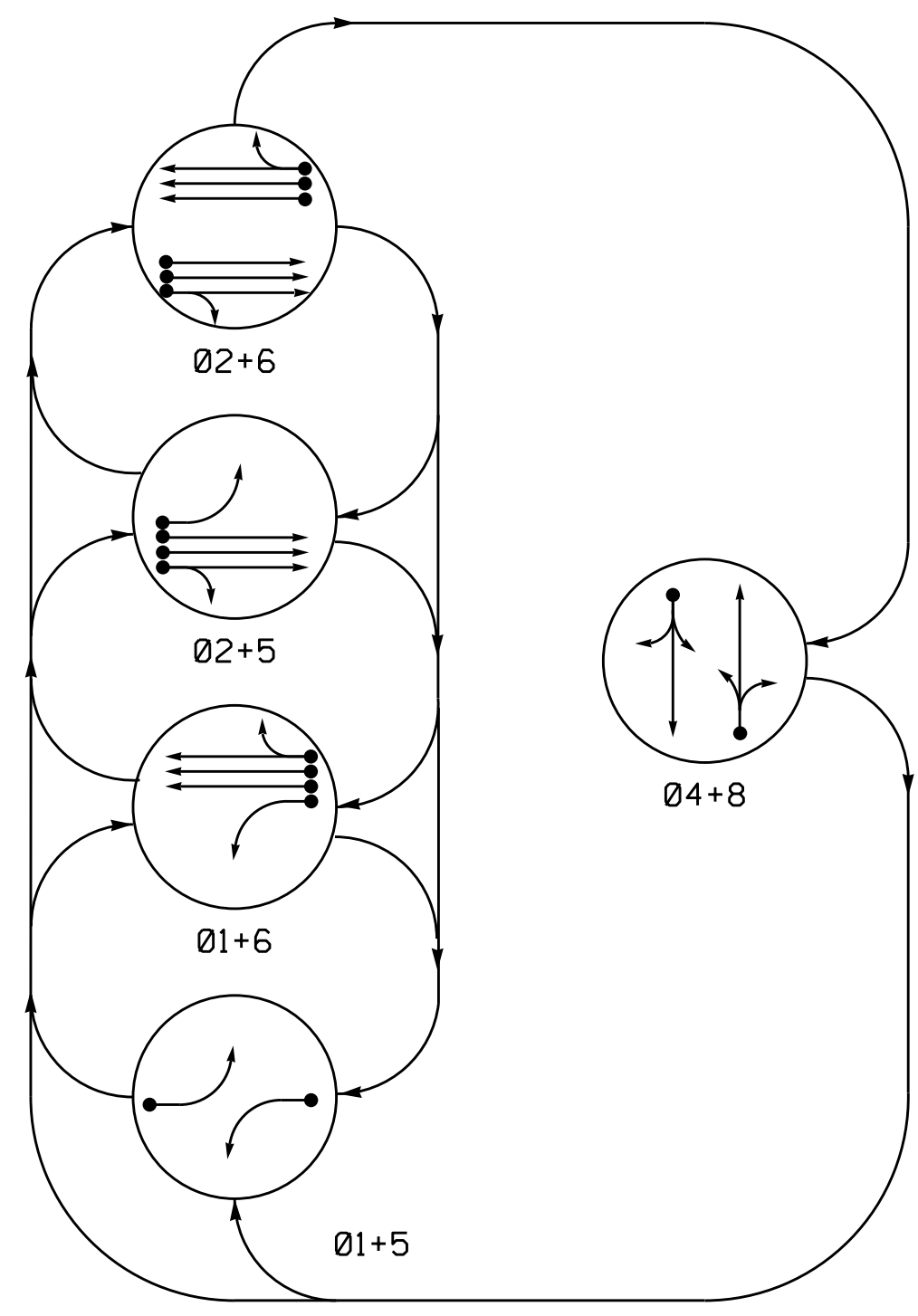


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

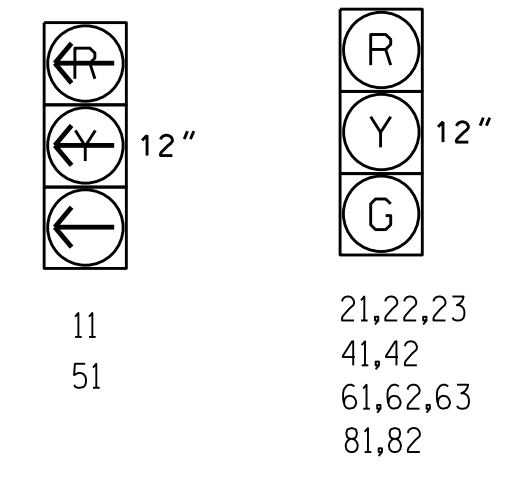
- DETECTED MOVEMENT
- ← UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- ⚡ PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE					
	Ø 1+5	Ø 1+6	Ø 2+5	Ø 2+6	Ø 4+8	F I S I P T
11	←	←	←	←	←	←
21,22,23	R	R	G	G	R	Y
41,42	R	R	R	R	G	R
51	←	←	←	←	←	←
61,62,63	R	G	R	G	R	Y
81,82	R	R	R	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



