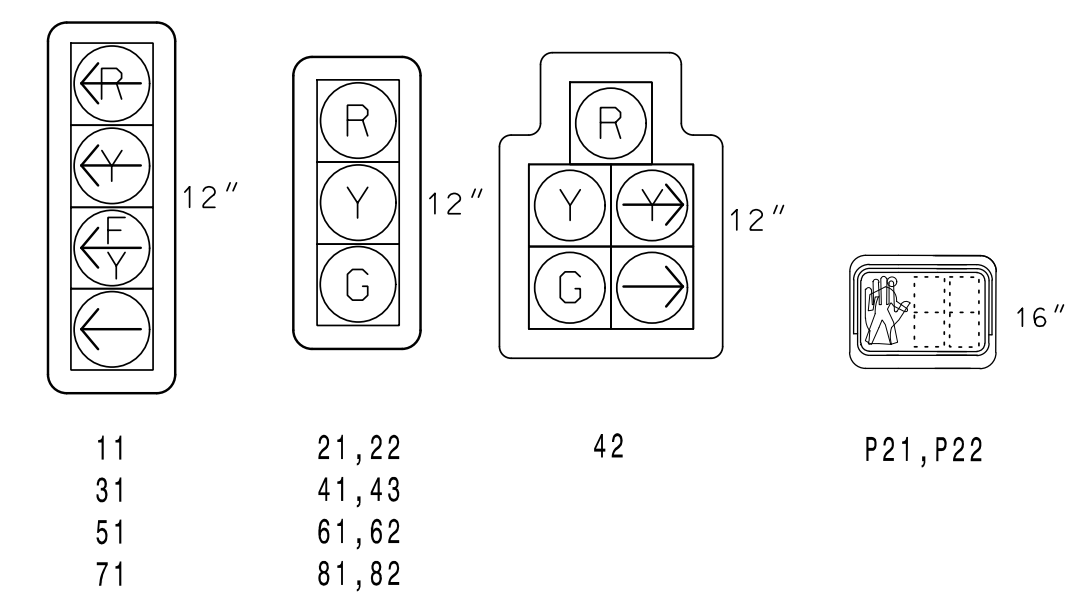


SIGNAL FACE I.D.

All Heads L.E.D.

