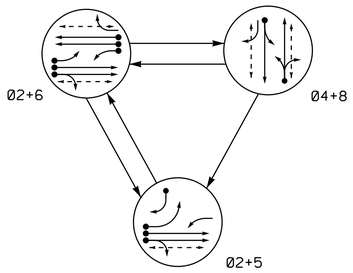
PROJECT REFERENCE NO.	SHEET NO.
I-5700	Sig 5.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

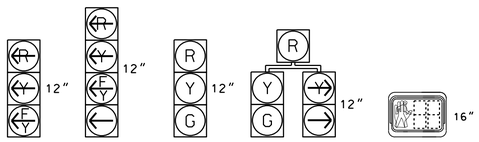
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+5	Ø2+6	Ø4+8	FLASH
21, 22	G	G	R	Y
41	R	R	G	R
42	R/→	R	G	R
51	←	~~F Y~~	~~R~~	~~Y~~
61	~~F Y~~	~~F Y~~	~~R~~	~~Y~~
62, 63	R	G	R	Y
81, 82	R	R	G	R
P21, P22	W	W	DW	DRK
P41, P42	DW	DW	W	DRK
P61, P62	DW	W	DW	DRK
P81, P82	DW	DW	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



61 | 51 | 21, 22, 41, 62, 63, 81, 82 | 42 | P21, P22, P41, P42, P61, P62, P81, P82

LOOP & DETECTOR INSTALLATION CHART

ASC/3-2070EN2 CONTROLLER w/ TS-2 CABINET

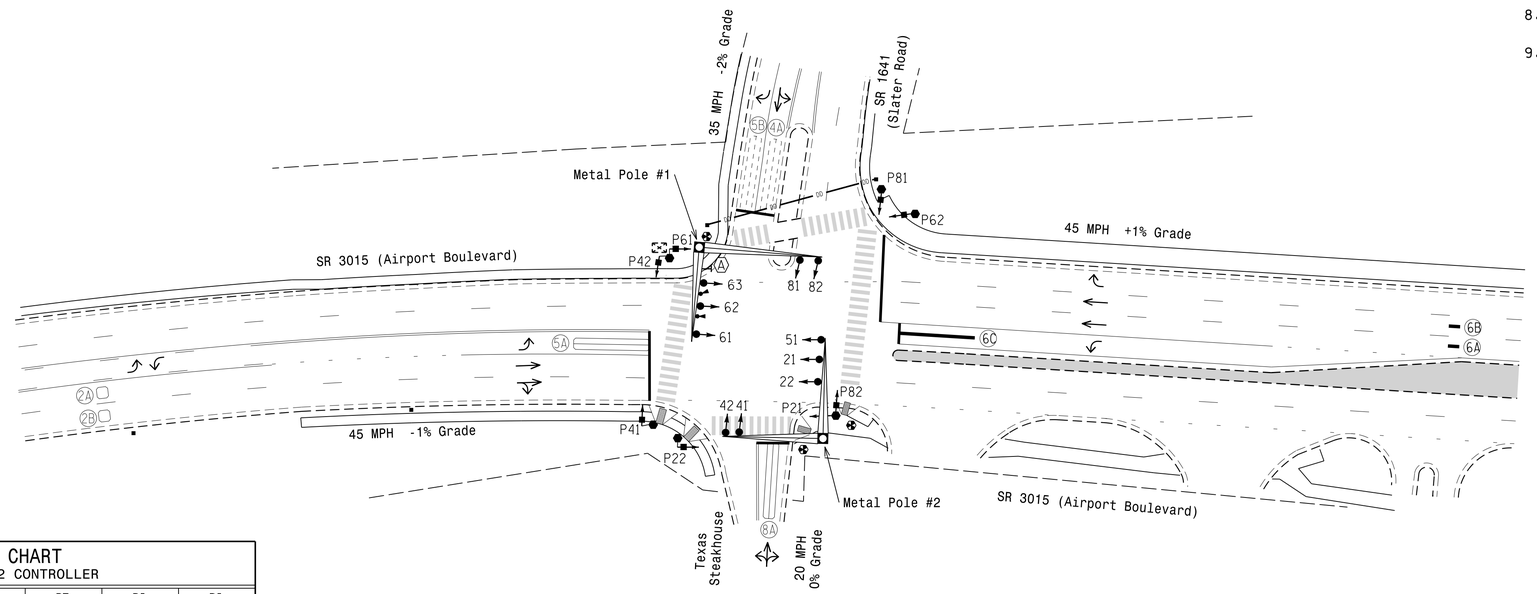
INDUCTIVE LOOPS						DETECTOR UNITS					
LOOP / ZONE NO.	SIZE (ft)	DIST. FROM STOPBAR (ft)	TURNS	NEW	EXISTING	NEMA PHASE	NEW	EXISTING	TIMING FEATURE	TIMING TIME (sec.)	ADDED INITIAL	DET. TYPE
2A	6X6	300	5	X	-	2	X	-	-	-	X	N
2B	6X6	300	5	X	-	2	X	-	-	-	X	N
4A	6X40	0	2-4-2	-	X	4	-	X	-	-	-	S
5A	6X40	0	2-4-2	X	-	5	X	-	DELAY	15	-	S
						2	X	-	DELAY	3	-	G
5B	6X40	0	2-4-2	-	X	5	-	X	DELAY	15	-	S
6A*	6X6	300	*	-	X	6	-	*	-	-	X	N
6B*	6X6	300	*	-	X	6	-	*	-	-	X	N
6C*	6X40	0	*	-	X	6	-	*	DELAY	3	-	G
8A	6X40	0	2-4-2	X	-	8	X	-	DELAY	5	-	S

