




KEY:

-  CONNECTOR FOOTPRINT
-  THERMAL CONTACT
-  LOW CLEARANCE (1.45 mm)



	NAME	DATE
DRAWN	Joe S.	2017-3-31
CHECKED	--	
ENG APPR.	--	
MFG APPR.	--	

Description:  
The generic board layout for OreSat

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN **MILLIMETERS**  
TOLERANCES:  
FINISH UNLESS OTHERWISE SPECIFIED  
HOLE ± CH ± BEND ±  
TWO PLACE DECIMAL ±.01  
THREE PLACE DECIMAL ±.001

MATERIAL	FR4
FINISH	--
Weight	
DO NOT SCALE DRAWING	

COMMENTS:  
**RECOMMENDED HEIGHT:  
<4 mm ABOVE/BELOW CARD**

DWG. NO.		--
REV	SIZE	SCALE: 1:1
<b>0.5</b>	<b>A</b>	SHEET 1 OF 7

SOLIDWORKS Educational Product. For Instructional Use Only

6 5 4 3 2 1

D

C

B

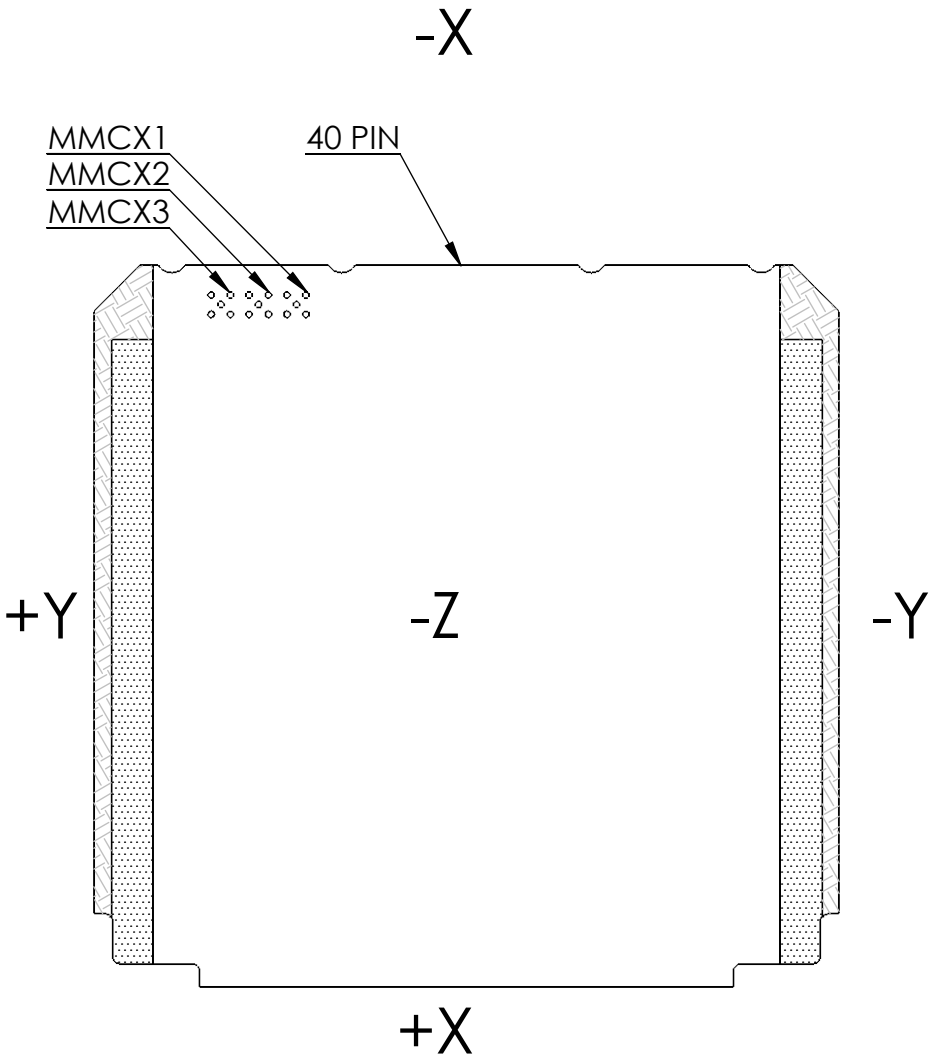
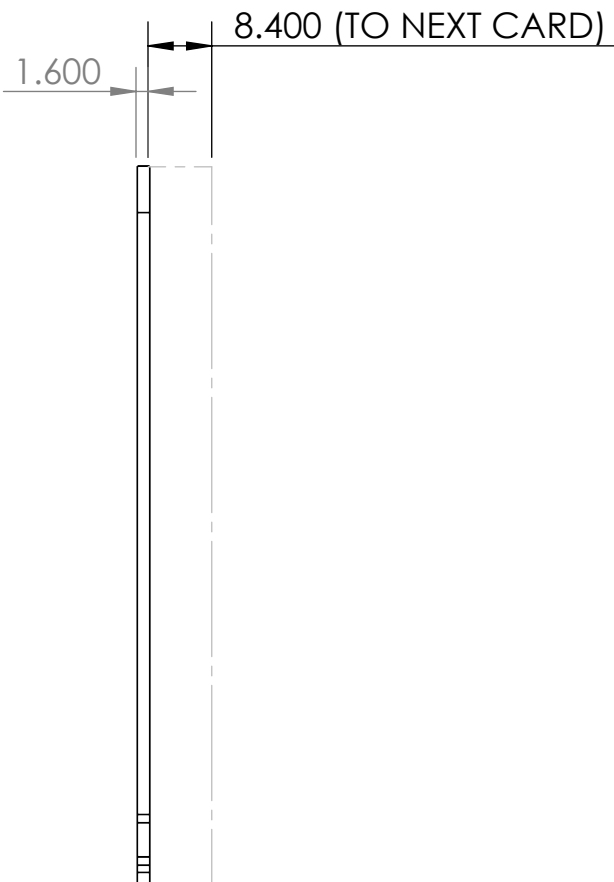
A

