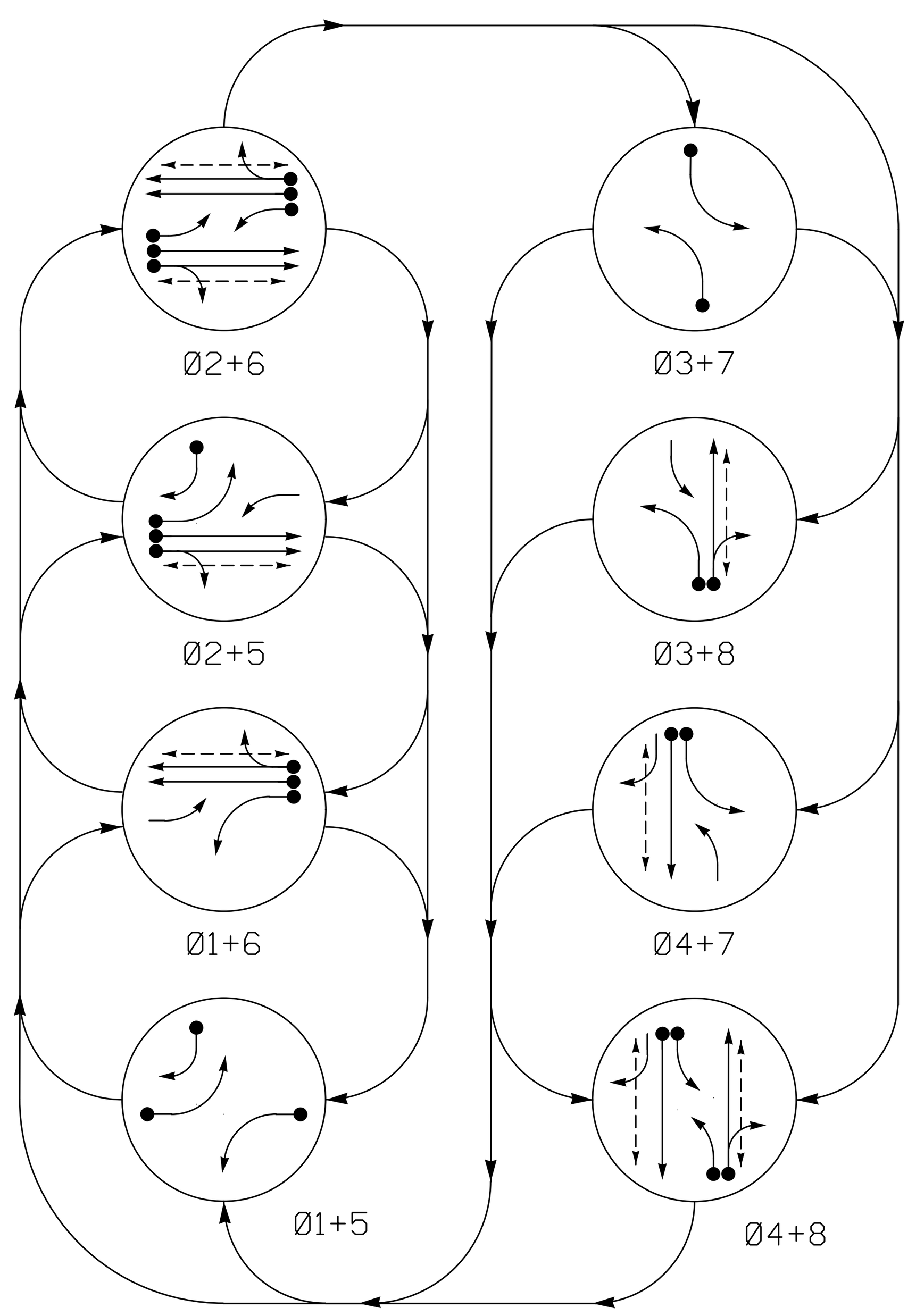
PROJECT REFERENCE NO.	SHEET NO.
C-5703	Sig.6.1

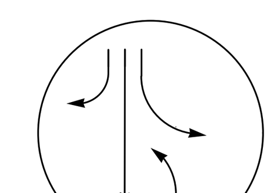
8 Phase Fully Acutated w/ Alternate Phasing Operation and Emergency Vehicle Preemption Gastonia Signal System

