

3 Phase Fully Actuated Jacksonville City 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. Set all detector units to presence mode.
- 5. Incorporate Microwave Detection system for vehicle detection.
- 6. Provide the Engineer with the Manufacturer's approved Microwave Detection locations and mounting heights to obtain detection zones as shown.
- 7. The Division Traffic Engineer will determine the hours of use for each phasing plan.
- 8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

LEGEND

Traffic Signal Head Modified Signal Head

Pedestrian Signal Head With Push Button & Sign

Signal Pole with Guy

Signal Pole with Sidewalk Guy

Inductive Loop Detector

Controller & Cabinet Junction Box

Right of Way Directional Arrow

Metal Strain Pole

Microwave Detection Zone

----- 2-in Underground Conduit

<u>EXISTING</u>

N/A

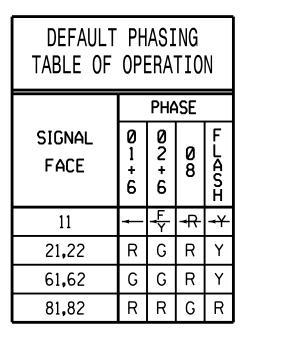
r×3 L×3

031464

9. Signal system data: Controller Asset #0889

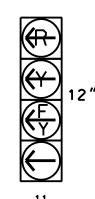
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART												
1I	DETECTOR PROGRAMMING											
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X40	0	***	Υ	1	Υ	Υ	-	-	** 15	-	Υ
IA	0240		***	ı	* 6	Υ	Υ	Υ	-	3	ı	Υ
2A	6X6	300	***	Υ	2	Υ	Υ	ı	-	ı	ı	Υ
64	6X6	300	***	Υ	6	Υ	Υ	ı	-	ı	ı	Υ
88	6X40	0	***	Υ	8	Υ	Υ	ı	-	10	-	Υ

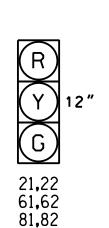
- * Disable phase 6 call for 1A during alternate phasing operation.
- ** Reduce delay to 3 seconds during alternate phasing operation.
- *** Multizone Microwave Detection



SIGNAL FACE I.D.

All Heads L.E.D.





ALTERNATE PHASING

TABLE OF OPERATION

SIGNAL

FACE

21,22

61,62

81,82

PHASE

R G R Y

GGRY

R R G R

— Metal Pole #2 Case C-7 ∕─New 2070E Controller Metal Pole #1── and Cabinet on Existing Foundation 81 82 — Joint-Use Wood Pole SR 1306 (Gum Branch Road) 45 MPH 0% Grade \leftarrow SR 1306 (Gum Branch Road) 45 MPH +1% Grade Joint-Use-Joint-Use — -Joint-Use Wood Pole Wood Pole Wood Pole

1824

Metal Pole #3-

OASIS	2070	TIMING	G CHART	Γ				
	PHASE							
FEATURE	1	2	6	8				
Min Green 1 *	7	12	12	7				
Extension 1 *	2.0	6.0	6.0	2.0				
Max Green 1 *	15	80	80	25				
Yellow Clearance	3.0	4.5	4.5	3.0				
Red Clearance	1.6	1.0	1.0	1.9				
Red Revert	2.0	2.0	2.0	2.0				
Walk 1 *	-	-	-	-				
Don't Walk 1	-	-	-	-				
Seconds Per Actuation *	-	2.5	2.5	-				
Max Variable Initial*	-	34	34	-				
Time Before Reduction *	-	15	15	-				
Time To Reduce *	-	40	40	-				
Minimum Gap	-	3.0	3.0	-				
Recall Mode	-	MIN RECALL	MIN RECALL	-				
Vehicle Call Memory	-	YELLOW	YELLOW	-				
Dual Entry	-	-	-	-				
Simultaneous Gap	ON	ON	ON	ON				

DEFAULT PHASING DIAGRAM

PHASING DIAGRAM DETECTION LEGEND

UNSIGNALIZED MOVEMENT

UNDETECTED MOVEMENT (OVERLAP)

DETECTED MOVEMENT

←----> PEDESTRIAN MOVEMENT

02+6

ALTERNATE PHASING DIAGRAM

02+6

* 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

Temporary Design 1 Construction Phase 1 Signal Upgrade

 \bigcirc 6A

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED SR 1308 (Gum Branch Road) HURTH CARO



PROPOSED

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SR 1324 (Ramsey Road) October 2018 REVIEWED BY: A.D. Klinksiek

SIG. INVENTORY NO. 03-0889T1

750 N.Greenfield Pkwy.Garner.NC 27529 PREPARED BY: A.H. Thornburg REVIEWED BY: N.R. Simmions INIT. DATE

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