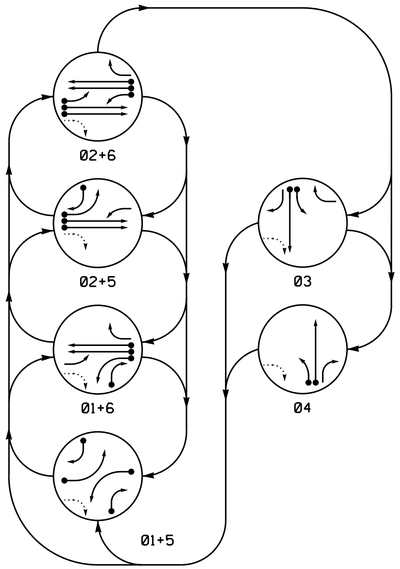
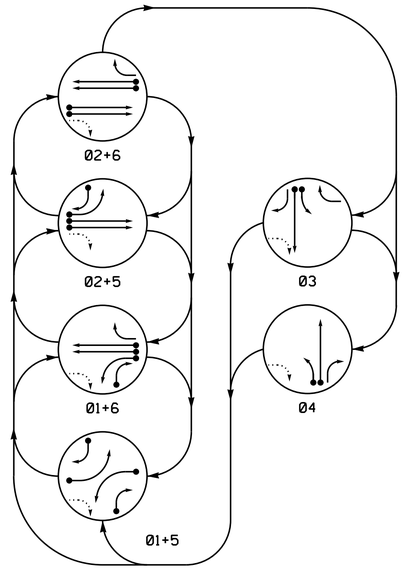
DocuSign Envelope ID: 2D0541FF-961B-4856-92D7-3664EA825C64

PROJECT REFERENCE NO.	SHEET NO.
R-5021	Sig. 24.0

DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03	04	FLASH
11	—	—	F/Y	F/Y	~~R~~	~~R~~	~~Y~~
21,22	R	R	G	G	R	R	Y
31	R	R	R	R	G	R	R
32	R	R	R	G	R	R	R
33	F/Y	R	F/Y	R	F/Y	R	R
41	R	R	R	R	G	Y	
42	R	R	R	R	G	R	
43	F/Y	F/Y	R	R	F/Y	R	
51	—	F/Y	—	F/Y	~~R~~	~~R~~	~~Y~~
61,62,64	R	G	R	G	R	R	Y
63	R	F/Y	R	F/Y	—	R	~~Y~~

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03	04	FLASH
11	—	—	~~R~~	~~R~~	~~R~~	~~R~~	~~Y~~
21,22	R	R	G	G	R	R	Y
31	R	R	R	R	G	R	R
32	R	R	R	R	G	R	R
33	F/Y	R	F/Y	R	F/Y	R	R
41	R	R	R	R	G	Y	
42	R	R	R	R	G	R	
43	F/Y	F/Y	R	R	F/Y	R	
51	—	~~R~~	—	~~R~~	~~R~~	~~R~~	~~Y~~
61,62,64	R	G	R	G	R	R	Y
63	R	F/Y	R	F/Y	—	R	~~Y~~

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	Y	1	Y	Y	-	-	**15	-	Y
					*6	Y	Y	Y	-	3	-	Y
1B	6X40	0	2-4-2	Y	1	Y	Y	-	-	15	-	Y
2A/S21	6X6	300	6	Y	2	Y	Y	-	-	-	Y	Y
2B/S22	6X6	300	6	Y	2	Y	Y	-	-	-	Y	Y
3A	6X40	0	2-4-2	Y	3	Y	Y	-	-	3	-	Y
3B	6X40	0	2-4-2	Y	3	Y	Y	-	-	-	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	-	-	Y
4B	6X40	0	2-4-2	Y	4	Y	Y	-	-	-	-	Y
5A	6X40	0	2-4-2	Y	5	Y	Y	-	-	**15	-	Y
					*2	Y	Y	Y	-	3	-	Y
5B	6X40	0	2-4-2	Y	5	Y	Y	-	-	15	-	Y
6A/S23	6X6	300	4	Y	6	Y	Y	-	-	-	Y	Y
6B/S24	6X6	300	4	Y	6	Y	Y	-	-	-	Y	Y

* Disable phase 2 and 6 call for 1A and 5A during alternate phasing operation.
** Reduce delay to 3 seconds for 1A and 5A during alternate phasing operation.

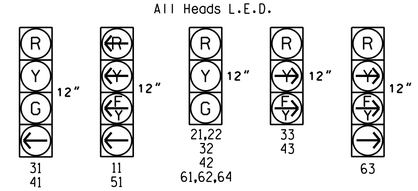
6 Phase
Fully Actuated
(NC 133 Closed Loop System)

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. The order of Phase 3 and Phase 4 may be reversed.
5. Set all detector units to presence mode.
6. The Division Traffic Engineer will determine the hours of use for each phasing plan.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
8. Closed loop system data: Controller Asset #: 1125.

