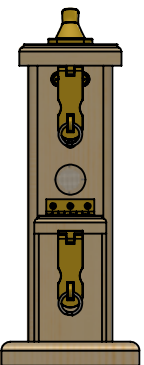
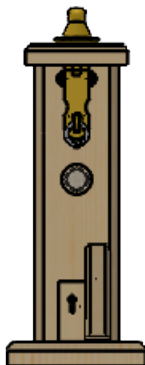
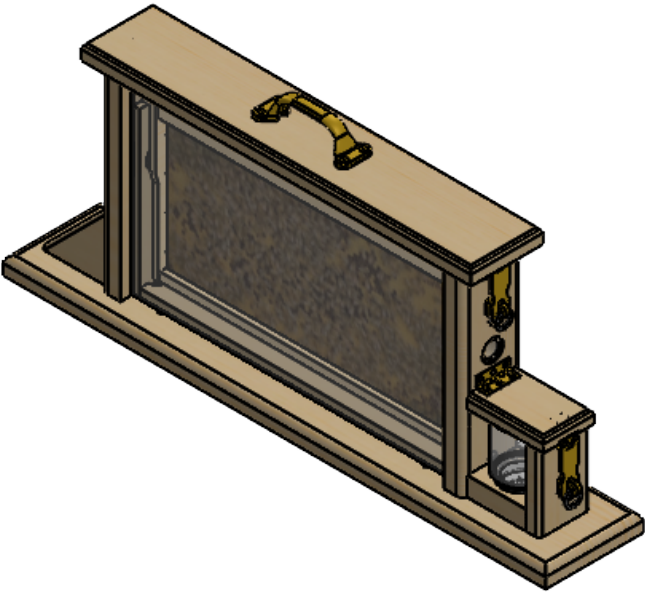
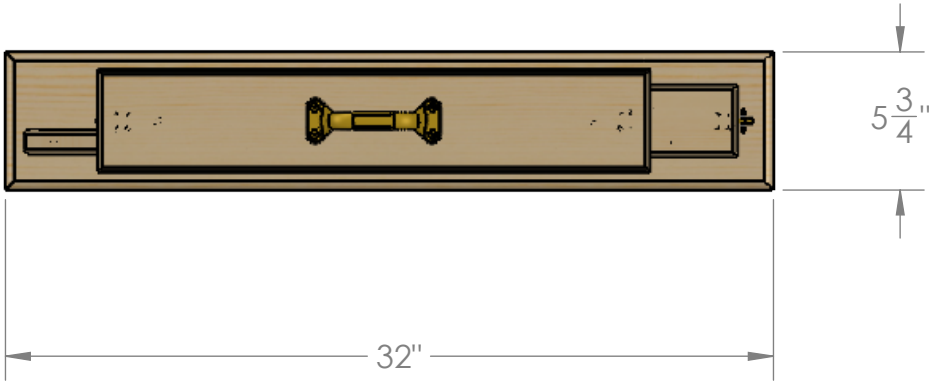


- NOTES:
- 1. SHOWN WITH FEEDER BOTTLE, AND ONE DEEP FRAME.
 - 2. FINISH: STAIN.
 - 3. PREDRILL ALL HOLES.
 - 4. GLUE AND CLAMP SQUARE.
 - 5. POSITION, DRILL AND SCREW HASPS ON COMPLETED ASSEMBLY.
 - 6. STAPLE #8 HARDWARE MESH OVER VENT HOLES.
 - 7. FEEDER BOTTLE SHOULD HAVE A PLASTIC LID, AS METAL WILL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



| | | |
|-------------|-----|------------------|
| 10050_S | - | OBSERVATION HIVE |
| PART NUMBER | REV | DESCRIPTION |

UNLESS OTHERWISE SPECIFIED
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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 |

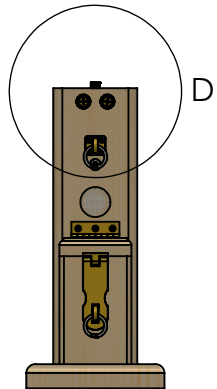
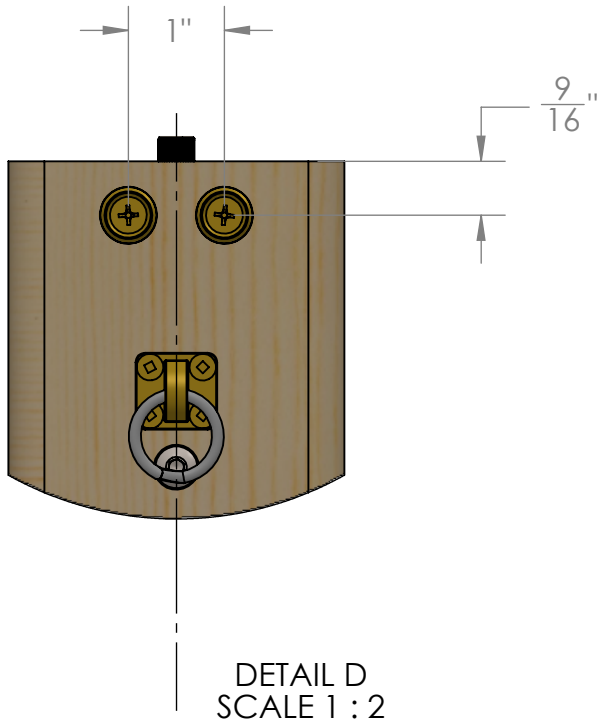


HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH


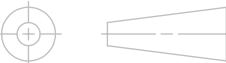
TITLE
OBSERVATION HIVE

| | | | |
|------------------|---------------------|---------------|----------|
| SIZE B | DRAWING NO. | 10050_S - | REVISION |
| SCALE 1:8 | WEIGHT 13.48 lbs | SHEET 1 OF 20 | |

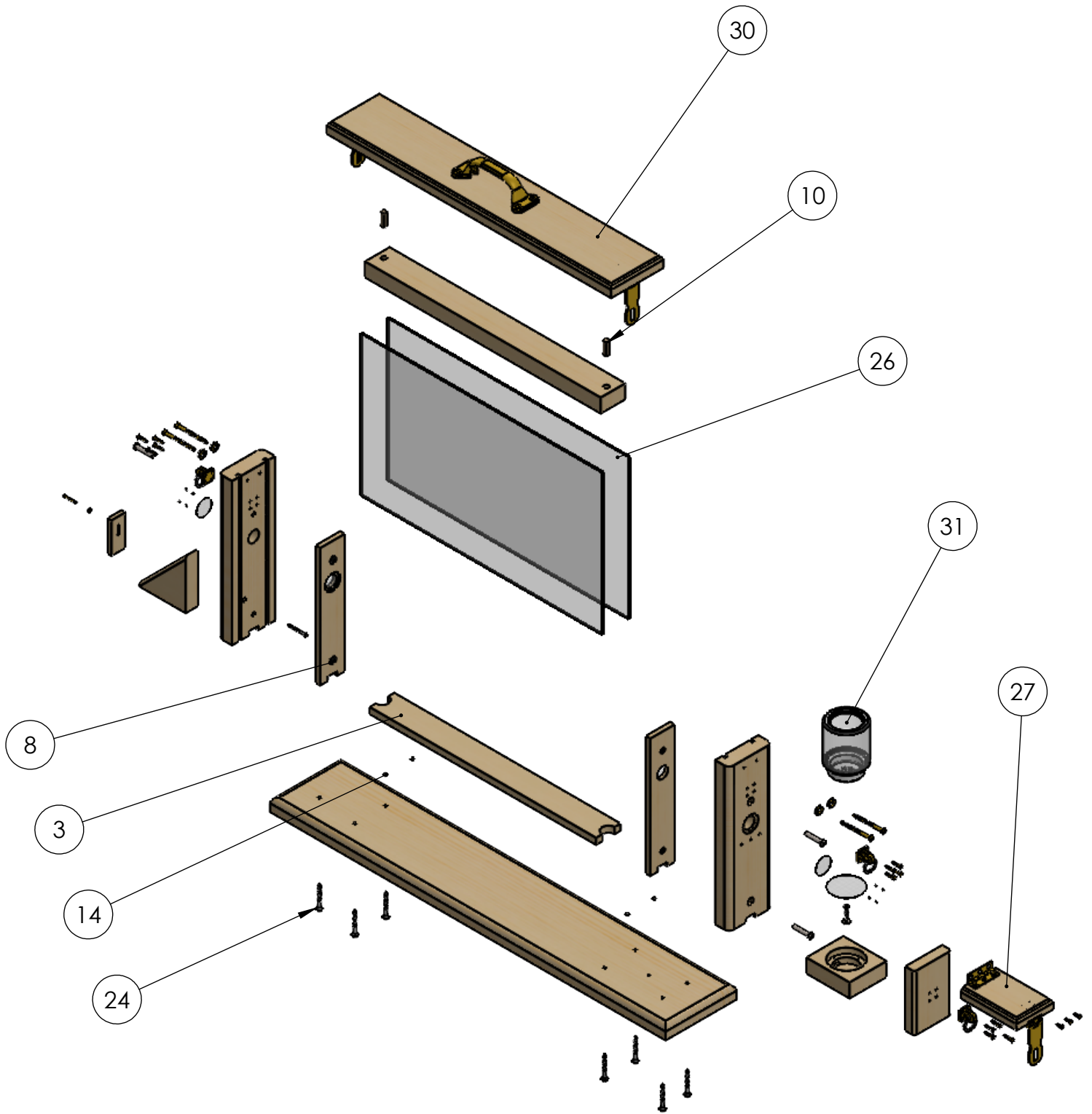
- NOTES:
- 1. SHOWN WITH FEEDER BOTTLE, ONE DEEP AND ONE MEDIUM FRAME.
 - 2. FINISH: STAIN.
 - 3. PREDRILL ALL HOLES.
 - 4. GLUE AND CLAMP SQUARE.
 - 5. POSITION, DRILL AND SCREW HASPS ON COMPLETED ASSEMBLY.
 - 6. REMOVE ALL SHARP EDGES.



| | | |
|-------------|-----|------------------|
| 10050_S | - | 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 | | SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY | | <div></div> <div>HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH</div> | | |
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| | | CUSTOMER BEE KEEPERS PROJECT HIVE PRODUCTS | | | | |
| <div>THIRD ANGLE PROJECTION</div> <div></div> | | DRAWN BY F. FULKERSON | DATE 2025-01-27 | SIZE B | DRAWING NO | |
| | | CHECKED BY P.G. KELLY | DATE 2025-01-27 | 10050_S - | | |
| | | APPROVED P.G. KELLY | DATE 2025-01-27 | SCALE 1:8 | WEIGHT 13.48 lbs | SHEET 2 OF 20 |
| | | | | | | |

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|------------------------------|---|------|
| 1 | 2220_S | BASE | 1 |
| 2 | 2221_S | SIDE | 2 |
| 3 | 2228_S | INNER BASE | 1 |
| 4 | 2223_S | GUSSET | 1 |
| 5 | 2227_S | FEEDER HOLE COVER | 1 |
| 6 | 2224_S | FEEDER BASE | 1 |
| 7 | 2225_S | FEEDER SIDE | 1 |
| 8 | 10055_S | LOWER FRAME REST | 2 |
| 9 | 2231_S | INNER TOP | 1 |
| 10 | 97195A109 | 3/8" Wood Dowel Pins | 2 |
| 11 | 95188A310 | Brass Square-Drive Flat-Head Screws for Wood | 12 |
| 12 | 3851N11H_S | 3851N11_Padlockable Hasp | 3 |
| 13 | 90177A228 | Zinc-Plated Steel Split Rings | 3 |
| 14 | 95495K463 | Adhesive-Back Bumpers | 4 |
| 15 | 98685A560 | Brass Phillips Decorative Rounded Head Screws | 1 |
| 16 | 92916A320 | Brass Washer | 1 |
| 17 | Regular FW 0.164 | WASHER FOR #8 SCREW | 1 |
| 18 | 91070A254 | Rounded Head Screws for Plywood and OSB | 1 |
| 19 | 92114A128 | Brass Phillips Flat Head Screws for Wood | 3 |
| 20 | 92921A011 | Brass Countersunk Washer | 4 |
| 21 | 92114A255 | Brass Phillips Flat Head Screws for Wood | 4 |
| 22 | SBHCSCREW 0.25-20x1.375-HX-N | 1/4-20 X 1-3/8 SBHCS | 4 |
| 23 | 97900A210 | STAPLE | 12 |
| 24 | 90396A140 | Flanged Rounded Head Screws for Wood | 7 |
| 25 | 90610A157 | Square-Drive Flat Head Screws for Wood | 1 |
| 26 | 2232_S | TEMPERED GLASS PANEL 19 X 18-1/2 X 3/16 | 2 |
| 27 | 10052_S | FEEDER LID | 1 |
| 28 | 2236_S | VENT SCREEN - #8 MESH HARDWARE CLOTH | 2 |
| 29 | 2237_S | FEEDER SCREEN - #8 MESH HARDWARE CLOTH | 1 |
| 30 | 10051_S | OBSERVATION HIVE TOP | 1 |
| 31 | 10053_S | SYRUP BOTTLE | 1 |



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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

