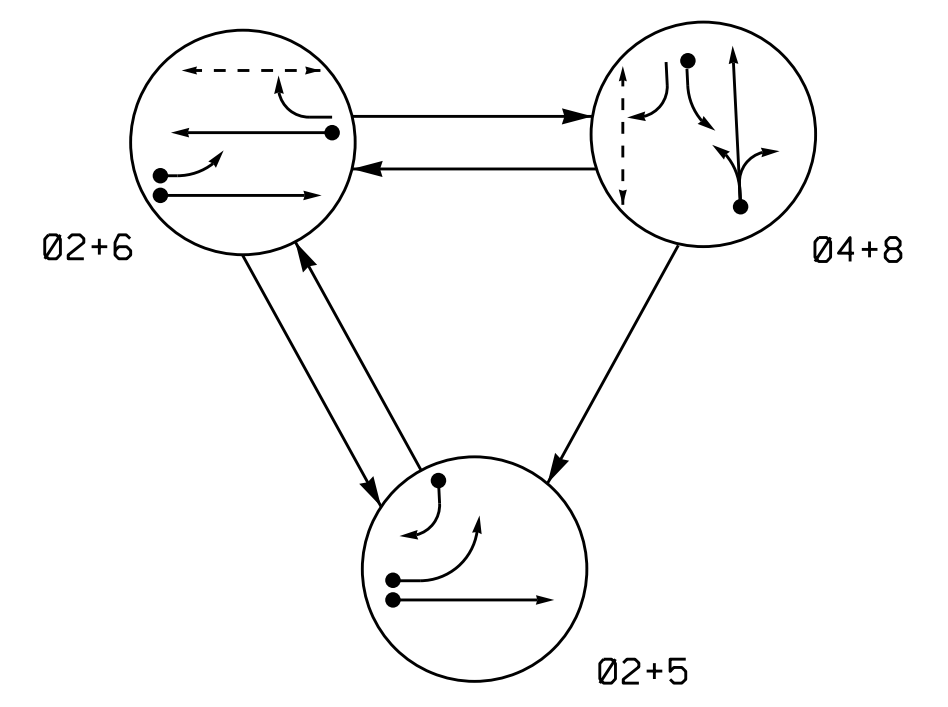


3 Phase Fully Actuated With EV Preemption Asheville Signal System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 5 may be lagged.
4. Reposition existing signal head number 22.
5. Set all detector units to presence mode.
6. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
7. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
8. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
9. Pavement markings are existing.
10. The Division Traffic Engineer will determine the Delay before Preempt and Preempt Dwell Min Green time for the emergency vehicle preemption timing.
11. Program signal heads numbered 41 & 42 to clear to all red before going into preempt.
12. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
13. Program controller to allow an Advanced Walk movement before serving the vehicle phase.
14. Program phase 4 ped detector to call phase 4 and 8 ped.
15. Phase 8 ped is dummy ped to enable phase 4 leading ped interval.

PHASING DIAGRAM



EV PREEMPT PHASE (Medium Priority)

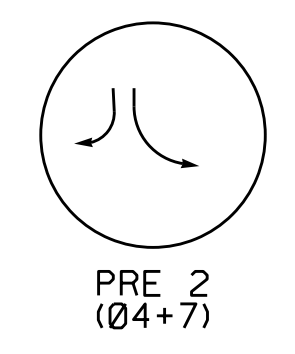
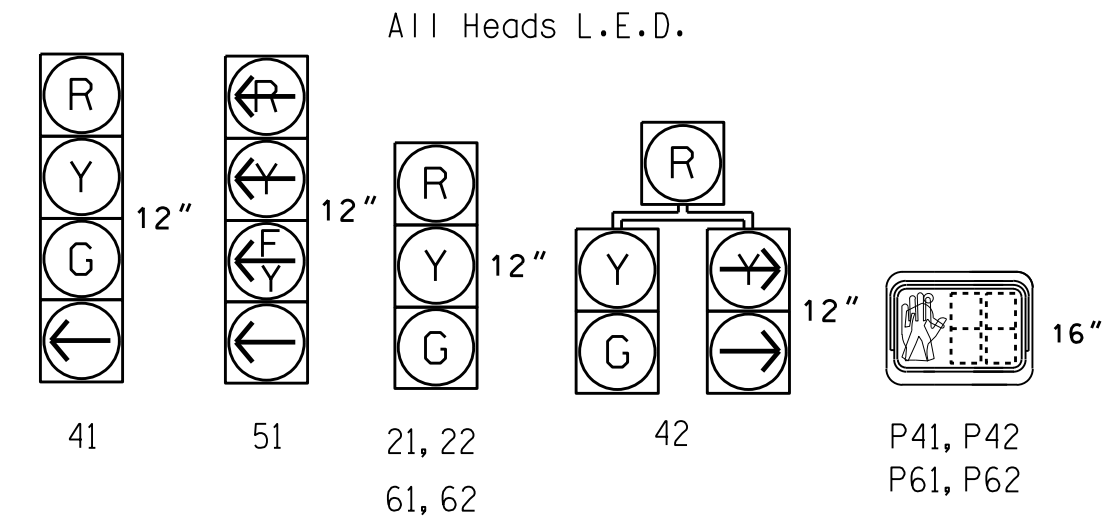


TABLE OF OPERATION

SIGNAL FACE	PHASE				
	02+5	02+6	04+8	PRE 2	EV PREEMPT
21, 22	G	G	R	R	Y
41	R	R	G	G	R
42	R	R	G	G	R
51	Y	Y	R	R	Y
61, 62	R	G	R	R	Y
81, 82	R	R	G	R	R
P41, P42	DW	DW	W	DW	DRK
P61, P62	DW	W	DW	DW	DRK

SIGNAL FACE I.D.

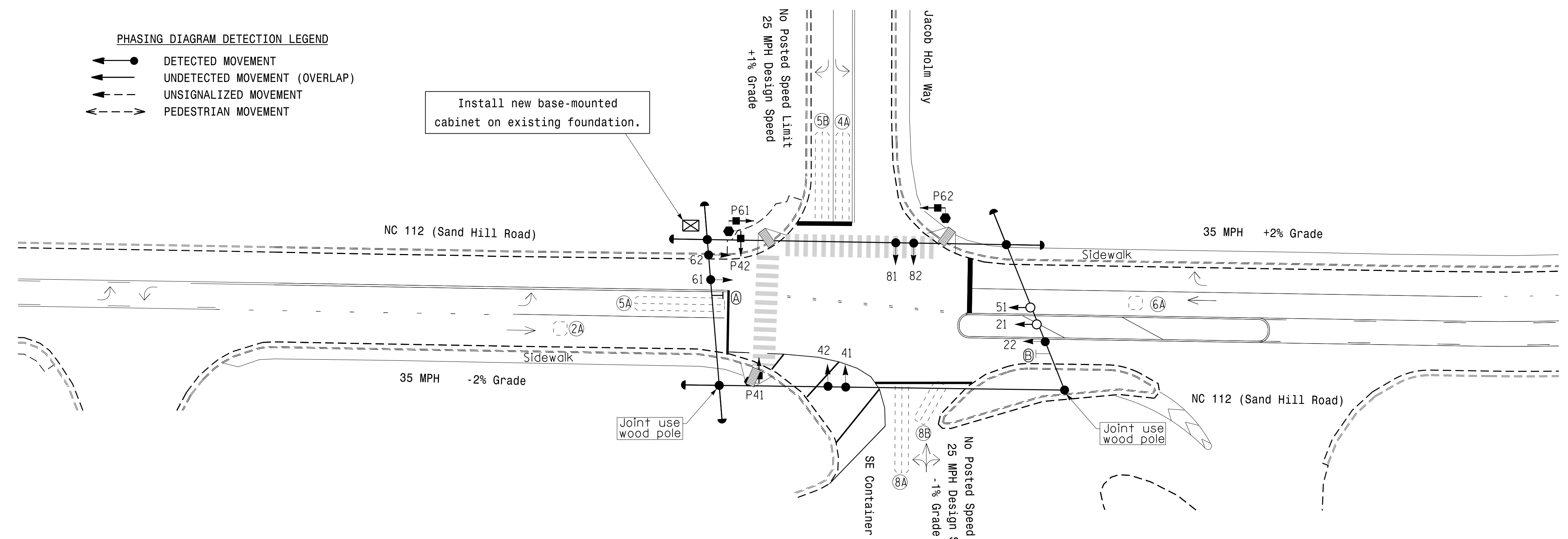


OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING								
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD	
2A	6X6	70	3	-	2	-	Y	Y	-	-	-	-	Y
4A	6X40	0	2-4-2	-	4	-	Y	Y	-	-	5	-	Y
5A	6X40	0	2-4-2	-	2	-	Y	Y	-	-	15	-	Y
5B	6X40	0	2-4-2	-	5	4	Y	Y	-	Y	15	-	Y
6A	6X6	70	3	-	6	-	Y	Y	-	-	-	-	Y
8A	6X40	0	2-4-2	-	8	-	Y	Y	-	-	10	-	Y
8B	6X20	0	2-4-2	-	8	-	Y	Y	-	-	15	-	Y

PHASING DIAGRAM DETECTION LEGEND

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



OASIS 2070 TIMING CHART

FEATURE	PHASE				
	2	4	5	6	8
Min Green 1 *	10	7	7	10	7
Extension 1 *	3.0	6.0	2.0	3.0	2.0
Max Green 1 *	60	40	20	60	40
Yellow Clearance	4.0	3.2	3.0	4.0	3.2
Red Clearance	1.8	2.6	2.3	1.8	2.6
Red Revert	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	7	-	7	7
Don't Walk 1	-	13	-	19	13
Advanced Walk	-	3	-	3	3
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	-	ON	-	-	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.

OASIS 2070 EV PREEMPT

FUNCTION	PRE 2
Interval 1 - Dwell Green	255
Interval 1 - Dwell Yellow	0.0*
Interval 1 - Dwell Red	0.0*
Interval 5 - Exit Green	1
Interval 5 - Yellow	0.0
Interval 5 - Red	0.0
Exit Phase(s)	2+6
Priority	Medium
Delay Time	**
Min Green Before Pre	1
Ped Clear Before Pre	19
Yellow Clear Before Pre	0.0*
Red Clear Before Pre	0.0*
Dwell Min Time	**
Enable Backup Protection	Y
Ped Clear Through Yellow	Y
Omit Overlaps	-

\*\* Time defaults to time used for phase during normal operation. See Note 10

LEGEND

PROPOSED	EXISTING
Traffic Signal Head	N/A
Modified Signal Head	N/A
Sign	N/A
Pedestrian Signal Head With Push Button & Sign	N/A
Signal Pole with Guy	N/A
Signal Pole with Sidewalk Guy	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
Metal Strain Pole	N/A
Type II Signal Pedestal	N/A
Wheelchair Ramp	N/A
No Left Turn Sign (R3-2)	N/A
No Right Turn Sign (R3-1)	N/A

Signal Upgrade

NC 112 (Sand Hill Road) at Jacob Holm Way / Southeastern Container

Division 13 Buncombe County Enka

PLAN DATE: December 2016 REVIEWED BY: R.N. Zinser

PREPARED BY: C. Pierce REVIEWED BY:

SCALE: 1"=30'

750 N. Greenfield Pkwy, Garner, NC 27529

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER J. J. WILLIAMS 024393

DATE: 12/20/2016

SIG. INVENTORY NO. 13-1218

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