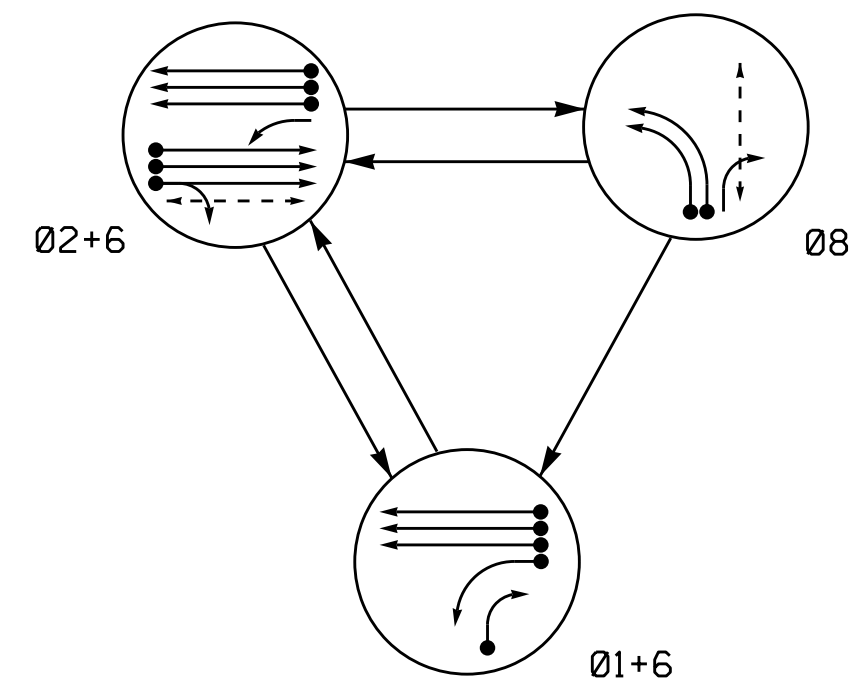
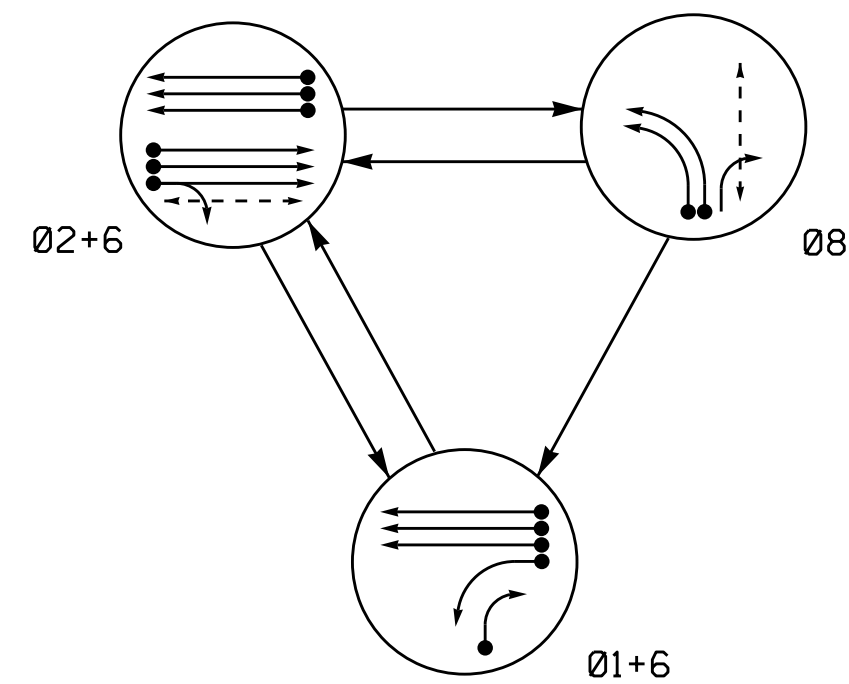


DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE			
	01+6	02+6	08	FLASH
11	←	→	←	→
21, 22, 23	R	G	R	Y
61, 62, 63	G	G	R	Y
81, 82	←	→	←	→
83	←	R	→	R
P21, P22	DW	W	DW	DRK
P81, P82	DW	DW	W	DRK

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE			
	01+6	02+6	08	FLASH
11	←	→	←	→
21, 22, 23	R	G	R	Y
61, 62, 63	G	G	R	Y
81, 82	←	→	←	→
83	←	R	→	R
P21, P22	DW	W	DW	DRK
P81, P82	DW	DW	W	DRK

