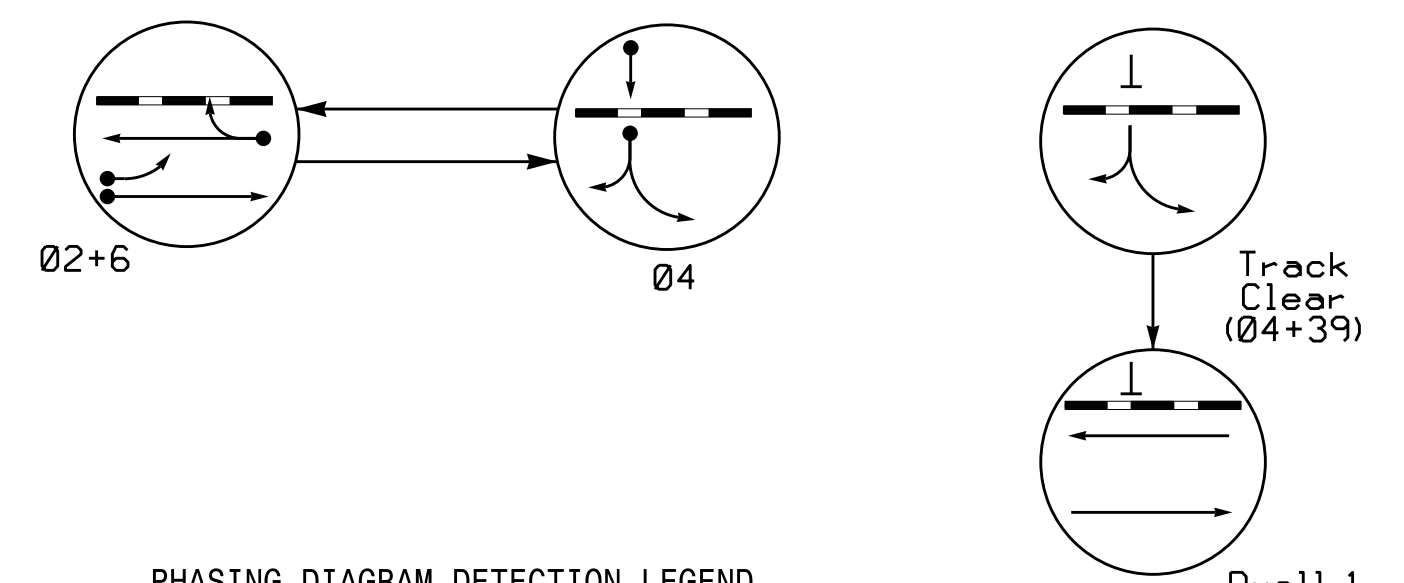


2 Phase
with Railroad Preemption
Fully Actuated
(Lexington NC 8 CLS)
Signal System #: D09-19_Lexington

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE I.D.

