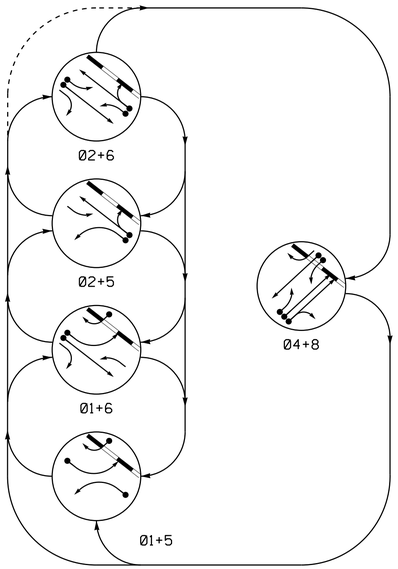
PROJECT REFERENCE NO.	SHEET NO.
C-5558	Sig. 172.0

5 Phase Fully Actuated w/ Railroad Preemption (High Point Signal System)

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

RAIL PREEMPT PHASES

(High Priority)

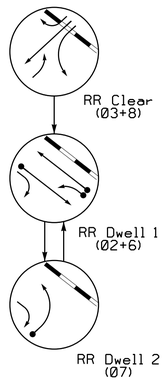


TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	04+8	RR PRE 1	RR PRE 2	FLASH
11	←-	←-	F Y	F Y	R	R	F Y	R	Y
21, 22	R	R	G	G	R	R	G	R	Y
41, 42	R	R	R	R	G	R	R	R	R
51	←-	F Y	←-	F Y	R	R	R	R	Y
61, 63	R	G	R	G	R	R	G	R	Y
62	R	G	R	G	R	R	G	R / →-	Y
71	R	R	R	R	F Y	R	R	←-	R
81	R	R	R	R	G	G→	R	R	R
82	R / →-	R / →-	R	R	G	G	R	R	R
83	R	R	R	R	G	G	R	R	R
SIGN A	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	✳

✳ See Note 10

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

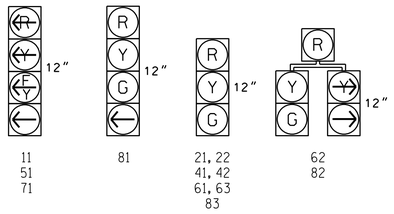
INDUCTIVE LOOPS					DETECTOR PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	-	1	Y	Y	-	-	15	-	Y
					6	Y	Y	-	-	-	-	Y
1B	6X40	0	2-4-2	-	1	Y	Y	-	-	-	-	Y
2A	6X6	70	EXIST	-	2	Y	Y	-	-	-	-	Y
4A	6X40	0	2-4-2	-	4/7	Y	Y	-	-	3	-	Y
4B	6X40	0	2-4-2	-	4	Y	Y	-	-	-	-	Y
4C	6X40	0	2-4-2	-	4	Y	Y	-	-	10	-	Y
5A	6X40	0	2-4-2	-	5	Y	Y	-	-	15	-	Y
					2	Y	Y	-	-	-	-	Y
6A	6X6	70	EXIST	-	6	Y	Y	-	-	-	-	Y
8A	6X40	0	2-4-2	-	8	Y	Y	-	-	3	-	Y
8B	6X40	0	2-4-2	-	8	Y	Y	-	-	-	-	Y

