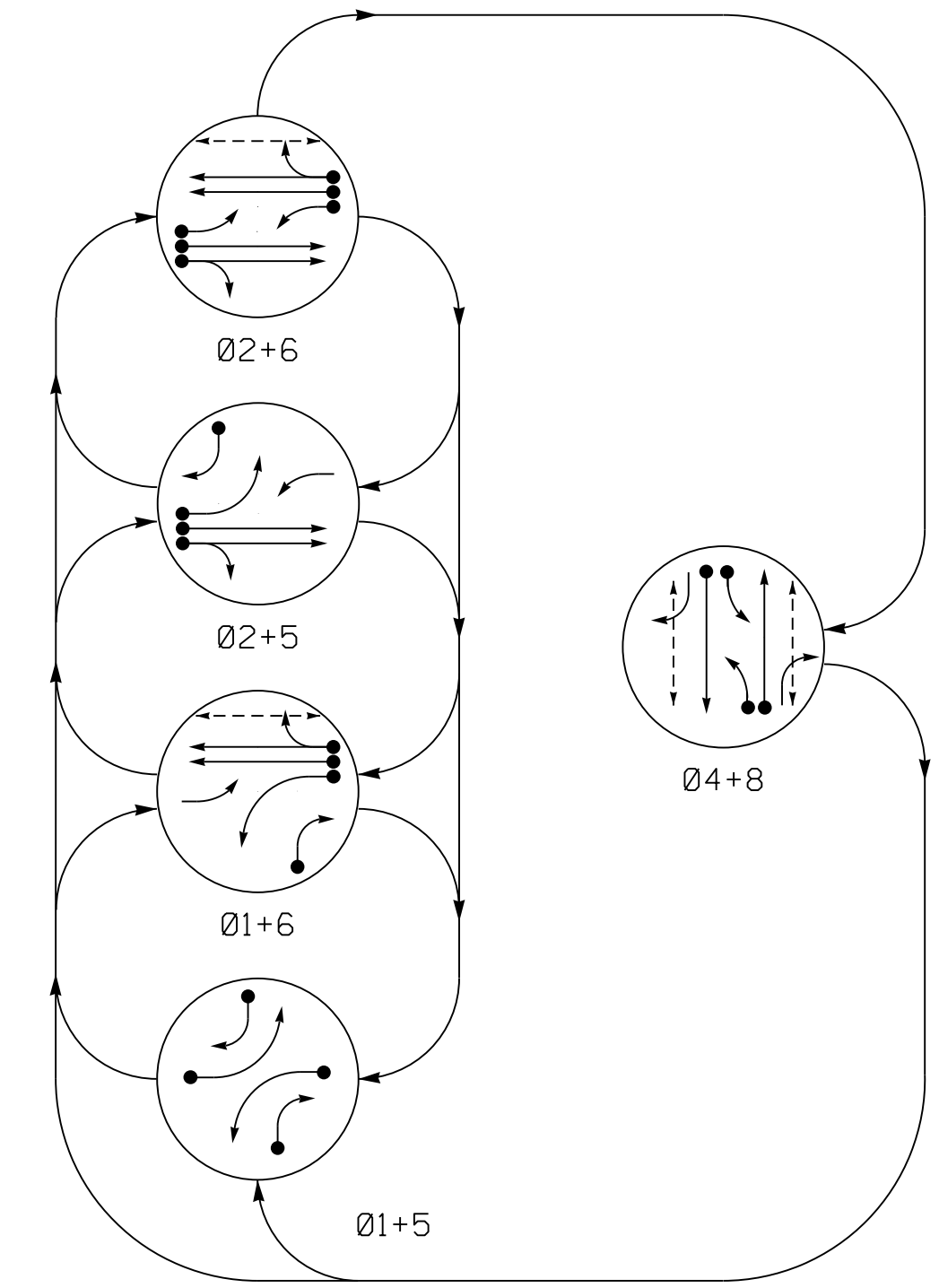


**PHASING DIAGRAM**

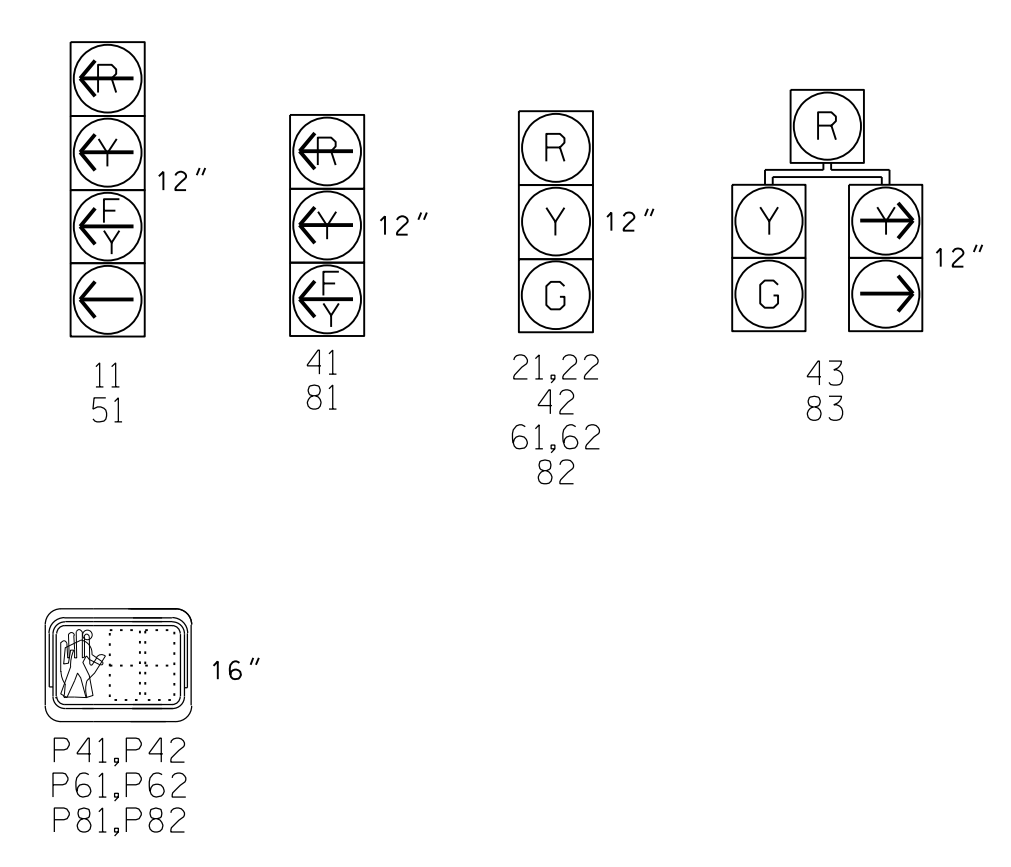


**PHASING DIAGRAM DETECTION LEGEND**

- ← ● DETECTED MOVEMENT
- ← ○ UNDETECTED MOVEMENT (OVERLAP)
- ← ○ UNSIGNALIZED MOVEMENT
- ← ○ PEDESTRIAN MOVEMENT

**SIGNAL FACE I.D.**

All Heads L.E.D.



**TABLE OF OPERATION**

SIGNAL FACE	PHASE							
	Ø 1+5	Ø 1+6	Ø 2+5	Ø 2+6	Ø 4+8	Ø 1+5	Ø 1+6	Ø 2+6
11	←	←	←	←	←	←	←	←
21,22	R	R	G	G	R	Y		
41	←	←	←	←	←	←	←	←
42	R	R	R	R	G	R		
43	←	←	←	←	←	←	←	←
51	←	←	←	←	←	←	←	←
61,62	R	G	R	G	R	Y		
81	←	←	←	←	←	←	←	←
82	R	R	R	R	G	R		
83	←	←	←	←	←	←	←	←
P41,P42	DW	DW	DW	DW	W	DRK		
P61,P62	DW	W	DW	W	DW	DRK		
P81,P82	DW	DW	DW	DW	W	DRK		

