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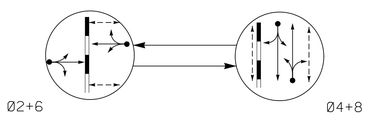
PROJECT REFERENCE NO.	SHEET NO.
R-5843	SIG. 1.0

2 PHASE FULLY ACTUATED W/ RAILROAD PREEMPTION (ISOLATED)

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

RAIL PREEMPT PHASES

(High Priority)

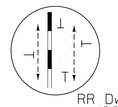
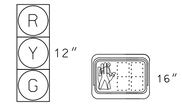


TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+6	PHASE Ø4+8	RR DWELL	RR FLASH
21,22,23,24	G	R	R	Y
41,42,43	R	G	R	R
61, 62	G	R	R	Y
81, 82	R	G	R	R
P21, P22	W	DW	DW	DRK
P41, P42	DW	W	W	DRK
P61, P62	W	DW	DW	DRK
P81, P82	DW	W	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



21, 22, 23, 24
41, 42, 43
61, 62
81, 82

P21, P22
P41, P42
P61, P62
P81, P82

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	6X40	0	2-4-2	Y	2	Y	Y	-	-	-	-	Y
4A	6X15	0	2-4-2	Y	4	Y	Y	-	-	5	-	Y
6A	6X30	0	2-4-2	Y	6	Y	Y	-	-	-	-	Y
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	5	-	Y

NOTES

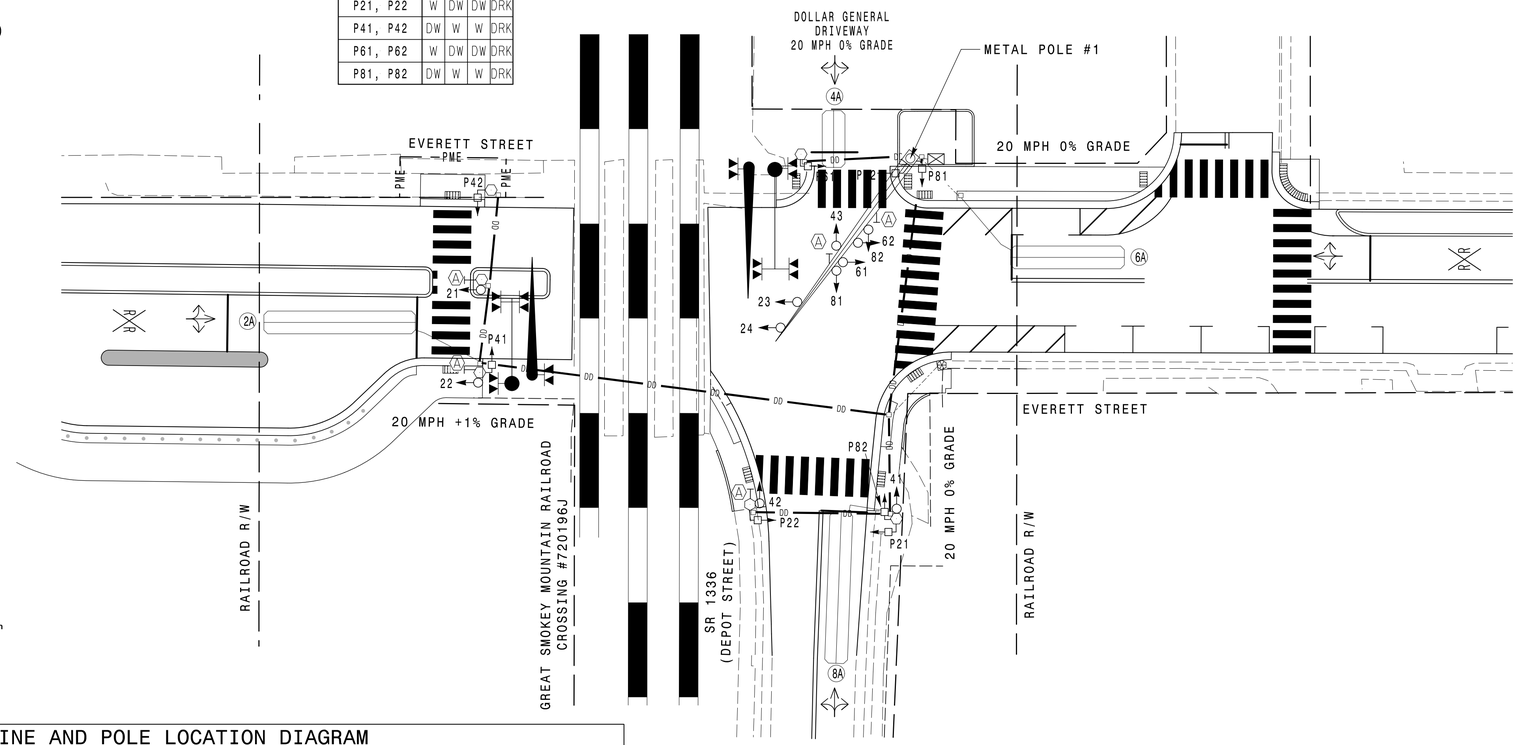
1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. This location contains railroad preemption phasing. Do not program signal for late night flashing operation.
3. Set all detector units to presence mode.
4. Locate new cabinet so as not to obstruct 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. Program parent phase for Overlap "P" for all phase used in normal operation.
8. Upon completion of Railroad Preemption, controller returns to normal operation based on vehicle demand.
9. Pedestrians pedestals are conceptual and shown for reference only. See Roadway Standard Drawing 1705.04 for pushbuttons locations details.
10. All signal equipement including signal heads will be black.