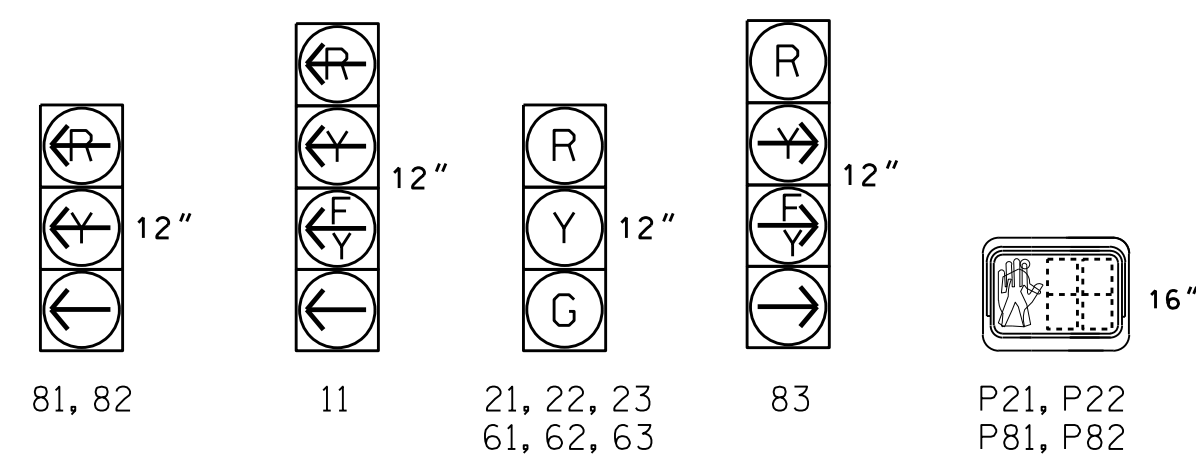
SE-PAC 2070 LOOP & DETECTOR UNIT INSTALLATION CHART

LOOP / ZONE NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW	EXISTING	ASSIGNED PHASE	DETECTOR PROGRAMMING															
							TIMING		OPERATION MODE							SWITCH	SYSTEM	LOOPS	STATUS			
							DELAY	EXTEND (STRETCH)	VEHICLE	PEDESTRIAN	1 CALL	STOP A	STOP B	PROTECTOR LEFT	PROTECTOR RIGHT					THROUGH	AND	
1A	6X40	*	0	-	X	1	5 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	-	-	-
1B	6X40	*	0	-	X	1	15 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	-	-	-
2A	6X6	*	300	-	X	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	-	-	-
2B	6X6	*	300	-	X	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	-	-	-
2C	6X6	*	300	-	X	2	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	-	-	-
6A	6X6	*	300	-	X	6	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	-	-	-
6B	6X6	*	300	-	X	6	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	-	-	-
6C	6X6	*	300	-	X	6	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	-	-	-
8A	6X40	*	0	X	-	8	3 SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	-	-	-
8B	6X40	*	0	-	-	8	- SEC.	- SEC.	X	-	-	-	-	-	-	-	-	-	-	-	-	-

* Video Detection Zone

SIGNAL FACE I.D.

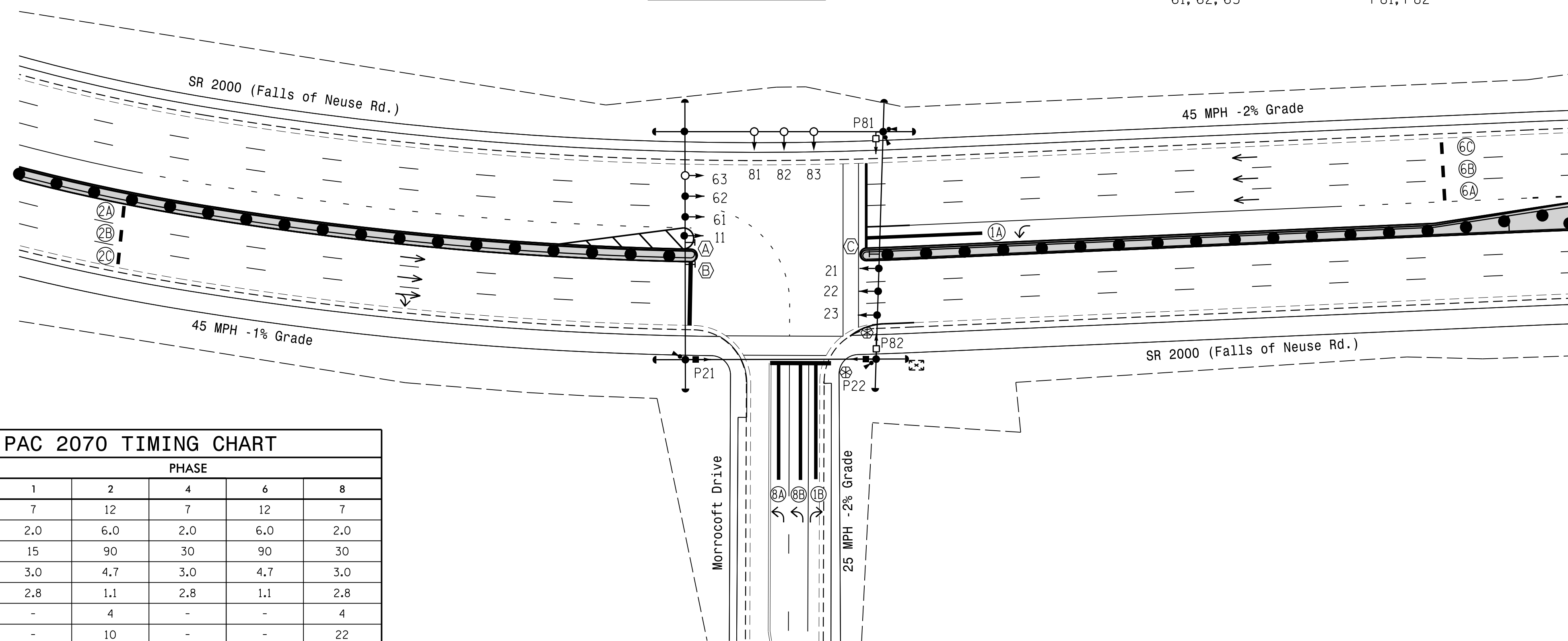
All Heads L.E.D.



