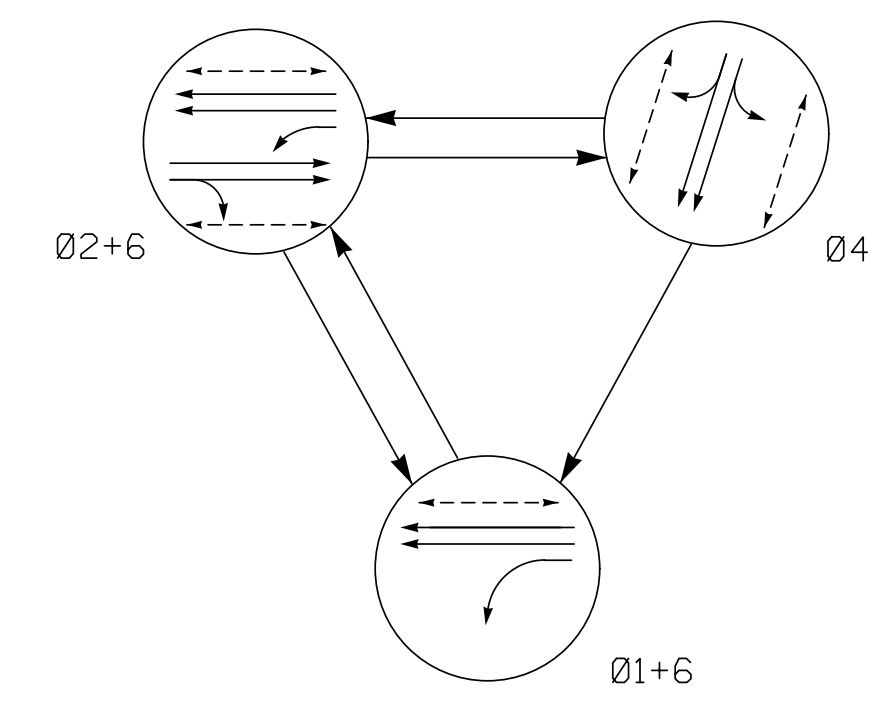


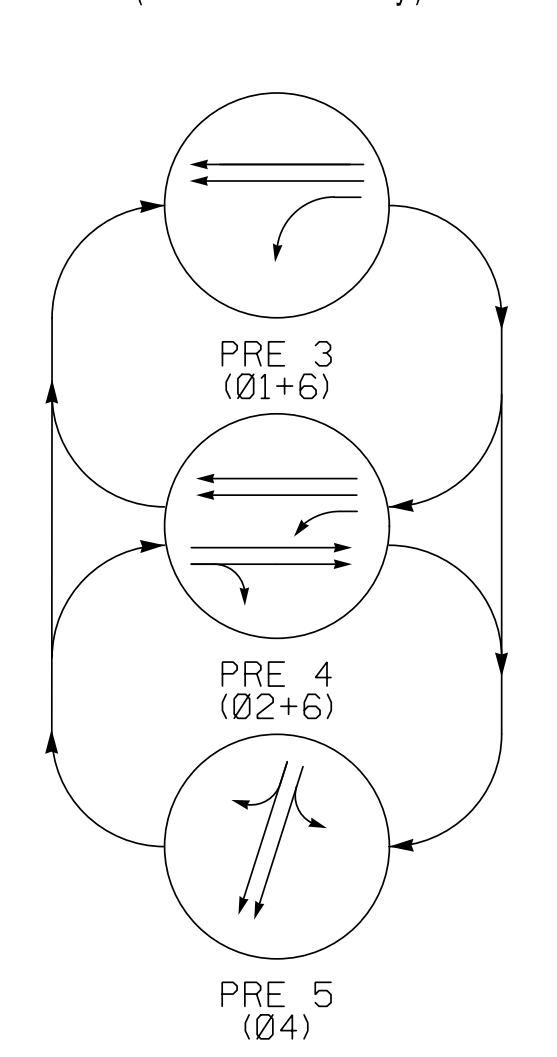
DEFAULT PHASING DIAGRAM



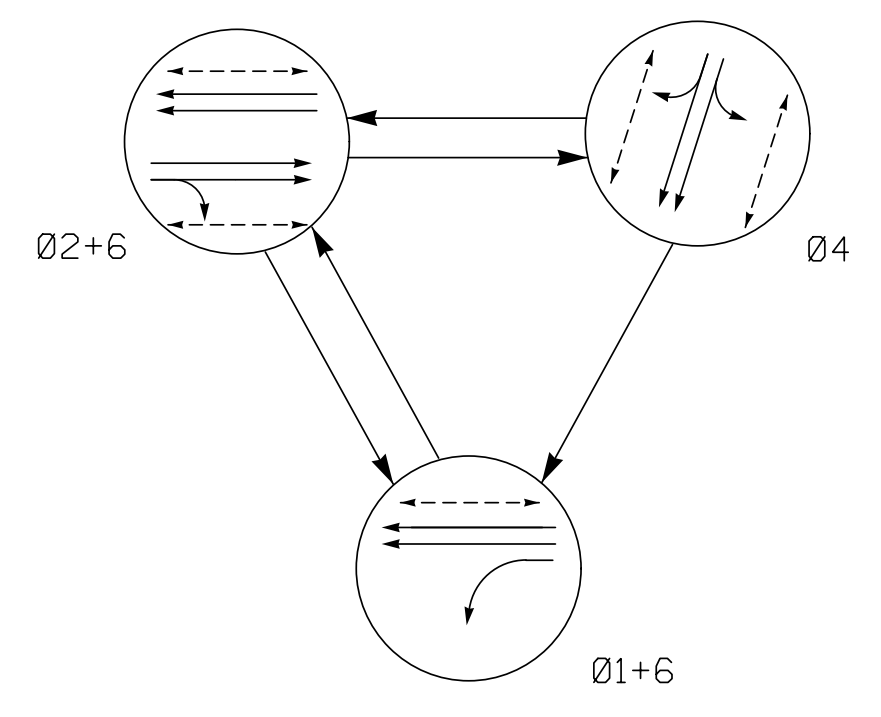
DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE					
	Ø 1 + 6	Ø 2 + 6	Ø 4	PRE 3	PRE 4	PRE 5 FLASH
11	←	←	←	←	←	←
21,22,23	R	G	R	R	G	R
41,42	R	G	R	R	G	R
61,62	↑	↑	↑	↑	↑	↑
P21,P22	DW	W	DW	DW	DW	DRK
P41,P42 P43,P44	DW	DW	W	DW	DW	DRK
P61,P62	W	W	DW	DW	DW	DRK

DEFAULT EV PREEMPT PHASES (Medium Priority)



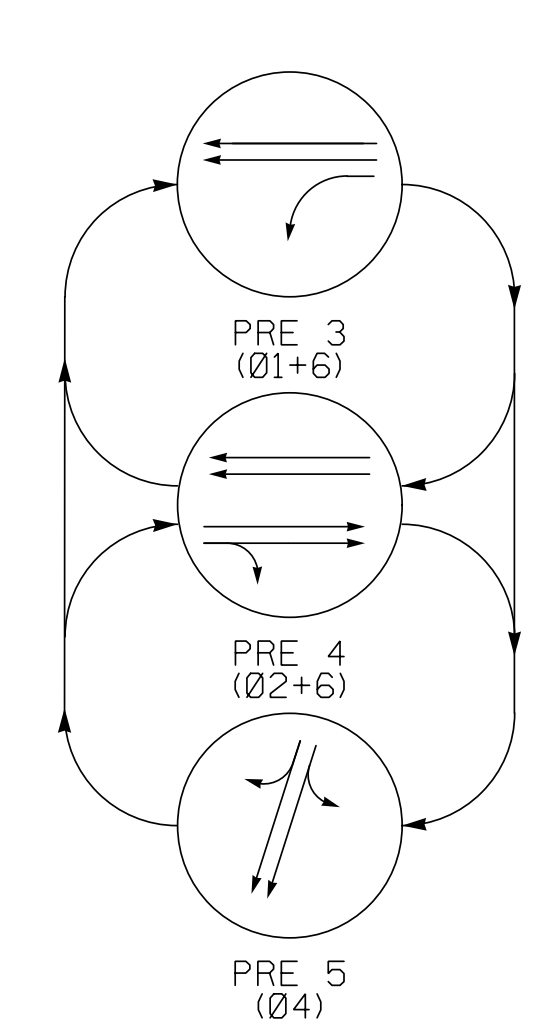
ALTERNATE PHASING DIAGRAM



ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE					
	Ø 1 + 6	Ø 2 + 6	Ø 4	PRE 3	PRE 4	PRE 5 FLASH
11	←	←	←	←	←	←
21,22,23	R	G	R	R	G	R
41,42	R	G	R	R	G	R
61,62	↑	↑	↑	↑	↑	↑
P21,P22	DW	W	DW	DW	DW	DRK
P41,P42 P43,P44	DW	DW	W	DW	DW	DRK
P61,P62	W	W	DW	DW	DW	DRK

ALTERNATE EV PREEMPT PHASES (Medium Priority)