OBSERVATION HIVE

SIZE

B

DRAWING NO

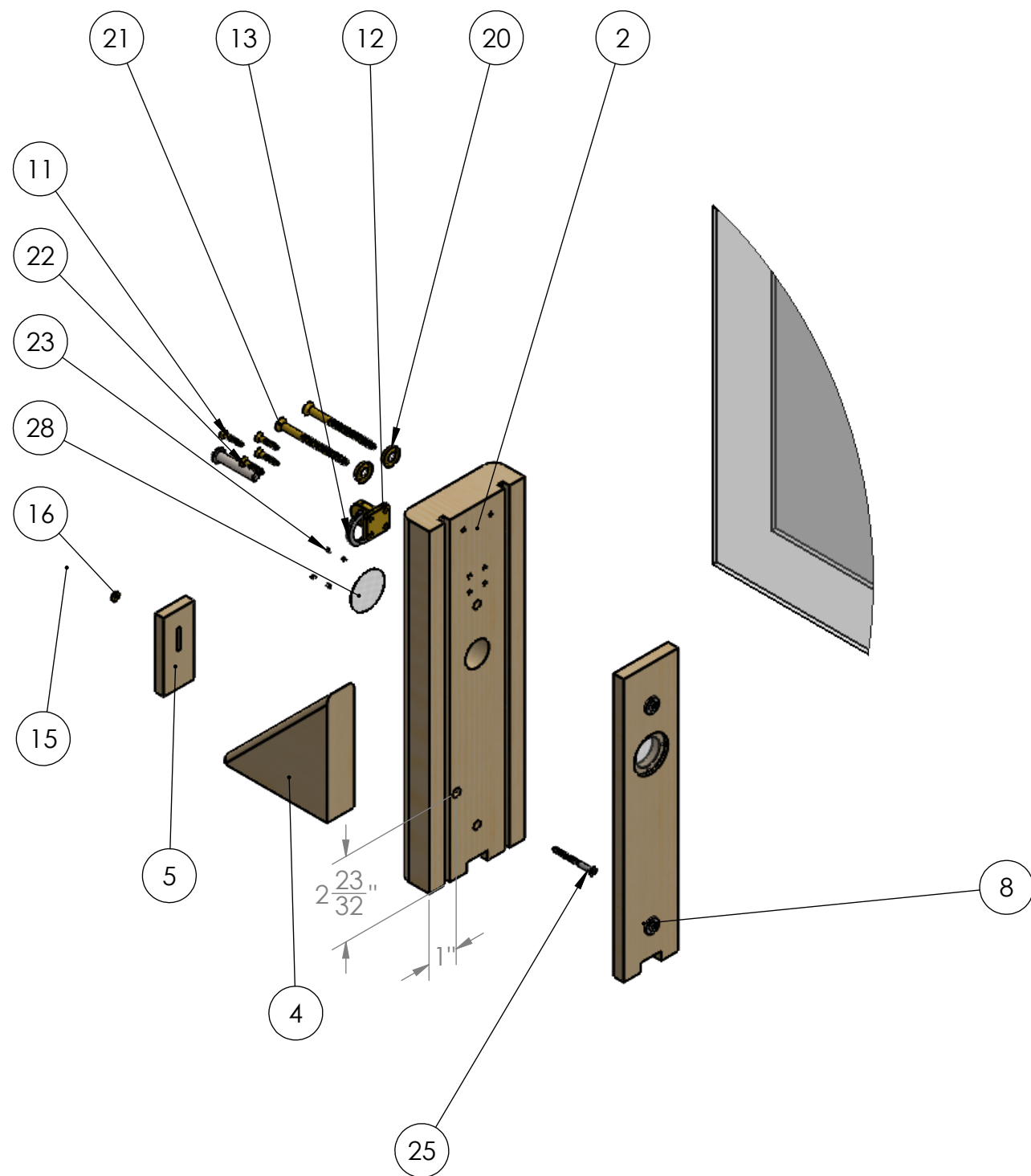
SCALE 1:8

WEIGHT 13.48 lbs

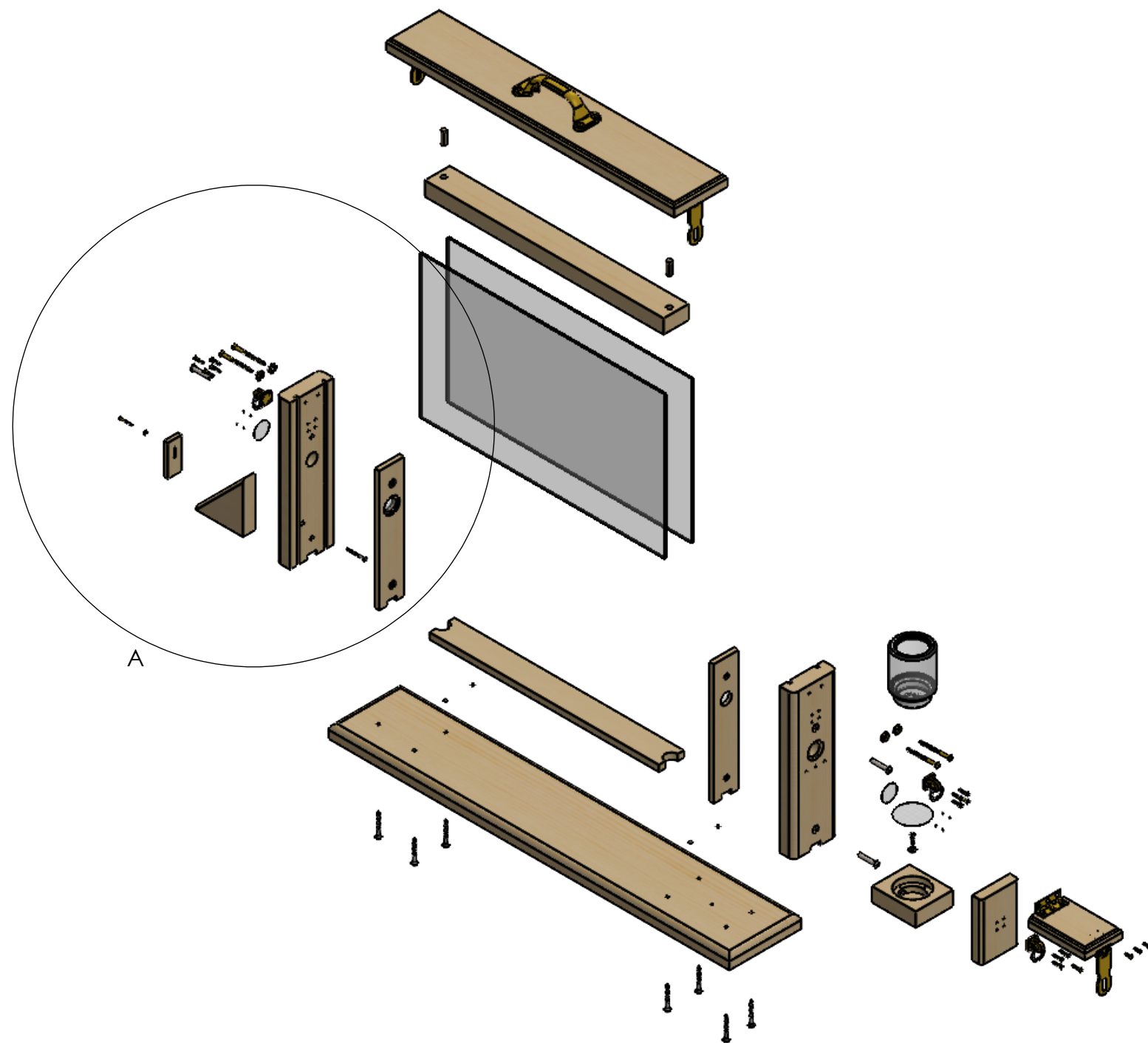
10050_S -


REVISION

SHEET 3 OF 20




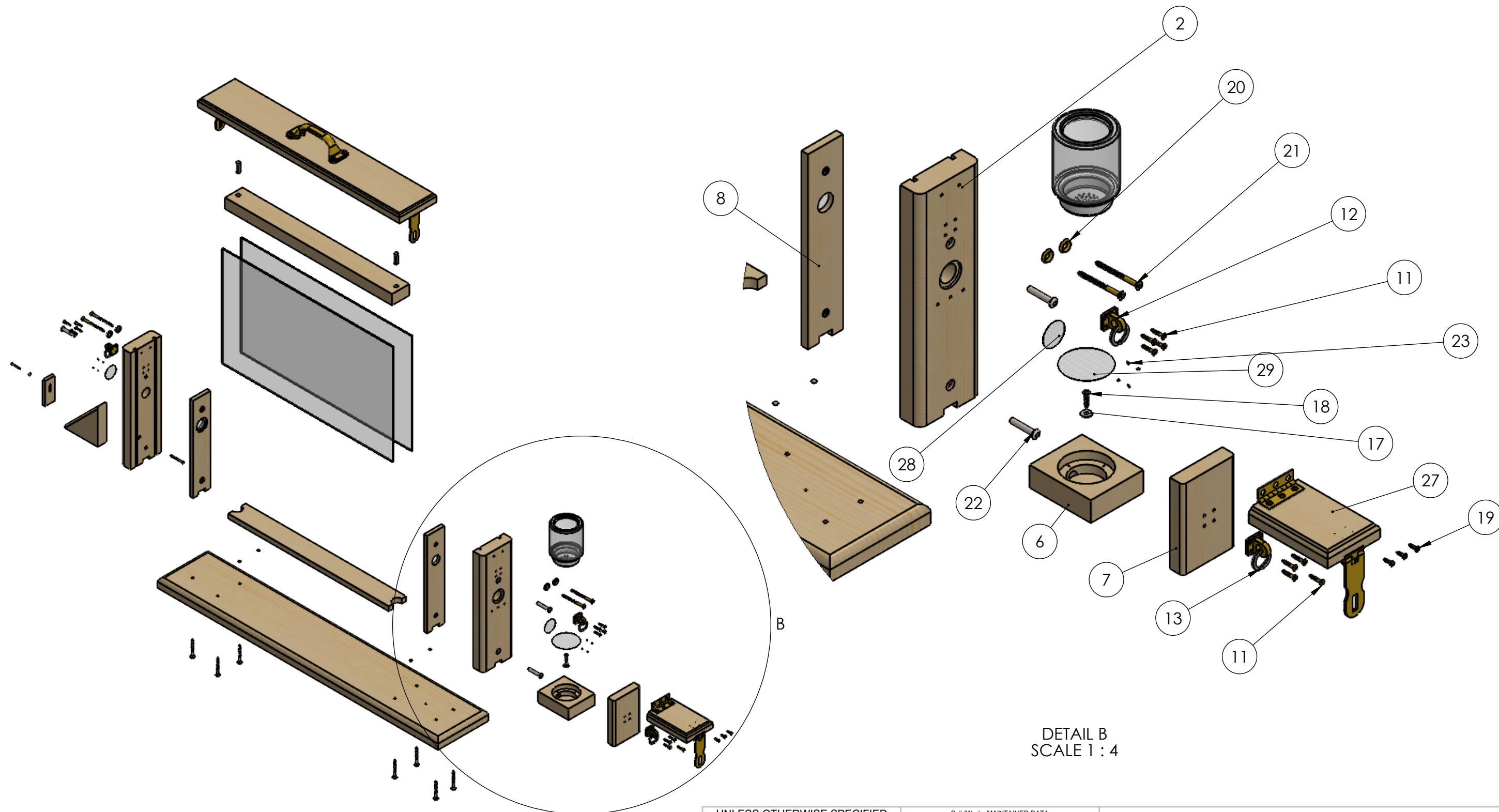
DETAIL A
SCALE 1 : 4





| | | | | | |
|--|--|--|--------------|--|---------------|
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| PROJECT HIVE PRODUCTS | | | | | |
| DRAWN BY F. FULKERSON | | DATE 2025-01-27 | SIZE B | DRAWING NO. | REVISION |
| CHECKED BY P.G. KELLY | | DATE 2025-01-27 | 10050_S - | | |
| APPROVED P.G. KELLY | | DATE 2025-01-27 | SCALE 1:8 | WEIGHT 13.48 lbs | SHEET 4 OF 20 |

