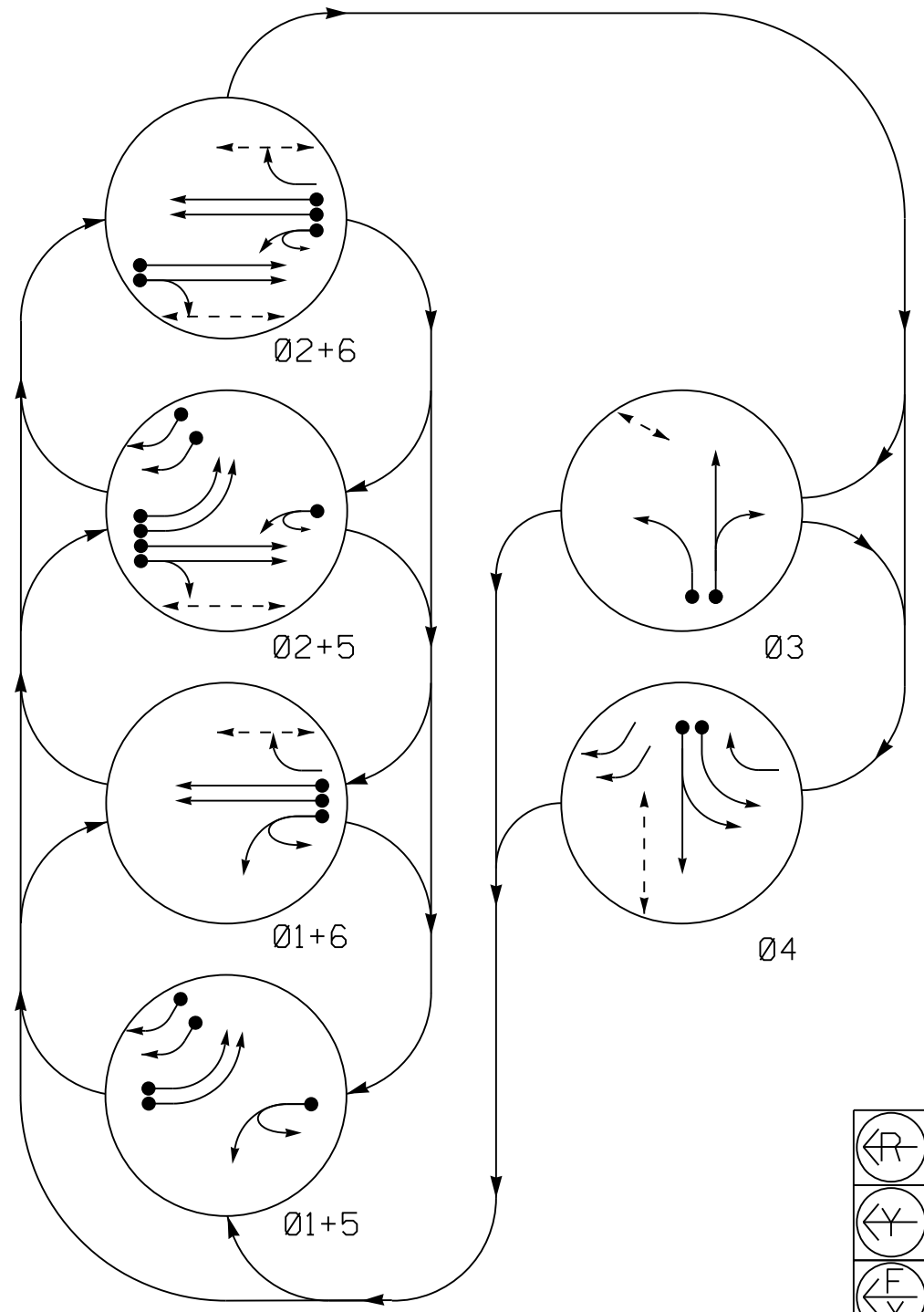


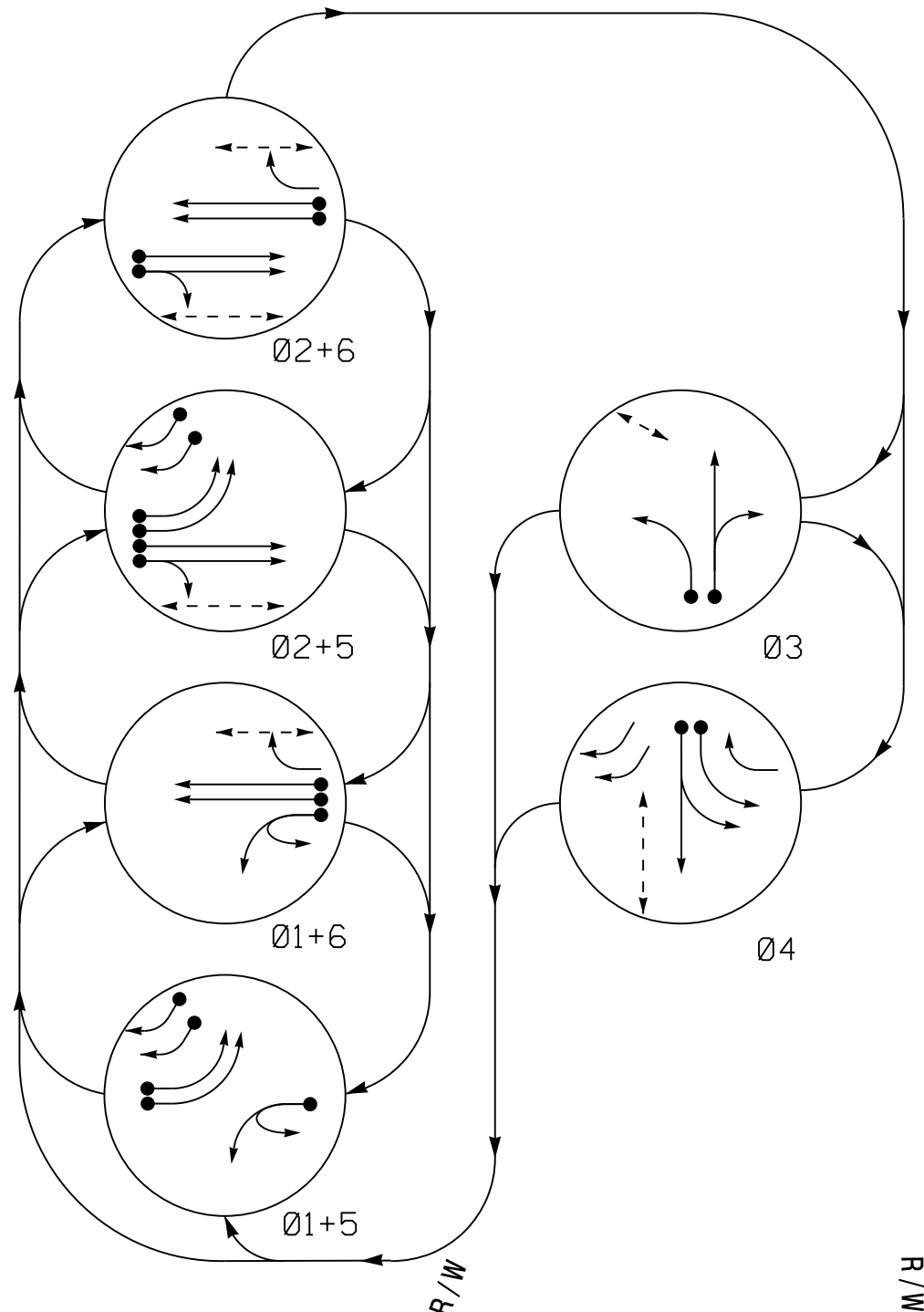
DEFAULT PHASING DIAGRAM



DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE						FLASH
	01+5	01+6	02+5	02+6	03	04	
11	←	←	←	←	←	←	Y
21,22	R	R	G	G	R	R	Y
31	R	R	R	R	G	R	R
32	R	R	R	R	G	R	R
41	←	←	←	←	←	←	Y
42	R	R	R	R	G	R	R
43,44	←	←	←	←	←	←	R
51,52	←	←	←	←	←	←	Y
61,63	R	G	R	G	R	R	Y
62	R	G	R	G	R	R	Y
P21,P22	DW	DW	W	W	DW	DRK	
P31,P32	DW	DW	DW	DW	W	DRK	
P41,P42	DW	DW	DW	DW	W	DRK	
P61,P62	DW	W	DW	W	DW	DRK	

ALTERNATE PHASING DIAGRAM



ALTERNATE PHASING TABLE OF OPERATION

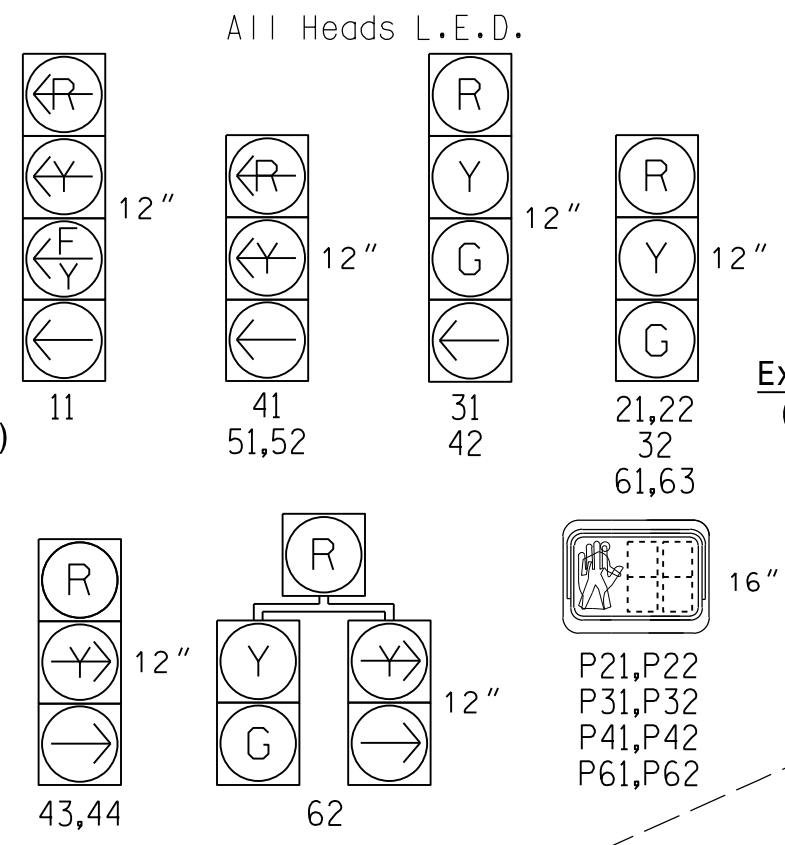
SIGNAL FACE	PHASE						FLASH
	01+5	01+6	02+5	02+6	03	04	
11	←	←	←	←	←	←	Y
21,22	R	R	G	G	R	R	Y
31	R	R	R	R	G	R	R
32	R	R	R	R	G	R	R
41	←	←	←	←	←	←	Y
42	R	R	R	R	G	R	R
43,44	←	←	←	←	←	←	R
51,52	←	←	←	←	←	←	Y
61,63	R	G	R	G	R	R	Y
62	R	G	R	G	R	R	Y
P21,P22	DW	DW	W	W	DW	DRK	
P31,P32	DW	DW	DW	DW	W	DRK	
P41,P42	DW	DW	DW	DW	W	DRK	
P61,P62	DW	W	DW	W	DW	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	-	X
2A/S1	6X6	300	EXIST	-	2	Yes	-	-	X	N	X	X
2B/S2	6X6	300	EXIST	-	2	Yes	-	-	X	N	X	X
3A	6X40	0	2-4-2	X	3	Yes	-	-	-	N	-	X
3B	6X40	0	2-4-2	X	3	Yes	-	10	-	N	-	X
3C	6X6	0	4	X	3	Yes	-	15	-	N	-	X
4A	6X40	0	2-4-2	-	4	Yes	-	-	-	N	-	X
4B	6X40	0	2-4-2	-	4	Yes	-	-	-	N	-	X
5A	6X40	0	2-4-2	-	5	Yes	-	-	-	N	-	X
5B	6X40	0	2-4-2	-	5	Yes	-	-	-	N	-	X
5C	6X40	0	2-4-2	-	5	Yes	-	-	-	N	-	X
5D	6X40	0	2-4-2	-	5	Yes	-	-	-	N	-	X
6A/S3	6X6	325	6	X	6	Yes	-	-	X	N	X	X
6B/S4	6X6	325	6	X	6	Yes	-	-	X	N	X	X

