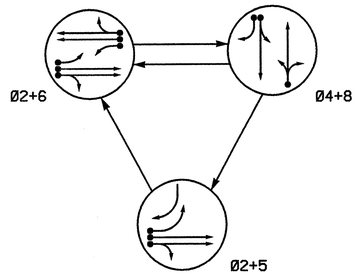
METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2911A	SIG. 12

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

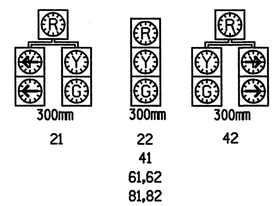
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+5	PHASE Ø2+6	PHASE Ø4+8	FLASH
21	G	G	R	Y
22	G	G	R	Y
41	R	R	G	R
42	R	R	G	R
61,62	R	G	R	Y
81,82	R	R	G	R

SIGNAL FACE I.D.

Denotes L.E.D.



LOOP & DETECTOR UNIT INSTALLATION CHART

NEMA CONTROLLER WITH TS-2 CABINET

INDUCTIVE LOOPS						DETECTOR UNITS						
LOOP NO.	SIZE (m)	TURNS	DIST. FROM STOPBAR (m)	NEW	EXISTING	NEMA PHASE	NEW	EXISTING	TIMING FEATURE	TIMING TIME	PLACE CALL DURING PHASE	INHIBIT DELAY DURING GREEN#
2A	1.8X1.8	6	130	X		2		X	EXTEND	2.7 SEC.	ALL	NO
2B	1.8X1.8	6	130		X							
2C	1.8X1.8	5	35	X		2		X	-	- SEC.	ALL	NO
2D	1.8X1.8	5	35		X							
4A	1.8X18	2-4-2	0	X		4		X	DELAY	3 SEC.	ALL	YES
4B	1.8X18	2-4-2	0	X		4		X	DELAY	15 SEC.	ALL	YES
5A	1.8X18	2-4-2	0	X		5	X		DELAY	15 SEC.	ALL	YES
						2	X		DELAY	3 SEC.	ALL	NO
6A,6B	1.8X1.8	5	130	X		6		X	EXTEND	2.3 SEC.	ALL	NO
6C,6D	1.8X1.8	4	35	X		6		X	-	- SEC.	ALL	NO
6E	1.8X18	2-4-2	0	X		6	X		DELAY	3 SEC.	ALL	NO
8A	1.8X18	2-4-2	0	X		8		X	DELAY	10 SEC.	ALL	YES
8B	1.8X1.8	4	0	X		8	X		DELAY	15 SEC.	ALL	YES
S20	1.8X1.8	4	+40	X		-	X		SYSTEM DETECTOR			
S21	1.8X1.8	4	+40	X		-	X		SYSTEM DETECTOR			

