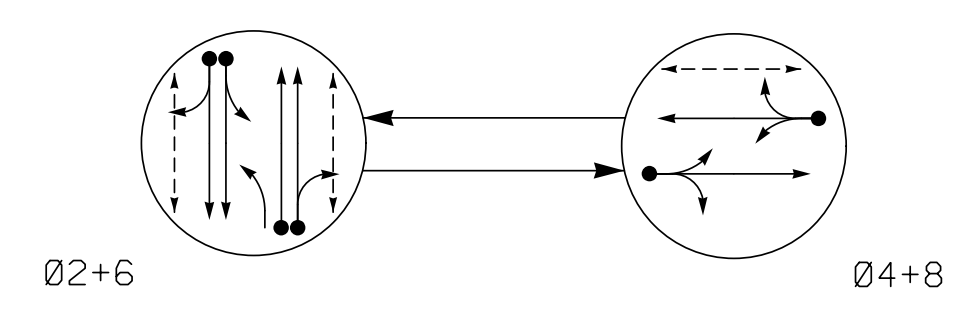


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- ◄● DETECTED MOVEMENT
- ◄ UNDETECTED MOVEMENT (OVERLAP)
- ◄ UNSIGNALIZED MOVEMENT
- ◄- - - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE		
	Ø 2+6	Ø 4+8	FLASH
21,22	G	R	Y
41,42	R	G	R
61,62	G	R	Y
81,82	R	G	R
P21,P22	W	DW	DRK
P41,P42	DW	W	DRK
P61,P62	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
2A	6X6	70	EXIST	-	2	Yes	-	-	-	N	-	X
2B	6X6	70	EXIST	-	2	Yes	-	-	-	N	-	X
4A	6X60	0	2-4-2	-	4	Yes	-	10	-	N	-	X
6A	6X6	70	EXIST	-	6	Yes	-	-	-	N	-	X
6B	6X6	70	EXIST	-	6	Yes	-	-	-	N	-	X
8A	6X60	0	2-4-2	-	8	Yes	-	10	-	N	-	X

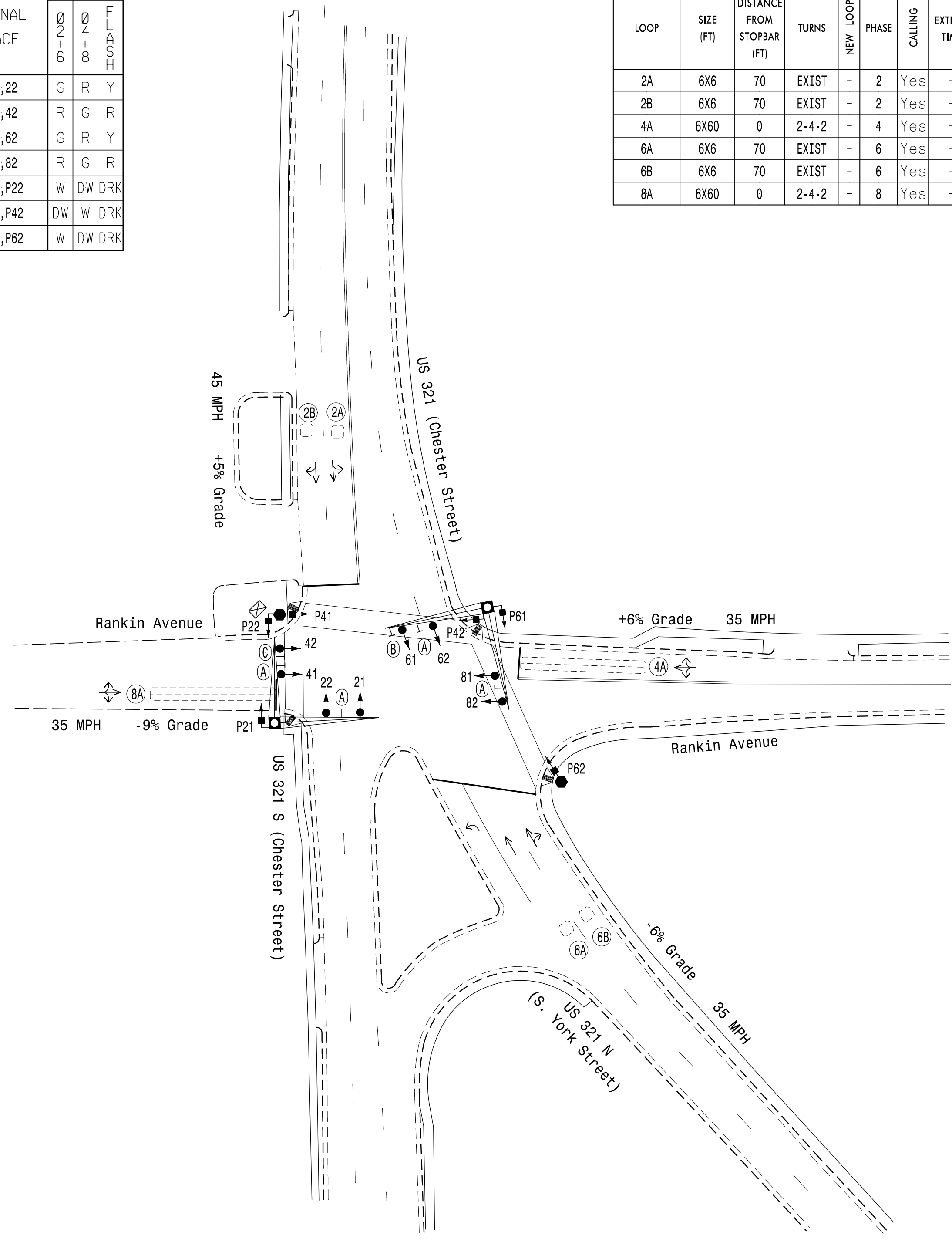
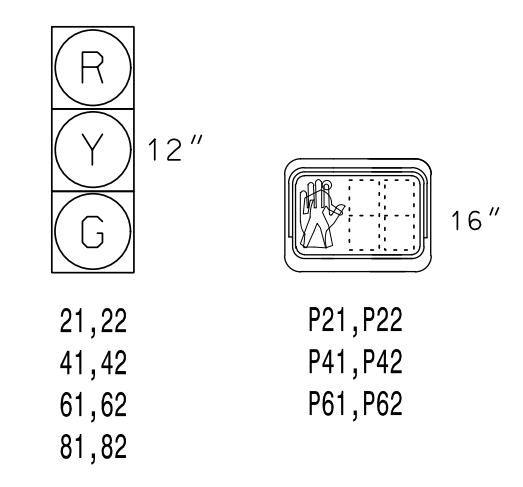
2 Phase Fully Actuated Gastonia Signal System

