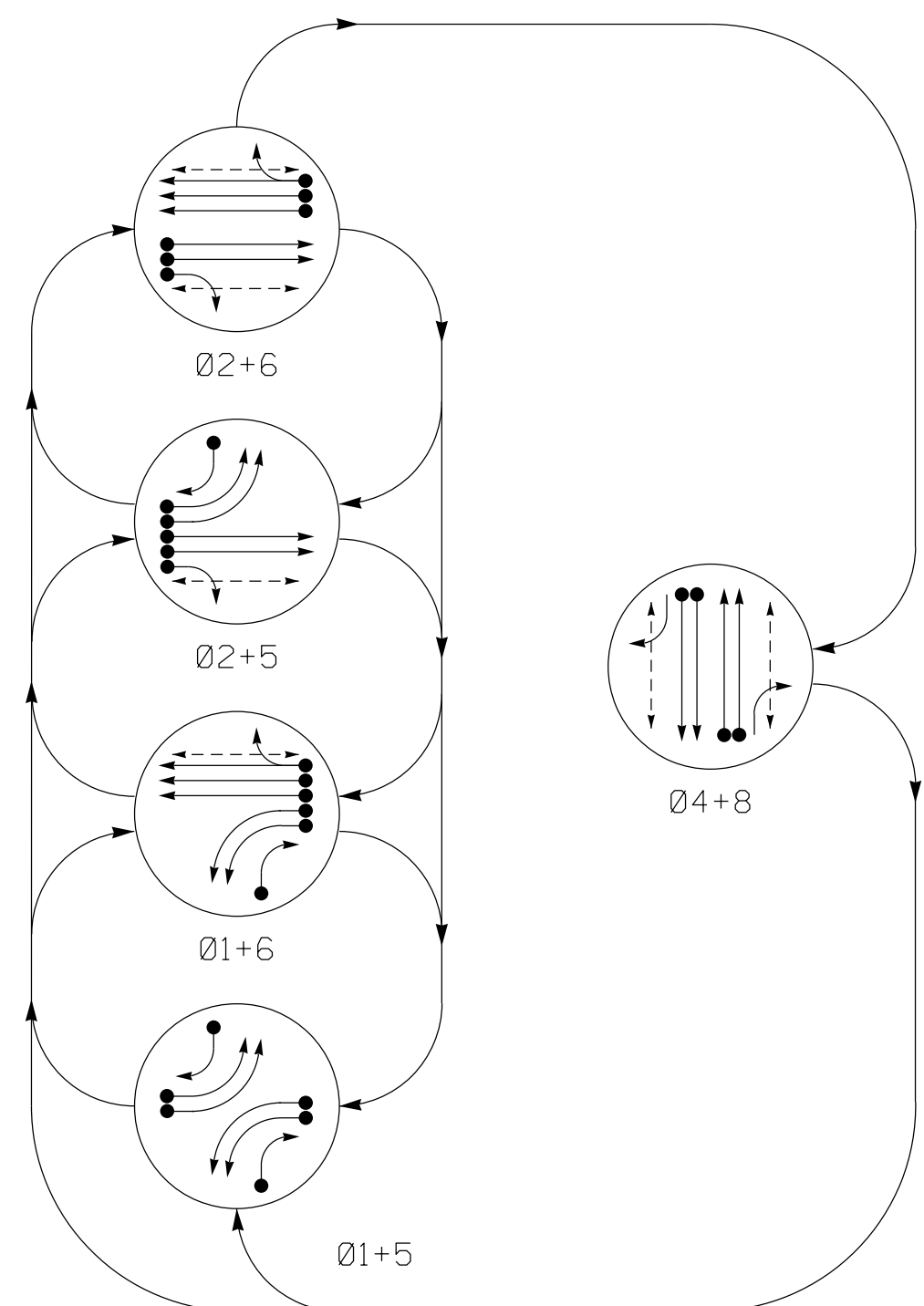


PHASING DIAGRAM



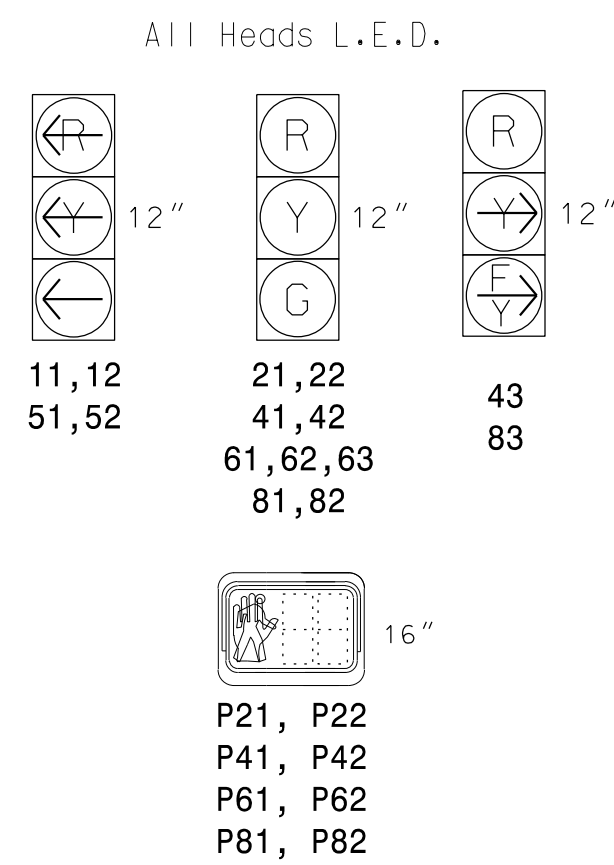
PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- ◄ UNDETECTED MOVEMENT (OVERLAP)
- ◄ UNIGNALIZED MOVEMENT
- ◄ PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE							
	01	02	03	04	05	06	07	08
11, 12	←	←	←	←	←	←	←	←
21, 22	R	R	G	G	R	Y		
41, 42	R	R	R	R	G	R		
43	←	←	←	←	←	←		
51, 52	←	←	←	←	←	←		
61, 62, 63	R	G	R	G	R	Y		
81, 82	R	R	R	R	G	R		
83	←	←	←	←	←	←		
P21, P22	DW	DW	W	W	DW	DRK		
P41, P42	DW	DW	DW	DW	W	DRK		
P61, P62	DW	W	DW	W	DW	DRK		
P81, P82	DW	DW	DW	DW	W	DRK		

SIGNAL FACE I.D.



NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Set all detector units to presence mode.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Pedestrian Pushbutton and sign shall be mounted parallel with associated crosswalk.
- When pushbuttons are mounted on metal pole or pedestrian pedestal, the pole or pedestal shall be installed as close as possible to the back of curb at accessible ramps to minimize reach range.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Thirty days after implementation of the revised signal operation, orange flags may be removed at the discretion of the Regional Traffic Engineer.
