

PHASING DIAGRAM

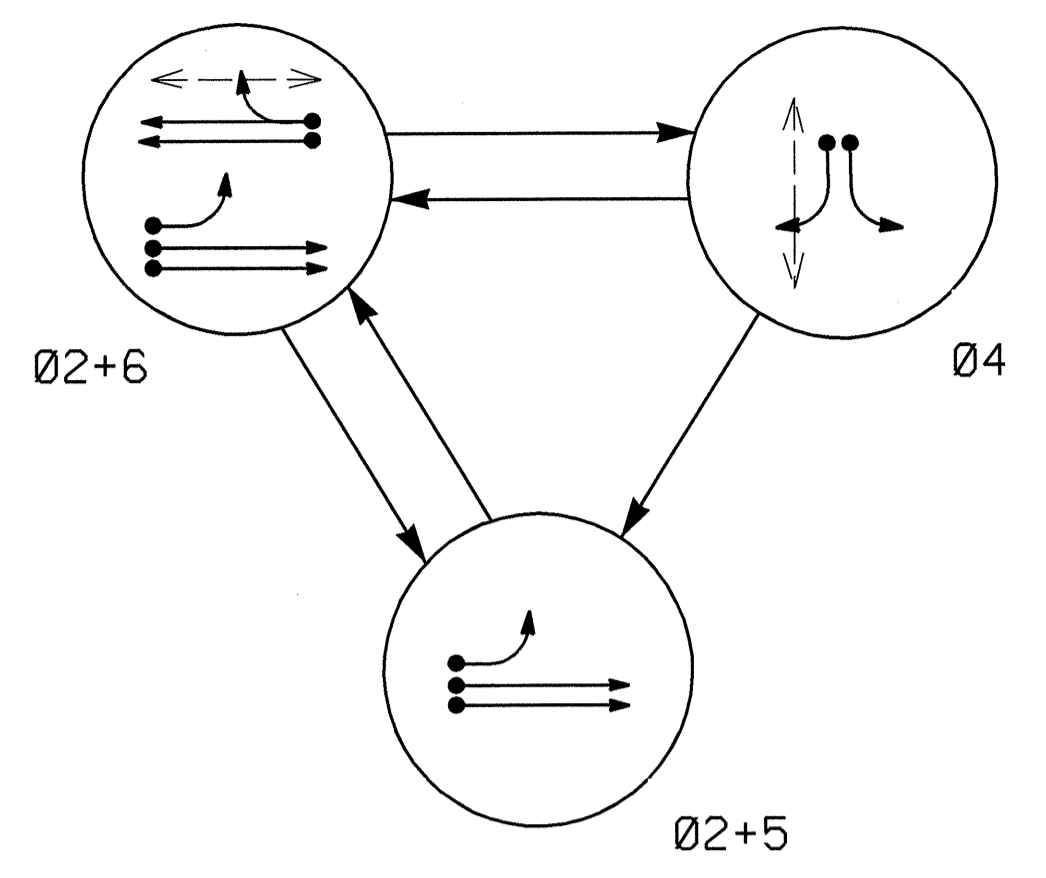
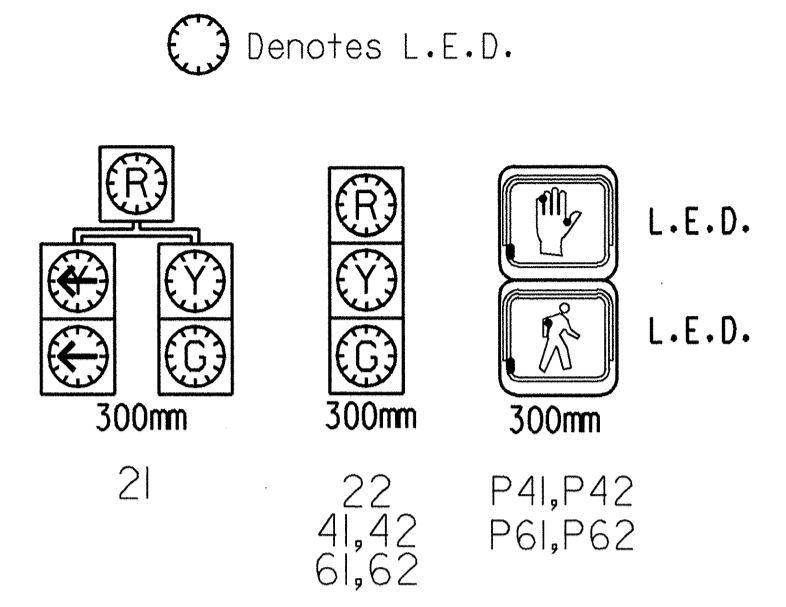


TABLE OF OPERATION

SIGNAL FACE	PHASE				
	Ø2+5	Ø2+6	Ø4	F	H/S
21	G	R	Y		
22	G	G	R	Y	
41,42	R	R	G	R	
61,62	R	G	R	Y	
P41,P42	DW	DW	W	DRK	
P61,P62	DW	W	DW	DRK	

SIGNAL FACE I.D.



