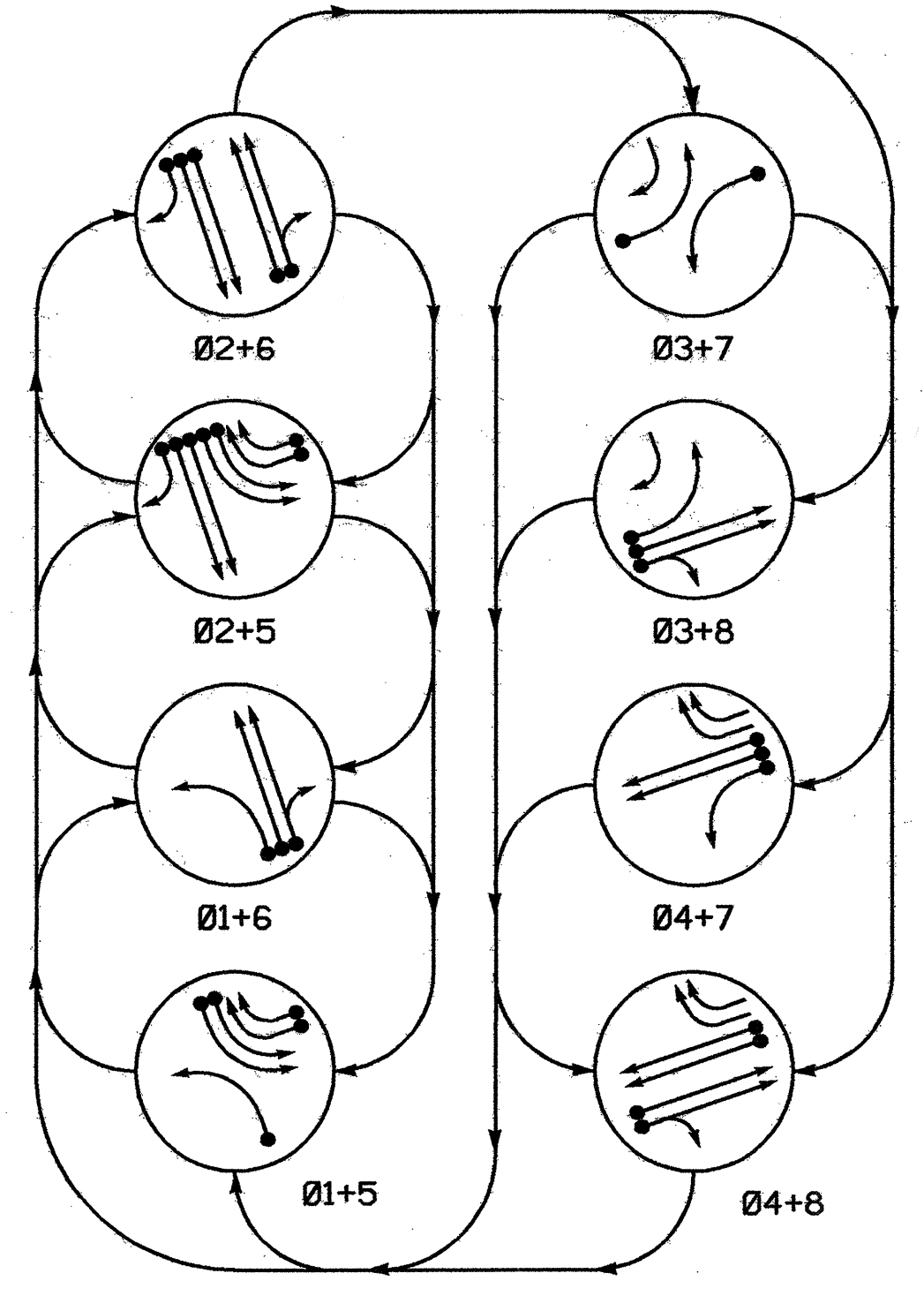


**PHASING DIAGRAM**

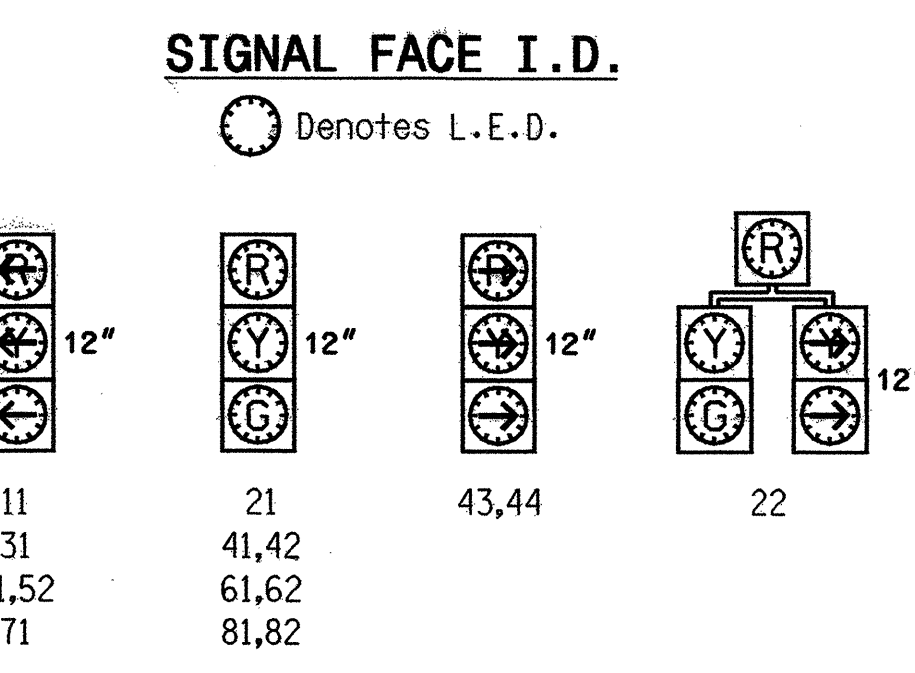


**PHASING DIAGRAM DETECTION LEGEND**

- (solid circle) DETECTED MOVEMENT
- (dashed circle) UNDETECTED MOVEMENT (OVERLAP)
- (dashed line) UNSIGNALIZED MOVEMENT
- (dashed arrow) PEDESTRIAN MOVEMENT