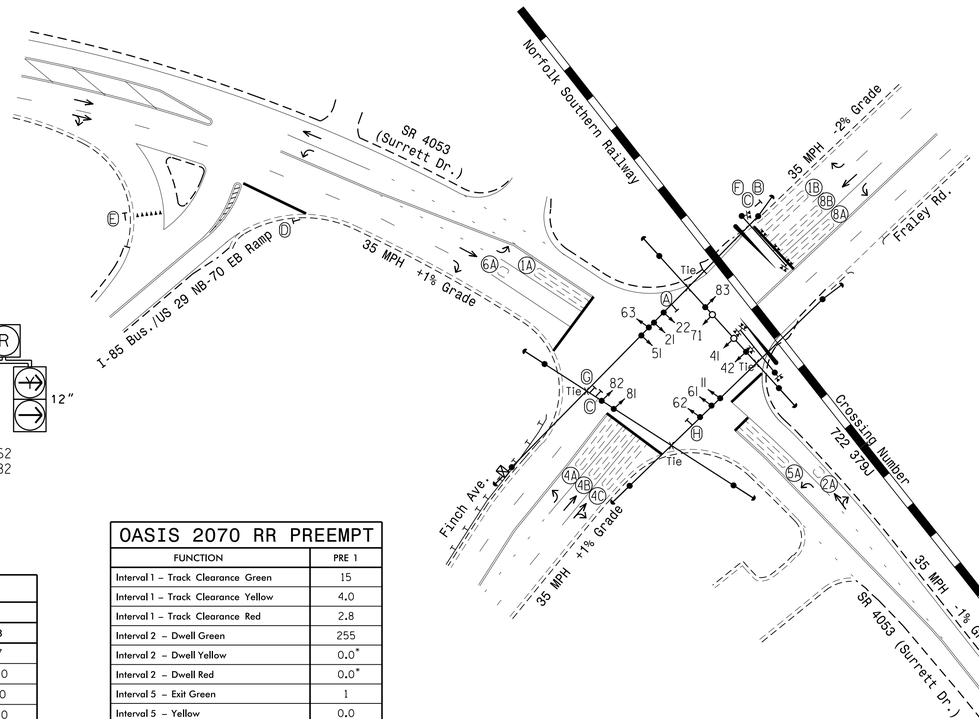
NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. This location contains railroad preemption phasing. Do not program signal for late night flashing operation.
3. Omit phase 3 and phase 7 during normal operatoin.
4. Phase 1 and/or phase 5 may be lagged.
5. Reposition existing signal head number 42.
6. Set all detector units to presence mode.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
8. Remove existing "ONCOMING TRAFFIC MAY HAVE EXTENDED GREEN" sign (W25-2).
9. Pavement markings are existing.
10. Ensure flashing operation does not alter operation of blankout signs.
11. 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.





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	■
N/A	2-in Underground Conduit	N/A
N/A	Right of Way	N/A
→	Directional Arrow	→
N/A	Railroad Tracks	N/A
N/A	Railroad Cantilever	N/A
N/A	Railroad Gate and Flasher	N/A
N/A	Guardrail	N/A
Ⓐ	"NO RIGHT TURN - TRAIN" L.E.D. Blankout Sign	Ⓐ
Ⓑ	"STOP HERE ON RED" Sign (R10-6)	Ⓑ
Ⓒ	"NO TURN ON RED" Sign (R10-11)	Ⓒ
Ⓓ	"STOP" Sign (R1-1)	Ⓓ
Ⓔ	"YIELD" Sign (R1-2)	Ⓔ
Ⓕ	"DO NOT STOP ON TRACKS" Sign (R8-8)	Ⓕ
Ⓖ	Right Arrow "ONLY" Sign (R3-5R)	Ⓖ

OASIS 2070 TIMING CHART

FEATURE	PHASE 1	2	4	5	6	7	8
Min Green 1 *	7	10	7	7	10	7	7
Extension 1 *	2.0	3.0	2.0	2.0	3.0	2.0	2.0
Max Green 1 *	20	80	40	20	80	20	40
Yellow Clearance	3.0	3.9	4.0	3.0	3.9	3.0	4.0
Red Clearance	3.1	2.3	2.8	2.9	2.3	2.3	2.8
Red Revert	2.0	2.0	2.0	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	-	YELLOW	-	-	YELLOW	-	-
Dual Entry	-	-	ON	-	-	-	ON
Simultaneous Gap	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.

** May be changed to Min Recall by Time of Day at discretion of City Traffic Engineer.

OASIS 2070 RR PREEMPT

FUNCTION	PRE 1
Interval 1 – Track Clearance Green	15
Interval 1 – Track Clearance Yellow	4.0
Interval 1 – Track Clearance Red	2.8
Interval 2 – Dwell Green	255
Interval 2 – Dwell Yellow	0.0*
Interval 2 – Dwell Red	0.0*
Interval 5 – Exit Green	1
Interval 5 – Yellow	0.0
Interval 5 – Red	0.0
Exit Phase(s)	4+8
Priority	HIGH
Delay Time	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	10
Enable Backup Protection	N
Ped Clear Through Yellow	N
Omit Overlaps	C,P

* Time defaults to time used for phase during normal operation

This signal was designed for simultaneous preemption.

Signal Upgrade

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

SR 4053 (Surrett Drive) at Fraley Road/Finch Avenue

Division 7 Guilford County High Point

PLAN DATE: August 2014 REVIEWED BY:

PREPARED BY: R.N. Zinser REVIEWED BY:

SCALE 0 50 1"=50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIEMBA

DocuSigned by: 4/24/2015
12000 SIGNATURE DATE

SIG. INVENTORY NO. 07-2171

24-APR-2015 12:10
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