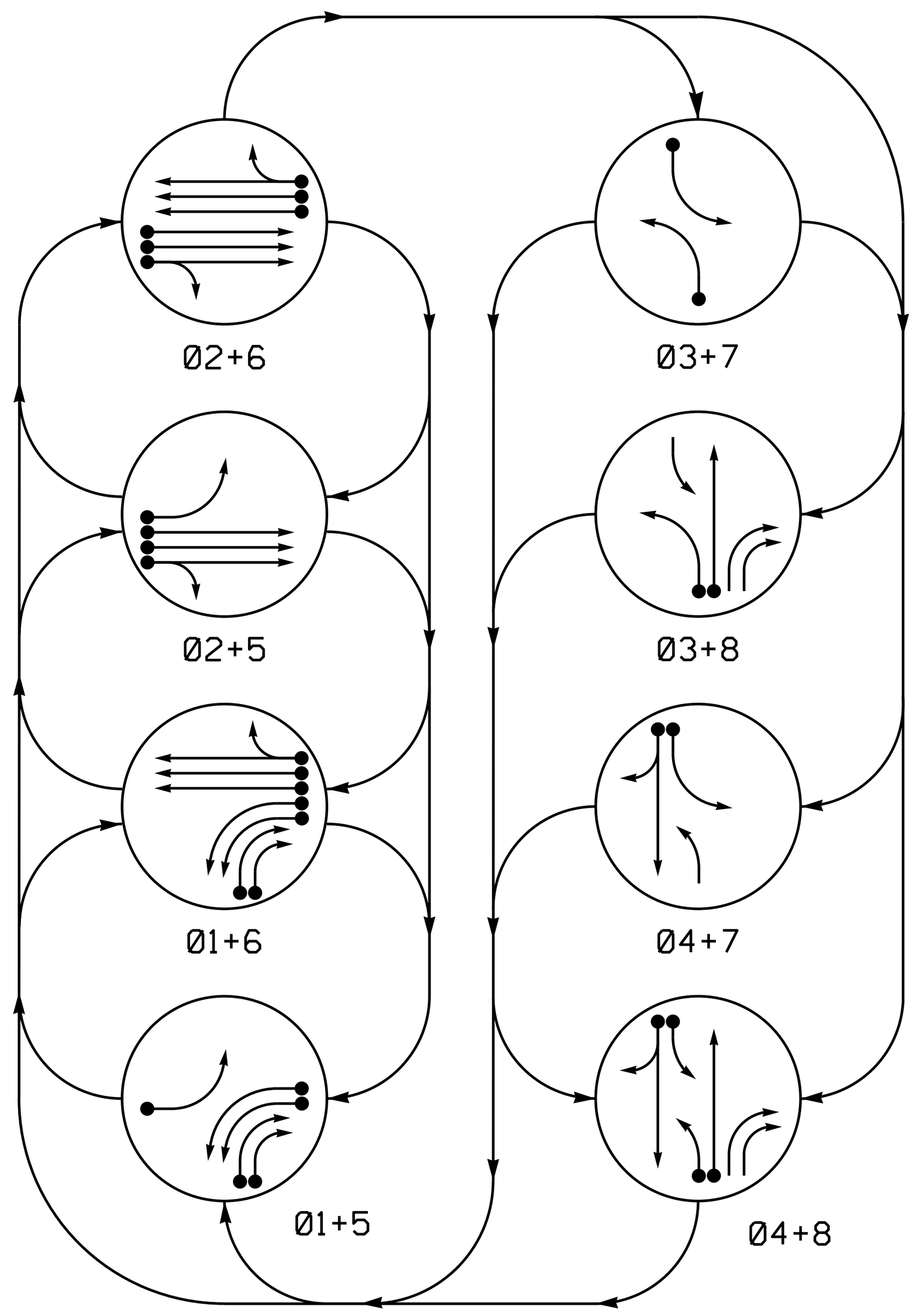
PROJECT REFERENCE NO.	SHEET NO.
U-5806	Sig. 4.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