**TABLE OF OPERATION**

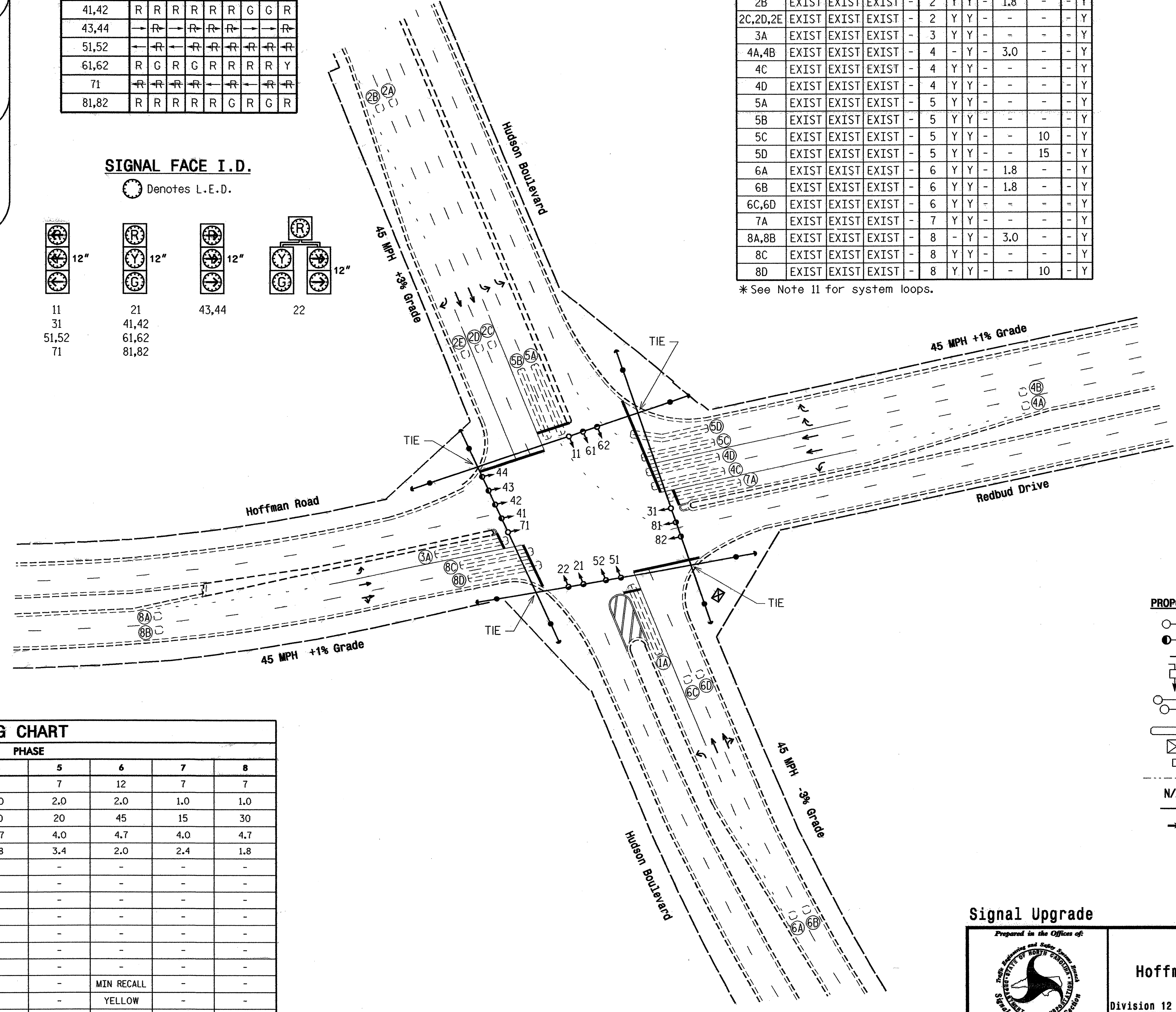
SIGNAL FACE	PHASE								F	C	R	Y	
	01+5	02+6	03+7	04+8	05+9	06+0	07+1	08+2					
11	←←	←←	←←	←←	←←	←←	←←	←←	←←	←←	←←	←←	←←
21	R	R	G	G	R	R	R	R	Y				
31	R	R	G	G	R	R	R	Y					
41,42	R	R	R	R	R	R	G	G	R				
43,44	←←	←←	←←	←←	←←	←←	←←	←←	←←	←←	←←	←←	←←
51,52	←←	←←	←←	←←	←←	←←	←←	←←	←←	←←	←←	←←	←←
61,62	R	G	R	G	R	R	R	R	Y				
71	R	R	R	R	←←	←←	←←	←←	←←	←←	←←	←←	←←
81,82	R	R	R	R	R	G	R	G	R				



**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			DELAY TIME
1A	EXIST	EXIST	EXIST	-	1	Y	Y	-	3	-	Y
2A	EXIST	EXIST	EXIST	-	2	Y	Y	-	1.8	-	Y
2B	EXIST	EXIST	EXIST	-	2	Y	Y	-	1.8	-	Y
