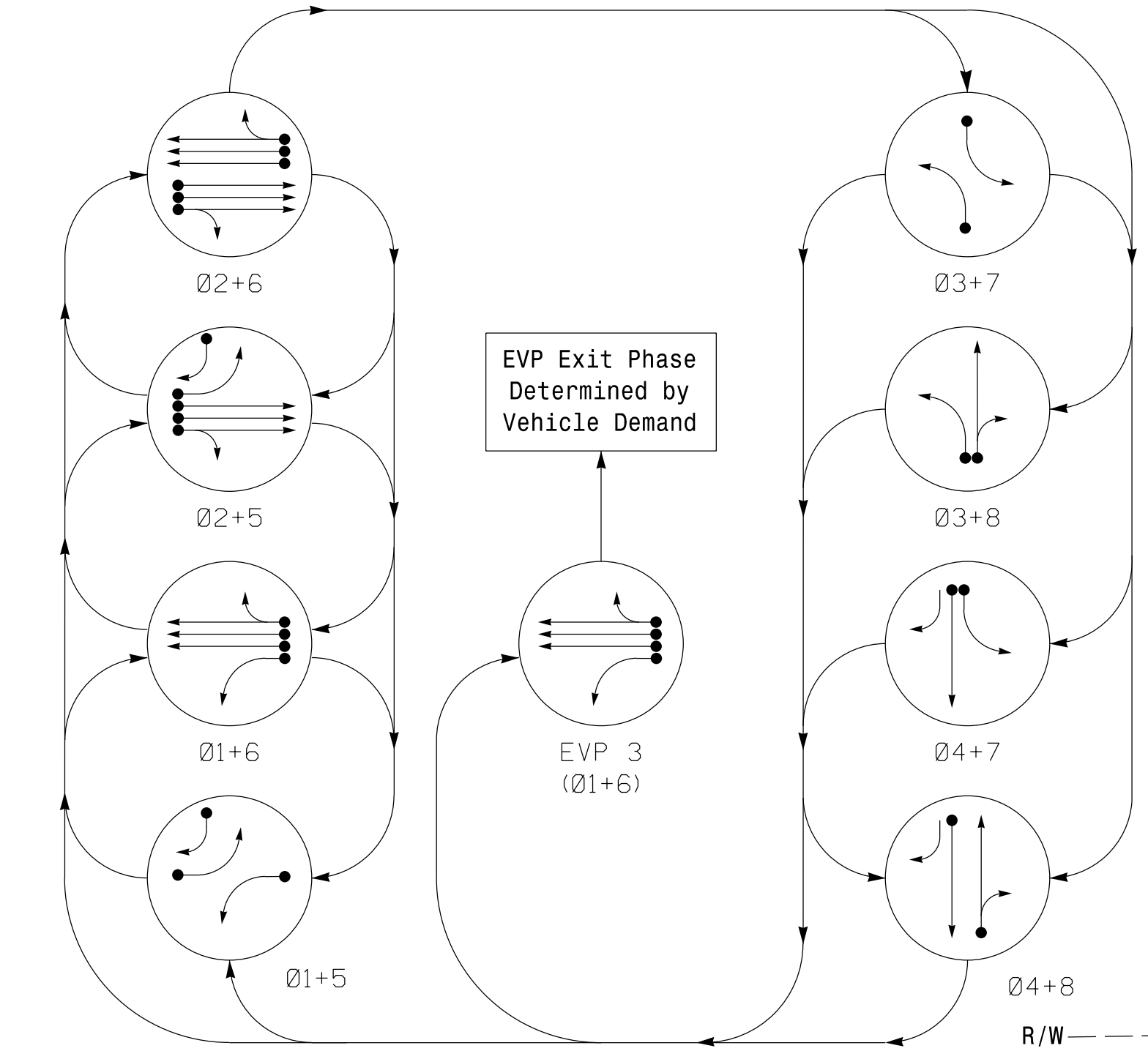


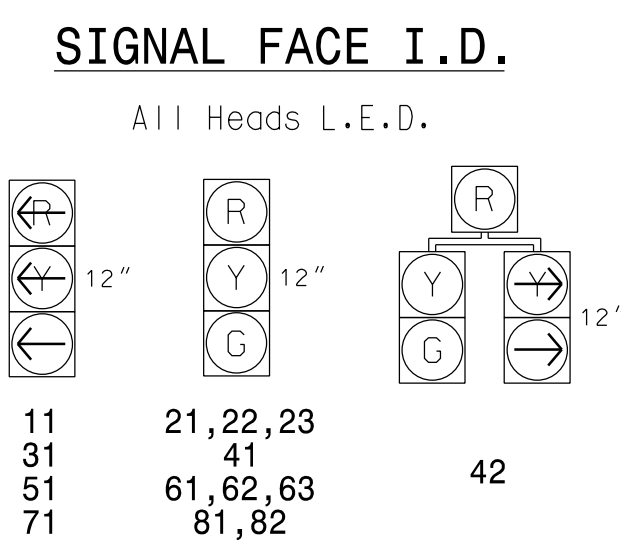
PHASING DIAGRAM



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
11	←	←	←	←	←	←	←	←
21, 22, 23	R	R	G	G	R	R	R	R
31	←	←	←	←	←	←	←	←
41	R	R	R	R	R	G	G	R
42	R	R	R	R	R	R	G	G
51	←	←	←	←	←	←	←	←
61, 62, 63	R	G	R	G	R	R	R	G
71	←	←	←	←	←	←	←	←
81, 82	R	R	R	R	R	G	G	R



