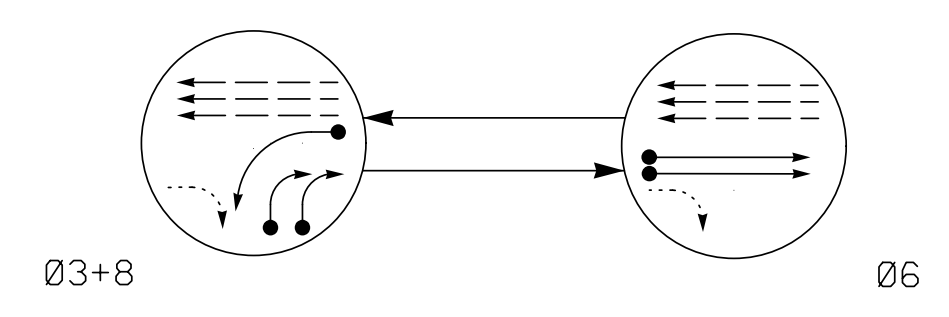


PHASING DIAGRAM

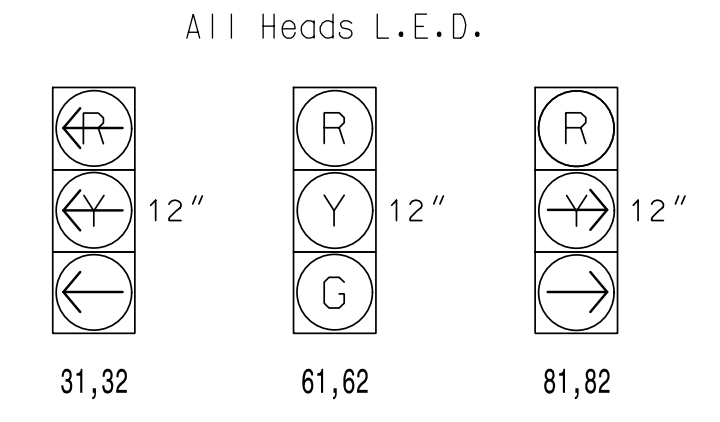


PHASING DIAGRAM DETECTION LEGEND

- ←● DETECTED MOVEMENT
- ← UNDETECTED MOVEMENT (OVERLAP)
- ←..... UNSIGNALIZED MOVEMENT
- ←- - - PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	Ø 3+8	Ø 6	F L HEADS
31,32	←	←	←
61,62	R	G	Y
81,82	→	R	R

SIGNAL FACE I.D.

