

8 PHASE FULLY ACTUATED GASTONIA CITY SIGNAL SYSTEM

PLAN QUANTITIES	
Pay Item	Meters
Signal Cable	500
Messenger Cable	0
Loop Lead-in Cable	1290

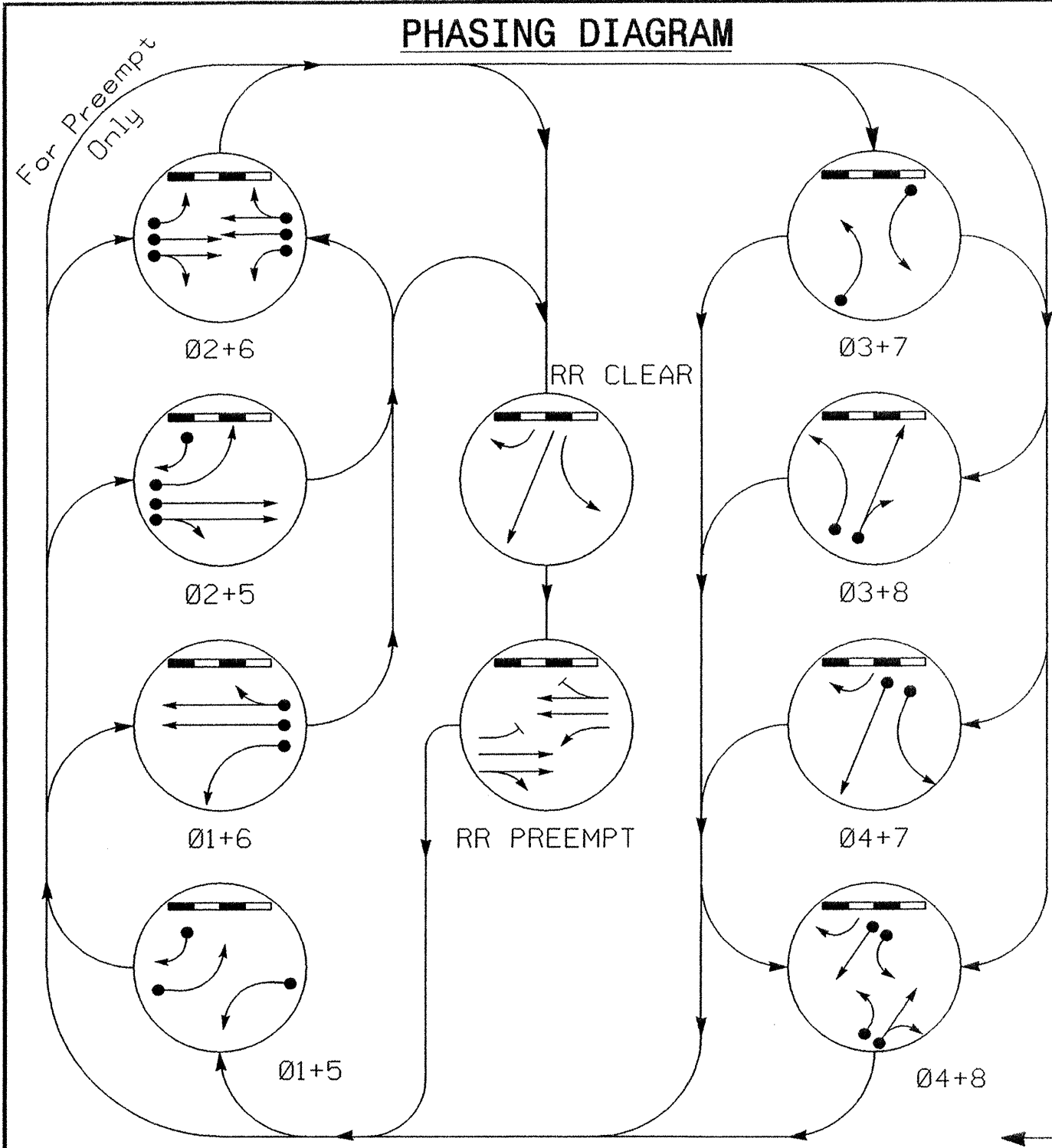
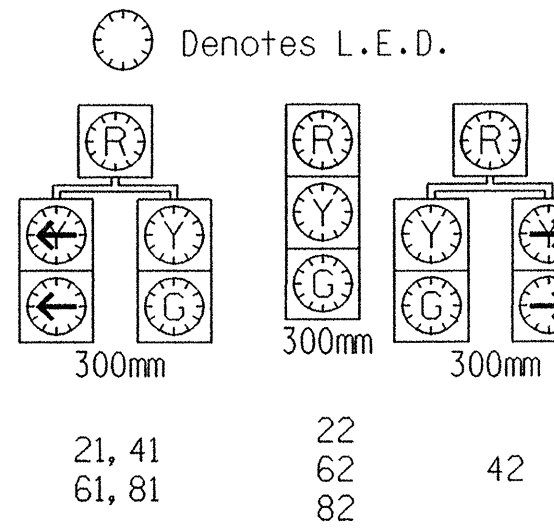
NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
- Omit Phase 1 during Phase 2 on.
- Omit Phase 3 during Phase 4 on.
- Omit Phase 5 during Phase 6 on.
- Omit Phase 7 during Phase 8 on.
- Program controller to clear from phase 2+6 to phase 1 and/or 5 by progressing through phase 4+8 (see Electrical Details).
- Set all detector units to presence mode.
- Maximum times shown in timing chart are for free run operation only. Coordinated signal system timing values shall supersede these values.
- System data: Controller Asset #: 0335
- Ensure flashing operation does not alter operation of blankout signs.
- This location contains railroad preemption phasing. Do not program signal for late night flashing operation.

SIGNAL FACE	PHASE								RR CLEAR	RR PREEMPT	L.E.D.
	01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8			
21	R	R	G	G	R	R	R	R	R	G	Y
22	R	R	G	G	R	R	R	R	R	G	Y
41	R	R	R	R	R	G	G	R	R	G	Y
42	R	R	R	R	R	R	R	G	R	R	Y
61	R	R	G	G	R	R	R	R	R	G	Y
62	R	R	R	R	R	R	R	R	R	G	Y
81	R	R	R	R	R	R	R	R	R	G	Y
82	R	R	R	R	R	R	R	R	R	G	Y
SIGN (A)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	*
SIGN (B)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	*

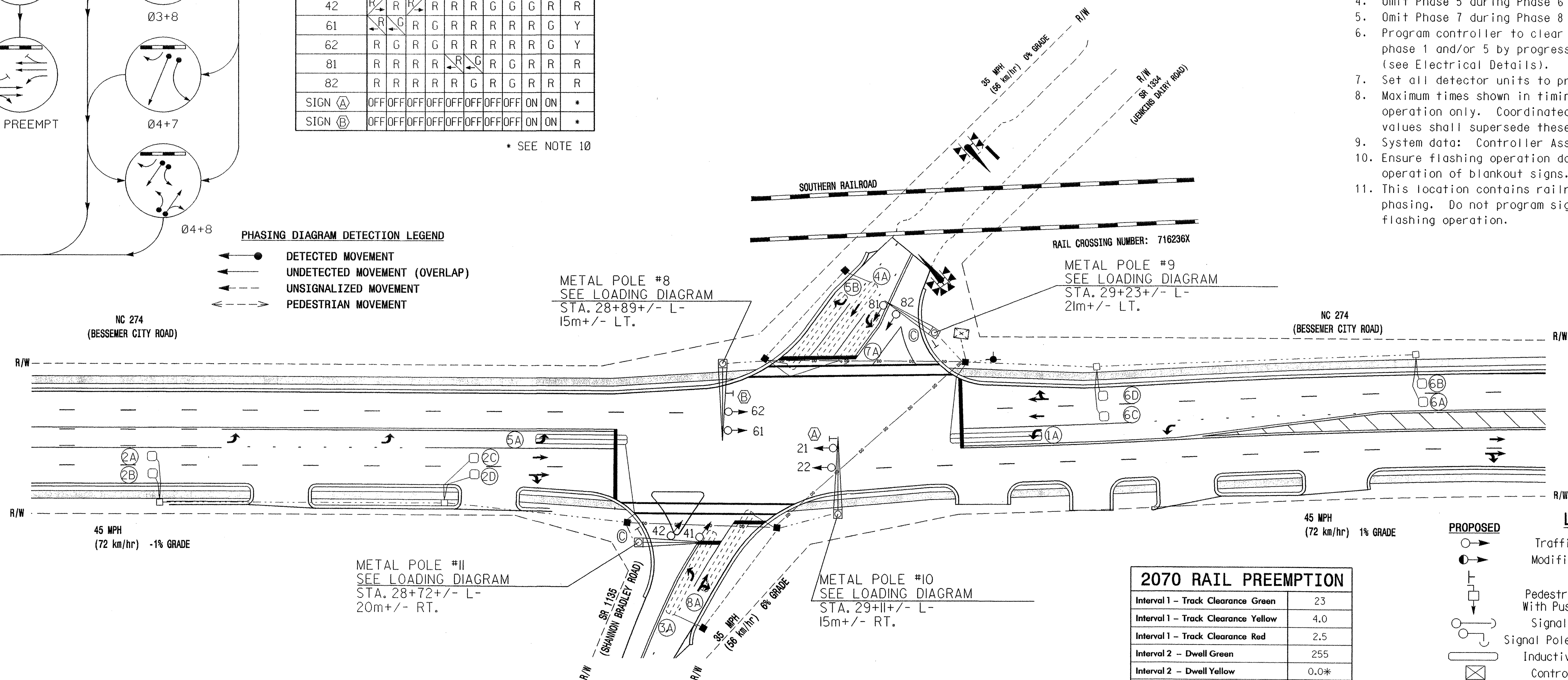
\* SEE NOTE 10

SIGNAL FACE I.D.



PHASING DIAGRAM DETECTION LEGEND

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



FEATURE	2070L TIMING CHART							
	1	2	3	4	5	6	7	8
Min Green 1 *	7	12	7	7	7	12	7	7
Extension 1 *	1.0	2.0	1.0	1.0	1.0	2.0	1.0	1.0
Max Green 1 *	15	45	15	20	15	45	15	20
Yellow Clearance	5.0	5.0	4.0	4.0	5.0	5.0	4.0	4.0
Red Clearance	3.0	3.0	2.0	2.5	3.0	3.0	2.0	2.5
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	-	-	-	ON	-	-	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON	ON	ON	ON

\* 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.

2070L LOOP & DETECTOR INSTALLATION

INDUCTIVE LOOPS				DETECTOR PROGRAMMING							
LOOP	SIZE (m)	TURNS	DISTANCE FROM STOPBAR (m)	PHASE	CALLING	EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CARD
1A	1.8 X 18	2-4-2	+2	Y	1	Y	Y	-	-	15	Y
2A,2B	1.8 X 1.8	6	90	Y	2	Y	Y	-	1.8	-	Y
2C,2D	1.8 X 1.8	5	27	Y	2	Y	Y	-	-	-	Y
3A	1.8 X 18	2-4-2	+2	-	3	Y	Y	-	-	15	Y
4A	1.8 X 18	2-4-2	0	-	4	Y	Y	-	-	-	Y
5A	1.8 X 18	2-4-2	+2	Y	5	Y	Y	-	-	15	Y
5B	1.8 X 18	2-4-2	+2	-	5	Y	Y	-	-	15	-
6A,6B	1.8 X 1.8	4	90	Y	6	Y	Y	-	1.8	-	Y
6C,6D	1.8 X 1.8	5	27	Y	6	Y	Y	-	-	-	Y
7A	1.8 X 12	2-4-2	+1	-	7	Y	Y	-	-	15	Y
8A	1.8 X 18	4	+2	-	8	Y	Y	-	-	10	-

2070 RAIL PREEMPTION

Interval 1 - Track Clearance Green	23
Interval 1 - Track Clearance Yellow	4.0
Interval 1 - Track Clearance Red	2.5
Interval 2 - Dwell Green	255
Interval 2 - Dwell Yellow	0.0*
Interval 2 - Dwell Red	0.0*
Interval 5 - Exit Green	0
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	5.0
Red Clear Before Pre	3.0
Dwell Min Time	10
Ped Clear Through Yellow	N

\* Clearance time defaults to time used for phase during normal operation.

PROPOSED		EXISTING	
	Traffic Signal Head		N/A
	Modified Signal Head		N/A
	Sign		N/A
	Pedestrian Signal Head With Push Button & Sign		N/A
	Signal Pole with Guy		N/A
	Signal Pole with Sidewalk Guy		N/A
	Inductive Loop Detector		N/A
	Controller & Cabinet Junction Box		N/A
	50mm Underground Conduit		N/A
	Right of Way with Marker		N/A
	Directional Arrow		N/A
	Pavement Marking Arrow		N/A
	Metal Pole with Mast Arm		N/A
	Railroad Gate and Flasher		N/A
	Railroad Tracks		N/A
	"NO LEFT TURN - TRAIN" LED Blankout Sign		N/A
	"NO RIGHT TURN - TRAIN" LED Blankout Sign		N/A
	"YIELD" Sign (R1-2)		N/A
	Directional Drill		N/A
	2 - 50mm Polyethylene Conduit		N/A

SIGNAL UPGRADE - FINAL DESIGN

Prepared in the Office of:  
**THE LPA GROUP**  
TRANSPORTATION CONSULTANTS  
THE LPA GROUP of North Carolina, p.a.  
4904 PROFESSIONAL COURT, SUITE 201  
Raleigh, North Carolina 27609

	<b>N.C. 274 (BESSEMER CITY ROAD)</b> AT <b>SR 1334 (JENKINS DAIRY ROAD) &amp; SR 1135 (SHANNON BRADLEY ROAD)</b> DIVISION 12 GASTON COUNTY GASTONIA		SEAL 027742 ROBERT J. DUBNICKA ENGINEER
	PLAN DATE: OCT. 30, 2003 PREPARED BY: RGL	REVIEWED BY: R. DUBNICKA, P.E.	