

NOTES:

1. Unless otherwise stated:
Resistors are 250 mW, 1% tolerance.
Capacitors are 50V, 10% tolerance.

2. Port and Net Name scopes for this project are:
Port NOT Global (connected via Sheet Symbols)
Net Name Local (connected on same page only)

3. Do not install (DNI).

4. Tailored value. Nominal value shown.

REVISION BLOCK			
REV	DESCRIPTION	DATE	INCORP. BY

A

A

B

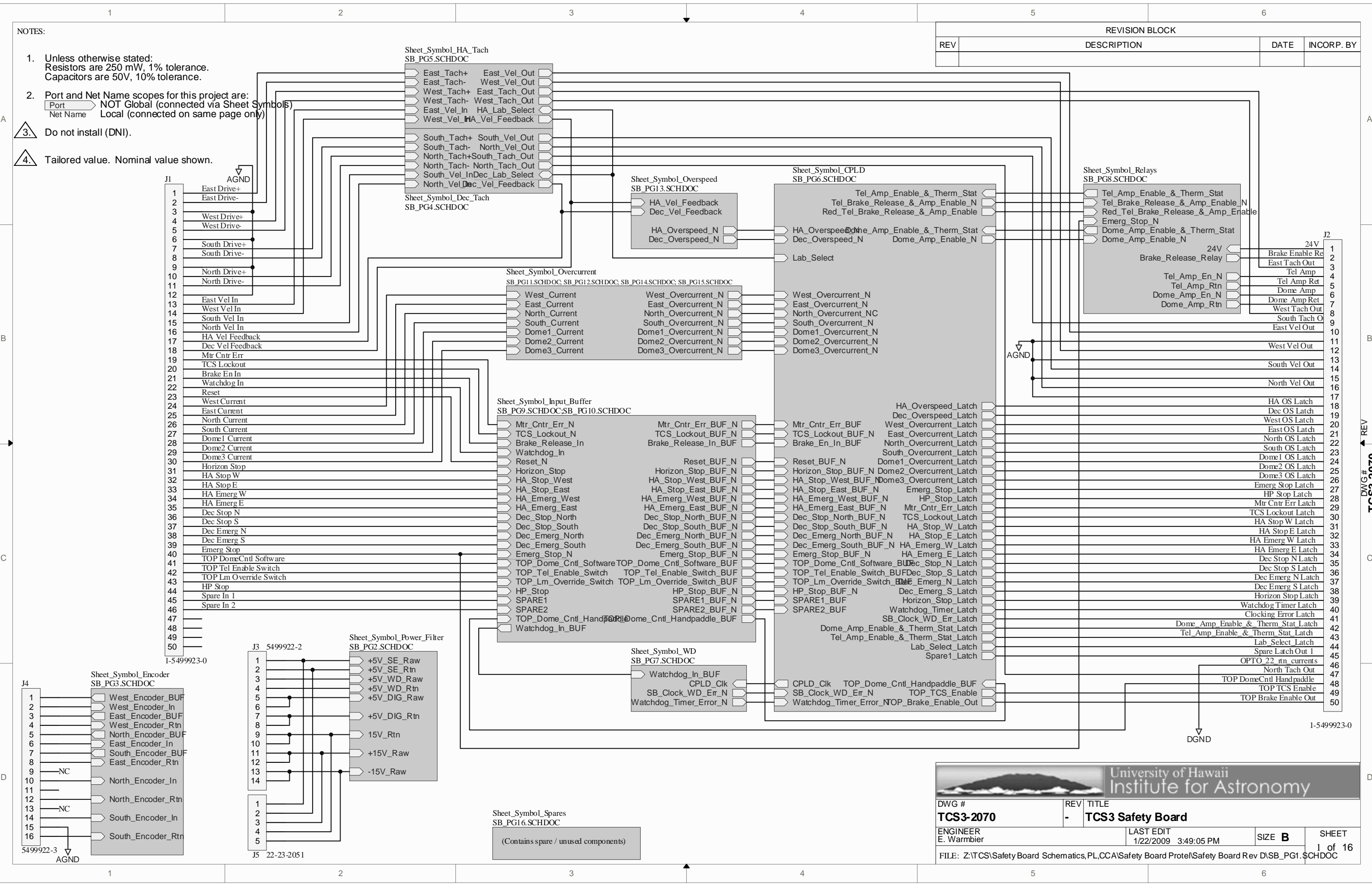
