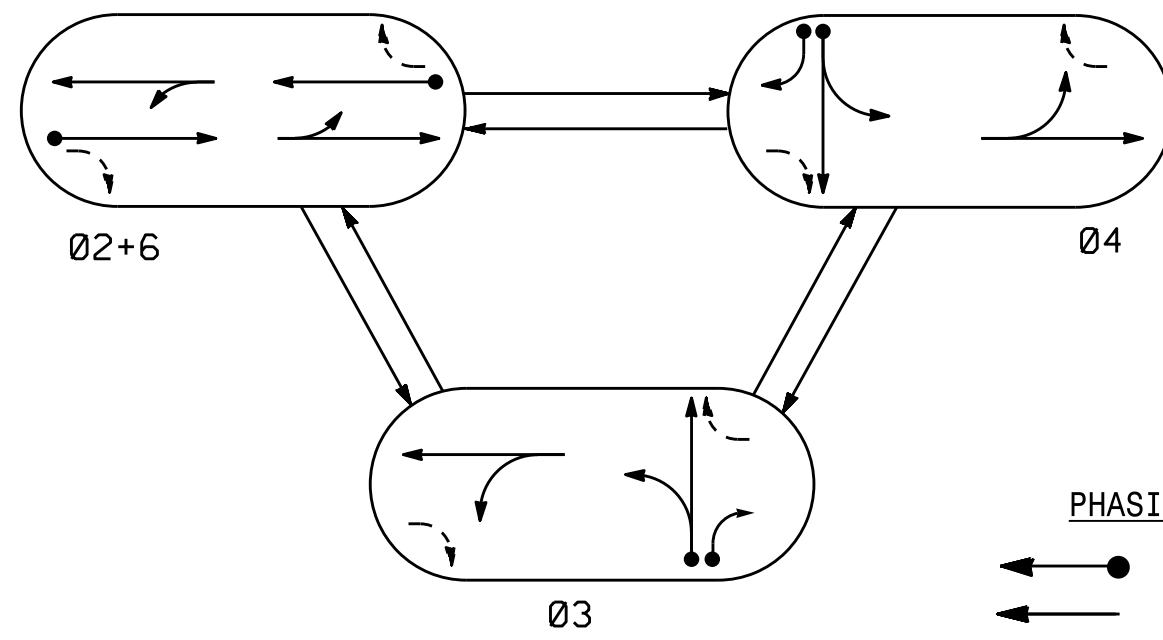


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND
 ● DETECTED MOVEMENT
 — UNDETECTED MOVEMENT (OVERLAP)
 - - - UNSIGNALIZED MOVEMENT
 - - - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE			
	Ø 2+6	Ø 3	Ø 4	FLTS
21,22,23	G	R	R	Y
24	G	R	G	Y
25	G	R	G	Y
31,32	R	G	R	R
41,42	R	R	G	R
61,62	G	R	R	Y
63	G	G	R	Y
64	G	G	R	Y

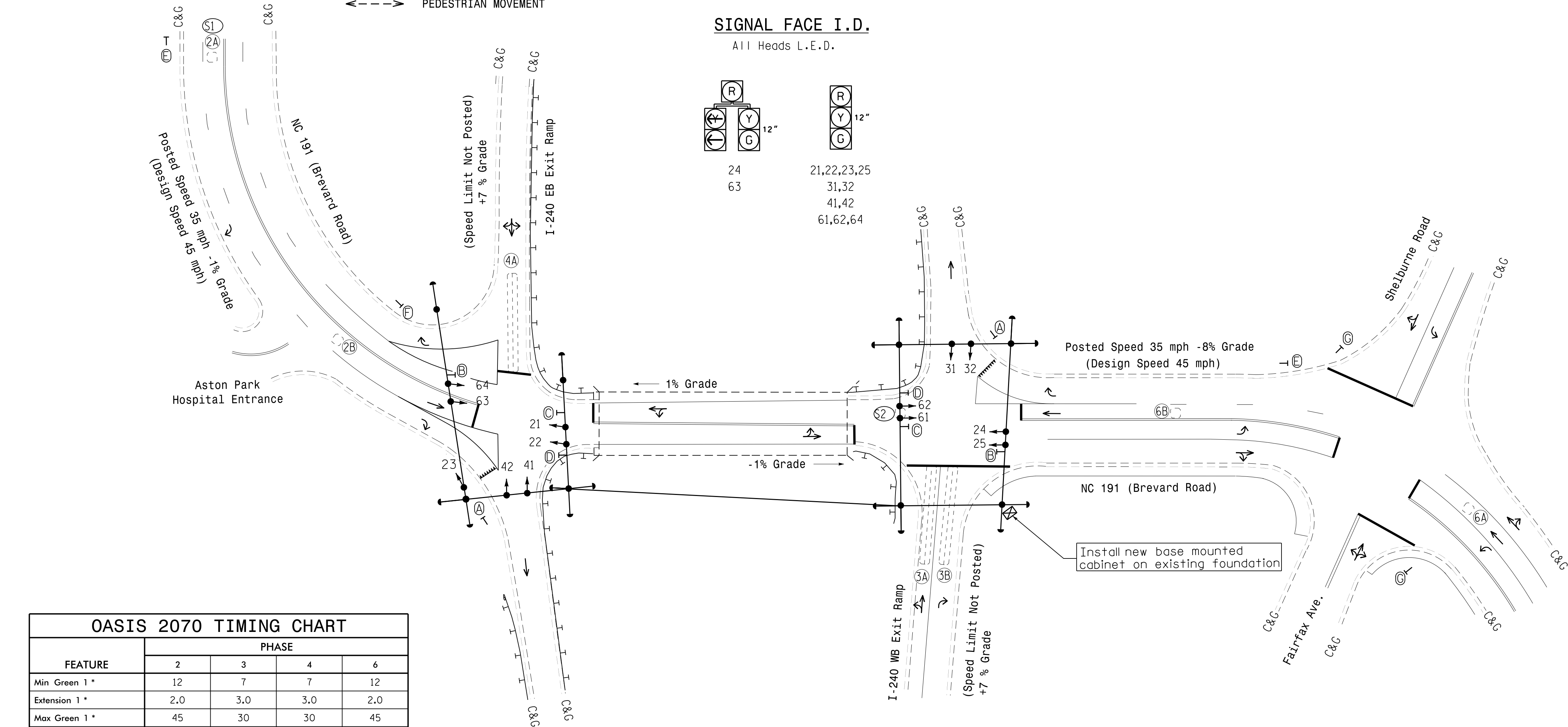
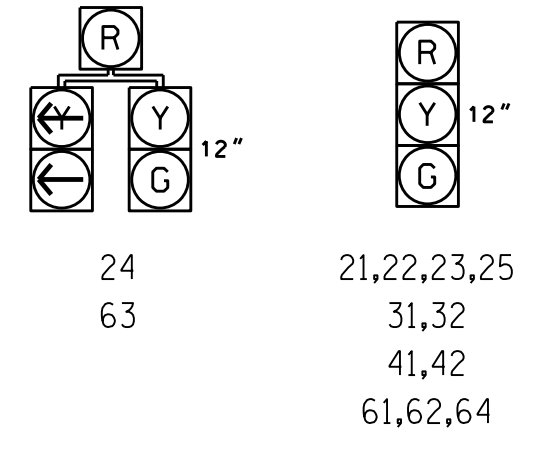
OASIS 2070 LOOP & DETECTOR INSTALLATION

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING				SYSTEM LOOP	NEW CARD			
					PHASE	CALLING	EXTENSION	STRETCH TIME			DELAY TIME		
2A/S1	6X6	300	4	-	2	Y	Y	-	1.8	-	Y	Y	
2B	6X6	90	4	-	2	Y	Y	-	-	-	-	Y	
3A	6X60	0	2-4-2	-	3	Y	Y	-	-	-	-	Y	
3B	6X60	0	2-4-2	-	3	Y	Y	-	-	15	-	Y	
4A	6X60	0	2-4-2	-	4	Y	Y	-	-	5	-	Y	
6A	6X6	300	4	-	6	Y	Y	-	1.8	-	-	Y	
6B	6X6	90	4	-	6	Y	Y	-	-	-	-	Y	
S2	6X6	+70	4	-	-	-	-	-	-	-	-	Y	Y

3 Phase Fully Actuated Asheville Signal System
NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

SIGNAL FACE I.D.
 All Heads L.E.D.



