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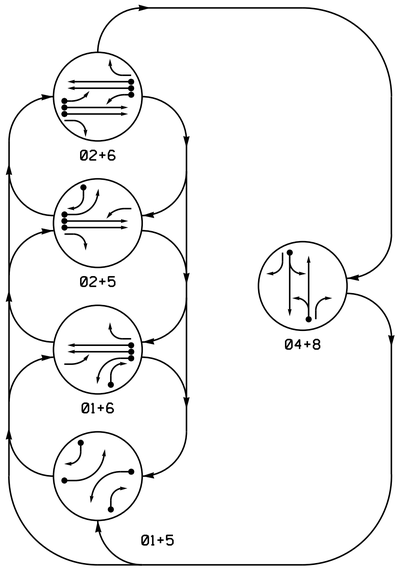
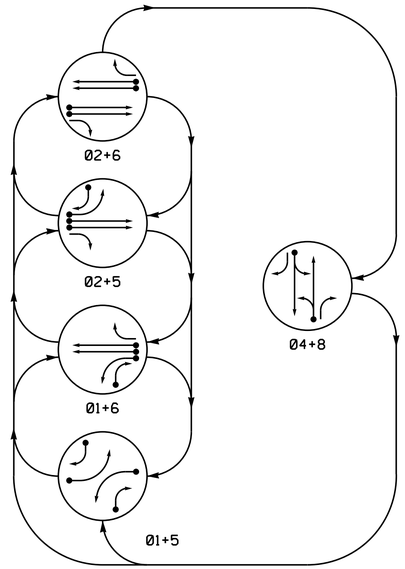
PROJECT REFERENCE NO.	SHEET NO.
R-5021	Sig. 13.0

DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	04+8	FLASH
11	~~—~~	~~—~~	F/~~Y~~	F/~~Y~~	~~R~~	~~Y~~
21,22	R	R	G	G	R	Y
41,42	R	R	R	R	G	R
43	F/~~Y~~	R	F/~~Y~~	R	F/~~Y~~	R
51	~~—~~	F/~~Y~~	~~—~~	F/~~Y~~	~~R~~	~~Y~~
61,62	R	G	R	G	R	Y
81,82	R	R	R	R	G	R
83	F/~~Y~~	F/~~Y~~	R	R	F/~~Y~~	R

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	04+8	FLASH
11	~~—~~	~~—~~	~~R~~	~~R~~	~~R~~	~~Y~~
21,22	R	R	G	G	R	Y
41,42	R	R	R	R	G	R
43	F/~~Y~~	R	F/~~Y~~	R	F/~~Y~~	R
51	~~—~~	~~R~~	~~—~~	~~R~~	~~R~~	~~Y~~
61,62	R	G	R	G	R	Y
81,82	R	R	R	R	G	R
83	F/~~Y~~	F/~~Y~~	R	R	F/~~Y~~	R

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	-	1	Y	Y	-	-	✱✱15	-	Y
					✱6	Y	Y	-	-	-	-	Y
1B	6X40	0	2-4-2	-	1	Y	Y	-	-	15	-	Y
2A/S07	6X6	420	6	Y	2	Y	Y	-	-	-	Y	Y
2B/S08	6X6	420	6	Y	2	Y	Y	-	-	-	Y	Y
4A	6X40	0	2-4-2	-	4	Y	Y	-	-	-	-	Y
5A	6X40	0	2-4-2	-	5	Y	Y	-	-	✱✱15	-	Y
					✱2	Y	Y	-	-	-	-	Y
5B	6X40	0	2-4-2	-	5	Y	Y	-	-	15	-	Y
6A/S09	6X6	420	6	Y	6	Y	Y	-	-	-	Y	Y
6B/S10	6X6	420	6	Y	6	Y	Y	-	-	-	Y	Y
8A	6X40	0	2-4-2	-	8	Y	Y	-	-	-	-	Y

✱ Disable phase 2 and 6 call for 1A and 5A during alternate phasing operation.
✱✱ Reduce delay to 0 seconds during alternate phasing operation.

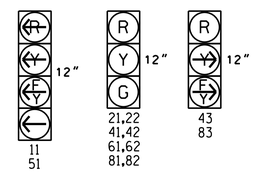
5 Phase Fully Actuated (NC 133 Closed Loop System)