B

C


C

D

D

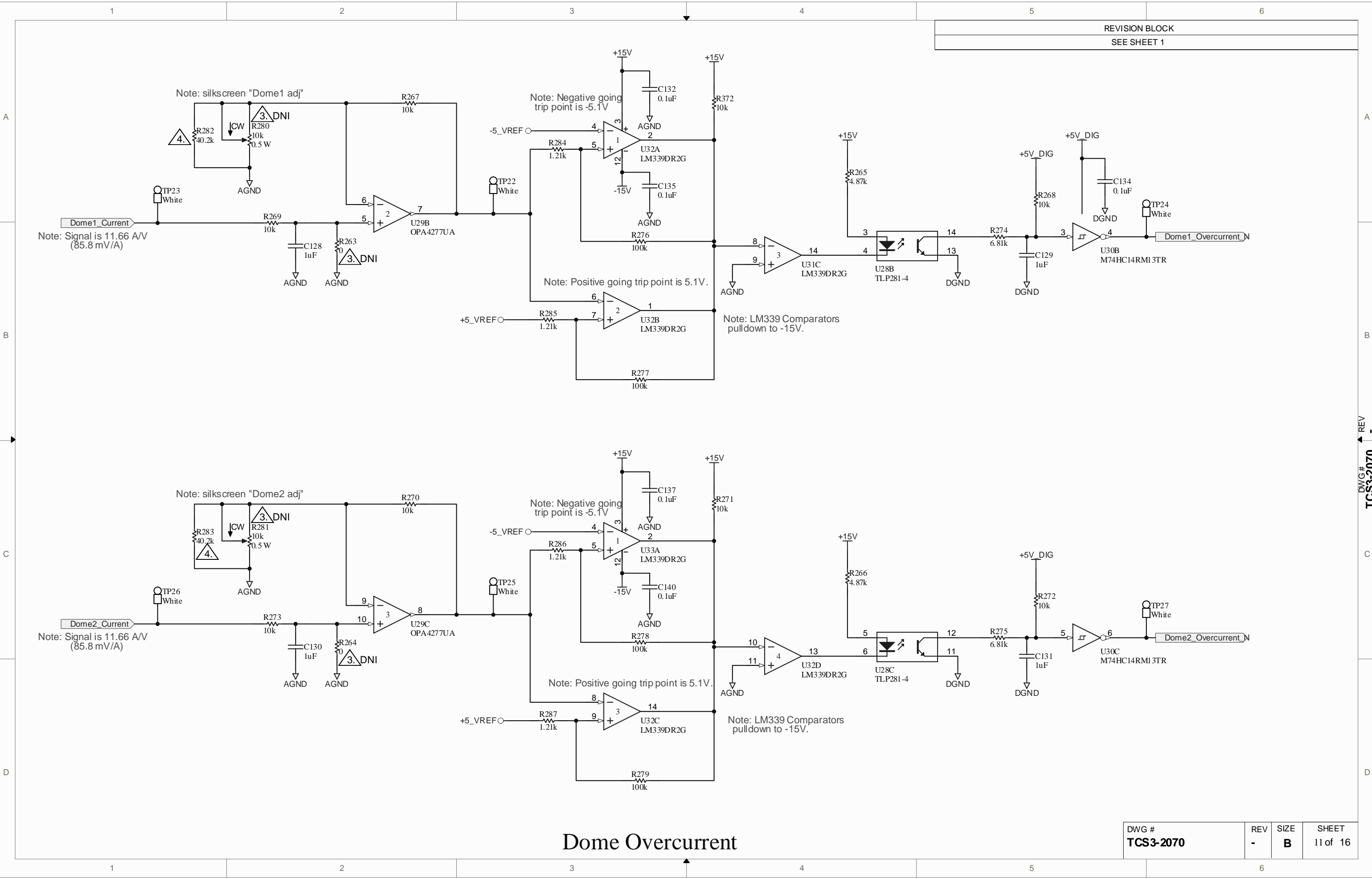


DWG# TCS3-2070
REV -



University of Hawaii
Institute for Astronomy

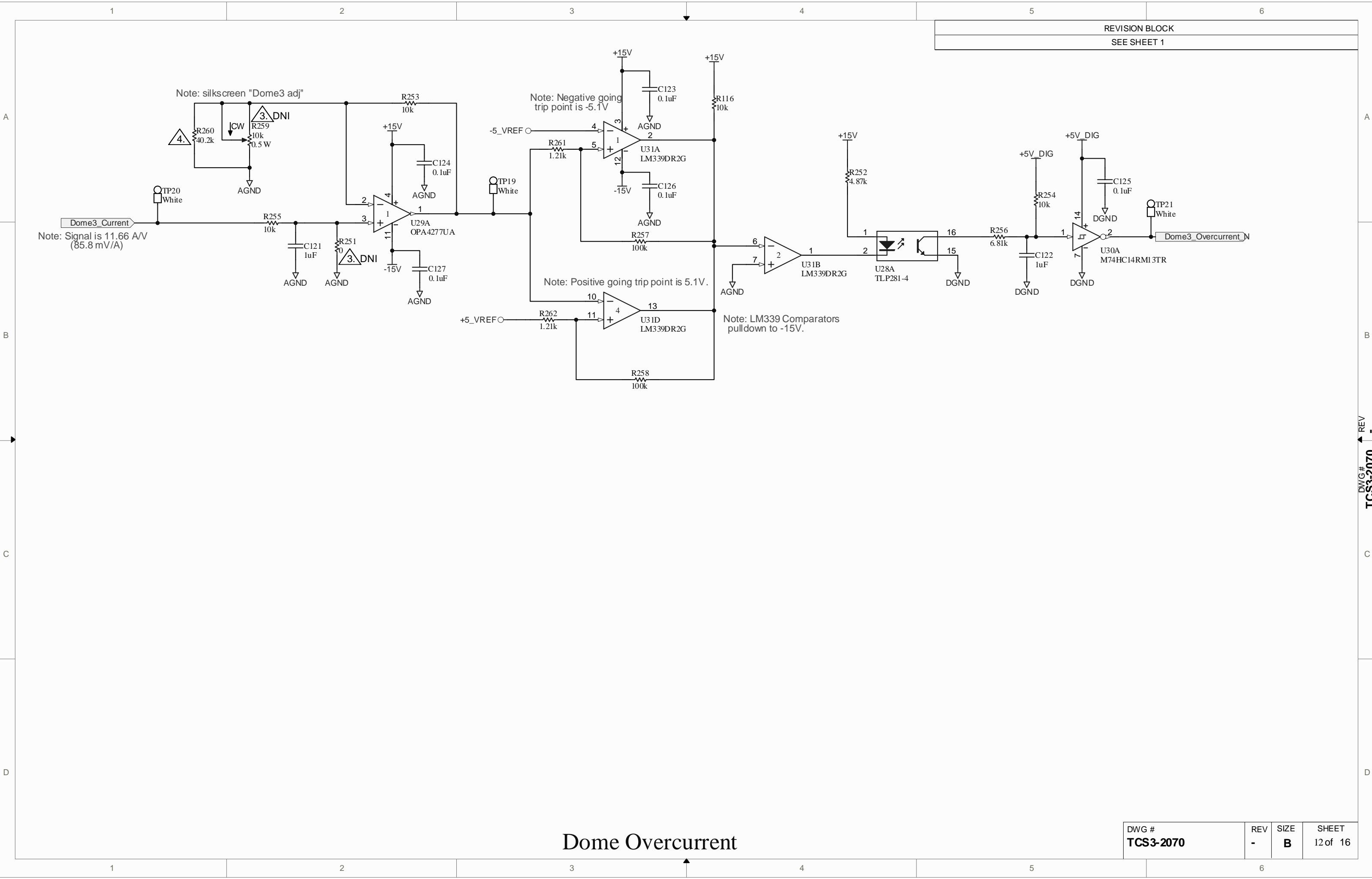
DWG # TCS3-2070	REV -	TITLE TCS3 Safety Board
ENGINEER E. Warmbir	LAST EDIT 1/22/2009 3:49:05 PM	SIZE B
FILE: Z:\TCS\Safety Board Schematics,PL,CCA\Safety Board ProteI\Safety Board Rev D\SB_PG1.SCHDOC		SHEET 1 of 16



