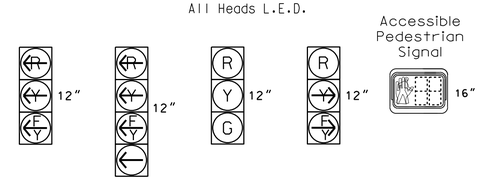
PROJECT REFERENCE NO.	SHEET NO.
HL-0025	Sig-1.0

ACCESSIBLE PEDESTRIAN SIGNAL OPERATION

SIGNAL FACE	VOICE	TONES	INTERVAL	SPEECH MESSAGE
P21	-	X	Walk	(Percussive Tone)
	X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross Greylock.
P22	-	X	Walk	(Percussive Tone)
	X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross Greylock.
P41	-	X	Walk	(Percussive Tone)
	X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross John.
P42	-	X	Walk	(Percussive Tone)
	X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross John.
P61	-	X	Walk	(Percussive Tone)
	X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross Greylock.
P62	-	X	Walk	(Percussive Tone)
	X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross Greylock.
P81	-	X	Walk	(Percussive Tone)
	X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross John.
P82	-	X	Walk	(Percussive Tone)
	X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross John.

SIGNAL FACE I.D.

All Heads L.E.D.



MAXTIME DETECTOR INSTALLATION CHART

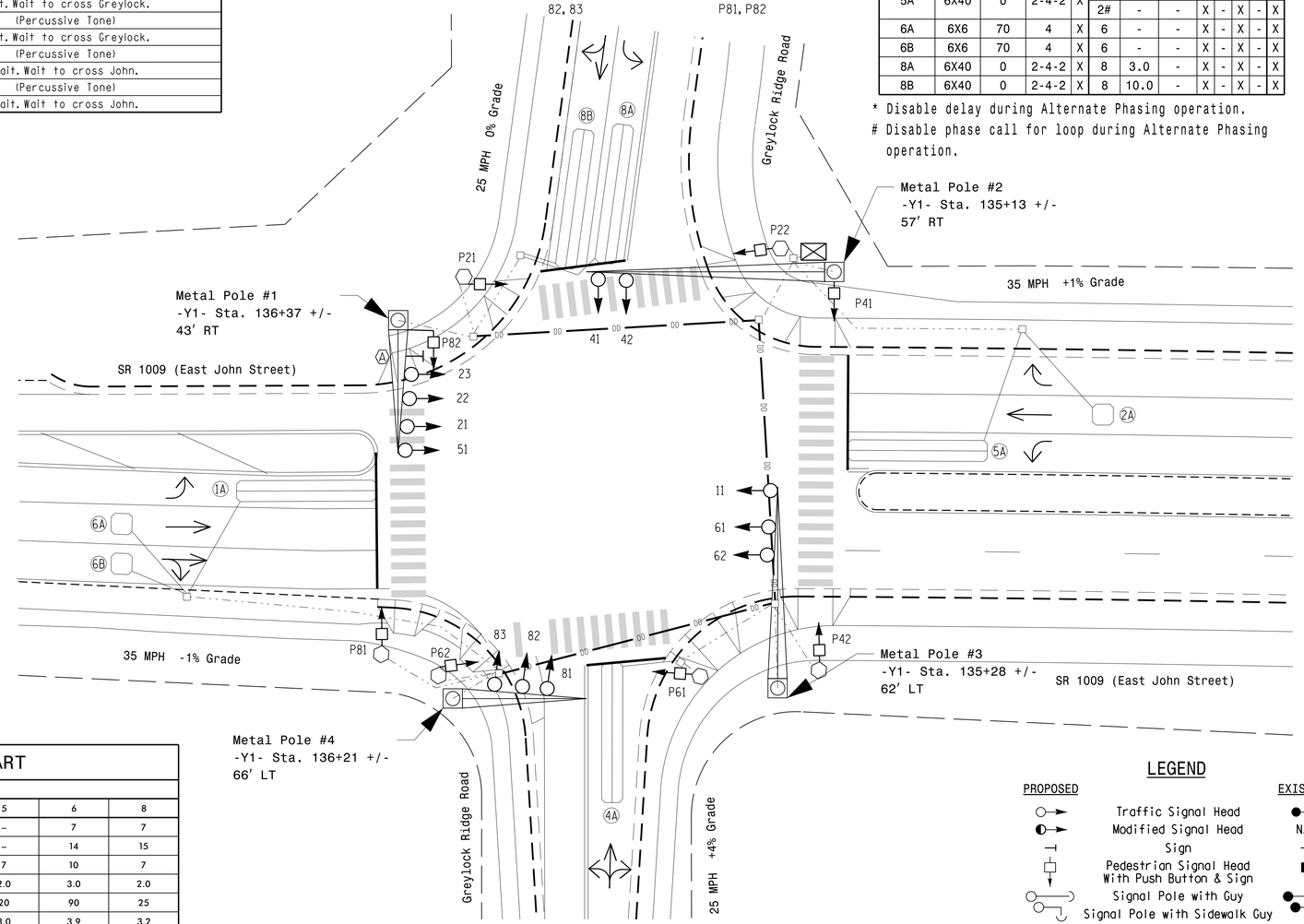
DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN	NEW CARD
1A	6X40	0	2-4-2	X	1	15.0*	-	X	-	X	-	X
					6#	-	-	X	-	X	-	X
2A	6X6	70	4	X	2	-	-	X	-	X	-	X
4A	6X40	0	2-4-2	X	4	10.0	-	X	-	X	-	X
5A	6X40	0	2-4-2	X	5	15.0*	-	X	-	X	-	X
					2#	-	-	X	-	X	-	X
6A	6X6	70	4	X	6	-	-	X	-	X	-	X
6B	6X6	70	4	X	6	-	-	X	-	X	-	X
8A	6X40	0	2-4-2	X	8	3.0	-	X	-	X	-	X
8B	6X40	0	2-4-2	X	8	10.0	-	X	-	X	-	X

* Disable delay during Alternate Phasing operation.
\# Disable phase call for loop during Alternate Phasing operation.

5 Phase Fully Actuated w/ Alternate Phasing Operation D10-05_Matthews

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "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 and/or phase 5 may be lagged.
4. Set all detector units to presence mode.
5. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. See pavement markings plan for stop bar and crosswalk locations.
9. The Division Traffic Engineer will determine the hours of use for each phasing plan.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
11. To provide a leading pedestrian interval on phase 2, program FYA heads numbered 11 and 23 to delay for 7 seconds after the start of the phase 2 walk interval. See Electrical Details for programming.



MAXTIME TIMING CHART

FEATURE	PHASE					
	1	2	4	5	6	8
Walk *	–	7	7	–	7	7
Ped Clear	–	12	17	–	14	15
Min Green *	7	10	7	7	10	7
Passage *	2.0	3.0	2.0	2.0	3.0	2.0
Max 1 *	20	90	25	20	90	25
Yellow Change	3.0	3.9	3.2	3.0	3.9	3.2
Red Clear	3.2	2.5	3.2	3.2	2.5	3.2
Added Initial *	–	–	–	–	–	–
Maximum Initial *	–	–	–	–	–	–
Time Before Reduction *	–	–	–	–	–	–
Time To Reduce *	–	–	–	–	–	–
Minimum Gap	–	–	–	–	–	–
Advance Walk	–	–	4	–	7	5
Non Lock Detector	X	–	X	X	–	X
Vehicle Recall	–	MIN RECALL	–	–	MIN RECALL	–
Dual Entry	–	–	X	–	–	X
Simultaneous Start	–	–	X	–	–	X

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

This plan supersedes the plan signed and sealed on 2/20/23.

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	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	

LEGEND CONT.

PROPOSED		EXISTING
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Metal Pole with Mastarm	
	Directional Drill	N/A
	Type II Signal Pedestal	
	"RIGHT TURN SIGNAL" Sign (R10-10R)	

New Installation - Sheet 1 of 2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared For: Transportation Mobility and Safety Division, Signal Design Section, Bureau of Traffic Engineering, State of North Carolina
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 20 1"=20'

SR 1009 (East John Street) at Greylock Ridge Road

Division 10 Mecklenburg County Matthews

PLAN DATE:	February 2024	REVIEWED BY:	R.N. Zinser
PREPARED BY:	T.A. Kenion	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 043914 ENGINEER RICHARD N. ZINSER

DocuSigned by: R. Nicholas Zinser 06/07/2024
F13889734722488F
DATE

SIG. INVENTORY NO. 10-2462