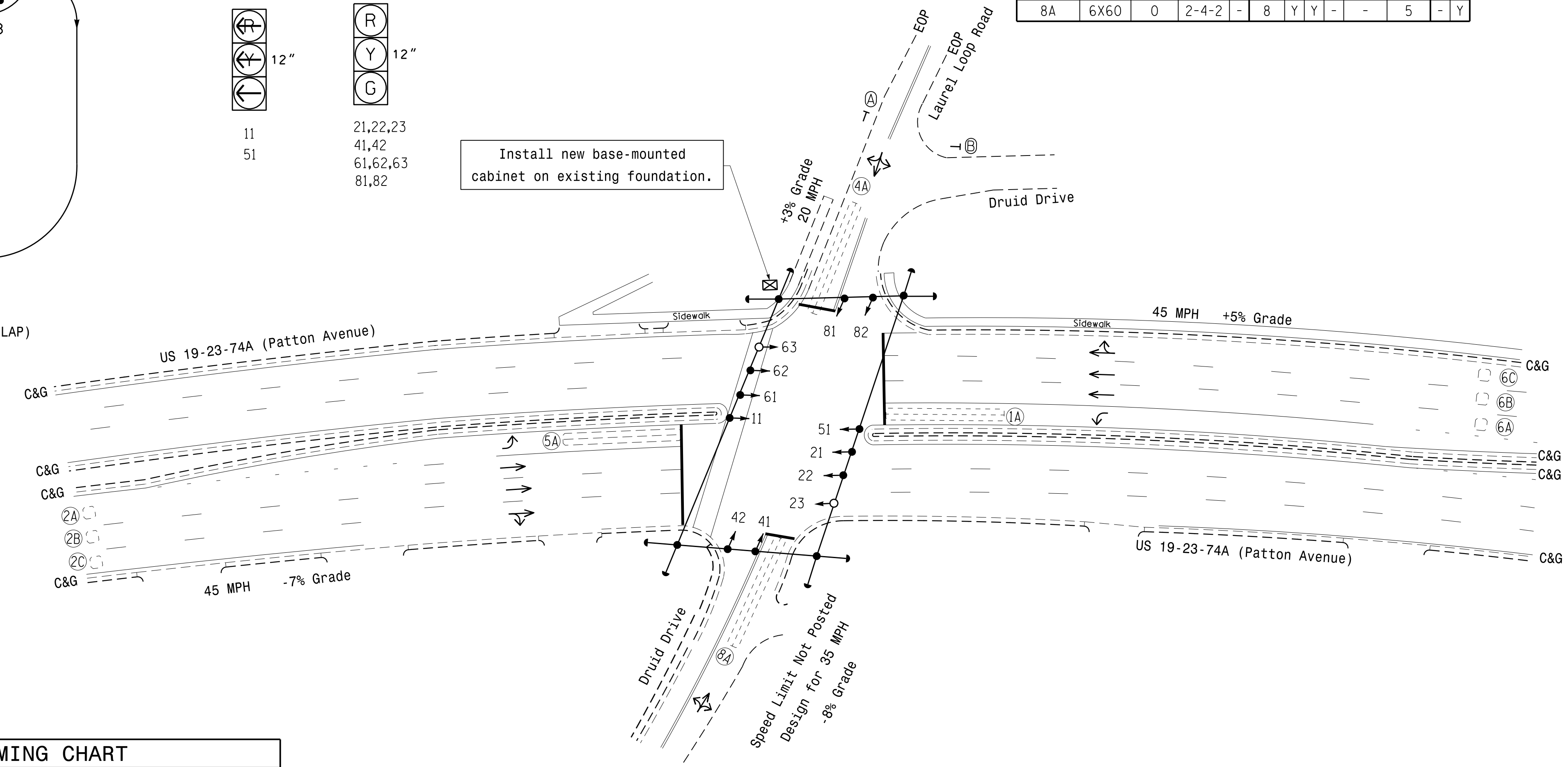
OASIS 2070 LOOP & DETECTOR INSTALLATION

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	DETECTOR PROGRAMMING								
				NEW LOOP	PHASE	CALLING	EXTENSION	STRETCH DELAY	DELAY TIME	SYSTEM LOOP	NEW CARD	
1A	6X60	0	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
4A	6X60	0	2-4-2	-	4	Y	Y	-	-	5	-	Y
5A	6X60	0	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
8A	6X60	0	2-4-2	-	8	Y	Y	-	-	5	-	Y

5 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.
- Reposition existing signal heads numbered 21, 22, 61 & 62.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- The cabinet should be designed to include an Auxiliary Output file for future use.
- Pavement markings are existing.
- 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	4	5	6	8
Min Green 1 *	7	12	7	7	12	7
Extension 1 *	1.0	6.0	2.0	1.0	6.0	1.0
Max Green 1 *	20	90	25	20	90	25
Yellow Clearance	3.0	5.2	3.0	3.2	5.2	4.5
Red Clearance	2.8	1.3	3.4	3.2	1.3	2.2
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-
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 With Push Button & Sign	○ → N/A
