

PHASING DIAGRAM

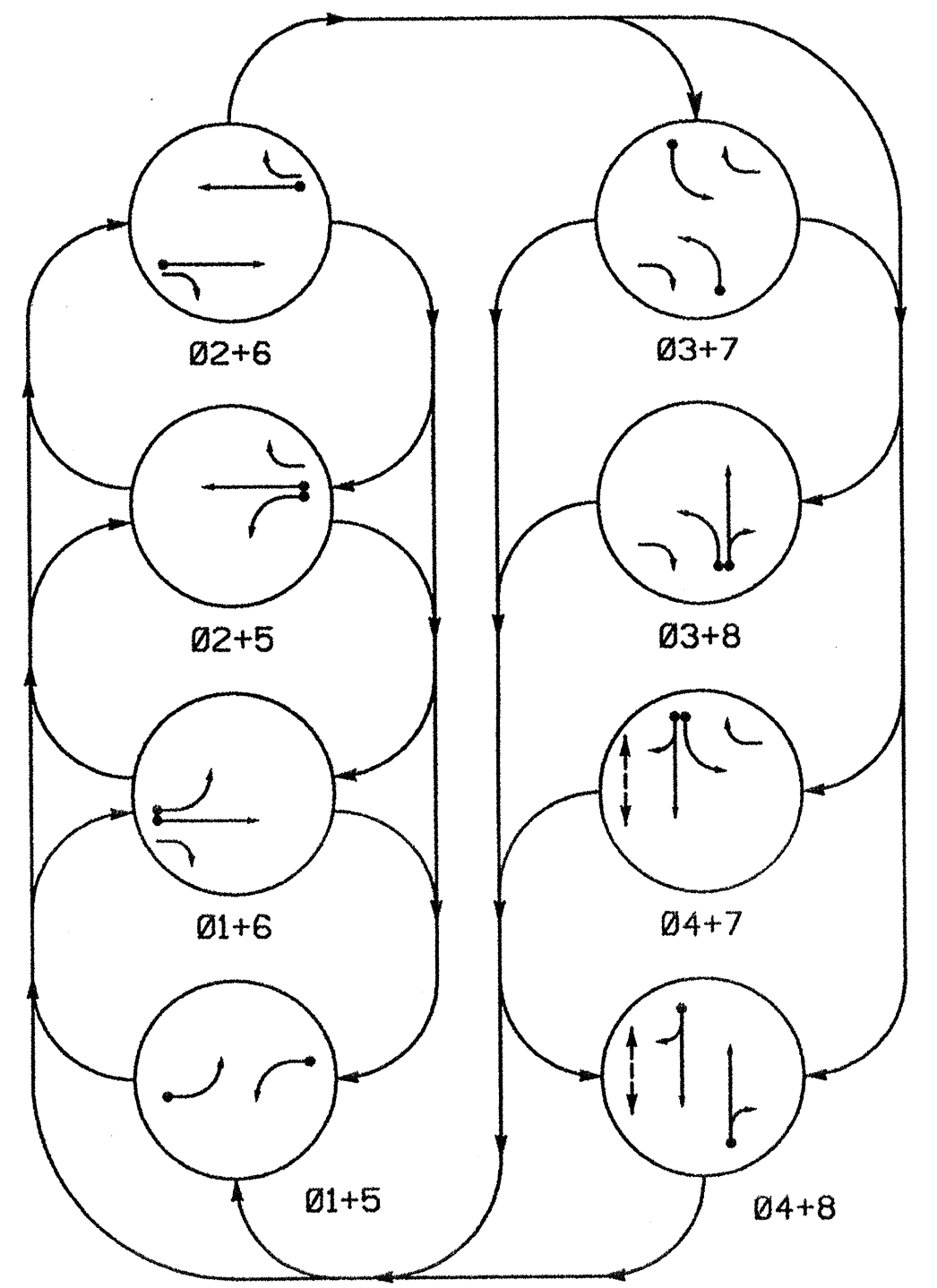
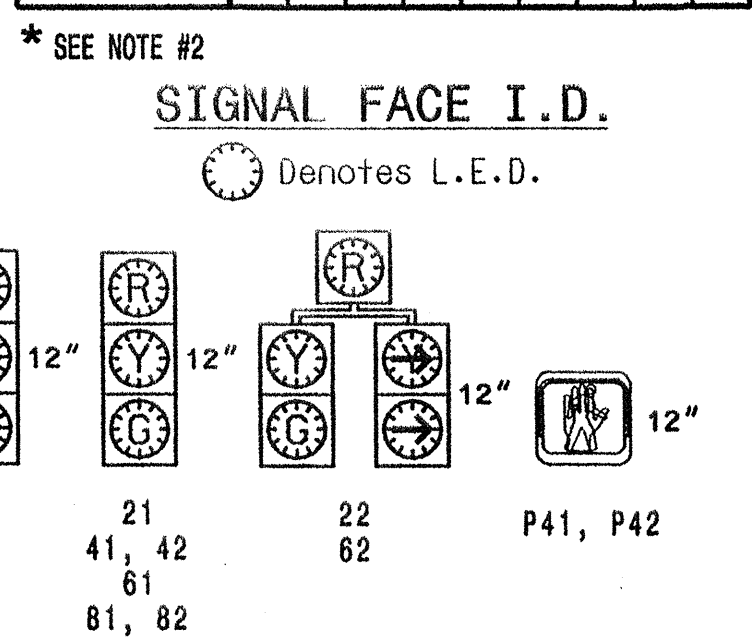


