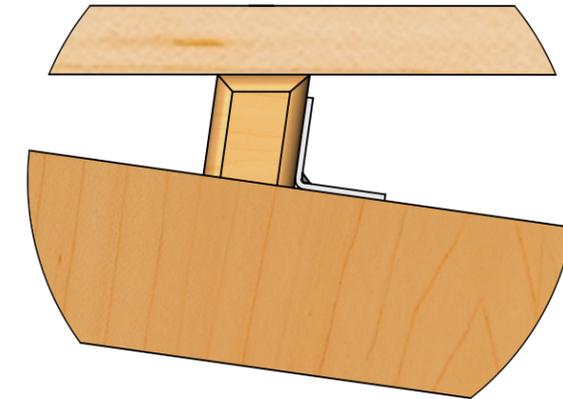
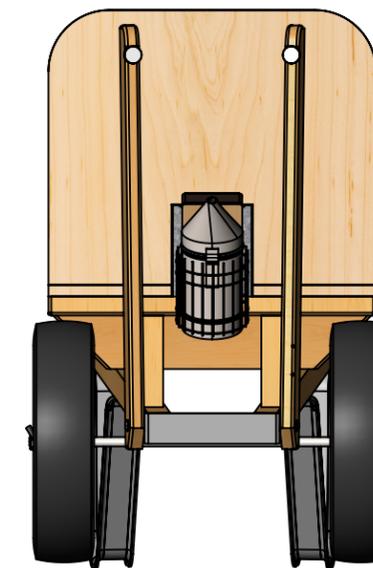
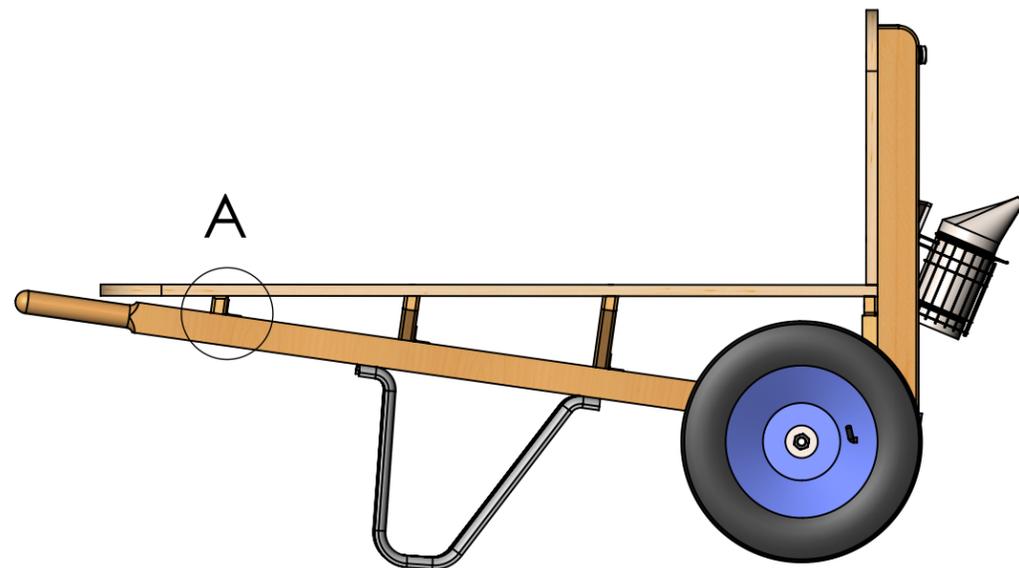


10016_2	01	FLATBED WHEELBARROW
PART NUMBER	REV	DESCRIPTION

<p>UNLESS OTHERWISE SPECIFIED</p> <p>DO NOT SCALE DRAWING</p> <p>INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018</p> <p>DIMENSIONS ARE IN MILLIMETERS</p>		<p>SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY</p> <p>PROPRIETARY</p> <p>NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.</p>		 <p>HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH</p>	
<p>THIRD ANGLE PROJECTION</p> 		<p>CUSTOMER BEE KEEPERS</p> <p>PROJECT HIVE PRODUCTS</p> <p>DRAWN BY F. FULKERSON</p> <p>CHECKED BY P.G. KELLY</p> <p>APPROVED P.G. KELLY</p>		<p>TITLE FLATBED WHEELBARROW</p>	
<p>DATE 2022-03-23</p> <p>DATE 2022-03-23</p> <p>DATE 2022-03-23</p>		<p>SIZE B</p> <p>SCALE 1:8</p>		<p>REVISION</p> <p>10016_2M -</p> <p>WEIGHT 39024.585 g</p> <p>SHEET 1 OF 13</p>	



DETAIL A
SCALE 1 : 2



10016_2	01	FLATBED WHEELBARROW
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED
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PER ASME Y14.5-2018
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THIRD ANGLE PROJECTION



