

# 10'x16' Chicken Coop Plan 

Up to 15 chickens
Click here for metric version


## Compare Free vs. Premium plan

|  | Free plan | Premium edition |
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| Illustrations for Each Step | $\checkmark$ | ( |
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| Step By Step Instructions | () | (3) |
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## 10'x16' chicken coop material list

## Site Preparation

- Concrete
- Bricks


## Bottom Frame

- Pressure-Treated Lumber
- Plywood


## Walls Frames

- Pressure-Treated Lumber


## Walls Exterior Siding

- Pressure-Treated Lumber
- Wood siding boards


## Top Frame

- Pressure-Treated Lumber

Fasteners \& Hardware

- Corner braces
- Galvanized nails
- Wood screws


## Shed's Roof

- Pressure-Treated Lumber
- Pressure-Treated Board
- Plywood
- Building paper
- Asphalt shingles
- Metal drip edge


## Front/Side Shed's Window

- Pressure-Treated Lumber
- Window beading
- Glass


## STEP 1

## Foundation Preparation

2.1 Fill the trenches to ground level with concrete and let cure, or harden. Since curing times vary between brands, read the packaging for recommended curing times.
2.2 Once the concrete has cured, use standard-sized bricks and lay them across the foundation. You will need roughly 196 bricks for this step.


## STEP 2

## Assemble the Left Part of the Front Wall Frame

3.1 Using $2 \times 4,2 \times 6$ and $4 \times 4$ pressure-treated lumber, construct left part of the front wall frame using the drawing below as a reference. You will need thirteen boards cut to $8^{\prime}$ and two boards cut to 6'-6 1/2" that will be studs, two boards cut to $8^{\prime}$ that will be the top and bottom beams, two boards cut to 2'-11" that will be the door header and one board cut to 1 ' that will be cripple stud.
3.2 Using $1 / 4 \times 3$ board, provide six blind bars $1^{\prime}-51 / 4$ " long. To install them, as shown in Figure B-B on page 17 , make $1 / 4$ deep oblique cuts in the vertical surfaces of the studs and cripple stud.
3.3 Connect the beams with $2 \times 3$ " wood screws. Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Stud | $4 \times 4$ | $8^{\prime}$ | 1 |
| B | Stud | $2 \times 4$ | $8^{\prime}$ | 12 |
| C | Stud | $2 \times 4$ | $6^{\prime}-61 / 2^{\prime \prime}$ | 2 |
| D | Top beam/ Bottom beam | $2 \times 4$ | $8^{\prime}$ | 2 |
| E | Cripple stud | $2 \times 4$ | $1^{\prime}$ | 1 |
| F | Door header | $2 \times 6$ | $2^{\prime}-11^{\prime \prime}$ | 2 |
| G | Blind bar | $1 / 4 \times 3$ | $1^{\prime}-51 / 4^{\prime \prime}$ | 6 |



## STEP 3



B-B ${ }_{(1: 6)}$

$\mathbf{C l}_{(1: 4)}$


## STEP 4

## Assemble the Right Part of the Front Wall Frame

4.1 Using $2 \times 4,2 \times 6$ and $4 \times 4$ pressure-treated lumber, construct right part of the front wall frame using the drawing below as a reference. You will need thirteen boards cut to $8^{\prime}$ and three boards cut to $6^{\prime}-61 / 2^{\prime \prime}$ that will be studs, two boards cut to $8^{\prime}$ that will be the top and bottom beams, two boards cut to $3^{\prime}-21 / 2^{\prime \prime}$ that will be the door header and one board cut to 1 ' that will be cripple stud.
4.2 Using $1 / 4 \times 3$ board, provide six blind bars $1^{\prime}-7$ " long. To install them, as shown in Figure B-B on page 17, make $1 / 4$ deep oblique cuts in the vertical surfaces of the studs and cripple stud.
4.3 Connect the beams with $2 \times 3$ " wood screws. Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Stud | $4 \times 4$ | $8^{\prime}$ | 1 |
| B | Stud | $2 \times 4$ | $8^{\prime}$ | 12 |
| C | Stud | $2 \times 4$ | $6^{\prime}-61 / 2^{\prime \prime}$ | 3 |
| D | Top beam/ Bottom beam | $2 \times 4$ | $8^{\prime}$ | 2 |
| E | Cripple stud | $2 \times 4$ | $1^{\prime}$ | 1 |
| F | Door header | $2 \times 6$ | $3^{\prime}-21 / 2^{\prime \prime}$ | 2 |
| G | Blind bar | $1 / 4 \times 3$ | $1^{\prime}-7{ }^{\prime \prime}$ | 6 |



