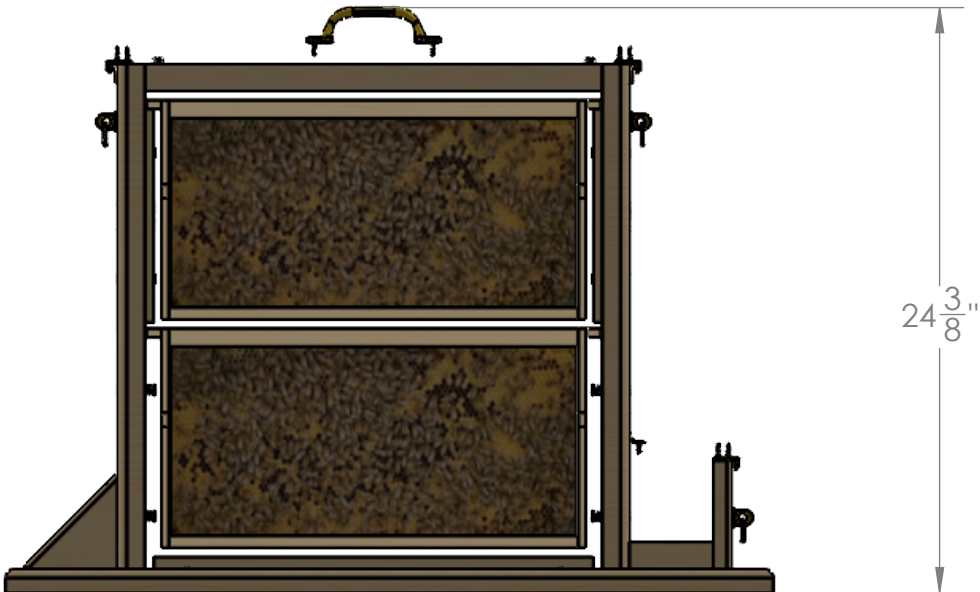
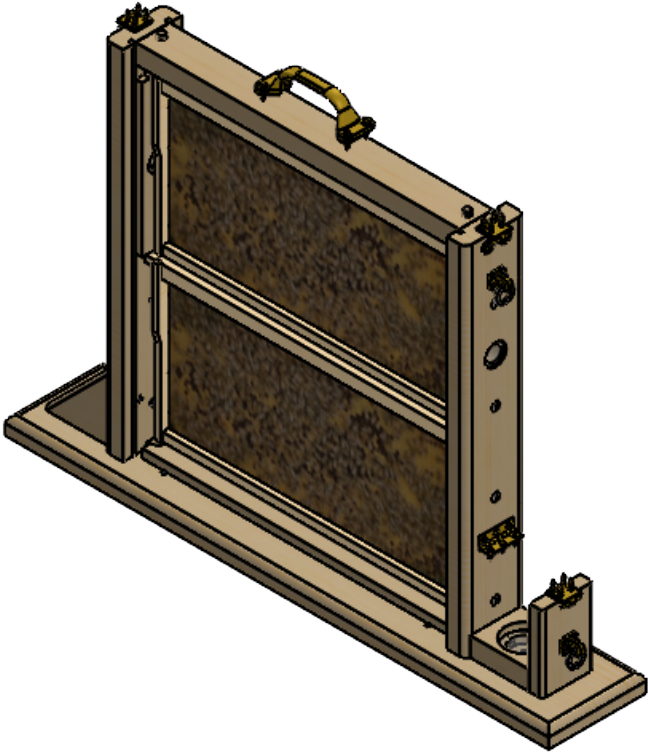
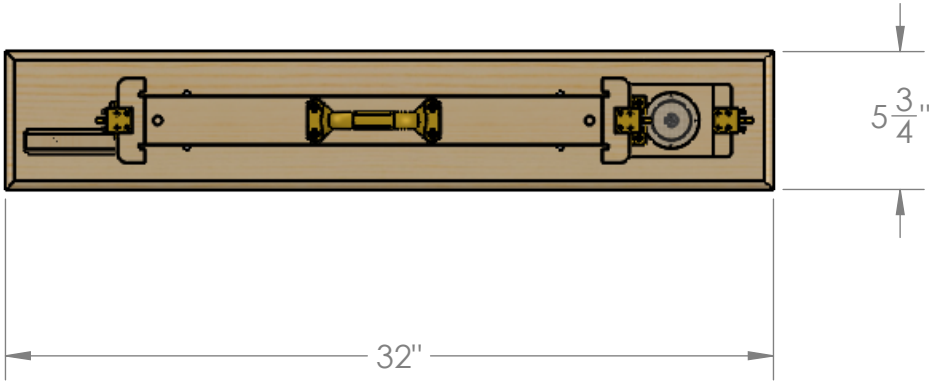


- NOTES:
- 1. SHOWN WITH FEEDER BOTTLE, AND TWO DEEP FRAMES.
  - 2. FINISH: STAIN.
  - 3. PREDRILL ALL HOLES.
  - 4. GLUE AND CLAMP SQUARE.
  - 5. POSITION, DRILL AND SCREW HASPS ON COMPLETED ASSEMBLY.
  - 6. STAPLE #8 HARDWARE MESH OVER VENT HOLES.
  - 7. FEEDER BOTTLE SHOULD HAVE A PLASTIC LID, AS METAL WILL RUST.
  - 8. HOLES IN FEEDER BOTTLE LID ARE 0.04" (#60 DRILL BIT).
  - 9. REMOVE ALL SHARP EDGES.



10050_D	-	OBSERVATION HIVE
PART NUMBER	REV	DESCRIPTION

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

THIRD ANGLE PROJECTION



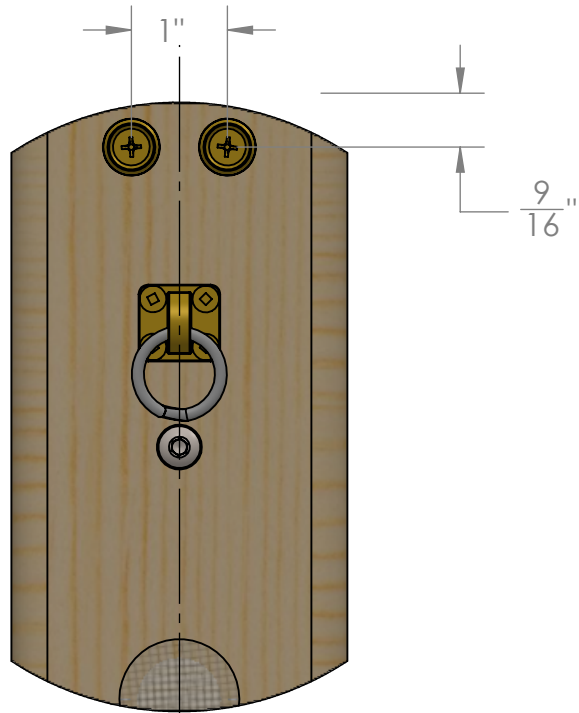
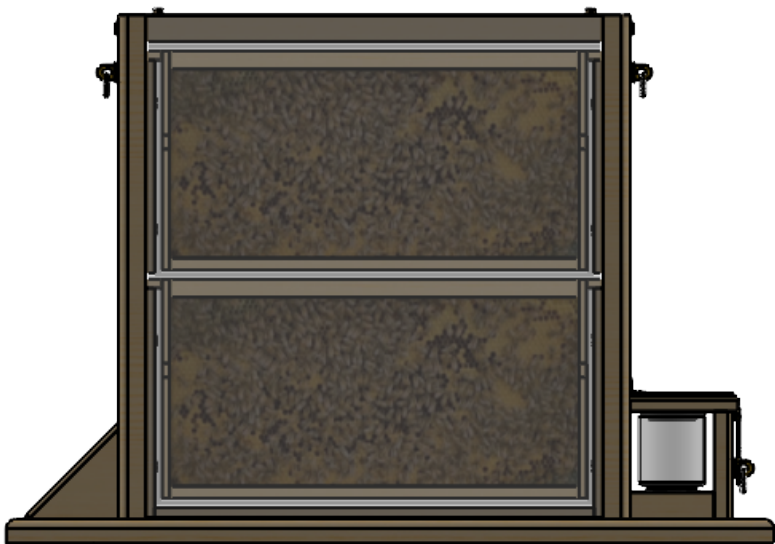
SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY	
PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.	
CUSTOMER BEE KEEPERS	
PROJECT HIVE PRODUCTS	
DRAWN BY F. FULKERSON	DATE 2025-01-27
CHECKED BY P.G. KELLY	DATE 2025-01-27
APPROVED P.G. KELLY	DATE 2025-01-27



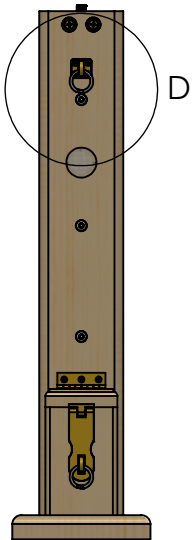
HONEY BEE RESEARCH CENTRE  
THE UNIVERSITY OF GUELPH

TITLE				
OBSERVATION HIVE				
SIZE	DRAWING NO			REVISION
B	10050_D			-
SCALE	1:8	WEIGHT	20.53 lbs	SHEET 1 OF 22

- NOTES:
- 1. SHOWN WITH FEEDER BOTTLE, TWO DEEP FRAMES.
  - 2. FINISH: STAIN.
  - 3. PREDRILL ALL HOLES.
  - 4. GLUE AND CLAMP SQUARE.
  - 5. POSITION, DRILL AND SCREW HASPS ON COMPLETED ASSEMBLY.
  - 6. STAPLE #8 HARDWARE MESH OVER VENT HOLES.
  - 7. FEEDER BOTTLE SHOULD HAVE A PLASTIC LID, AS METAL WILL RUST.
  - 8. HOLES IN FEEDER BOTTLE LID ARE 0.04 (#60 DRILLBIT).
  - 9. REMOVE ALL SHARP EDGES.



DETAIL D  
SCALE 1 : 2




10050_D	-	OBSERVATION HIVE
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED  
DO NOT SCALE DRAWING  
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PER ASME Y14.5-2018  
DIMENSIONS ARE IN INCHES