REVISION BLOCK
SEE SHEET 1

Dome Overcurrent

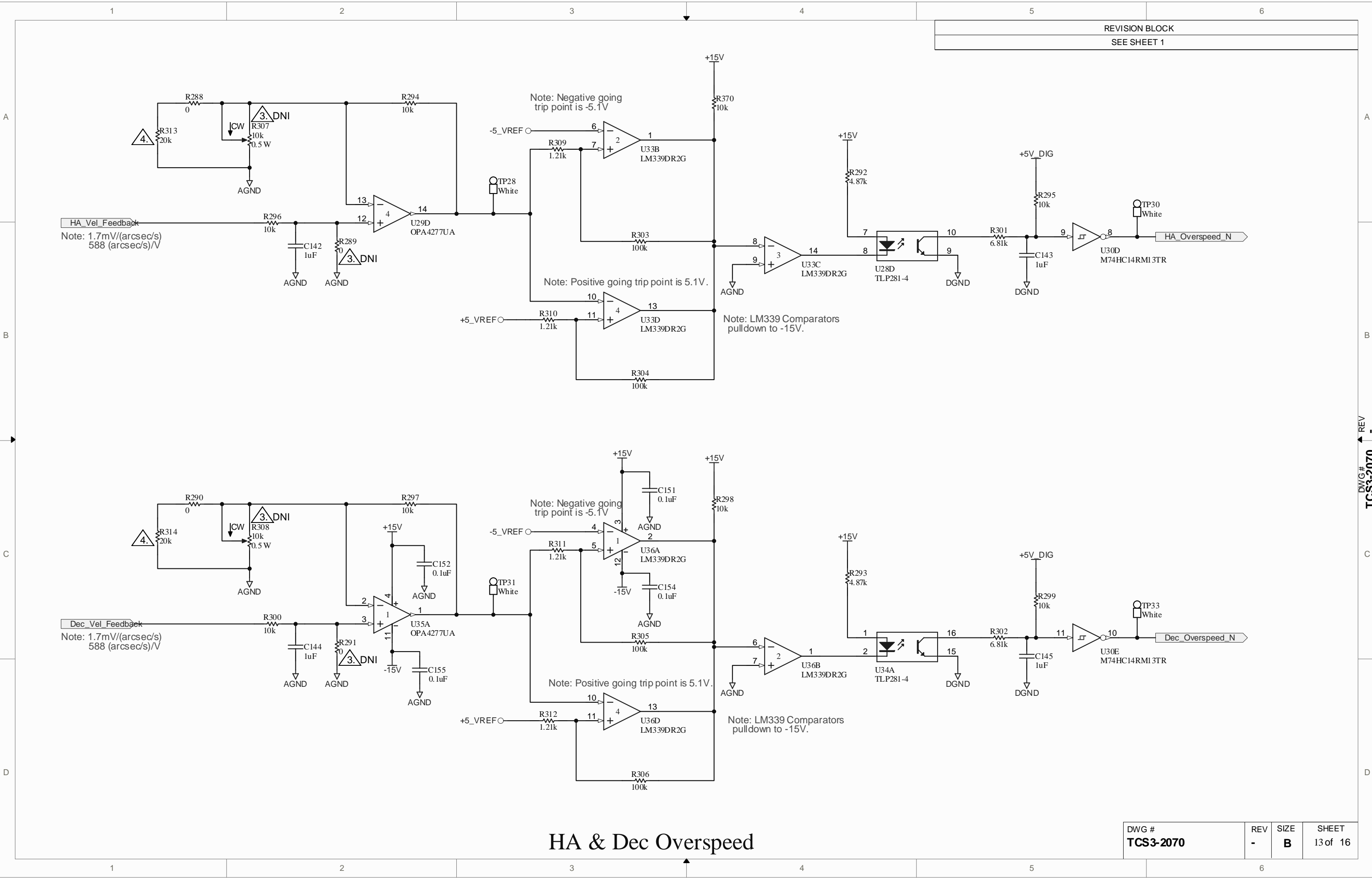
DWG #	REV	SIZE	SHEET
TCS3-2070	-	B	11 of 16