D

C

B

A



	NAME	DATE
DRAWN	Joe S.	2017-3-31
CHECKED	--	
ENG APPR.	--	
MFG APPR.	--	

Description:  
The generic board layout for OreSat

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN **MILLIMETERS**  
TOLERANCES:  
FINISH ± CH ± BEND ±  
TWO PLACE DECIMAL ±.01  
THREE PLACE DECIMAL ±.001

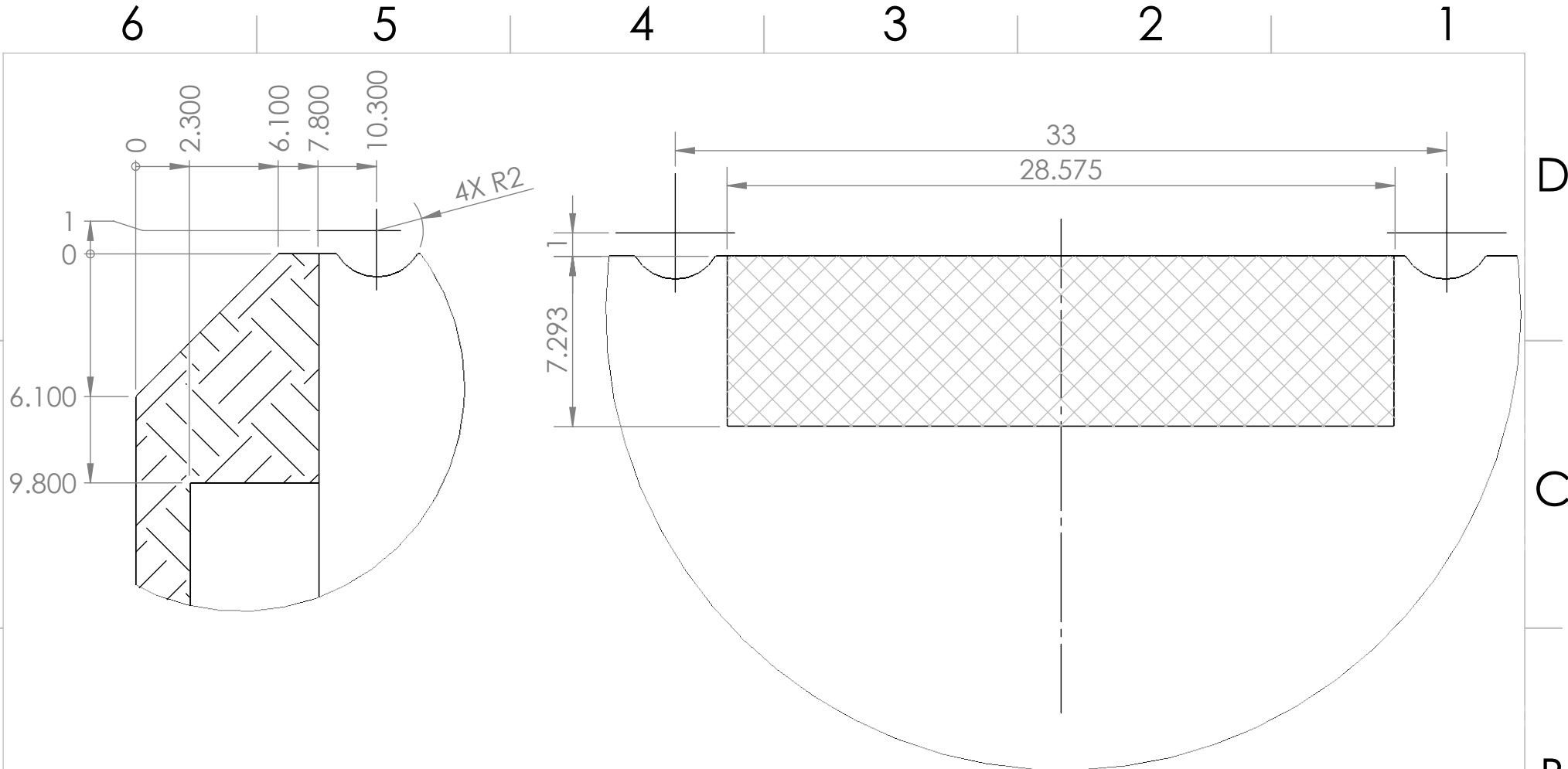
MATERIAL	FR4
FINISH	--
Weight	
DO NOT SCALE DRAWING	

COMMENTS:  
**RECOMMENDED HEIGHT:  
<4 mm ABOVE/BELOW CARD**

DWG. NO.		--
REV	SIZE	SCALE: 1:1
0.5	<b>A</b>	SHEET 2 OF 7

SOLIDWORKS Educational Product. For Instructional Use Only

6 5 4 3 2 1




**DETAIL A**  
SCALE 4 : 1

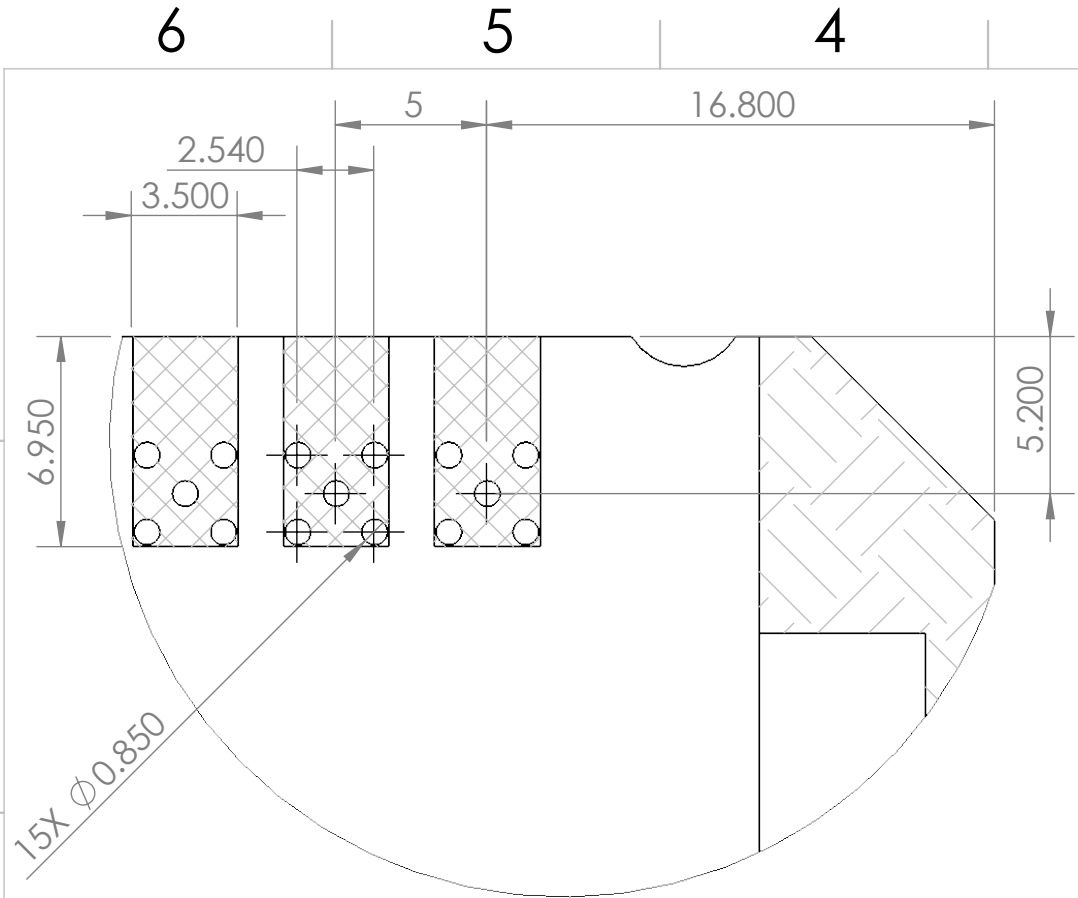
