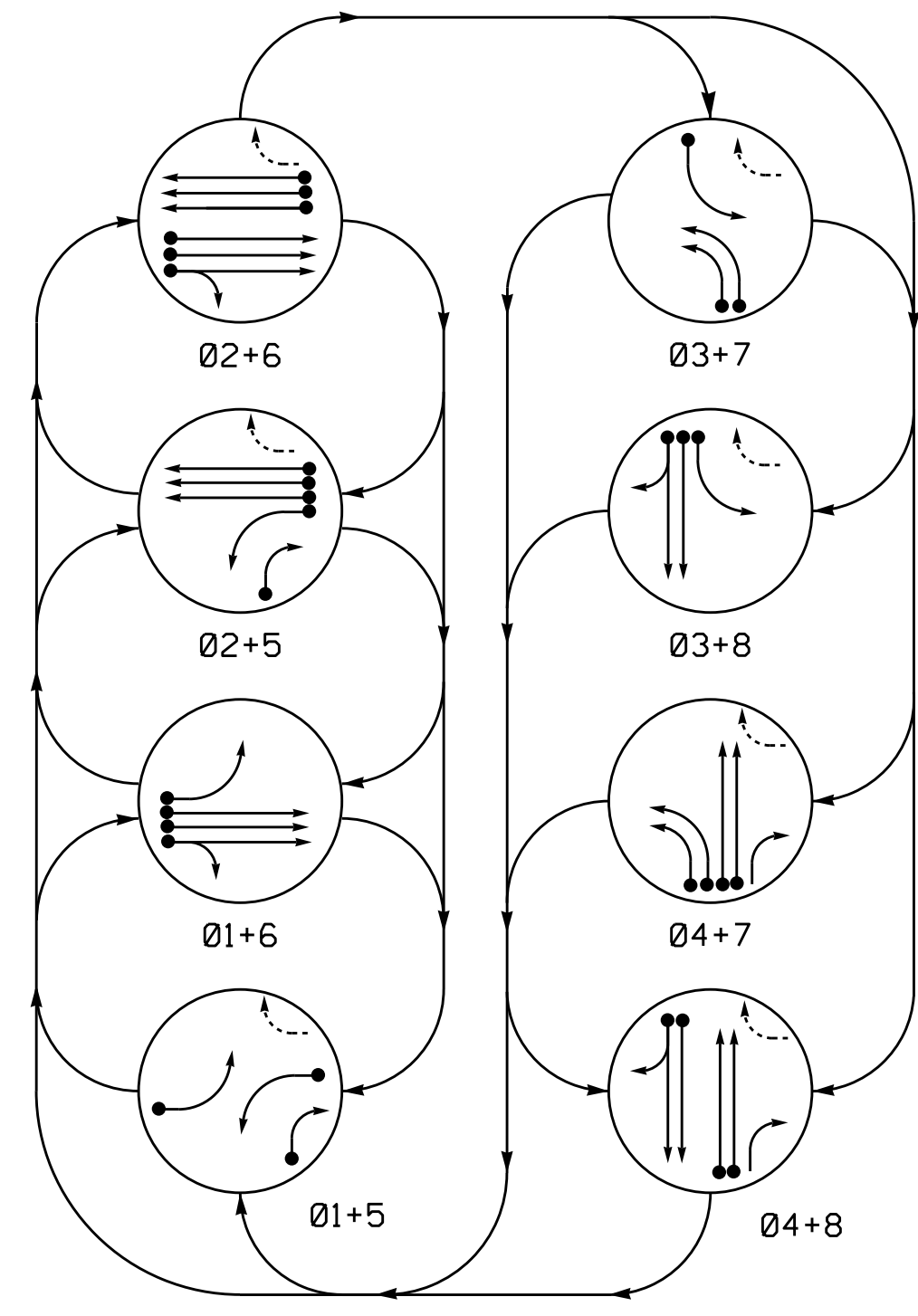
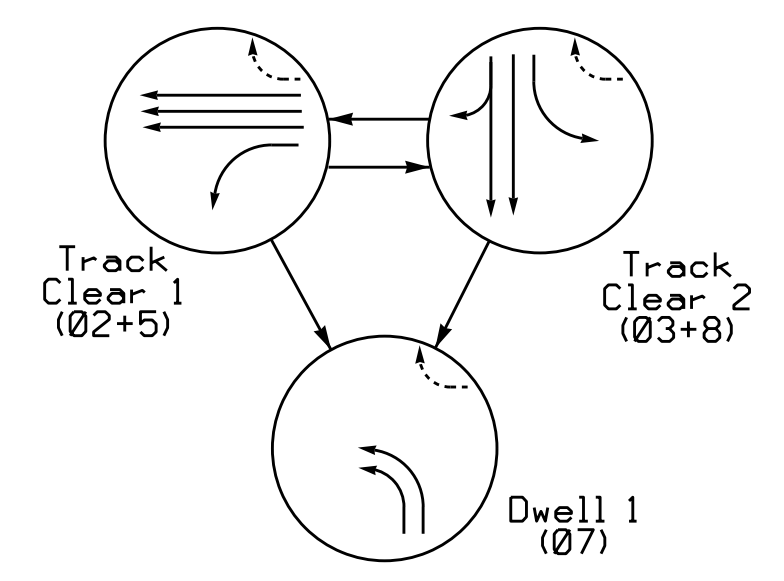