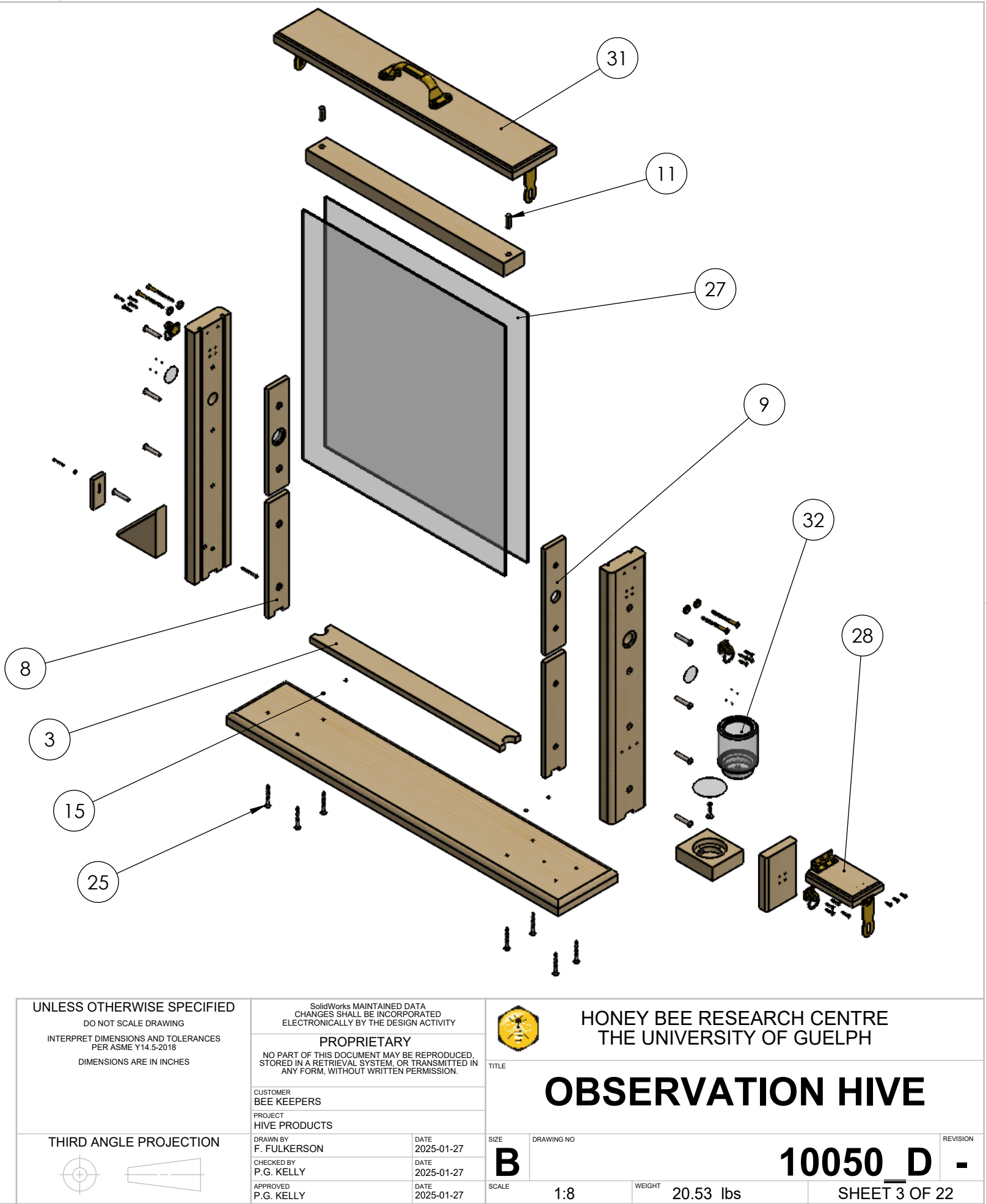
THIRD ANGLE PROJECTION



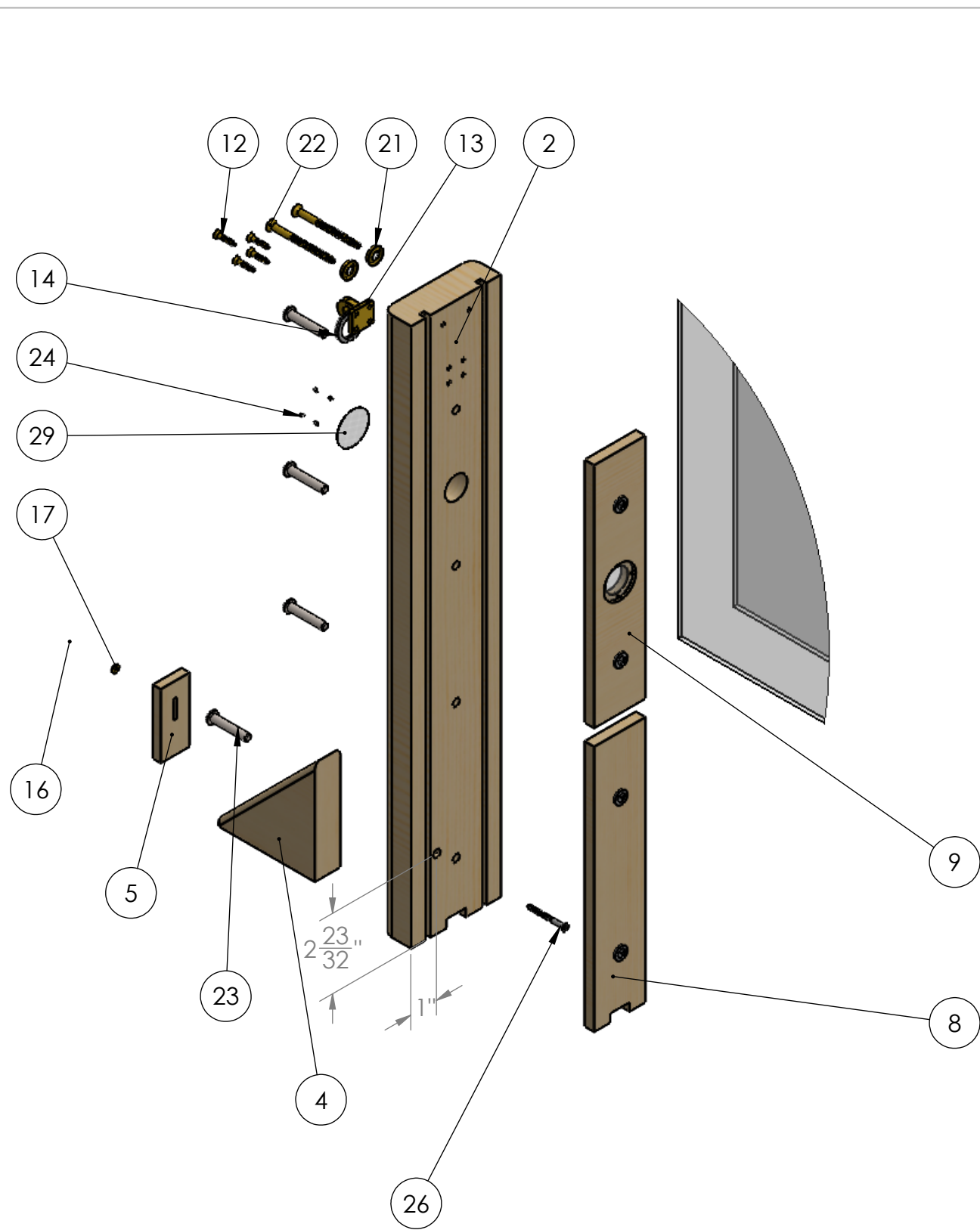
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PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.	
CUSTOMER BEE KEEPERS	
PROJECT HIVE PRODUCTS	
DRAWN BY F. FULKERSON	DATE 2025-01-27
CHECKED BY P.G. KELLY	DATE 2025-01-27
APPROVED P.G. KELLY	DATE 2025-01-27

		HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	
TITLE		OBSERVATION HIVE	
SIZE	DRAWING NO	10050_D -	
SCALE	1:8	WEIGHT	20.53 lbs
		SHEET 2 OF 22	

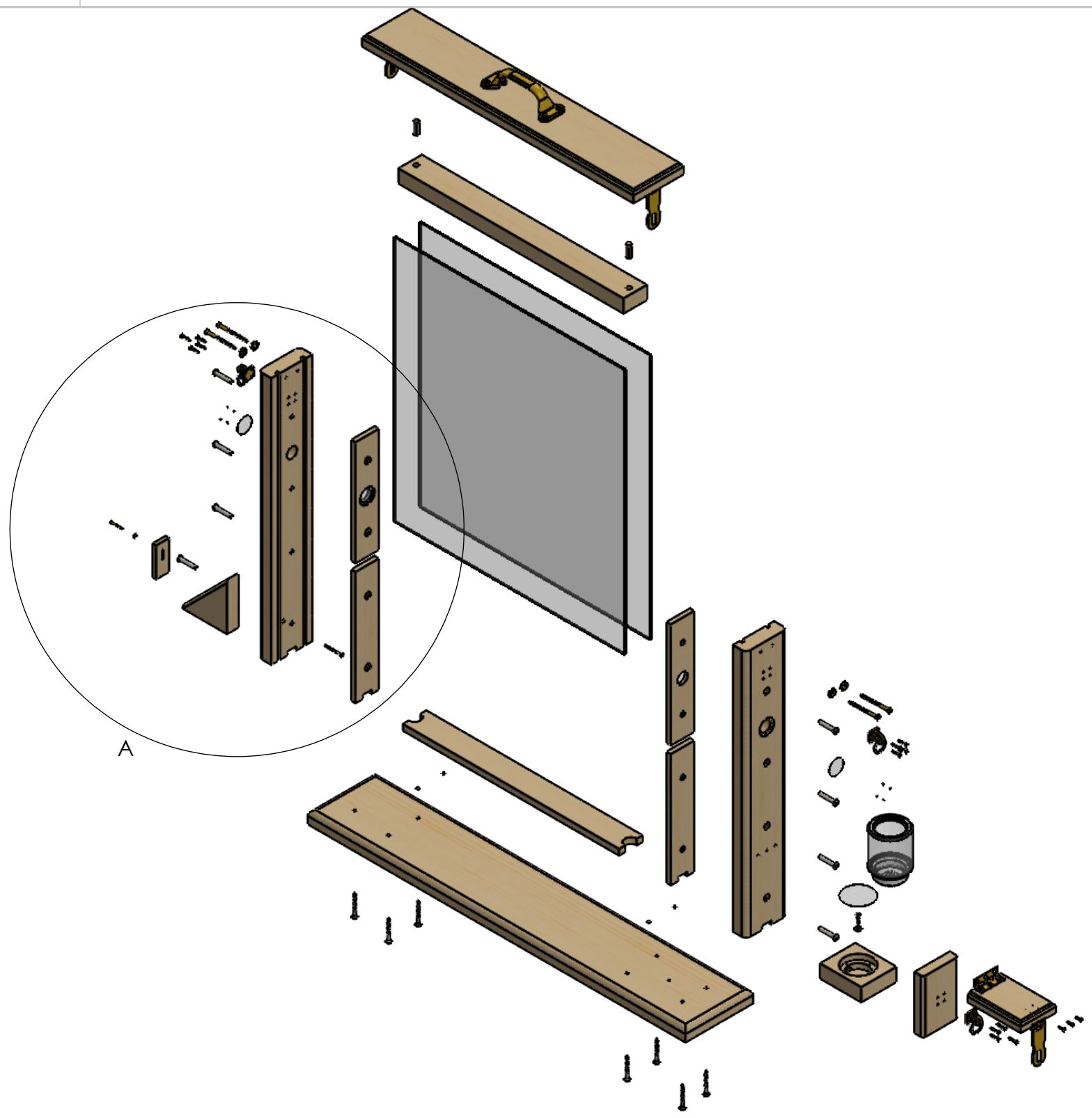
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2220_D	BASE	1
2	2221_D	SIDE	2
3	2228_D	INNER BASE	1
4	2223_D	GUSSET	1
5	2227_D	FEEDER HOLE COVER	1
6	2224_D	FEEDER BASE	1
7	2225_D	FEEDER SIDE	1
8	10055_D	LOWER FRAME REST	2
9	10054_D	UPPER FRAME REST	2
10	2231_D	INNER TOP	1
11	97195A109	3/8" Wood Dowel Pins	2
12	95188A310	Brass Square-Drive Flat-Head Screws for Wood	12
13	3851N11H_D	3851N11_Padlockable Hasp	3
14	90177A228	Zinc-Plated Steel Split Rings	3
15	95495K463	Adhesive-Back Bumpers	4
16	98685A560	Brass Phillips Decorative Rounded Head Screws	1
17	92916A320	Brass Washer	1
18	Regular FW 0.164	WASHER FOR #8 SCREW	1
19	91070A254	Rounded Head Screws for Plywood and OSB	1
20	92114A128	Brass Phillips Flat Head Screws for Wood	3
21	92921A011	Brass Countersunk Washer	4
22	92114A255	Brass Phillips Flat Head Screws for Wood	4
23	SBHCSCREW 0.25-20x1.375-HX-N	1/4-20 X 1-3/8 SBHCS	8
24	97900A210	STAPLE	12
25	90396A140	Flanged Rounded Head Screws for Wood	7
26	90610A157	Square-Drive Flat Head Screws for Wood	1
27	2232_D	TEMPERED GLASS PANEL 19 X 18-1/2 X 3/16	2
28	10052_D	FEEDER LID	1
29	2236_D	VENT SCREEN - #8 MESH HARDWARE CLOTH	2
30	2237_D	FEEDER SCREEN - #8 MESH HARDWARE CLOTH	1
31	10051_D	OBSERVATION HIVE TOP	1
32	10053_D	SYRUP BOTTLE	1









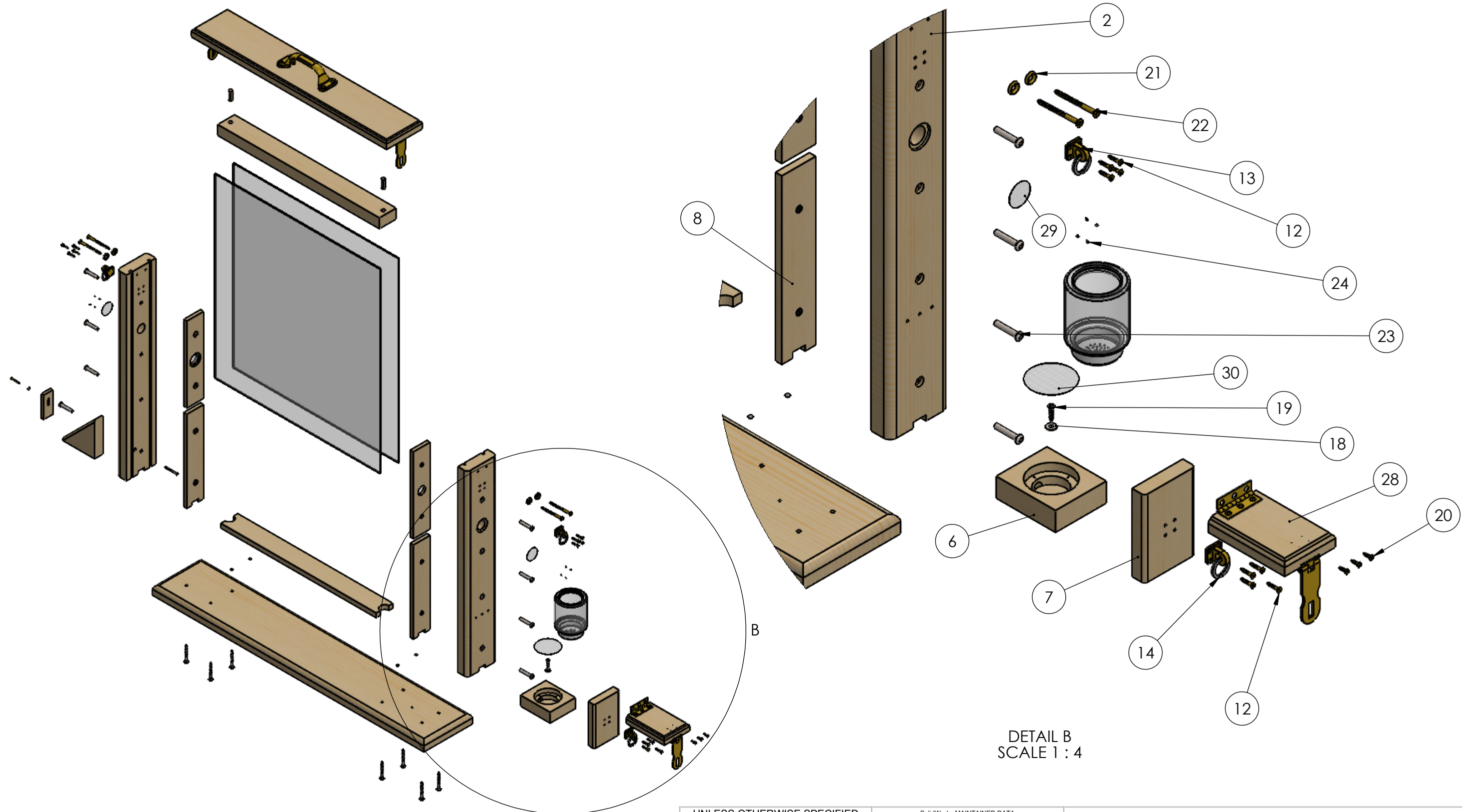
DETAIL A  
SCALE 1 : 4





<b>UNLESS OTHERWISE SPECIFIED</b> DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN INCHES		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY		 <b>HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH</b>	
<b>THIRD ANGLE PROJECTION</b> 		<b>PROPRIETARY</b> NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.			
CUSTOMER BEE KEEPERS		PROJECT HIVE PRODUCTS		TITLE	
DRAWN BY F. FULKERSON		DATE 2025-01-27		SIZE <b>B</b>	
CHECKED BY P.G. KELLY		DATE 2025-01-27		DRAWING NO	
APPROVED P.G. KELLY		DATE 2025-01-27		SCALE 1:8	
				WEIGHT 20.53 lbs	
				SHEET 4 OF 22	

**10050\_D**

-

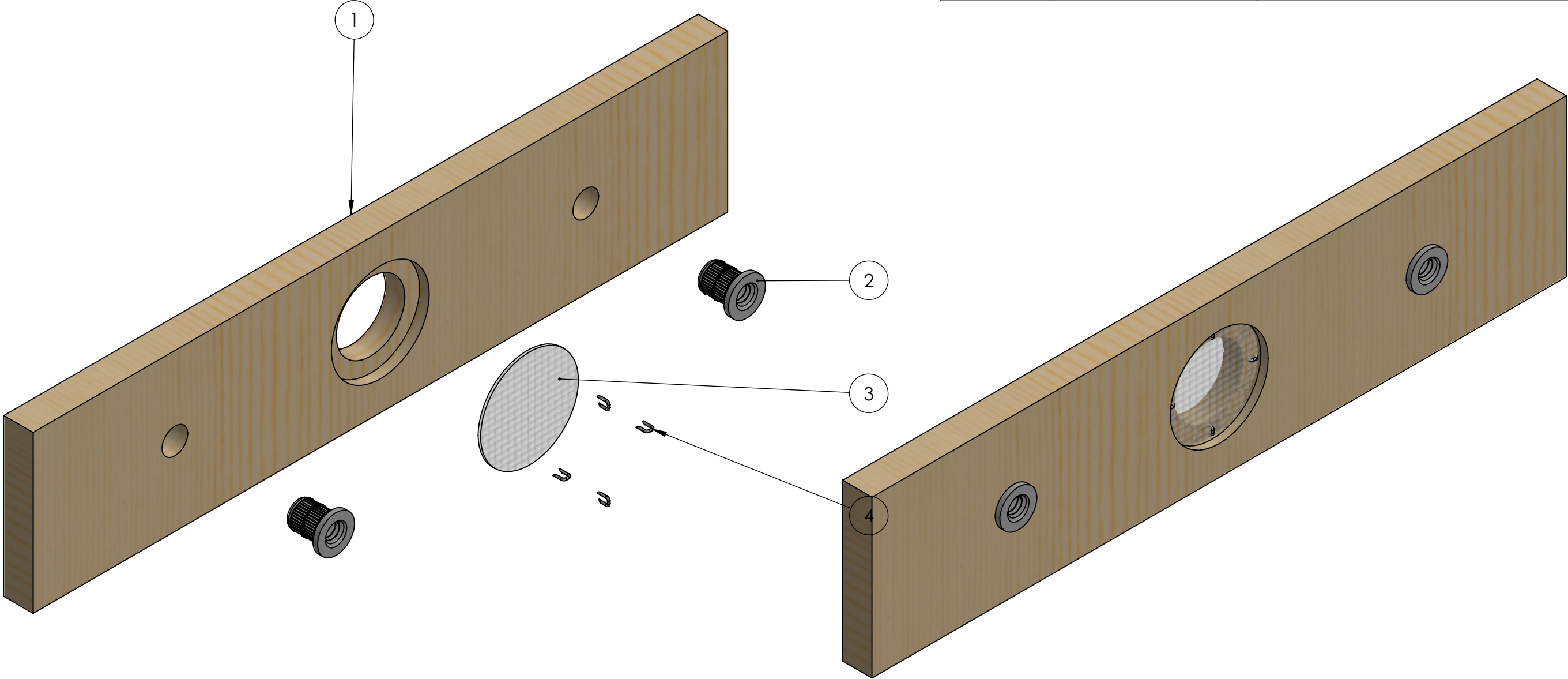


DETAIL B  
SCALE 1 : 4

UNLESS OTHERWISE SPECIFIED  DO NOT SCALE DRAWING  INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018  DIMENSIONS ARE IN INCHES		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY		<div></div> <div>HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH</div>		
		PROPRIETARY  NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.				
		CUSTOMER BEE KEEPERS				
<div>THIRD ANGLE PROJECTION</div> <div></div>		PROJECT HIVE PRODUCTS		<div>TITLE</div> <div>OBSERVATION HIVE</div>		
		DRAWN BY F. FULKERSON				DATE 2025-01-27
		CHECKED BY P.G. KELLY				DATE 2025-01-27
		APPROVED P.G. KELLY				DATE 2025-01-27
		SIZE B	DRAWING NO		REVISION	
		SCALE 1:8	WEIGHT 20.53 lbs		10050_D -	
		SHEET 5 OF 22				

