

Bi- Level Recreational Building Part A & Part C

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Structure/ Posts:

All 4x4 post are going to be settled in 2 ft concrete with protective sleeves and secured with 4ft long steel anchors into the ground.

To assure proper connections between the 4x4 post there will be 2 way and 3 way post brackets used and attached with 3 inch bolts.

Walls:

The wall structures are build with untreated 2x4s with a 16 inch distance- and enclosed on both sides- interior/exterior, with $\frac{3}{4}$ x 4x 8 plywood panel boards and triple thermal insulation, first layer interior with $\frac{3}{4}$ Styrofoam panels next layer, top faced fiberglass roll insulation.

The exterior walls will be insulated with a reflective roll insulation and finished with Vinyl Siding.

Wall Part B is a 2 ft wide connection between Part A and Part C.

Floor Structure Sub floors

Before floor installations a vapor barrier will be installed.

The floor Joists and frames are all pressure treated lumber and will be additionally treated with bitumen.

The floor constructions will be secured with steel anchors on every corner and double thermal insulated between the joist with $\frac{3}{4}$ thick Styrofoam panels and top faced fiberglass roll insulation.

On top the floor structure/ insulation, there will be $\frac{3}{4}$ x 4x8 plywood boards installed and are finished with a bubbled noise barrier and Laminate flooring.

Roof structure

Two Flat Roofs with a 4ft slop

Roof Structures are build with 2x6x16 lumber, notched and attached on top 4x4 with a 12 inch distance and secured with Hangers with bolts

Two additional 4x4x16 rafters on Part A and Part C will be installed, attached with 3 way steel brackets for additional stability.

Sealant and Vinyl flashing will be installed around the framing.

Two roof vents on Part A and Part C, will be installed – font and backside for proper ventilation $\frac{3}{4}$ x 4x8 plywood panel boards will be installed on the interior first ,to install double thermal insulation $\frac{3}{4}$ Styrofoam panels plus faced fiberglass roll insulation.

The exterior $\frac{3}{4}$ x 4x8 plywood will be finished with tar paper and asphalt shingles.

Structure Posts:

All 4x4 post are going to be settled in 2 ft concrete with protective sleeves and secured with 10 long steel anchors into the ground.
To assure proper connections between the 4x4 post frames will be 2 way and 3 way post brackets used and attached with 1/2 inch bolts.

Walls:

The wall structures are built with untreated 2x4 with a 16 inch distance and enclosed on both sides-interior with 2x4 plywood panels and triple thermal insulation. The exterior wall will be finished with a reflective foil insulation and finished with 7/8 inch drywall.
All Part B is a 1 ft wide connection between Part A and Part C.

Floor Structure Sub floor:

Before floor installations a vapor barrier will be installed.
The floor joists and frames are all pressure treated lumber and will be added, evenly treated with bituminous.
The floor construction will be secured with steel anchors on every corner and double thermal insulation between the joist with 2x4 plywood panels and top faced fiberglass and insulation.
On top the floor an exterior insulation there will be 2x4 plywood boards installed and are finished with a bubble noise barrier and laminate flooring.

Roof Structure:

The flat roof with a 1/4 slope.
Roof structures are built with 2x6x6 lumber, spaced and attached on top 4x4 with a 12 inch distance and secured with hangers with bolts.
Two additional 4x4x6 rafters on Part A and Part C will be installed, attached with 3 way steel brackets for additional stability.
Sealant and Vinyl flashing will be installed around the framing.
Two roof vents on Part A and Part C, will be installed - front and backside for proper ventilation.
2x4 plywood panel boards will be installed on the interior flat, to install double thermal insulation 2x4 plywood panels plus faced fiberglass roll insulation.
The exterior 2x4 plywood will be finished with tar paper and asphalt shingles.

Power Supply :

Power would be provided by Central Electric.

The interior and exterior electrical installation will be performed by High speed Electric.

Heating and Air:

A new ductless Heating and Air system will be installed suitable for 816 sq ft.

Interior:

There are no Bathrooms, closets or Kitchens installed.

Main entry Door size 80x36 steel door

Door to Part C 80x38 steel door.

