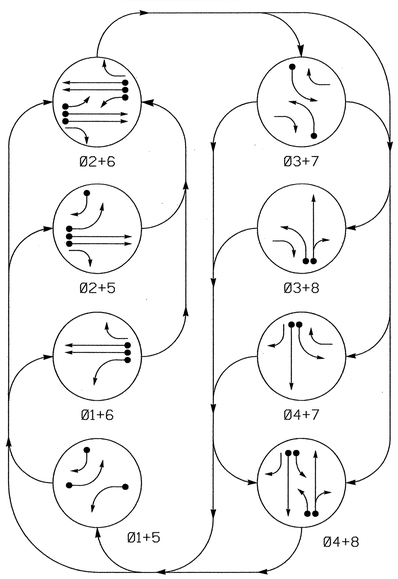
METRIC	PROJECT REFERENCE NO.	SHEET NO.
	U-2734	Sig. 2

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
21	R	R	G	G	R	R	R	R	Y
22	R	R	G	G	R	R	R	R	Y
23	R	R	G	G	R	R	R	R	Y
41	R	R	R	R	R	R	G	G	R
42	R	R	R	R	R	R	G	G	R
61	R	R	G	G	R	R	R	R	Y
62	R	G	R	G	R	R	R	R	Y
63	R	G	R	G	R	R	R	R	Y
81	R	R	R	R	R	G	R	G	R
82	R	R	R	R	R	G	R	G	R

SIGNAL FACE I.D.

Denotes L.E.D.

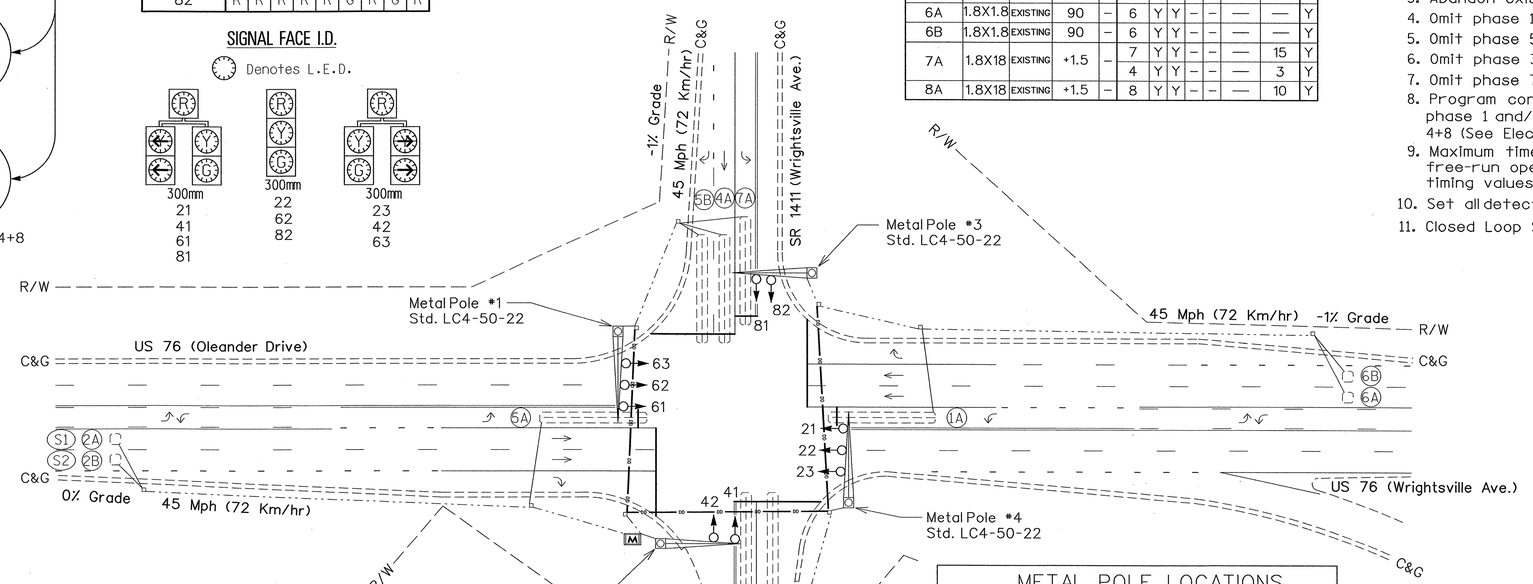
2070L LOOP & DETECTOR INSTALLATION

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	1.8X18	EXISTING	+1.5	–	1	Y	Y	–	–	—	15	Y
					6	Y	Y	Y	–	—	3	Y
2A-S1	1.8X1.8	EXISTING	90	–	2	Y	Y	–	Y	—	—	Y
2B-S2	1.8X1.8	EXISTING	90	–	2	Y	Y	–	Y	—	—	Y
3A	1.8X18	EXISTING	+1.5	–	3	Y	Y	–	–	—	15	Y
					8	Y	Y	–	–	—	3	Y
4A	1.8X18	EXISTING	+1.5	–	4	Y	Y	–	–	—	—	Y
5A	1.8X18	EXISTING	+1.5	–	5	Y	Y	–	–	—	15	Y
					2	Y	Y	Y	–	—	3	Y
5B	1.8X18	EXISTING	+1.5	–	5	Y	Y	–	–	—	15	Y
6A	1.8X1.8	EXISTING	90	–	6	Y	Y	–	–	—	—	Y
6B	1.8X1.8	EXISTING	90	–	6	Y	Y	–	–	—	—	Y
7A	1.8X18	EXISTING	+1.5	–	7	Y	Y	–	–	—	15	Y
					4	Y	Y	–	–	—	3	Y
8A	1.8X18	EXISTING	+1.5	–	8	Y	Y	–	–	—	10	Y

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

NOTES

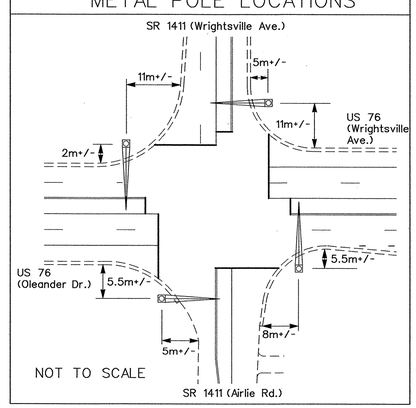
1. Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
2. Pavement markings are existing.
3. Abandon existing loops 2C, 2D, 6C, and 6D.
4. Omit phase 1 during phase 2 on.
5. Omit phase 5 during phase 6 on.
6. Omit phase 3 during phase 4 on.
7. Omit phase 7 during phase 8 on.
8. Program controller to clear from phase 2+6 to phase 1 and/or 5 by progressing through phase 4+8 (See Electrical Details).
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
10. Set all detector units to presence mode.
11. Closed Loop System data: Controller Asset #0189
    Master Asset #10307



PLAN QUANTITIES

Pay Item	Meters
Signal Cable	265
Messenger Cable	0
Lead-in Cable	720

METAL POLE LOCATIONS



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	50mm Underground Conduit	
N/A	Right of Way with Marker	
	Directional Arrow	
	Pavement Marking Arrow	
	Metal Pole with Mastarm	
DD	Directional Drill	N/A
M	Master Controller & Cabinet	M

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	6.0	1.0	1.0	1.0	6.0	1.0	1.0
Max Green 1 *	15	100	15	25	15	100	15	25
Yellow Clearance	4.0	4.7	4.0	4.7	4.0	4.7	4.0	4.7
Red Clearance	2.0	1.5	2.0	1.5	2.0	1.5	2.0	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 *	–	45	–	–	–	45	–	–
Minimum Gap	–	3.0	–	–	–	3.0	–	–
Recall Mode	–	MIN RECALL	–	–	–	MIN RECALL	–	–
Vehicle Call Memory	–	YELLOW	–	–	–	YELLOW	–	–
Dual Entry	–	–	–	ON	–	–	–	ON
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

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

Prepared for:
Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signals and Geometrics Section
122 N. McDowell St., Raleigh, NC 27603

US 76 (Oleander Dr./Wrightsville Ave.)
at
SR 1411 (Airlie Rd./Wrightsville Ave.)

Division 3	New Hanover County	Wilmington
PLAN DATE: Aug. 2003	REVIEWED BY: L. M. Eddins	
PREPARED BY: H. M. Surti	REVIEWED BY: S. S. Asefnia	

REVISIONS	INIT.	DATE

SCALE 1:500

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 20104 ENGINEER STEPHEN S. ASEFNIA
12-11-03
SIGNATURE DATE
SIG. INVENTORY NO. 03-0189

$$$$SYSTIME$$$$
$$$$USERNAME$$$$
$$$$DGNNAME$$$$