## STEP 5

## Assemble Back Wall Frame

5.1 Using $2 \times 4$ and $4 \times 4$ pressure-treated lumber, construct two mirrored halves that form the back wall frame using the drawing below as a reference. You will need ten boards cut to 6'-11" that will be the studs and four boards cut to 8 ' that will be the top and bottom beams.
5.2. Using $1 / 4 \times 3$ board, provide 42 blind bars 1 ' -9 " long and 126 blind bars 2 ' $-1 / 2$ " long. To install them, as shown in Figure B-B on page 17, make $1 / 4$ deep oblique cuts in the vertical surfaces at the studs with the same pitch by full stud length.
5.3 Connect the beams with $2 \times 3$ " wood screws. Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Stud | $4 \times 4$ | $6^{\prime}-11^{\prime \prime}$ | 2 |
| B | Stud | $2 \times 4$ | $6^{\prime}-11^{\prime \prime}$ | 8 |
| C | Top beam/ Bottom beam | $2 \times 4$ | $8^{\prime}$ | 4 |
| D | Blind bar | $1 / 4 \times 3$ | $1^{\prime}-9{ }^{\prime \prime}$ | 42 |
| E | Blind bar | $1 / 4 \times 3$ | $2^{\prime}-1 / 2^{\prime \prime}$ | 126 |



## STEP 6

## Assemble the Top Beams

6.1 Assemble the beams using $2 \times 4$ pressure-treated lumber for the front and back walls. You will need four boards cut to 4' and two boards cut to 8'.
6.2 Connect the beams with 3 " wood screws.
6.3 Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Top beam | $2 \times 4$ | $4^{\prime}$ | 4 |
| B | Top beam | $2 \times 4$ | $8^{\prime}$ | 2 |

Front wall ${ }_{(1: 30)}$


Back wall ${ }_{(1: 30)}$


## Assemble the Roof Frame

7.1 Using $2 \times 6$ pressure-treated lumber, cut fourteen rafters $10^{\prime}-101 / 4$ " long according to the dimensions in drawing below. Cut the recesses in each beam for splicing connection with wall frames.
7.2 Connect the beams with a top frame with the help of 5 " wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Rafters | $2 \times 6$ | $10^{\prime}-101 / 4^{\prime \prime}$ | 14 |



## STEP 8

## Assemble Side Wall Frames

8.1 Using $2 \times 4$ pressure-treated lumber, construct left and right walls frames using the drawing below as a reference. For each wall you will need one beam cut to $7^{\prime}-41 / 4^{\prime \prime}$, one beam cut to $7^{\prime}-5^{\prime \prime}$, one beam cut to $7^{\prime}-53 / 4^{\prime \prime}$, one beam cut to $7^{\prime}-61 / 2^{\prime \prime}$, one beam cut to $7^{\prime}-7{ }^{\prime \prime}$, one beam cut to $7^{\prime}-93 / 4^{\prime \prime}$, one beam cut to 7'-10 1/2", one beam cut to $7^{\prime}-11^{\prime \prime}$, one beam cut to $7^{\prime}-113 / 4^{\prime \prime}$, one beam cut to $8^{\prime}-1 / 2^{\prime \prime}$, one beam cut to $8^{\prime}-21 / 2^{\prime \prime}$, one beam cut to 7 '- $21 / 4$ " that will be studs and one beam cut to 9 '-5" that will be bottom beam.
8.2 Connect the beams with 3 " wood screws. Cut the top edge of each stud to connect them with rafters.
8.3 Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Studs | $2 \times 4$ | $7^{\prime}-41 / 4^{\prime \prime}$ | 2 |
| B | Studs | $2 \times 4$ | $7^{\prime}-5^{\prime \prime}$ | 2 |
| C | Studs | $2 \times 4$ | $7^{\prime}-53 / 4^{\prime \prime}$ | 2 |
| D | Studs | $2 \times 4$ | $7^{\prime}-61 / 2^{\prime \prime}$ | 2 |
| E | Studs | $2 \times 4$ | $7^{\prime}-7{ }^{\prime \prime}$ | 2 |
| F | Studs | $2 \times 4$ | $7^{\prime}-93 / 4{ }^{\prime \prime}$ | 2 |
| G | Studs | $2 \times 4$ | $7^{\prime}-101 / 2^{\prime \prime}$ | 2 |
| H | Studs | $2 \times 4$ | $7^{\prime}-11^{\prime \prime}$ | 2 |
| I | Studs | $2 \times 4$ | $7^{\prime}-113 / 44^{\prime \prime}$ | 2 |
| J | Studs | $2 \times 4$ | $8^{\prime}-1 / 2^{\prime \prime}$ | 2 |
| K | Studs | $2 \times 4$ | $8^{\prime}-21 / 2^{\prime \prime}$ | 2 |
| L | Studs | $2 \times 4$ | $7^{\prime}-21 / 44^{\prime \prime}$ | 2 |
| M | Bottom frame | $2 \times 4$ | $9^{\prime}-55^{\prime \prime}$ | 2 |

