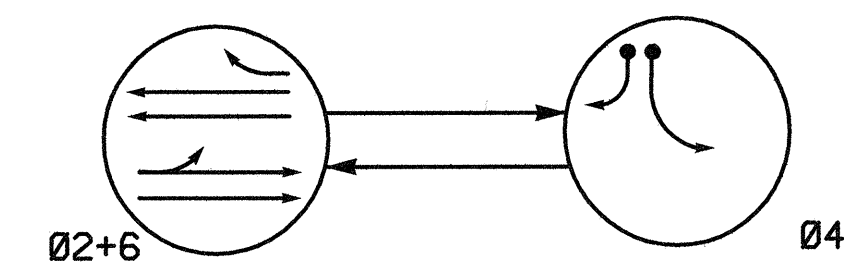


2 PHASE SEMI-ACTUATED (DURHAM SIGNAL SYSTEM)

PHASING DIAGRAM



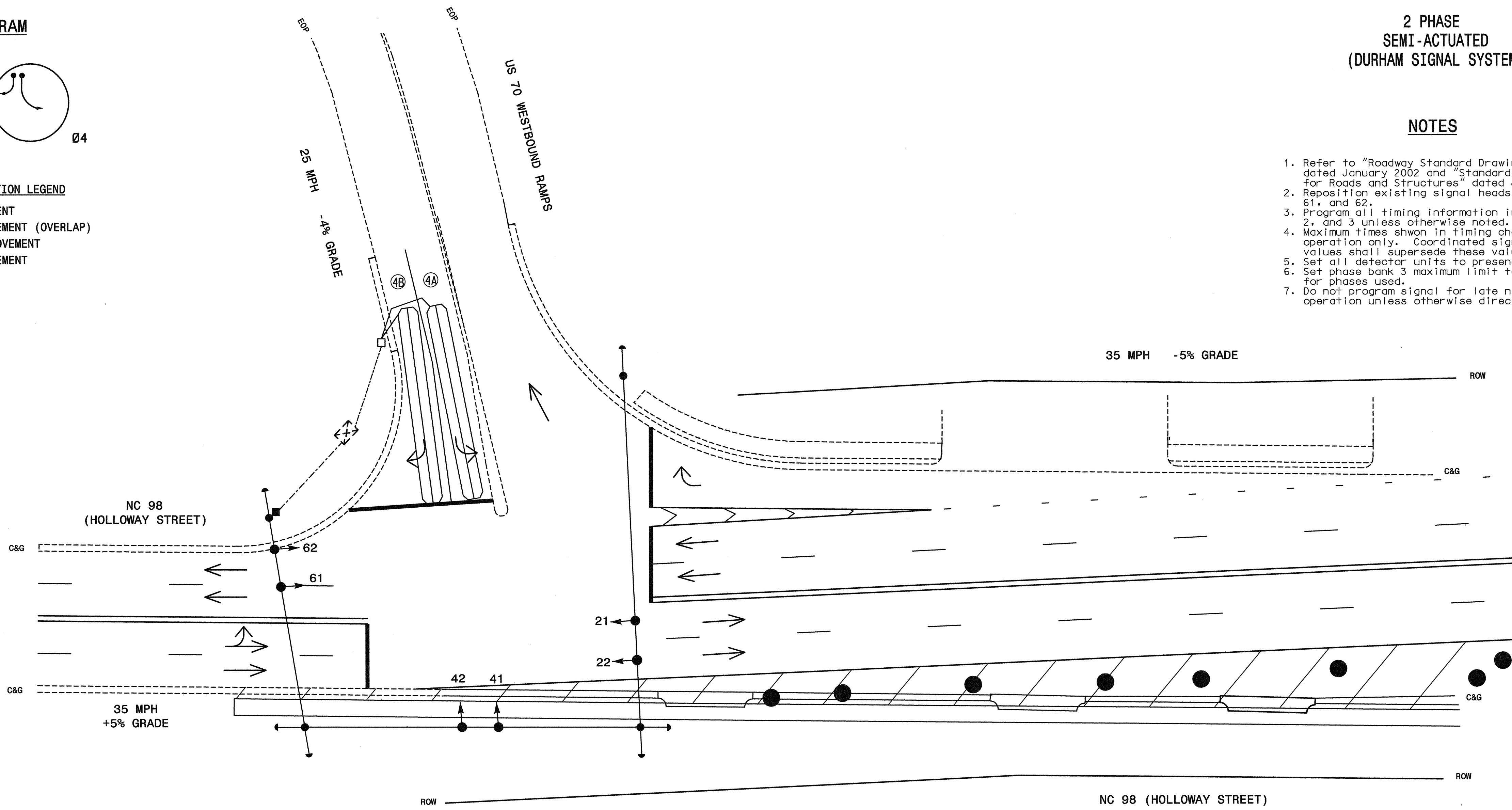
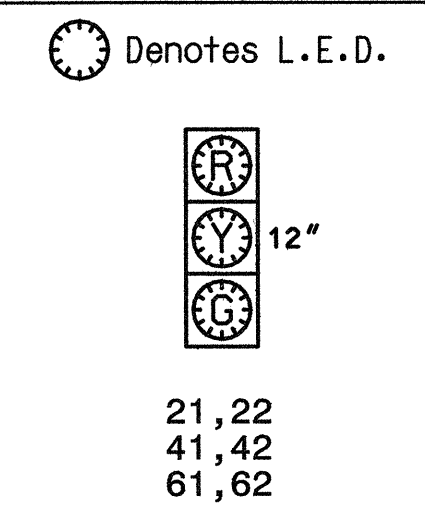
PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE		
	Ø2+6	Ø4	Ø6
21,22	G R Y		
41,42	R G R		
61,62	G R Y		

