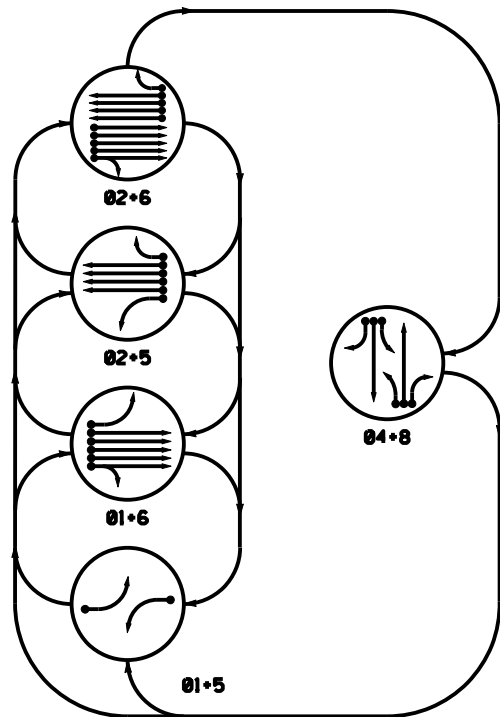


PHASING DIAGRAM



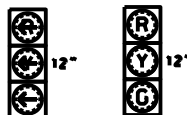
PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE	PHASE				
	01+5	01+6	02+5	02+6	04+8
H					
21,22,23,24	R	R	G	G	Y
51					
41, 42	R	R	R	R	G
61,62,63,64	R	G	R	G	Y
81, 82	R	R	R	R	G

SIGNAL FACE I.D.

Denotes L.E.D.



11, 51 21,22,23,24 41, 42 61,62,63,64 81, 82

LOOP & DETECTOR UNIT INSTALLATION CHART																		
SE-PAC 2070 CONTROLLER WITH 170 CABINET																		
INDUCTIVE LOOPS						DETECTOR PROGRAMMING												
						ASSIGNED PHASE	TIMING		OPERATION MODE							SWITCH	SYSTEM LOOP	STATUS
									0	1	2	3	4	5	6			
LOOP NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW	EXISTING	DELAY	EXTEND (STRETCH)	VEHICLE	PEDESTRIAN	1 CALL	STOP A	STOP B	PRESTAY LEFT	PRESTAY THROUGH				
1A	6X60	EXIST	+5	-	X	1	- SEC.	- SEC.	X	-	-	-	-	-				
2A, 2B	6X6	EXIST	300	-	X	2	- SEC.	1.6 SEC.	X	-	-	-	-	-				
2C, 2D	6X6	EXIST	300	-	X	2	- SEC.	1.6 SEC.	X	-	-	-	-	-				
2E	6X56	EXIST	90	-	X	2	- SEC.	- SEC.	X	-	-	-	-	-				
4A,4B,4C	6X60	EXIST	+5	-	X	4	- SEC.	- SEC.	X	-	-	-	-	-				
5A	6X60	EXIST	+5	-	X	5	- SEC.	- SEC.	X	-	-	-	-	-				
6A,6B,6C	6X6	EXIST	300	-	X	6	- SEC.	1.6 SEC.	X	-	-	-	-	-				
6D, 6E	6X6	EXIST	300	-	X	6	- SEC.	1.6 SEC.	X	-	-	-	-	-				
6F	6X60	EXIST	90	-	X	6	- SEC.	- SEC.	X	-	-	-	-	-				
8A,8B,8C	6X60	EXIST	+5	-	X	8	- SEC.	- SEC.	X	-	-	-	-	-				

