

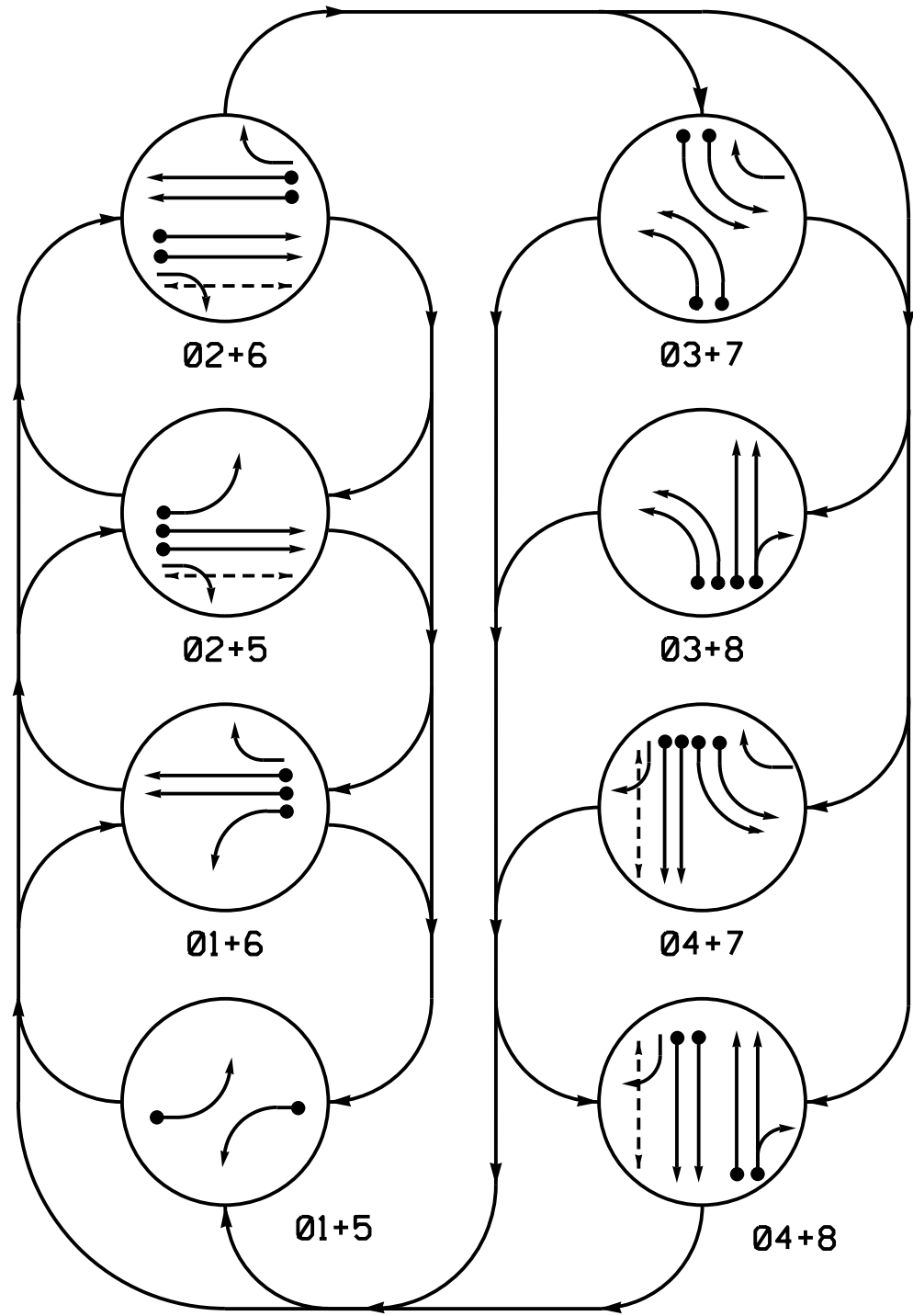
8 Phase
Fully Actuated
w/Emergency Vehicle Preemption
Jacksonville City Signal System

PROJECT REFERENCE NO.	SHEET NO.
U-5728	Sig. 3.1

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Phase 3 and/or phase 7 may be lagged.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- This intersection features accessible pedestrian signals utilizing percussive tone walk indications and/or speech messages.
- To provide a leading pedestrian interval on phase 2 program FYA head(s) numbered 23 to delay for 7 seconds after the start of the phase 2 walk interval. See Electrical Details for programming.
- To provide a leading pedestrian interval on phase 4 program FYA head(s) numbered 43 to delay for 7 seconds after the start of the phase 4 walk interval. See Electrical Details for programming.
- Relocate existing ped pedestal and pushbutton P22 to temp location on a temporary helical foundation. Install Temp Ped head 41 on a temporary helical foundation. Feed temp ped heads from the overhead span.
- This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
- This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Controller Asset #0090

PHASING DIAGRAM



EV PREEMPT PHASES

(Medium Priority)

