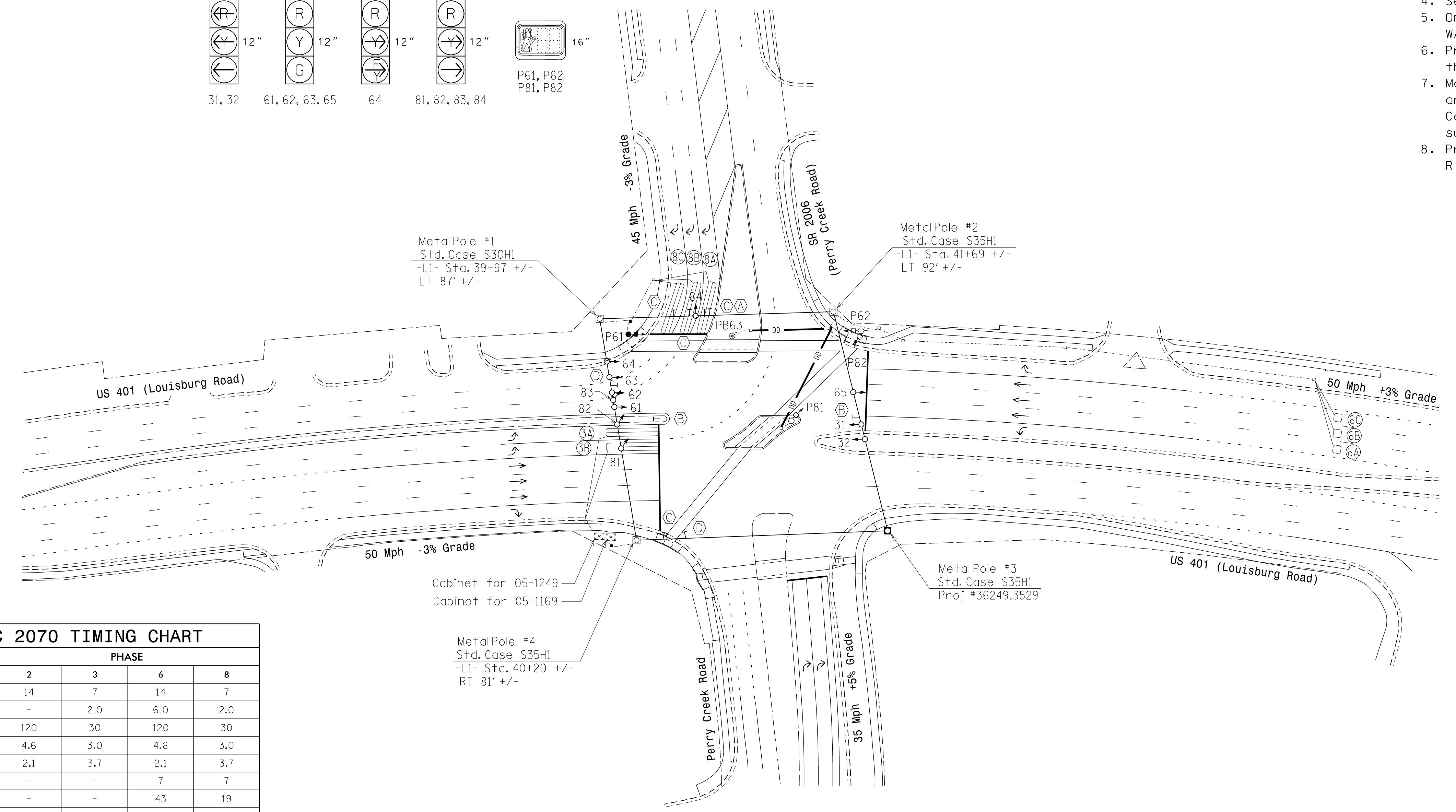
SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART

LOOP NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW EXISTING	ASSIGNED PHASE	DETECTOR PROGRAMMING															
						DELAY	EXTEND (STRETCH)	OPERATION MODE							SWITCH	SYSTEM LOOPS	STATUS				
								VEHICLE	PEDESTRIAN	1 CALL	STOP A	STOP B	PROTECTOR LEFT	PROTECTOR THROUGH				AND	NEW	EXISTING	
3A	6X40	2-4-2	0	X	-	3	-	SEC.	-	SEC.	X	-	-	-	-	-	-	-	-	X	-
3B	6X40	2-4-2	0	X	-	3	-	SEC.	-	SEC.	X	-	-	-	-	-	-	-	-	X	-
6A	6X6	5	355	X	-	6	-	SEC.	-	SEC.	X	-	-	-	-	-	-	-	-	X	-
6B	6X6	5	355	X	-	6	-	SEC.	-	SEC.	X	-	-	-	-	-	-	-	-	X	-
6C	6X6	5	355	X	-	6	-	SEC.	-	SEC.	X	-	-	-	-	-	-	-	-	X	-
8A	6X40	2-4-2	0	X	-	8	-	SEC.	-	SEC.	X	-	-	-	-	-	-	-	-	X	-
8B	6X40	2-4-2	0	X	-	8	-	SEC.	-	SEC.	X	-	-	-	-	-	-	-	-	X	-
8C	6X40	2-4-2	0	X	-	8	-	SEC.	-	SEC.	X	-	-	-	-	-	-	-	-	X	-

2 Phase Fully Actuated (Raleigh Signal System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Install backplates for signal heads numbered 61, 62, 63, and 64.
- Set all detector units to presence mode.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Program Phase 2 as a dummy phase for Ring 1.



PROPOSED		EXISTING	
○	Traffic Signal Head	●	N/A
○	Modified Signal Head	○	N/A
⊥	Sign	⊥	N/A
⊥	Pedestrian Signal Head	⊥	N/A
+	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
---	2-in Underground Conduit	---	N/A
N/A	Right of Way	---	N/A
→	Directional Arrow	→	N/A
⊗	Type I Pushbutton Post	⊗	N/A
○	Type II Signal Pedestal	○	N/A
N/A	Curb Ramp	⊥	N/A
---	Directional Drill	---	N/A
○	Metal Strain Pole	○	N/A
Ⓐ	No Left Turn Sign (R3-2)	Ⓐ	N/A
Ⓑ	No U-Turn Sign (R3-4)	Ⓑ	N/A
Ⓒ	"NO TURN ON RED" Sign (R10-11)	Ⓒ	N/A
Ⓓ	Street Name Sign By Others (D3-1)	Ⓓ	N/A

FEATURE	PHASE			
	2	3	6	8
Min Green *	14	7	14	7
Passage Gap *	-	2.0	6.0	2.0
Maximum Green *	120	30	120	30
Yellow Change	4.6	3.0	4.6	3.0
Red Clear	2.1	3.7	2.1	3.7
Walk *	-	-	7	7
Pedestrian Clear	-	-	43	19
Added Initial *	-	-	1.5	-
Maximum Initial *	-	-	40	-
Time Before Reduction *	-	-	20	-
Time To Reduce *	-	-	40	-
Minimum Gap	-	-	3.0	-
Recall Mode	-	-	MIN RECALL	-
Vehicle Call Memory	-	NON-LOCK	LOCK	NON-LOCK
Dual Entry	-	ON	-	ON
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.

Signal Upgrade - Final Design

US 401 SB (Louisburg Road) at SR 2006 (Perry Creek Road)

Division 5 Wake County Raleigh

PLAN DATE: Jan 2023 REVIEWED BY: F.A. Campbell

PREPARED BY: H.M. Surti REVIEWED BY:

REVISIONS: _____

SCALE: 0 50 1"=50'

750 N. Greenfield Pkwy, Garner, NC 27529

SEAL: HEMANG M. SURTI, PROFESSIONAL ENGINEER, STATE OF NORTH CAROLINA, No. 034481

DocuSigned by: Hemang M. Surti 1/24/2023

SIG. INVENTORY NO. 05-1249



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