TABLE OF OPERATION

SIGNAL FACE	PHASE								FLASH
	Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø3+7	Ø3+8	Ø4+7	Ø4+8	
11									
21	R	R	G	G	R	R	R	R	Y
22	R	R	G	G	R	R	R	R	Y
31	R	R	R	R					
41, 42	R	R	R	R	R	R	G	G	R
51									
61	R	G	R	G	R	R	R	R	Y
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
P41, P42	DW	DW	DW	DW	DW	DW	W	W	DRK



LOOP & DETECTOR UNIT INSTALLATION CHART
170 CONTROLLER AND CABINET

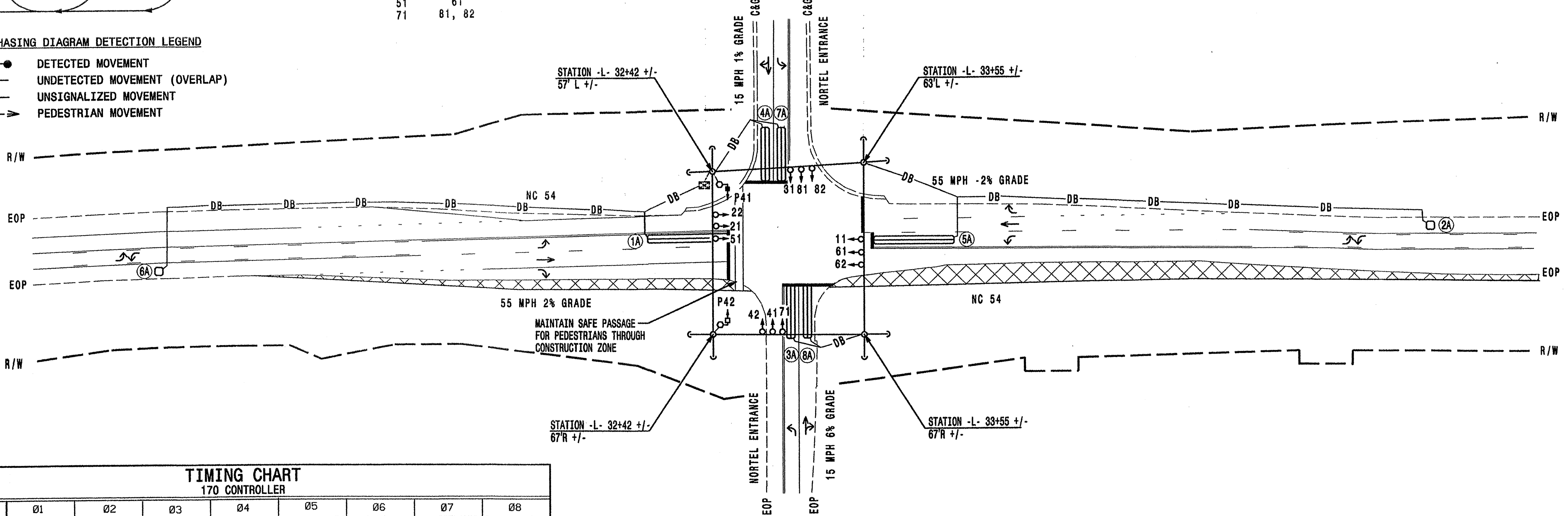
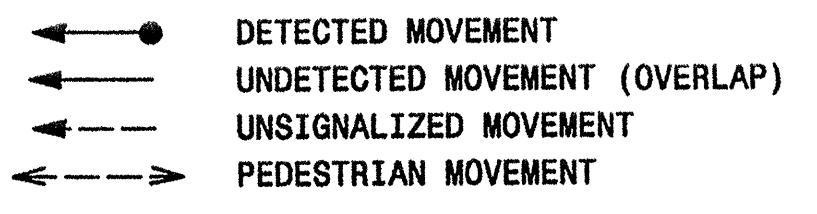
LOOP NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW	EXISTING	NEMA PHASE	TIMING		DETECTOR PROGRAMMING								STATUS			
							DELAY	CARRY (STRETCH)	ATTRIBUTES								NEW	EXISTING		
									TYPE 1	TYPE 2	TYPE 3	TYPE 4	TYPE 5	TYPE 6	TYPE 7	TYPE 8				
1A	6X60	2-4-2	0	X		1	3 SEC.	- SEC.											X	
2A	6X6	6	420	X		2	- SEC.	- SEC.					X	X	X					X
3A	6X40	2-4-2	0	X		3	3 SEC.	- SEC.					X	X	X					X
4A	6X40	2-4-2	0	X		4	10 SEC.	- SEC.					X	X	X					X
5A	6X60	2-4-2	0	X		5	3 SEC.	- SEC.					X	X	X					X
6A	6X6	6	420	X		6	- SEC.	- SEC.					X	X	X					X
7A	6X40	2-4-2	0	X		7	3 SEC.	- SEC.					X	X	X					X
8A	6X40	2-4-2	0	X		8	10 SEC.	- SEC.					X	X	X					X
P41, P42				X			- SEC.	- SEC.					X	X	X					X

