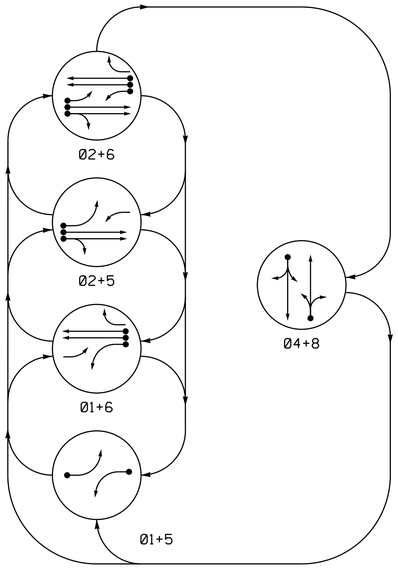
PROJECT REFERENCE NO.	SHEET NO.
B-5351	Sig. 5.0

5 Phase Fully Actuated W/ Long Vehicle Detection (Isolated)

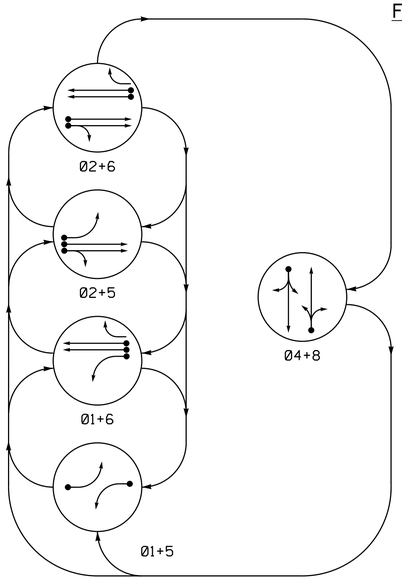
NOTES

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. Reposition existing signal heads 11, 12, 22, 23, 51, 61, 62, and 63.
5. Set all detector units to presence mode.
6. The Division Traffic Engineer will determine the hours of use for each phasing plan.

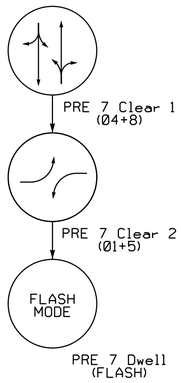
DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



LONG VEHICLE EXTENSION FAILURE PREEMPT PHASES

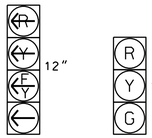


DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø4+8	PRE 7	CLEAR 1	CLEAR 2	DWELL	FLASH
11	~~←~~	~~←~~	~~F Y~~	~~F Y~~	~~R~~	~~R~~	~~←~~	~~Y~~	~~Y~~	
21, 22, 23	R	R	G	G	R	R	R	Y	Y	
41, 42, 43	R	R	R	R	G	G	R	R	R	
51	~~←~~	~~F Y~~	~~←~~	~~F Y~~	~~R~~	~~R~~	~~←~~	~~Y~~	~~Y~~	
61, 62, 63	R	G	R	G	R	R	R	Y	Y	
81, 82, 83	R	R	R	R	G	G	R	R	R	

SIGNAL FACE I.D.

All Heads L.E.D.



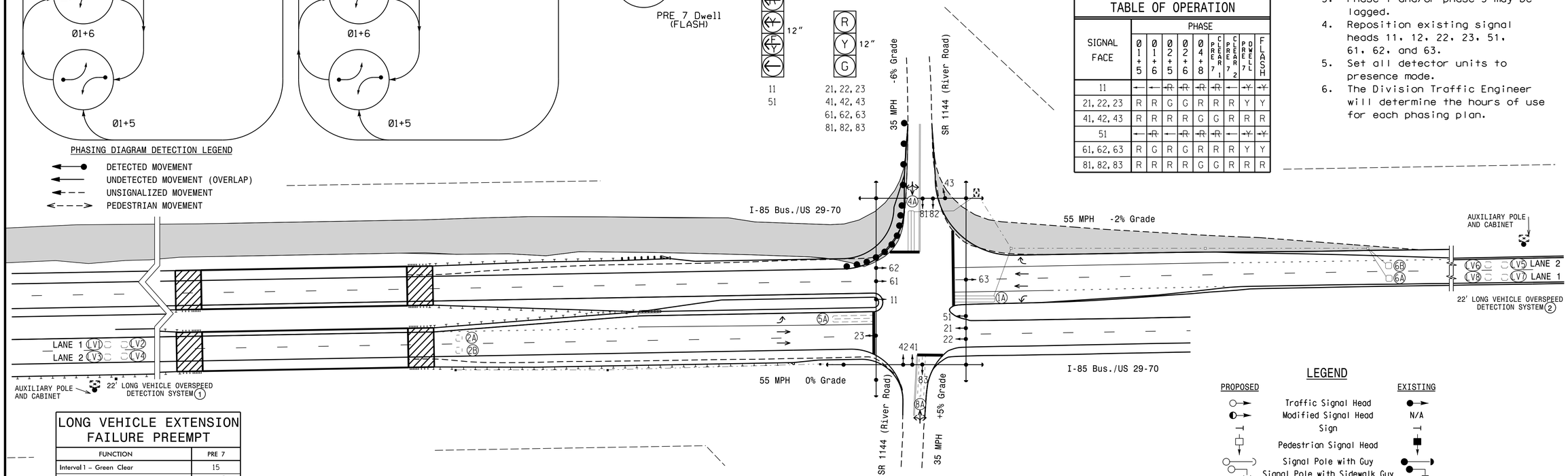
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