THIRD ANGLE PROJECTION



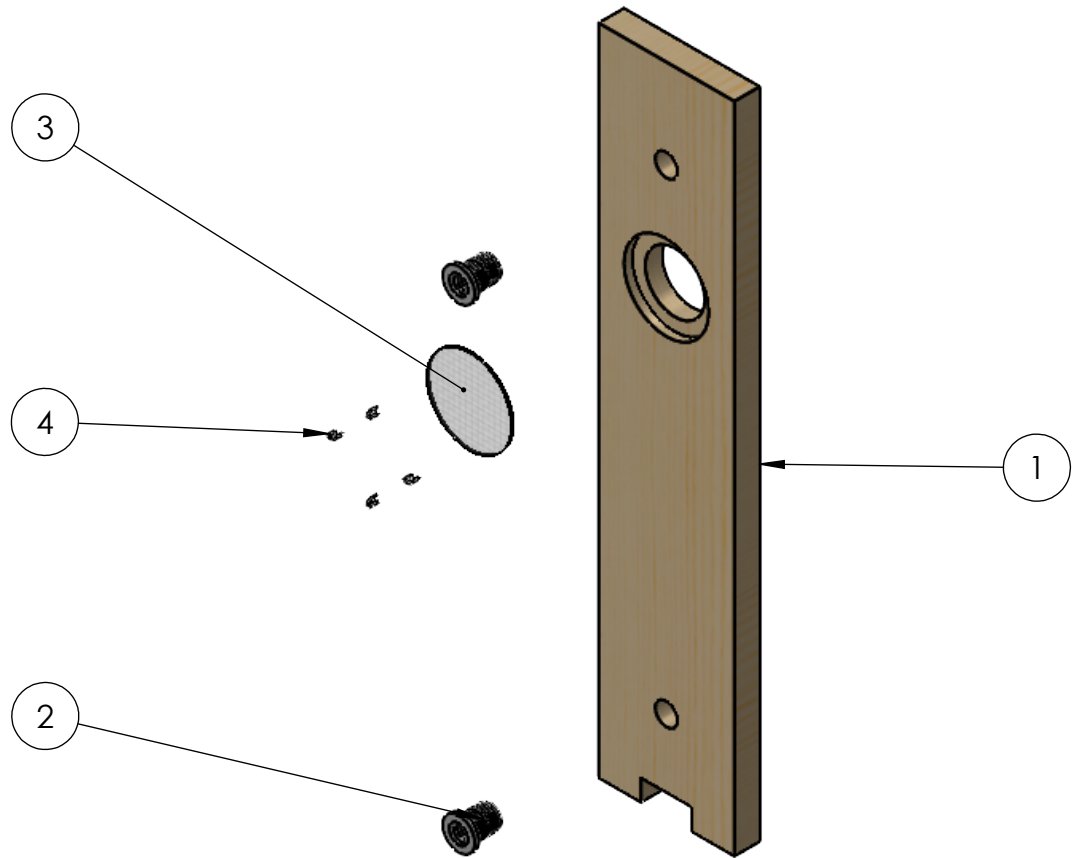


DETAIL B
SCALE 1 : 4

| | | | | | | |
|--|--|---|---------------------------------------|--|--|--------------------------|
| <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 THE UNIVERSITY OF GUELPH</div> | | |
| | | <div>PROPRIETARY</div> <div>NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.</div> | | | | |
| | | <div>CUSTOMER</div> <div>BEE KEEPERS</div> | | <div>TITLE</div> <div>OBSERVATION HIVE</div> | | |
| | | <div>PROJECT</div> <div>HIVE PRODUCTS</div> | | | | |
| <div>THIRD ANGLE PROJECTION</div> <div></div> | | <div>DRAWN BY</div> <div>F. FULKERSON</div> | <div>DATE</div> <div>2025-01-27</div> | <div>SIZE</div> <div>B</div> | <div>DRAWING NO</div> | <div>REVISION</div> |
| | | <div>CHECKED BY</div> <div>P.G. KELLY</div> | <div>DATE</div> <div>2025-01-27</div> | <div>10050_S -</div> | | |
| | | <div>APPROVED</div> <div>P.G. KELLY</div> | <div>DATE</div> <div>2025-01-27</div> | <div>SCALE</div> <div>1:8</div> | <div>WEIGHT</div> <div>13.48 lbs</div> | <div>SHEET 5 OF 20</div> |
| | | | | | | |

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

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-------------|--|------|
| 1 | 2229_S | INNER LOWER SIDE | 1 |
| 2 | 94738A310 | Zinc-Plated Steel Knurled Inserts for Hardwood | 2 |
| 3 | 2236_S | VENT SCREEN - #8 MESH HARDWARE CLOTH | 1 |
| 4 | 97900A210 | STAPLE | 4 |



| | | |
|-------------|-----|------------------|
| 10055_S | - | LOWER FRAME REST |
| PART NUMBER | REV | DESCRIPTION |

UNLESS OTHERWISE SPECIFIED

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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 |

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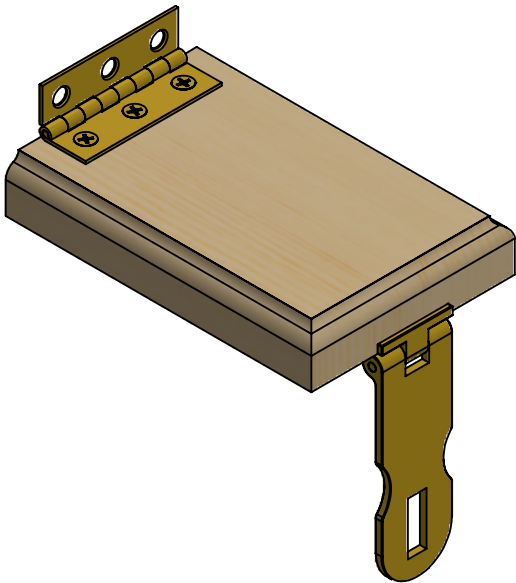
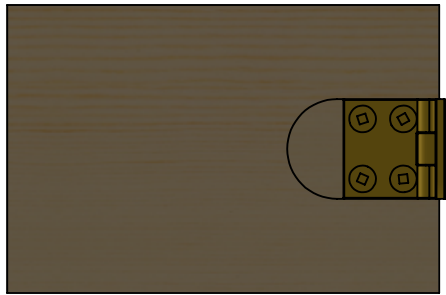
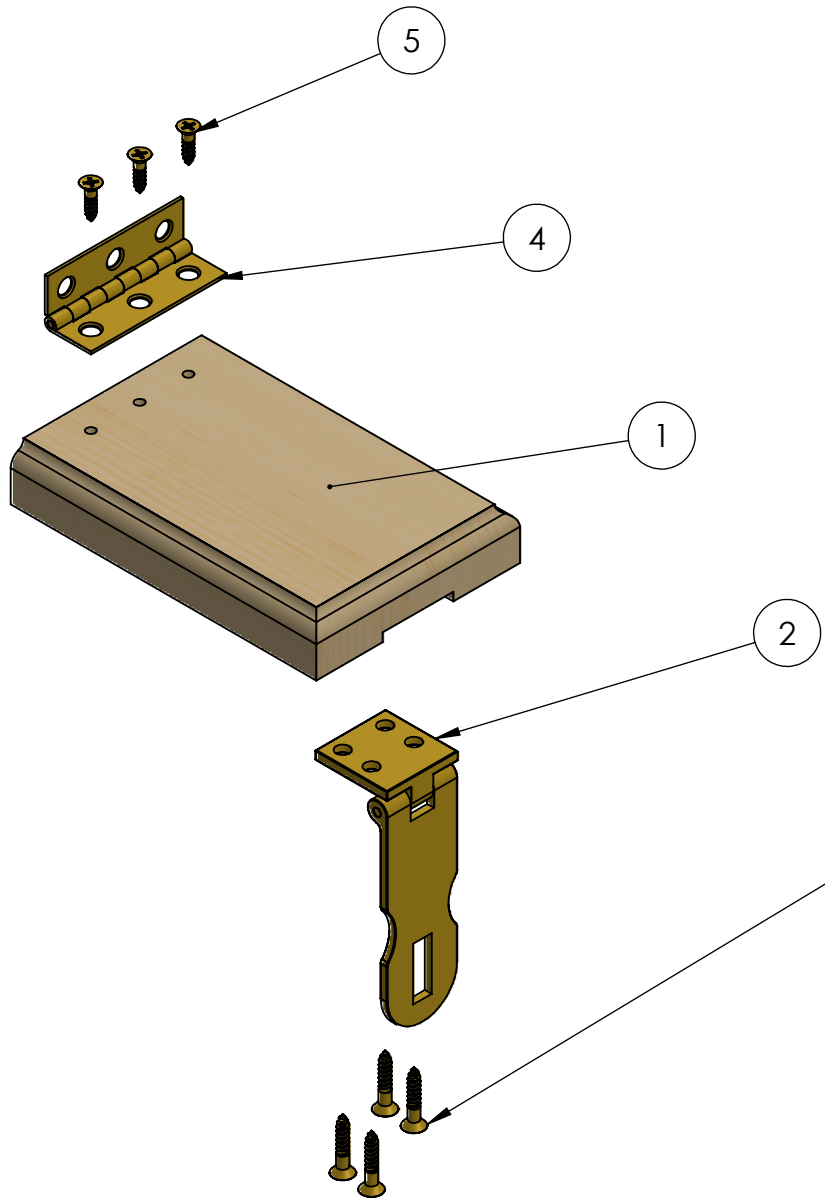
TITLE

LOWER FRAME REST


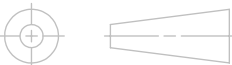
| | | |
|----------|------------|------------------|
| SIZE | DRAWING NO | REVISION |
| B | | 10050_S - |
| SCALE | 1:2 | WEIGHT 0.10 lbs |

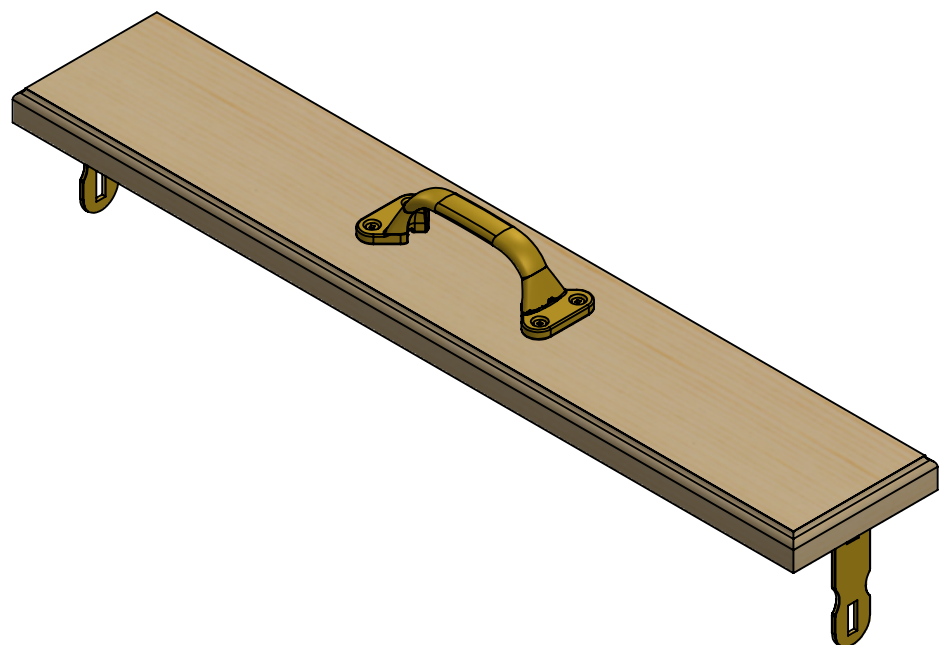
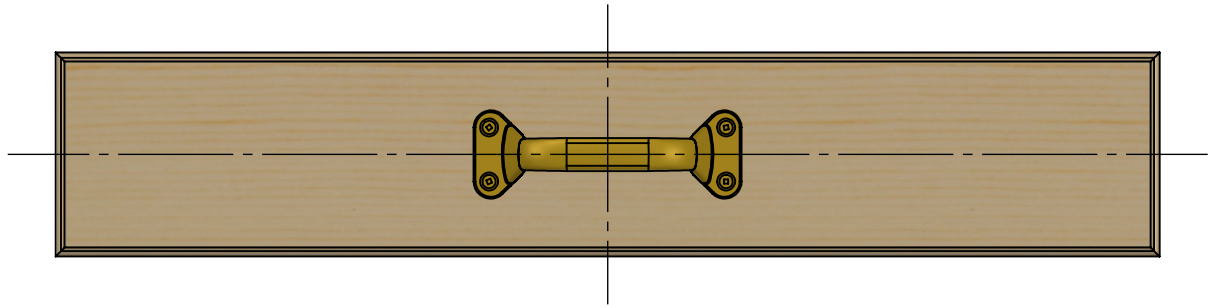
SHEET 6 OF 20

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-------------|---|------|
| 1 | 2226_S | FEEDER TOP | 1 |
| 2 | 3851N11_S | PADLOCKABLE HASP | 1 |
| 3 | 95188A310 | Brass Square-Drive Flat-Head Screws for Wood | 4 |
| 4 | 1603A24_S | 2" SURFACE MOUNT HINGE | 1 |
| 5 | 92114A128 | Brass Phillips Flat Head Screws for Wood | 3 |

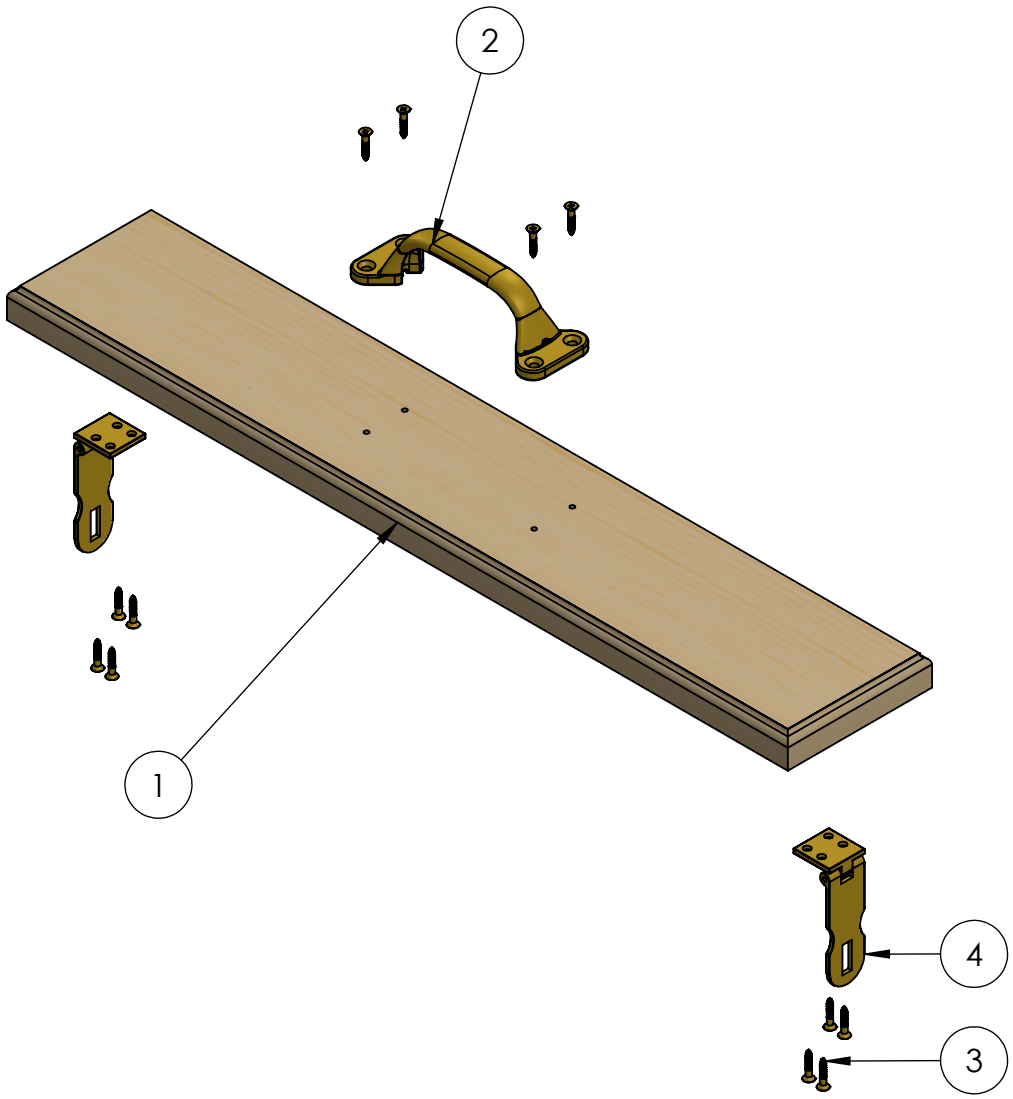


| | | |
|-------------|-----|-------------|
| 10052_S | - | FEEDER LID |
| PART NUMBER | REV | DESCRIPTION |

| | | | | | | | | |
|--|--|--|--------------------|--|------------|-----------|----------|--------------------|
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| | | CUSTOMER BEE KEEPERS PROJECT HIVE PRODUCTS | | | | | | |
| THIRD ANGLE PROJECTION <div></div> | | DRAWN BY F. FULKERSON | DATE 2025-01-27 | SIZE B | DRAWING NO | 10050_S - | REVISION | |
| | | CHECKED BY P.G. KELLY | DATE 2025-01-27 | SCALE | 1:2 | | | WEIGHT 0.31 lbs |
| | | APPROVED P.G. KELLY | DATE 2025-01-27 | SHEET 7 OF 20 | | | | |



| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-------------|--|------|
| 1 | 2222_S | TOP PANEL | 1 |
| 2 | 1646A35 | Unthreaded-Hole Oval Pull Handle | 1 |
| 3 | 95188A310 | Brass Square-Drive Flat-Head Screws for Wood | 12 |
| 4 | 3851N11_S | PADLOCKABLE HASP | 2 |



| | | |
|-------------|-----|----------------------|
| 10051_S | - | OBSERVATION HIVE TOP |
| PART NUMBER | REV | DESCRIPTION |

UNLESS OTHERWISE SPECIFIED

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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 |

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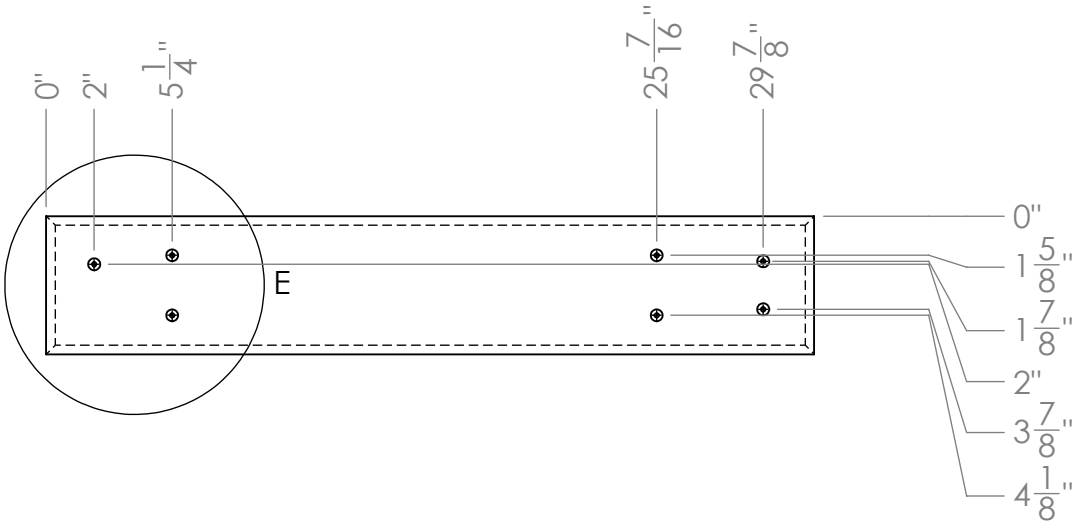
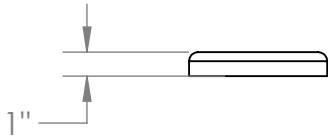
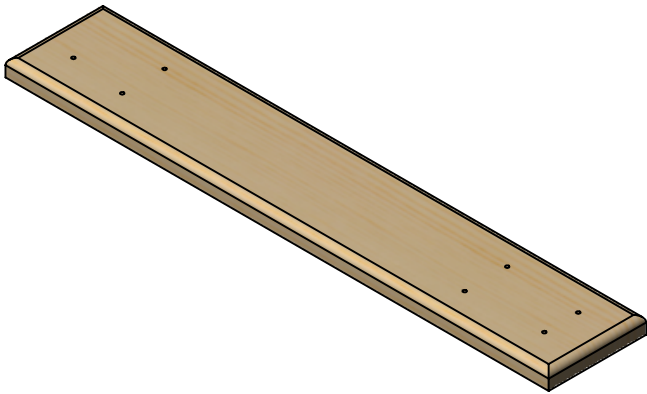
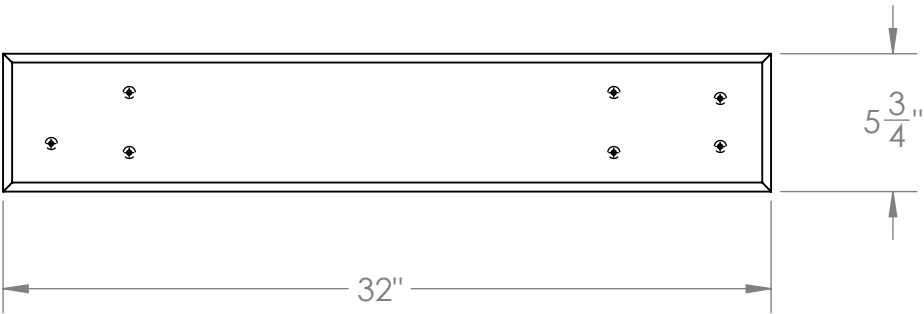
TITLE

OBSERVATION HIVE TOP

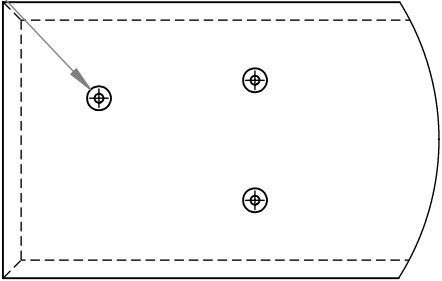
| | | |
|------------------|--------------------|------------------|
| SIZE B | DRAWING NO. | REVISION |
| SCALE 1:4 | WEIGHT 1.81 lbs | 10050_S - |

SHEET 8 OF 20

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


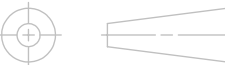


7 X Ø 3/16" THRU
□ Ø 1/2" ∇ 1/4"

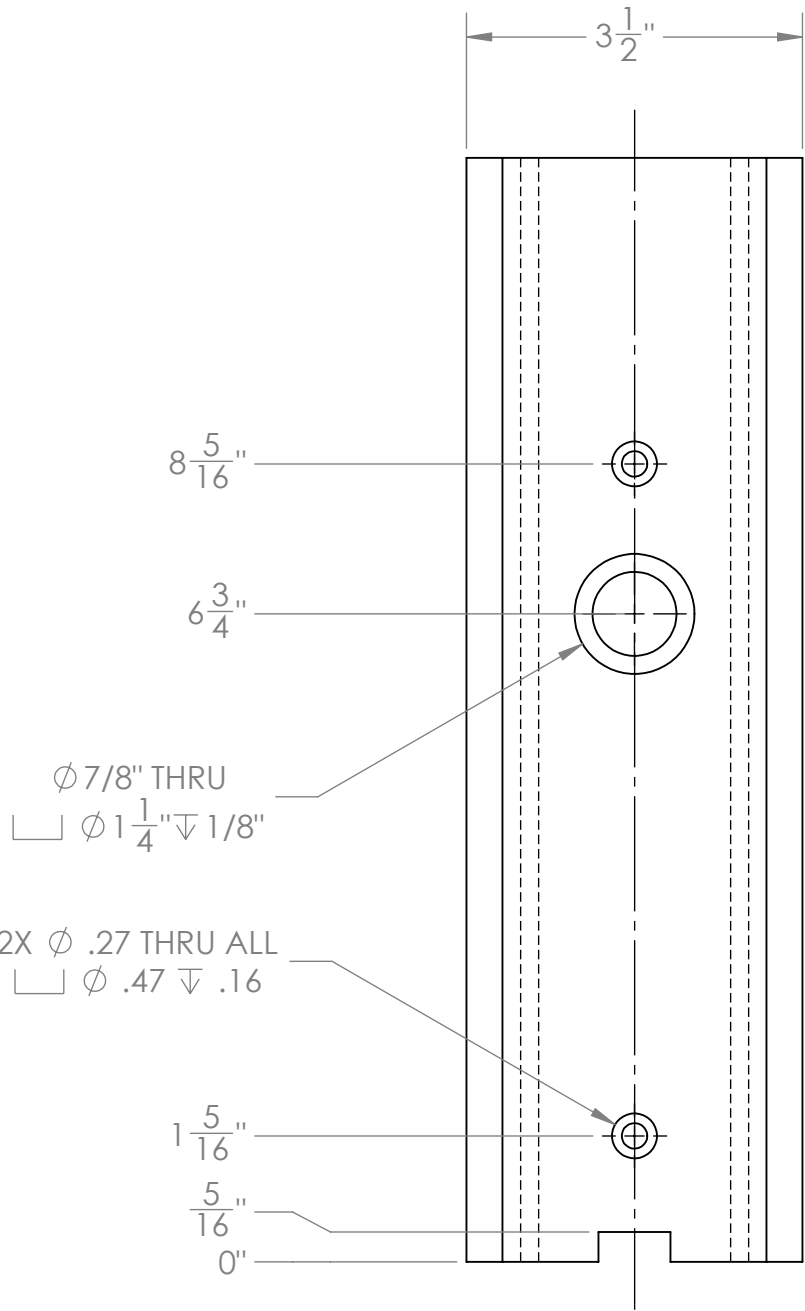
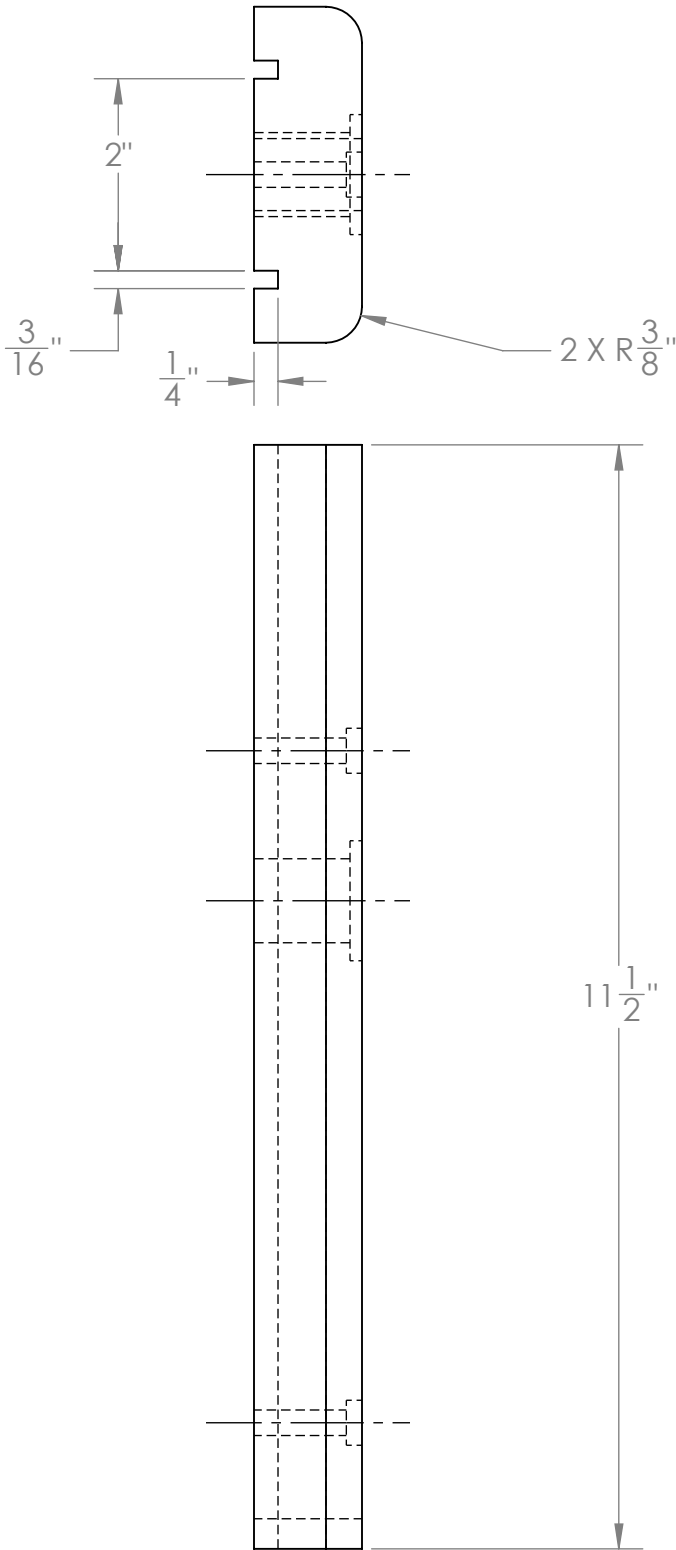
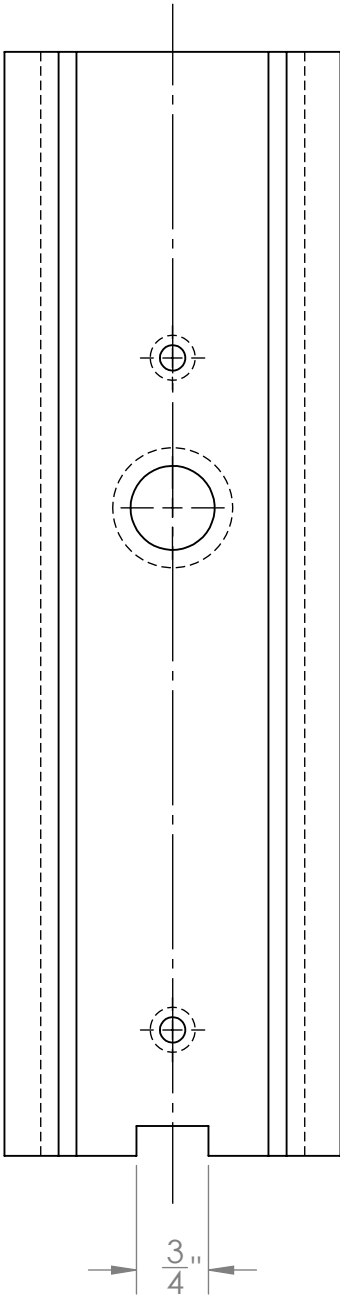


