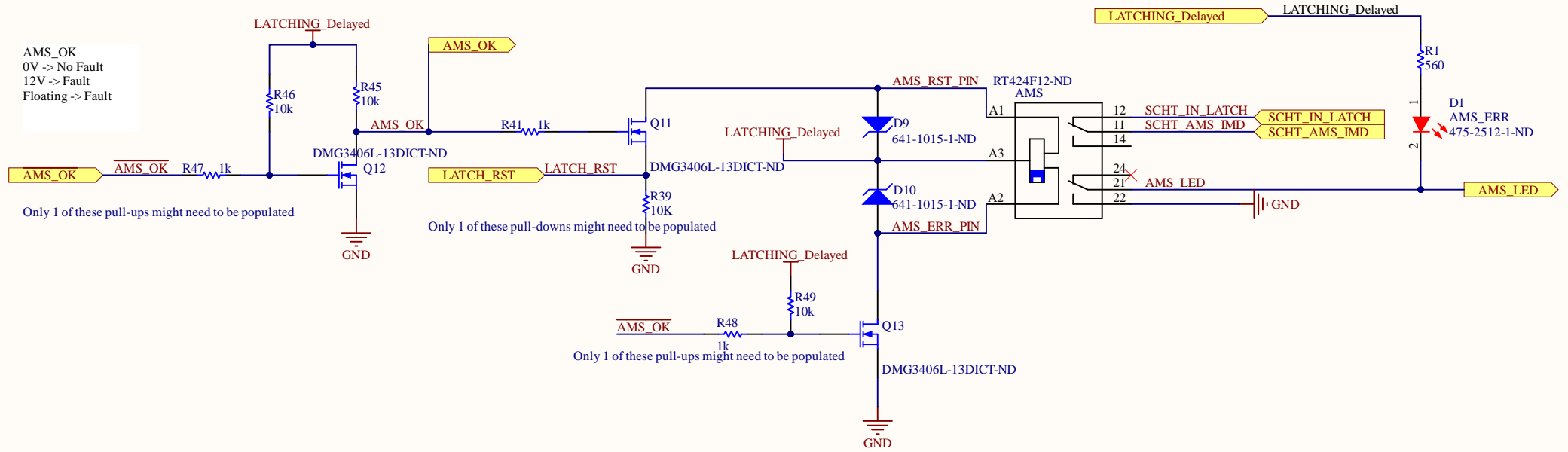


AMS_OK
0V -> No Fault
12V -> Fault
Floating -> Fault