## STEP 9

## Framing the Coop's Floor

10.1 Assemble the frame using $2 \times 8$ pressure-treated lumber.

You will need six boards cut to 5 '-6 1/4" that will be the joist.
10.2 Secure the beams with 3 " wood screws.
10.3 Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Joist | $2 \times 8$ | $5^{\prime}-61 / 4 "$ | 6 |



## STEP 10

## Assemble Inner Left Wall Frame

13.1 Using $2 \times 4$ pressure-treated lumber, construct inner left wall frame using the drawing below as a reference. You will need eight boards cut to $6^{\prime}-43 / 4^{\prime \prime}$ that will be studs, two boards cut to $9^{\prime}-5$ " that will be top and bottom beams and one board cut to $1^{\prime}-21 / 2^{\prime \prime}$ that will be chicken door header.
13.2 Connect the beams with 3" wood screws.
13.3 Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Studs | $2 \times 4$ | $6^{\prime}-43 / 4^{\prime \prime}$ | 8 |
| B | Top/bottom beam | $2 \times 4$ | $9^{\prime}-5^{\prime \prime}$ | 2 |
| C | Chicken door header | $2 \times 4$ | $1^{\prime}-21 / 2^{\prime \prime}$ | 1 |



## STEP 11

## Assemble the Left Inner Wall Gable Wall Studs

14.1 Using $2 \times 4$ pressure-treated lumber, cut seven gable studs as shown in the illustration below.
14.2 You will need one board cut to $1^{\prime}-1 / 2^{\prime \prime}$, one board cut to $11^{\prime \prime}$, one board cut to 9 ", one board cut to $71 / 4^{\prime \prime}$, one board cut to $51 / 2^{\prime \prime}$, one board cut to $33 / 4$ " and one board cut to 2 ".
14.3 Cut the top edge of each stud to connect them with rafters.
14.4 Connect the beams with $2 \times 3$ " wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Studs | $2 \times 4$ | $1^{\prime}-1 / 2^{\prime \prime}$ | 1 |
| B | Studs | $2 \times 4$ | $11^{\prime \prime}$ | 1 |
| C | Studs | $2 \times 4$ | $9{ }^{\prime \prime}$ | 1 |
| D | Studs | $2 \times 4$ | $71 / 4^{\prime \prime}$ | 1 |
| E | Studs | $2 \times 4$ | $51 / 2^{\prime \prime}$ | 1 |
| F | Studs | $2 \times 4$ | $33 / 4^{\prime \prime}$ | 1 |
| G | Studs | $2 \times 4$ | $2{ }^{\prime \prime}$ | 1 |



## Assemble Back Wall Inner Frame

21.1 Using $2 \times 4$ pressure-treated lumber, construct inner wall frame using the drawing below as a reference. You will need four boards cut to 6 '-7 3/4" that will be studs.
21.2 Connect the beams with 5 " wood screws to the outer studs.
21.3 Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Studs | $2 \times 4$ | $6^{\prime}-73 / 4^{\prime \prime}$ | 4 |



## Install Plywood for the Back Wall

23.1 Cut sheet of $5 / 8^{\prime \prime}$ plywood for the back wall sheathing using the drawing below as a guide. You will need one $3^{\prime}-83 / 4$ " x $6^{\prime}-7$ 3/4" sheet and one $1^{\prime}-73 / 4^{\prime \prime} \times 6^{\prime}-73 / 4$ " sheet.
23.2 Secure the plywood with 2 " wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Wall sheathing | 5/8" Plywood | 3'-8 3/4" x 6'-7 3/4" | 1 |
| B | Wall sheathing | 5/8" Plywood | 1'-7 3/4" x 6'-7 3/4" | 1 |



## Install Plywood for the Right Wall

26.1 Cut sheet of $5 / 8$ " plywood for the right wall sheathing using the drawing below as a guide. You will need one $3^{\prime}-33 / 4^{\prime \prime} \times 7^{\prime}-1 / 2^{\prime \prime}$ sheet, one $4^{\prime} \times 7^{\prime}-6$ " sheet and one $1^{\prime}-73 / 4^{\prime \prime} \times 7$ '- $81 / 4^{\prime \prime}$ sheet.
26.2 Secure the plywood with 2 " wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Wall sheathing | $5 / 8^{\prime \prime}$ Plywood | $3^{\prime}-33 / 4 " \times 7^{\prime}-1 / 2^{\prime \prime}$ | 1 |
| B | Wall sheathing | $5 / 8^{\prime \prime}$ Plywood | $4^{\prime} \times 7^{\prime}-6^{\prime \prime}$ | 1 |
| C | Wall sheathing | $5 / 8^{\prime \prime}$ Plywood | $1^{\prime}-73 / 4^{\prime \prime} \times 7^{\prime}-81 / 4^{\prime \prime}$ | 1 |