PHASING DIAGRAM



RAIL PREEMPT PHASES (High Priority)



PHASING DIAGRAM DETECTION LEGEND

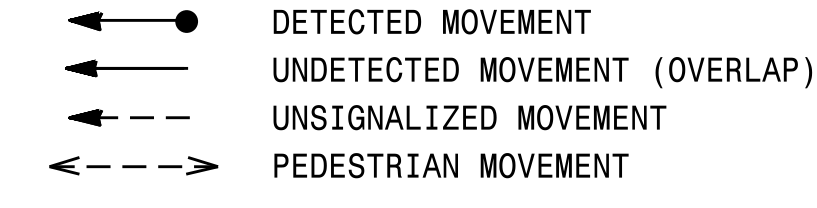


TABLE OF OPERATION

SIGNAL FACE	PHASE										
	01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	RAIL	RAIL	RAIL
11											
21,22	R	R	G	G	R	R	R	R	G	R	R
31	R	R	R	R							
41	R	R	R	R	R	G	G	R	R	R	R
42	R	R	R	R	R	G	G	R	R	R	R
51											
61,62	R	G	R	G	R	R	R	R	R	R	R
71,72	R	R	R	R							
81,82	R	R	R	R	R	G	R	G	R	G	R
Sign A	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	**

\*\* See Note 7

ASC/3 DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	PROGRAMMING			TYPE	SYSTEM LOOP	NEW CARD
						CALLING	EXTEND TIME	DELAY TIME			
1A	6X60	0	2-4-2	-	1	Yes	-	3	S	-	X
2A,2B,2C	6X6	90	4	-	2	Yes	-	-	S	-	X
3A	6X60	+5	2-4-2	-	3	Yes	-	3	S	-	X
4A	6X60	+5	2-4-2	-	4	Yes	-	-	S	-	X
4B	6X60	+5	2-4-2	-	4	Yes	-	-	S	-	X
5A	6X60	0	2-4-2	-	5	Yes	-	3	S	-	X
5B	6X60	+5	2-4-2	-	5	Yes	-	15	S	-	X
6A,6B,6C	6X6	90	4	-	6	Yes	-	-	S	-	X
7A	6X60	+5	2-4-2	-	7	Yes	-	3	S	-	X
7B	6X60	+5	2-4-2	-	7	Yes	-	-	S	-	X
8A	6X60	+5	2-4-2	-	8	Yes	-	-	S	-	X
8B	6X60	+5	2-4-2	-	8	Yes	-	10	S	-	X
8C	6X20	+5	2-4-2	-	8	Yes	-	15	S	-	X
S2A	6X6	+297	4	-	-	No	-	-	N	X	X
S2B	6X6	+297	4	-	-	No	-	-	N	X	X
S2C	6X6	+297	4	-	-	No	-	-	N	X	X
S4A	6X6	+387	4	-	-	No	-	-	N	X	X
S4B	6X6	+387	4	-	-	No	-	-	N	X	X
S6A	6X6	+340	4	-	-	No	-	-	N	X	X
S6B	6X6	+340	4	-	-	No	-	-	N	X	X
S6C	6X6	+340	4	-	-	No	-	-	N	X	X
S8A	6X6	+282	4	-	-	No	-	-	N	X	X
S8B	6X6	+282	4	-	-	No	-	-	N	X	X