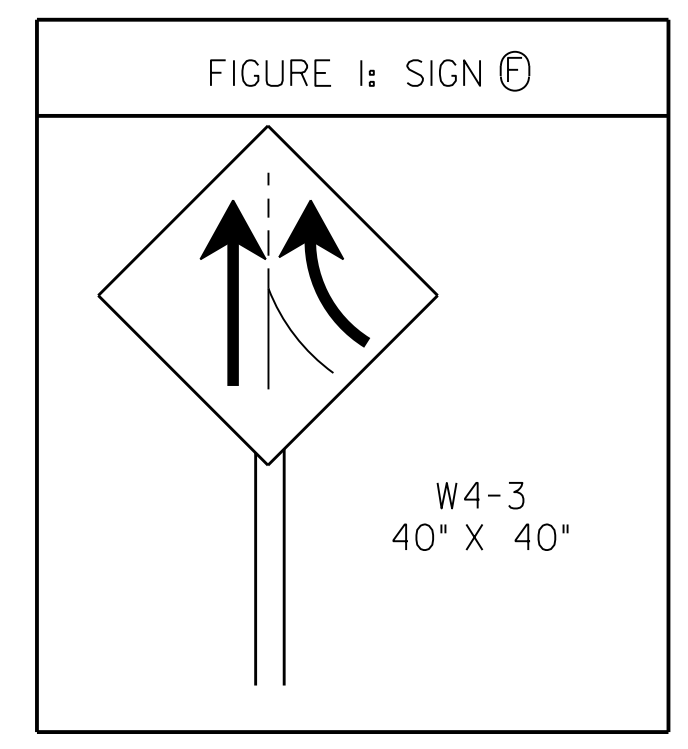
OASIS 2070 TIMING CHART

FEATURE	PHASE			
	2	3	4	6
Min Green 1 *	12	7	7	12
Extension 1 *	2.0	3.0	3.0	2.0
Max Green 1 *	45	30	30	45
Yellow Clearance	5.4	3.5	3.5	5.4
Red Clearance	1.0	1.8	2.1	1.0
Red Revert	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation *	-	-	-	-
Max Variable Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	SOFT RECALL	-	-	SOFT RECALL
Vehicle Call Memory	LOCK	-	-	LOCK
Dual Entry	-	-	-	-
Simultaneous Gap	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	● → Traffic Signal Head
○ → Modified Signal Head	N/A
○ → Pedestrian Signal Head With Push Button & Sign	○ → Pedestrian Signal Head
○ → Signal Pole with Guy	○ → Signal Pole with Guy
○ → Signal Pole with Sidewalk Guy	○ → Signal Pole with Sidewalk Guy
□ → Inductive Loop Detector	□ → Inductive Loop Detector
□ → Controller & Cabinet	□ → Controller & Cabinet
□ → Junction Box	□ → Junction Box
- - - 2-in Underground Conduit	- - - 2-in Underground Conduit
N/A → Right of Way	- - - Right of Way
→ Directional Arrow	→ Directional Arrow
→ Pavement Marking Arrow	→ Pavement Marking Arrow
(A) "YIELD" Sign (R1-2)	(A) "YIELD" Sign (R1-2)
(B) No Right Turn Sign (R3-1)	(B) No Right Turn Sign (R3-1)
(C) No Left Turn Sign (R3-2)	(C) No Left Turn Sign (R3-2)
(D) Right Arrow "ONLY" Sign (R3-5R)	(D) Right Arrow "ONLY" Sign (R3-5R)
(E) "Right Lane Must Turn Right" Sign (R3-7R)	(E) "Right Lane Must Turn Right" Sign (R3-7R)
(G) "STOP" Sign (R1-1)	(G) "STOP" Sign (R1-1)
N/A Added Lane Sign (W4-3) (See Figure 1)	(F) Added Lane Sign (W4-3) (See Figure 1)



Signal Upgrade

Prepared in the Offices of:
 TRANSPORTATION MOBILITY AND SAFETY DIVISION
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 Signal Design Section

750 N. Greenfield Pkwy, Garner, NC 27529

NC 191 (Brevard Road) at I-240 Access Ramps

Division 13 Buncombe County Asheville

PLAN DATE: July 2016 REVIEWED BY: [Signature]
 PREPARED BY: C. Pierce REVIEWED BY: [Signature]

REVISIONS: [Table]
 INIT. DATE

Seal: NORTH CAROLINA PROFESSIONAL ENGINEERS
 SEAL 24393
 J. J. WILLIAMS
 9/6/2016
 DATE

SIG. INVENTORY NO. 13-0073

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