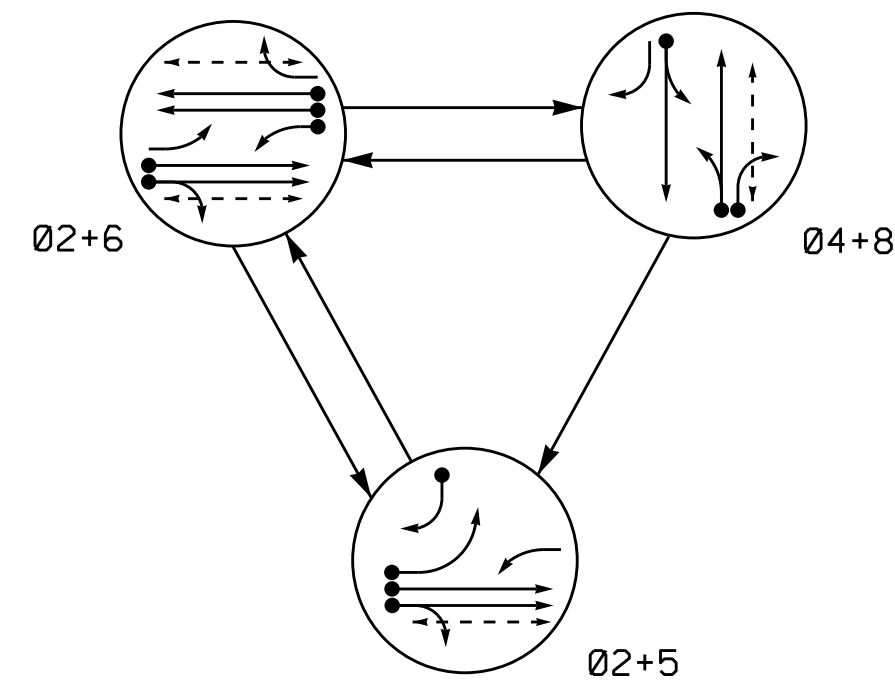


PHASING DIAGRAM



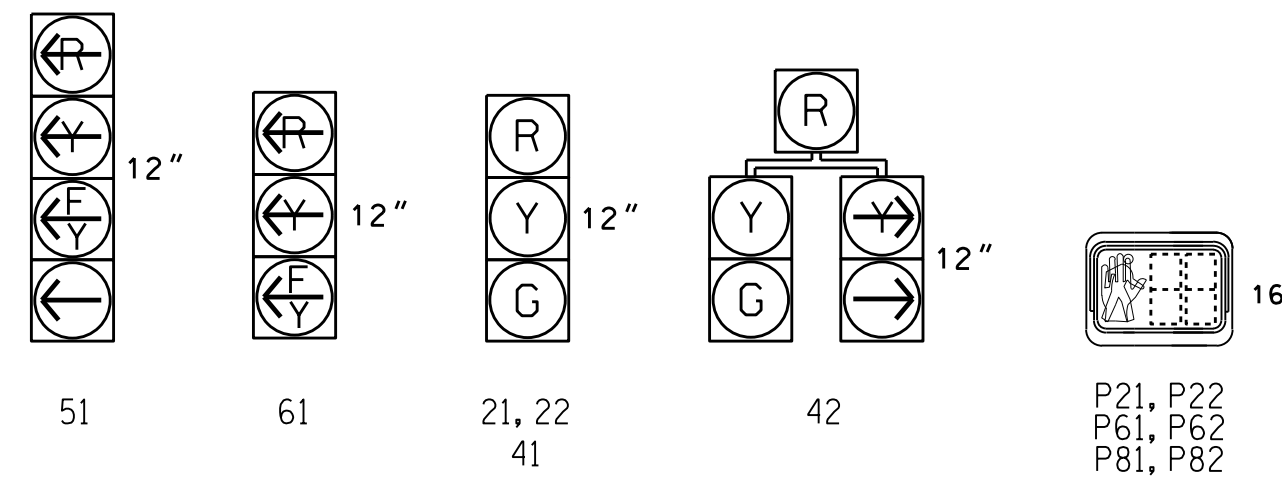
**PHASING DIAGRAM DETECTION LEGEND**  
 ● → DETECTED MOVEMENT  
 ○ → UNDETECTED MOVEMENT (OVERLAP)  
 - - - → UNSIGNALIZED MOVEMENT  
 ← - - - → PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE			
	02+5	02+6	04+8	FLASH
21, 22	G	G	R	Y
41	R	R	G	R
42	R	R	G	R
51	F	F	R	R
61	F	F	R	R
62, 63	R	G	R	Y
81, 82	R	R	G	R
P21, P22	W	W	DW	DRK
P61, P62	DW	W	DW	DRK
P81, P82	DW	DW	W	DRK

W - Walk  
 DW - Don't Walk  
 DRK - Dark

SIGNAL FACE I.D.

All Heads L.E.D.



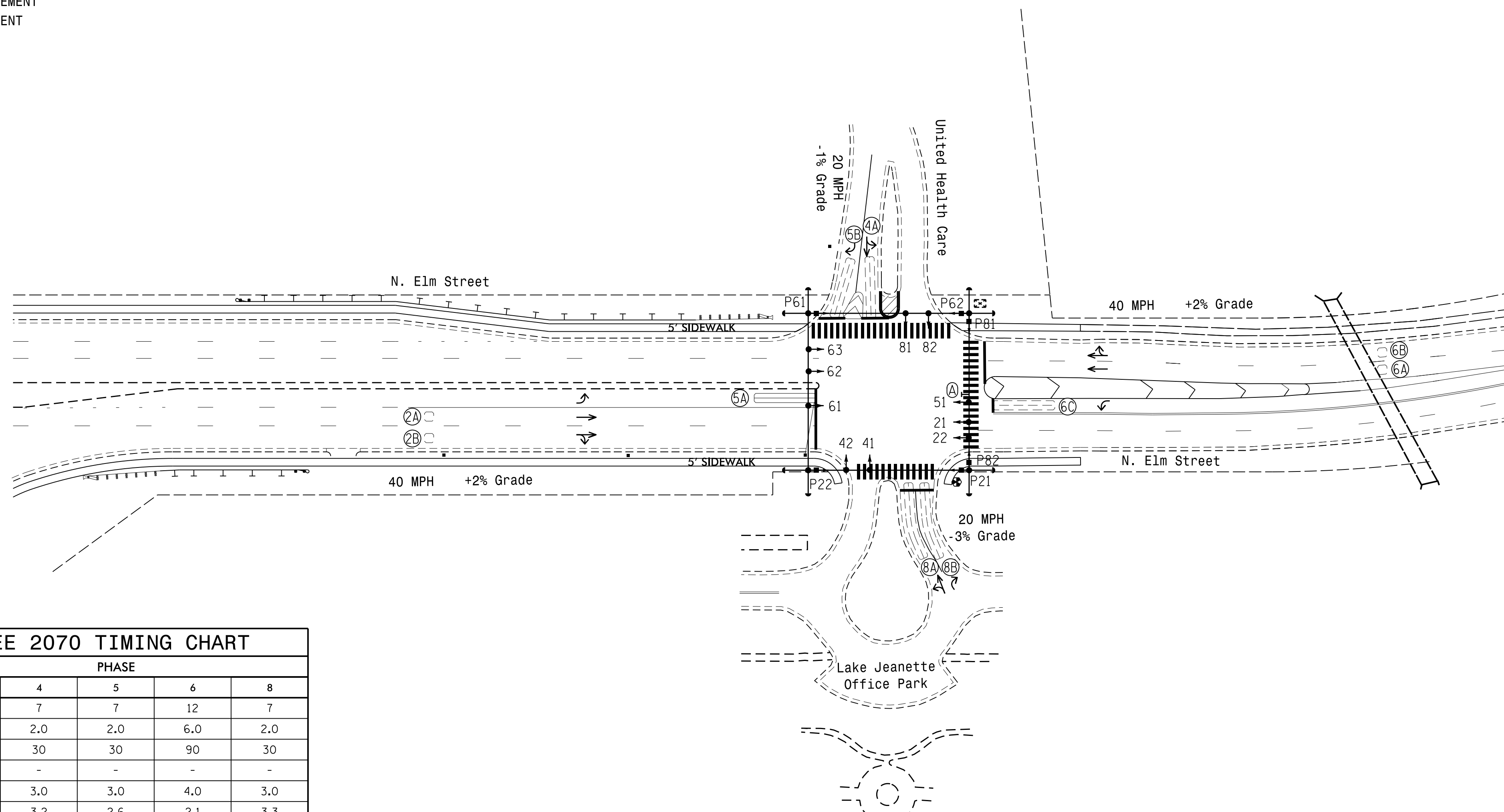
LOOP & DETECTOR UNIT INSTALLATION CHART  
 NAZTEC APOGEE SOFTWARE 2070 CONTROLLER

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING								
					PHASE	SWITCH (PHASE)	DELAY TIME	STRETCH TIME	CALLING	EXTENSION	ADDED INIT.	SYSTEM LOOP	NEW CARD
2A	6X6	250	4	-	2	-	-	-	X	X	X	-	-
2B	6X6	250	4	-	2	-	-	-	X	X	X	-	-
4A	6X40	0	2-4-2	-	4	-	-	-	X	X	X	-	-
5A	6X40	0	2-4-2	X	5	-	15	-	X	X	X	-	-
5B	6X40	0	2-4-2	-	5	-	15	-	X	X	X	-	-
6A	6X6	250	4	-	6	-	-	-	X	X	X	-	-
6B	6X6	250	4	-	6	-	-	-	X	X	X	-	-
6C	6X40	0	2-4-2	-	6	-	-	-	X	X	X	-	-
8A	6X50	+5	2-4-2	-	8	-	-	-	X	X	X	-	-
8B	6X50	+5	2-4-2	-	8	-	10	-	X	X	X	-	-

3 Phase Fully Actuated (Greensboro Signal System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 5 may be lagged.
- Reposition existing signal heads numbered 21, 22, and 52.
- Set all detector units to presence mode.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



NAZTEC APOGEE 2070 TIMING CHART

FEATURE	PHASE				
	2	4	5	6	8
Min Green *	12	7	7	12	7
Gap, Extension *	6.0	2.0	2.0	6.0	2.0
Maximum Green 1 *	90	30	30	90	30
Maximum Green 2 *	-	-	-	-	-
Yellow Clear	4.0	3.0	3.0	4.0	3.0
Red Clear	2.1	3.2	2.6	2.1	3.3
Walk *	7	-	-	7	7
Pedestrian Clear	13	-	-	25	18
Added Initial *	2.0	-	-	2.0	-
Maximum Initial *	29	-	-	29	-
Time Before Reduction *	15	-	-	15	-
Time To Reduce *	30	-	-	30	-
Minimum Gap	3.0	-	-	3.0	-
Recall Mode	MIN RECALL	-	-	MIN RECALL	-
Lock Calls	YES	NO	NO	YES	NO
Dual Entry	-	ON	-	-	ON
Simultaneous Gap	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.

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
○ →	Type I Pushbutton Post	○ →	N/A
○ →	Guardrail	○ →	N/A
○ →	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	○ →	N/A

Signal Upgrade - Final Design

	<p>N. Elm Street                  at                  United Health Care and                  Lake Jeanette Office Park</p>										
	<p>Division 7 Guilford County Greensboro</p> <p>PLAN DATE: October 2017 REVIEWED BY:</p> <p>PREPARED BY: I. O. Umozurike REVIEWED BY:</p>										
<p>750 N. Greenfield Pkwy, Garner, NC 27529</p> <p>SCALE: 1"=50'</p>	<p>REVISIONS</p> <table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DATE	DESCRIPTION				<p>INIT. DATE</p> <table border="1"> <tr> <td> </td> <td> </td> </tr> </table>			<p>10/31/2017</p> <p>SIG. INVENTORY NO. GBO-559</p>
NO.	DATE	DESCRIPTION									

21-001-2017\_16-46  
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