DETAIL E
SCALE 1 : 4



| | | |
|-------------|-----|-------------|
| 2220_S | - | BASE |
| PART NUMBER | REV | DESCRIPTION |

| | | | | | | | | | |
|--|--|--|--|---|---|--|----------------------|--------------|--------------------------|
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| | | CUSTOMER BEE KEEPERS | | | | | | | |
| <div>THIRD ANGLE PROJECTION</div> <div></div> | | PROJECT HIVE PRODUCTS | | TITLE <div>BASE</div> | | | | | |
| | | DRAWN BY F. FULKERSON | | | | | SIZE <div>B</div> | DRAWING NO | REVISION <div>-</div> |
| | | CHECKED BY P.G. KELLY | | | | | DATE 2025-01-27 | 10050_S | |
| | | APPROVED P.G. KELLY | | | | | DATE 2025-01-27 | SCALE 1:8 | WEIGHT 2.23 lbs |

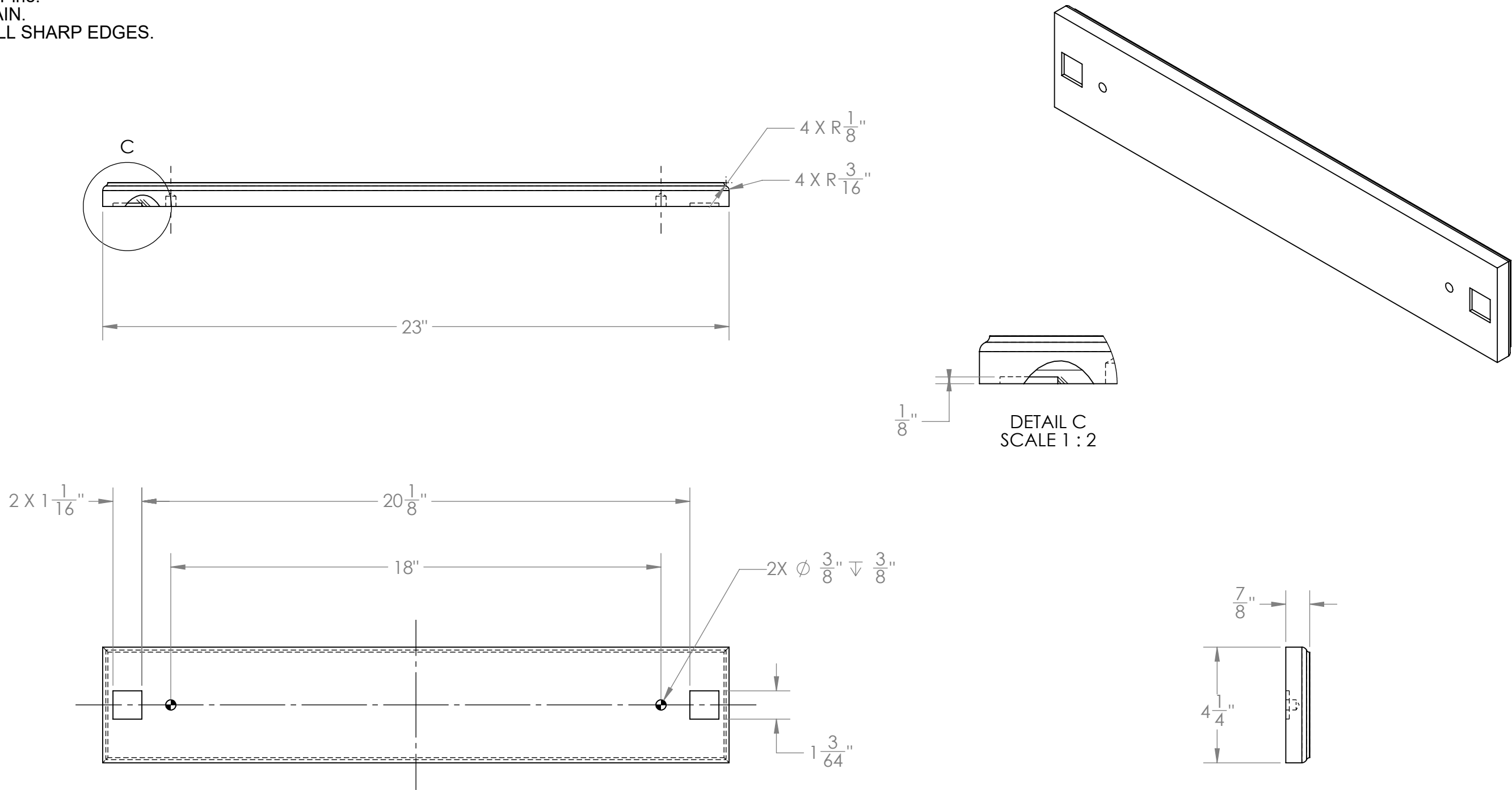
- NOTES:
1. MATERIAL: Pine.
2. FINISH: STAIN.
3. REMOVE ALL SHARP EDGES.





| | | |
|-------------|-----|-------------|
| 2221_S | - | SIDE |
| PART NUMBER | REV | DESCRIPTION |

| | | | | | | | |
|--|--|---|--|---|--------------------|---|--|
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| | | CUSTOMER BEE KEEPERS | | | | | |
| | | PROJECT HIVE PRODUCTS | | | | | |
| DRAWN BY F. FULKERSON | | DATE 2025-01-27 | | SIZE B | DRAWING NO | REVISION | |
| CHECKED BY P.G. KELLY | | DATE 2025-01-27 | | 10050_S - | | | |
| APPROVED P.G. KELLY | | DATE 2025-01-27 | | SCALE 1:2 | WEIGHT 0.52 lbs | SHEET 10 OF 20 | |

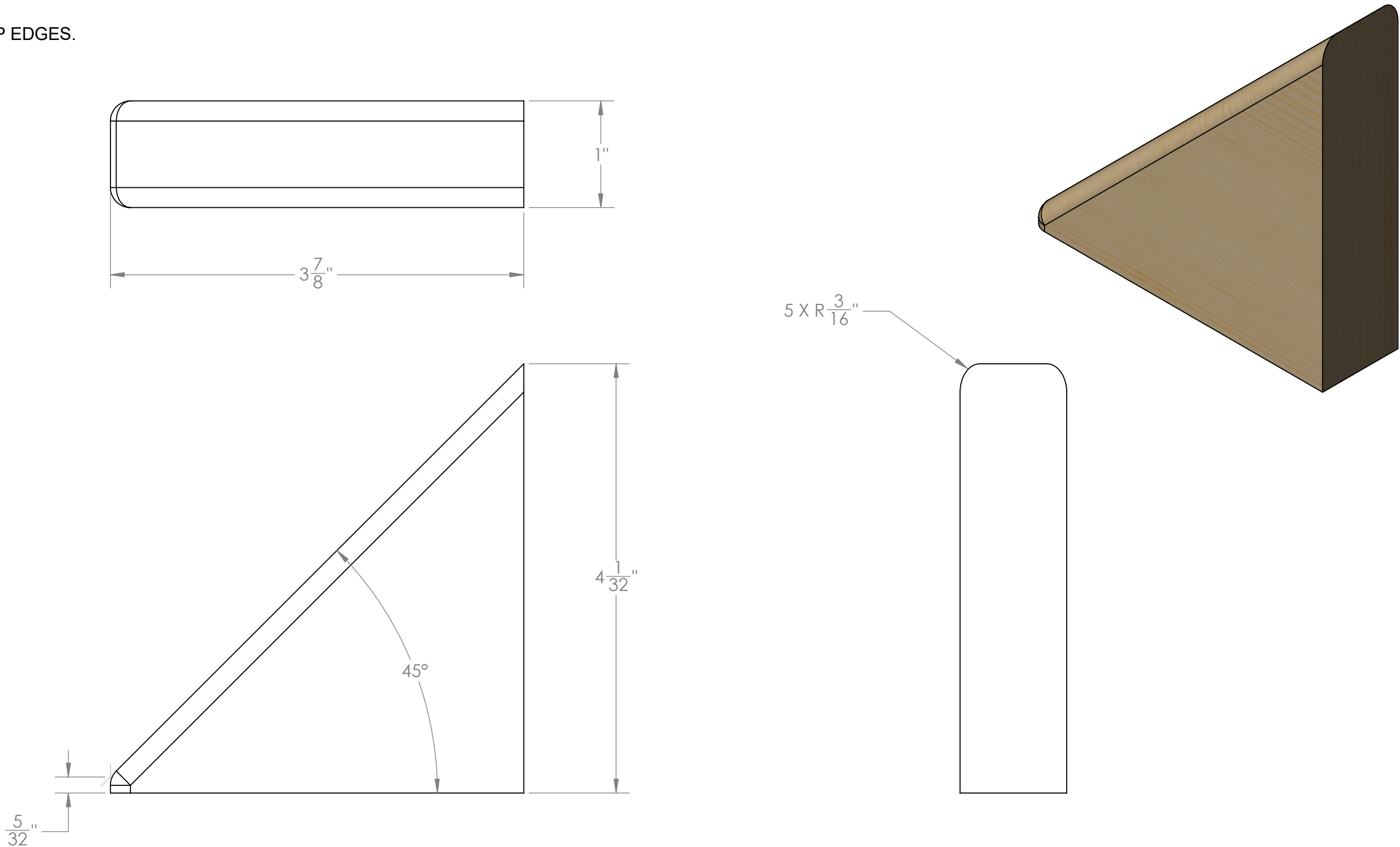
- NOTES:
- 1. MATERIAL: Pine.
 - 2. FINISH: STAIN.
 - 3. REMOVE ALL SHARP EDGES.





| | | |
|-------------|-----|-------------|
| 2222_S | - | 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 | | 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. | | | TITLE | |
| THIRD ANGLE PROJECTION  | | CUSTOMER BEE KEEPERS | | TOP PANEL | | |
| PROJECT HIVE PRODUCTS | | DATE 2025-01-27 | | | | |
| DRAWN BY F. FULKERSON | | DATE 2025-01-27 | | SIZE B | | |
| CHECKED BY P.G. KELLY | | DATE 2025-01-27 | | DRAWING NO | | |
| APPROVED P.G. KELLY | | DATE 2025-01-27 | | SCALE 1:4 | | |
| | | WEIGHT 1.03 lbs | | 10050_S - | | |
| | | | | SHEET 11 OF 20 | | |