NOTES:  
1. PRESS THREADED INSERTS INTO 21/64 HOLES.  
2. STAPLE #8 HARDWARE MESH INTO HOLE.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2230_D	UPPER FRAME SUPPORT	1
2	94738A310	Zinc-Plated Steel Knurled Inserts for Hardwood	2
3	2236_D	VENT SCREEN - #8 MESH HARDWARE CLOTH	1
4	97900A210	STAPLE	4



10054_D	-	UPPER FRAME REST
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN INCHES

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA  
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ELECTRONICALLY BY THE DESIGN ACTIVITY

**PROPRIETARY**

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CUSTOMER  
BEE KEEPERS

PROJECT  
HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 2025-01-27
CHECKED BY P.G. KELLY	DATE 2025-01-27
APPROVED P.G. KELLY	DATE 2025-01-27

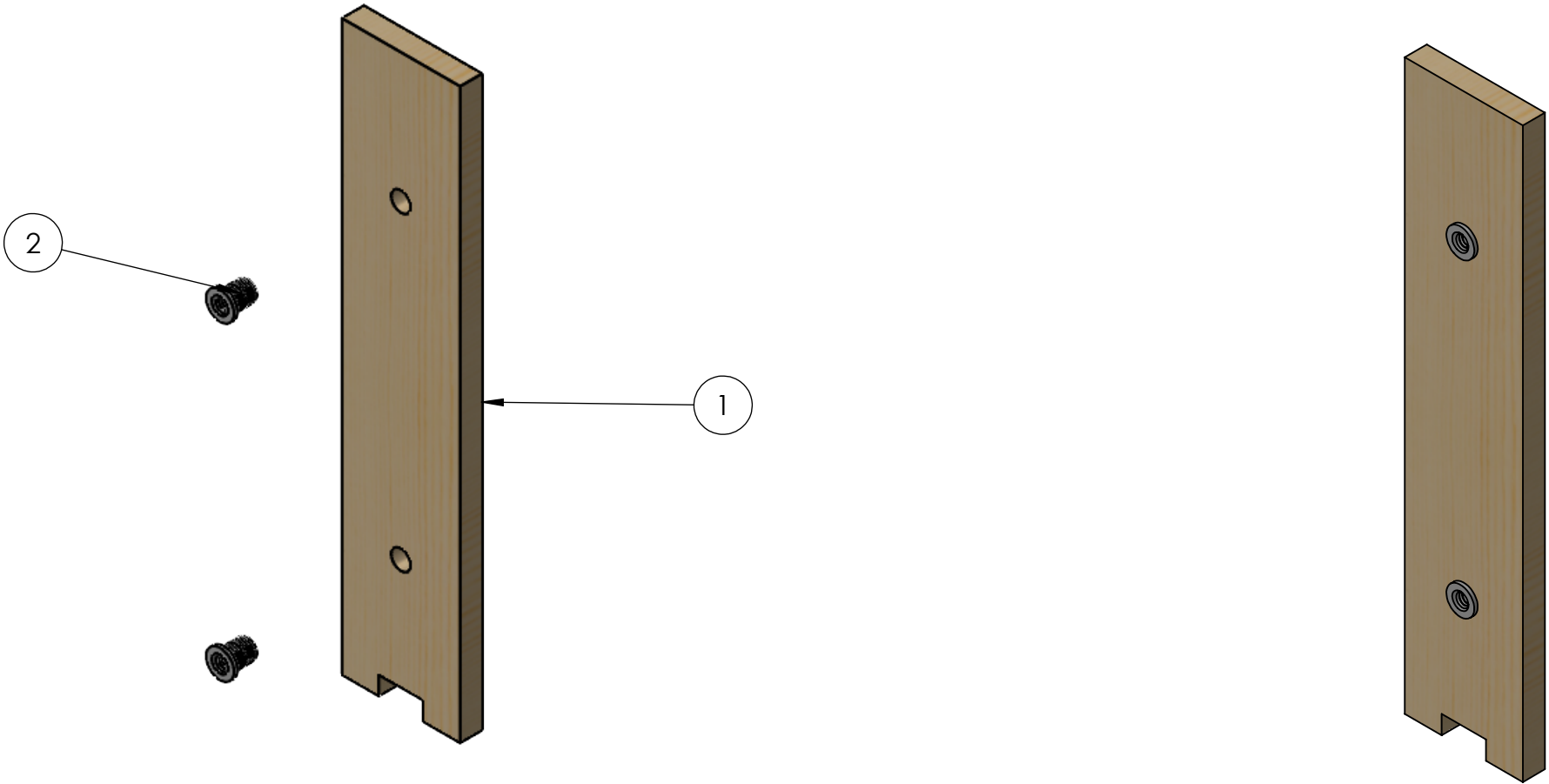
HONEY BEE RESEARCH CENTRE  
THE UNIVERSITY OF GUELPH

TITLE  
**UPPER FRAME REST**

SIZE <b>B</b>	DRAWING NO.	REVISION
SCALE 1:1	WEIGHT 0.09 lbs	<b>10050_D -</b> SHEET 6 OF 22

NOTES:  
1. PRESS THREADED INSERTS INTO 21/64 HOLES.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2229_D	INNER LOWER SIDE	1
2	94738A310	Zinc-Plated Steel Knurled Inserts for Hardwood	2



10055_D	-	LOWER FRAME REST
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN INCHES

THIRD ANGLE PROJECTION

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**PROPRIETARY**

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CUSTOMER  
BEE KEEPERS

PROJECT  
HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 2025-01-27
CHECKED BY P.G. KELLY	DATE 2025-01-27
APPROVED P.G. KELLY	DATE 2025-01-27

HONEY BEE RESEARCH CENTRE  
THE UNIVERSITY OF GUELPH

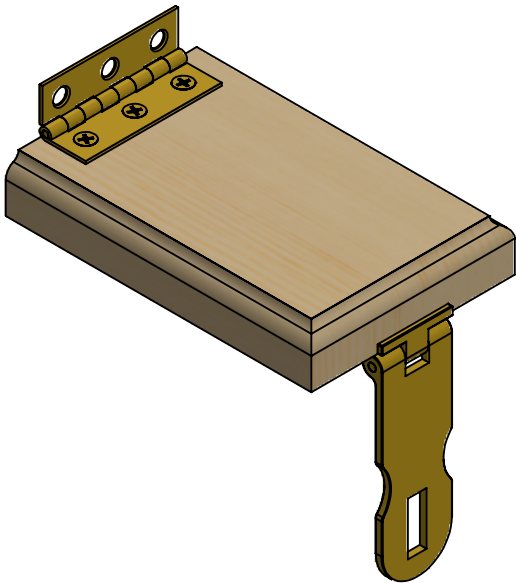
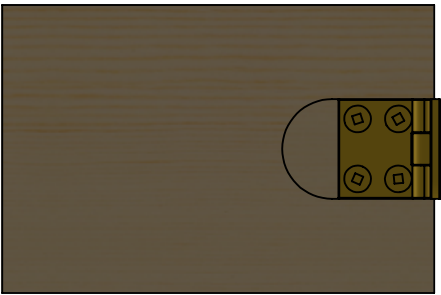
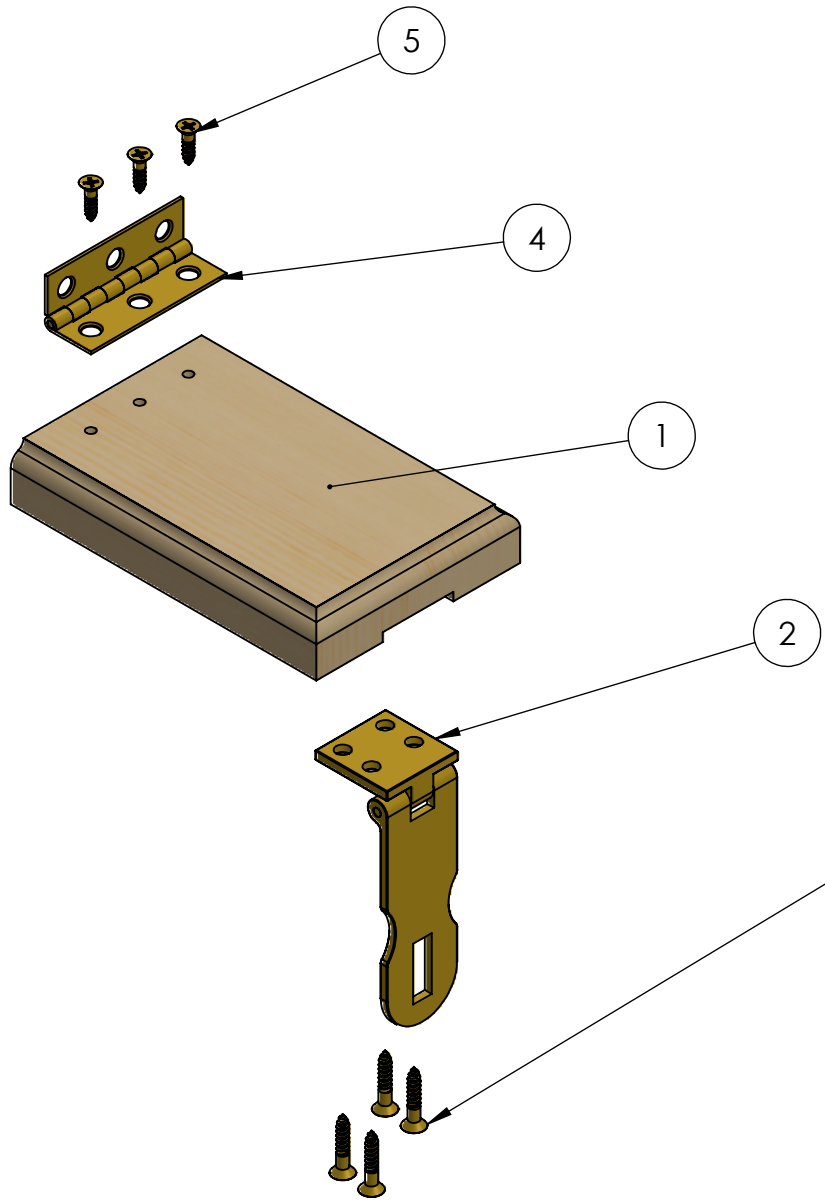
TITLE  
**LOWER FRAME REST**

SIZE <b>B</b>	DRAWING NO.	REVISION
SCALE 1:2	WEIGHT 0.09 lbs	<b>10050_D -</b>


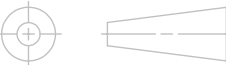
SHEET 7 OF 22



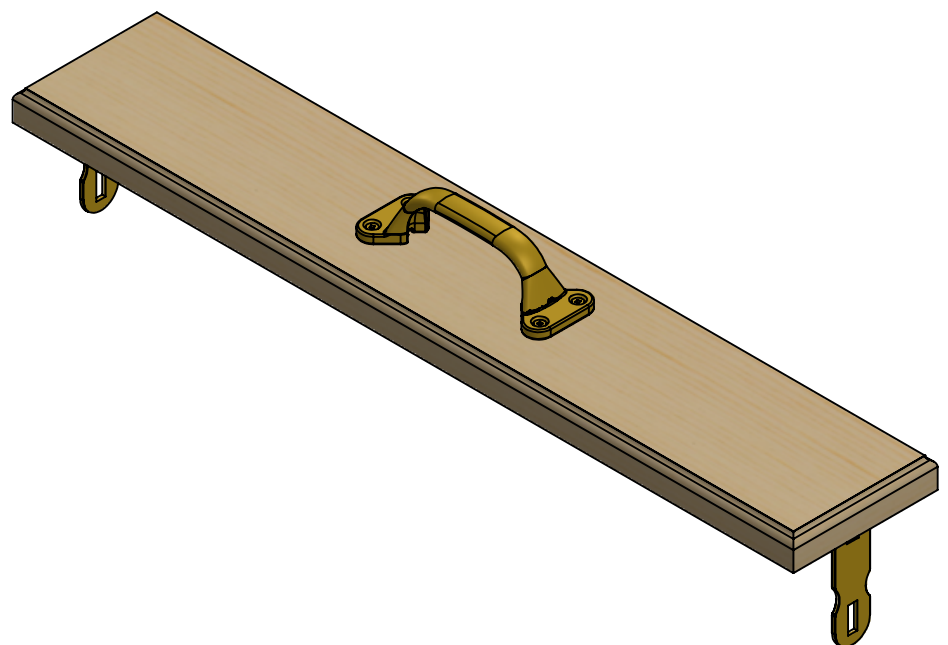
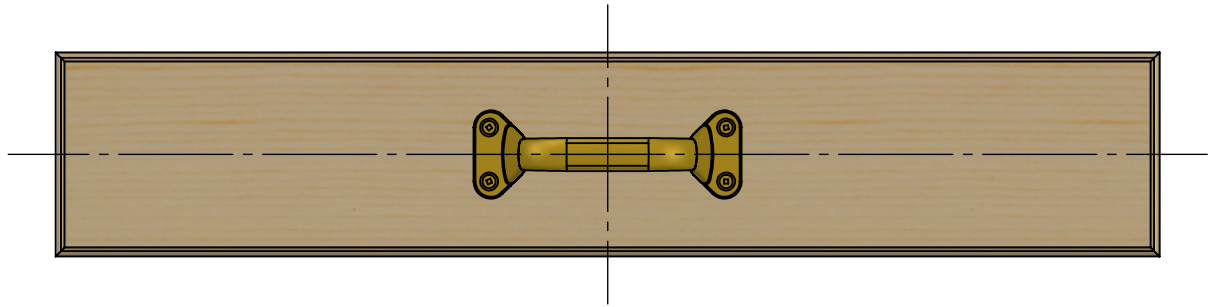
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2226_D	FEEDER TOP	1
2	3851N11_D	PADLOCKABLE HASP	1
3	95188A310	Brass Square-Drive Flat-Head Screws for Wood	4
4	1603A24_D	2" SURFACE MOUNT HINGE	1
5	92114A128	Brass Phillips Flat Head Screws for Wood	3