## STEP 15

## Install Plywood for the Front Wall

29.1 Cut sheet of $5 / 8$ " plywood for the right wall sheathing using the drawing below as a guide.

You will need one $1^{\prime}-7{ }^{\prime \prime} \times 2^{\prime}-81 / 4$ " sheet, one $2^{\prime}-41 / 4^{\prime \prime} \times 7^{\prime}-73 / 4$ " sheet and one $41 / 4$ " x $2^{\prime}-8$ 1/4" sheet.
29.2 Secure the plywood with 2 " wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Wall sheathing | $5 / 8^{\prime \prime}$ Plywood | $1^{\prime}-7^{\prime \prime} \times 2^{\prime}-81 / 4 "$ | 1 |
| B | Wall sheathing | $5 / 8^{\prime \prime}$ Plywood | $2^{\prime}-41 / 4^{\prime \prime} \times 77^{\prime}-73 / 4 "$ | 1 |
| C | Wall sheathing | $5 / 8^{\prime \prime}$ Plywood | $41 / 4^{\prime \prime} \times 2^{\prime}-81 / 4^{\prime \prime}$ | 1 |



## E-E

(1:14)


## STEP 16

## Install Plywood for the Roof

32.1 Cut sheet of $5 / 8^{\prime \prime}$ plywood for the roof sheathing using the drawing below as a guide. You will need four 4' x 8' sheets and two 3'-4 1/4" x 8 ' sheets.
32.2 Secure the plywood with 2 " wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Roof sheathing | $5 / 8^{\prime \prime}$ Plywood | $4^{\prime} \times 8^{\prime}$ | 4 |
| B | Roof sheathing | $5 / 8^{\prime \prime}$ Plywood | $3^{\prime}-41 / 4 " \times 8^{\prime}$ | 2 |



## Coop's Roof Sheathing Installation

34.1 You will need 183 Sq Ft of building paper and asphalt shingle roofing.
34.2 Cover the plywood and drip edge with building paper. Try to install sheets with 1" overlapping. Use 2" nails to secure the sheets.
34.3 Install asphalt shingle roofing using an industrial stapler.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Roof sheathing | Asphalt shingle roofing | - | 183 square.ft |
| B | Roof sheathing | Building paper | - | 183 square.ft |



## Assemble and Install Coop's Front Door

36.1 Build the door frame using $2 \times 2$ and $2 \times 4$ pressure-treated lumber.

You will need two boards cut to $5^{\prime}-113 / 4$ ", seven boards cut to 5 ' $-83 / 4$ " that will be the vertical girts and two boards cut to $2^{\prime}-41 / 2^{\prime \prime}$ that will be the horizontal girts.
36.2 Prepare the 5/8" plywood sheets for inner and outer sheathing. You will need one $2^{\prime}-41 / 2^{\prime \prime} \times 5^{\prime}-83 / 4$ " sheet and one $2^{\prime}-71 / 2^{\prime \prime} \times 5^{\prime}-113 / 4$ " sheet for the door according to the drawing.
36.3 Cut sheet of $3^{\prime \prime}$ foam board insulation for the door sheathing.

You will need to cut one $2^{\prime}-41 / 2^{\prime \prime} \times 5^{\prime}-83 / 4$ " sheet.
36.4 Install three $3^{\prime \prime}$ door hinges using $6 \times 1$ " wood screws.

Finish the door installation by attaching 6 " door pull.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Girt | $2 \times 4$ | $5^{\prime}-113 / 4^{\prime \prime}$ | 2 |
| B | Girt | $2 \times 4$ | $2^{\prime}-41 / 2^{\prime \prime}$ | 2 |
| C | Girt | $2 \times 2$ | $5^{\prime}-83 / 4^{\prime \prime}$ | 7 |
| D | Door sheathing | $5 / 8^{\prime \prime}$ Plywood | $2^{\prime}-41 / 2^{\prime \prime} \times 5^{\prime}-83 / 4^{\prime \prime}$ | 1 |
| E | Foam board | $3^{\prime \prime}$ | $2^{\prime}-41 / 2^{\prime \prime} \times 5^{\prime}-83 / 4^{\prime \prime}$ | 1 |
| F | Door sheathing | $5 / 8^{\prime \prime}$ Plywood | $2^{\prime}-71 / 2^{\prime \prime} \times 5^{\prime}-113 / 4^{\prime \prime}$ | 1 |



## Assemble and Install Aviary Front Door

37.1 Build the door frame using $2 \times 2$ and $2 \times 4$ pressure-treated lumber.

You will need two boards cut to $6^{\prime}-6^{\prime \prime}$, seven boards cut to $6^{\prime}-3^{\prime \prime}$ that will be the vertical girts one board cut to $6^{\prime}-81 / 4$ " that will be cross brace and two boards cut to $2^{\prime}-41 / 2^{\prime \prime}$ that will be the horizontal girts.
37.2 Install three 3 " door hinges using $6 \times 1$ " wood screws.