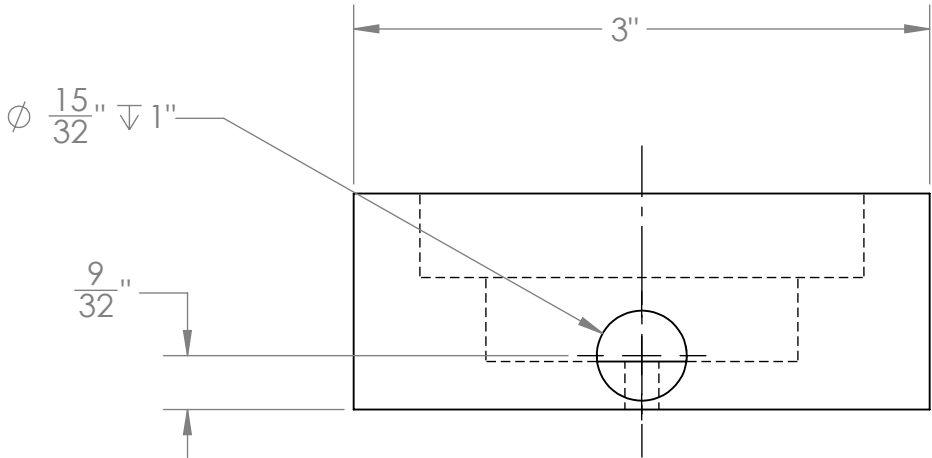
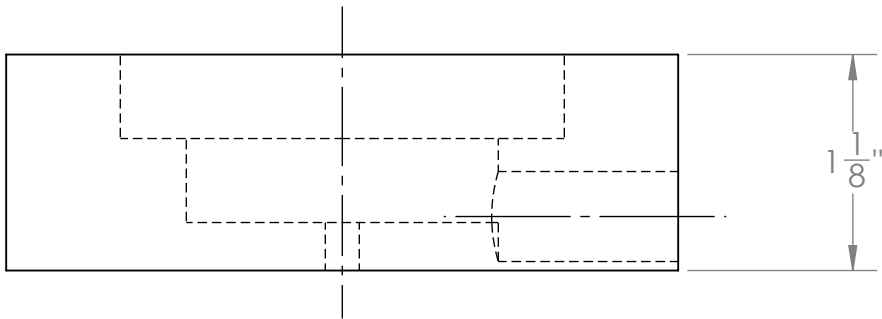
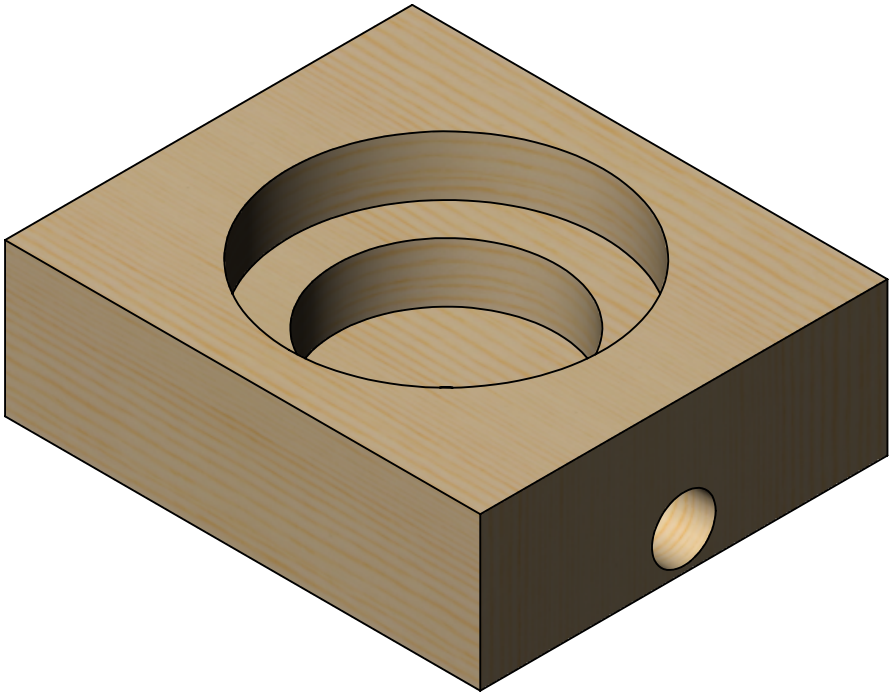
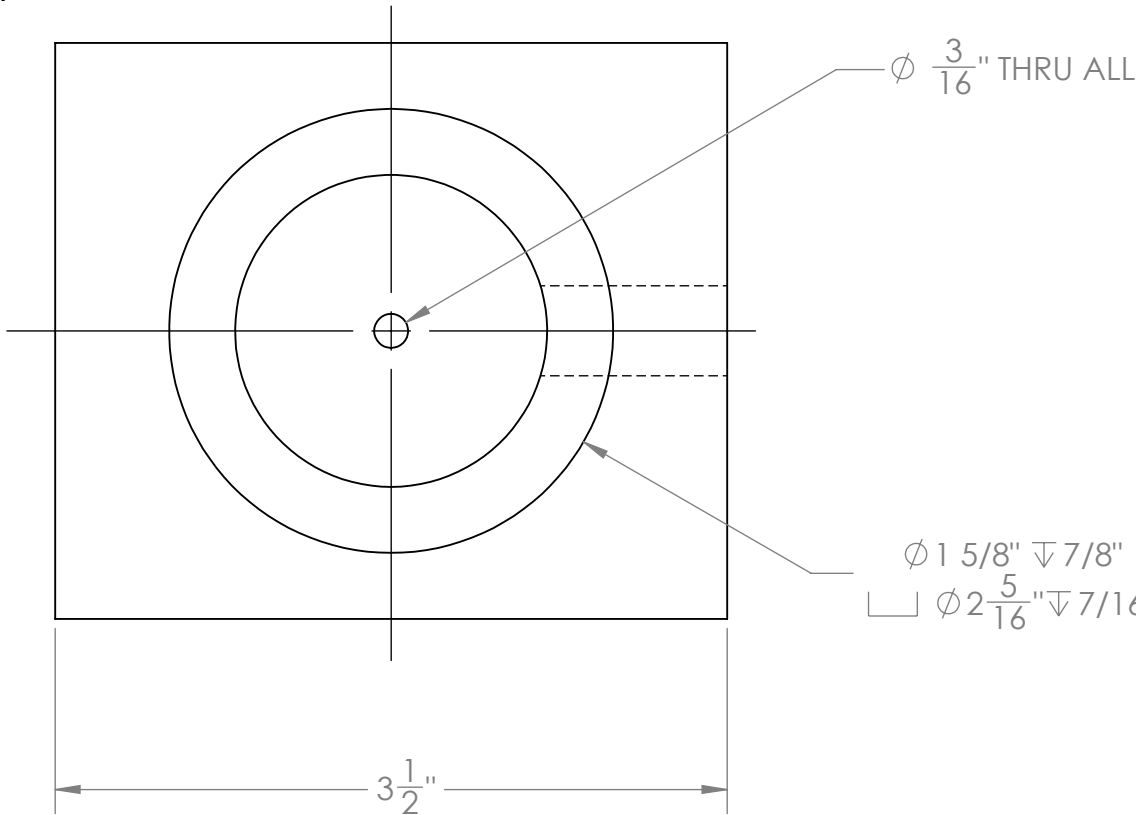
- NOTES:
- 1. MATERIAL: Pine.
 - 2. FINISH: STAIN.
 - 3. REMOVE ALL SHARP EDGES.





| | | |
|-------------|-----|-------------|
| 2223_S | - | GUSSET |
| 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 | | GUSSET | | |
| | PROJECT HIVE PRODUCTS | | | | |
| THIRD ANGLE PROJECTION  | DRAWN BY F. FULKERSON | DATE 2025-01-27 | SIZE B | DRAWING NO | REVISION |
| | CHECKED BY P.G. KELLY | DATE 2025-01-27 | 10050_S - | SCALE 1:1 | WEIGHT 0.10 lbs |
| | APPROVED P.G. KELLY | DATE 2025-01-27 | | | |

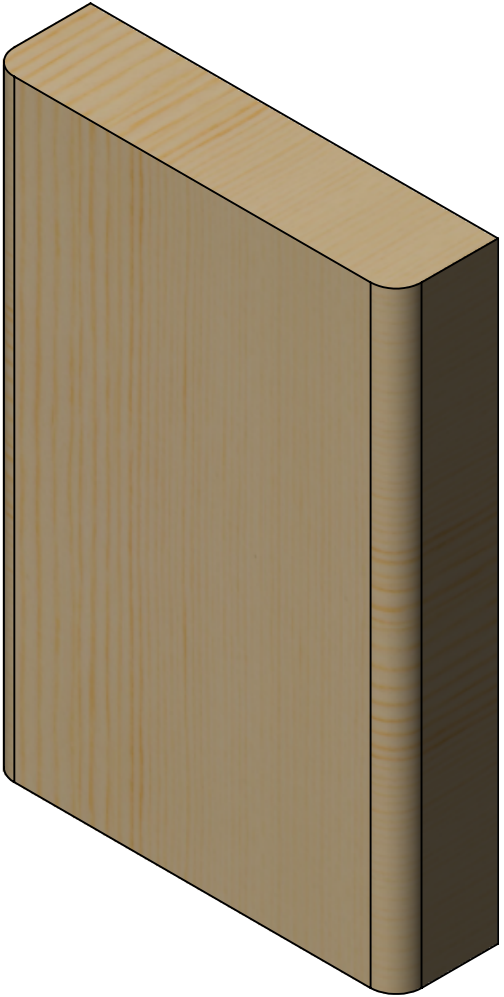
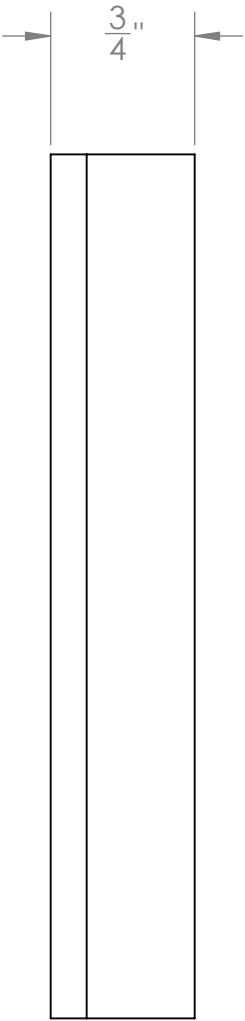
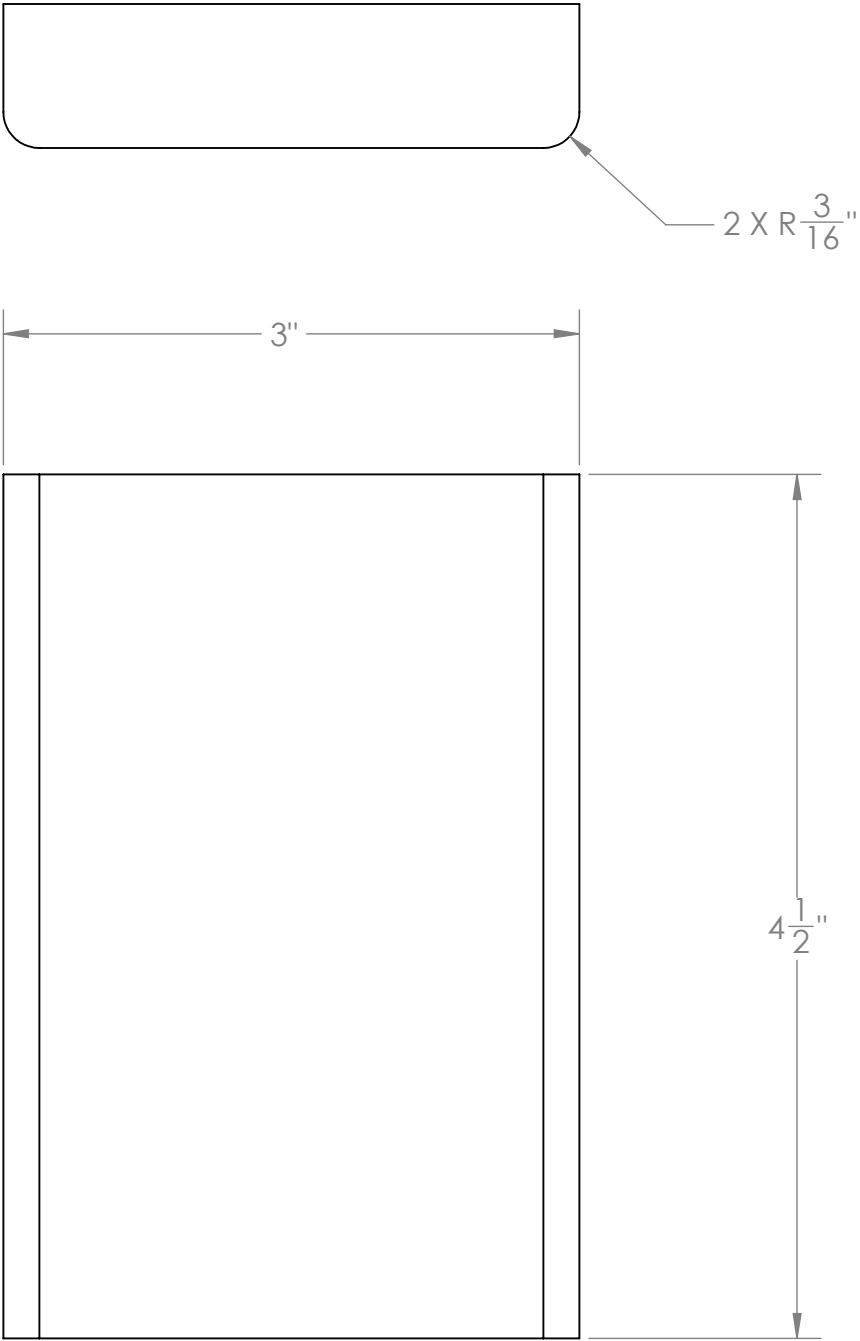
- NOTES:
- 1. MATERIAL: Pine.
 - 2. FINISH: STAIN.
 - 3. SIZES MAY NEED TO BE ALTERED TO SUIT YOUR FEEDER JAR.
 - 4. REMOVE ALL SHARP EDGES.