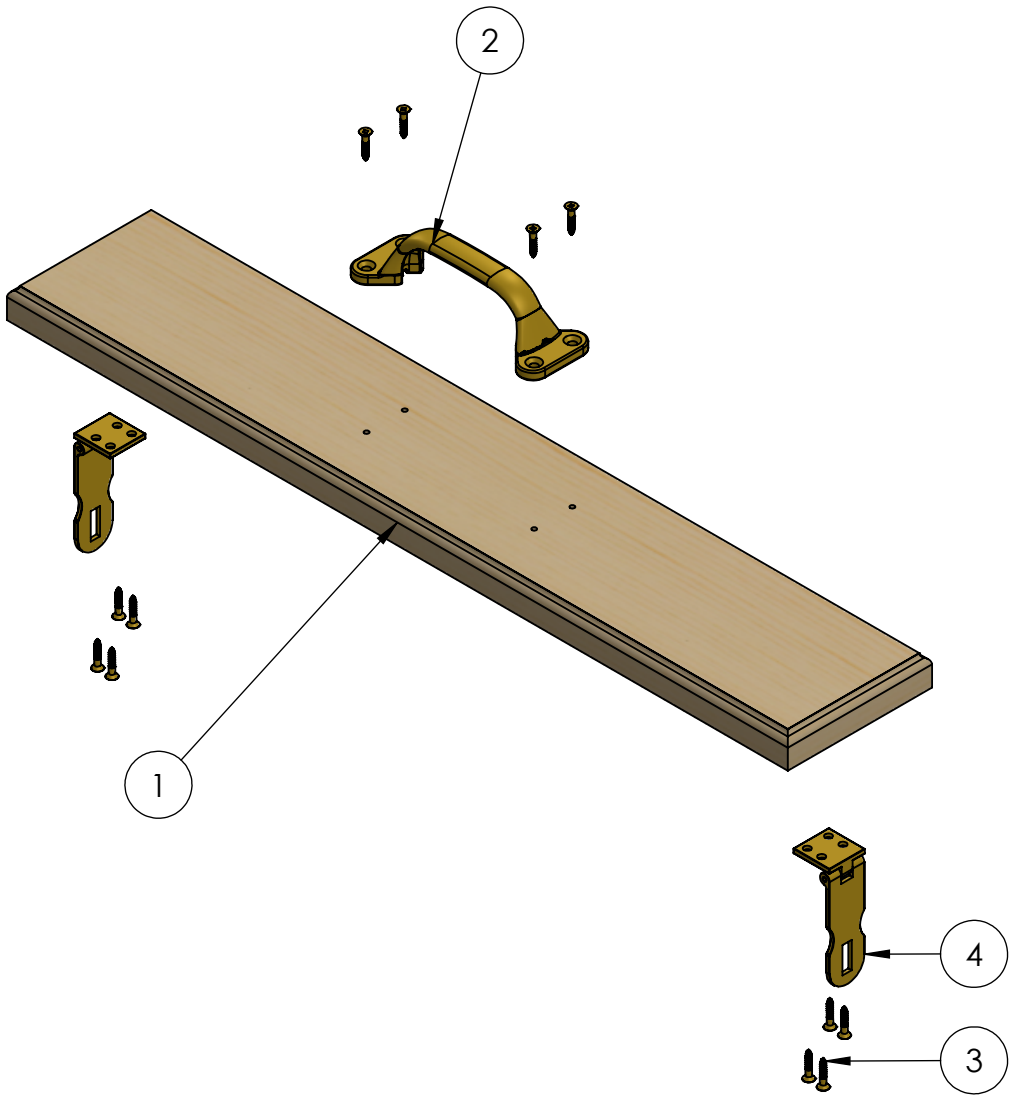
10052_D	-	FEEDER LID
PART NUMBER	REV	DESCRIPTION

<div>UNLESS OTHERWISE SPECIFIED</div> <div>DO NOT SCALE DRAWING</div> <div>INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018</div> <div>DIMENSIONS ARE IN INCHES</div>		<div>SolidWorks MAINTAINED DATA</div> <div>CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY</div>		<div></div> <div>HONEY BEE RESEARCH CENTRE</div> <div>THE UNIVERSITY OF GUELPH</div>	
		PROPRIETARY			
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		CUSTOMER BEE KEEPERS			
<div>THIRD ANGLE PROJECTION</div> <div></div>		PROJECT HIVE PRODUCTS		<div>TITLE</div> <div>FEEDER LID</div>	
		DRAWN BY F. FULKERSON			
		CHECKED BY P.G. KELLY			
		APPROVED P.G. KELLY			
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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2222_D	TOP PANEL	1
2	1646A35	Unthreaded-Hole Oval Pull Handle	1
3	95188A310	Brass Square-Drive Flat-Head Screws for Wood	12
4	3851N11_D	PADLOCKABLE HASP	2



10051_D	-	OBSERVATION HIVE TOP
PART NUMBER	REV	DESCRIPTION

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SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY

**PROPRIETARY**

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CUSTOMER BEE KEEPERS	
PROJECT HIVE PRODUCTS	
DRAWN BY F. FULKERSON	DATE 2025-01-27
CHECKED BY P.G. KELLY	DATE 2025-01-27
APPROVED P.G. KELLY	DATE 2025-01-27

HONEY BEE RESEARCH CENTRE  
THE UNIVERSITY OF GUELPH

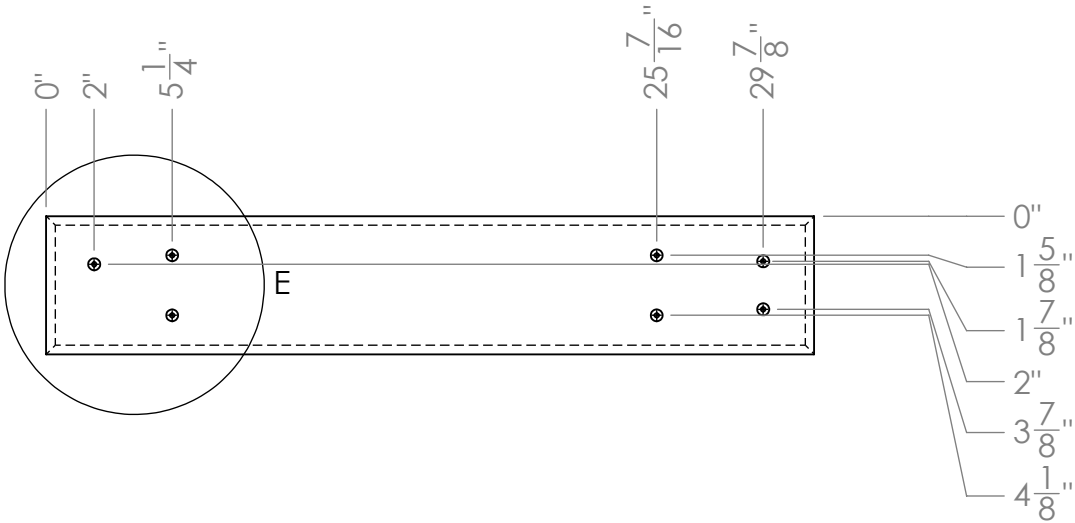
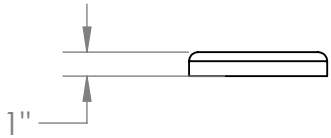
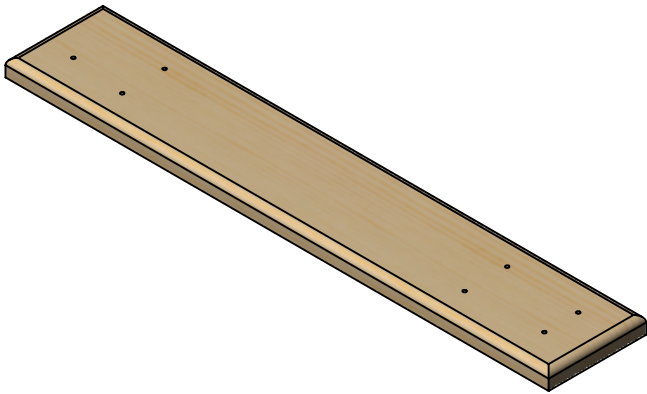
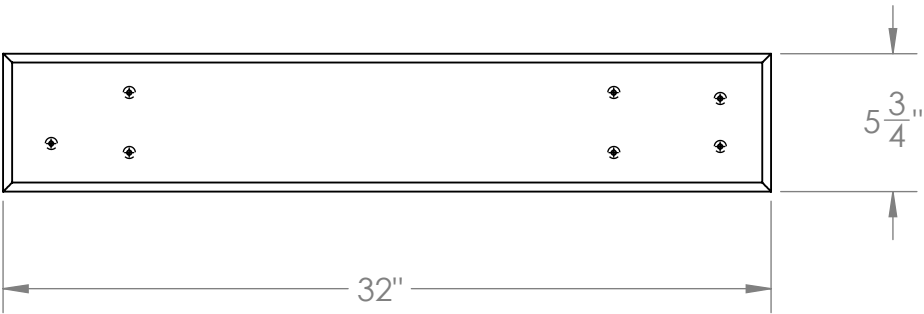
TITLE

**OBSERVATION HIVE TOP**

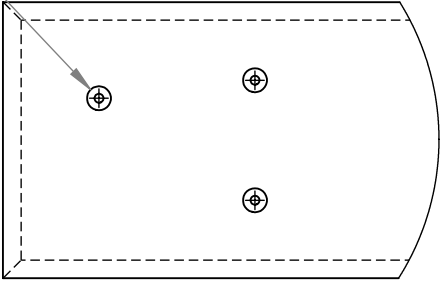
SIZE <b>B</b>	DRAWING NO.	REVISION
SCALE 1:4	WEIGHT 1.81 lbs	<b>10050_D -</b>

SHEET 9 OF 22

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



7 X Ø 3/16" THRU  
□ Ø 1/2" ∇ 1/4"



DETAIL E  
SCALE 1 : 4

2220_D	-	BASE
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN INCHES

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA  
CHANGES SHALL BE INCORPORATED  
ELECTRONICALLY BY THE DESIGN ACTIVITY

**PROPRIETARY**

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CUSTOMER  
BEE KEEPERS

PROJECT  
HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 2025-01-27
CHECKED BY P.G. KELLY	DATE 2025-01-27
APPROVED P.G. KELLY	DATE 2025-01-27

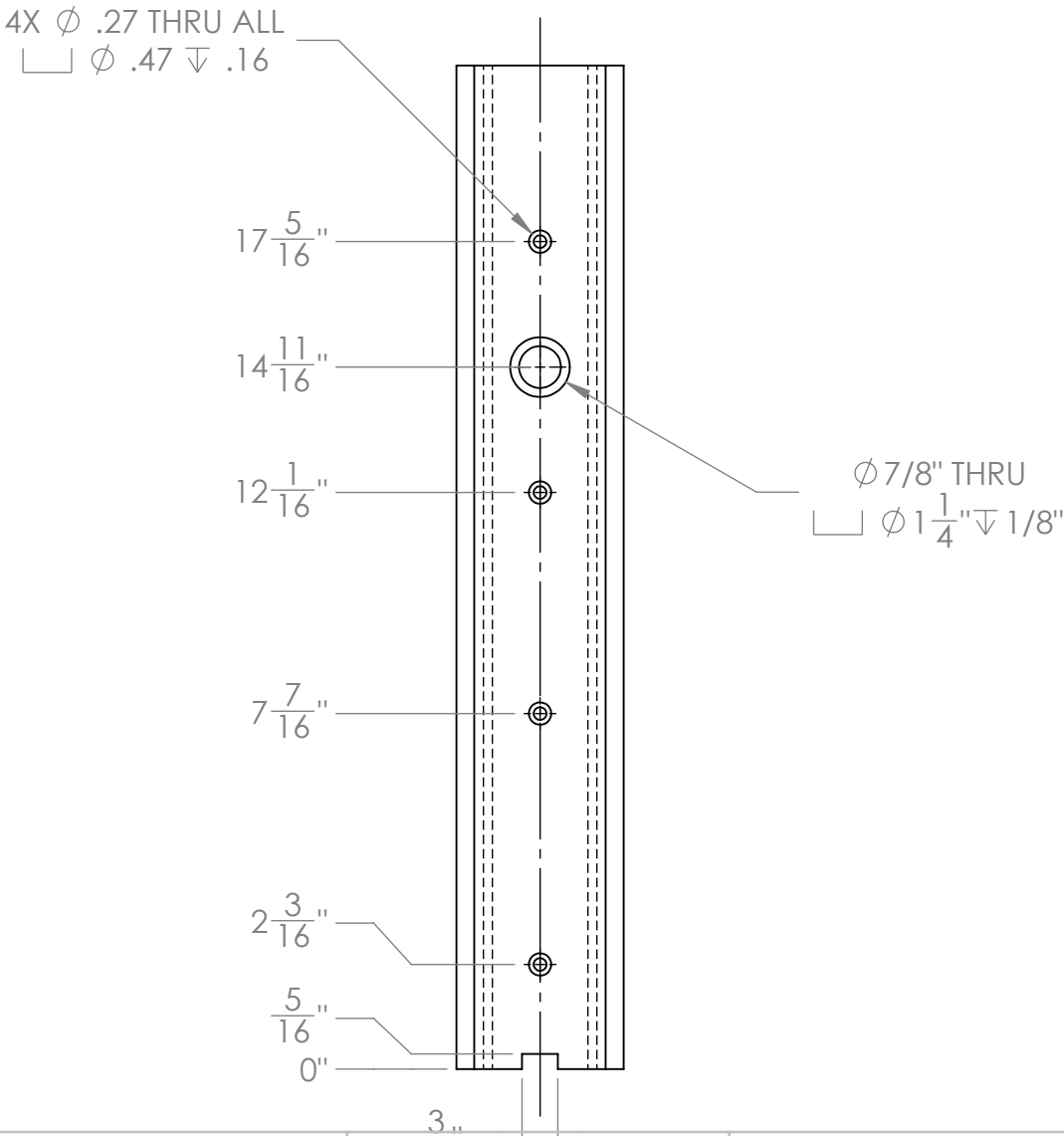
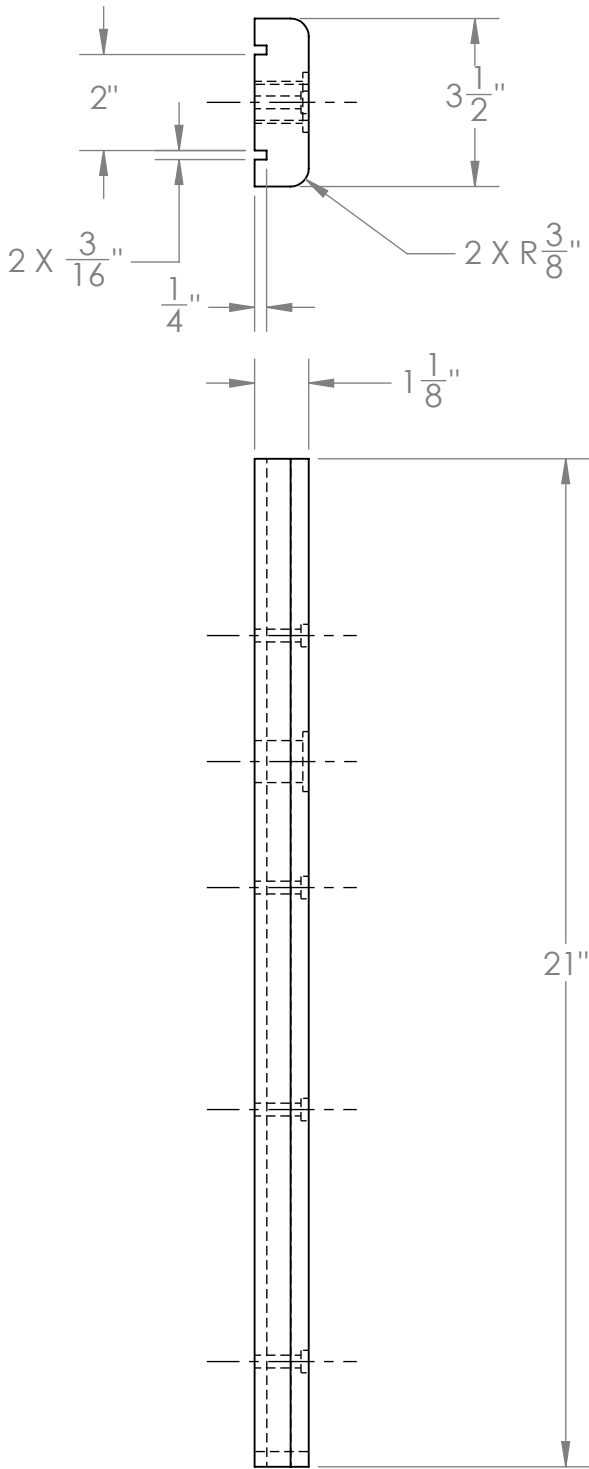
HONEY BEE RESEARCH CENTRE  
THE UNIVERSITY OF GUELPH

