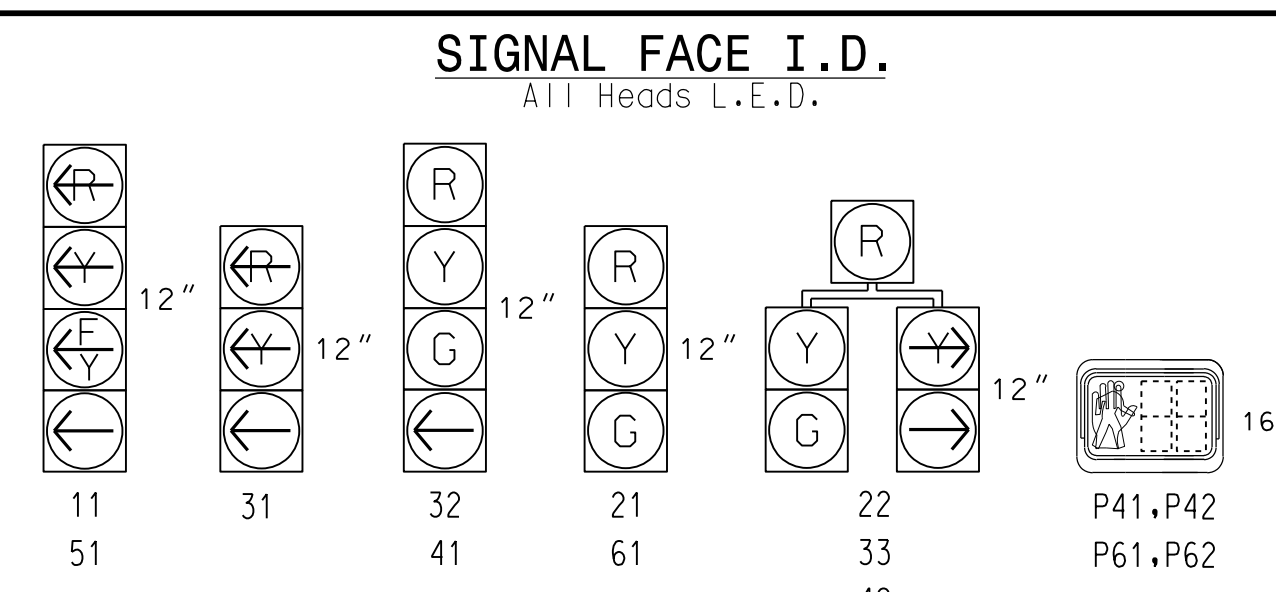


### 6 Phase Fully Actuated Fayetteville Signal System

#### 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 may be lagged.
4. The order of phase 3 and phase 4 may be reversed.
5. Set all detector units to presence mode.
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. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
9. The Division (City) Traffic Engineer will determine the hours of use for each phasing plan.
10. Pedestrian pedestals are conceptual and shown for reference only. See 2018 NCDOT Roadway Standard Drawings 1705.04 Sheets 1-3 for push button location details.



