

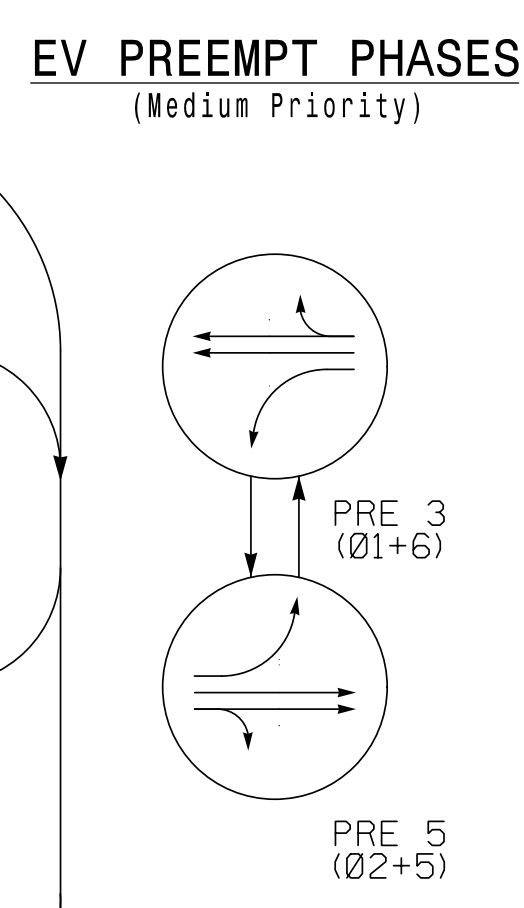
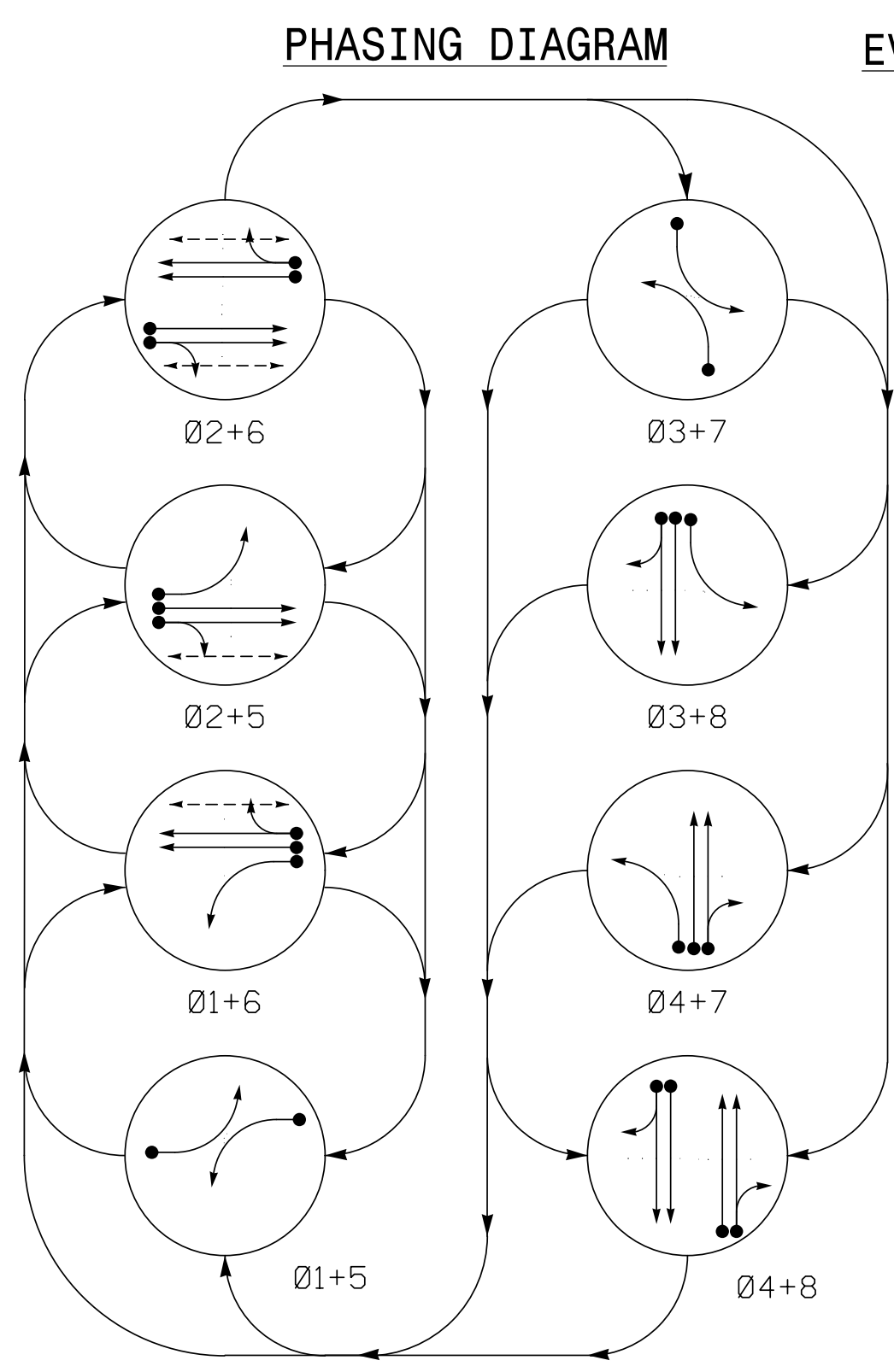
8 Phase Fully Actuated w/ Emergency Vehicle Preemption Gastonia Signal System