2070L LOOP & DETECTOR INSTALLATION

LOOP	SIZE (M)	TURNS	DISTANCE FROM STOPBAR (M)	NEW LOOP	DETECTOR PROGRAMMING						
					PHASE	CALLING	EXTENSION	FULL TIME DELAY SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CARD
2A,2B	1.8X1.8	5	90	Y	2	Y	Y	-	1.8	-	-
2C,2D	1.8X1.8	4	27	Y	2	Y	Y	-	-	-	Y
4A	1.8X1.8	2-4-2	0	-	4	Y	Y	-	-	3	-
4B	1.8X1.8	2-4-2	0	-	4	Y	Y	-	-	10	-
5A	1.8X1.8	2-4-2	0	-	5	Y	Y	-	-	3	-
6A,6B	1.8X1.8	5	90	Y	6	Y	Y	-	1.8	-	-
6C,6D	1.8X1.8	4	27	Y	6	Y	Y	-	-	-	Y
S13	1.8X1.8	4	+40	Y	-	-	-	Y	-	-	Y
S14	1.8X1.8	4	+40	Y	-	-	-	Y	-	-	Y
S15	1.8X1.8	4	+40	Y	-	-	-	Y	-	-	Y
S16	1.8X1.8	4	+40	Y	-	-	-	Y	-	-	Y

3 Phase Fully Actuated (Closed Loop Signal System)

NOTES

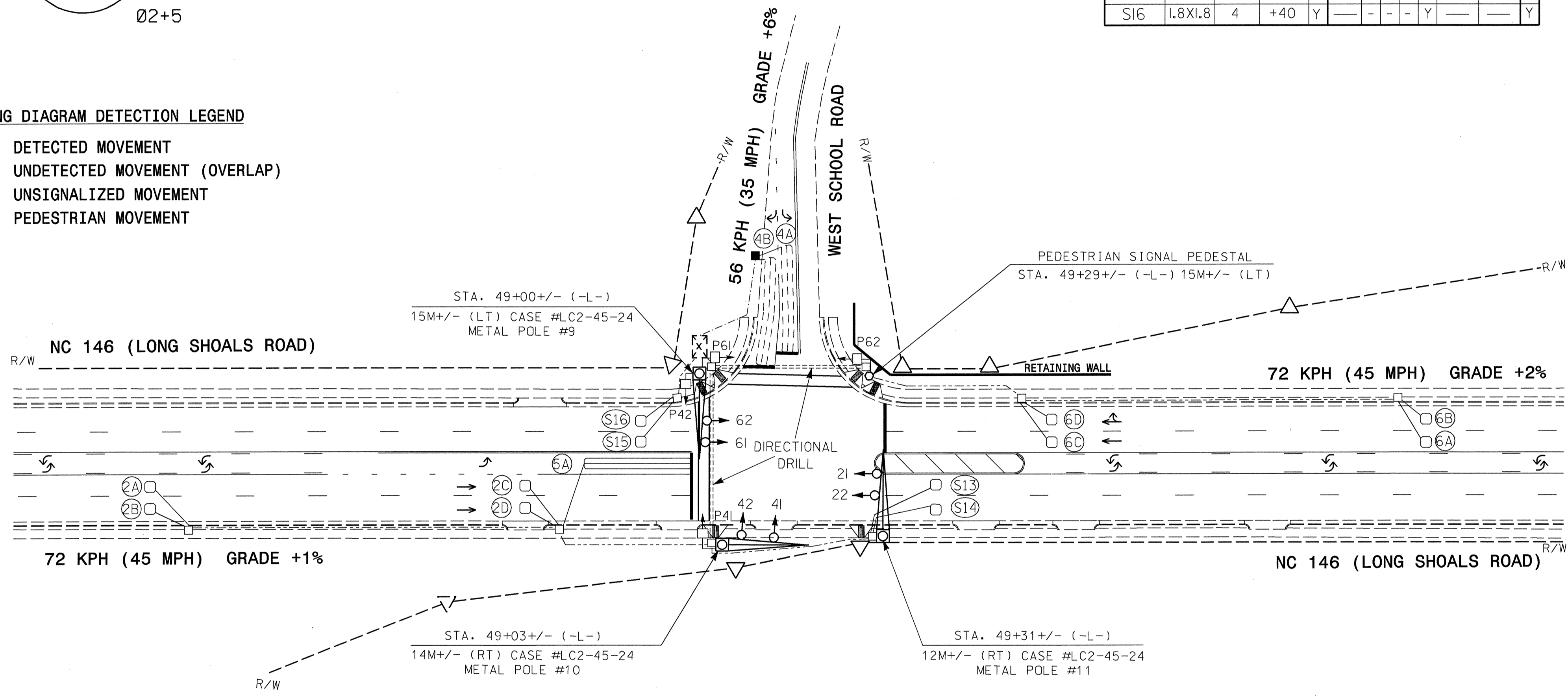
- REFER TO "ROADWAY STANDARD DRAWINGS NCDOT", DATED JANUARY 2002 AND "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2002.
- MAXIMUM TIMES SHOWN IN TIMING CHART ARE FOR FREE-RUN OPERATIONS ONLY. COORDINATED SIGNAL SYSTEM TIMING VALUES SHALL SUPERSEDE THESE VALUES.
- OMIT "WALK" AND FLASHING "DON'T WALK" WITH NO PEDESTRIAN CALLS.
- SET ALL DETECTOR UNITS TO PRESENCE MODE.
- CLOSED LOOP SYSTEM DATA: INTERSECTION CONTROLLER ASSET # 0710

