

PHASING DIAGRAM DETECTION LEGEND

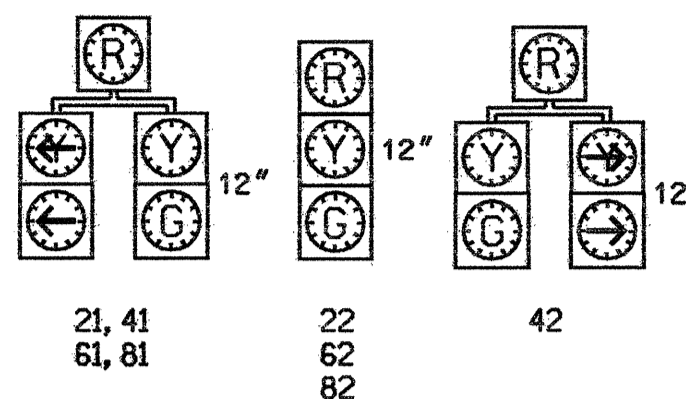
- ← ● → DETECTED MOVEMENT
- ← ○ → UNDETECTED MOVEMENT (OVERLAP)
- ← - - - → UNSIGNALIZED MOVEMENT
- ← - - - → PEDESTRIAN MOVEMENT

| SIGNAL FACE | PHASE | | | | | | | | L-LOOSE | L-LOCK | L-STOP |
|-------------|-------|------|------|------|------|------|------|------|---------|--------|--------|
| | 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 | G | Y | |
| 22 | R | R | G | G | R | R | R | R | R | G | Y |
| 41 | R | R | R | R | R | R | G | G | R | R | |
| 42 | R | R | R | R | R | R | G | G | R | R | |
| 61 | R | R | G | G | R | R | R | R | R | G | Y |
| 62 | R | R | G | G | R | R | R | R | R | G | Y |
| 81 | R | R | R | R | R | R | R | R | R | R | |
| 82 | R | R | R | R | R | R | G | G | R | R | |
| 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 9

SIGNAL FACE I.D.

○ Denotes L.E.D.



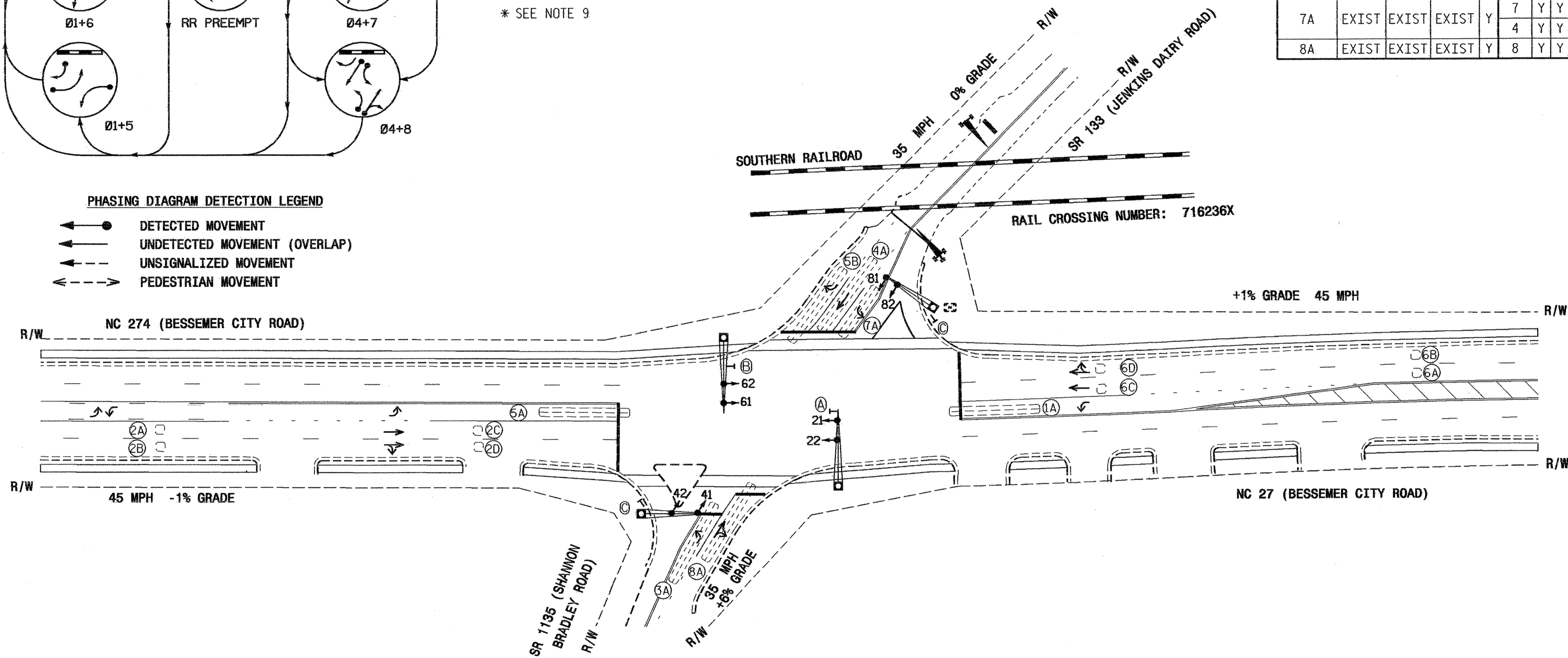
2070L LOOP & DETECTOR INSTALLATION

| LOOP | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | NEW LOOP | DETECTOR PROGRAMMING | | | | SYSTEM LOOP | NEW CARD | |
|-------|-----------|----------------------------|-------|----------|----------------------|---------|-----------|-----------------|-------------|----------|--------------|
| | | | | | PHASE | CALLING | EXTENSION | FULL TIME DELAY | | | STRETCH TIME |
| 1A | EXIST | EXIST | EXIST | Y | 1 | Y | Y | - | 15 | - | Y |
| 2A,2B | EXIST | EXIST | EXIST | Y | 2 | Y | Y | - | 1.8 | - | Y |
| 2C,2D | EXIST | EXIST | EXIST | Y | 2 | Y | Y | - | - | - | Y |
| 3A | EXIST | EXIST | EXIST | Y | 3 | Y | Y | - | 15 | - | Y |
| 4A | EXIST | EXIST | EXIST | Y | 4 | Y | Y | - | - | - | Y |
| 5A | EXIST | EXIST | EXIST | Y | 5 | Y | Y | - | 15 | - | Y |
| 5B | EXIST | EXIST | EXIST | Y | 5 | Y | Y | - | 15 | - | Y |
| 6A,6B | EXIST | EXIST | EXIST | Y | 6 | Y | Y | - | 1.8 | - | Y |
| 6C,6D | EXIST | EXIST | EXIST | Y | 6 | Y | Y | - | - | - | Y |
| 7A | EXIST | EXIST | EXIST | Y | 7 | Y | Y | - | 15 | - | Y |
| 8A | EXIST | EXIST | EXIST | Y | 8 | Y | Y | - | 10 | - | Y |

8 PHASE Fully Actuated (Gastonia City Signal System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
- This location contains railroad preemption phasing. Do not program signal for late night flashing operation.
- Omit phase 1 during phase 2 on.
- Omit phase 5 during phase 6 on.
- Omit phase 3 during phase 4 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.
- Ensure flashing operation does not alter operation of blankout signs.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- City system data: Controller Asset #0335.
- All work on this signal will be done and paid for under TIP Project U-2408. This plan is only to show that this intersection is part of the Gastonia City Signal System and some minor changes to the Timing Chart.



LEGEND

- | | |
|---|---|
| PROPOSED | EXISTING |
| ○ → Traffic Signal Head | ● → N/A |
| ○ → Modified Signal Head | ○ → N/A |
| ○ → Pedestrian Signal Head | ○ → N/A |
| ○ → Sign 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 | ○ → N/A |
| ○ → Junction Box | ○ → N/A |
| ○ → 2-in Underground Conduit | ○ → N/A |
| N/A → Right of Way | ○ → N/A |
| → Directional Arrow | → Directional Arrow |
| → Pavement Marking Arrow | → Pavement Marking Arrow |
| N/A → Railroad Gate and Flasher | → Railroad Gate and Flasher |
| N/A → Railroad Tracks | → Railroad Tracks |
| N/A → "NO LEFT TURN - TRAIN" LED Blankout Sign | ○ → "NO LEFT TURN - TRAIN" LED Blankout Sign |
| N/A → "NO RIGHT TURN - TRAIN" LED Blankout Sign | ○ → "NO RIGHT TURN - TRAIN" LED Blankout Sign |
| N/A → "YIELD" Sign (R1-2) | ○ → "YIELD" Sign (R1-2) |

| 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 | 2.0 | 1.0 | 1.0 | 2.0 | 1.0 | 2.0 |
| Max Green 1 * | 15 | 45 | 15 | 20 | 15 | 45 | 15 | 20 |
| Yellow Clearance | 4.7 | 4.7 | 4.0 | 4.0 | 4.7 | 4.7 | 4.0 | 4.0 |
| Red Clearance | 3.5 | 3.5 | 2.2 | 2.5 | 3.2 | 3.5 | 1.7 | 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.

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 - Yellow | 0.0 |
| Interval 5 - Red | 0.0 |
| Delay Time | 0 |
| Min Green Before Pre | 1 |
| Ped Clear Before Pre | 0 |
| Yellow Clear Before Pre | 0.0* |
| Red Clear Before Pre | 0.0* |
| Dwell Min Time | 10 |
| Ped Clear Through Yellow | N |

* Time defaults to time used for phase during normal operation.

Signal Upgrade

N.C. 274 (Bessemmer City Road)
at
SR 1334 (Jenkins Dairy Road) / SR 1135 (Shannon Bradley Road)
Division 12 Gaston County Gastonia

PLAN DATE: February 2005 PREPARED BY: Z.W. Little REVIEWED BY: D.Y. Ishak

REVISIONS: _____ INIT. DATE

SCALE: 0 50
1"=50'