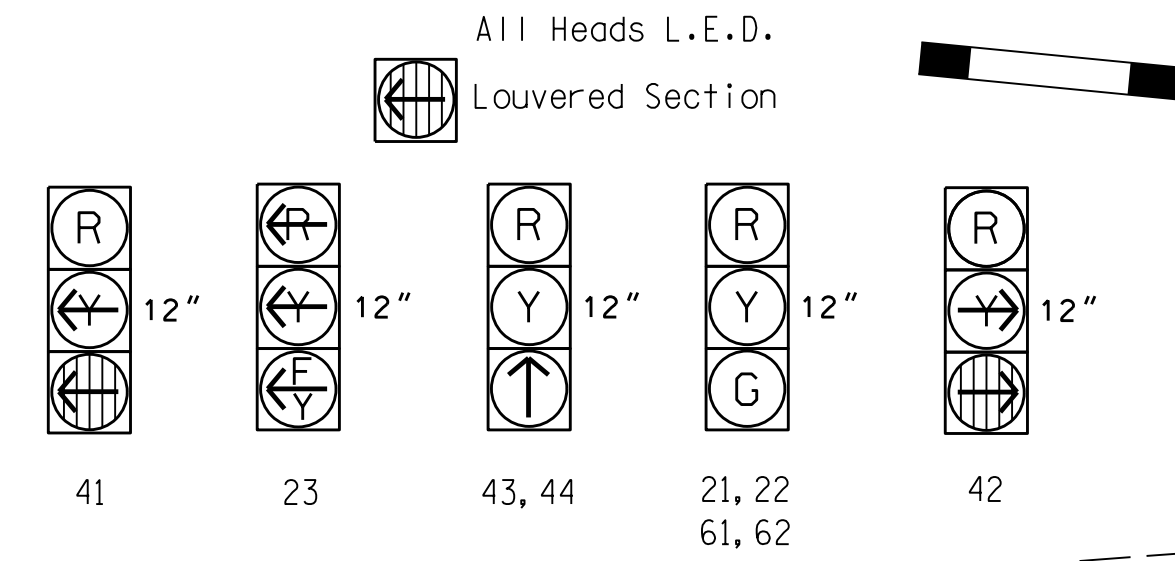


TABLE OF OPERATION

SIGNAL FACE	PHASE					
	02+6	04	TRAIL	TRAIL	DWELL	F
21, 22	G	R	R	R	G	Y
23	F	R	R	R	Y	Y
41	R	-	-	R	R	-
42	R	-	-	R	R	-
43, 44	R	↑	R	R	R	G
61, 62	G	R	R	G	Y	-
Sign B	OFF	OFF	ON	ON	ON	*

* See Note 5

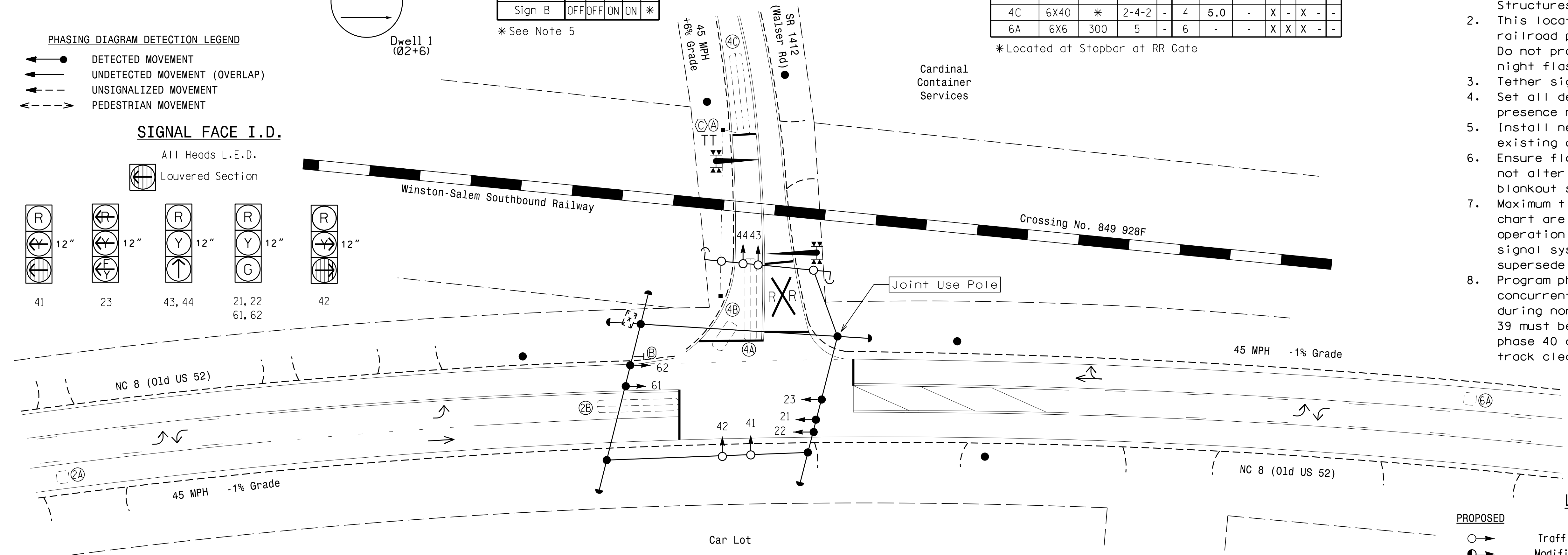
MAXTIME DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN	NEW CARD	
2A	6X6	300	5	-	2	-	-	X	X	X	-	-
2B	6X6	0	2-4-2	-	2	3.0	-	X	-	X	X	-
4A	6X40	0	2-4-2	-	4	5.0	-	X	-	X	-	-
4B	6X15	+5	3	-	4	15.0	-	X	-	X	-	-
4C	6X40	*	2-4-2	-	4	5.0	-	X	-	X	-	-
6A	6X6	300	5	-	6	-	-	X	X	X	-	-

