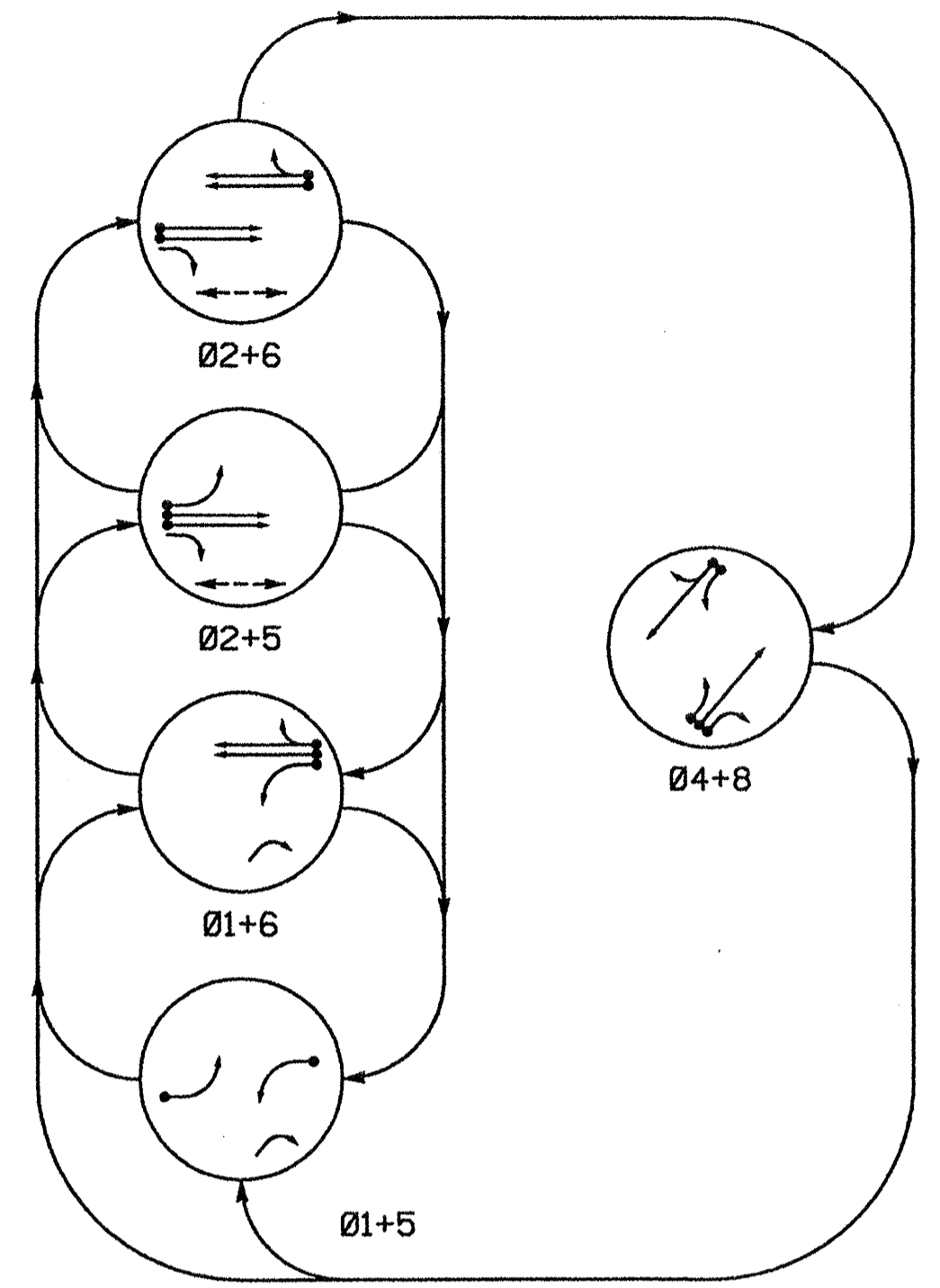


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

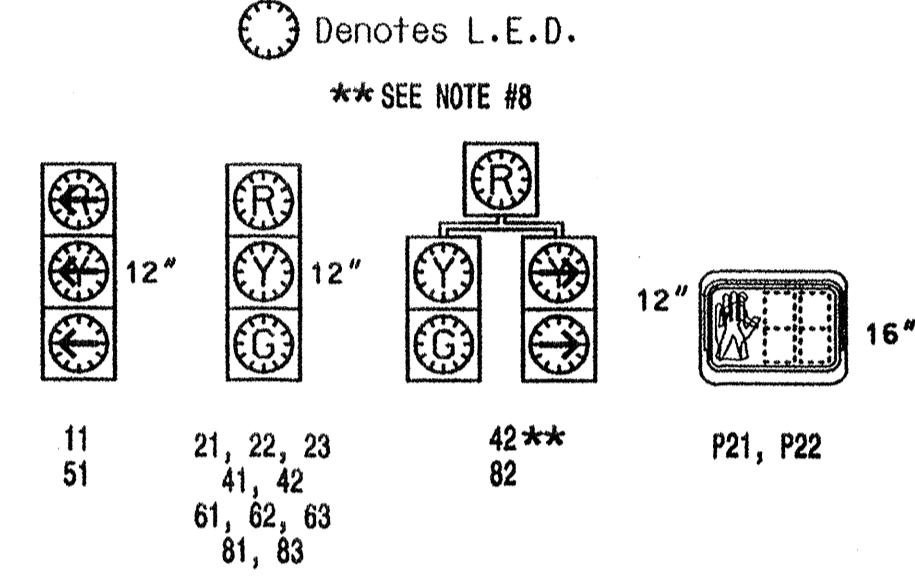
- ← ● DETECTED MOVEMENT
- ← ○ UNDETECTED MOVEMENT (OVERLAP)
- ← - - - UNSIGNALIZED MOVEMENT
- ← - - - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE					FLASH
	Ø 1+5	Ø 1+6	Ø 2+5	Ø 2+6	Ø 4+8	
11	—	—	—	—	—	—
21, 22, 23	R	R	G	G	R	Y
41, 42	R	R	R	R	G	R
51	—	—	—	—	—	—
61, 62, 63	R	G	R	G	R	Y
81, 83	R	R	R	R	G	R
82	R	R	R	R	G	R
P21, P22	DW	DW	W	W	DW	DRK

*SEE NOTE #2

SIGNAL FACE I.D.



VIDEO ZONE DETECTION CHART
170 CONTROLLER AND CABINET

ZONE NO.	SIZE (ft)	DIST. FROM STOPBAR (ft)	NEMA PHASE	DETECTOR PROGRAMMING												STATUS
				TIMING		ATTRIBUTES								NEW	EXISTING	