NOTES

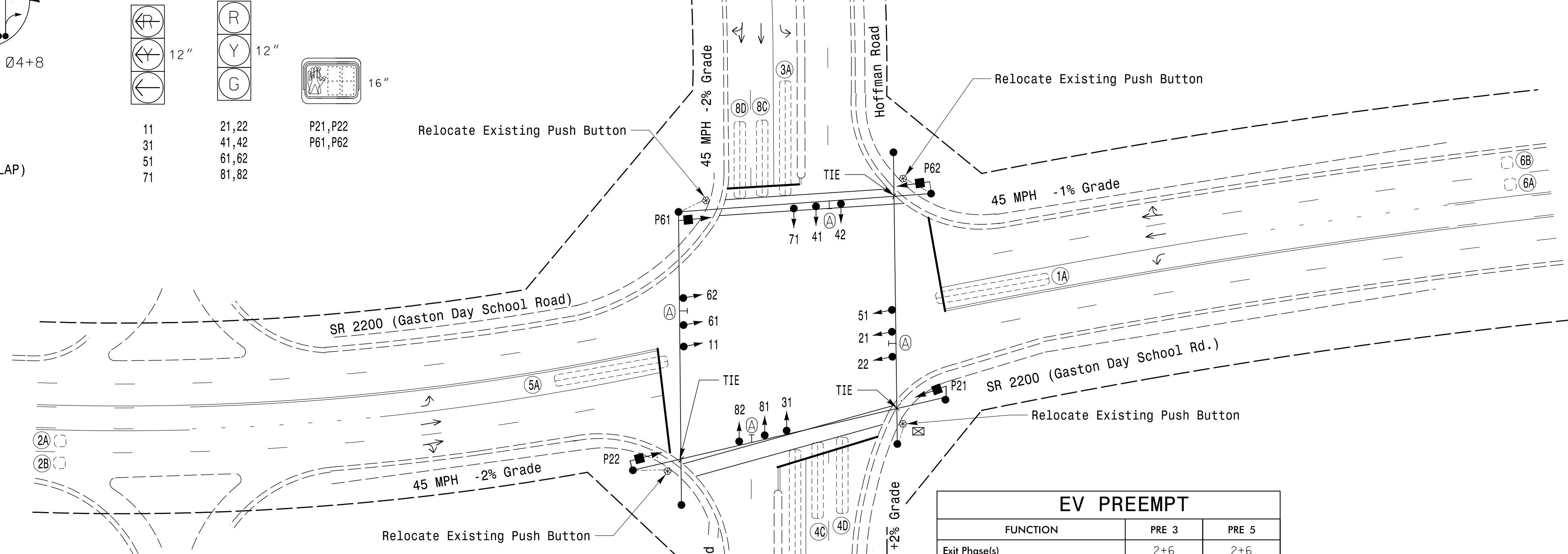
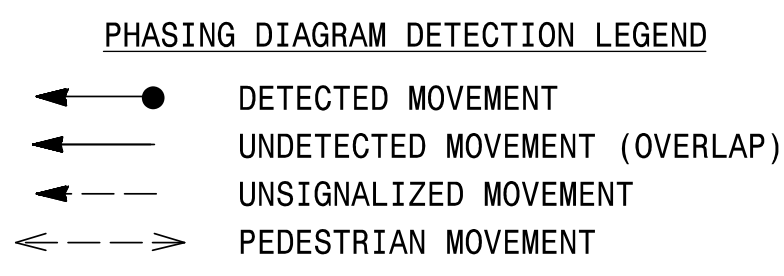
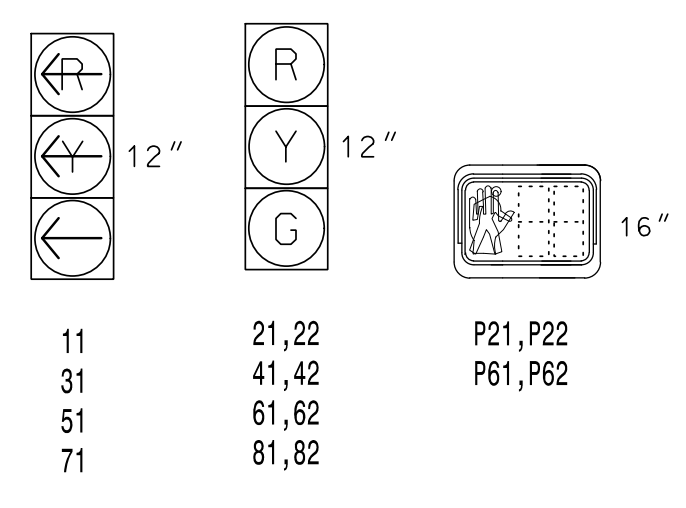
- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Phase 3 and/or phase 7 may be lagged.
- 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.
- 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.
- 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, 4A, 4B, 6A, 6B, 8A, and 8B as shown.
- Relocate existing pedestrian push buttons to TYPE 1 posts, as shown.
- Install GPS emergency preemption system per manufacturer's instructions to achieve preemption needed, as shown in phasing diagram.
- All proposed pedestrian pedestals and pushbutton posts shall be black in color. See Project Special Provisions for details.
- City of system data:
Controller Asset #1604.

