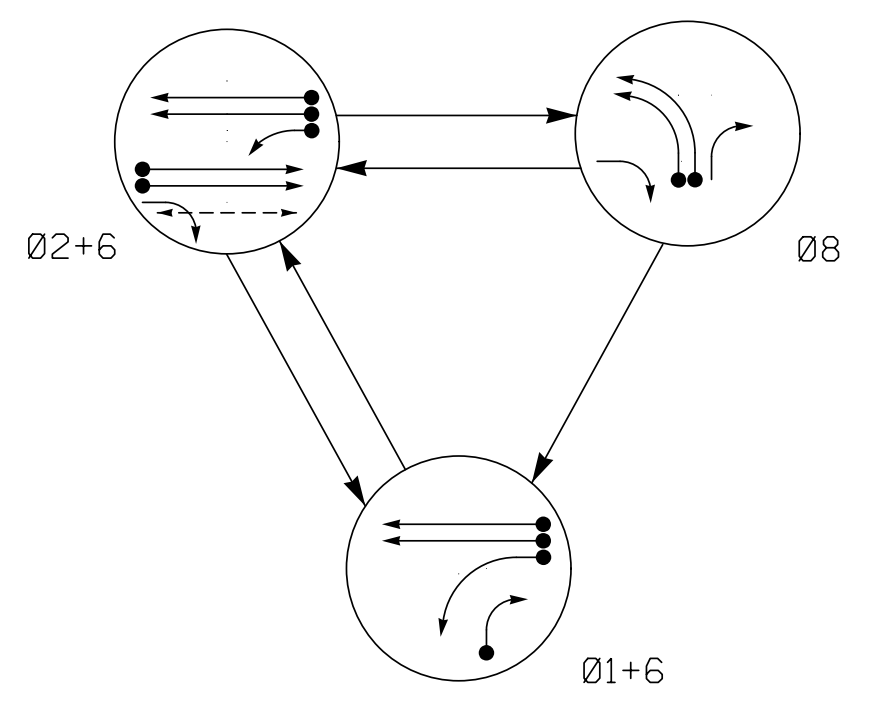


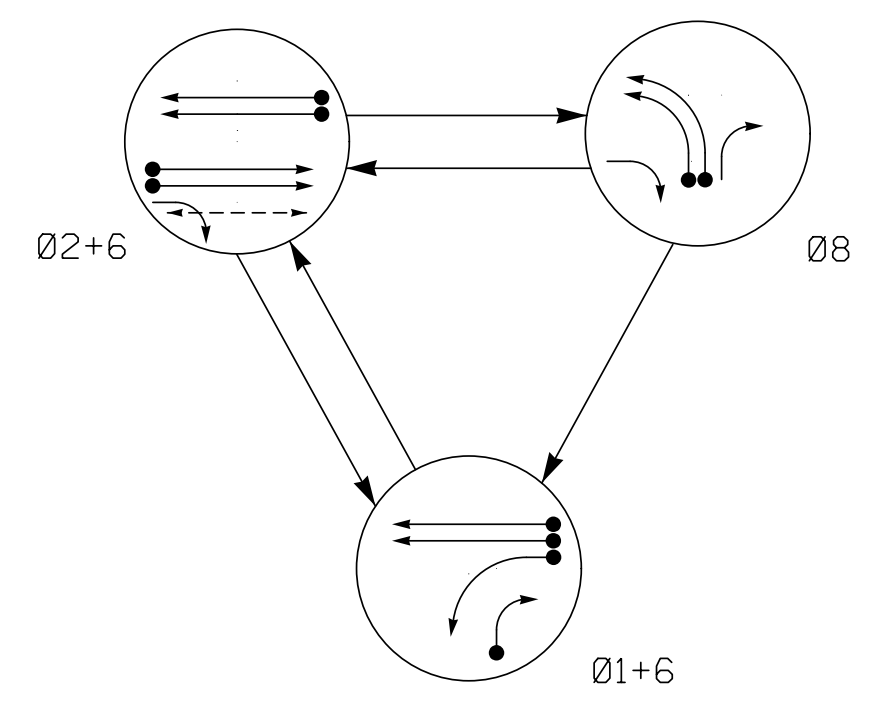
DEFAULT PHASING DIAGRAM



DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE			
	Ø 1 + 6	Ø 2 + 6	Ø 8	F L H S A B
11	←	←	←	←
21	R	G	R	Y
22	R	G	R	Y
61,62	G	G	R	Y
81,82	←	←	←	←
83	→	→	→	→
P21,P22	DW	W	DW	DRK

