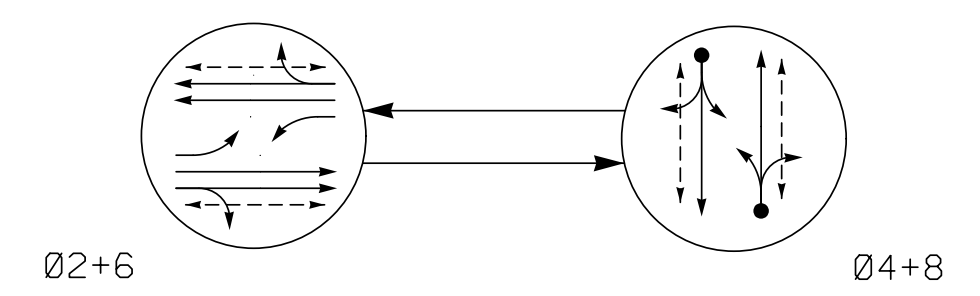


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

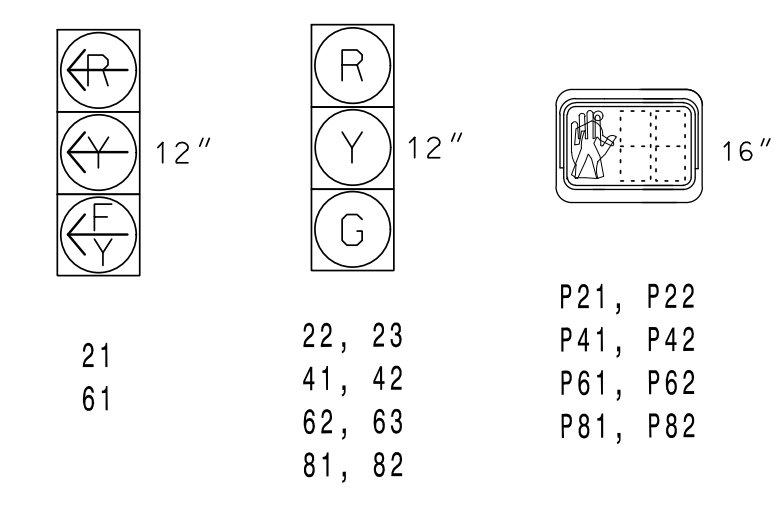
SIGNAL FACE	PHASE		
	Ø 6+8	Ø 4+8	F LASH
21	Y	R	Y
22, 23	G	R	Y
41, 42	R	G	R
61	Y	R	Y
62, 63	G	R	Y
81, 82	R	G	R
P21, P22	W	DW	DRK
P41, P42	DW	W	DRK
P61, P62	W	DW	DRK
P81, P82	DW	W	DRK

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	SYSTEM LOOP	NEW CARD
4A	6X60	+5	EXIST	-	4	Yes	-	-	-	N	-	X
8A	6X60	+5	EXIST	-	8	Yes	-	-	-	N	-	X

SIGNAL FACE I.D.