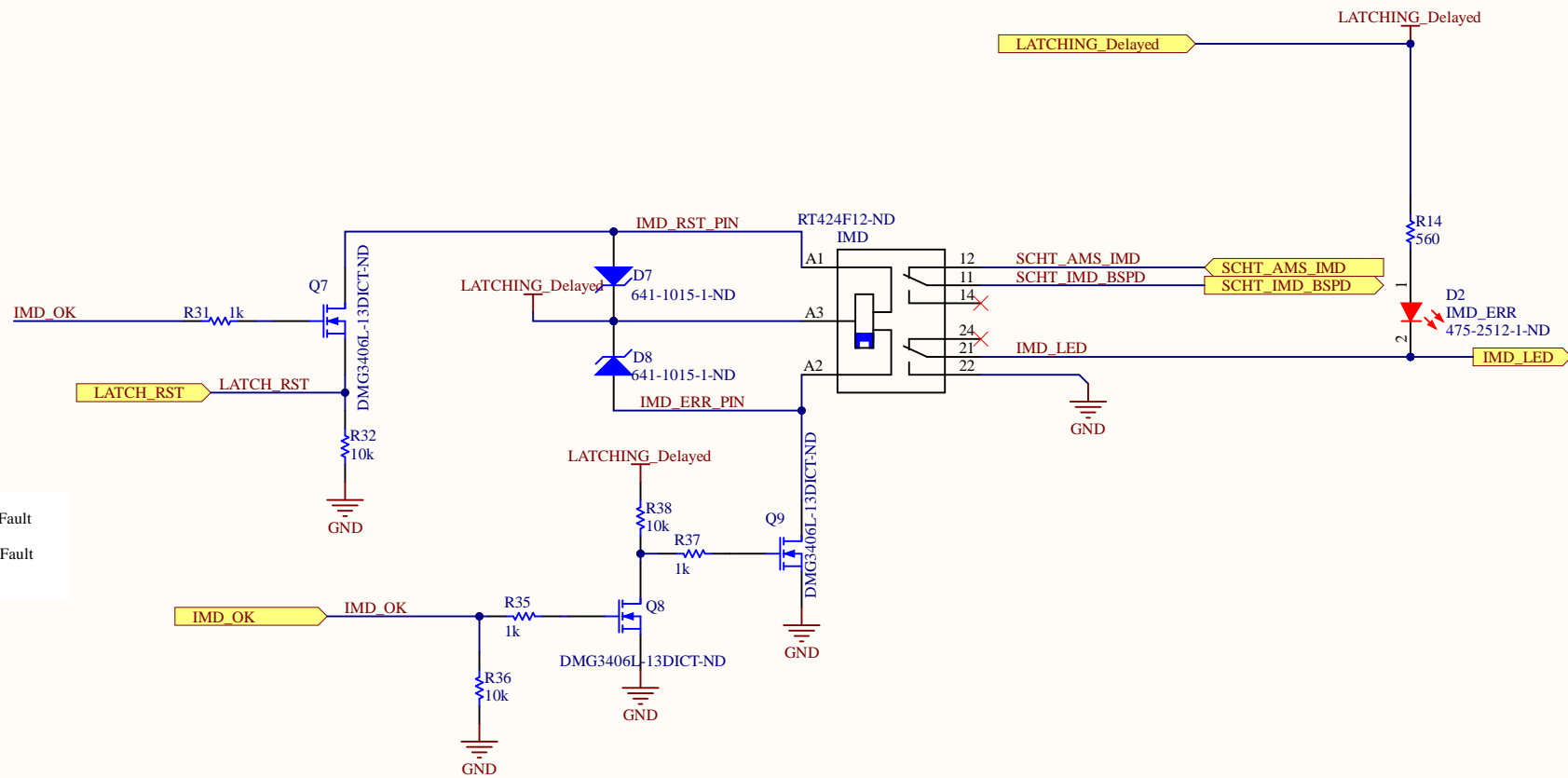
Only 1 of these pull-ups might need to be populated