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.
- 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.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
- Install new cabinet on the existing cabinet foundation.
- Reconnect lead-in cable to separate loops 2A, 2B, 6A, & 6B, as shown.
- All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
- City of system data:
Controller Asset #0213.

SIGNAL FACE I.D.

All Heads L.E.D.



TIMING CHART

FEATURE	PHASE			
	2	4	6	8
Min Green *	12	7	12	7
Walk *	7	7	7	-
Ped Clear	11	21	18	-
Veh. Extension *	3.0	2.0	3.0	2.0
Max I *	45	25	45	25
Yellow	4.3	4.6	4.3	4.6
Red Clear	2.0	3.0	2.0	3.0
Red Revert	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-
Seconds /Actuation *	-	-	-	-
Max Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Locking Detector	X	-	X	-
Recall Position	MIN RECALL	-	MIN RECALL	-
Dual Entry	-	X	-	X
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.

LEGEND

PROPOSED	EXISTING
○ Traffic Signal Head	● Traffic Signal Head
◐ Modified Signal Head	N/A
◑ Sign	N/A
◒ Pedestrian Signal Head With Push Button & Sign	◒ Pedestrian Signal Head
◓ Metal Pole with Mastarm	◓ Metal Pole with Mastarm
◔ Inductive Loop Detector	◔ Inductive Loop Detector
◕ Controller & Cabinet	◕ Controller & Cabinet
◖ Junction Box	◖ Junction Box
◗ 2-in Underground Conduit	◗ 2-in Underground Conduit
N/A Right of Way	N/A Right of Way
→ Directional Arrow	→ Directional Arrow
○ Type II Signal Pedestal	○ Type II Signal Pedestal
N/A Curb Ramp	○ Curb Ramp
Ⓐ Street Name Sign (D3-1)	Ⓐ Street Name Sign (D3-1)
Ⓑ Left "ONLY" Sign (R3-5L)	Ⓑ Left "ONLY" Sign (R3-5L)
Ⓒ "NO TURN ON RED" Sign (R10-11)	Ⓒ "NO TURN ON RED" Sign (R10-11)

Signal Upgrade

Prepared For:

 750 N. Greenfield Pkwy, Garner, NC 27529
 NC License #0102
 421 Fayetteville Street, Suite 600
 Raleigh, NC 27601
 (919) 677-2000

**US 321 S. (Chester Street) /
US 321 N. (S. York Street)
at
Rankin Avenue**

Division 12 Gaston County Gastonia

PLAN DATE: May 2021 REVIEWED BY: SL Phillips
 PREPARED BY: CF Davis REVIEWED BY: KP Baumann

REVISIONS: _____ INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

 KEVIN P. BAUMANN
 ENGINEER
 DATE: 3/11/2022
 SIGNATURE: _____
 DATE: _____
 SIG. INVENTORY NO. 12-0213

3/9/2022 11:15:33 AM Dantelle.Curt1 ***Kimley-Horn.com/E:\RAL\MRAL\TIPDK\115\011036569 Gastonia Signal System9 Signal.rws4 - Signal Design\ME120215-2021.dgn