All heads have backplates with reflective borders



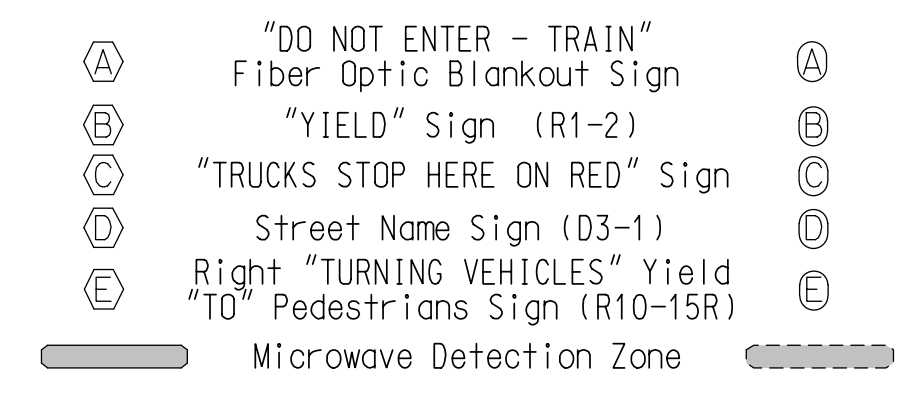
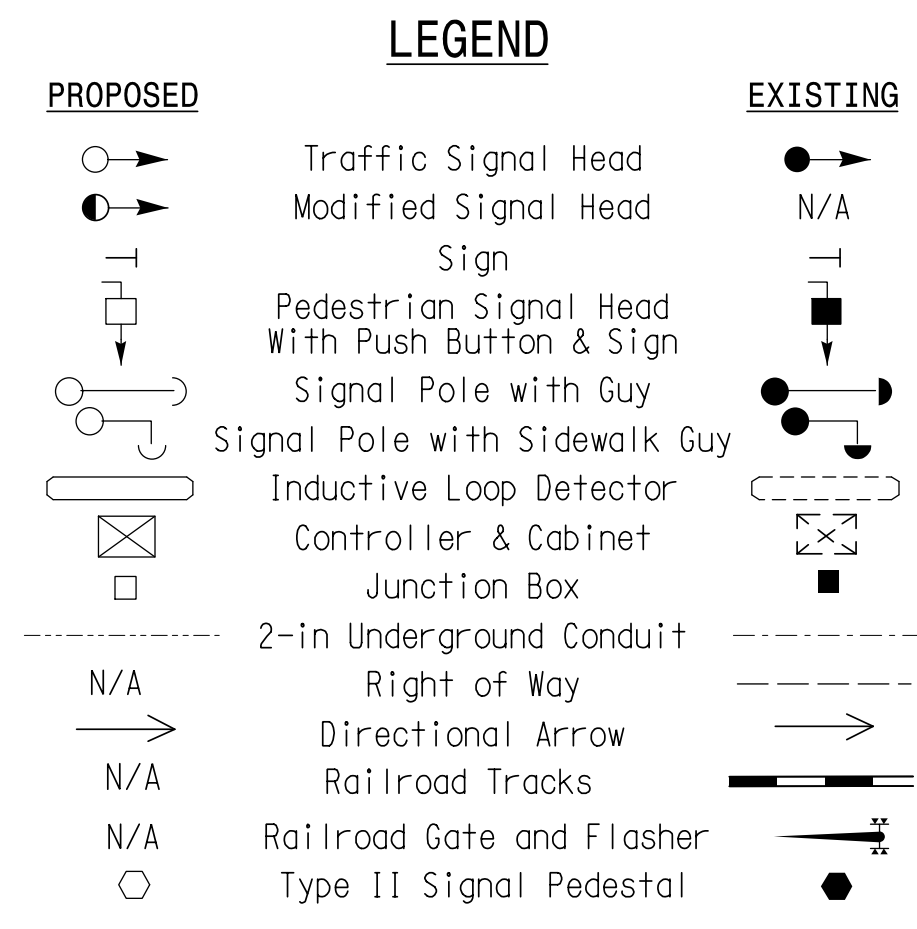
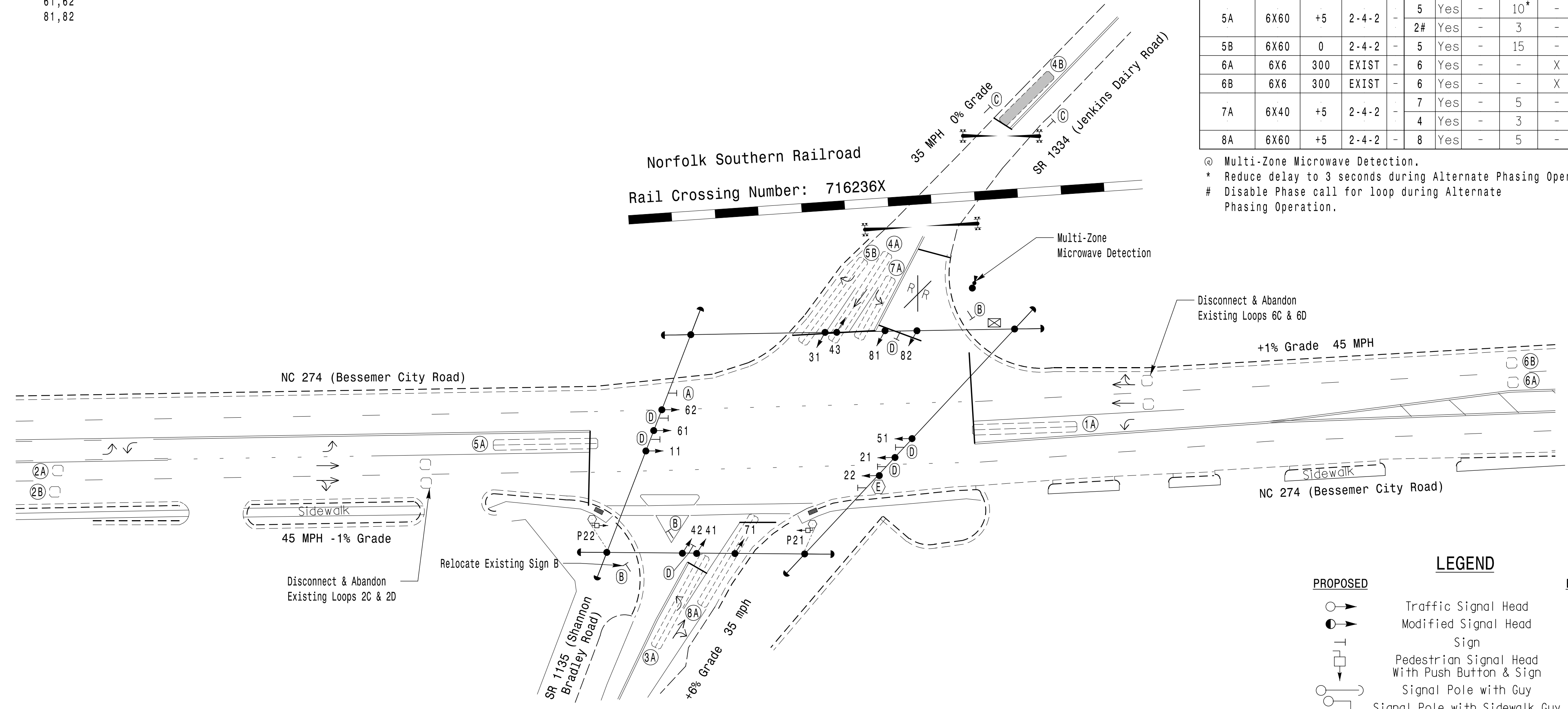
DETECTOR INSTALLATION CHART											
DETECTOR				PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	NEW CARD
1A	6X60	0	2-4-2	-	1	Yes	-	10*	-	N	X
2A	6X6	300	EXIST	-	6#	Yes	-	3	-	G	X
2B	6X6	300	EXIST	-	2	Yes	-	-	X	N	X
3A	6X60	+10	2-4-2	-	3	Yes	-	5	-	N	X
4A	6X60	0	2-4-2	-	4	Yes	-	-	-	N	X
4B	⊙	⊙	⊙	-	4	Yes	-	-	3	N	X
5A	6X60	+5	2-4-2	-	5	Yes	-	10*	-	N	X
5B	6X60	0	2-4-2	-	5	Yes	-	15	-	N	X
6A	6X6	300	EXIST	-	6	Yes	-	-	X	N	X
6B	6X6	300	EXIST	-	6	Yes	-	-	X	N	X
7A	6X40	+5	2-4-2	-	7	Yes	-	5	-	N	X
8A	6X60	+5	2-4-2	-	8	Yes	-	5	-	N	X

⊙ Multi-Zone Microwave Detection.
 * Reduce delay to 3 seconds during Alternate Phasing Operation.
 # Disable Phase call for loop during Alternate Phasing Operation.

8 Phase Fully Actuated w/ Alternate Phasing Operation and Railroad Preemption Gastonia Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- This location contains railroad preemption phasing. Do not program for late night flashing operation.
- 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.
- In the event of loop replacement, refer to the current ITS and Signal Design Manual and submit a Plan of Record to the Signal Design Section.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- This intersection uses Microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
- Pavement markings are existing.
- Ensure flashing operation does not alter operation of blankout sign.
- The City Engineer or their representative will determine the hours of use for each phasing plan.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
- Disconnect and abandon existing loops 2C, 2D, 6C, and 6D.
- Install new cabinet on the existing cabinet foundation.
- All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
- All proposed pedestrian signal heads shall be black in color. See Project Special Provisions for details.
- All proposed pedestrian pedestals and pushbutton posts shall be black in color. See Project Special Provisions for details.
- Reconnect lead-in cable to separate loops 2A, 2B, 6A, & 6B, as shown.
- City of system data: Controller Asset #0335.



FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green *	7	12	7	7	7	12	7	7
Walk *	-	7	-	-	-	-	-	-
Ped Clear	-	30	-	-	-	-	-	-
Veh. Extension *	1.0	6.0	2.0	2.0	1.0	6.0	2.0	2.0
Max 1 *	15	55	15	20	15	55	15	20
Yellow	3.0	4.6	3.0	3.8	3.0	4.6	3.0	3.8
Red Clear	4.2	3.5	3.1	2.6	4.3	3.5	2.6	2.6
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-	-	-	-	-
Seconds / Actuation *	-	1.5	-	-	-	1.5	-	-
Max Initial *	-	34	-	-	-	34	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	30	-	-	-	30	-	-
Minimum Gap	-	3.0	-	-	-	3.0	-	-
Locking Detector	-	X	-	-	-	X	-	-
Recall Position	-	MIN RECALL	-	-	-	MIN RECALL	-	-
Dual Entry	-	-	-	X	-	-	-	X
Simultaneous Gap	X	X	X	X	X	X	X	X

* 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.

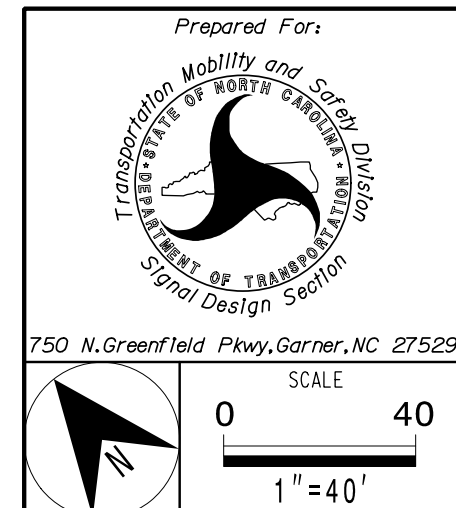
RR PREEMPT	
FUNCTION	PRE 1
Exit Phase(s)	4+8
Preempt Override	ON
Delay Time	0
Ped Clear Trough Yellow	Y
Terminate Phases	N
Track Clear Reserve	Y
Entrance Walk	1
Entrance Ped Clear	5
Entrance Min Green	1
Entrance Yellow Change	4.6
Entrance Red Clear	4.3
Track Clear Min Green	23
Track Clear Yellow Change	3.8
Track Clear Red Clear	2.6
Min Dwell Time	10
Exit Yellow Change	25.5*
Exit Red Clear	25.5*

* Time defaults to time used for phase during normal operation

THIS SIGNAL WAS DESIGNED FOR ADVANCE PREEMPTION

Signal Upgrade - Sheet 1 of 2

PLANS PREPARED IN THE OFFICE OF:
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 NC License #F-0102
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 Raleigh, NC 27601
 (919) 677-2000



Prepared For:
NC 274 (Bessemer City Road)
 at
SR 1334 (Jenkins Dairy Road) / SR 1135 (Shannon Bradley Road)
 Division 12 Gaston County Gastonia
 PLAN DATE: May 2021 REVIEWED BY: SL Phillips
 PREPARED BY: DM Curri REVIEWED BY: KP Baumann

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Seal of North Carolina Professional Engineer
 KEVIN P. BAUMANN
 ENGINEER
 3/11/2022
 DATE

SIG. INVENTORY NO. 12-0335

3/9/2022 11:14:07 AM D:\h11\p1\curr1 ***K:\mley-horn.com\SE-RAL\MRAL-TIP\DK-TIS\011036569 Gastonia Signal System9 Signal.wks4 - Signal Design\NC120335-2021.dgn