Finish the door installation by attaching 6 " door pull.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Girt | $2 \times 4$ | $6^{\prime}-6^{\prime \prime}$ | 2 |
| B | Girt | $2 \times 4$ | $2^{\prime}-41 / 2^{\prime \prime}$ | 2 |
| C | Girt | $2 \times 2$ | $6^{\prime}-3^{\prime \prime}$ | 7 |
| D | Cross brace | $2 \times 4$ | $6^{\prime}-81 / 4^{\prime \prime}$ | 1 |



## Mesh Wall Installation

39.1 Cover the walls with $1 / 4$ " wire mesh with the help of industrial stapler. You will need 225 sq ft .



## STEP 22

## Assemble The Roost

41.1 Assemble the roost using $2 \times 2$ and $2 \times 3$ pressure-treated material.

You will need four boards cut to $3^{\prime}-7$ " and six boards cut to 4 '- $31 / 2^{\prime \prime}$.
41.2 Connect the beams with 2 " wood screws.
41.3 Install the roost at the studs with the help of 3 " screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Girt | $2 \times 3$ | $3^{\prime}-7^{\prime \prime}$ | 4 |
| B | Girt | $2 \times 2$ | $4^{\prime}-31 / 2^{\prime \prime}$ | 6 |



## Assemble and Install Notched-Stringer Stairs

42.1 Using $2 \times 6$ and $2 \times 8$ pressure-treated lumber, construct stairs elements, using the drawing below as a reference. You will need three boards cut to $1^{\prime}-2$ " that will be the stringers and two boards cut to $3^{\prime}-1$ " that will be treads.
42.2 Connect the beams with 3 " wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Stringer | $2 \times 8$ | $1^{\prime}-2^{\prime \prime}$ | 3 |
| B | Tread | $2 \times 6$ | $3^{\prime}-1^{\prime \prime}$ | 2 |


_ STEP BY STEP _


## 3m x 4,8m Chicken Coop Plan

Up to 15 chickens

## STEP 1

## Foundation Preparation

2.1 Fill the trenches to ground level with concrete and let cure, or harden. Since curing times vary between brands, read the packaging for recommended curing times.
2.2 Once the concrete has cured, use standard-sized bricks and lay them across the foundation. You will need roughly 196 bricks for this step.


## STEP 2

## Assemble the Left Part of the Front Wall Frame

3.1 Using $50 \mathrm{~mm} \times 100 \mathrm{~mm}, 50 \mathrm{~mm} \times 150 \mathrm{~mm}$ and $100 \mathrm{~mm} \times 100 \mathrm{~mm}$ pressure-treated lumber, construct left part of the front wall frame using the drawing below as a reference. You will need thirteen boards cut to 2438 mm and two boards cut to 1994 mm that will be studs, two boards cut to 2438 mm that will be the top and bottom beams, two boards cut to 889 mm that will be the door header and one board cut to 305 mm that will be cripple stud.
3.2 Using $6 \mathrm{~mm} \times 93 \mathrm{~mm}$ board, provide six blind bars 438 mm long. To install them, as shown in Figure B-B on page 83 , make 6 mm deep oblique cuts in the vertical surfaces of the studs and cripple stud.
3.3 Connect the beams with 75 mm wood screws. Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Stud | $100 \times 100$ | 2438 | 1 |
| B | Stud | $50 \times 100$ | 2438 | 12 |
| C | Stud | $50 \times 100$ | 1994 | 2 |
| D | Top beam/ Bottom beam | $50 \times 100$ | 2438 | 2 |
| E | Cripple stud | $50 \times 100$ | 305 | 1 |
| F | Door header | $50 \times 150$ | 889 | 2 |
| G | Blind bar | $6 \times 93$ | 438 | 6 |



## STEP 3

## Assemble the Right Part of the Front Wall Frame

4.1 Using $50 \mathrm{~mm} \times 100 \mathrm{~mm}, 50 \mathrm{~mm} \times 150 \mathrm{~mm}$ and $100 \mathrm{~mm} \times 100 \mathrm{~mm}$ pressure-treated lumber, construct right part of the front wall frame using the drawing below as a reference. You will need thirteen boards cut to 2438 mm and three boards cut to 1994 mm that will be studs, two boards cut to 2438 mm that will be the top and bottom beams, two boards cut to 978 mm that will be the door header and one board cut to 305 mm that will be cripple stud.
4.2 Using $6 \mathrm{~mm} \times 93 \mathrm{~mm}$ board, provide six blind bars 483 mm long. To install them, as shown in Figure B-B on page 83 , make 6 mm deep oblique cuts in the vertical surfaces of the studs and cripple stud.
4.3 Connect the beams with 75 mm wood screws. Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Stud | $100 \times 100$ | 2438 | 1 |
| B | Stud | $50 \times 100$ | 2438 | 12 |
| C | Stud | $50 \times 100$ | 1994 | 3 |
| D | Top beam/ Bottom beam | $50 \times 100$ | 2438 | 2 |
| E | Cripple stud | $50 \times 100$ | 305 | 1 |
| F | Door header | $50 \times 150$ | 978 | 2 |
| G | Blind bar | $6 \times 93$ | 483 | 6 |