| | | |
|-------------|-----|-------------|
| 2224_S | - | FEEDER BASE |
| 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> | | | |
| | | <div>PROPRIETARY</div> <div>NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.</div> | | | | | |
| | | <div>CUSTOMER</div> <div>BEE KEEPERS</div> | | <div>TITLE</div> <div>FEEDER BASE</div> | | | |
| | | <div>PROJECT</div> <div>HIVE PRODUCTS</div> | | | | | |
| <div>THIRD ANGLE PROJECTION</div> <div></div> | | <div>DRAWN BY</div> <div>F. FULKERSON</div> | <div>DATE</div> <div>2025-01-27</div> | <div>SIZE</div> <div>B</div> | <div>DRAWING NO</div> | <div>REVISION</div> | |
| | | <div>CHECKED BY</div> <div>P.G. KELLY</div> | <div>DATE</div> <div>2025-01-27</div> | <div>10050_S -</div> | | | |
| | | <div>APPROVED</div> <div>P.G. KELLY</div> | <div>DATE</div> <div>2025-01-27</div> | <div>SCALE</div> <div>1:1</div> | <div>WEIGHT</div> <div>0.11 lbs</div> | <div>SHEET 13 OF 20</div> | |
| | | | | | | | |

- 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_S | - | 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
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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 |

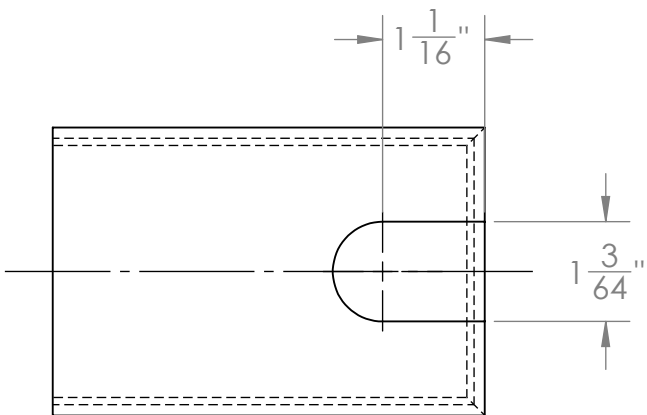
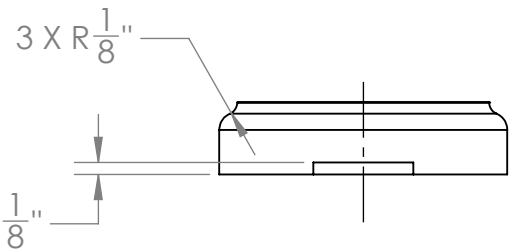
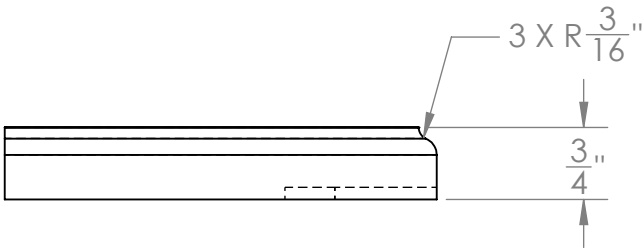
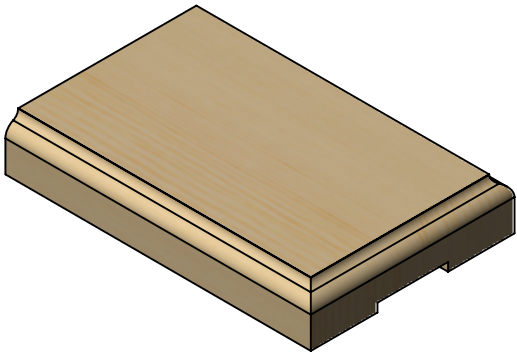
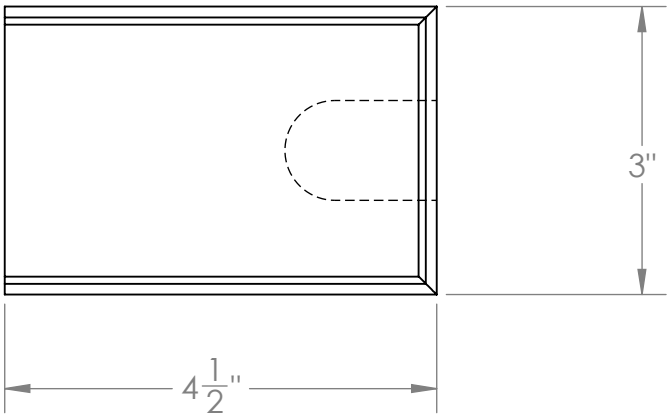
HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

TITLE
FEEDER SIDE

| | | |
|------------------|--------------------|----------------|
| SIZE B | DRAWING NO. | REVISION |
| SCALE 1:1 | WEIGHT 0.12 lbs | SHEET 14 OF 20 |

10050_S -

- 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_S | - | 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

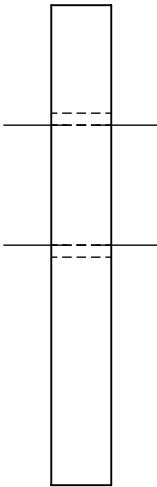
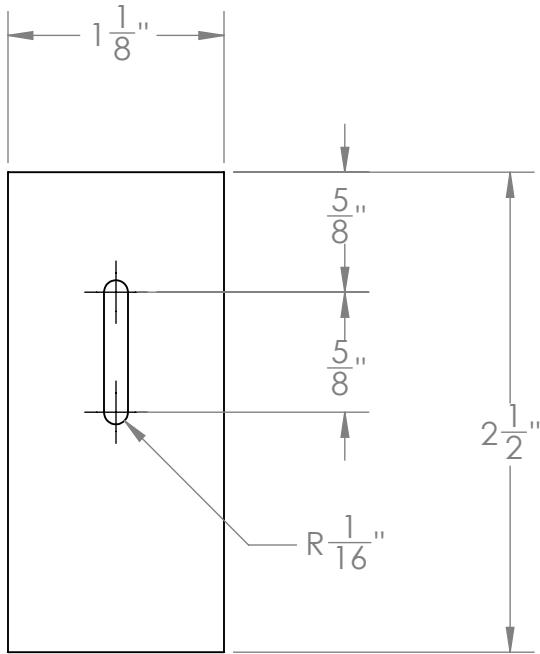
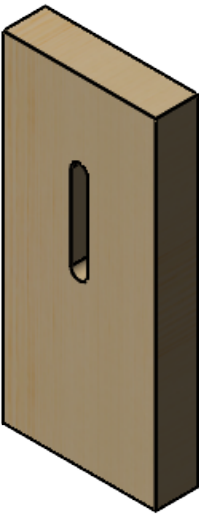
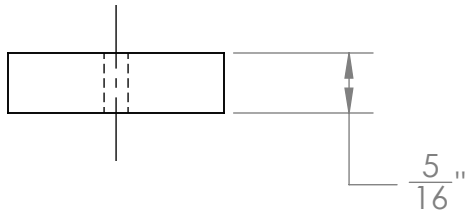
0.12 lbs

SHEET 15 OF 20

REVISION

10050_S -

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



| | | |
|-------------|-----|-------------------|
| 2227_S | - | 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

SolidWorks MAINTAINED DATA
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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 |

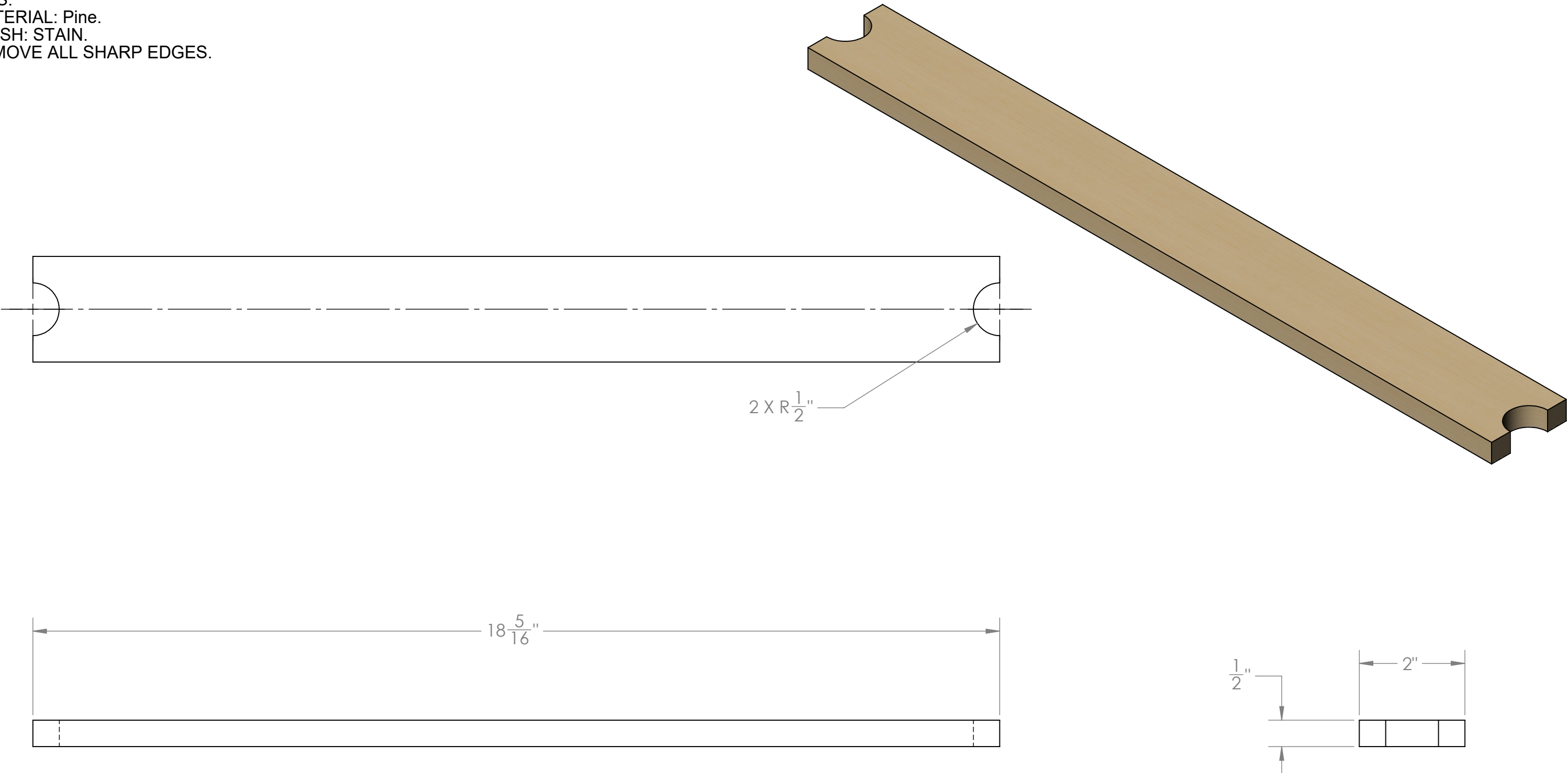
HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

TITLE
FEEDER HOLE COVER

| | | |
|------------------|--------------------|----------------|
| SIZE B | DRAWING NO. | REVISION |
| SCALE 1:1 | WEIGHT 0.01 lbs | SHEET 16 OF 20 |

10050_S -

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



| | | |
|-------------|-----|-------------|
| 2228_S | - | 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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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 |

