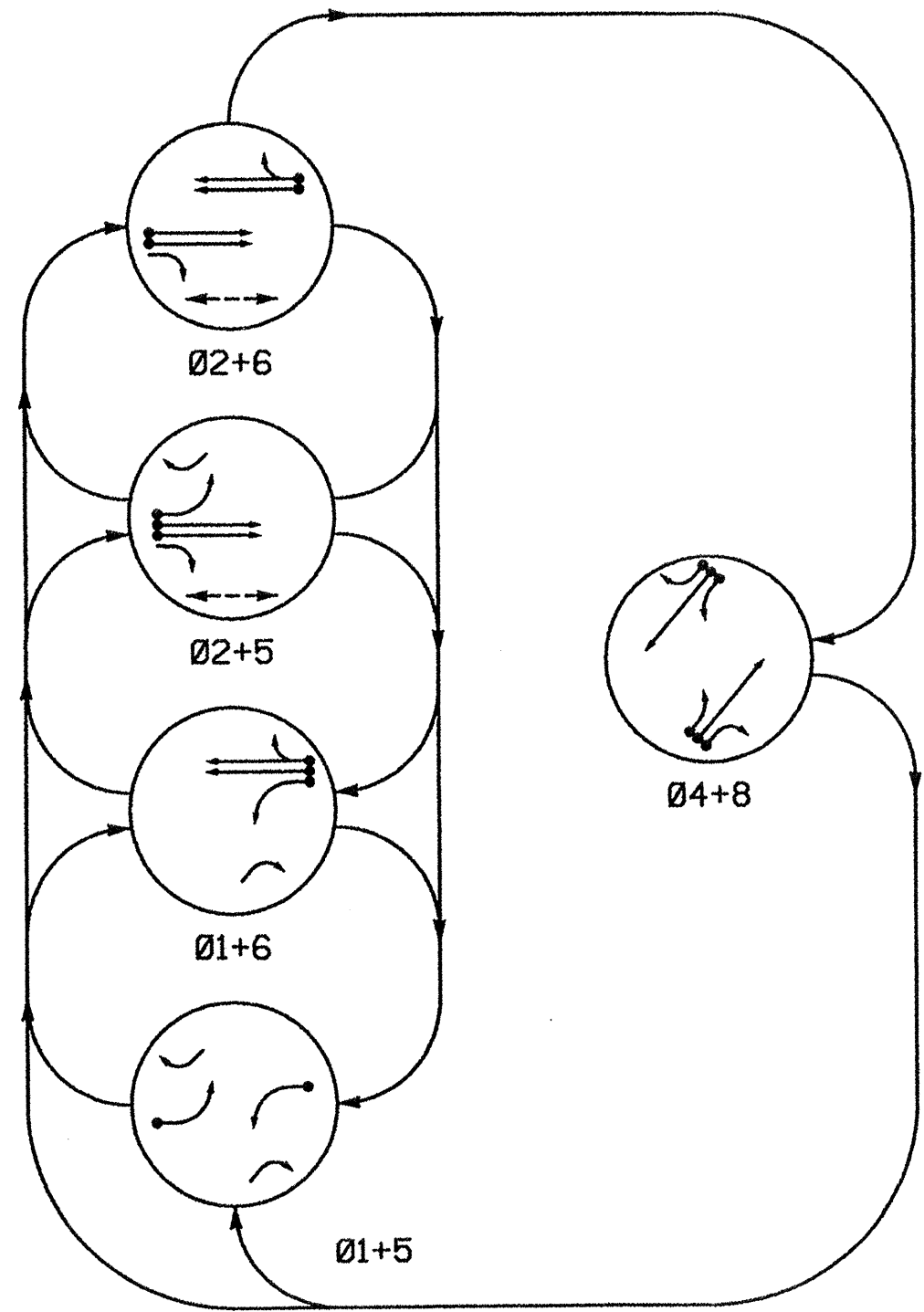


PHASING DIAGRAM

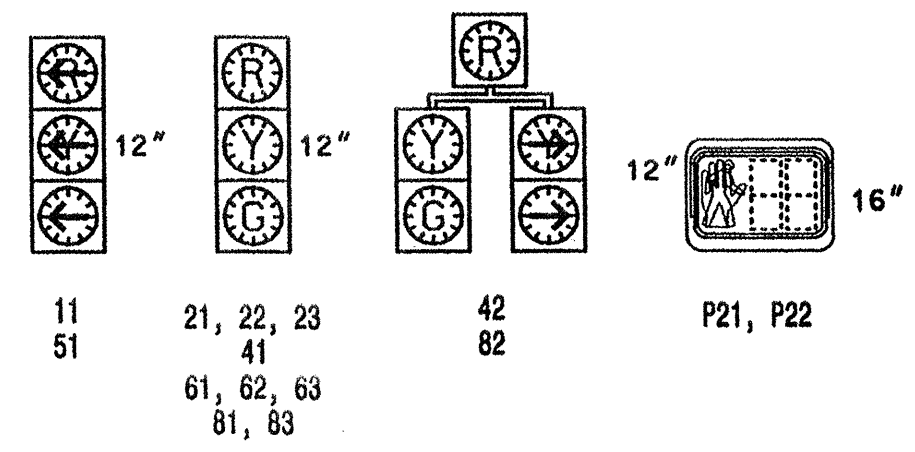


PHASING DIAGRAM DETECTION LEGEND
 ● DETECTED MOVEMENT
 ○ UNDETECTED MOVEMENT (OVERLAP)
 - UNSIGNALIZED MOVEMENT
 - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE					FLASH
	Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø4+8	
11	-	-	-	-	-	-
21, 22, 23	R	R	G	G	R	Y
41	R	R	R	R	G	R
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.
 ○ Denotes L.E.D.



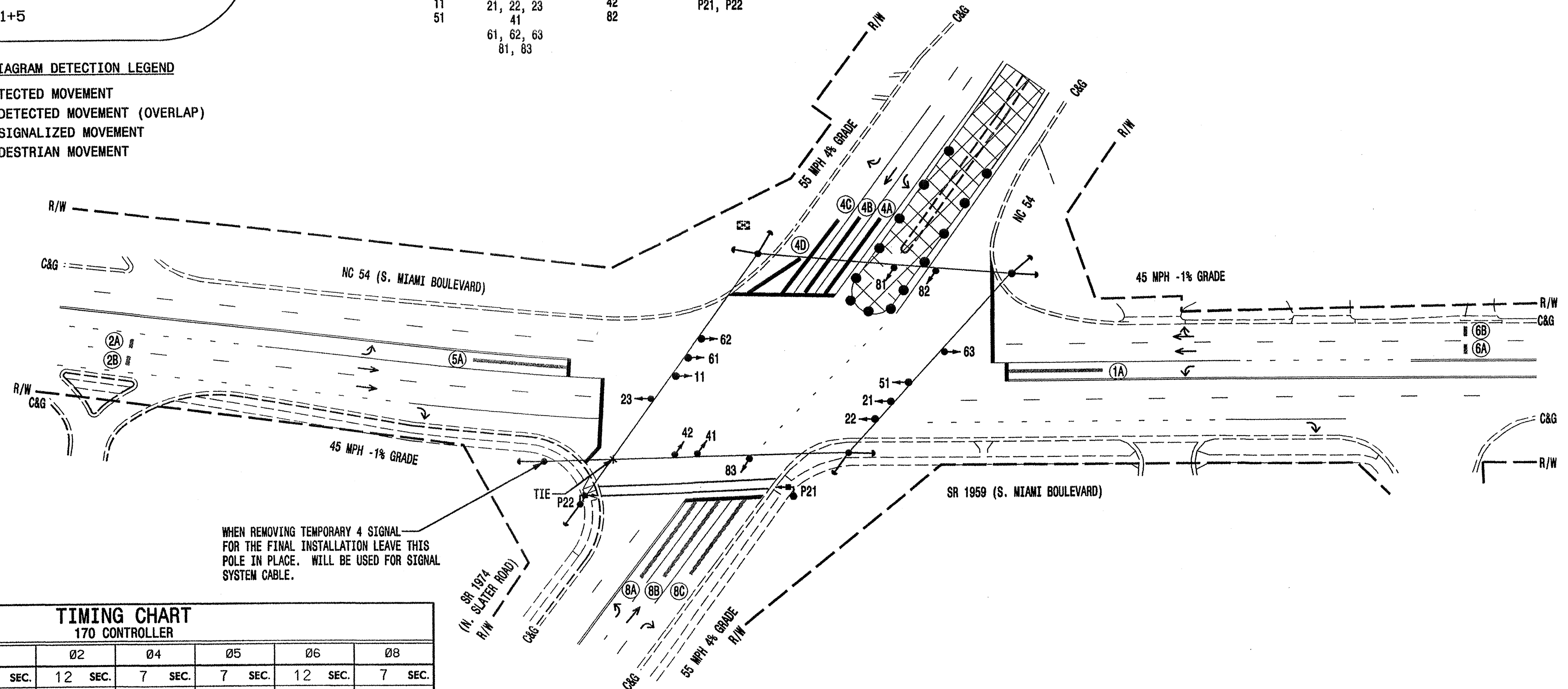
VIDEO ZONE DETECTION CHART
 170 CONTROLLER AND CABINET

ZONE NO.	SIZE (ft)	DIST. FROM STOPBAR (ft)	DETECTOR PROGRAMMING															
			NEMA PHASE	TIMING		ATTRIBUTES								STATUS				
				DELAY	CARRY (STRETCH)	1	2	3	4	5	6	7	8	NEW	EXISTING			
1A	6X60	0	1	3 SEC.	- SEC.	-	-	-	-	-	-	X	-	X	-	-	-	X
2A	6X6	300	2	- SEC.	- SEC.	-	-	-	X	X	-	X	-	X	-	-	-	X
2B	6X6	300	2	- SEC.	- SEC.	-	-	-	X	X	-	X	-	X	-	-	-	X
4A	6X60	0	4	- SEC.	- SEC.	-	-	-	-	-	-	X	-	X	-	-	-	X
4B	6X60	0	4	- SEC.	- SEC.	-	-	-	-	-	-	X	-	X	-	-	-	X
4C	6X60	0	4	15 SEC.	- SEC.	-	-	-	-	-	-	X	-	X	-	-	-	X
4D	6X40	0	4	15 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	-	-	-	X
6B	6X6	300	6	- SEC.	- SEC.	-	-	-	X	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	-	-	-	-	-	-	-	-	-

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 and 42.
- 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.

