## PROJECT REFERENCE NO. C-5703

3 Phase

Fully Actuated

Gastonia Signal System

**NOTES** 

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and

night flashing operation unless

through phase 8 (see Electrical

5. Existing phase 4 has been changed to

heads, pedestrian signal heads,

7. Set all detector units to presence

8. Locate new cabinet so as not to

turning right on red.

otherwise noted.

14. City system data:

**PROPOSED** 

 $\circ$ 

N/A

with no pedestrian calls.

2. Do not program signal for late

3. Omit phase 1 during phase 2 on. 4. Program controller to clear from

Details).

mode.

"Standard Specifications for Roads and Structures" dated January 2018.

otherwise directed by the Engineer.

phase 2+6 to phase 1 by progressing

phase 8 on this plan. Change all signal

pedestrian pushbuttons, and loops as

needed to achieve the phasing shown.

obstruct sight distance of vehicles

9. Omit "WALK" and flashing "DON'T WALK"

10. Program pedestrian heads to countdown

11. Pavement markings are existing unless

12. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing

values supersede these values.

Provisions for details.

13. All cabinets and base extenders shall

be black in color. See Project Special

**LEGEND** 

Traffic Signal Head Modified Signal Head

Sign

Pedestrian Signal Head With Push Button & Sign

Metal Pole with Mastarm

Type II Signal Pedestal

Inductive Loop Detector Controller & Cabinet Junction Box

2-in Underground Conduit

Right of Way Directional Arrow

Curb Ramp

Street Name Sign "LEFT TURN YIELD ON GREEN" ● Sign (R10-12) "DO NOT BLOCK INTERSECTION"

Sign (R10-7)

Controller Asset #0011.

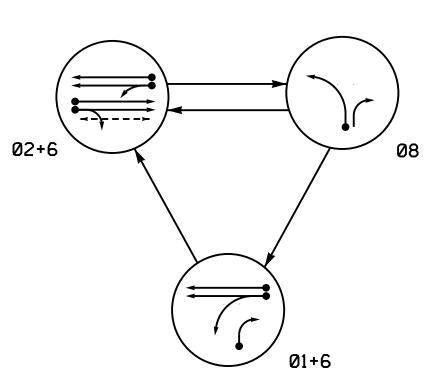
<u>EXISTING</u>

 $\bigcirc$ 

the flashing "Don't Walk" time only.

6. Renumber existing loop number 4A as 8A.

## PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

DETECTED MOVEMENT

← - - > PEDESTRIAN MOVEMENT

UNSIGNALIZED MOVEMENT

UNDETECTED MOVEMENT (OVERLAP)

TABLE OF	OPE	ERA	TIO	N	
PHASE					
SIGNAL FACE	Ø 1 + 6	<b>0</b> 2+6	08	FLGOI	
21,22	R	G	R	Υ	
61	7/	G	R	Y	
62	G	G	R	Υ	
81	R	R	G	R	
82	$\mathbb{R}$	R	G	R	
P21,P22	D₩	W	D <sub>W</sub>	DRK	

TABLE OF OPERATION				
		PHA	ASE	
SIGNAL FACE	01+6	<b>0</b> 2+6	00	上しないエ
21,22	R	G	R	Υ
61	H	G	R	Υ
62	G	G	R	Υ
81	R	R	G	R
82	$\mathbb{R}$	R	G	R
P21,P22	D₩	W	D <sub>W</sub>	DRK

<u>S</u> :	IGNAL FA	ACE I.D.	
	All Heads	s L.E.D.	
R Y 12"	R Y 12" 21,22 62 81	R Y G 82	P2I,P22

DETECTOR INSTALLATION CHART												
DETECTOR PROGRAMMING												
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	SYSTEM LOOP	NEW CARD	
1A	CV40 0	0	2.4.2	2-4-2	_	1	Yes	-	10	-	-	X
14	6X·40	0	2-4-2		6	Yes	1	-	-	-	X	
1B	6X:40	0	2-4-2	1	1	Yes	1	10	-	-	X	
2A;2B	6X6	250	4	-	2	Yes	1:9	-	_	-	X	
2C;2D	6X6	80	3	-	2	Yes	-	-	_	-	X	
6A;6B	6X6	250	5	1	6	Yes	1:9		_	-	X	
6C;6D	6X6	80	4	-	6	Yes	1	-	_	-	Χ	
8·A	6X·40	0	2-4-2	-	8	Yes	-	-	_	<b>-</b>	Χ	

R/W			Court_Dr	Metal Pole #1			35 MPH +5% Grade	<b></b>	J <b>%</b>	 	 
= = 		<i>_</i>				61 81 82 21 1		- () 60		 () (6A)	 
= = 	2B () 	=======================================	======================================	======================================	P22 1	22 = = = = = = = = = = = = = = = = = =	======================================	=====; 	======		: = = = = 
					======================================	30 MPH +2% Grade ====================================	New 2070LX Con and Cabinet on Existing Integr	ntroller n ated Base			

	TIMIN	IG CHAR	RT					
	PHASE							
FEATURE	1	2	6	8				
Min Green *	7	12	12	7				
Walk *	0	4	0	0				
Ped Clear	0	14	0	0				
Veh. Extension *	1.0	2.0	2.0	2.0				
Max 1 *	20	45	45	25				
Yellow	3.0	3.7	3.6	3.0				
Red Clear	2.8	1.5	2.2	2.1				
Red Revert	2.0	2.0	2.0	2.0				
Actuations B4 Add *	-	-	-	-				
Seconds /Actuation *	-	-	-	-				
Max Initial *	-	-	-	-				
Time Before Reduction *	-	_	-	-				
Time To Reduce *	-	-	-	-				
Minimum Gap	-	-	-	-				
Locking Detector	-	Х	Х	-				
Recall Position	-	VEH. RECALL	VEH. RECALL	-				
Dual Entry	-	-	-	-				
Simultaneous Gap	X	Х	Х	Х				

\* 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.

Prepared in the Office of:
1 SUMMIT

**DESIGN AND ENGINEERING SER** NC FIRM LICENSE No: P-0339 320 Executive Court Hillsborough, NC 27278 (919) 732–3883 (919) 732–6676 (FAX)



SCALE

1"=40'

Signal Upgrade

ivision 12

Gaston County April 2021 REVIEWED BY: PLAN DATE: PREPARED BY: M. Parker REVIEWED BY: REVISIONS

SEAL 018174 WGINEER.

SIG. INVENTORY NO.

City-II

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED** 

J. Smith E Sirgany INIT. DATE

## Court Drive

CaroMont Health Driveway