				DELAY	CARRY (STRETCH)	FULL TIME DELAY	PEDESTRIAN CALL	RESERVED	COUNT	EXTENSION	TYPE 3 CALLING	ALTERNATE	SYSTEM			
1A	6X60	0	1	3 SEC.	- SEC.	-	-	-	-	X	X	-	-	-	-	X
2A	6X6	300	2	- SEC.	- SEC.	-	-	-	-	X	X	X	-	-	-	X
2B	6X6	300	2	- SEC.	- SEC.	-	-	-	-	X	X	X	-	-	-	X
4A	6X60	0	4	- SEC.	- SEC.	-	-	-	-	X	X	-	-	-	-	X
4B	6X60	0	4	10 SEC.	- SEC.	-	-	-	-	X	X	-	-	-	-	X
5A	6X60	0	5	3 SEC.	- SEC.	-	-	-	-	X	X	-	-	-	-	X
6A	6X6	300	6	- SEC.	- SEC.	-	-	-	-	X	X	X	-	-	-	X
6B	6X6	300	6	- SEC.	- SEC.	-	-	-	-	X	X	X	-	-	-	X
8A	6X60	0	8	- SEC.	- SEC.	-	-	-	-	X	X	-	-	-	-	X
8B	6X60	0	8	- SEC.	- SEC.	-	-	-	-	X	X	-	-	-	-	X
8C	6X60	0	8	15 SEC.	- SEC.	-	-	-	-	X	X	-	-	-	-	X
P21, P22	N/A	N/A	-	- SEC.	- SEC.	-	-	-	-	X	-	-	-	-	-	X

