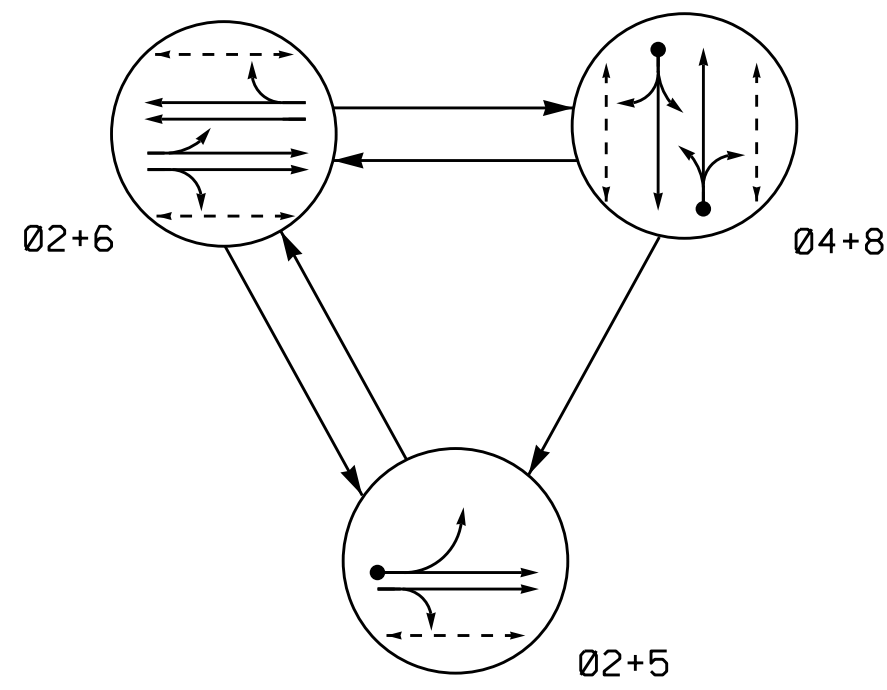


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- ←● DETECTED MOVEMENT
- ← UNDETECTED MOVEMENT (OVERLAP)
- ← UN SIGNALIZED MOVEMENT
- ← PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE			
	Ø 2+5	Ø 2+6	Ø 4+8	F L TOTAL
21	G	R	Y	
22	G	R	Y	
41, 42	R	R	G	R
61, 62	R	G	R	Y
81, 82	R	R	G	R
P21, P22	W	W	DW	DRK
P41, P42	DW	DW	W	DRK
P61, P62	DW	W	DW	DRK
P81, P82	DW	DW	W	DRK

TABLE OF OPERATION FOR THE FLASHERS *

SIGNAL FACE	INTERVAL	
	1	2
63	ON	OFF
64	OFF	ON

* See Note # 10

OASIS 2070 LOOP & DETECTOR INSTALLATION

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
4A	6X40	0	2-4-2	-	4	Y	Y	-	-	5	-	Y
5A	6X40	0	2-4-2	-	5	Y	Y	-	-	15	-	Y
8A	6X40	0	2-4-2	-	8	Y	Y	-	-	5	-	Y
SI	6X6	±140	4	-	-	-	-	-	-	-	-	Y
S2	6X6	±140	4	-	-	-	-	-	-	-	-	Y

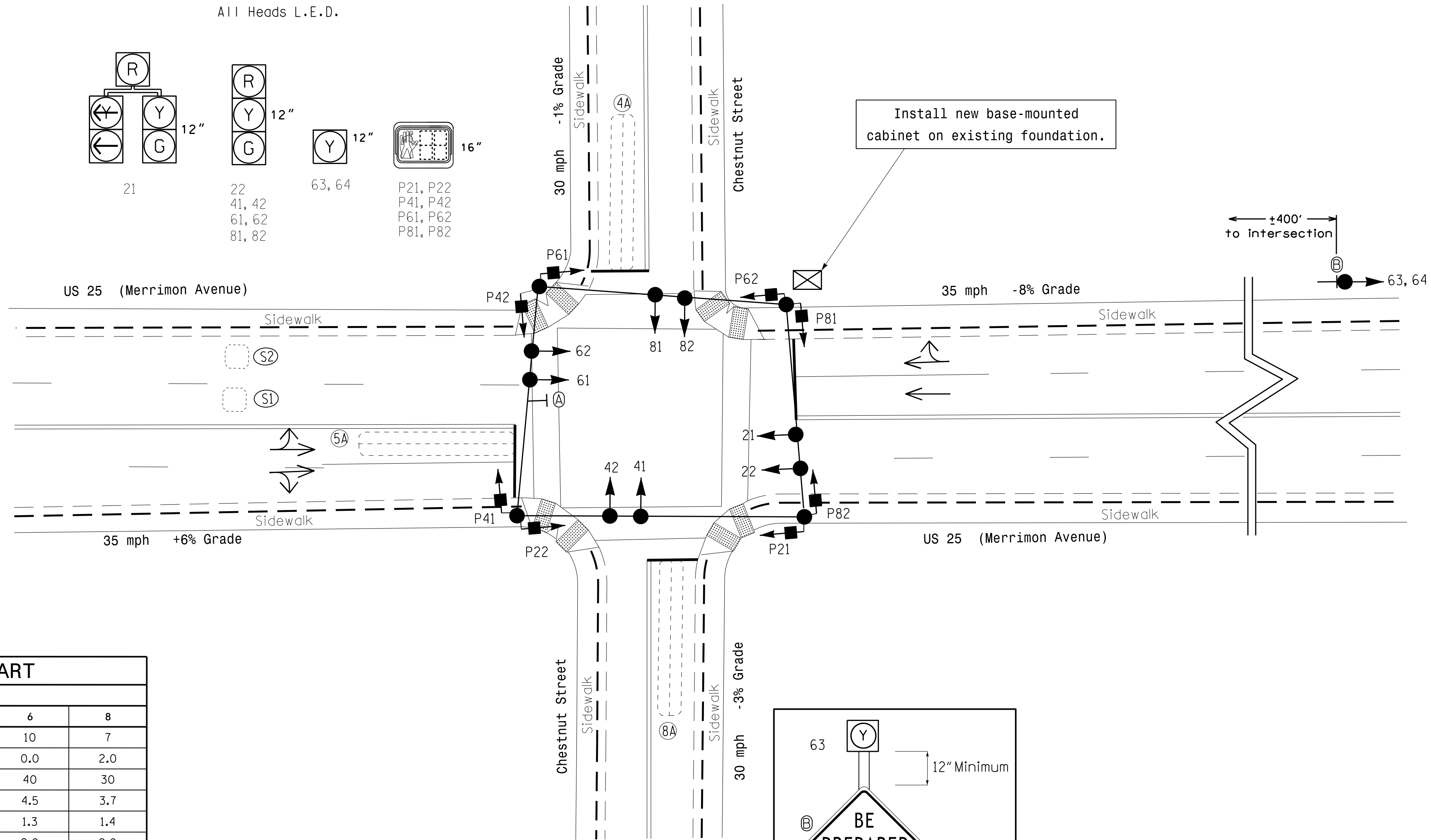
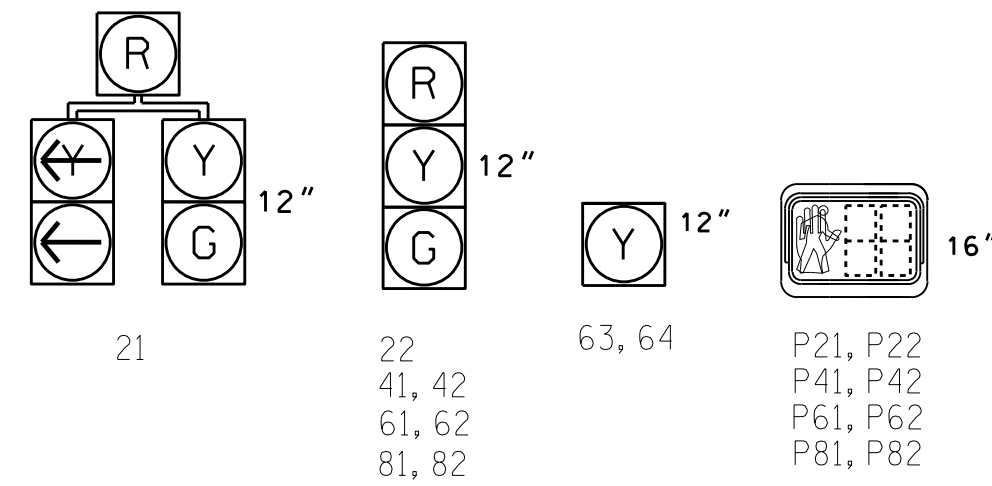
3 Phase Semi-Actuated Asheville Signal System

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. Enable Backup Protect for phase 2 to allow the controller to clear from phase 2+6 to phase 2+5 by progressing through an all red display.
4. Set all detector units to presence mode.
5. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. Pavement markings are existing.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
10. Signal heads 63 & 64 to start flashing 7 seconds prior to the end of phase 2+6 green.
11. Flash vertically mounted beacons alternately.