## Assemble Back Wall Frame

5.1 Using $50 \mathrm{~mm} \times 100 \mathrm{~mm}$ and $100 \mathrm{~mm} \times 100 \mathrm{~mm}$ pressure-treated lumber, construct two mirrored halves that form the back wall frame using the drawing below as a reference. You will need ten boards cut to 2108 mm that will be the studs and four boards cut to 2438 mm that will be the top and bottom beams.
5.2. Using $6 \mathrm{~mm} \times 93 \mathrm{~mm}$ board, provide 42 blind bars 514 mm long and 126 blind bars 584 mm long. To install them, as shown in Figure B-B on page 83, make 6 mm deep oblique cuts in the vertical surfaces at the studs with the same pitch by full stud length.
5.3 Connect the beams with 75 mm wood screws. Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Stud | $100 \times 100$ | 2108 | 2 |
| B | Stud | $50 \times 100$ | 2108 | 8 |
| C | Top beam/ Bottom beam | $50 \times 100$ | 2438 | 4 |
| D | Blind bar | $6 \times 93$ | 514 | 42 |
| E | Blind bar | $6 \times 93$ | 584 | 126 |



## STEP 5

## Assemble the Top Beams

6.1 Assemble the beams using $50 \mathrm{~mm} \times 100 \mathrm{~mm}$ pressure-treated lumber for the front and back walls. You will need four boards cut to 1219 mm and two boards cut to 2438 mm .
6.2 Connect the beams with 75 mm wood screws.
6.3 Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Top beam | $50 \times 100$ | 1219 | 4 |
| B | Top beam | $50 \times 100$ | 2438 | 2 |

Front wall ${ }_{(1: 30)}$


Back wall $_{(1: 30)}$


## STEP 6

## Assemble the Roof Frame

7.1 Using $50 \mathrm{~mm} \times 150 \mathrm{~mm}$ pressure-treated lumber, cut fourteen rafters 3310 mm long according to the dimensions in drawing below. Cut the recesses in each beam for splicing connection with wall frames.
7.2 Connect the beams with a top frame with the help of 125 mm wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Rafters | $50 \times 150$ | 3310 | 14 |



## STEP 7

## Assemble Side Wall Frames

8.1 Using $50 \mathrm{~mm} \times 100 \mathrm{~mm}$ pressure-treated lumber, construct left and right walls frames using the drawing below as a reference. For each wall you will need one beam cut to 2245 mm , one beam cut to 2262 mm , one beam cut to 2279 mm , one beam cut to 2296 mm , one beam cut to 2313 mm , one beam cut to 2381 mm , one beam cut to 2398 mm , one beam cut to 2415 mm , one beam cut to 2432 mm , one beam cut to 2449 mm , one beam cut to 2505 mm , one beam cut to 2189 mm that will be studs and one beam cut to 2870 mm that will be bottom beam.
8.2 Connect the beams with 75 mm wood screws.

Cut the top edge of each stud to connect them with rafters.
8.3 Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Studs | $50 \times 100$ | 2245 | 2 |
| B | Studs | $50 \times 100$ | 2262 | 2 |
| C | Studs | $50 \times 100$ | 2279 | 2 |
| D | Studs | $50 \times 100$ | 2296 | 2 |
| E | Studs | $50 \times 100$ | 2313 | 2 |
| F | Studs | $50 \times 100$ | 2381 | 2 |
| G | Studs | $50 \times 100$ | 2398 | 2 |
| H | Studs | $50 \times 100$ | 2415 | 2 |
| I | Studs | $50 \times 100$ | 2432 | 2 |
| J | Studs | $50 \times 100$ | 2449 | 2 |
| K | Studs | $50 \times 100$ | 2505 | 2 |
| L | Studs | $50 \times 100$ | 2189 | 2 |
| M | Bottom frame | $50 \times 100$ | 2870 | 2 |



## Framing the Coop's Floor

10.1 Assemble the frame using $50 \mathrm{~mm} \times 200 \mathrm{~mm}$ pressure-treated lumber.

You will need six boards cut to 1683 mm that will be the joist.
10.2 Secure the beams with 75 mm wood screws.
10.3 Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Joist | $50 \times 200$ | 1683 | 6 |