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CUSTOMER
BEE KEEPERS
PROJECT
HIVE PRODUCTS

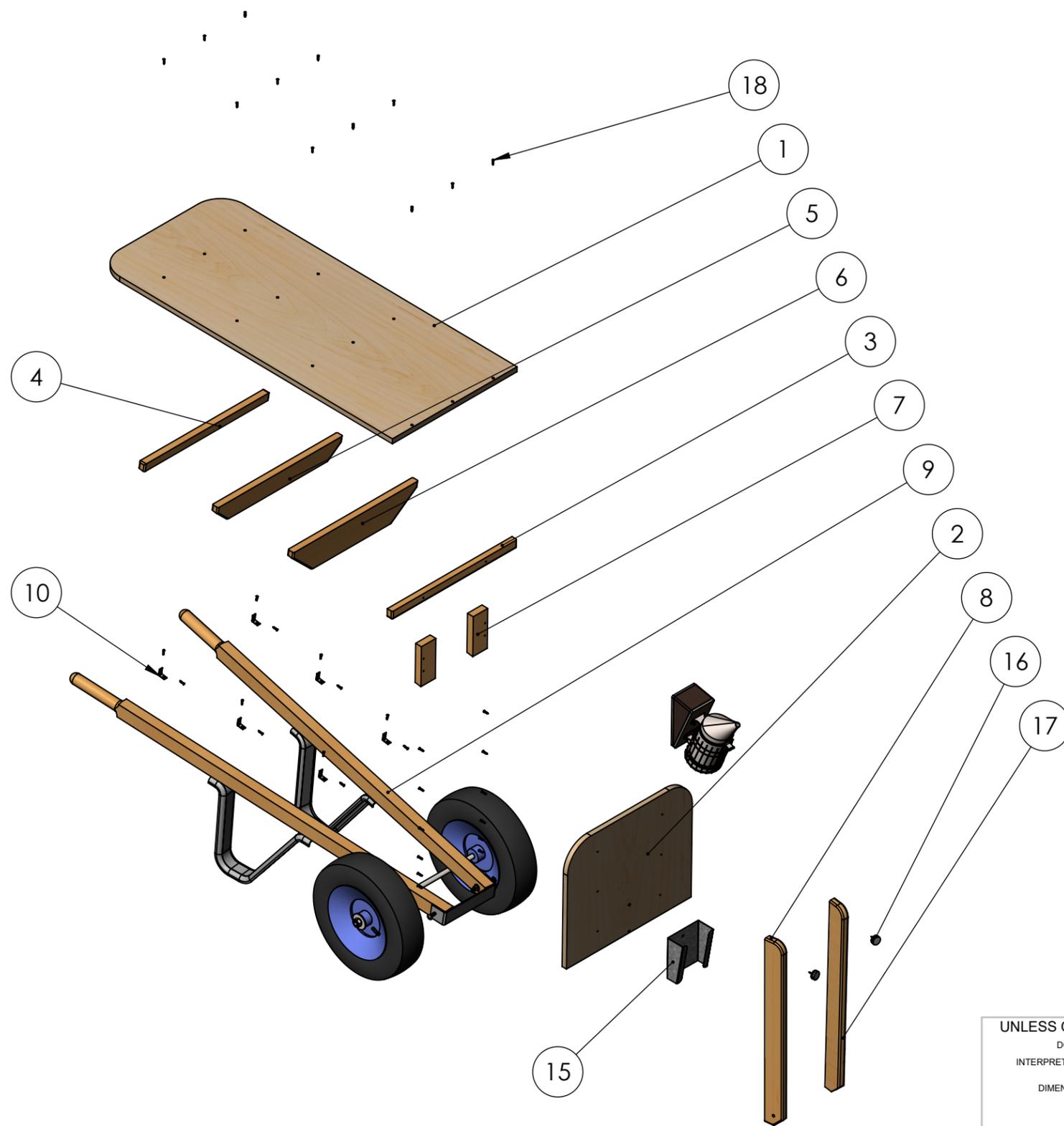
DRAWN BY F. FULKERSON	DATE 2022-03-23
CHECKED BY P.G. KELLY	DATE 2022-03-23
APPROVED P.G. KELLY	DATE 2022-03-23



HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

FLATBED WHEELBARROW

TITLE	SIZE	DRAWING NO	REVISION
B	B		10016_2M -
SCALE	1:12	WEIGHT	39024.585 g
			SHEET 2 OF 13



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1054	BASE BOARD	1
2	1053	END BOARD	1
3	1055	END BOARD SUPPORT	1
4	1050	BACK SUPPORT	1
5	1051	MIDDLE SUPPORT	1
6	1052	FRONT SUPPORT	1
7	1049	FRONT SPACER	2
8	1047	FRONT SUPPORT POST - LEFT	1
9	Wheelbarrow Frame	PURCHASED WHEELBARROW	1
10	1556A61	Zinc-Plated Steel Corner Bracket	6
15	1057	SMOKER HOLDER	1
16	2513T52	Hammer-on Feet	2
17	Mirror1047	FRONT SUPPORT POST - RIGHT	1
18	90610A151	Square-Drive Flat Head Screws for Wood	38

10016_2	01	FLATBED WHEELBARROW
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED
DO NOT SCALE DRAWING
INTERPRET DIMENSIONS AND TOLERANCES
PER ASME Y14.5-2018
DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION



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CUSTOMER
BEE KEEPERS
PROJECT
HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 2022-03-23
CHECKED BY P.G. KELLY	DATE 2022-03-23
APPROVED P.G. KELLY	DATE 2022-03-23



HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

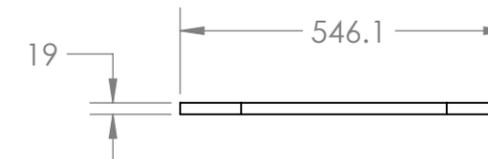
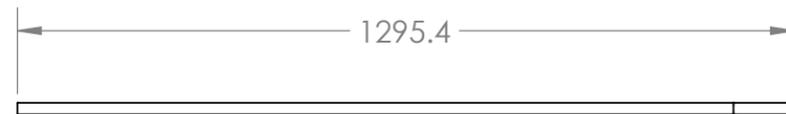
FLATBED WHEELBARROW

SIZE B	DRAWING NO.	10016_2M	REVISION
SCALE 1:16	WEIGHT 39024.585 g	SHEET 3 OF 13	

- NOTES:
 1. MATERIAL: Plywood.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.



