## 3 Phase Fully Actuated (Raleigh Signal System)

## NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024, "Standard Specifications for Roads and Structures" dated January 2024.

2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.

- 3. Phase 1 may be lagged.
- 4. Reposition existing signal heads number 61 and 62.
- 5. Set all detector units to presence mode.
- 6. In the event of loop replacement, refer to the current ITS and Signal Design Manual and submit a Plan of Record to the Signal Design Section.
- 7. Omit "WALK" and flashing "DON'T WALK" with no no pedestrian calls.
- 8. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- 9. Pavement markings are existing, unless otherwise shown.
- 10. The Division (City) Traffic Engineer will determine the hours of use for each phasing plan.
- 11. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
- 12. Program phase 4 as a dummy phase for Ring 1.

**♪** ✓

13. Recut loops 2A and 2B as needed to maintain detection during all construction phases.

**PROPOSED** 

LEGEND

Traffic Signal Head

Modified Signal Head Sign

Pedestrian Signal Head With Push Button & Sign

Metal Pole with Mastarm

Curb Ramp Type I Pushbutton Post Type II Signal Pedestal Inductive Loop Detector

Controller & Cabinet Junction Box 2-in Underground Conduit Right of Way Directional Arrow

Directional Drill

Existing Easement

Construction Zone Drums

Construction Zone

No U-Turn Sign (R3-4) "U-TURN YIELD TO RIGHT TURN" Sign (R10-16)

**EXISTING** 

**—** 

K×3

N/A

— -E— -

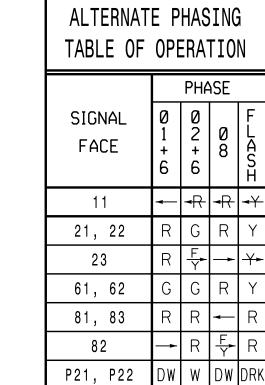
 $\bigcirc$ 

DOCUMENT NOT CONSIDERED

FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

• •

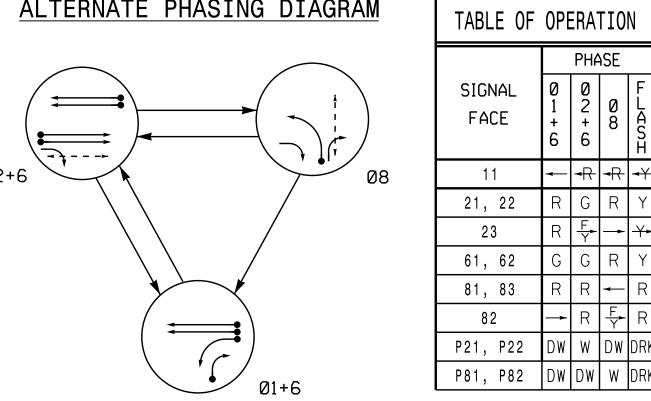


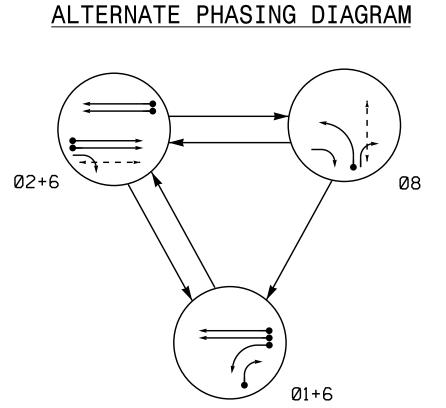
SIGNAL FACE I.D.

All Heads L.E.D.

12"

P21, P22





DEFAULT PHASING

TABLE OF OPERATION

SIGNAL

FACE

21, 22

61, 62

81, 83

82

P21, P22

P81, P82

PHASE

DW W DW DRI

DEFAULT PHASING DIAGRAM

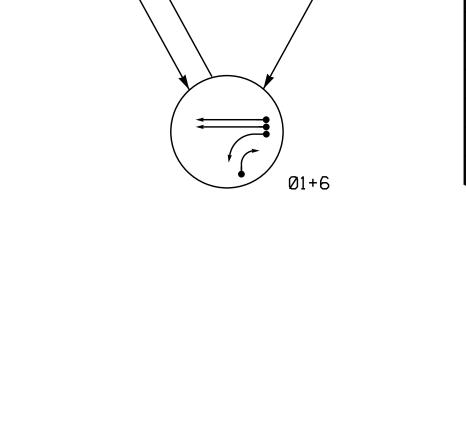
PHASING DIAGRAM DETECTION LEGEND

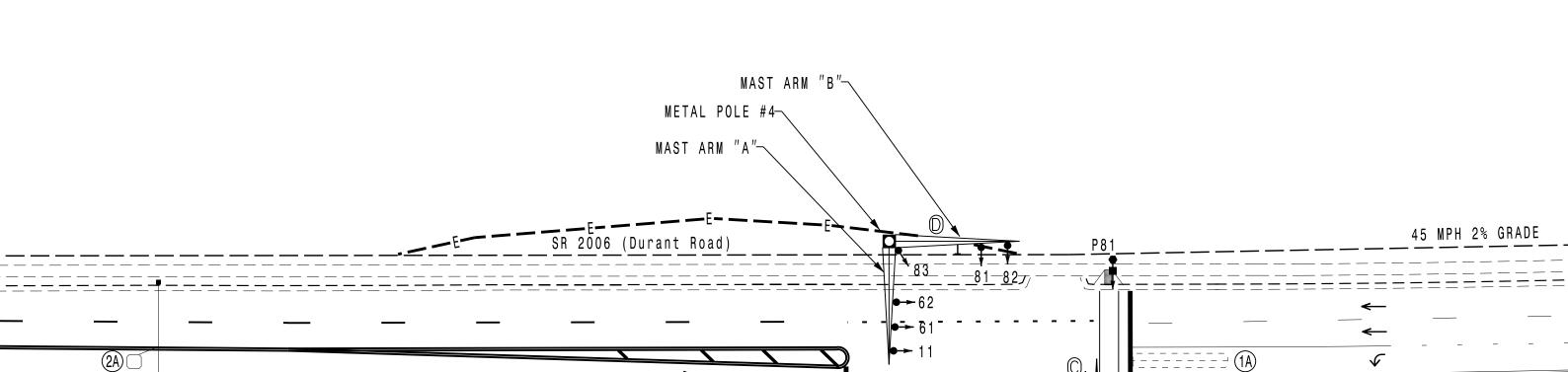
UNSIGNALIZED MOVEMENT

UNDETECTED MOVEMENT (OVERLAP)

DETECTED MOVEMENT

<−−> PEDESTRIAN MOVEMENT



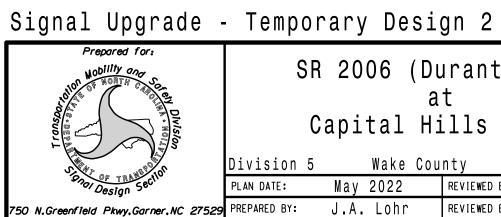


21 <del>--</del> 22 --SR 2006 (Durant Road) 45 MPH -2% GRADE -METAL POLE #5

SE-PAC 2070 TIMING CHART												
	PHASE											
FEATURE	1	2	4	6	8							
Min Green *	7	12	7	12	7							
Passage Gap *	2.0	6.0	2.0	6.0	2.0							
Maximum Green *	25	80	25	80	25							
Yellow Change	3.0	4.7	3.0	4.7	3.0							
Red Clear	3.2	1.9	2.9	1.9	2.9							
Walk *	-	7	-	-	7							
Pedestrian Clear	-	14	-	-	15							
Added Initial *	-	1.5	-	1.5	-							
Maximum Initial *	-	34	-	32	-							
Time Before Reduction *	-	15	-	15	-							
Time To Reduce *	-	45	-	45	-							
Minimum Gap	-	3.0	-	2.7	-							
Recall Mode	-	MIN RECALL	-	MIN RECALL	-							
Vehicle Call Memory	NON-LOCK	LOCK	-	LOCK	NON-LOCK							
Dual Entry	-	-	ON	-	-							
Simultaneous Gap	ON	ON	ON	ON	ON							

* These values may be field	adjusted. Do not adjust Min Gree	n and Extension times for phases 2 and
lower than what is shown.	Min Green for all other phases sho	ould not be lower than 4 seconds.

LOOP & DETECTOR UNIT INSTALLATION CHART SE-PAC 2070 CONTROLLER WITH 170 CABINET																					
						DETECTOR PROGRAMMING															
INDUCTIVE LOOPS							OPERATION MODE									PS	STA	TUS			
				吳 ll   TIM		MING	ING [		1	2	3	4	5	6	7	] 등	LOOPS		()		
LOOP NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	ZEW	EXISTING	ASSIGNED PHASE	DELAY	1	EXTEND (STRETCH)		PEDESTRIAN	1 CALL	STOP A	STOP B	PROT/PER LEFT	PROT/PER THROUGH	AND	SWITCH	SYSTEM 1	NEW	EXISTING
1A	6X40	2-4-2	0	-	Χ	1	5 SEC		SEC.	Х	-	-	-	-	-	-	-	-	-	-	Χ
1B	6X40	2-4-2	0	-	Χ	1	15 SEC		SEC.	Х	-	-	-	-	-	-	-	-	-	-	Χ
2A	6X6	6	300	Х	-	2	- SEC		SEC.	Х	_	-	-	-	-	-	-	-	-	-	Х
2B	6X6	6	300	Х	-	2	- SEC		SEC.	Х	_	-	-	-	-	-	-	-	-	-	Х
6A	6X6	EXIST	280	_	Χ	6	- SEC	-	SEC.	Χ	_	-	-	-	-		I	-	_	-	Χ
6B	6X6	EXIST	280	-	Χ	6	- SEC		SEC.	Χ	_	-	-	-	-	_	ı	_	_	-	Χ
8A	6X40	2-4-2	0	-	Χ	8	- SEC		SEC.	Х	-	_	-	_	-	_	-	_	_	ı	X



1"=40'

SR 2006 (Durant Road) Capital Hills Drive

Division 5 Wake County Raleigh May 2022 PLAN DATE: REVIEWED BY: 750 N.Greenfield Pkwy.Garner.NC 27529 PREPARED BY: J.A. Lohr REVIEWED BY: REVISIONS INIT. DATE

SIG. INVENTORY NO. 05-2387T2