## STEP 10

## Assemble Inner Wall Frame

13.1 Using $50 \mathrm{~mm} \times 100 \mathrm{~mm}$ pressure-treated lumber, construct inner wall frame using the drawing below as a reference. You will need eight boards cut to 1946 mm that will be studs, two boards cut to 2870 mm that will be top and bottom beams and one board cut to 368 mm that will be chicken door header.
13.2 Connect the beams with 75 mm wood screws.
13.3 Using a speed square or carpenter's square, check the corners to make sure they are $90^{\circ}$.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Studs | $50 \times 100$ | 1946 | 8 |
| B | Top/bottom beam | $50 \times 100$ | 2870 | 2 |
| C | Chicken door header | $50 \times 100$ | 368 | 1 |



## STEP 11

## Assemble the Inner Wall Gable Wall Studs

14.1 Using $50 \mathrm{~mm} \times 100 \mathrm{~mm}$ pressure-treated lumber, cut seven gable studs as shown in the illustration below.
14.2 You will need one board cut to 320 mm , one board cut to 277 mm , one board cut to 232 mm , one board cut to 186 mm , one board cut to 141 mm , one board cut to 96 mm and one board cut to 50 mm .
14.3 Cut the top edge of each stud to connect them with rafters.
14.4 Connect the beams with 75 mm wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Studs | $50 \times 100$ | 320 | 1 |
| B | Studs | $50 \times 100$ | 277 | 1 |
| C | Studs | $50 \times 100$ | 232 | 1 |
| D | Studs | $50 \times 100$ | 186 | 1 |
| E | Studs | $50 \times 100$ | 141 | 1 |
| F | Studs | $50 \times 100$ | 96 | 1 |
| G | Studs | $50 \times 100$ | 50 | 1 |



## Install Plywood for the Inner Wall

20.1 Cut sheets of 15 mm plywood for the front wall sheathing using the drawing below as a guide. You will need one $1200 \mathrm{~mm} \times 2341 \mathrm{~mm}$ sheet, one $1219 \mathrm{~mm} \times 2207 \mathrm{~mm}$ sheet and one $413 \mathrm{~mm} \times 2025 \mathrm{~mm}$ sheet. Provide cutting for the chicken door.
20.2 Secure the plywood with 50 mm wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Wall sheathing | 15 mm plywood | $1200 \times 2341$ | 1 |
| B | Wall sheathing | 15 mm plywood | $1219 \times 2207$ | 1 |
| C | Wall sheathing | 15 mm plywood | $413 \times 2025$ | 1 |



## Install Plywood for the Back Wall

23.1 Cut sheet of 15 mm plywood for the back wall sheathing using the drawing below as a guide. You will need one $1133 \mathrm{~mm} \times 2025 \mathrm{~mm}$ sheet and one $502 \mathrm{~mm} \times 2025 \mathrm{~mm}$ sheet.
23.2 Secure the plywood with 50 mm wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Wall sheathing | 15 mm plywood | $1133 \times 2025$ | 1 |
| B | Wall sheathing | 15 mm plywood | $502 \times 2025$ | 1 |



## Install Plywood for the Right Wall

26.1 Cut sheet of 15 mm plywood for the right wall sheathing using the drawing below as a guide. You will need one $1006 \mathrm{~mm} \times 2149 \mathrm{~mm}$ sheet, one $1219 \mathrm{~mm} \times 2285 \mathrm{~mm}$ sheet and one $502 \mathrm{~mm} \times 2341 \mathrm{~mm}$ sheet.
26.2 Secure the plywood with 50 mm wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Wall sheathing | 15 mm plywood | $1006 \times 2149$ | 1 |
| B | Wall sheathing | 15 mm plywood | $1219 \times 2285$ | 1 |
| C | Wall sheathing | 15 mm plywood | $502 \times 2341$ | 1 |



## Install Plywood for the Front Wall

29.1 Cut sheet of 15 mm plywood for the right wall sheathing using the drawing below as a guide.

You will need one $483 \mathrm{~mm} \times 816 \mathrm{~mm}$ sheet, one $714 \mathrm{~mm} \times 2331 \mathrm{~mm}$ sheet and one $105 \mathrm{~mm} \times 816 \mathrm{~mm}$ sheet.
29.2 Secure the plywood with 50 mm wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Wall sheathing | 15 mm plywood | $483 \times 816$ | 1 |
| B | Wall sheathing | 15 mm plywood | $714 \times 2331$ | 1 |
| C | Wall sheathing | 15 mm plywood | $105 \times 816$ | 1 |