* Disable delay during Alternate Phasing operation.
 * Disable phase call for loop during Alternate Phasing operation.

SIGNAL FACE I.D.



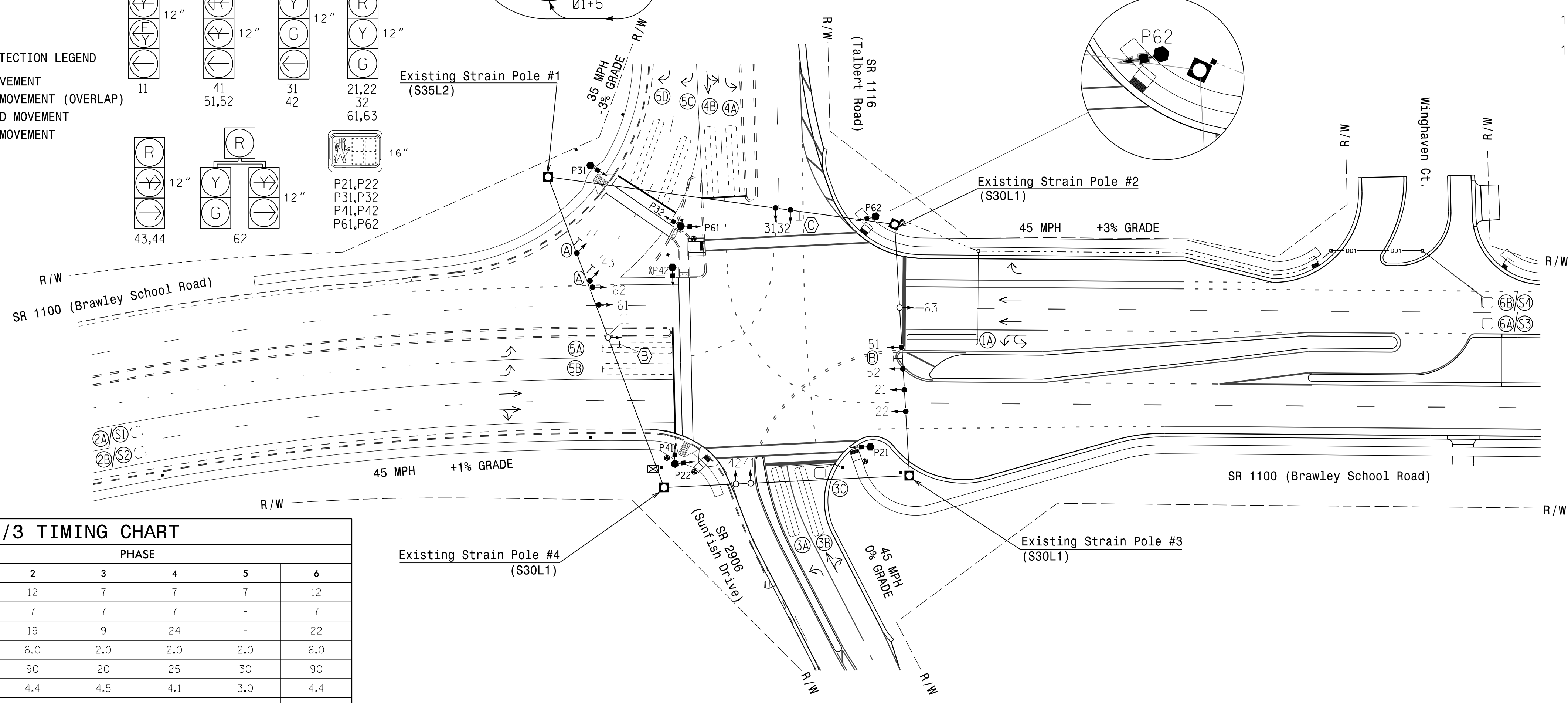
PHASING DIAGRAM DETECTION LEGEND

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

6 Phase Fully Actuated w/Alternate Phasing Operation Signal System 11210

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- 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.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- The Division Traffic Engineer will determine the hours of use for each phasing plan.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Install new cabinet on the existing cabinet foundation.
- Shift signal heads 11,61,62 and Sign B.



ASC/3 TIMING CHART

FEATURE	PHASE					
	1	2	3	4	5	6
Min Green *	7	12	7	7	7	12
Walk *	-	7	7	7	-	7
Ped Clear	-	19	9	24	-	22
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0
Max I *	15	90	20	25	30	90
Yellow	3.0	4.4	4.5	4.1	3.0	4.4
Red Clear	3.4	2.1	1.9	2.9	3.2	2.1
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-	-	-
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	-	-	-	-	-	-
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	● Traffic Signal Head
○ Modified Signal Head	N/A
○ Pedestrian Signal Head With Push Button & Sign	N/A
○ 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