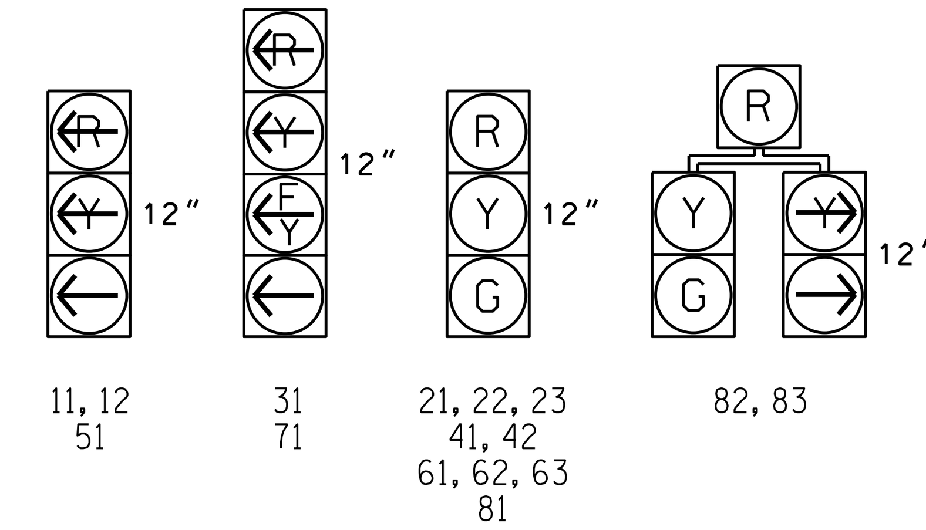
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø3+7	Ø3+8	Ø4+7	Ø4+8	FLASH
11, 12	←	←	←R	←R	←R	←R	←R	←R	←R
21, 22, 23	R	R	G	G	R	R	R	R	Y
31	←R	←R	←R	←R	←	←	←F/Y	←F/Y	←R
41, 42	R	R	R	R	R	R	G	G	R
51	←	←R	←	←R	←R	←R	←R	←R	←R
61, 62, 63	R	G	R	G	R	R	R	R	Y
71	←R	←R	←R	←R	←	←F/Y	←	←F/Y	←R
81	R	R	R	R	R	G	R	G	R
82, 83	R / →	R / →	R	R	R	G	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