* Video detection zone.

3 Phase
Fully Actuated
(Cary 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 5 may be lagged.
4. Set all detector units to presence mode.
5. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
8. Cary signal system data:
   Fiber channel #: 26.
9. This intersection features a video detection system. Shown locations of detectors are conceptual only. Refer to the manufacturer's guidelines for optimal detector placement.



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	→
	Metal Pole with Mastarm	
	Type I Pushbutton Post	
	Type II Signal Pedestal	
N/A	Curb Ramp	
DD	Directional Drill	N/A
	Construction Zone	
	Out of Pavement Detector	
	Video Detection Area	
Ⓐ	Right Arrow "ONLY" Sign (R3-5R)	Ⓐ

TIMING CHART

ASC/3-2070EN2 CONTROLLER

PHASE	02	04	05	06	08
MINIMUM GREEN *	12 SEC.	7 SEC.	7 SEC.	12 SEC.	7 SEC.
VEHICLE EXT. *	6.0 SEC.	2.0 SEC.	2.0 SEC.	6.0 SEC.	2.0 SEC.
YELLOW CHANGE INT.	4.6 SEC.	4.0 SEC.	3.0 SEC.	4.6 SEC.	3.0 SEC.
RED CLEARANCE	1.8 SEC.	2.2 SEC.	3.4 SEC.	1.8 SEC.	3.5 SEC.
MAX. 1 *	90 SEC.	30 SEC.	15 SEC.	90 SEC.	30 SEC.
RECALL POSITION	MIN. RECALL	NONE	NONE	MIN. RECALL	NONE
LOCK DET.	ON	OFF	OFF	ON	OFF
WALK *	7 SEC.	7 SEC.	– SEC.	7 SEC.	7 SEC.
PED. CLEAR	9 SEC.	14 SEC.	– SEC.	17 SEC.	26 SEC.
VOLUME DENSITY	ON	OFF	OFF	ON	OFF
ACTUATION B4 ADD *	– VEH.	– VEH.	– VEH.	– VEH.	– VEH.
SEC. PER ACTUATION *	1.5 SEC.	– SEC.	– SEC.	1.5 SEC.	– SEC.
MAX. INITIAL *	34 SEC.	– SEC.	– SEC.	34 SEC.	– SEC.
TIME B4 REDUCTION *	15 SEC.	– SEC.	– SEC.	15 SEC.	– SEC.
TIME TO REDUCE *	30 SEC.	– SEC.	– SEC.	30 SEC.	– SEC.
MINIMUM GAP	3.0 SEC.	– SEC.	– SEC.	3.0 SEC.	– SEC.
DUAL ENTRY	OFF	ON	OFF	OFF	ON
SIMULTANEOUS GAP	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 - Temporary Design 4 (TMP Phase IV)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

SR 3015 (Airport Boulevard)
at
SR 1641 (Slater Road)

Division 5 | Wake County | Morrisville

PLAN DATE: February 2019 | REVIEWED BY:
PREPARED BY: J.A. Lohr | REVIEWED BY:

SCALE 0 40 1"=40'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIEMBA

DocuSigned by: 7/24/2019 DATE

SIG. INVENTORY NO. 05-2088T4

05-AUG-2019 13:12
W:\5208814_sig_con_2019mmds.dgn
jalohr