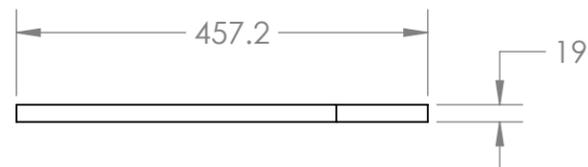
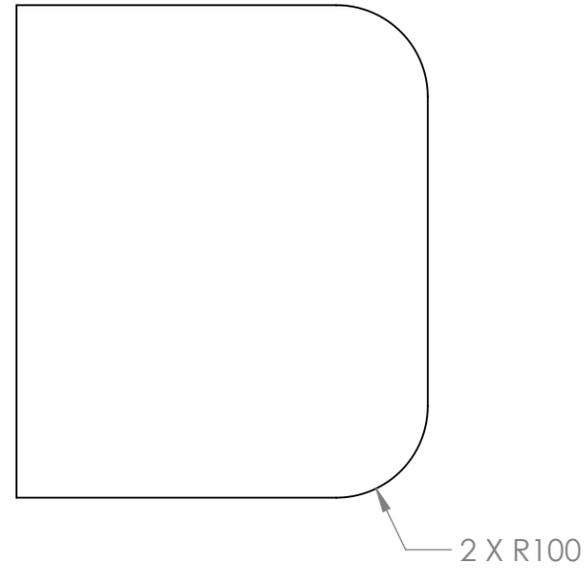
2 X R100



1054_2	-	BASE BOARD
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS	SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY	 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	TITLE <h1>BASE BOARD</h1>
	PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		
THIRD ANGLE PROJECTION 	PROJECT HIVE PRODUCTS	DRAWING NO. <h1>10016_2M</h1>	REVISION -
DRAWN BY F. FULKERSON	DATE 2022-03-23	SCALE 1:12	WEIGHT 4553.250 g
CHECKED BY P.G. KELLY	DATE 2022-03-23	SHEET 4 OF 13	
APPROVED P.G. KELLY	DATE 2022-03-23		

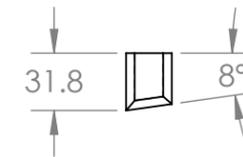
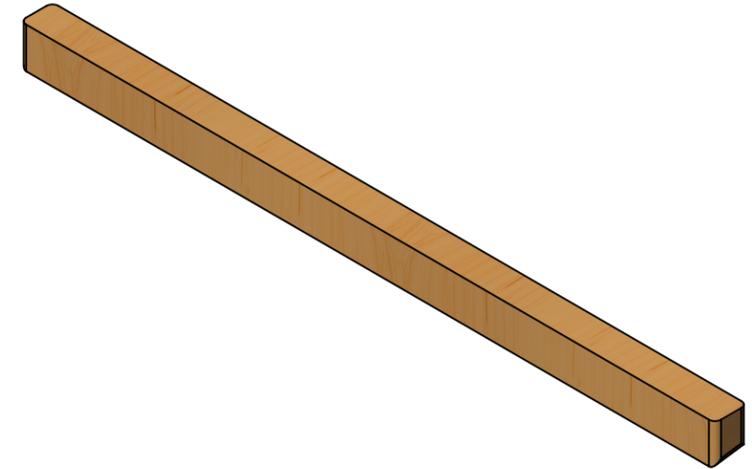
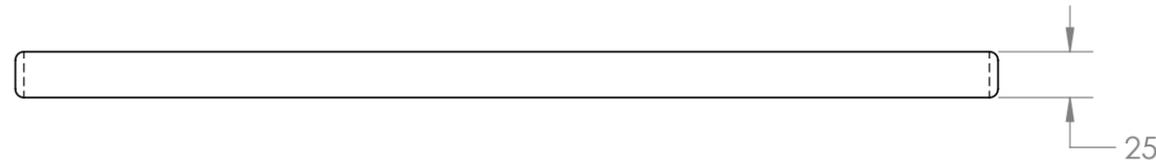
- NOTES:
 1. MATERIAL: Plywood.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.



1053_2	-	END BOARD
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS	SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY	 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	TITLE		
	PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		END BOARD		
THIRD ANGLE PROJECTION 	CUSTOMER BEE KEEPERS	PROJECT HIVE PRODUCTS	SIZE B	DRAWING NO.	REVISION
DRAWN BY F. FULKERSON	DATE 2022-03-23	CHECKED BY P.G. KELLY	DATE 2022-03-23	SCALE 1:8	WEIGHT 1588.461 g
APPROVED P.G. KELLY	DATE 2022-03-23	10016_2M		SHEET 5 OF 13	