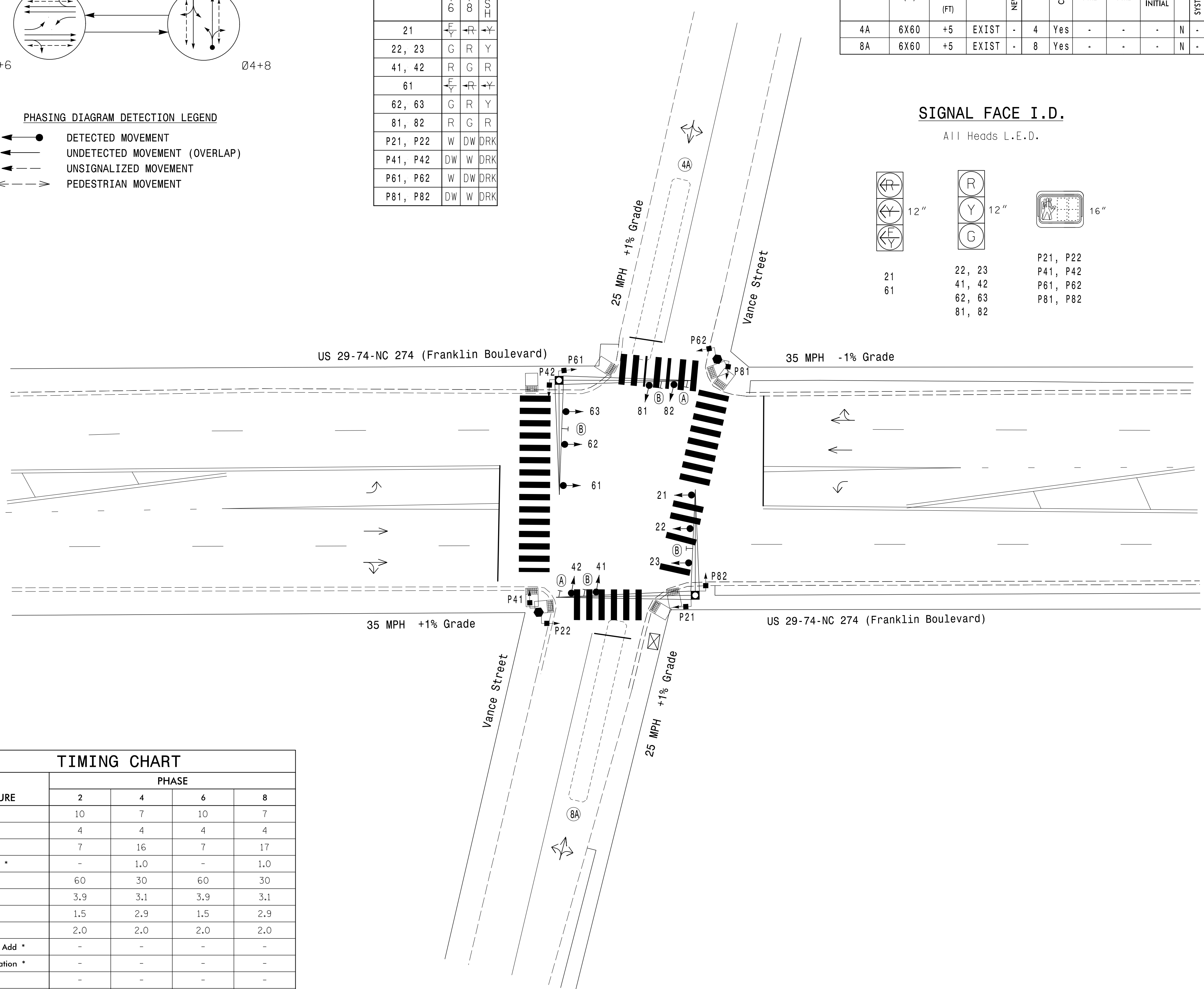
All Heads L.E.D.



TIMING CHART

FEATURE	PHASE			
	2	4	6	8
Min Green *	10	7	10	7
Walk *	4	4	4	4
Ped. Clear	7	16	7	17
Veh. Extension *	-	1.0	-	1.0
Max 1 *	60	30	60	30
Yellow	3.9	3.1	3.9	3.1
Red Clear	1.5	2.9	1.5	2.9
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	PED/MAX	-	PED/MAX	-
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.



2 Phase Semi-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.
- 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 "DON'T WALK" with no pedestrian calls on phases 4 & 8.
- 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.
- City system data:
Controller asset: #0033

LEGEND

PROPOSED	EXISTING
○ → Traffic Signal Head	● → N/A
● → Modified Signal Head	○ → N/A
○ → Pedestrian Signal Head With Push Button & Sign	○ → N/A
○ → Metal Pole with Mastarm	○ → N/A
○ → Type II Signal Pedestal	○ → N/A
○ → Inductive Loop Detector	○ → N/A
□ → Controller & Cabinet	□ → N/A
□ → Junction Box	□ → N/A
○ → 2-in Underground Conduit	○ → N/A
N/A → Right of Way	N/A → N/A
N/A → Directional Arrow	N/A → N/A
N/A → Curb Ramp	N/A → N/A
(A) → "NO TURN ON RED" Sign (R10-11)	(A) → N/A
(B) → Street Name Sign (D3-1)	(B) → N/A

Signal Upgrade

Prepared For:

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

**US 29-74-NC 274
(W. Franklin Boulevard)
at
Vance Street**

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

3/11/2022

SIG. INVENTORY NO. 12-0033

3/9/2022 11:13:01 AM D:\m181\le_c\curf1 ***kimley-horn.com\SELE_RAL\IP\OK-ITS\01036569_Gastonia_Signal_System\9_Signal_Design\EBB04FC9D7E3.dgn