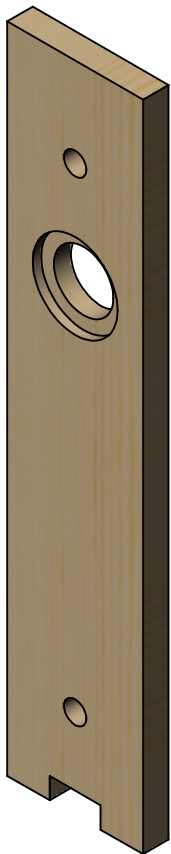
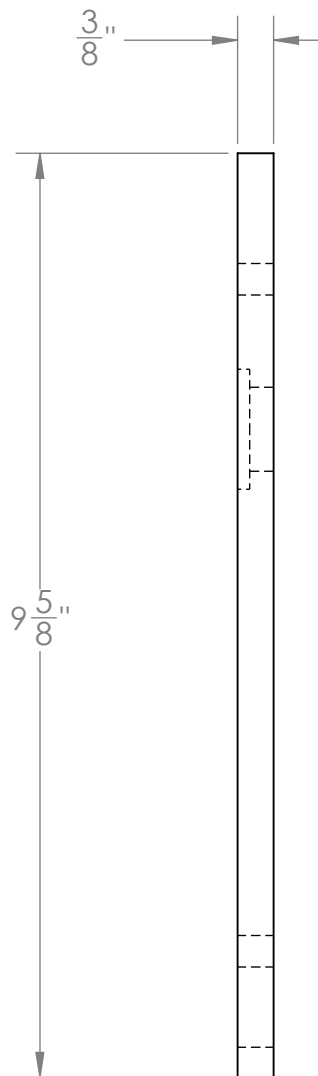
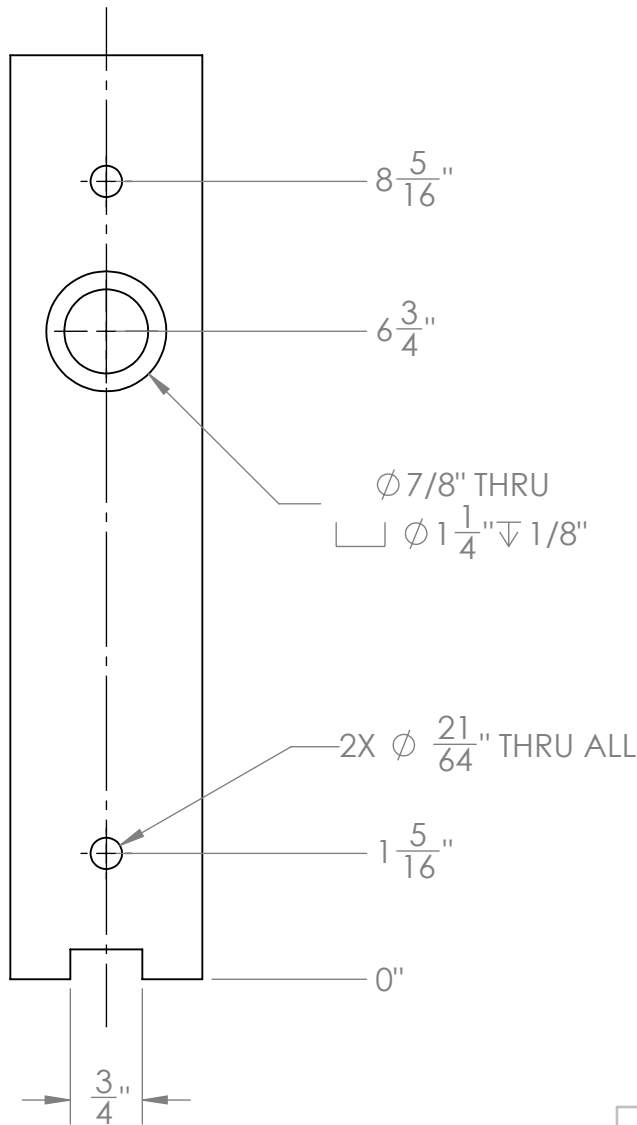
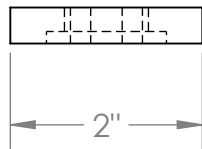
HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

TITLE
INNER BASE

| | | |
|------------------|--------------------|----------------|
| SIZE B | DRAWING NO. | REVISION |
| SCALE 1:2 | WEIGHT 0.22 lbs | SHEET 17 OF 20 |

10050_S -

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



| | | |
|-------------|-----|------------------|
| 2229_S | - | 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 |

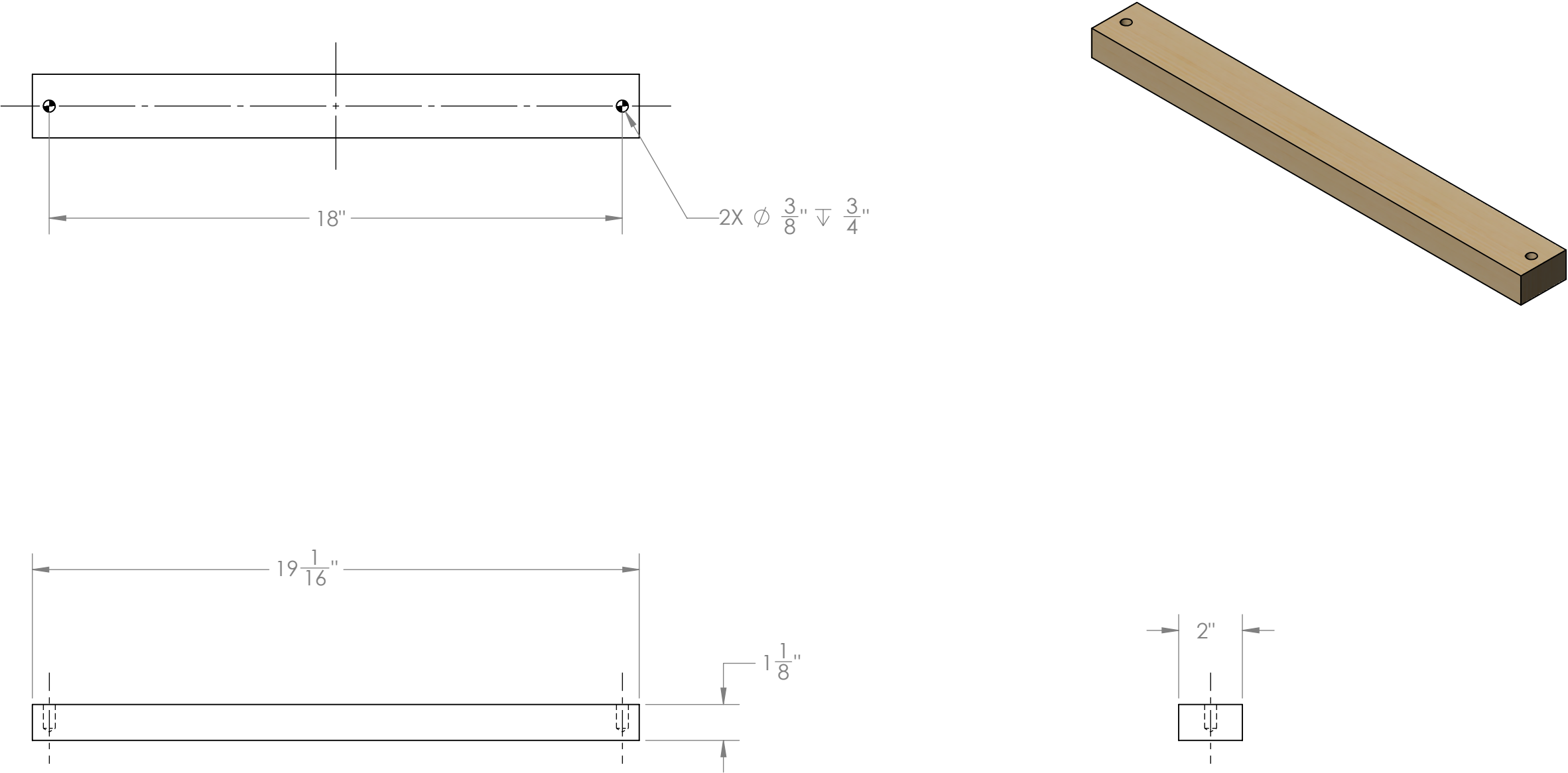
HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

TITLE
INNER LOWER SIDE

| | | |
|------------------|--------------------|----------------|
| SIZE B | DRAWING NO. | REVISION |
| SCALE 1:2 | WEIGHT 0.08 lbs | SHEET 18 OF 20 |

10050_S -

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



| | | |
|-------------|-----|-------------|
| 2231_S | - | 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 |

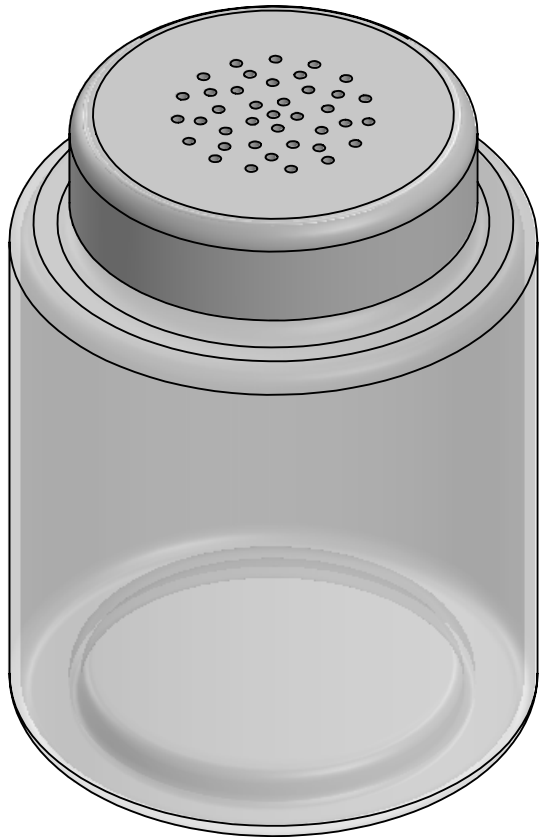
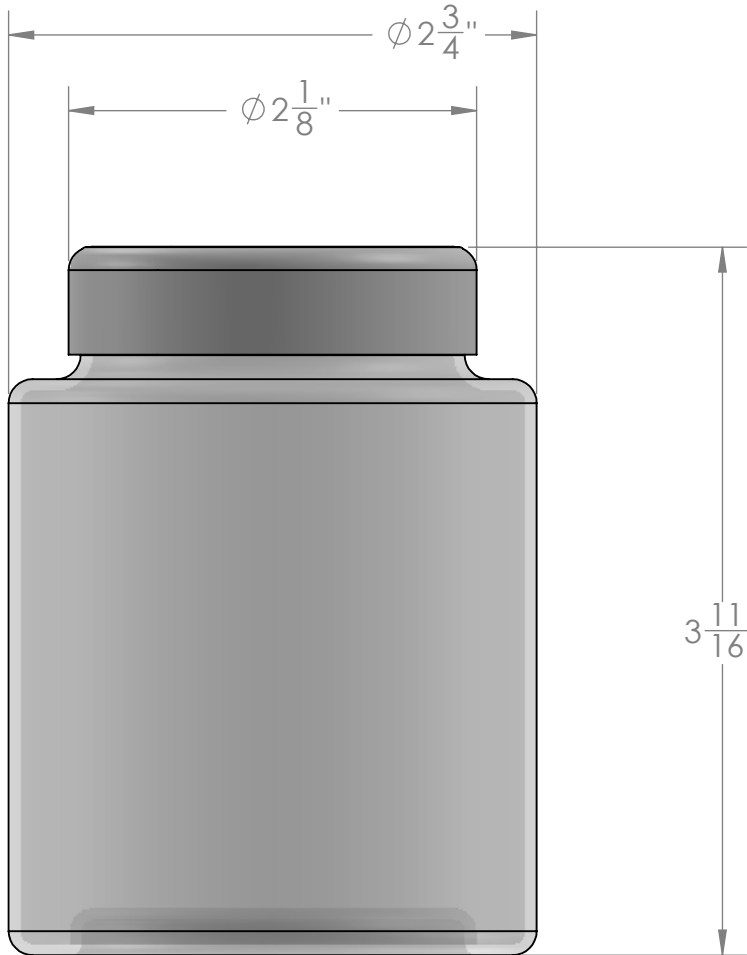
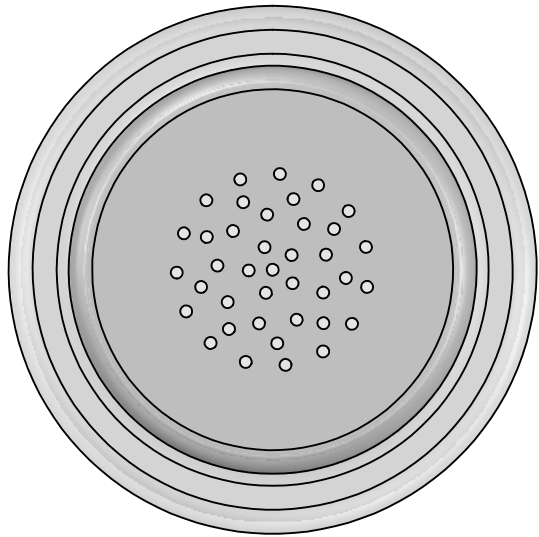
HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

TITLE
INNER TOP



| | | |
|------------------|--------------------|------------------|
| SIZE B | DRAWING NO | REVISION |
| SCALE 1:4 | WEIGHT 0.52 lbs | 10050_S - |

SHEET 19 OF 20

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



| | | |
|-------------|-----|--------------|
| 10053_S | | 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 | | | | |
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| | | CUSTOMER BEE KEEPERS | | TITLE | | | | |
| PROJECT HIVE PRODUCTS | | <h1>SYRUP BOTTLE</h1> | | | | | | |
| DRAWN BY F. FULKERSON | | | | | | SIZE | DRAWING NO | REVISION |
| CHECKED BY P.G. KELLY | | | | | | B | | |
| APPROVED P.G. KELLY | | | | | | SCALE | 1:1 | WEIGHT 0.101 lbs |
| THIRD ANGLE PROJECTION  | | DATE 2025-01-27 | 10050_S - | | | | | |
| | | DATE 2025-01-27 | | | | | | |