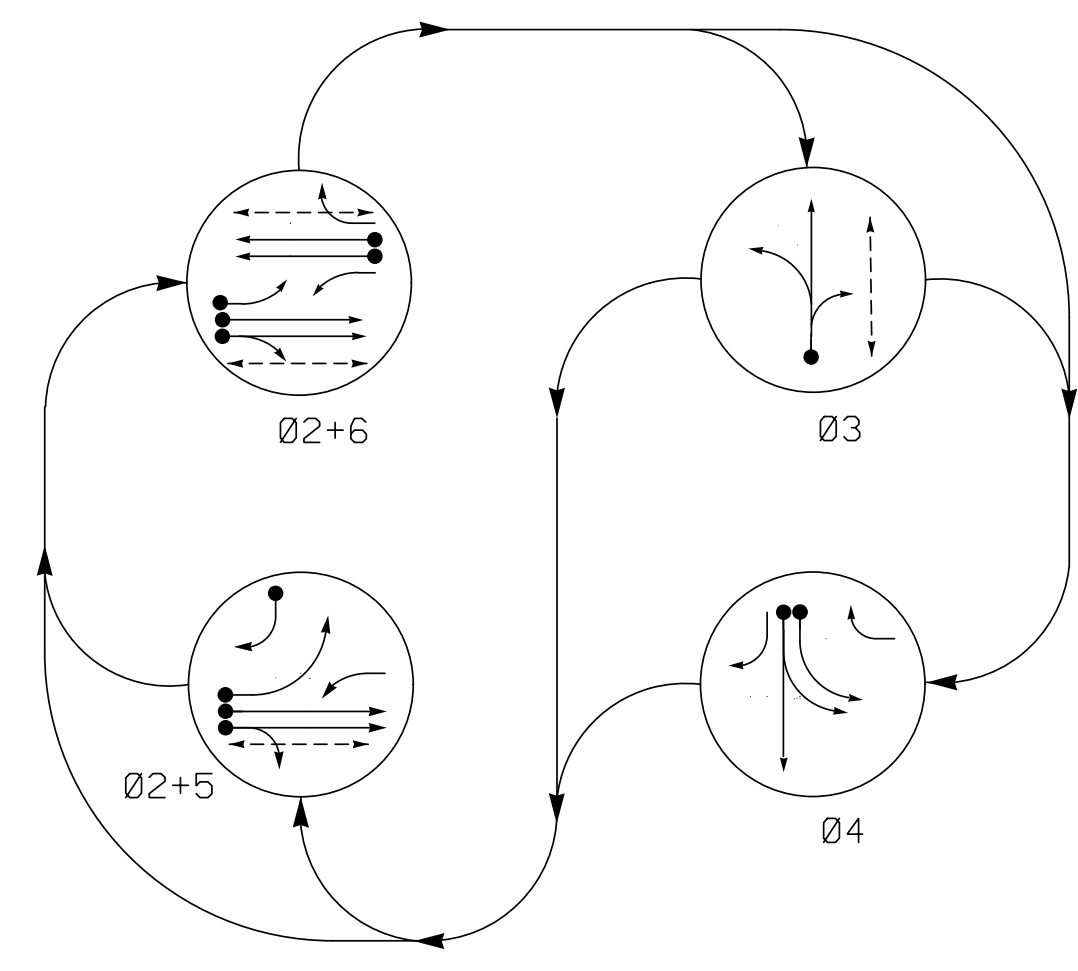


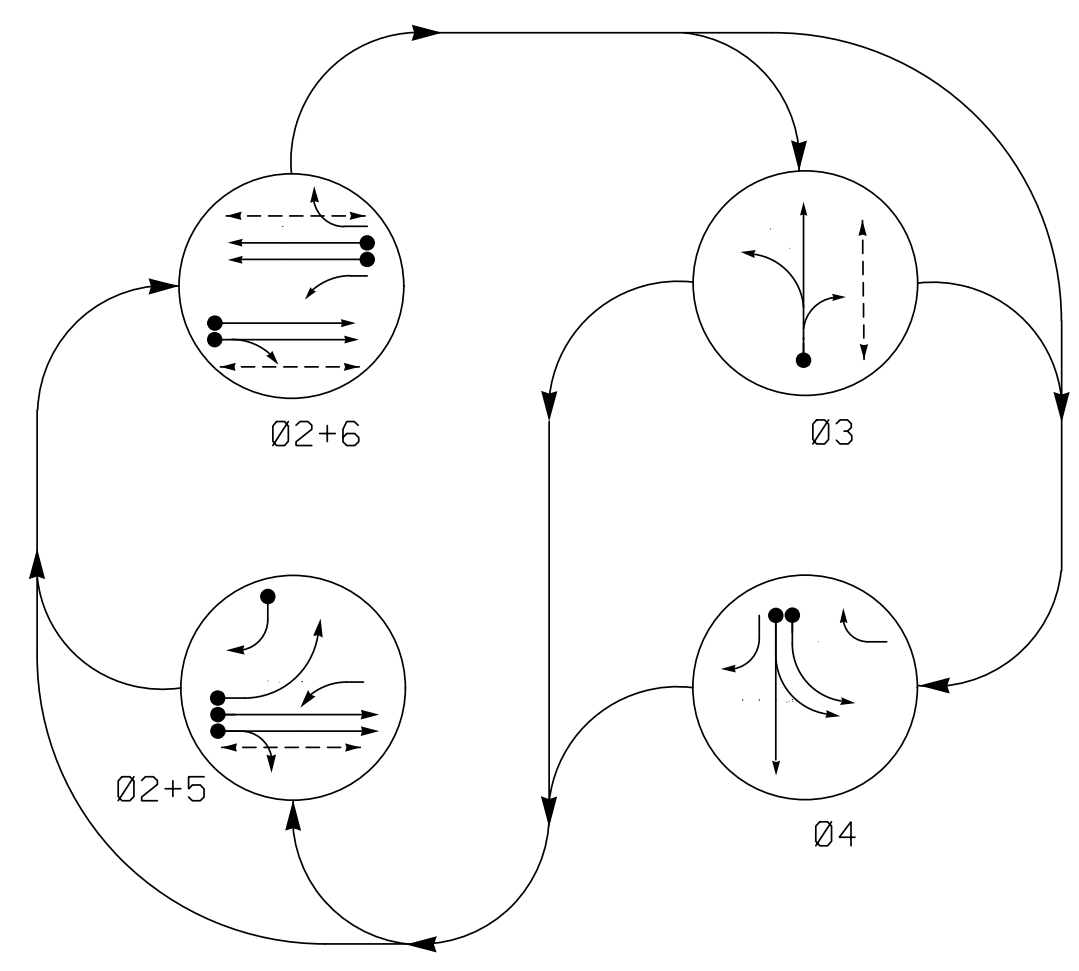
DEFAULT PHASING DIAGRAM



DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE				
	Ø 2+5	Ø 2+6	Ø 3	Ø 4	FLASH
21, 22	G	G	R	R	Y
31	R	R	G	R	Y
32	R	R	G	R	R
41	R	R	R	G	R
42	R	R	R	G	R
43	R	R	R	G	R
51	F	F	R	R	Y
61	F	F	R	R	Y
62	R	G	R	R	Y
63	R	G	R	R	Y
P21, P22	W	W	DW	DW	DRK
P31, P32	DW	DW	W	DW	DRK
P61, P62	DW	W	DW	DW	DRK

