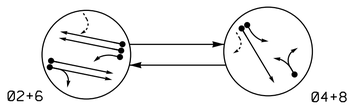
PROJECT REFERENCE NO.	SHEET NO.
I-0914BA	Sig. 11.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

EV PREEMPT PHASE

(Medium Priority)

EVP 2
(Ø3+8)

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+6	Ø4+8	EVP 2	FLASH
21, 22	G	R	R	Y
41, 42	R	G	R	R
43	~~R~~	~~F Y~~	~~F Y~~	~~R~~
61, 62	G	R	R	Y
63	~~F Y~~	~~R~~	~~R~~	~~Y~~
81	R	G	G	R
82	R	G	G	R

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A, 2B	6X6	300	5	-	2	Y	Y	-	2.1	-	-	Y
2C, 2D	6X6	70	5	-	2	Y	Y	-	-	-	-	Y
2E	6X40	+5	2-4-2	-	DISCONNECT						-	-
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	-	-	Y
4B	6X40	0	2-4-2	Y	4	Y	Y	-	-	-	-	Y
6A, 6B	6X6	300	5	-	6	Y	Y	-	2.1	-	-	Y
6C, 6D	6X6	70	5	-	6	Y	Y	-	-	-	-	Y
6E	6X40	+5	2-4-2	-	6	Y	Y	-	-	-	-	Y
8A	6X60	+5	2-4-2	-	8	Y	Y	-	-	5	-	Y

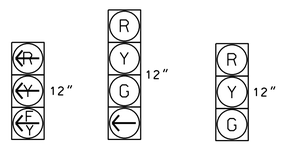
2 Phase
Fully Actuated
w/ Emergency Vehicle Preemption
(Isolated)

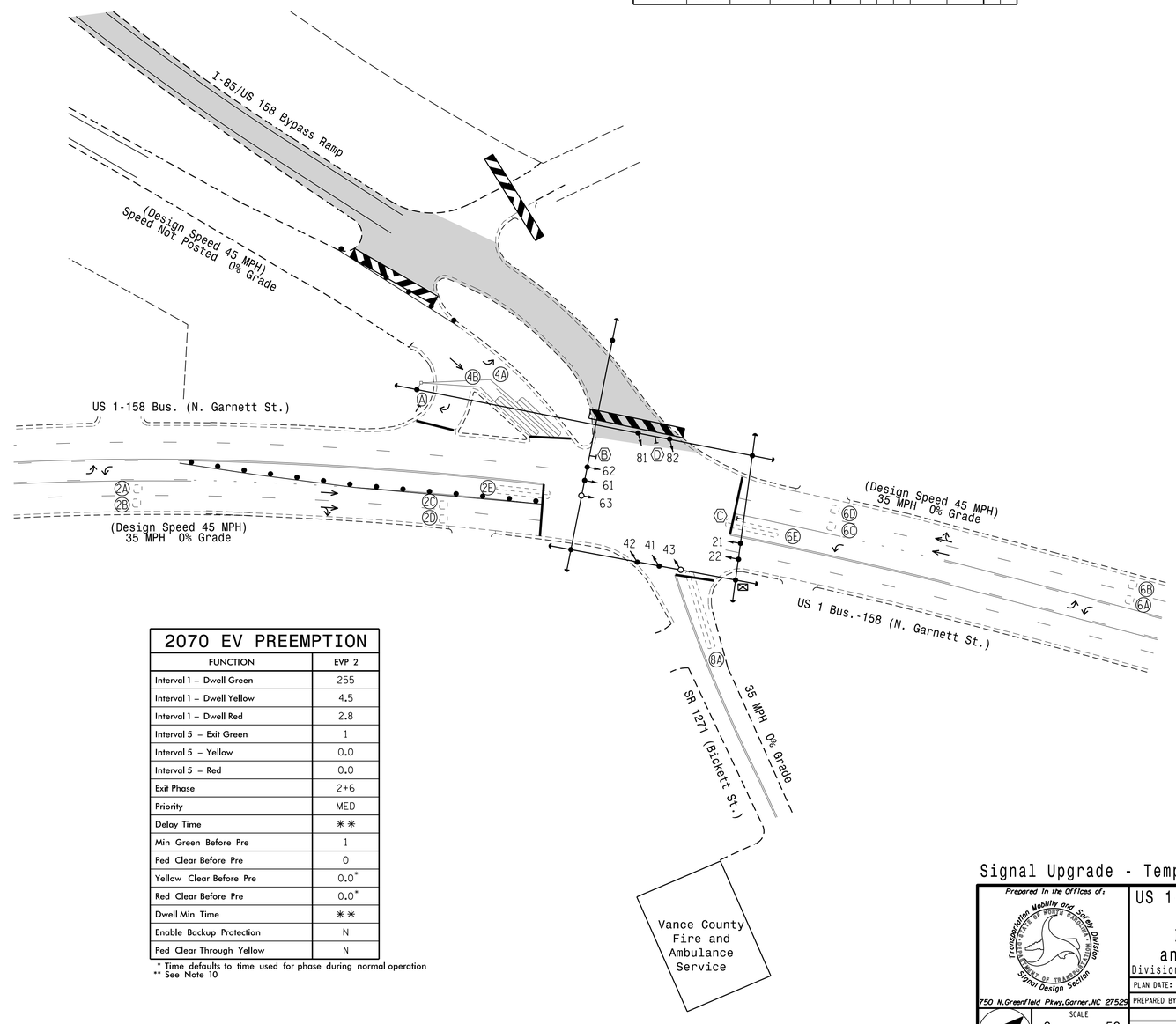
NOTES

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. Disconnect existing loop 2E.
4. Reposition existing signal heads numbered 21, 22, 41, 42, 61, and 62.
5. Set all detector units to presence mode.
6. In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
8. Pavement markings are existing.
9. Locate emergency vehicle preemption switch in Vance County Fire Station.
10. The Division Traffic Engineer will determine the Delay before Preempt and Preempt Dwell Min Green time for the emergency vehicle preemption timing.

SIGNAL FACE I.D.

All Heads L.E.D.





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	
	Construction Zone	
	Construction Zone Drums	
Ⓐ	"STOP" Sign (R1-1)	Ⓐ
Ⓑ	No Right Turn Sign (R3-1) w/ Flags	Ⓑ
Ⓒ	No Left Turn Sign (R3-2) w/ Flags	Ⓒ
Ⓓ	Dual Turn Arrows Sign with Flags	Ⓓ

OASIS 2070 TIMING CHART

FEATURE	PHASE 2	4	6	8
Min Green 1 *	10	7	10	7
Extension 1 *	2.0	2.0	2.0	1.0
Max Green 1 *	45	25	45	25
Yellow Clearance	4.5	4.5	4.5	4.5
Red Clearance	2.1	2.8	2.1	2.8
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	MIN RECALL	-	MIN RECALL	-
Vehicle Call Memory	YELLOW	-	YELLOW	-
Dual Entry	-	ON	-	ON
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.

2070 EV PREEMPTION

FUNCTION	EVP 2
Interval 1 – Dwell Green	255
Interval 1 – Dwell Yellow	4.5
Interval 1 – Dwell Red	2.8
Interval 5 – Exit Green	1
Interval 5 – Yellow	0.0
Interval 5 – Red	0.0
Exit Phase	2+6
Priority	MED
Delay Time	**
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	**
Enable Backup Protection	N
Ped Clear Through Yellow	N

* Time defaults to time used for phase during normal operation
** See Note 10

Signal Upgrade - Temporary Design (TMP Phases 1-3)

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

US 1-158 Bus. (N. Garnett St.)
at
I-85/US 158 Bypass Ramp
and SR 1271 (Bickett St.)
Division 5 Vance County Henderson

PLAN DATE: September 2014 REVIEWED BY:
PREPARED BY: I. O. Umozurike REVIEWED BY:

SCALE 0 50 1"=50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIELBA
DocuSigned by: 1B9B4B66274A494...
10/23/2014
SIGNATURE DATE
SIG. INVENTORY NO. 05-0543T

23-OCT-2014 14:39
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