SIGNAL FACE I.D.

All Heads L.E.D.



OASIS 2070 TIMING CHART

FEATURE	PHASE				
	2	4	5	6	8
Min Green 1 *	10	7	7	10	7
Extension 1 *	0.0	2.0	2.0	0.0	2.0
Max Green 1 *	40	30	15	40	30
Yellow Clearance	4.5	3.7	3.0	4.5	3.7
Red Clearance	1.3	1.4	1.8	1.3	1.4
Red Revert	5.0	2.0	2.0	2.0	2.0
Walk 1 *	7	7	-	7	7
Don't Walk 1	7	10	-	6	10
Seconds Per Actuation *	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-
Time To Reduce *	-	-	-	-	-
Minimum Gap	-	-	-	-	-
Recall Mode	MAX RECALL	-	-	MAX RECALL	-
Vehicle Call Memory	-	-	-	-	-
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.

LEGEND

- | PROPOSED | EXISTING |
|--|--|
| ○ Traffic Signal Head | ● Traffic Signal Head |
| ○ Modified Signal Head | N/A |
| ⊥ Sign | ⊥ Sign |
| ⊥ Pedestrian Signal Head With Push Button & Sign | ⊥ Pedestrian Signal Head With Push Button & Sign |
| ⊥ Signal Pole with Guy | ⊥ Signal Pole with Guy |
| ⊥ Signal Pole with Sidewalk Guy | ⊥ Signal Pole with Sidewalk Guy |
| ⊥ 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 | ⊥ Right of Way |
| → Directional Arrow | → Directional Arrow |
| ○ Pedestrian Signal Pedestal | ● Pedestrian Signal Pedestal |
| (A) No Left Turn Sign (R3-2) | (A) No Left Turn Sign (R3-2) |
| (B) "Be Prepared to Stop" Sign (W3-4) | (B) "Be Prepared to Stop" Sign (W3-4) |
| (C) "When Flashing" Sign (W16-13P) | (C) "When Flashing" Sign (W16-13P) |

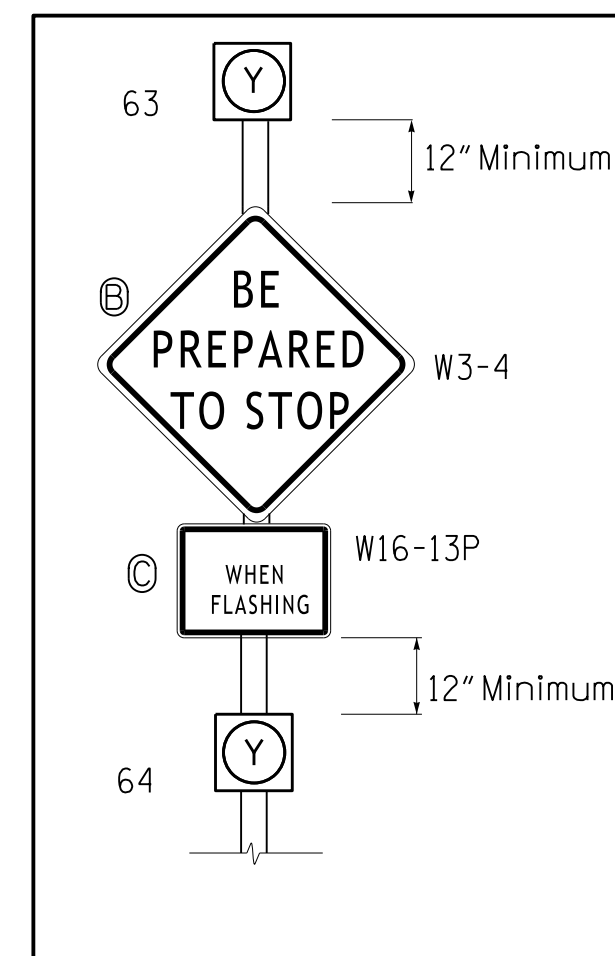


FIGURE -1-

Signal Upgrade

Prepared In the Offices of:

 750 N. Greenfield Pkwy, Garner, NC 27529

US 25 (Merrimon Avenue) at Chestnut Street

Division 13 Buncombe County Asheville

PLAN DATE: June 2016 REVIEWED BY: T.J. Williams

PREPARED BY: C. Pierce REVIEWED BY:

REVISIONS: _____ INIT. DATE

SCALE: 1"=20'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 24393

DocuSigned by: J. J. Williams 8/9/2016

SIG. INVENTORY NO. 13-0222