DETECTOR INSTALLATION CHART											
DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	LOOP CARD
1A	6X60	+5	2-4-2	-	1	Yes	-	3	-	N	X
2A	6X6	300	EXIST	-	2	Yes	-	-	-	N	X
2B	6X6	300	EXIST	-	2	Yes	-	-	-	N	X
3A	6X60	+5	2-4-2	-	3	Yes	-	-	-	N	X
4A	6X6	300	EXIST	-	4	NO	-	-	-	N	X
4B	6X6	300	EXIST	-	4	NO	-	-	-	N	X
4C	6X40	+5	2-4-2	-	4	Yes	2	5	-	G	X
4D	6X40	+5	2-4-2	-	4	Yes	2	5	-	G	X
5A	6X60	+5	EXIST	-	5	Yes	-	3	-	N	X
6A	6X6	300	EXIST	-	6	Yes	-	-	-	N	X
6B	6X6	300	EXIST	-	6	Yes	-	-	-	N	X
7A	6X60	+5	2-4-2	-	7	Yes	-	-	-	N	X
8A	6X6	300	EXIST	-	8	NO	-	-	-	N	X
8B	6X6	300	EXIST	-	8	NO	-	-	-	N	X
8C	6X40	+5	2-4-2	-	8	Yes	2	5	-	G	X
8D	6X40	+5	2-4-2	-	8	Yes	2	5	-	G	X

SIGNAL FACE	PHASE										
	Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø3+7	Ø3+8	Ø4+7	Ø4+8	P	UM	FLSH
11	←	←	←	←	←	←	←	←	←	←	←
21,22	R	R	G	G	R	R	R	R	R	G	Y
31	←	←	←	←	←	←	←	←	←	←	←
41,42	R	R	R	R	R	G	G	R	R	R	R
51	←	←	←	←	←	←	←	←	←	←	←
61,62	R	G	R	G	R	R	R	R	R	G	Y
71	←	←	←	←	←	←	←	←	←	←	←
81,82	R	R	R	R	R	G	G	R	R	R	R
P21,P22	DW	DW	W	W	DW	DW	DW	DW	DW	DRK	DRK
P61,P62	DW	W	DW	W	DW	DW	DW	DW	DW	DRK	DRK



SIGNAL FACE I.D.

