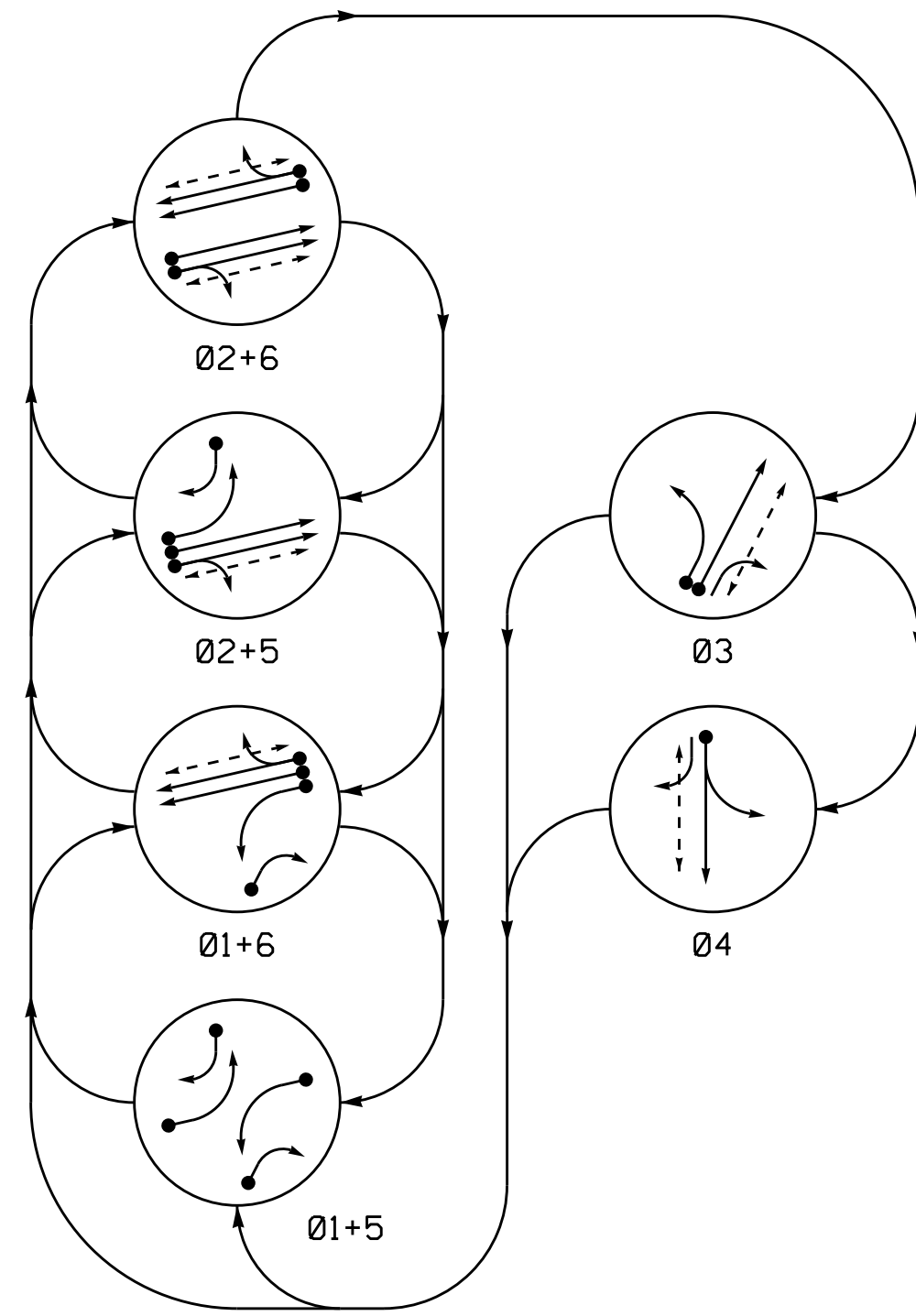


PHASING DIAGRAM



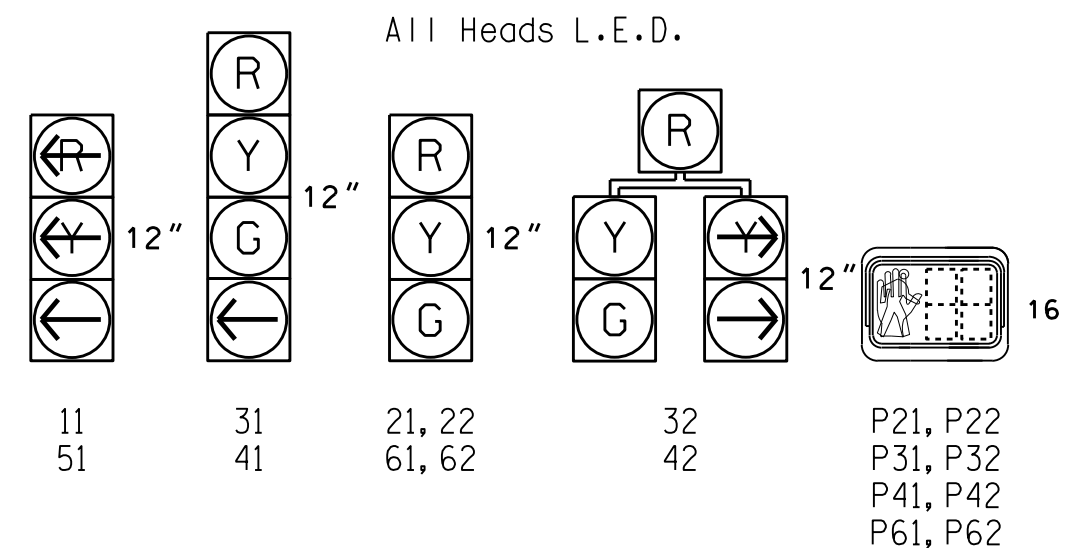
PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	03	04
11	←	←	←	←	←	←
21, 22	R	R	G	G	R	Y
31	R	R	R	R	G	R
32			R	R	G	R
41	R	R	R	R	G	R
42			R	R	G	R
51	←	←	←	←	←	←
61, 62	R	G	R	G	R	Y
P21, P22	DW	DW	W	W	DW	DRK
P31, P32	DW	DW	DW	DW	W	DRK
P41, P42	DW	DW	DW	DW	W	DRK
P61, P62	DW	W	DW	W	DW	DRK

SIGNAL FACE I.D.



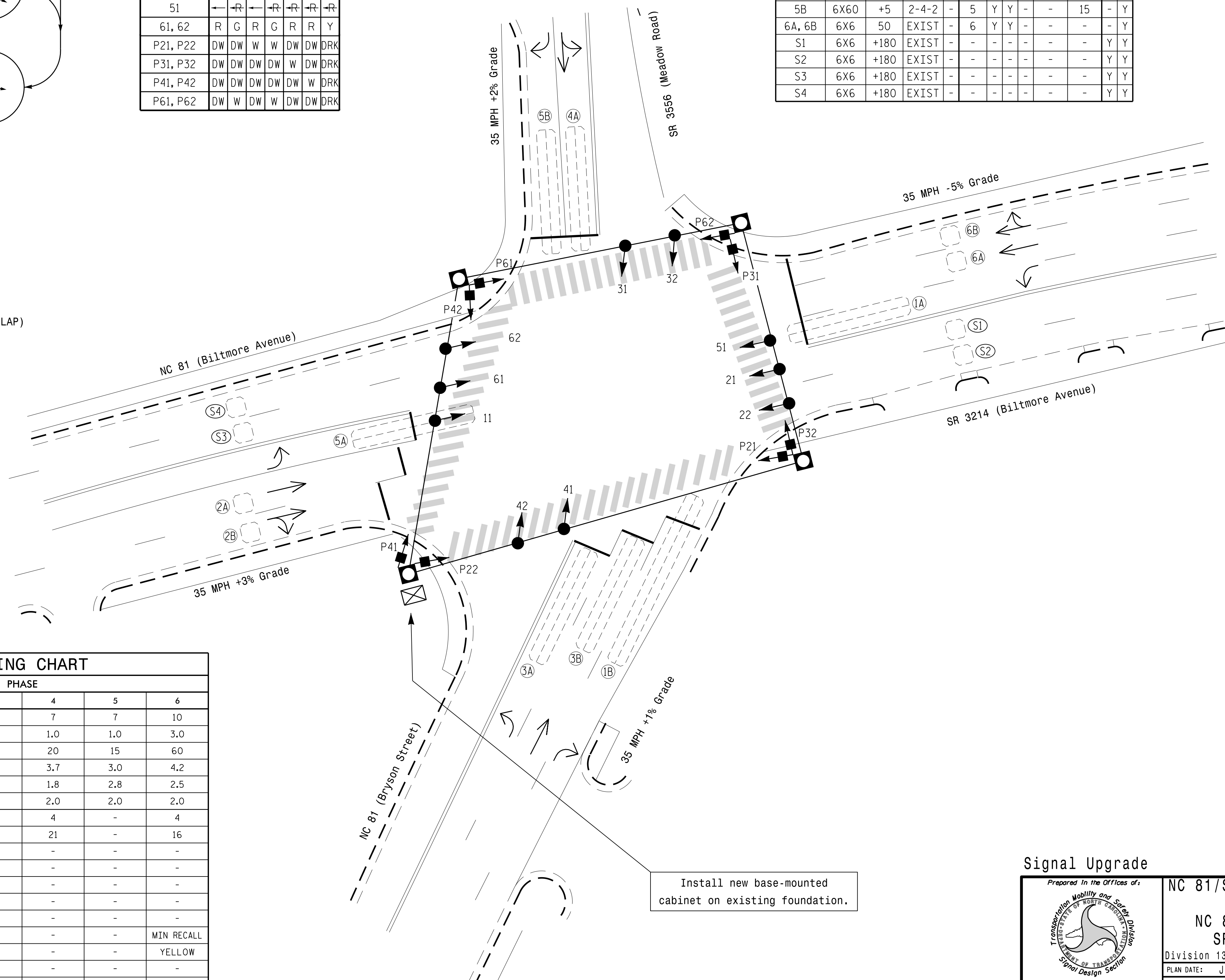
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING					SYSTEM LOOP	NEW CARD	
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME			DELAY TIME
1A	6X40	+5	2-4-2	-	1	Y	Y	-	-	3	-	Y
1B	6X60	+10	2-4-2	-	1	Y	Y	-	-	15	-	Y
2A, 2B	6X6	50	EXIST	-	2	Y	Y	-	-	-	-	Y
3A	6X40	0	2-4-2	-	3	Y	Y	-	-	3	-	Y
3B	6X40	0	2-4-2	-	3	Y	Y	-	-	-	-	Y
4A	6X60	+5	2-4-2	-	4	Y	Y	-	-	3	-	Y
5A	6X60	+20	2-4-2	-	5	Y	Y	-	-	3	-	Y
5B	6X60	+5	2-4-2	-	5	Y	Y	-	-	15	-	Y
6A, 6B	6X6	50	EXIST	-	6	Y	Y	-	-	-	-	Y
S1	6X6	+180	EXIST	-	-	-	-	-	-	-	-	Y
S2	6X6	+180	EXIST	-	-	-	-	-	-	-	-	Y
S3	6X6	+180	EXIST	-	-	-	-	-	-	-	-	Y
S4	6X6	+180	EXIST	-	-	-	-	-	-	-	-	Y