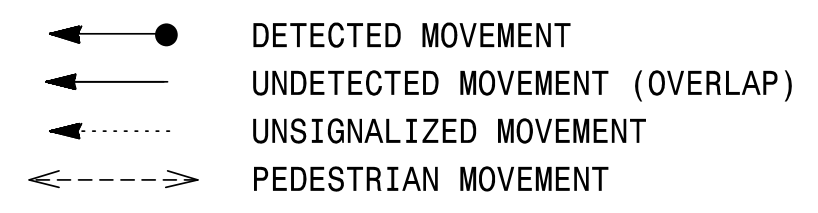


3 Phase Pre-Timed w/ Alternate Phasing Operation and Emergency Vehicle Preemption Gastonia Signal System

NOTES

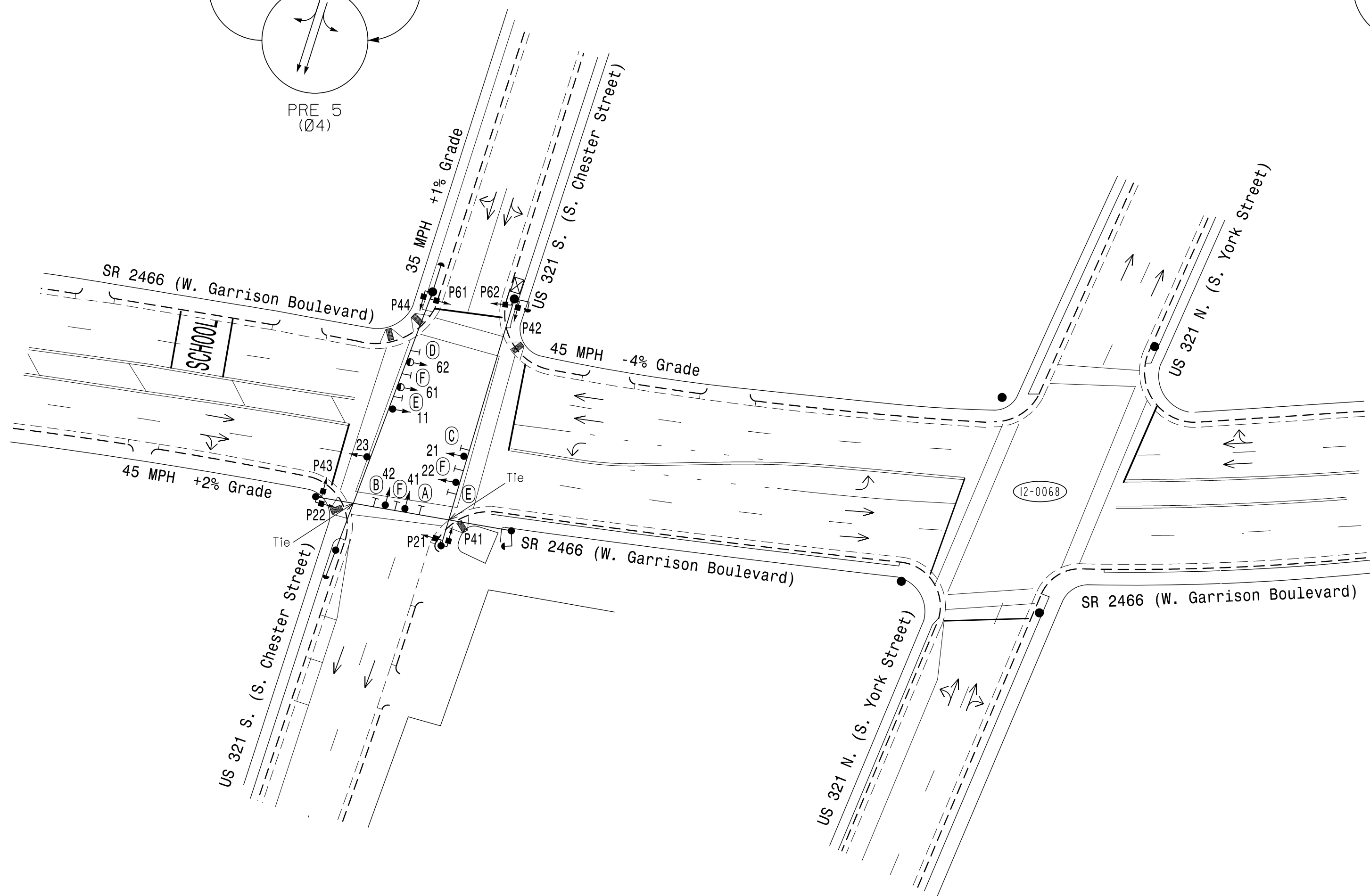
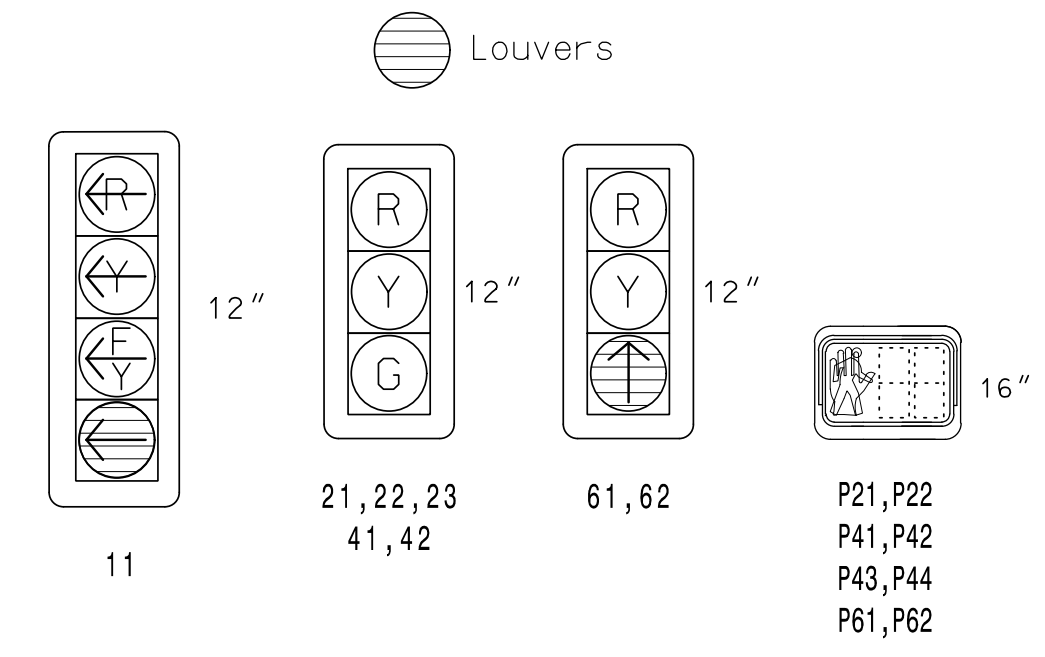
1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 may be lagged.
4. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
5. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
6. Pavement markings are existing.
7. The City Engineer or their representative will determine the hours of use for each phasing plan.
8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
9. Install new cabinet on the existing cabinet foundation.
10. All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
11. Install GPS emergency preemption system per manufacturer's instructions to achieve preemption needed, as shown in phasing diagram.
12. City of system data: Controller Asset #0069.