ALTERNATE PHASING DIAGRAM



ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE				
	Ø 2+5	Ø 2+6	Ø 3	Ø 4	FLASH
21, 22	G	G	R	R	Y
31	R	R	G	R	R
32	R	R	G	R	R
41	R	R	R	G	R
42	R	R	R	G	R
43	R	R	R	G	R
51	F	F	R	R	Y
61	F	F	R	R	Y
62	R	G	R	R	Y
63	R	G	R	R	Y
P21, P22	W	W	DW	DW	DRK
P31, P32	DW	DW	W	DW	DRK
P61, P62	DW	W	DW	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	LOOP SYSTEM	NEW CARD	
2A	6X6	300	EXIST	-	2	Yes	-	-	-	X	N	-	X
2B	6X6	300	EXIST	-	2	Yes	-	-	-	X	N	-	X
3A	6X30	+3	2-4-2	-	3	Yes	-	10	-	-	N	-	X
4A	6X60	+5	2-4-2	-	4	Yes	-	3	-	-	N	-	X
4B	6X60	+5	2-4-2	-	4	Yes	-	-	-	-	N	-	X
5A	6X60	+5	2-4-2	-	5	Yes	-	15*	-	-	N	-	X
					2#	Yes	-	3	-	-	G	-	X
5B	6X60	+5	2-4-2	-	5	Yes	-	15	-	-	N	-	X
6A	6X6	300	EXIST	-	6	Yes	-	-	-	X	N	-	X
6B	6X6	300	EXIST	-	6	Yes	-	-	-	X	N	-	X

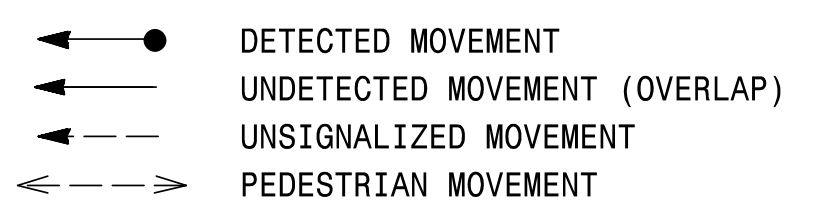
* Reduce delay to 3 seconds during Alternate Phasing Operation.
Disable Phase call for loop during Alternate Phasing Operation.

