

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART												
INDUCTIVE LOOPS				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	*	0	*	Y	1	Y	Y	-	-	-	-	*
1B	*	0	*	Y	1	Y	Y	-	-	15	-	*
2A	*	*	*	Y	2	Y	Y	-	-	-	-	*
3A	*	0	*	Y	3	Y	Y	-	-	-	-	*
3B	*	0	*	Y	3	Y	Y	-	-	-	-	*
4A	*	0	*	Y	4	Y	Y	-	-	-	-	*
4B	*	0	*	Y	4	Y	Y	-	-	-	-	*
4C	*	0	*	Y	4	Y	Y	-	-	15	-	*
5A	*	0	*	Y	5	Y	Y	-	-	-	-	*
5B	*	0	*	Y	5	Y	Y	-	-	-	-	*
6A	*	*	*	Y	6	Y	Y	-	-	-	-	*
7A	*	0	*	Y	7	Y	Y	-	-	3	-	*
7B	*	0	*	Y	7	Y	Y	-	-	-	-	*
8A	*	0	*	Y	8	Y	Y	-	-	-	-	*
8B	*	0	*	Y	8	Y	Y	-	-	-	-	*
S01	*	0	*	Y		-	-	-	-	-	Y	*
S02	*	0	*	Y		-	-	-	-	-	Y	*
S03	*	0	*	Y		-	-	-	-	-	Y	*
S04	*	0	*	Y		-	-	-	-	-	Y	*
S05	*	0	*	Y		-	-	-	-	-	Y	*
S06	*	0	*	Y		-	-	-	-	-	Y	*
S07	*	0	*	Y		-	-	-	-	-	Y	*
S08	*	0	*	Y		-	-	-	-	-	Y	*