SIGNAL FACE I.D.



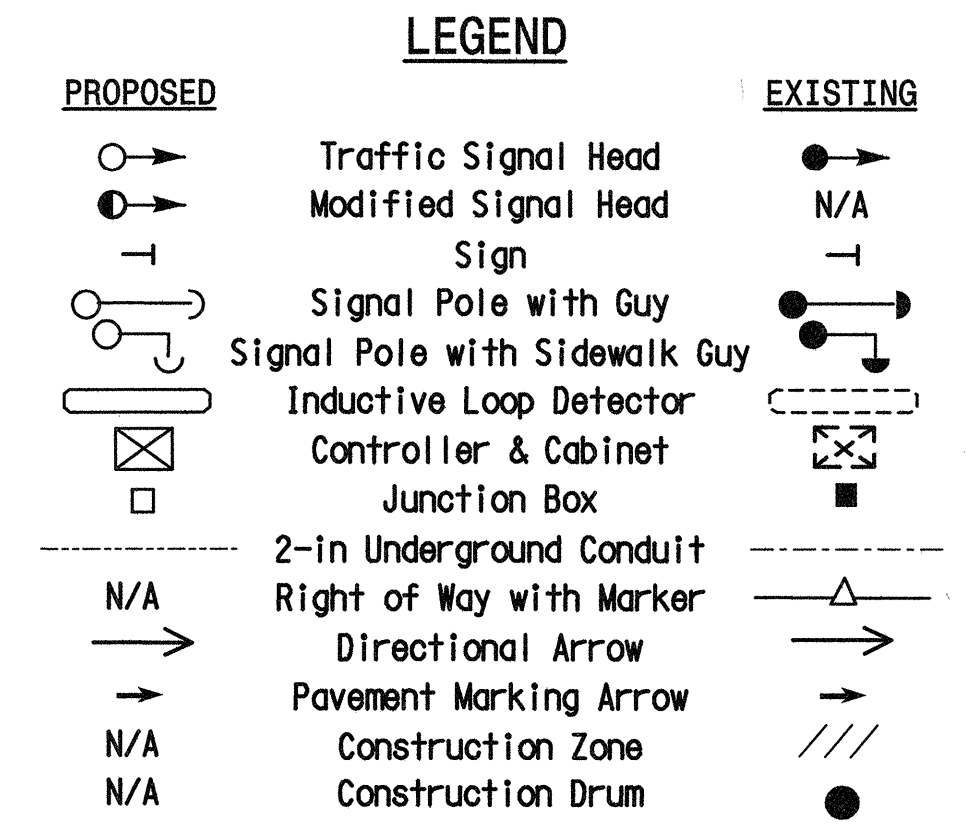
NOTES

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 21, 22, 61, and 62.
3. Program all timing information into phase banks 1, 2, and 3 unless otherwise noted.
4. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
5. Set all detector units to presence mode.
6. Set phase bank 3 maximum limit to 250 seconds for phases used.
7. Do not program signal for late night flashing operation unless otherwise directed by the engineer.

PHASE	Ø2	Ø4	Ø6
MINIMUM INITIAL	45 SEC.	7 SEC.	45 SEC.
VEHICLE EXTENSION	- SEC.	1.0 SEC.	- SEC.
YELLOW CHANGE INT.	4.0 SEC.	4.0 SEC.	4.0 SEC.
RED CLEARANCE	2.0 SEC.	1.5 SEC.	2.0 SEC.
MAXIMUM LIMIT	45 SEC.	25 SEC.	45 SEC.
RECALL POSITION	MAX. RECALL	NONE	MAX. RECALL
VEHICLE CALL MEMORY	NONE	NONE	NONE
DOUBLE ENTRY	OFF	OFF	OFF
WALK	- SEC.	- SEC.	- SEC.
FLASHING DON'T WALK	- SEC.	- SEC.	- SEC.
TYPE 3 LIMIT	- SEC.	- SEC.	- SEC.
ALTERNATE EXTENSION	- SEC.	- SEC.	- SEC.
ADD PER VEHICLE	- SEC.	- SEC.	- SEC.
MAXIMUM INITIAL	- SEC.	- SEC.	- SEC.
