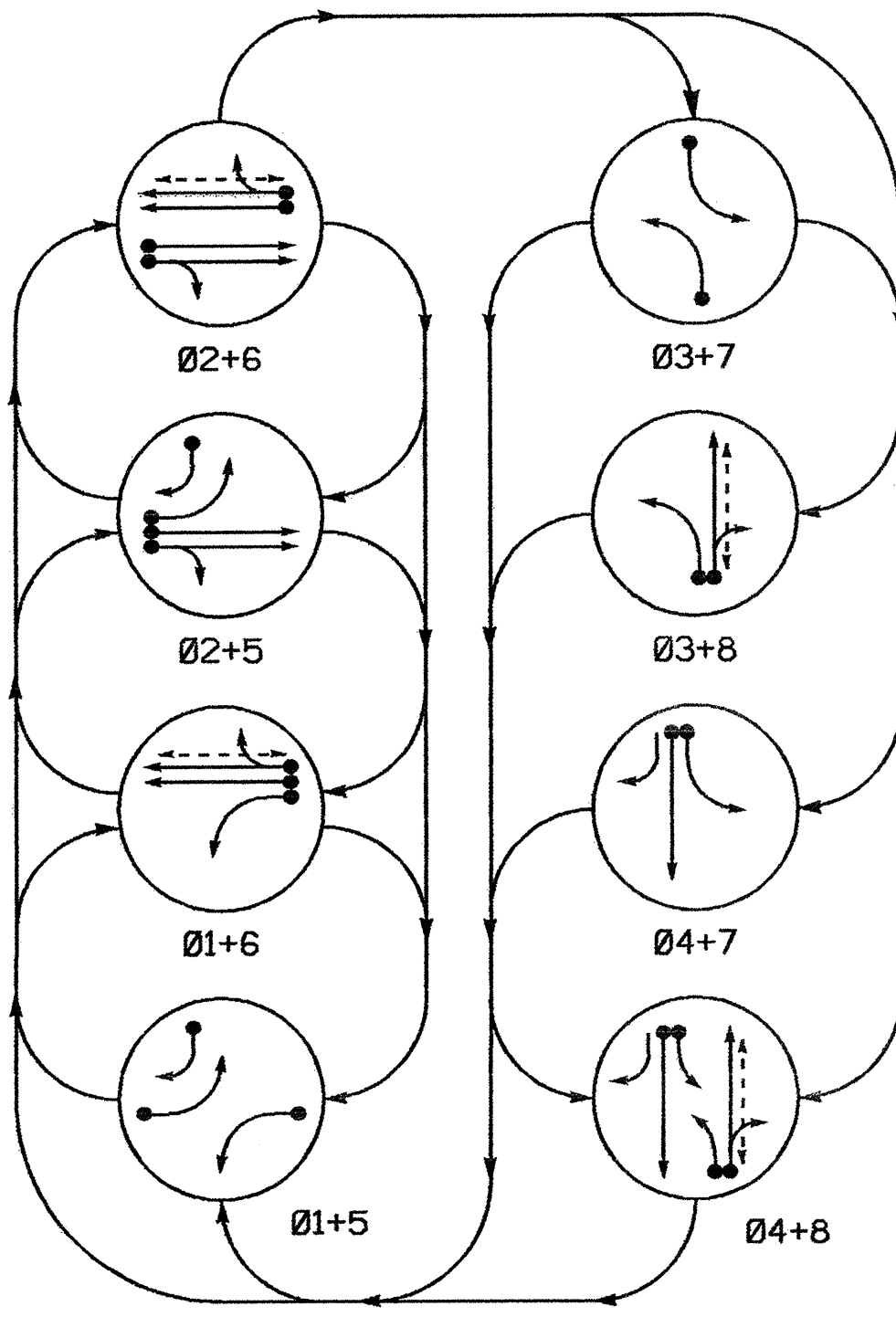


**PHASING DIAGRAM**



**PHASING DIAGRAM DETECTION LEGEND**

- ◄●► DETECTED MOVEMENT
- ◄◄◄ UNDETECTED MOVEMENT (OVERLAP)
- ◄---► UNSIGNALIZED MOVEMENT
- ◄---◄ PEDESTRIAN MOVEMENT

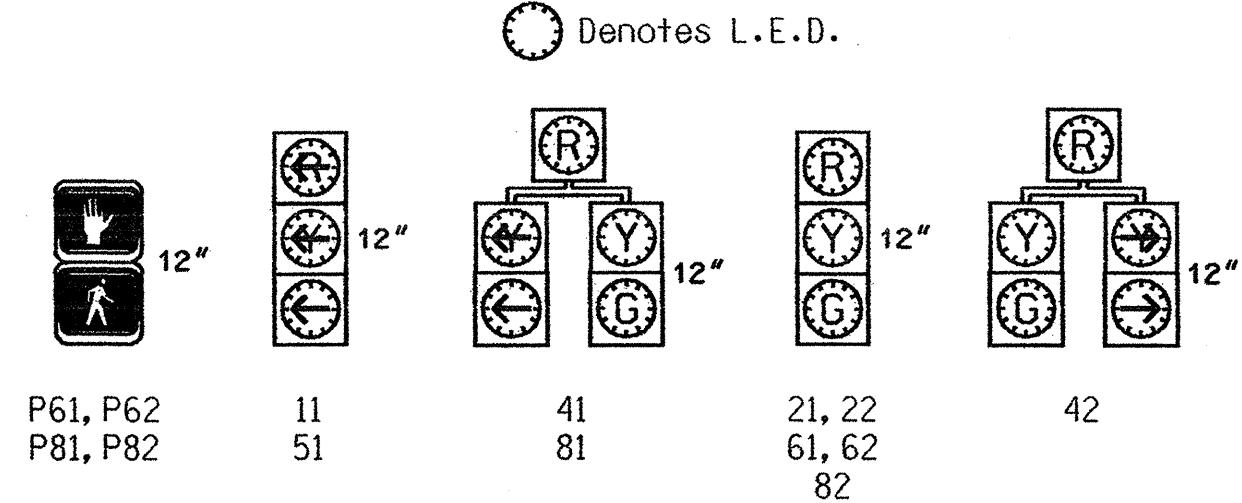
**2070L LOOP & DETECTOR INSTALLATION**

| LOOP | SIZE (FT) | TURNS    | DISTANCE FROM STOPBAR (FT) | NEW LOOP | DETECTOR PROGRAMMING |         |           |                 |             |              |            |          |
|------|-----------|----------|----------------------------|----------|----------------------|---------|-----------|-----------------|-------------|--------------|------------|----------|
|      |           |          |                            |          | PHASE                | CALLING | EXTENSION | FULL TIME DELAY | SYSTEM LOOP | STRETCH TIME | DELAY TIME | NEW CARD |
| 1A   | 6x60      | 2-4-2    | +5                         | -        | 1                    | Y       | Y         | -               | -           | -            | 3          | Y        |
| 2A   | 6x6       | 4        | 300                        | -        | 2                    | Y       | Y         | -               | -           | -            | -          | Y        |
| 2B   | 6x6       | 4        | 300                        | -        | 2                    | Y       | Y         | -               | -           | -            | -          | Y        |
| 3A   | 6x60      | 2-4-2    | +5                         | -        | 8                    | Y       | Y         | -               | -           | -            | 3          | Y        |