PHASING DIAGRAM DETECTION LEGEND



SIGNAL FACE I.D.

All Heads L.E.D. All heads have backplates with reflective borders



FEATURE	PHASE			
	1	2	4	6
Min Green *	7	12	7	12
Walk *	-	7	7	7
Ped Clear	-	12	20	8
Veh. Extension *	-	-	-	-
Max 1 *	20	45	30	45
Yellow	3.0	4.9	3.8	4.9
Red Clear	2.1	1.5	1.8	1.5
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	-	-	-	-
Recall Position	MAX RECALL	PED/MAX	PED/MAX	PED/MAX
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.

EV PREEMPT			
FUNCTION	PRE 3	PRE 4	PRE 5
Exit Phase(s)	2+6	2+6	4
Preempt Override	OFF	OFF	OFF
Delay Time	0	0	0
Ped Clear Through Yellow	Y	Y	Y
Terminate Phases	N	N	N
Entrance Walk	1	1	1
Entrance Ped Clear	255*	255*	255*
Entrance Min Green	1	1	1
Entrance Yellow Change	25.5*	25.5*	25.5*
Entrance Red Clear	25.5*	25.5*	25.5*
Minimum Dwell Time	7	7	7
Preempt Input Extension Time **	2	2	2
Preempt Max Time	120	120	120
Exit Yellow Change	25.5*	25.5*	25.5*
Exit Red Clear	25.5*	25.5*	25.5*

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

This plan supersedes the plan signed and sealed on 3/11/2022

LEGEND	
PROPOSED	EXISTING
	N/A
N/A	
N/A	

Signal Upgrade

Prepared For:
Kimley-Horn

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

US 321 S. (S. Chester Street) at SR 2466 (W. Garrison Boulevard)

Division 12 Gaston County Gastonia

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

REVISIONS: _____

SCALE: 1" = 40'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DocuSigned by:
Kevin P. Baumann
DATE: 4/7/2022

SIG. INVENTORY NO. 12-0069

4/7/2022 2:45:55 PM DanHille.Cur1 ***K:\meyer-horn.com\SE-RAL\RAL-TIP\DK-LTIS\011036569_Gastonia Signal System\Signal\SW54 - Signal Design\120069-2021.dgn