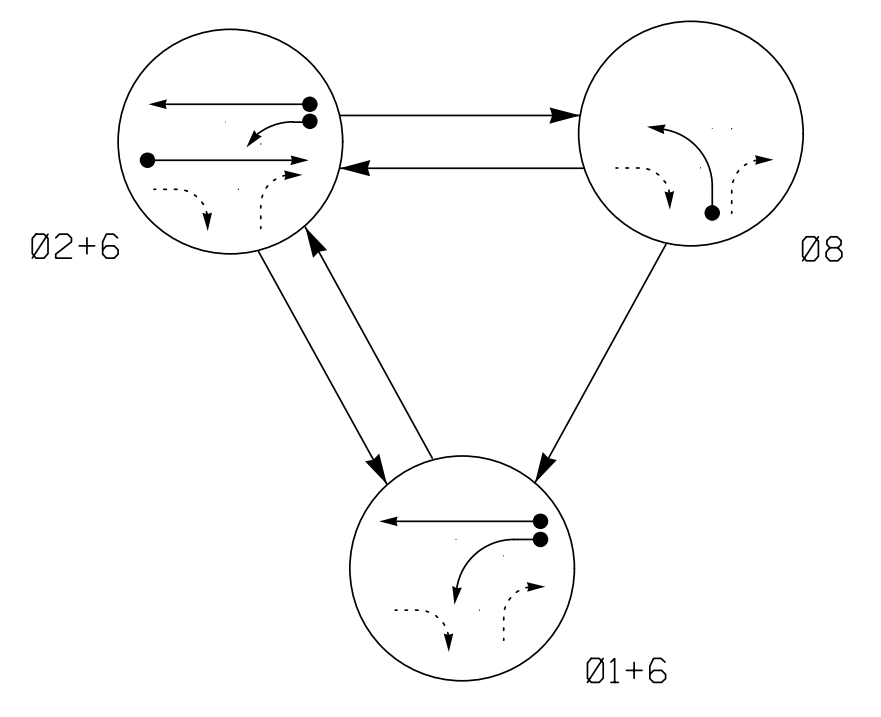


PHASING DIAGRAM



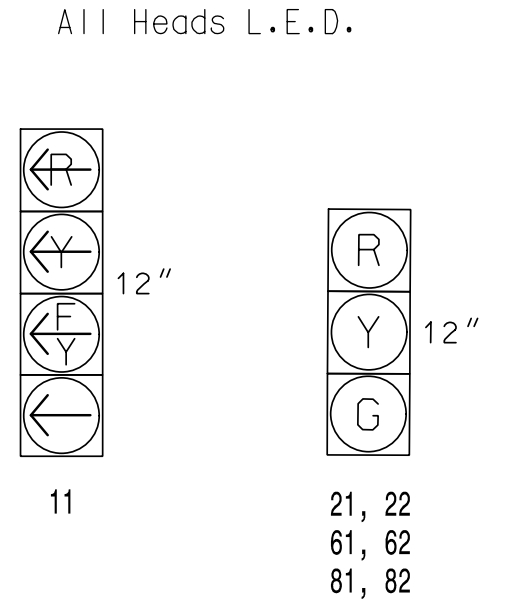
PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE			
	01+6	02+6	08	06
11	←	→	←	→
21, 22	R	G	R	Y
61, 62	G	G	R	Y
81, 82	R	R	G	R

SIGNAL FACE I.D.