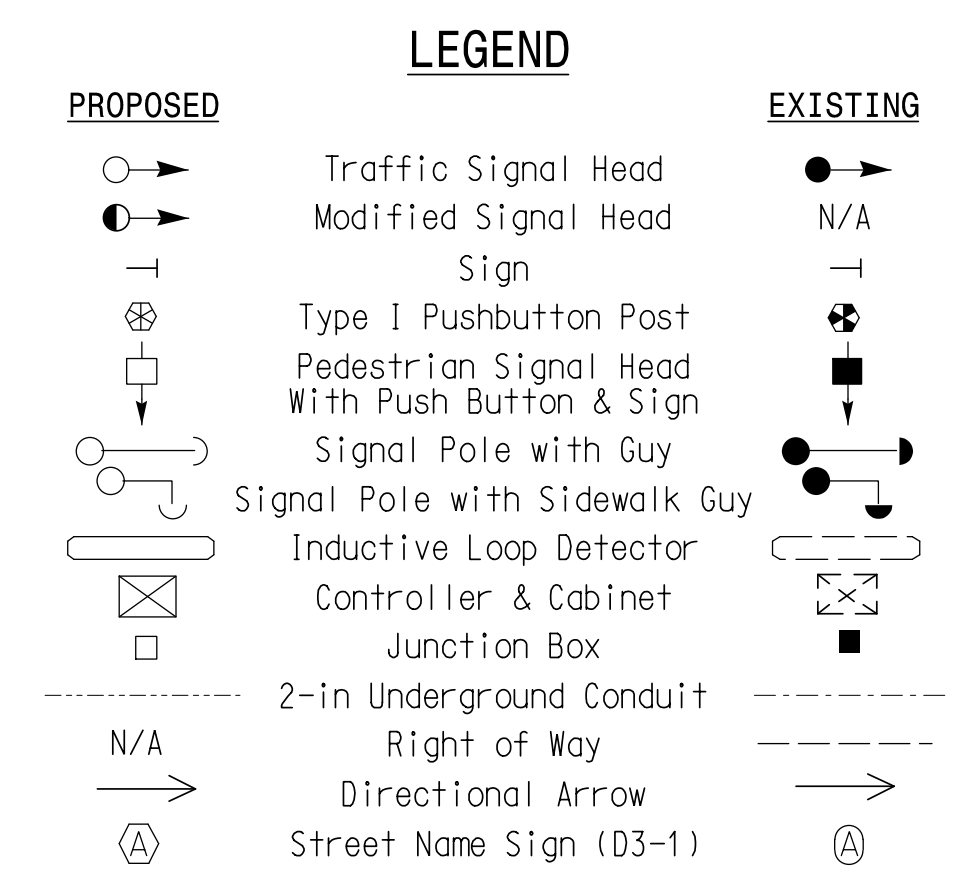


EV PREEMPT		
FUNCTION	PRE 3	PRE 5
Exit Phase(s)	2+6	2+6
Preempt Override	OFF	OFF
Delay Time	0	0
Ped Clear Through Yellow	Y	Y
Terminate Phases	N	N
Entrance Walk	1	1
Entrance Ped Clear	255*	255*
Entrance Min Green	1	1
Entrance Yellow Change	25.5*	25.5*
Entrance Red Clear	25.5*	25.5*
Minimum Dwell Time	7	7
Preempt Input Extension Time **	2	2
Preempt Max Time	120	120
Exit Yellow Change	25.5*	25.5*
Exit Red Clear	25.5*	25.5*

* Time defaults to time used for phase during normal operation
 ** Program Timing on GPS Detection Unit

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green *	7	12	7	7	7	12	7	7
Walk *	-	4	-	-	-	4	-	-
Ped Clear	-	27	-	-	-	23	-	-
Veh. Extension *	1.0	6.0	1.0	6.0	1.0	6.0	2.0	6.0
Max 1 *	20	100	20	60	20	100	20	60
Yellow	3.0	4.7	3.0	4.3	3.0	4.6	3.0	4.7
Red Clear	3.5	1.6	3.1	2.0	3.5	1.8	3.4	2.1
Red Revert	2.0	2.0	2.0	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	-	0	-	15	-	0
Time To Reduce *	-	40	-	20	-	40	-	20
Minimum Gap	-	3.0	-	3.0	-	3.0	-	3.0
Locking Detector	-	X	-	-	-	X	-	-
Recall Position	-	MIN RECALL	-	-	-	MIN RECALL	-	-
Dual Entry	-	-	-	-	-	-	-	-
Simultaneous Gap	X	X	X	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.



Signal Upgrade

Prepared For: **SR 2200 (Gaston Day School Rd) at Hoffman Road**

Division 12 Gaston County Gastonia

PLAN DATE: May 2021 REVIEWED BY: SL Phillips

PREPARED BY: SP Pennington REVIEWED BY: KP Baumann

Scale: 1" = 40'

Signature: [Signature] DATE: 3/11/2022

Inventory No. 12-1604

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn
 NC License #0102
 421 Fayetteville Street, Suite 600
 Raleigh, NC 27601
 (919) 677-2000

3/9/2022 11:14:59 AM Dantelle.Curr1 ***Kimley-Horn.com/SE-RAL/IRAL-TIP/DK-TIS/011036569 Gastonia Signal System/Signal/Signal/2021.dgn