MAXIMUM GAP	- SEC.	1.0 SEC.	- SEC.
REDUCE 0.1 SEC EVERY	- SEC.	- SEC.	- SEC.
MINIMUM GAP	- SEC.	1.0 SEC.	- SEC.

LOOP NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW	EXISTING	NEMA PHASE	DETECTOR PROGRAMMING								STATUS			
							TIMING		ATTRIBUTES								NEW	EXISTING
							DELAY	CARRY (STRETCH)	1	2	3	4	5	6	7	8		
4A	6X60	2-4-2	0	X		4	SEC.	SEC.										X
4B	6X60	2-4-2	0	X		4	15 SEC.	SEC.					X	X				X

Pay Item	Feet
Signal Cable	0
Messenger Cable	0
Lead-in Cable	60



PLAN PREPARED IN THE OFFICE OF:  
*Kubilins*  
TRANSPORTATION GROUP, INC.  
201 PRODUCTION DR., 2ND FLOOR  
YORKTOWN, VA 23693  
PH: (757) 594-1419 FAX: (757) 594-9010

TEMPORARY DESIGN 2 - CONSTRUCTION PHASE III

NC 98 (HOLLOWAY STREET) AT US 70 WESTBOUND RAMPS

DIVISION 5 DURHAM CO. DURHAM

PLM DATE: JANUARY 2004 REVIEWED BY: MAK

PREPARED BY: CED REVIEWED BY:

SCALE: 1" = 20'

REVISIONS: INIT. DATE

SIGNATURE: *[Signature]* DATE: 2/1/04

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEERS SEAL 17464 ANN KUBILINS

SIG. INVENTORY NO. 05-1717 T2