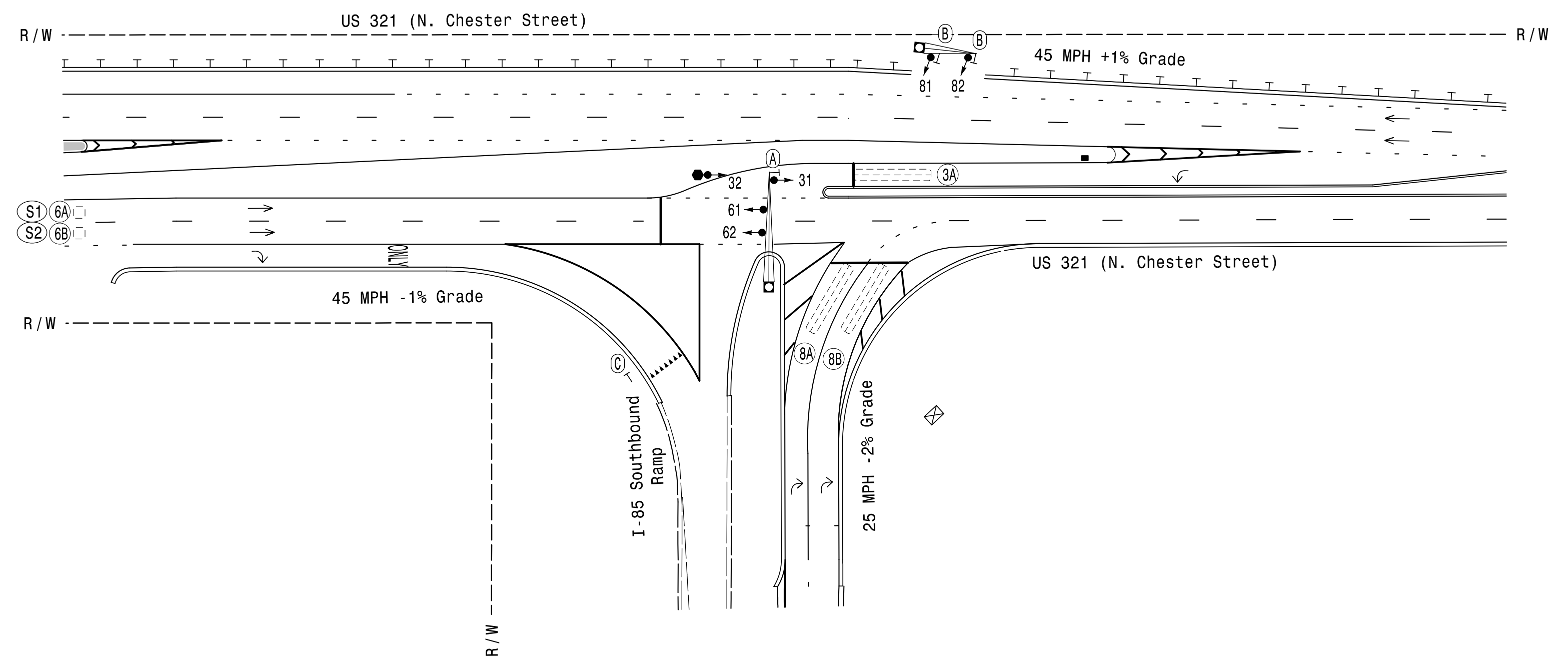


DETECTOR INSTALLATION CHART												
DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	LOOP SYSTEM	NEW CARD
3A	6X40	0	2-4-2	-	3	Yes	-	-	-	N	-	X
6A/S1	6X6	300	EXIST	-	6	Yes	-	-	X	N	X	X
6B/S2	6X6	300	EXIST	-	6	Yes	-	-	X	N	X	X
8A	6X40	0	2-4-2	-	8	Yes	-	-	-	N	-	X
8B	6X40	0	2-4-2	-	8	Yes	-	-	-	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.
- 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.
- Existing signal heads 33 & 34 have been relabeled to 81 & 82, respectively.
- Existing loops 3B & 3C have been relabeled to 8A & 8B, respectively.
- All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
- City system data:
Controller Asset #0023.



FEATURE	PHASE		
	3	6	8
Min Green *	7	12	7
Walk *	-	-	-
Ped Clear	-	-	-
Veh. Extension *	2.0	6.0	2.0
Max 1 *	25	90	25
Yellow	3.0	4.6	3.0
Red Clear	2.9	2.0	2.9
Red Revert	2.0	2.0	2.0
Actuations B4 Add *	-	-	-
Seconds /Actuation *	-	1.5	-
Max Initial *	-	34	-
Time Before Reduction *	-	15	-
Time To Reduce *	-	30	-
Minimum Gap	-	3.0	-
Lacking Detector	-	X	-
Recall Position	-	MIN RECALL	-
Dual Entry	X	-	X
Simultaneous Gap	X	X	X

* These values may be field adjusted. Do not adjust Min Green and Extension times for phase 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

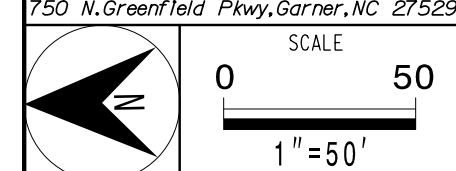
PROPOSED		EXISTING	
○→	Traffic Signal Head	●→	N/A
●→	Modified Signal Head	+	N/A
↓	Sign	↓	N/A
○	Pedestrian Signal Head	○	N/A
□	With Push Button & Sign	□	N/A
○	Type III Signal Pedestal	○	N/A
○	Metal Pole with Mastarm	○	N/A
□	Inductive Loop Detector	□	N/A
□	Controller & Cabinet	□	N/A
□	Junction Box	□	N/A
---	2-in Underground Conduit	---	N/A
N/A	Right of Way	---	N/A
→	Directional Arrow	→	N/A
N/A	Guardrail	---	N/A
(A)	"U-Turn Yield to Right Turn" Sign (R10-16)	(A)	N/A
(B)	Right Arrow "ONLY" Sign (R3-5R)	(B)	N/A
(C)	"YIELD" Sign (R1-2)	(C)	N/A

Signal Upgrade

US 321 (N. Chester Street) at I-85 Southbound Ramp			
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

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



DATE	3/11/2022
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DATE	
SIGNATURE	

SIG. INVENTORY NO. 12-0023

3/9/2022 11:15:12 AM Dantelle.Curt1 ***Kimley-Horn.comSE-RAL\MRAL-TIP\DK-LTS\011036569_Gastonia Signal System9_Signal\KWS4 - Signal Design\ME120023-2021.dgn