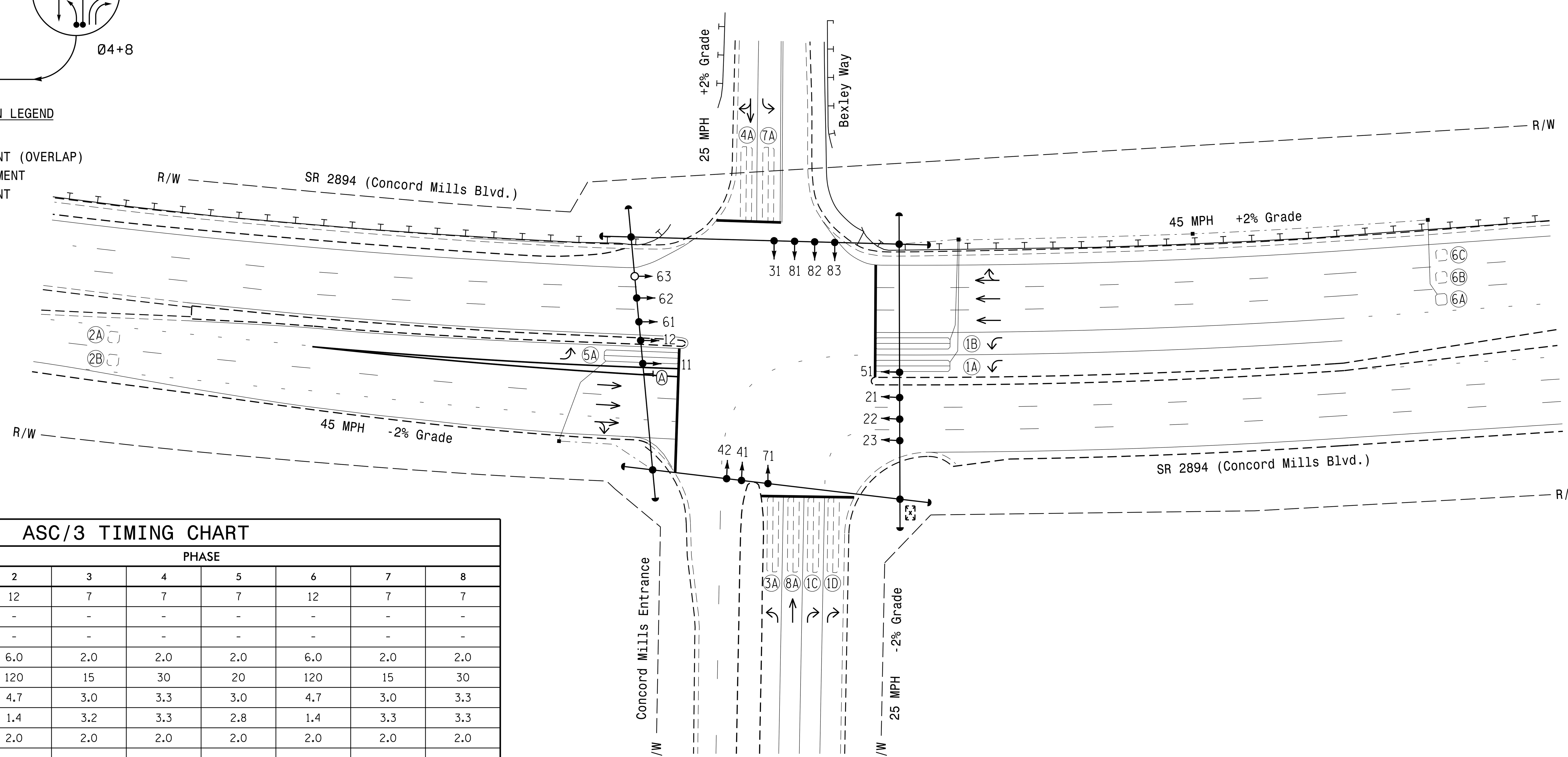
ASC/3 DETECTOR INSTALLATION CHART

DETECTOR LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING PHASE	CALLING	EXTEND TIME	DELAY TIME	TYPE	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	Y	1	Yes	-	-	S	-	-
1B	6X40	0	2-4-2	Y	1	Yes	-	-	S	-	-
1C	6X40	0	2-4-2	-	1	Yes	-	15	S	-	-
1D	6X40	0	2-4-2	-	1	Yes	-	15	S	-	-
2A	6X6	300	EXIST	-	2	Yes	-	-	S	-	-
2B	6X6	300	EXIST	-	2	Yes	-	-	S	-	-
3A	6X40	0	2-4-2	-	3	Yes	-	15	S	-	-
					8	Yes	-	-	S	-	-
4A	6X40	0	2-4-2	-	4	Yes	-	10	S	-	-
5A	6X40	0	2-4-2	Y	5	Yes	-	-	S	-	-
6A	6X6	300	5	Y	6	Yes	-	-	S	-	-
6B	6X6	300	5	-	6	Yes	-	-	S	-	-
6C	6X6	300	5	-	6	Yes	-	-	S	-	-
7A	6X40	0	2-4-2	-	7	Yes	-	15	S	-	-
					4	Yes	-	3	S	-	-
8A	6X40	0	2-4-2	-	8	Yes	-	-	S	-	-

8 Phase
Fully Actuated
Concord Mills Blvd. CLS

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
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. Reposition existing signal heads numbered 11, 12, 51, 61, and 62.
6. Set all detector units to presence mode.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
8. Closed loop system data: Controller Asset #: 1733



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	N/A
N/A	Guardrail	
Ⓐ	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	Ⓐ

ASC/3 TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8
Min Green *	7	12	7	7	7	12	7	7
Walk *	-	-	-	-	-	-	-	-
Ped Clear	-	-	-	-	-	-	-	-
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max 1 *	45	120	15	30	20	120	15	30
Yellow	3.0	4.7	3.0	3.3	3.0	4.7	3.0	3.3
Red Clear	3.3	1.4	3.2	3.3	2.8	1.4	3.3	3.3
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-	-	-	-	-
Seconds /Actuation *	-	1.5	-	-	-	1.5	-	-
Max Initial *	-	34	-	-	-	34	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	45	-	-	-	45	-	-
Minimum Gap	-	3.0	-	-	-	3.0	-	-
Locking Detector	-	X	-	-	-	X	-	-
Recall Position	-	VEH. RECALL	-	-	-	VEH. RECALL	-	-
Dual Entry	-	-	-	X	-	-	-	X
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.

Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Offices of: Transportation Mobility and Safety Division, Signal Design Section, State of North Carolina Department of Transportation
750 N.Greenfield Pkwy.Garner.NC 27529

SR 2894 (Concord Mills Blvd.) at Concord Mills Entrance/ Bexley Way

Diviison 10 Cabarrus County Concord

PLAN DATE: August 2017	REVIEWED BY: T.J. Williams
PREPARED BY: R.N. Zinser	REVIEWED BY:

SCALE 0 40 1"=40'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 043914 ENGINEER RICHARD N. ZINSER

DocuSigned by: R.N. Zinser 9/25/2017
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DATE

SIG. INVENTORY NO. 10-1733