2C,2D,2E	EXIST	EXIST	EXIST	-	2	Y	Y	-	-	-	Y
3A	EXIST	EXIST	EXIST	-	3	Y	Y	-	-	-	Y
4A,4B	EXIST	EXIST	EXIST	-	4	-	Y	-	3.0	-	Y
4C	EXIST	EXIST	EXIST	-	4	Y	Y	-	-	-	Y
4D	EXIST	EXIST	EXIST	-	4	Y	Y	-	-	-	Y
5A	EXIST	EXIST	EXIST	-	5	Y	Y	-	-	-	Y
5B	EXIST	EXIST	EXIST	-	5	Y	Y	-	-	-	Y
5C	EXIST	EXIST	EXIST	-	5	Y	Y	-	-	10	Y
5D	EXIST	EXIST	EXIST	-	5	Y	Y	-	-	15	Y
6A	EXIST	EXIST	EXIST	-	6	Y	Y	-	1.8	-	Y
6B	EXIST	EXIST	EXIST	-	6	Y	Y	-	1.8	-	Y
6C,6D	EXIST	EXIST	EXIST	-	6	Y	Y	-	-	-	Y
7A	EXIST	EXIST	EXIST	-	7	Y	Y	-	-	-	Y
8A,8B	EXIST	EXIST	EXIST	-	8	-	Y	-	3.0	-	Y
8C	EXIST	EXIST	EXIST	-	8	Y	Y	-	-	-	Y
8D	EXIST	EXIST	EXIST	-	8	Y	Y	-	-	10	Y

\* See Note 11 for system loops.