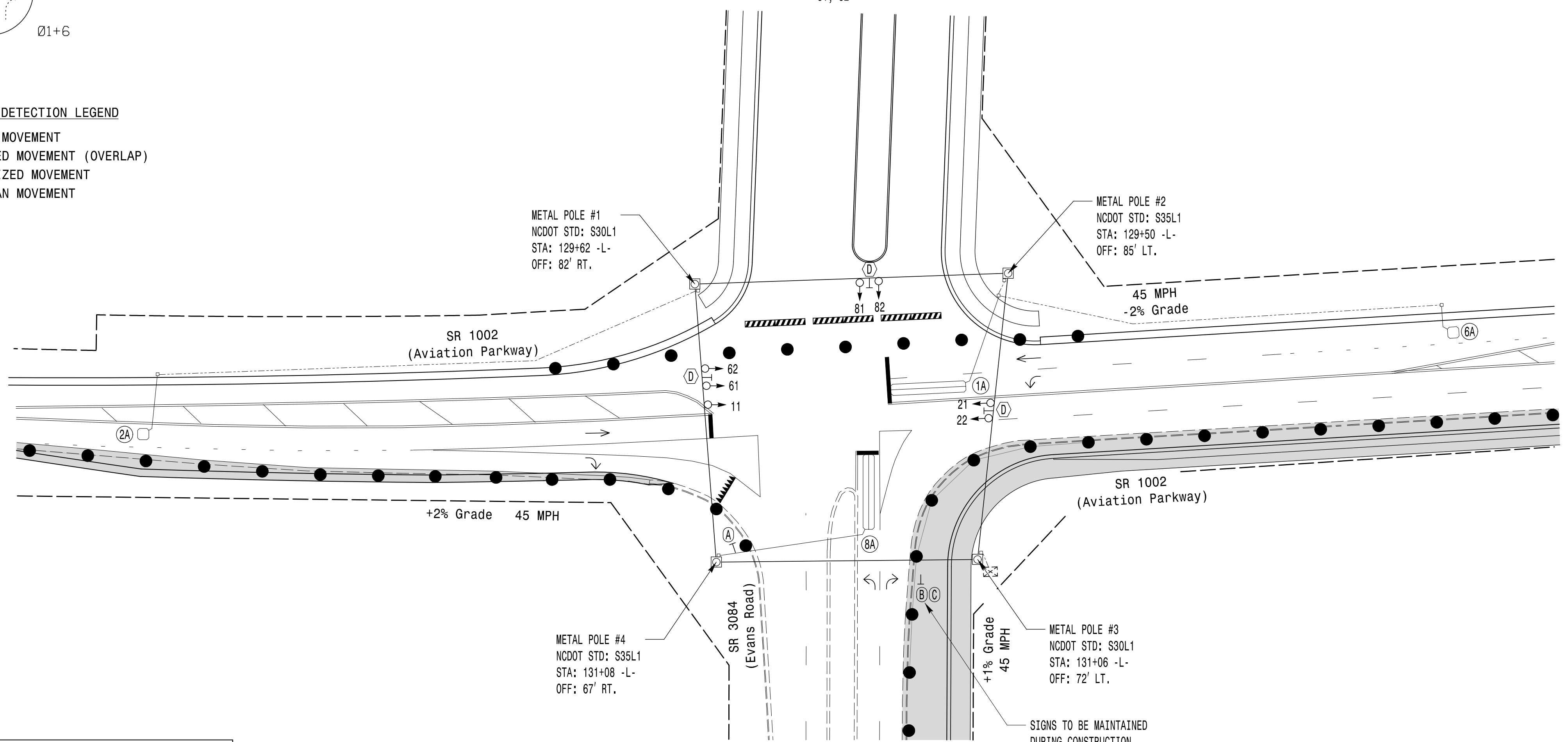
LOOP & DETECTOR INSTALLATION CHART
ASC/3-2070LN2 CONTROLLER w/ TS-2 CABINET

LOOP NO.	SIZE (ft)	DIST. FROM STOPBAR (ft)	TURNS	INDUCTIVE LOOPS		DETECTOR UNITS		TIMING FEATURE	TIME (sec)	DET. TYPE
				NEW	EXISTING	NEW	EXISTING			
1A	6X40	0	2-4-2	X	-	1	X	DELAY	15	S
2A	6X6	300	6	X	-	6	-	DELAY	3	G
6A	6X6	300	6	X	-	6	-	-	-	N
8A	6X40	0	2-4-2	X	-	8	-	-	-	S

3 Phase Fully Actuated (Cary Signal System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012, "Standard Specifications for Roads and Structures" dated January 2012, and all applicable sections of the latest version of the generic Project Special Provisions. The PSP can be accessed at the following website: <https://connect.ncdot.gov/resources/safety/Pages/ITS-Design-Resources.aspx>
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 may be lagged.
- Set all detector units to presence mode.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
- Cary signal system data: Fiber channel #: 17.