**DETAIL B**  
SCALE 4 : 1

Note:  
The far +X edge of the 30 pin connector's footprint coincides with the edge of its pins.

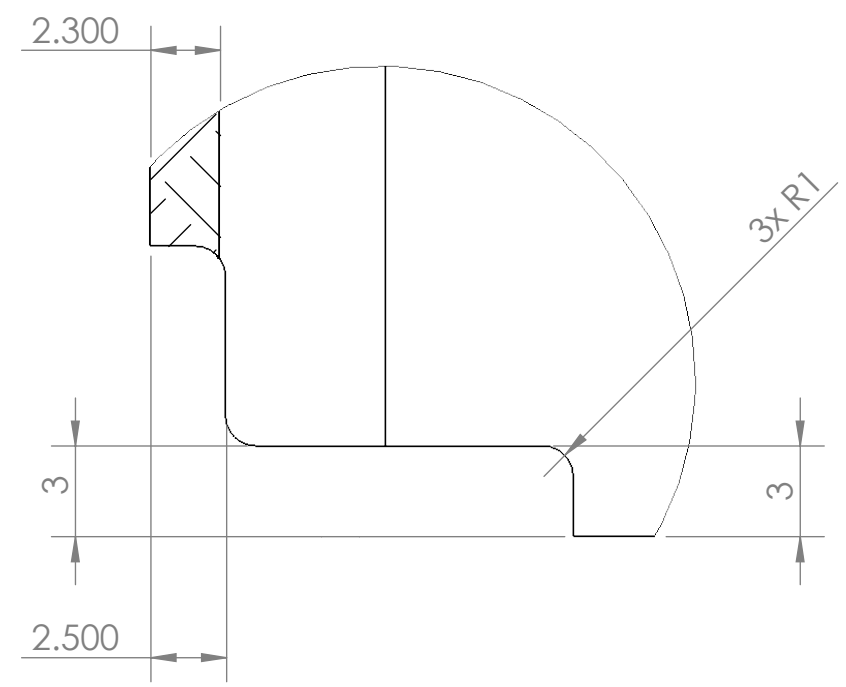
SOLIDWORKS Educational Product. For Instructional Use Only.