★ Multizone Microwave Detection

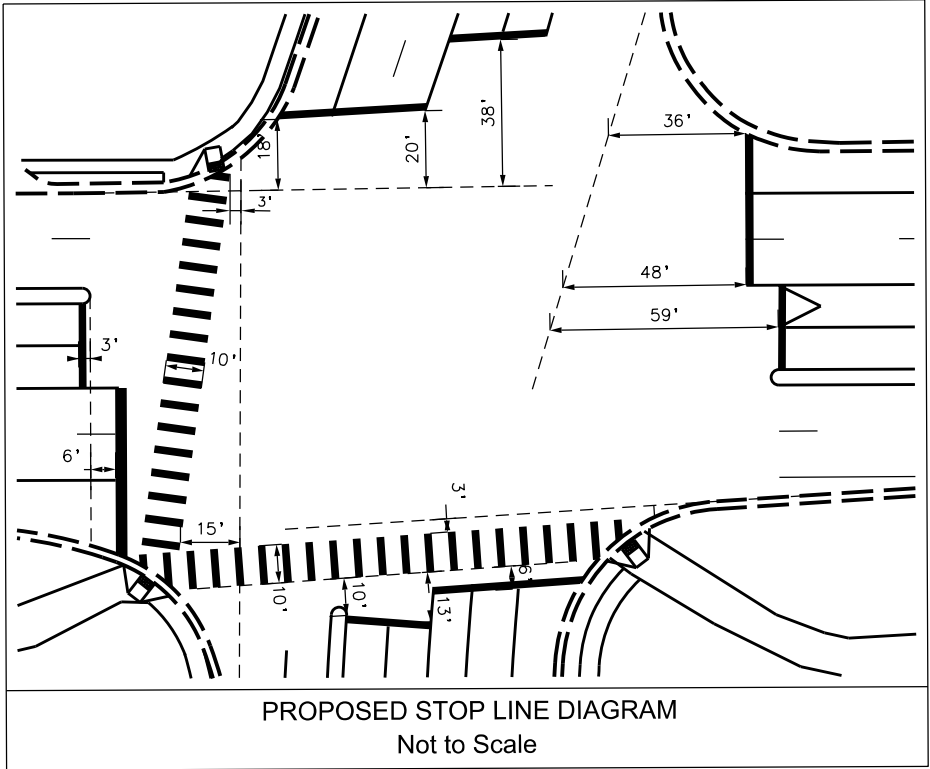
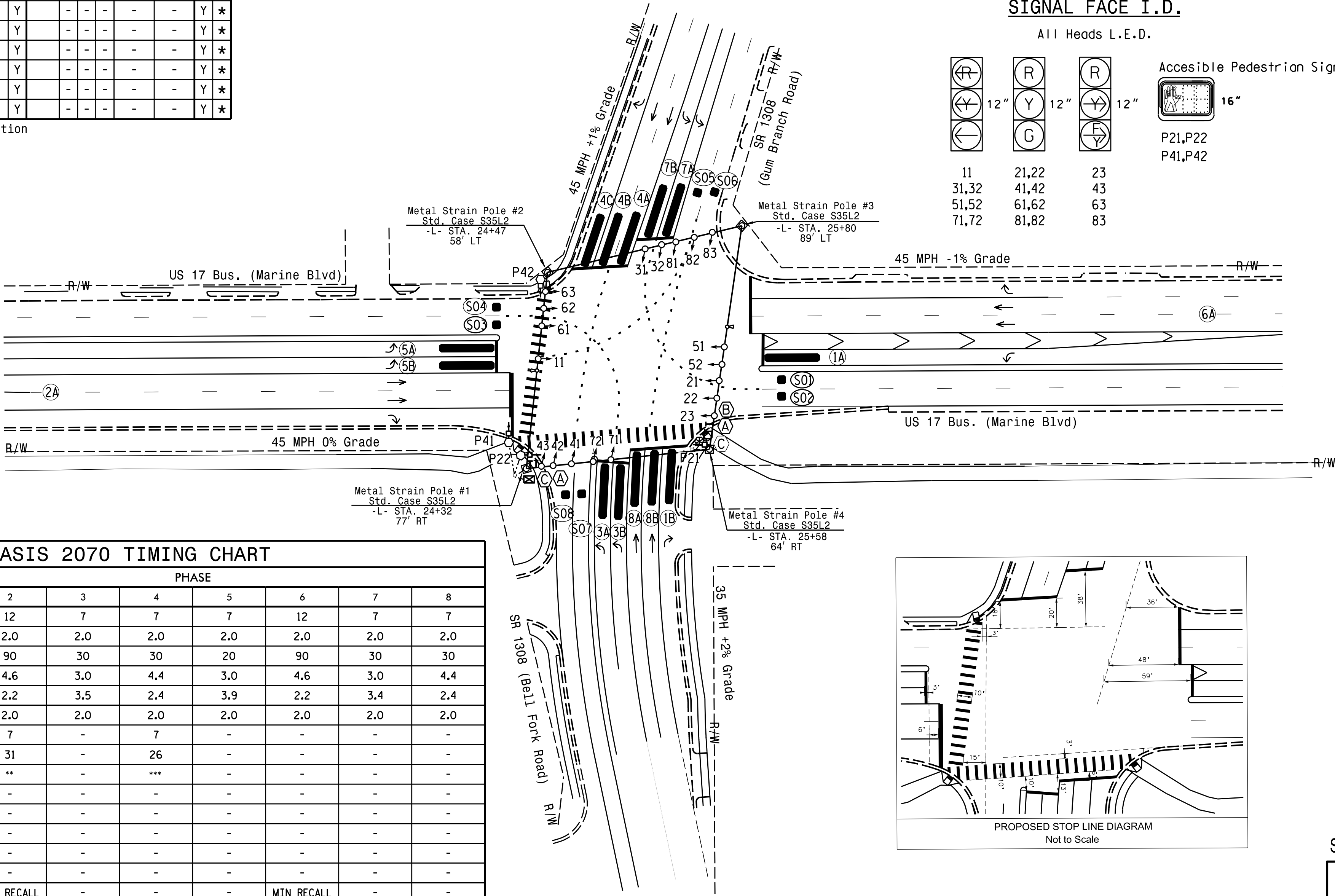
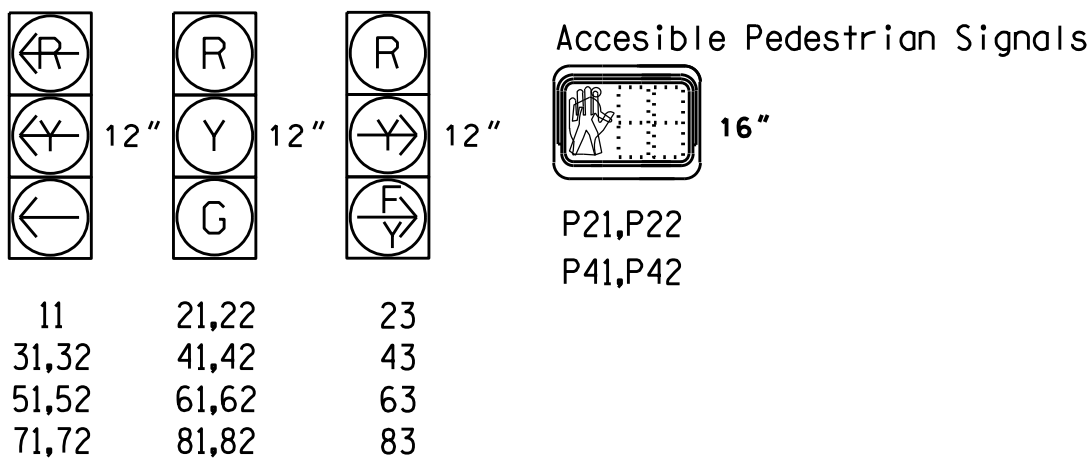
MICROWAVE DETECTION				
FUNCTION	Sensor 1 (2A)		Sensor 2 (6A)	
Channel	1		1	
Phase	2		6	
Direction of Travel	NB		SB	
Type	PRIORITY		PRIORITY	
Level	2	QUEUE	2	QUEUE
Discovery Zone(ft)	<750	-	<750	-
Detection ZoneRange(ft)	600-100	150-100	600-100	150-100
Enable Speed	Y	Y	Y	Y
Speed Range (mph)	35-100	1-35	35-100	1-35
Enable Estimated Time of Arrival	Y	N	Y	N
Estimated Time of Arrival (sec)	2.5-6.5	-	2.5-6.5	-