Only 1 of these pull-downs might need to be populated

Only 1 of these pull-ups might need to be populated

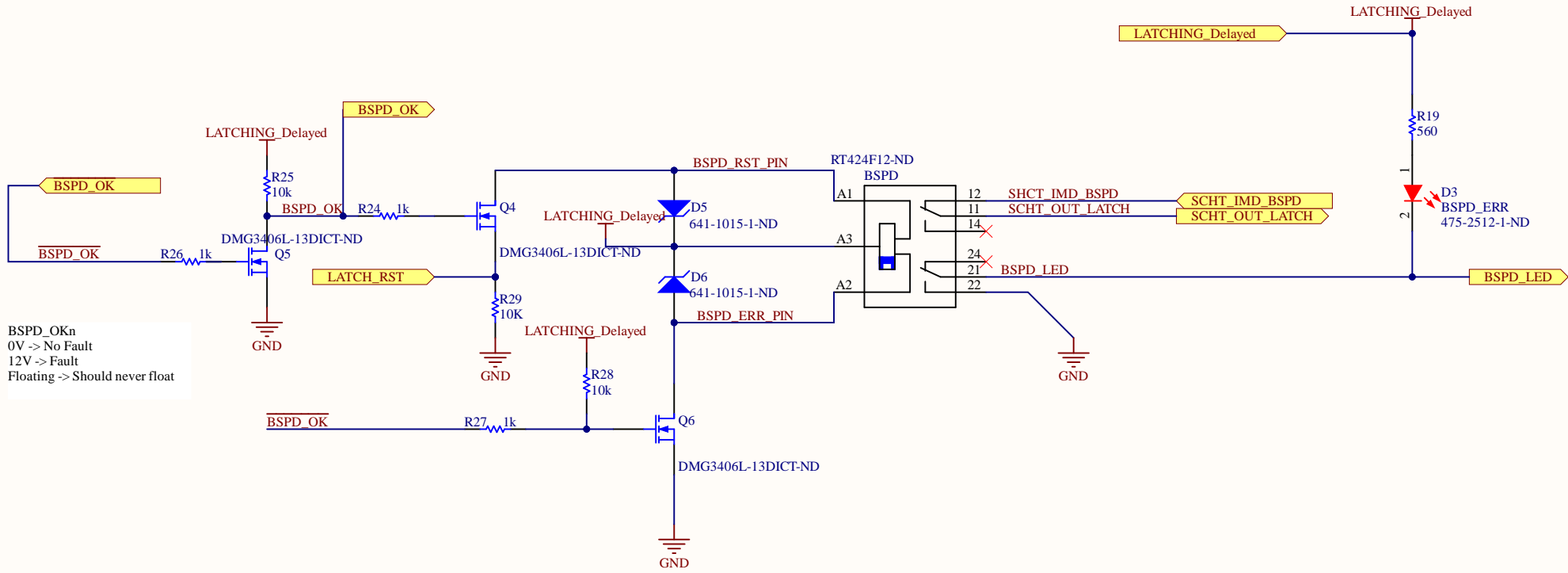


Title		
Size A4	Number	Revision
Date:	11-22-2021	Sheet of
File:	C:\Users\...\4a - Latching AMS.SchDoc	Drawn By:



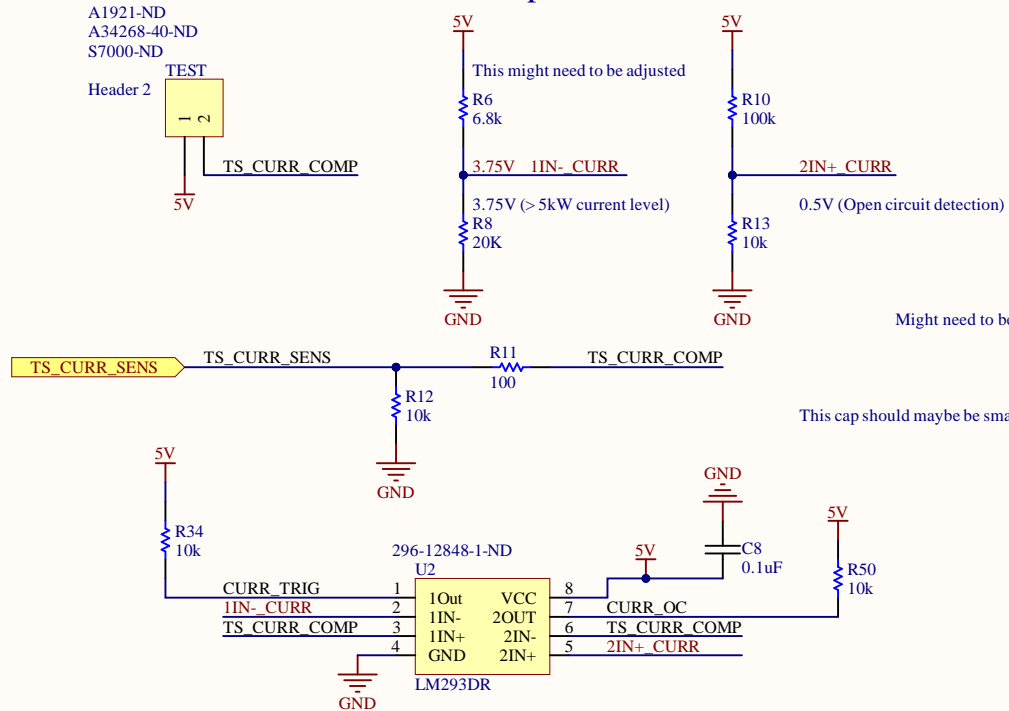
Title		
Size	Number	Revision
A4		
Date:	11-22-2021	Sheet of
File:	C:\Users\...\4b - Latching IMD.SchDoc	Drawn By:

BSPD_OKn
0V -> No Fault
12V -> Fault
Floating -> Should never float



Title		
Size A4	Number	Revision
Date:	11-22-2021	Sheet of
File:	C:\Users\...\4c - Latching BSPD.SchDoc	Drawn By:

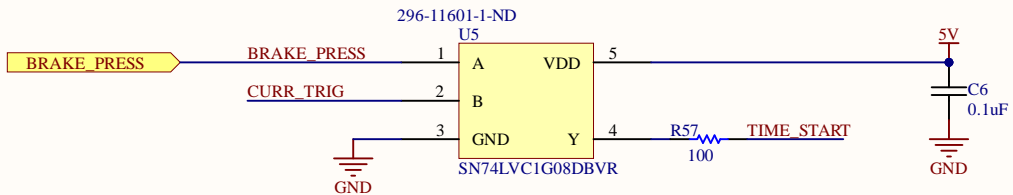
Current Sensor Comparator



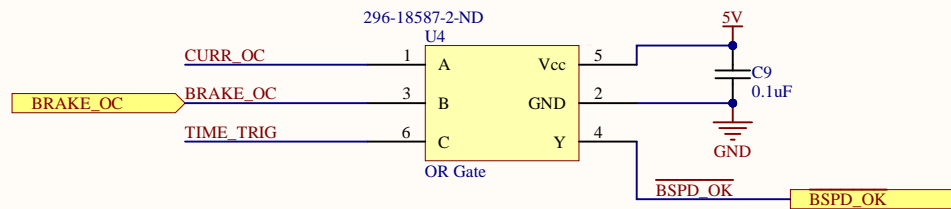
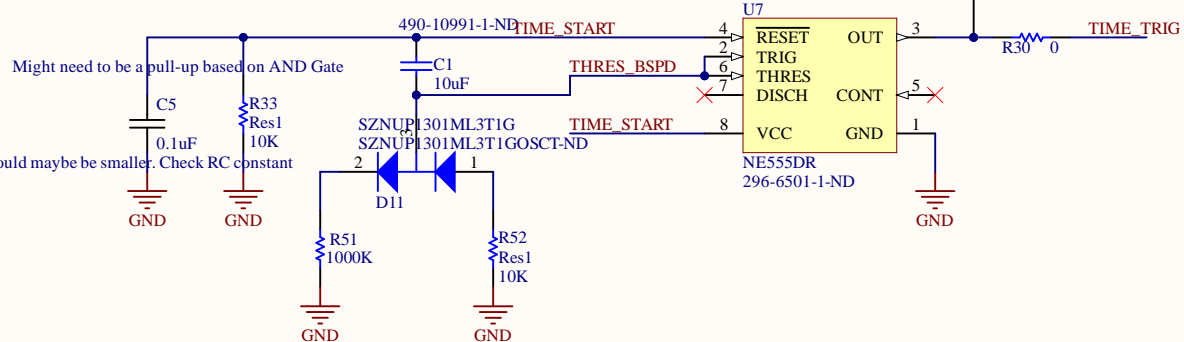
CURR_TRIG:
5V if TS_CURR_COMP > 1IN_CURR (3.75V)
0V if TS_CURR_COMP < 1IN_CURR (3.75V)

CURR_OC:
0V if TS_CURR_COMP > 2IN+_CURR (0.5V)
5V if TS_CURR_COMP < 2IN+_CURR(0.5V)