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN **MILLIMETERS**  
TOLERANCES:  
ANGULAR CH ± BEND ±  
TWO PLACE DECIMAL ±.01  
THREE PLACE DECIMAL ±.001

	MATERIAL	FR4	COMMENTS: <b>RECOMMENDED HEIGHT:          &lt;4 mm ABOVE/BELOW CARD</b>	DWG. NO.		--	
	FINISH	--		REV	SIZE	SCALE: 1:1	
	Weight			<b>0.5</b>	<b>A</b>	SHEET 3 OF 7	
	DO NOT SCALE DRAWING						
	NAME	DATE	Description:				
	DRAWN	Joe S.	2017-3-31	The generic board layout for OreSat			
	CHECKED	--					
	ENG APPR.	--					
	MFG APPR.	--					



**DETAIL C**  
SCALE 4 : 1



**DETAIL D**  
SCALE 4 : 1

SOLIDWORKS Educational Product. For Instructional Use Only

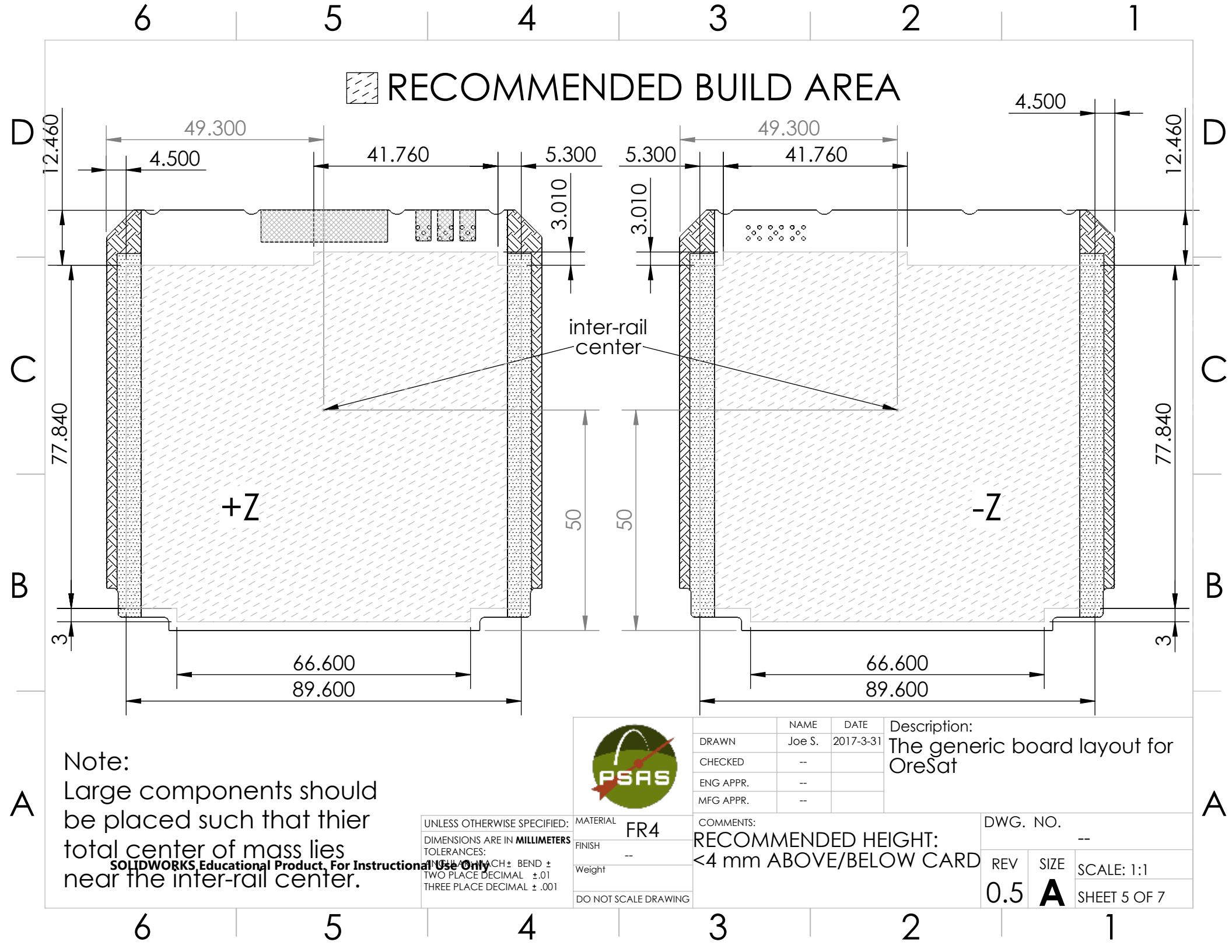
UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN **MILLIMETERS**  
TOLERANCES:  
FINISH UNLESS OTHERWISE SPECIFIED  
HOLE ± .01  
CH ± .01  
BEND ± .01  
TWO PLACE DECIMAL ± .01  
THREE PLACE DECIMAL ± .001