4 Phase Fully Actuated w/ Alternate Phasing Operation Gastonia Signal System

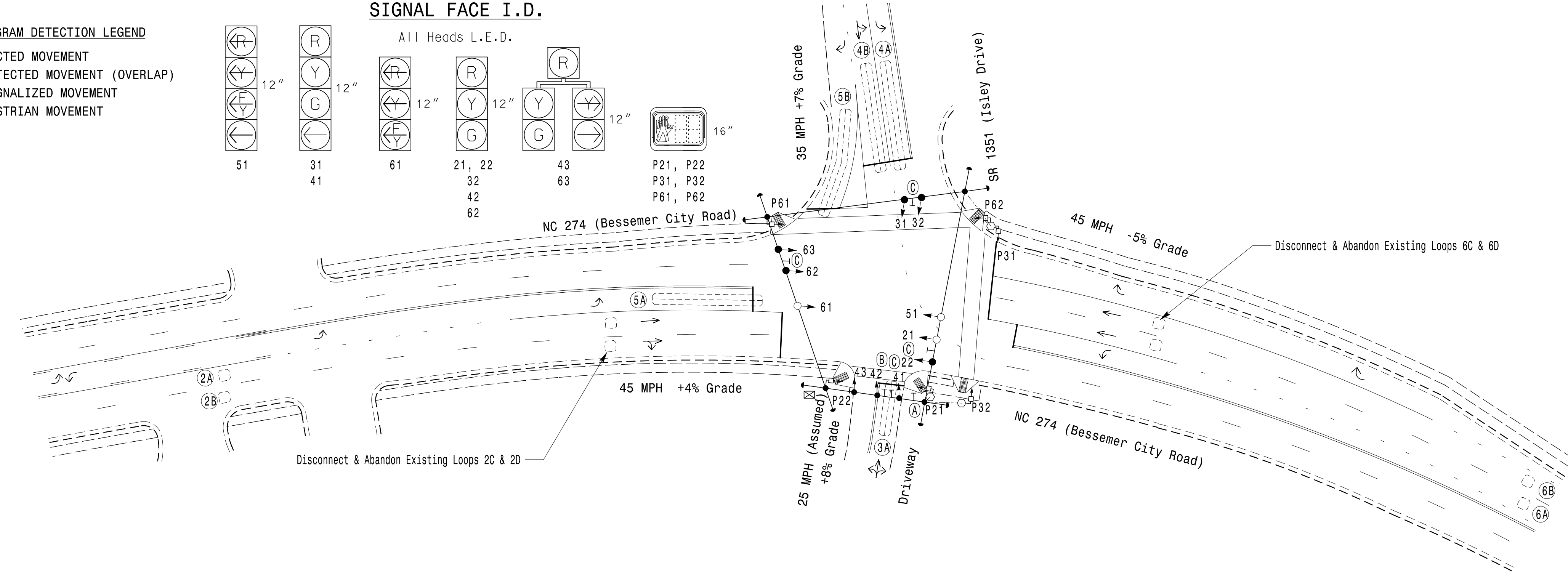
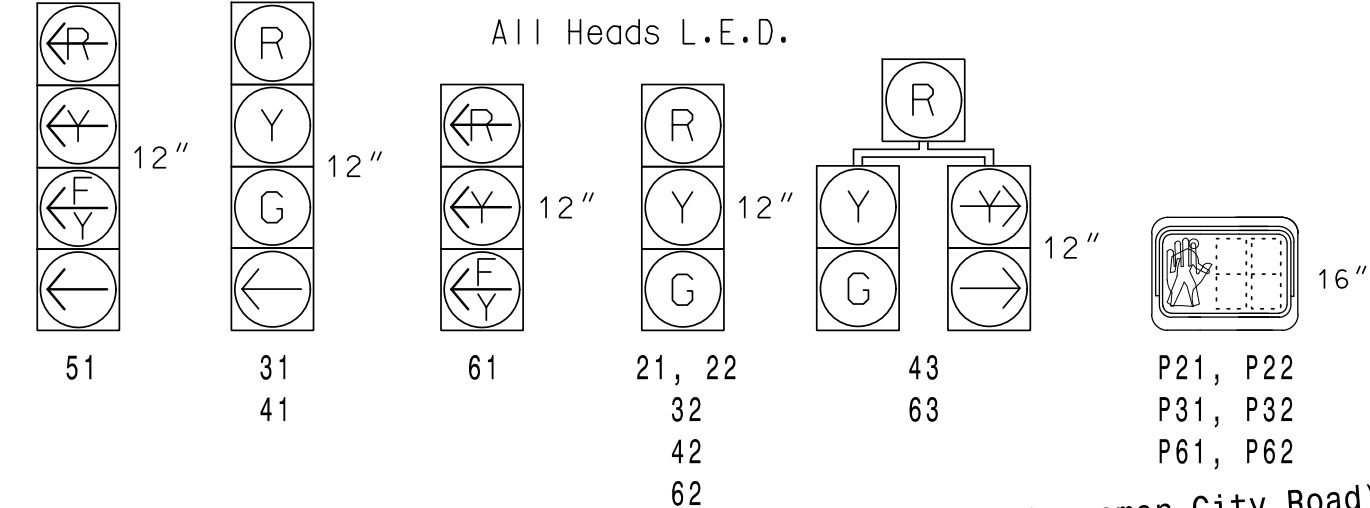
NOTES

- 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 5 may be lagged.
- The order of phase 3 and phase 4 may be reversed.
- Reposition existing signal head numbered 22.
- Set all detector units to presence mode.
- In the event of loop replacement, refer to the current ITS and Signal Design Manual and submit a Plan of Record to the Signal Design Section.
- Omit "WALK" and flashing "DONT WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- 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.
- Abandon and disconnect 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.
- 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.
- Reconnect lead-in cable to separate loops 2A, 2B, 6A, and 6B, as shown.
- City system data:
Controller Asset #0234

PHASING DIAGRAM DETECTION LEGEND



SIGNAL FACE I.D.

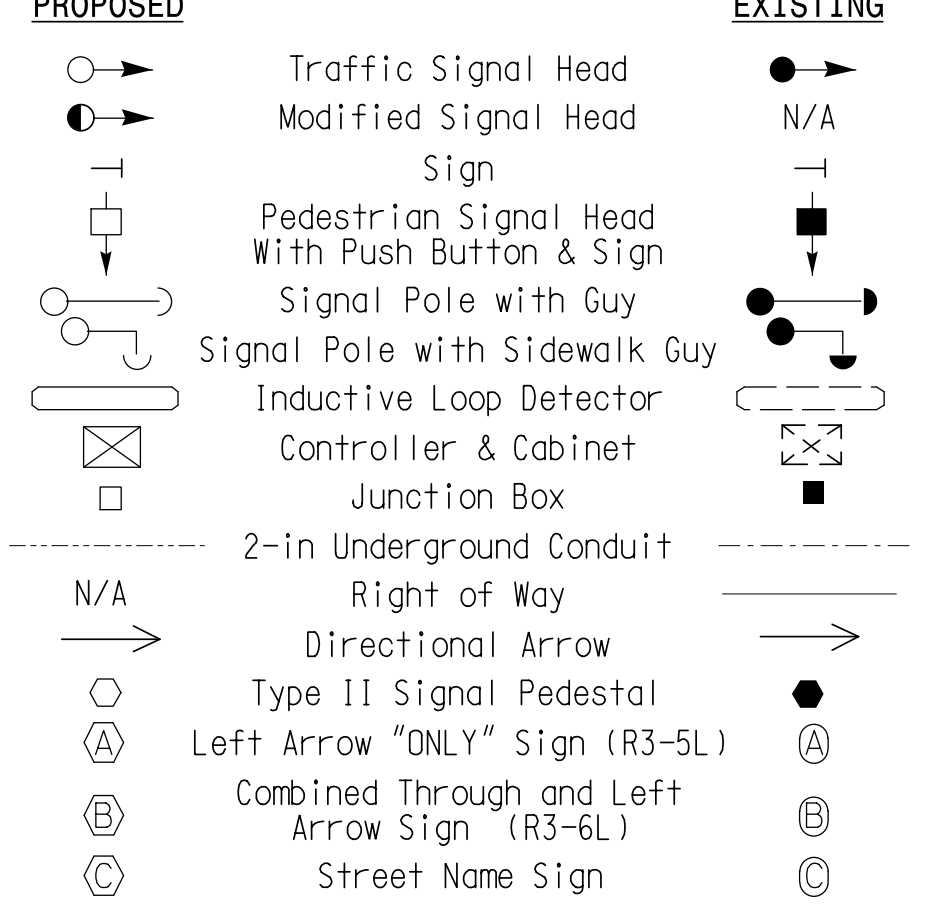


TIMING CHART

FEATURE	PHASE					
	2	3	4	5	6	
Min Green *	12	7	7	7	12	
Walk *	7	7	-	-	7	
Ped Clear	6	23	-	-	27	
Veh. Extension *	6.0	2.0	2.0	2.0	6.0	
Max I *	55	20	20	15	55	
Yellow	5.0	3.0	3.5	3.0	5.0	
Red Clear	2.1	2.6	3.1	3.3	2.1	
Red Revert	2.0	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	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.

LEGEND



Signal Upgrade

Prepared For:
Kimley-Horn

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn
421 Fayetteville Street, Suite 600
Raleigh, NC 27601
(919) 677-2000

NC 274 (Bessemmer City Road) at SR 1351 (Isley Drive)

Division 12 Gaston County Gastonia

PLAN DATE: May 2021 REVIEWED BY: SL Phillips
PREPARED BY: DM Curri REVIEWED BY: KP Baumann

REVISIONS: _____ INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DocuSigned by:
K. P. Baumann
3/11/2022

SIG. INVENTORY NO. 12-0234

3/9/2022 11:14:03 AM Dantellie.Curr1 ***K:\meyer-horn.com\SE-RAL\MRAL-TIP\DK-TIS\011036569 Gastonia Signal System9 Signal.wks4 - Signal Design\NC120234-2021.dgn