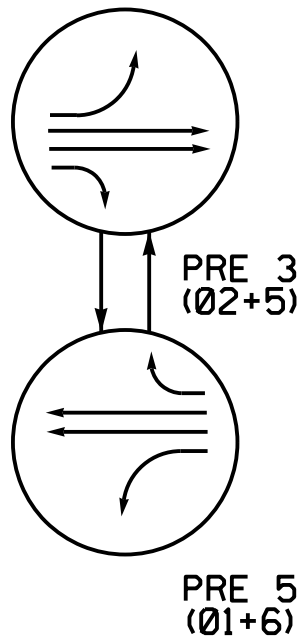


TABLE OF OPERATION

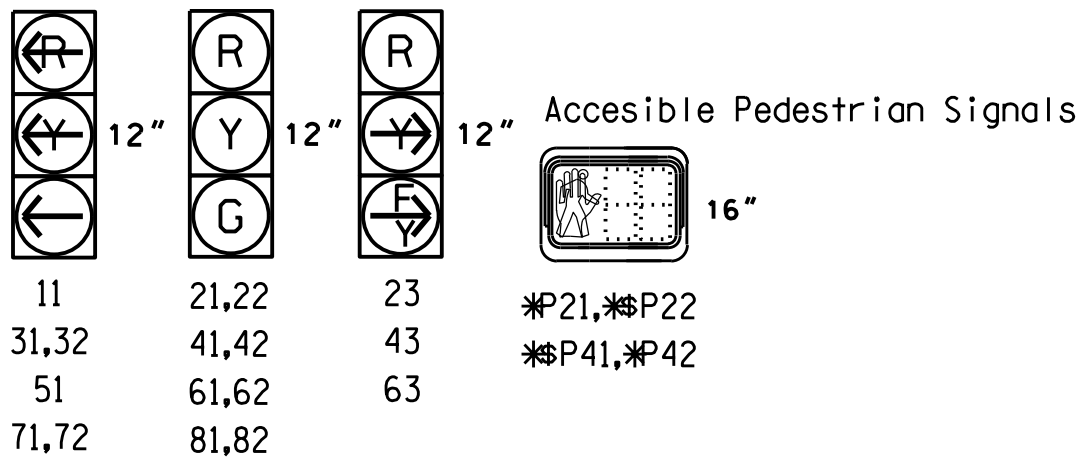
SIGNAL FACE	PHASE										
	Ø 1 + 5	Ø 1 + 6	Ø 2 + 5	Ø 2 + 6	Ø 3 + 7	Ø 3 + 8	Ø 4 + 7	Ø 4 + 8	E V P 3	E V P 5	F L A S H
11	←	←	→	→	→	→	→	→	→	→	→
21,22	R	R	G	G	R	R	R	R	G	R	R
23	R	R	←	←	R	R	R	R	←	R	R
31,32	→	→	→	→	←	←	→	→	→	→	→
41,42	R	R	R	R	R	R	G	G	R	R	R
43	R	R	R	R	R	R	←	←	R	R	R
51	←	→	←	→	→	→	→	→	←	→	→
61,62	R	G	R	G	R	R	R	R	R	G	R
63	R	←	R	←	←	←	←	←	R	←	R
71,72	→	→	→	→	←	←	→	→	→	→	→
81,82	R	R	R	R	R	G	R	G	R	R	R
P21,P22	DW	DW	W	W	DW	DW	DW	DW	DW	DW	DRK
P41,P42	DW	DW	DW	DW	DW	DW	W	W	DW	DW	DRK

PHASING DIAGRAM DETECTION LEGEND

- ←●→ DETECTED MOVEMENT
- ←→ UNDETECTED MOVEMENT (OVERLAP)
- ←- - -→ UNSIGNALIZED MOVEMENT
- ←- - -> PEDESTRIAN MOVEMENT

SIGNAL FACE I.D.

All Heads L.E.D.



* Accessible Pedestrian Signals
\$ See Note 12

LEGEND

PROPOSED	EXISTING
○→ Traffic Signal Head	●→
●→ Modified Signal Head	N/A
⊥ Sign	⊥
⊥ Pedestrian Signal Head With Push Button & Sign	⊥
○→ Signal Pole with Guy	●→
○→ Signal Pole with Sidewalk Guy	●→
○ Type II Signal Pedestal	●
▬ Non-Intrusive Detection Zone	N/A
⊠ Controller & Cabinet	⊠
□ Junction Box	■
- - - - - 2-in Underground Conduit	- - - - -
→ Directional Arrow	→
N/A Right of Way	-R/W-
N/A Curb Ramp	▲
○ Optical Detector	●
Ⓐ "Right Turn Signal" Sign (R10-10R)	Ⓐ
Ⓑ Right "TURNING VEHICLES" Yield	Ⓑ
Ⓔ "T" Pedestrian sign (R10-15R)	Ⓔ

ACCESSIBLE PEDESTRIAN SIGNAL OPERATION			
SIGNAL FACE	VOICE	TONES	SPEECH MESSAGE
P21		X	Walk (Percussive Tone)
	X		Flashing Don't Walk / Don't Walk Wait, Wait to cross Bell Fork (Percussive Tone)
P22		X	Walk (Percussive Tone)
	X		Flashing Don't Walk / Don't Walk Wait, Wait to cross Bell Fork (Percussive Tone)
P41		X	Walk (Percussive Tone)
	X		Flashing Don't Walk / Don't Walk Wait, Wait to cross Marine (Percussive Tone)
P42		X	Walk (Percussive Tone)
	X		Flashing Don't Walk / Don't Walk Wait, Wait to cross Marine (Percussive Tone)

* Accessible Pedestrian Signals

Temporary Design 2 (TMP Phase 5-Step 1)
Signal Upgrade - Sheet 2 of 2

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

	US 17 Bus. (Marine Boulevard) at SR 1308 (Gum Branch Road / Bell Fork Road)	
	Division 3 Onslow County Jacksonville PLAN DATE: July 2026 REVIEWED BY: D. Bennett PREPARED BY: B. Dowell REVIEWED BY: REVISIONS INIT. DATE SIGNATURE DATE SIG. INVENTORY NO. 03-009012	

Project #: 230906

