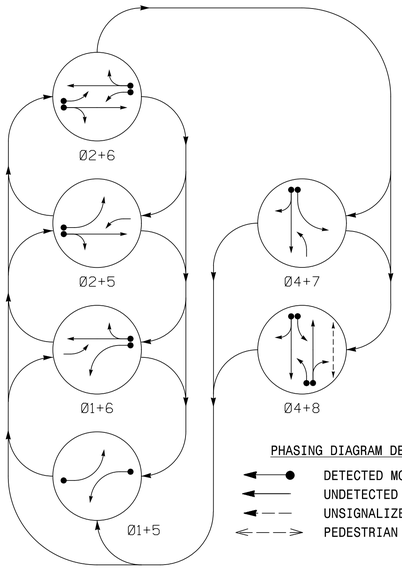
PROJECT REFERENCE NO.	SHEET NO.
C-5703	Sig.78.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

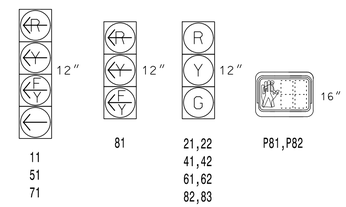
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE						
	Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø4+7	Ø4+8	FLASH
11	←	←	F Y	F Y	R	R	Y
21,22	R	R	G	G	R	R	Y
41,42	R	R	R	R	G	G	R
51	←	F Y	←	F Y	R	R	Y
61,62	R	G	R	G	R	R	Y
71	R	R	R	R	←	F Y	R
81	R	R	R	R	F Y	F Y	R
82,83	R	R	R	R	R	G	R
P81,P82	DW	DW	DW	DW	DW	W	DRK

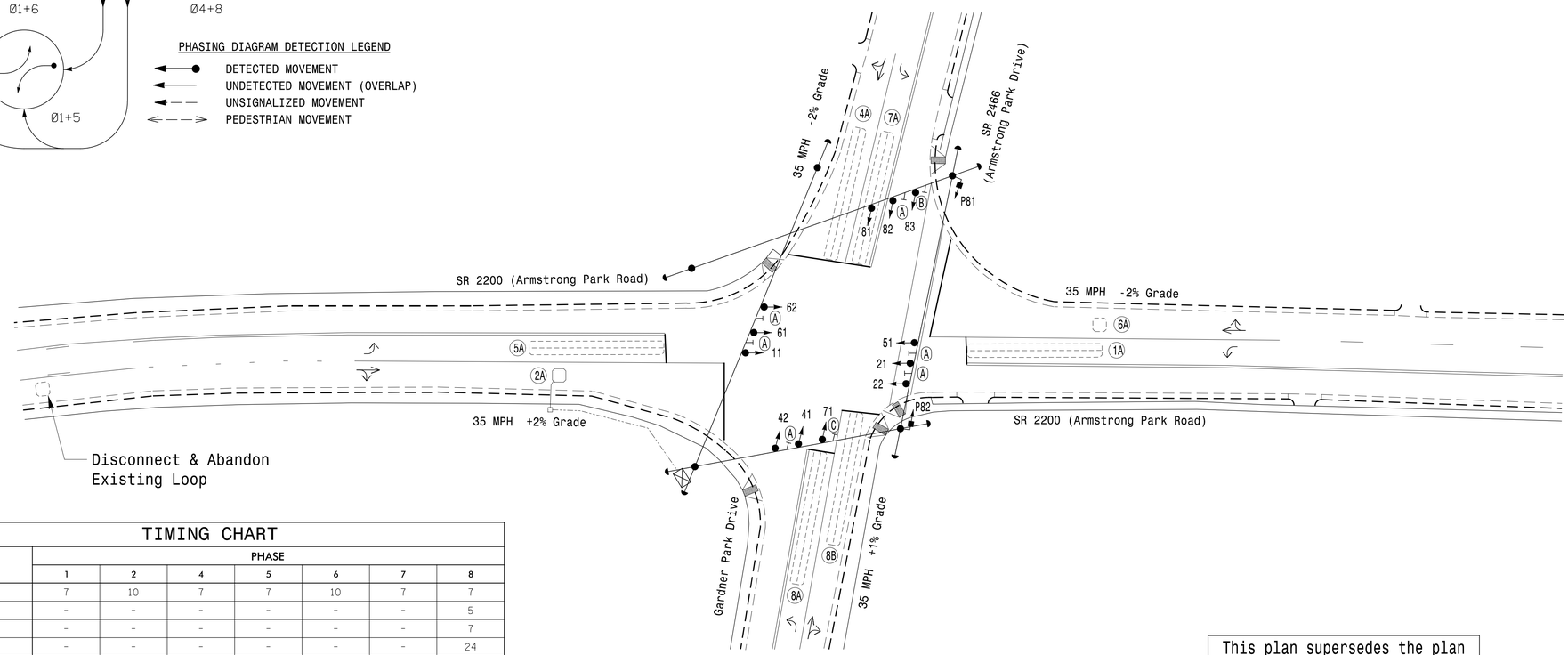
SIGNAL FACE I.D.

All Heads L.E.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	SYSTEM LOOP	NEW CARD
1A	6X60	0	2-4-2	-	1	Yes	-	15	-	N	-	X
					6	Yes	-	-	-	N	-	X
2A	6X6	70	6	X	2	Yes	-	-	-	N	-	X
4A	6X60	0	2-4-2	-	4	Yes	-	10	-	N	-	X
5A	6X60	0	2-4-2	-	5	Yes	-	15	-	N	-	X
					2	Yes	-	3	-	G	-	X
6A	6X6	70	EXIST	-	6	Yes	-	-	-	N	-	X
7A	6X60	0	2-4-2	-	7	Yes	-	15	-	N	-	X
					4	Yes	-	3	-	N	-	X
8A	6X60	0	2-4-2	-	8	Yes	-	3	-	N	-	X
8B	6X60	0	2-4-2	-	8	Yes	-	10	-	N	-	X



TIMING CHART

FEATURE	PHASE 1	2	4	5	6	7	8
Min Green *	7	10	7	7	10	7	7
Delayed Green	-	-	-	-	-	-	5
Walk *	-	-	-	-	-	-	7
Ped Clear	-	-	-	-	-	-	24
Veh. Extension *	2.0	3.0	2.0	2.0	3.0	2.0	2.0
Max 1 *	15	90	45	15	90	25	45
Yellow	3.0	4.0	4.0	3.0	4.0	3.0	4.0
Red Clear	2.4	2.4	1.8	3.1	2.4	1.9	1.8
Red Revert	2.0	2.0	2.0	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	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.

6 Phase
Fully Actuated
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 and/or phase 5 may be lagged.
4. Phase 7 may be lagged.
5. Set all detector units to presence mode.
6. 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.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
8. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
9. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
10. Pavement markings are existing.
11. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
12. Disconnect and abandon existing loop 2A and re-cut new loop as shown on plan.
13. Install new cabinet on the existing cabinet foundation.
14. All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
15. City system data:
    Controller Asset #0609.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
N/A	Curb Ramp	
A	Street Name Sign (D3-1)	A
B	Right "Turning Vehicles" Yield to Pedestrian Sign (R10-15R)	B
C	Left "Turning Vehicles" Yield to Pedestrian Sign (R10-15L)	C

This plan supersedes the plan signed and sealed on 5/23/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Signal Upgrade

Prepared For: Transportation Mobility and Safety Division, Signal Design Section, NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
750 N.Greenfield Pkwy,Garner,NC 27529

SR 2200 (Armstrong Park Road) at SR 2466 (Armstrong Park Drive)/ Gardner Park Drive

Division 12 Gaston County Gastonia

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

REVISIONS	INIT.	DATE

SCALE 0 30 1"=30'

NORTH CAROLINA PROFESSIONAL SEAL 044434 ENGINEER KEVIN P. BAUMANN

DocuSigned by: 6/22/2022
5D6C7D9A0FBC4A7... DATE

SIG. INVENTORY NO. 12-0609

PLANS PREPARED IN THE OFFICE OF:
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Raleigh, NC 27601
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6/22/2022 4:22:29 PM Danielle.Curri \\kimley-horn.com\SE_RAL1\RAL_TPTO_ITS\011036569 Gastonia Signal System\9 Signals\54 - Signal Design\120609-2021.dgn