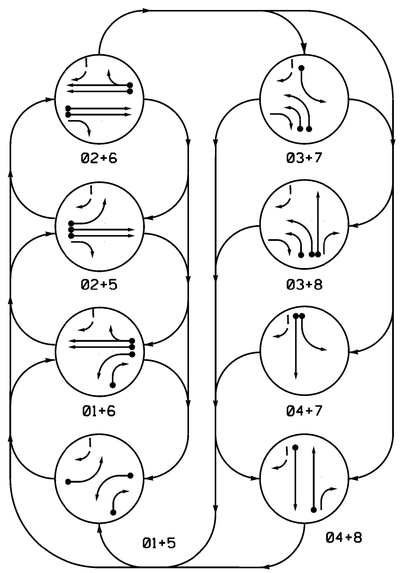
PROJECT REFERENCE NO.	SHEET NO.
U-6038	Sig 2.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

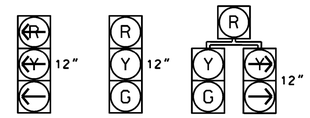
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
11	—	—	R	R	R	R	R	R	R
21	R	R	G	G	R	R	R	R	Y
22	R	R	G	G	R/R	R	R	R	Y
31,32	R	R	R	R	—	—	R	R	R
41,42	R	R	R	R	R	R	G	G	R
51	—	R	—	R	R	R	R	R	R
61,62	R	G	R	G	R	R	R	R	Y
71	R	R	R	R	—	R	—	R	R
81	R	R	R	R	R	G	R	G	R
82	R/—	R/—	R	R	R	G	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



11
31,32
51
71

21
41,42
61,62
81

22
82

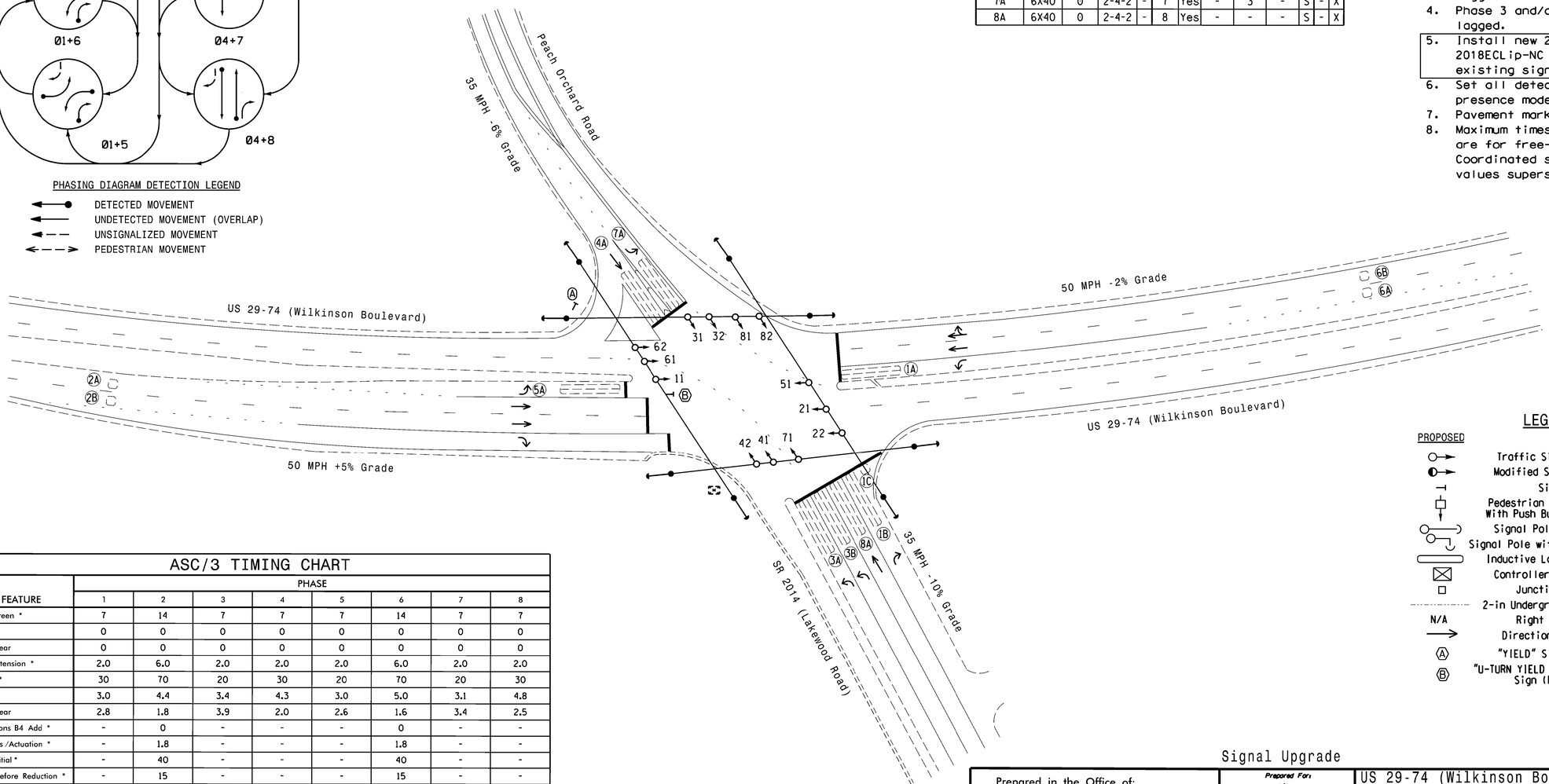
ASC/3 DETECTOR INSTALLATION CHART

DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	-	1	Yes	-	-	-	S	-	X
1B	6X40	0	2-4-2	-	1	Yes	-	15	-	S	-	X
1C	6X6	0	5	-	1	Yes	-	15	-	S	-	X
2A	6X6	355	5	-	2	Yes	-	-	X	N	-	X
2B	6X6	355	5	-	2	Yes	-	-	X	N	-	X
3A	6X40	0	2-4-2	-	3	Yes	-	-	-	S	-	X
3B	6X40	0	2-4-2	-	3	Yes	-	-	-	S	-	X
4A	6X40	0	2-4-2	-	4	Yes	-	3	-	S	-	X
5A	6X40	0	2-4-2	-	5	Yes	-	-	-	S	-	X
6A	6X6	355	6	-	6	Yes	-	-	X	N	-	X
6B	6X6	355	6	-	6	Yes	-	-	X	N	-	X
7A	6X40	0	2-4-2	-	7	Yes	-	3	-	S	-	X
8A	6X40	0	2-4-2	-	8	Yes	-	-	-	S	-	X

8 Phase
Fully Actuated
Belmont Signal System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 5 may be lagged.
4. Phase 3 and/or phase 7 may be lagged.
5. Install new 2070LX Controller and 2018ECLip-NC Conflict Monitor in existing signal cabinet.
6. Set all detector units to presence mode.
7. Pavement markings are existing.
8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



ASC/3 TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8
Min Green *	7	14	7	7	7	14	7	7
Walk *	0	0	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0	0	0
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max 1 *	30	70	20	30	20	70	20	30
Yellow	3.0	4.4	3.4	4.3	3.0	5.0	3.1	4.8
Red Clear	2.8	1.8	3.9	2.0	2.6	1.6	3.4	2.5
Actuations B4 Add *	-	0	-	-	-	0	-	-
Seconds /Actuation *	-	1.8	-	-	-	1.8	-	-
Max Initial *	-	40	-	-	-	40	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	45	-	-	-	45	-	-
Minimum Gap	-	3.1	-	-	-	3.1	-	-
Locking Detector	-	X	-	-	-	X	-	-
Recall Position	-	VEH. RECALL	-	-	-	VEH. RECALL	-	-
Dual Entry	-	-	-	-	-	-	-	-
Simultaneous Gap	X	X	X	X	X	X	X	X

* 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.

$$$$SYSTIME$$$$
$$$$SYSTIMEUNDONE$$$$
$$$$SYSCOMMENTS$$$$

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:

SUMMIT DESIGN AND ENGINEERING SERVICES

NC FIRM LICENSE No: P-0339
504 Meadowlands Drive
Hillsborough, NC 27278
(919) 732-3883
(919) 732-6676 (FAX)

Prepared For: Transportation Mobility and Safety Division, Traffic Engineering Branch, Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 40 1"=40'

US 29-74 (Wilkinson Boulevard) at SR 2014 (Lakewood Road) / Peach Orchard Road

Division 12 Gaston County Belmont

PLAN DATE:	October 2018	REVIEWED BY:	E. Sirgany
PREPARED BY:	M. Parker	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 018174 ENGINEER EDWARD W. SIRGANY

DocuSigned by: Edward W Sirgany 2/7/2019
DATE

SIG. INVENTORY NO. 12-0082