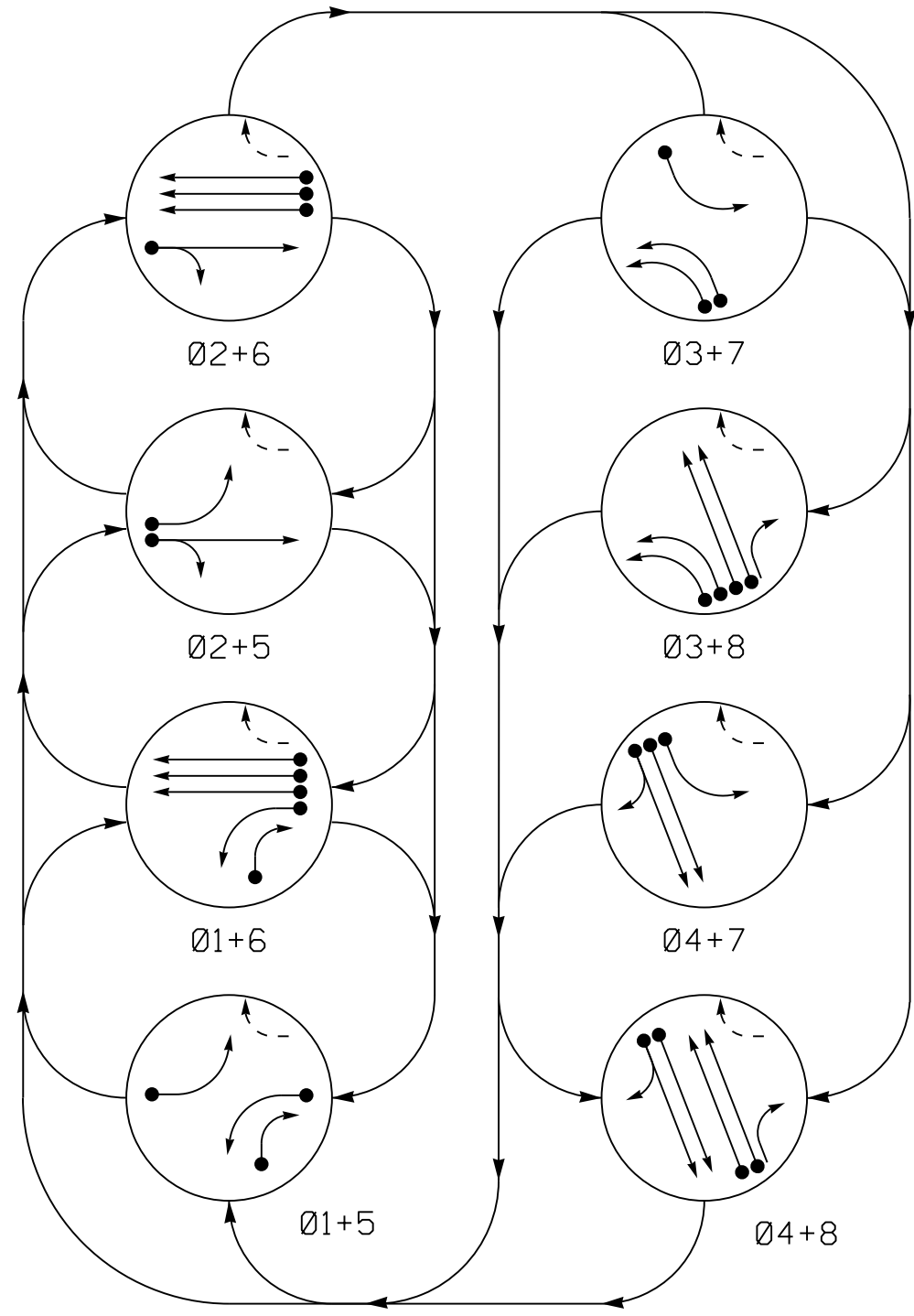
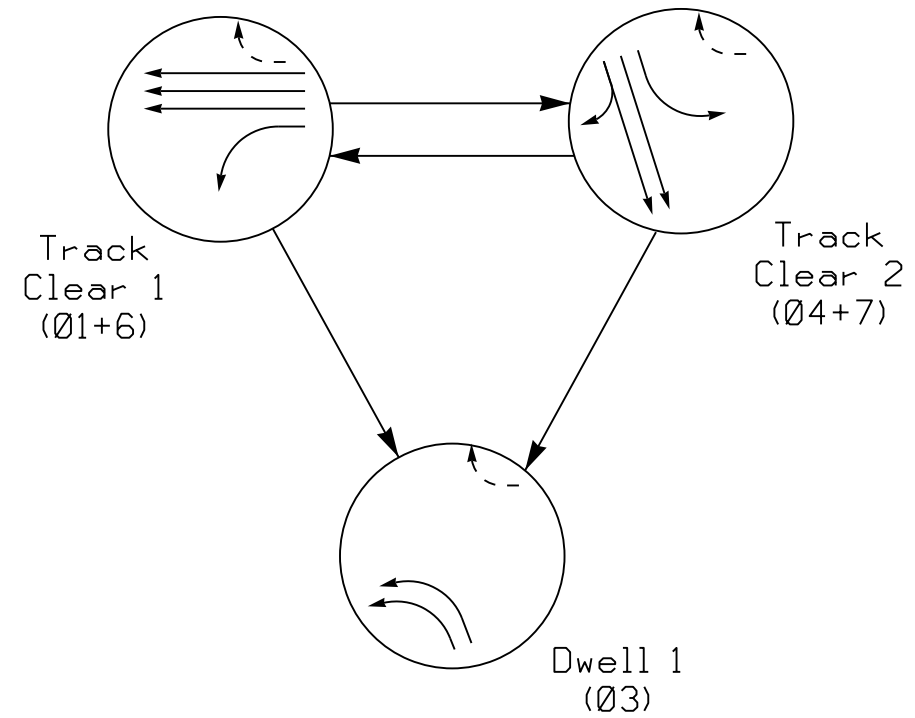


**PHASING DIAGRAM**



**RAIL PREEMPT PHASES**  
(High Priority)



**PHASING DIAGRAM DETECTION LEGEND**

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

**TABLE OF OPERATION**

SIGNAL FACE	PHASE											
	01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	1	2	3	4
11	←	←	←	←	←	←	←	←	←	←	←	←
21,22	R	R	G	G	R	R	R	R	R	R	R	Y
31,32	←	←	←	←	←	←	←	←	←	←	←	←
41,42	R	R	R	R	R	R	G	G	R	G	R	R
51	←	←	←	←	←	←	←	←	←	←	←	←
61,62	R	G	R	G	R	R	R	R	G	R	R	Y
71	←	←	←	←	←	←	←	←	←	←	←	←
81	R	R	R	R	R	G	R	G	R	R	R	R
82	R	R	R	R	R	G	R	G	R	R	R	R
Sign (A)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	*

\* See Note 8

**ASC/3 DETECTOR INSTALLATION CHART**

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	LOOP	NEW CARD
1A	6X40	0	*	-	1	Yes	-	3	-	S	-	X
1B	6X40	0	*	-	1	Yes	-	15	-	S	-	X
2A	6X6	70	*	-	2	Yes	-	-	-	S	-	X
3A	6X40	0	*	-	3	Yes	-	3	-	S	-	X
3B	6X40	0	*	-	3	Yes	-	-	-	S	-	X
4A	6X40	0	*	-	4	Yes	-	-	-	S	-	X
4B	6X40	0	*	-	4	Yes	-	10	-	S	-	X
4C	6X15	0	*	-	4	Yes	-	15	-	S	-	X
5A	6X40	0	*	-	5	Yes	-	3	-	S	-	X
6A	6X6	70	*	-	6	Yes	-	-	-	S	-	X
6B	6X6	70	*	-	6	Yes	-	-	-	S	-	X
6C	6X6	70	*	-	6	Yes	-	-	-	S	-	X
7A	6X40	0	*	-	7	Yes	-	3	-	S	-	X
8A	6X40	0	*	-	8	Yes	-	-	-	S	-	X
8B	6X40	0	*	-	8	Yes	-	-	-	S	-	X

