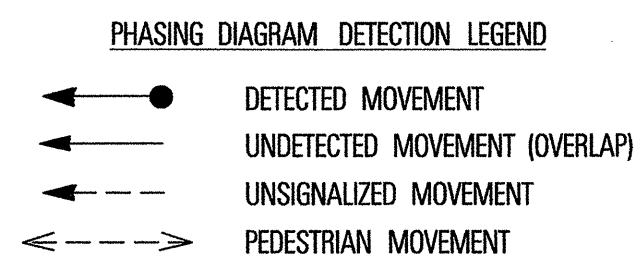
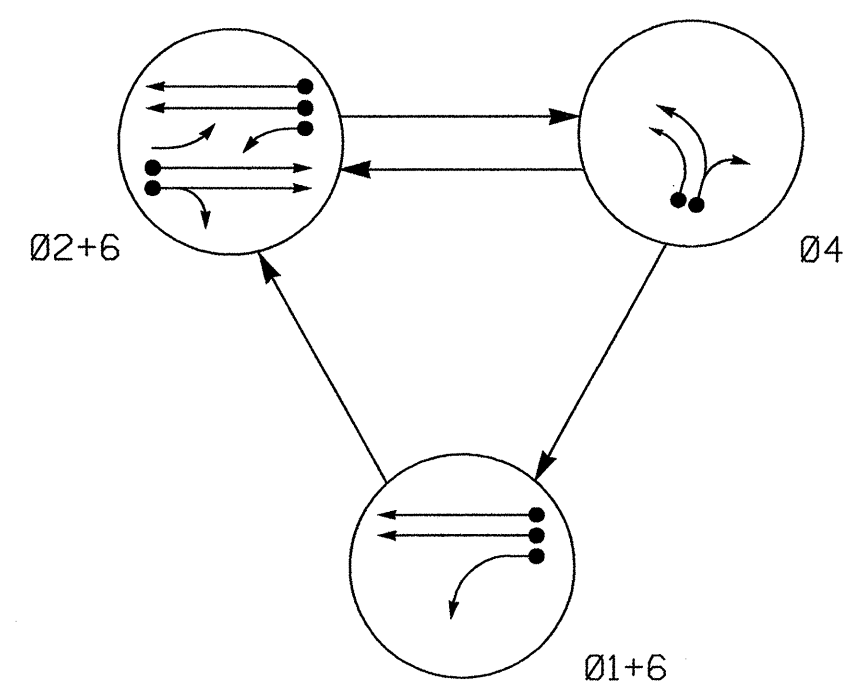
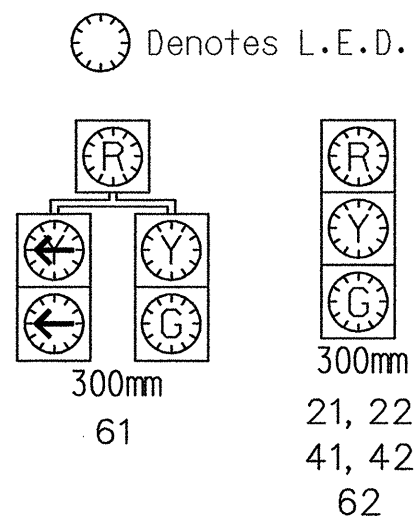


PHASING DIAGRAM



SIGNAL FACE	PHASE			
	Ø 1+6	Ø 2+6	Ø 4	FLIGHT
21, 22	R	G	R	Y
41, 42	R	R	G	R
61	G	G	R	Y
62	G	G	R	Y

SIGNAL FACE I.D.

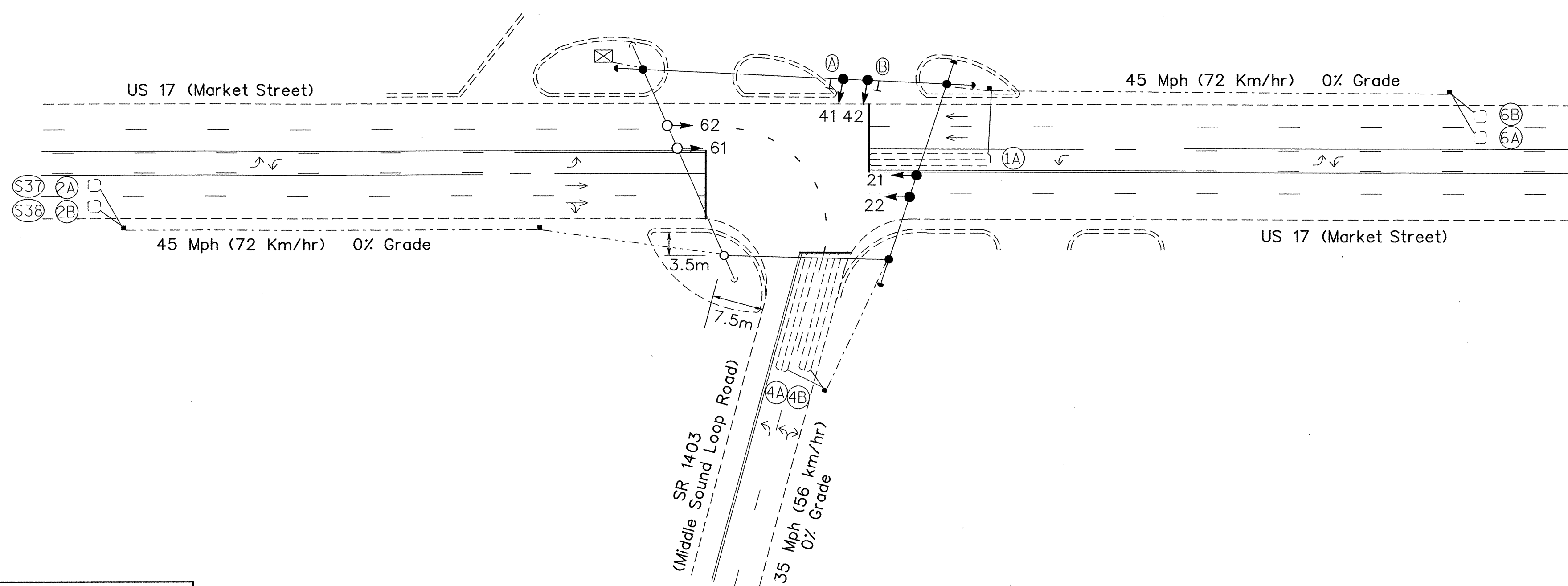


PLAN QUANTITIES	
Pay Item	Meters
Signal Cable	60
Messenger Cable	60
Lead-in Cable	720

3 Phase
(Fully Actuated)
(Military Cutoff Road Closed Loop System)

NOTES

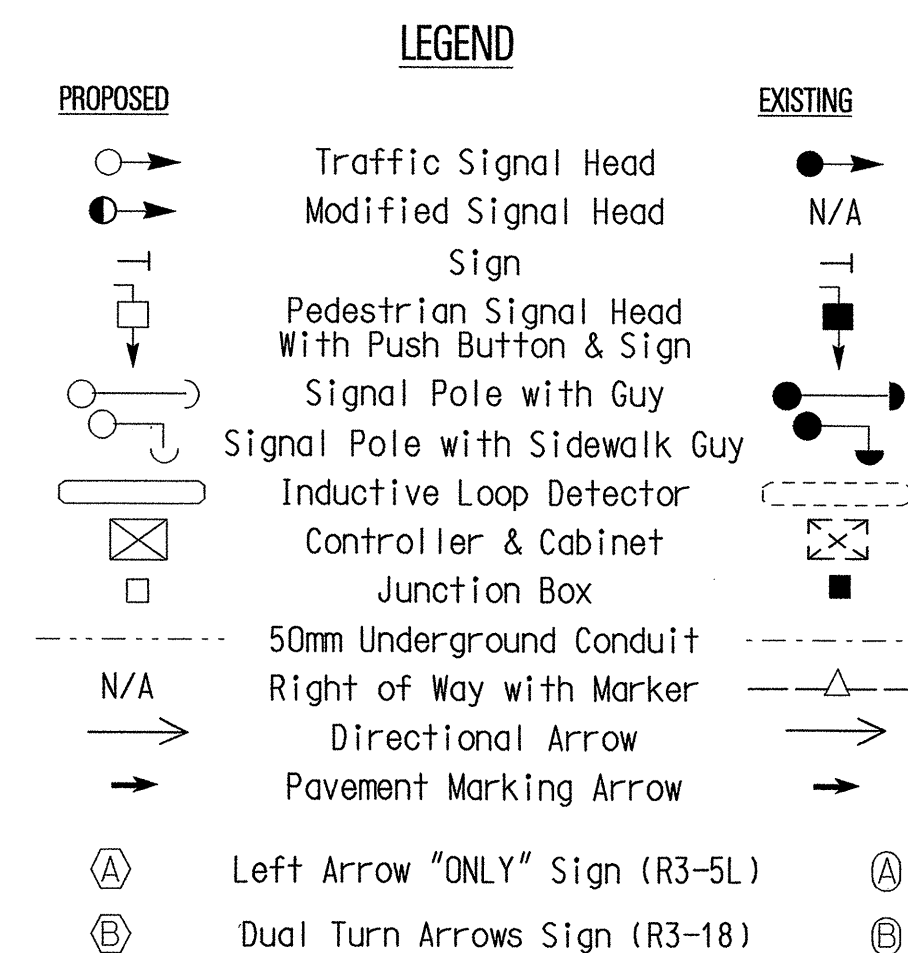
1. Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
2. Pavement markings are existing.
3. Omit phase 1 during phase 2 on.
4. Program controller to clear from phase 2+6 to phase 1+6 by progressing through phase 4 (See Electrical Details).
5. Maximum times shown in timing chart are for free-run operation only. Coordinated signals system timing values shall supersede these values.
6. Set all detector units to presence mode.
7. Add Trimble Acutime 2000 (RS-232) GPS Unit for time synchronization until fiber optic cable is installed.
8. Remove Trimble Acutime 2000 (RS-232) GPS Unit upon installation of fiber optic cable and actuation of closed loop system.
9. Closed Loop System Data: Controller Asset #0076.



FEATURE	2070L TIMING CHART PHASE			
	1	2	4	6
Min Green 1 *	7	12	7	12
Extension 1 *	1.0	6.0	1.0	6.0
Max Green 1 *	15	100	25	100
Yellow Clearance	4.0	4.7	4.0	4.7
Red Clearance	1.0	1.5	1.5	1.5
Walk 1 *	-	-	-	-
Don't Walk 1	-	-	-	-
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	-	-	-	-
Simultaneous Gap	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.

2070L LOOP & DETECTOR INSTALLATION												
INDUCTIVE LOOPS				DETECTOR PROGRAMMING								
LOOP	SIZE (M)	TURNS	DISTANCE FROM STOPBAR (M)	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CARD
1A	1.8X1.8	EXISTING	0	-	1	Y	Y	-	-	-	15	Y
2A-S37	1.8X1.8	EXISTING	90	-	2	Y	Y	-	Y	-	-	Y
2B-S38	1.8X1.8	EXISTING	90	-	2	Y	Y	-	Y	-	-	Y
4A	1.8X1.8	EXISTING	0	-	4	Y	Y	-	-	-	3	Y
4B	1.8X1.8	EXISTING	0	-	4	Y	Y	-	-	-	10	Y
6A	1.8X1.8	EXISTING	90	-	6	Y	Y	-	-	-	-	Y
6B	1.8X1.8	EXISTING	90	-	6	Y	Y	-	-	-	-	Y



Signal Upgrade

SEPI ENGINEERING GROUP
2300 Rexwoods Drive
Suite 370
Raleigh, NC 27607
Tel: 919-789-9977 Fax: 789-9591

Prepared for:

US 17 (Market Street)
at
SR 1403 (Middle Sound Loop Road)

Division 3 New Hanover County Wilmington

PLAN DATE: Oct. 2003 REVIEWED BY: L. M. Eddins
PREPARED BY: H. M. Suri REVIEWED BY: S. S. Asefina

12/11/03

SIGNATURE: [Signature] DATE: 12/11/03
SIG. INVENTORY NO. 03-0076