3 Phase Fully Actuated (Raleigh Signal System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 may be lagged.
- Set all detector units to presence mode.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- The Division (City) Traffic Engineer will determine the hours of use for each phasing plan.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Program phase 4 as a dummy phase for Ring 1.
- This intersection features a video detection system. Shown locations of detectors are conceptual only. Refer to the manufacturer's guidelines for optimal detector placement.
- This intersection features accessible pedestrian signals utilizing percussive tone walk indications and/or speech messages.



SE-PAC 2070 TIMING CHART

FEATURE	PHASE				
	1	2	6	8	
Min Green *	7	12	7	12	7
Passage Gap *	2.0	6.0	2.0	6.0	2.0
Maximum Green *	15	90	30	90	30
Yellow Change	3.0	4.7	3.0	4.7	3.0
Red Clear	2.8	1.1	2.8	1.1	2.8
Walk *	-	4	-	-	4
Pedestrian Clear	-	10	-	-	22
Added Initial *	-	1.0	-	1.0	-
Maximum Initial *	-	34	-	34	-
Time Before Reduction *	-	15	-	15	-
Time To Reduce *	-	30	-	30	-
Minimum Gap	-	3.0	-	3.0	-
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 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.

ACCESSIBLE PEDESTRIAN SIGNAL OPERATION

SIGNAL FACE	VOICE TONES	INTERVAL	SPEECH MESSAGE
P21, P22	- X	Walk	(Percussive Tone)
	X -	Flashing Don't Walk / Don't Walk	Wait. Wait to cross Morrocroft.
P81, P82	- X	Walk	(Percussive Tone)
	X -	Flashing Don't Walk / Don't Walk	Wait. Wait to cross Falls of Neuse.

LEGEND

- | PROPOSED | EXISTING |
|--|----------|
| ○ Traffic Signal Head | ● N/A |
| ○ Modified Signal Head | ○ N/A |
| ○ Sign | ○ N/A |
| ○ Pedestrian Signal Head With Push Button & Sign | ○ N/A |
| ○ Signal Pole with Guy | ○ N/A |
| ○ Signal Pole with Sidewalk Guy | ○ N/A |
| ○ Inductive Loop Detector | ○ N/A |
| ○ Controller & Cabinet | ○ N/A |
| ○ Junction Box | ○ N/A |
| ○ 2-in Underground Conduit | ○ N/A |
| ○ Right of Way | ○ N/A |
| ○ Directional Arrow | ○ N/A |
| ○ Type I Pushbutton Post | ○ N/A |
| ○ Construction Zone Drums | ○ N/A |
| ○ Construction Zone | ○ N/A |
| ○ Out of Pavement Detector | ○ N/A |
| ○ Video Detection Zone | ○ N/A |
| ○ Left Arrow "ONLY" Sign (R3-5L) | ○ N/A |
| ○ "U-TURN YIELD TO RIGHT TURN" Sign (R10-16) | ○ N/A |
| ○ No U-Turn Sign (R3-4) | ○ N/A |

Signal Upgrade - Temp. Design 2 (TMP Phase III)

Prepared in the Offices of:

 TRANSPORTATION MOBILITY AND SAFETY DIVISION
 STATE OF NORTH CAROLINA
 SIGNAL DESIGN SECTION

SR 2000 (Falls of Neuse Rd.)
 at
 Morrocroft Drive

Division 5 Wake County Raleigh

PLAN DATE: July 2019 REVIEWED BY: [Signature]

PREPARED BY: I. O. Umozurike REVIEWED BY: [Signature]

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE: 0 40
 1" = 40'

REVISIONS: [Table with columns for REVISIONS, INIT., DATE]

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL: [Seal of Robert J. Tiemba, Professional Engineer, No. 026486]

8/22/2019

SIG. INVENTORY NO. 05-229312