	MATERIAL	FR4
	FINISH	--
	Weight	
	DO NOT SCALE DRAWING	

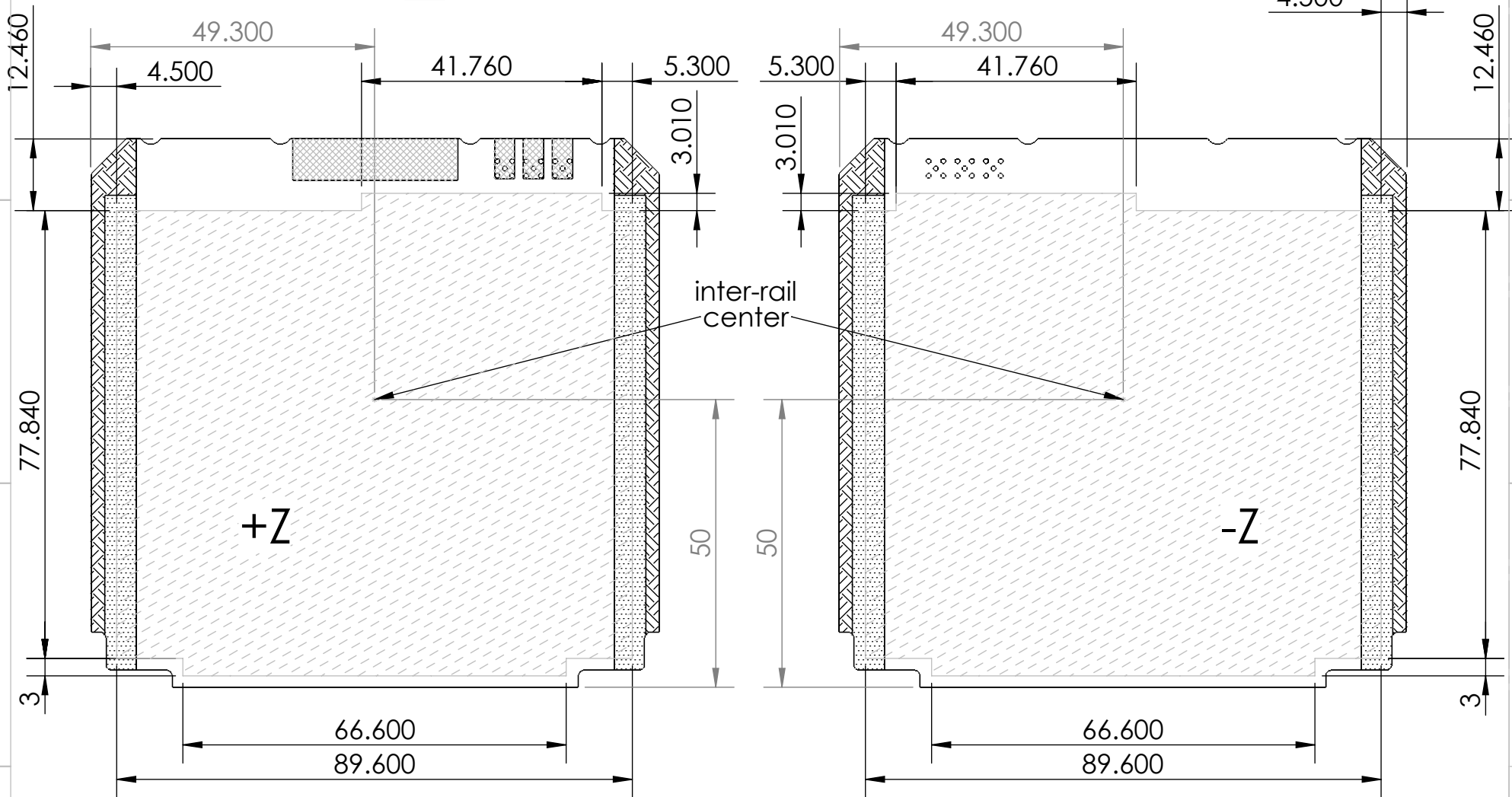
	NAME	DATE
DRAWN	Joe S.	2017-3-31
CHECKED	--	
ENG APPR.	--	
MFG APPR.	--	

Description:  
The generic board layout for OreSat

COMMENTS: <b>RECOMMENDED HEIGHT: &lt;4 mm ABOVE/BELOW CARD</b>		DWG. NO.	--
REV	SIZE	SCALE: 1:1	
0.5	<b>A</b>	SHEET 4 OF 7	



 RECOMMENDED BUILD AREA



Note:  
Large components should be placed such that their total center of mass lies near the inter-rail center.

SOLIDWORKS Educational Product, For Instructional Use Only

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS  
TOLERANCES:  
HOLE DIA ± .01  
HOLE CH ± BEND ± .01  
TWO PLACE DECIMAL ± .01  
THREE PLACE DECIMAL ± .001