8 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.
- Pavement markings are existing.
- Program all timing information into phase banks 1, 2 and 3 unless otherwise noted.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Set all detector units to presence mode.
- Use over-length wood poles for 2 poles right of center. Field adjust all pole locations, with engineer's approval, to avoid utility conflicts.

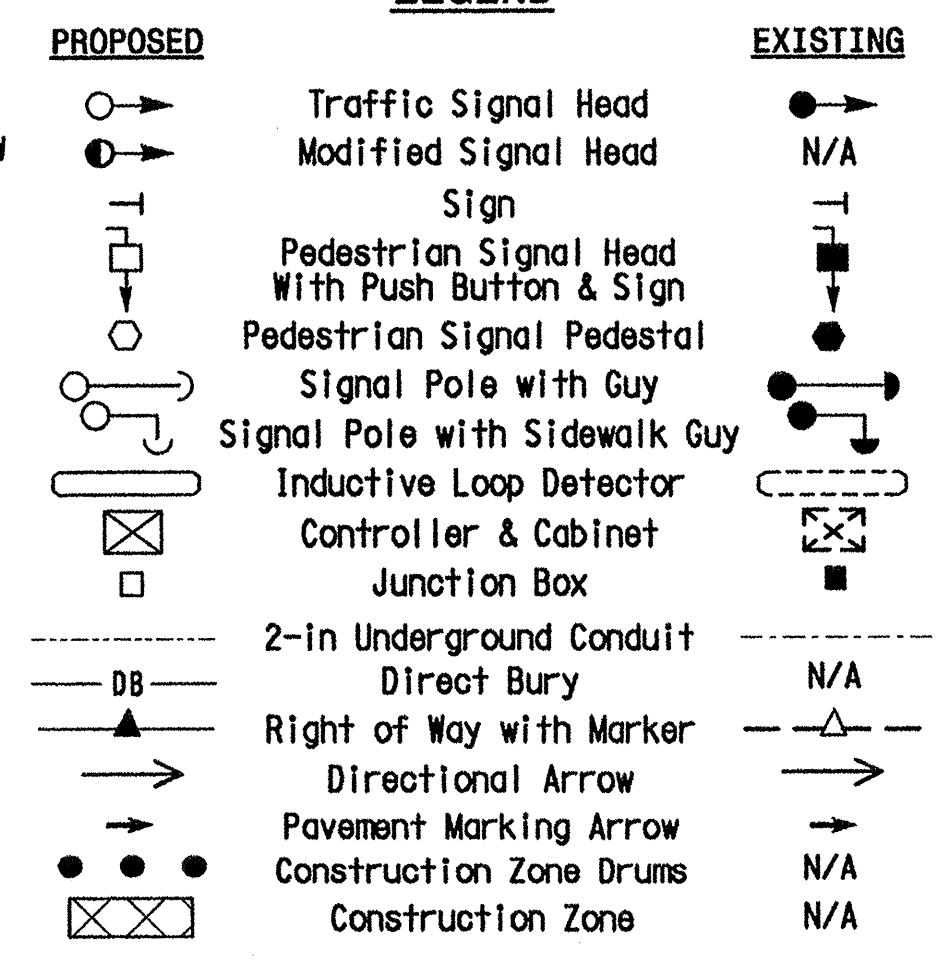
PHASING DIAGRAM DETECTION LEGEND



TIMING CHART
170 CONTROLLER

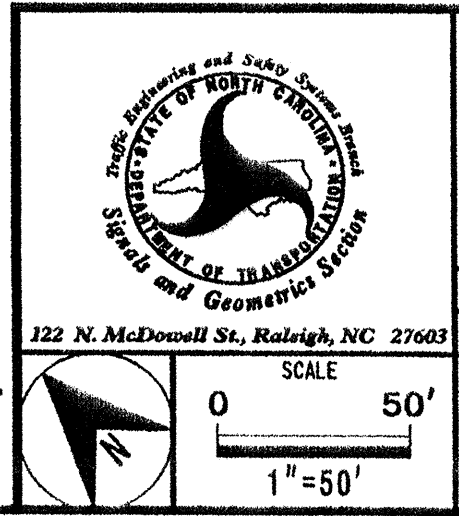
PHASE	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8
MINIMUM INITIAL	7 SEC.	14 SEC.	7 SEC.	7 SEC.	7 SEC.	14 SEC.	7 SEC.	7 SEC.
VEHICLE EXTENSION	1.0 SEC.	6.0 SEC.	1.0 SEC.	1.0 SEC.	1.0 SEC.	6.0 SEC.	1.0 SEC.	1.0 SEC.
YELLOW CHANGE INT.	4.0 SEC.	5.4 SEC.	4.0 SEC.	4.0 SEC.	4.0 SEC.	5.4 SEC.	4.0 SEC.	4.0 SEC.
RED CLEARANCE	1.5 SEC.	1.5 SEC.	2.0 SEC.	2.5 SEC.	2.0 SEC.	1.5 SEC.	2.5 SEC.	2.5 SEC.
MAXIMUM LIMIT	20 SEC.	90 SEC.	20 SEC.	40 SEC.	20 SEC.	90 SEC.	20 SEC.	40 SEC.
RECALL POSITION	NONE	VEH. RECALL	NONE	NONE	NONE	VEH. RECALL	NONE	NONE
VEHICLE CALL MEMORY	NONE	YELLOW LOCK	NONE	NONE	NONE	YELLOW LOCK	NONE	NONE
DOUBLE ENTRY	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
