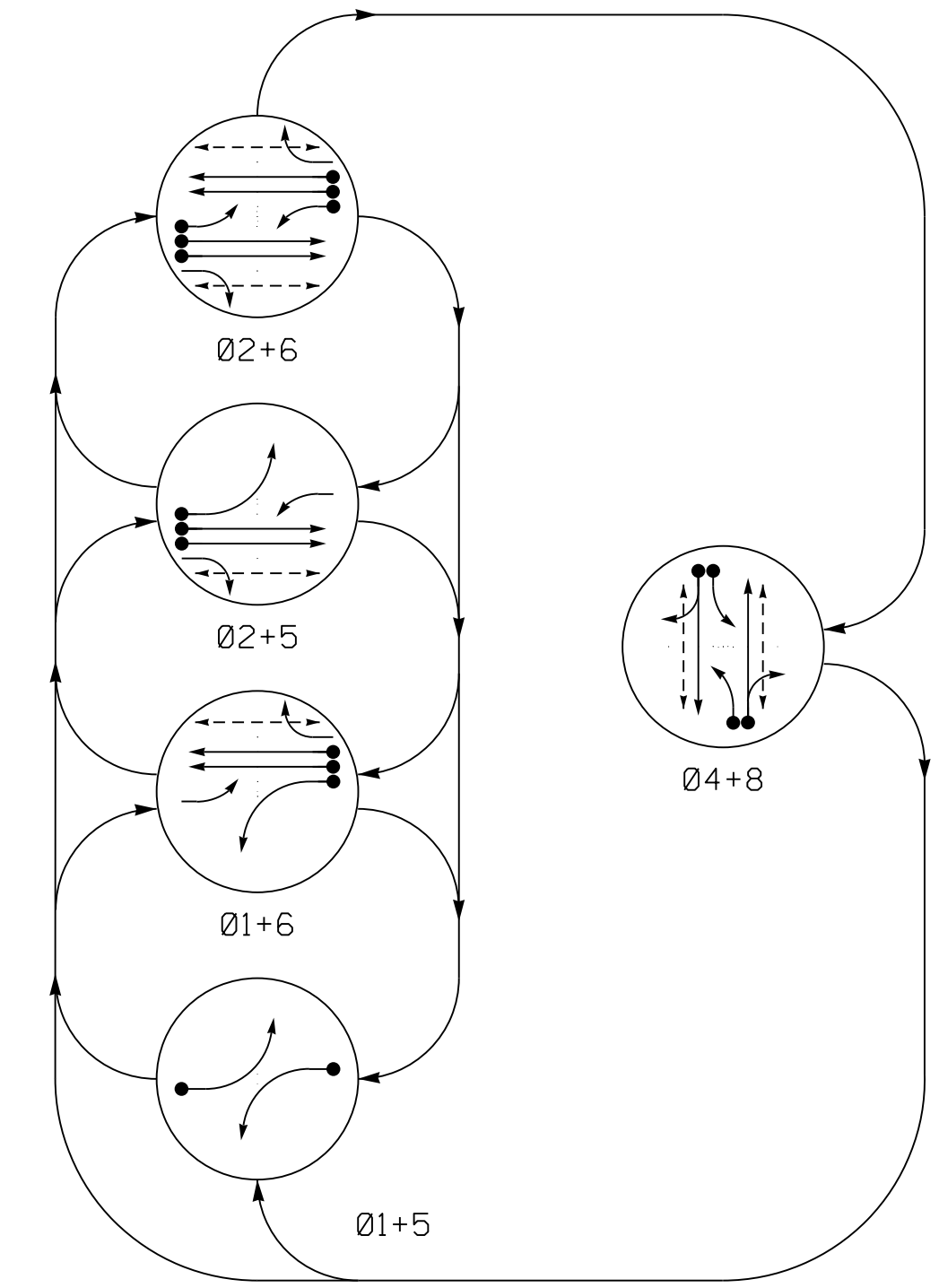


**PHASING DIAGRAM**



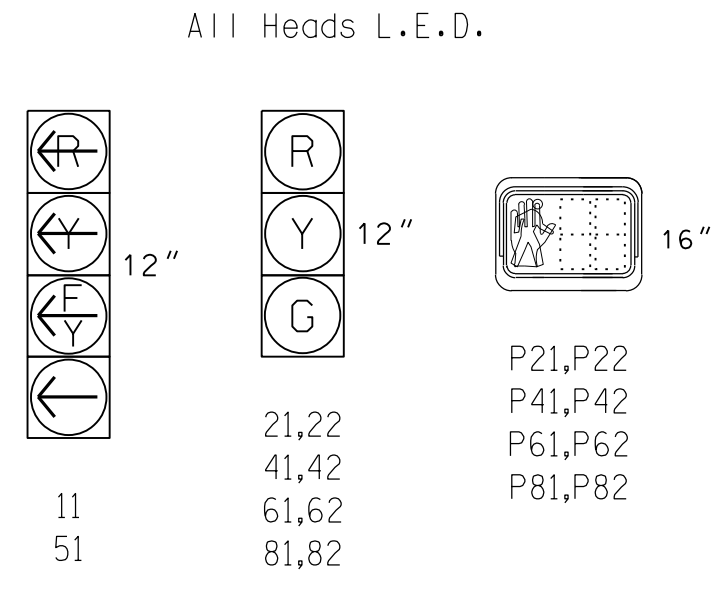
**PHASING DIAGRAM DETECTION LEGEND**

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

**TABLE OF OPERATION**

SIGNAL FACE	PHASE					L	T
	01+5	01+6	02+5	02+6	04+8		
11	←	←	←	←	←	←	←
21,22	R	R	G	G	R	Y	
41,42	R	R	R	R	G	R	
51	←	←	←	←	←	←	←
61,62	R	G	R	G	R	Y	
81,82	R	R	R	R	G	R	
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.**