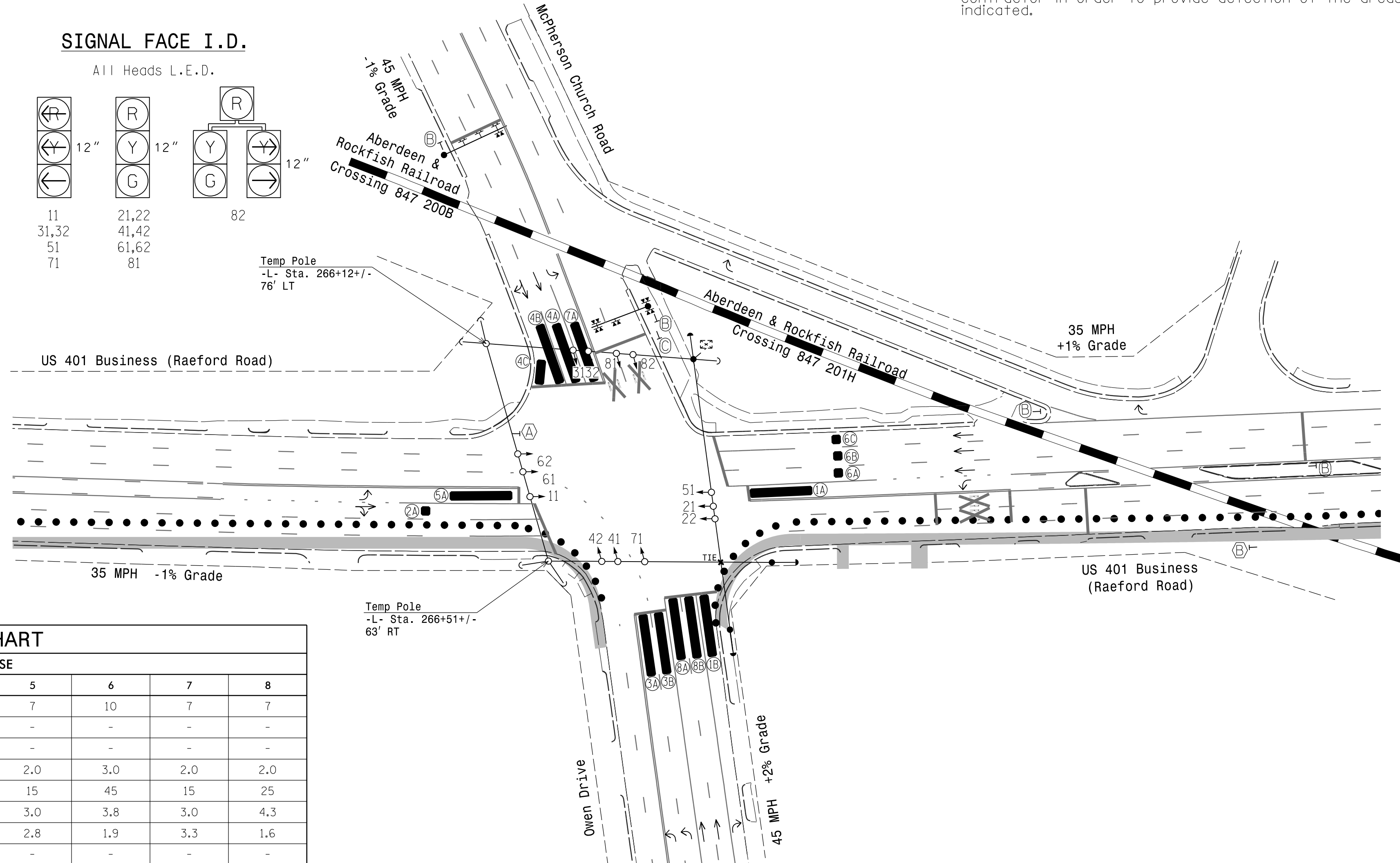
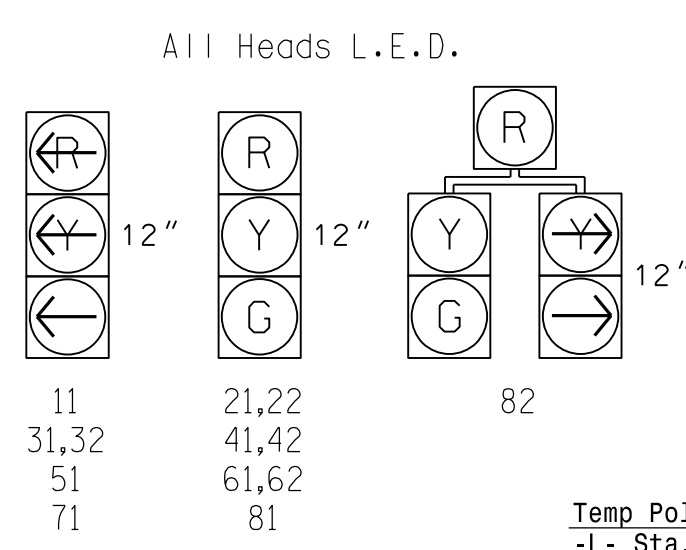
\* Video Detection Area. Camera locations should be confirmed in the filed by the contractor in order to provide detection of the areas indicated.