5 PHASE FULLY ACTUATED (ISOLATED)

NOTES

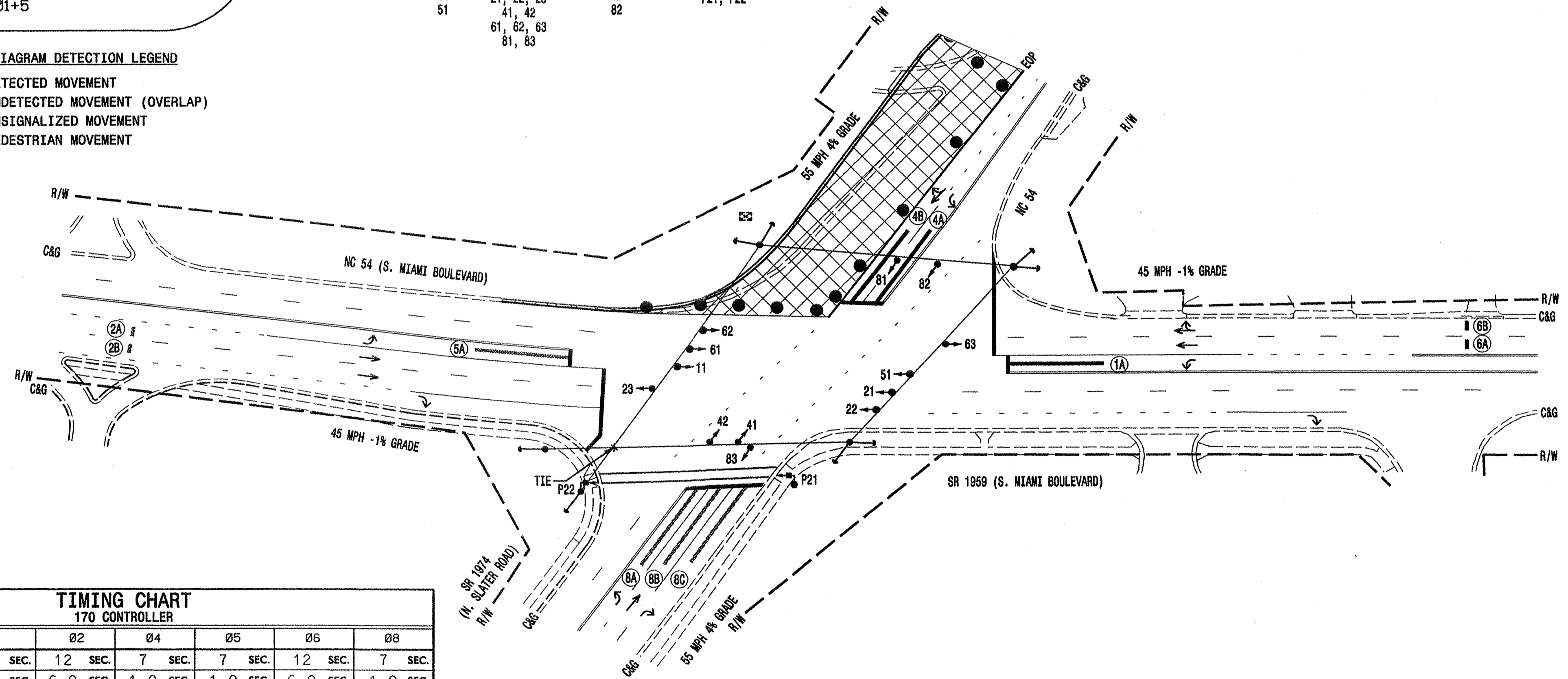
- Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002, and all applicable sections of the latest version of the Project Special Provisions.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Reposition existing signal head number 41, 42, 81 and 82.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program all timing information into phase banks 1, 2 and 3 unless otherwise noted.
- Set all detection zones to presence mode.
- A video detection system is in use at this location. The contractor shall locate cameras and modify the detection zone locations per manufacturer's instructions to accomplish the detection scheme shown.
- De-energize and bag arrow signal face on head 42.