ALTERNATE PHASING DIAGRAM



ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE			
	Ø 1 + 6	Ø 2 + 6	Ø 8	F L H S A B
11	←	←	←	←
21	R	G	R	Y
22	R	G	R	Y
61,62	G	G	R	Y
81,82	←	←	←	←
83	→	→	→	→
P21,P22	DW	W	DW	DRK

DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X60	0	2-4-2	-	1	Yes	-	15*	-	N	-	X
1B	6X60	0	2-4-2	-	1	Yes	-	15	-	N	-	X
2A	6X6	300	EXIST	-	2	Yes	-	-	-	X	N	-
2B	6X6	300	EXIST	-	2	Yes	-	-	-	X	N	-
6A	6X6	300	EXIST	-	6	Yes	-	-	-	X	N	-
6B	6X6	300	EXIST	-	6	Yes	-	-	-	X	N	-
8A	6X60	0	2-4-2	-	8	Yes	-	3	-	N	-	X
8B	6X60	0	2-4-2	-	8	Yes	-	-	-	N	-	X
S1	6X6	+320	EXIST	-	SYS	No	-	-	-	N	X	X
S2	6X6	+320	EXIST	-	SYS	No	-	-	-	N	X	X

* Disable Delay during Alternate Phasing operation.
Disable Phase call for loop during Alternate Phasing operation.