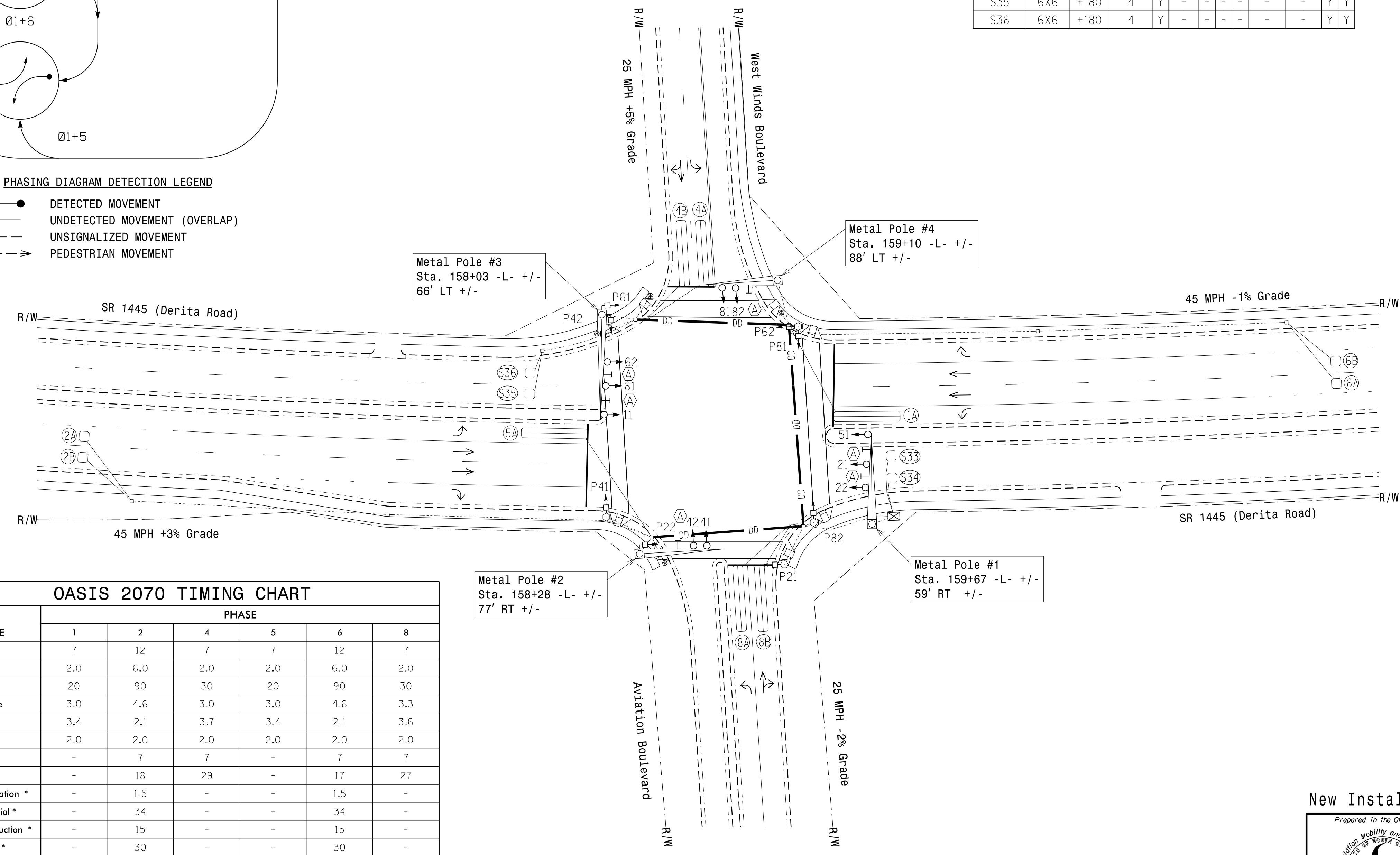
**OASIS 2070 LOOP & DETECTOR INSTALLATION CHART**

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING				STRETCH TIME	DELAY TIME	LOOP SYSTEM	NEW CARD
					PHASE	CALLING	EXTENSION	FULL TIME DELAY				
1A	6X40	0	2-4-2	Y	1	Y	Y	-	-	15	-	Y
2A	6X6	300	5	Y	2	Y	Y	-	-	3	-	Y
2B	6X6	300	5	Y	2	Y	Y	-	-	-	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	3	-	Y
4B	6X40	0	2-4-2	Y	4	Y	Y	-	-	10	-	Y
5A	6X40	0	2-4-2	Y	5	Y	Y	-	-	15	-	Y
6A	6X6	300	5	Y	6	Y	Y	-	-	-	-	Y
6B	6X6	300	5	Y	6	Y	Y	-	-	-	-	Y
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	-	-	Y
8B	6X40	0	2-4-2	Y	8	Y	Y	-	-	10	-	Y
S33	6X6	+180	3	Y	-	-	-	-	-	-	-	Y
S34	6X6	+180	3	Y	-	-	-	-	-	-	-	Y
S35	6X6	+180	4	Y	-	-	-	-	-	-	-	Y
S36	6X6	+180	4	Y	-	-	-	-	-	-	-	Y

**5-Phase Fully Actuated Concord City 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.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Install backplates for all signal heads.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Pedestrian pedestals are conceptual and shown for reference only. See sheets P1-P3 for pushbutton location details.
- All pedestrian pushbuttons shall be located in the field by the Division Traffic Engineer before installation.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Closed loop system data: Controller Asset #2168.



**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	2.0	2.0	6.0	2.0
Max Green 1 *	20	90	30	20	90	30
Yellow Clearance	3.0	4.6	3.0	3.0	4.6	3.3
Red Clearance	3.4	2.1	3.7	3.4	2.1	3.6
