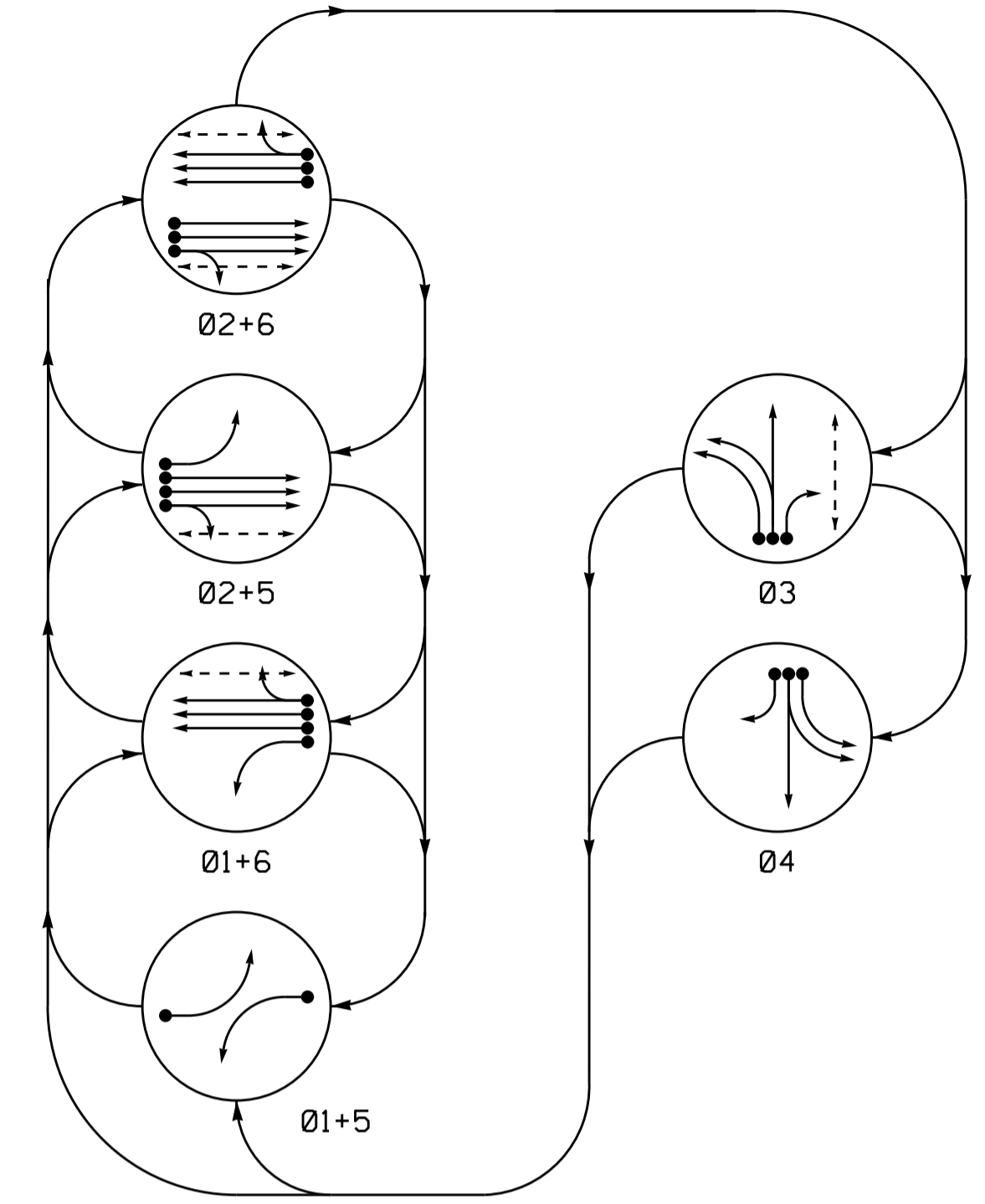


6 Phase Fully Actuated W/ Emergency Vehicle Preemption Asheville Signal System

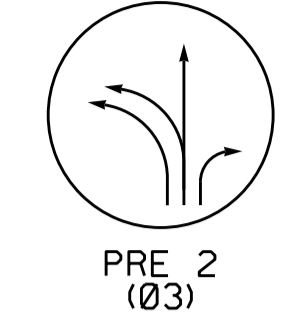
PHASING DIAGRAM



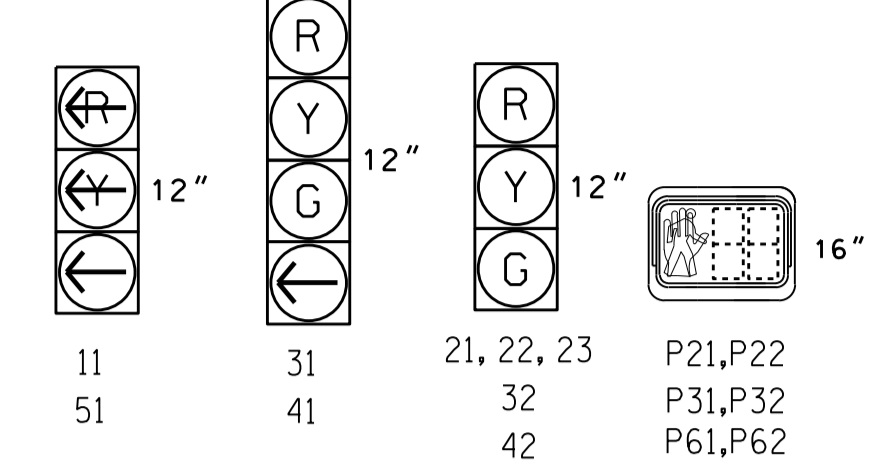
PHASING DIAGRAM DETECTION LEGEND

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

EV PREEMPT PHASES (Medium Priority)



SIGNAL FACE I.D. All Heads L.E.D.

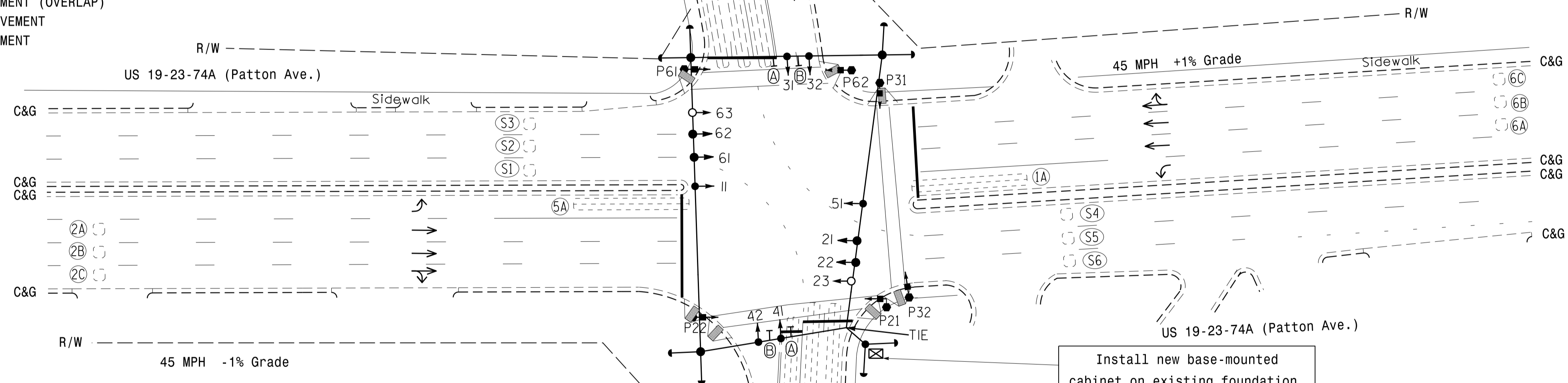


SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	03	04
11	-	-	-	-	-	-
21, 22, 23	R	R	G	G	R	R
31	R	R	R	R	G	G
32	R	R	R	R	G	R
41	R	R	R	R	G	R
42	R	R	R	R	G	R
51	-	-	-	-	-	-
61, 62, 63	R	G	R	G	R	R
P21,P22	DW	DW	W	W	DW	DW
P31,P32	DW	DW	DW	DW	W	DW
P61,P62	DW	W	DW	W	DW	DW

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	DETECTOR PROGRAMMING							
				NEW LOOP	PHASE	CALLING	EXTENSION	STRETCH TIME	DELAY TIME	SYSTEM LOOP	
1A	6X60	+5	2-4-2	-	1	Y	Y	-	-	-	Y
2A	6X6	300	EXISTING	-	2	Y	Y	-	-	-	Y
2B	6X6	300	EXISTING	-	2	Y	Y	-	-	-	Y
2C	6X6	300	EXISTING	-	2	Y	Y	-	-	-	Y
3A	6X60	+10	2-4-2	-	3	Y	Y	-	-	3	Y
3B	6X60	+10	2-4-2	-	3	Y	Y	-	-	-	Y