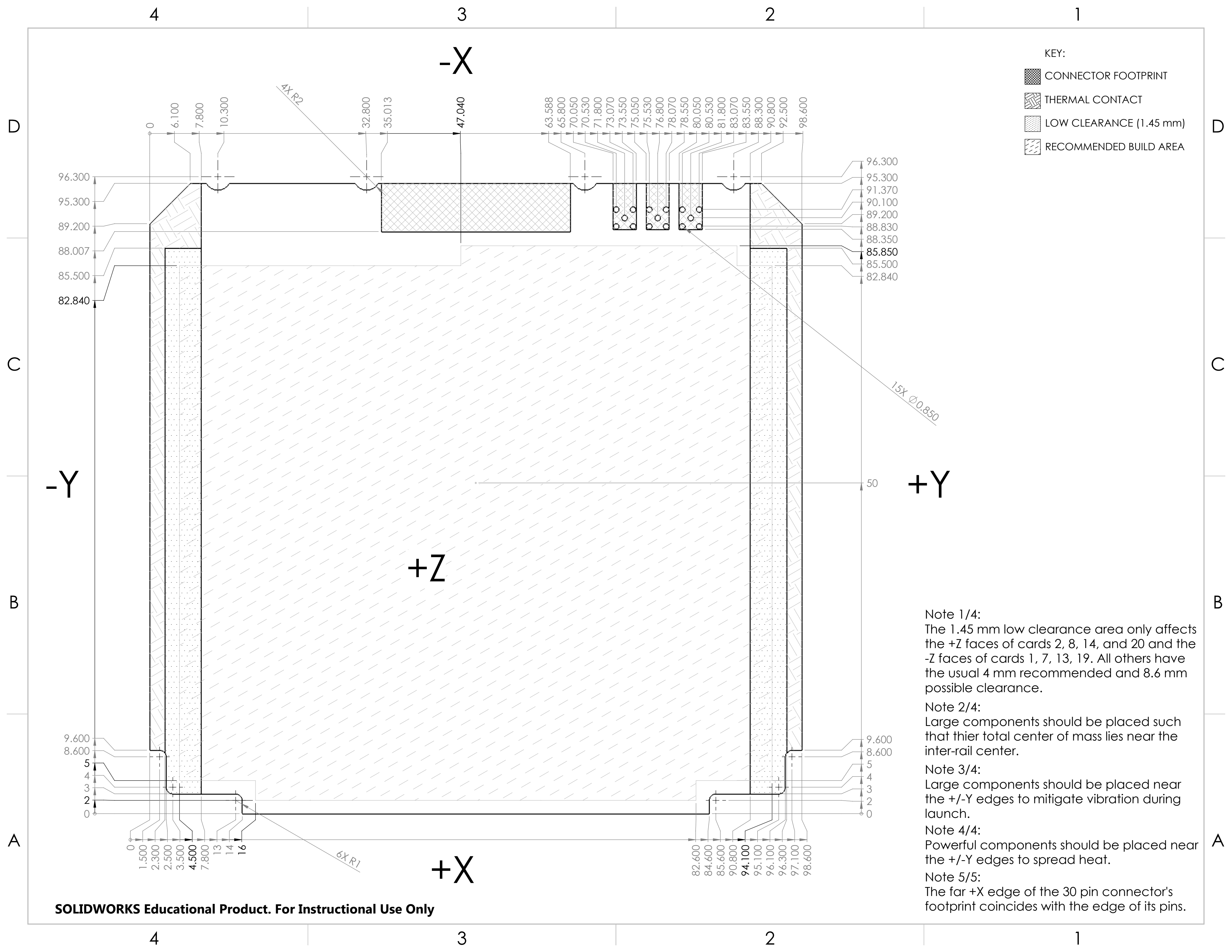
	MATERIAL	FR4
	FINISH	--
	Weight	
	DO NOT SCALE DRAWING	





	NAME	DATE
DRAWN	Joe S.	2017-3-31
CHECKED	--	
ENG APPR.	--	
MFG APPR.	--	

Description:  
The generic board layout for OreSat

COMMENTS:  
RECOMMENDED HEIGHT:  
<4 mm ABOVE/BELOW CARD

DWG. NO.		--
REV	SIZE	SCALE: 1:1
0.5	<b>A</b>	SHEET 5 OF 7



- KEY:
-  CONNECTOR FOOTPRINT
  -  THERMAL CONTACT
  -  LOW CLEARANCE (1.45 mm)
  -  RECOMMENDED BUILD AREA

Note 1/4:  
The 1.45 mm low clearance area only affects the +Z faces of cards 2, 8, 14, and 20 and the -Z faces of cards 1, 7, 13, 19. All others have the usual 4 mm recommended and 8.6 mm possible clearance.

Note 2/4:  
Large components should be placed such that their total center of mass lies near the inter-rail center.

Note 3/4:  
Large components should be placed near the +/-Y edges to mitigate vibration during launch.

Note 4/4:  
Powerful components should be placed near the +/-Y edges to spread heat.

Note 5/5:  
The far +X edge of the 30 pin connector's footprint coincides with the edge of its pins.