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	7	7	-	7	7
Don't Walk 1	-	18	29	-	17	27
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	-	-	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.

**LEGEND**

- | PROPOSED                   | EXISTING |
|----------------------------|----------|
| ○ Traffic Signal Head      | ● N/A    |
| ○ Modified Signal Head     | ○ N/A    |
| ○ Pedestrian Signal Head   | ○ N/A    |
| ○ Metal Pole with Mastarm  | ○ N/A    |
| ○ Inductive Loop Detector  | ○ N/A    |
| ○ Controller & Cabinet     | ○ N/A    |
| ○ Junction Box             | ○ N/A    |
| ○ 2-in Underground Conduit | ○ N/A    |
| ○ Right of Way             | ○ N/A    |
| ○ Directional Arrow        | ○ N/A    |
| ⊗ Type I Pushbutton Post   | ⊗ N/A    |
| ○ Type II Signal Pedestal  | ○ N/A    |
| + Pushbutton & Sign        | + N/A    |
| T Sign                     | T N/A    |
| ⊙ Street Name Sign (D3-1)  | ⊙ N/A    |

**New Installation**

Prepared in the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

NC Firm License No.: F-0342  
701 Corporate Center Drive  
Suite 475 Raleigh, NC 27607  
Phone: 919-854-6200

**SR 1445 (Derita Road) at West Winds Boulevard / Aviation Boulevard**

Division 10 Cabarrus County Concord

PLAN DATE: March 2016 PREPARED BY: S.W. COX REVIEWED BY: C.L. Kalencik

REVISIONS: \_\_\_\_\_ INIT. DATE

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

Corynne L. Kalencik 7/7/2016

SIG. INVENTORY NO. 10-2168

7/7/2016 01:46:30 471:4300: \\cork\prodosgs\_cad\4071\_NCDOT\_Traffic\cas\signal\102168\_sig\_dsm.dgn