| 4A   | 6x60      | 2-4-2    | +5                         | -        | 3                    | Y       | Y         | -               | -           | -            | 15         | Y        |
| 4A   | 6x60      | 2-4-2    | +5                         | -        | 4                    | Y       | Y         | -               | -           | -            | -          | Y        |
| 5A   | 6x60      | 2-4-2    | +5                         | -        | 5                    | Y       | Y         | -               | -           | -            | 3          | Y        |
| 5B   | 6x60      | 2-4-2    | +5                         | -        | 5                    | Y       | Y         | -               | -           | -            | 15         | Y        |
| 6A   | 6x6       | 4        | 300                        | -        | 6                    | Y       | Y         | -               | -           | -            | -          | Y        |
| 6B   | 6x6       | 4        | 300                        | -        | 6                    | Y       | Y         | -               | -           | -            | -          | Y        |
| 7A   | 6x60      | 2-4-2    | +5                         | -        | 4                    | Y       | Y         | -               | -           | -            | 3          | Y        |
| 7A   | 6x60      | 2-4-2    | +5                         | -        | 7                    | Y       | Y         | -               | -           | -            | 15         | Y        |
| 8A   | 6x60      | EXISTING | +5                         | -        | 8                    | Y       | Y         | -               | -           | -            | 10         | Y        |