## STEP 16

## Install Plywood for the Roof

32.1 Cut sheet of 15 mm plywood for the roof sheathing using the drawing below as a guide. You will need four $1219 \mathrm{~mm} \times 2438 \mathrm{~mm}$ sheets and two $1024 \mathrm{~mm} \times 2438 \mathrm{~mm}$ sheets.
32.2 Secure the plywood with 50 mm wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Roof sheathing | 15 mm plywood | $1219 \times 2438$ | 4 |
| B | Roof sheathing | 15 mm plywood | $1024 \times 2438$ | 2 |



## Coop's Roof Sheathing Installation

34.1 You will need 17 Sq meters of building paper and asphalt shingle roofing.
34.2 Cover the plywood and drip edge with building paper. Try to install sheets with 25 mm overlapping. Use 50 mm nails to secure the sheets.
34.3 Install asphalt shingle roofing using an industrial stapler.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Roof sheathing | Asphalt shingle roofing | - | 17 square.meters |
| B | Roof sheathing | Building paper | - | 17 square.meters |



## Assemble and Install Coop's Front Door

36.1 Build the door frame using $50 \mathrm{~mm} \times 50 \mathrm{~mm}$ and $100 \mathrm{~mm} \times 100 \mathrm{~mm}$ pressure-treated lumber. You will need two boards cut to 1819 mm , seven boards cut to 1743 mm that will be the vertical girts and two boards cut to 724 mm that will be the horizontal girts.
36.2 Prepare the 15 mm plywood sheets for inner and outer sheathing. You will need one $800 \mathrm{~mm} \times 1819 \mathrm{~mm}$ sheet and one $724 \mathrm{~mm} \times 1743 \mathrm{~mm}$ sheet for the door according to the drawing.
36.3 Cut sheet of 75 mm foam board insulation for the door sheathing.

You will need to cut one $724 \mathrm{~mm} \times 1743 \mathrm{~mm}$ sheet.
36.4 Install three 75 mm door hinges using $6 \times 25 \mathrm{~mm}$ wood screws.

Finish the door installation by attaching 150 mm door pull.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Girt | $50 \times 100$ | 1819 | 2 |
| B | Girt | $50 \times 100$ | 724 | 2 |
| C | Girt | $50 \times 50$ | 1743 | 7 |
| D | Door sheathing | 15 mm Plywood | $800 \times 1819$ | 1 |
| E | Foam board | 75 mm | $724 \times 1743$ | 1 |
| F | Door sheathing | 15 mm Plywood | $724 \times 1743$ | 1 |



## Assemble and Install Aviary Front Door

37.1 Build the door frame using $50 \mathrm{~mm} \times 50 \mathrm{~mm}$ and $50 \mathrm{~mm} \times 100 \mathrm{~mm}$ pressure-treated lumber.

You will need two boards cut to 1981 mm , seven boards cut to 1905 mm that will be the vertical girts one board cut to 2036 mm that will be cross brace and two boards cut to 724 mm that will be the horizontal girts.
37.2 Install three 75 mm door hinges using $6 \times 25 \mathrm{~mm}$ wood screws.

Finish the door installation by attaching 150 mm door pull.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Girt | $50 \times 100$ | 1981 | 2 |
| B | Girt | $50 \times 100$ | 724 | 2 |
| C | Girt | $50 \times 50$ | 1905 | 7 |
| D | Cross brace | $50 \times 100$ | 2036 | 1 |



## Mesh Wall Installation

39.1 Cover the walls with 5 mm wire mesh with the help of industrial stapler. You will need 22 sq m .



## STEP 22

## Assemble The Roost

41.1 Assemble the roost using $50 \mathrm{~mm} \times 50 \mathrm{~mm}$ and $50 \mathrm{~mm} \times 75 \mathrm{~mm}$ pressure-treated material. You will need four boards cut to 1094 mm and six boards cut to 1308 mm .
41.2 Connect the beams with 50 mm wood screws.
41.3 Install the roost at the studs with the help of 75 mm screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Girt | $50 \times 75$ | 1094 | 4 |
| B | Girt | $50 \times 50$ | 1308 | 6 |



## Assemble and Install Notched-Stringer Stairs

42.1 Using $50 \mathrm{~mm} \times 150 \mathrm{~mm}$ and $50 \mathrm{~mm} \times 200 \mathrm{~mm}$ pressure-treated lumber, construct stairs elements, using the drawing below as a reference. You will need three boards cut to 354 mm that will be the stringers and two boards cut to 940 mm that will be treads.
42.2 Connect the beams with 75 mm wood screws.

| Pos | Description | Material | Dimension | Qty |
| :---: | :---: | :---: | :---: | :---: |
| A | Stringer | $50 \times 200$ | 354 | 3 |
| B | Tread | $50 \times 150$ | 940 | 2 |




## Compare Free vs. Premium plan

|  | Free plan | Premium edition |
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