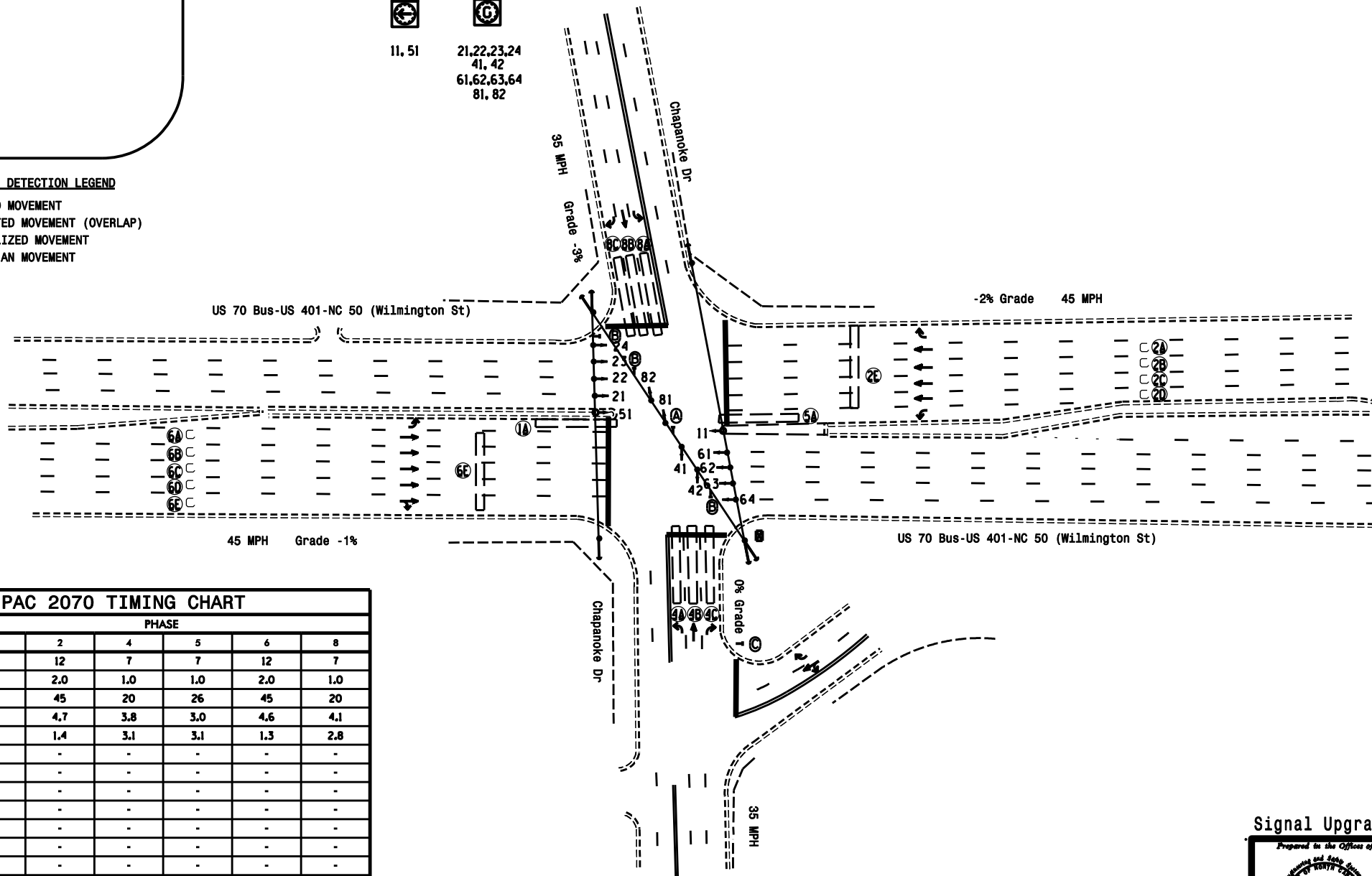
5 Phase Fully Actuated (Raleigh City Signal System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated July 2006 and "Standard Specifications for Roads and Structures" dated July 2006.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 or phase 5 may be logged.
- Set all detector units to presence mode.
- In the event of loop replacement, refer to the current Signals and Geometrics Design Manual and submit a Plan of Record to the Signals and Geometrics Section.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Remove existing "Left Turn Signal" sign-(R10-10L).
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

SE-PAC 2070 TIMING CHART							
FEATURE	PHASE						
	1	2	4	5	6	8	
Min Green *	7	12	7	7	12	7	
Passage Gap *	1.0	2.0	1.0	1.0	2.0	1.0	
Maximum Green *	26	45	20	26	45	20	
Yellow Change	3.0	4.7	3.8	3.0	4.6	4.1	
Red Clear	3.2	1.4	3.1	3.1	1.3	2.8	
Walk *	-	-	-	-	-	-	
Pedestrian Clear	-	-	-	-	-	-	
Added Initial *	-	-	-	-	-	-	
Maximum Initial *	-	-	-	-	-	-	
Time Before Reduction *	-	-	-	-	-	-	
Time To Reduce *	-	-	-	-	-	-	
Minimum Gap	-	-	-	-	-	-	
Recall Mode	-	MIN RECALL	-	-	MIN RECALL	-	
Vehicle Call Memory	NON-LOCK	LOCK	NON-LOCK	NON-LOCK	LOCK	LOCK	
Dual Entry	-	-	ON	-	-	ON	
Simultaneous Gap	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.



LEGEND

- | PROPOSED | EXISTING |
|--|----------|
| Traffic Signal Head | N/A |
| Modified Signal Head | N/A |
| Sign | N/A |
| Pedestrian Signal Head With Push Button & Sign | N/A |
| Signal Pole with Guy | N/A |
| Signal Pole with Sidewalk Guy | N/A |
| Inductive Loop Detector | N/A |
| Controller & Cabinet | N/A |
| Junction Box | N/A |
| 2-in Underground Conduit | N/A |
| Right of Way | N/A |
| Directional Arrow | N/A |
| Pavement Marking Arrow | N/A |
| Left Arrow "ONLY" Sign (R3-5L) | N/A |
| Right Arrow "ONLY" Sign (R3-5R) | N/A |
| "STOP" Sign (R1-1) | N/A |

Signal Upgrade

Prepared by the Office of: Signal and Geometrics Section 210 N. Greenfield, Raleigh, NC 27629	US 70 Bus-US 401-NC 50 (Wilmington St.) At Chapanoke Dr.		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 23489 MICHAEL L. ALEXANDER
	Division 5 Wake County Raleigh	Division 5 Wake County Raleigh	
PLAN DATE: August 2007 PREPARED BY: L. Blount	REVIEWED BY: Z. W. Little REVIEWED BY:	SIGNATURE: DATE:	
REVISIONS		INITIALS DATE	
0 50 1" = 50'		SIC. INVENTORY NO. 05-0894	