**TABLE OF OPERATION**

| SIGNAL FACE | PHASE |      |      |      |      |      |      |      | L-DETECT |
|-------------|-------|------|------|------|------|------|------|------|----------|
|             | Ø1+5  | Ø1+6 | Ø2+5 | Ø2+6 | Ø3+7 | Ø3+8 | Ø4+7 | Ø4+8 |          |
| 11          | -     | -    | R    | R    | R    | R    | R    | R    | -        |
| 21, 22      | R     | R    | G    | G    | R    | R    | R    | R    | Y        |
| 41          | R     | R    | R    | R    | R    | R    | G    | G    | R        |
| 42          | R     | R    | R    | R    | R    | R    | G    | G    | R        |
| 51          | -     | -    | R    | R    | R    | R    | R    | R    | -        |
| 61, 62      | R     | G    | R    | G    | R    | R    | R    | R    | Y        |
| 81          | R     | R    | R    | R    | R    | R    | G    | G    | R        |
| 82          | R     | R    | R    | R    | R    | R    | G    | G    | R        |
| P61, P62    | DW    | W    | DW   | W    | DW   | DW   | DW   | DRK  |          |
| P81, P82    | DW    | DW   | DW   | DW   | DW   | W    | DW   | W    | DRK      |

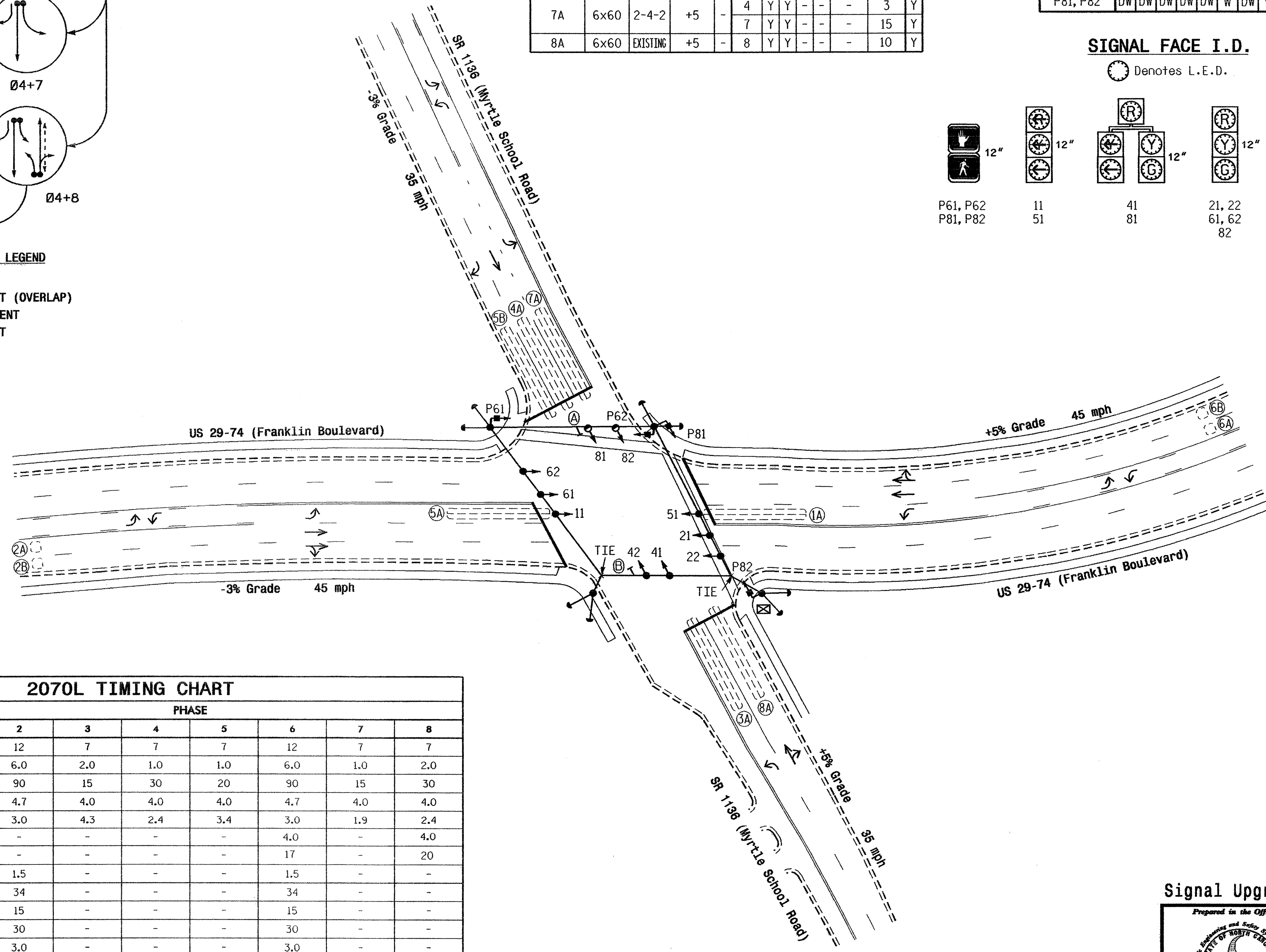
**SIGNAL FACE I.D.**



**8 Phase Fully Actuated (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. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Omit phase 3 during phase 4 on.
4. Omit phase 7 during phase 8 on.
5. Phase 1 or phase 5 may be lagged.
6. Set all detector units to presence mode.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
8. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
9. Remove existing "Left Turn Signal" signs (R10-10L).
10. Pavement markings are existing.
11. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
12. City system data: Controller Asset #0029.