- Refer to Detail A for loops 4E and 8E.
- Signal system data: Controller Asset #0049.

5 Phase Fully Actuated (Wilmington Signal System)

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING						
					PHASE	CALLING	EXTENSION	STRETCH TIME	DELAY TIME	SYSTEM LOOP	
1A	6X40	0	2-4-2	Y	1	Y	Y	-	-	-	-
1B	6X40	0	2-4-2	Y	1	Y	Y	-	-	-	-
1C	6X40	0	2-4-2	-	1	Y	Y	-	-	15	-
2A	6X6	300	6	-	2	Y	Y	-	-	-	-
2B	6X6	300	6	-	2	Y	Y	-	-	-	-
4A	6X6	300	5	Y	4	-	Y	-	-	-	-
4B	6X6	300	5	Y	4	-	Y	-	-	-	-
4C	6X40	0	2-4-2	Y	4	Y	Y	Y	2.0	5	-
4D	6X40	0	2-4-2	Y	4	Y	Y	Y	2.0	5	-
4E*	4X6	0	2-4-2 Diagonal	Y	4	Y	Y	-	-	-	-
5A	6X40	0	2-4-2	Y	5	Y	Y	-	-	-	-
5B	6X40	0	2-4-2	Y	5	Y	Y	-	-	-	-
5C	6X40	0	2-4-2	-	5	Y	Y	-	-	15	-
6A	6X6	300	4	-	6	Y	Y	-	-	-	-
6B	6X6	300	4	-	6	Y	Y	-	-	-	-
6C	6X6	300	4	-	6	Y	Y	-	-	-	-
8A	6X6	200	5	Y	8	-	Y	-	-	-	-
8B	6X6	200	5	Y	8	-	Y	-	-	-	-
8C	6X40	0	2-4-2	Y	8	Y	Y	Y	2.0	5	-
8D	6X40	0	2-4-2	Y	8	Y	Y	Y	2.0	5	-
8E*	4X6	0	2-4-2 Diagonal	Y	8	Y	Y	-	-	-	-
S1	6X6	300	4	Y	-	-	-	-	-	-	Y
S2	6X6	300	4	Y	-	-	-	-	-	-	Y
S3	6X6	300	6	Y	-	-	-	-	-	-	Y
S4	6X6	300	6	Y	-	-	-	-	-	-	Y
S5	6X6	300	6	Y	-	-	-	-	-	-	Y