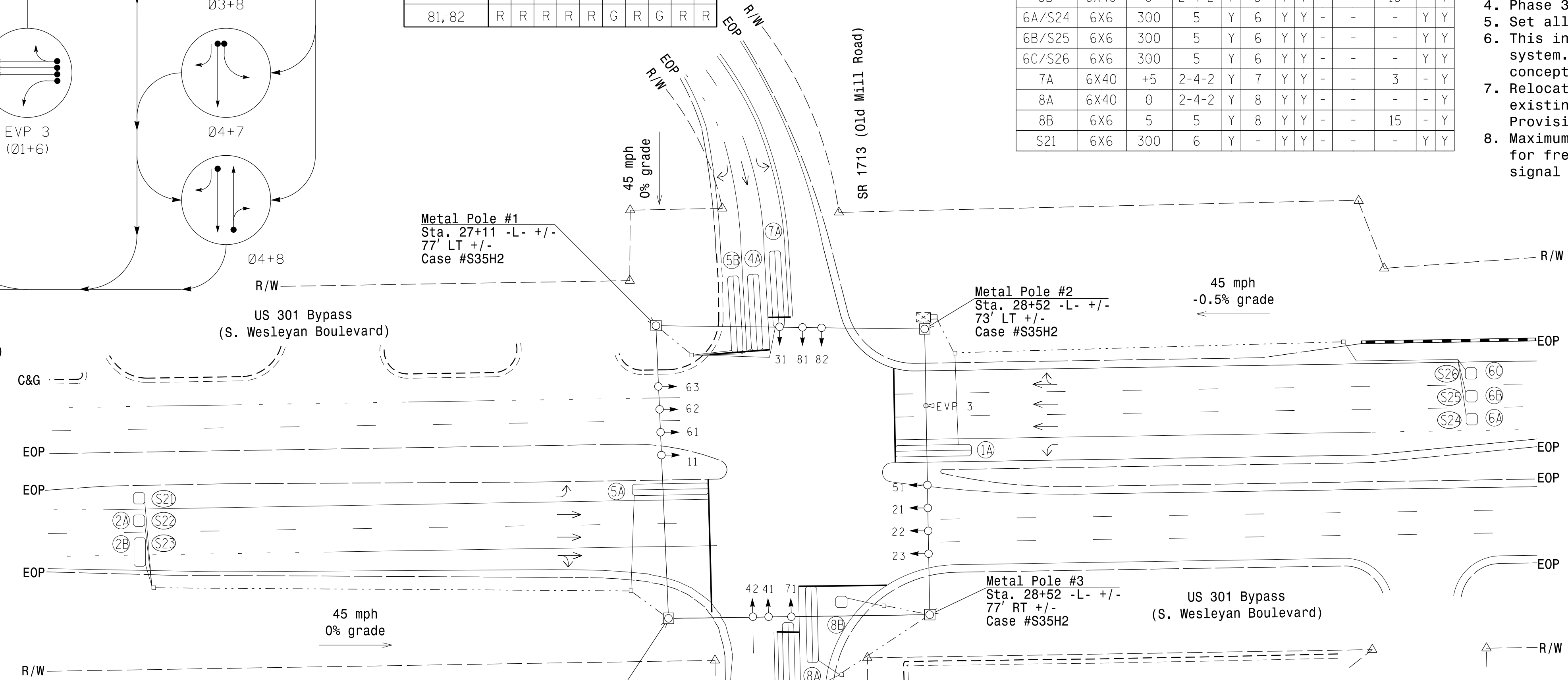
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING								
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD	
1A	6X40	0	2-4-2	Y	1	Y	Y	-	-	-	-	-	Y
2A/S22	6X6	300	6	Y	2	Y	Y	-	-	-	-	-	Y
2B/S23	6X15	300	6	Y	2	Y	Y	-	-	-	-	-	Y
3A	6X40	+5	2-4-2	Y	3	Y	Y	-	-	3	-	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	-	-	-	Y
5A	6X40	0	2-4-2	Y	5	Y	Y	-	-	-	-	-	Y
5B	6X40	0	2-4-2	Y	5	Y	Y	-	-	15	-	-	Y
6A/S24	6X6	300	5	Y	6	Y	Y	-	-	-	-	-	Y
6B/S25	6X6	300	5	Y	6	Y	Y	-	-	-	-	-	Y
6C/S26	6X6	300	5	Y	6	Y	Y	-	-	-	-	-	Y
7A	6X40	+5	2-4-2	Y	7	Y	Y	-	-	3	-	-	Y
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	-	-	-	Y
8B	6X6	5	5	Y	8	Y	Y	-	-	15	-	-	Y
S21	6X6	300	6	Y	-	Y	Y	-	-	-	-	-	Y

8 Phase W/ EV Preempt Fully Actuated Rocky Mount 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.
- Phase 1 and / or phase 5 may be lagged.
- Phase 3 and / or phase 7 may be lagged.
- Set all detector units to presence mode.
- This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
- Relocate existing EVP 3 detector on new span. Reuse existing Phase Selector. See Project Special Provisions.
- Maximum times shown in timing charts are for free-run operation only. Coordinated signal timing values supersede these values.



OASIS 2070E TIMING CHART

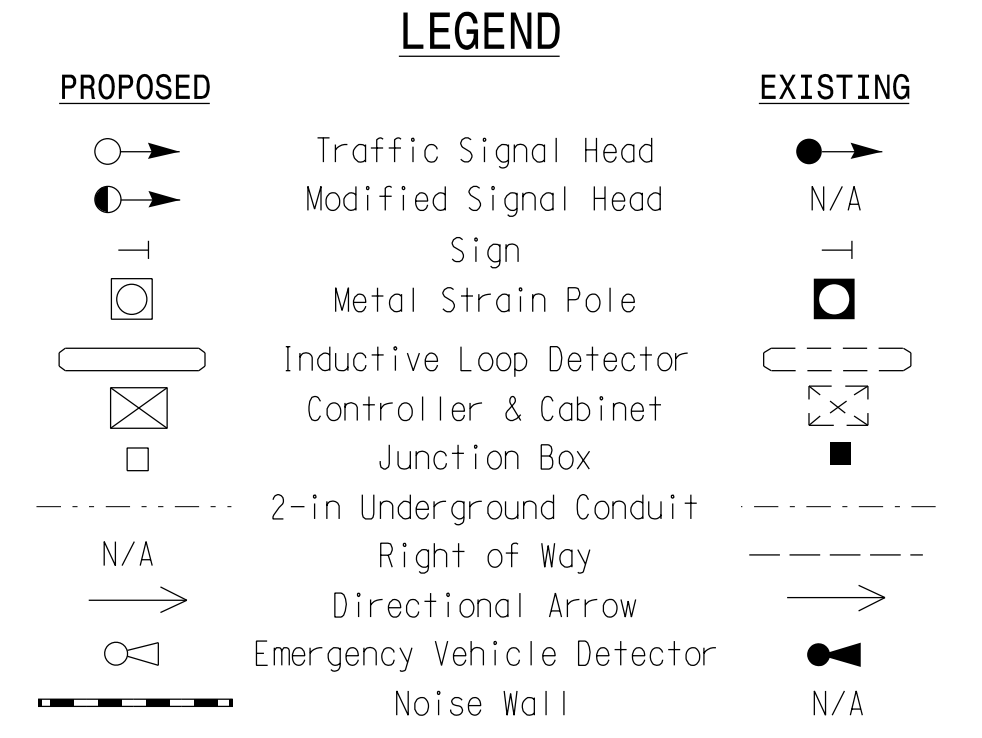
FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green 1 *	7	12	7	7	7	12	7	7
Extension 1 *	2.0	6.0	2.0	2.0	2.0	6.0	2.5	2.0
Max Green 1 *	25	60	30	35	25	60	30	35
Yellow Clearance	3.0	4.5	3.0	3.8	3.0	4.6	3.0	3.8
Red Clearance	3.3	1.0	3.4	2.3	3.1	1.4	3.3	2.3
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-	-	-
Seconds Per Actuation *	-	1.5	-	-	-	1.5	-	-
Max Variable Initial *	-	34	-	-	-	34	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	30	-	-	-	30	-	-
Minimum Gap	-	3.0	-	-	-	3.0	-	-
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL	-	-
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW	-	-
Dual Entry	-	-	-	-	-	-	-	-
Simultaneous Gap	ON	ON	ON	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.

OASIS 2070 EV PREEMPT

FUNCTION	PRE 3
Interval 1 - Dwell Green	255
Interval 1 - Dwell Yellow	0.0*
Interval 1 - Dwell Red	0.0*
Interval 5 - Exit Green	0
Interval 5 - Yellow	0.0
Interval 5 - Red	0.0
Exit Phase(s)	-
Priority	MED
Delay Time	0.0
Min Green Before Pre	1
Ped Clear Before Pre	0
Yellow Clear Before Pre	0.0*
Red Clear Before Pre	0.0*
Dwell Min Time	12
Enable Backup Protection	N
Ped Clear Through Yellow	N
Omit Overlaps	-
Preempt Extend**	5

* Time defaults to time used for phase during normal operation
 ** Program Timing on Optical Detection Unit



Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

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ATKINS

US 301 Byp (S. Wesleyan Blvd) at SR 1713 (Old Mill Road) / SR 1836 (May Drive)

Division 04 Nash County Rocky Mount

PLAN DATE: November 2016 REVIEWED BY: MB Toth

PREPARED BY: AM Encarnacion REVIEWED BY:

REVISIONS

NO.	INIT.	DATE

Seal: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025892 MELISSA B. TOTH

1/30/2017

SIG. INVENTORY NO. 04-0461

30-JAN-2017 17:00
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