TITLE  
**BASE**



SIZE <b>B</b>	DRAWING NO	REVISION
SCALE 1:8	WEIGHT 2.23 lbs	<b>10050_D -</b>

SHEET 10 OF 22

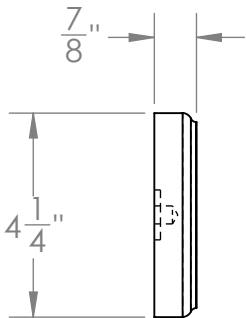
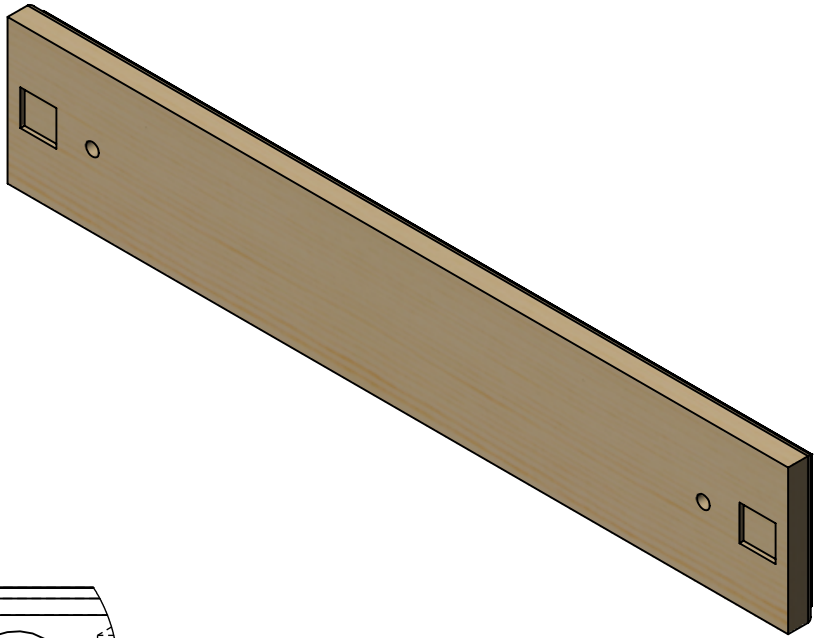
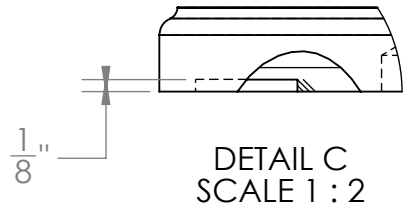
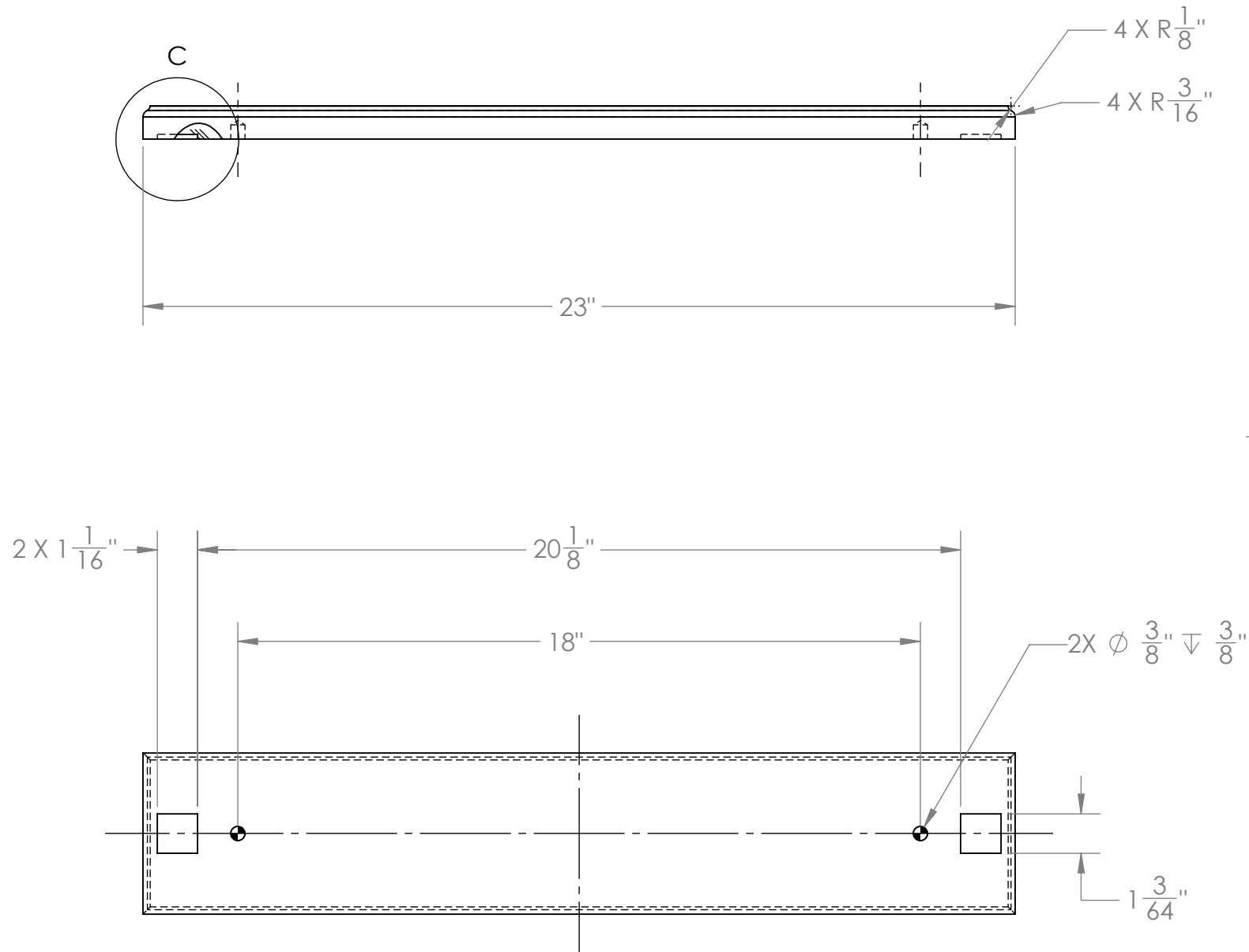
- NOTES:  
1. MATERIAL: Pine.  
2. FINISH: STAIN.  
3. REMOVE ALL SHARP EDGES.



2221_D	-	SIDE
PART NUMBER	REV	DESCRIPTION

<div>UNLESS OTHERWISE SPECIFIED</div> <div>DO NOT SCALE DRAWING</div> <div>INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018</div> <div>DIMENSIONS ARE IN INCHES</div>		<div>SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY</div>		<div></div> <div>HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH</div>	
		PROPRIETARY			
		NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.			
		CUSTOMER BEE KEEPERS			
<div>THIRD ANGLE PROJECTION</div> <div></div>		PROJECT HIVE PRODUCTS		<div>TITLE</div> <div>SIDE</div>	
		DRAWN BY F. FULKERSON			
		CHECKED BY P.G. KELLY			
		APPROVED P.G. KELLY			
		DATE 2025-01-27		SIZE B	
		DATE 2025-01-27		DRAWING NO	
		DATE 2025-01-27		SCALE 1:4	
				WEIGHT 0.96 lbs	
				SHEET 11 OF 22	
				10050_D -	

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



2222_D	-	TOP PANEL
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN INCHES

THIRD ANGLE PROJECTION

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.

CUSTOMER	BEE KEEPERS
PROJECT	HIVE PRODUCTS
DRAWN BY	F. FULKERSON
CHECKED BY	P.G. KELLY
APPROVED	P.G. KELLY
DATE	2025-01-27