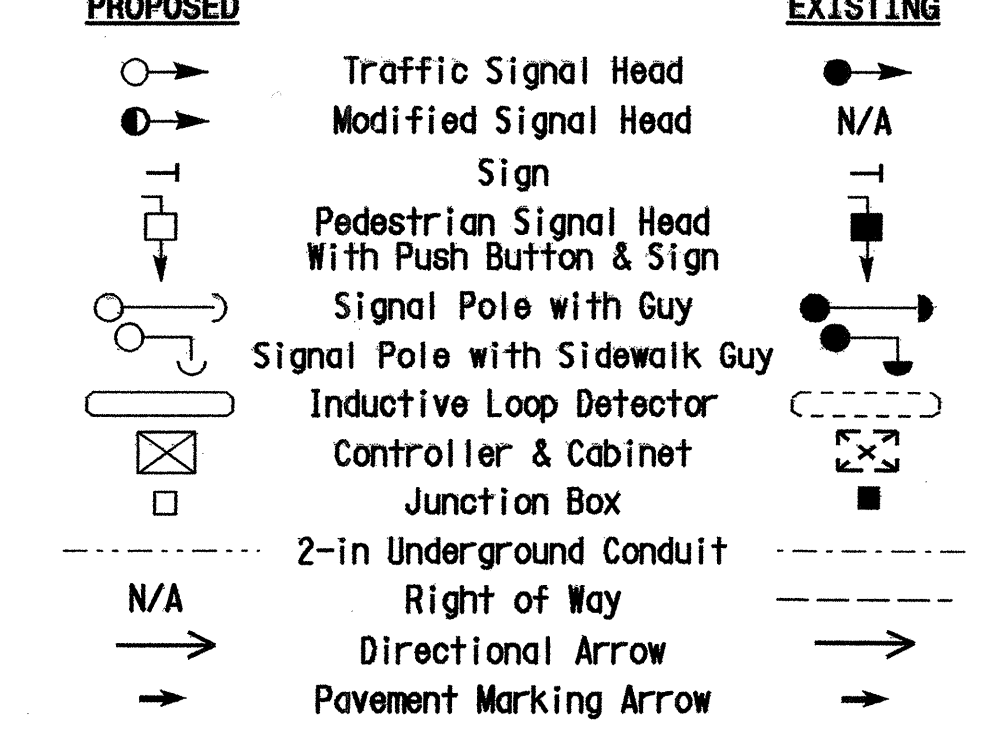


**8 Phase Fully Actuated Gastonia City Signal System**

**NOTES**

- Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 or phase 5 may be lagged.
- Phase 3 or phase 7 may be lagged.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Remove existing "Left Turn Signal" sign(s)-(R10-10L) and/or existing "Right Turn Signal" sign(s)-(R10-10R).
- Pavement markings are existing.
- 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 #1460.
- Loops 2A, 2B, 6A, and 6B must be wired separately to serve as both presence loops and systems loops.

**LEGEND**



**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*	1.0	2.0	1.0	1.0	2.0	2.0	1.0	1.0
Max Green 1*	20	45	15	30	20	45	15	30
Yellow Clearance	4.0	4.7	4.0	4.7	4.0	4.7	4.0	4.7
Red Clearance	3.3	2.0	3.0	1.8	3.4	2.0	2.4	1.8
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	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.

**Signal Upgrade**

Professional Engineer's Seal for **THOMAS E. MULLEN**, ENGINEER, North Carolina State Board of Transportation, dated 2/2/2005. Includes project information for Hudson Boulevard at Hoffman Road/Redbud Drive, Division 12 Gaston County, Gastonia, prepared by Z.W. Little and reviewed by D.Y. Ishak on February 2, 2005. Scale 1"=50'.