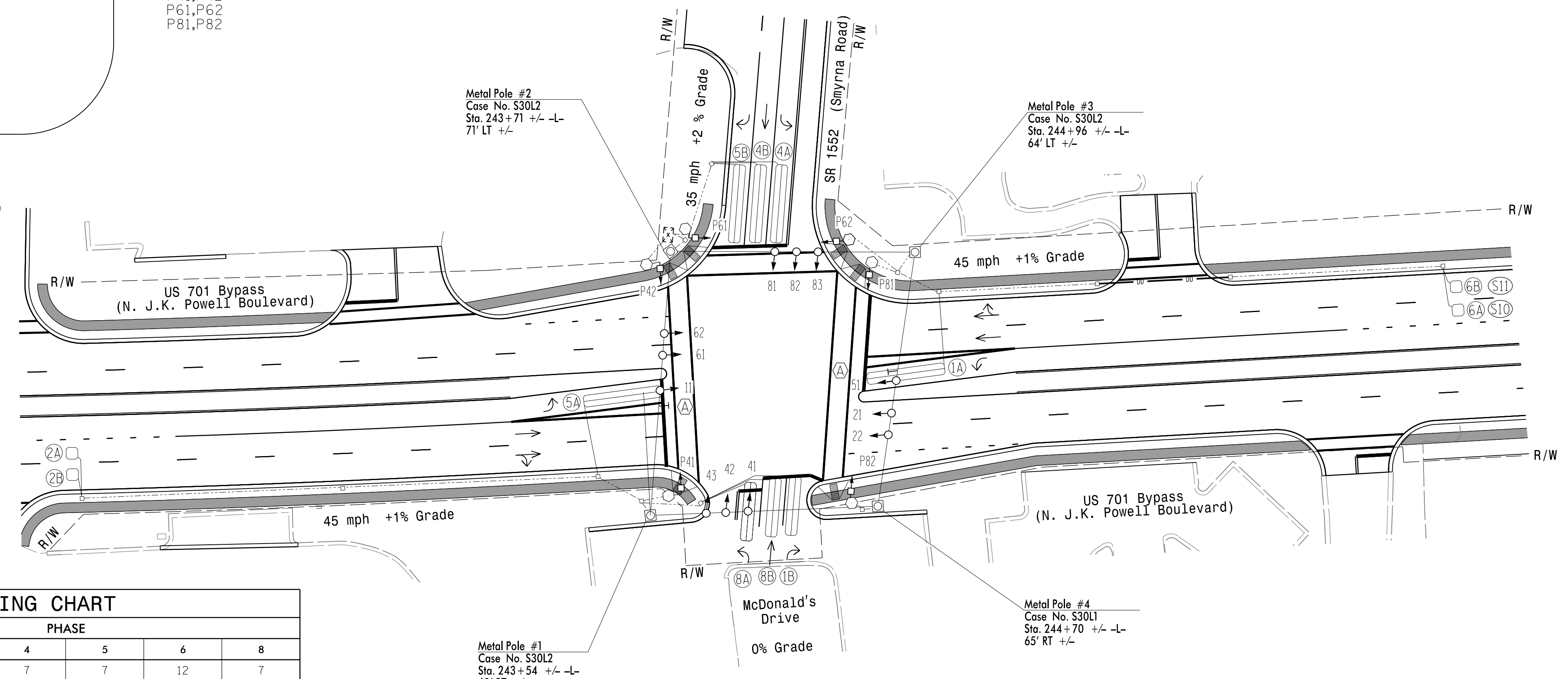
**ASC/3 DETECTOR INSTALLATION CHART**

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	X	1	Yes	-	15	-	N	-	-
1B	6X30	0	2-4-2	X	1	Yes	-	15	-	N	-	X
2A	6X6	300	4	X	2	Yes	-	-	-	X	N	-
2B	6X6	300	4	X	2	Yes	-	-	-	X	N	-
4A	6X40	0	2-4-2	X	4	Yes	-	3	-	N	-	-
4B	6X40	0	2-4-2	X	4	Yes	-	-	-	-	S	-
5A	6X40	0	2-4-2	X	5	Yes	-	15	-	N	-	-
5B	6X40	0	2-4-2	X	5	Yes	-	15	-	N	-	-
6A/S10	6X6	300	4	X	6	Yes	-	-	-	X	N	X
6B/S11	6X6	300	4	X	6	Yes	-	-	-	X	N	X
8A	6X30	+5	2-4-2	X	8	Yes	-	5	-	N	-	X
8B	6X30	0	2-4-2	X	8	Yes	-	10	-	N	-	X

**5 Phase Fully Actuated SYSTEM # 10605**

**NOTES**

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or 5 may be lagged.
4. Set all detector units to presence mode.
5. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.



**ASC/3 TIMING CHART**

FEATURE	PHASE							
	1	2	4	5	6	8		
Min Green *	7	12	7	7	12	7		
Walk *	0	0	7	0	7	7		
Ped Clear	0	0	25	0	15	26		
Veh. Extension *	2.0	6.0	2.0	2.0	6.0	3.0		
Max I *	15	90	30	15	90	30		
Yellow	3.0	4.4	3.7	3.0	4.4	3.0		
Red Clear	2.8	1.7	2.7	3.1	1.7	4.0		
Actuations B4 Add *	-	0	-	-	0	-		
Seconds /Actuation *	-	1.5	-	-	1.5	-		
Max Initial *	-	34	-	-	34	-		
Time Before Reduction *	-	15	-	-	15	-		
Time To Reduce *	-	30	-	-	30	-		
Minimum Gap	-	3.0	-	-	3.0	-		
Locking Detector	-	X	-	-	X	-		
Recall Position	-	VEH. RECALL	-	-	VEH. RECALL	-		
Dual Entry	-	-	X	-	-	X		
Simultaneous Gap	X	X	X	X	X	X		

\* 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
○ 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
○ Metal Strain Pole	○ N/A
○ 2-in Underground Conduit	○ N/A
○ Right of Way	○ N/A
○ Directional Arrow	○ N/A
○ "U Turn Yield To RIGHT TURN" Sign (R10-16)	○ N/A
○ Directional Drill	○ N/A
○ Type II Signal Pedestal	○ N/A
○ Wheelchair Ramp	○ N/A

**Signal Upgrade - Final Design**

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

1 Glenwood Avenue  
Raleigh, NC 27603  
Tel: 919.789.9977  
Fax: 919.789.9591  
License: C-2197

**US 701 Bypass (N. J.K. Powell Blvd) at SR 1552 (Smyrna Road) - McDonald's D/W**

Division 6 Columbus County Whiteville

PLAN DATE: November 2019 REVIEWED BY: G.G. Murr, Jr

PREPARED BY: M. Ishak REVIEWED BY:

REVISIONS: INIT. DATE

SEAL

**STATE OF NORTH CAROLINA**

PROFESSIONAL ENGINEER

SEAL 14543

G. G. MURR, JR.

DATE: 11/13/2020

SIG. INVENTORY NO. 06-1283

5/13/2020  
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 USER:MCDDP/E