#### ASC/3 DETECTOR INSTALLATION CHART

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

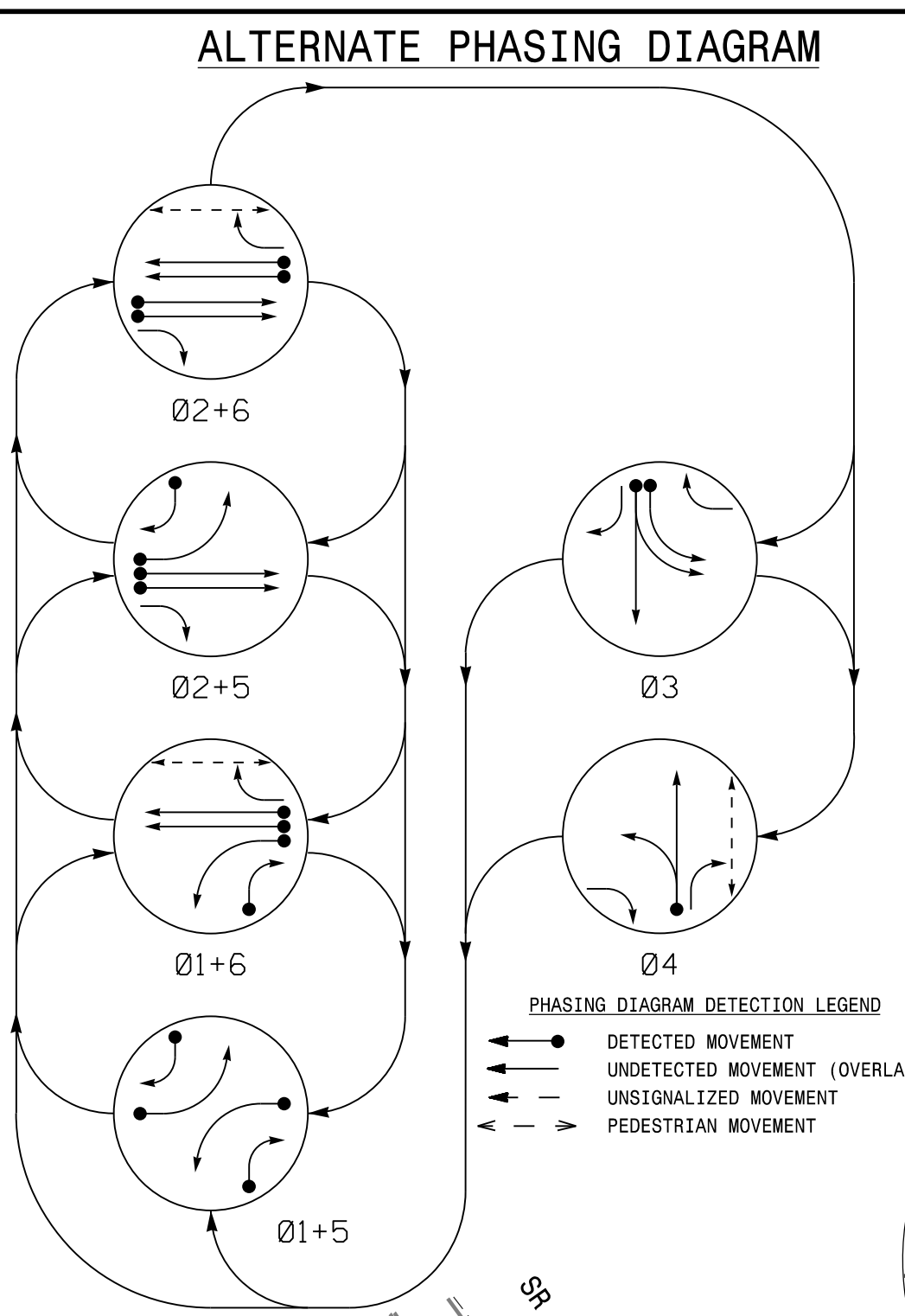
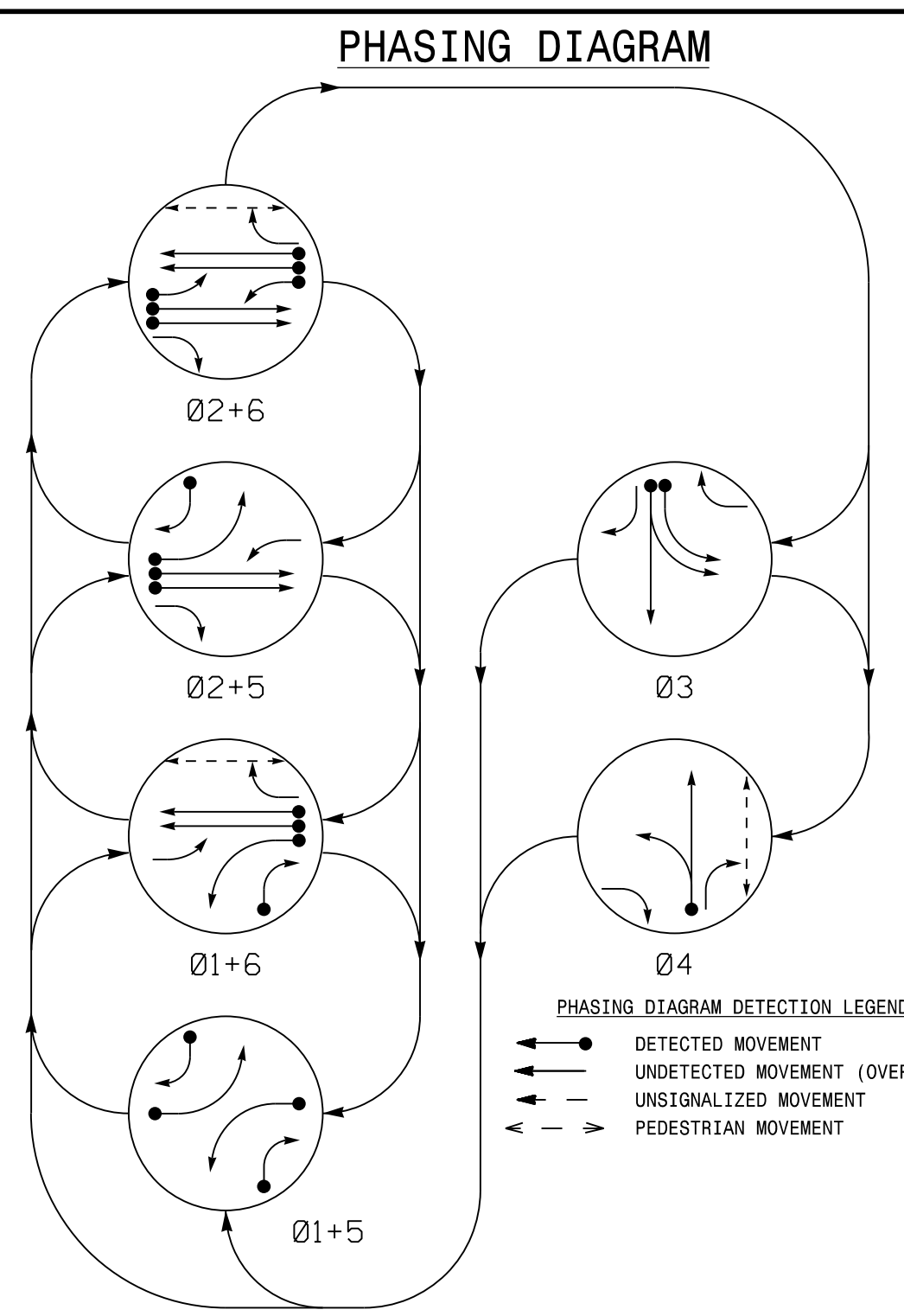
★ Disable delay during Alternate Phasing Operation.  
# Disable Phase(s) call during Alternate Phasing Operation.

#### ALTERNATE TABLE OF OPERATION

SIGNAL FACE	PHASE						FLASH
	Ø 1+5	Ø 1+6	Ø 2+5	Ø 2+6	Ø 3	Ø 4	
11	←	←	←	←	←	←	Y
21	R	R	G	G	R	R	Y
31	←	←	←	←	←	←	Y
32	R	R	R	R	G	R	R
41	R	R	R	R	R	G	R
42	R	R	R	R	R	G	R
51	←	←	←	←	←	←	Y
61	R	G	R	G	R	R	Y
62	R	G	R	G	R	R	Y
P41,P42	DW	DW	DW	DW	DW	W	DRK
P61,P62	DW	W	DW	W	DW	DW	DRK

#### TABLE OF OPERATION

SIGNAL FACE	PHASE						FLASH
	Ø 1+5	Ø 1+6	Ø 2+5	Ø 2+6	Ø 3	Ø 4	
11	←	←	←	←	←	←	Y
21	R	R	G	G	R	R	Y
22	R	R	G	G	R	R	Y
31	←	←	←	←	←	←	Y
32	R	R	R	R	G	R	R
33	R	R	R	R	G	R	R
41	R	R	R	R	R	G	R
42	R	R	R	R	R	G	R
51	←	←	←	←	←	←	Y
61	R	G	R	G	R	R	Y
62	R	G	R	G	R	R	Y
P41,P42	DW	DW	DW	DW	DW	W	DRK
P61,P62	DW	W	DW	W	DW	DW	DRK