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 *	-	-
					6 #	Y	Y	Y	-	3	-	-
2A	6X6	400	5	-	2	Y	Y	-	-	-	-	-
2B	6X6	400	5	-	2	Y	Y	-	-	-	-	-
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	10	-	-
5A	6X40	0	2-4-2	-	5	Y	Y	-	-	15 *	-	-
					2 #	Y	Y	Y	-	3	-	-
6A	6X6	420	5	Y	6	Y	Y	-	-	-	-	-
6B	6X6	420	5	Y	6	Y	Y	-	-	-	-	-
8A	6X40	0	2-4-2	-	8	Y	Y	-	-	10	-	-

* Disable Delay During Alternate Phasing Operation.
\# Disable Phase Call For Loop During Alternate Phasing Operation.

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø4+8	PRE 7	CLEAR 1	CLEAR 2	DWELL	FLASH
11	~~←~~	~~←~~	~~R~~	~~R~~	~~R~~	~~R~~	~~←~~	~~Y~~	~~Y~~	
21, 22, 23	R	R	G	G	R	R	R	Y	Y	
41, 42, 43	R	R	R	R	G	G	R	R	R	
51	~~←~~	~~R~~	~~←~~	~~R~~	~~R~~	~~R~~	~~←~~	~~Y~~	~~Y~~	
61, 62, 63	R	G	R	G	R	R	R	Y	Y	
81, 82, 83	R	R	R	R	G	G	R	R	R	



LONG VEHICLE EXTENSION FAILURE PREEMPT

FUNCTION	PRE 7
Interval 1 – Green Clear	15
Interval 1 – Yellow Clear	0.0*
Interval 1 – Red Clear	0.0*
Interval 2 – Green Clear	10
Interval 2 – Yellow Clear	0.0*
Interval 2 – Red Clear	0.0*
Interval 3 – Dwell Green	255
Interval 3 – Dwell Yellow	0.0*
Interval 3 – Dwell Red	0.0*
Interval 4 – Exit Green	1
Interval 4 – Yellow	0.0
Interval 4 – Red	0.0
Exit Phase(s)	2+6
Priority	-
Delay Time	0
Min Green Before Pre	14
Ped Clear Before Pre	0
Yellow Clear Before Pre	0.0*
Red Clear Before Pre	0.0*
Dwell Min Time	14
Flash Dwell Interval?	Y
Enable Backup Protection	N
Ped Clear Through Yellow	N
Omit Overlaps	-

* Time defaults to time used for phase during normal operation

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	3.0	2.0	6.0	3.0
Max Green 1 *	20	120	25	25	120	25
Yellow Clearance	3.0	5.4	4.3	3.0	5.4	3.6
Red Clearance	2.3	1.0	1.9	2.8	1.0	2.0
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 *	-	20	-	-	20	-
Time To Reduce *	-	50	-	-	50	-
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.

LONG VEHICLE OVERSPEED DETECTION SYSTEM LOOP & DETECTION INSTALLATION CHART

INDUCTIVE LOOPS						DETECTOR UNITS								
LOOP NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW	EXISTING	SYSTEM NUMBER	ON LANE	DETECTOR NUMBER	CHANNEL	NEMA PHASE	TIMING FEATURE	TIMING TIME	PLACE CALL DURING PHASE	INHIBIT DELAY DURING GREEN?
LV1	6X6	4	1015		X	1	1	1	1	2*	NONE	- SEC.	ALL	NO
LV2	6X6	4	999		X	NOT USED	1		2		NONE	- SEC.	ALL	NO
LV3	6X6	4	1015		X	APPROACH	2	2	1	2*	NONE	- SEC.	ALL	NO
LV4	6X6	4	999		X		2		2		NONE	- SEC.	ALL	NO
LV5	6X6	4	1015		X	2	1	1	1	6*	NONE	- SEC.	ALL	NO
LV6	6X6	4	999		X	NOT USED	1		2		NONE	- SEC.	ALL	NO
LV7	6X6	4	1015		X	APPROACH	2	2	1	6*	NONE	- SEC.	ALL	NO
LV8	6X6	4	999		X		2		2		NONE	- SEC.	ALL	NO
LVODS THRESHOLD SPEED (MPH)			55							2 / 6				
LVODS EXTEND TIME			12 SEC.							2 / 6				

*Phase hold output to controller

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
	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	Guardrail	
	Construction Zone Drums	
	Construction Zone	

Signal Upgrade
Temporary Design 4 (TMP Phase IV)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared In the Offices of:
Transportation Mobility and Safety Division
Traffic Engineering Branch
Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

I-85 Bus. /US 29-70
at
SR 1144 (River Road)

Division 7 Guilford County Jamestown

PLAN DATE: January 2018 REVIEWED BY:

PREPARED BY: I. O. Umozurike REVIEWED BY:

SCALE 0 50 1"=50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIEMBA

DocuSigned by: Signature 2/7/2018 DATE

SIG. INVENTORY NO. 07-1191T4

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