DEFAULT PHASING DIAGRAM

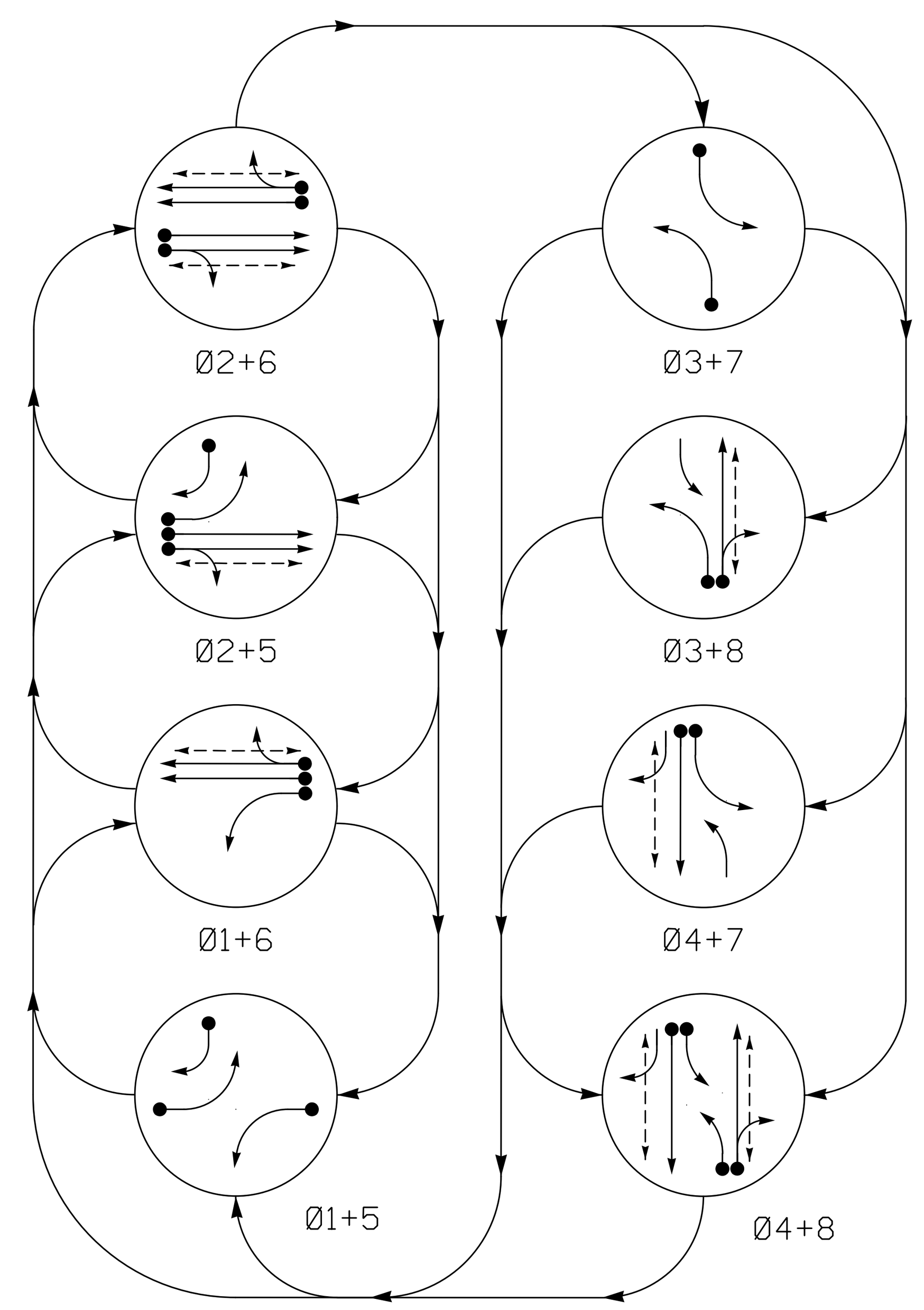


DEFAULT PHASING EV PREEMPT PHASES

(Medium Priority)

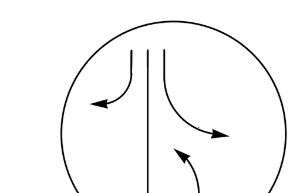


ALTERNATE PHASING DIAGRAM



ALTERNATE PHASING EV PREEMPT PHASES

(Medium Priority)



PHASING DIAGRAM DETECTION LEGEND

- ◄——● DETECTED MOVEMENT
- ◄—— UNDETECTED MOVEMENT (OVERLAP)
- ◄– – UNSIGNALIZED MOVEMENT
- ◄– – –► PEDESTRIAN MOVEMENT

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 3 and/or 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. The City Engineer or their representative will determine the hours of use for each phasing plan.
11. Pavement markings are existing.
12. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
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. Install GPS emergency preemption system per manufacturer's instructions to achieve preemption needed, as shown in phasing diagram.
16. City System Data:
    Controller Asset: #0029

DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø3+7	Ø3+8	Ø4+7	Ø4+8	PRE 3	FLASH
11	←	←	←F/Y	←F/Y	←R	←R	←R	←R	←R	←Y
21, 22	R	R	G	G	R	R	R	R	R	Y
31	←R	←R	←R	←R	←	←	←F/Y	←F/Y	←F/Y	←R
41	R	R	R	R	R	R	G	G	G	R
42	R/→	R	R/→	R	R	R	G	G	G	R
51	←	←F/Y	←	←F/Y	←R	←R	←R	←R	←R	←Y
61, 62	R	G	R	G	R	R	R	R	R	Y
71	←R	←R	←R	←R	←	←F/Y	←	←F/Y	←	←R
81, 82	R	R	R	R	R	G	R	G	R	R
P21, P22	DW	DW	W	W	DW	DW	DW	DW	DW	DRK
P41, P42	DW	DW	DW	DW	DW	DW	W	W	DW	DRK
P61, P62	DW	W	DW	W	DW	DW	DW	DW	DW	DRK
P81, P82	DW	DW	DW	DW	DW	W	DW	W	DW	DRK

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø3+7	Ø3+8	Ø4+7	Ø4+8	PRE 3	FLASH
11	←	←	←R	←R	←R	←R	←R	←R	←R	←Y
21, 22	R	R	G	G	R	R	R	R	R	Y
31	←R	←R	←R	←R	←	←	←F/Y	←F/Y	←F/Y	←R
41	R	R	R	R	R	R	G	G	G	R
42	R/→	R	R/→	R	R	R	G	G	G	R
51	←	←R	←	←R	←R	←R	←R	←R	←R	←Y
61, 62	R	G	R	G	R	R	R	R	R	Y
71	←R	←R	←R	←R	←	←F/Y	←	←F/Y	←	←R
81, 82	R	R	R	R	R	G	R	G	R	R
P21, P22	DW	DW	W	W	DW	DW	DW	DW	DW	DRK
P41, P42	DW	DW	DW	DW	DW	DW	W	W	DW	DRK
P61, P62	DW	W	DW	W	DW	DW	DW	DW	DW	DRK
P81, P82	DW	DW	DW	DW	DW	W	DW	W	DW	DRK

EV PREEMPT

FUNCTION	PRE 3
Exit Phase(s)	4+8
Preempt Override	OFF
Delay Time	0
Ped Clear Through Yellow	Y
Terminate Phases	N
Entrance Walk	1
Entrance Ped Clear	255*
Entrance Min Green	1
Entrance Yellow Change	25.5*
Entrance Red Clear	25.5*
Minimum Dwell Time	7
Preempt Input Extension Time **	2
Preempt Max Time	120
Exit Yellow Change	25.5*
Exit Red Clear	25.5*

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

Signal Upgrade - Sheet 2 of 2

PLANS PREPARED IN THE OFFICE OF:
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Prepared For:
Transportation Mobility and Safety Division
State of North Carolina Department of Transportation
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 40 1"=40'

US 29/74 (Franklin Boulevard)
at
SR 1136 (Myrtle School Road)

Division 12	Gaston County		Gastonia
PLAN DATE:	May 2021	REVIEWED BY:	SL Phillips
PREPARED BY:	DM Curri	REVIEWED BY:	KP Baumann

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA PROFESSIONAL SEAL 044434 ENGINEER KEVIN P. BAUMANN

DocuSigned by:
5DC709A86BCB447...
SIGNATURE 3/11/2022 DATE

SIG. INVENTORY NO. 12-0029