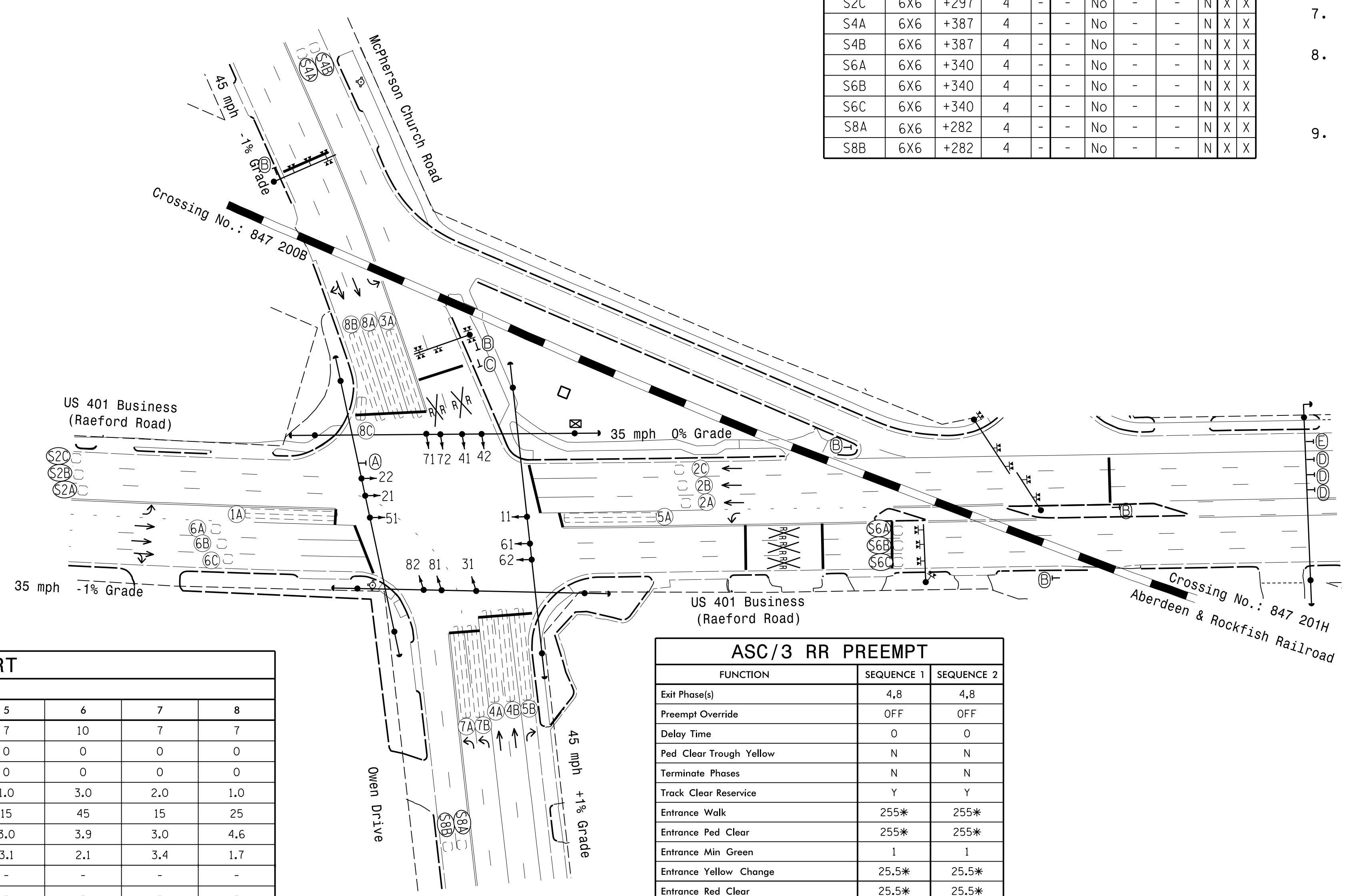
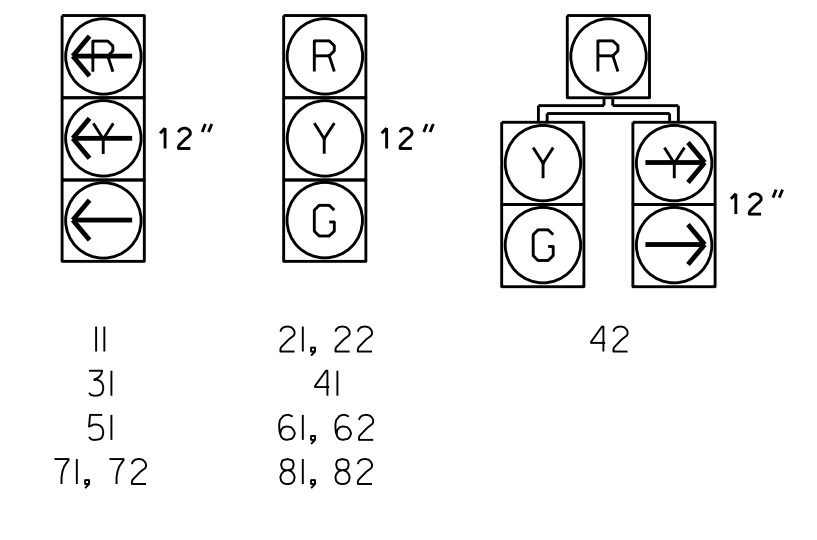
8 Phase Fully Actuated W/ Railroad Preemption Fayetteville Signal System

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. Phase 1 and/or phase 5 may be lagged.
3. Phase 3 and/or phase 7 may be lagged.
4. Set all detector units to presence mode.
5. 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.
6. Ensure flashing operation does not alter operation of blackout sign.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
8. Directional clearance shall be provided during preemption to allow crossing closest to approaching train to clear first. Sequence 1 shall clear crossing 847 201H (Raeford Road) first. Sequence 2 shall clear crossing 847 200B (McPherson Church Road) first.

SIGNAL FACE I.D.

All Heads L.E.D.



FEATURE	ASC/3 TIMING CHART PHASE							
	1	2	3	4	5	6	7	8
Min Green *	7	10	7	7	7	10	7	7
Walk *	0	0	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0	0	0
Veh. Extension *	1.0	3.0	2.0	1.0	1.0	3.0	2.0	1.0
Max 1 *	15	45	15	25	15	45	15	25
Yellow	3.0	3.9	3.0	4.6	3.0	3.9	3.0	4.6
Red Clear	2.8	2.1	3.3	1.7	3.1	2.1	3.4	1.7
Actuations B4 Add *	-	-	-	-	-	-	-	-
Seconds /Actuation *	-	-	-	-	-	-	-	-
Max Initial *	-	-	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-	-	-
Locking Detector	-	X	-	-	-	X	-	-
Recall Position	-	VEH. RECALL	-	-	-	VEH. RECALL	-	-
Dual Entry	-	-	-	-	-	-	-	-
Simultaneous Gap	X	X	X	X	X	X	X	X

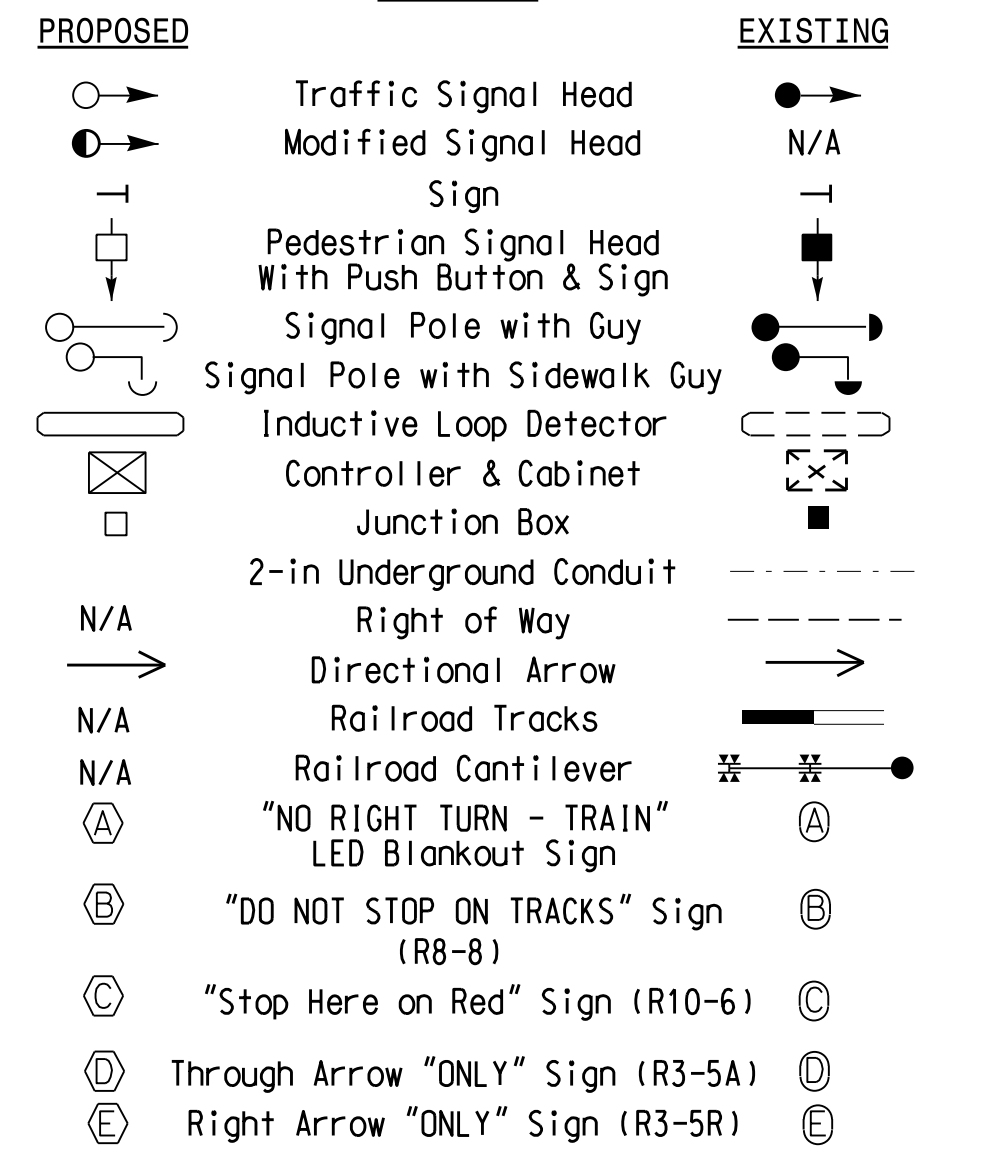
\* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

ASC/3 RR PREEMPT

FUNCTION	SEQUENCE 1	SEQUENCE 2
Exit Phase(s)	4,8	4,8
Preempt Override	OFF	OFF
Delay Time	0	0
Ped Clear Trough Yellow	N	N
Terminate Phases	N	N
Track Clear Reserve	Y	Y
Entrance Walk	255*	255*
Entrance Ped Clear	255*	255*
Entrance Min Green	1	1
Entrance Yellow Change	25.5*	25.5*
Entrance Red Clear	25.5*	25.5*
Track Clear Min Green 1	35	21
Track Clear Yellow Change 1	3.9	4.6
Track Clear Red Clear 1	3.1	3.4
Track Clear Min Green 2	21	35
Track Clear Yellow Change 2	4.6	3.9
Track Clear Red Clear 2	3.4	3.1
Min Dwell Time	7	7
Exit Yellow Change	25.5*	25.5*
Exit Red Clear	25.5*	25.5*

\* Time defaults to time used for phase during normal operation  
\*\* See Note 9

LEGEND



Signal Upgrade

	US 401 Business (Raeford Road) at McPherson Church Road/ Owen Drive			SEAL JASON P. GALLOWAY ENGINEER 029904
	Division 6 Cumberland County Fayetteville	PREPARED BY: DJS/JPG	REVIEWED BY: JPG	
SCALE 1" = 50'	REVISIONS	INIT.	DATE	SIG. INVENTORY NO. 06-0054

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED