PHASING DIAGRAM

Ø2+6   Ø8
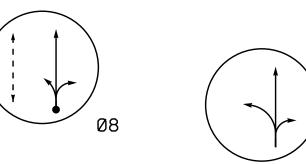
PHASING DIAGRAM DETECTION LEGEND

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

EV PREEMPT PHASE
(Medium Priority)

EV PRE 2
(Ø8)

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø 2+6	Ø 8	E V P 2	F L A S H
21,22	G	R	R	Y
61,62	G	R	R	Y
81,82	R	G	G	R
P21,P22	W	DW	DW	DRK
P81,P82	DW	W	DW	DRK

Signal Face I.D.
All Heads L.E.D.

R
Y	12"
G

16"

21,22   P21,P22
61,62   P81,P82
81,82

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	INDUCTIVE LOOPS 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
2A/S1	6X6	285	5	-	2	Y	Y	-	-	-	Y	Y
2B/S2	6X6	285	5	-	2	Y	Y	-	-	-	Y	Y
6A/S3	6X6	300	5	-	6	Y	Y	-	-	-	Y	Y
6B/S4	6X6	300	5	-	6	Y	Y	-	-	-	Y	Y
8A	6X40	+7	2-4-2	-	8	Y	Y	-	-	5	-	Y
8B	6X15	+7	2-4-2	-	8	Y	Y	-	-	15	-	Y

2 Phase
Fully Actuated with
Emergency Vehicle Preemption
Asheville Signal system

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. Set all detector units to presence mode.
4. Locate new cabinet si as not to obstuct sight distance of vehicles turning right on red.
5. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. Pavement markings are existing.
8. Emergency vehicle preemption switch is located in Asheville Fire-Rescue Station 6 (1030 Hendersonville Road).
9. The Division Traffic Engineer will determine the Delay before Preempt and Preempt Dwell Min Green time for the emergency vehicle preemption timing.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

OASIS 2070 TIMING CHART

FEATURE	PHASE 2	6	8
Min Green 1 *	12	12	7
Extension 1 *	6.0	6.0	1.0
Max Green 1 *	90	90	20
Yellow Clearance	4.9	4.9	3.1
Red Clearance	1.6	1.6	2.5
Red Revert	2.0	2.0	2.0
Walk 1 *	7	-	7
Don't Walk 1	11	-	16
Seconds Per Actuation *	1.5	1.5	-
Max Variable Initial *	33	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

* 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.

EV PREEMPTION

FUNCTION	PRE 2
Interval 1 – Dwell Green	255
Interval 1 – Dwell Yellow	0.0*
Interval 1 – Dwell Red	0.0*
Interval 5 – Exit Green	1
Interval 5 – Yellow	0.0
Interval 5 – Red	0.0
Exit Phase(s)	2+6
Priority	Medium
Delay Time	5**
Min Green Before Pre	1
Ped Clear Before Pre	5
Yellow Clear Before Pre	0.0*
Red Clear Before Pre	0.0*
Dwell Min Time	40**
Enable Backup Protection	N
Ped Clear Through Yellow	Y
Omit Overlaps	-
Preempt Extend**	2

* Time defaults to time used for phase during normal operation.
** See note 9.

US 25 (Hendersonville Road)

81 82

45 MPH +3% Grade

P82

62

61

Sidewalk

S1 2A
S2 2B

21

22

8B

P81   Sidewalk

45 MPH -4% Grade

P22   P21

6B S4
6A S3

Sidewalk

US 25 (Hendersonville Road)

Install new base-mounted cabinet on existing foundation.

8A

25 MPH +2% Grade

Caribou Road

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Pushbutton & Sign	
	Pedestrian Signal Head	
	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	
	Type I Pushbutton Post	
	Type II Signal Pedestal	

Signal Upgrade

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

US 25 (Hendersonville Road)
at
Caribou Road

Division 13	Buncombe County	Asheville
PLAN DATE: February 2016	REVIEWED BY: T. Williams	
PREPARED BY: M. Mahbooba	REVIEWED BY:	

	SCALE	
0	30	
1"=30'		

REVISIONS	INIT.	DATE

DocuSigned by: T. J. Williams   9/26/2016
SIG. INVENTORY NO.   13-0977