○ → Signal Pole with Guy	○ → N/A
○ → Signal Pole with Sidewalk Guy	○ → N/A
⊗ Inductive Loop Detector	⊗ Inductive Loop Detector
⊠ Controller & Cabinet	⊠ Junction Box
□ Junction Box	□ Junction Box
--- 2-in Underground Conduit	--- 2-in Underground Conduit
N/A Right of Way	N/A Right of Way
→ Directional Arrow	→ Directional Arrow
→ Pavement Marking Arrow	→ Pavement Marking Arrow
(A) "STOP" Sign (R1-1)	(A) "STOP" Sign (R1-1)
(B) "YIELD" Sign (R1-2)	(B) "YIELD" Sign (R1-2)

Signal Upgrade

Prepared In the Offices of:

TRANSPORTATION MOBILITY AND SAFETY DIVISION
DEPARTMENT OF TRANSPORTATION
Signal Design Section

750 N. Greenfield Pkwy, Garner, NC 27529

US 19-23-74A (Patton Avenue) at Druid Drive / Laurel Lood Road

Division 13 Buncombe County Asheville

PLAN DATE: April 2016 PREPARED BY: C. Pierce REVIEWED BY: T. J. Williams

REVISIONS: _____ INIT. DATE

SCALE: 0 40
1" = 40'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 024393
THOMAS J. WILLIAMS

DocuSigned by:
S. J. Williams 8/8/2016
DATE

SIG. INVENTORY NO. 13-0041

05-AUG-2016 08:26
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