OASIS 2070 EV PREEMPT		
FUNCTION	PRE 3	PRE 5
Interval 1 – Dwell Green	255	255
Interval 1 – Dwell Yellow	0.0*	0.0*
Interval 1 – Dwell Red	0.0*	0.0*
Interval 5 – Exit Green	1	1
Interval 5 – Yellow	0.0	0.0
Interval 5 – Red	0.0	0.0
Exit Phase(s)	2+6	2+6
Priority	MED	MED
Delay Time	0.0	0.0
Min Green Before Pre	1	1
Ped Clear Before Pre	0*	0*
Yellow Clear Before Pre	0.0*	0.0*
Red Clear Before Pre	0.0*	0.0*
Dwell Min Time	12	12
Dwell Max Time (Minutes)	2	2
Enable Backup Protection	N	N
Ped Clear Through Yellow	Y	Y
Omit Overlaps	-	B
Preempt Extend**	2	2

* Time defaults to time used for phase during normal operation
** Program Timing on Optical Detection Unit

SIGNAL FACE I.D.

All Heads L.E.D.



OASIS 2070 TIMING CHART								
FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green 1 *	7	12	7	7	7	12	7	7
Extension 1 *	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Max Green 1 *	20	90	30	30	20	90	30	30
Yellow Clearance	3.0	4.6	3.0	4.4	3.0	4.6	3.0	4.4
Red Clearance	3.9	2.2	3.5	2.4	3.9	2.2	3.4	2.4
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	7	-	7	-	-	-	-
Don't Walk 1	-	31	-	26	-	-	-	-
Advanced Walk	-	**	-	***	-	-	-	-
Seconds Per Actuation *	-	-	-	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL	-	-
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW	-	-
Dual Entry	-	-	-	ON	-	-	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON	ON	ON	ON

* 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.
** See Note # 10
*** See Note # 11

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

PROJECT REFERENCE NO.	SHEET NO.
U-5728	Sig. 4.0

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.
- 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

LEGEND

PROPOSED	EXISTING
	N/A
	N/A
	N/A
N/A	
N/A	

Signal Upgrade - Sheet 1 of 2

Project #: 230906

HOME OFFICE:
119 BROOKSTOWN AVENUE, SUITE PH1
WINSTON-SALEM, NC 27101
336.744.1636 www.davenportworld.com
NCBELS FIRM LICENSE NO. C-2522

Prepared for
TRANSPORTATION MOBILITY AND SAFETY DIVISION
UNIVERSITY OF NORTH CAROLINA
STATE OF NORTH CAROLINA
Signal Design Section

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE

0 50

1"=50'

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

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL

Signed By: Donald R. Bennett II

2CEB3701D4DBFC...

7/21/2026

SIGNATURE DATE

SIG. INVENTORY NO. 03-0090