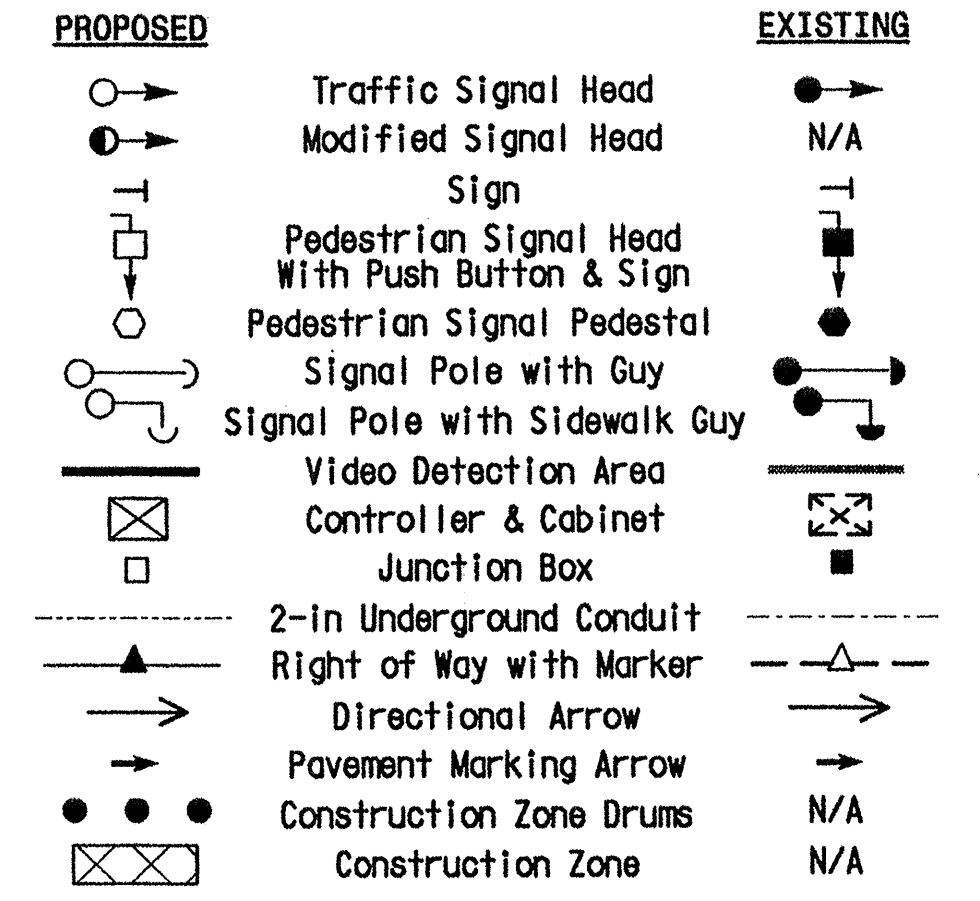


WHEN REMOVING TEMPORARY 4 SIGNAL FOR THE FINAL INSTALLATION LEAVE THIS POLE IN PLACE. WILL BE USED FOR SIGNAL SYSTEM CABLE.

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.	6.0 SEC.	4.7 SEC.	5.1 SEC.	6.2 SEC.	4.7 SEC.	5.1 SEC.
RED CLEARANCE	2.5 SEC.	3.0 SEC.	2.5 SEC.	3.0 SEC.	3.0 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	LOCK	YELLOW LOCK	LOCK	LOCK	YELLOW LOCK	LOCK
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.

LEGEND



SIGNAL UPGRADE - TEMPORARY DESIGN FOUR

PLANS PREPARED IN THE OFFICE OF:

 Kimley-Horn and Associates, Inc.
 P.O. Box 33068
 Raleigh, NC 27636
 (919) 677-2000

122 N. McDowell St., Raleigh, NC 27603

SCALE: 1"=50'

NC 54/SR 1959 (S. MIAMI BLVD.) AT NC 54/SR 174 (N. SLATER ROAD)

DIVISION 5 DURHAM COUNTY DURHAM
 PLAN DATE: JUNE 2004 PREPARED BY: SP PENNINGTON REVIEWED BY: DE MARCEAU

REVISIONS: _____ INIT. DATE _____

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 024910
 DATE: 7/19/04
 SIGNATURE: _____
 SIG. INVENTORY NO. 05-0432T4

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07/19/2004