○ Oversized Junction Box	○ Oversized Junction Box
○ 2-in Underground Conduit	○ 2-in Underground Conduit
N/A Right of Way	○ Right of Way
→ Directional Arrow	→ Directional Arrow
○ Metal Pole with Mastarm	○ Metal Pole with Mastarm
→ Directional Drill	N/A
○ Type I Pushbutton Post	○ Type I Pushbutton Post
○ Type II Signal Pedestal	○ Type II Signal Pedestal
○ "NO TURN ON RED" Sign (R10-11)	○ "NO TURN ON RED" Sign (R10-11)
○ "U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	○ "U-TURN YIELD TO RIGHT TURN" Sign (R10-16)
○ "RIGHT TURN YIELD TO U-TURN" Sign (R10-30)	○ "RIGHT TURN YIELD TO U-TURN" Sign (R10-30)

Signal Upgrade - Final Design

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Prepared for the Offices of:
 Transportation Mobility and Safety Division
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 Signal Design Section
 750 N. Greenfield Pkwy, Garner, NC 27526
 SCALE: 0 40
 1" = 40'

SR 1100 (Brawley School Road) at SR 1116 (Talbert Road)/SR 2906 (Sunfish Drive)
 Division 12 Iredell County Mooresville
 PLAN DATE: May 2022 REVIEWED BY: E D Harris
 PREPARED BY: J. Hambricht REVIEWED BY: R M Muncy

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 042678
 DATE: 3/24/2023
 SIG. INVENTORY NO. 12-1689

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

3/24/2023 11:41:00 AM C:\Users\jhambricht\OneDrive\Documents\Signal\12-1689.dgn
 User: jhambricht