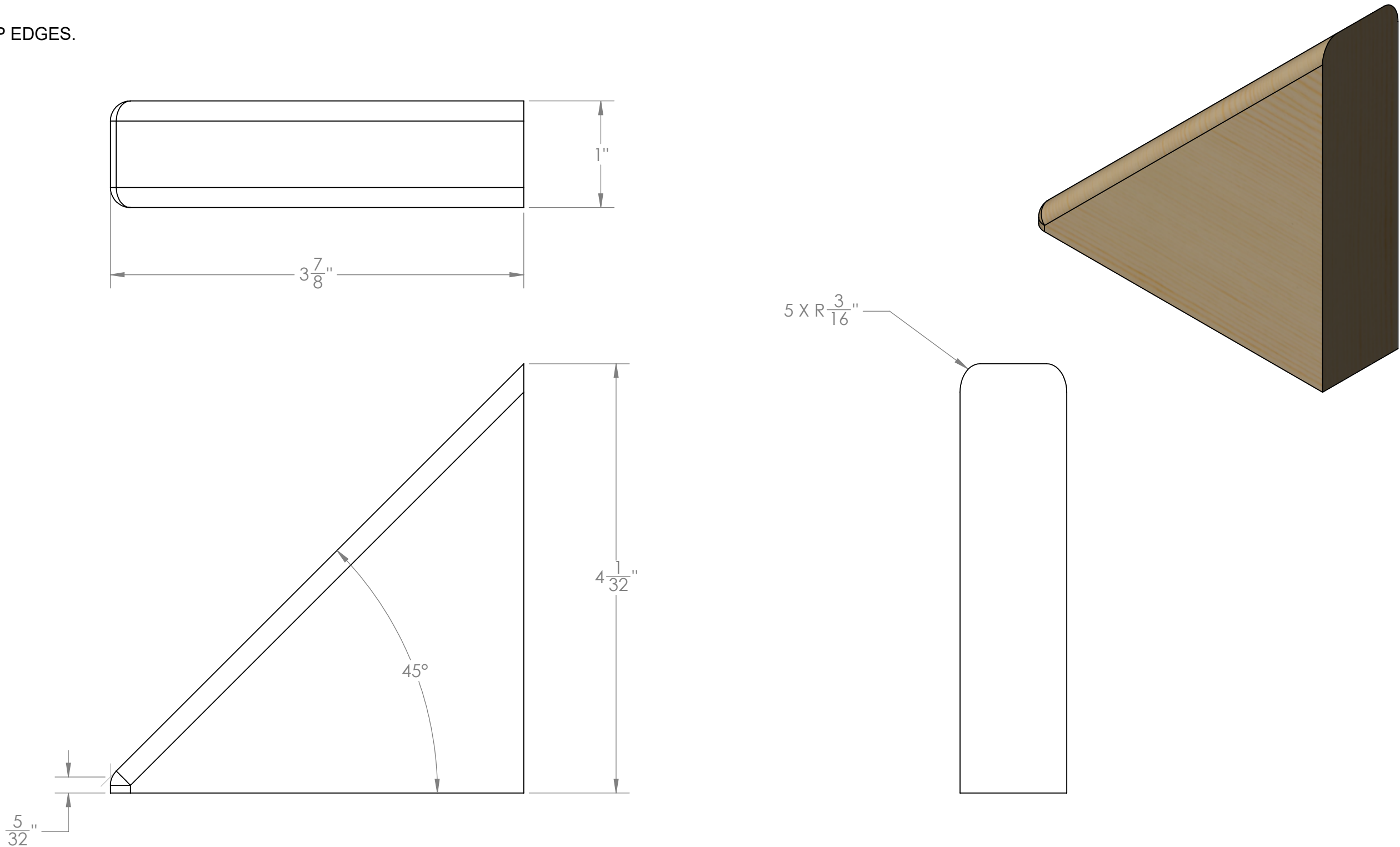
HONEY BEE RESEARCH CENTRE  
THE UNIVERSITY OF GUELPH

**TOP PANEL**



SIZE	DRAWING NO	REVISION
<b>B</b>		<b>10050_D -</b>
SCALE	1:4	WEIGHT 1.03 lbs



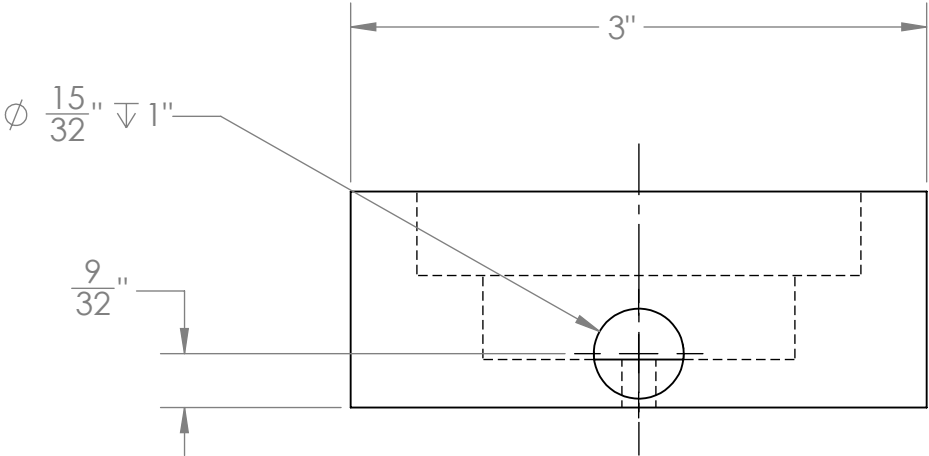
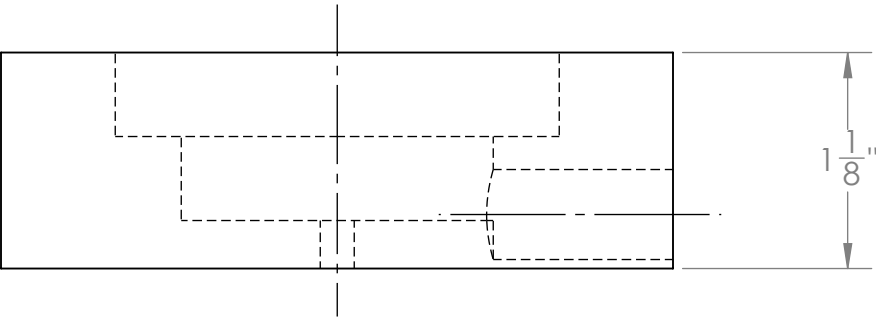
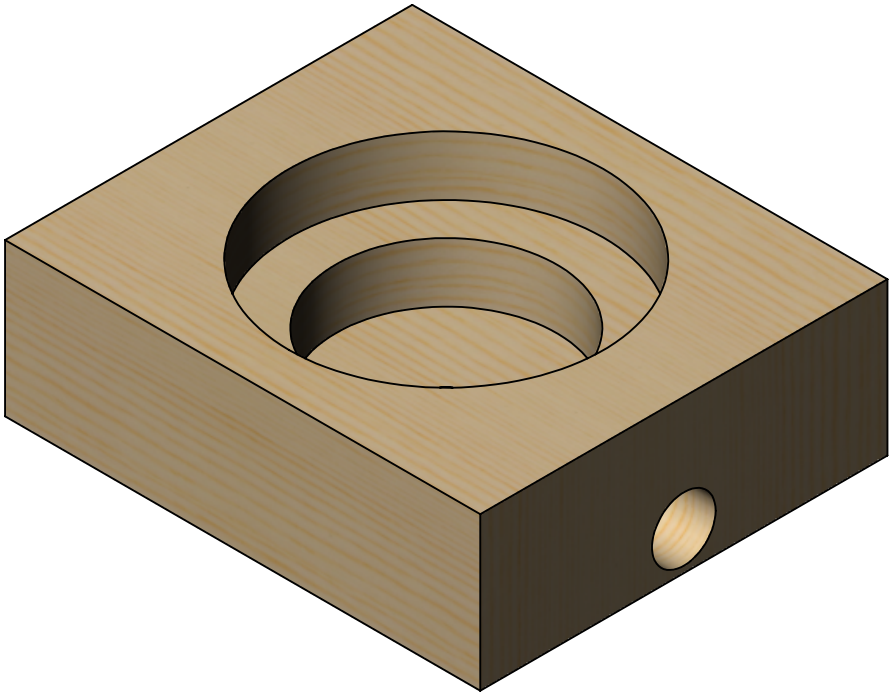
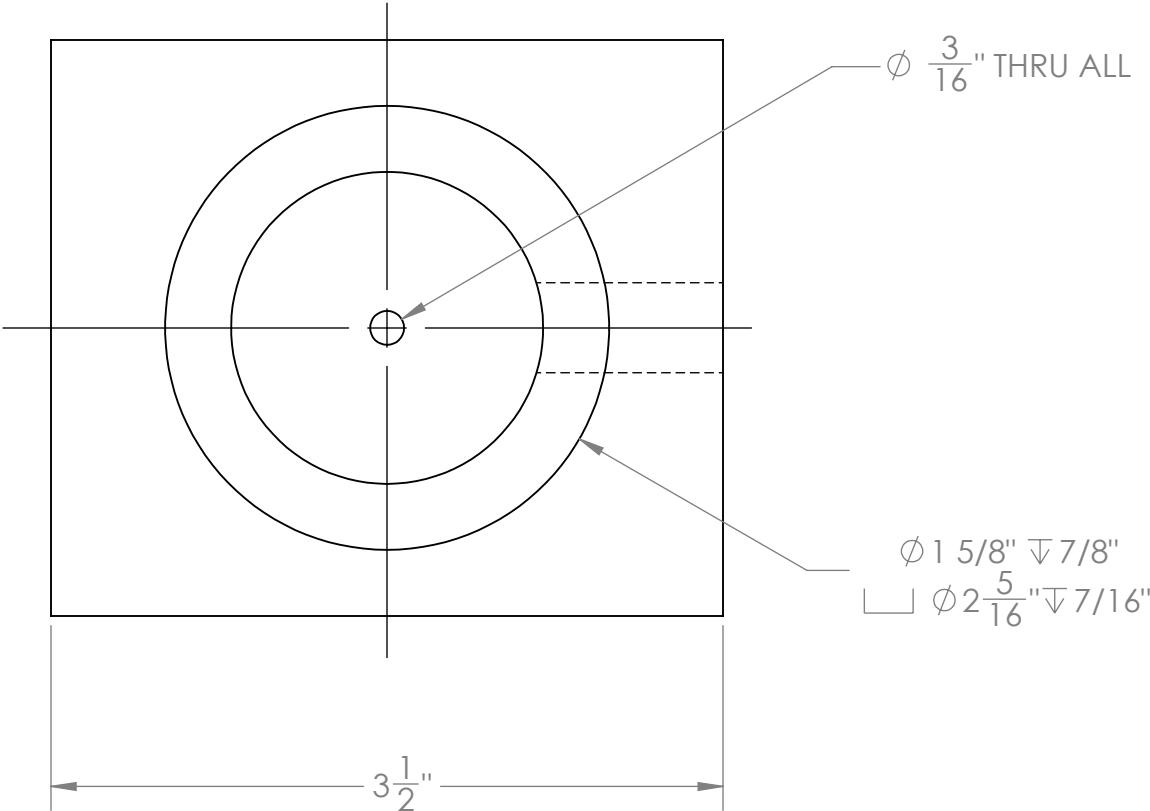
- NOTES:
- 1. MATERIAL: Pine.
  - 2. FINISH: STAIN.
  - 3. REMOVE ALL SHARP EDGES.




2223_D	-	GUSSET
PART NUMBER	REV	DESCRIPTION


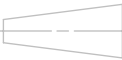
<b>UNLESS OTHERWISE SPECIFIED</b> DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN INCHES	SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY		 <b>HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH</b>		
	<b>PROPRIETARY</b> NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.				
	CUSTOMER BEE KEEPERS		<b>GUSSET</b>		
	PROJECT HIVE PRODUCTS				
<b>THIRD ANGLE PROJECTION</b> 	DRAWN BY F. FULKERSON	DATE 2025-01-27	SIZE <b>B</b>	DRAWING NO	REVISION
	CHECKED BY P.G. KELLY	DATE 2025-01-27	<b>10050_D -</b>	SCALE 1:1	WEIGHT 0.10 lbs
	APPROVED P.G. KELLY	DATE 2025-01-27			

- NOTES:
- 1. MATERIAL: Pine.
  - 2. FINISH: STAIN.
  - 3. SIZES MAY NEED TO BE ALTERED TO SUIT YOUR FEEDER JAR.
  - 4. REMOVE ALL SHARP EDGES.

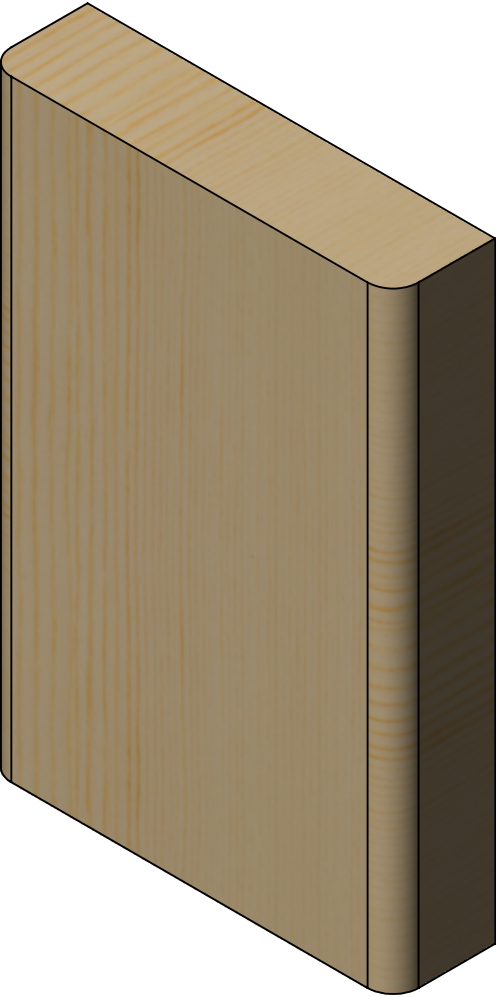
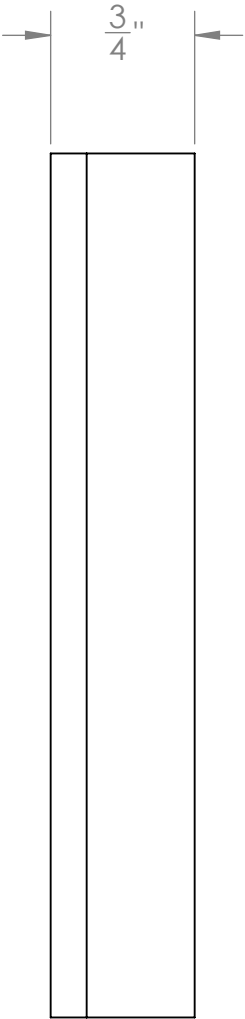
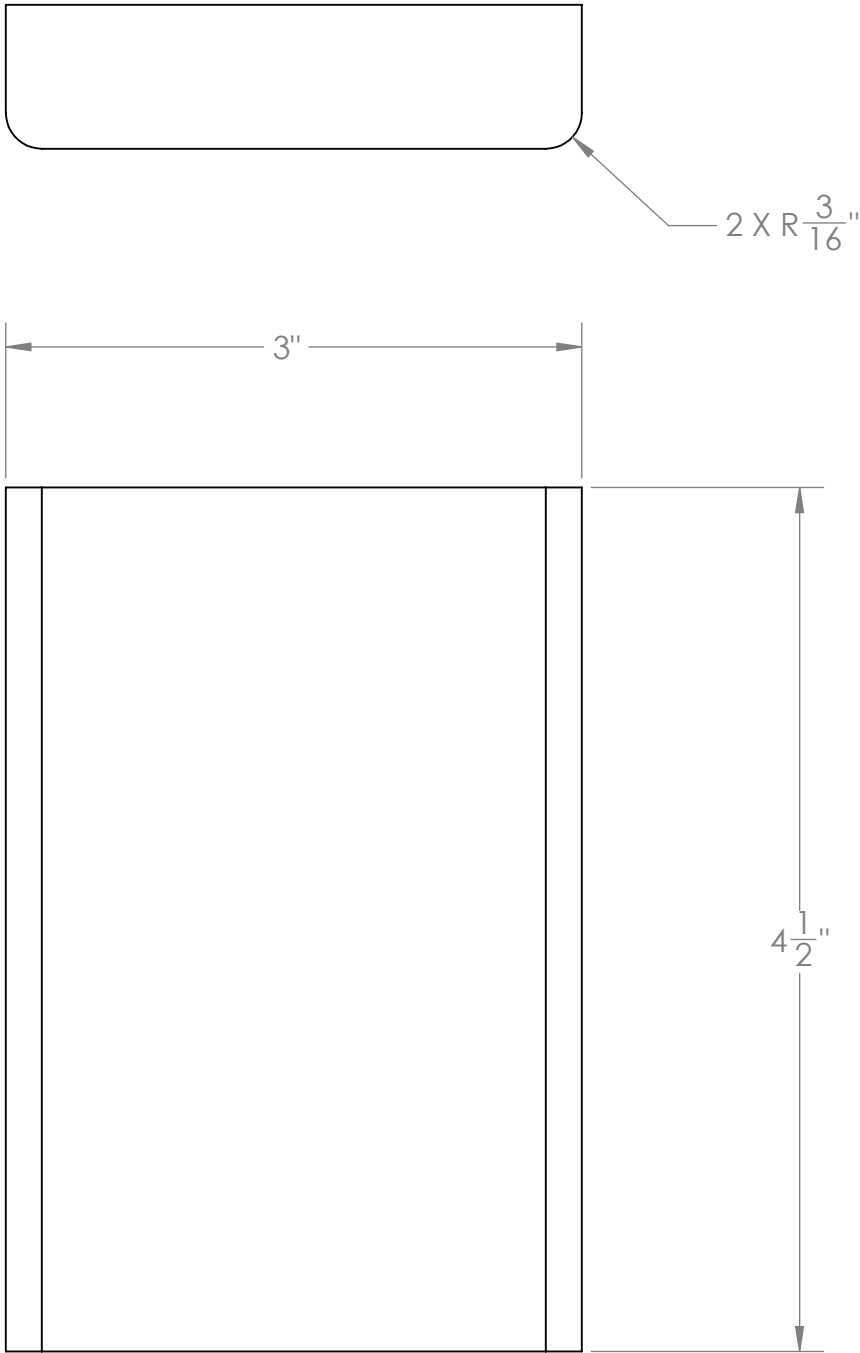


2224_D	-	FEEDER BASE
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING  INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018  DIMENSIONS ARE IN INCHES		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY		 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH				
		PROPRIETARY  NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.						
		CUSTOMER BEE KEEPERS		TITLE				
PROJECT HIVE PRODUCTS		<h1>FEEDER BASE</h1>						
DRAWN BY F. FULKERSON						SIZE	DRAWING NO	REVISION
CHECKED BY P.G. KELLY						<b>B</b>		
APPROVED P.G. KELLY						SCALE	1:1	WEIGHT 0.11 lbs
						SHEET 14 OF 22		

THIRD ANGLE PROJECTION	
	

- NOTES:
- 1. MATERIAL: Pine.
  - 2. FINISH: STAIN.
  - 3. SIZES MAY NEED TO BE ALTERED TO SUIT YOUR FEEDER JAR.
  - 4. REMOVE ALL SHARP EDGES.



