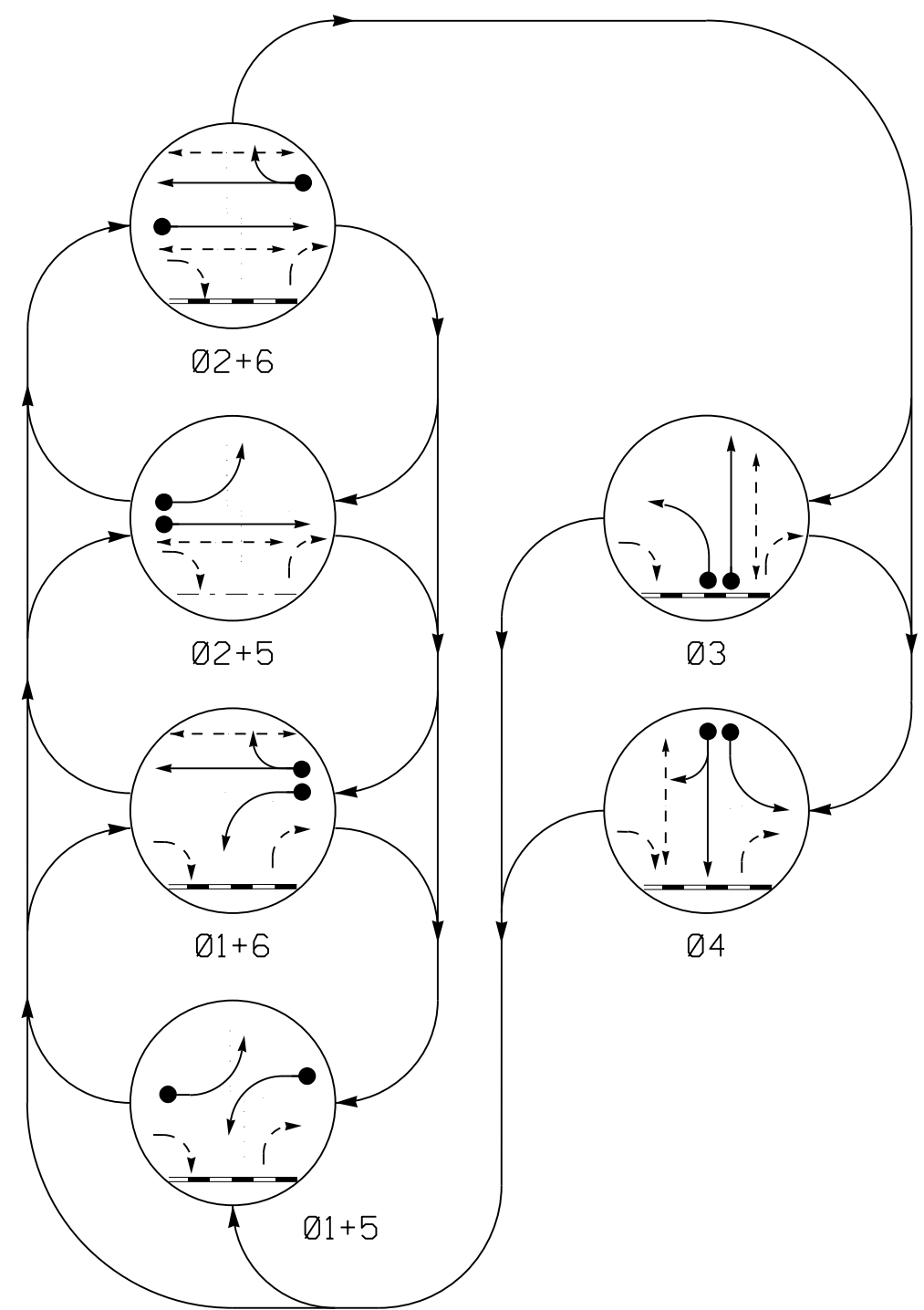


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

RAIL PREEMPT PHASES
(High Priority)

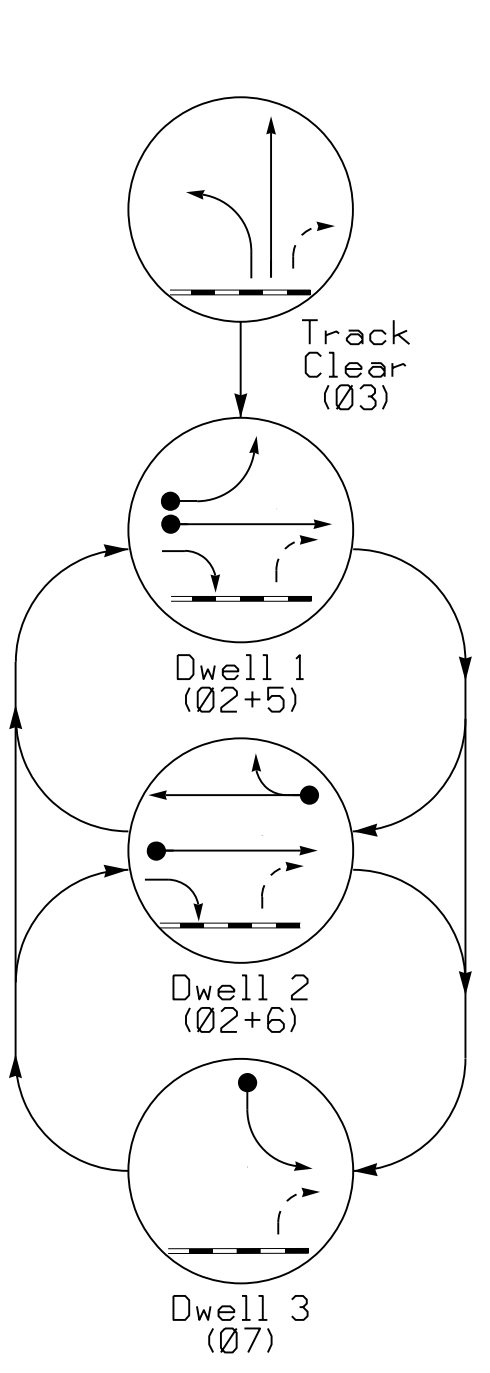
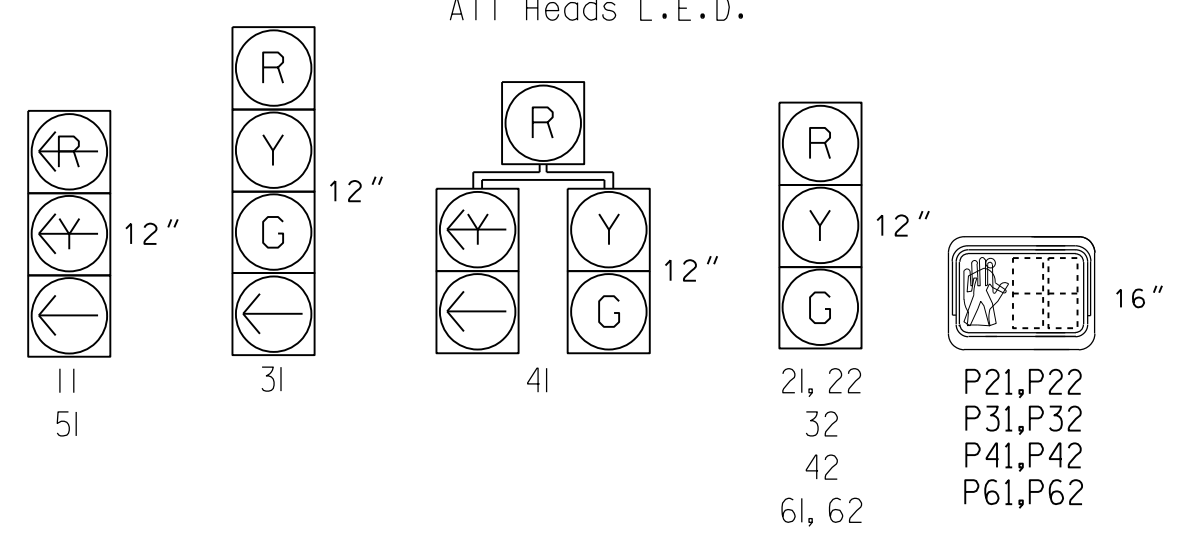


TABLE OF OPERATION

SIGNAL FACE	PHASE											
	01+5	01+6	02+5	02+6	03	04	05	06	07	08	09	10
11												
21, 22	R	R	G	G	R	R	R	G	R	R	R	Y
31	R	R	R	R	G	R	G	R	R	R	R	R
32	R	R	R	R	G	R	G	R	R	R	R	R
41	R	R	R	R	R	G	R	R	R	R	R	R
42	R	R	R	R	R	G	R	R	R	R	R	R
51												
61, 62	R	G	R	G	R	R	R	R	G	R	Y	
P21,P22	DW	DW	W	W	DW	DW	DW	DW	DW	DRK		
P31,P32	DW	DW	DW	DW	W	DW	DW	DW	DW	DRK		
P41,P42	DW	DW	DW	DW	W	DW	DW	DW	DW	DRK		
P61,P62	DW	W	DW	W	DW	DW	DW	DW	DW	DRK		

SIGNAL FACE I.D.
All Heads L.E.D.



DETECTOR INSTALLATION CHART

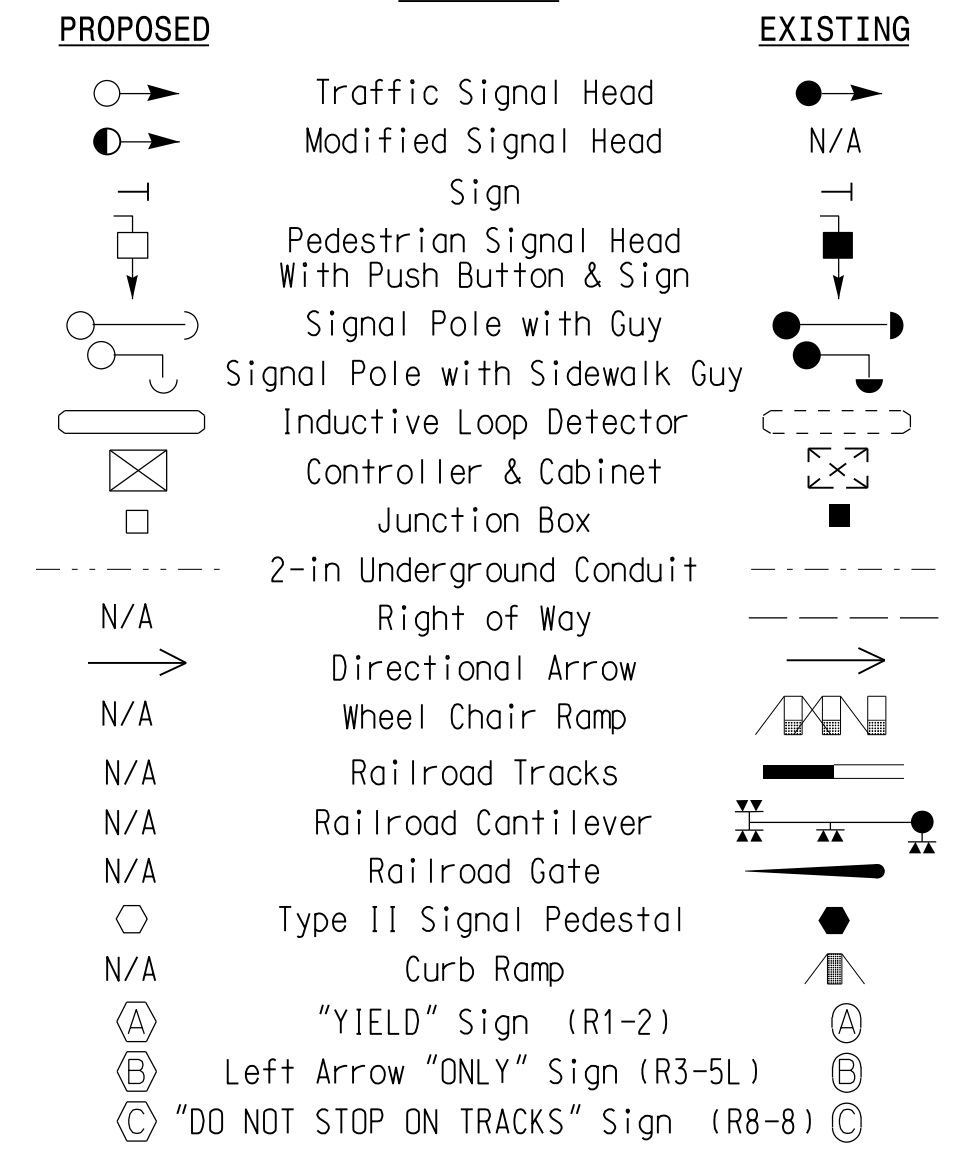
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	-	1	Yes	-	-	-	N	-	X
2A/S1	6X6	70	EXIST	-	2	Yes	-	-	-	N	X	X
3A	6X40	0	2-4-2	-	3	Yes	-	3	-	N	-	-
3B	6X40	0	2-4-2	-	3	Yes	-	-	-	N	-	-
4A	6X40	0	2-4-2	-	4/7	Yes	-	3	-	N	-	-
4B	6X40	0	2-4-2	-	4	Yes	-	10	-	N	-	-
5A	6X40	+5	2-4-2	-	5	Yes	-	3	-	N	-	-
6A/S2	6X6	75	EXIST	-	6	Yes	-	-	-	N	X	X

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

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- This location contains railroad preemptions phasing. Do not program signal for late night flashing operation.
- Phase 1 or phase 5 may be lagged.
- The order of phase 3 and phase 4 may be reversed.
- 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.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Program the controller to allow an Advance Walk movement before serving phase 2, 3, 4, and 6 vehicles phases.

LEGEND



TIMING CHART

FEATURE	PHASE						
	1	2	3	4	5	6	7
Min Green *	7	10	7	7	7	10	7
Walk *	-	7	7	7	-	7	-
Ped Clear	-	7	14	10	-	13	-
Veh. Extension *	1.0	3.0	1.0	1.0	2.0	3.0	1.0
Advance Walk	-	4	5	4	-	5	-
Max 1 *	30	50	35	35	20	50	20
Yellow	3.0	4.1	4.1	4.1	3.0	4.1	3.0
Red Clear	2.6	1.6	1.6	1.6	2.4	1.6	2.3
Actuations B4 Add *	-	-	-	-	-	-	-
Seconds / Actuation *	-	-	-	-	-	-	-
Max Initial *	-	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-	-
Locking Detector	-	X	-	-	-	X	-
Recall Position	-	VEH. RECALL	-	-	-	VEH. RECALL	-
Dual Entry	-	-	-	-	-	-	-
Simultaneous Gap	X	X	X	X	X	X	X

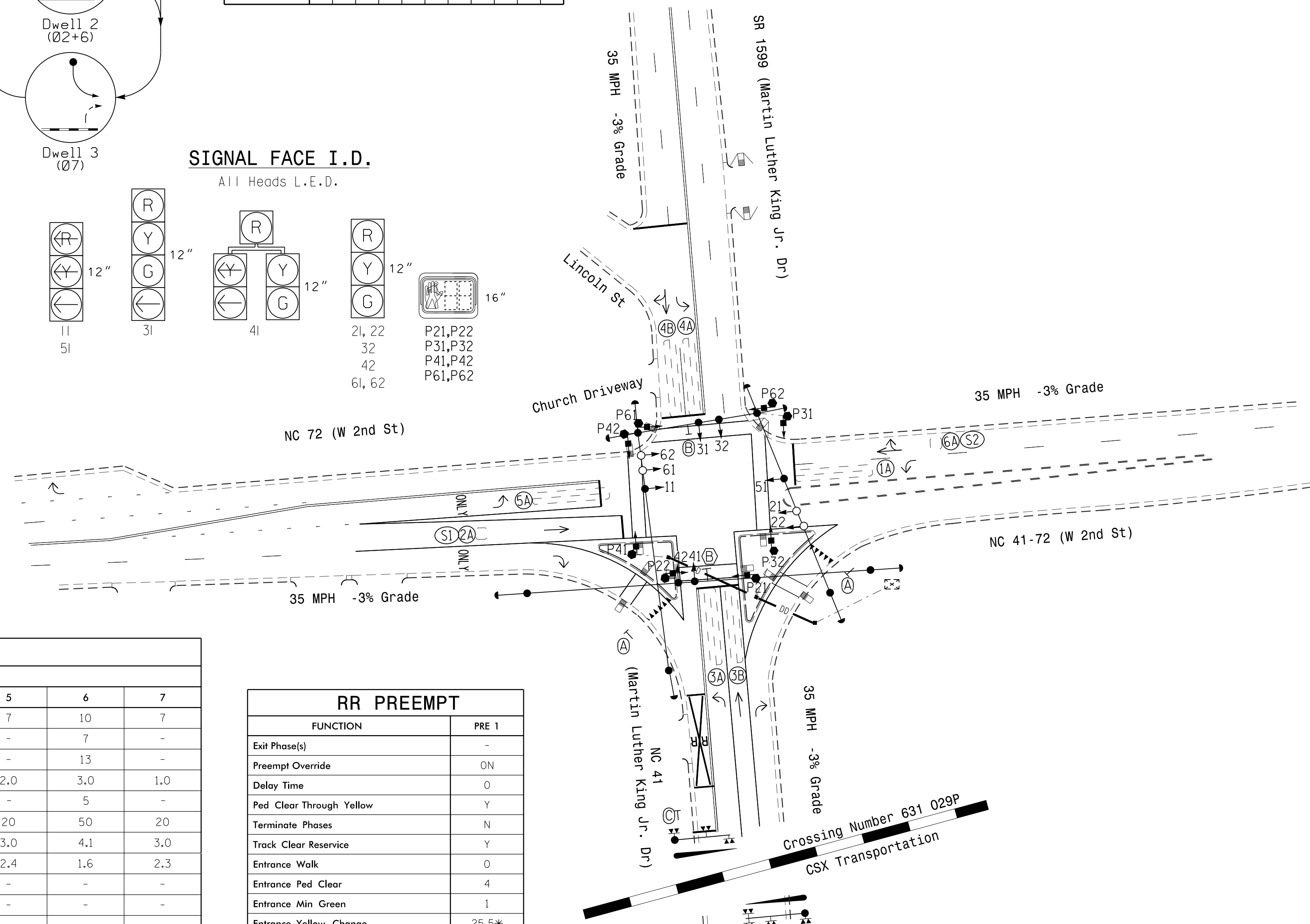
* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

RR PREEMPT

FUNCTION	PRE 1
Exit Phase(s)	-
Preempt Override	ON
Delay Time	0
Ped Clear Through Yellow	Y
Terminate Phases	N
Track Clear Reserve	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.

This Intersection is designed for SIMULTANEOUS preemption.



Signal Upgrade - Final Design

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road-Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

Prepared for the Offices of:
Transportation Mobility and Safety Division
DEPARTMENT OF TRANSPORTATION
STATE OF NORTH CAROLINA
Signal Design Section
750 N. Greenfield Pkwy, Garner, NC 27529
SCALE
0 40
1"=40'

NC 72/NC 41-72 (W 2nd St)
at
NC 41/SR 1599
(Martin Luther King Jr. Dr)
Division 6 Robeson County Lumberton
PLAN DATE: FEBRUARY 2023 REVIEWED BY: R M Muncey
PREPARED BY: J. Hambright REVIEWED BY: D Waller

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Seal: REGINA M. MUNCEY, PROFESSIONAL ENGINEER, No. 43239
Signature: Regina M. Muncey 2/2/2023
SIC INVENTORY NO. 06-0186

33388455.DWG DATE: 02/02/2023
 User: rmmuncey
 Path: \\server\projects\signal\06-0186\06-0186.dgn