Fully Actuated W/ Railroad Preemption D06-24 NC 72 (Second Street) and Water Street

4 Phase

NOTES

- 1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- 2. This location contains railroad preemption phasing. Do not program signal for late night flashing operation.
- 3. The order of phase 3 and phase 4 may be reversed.
- 4. Set all detector units to presence
- 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. Pavement markings are existing.
- 9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- 10. Program the controller to allow an Advance Walk movement before serving phase 2, 3, 4, and 6 vehicle phases.
- 11. Disconnect and remove existing signal heads 11, 21, 22, 61, and 62.
- 12. Disconnect and cover existing signal head 41 left turn arrow faces.

LEGEND <u>PROPOSED</u> Traffic Signal Head Modified Signal Head

Sign Pedestrian Signal Head With Push Button & Sign Signal Pole with Guy Signal Pole with Sidewalk Guy Inductive Loop Detector Controller & Cabinet

Junction Box 2-in Underground Conduit N/A Right of Way Directional Arrow N/A Curb Ramp Railroad Tracks

> Railroad Cantilever Railroad Gate Type II Signal Pedestal Construction Zone

"YIELD" Sign (R1-2) Left Arrow "ONLY" Sign (R3-5L)

"DO NOT STOP ON TRACKS" Sign (R8-8) (C)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED NC 72/NC 41-72 (W 2nd St)

NC 41/SR 1599

(Martin Luther King Jr. Dr) Robeson County Lumberton 43239

EXISTING

N/A

N/A

Regina M. Muncey 2/2/2023 SIG. INVENTORY NO. 06-0186T

TABLE OF OPERATION							
	PHASE						
SIGNAL FACE	ØN+15	Ø2+6	Ø 3	Ø 4	TRACK	DWELL 1	TUDUI
31	R	R	G	R	G	R	R
32	R	R	G	R	G	R	R
41	R	R	R	G	R	R	R
42	R	R	R	G	R	R	R
51, 52	•	 R				•	▼R
P21 , P22	W	W	DW	DW	DW	DW	DRK
P31 , P32	DW	DW	W	DW	DW	DW	DRK
P41 , P42	DW	DW	DW	W	DW	DW	DRK
DC1 DC0		147				C	

PHASING DIAGRAM DETECTION LEGEND

DETECTED MOVEMENT

PHASING DIAGRAM

Ø2+6

- UNDETECTED MOVEMENT (OVERLAP)

-	ONDETECTED MOVEMENT (OVER
◀	UNSIGNALIZED MOVEMENT
< >	PEDESTRIAN MOVEMENT



NC 72 (W 2nd St) SI CA 35 MPH -3% Grade DISCONNECT LEFT TURN ARROWS-ON SIGNAL HEAD 41

DISCONNECT AND REMOVE SIGNAL HEADS —

TIMING CHART							
	PHASE						
FEATURE	2 PED	3	4	5	6 PED		
Min Green *	10	7	7	7	10		
Walk *	7	7	7	-	7		
Ped Clear	7	14	10	-	13		
Veh. Extension *	0.0	1.0	1.0	2.0	0.0		
Advance Walk	4	5	4	-	5		
Max 1 *	20	35	35	35	20		
Yellow	3.0	4.1	4.1	3.0	3.0		
Red Clear	0.0	1.6	1.6	2.4	0.0		
Actuations B4 Add *	-	-	-	-	-		
Seconds /Actuation *	-	-	-	-	-		
Max Initial *	-	-	-	-	-		
Time Before Reduction *	-	-	-	-	-		
Time To Reduce *	-	-	-	-	-		
Minimum Gap	-	-	-	-	-		
Locking Detector	Χ	-	-	-	Х		
Recall Position	-	-	-	SOFT RECALL	-		
Dual Entry	-	-	-	-	-		
Simultaneous Gap	Χ	X	X	X	X		

* 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.

	REMOVE	EXISTING SIGN-
RR PREEMP	(Martin	
FUNCTION	PRE 1	† <u>†</u>
Exit Phase(s)	-	1
Preempt Override	ON	Luther
Delay Time	0	d d
Ped Clear Through Yellow	Y]
Terminate Phases	N	ي ق
Track Clear Reservice	Y	
Entrance Walk	0	
Entrance Ped Clear	4	
Entrance Min Green	1	
Entrance Yellow Change	25.5 *	
Entrance Red Clear	25.5 *	
Track Clear Min Green	23	
Track Clear Yellow Change	4.1	
Track Clear Red Clear	1.6	
Min Dwell Time	10	
Exit Yellow Change	25 . 5*	
Exit Red Clear	25 . 5*	

* Allows normal phase times to be used.

Stantec Consulting Services Inc. 801 Jones Franklin Road-Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866

> www.stantec.com License No. F-0672

This Intersection is designed for

SIMULTANEOUS preemption.

Fax. (919) 851-7024

1"=40'

750 N.Greenfield Pkwy.Garner.NC 27529 PREPARED BY: J. Hambright REVIEWED BY: D Waller REVISIONS

RAIL PREEMPT PHASES

(High Priority)

Dwell 1 (05)

O EXIST 4B 6X40 4 Yes 5A | 6X40 | +5 | EXIST Disconnect 6A/S2 6X6 75 EXIST - 6 Yes

0 EXIST

O EXIST

Disconnect 4A 6X40 0 EXIST - 4/7 Yes

DETECTOR

SIZE

Disconnect 1A 6X40 0 EXIST -

6X40

3B 6X40

DISTANCE

FROM STOPBAR

DETECTOR INSTALLATION CHART

3 Yes

3 |Yes|

PROGRAMMING

SIGNAL FACE I.D.

All Heads L.E.D.

%, **%** 42 **X, X** DISCONNECT LEFT TURN
SIGNAL FACES

NC 41-72 (W 2nd St)

-DISCONNECT AND REMOVE SIGNAL HEADS

P21**,**P22

P31,P32 P41,P42

P61,P62

Signal Upgrade - Temporary Signal

Stantec

PLAN DATE: FEBRUARY 2023 REVIEWED BY: R M Muncey