6 Phase Fully Actuated Asheville Signal System

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.
- The order of phase 3 and phase 4 may be reversed.
- Set all detector units to presence mode.
- In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



OASIS 2070 TIMING CHART

FEATURE	PHASE					
	1	2	3	4	5	6
Min Green 1 *	7	10	7	7	7	10
Extension 1	1.0	3.0	1.0	1.0	1.0	3.0
Max Green 1 *	15	60	20	20	15	60
Yellow Clearance	3.1	4.2	3.8	3.7	3.0	4.2
Red Clearance	3.1	2.5	1.7	1.8	2.8	2.5
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	4	4	4	-	4
Don't Walk 1	-	28	15	21	-	16
Seconds Per Actuation *	-	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW
Dual Entry	-	-	-	-	-	-
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**
- Traffic Signal Head
- Modified Signal Head
- Pedestrian Signal Head
- Signal Pole with Guy
- Inductive Loop Detector
- Controller & Cabinet
- Junction Box
- 2-in Underground Conduit
- Right of Way
- Directional Arrow
- Metal Strain Pole
- EXISTING**
- N/A
- Signal
- Signal Pole with Sidewalk Guy
- Controller & Cabinet
- Junction Box
- 2-in Underground Conduit
- Right of Way
- Directional Arrow
- Metal Strain Pole

Install new base-mounted cabinet on existing foundation.

Signal Upgrade

Prepared In the Office of:
 TRANSPORTATION MOBILITY AND SAFETY DIVISION
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 Signal Design Section
 750 N. Greenfield Pkwy, Garner, NC 27529

NC 81/SR 3214 (Biltmore Avenue) at
 NC 81 (Bryson Street) /
 SR 3556 (Meadow Road)

Division 13 Buncombe County Asheville

PLAN DATE: January 2016 REVIEWED BY: P.L. Alexander

PREPARED BY: R.N. Zinser REVIEWED BY:

REVISIONS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

RICHARD N. ZINSER
 ENGINEER
 8/10/2016
 DATE

SIG. INVENTORY NO. 13-0243