LEGEND

- | PROPOSED | EXISTING |
|--|----------|
| ○ → Traffic Signal Head | ● → N/A |
| ○ → Modified Signal Head | ○ → N/A |
| ○ → Sign | ○ → N/A |
| ○ → Pedestrian Signal Head With Push Button & Sign | ○ → N/A |
| ○ → Pedestrian Signal Pedestal | ○ → N/A |
| ○ → Signal Pole with Guy | ○ → N/A |
| ○ → Signal Pole with Sidewalk Guy | ○ → N/A |
| ○ → Video Detection Area | ○ → N/A |
| □ → Controller & Cabinet | □ → N/A |
| □ → Junction Box | □ → N/A |
| ○ → 2-in Underground Conduit | ○ → N/A |
| ○ → Right of Way with Marker | ○ → N/A |
| ○ → Directional Arrow | ○ → N/A |
| ○ → Pavement Marking Arrow | ○ → N/A |
| ○ → Construction Zone Drums | ○ → N/A |
| ○ → Construction Zone | ○ → N/A |

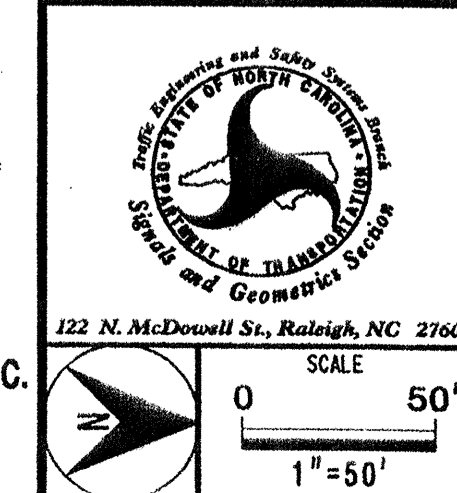
TIMING CHART
170 CONTROLLER

PHASE	Ø1	Ø2	Ø4	Ø5	Ø6	Ø8
MINIMUM INITIAL	7 SEC.	12 SEC.	7 SEC.	7 SEC.	12 SEC.	7 SEC.
VEHICLE EXTENSION	1.0 SEC.	6.0 SEC.	1.0 SEC.	1.0 SEC.	6.0 SEC.	1.0 SEC.
YELLOW CHANGE INT.	5.4 SEC.	4.7 SEC.	5.1 SEC.	5.9 SEC.	4.7 SEC.	5.1 SEC.
RED CLEARANCE	3.0 SEC.	2.5 SEC.	2.5 SEC.	3.0 SEC.	2.5 SEC.	2.5 SEC.
MAXIMUM LIMIT	30 SEC.	90 SEC.	40 SEC.	30 SEC.	90 SEC.	40 SEC.
RECALL POSITION	NONE	VEH. RECALL	NONE	NONE	VEH. RECALL	NONE
VEHICLE CALL MEMORY	NONE	YELLOW LOCK	NONE	NONE	YELLOW LOCK	NONE
DOUBLE ENTRY	OFF	OFF	ON	OFF	OFF	ON
WALK	- SEC.	7 SEC.	- SEC.	- SEC.	- SEC.	- SEC.
FLASHING DON'T WALK	- SEC.	25 SEC.	- SEC.	- SEC.	- SEC.	- SEC.
TYPE 3 LIMIT	- SEC.	- SEC.	- SEC.	- SEC.	- SEC.	- SEC.
ALTERNATE EXTENSION	- SEC.	- SEC.	- SEC.	- SEC.	- SEC.	- SEC.
ADD PER VEHICLE	- SEC.	1.5 SEC.	- SEC.	- SEC.	1.5 SEC.	- SEC.
MAXIMUM INITIAL	- SEC.	34 SEC.	- SEC.	- SEC.	34 SEC.	- SEC.
MAXIMUM GAP	1.0 SEC.	7.0 SEC.	1.0 SEC.	1.0 SEC.	7.0 SEC.	1.0 SEC.
REDUCE 0.1 SEC EVERY	- SEC.	1.5 SEC.	- SEC.	- SEC.	1.5 SEC.	- SEC.
MINIMUM GAP	1.0 SEC.	3.0 SEC.	1.0 SEC.	1.0 SEC.	3.0 SEC.	1.0 SEC.



SIGNAL UPGRADE - TEMPORARY DESIGN THREE

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh, NC 27636
1991 677-2000



NC 54/SR 1959 (S. MIAMI BLVD.) AT NC 54/SR 1974 (N. SLATER ROAD)	
DIVISION 5 DURHAM COUNTY	DURHAM
PLAN DATE: JUNE 2004	REVIEWED BY:
PREPARED BY: SP PENNINGTON	REVIEWED BY: DE MARCEAU
REVISIONS	INIT. DATE

SCALE 1"=50'
SIG. INVENTORY NO. 05-0432T3

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