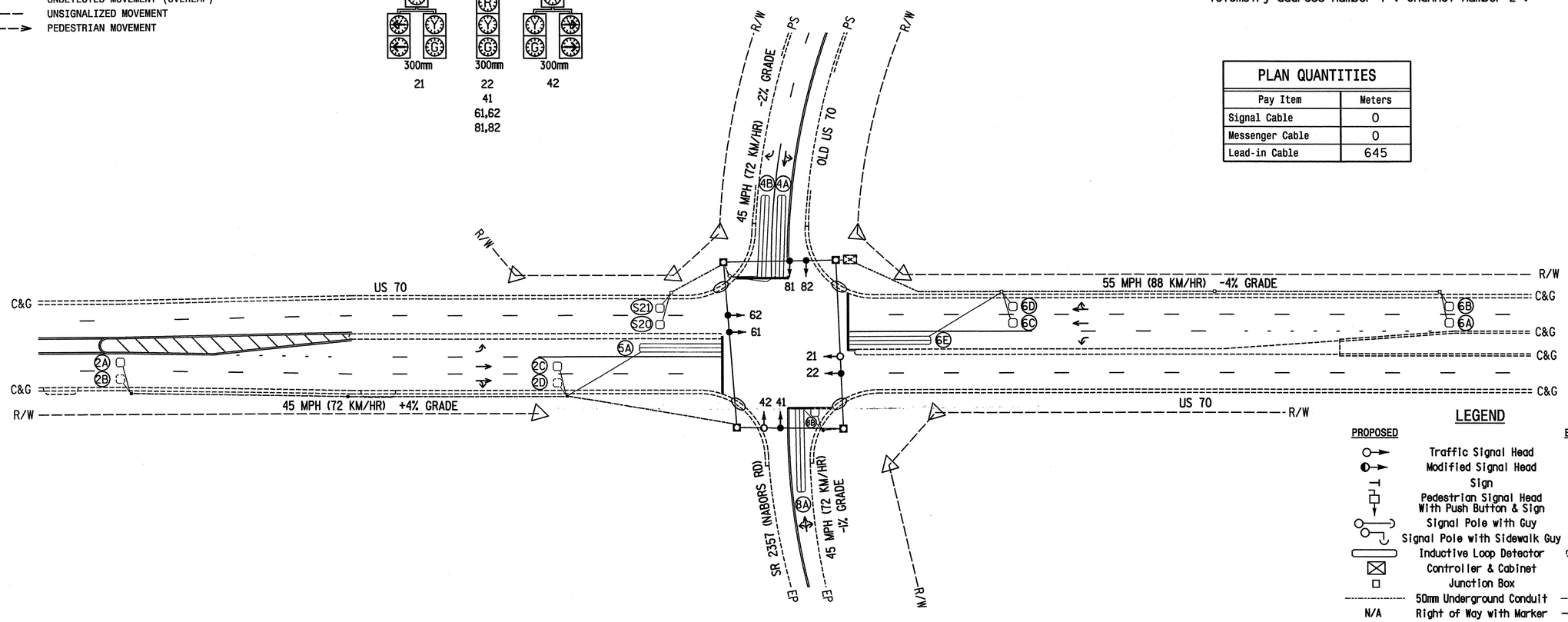
3 PHASE ACTUATED (CLOSED LOOP SYSTEM)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
2. Reposition existing signal heads numbered 22, 61 and 62.
3. Omit phase 5 during phase 6 on.
4. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
5. Program phase 4 and phase 8 for dual entry.
6. Set all detector units to presence mode.
7. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
8. Closed loop system data: Intersection Number 1 , Local telemetry address number 1 , Channel number 2 .

PLAN QUANTITIES

Pay Item	Meters
Signal Cable	0
Messenger Cable	0
Lead-in Cable	645



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 Strain Pole	
N/A	Curb Cut	

TIMING CHART

NEMA CONTROLLER

PHASE	Ø2	Ø4	Ø5	Ø6	Ø8
MINIMUM GREEN	14 SEC.	7 SEC.	7 SEC.	14 SEC.	7 SEC.
PASSAGE/GAP	2.0 SEC.	1.0 SEC.	1.0 SEC.	2.0 SEC.	1.0 SEC.
YELLOW CHANGE INT.	5.1 SEC.	4.7 SEC.	4.0 SEC.	5.1 SEC.	4.7 SEC.
RED CLEARANCE	1.5 SEC.	1.5 SEC.	1.5 SEC.	1.5 SEC.	1.5 SEC.
MAX. 1	45 SEC.	25 SEC.	15 SEC.	45 SEC.	25 SEC.
RECALL POSITION	MIN. RECALL	NONE	NONE	MIN. RECALL	NONE
VEHI. CALL MEMORY	LOCK	NONLOCK	NONLOCK	LOCK	NONLOCK

NEW INSTALLATION-FINAL

ARCADIS
G & M of North Carolina, Inc.
WWW.ARCADIS-US.COM
801 Corporate Center Drive, Suite 300
Raleigh, NC 27607-5073
Tel: 919/854-1282 Fax: 919/854-5448

Prepared in the Offices of:
Traffic Engineering and Safety Systems Branch
Signals and Geometrics Section
122 N. McDowell St., Raleigh, NC 27603

SCALE 5 0 10 1:500

US 70 AT
OLD US 70 &
SR 2357 (NABORS RD)

DIVISION 12 IREDELL COUNTY E. OF STATESVILLE

PLAN DATE:	AUGUST 2002	REVIEWED BY:	K. MILAM
PREPARED BY:	X. FAN	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 21080 ENGINEER TYSON A. GRAVES
SEAL NOT VALID UNLESS SIGNED AND DATED
SIGNATURE 1-27-03 DATE
SIG. INVENTORY NO. 12-1680

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