PHASING DIAGRAM DETECTION LEGEND

- ←●→ DETECTED MOVEMENT
- ←→ UNDETECTED MOVEMENT (OVERLAP)
- ←- - -→ UNSIGNALIZED MOVEMENT
- ←- - -> PEDESTRIAN MOVEMENT

PLAN QUANTITIES

Pay Item	Meters
Signal Cable	255
Messenger Cable	-
Lead-in Cable	990



LEGEND

- | PROPOSED | EXISTING |
|---|---|
| ○→ Traffic Signal Head | ●→ Traffic Signal Head |
| ○→ Modified Signal Head | N/A |
| ○→ Sign | ○→ Sign |
| ○→ Pedestrian Signal Head With Push Button & Sign | ○→ Pedestrian Signal Head With Push Button & Sign |
| ○→ Pedestrian Signal Pedestal | ○→ Pedestrian Signal Pedestal |
| ○→ Signal Pole with Guy | ○→ Signal Pole with Guy |
| ○→ Signal Pole with Sidewalk Guy | ○→ Signal Pole with Sidewalk Guy |
| ○→ Inductive Loop Detector | ○→ Inductive Loop Detector |
| ○→ Controller & Cabinet | ○→ Controller & Cabinet |
| ○→ Junction Box | ○→ Junction Box |
| ○→ 50mm Underground Conduit | ○→ 50mm Underground Conduit |
| N/A | ○→ Right of Way with Marker |
| ○→ Directional Arrow | ○→ Directional Arrow |
| ○→ Directional Drill | ○→ Directional Drill |
| ○→ 2-50 mm Polyethylene Conduit | ○→ 2-50 mm Polyethylene Conduit |
| ○→ Wheelchair Ramp | N/A |
| ○→ Metal Pole with Mastarm | ○→ Metal Pole with Mastarm |

2070L TIMING CHART

FEATURE	PHASE			
	2	4	5	6
Min Green 1 *	12	7	7	12
Extension 1 *	2	1	1	2
Max Green 1 *	60	25	20	60
Yellow Clearance	4.7	4.0	4.0	4.7
Red Clearance	1.5	2.0	2.0	1.5
Walk 1 *	-	7	-	7
Don't Walk 1	-	14	-	12
Seconds Per Actuation *	-	-	-	-
Max Variable Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
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.

SIGNAL UPGRADE-FINAL

<p>PLANS PREPARED BY : RUMMEL KLEPPER & KAHL, LLP <i>consulting engineers</i> 5800 FARINGDON PLACE SUITE 105 RALEIGH, NORTH CAROLINA 27609-3960</p> <p style="text-align: center;">FOR DIVISION OF HIGHWAYS</p>	<p>Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION Traffic Engineering and Safety Section Signal and Geometrics Section</p> <p>122 N. McDowell St., Raleigh, NC 27603 SCALE: 1" = 500'</p>	<p>NC 146 (LONG SHOALS ROAD) AT WEST SCHOOL ROAD</p> <p>DIVISION 13 BUNCOMBE COUNTY ASHEVILLE</p> <p>PLAN DATE: 02-04-04 REVIEWED BY: D. MORTON PREPARED BY: J. COLE RKAK PROJECT NO. 302-079-SIG4</p>	<p>SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 19798 DONALD W. MORTON ENGINEER</p> <p>2-26-04 DATE</p> <p>SIG. INVENTORY NO. 13-0710</p>					
		<p>REVISIONS</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>NO.</th> <th>INIT.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	INIT.	DATE		
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