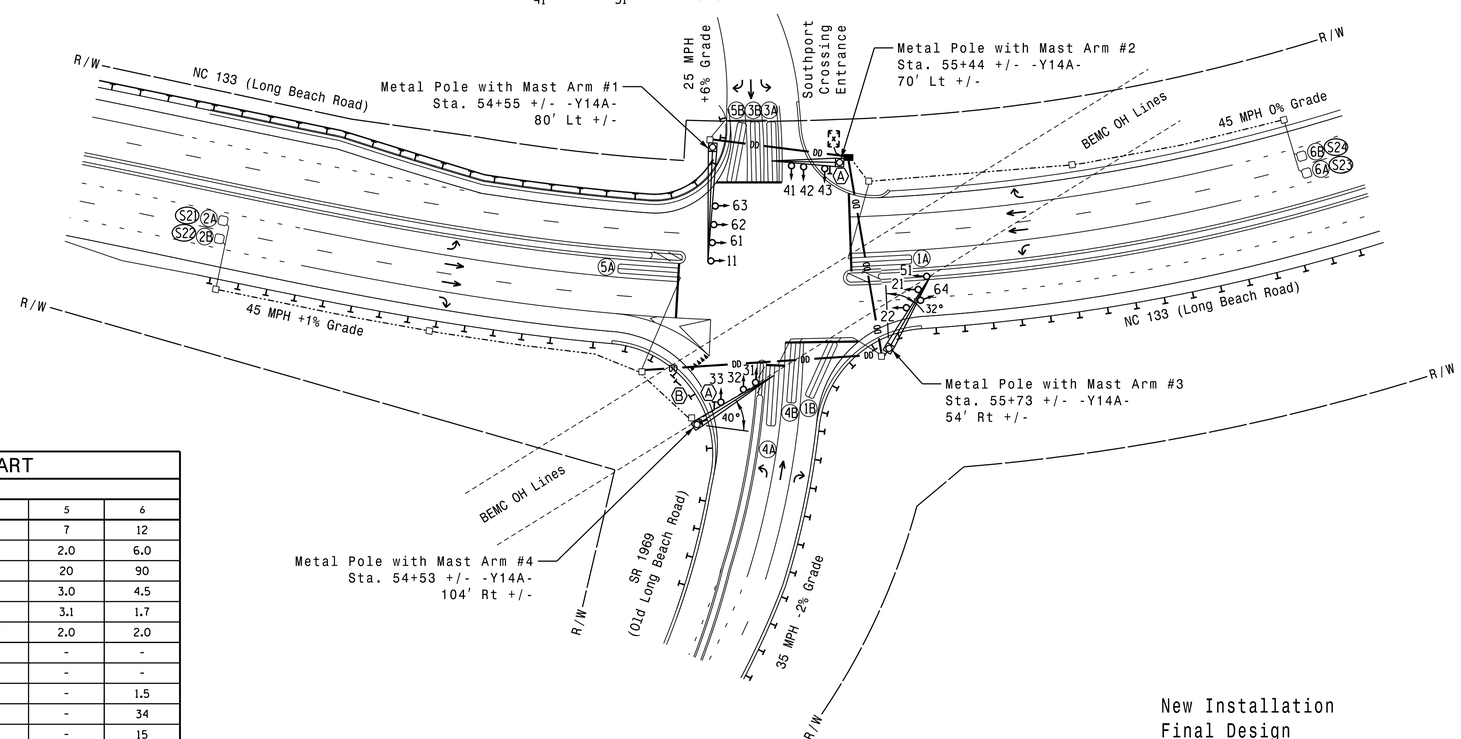
SIGNAL FACE I.D.

All Heads L.E.D.



PHASING DIAGRAM DETECTION LEGEND

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



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	
DD	Directional Drill	N/A
	Metal Pole with Mastarm	
	Guardrail	
A	"RIGHT TURN MUST YIELD TO U-TURN" Sign	A
B	"YIELD" Sign (R1-2)	B

OASIS 2070 TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6
Min Green 1 *	7	12	7	7	7	12
Extension 1 *	2.0	6.0	2.0	2.0	2.0	6.0
Max Green 1 *	20	90	30	30	20	90
Yellow Clearance	3.0	4.5	4.0	3.0	3.0	4.5
Red Clearance	2.8	1.7	1.9	2.9	3.1	1.7
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 *	-	34	-	-	-	34
Time Before Reduction *	-	15	-	-	-	15
Time To Reduce *	-	30	-	-	-	30
Minimum Gap	-	3.0	-	-	-	3.0
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW
Dual Entry	-	-	-	-	-	-
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.

New Installation
Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554
(919) 546-8997

Prepared for: Transportation Mobility and Safety Division, State of North Carolina, Department of Transportation, Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

NC 133 (Long Beach Road) at SR 1969 (Old Long Beach Road)/ Southport Crossing Entrance

Division 03 Brunswick Co. Southport

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

SCALE 0 50 1"=50'

REVISIONS	INIT.	DATE

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

DocuSigned by: Natasha Simmons
F6DA8BDE7A04484...
SIGNATURE 9/10/2021 DATE

SIG. INVENTORY NO. 03-1125