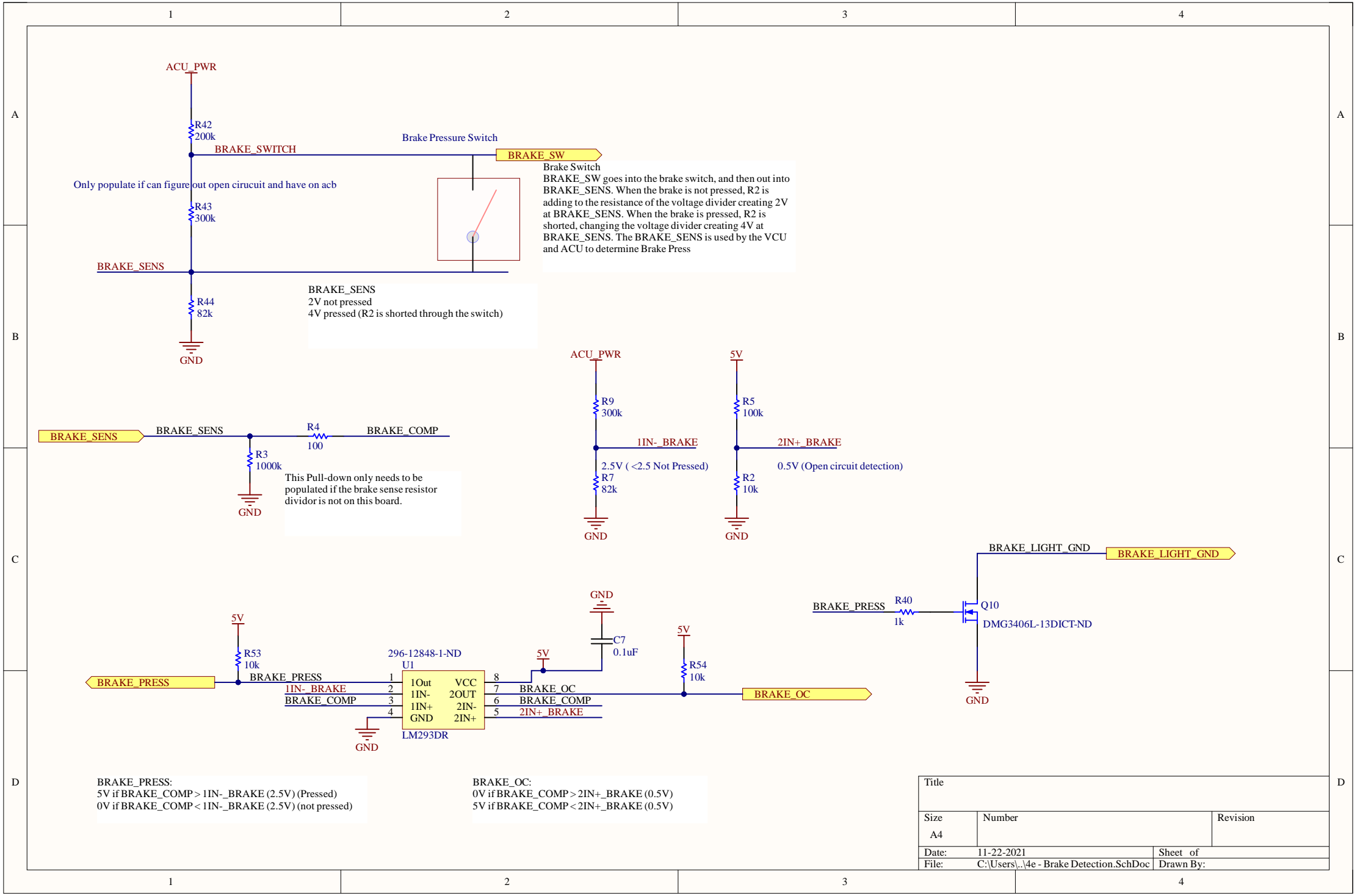
AND to timer



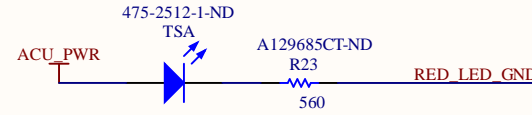
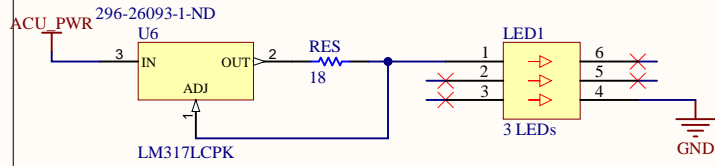
Timed to 500ms