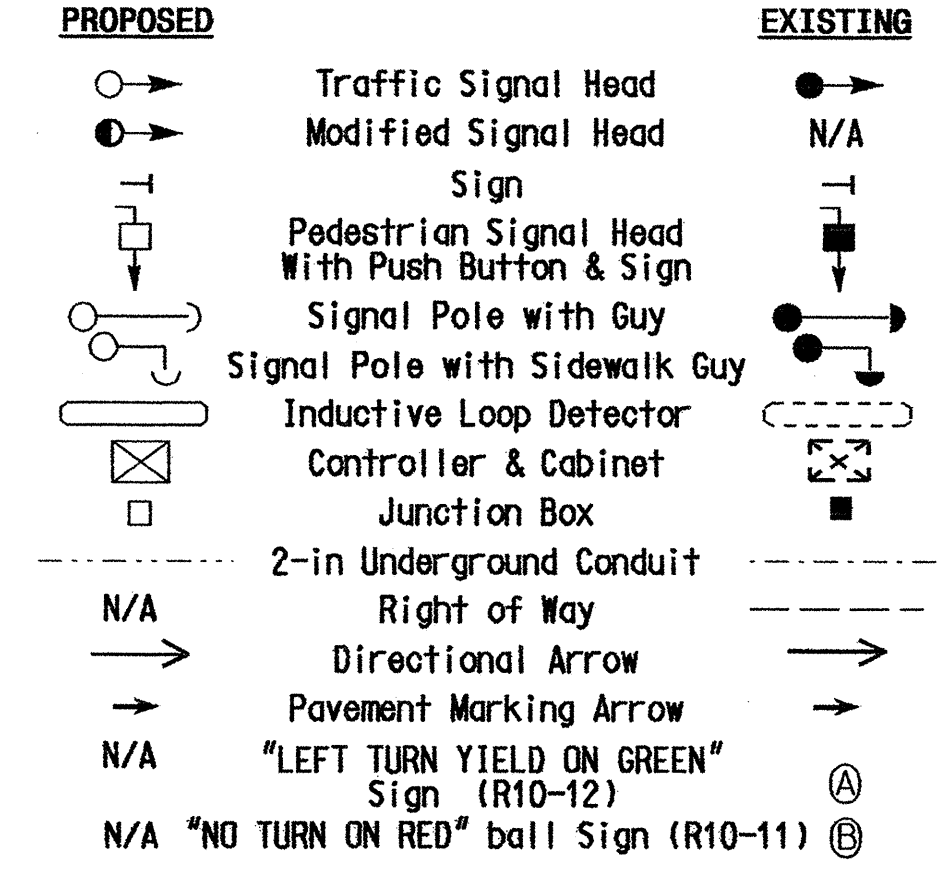


**2070L TIMING CHART**

| FEATURE                 | PHASE |            |     |     |     |            |     |     |
|-------------------------|-------|------------|-----|-----|-----|------------|-----|-----|
|                         | 1     | 2          | 3   | 4   | 5   | 6          | 7   | 8   |
| Min Green 1 *           | 7     | 12         | 7   | 7   | 7   | 12         | 7   | 7   |
| Extension 1 *           | 2.0   | 6.0        | 2.0 | 1.0 | 1.0 | 6.0        | 1.0 | 2.0 |
| Max Green 1 *           | 20    | 90         | 15  | 30  | 20  | 90         | 15  | 30  |
| Yellow Clearance        | 4.0   | 4.7        | 4.0 | 4.0 | 4.0 | 4.7        | 4.0 | 4.0 |
| Red Clearance           | 3.1   | 3.0        | 4.3 | 2.4 | 3.4 | 3.0        | 1.9 | 2.4 |
| Walk 1 *                | -     | -          | -   | -   | -   | 4.0        | -   | 4.0 |
| Don't Walk 1            | -     | -          | -   | -   | -   | 17         | -   | 20  |
| Seconds Per Actuation * | -     | 1.5        | -   | -   | -   | 1.5        | -   | -   |
| Max Variable Initial *  | -     | 34         | -   | -   | -   | 34         | -   | -   |
| Time Before Reduction * | -     | 15         | -   | -   | -   | 15         | -   | -   |
| Time To Reduce *        | -     | 30         | -   | -   | -   | 30         | -   | -   |
| Minimum Gap             | -     | 3.0        | -   | -   | -   | 3.0        | -   | -   |
| 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.

**LEGEND**



**Signal Upgrade**

Prepared in the Offices of:  
**US 29-74 (Franklin Boulevard) at SR 1136 (Myrtle School Road)**  
 Division 12 Gaston County  
 PLAN DATE: December 2004 REVIEWED BY: D. J. SHEKER  
 PREPARED BY: P. J. PORTER / cp REVIEWED BY:  
 SCALE: 1" = 40'  
 SIGNATURE: [Signature] DATE: 10 DECEMBER 04  
 SIG. INVENTORY NO. 12-0029

12-MAY-2005 08:02 w:\p\p\p\12-0029\12-0029.dgn