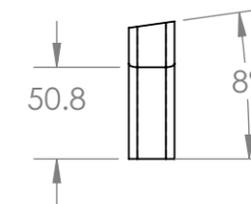
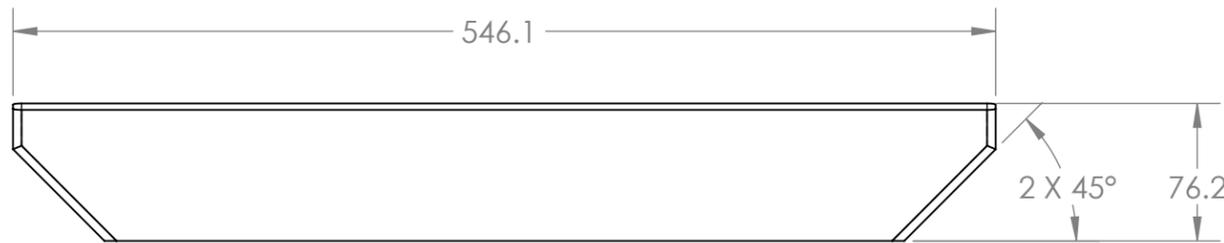
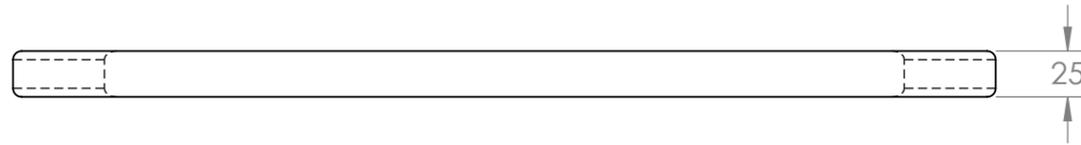
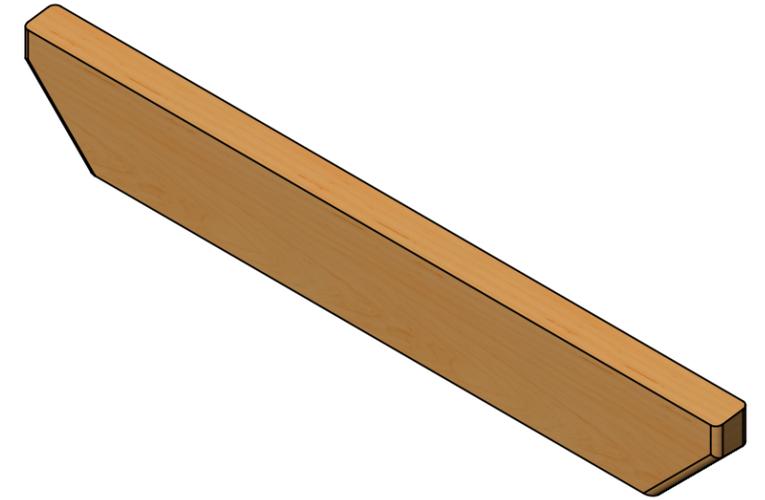
- NOTES:
 1. MATERIAL: HARDWOOD.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.
 4. ALL ROUNDS AND FILLETS 5 MM UOS.



1050_2	-	BACK SUPPORT
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	
THIRD ANGLE PROJECTION 		CUSTOMER BEE KEEPERS PROJECT HIVE PRODUCTS		BACK SUPPORT	
DRAWN BY F. FULKERSON CHECKED BY P.G. KELLY APPROVED P.G. KELLY		DATE 2022-03-23 DATE 2022-03-23 DATE 2022-03-23		TITLE 10016_2M	
		SIZE B		DRAWING NO. 10016_2M	
		SCALE 1:4		WEIGHT 203.278 g	
				SHEET 6 OF 13	

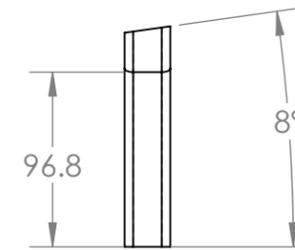
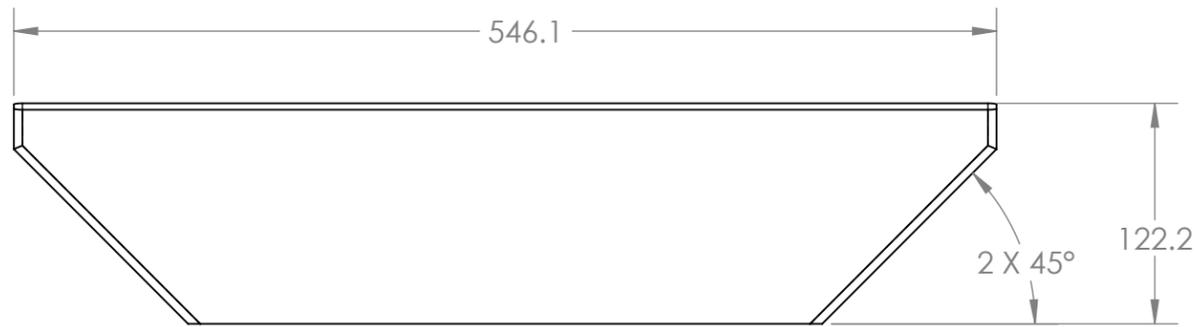
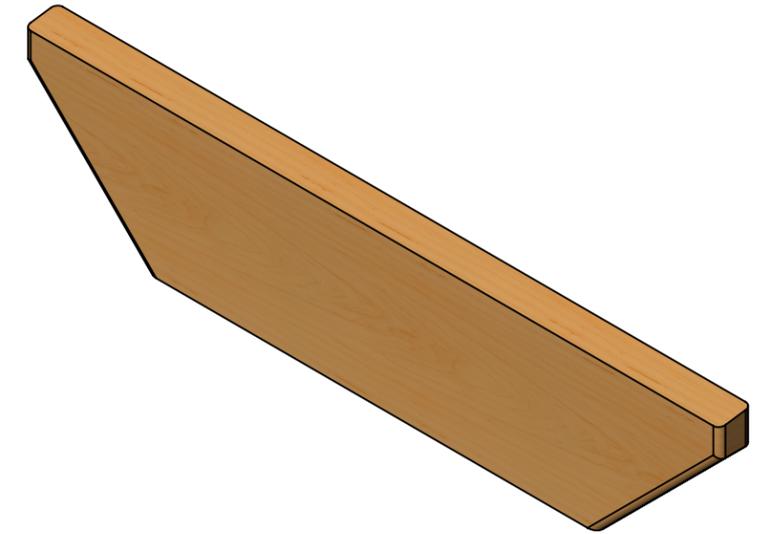
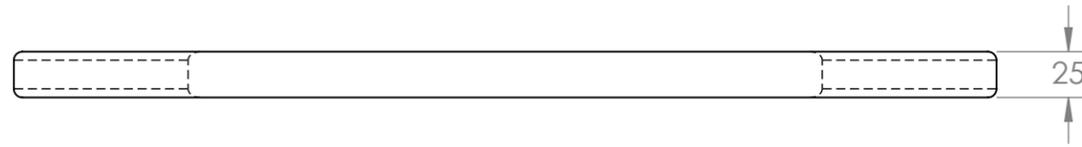
- NOTES:
 1. MATERIAL: HARDWOOD.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.
 4. ALL ROUNDS AND FILLETS 5 MM UOS.



1051_2	-	MIDDLE SUPPORT
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	
THIRD ANGLE PROJECTION 		CUSTOMER BEE KEEPERS PROJECT HIVE PRODUCTS		MIDDLE SUPPORT	
DRAWN BY F. FULKERSON CHECKED BY P.G. KELLY APPROVED P.G. KELLY		DATE 2022-03-23 DATE 2022-03-23 DATE 2022-03-23		TITLE 10016_2M	
		SCALE 1:4		WEIGHT 472.751 g	
				SHEET 7 OF 13	

- NOTES:
 1. MATERIAL: HARDWOOD.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.
 4. ALL ROUNDS AND FILLETS 5 MM UOS.



1052_2	-	FRONT SUPPORT
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED
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 PER ASME Y14.5-2018
 DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION



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CUSTOMER
 BEE KEEPERS
 PROJECT
 HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 2022-03-23
CHECKED BY P.G. KELLY	DATE 2022-03-23
APPROVED P.G. KELLY	DATE 2022-03-23

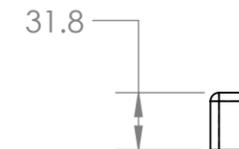
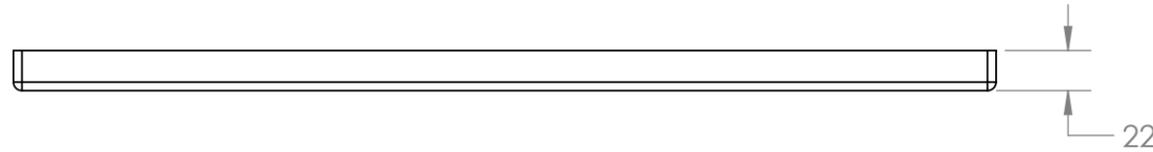
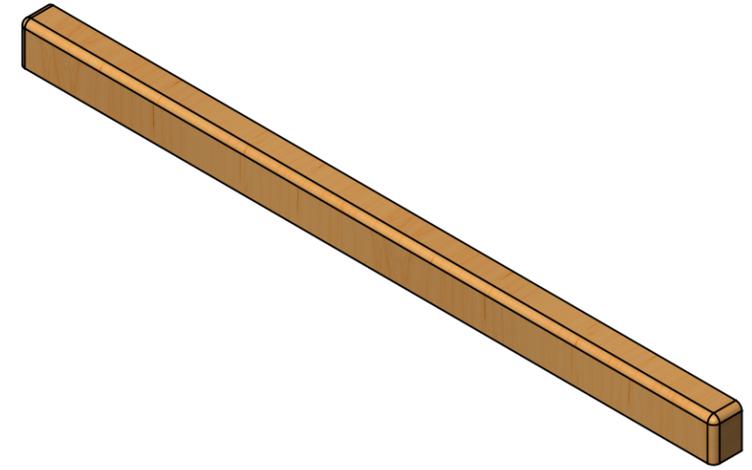


HONEY BEE RESEARCH CENTRE
 THE UNIVERSITY OF GUELPH

FRONT SUPPORT

TITLE	SIZE	DRAWING NO	REVISION
	B		10016_2M -
SCALE	WEIGHT	SHEET 8 OF 13	
1:4	700.443 g		

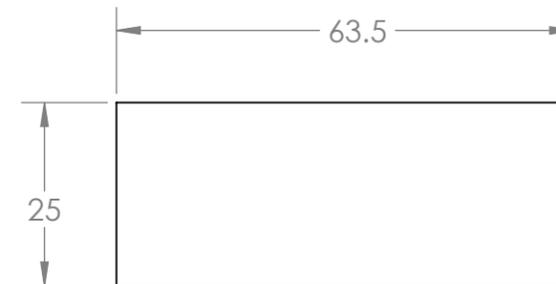
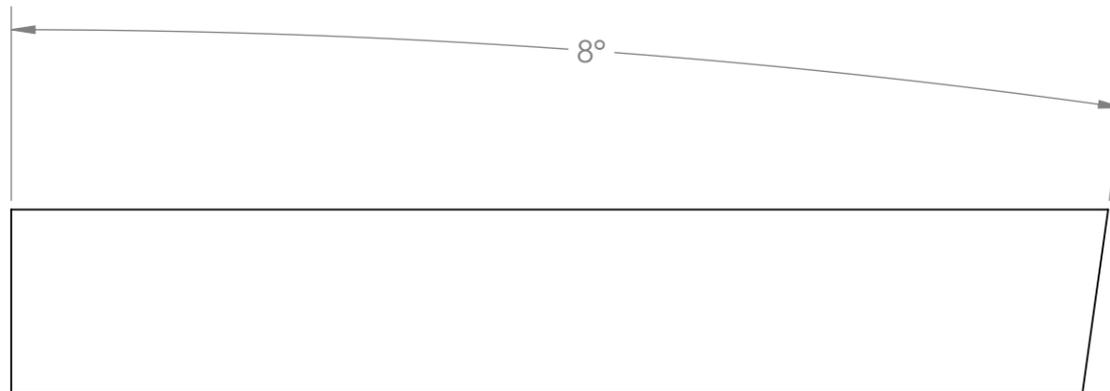
- NOTES:
 1. MATERIAL: HARDWOOD.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.
 4. ALL ROUNDS AND FILLETS 5 MM UOS.



1055_2	-	END BOARD SUPPORT
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	
THIRD ANGLE PROJECTION 		CUSTOMER BEE KEEPERS PROJECT HIVE PRODUCTS		END BOARD SUPPORT	
DRAWN BY F. FULKERSON CHECKED BY P.G. KELLY APPROVED P.G. KELLY		DATE 2022-03-23 DATE 2022-03-23 DATE 2022-03-23		TITLE 10016_2M	
		SCALE 1:4		WEIGHT 187.280 g	
				SHEET 9 OF 13	

- NOTES:
 1. MATERIAL: HARDWOOD.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.



1049_2	-	FRONT SPACER
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED
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 INTERPRET DIMENSIONS AND TOLERANCES
 PER ASME Y14.5-2018
 DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION



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CUSTOMER
 BEE KEEPERS

PROJECT
 HIVE PRODUCTS

DRAWN BY
 F. FULKERSON

DATE
 2022-03-23

CHECKED BY
 P.G. KELLY

DATE
 2022-03-23

APPROVED
 P.G. KELLY

DATE
 2022-03-23



HONEY BEE RESEARCH CENTRE
 THE UNIVERSITY OF GUELPH

FRONT SPACER

SIZE DRAWING NO

B

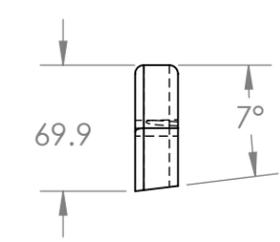
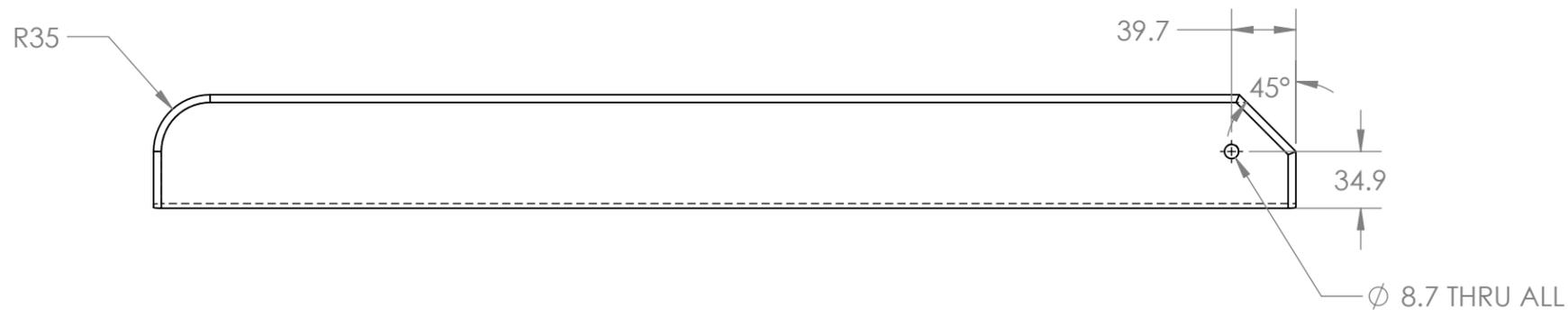
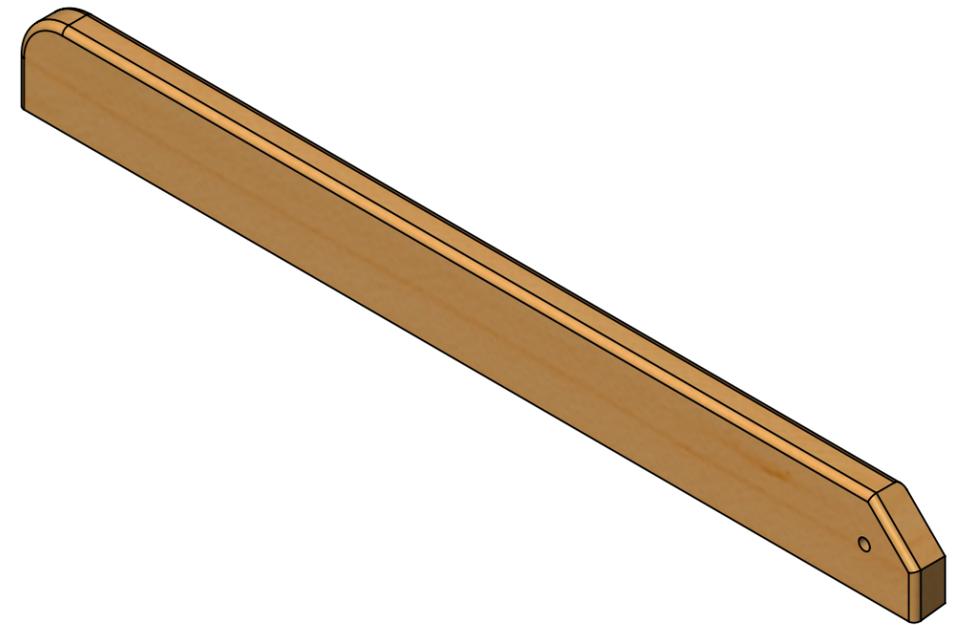
SCALE 1:1