2225_D	-	FEEDER SIDE
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN INCHES

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA  
CHANGES SHALL BE INCORPORATED  
ELECTRONICALLY BY THE DESIGN ACTIVITY

**PROPRIETARY**

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CUSTOMER  
BEE KEEPERS

PROJECT  
HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 2025-01-27
CHECKED BY P.G. KELLY	DATE 2025-01-27
APPROVED P.G. KELLY	DATE 2025-01-27

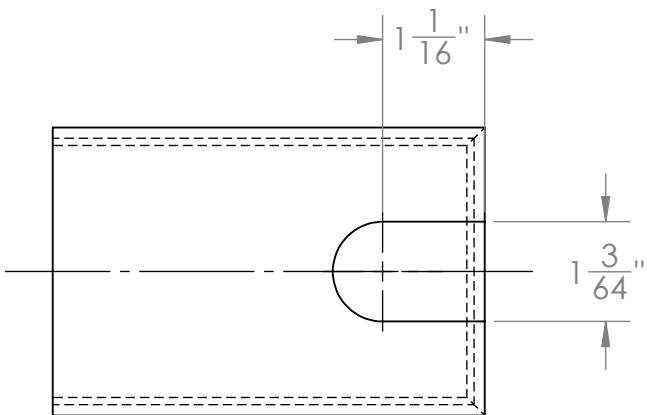
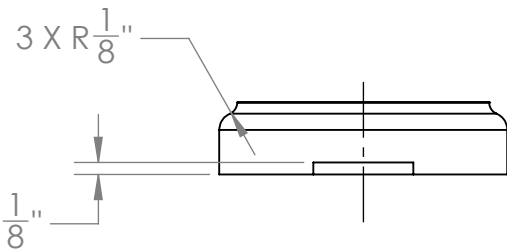
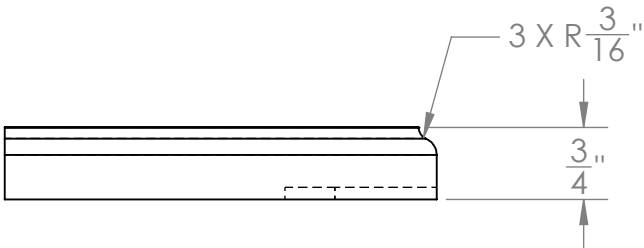
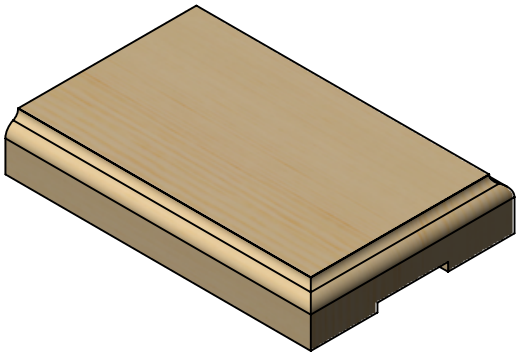
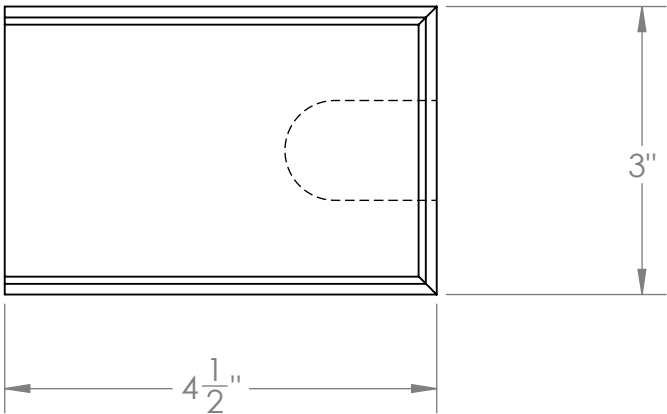
HONEY BEE RESEARCH CENTRE  
THE UNIVERSITY OF GUELPH

TITLE  
**FEEDER SIDE**

SIZE <b>B</b>	DRAWING NO.	REVISION
SCALE 1:1	WEIGHT 0.12 lbs	SHEET 15 OF 22

**10050\_D -**

- NOTES:
- 1. MATERIAL: Pine.
  - 2. FINISH: STAIN.
  - 3. SIZES MAY NEED TO BE ALTERED TO SUIT YOUR FEEDER JAR.
  - 4. REMOVE ALL SHARP EDGES.



2226_D	-	FEEDER TOP
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN INCHES

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA

CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY

PROPRIETARY

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CUSTOMER

BEE KEEPERS

PROJECT

HIVE PRODUCTS

DRAWN BY

F. FULKERSON

DATE

2025-01-27

CHECKED BY

P.G. KELLY

DATE

2025-01-27

APPROVED

P.G. KELLY

DATE

2025-01-27

HONEY BEE RESEARCH CENTRE

THE UNIVERSITY OF GUELPH

TITLE

FEEDER TOP

SIZE

DRAWING NO

SCALE

1:2

WEIGHT

0.12 lbs

REVISION

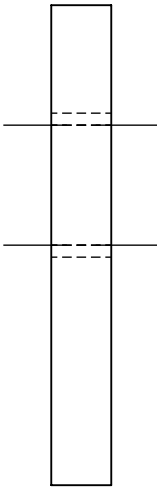
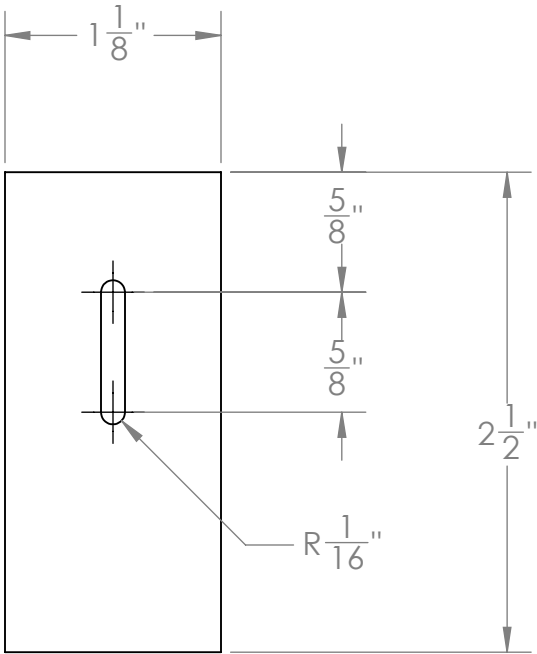
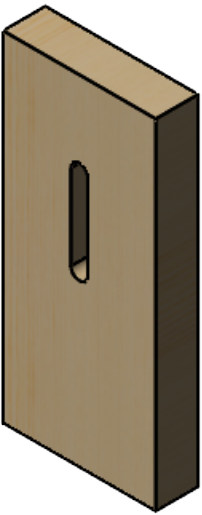
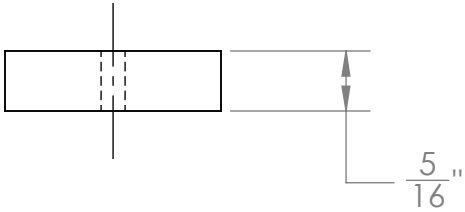
SHEET 16 OF 22

10050\_D

-



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



2227_D	-	FEEDER HOLE COVER
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN INCHES

THIRD ANGLE PROJECTION

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CUSTOMER  
BEE KEEPERS

PROJECT  
HIVE PRODUCTS

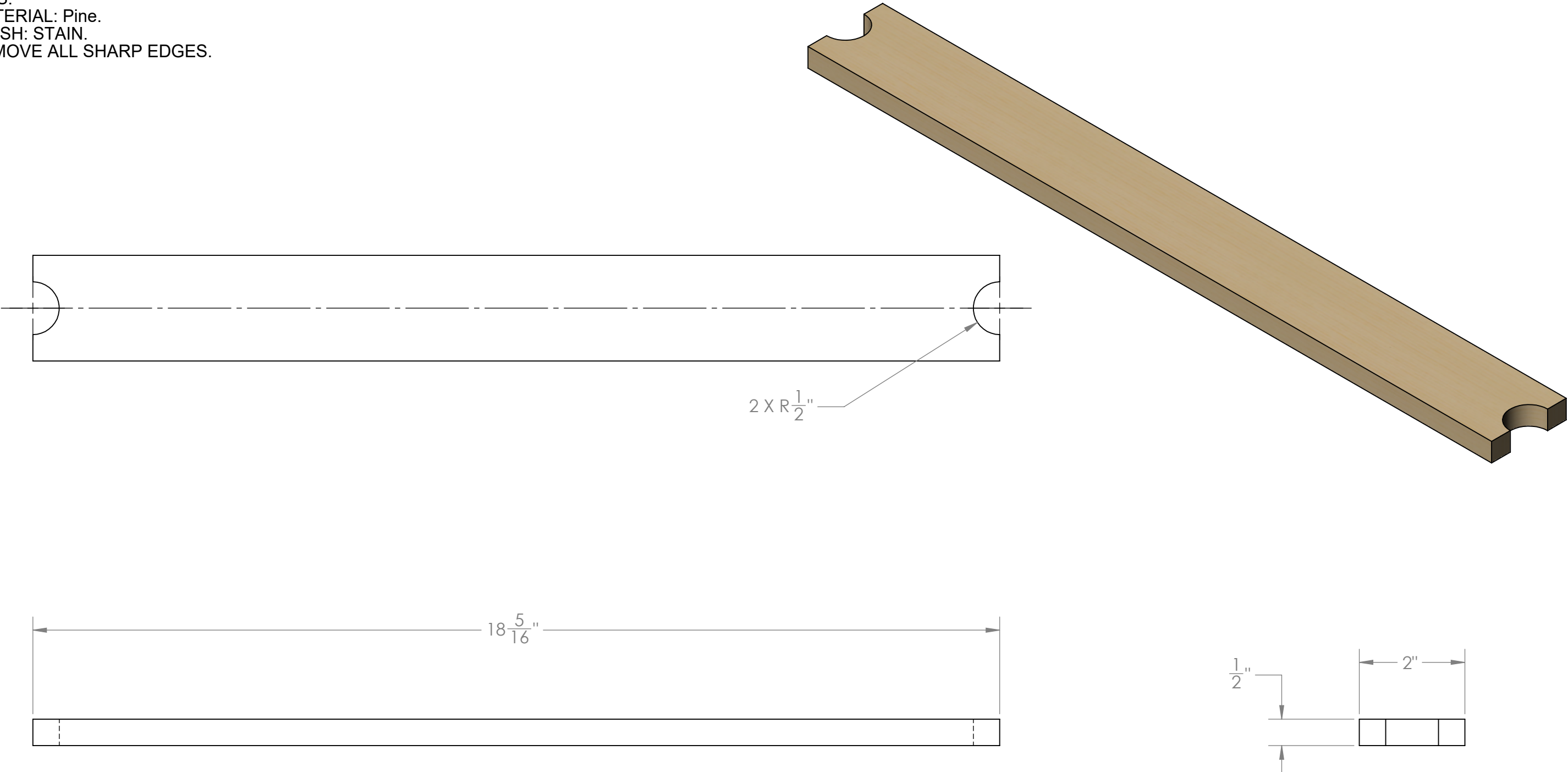
DRAWN BY F. FULKERSON	DATE 2025-01-27
CHECKED BY P.G. KELLY	DATE 2025-01-27
APPROVED P.G. KELLY	DATE 2025-01-27

HONEY BEE RESEARCH CENTRE  
THE UNIVERSITY OF GUELPH

TITLE  
**FEEDER HOLE COVER**

SIZE <b>B</b>	DRAWING NO.	REVISION <b>10050_D -</b>
SCALE 1:1	WEIGHT 0.01 lbs	SHEET 17 OF 22

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



2228_D	-	INNER BASE
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN INCHES

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA  
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ELECTRONICALLY BY THE DESIGN ACTIVITY

**PROPRIETARY**

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CUSTOMER  
BEE KEEPERS

PROJECT  
HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 2025-01-27
CHECKED BY P.G. KELLY	DATE 2025-01-27
APPROVED P.G. KELLY	DATE 2025-01-27

HONEY BEE RESEARCH CENTRE  
THE UNIVERSITY OF GUELPH

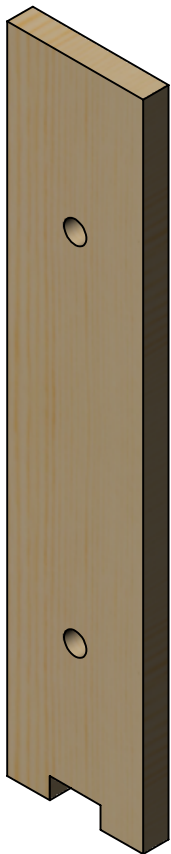
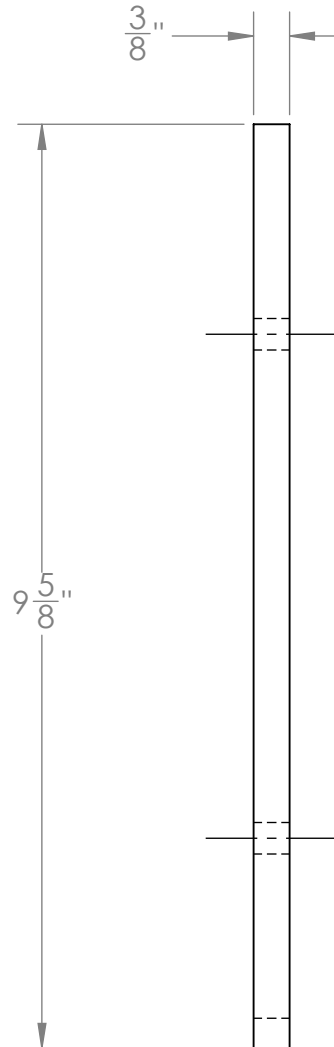
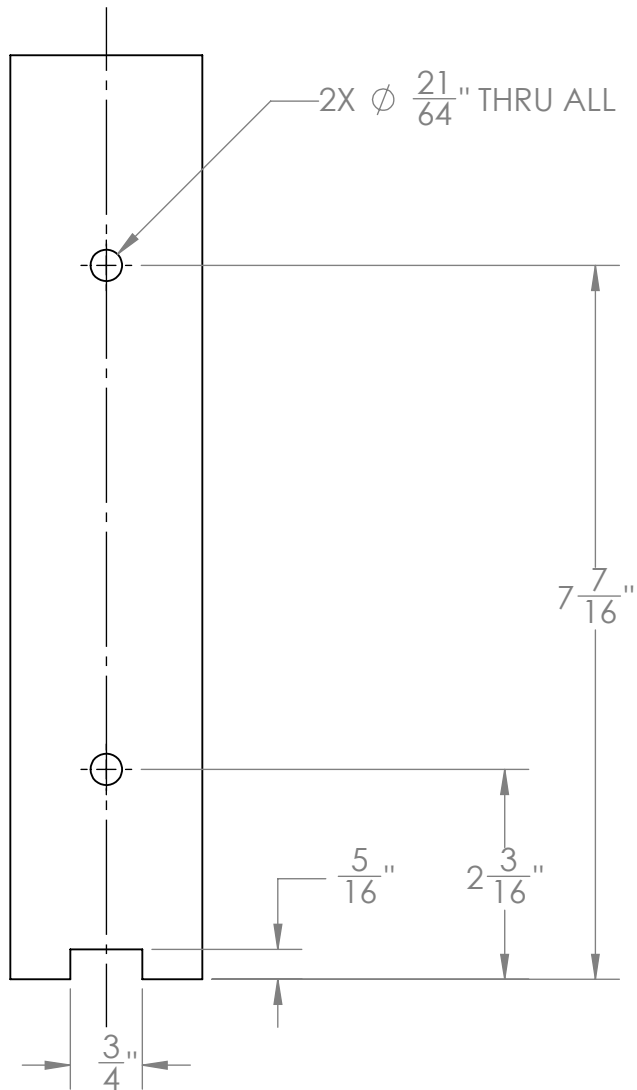
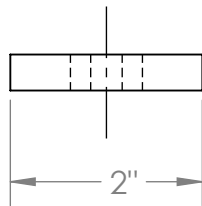
TITLE

**INNER BASE**

SIZE <b>B</b>	DRAWING NO	REVISION
SCALE 1:2	WEIGHT 0.22 lbs	SHEET 18 OF 22

**10050\_D -**

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



2229_D	-	INNER LOWER SIDE
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN INCHES

THIRD ANGLE PROJECTION

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CUSTOMER  
BEE KEEPERS

PROJECT  
HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 2025-01-27
CHECKED BY P.G. KELLY	DATE 2025-01-27
APPROVED P.G. KELLY	DATE 2025-01-27