3C	6X60	+10	2-4-2	-	3	Y	Y	-	-	15	Y
4A	6X60	+5	2-4-2	-	4	Y	Y	-	-	3	Y
4B	6X60	+5	2-4-2	-	4	Y	Y	-	-	-	Y
4C	6X60	+5	2-4-2	-	4	Y	Y	-	-	15	Y
5A	6X60	+5	2-4-2	-	5	Y	Y	-	-	-	Y
6A	6X6	300	EXISTING	-	6	Y	Y	-	-	-	Y
6B	6X6	300	EXISTING	-	6	Y	Y	-	-	-	Y
6C	6X6	300	EXISTING	-	6	Y	Y	-	-	-	Y
S1	6X6	+200	EXISTING	-	-	-	-	-	-	-	Y
S2	6X6	+200	EXISTING	-	-	-	-	-	-	-	Y
S3	6X6	+200	EXISTING	-	-	-	-	-	-	-	Y
S4	6X6	+200	EXISTING	-	-	-	-	-	-	-	Y
S5	6X6	+200	EXISTING	-	-	-	-	-	-	-	Y
S6	6X6	+200	EXISTING	-	-	-	-	-	-	-	Y

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.
- Reposition existing signal heads numbered 21, 22, 61 & 62.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Pavement markings are existing.
- Locate emergency vehicle preemption switch in the Fire Station.
- The Division Traffic Engineer will determine the Delay before Preempt and Preempt Dwell Min Green time for the emergency vehicle preemption timing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Pedestrian pushbuttons shall be Vibro-Tactile.
- All Accessible Pedestrian Signals shall use the "Rapid Tick" sound.