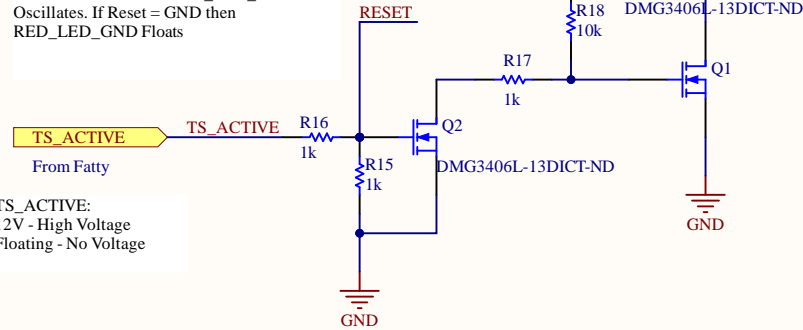
Title		
Size A4	Number	Revision
Date:	11-22-2021	Sheet of
File:	C:\Users\...4d - BSPD Detection Timer.Sch	Drawn By:



LOAD DRIVERS MIGHT BE NEEDED, MAY ONLY NEED a 500mA IF USING LED STRIPS DEPENDING ON TESTS



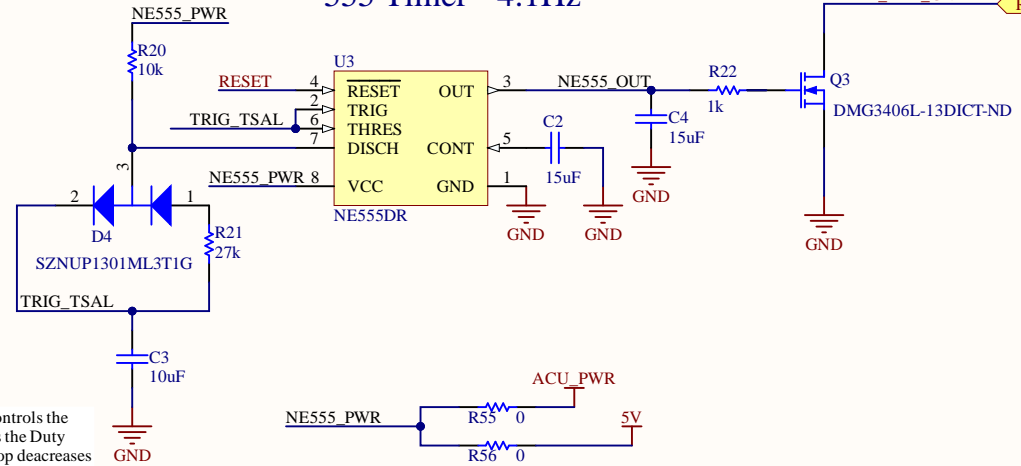
If RESET = 12V then RED_LED_GND Oscillates. If Reset = GND then RED_LED_GND Floats



TS_ACTIVE:
12V - High Voltage
Floating - No Voltage

Check values on current TSAL for timing

555 Timer - 4.1Hz



The Addition of these resistors controls the Frequency. The Division controls the Duty cycle. Increasing the resistor on top decreases the duty cycle. Try to keep the addition constant. NEEDS TO BE TESTED. (I just used the ESD Diodes but might need to find other ones) Cap at output might not be

Powering the Timing with 5V will allow the circuit to be the same frequency no matter what ACU Power is at as the LV battery darins. I am not sure if it might break things though so putting a jumper here to avoid needing a rev if it doesn't work. (Simulations show it does.)

Title		
Size	Number	Revision
A4		
Date:	11-22-2021	Sheet of
File:	C:\Users\...\5 - TSAL.SchDoc	Drawn By: