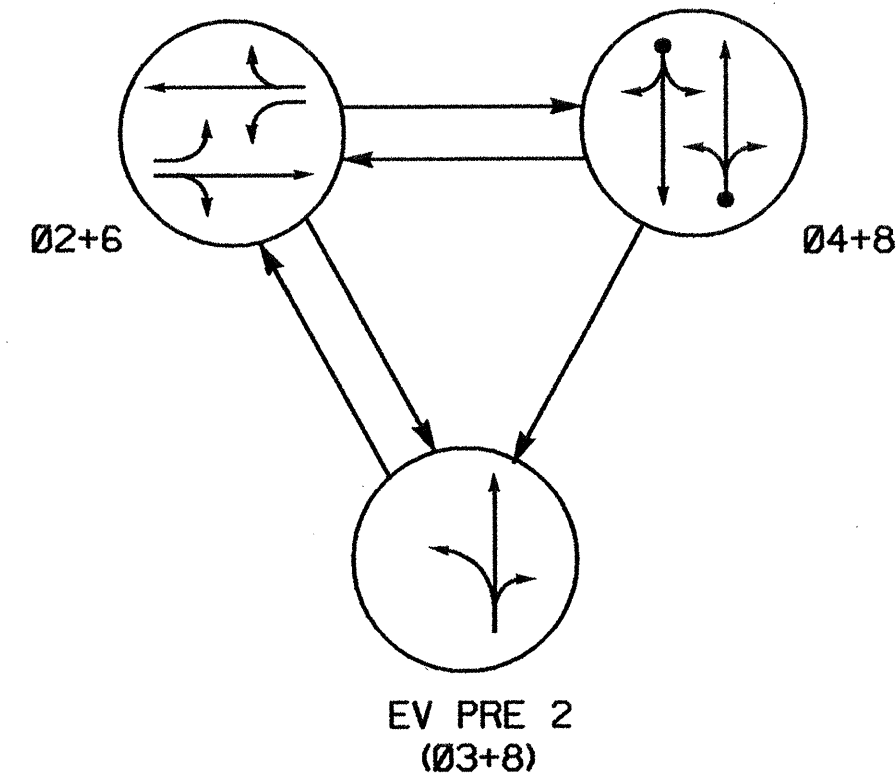


**PHASING DIAGRAM**



**PHASING DIAGRAM DETECTION LEGEND**

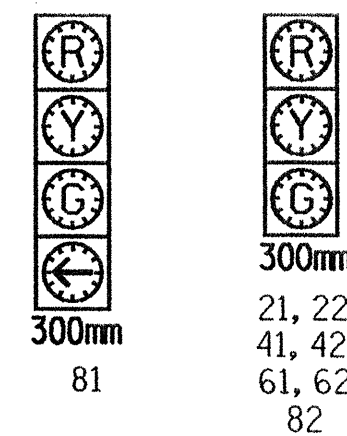
- ● DETECTED MOVEMENT
- ○ UNDETECTED MOVEMENT (OVERLAP)
- ○ UNSIGNALIZED MOVEMENT
- ○ PEDESTRIAN MOVEMENT

**TABLE OF OPERATION**

SIGNAL FACE	PHASE			
	Ø 2+6	Ø 4+8	EV PRE 2	FLASH
21, 22	G	R	R	Y
41, 42	R	G	R	R
61, 62	G	R	R	Y
81	R	G	G	R
82	R	G	G	R

**SIGNAL FACE I.D.**

○ Denotes L.E.D.



**2070 EV PREEMPTION**

FUNCTION	PRE 2
Interval 1 - Dwell Green	255
Interval 1 - Dwell Yellow	0.0*
Interval 1 - Dwell Red	0.0*
Interval 5 - Exit Green	1
Interval 5 - Yellow	0.0*
Interval 5 - Red	0.0*
Delay Time	**
Min Green Before Pre	7
Ped Clear Before Pre	0
Yellow Clear Before Pre	0.0*
Red Clear Before Pre	0.0*
Dwell Min Time	**
Enable Backup Protection	Y
Ped Clear Through Yellow	NA

\* Time defaults to time used for phase during normal operation.  
\*\* See note 6.

**2070L LOOP & DETECTOR INSTALLATION**

LOOP	SIZE (M)	TURNS	INDUCTIVE ZONE		DETECTOR PROGRAMMING							
			DISTANCE FROM STOPBAR (M)	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CARD
4A	1.8X18	*	0	Y	4	Y	Y	-	-	-	10	Y
8A	1.8X18	*	0	Y	8	Y	Y	-	-	-	10	Y

\* Microwave Detection

**2 Phase W/Fire Preemption Semi-Actuated (Isolated)**

**NOTES**

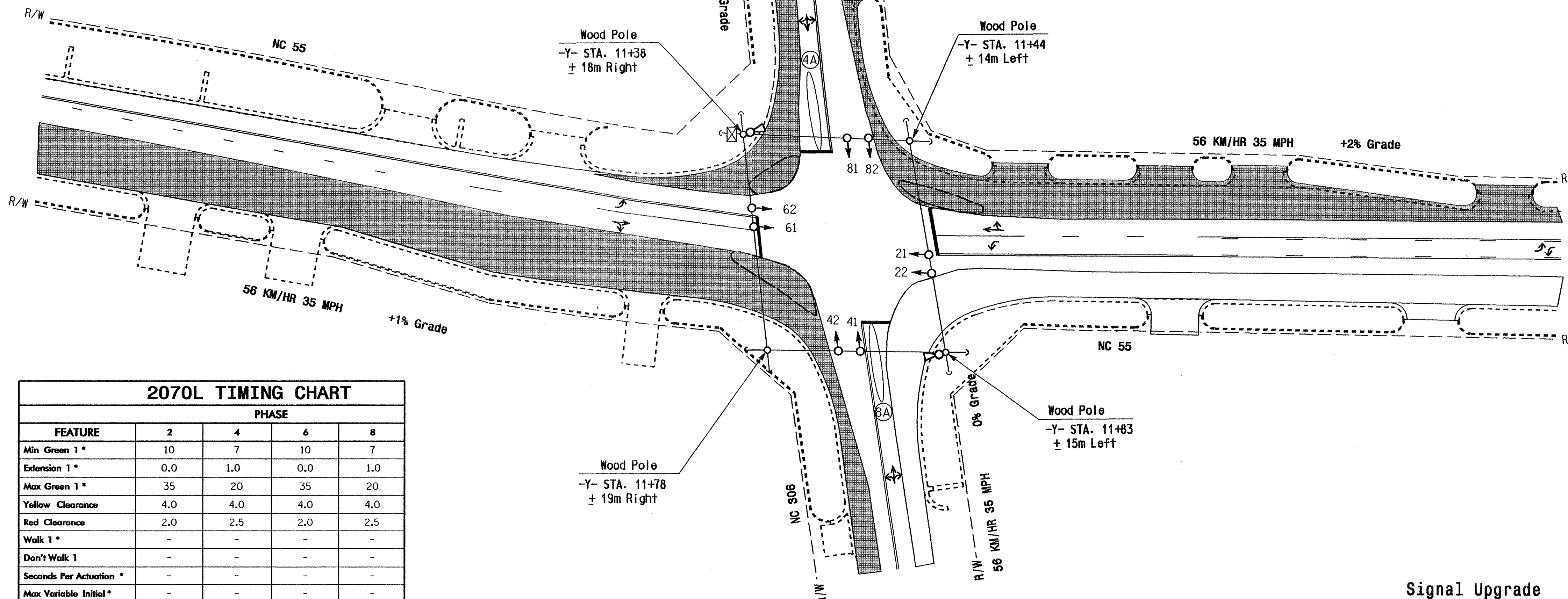
- Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Locate emergency vehicle preemption switch in the fire station.
- The Division Traffic Engineer will determine the Delay before Preempt and Preempt Dwell Min Green time for the emergency vehicle preemption timing.
- Incorporate Microwave presence detector for vehicle detection.

**PLAN QUANTITIES**

Pay Item	Meters
Signal Cable	215
Messenger Cable	175
Lead-in Cable	90

**LEGEND**

- | PROPOSED                                         | EXISTING                        |
|--------------------------------------------------|---------------------------------|
| ○ → Traffic Signal Head                          | ● → Traffic Signal Head         |
| ○ → Modified Signal Head                         | N/A                             |
| T Pedestrian Signal Head With Push Button & Sign | T Pedestrian Signal Head        |
| ○ Signal Pole with Guy                           | ● Signal Pole with Guy          |
| ○ Signal Pole with Sidewalk Guy                  | ● Signal Pole with Sidewalk Guy |
| ○ Inductive Loop Detector                        | ○ Inductive Loop Detector       |
| ○ Out of Pavement Detector                       | ○ Out of Pavement Detector      |
| ○ Microwave Detection Zone                       | ○ Microwave Detection Zone      |
| □ Controller & Cabinet                           | □ Controller & Cabinet          |
| □ Junction Box                                   | □ Junction Box                  |
| ○ 50mm Underground Conduit                       | ○ 50mm Underground Conduit      |
| N/A Right of Way with Marker                     | → Right of Way with Marker      |
| → Directional Arrow                              | → Directional Arrow             |
| → Pavement Marking Arrow                         | → Pavement Marking Arrow        |
| Construction Zone                                | Construction Zone               |



**2070L TIMING CHART**

FEATURE	PHASE			
	2	4	6	8
Min Green 1*	10	7	10	7
Extension 1*	0.0	1.0	0.0	1.0
Max Green 1*	35	20	35	20
Yellow Clearance	4.0	4.0	4.0	4.0
Red Clearance	2.0	2.5	2.0	2.5
Walk 1*	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation*	-	-	-	-
Max Variable Initial*	-	-	-	-
Time Before Reduction*	-	-	-	-
Time To Reduce*	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	MAX RECALL	-	MAX RECALL	-
Vehicle Call Memory	YELLOW	-	YELLOW	-
Dual Entry	-	ON	-	ON
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 Phase 1 Temporary Design**

Prepared in the Office of:  
  
**NC 55 at NC 306**  
 Division 02 Pamlico County in Grantsboro  
 PLAN DATE: July 2004 REVIEWED BY:  
 PREPARED BY: C.E. Pierce REVIEWED BY:  
 REVISIONS: INIT. DATE  
 SCALE: 1:500  
  
 SEAL  
  
 SIGNATURE: *Timothy J. Williams* DATE: 8/25/04  
 SIG. INVENTORY NO. 02-0312 T