**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	3.8	4.6
Track Clear Red Clear 1	2.1	1.7
Track Clear Min Green 2	21	35
Track Clear Yellow Change 2	4.6	3.8
Track Clear Red Clear 2	1.7	2.1
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.

**SIGNAL FACE I.D.**



**LEGEND**

- | PROPOSED   | EXISTING                    |
|--|-----------------------------|
| ○ → Traffic Signal Head                            | ● → Modified Signal Head    |
| ○ → Pedestrian Signal Head With Push Button & Sign | ○ → Signal Pole with Guy    |
| ○ → Signal Pole with Sidewalk Guy                  | ○ → Inductive Loop Detector |
| □ → Controller & Cabinet                           | □ → Junction Box            |
| --- 2-in Underground Conduit                       | --- Right of Way            |
| → Directional Arrow                                | → Railroad Cantilever       |
| --- Railroad Tracks                                | --- Railroad Tracks         |
| ■ Video Detection Area                             | N/A                         |
| ■ Construction Zone                                | N/A                         |
| ● Construction Zone Drums                          | N/A                         |
| (A) "NO RIGHT TURN - TRAIN" L.E.D. Blankout Sign   | (A)                         |
| (B) "DO NOT STOP ON TRACKS" Sign (R8-8)            | (B)                         |
| (C) "Stop Here on Red" Sign (R10-6)                | (C)                         |

**ASC/3 TIMING CHART**

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green *	7	10	7	7	7	10	7	7
Walk *	-	-	-	-	-	-	-	-
Ped Clear	-	-	-	-	-	-	-	-
Veh. Extension *	2.0	3.0	2.0	2.0	2.0	3.0	2.0	2.0
Max 1 *	15	45	15	25	15	45	15	25
Yellow	3.0	3.9	3.0	4.6	3.0	3.8	3.0	4.3
Red Clear	2.9	2.1	3.3	1.4	2.8	1.9	3.3	1.6
Red Revert	-	-	-	-	-	-	-	-
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.

This signal is designed for simultaneous preemption

Signal Upgrade  
Temporary Design 1 - TMP Phase I

<p>Stantec Consulting Services Inc. 801 Jones Franklin Road-Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p>		<p>US 401 Business (Raeford Road) at McPherson Church Road/ Owen Drive</p>	
		<p>Division 6 Cumberland County Fayetteville</p> <p>PLAN DATE: March 2018 REVIEWED BY: E D Harris</p> <p>PREPARED BY: G B Spell REVIEWED BY: B L Watson</p>	<p>3/29/2018</p> <p>DATE</p>

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED