

6 Phase Fully Actuated Asheville Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- The order of phase 3 and phase 4 may be reversed.
- Phase 1 and/or phase 5 may be lagged.
- Reposition existing signal heads numbered 22 & 62.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Remove existing "Left Turn Yield on Green" sign-(R10-12) on Metal Pole 19 & 22.
- 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.
- Pavement markings are existing.
- The Division Traffic Engineer will determine the Delay before Preempt and Preempt Dwell Min Green time for the emergency vehicle preemption timing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

LEGEND

PROPOSED	EXISTING
	N/A
N/A	

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING				STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
					PHASE	CALLING	EXTENSION	FULL TIME DELAY				
1A	6x40	0	2-4-2	-	1	Y	Y	-	-	15	-	Y
2A	6x6	300	5	-	2	Y	Y	-	-	-	-	Y
2B	6x6	300	5	-	2	Y	Y	-	-	-	-	Y
3A	6x40	0	2-4-2	-	3	Y	Y	-	-	-	-	Y
3B	6x40	0	2-4-2	-	3	Y	Y	-	-	20	-	Y
4A	6x40	0	2-4-2	-	4	Y	Y	-	-	-	-	Y
4B	6x40	0	2-4-2	-	4	Y	Y	-	-	-	-	Y
5A	6x40	0	2-4-2	-	5	Y	Y	-	-	15	-	Y
6A	6x6	230	5	-	2	Y	Y	Y	-	3	-	Y
6B	6x6	230	5	-	6	Y	Y	-	-	-	-	Y
S1	6x6	+165	4	-	-	-	-	-	-	-	Y	Y
S2	6x6	+165	4	-	-	-	-	-	-	-	Y	Y

SIGNAL FACE I.D.

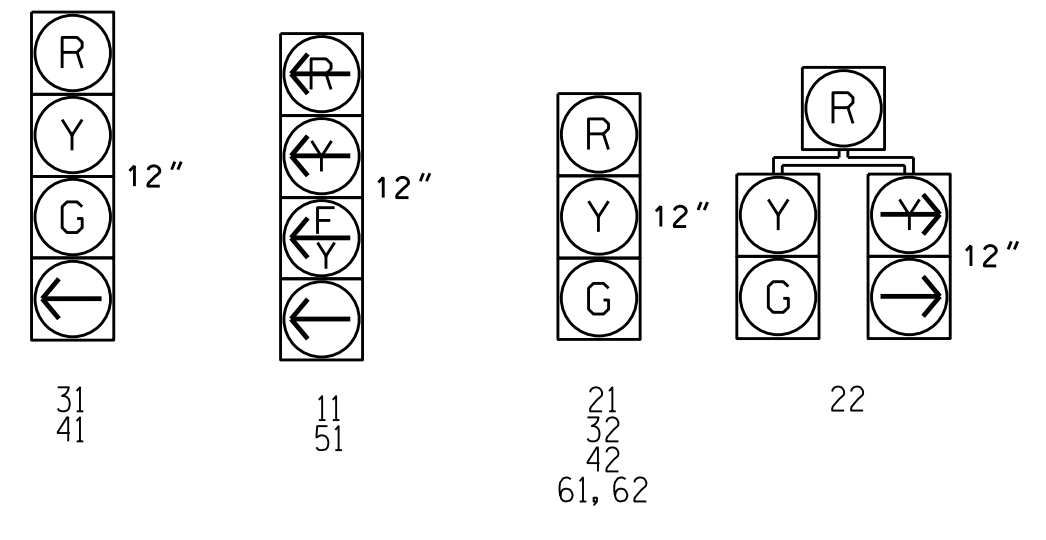
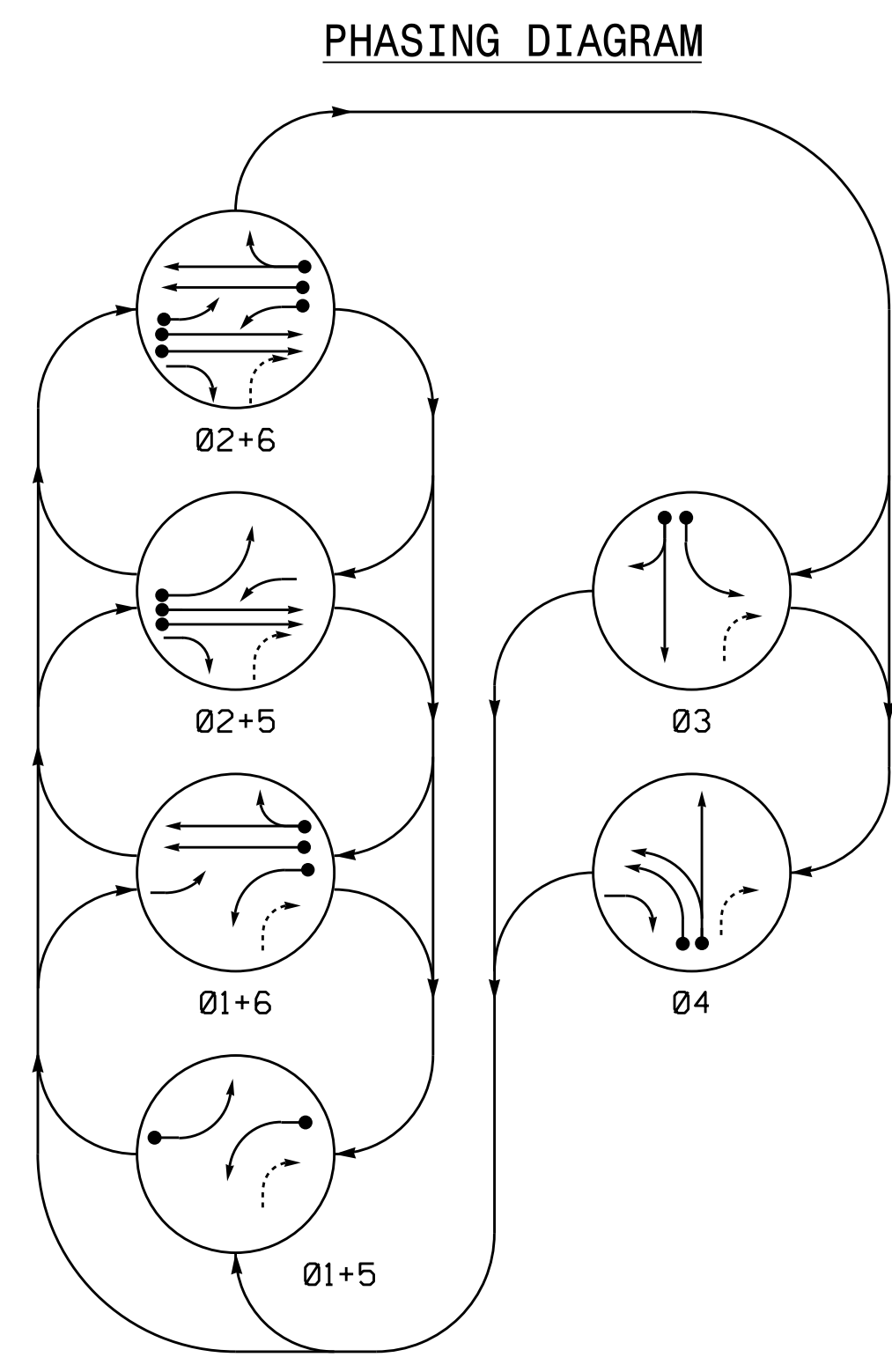
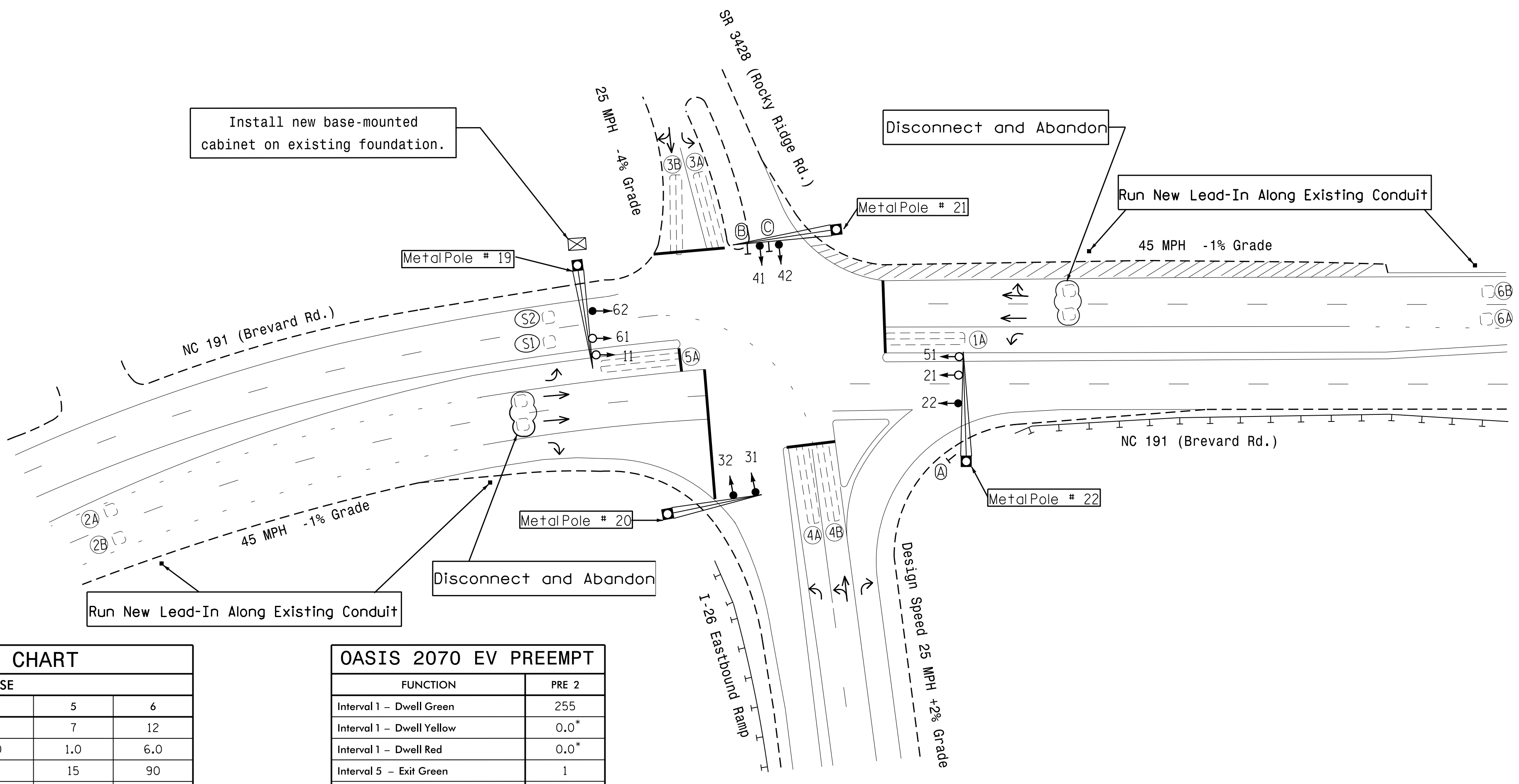
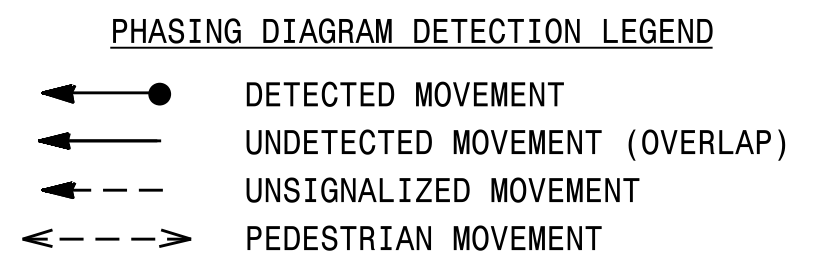
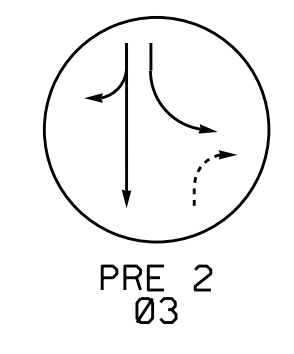


TABLE OF OPERATION

SIGNAL FACE	PHASE											
	Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø3	Ø4	PRE 2	FL	IS	LS	Y	
11	-	-	-	-	-	-	-	-	-	-	-	-
21	R	R	G	G	R	R	R	R	Y			
22	R	R	G	G	R	R	R	R	Y			
31	R	R	R	R	G	R	G	R				
32	R	R	R	R	R	G	R	G	R			
41	R	R	R	R	R	R	G	R	R			
42	R	R	R	R	R	R	G	R	R			
51	-	-	-	-	-	-	-	-	-	-	-	-
61, 62	R	G	R	G	R	R	R	Y				



EV PREEMPT PHASES (Medium Priority)



OASIS 2070 TIMING CHART

FEATURE	PHASE					
	1	2	3	4	5	6
Min Green 1 *	7	12	7	7	7	12
Extension 1 *	1.0	6.0	1.0	1.0	1.0	6.0
Max Green 1 *	15	90	35	35	15	90
Yellow Clearance	3.0	4.6	4.1	3.1	3.0	4.6
Red Clearance	2.4	1.6	1.8	2.7	2.3	1.6
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-
Seconds Per Actuation *	-	1.5	-	-	-	1.5
Max Variable Initial *	-	34	-	-	-	34
Time Before Reduction *	-	15	-	-	-	15
Time To Reduce *	-	30	-	-	-	30
Minimum Gap	-	3.0	-	-	-	3.0
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW
Dual Entry	-	-	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON	ON	ON

OASIS 2070 EV PREEMPT

FUNCTION	PRE 2
Interval 1 - Dwell Green	255
Interval 1 - Dwell Yellow	0.0*
Interval 1 - Dwell Red	0.0*
Interval 5 - Exit Green	1
Interval 5 - Yellow	0.0*
Interval 5 - Red	0.0*
Exit Phase	4
Priority	MED
Delay Time	**
Min Green Before Pre	1
Ped Clear Before Pre	-
Yellow Clear Before Pre	0.0*
Red Clear Before Pre	0.0*
Dwell Min Time	**
Enable Backup Protection	N
Ped Clear Through Yellow	N
Omit Overlaps	-
Preempt Extend**	-

* 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.

** Time defaults to time used for phase during normal operation. See note 11

Signal Upgrade

Prepared in the Offices of:

NC 191 (Brevard Road) at I-26 Eastbound Ramp/ SR 3428 (Rocky Ridge Road)
 Division 13 Buncombe County Asheville
 PLAN DATE: JULY 2016 REVIEWED BY: T.J. Williams
 PREPARED BY: C. Pierce REVIEWED BY:
 REVISIONS: _____ INIT. DATE: _____
 750 N. Greenfield Pkwy, Garner, NC 27529
 SCALE: 0 40
 1"=40'
 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
 SEAL
 TIMOTHY J. WILLIAMS
 9/13/2016
 SIG. INVENTORY NO. 13-0514

13-0514-2016-09-18
 S:\IT\SIG\13-0514\SIG\13-0514-2016-09-18\Sig.118.0.dgn
 Design: J. Williams, Signal Design Section
 System: Signal Design Section
 Designer: J. Williams, Signal Design Section
 Date: 9/13/2016
 Time: 10:10:10 AM
 User: jwilliams