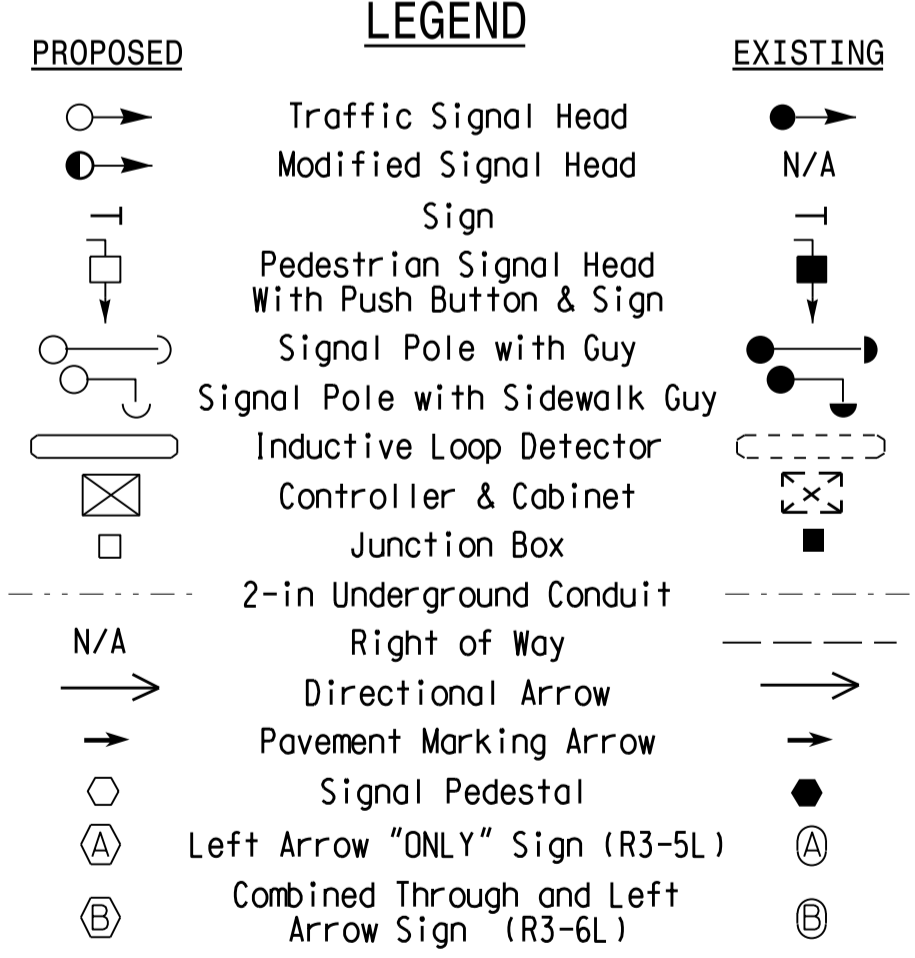


FEATURE	PHASE					
	1	2	3	4	5	6
Min Green 1 *	7	12	7	7	7	12
Extension 1 *	1.0	6.0	1.0	1.0	1.0	6.0
Max Green 1 *	20	90	20	25	20	90
Yellow Clearance	3.0	4.6	3.9	4.6	3.0	4.6
Red Clearance	3.3	1.8	2.6	2.7	3.1	1.8
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	7	7	-	-	7
Don't Walk 1	-	19	23	-	-	14
Seconds Per Actuation *	-	1.2	-	-	-	1.2
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	-	-	-	-	-	-
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.

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	7
Ped Clear Before Pre	0.0*
Yellow Clear Before Pre	0.0*
Red Clear Before Pre	0.0*
Dwell Min Time	**
Enable Backup Protection	N
Ped Clear Through Yellow	Y
Omit Overlaps	-

* Time defaults to time used for phase during normal operation
** See note 11.



Signal Upgrade

Prepared in the Offices of:

 750 N. Greenfield Pkwy, Garner, NC 27529

US 19-23-74A (Patton Ave) at SR 1332 (Louisiana Ave)

Division 13 Buncombe County Asheville

PLAN DATE: JUNE 2016 REVIEWED BY: C. Pierce

PREPARED BY: C. Pierce REVIEWED BY: J. Williams

SCALE: 1" = 40'

11/9/2016

SIG. INVENTORY NO. 13-0220

09-NW-2016-10-152 S:\ITS\AS\15_Signal\AS\Sigal_Region\13-0220\130220_sig_dsn_2016mdd-09n