

3 PHASE FULLY ACTUATED RAILROAD PREEMPTION GASTONIA CITY SIGNAL SYSTEM

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
2. Set all detector units to presence mode.
3. Omit Phase 5 during Phase 6 on.
4. Program controller to clear from phase 2+6 to phase 5 by progressing through phase 4 (see Electrical Details).
5. Maximum times shown in timing chart are for free run operation only. Coordinated signal system timing values shall supersede these values.
6. System data: Controller Asset #: 0155
7. This location contains railroad preemption phasing. Do not program signal for late night flashing operation.

PLAN QUANTITIES

Pay Item	Meters
Signal Cable	310
Messenger Cable	0
Loop Lead-in Cable	870

SIGNAL FACE I.D.

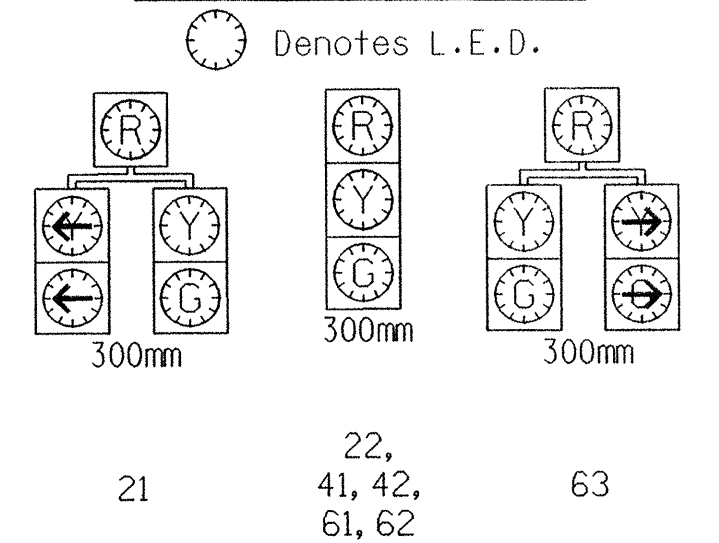
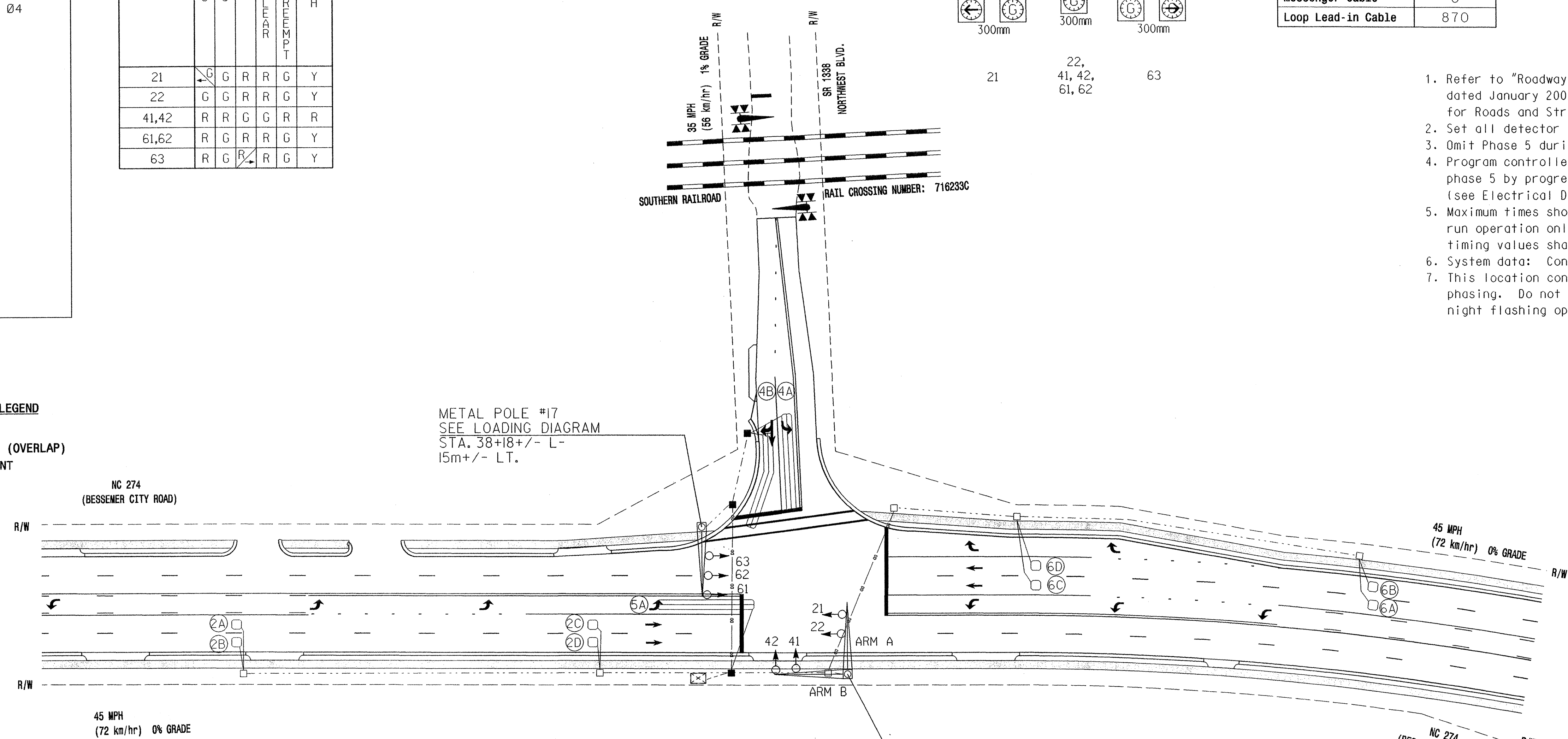
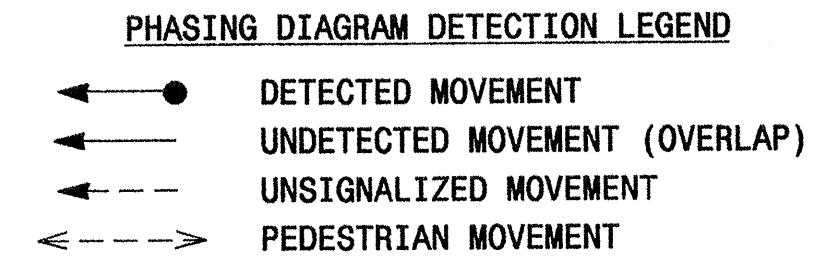
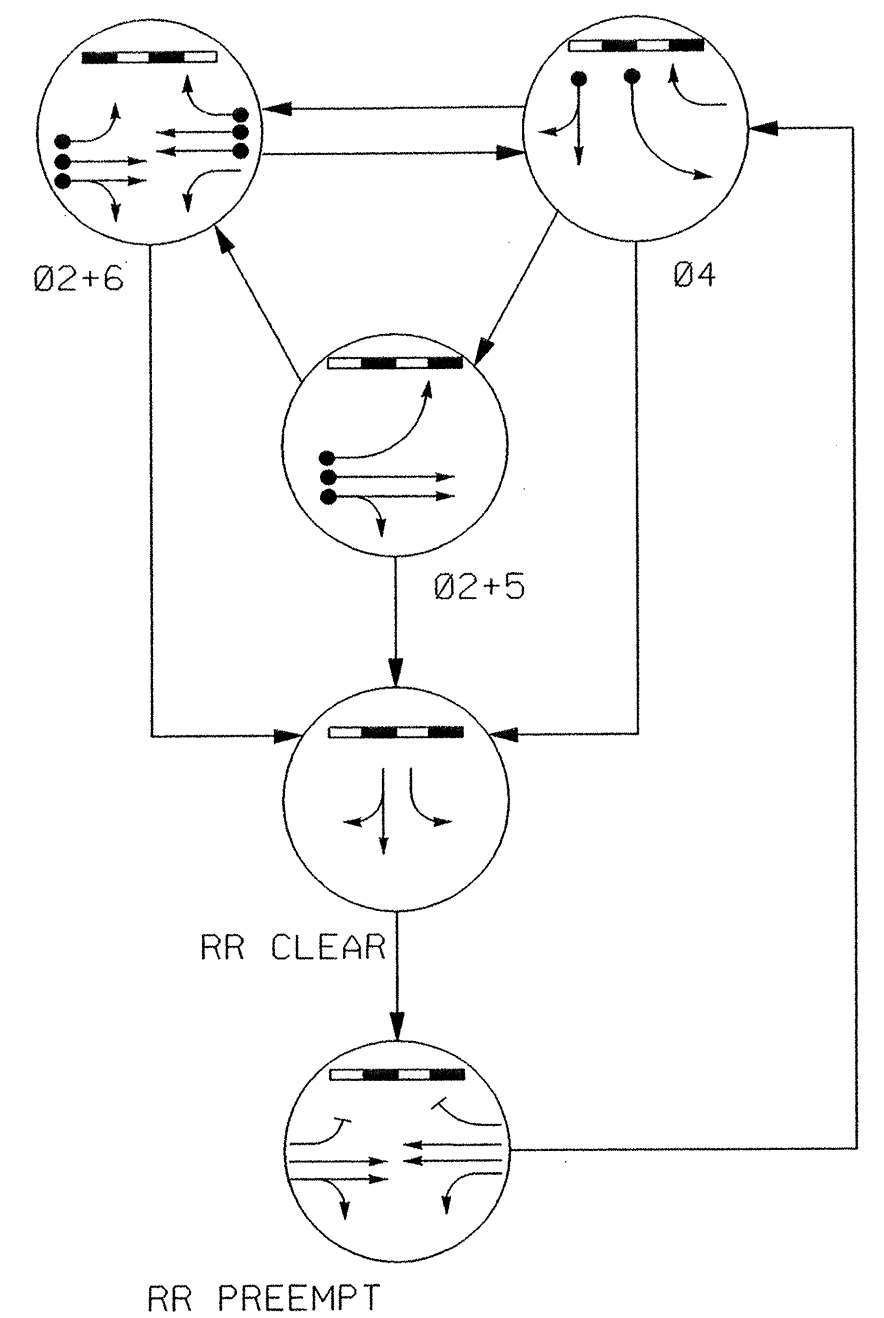


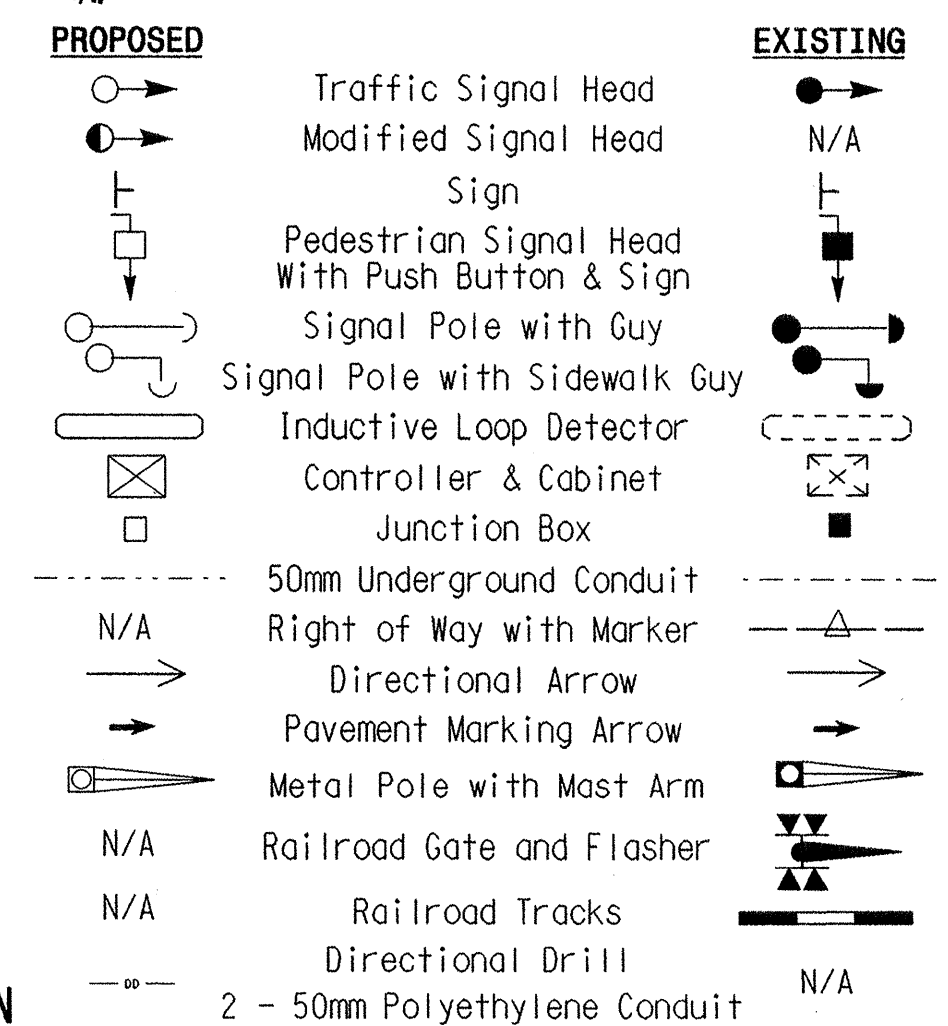
TABLE OF OPERATION

SIGNAL FACE	PHASE					
	02+5	02+6	04	RR CLEAR	RR PREEMPT	PEDESTRIAN
21	G	R	G	R	G	Y
22	G	G	R	R	G	Y
41,42	R	R	G	G	R	R
61,62	R	G	R	R	G	Y
63	R	G	R	R	G	Y

PHASING DIAGRAM



LEGEND



2070L TIMING CHART

FEATURE	PHASE			
	2	4	5	6
Min Green 1*	12	7	7	12
Extension 1*	2.0	1.0	1.0	2.0
Max Green 1*	45	20	15	45
Yellow Clearance	4.7	4.0	4.0	4.7
Red Clearance	1.5	2.0	1.5	1.5
Walk 1*	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation*	-	-	-	-
Max Variable Initial*	-	-	-	-
Time Before Reduction*	-	-	-	-
Time To Reduce*	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	MIN RECALL	-	-	MIN RECALL
Vehicle Call Memory	YELLOW	-	-	YELLOW
Dual Entry	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON

2070L LOOP & DETECTOR INSTALLATION

INDUCTIVE LOOPS				DETECTOR PROGRAMMING								
LOOP	SIZE (m)	TURNS	DISTANCE FROM STOPBAR (m)	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CARD
2A,2B	1.8 X 1.8	4	93	Y	2	Y	Y	-	-	1.8	-	Y
2C,2D	1.8 X 1.8	4	27	Y	2	Y	Y	-	-	-	-	Y
4A	1.8 X 1.8	2-4-2	0	Y	4	Y	Y	-	-	-	3	-
4B	1.8 X 1.8	2-4-2	+2	Y	4	Y	Y	-	-	-	10	-
5A	1.8 X 1.8	2-4-2	+2	Y	5	Y	Y	-	-	-	15	Y
6A,6B	1.8 X 1.8	5	90	Y	6	Y	Y	-	-	1.8	-	Y
6C,6D	1.8 X 1.8	4	27	Y	6	Y	Y	-	-	-	-	Y

2070 RAIL PREEMPTION

Interval 1 - Track Clearance Green	30
Interval 1 - Track Clearance Yellow	4.0
Interval 1 - Track Clearance Red	2.0
Interval 2 - Dwell Green	255
Interval 2 - Dwell Yellow	0.0*
Interval 2 - Dwell Red	0.0*
Interval 5 - Exit Green	1
Interval 5 - Exit Yellow	0.0*
Interval 5 - Exit Red	0.0*
Delay Time	0
Min Green Before Pre	1
Ped Clear Before Pre	0
Yellow Clear Before Pre	4.7
Red Clear Before Pre	2.0
Dwell Min Time	10
Ped Clear Through Yellow	N

Prepared in the Office of:
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SIGNAL UPGRADE - FINAL DESIGN

N.C. 274 (BESSEMER CITY ROAD) AT SR1338 (NORTHWEST BLVD.)

DIVISION 12 GASTON COUNTY GASTONIA
 PLAN DATE: OCT. 30, 2003 REVIEWED BY: R. DUBNICKA, P. E.
 PREPARED BY: RGL REVIEWED BY:

REVISIONS: _____ INIT. DATE

SCALE: 1:500

SIG. INVENTORY NO. 12-0155

09-AUG-2004 12:27
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* 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.