OASIS 2070 RR PREEMPT

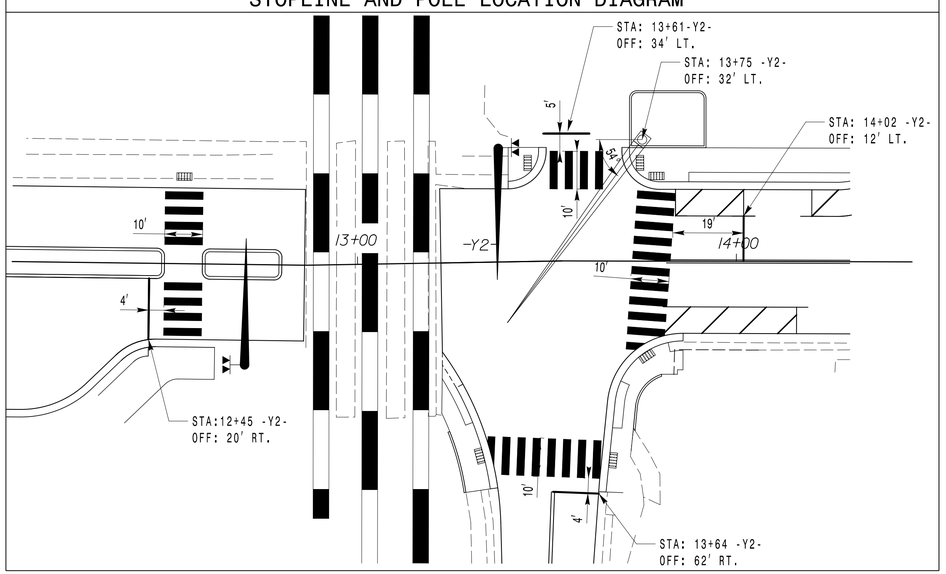
FUNCTION	PRE 1
Interval 1 – Dwell Green	255
Interval 1 – Dwell Yellow	0.0*
Interval 1 – Dwell Red	0.0*
Interval 5 – Exit Green	1
Interval 5 – Yellow	0.0
Interval 5 – Red	0.0
Exit Phase(s)	2,6
Priority	HIGH
Delay Time	0.0
Min Green Before Pre	1
Ped Clear Before Pre	0
Yellow Clear Before Pre	0.0*
Red Clear Before Pre	0.0*
Dwell Min Time	7
Enable Backup Protection	N
Ped Clear Through Yellow	Y
Omit Overlaps	P

* Time defaults to time used for phase during normal operation

THIS SIGNAL WAS DESIGNED FOR SIMULTANEOUS PREEMPTION



STOPLINE AND POLE LOCATION DIAGRAM



OASIS 2070 TIMING CHART

FEATURE	PHASE 2	PHASE 4	PHASE 6	PHASE 8
Min Green 1 *	10	7	10	7
Extension 1 *	3.0	2.0	3.0	2.0
Max Green 1 *	0	0	0	0
Yellow Clearance	3.0	3.0	3.0	3.0
Red Clearance	4.5	2.8	4.0	4.7
Red Revert	2.0	2.0	2.0	2.0
Walk 1 *	7	7	7	7
Don't Walk 1	6	10	5	10
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.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Type I Pushbutton Post	
	Type II Signal Pedestal	
	Metal Pole with Mastarm	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
N/A	Permanent Maintenance Easement	PME
	Directional Arrow	
DD	Directional Drill	N/A
N/A	Railroad Gate and Flasher	
N/A	Railroad Tracks	
	"NO TURN ON RED" Sign (R10-11)	

NC Dept of Transportation
Division of Highways
Final Drawing Date: 1/25/2019
DocuSigned by: R. N. Lisen
ITS & Signals Unit

NEW INSTALLATION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PLANS PREPARED IN THE OFFICE OF:
Kimley»Horn
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Raleigh, NC 27601
(919) 677-2000

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

SCALE 0 20' 1"=40'

EVERETT STREET AT SR 1336 (DEPOT STREET)

DIVISION 14 SWAIN COUNTY BRYSON CITY

PLAN DATE:	JUNE 2018	REVIEWED BY:	SL PHILLIPS
PREPARED BY:	SP PENNINGTON	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032607 ENGINEER STACIE L. PHILLIPS
DocuSigned by: 1/18/2019
SIGNATURE DATE
SIG. INVENTORY NO. 14-1306

1/17/2019 12:00:59 PM susan.pennington K:\PDWL_Roadway\01103637 - Div 14 (R-5843 Bryson Int)\Traffic Signal\S4 - Signal Design\14-1306_2018.dgn