WALK	- SEC.	- SEC.	- SEC.	7 SEC.	- SEC.	- SEC.	- SEC.	- SEC.
FLASHING DON'T WALK	- SEC.	- SEC.	- SEC.	16 SEC.	- SEC.	- SEC.	- SEC.	- SEC.
TYPE 3 LIMIT	- SEC.	- SEC.	- SEC.	- SEC.	- SEC.	- SEC.	- SEC.	- SEC.
ALTERNATE EXTENSION	- SEC.	- SEC.	- SEC.	- SEC.	- SEC.	- SEC.	- SEC.	- SEC.
ADD PER VEHICLE	- SEC.	2.5 SEC.	- SEC.	- SEC.	- SEC.	2.5 SEC.	- SEC.	- SEC.
MAXIMUM INITIAL	- SEC.	46 SEC.	- SEC.	- SEC.	- SEC.	46 SEC.	- SEC.	- SEC.
MAXIMUM GAP	1.0 SEC.	7.0 SEC.	1.0 SEC.	1.0 SEC.	1.0 SEC.	7.0 SEC.	1.0 SEC.	1.0 SEC.
REDUCE 0.1 SEC EVERY	- SEC.	1.5 SEC.	- SEC.	- SEC.	- SEC.	1.5 SEC.	- SEC.	- SEC.
MINIMUM GAP	1.0 SEC.	3.4 SEC.	1.0 SEC.	1.0 SEC.	1.0 SEC.	3.4 SEC.	1.0 SEC.	1.0 SEC.

LEGEND



SIGNAL UPGRADE - TEMPORARY DESIGN ONE

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn and Associates, Inc.
P.O. Box 33068
Raleigh, NC 27636
(919) 877-2000



NC 54 AT NORTEL ENTRANCES

DIVISION 5 DURHAM COUNTY DURHAM

PLAN DATE: JUNE 2004 REVIEWED BY: SP PENNINGTON

PREPARED BY: SP PENNINGTON REVIEWED BY: DE MARCEAU

REVISIONS: _____

INIT. DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
DAREN E. MARCEAU
7/15/04
DATE
SIG. INVENTORY NO. 05-108111

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07/21/2004