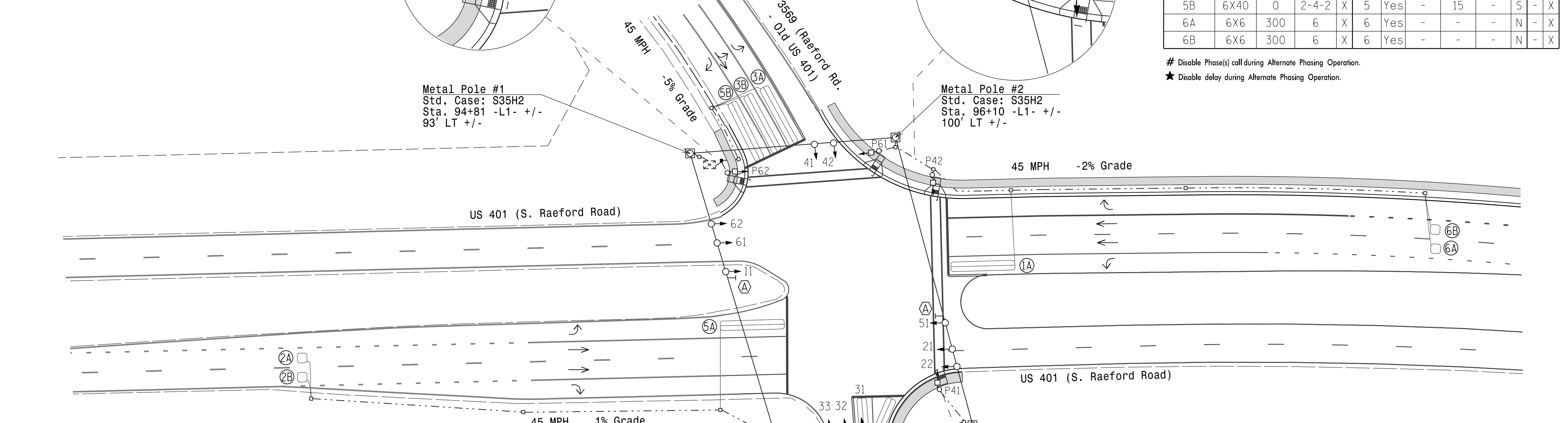


**PHASING DIAGRAM DETECTION LEGEND**

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

**PHASING DIAGRAM DETECTION LEGEND**

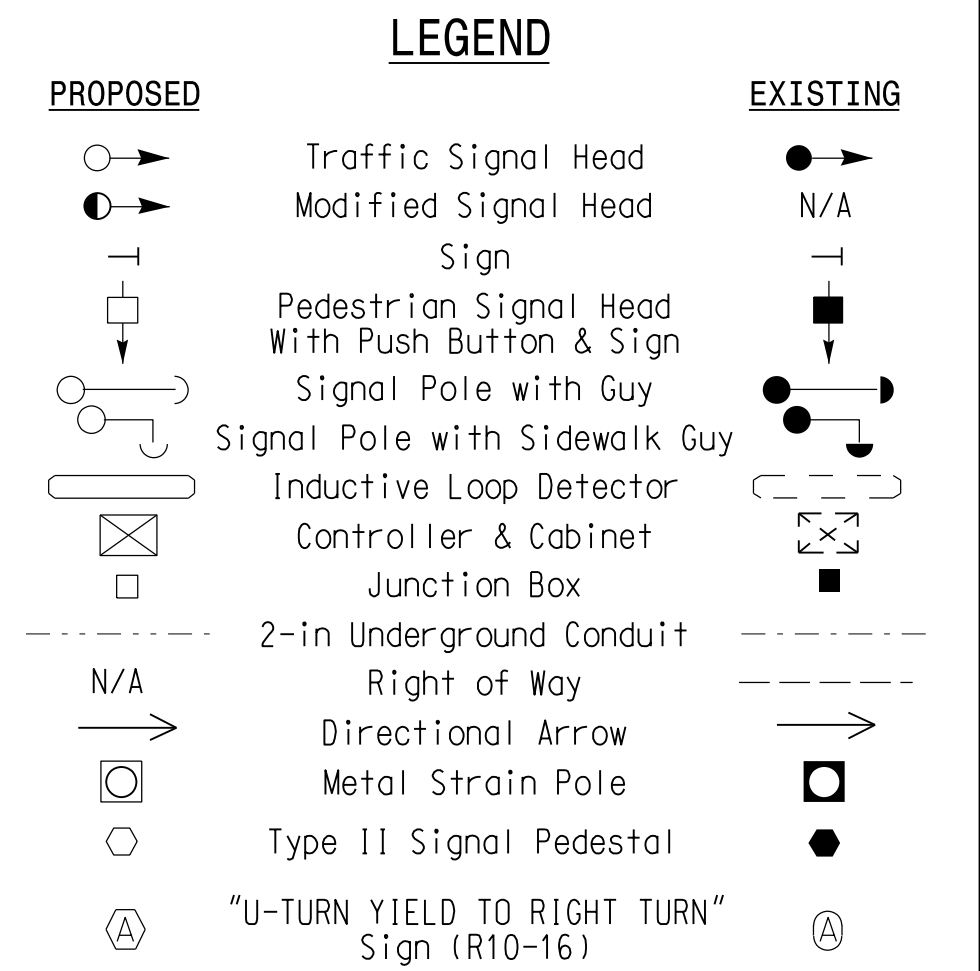
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT



#### ASC/3 TIMING CHART

FEATURE	PHASE					
	1	2	3	4	5	6
Min Green *	7	12	7	7	7	12
Walk *	-	-	-	7	-	7
Ped Clear	-	-	-	29	-	20
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0
Max I *	15	90	35	35	15	90
Yellow	3.0	4.4	5.0	4.4	3.0	4.7
Red Clear	3.3	1.9	2.4	2.8	3.3	1.6
Red Revert	-	-	-	-	-	-
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	-	-	-	-	-	-
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.



THIS PLAN SUPERSEDES THE PLAN SIGNED AND SEALED ON 06/05/2019

#### Signal Upgrade - Final Design

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Prepared For the Offices of:  
Transportation Mobility and Safety Division  
STATE OF NORTH CAROLINA  
Signal Design Section  
750 N. Greenfield Pkwy, Garner, NC 27526

US 401 (South Raeford Rd.)  
at  
SR 3569 (Raeford Rd-Old US 401)  
Bentrige Ln.  
Division 6 Cumberland County Fayetteville  
PLAN DATE: July 2021 REVIEWED BY: E D Harris  
PREPARED BY: R M Muncey REVIEWED BY: B L Watson

Betsy L. Watson  
Professional Engineer  
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