TIMING CHART
ASC/3-2070LN2 CONTROLLER

PHASE	01	02	06	08
MINIMUM GREEN *	7 SEC.	12 SEC.	12 SEC.	7 SEC.
VEHICLE EXT. *	2.0 SEC.	6.0 SEC.	6.0 SEC.	2.0 SEC.
YELLOW CHANGE INT.	3.0 SEC.	4.7 SEC.	4.7 SEC.	3.0 SEC.
RED CLEARANCE	1.6 SEC.	1.4 SEC.	1.4 SEC.	2.6 SEC.
MAX. I *	25 SEC.	90 SEC.	90 SEC.	30 SEC.
RECALL POSITION	NONE	MIN. RECALL	MIN. RECALL	NONE
LOCK DET.	OFF	ON	ON	OFF
WALK *	- SEC.	- SEC.	- SEC.	- SEC.
PED. CLEAR	- SEC.	- SEC.	- SEC.	- SEC.
VOLUME DENSITY	OFF	OFF	OFF	OFF
ACTUATION B4 ADD *	- VEH.	0 VEH.	0 VEH.	- VEH.
SEC. PER ACTUATION *	- SEC.	2.5 SEC.	2.5 SEC.	- SEC.
MAX. INITIAL *	- SEC.	34 SEC.	34 SEC.	- SEC.
TIME B4 REDUCTION *	- SEC.	15 SEC.	15 SEC.	- SEC.
TIME TO REDUCE *	- SEC.	45 SEC.	45 SEC.	- SEC.
MINIMUM GAP	- SEC.	3.0 SEC.	3.0 SEC.	- SEC.
DUAL ENTRY	OFF	OFF	OFF	OFF
SIMULTANEOUS GAP	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.

LEGEND

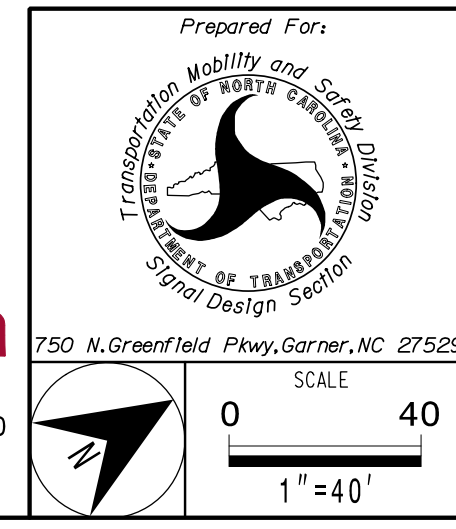
PROPOSED	EXISTING
○ → Traffic Signal Head	● → N/A
● → Modified Signal Head	○ → N/A
⊥ Sign	⊥ Sign
⊥ Pedestrian Signal Head With Push Button & Sign	⊥ Pedestrian Signal Head With Push Button & Sign
□ Metal Strain Pole	□ Metal Strain Pole
⊠ Inductive Loop Detector	⊠ Inductive Loop Detector
⊠ Controller & Cabinet	⊠ Controller & Cabinet
□ Junction Box	□ Junction Box
⊠ 2-in Underground Conduit	⊠ 2-in Underground Conduit
— N/A Right of Way with Marker	— Right of Way with Marker
→ Directional Arrow	→ Directional Arrow
⊠ "YIELD" Sign (R1-2)	⊠ "YIELD" Sign (R1-2)
⊠ Added Lane Sign (W4-3)	⊠ Added Lane Sign (W4-3)
⊠ "FREE FLOW RIGHT LANE KEEP MOVING" Plaque	⊠ "FREE FLOW RIGHT LANE KEEP MOVING" Plaque
⊠ Street Sign (D3-1)	⊠ Street Sign (D3-1)
● Construction Zone Drums	● Construction Zone Drums
■ Construction Zone	■ Construction Zone

NC Dept of Transportation
Division of Highways
Final Drawing Date: 10/10/2016
[Signature]
ITS & Signals Unit

**SIGNAL UPGRADE - TEMPORARY DESIGN 2
TM PLANS PHASE 2**

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn
750 N. Greenfield Pkwy, Garner, NC 27529
NC License #F-0102
421 Fayetteville Street, Suite 600
Raleigh, NC 27601
(919) 677-2000



**SR 1002 (Aviation Parkway)
at
SR 3084 (Evans Road)**

Division 5 Wake County Morrisville

PLAN DATE: APRIL 2016 REVIEWED BY: SL PHILLIPS

PREPARED BY: SP PENNINGTON REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL

Trace L. Phillips
Professional Engineer
032607
9/22/2016
DATE

SIG. INVENTORY NO. 05-153372

9/22/2016 9:08:53 AM susan.pennington K:\RAL_Roadway\07108004 - MCR\Imon Parkway\Phase 1\Plan\Signal\05-153372_2016.dgn