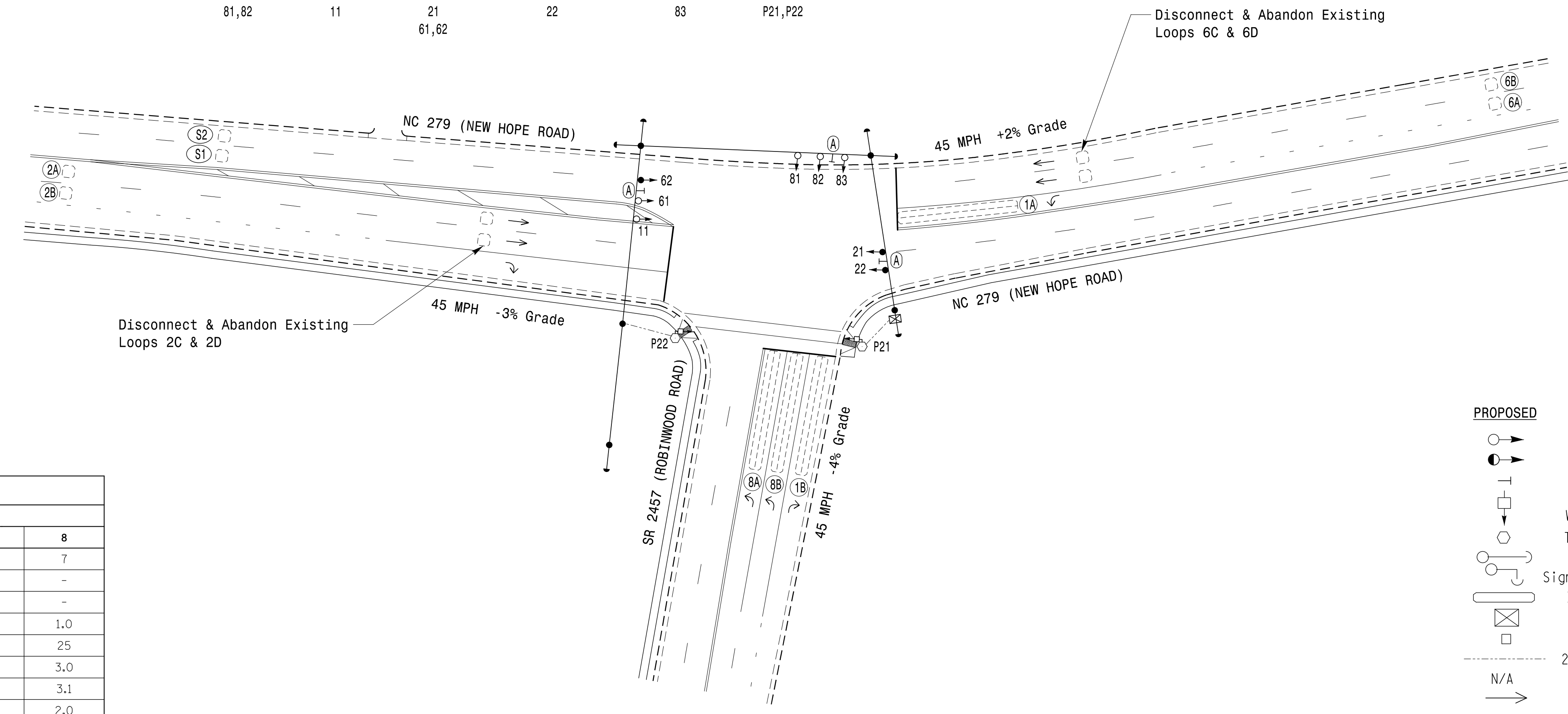
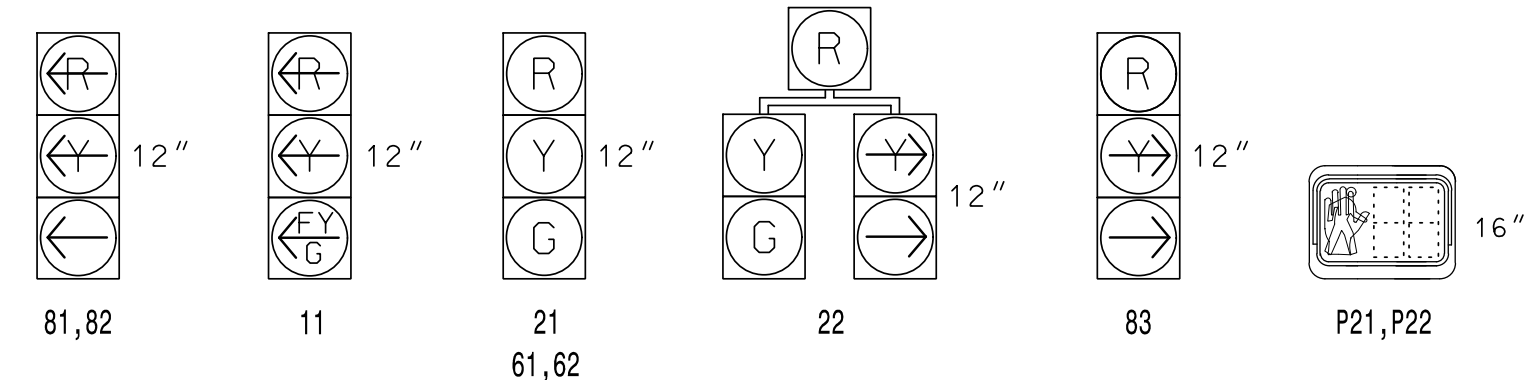
PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE I.D.

All Heads L.E.D.