REVISION BLOCK	
SEE SHEET 1	

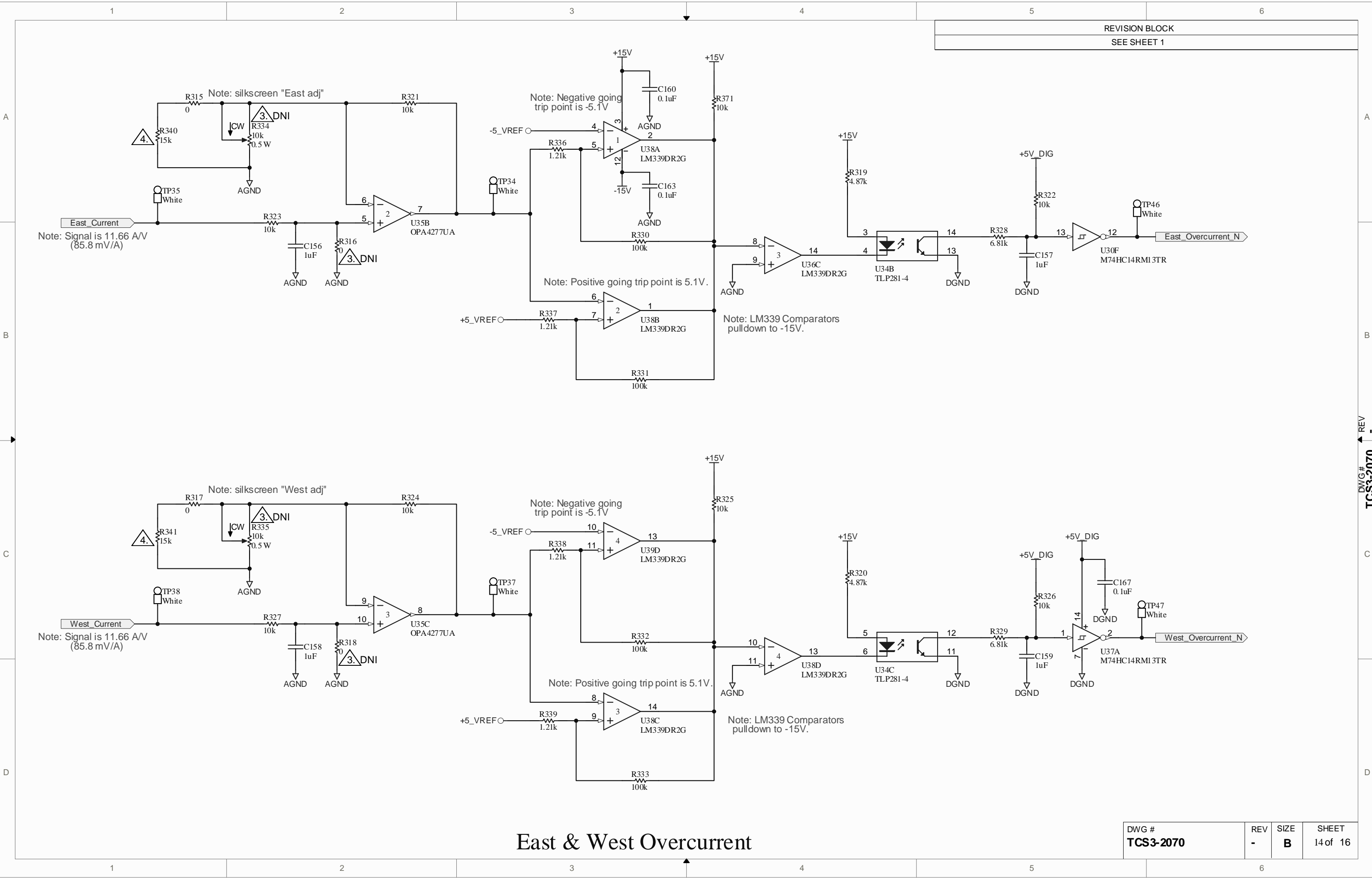
Dome Overcurrent

DWG #	REV	SIZE	SHEET
TCS3-2070	-	B	12 of 16



HA & Dec Overspeed

DWG #	REV	SIZE	SHEET
TCS3-2070	-	B	13 of 16

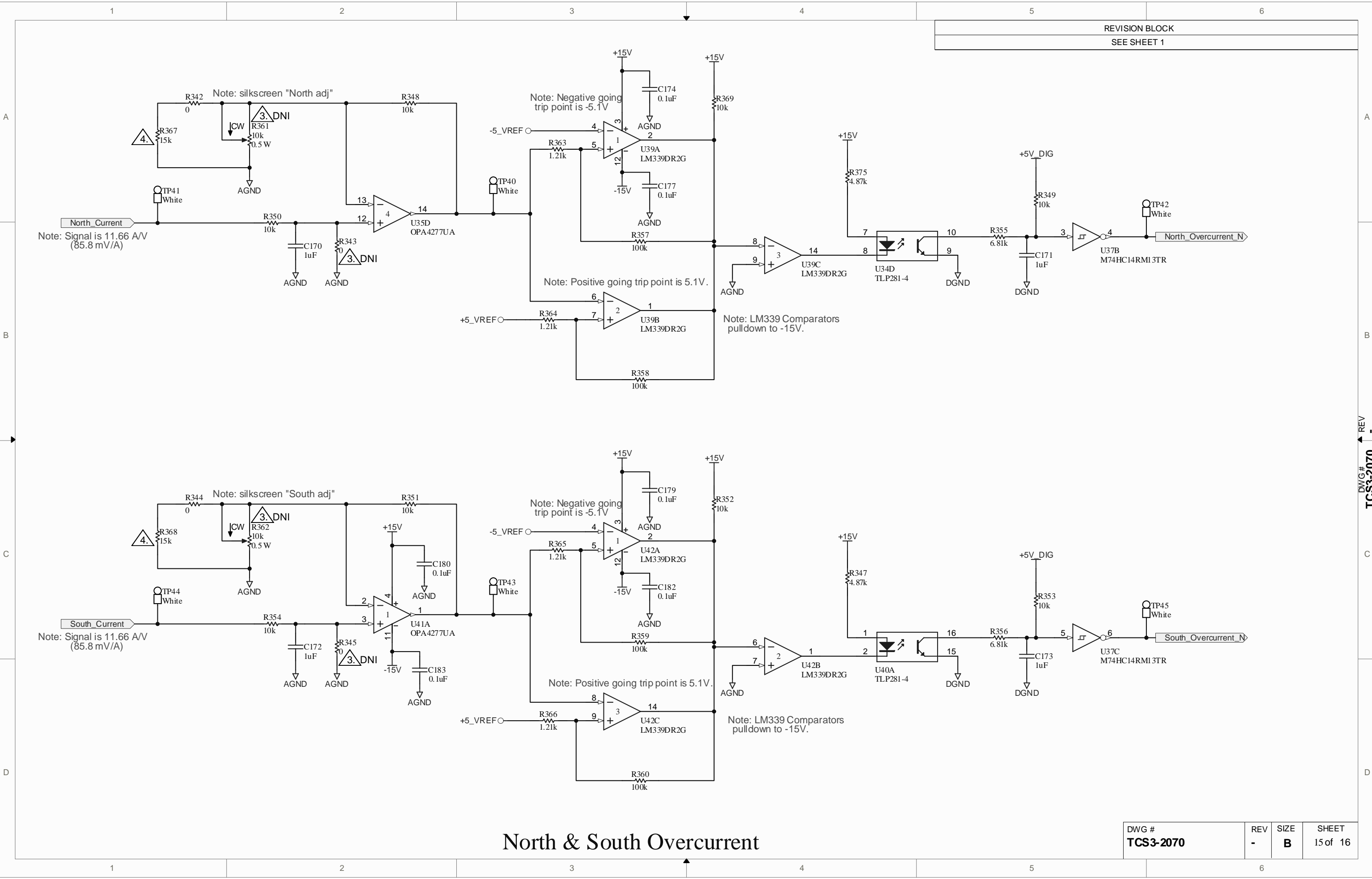


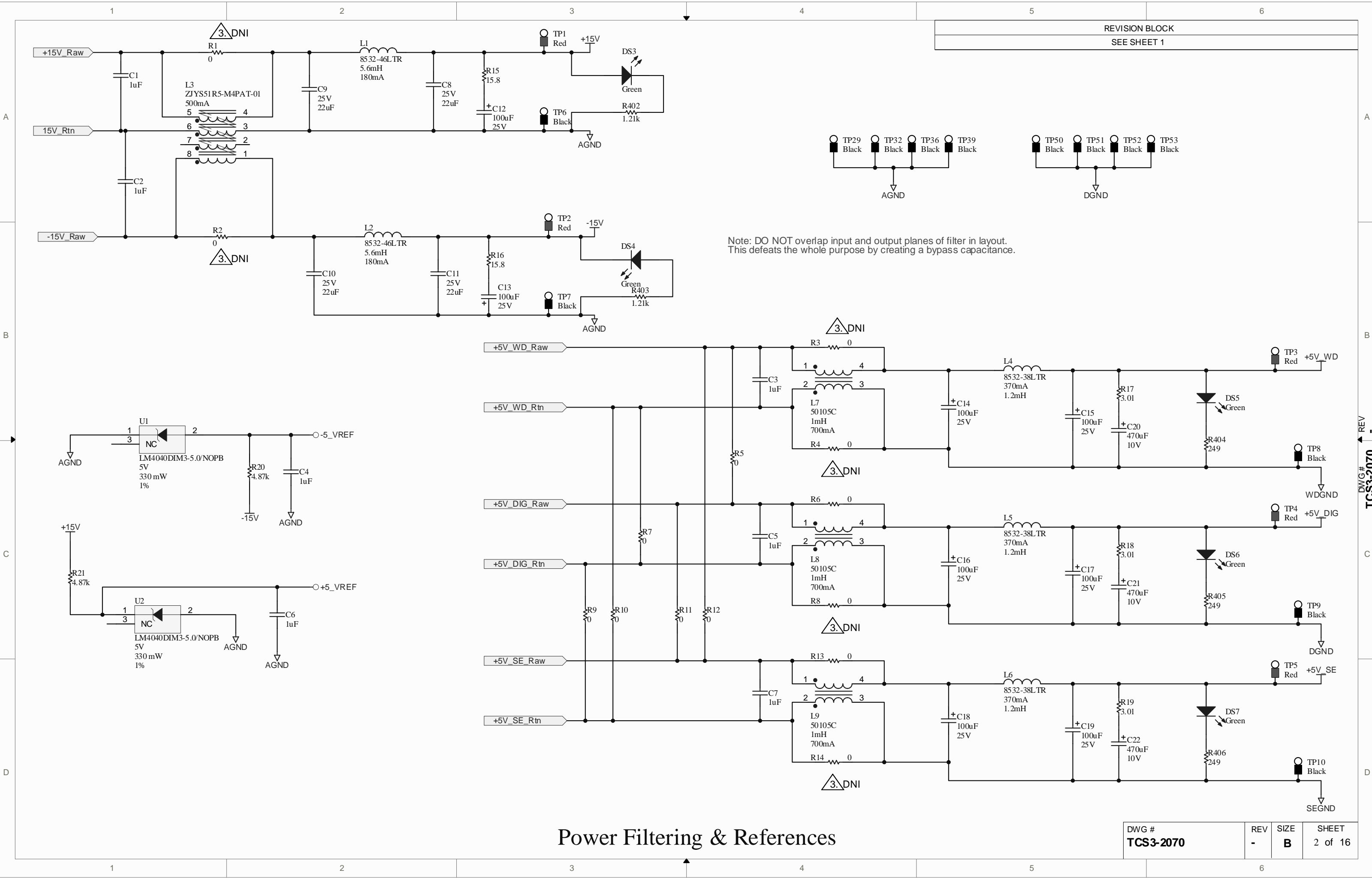
East & West Overcurrent

DWG #	REV	SIZE	SHEET
TCS3-2070	-	B	14 of 16

DWG# TCS3-2070

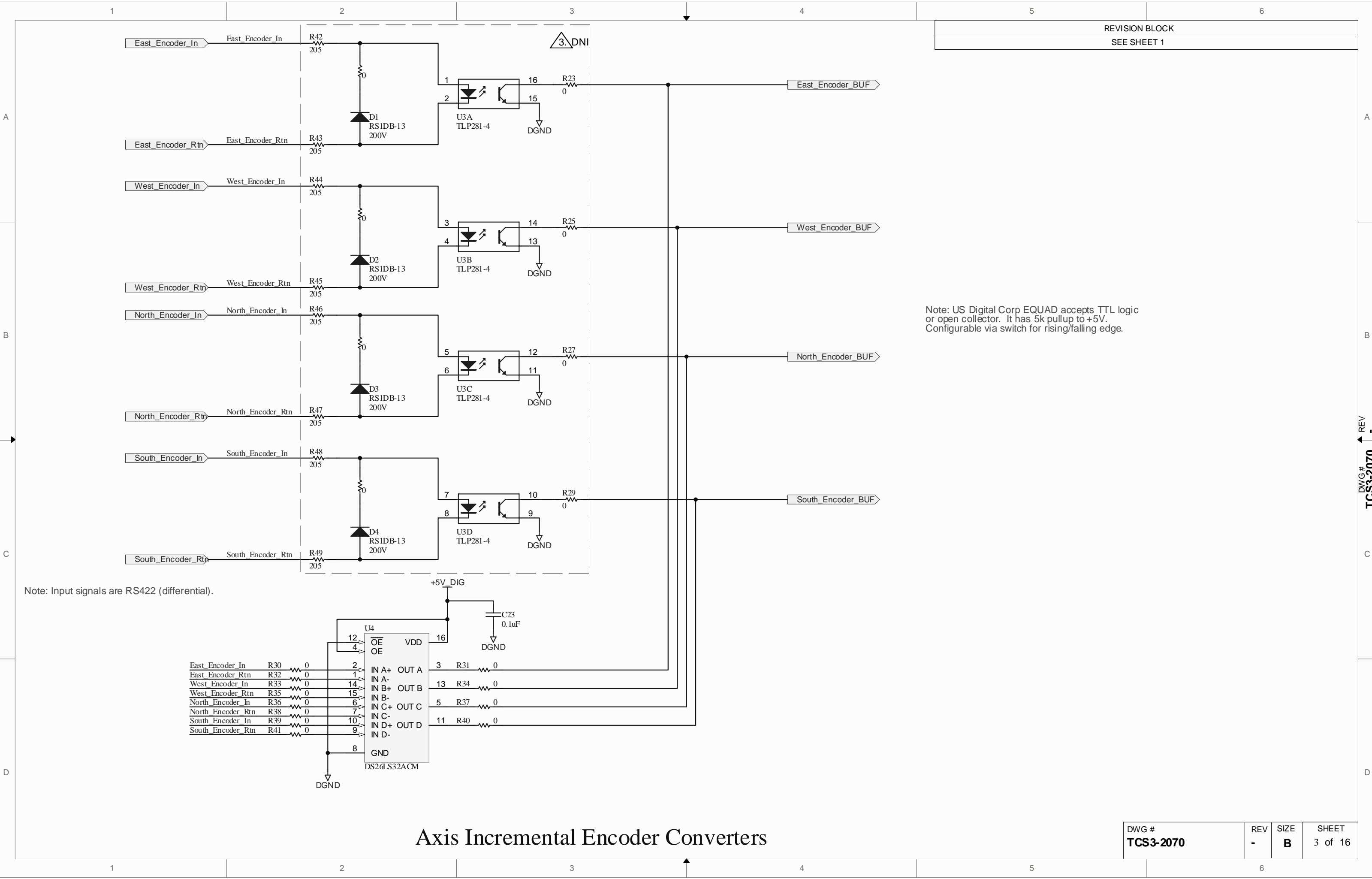
REV -





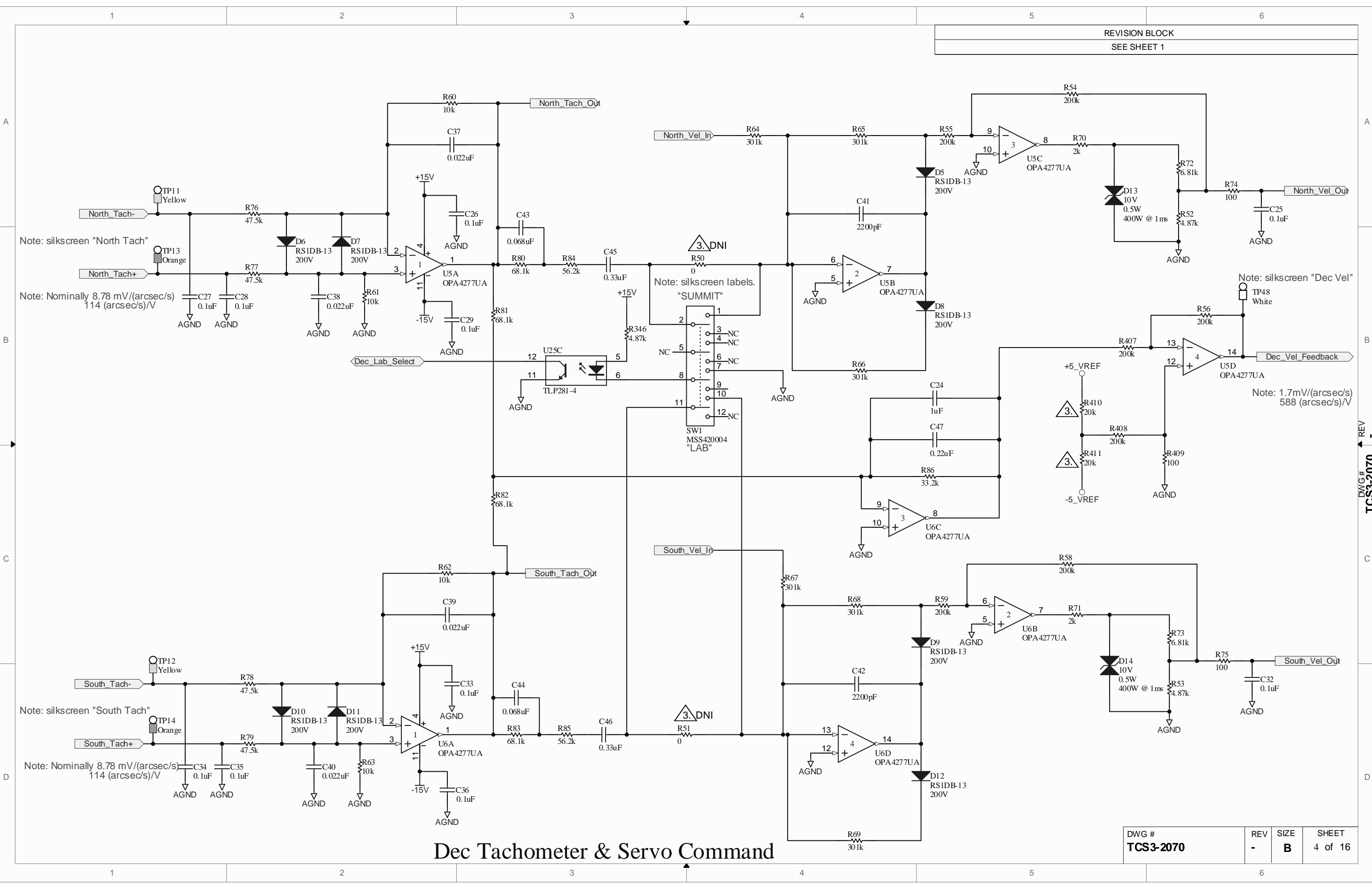
Power Filtering & References

DWG #	REV	SIZE	SHEET
TCS3-2070	-	B	2 of 16



Axis Incremental Encoder Converters

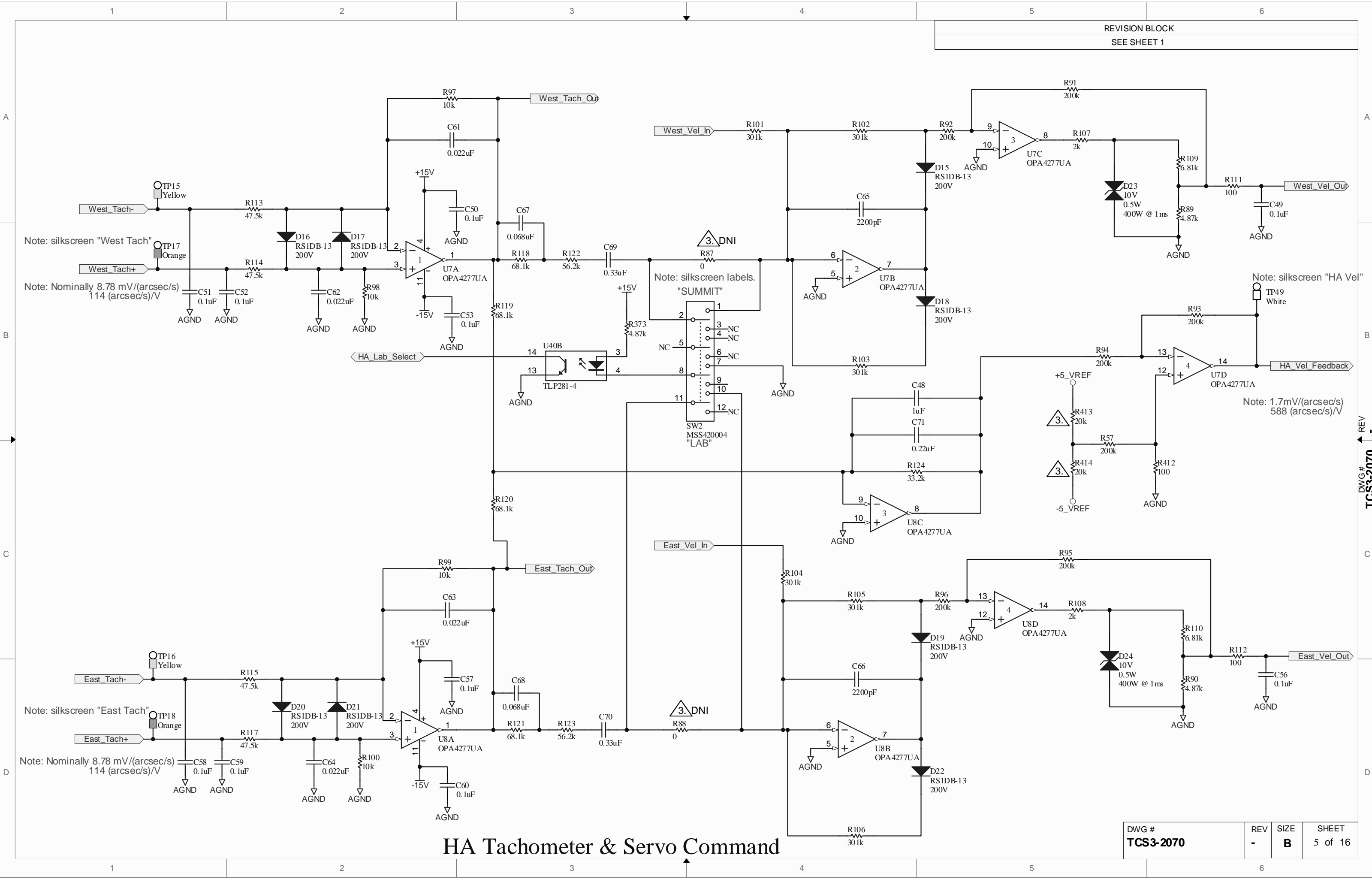
DWG #	REV	SIZE	SHEET
TCS3-2070	-	B	3 of 16



REVISION BLOCK
SEE SHEET 1

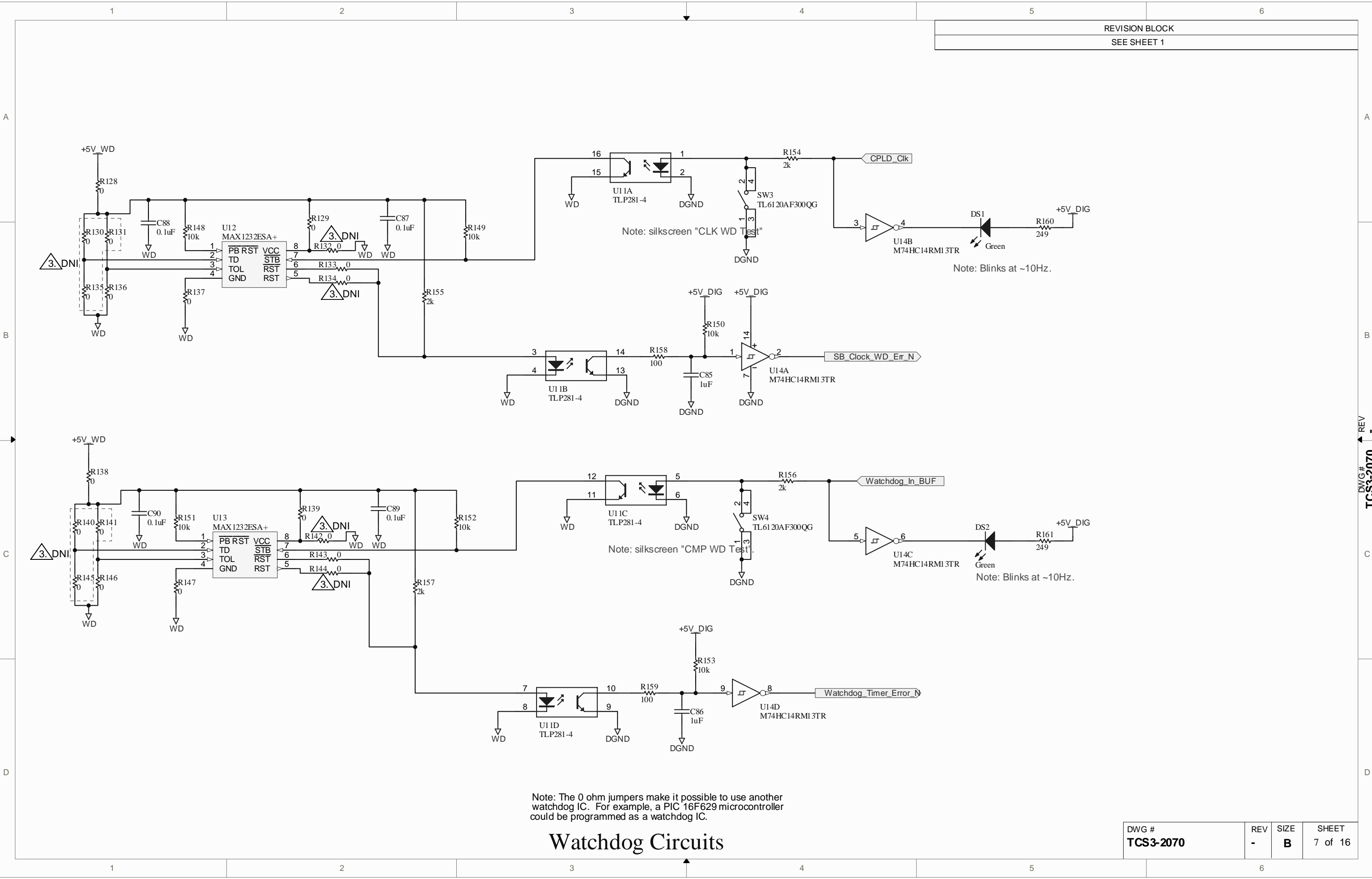
DWG #	REV	SIZE	SHEET
TCS3-2070	-	B	4 of 16

Dec Tachometer & Servo Command



HA Tachometer & Servo Command

DWG #	REV	SIZE	SHEET
TCS3-2070	-	B	5 of 16

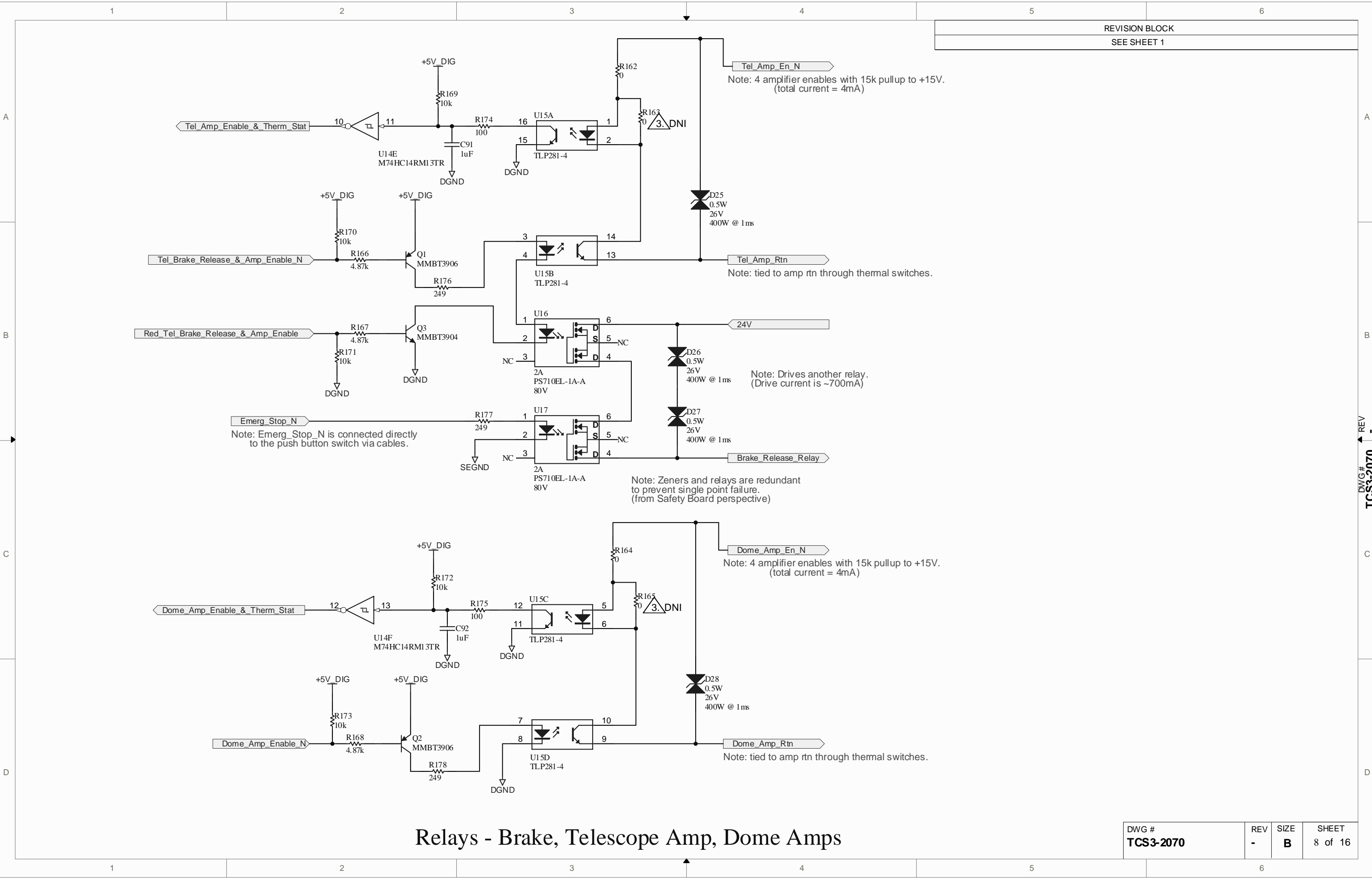


Note: The 0 ohm jumpers make it possible to use another watchdog IC. For example, a PIC 16F629 microcontroller could be programmed as a watchdog IC.

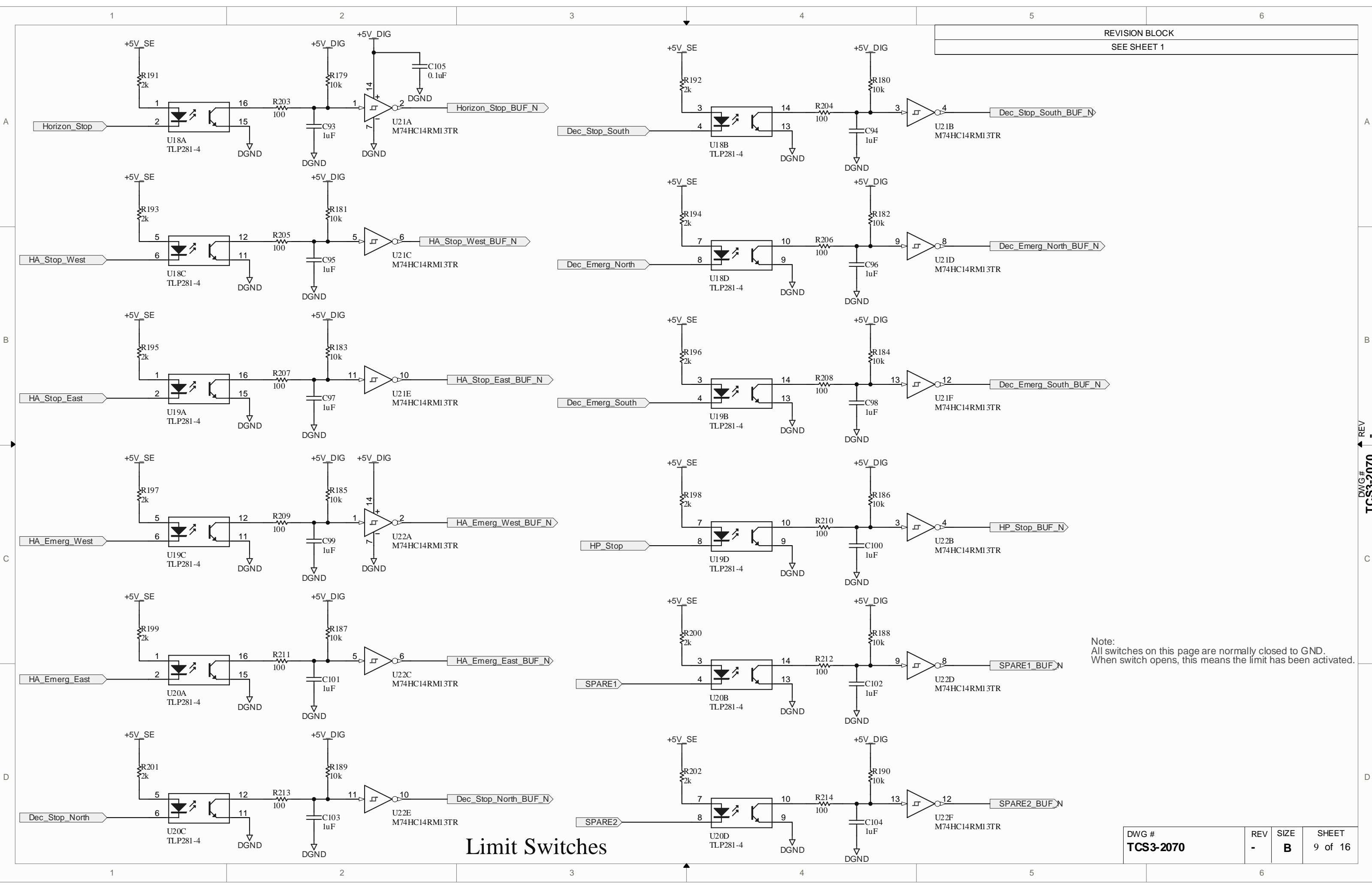
Watchdog Circuits

REVISION BLOCK
SEE SHEET 1

DWG # TCS3-2070	REV -	SIZE B	SHEET 7 of 16
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Relays - Brake, Telescope Amp, Dome Amps



Limit Switches

DWG #	REV	SIZE	SHEET
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