* Located at Stopbar at RR Gate

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- This location contains railroad preemption phasing. Do not program signal for late night flashing operation.
- Tether signal heads 41 and 42.
- Set all detector units to presence mode.
- Install new controller in existing cabinet.
- Ensure flashing operation does not alter operation of blackout signs.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Program phase 40 to run concurrently with all phases during normal operation. Phase 39 must be incompatible with phase 40 and included as a track clear phase.



MAXTIME TIMING CHART

FEATURE	PHASE				
	2	4	6	39	40
Walk *	-	-	-	-	-
Ped Clear *	-	-	-	-	-
Min Green 1	10	7	10	1	1
Min Green 2	-	12	-	-	-
Passage *	6.0	2.0	6.0	-	-
Max I *	45	30	45	-	-
Yellow Change	3.3	3.4	3.3	3.4	3.3
Red Clear	1.7	2.7	1.7	2.7	1.7
Added Initial *	2.5	-	2.5	-	-
Maximum Initial *	34	-	34	-	-
Time Before Reduction *	15	-	15	-	-
Time To Reduce *	45	-	45	-	-
Minimum Gap	3.0	-	3.0	-	-
Advance Walk	-	-	-	-	-
Non Lock Detector	-	X	-	-	-
Vehicle Recall	MIN RECALL	-	MIN RECALL	-	MIN RECALL
Dual Entry	-	-	-	-	-

* 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.