⊕ = Bimodal Section



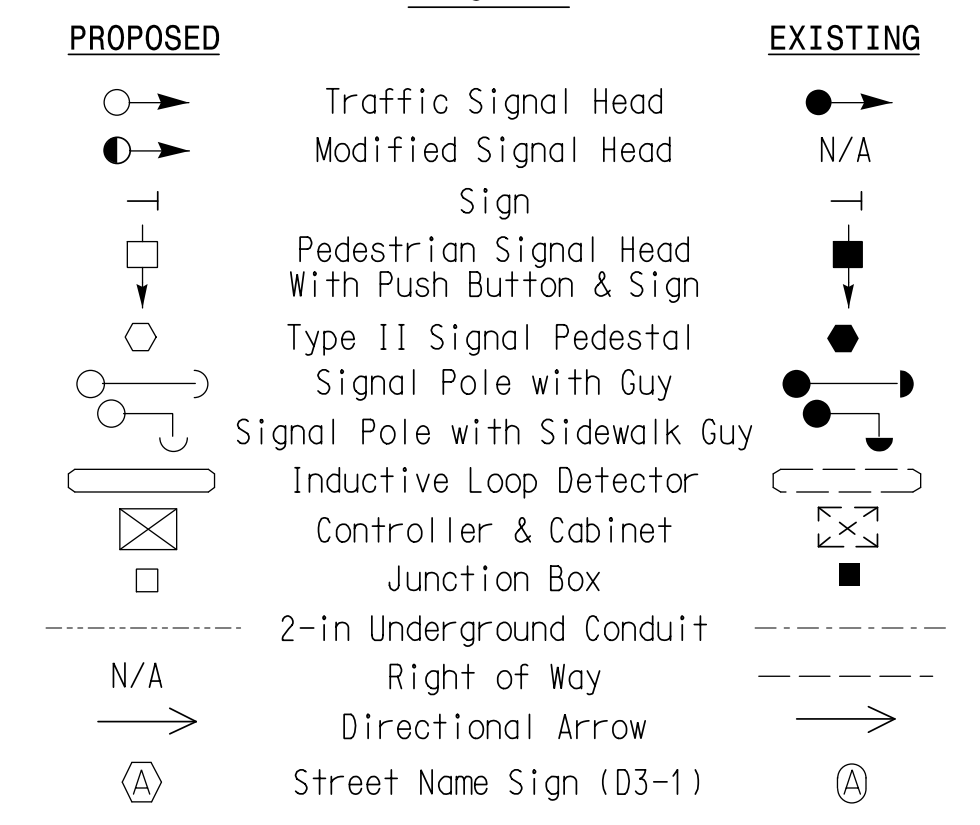
TIMING CHART

FEATURE	PHASE			
	1	2	6	8
Min Green *	7	12	12	7
Walk *	-	7	-	-
Ped Clear	-	19	-	-
Veh. Extension *	1.0	6.0	6.0	1.0
Max I *	15	45	45	25
Yellow	3.0	4.8	4.8	3.0
Red Clear	3.1	1.8	1.8	3.1
Red Revert	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-
Seconds / Actuation *	-	1.5	1.5	-
Max Initial *	-	34	34	-
Time Before Reduction *	-	15	15	-
Time To Reduce *	-	30	30	-
Minimum Gap	-	3.0	3.0	-
Locking Detector	-	X	X	-
Recall Position	-	MIN RECALL MIN RECALL		-
Dual Entry	-	-	-	-
Simultaneous Gap	X	X	X	X

* 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.

- 3 Phase Fully Actuated w/ Alternate Phasing Operation Gastonia 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.
 - Phase 1 may be lagged.
 - Reposition existing signal head numbered 62.
 - Set all detector units to presence mode.
 - Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
 - Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
 - Program pedestrian heads to countdown the flashing "Don't Walk" time only.
 - Remove existing "Left Turn on Green" Ball sign (R10-12).
 - Pavement markings are existing.
 - The City Engineer or their representative will determine the hours of use for each phasing plan.
 - Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
 - Disconnect and abandon existing loops 2C, 2D, 6C, and 6D.
 - Install new cabinet on the existing cabinet foundation.
 - All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
 - Reconnect lead-in cable to separate loops 2A, 2B, 6A, and 6B, as shown.
 - Existing phase 4 has been changed to phase 8 on this plan. Change all signal heads, pedestrian signal heads, pedestrian push buttons, and loops as needed to achieve the phasing shown.
 - All proposed pedestrian signal heads shall be black in color. See Project Special Provisions for details.
 - All proposed pedestrian pedestals and pushbutton posts shall be black in color. See Project Special Provisions for details.
 - City of system data:
Controller Asset #0154.

LEGEND



Signal Upgrade

Prepared For: **Kimley-Horn**

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 NC License #0102
 421 Fayetteville Street, Suite 600
 Raleigh, NC 27601
 (919) 677-2000

NC 279 (New Hope Road) at SR 2457 (Robinwood Road)

Division 12 Gaston County Gastonia

PLAN DATE: May 2021 REVIEWED BY: SL Phillips
 PREPARED BY: MC Burke REVIEWED BY: KP Baumann

REVISIONS: _____ INIT. DATE

Discussed by: _____ DATE: 3/11/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL: 044434
 NORTH CAROLINA PROFESSIONAL ENGINEER
 KEVIN P. BAUMANN

SIG. INVENTORY NO. 12-0154

3/9/2022 11:16:17 AM DanHill@curr1 ***K:\mly-horn\comsec_rali\RALI_IP\DK_LTS\011036569_Gastonia_Signal_System\9_Signal\KS4 - Signal Design\120154-2021.dgn