HONEY BEE RESEARCH CENTRE  
THE UNIVERSITY OF GUELPH

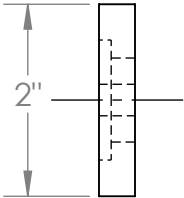
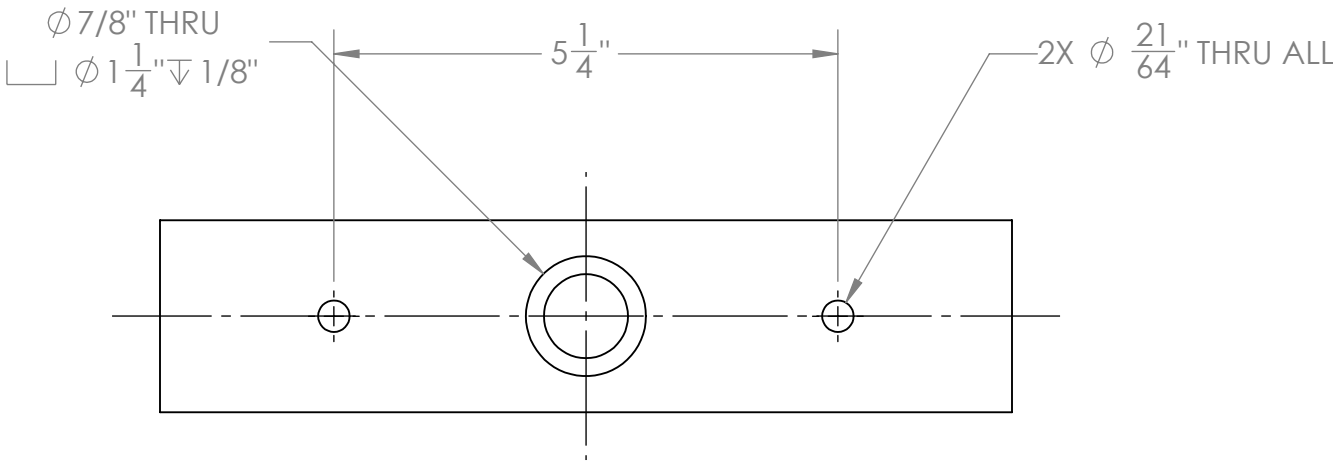
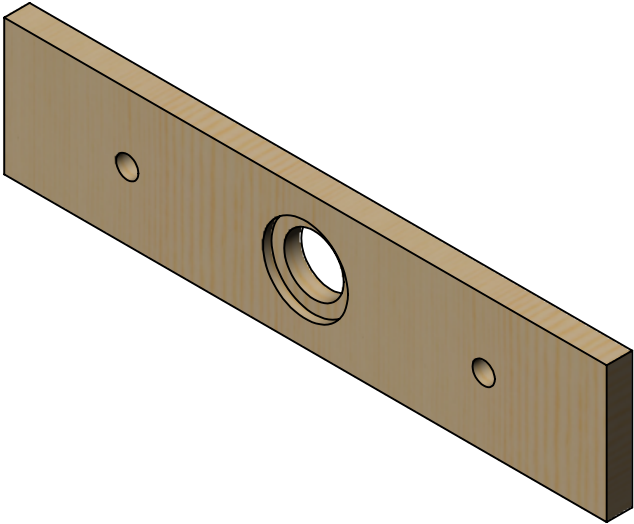
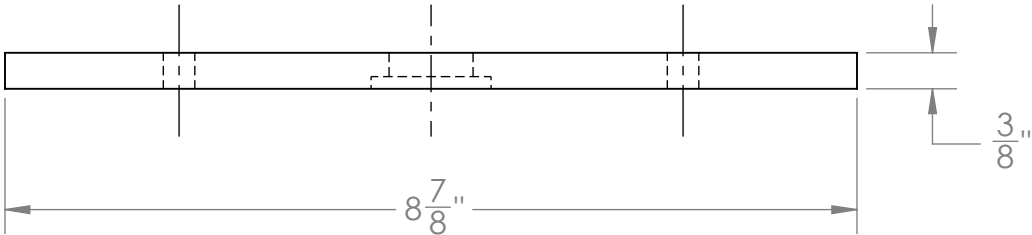
TITLE

**INNER LOWER SIDE**

SIZE	DRAWING NO	REVISION
<b>B</b>		<b>10050_D -</b>
SCALE	1:2	WEIGHT 0.09 lbs

SHEET 19 OF 22

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




2230_D	-	UPPER FRAME SUPPORT
PART NUMBER	REV	DESCRIPTION

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

THIRD ANGLE PROJECTION

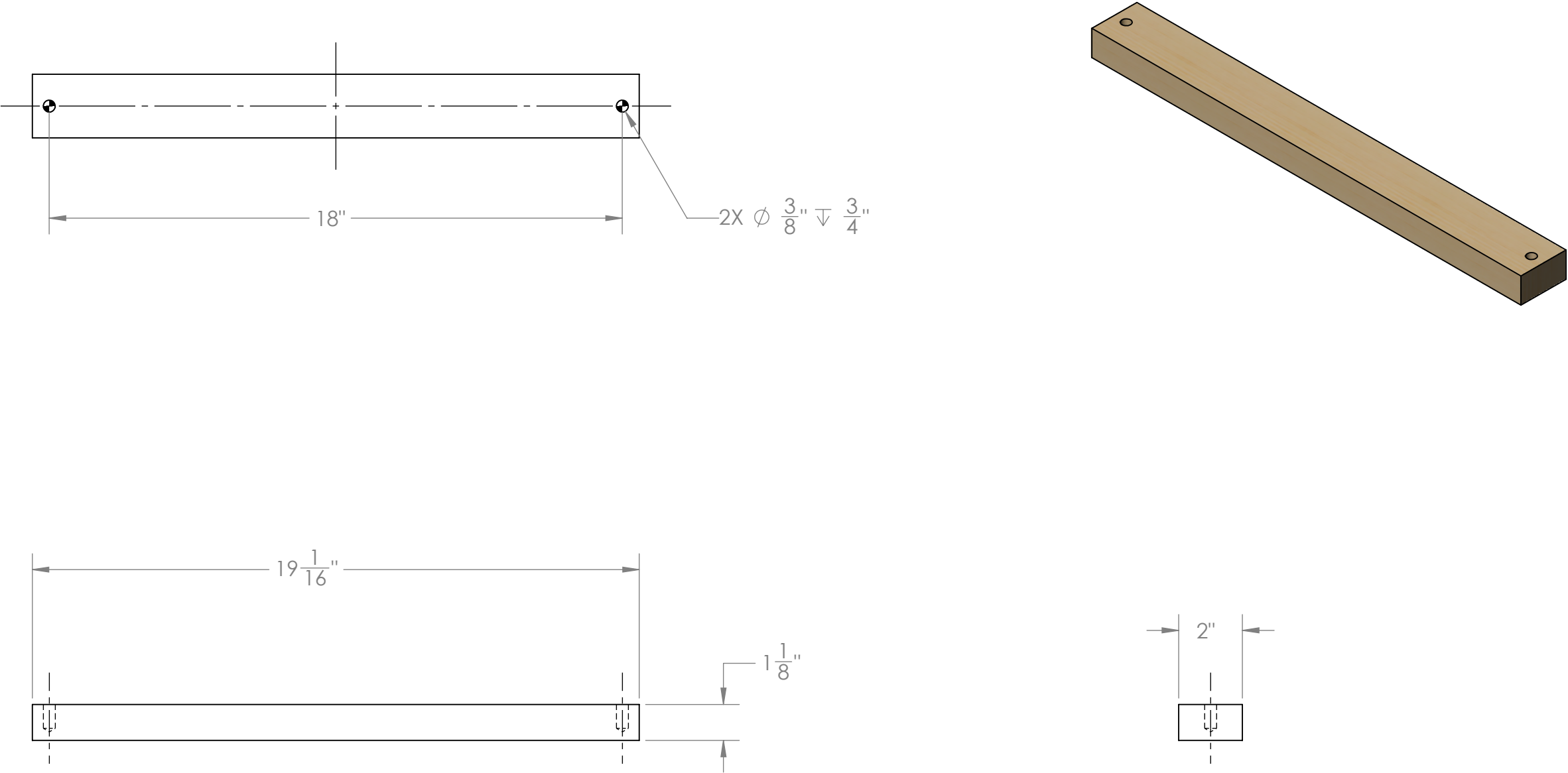


SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY	
PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.	
CUSTOMER BEE KEEPERS	
PROJECT HIVE PRODUCTS	
DRAWN BY F. FULKERSON	DATE 2025-01-27
CHECKED BY P.G. KELLY	DATE 2025-01-27
APPROVED P.G. KELLY	DATE 2025-01-27

		HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	
TITLE		UPPER FRAME SUPPORT	
SIZE	DRAWING NO	10050_D -	
SCALE	1:2	WEIGHT	0.08 lbs
		SHEET 20 OF 22	



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



2231_D	-	INNER TOP
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN INCHES

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA  
CHANGES SHALL BE INCORPORATED  
ELECTRONICALLY BY THE DESIGN ACTIVITY

**PROPRIETARY**

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CUSTOMER  
BEE KEEPERS

PROJECT  
HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 2025-01-27
CHECKED BY P.G. KELLY	DATE 2025-01-27
APPROVED P.G. KELLY	DATE 2025-01-27

HONEY BEE RESEARCH CENTRE  
THE UNIVERSITY OF GUELPH

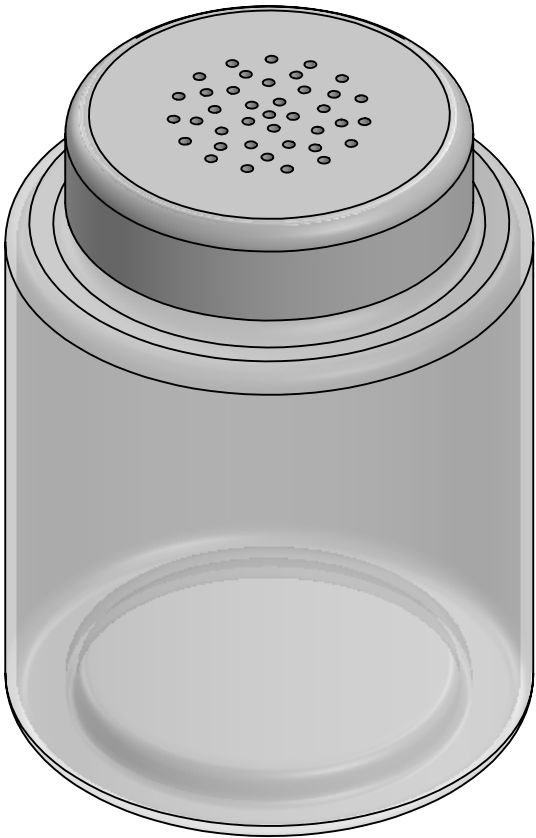
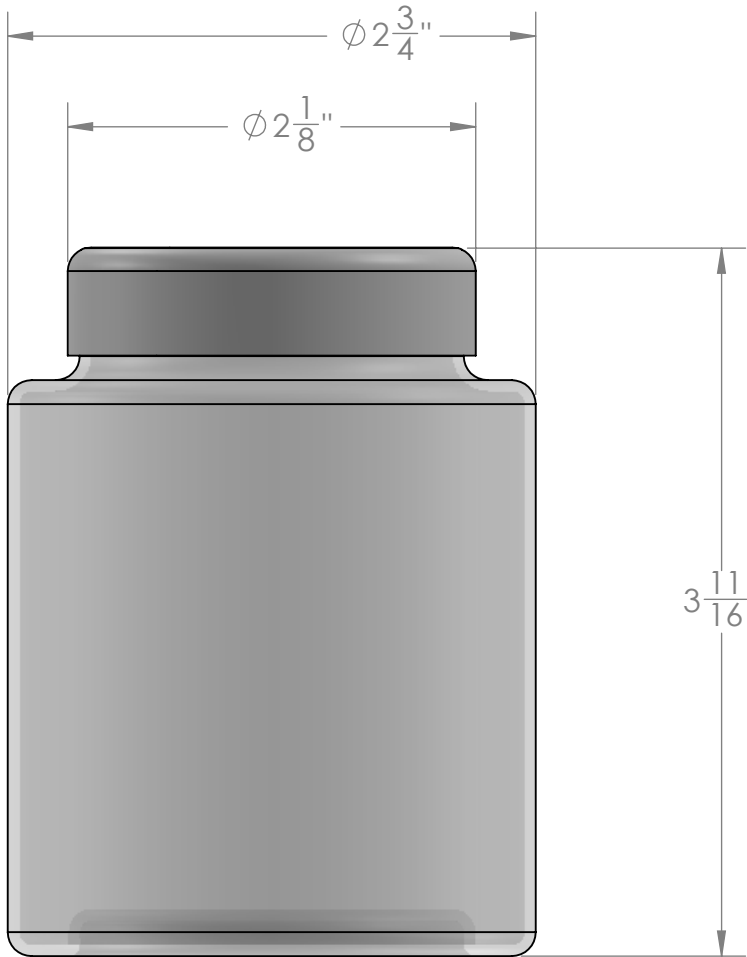
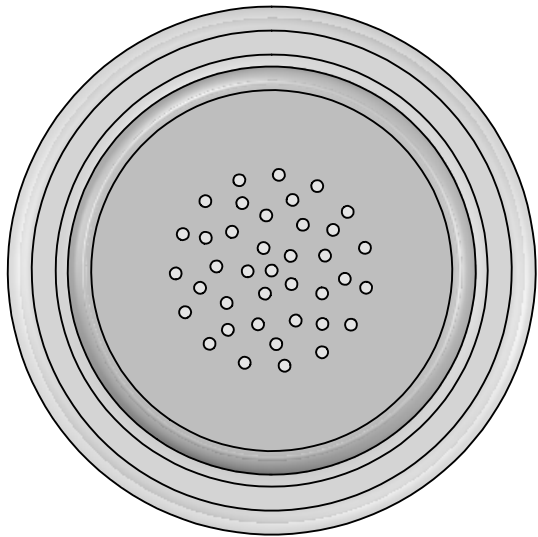
TITLE

**INNER TOP**



SIZE <b>B</b>	DRAWING NO	REVISION
SCALE 1:4	WEIGHT 0.52 lbs	<b>10050_D -</b>

SHEET 21 OF 22

- NOTES:
- 1. MATERIAL: PLASTIC.
  - 2. FINISH: NONE.
  - 3. DRILL 0.04" (#60) HOLES IN LID.
  - 4. REMOVE ALL SHARP EDGES.



10053_D		SYRUP BOTTLE
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING  INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018  DIMENSIONS ARE IN INCHES		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY		 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH			
		PROPRIETARY  NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.					
<div>THIRD ANGLE PROJECTION</div> 		CUSTOMER BEE KEEPERS		TITLE  <div>SYRUP BOTTLE</div>			
		PROJECT HIVE PRODUCTS					
		DRAWN BY F. FULKERSON		DATE 2025-01-27	SIZE <div>B</div>	DRAWING NO <div>10050_D</div>	REVISION <div>-</div>
		CHECKED BY P.G. KELLY		DATE 2025-01-27	SCALE 1:1	WEIGHT 0.101 lbs	SHEET 22 OF 22
		APPROVED P.G. KELLY		DATE 2025-01-27			