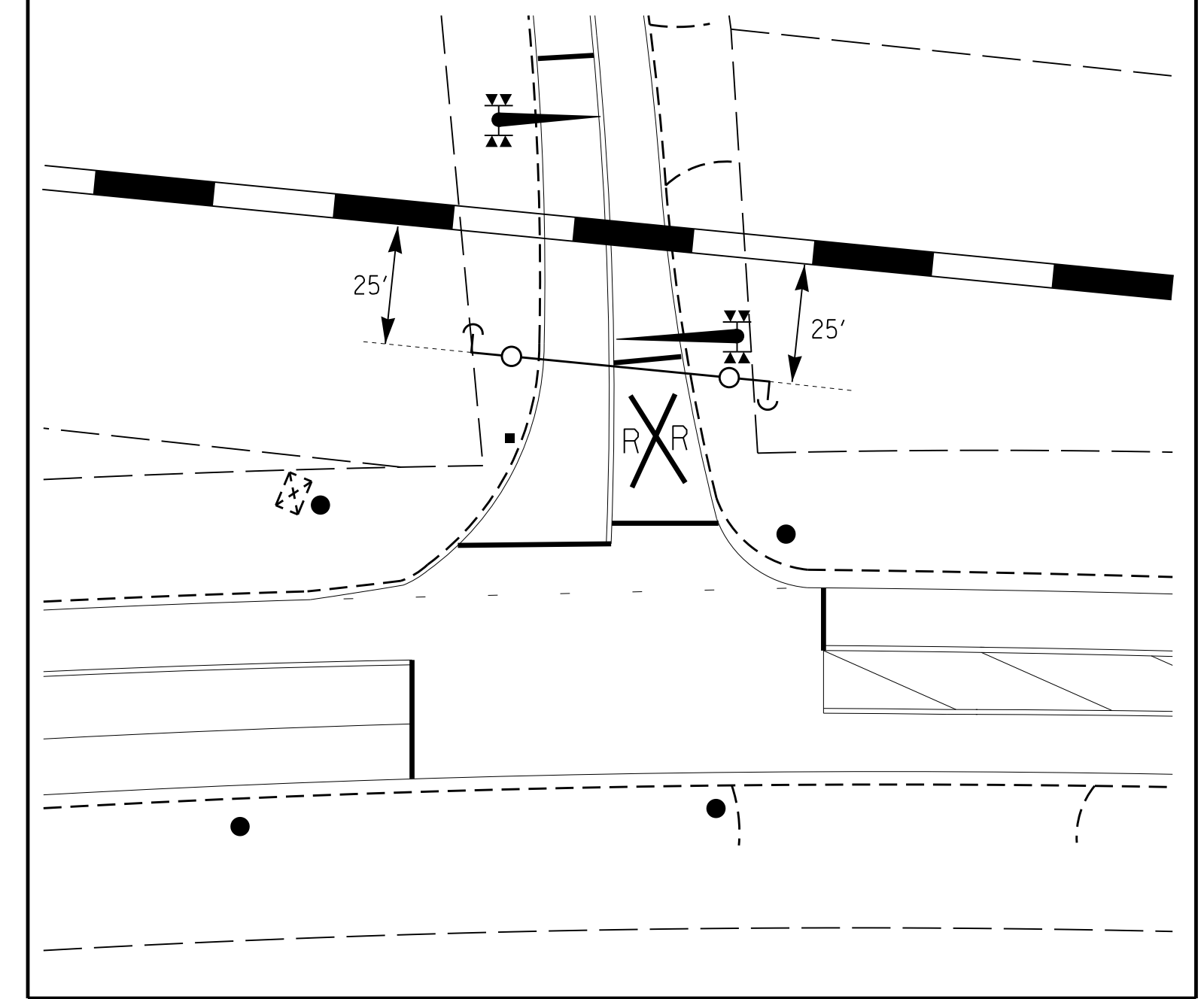
MAXTIME PREEMPTION CHART

FUNCTION	PRE 1
Type	RAIL ROAD
Exit Phases	4
Delay	0
Max Presence	0
Enter Min Green	1
Enter Walk	0
Enter Ped Clear	0
Enter Yellow Change	3.3
Enter Red Clear	1.7
Track Green	22
Track Yellow Change	3.4
Track Red Clear	2.7
Dwell Green	0
Exit Min Green	25.5 *
Exit Yellow Change	25.5 *
Exit Red Clear	25.5 *
Dwell Extend Time	1.0
Exit Type	EXIT PHASES
Ped Clear Through Yellow	N
Require All Red Entry	-

* Directs controller to use default phase timing.

This signal was designed for advanced preemption

Proposed Pole Locations



LEGEND

- | PROPOSED | EXISTING |
|----------|----------|
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Signal Upgrade

Prepared In the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

0 SCALE 30
1"=30'

NC 8 (Old US 52)
at
SR 1412 (Walser Road)

Division 9 Davidson County Lexington

PLAN DATE: January 2024 REVIEWED BY:
PREPARED BY: I.O. Umzurike REVIEWED BY:

REVISIONS INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 026486
ROBERT J. ZIEGLER

02/29/2024
DATE

SIG. INVENTORY NO. 09-1325

09-1325-2024-14-16
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