WEIGHT 119.034 g

10016_2M -

SHEET 10 OF 13

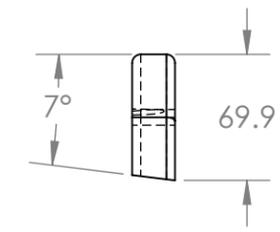
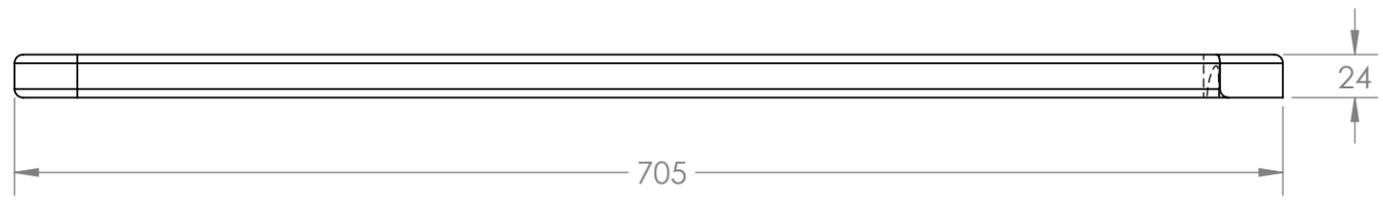
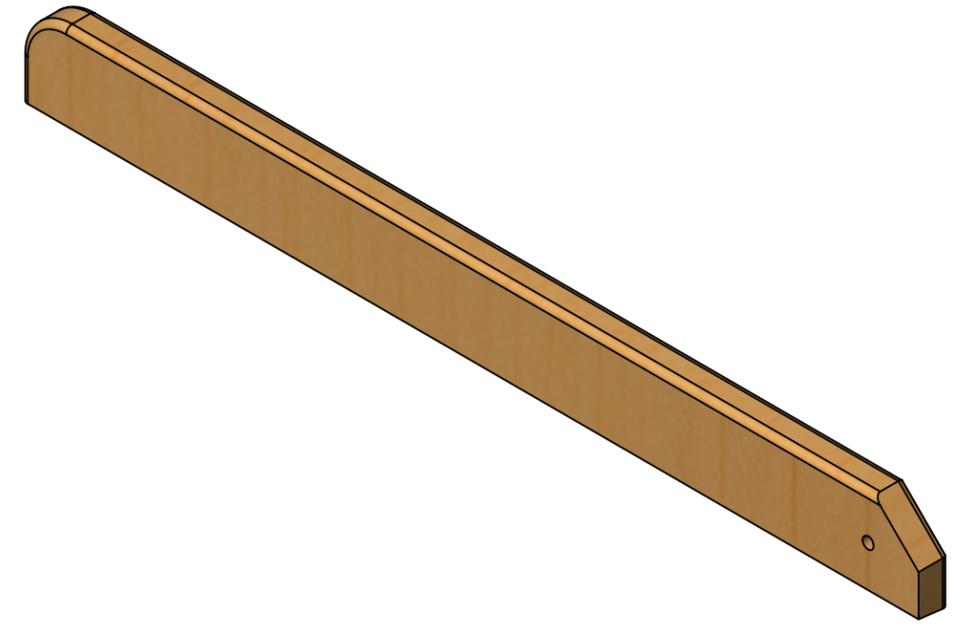
- NOTES:
 1. MATERIAL: HARDWOOD.
 2. FINISH: NONE.
 3. REMOVE ALL SHARP EDGES.
 4. ALL ROUNDS AND FILLETS 5 MM UOS.



1047	01	FRONT SUPPORT POST - LEFT
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	
THIRD ANGLE PROJECTION 		CUSTOMER BEE KEEPERS PROJECT HIVE PRODUCTS		FRONT SUPPORT POST - LEFT	
DRAWN BY F. FULKERSON CHECKED BY P.G. KELLY APPROVED P.G. KELLY		DATE 2022-03-23 DATE 2022-03-23 DATE 2022-03-23		TITLE 10016_2M	
		SCALE 1:4		WEIGHT 547.923 g	
				SHEET 11 OF 13	

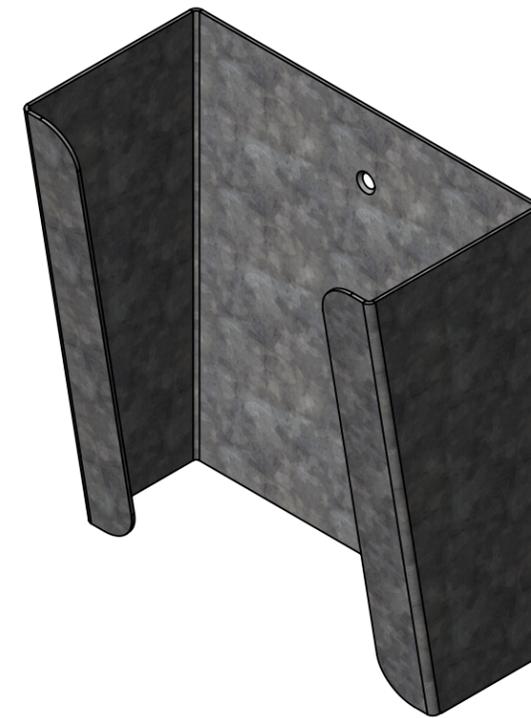
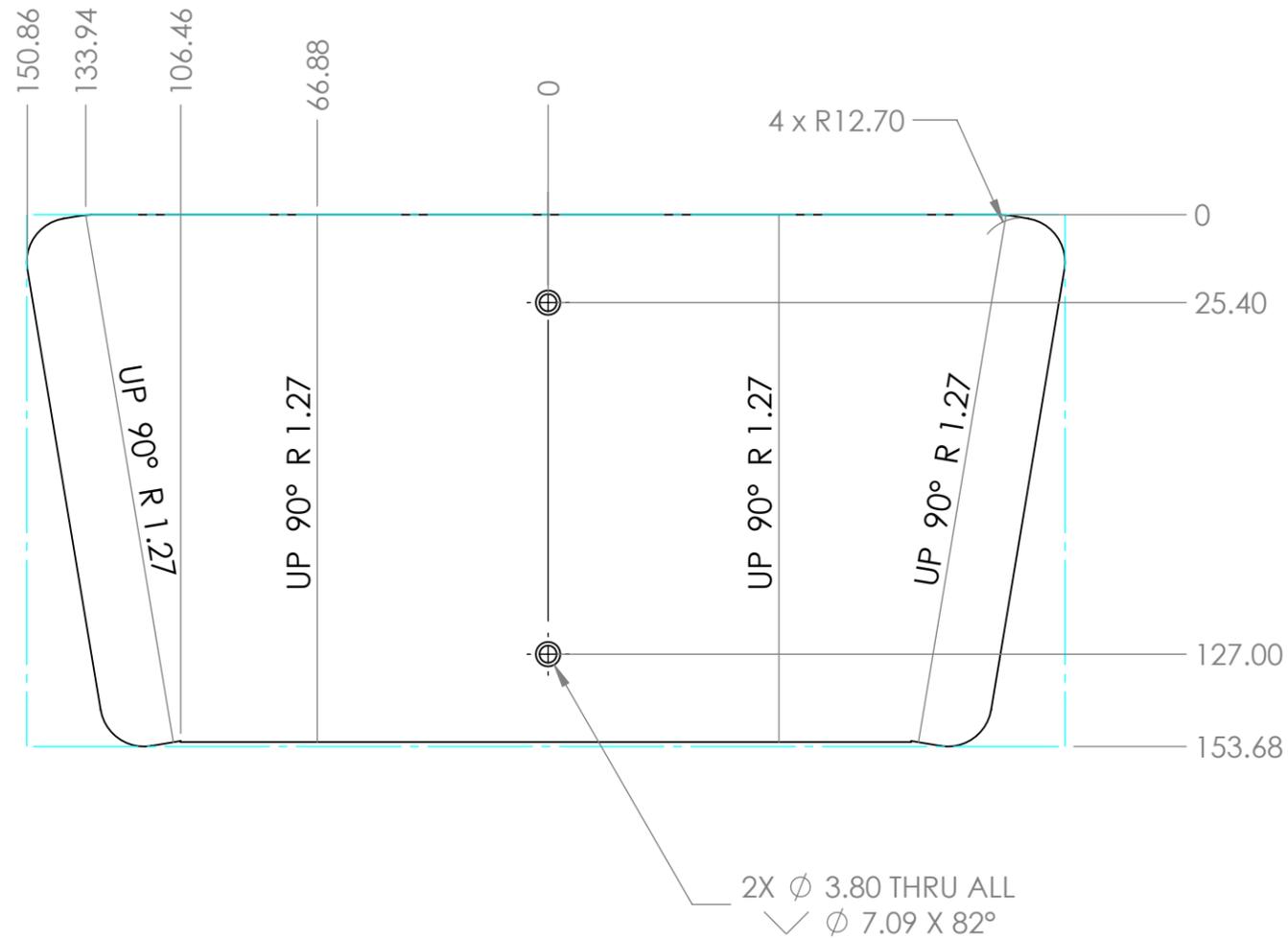
- NOTES:
 1. MATERIAL: HARDWOOD.
 2. FINISH: NONE.
 3. REMOVE ALL SHARP EDGES.
 4. ALL ROUNDS AND FILLETS 5 MM UOS.



1048	-	FRONT SUPPORT POST - RIGHT
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	
THIRD ANGLE PROJECTION 		CUSTOMER BEE KEEPERS PROJECT HIVE PRODUCTS		FRONT SUPPORT POST - RIGHT	
DRAWN BY F. FULKERSON CHECKED BY P.G. KELLY APPROVED P.G. KELLY		DATE 2022-03-23 DATE 2022-03-23 DATE 2022-03-23		TITLE 10016_2M	
		SCALE 1:4		WEIGHT 547.922 g	
				SHEET 12 OF 13	

- NOTES:
 1. MATERIAL: Galvanized Steel.
 2. FINISH: NONE.
 3. REMOVE ALL SHARP EDGES.



1057	-	SMOKER HOLDER
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED
 DO NOT SCALE DRAWING
 INTERPRET DIMENSIONS AND TOLERANCES
 PER ASME Y14.5-2018
 DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION



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PROPRIETARY
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CUSTOMER
 BEEKEEPERS
 PROJECT
 TILTING HORIZONTAL HIVE

DRAWN BY F.FULKERSON	DATE 3/6/2024
CHECKED BY F.FULKERSON	DATE 3/6/2024
APPROVED F.FULKERSON	DATE 3/6/2024



HONEY BEE RESEARCH CENTRE
 THE UNIVERSITY OF GUELPH

SMOKER HOLDER

TITLE	SIZE	DRAWING NO	REVISION
	B		10016_2M -
SCALE	1:2	WEIGHT	406.291 g
		SHEET 13 OF 13	