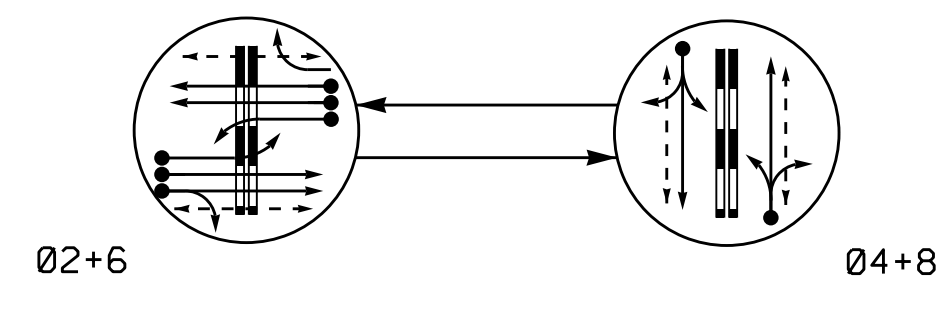


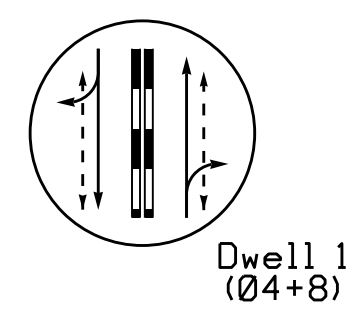
PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

RAIL PREEMPT PHASES
(High Priority)



Dwell 1 (04+8)

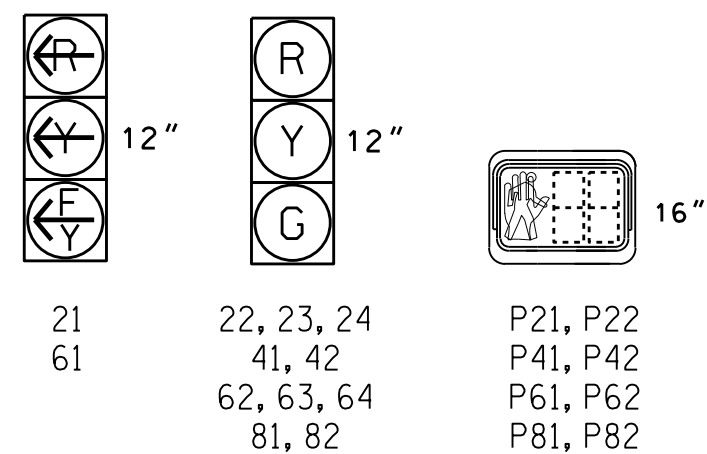
TABLE OF OPERATION

SIGNAL FACE	PHASE			
	02+6	04+8	Dwell 1	FLASH
21	F	R	R	R
22, 23, 24	G	R	R	R
41, 42	R	G	G	R
61	F	R	R	R
62, 63, 64	G	R	R	R
81, 82	R	G	G	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
Sign C	OFF	OFF	ON	*

* See Note 8.

SIGNAL FACE I.D.

All Heads L.E.D.



FEATURE	PHASE			
	2	4	6	8
Min Green *	10	7	10	7
Walk *	7	7	7	7
Ped Clear	18	17	18	20
Veh. Extension *	3.0	2.0	3.0	2.0
Max 1 *	30	20	30	20
Yellow	4.0	3.8	4.0	3.8
Red Clear	1.8	2.1	1.8	2.1
Actuations B4 Add *	-	-	-	-
Seconds / Actuation *	-	-	-	-
Max Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Lacking Detector	X	-	X	-
Recall Position	VEH. RECALL	-	VEH. RECALL	-
Dual Entry	-	X	-	X
Simultaneous Gap	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.

ASC/3 RR PREEMPT	
FUNCTION	PRE 1
Exit Phase(s)	2,6
Preempt Override	ON
Delay Time	0
Ped Clear Trough Yellow	Y
Terminate Phases	N
Track Clear Reserve	Y
Entrance Walk	1
Entrance Ped Clear	10
Entrance Min Green	1
Entrance Yellow Change	25.5*
Entrance Red Clear	25.5*
Track Clear Min Green	0
Track Clear Yellow Change	-
Track Clear Red Clear	-
Min Dwell Time	7
Exit Yellow Change	25.5*
Exit Red Clear	25.5*

* Allows normal phase times to be used.

This signal was designed for Simultaneous Preemption

ASC/3 DETECTOR INSTALLATION CHART										
DETECTOR					PROGRAMMING					
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	TYPE	NEW CARD
2A, 2B	6X6	70	4	-	2	Yes	-	-	S	X
2C	6X40	0	2-4-2	-	2	Yes	-	-	S	X
4A	6X40	0	2-4-2	-	4	Yes	-	10	S	X
6A, 6B	6X6	70	4	-	6	Yes	-	-	S	X
6C	6X40	0	2-4-2	-	6	Yes	-	-	S	X
8A	6X40	0	2-4-2	-	8	Yes	-	10	S	X

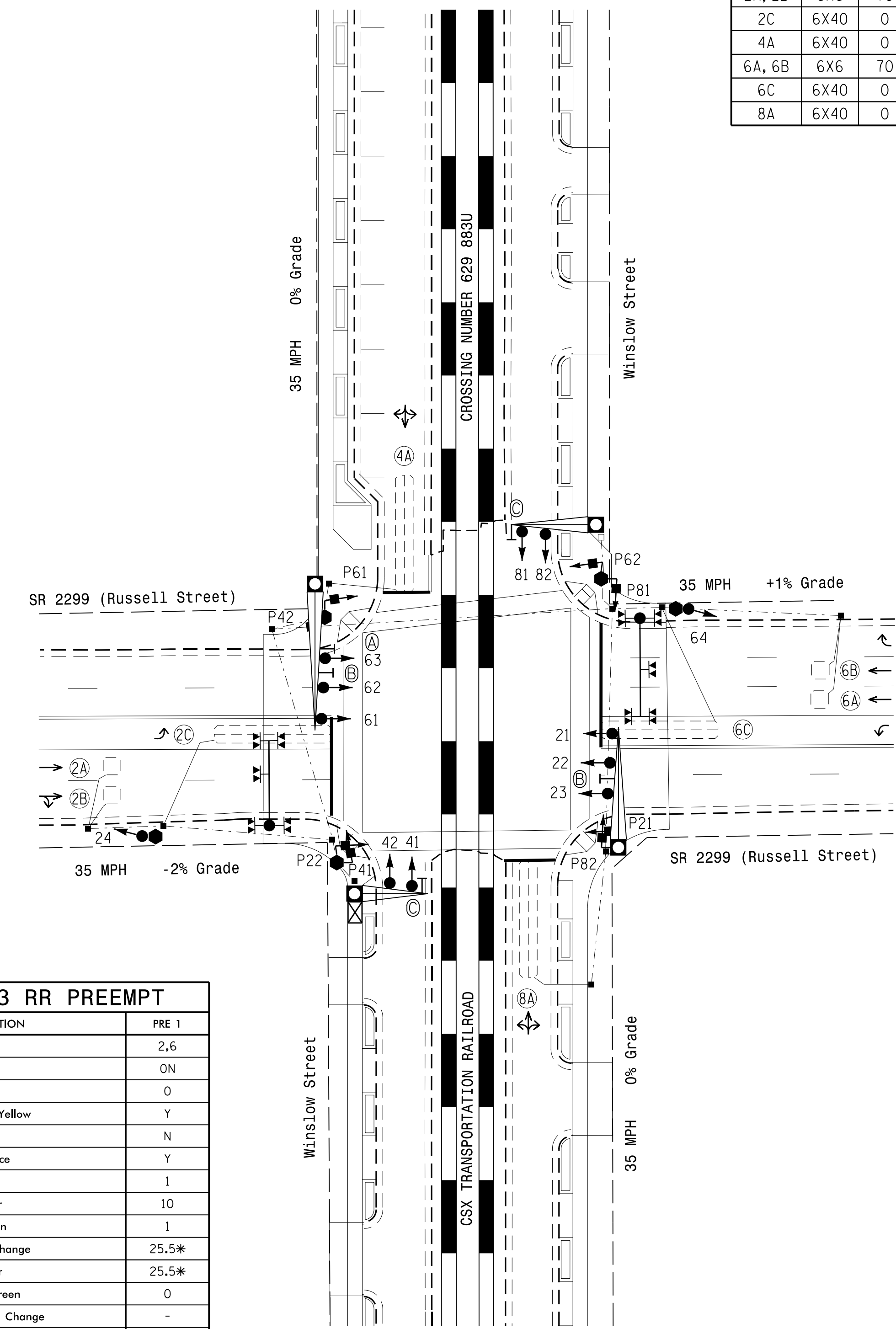
2 Phase Fully Actuated w/Railroad Preemption Fayetteville Signal System

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. 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. Pavement markings are existing.
8. Ensure flashing operation does not alter operation of blankout signs.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
10. Program phase 4 and 8 for Startup Red Clr.

LEGEND

- | PROPOSED | EXISTING |
|--|---|
| ○ → Traffic Signal Head | ● → Traffic Signal Head |
| ○ → Modified Signal Head | ○ → N/A |
| ⊥ Sign | ⊥ Sign |
| ⊥ Pedestrian Signal Head With Push Button & Sign | ⊥ Pedestrian Signal Head |
| ⊥ Signal Pole with Guy | ⊥ Signal Pole with Guy |
| ⊥ Signal Pole with Sidewalk Guy | ⊥ Signal Pole with Sidewalk Guy |
| ⊥ Inductive Loop Detector | ⊥ Inductive Loop Detector |
| ⊥ Controller & Cabinet | ⊥ Controller & Cabinet |
| ⊥ Junction Box | ⊥ Junction Box |
| ⊥ 2-in Underground Conduit | ⊥ 2-in Underground Conduit |
| N/A Right of Way | → Right of Way |
| → Directional Arrow | → Directional Arrow |
| ○ Metal Pole with Mastarm | ○ Metal Pole with Mastarm |
| ○ Type II Signal Pedestal | ○ Type II Signal Pedestal |
| N/A Railroad Cantilever | ⊥ Railroad Cantilever |
| (A) Right Arrow "ONLY" Sign (R3-5R) | (A) Right Arrow "ONLY" Sign (R3-5R) |
| (B) "DO NOT STOP ON TRACKS" Sign (R8-8) | (B) "DO NOT STOP ON TRACKS" Sign (R8-8) |
| (C) "NO LEFT TURN - TRAIN" L.E.D. Blankout Sign | (C) "NO LEFT TURN - TRAIN" L.E.D. Blankout Sign |



Signal Upgrade

SR 2299 (Russell Street) at Winslow Street

Division 6 Cumberland County Fayetteville

PLAN DATE: August 2016 REVIEWED BY: JPG

PREPARED BY: KGP, Jr. REVIEWED BY:

REVISIONS: _____ INIT. DATE

JASON P. GALLON
ENGINEER
SEAL 029904
9/26/2016

SIG. INVENTORY NO. 06-0011

07-0012-2016_08-25
 S:\IT\ASU\115_Signal\Signal Design\Section\Eastern Region\04\U-5742 Fayetteville ASC3\606-0011\6060011_Sig.dsn_2016mmds.dgn
 J. Prudence