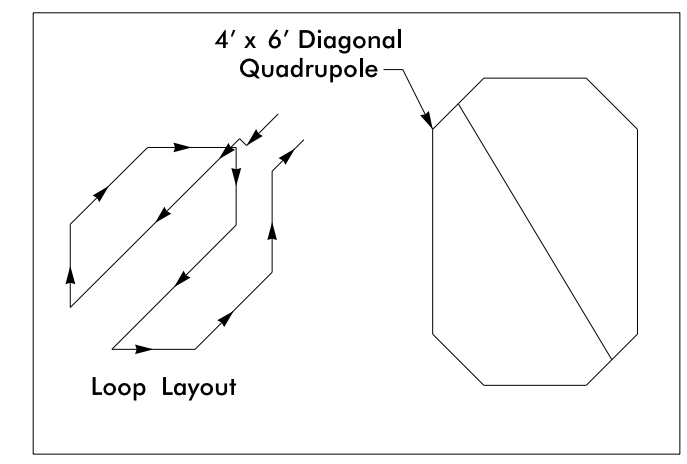
\*Set Sensitivity to appropriate level to detect a bicycle.

OASIS 2070 TIMING CHART

FEATURE	PHASE							
	1	2	4	5	6	8		
Min Green 1*	7	12	7	7	12	7		
Extension 1*	2.0	6.0	6.0	2.0	6.0	5.0		
Max Green 1*	30	100	80	30	100	80		
Yellow Clearance	3.0	4.6	4.5	3.0	4.5	3.9		
Red Clearance	3.9	2.1	2.4	3.7	2.2	3.0		
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0		
Walk 1*	-	7	7	-	7	7		
Don't Walk 1	-	25	32	-	30	30		
Seconds Per Actuation*	-	1.5	-	-	1.3	-		
Max Variable Initial*	-	34	-	-	34	-		
Time Before Reduction*	-	20	5	-	20	5		
Time To Reduce*	-	30	15	-	30	15		
Minimum Gap	-	3.2	3.2	-	3.2	3.0		
Recall Mode	-	SOFT RECALL	-	-	SOFT 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.

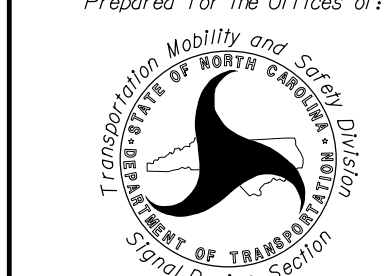
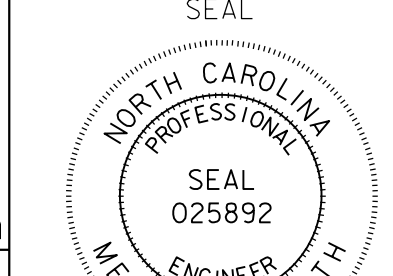
DETAIL A



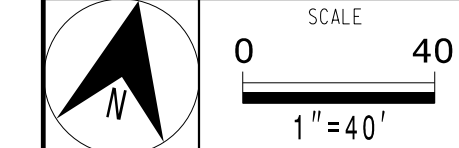
**LEGEND**

<b>PROPOSED</b>	<b>EXISTING</b>	<b>PROPOSED</b>	<b>EXISTING</b>
N/A UG Telephone Line	— UG Gas Line	○ Traffic Signal Head	● Sign
N/A Drainage Pipe	==== Right of Way	□ Pedestrian Signal Head	■ Push Button & Sign
N/A Street Name Sign	(A) No Left Turn/No U-Turn Sign (R3-1B) with Orange Flags	⊙ Metal Pole with Mastarm	⊙ Type II Signal Pedestal
		⊙ Inductive Loop Detector	⊙ Controller & Cabinet
		⊙ Junction Box	⊙ Oversize Junction Box
		⊙ 2-in Underground Conduit	⊙ Directional Drill
		→ Directional Arrow	→

Signal Upgrade - Final Design

Prepared for the Offices of:  
  
**US 17 Bus. (Market Street) at SR 1175 (Kerr Avenue)**  
 Division 03 New Hanover County Wilmington  
 PLAN DATE: June 2014 REVIEWED BY: LM Moon  
 PREPARED BY: AJ Davis REVIEWED BY: MB Toth  
 REVISIONS: INIT. DATE  
 750 N. Greenfield Pkwy, Garner, NC 27529  
  
 Melissa B. Toth 12/19/2014  
 Sigs. INVENTORY NO. 03-0049

**ATKINS** 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 (919) 876-8888 NGBEES #F-0326



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