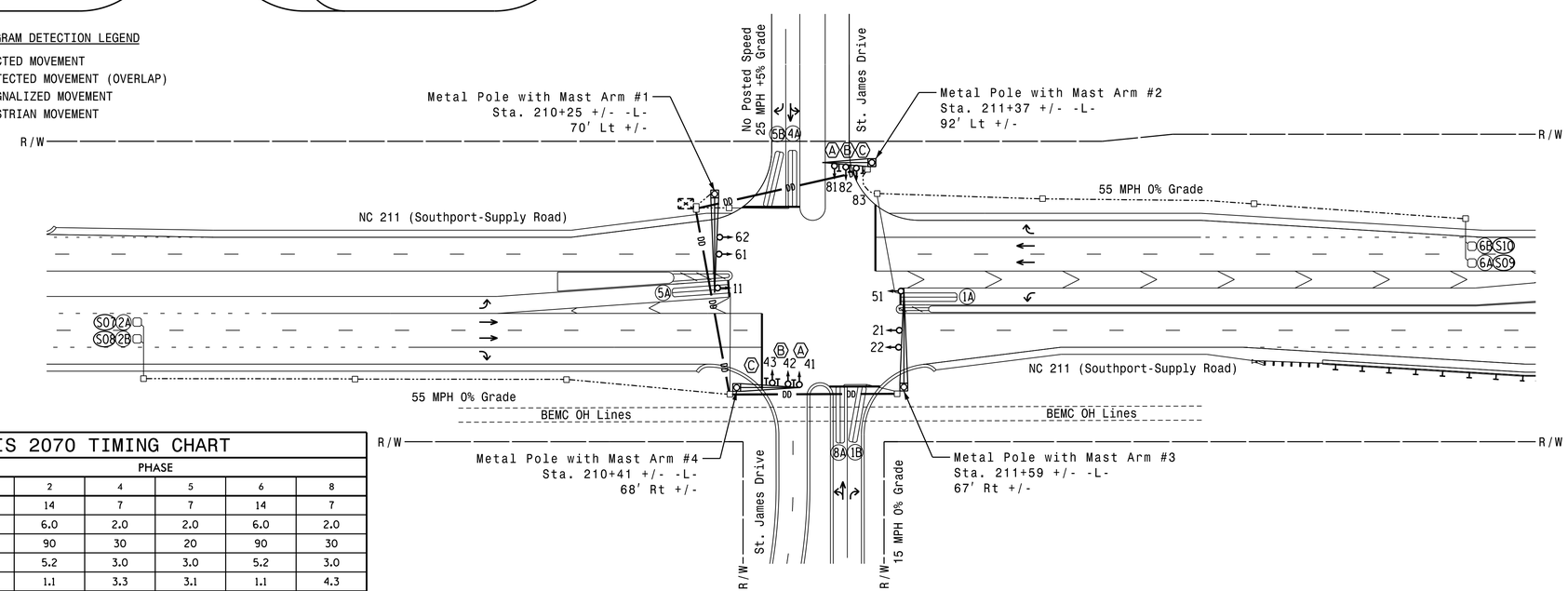
NOTES

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. Set all detector units to presence mode.
5. The Division Traffic Engineer will determine the hours of use for each phasing plan.
6. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
7. Closed loop system data: Controller Asset #: 0977.

SIGNAL FACE I.D.

All Heads L.E.D.





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	
	Directional Drill	N/A
	Metal Pole with Mastarm	
	Guardrail	
Ⓐ	Combined Through and Left Arrow Sign (R3-6L)	Ⓐ
Ⓑ	Right Arrow "ONLY" Sign (R3-5R)	Ⓑ
Ⓒ	"RIGHT TURN MUST YIELD TO U-TURN" Sign	Ⓒ

OASIS 2070 TIMING CHART

FEATURE	PHASE 1	2	4	5	6	8
Min Green 1 *	7	14	7	7	14	7
Extension 1 *	2.0	6.0	2.0	2.0	6.0	2.0
Max Green 1 *	20	90	30	20	90	30
Yellow Clearance	3.0	5.2	3.0	3.0	5.2	3.0
Red Clearance	3.1	1.1	3.3	3.1	1.1	4.3
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-
Seconds Per Actuation *	-	1.5	-	-	1.5	-
Max Variable Initial *	-	46	-	-	46	-
Time Before Reduction *	-	15	-	-	15	-
Time To Reduce *	-	30	-	-	30	-
Minimum Gap	-	3.4	-	-	3.4	-
Recall Mode	-	MIN RECALL	-	-	MIN RECALL	-
Vehicle Call Memory	-	YELLOW	-	-	YELLOW	-
Dual Entry	-	-	ON	-	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON	ON

* 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.

Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

HNTB NORTH CAROLINA, P.C.
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Prepared For: Transportation Mobility and Safety Division, Traffic Engineering Branch, Signal Design Section, Department of Transportation, State of North Carolina
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 50 1"=50'

NC 211 (Southport-Supply Road) at St. James Drive

Division 03 Brunswick Co. Southport

PLAN DATE:	June 2017	REVIEWED BY:	A.D. Klinksiek
PREPARED BY:	A.H. Thornburg	REVIEWED BY:	N.R. Simmons

REVISIONS | INIT. | DATE

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 031464 ENGINEER NATASHA R. SIMMONS

DocuSigned by: Natasha Simmons F6DA880F3AD445A... 9/10/2021

SIGNATURE | DATE

SIG. INVENTORY NO. 03-0977