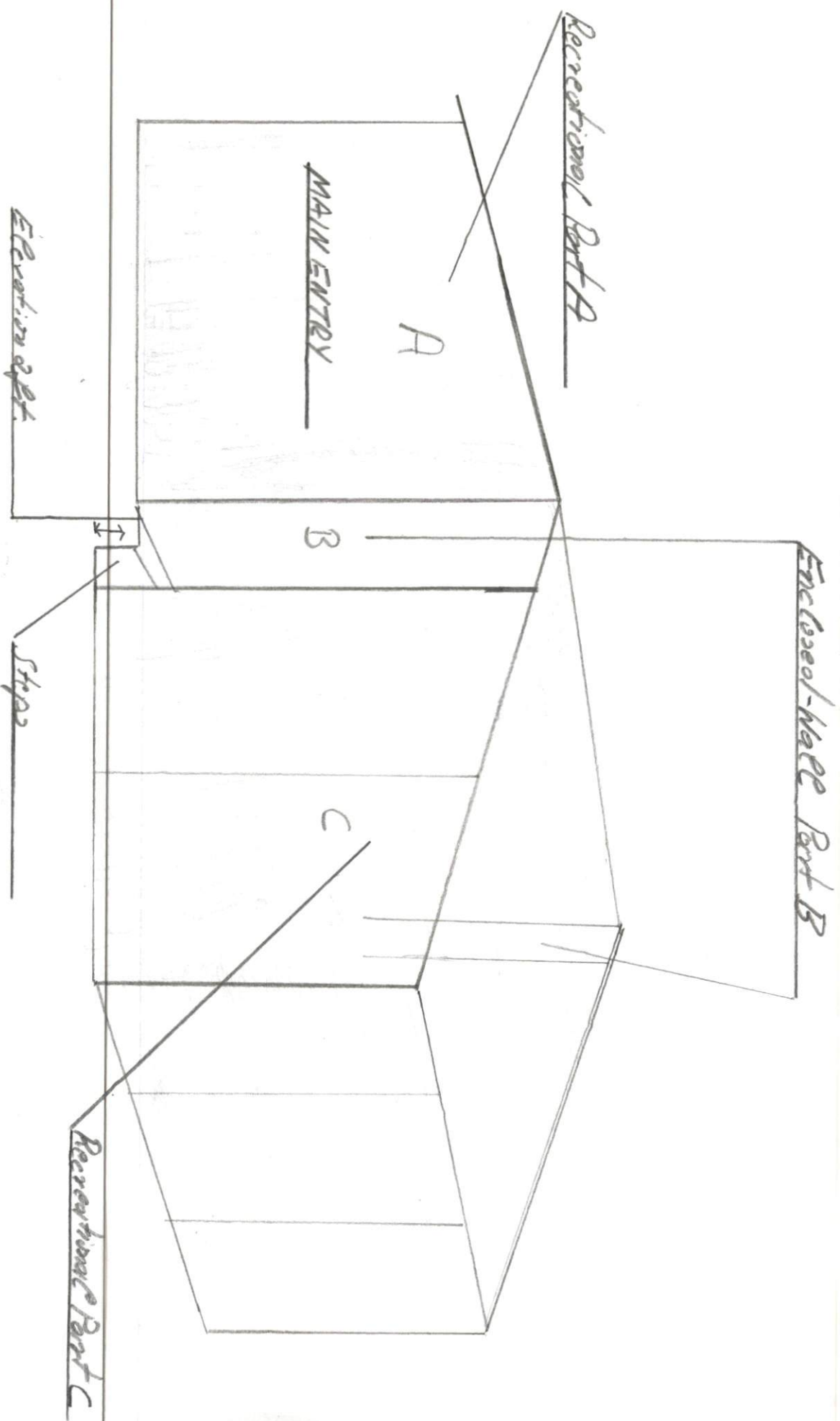
Three windows installed to Part A right side wall installed side by side measurement 30x30

Main Entry. Wall Part A. One Window measurement 30x30

All Lights are dimmable LED Fixtures and controlled by Dimmer Light switches

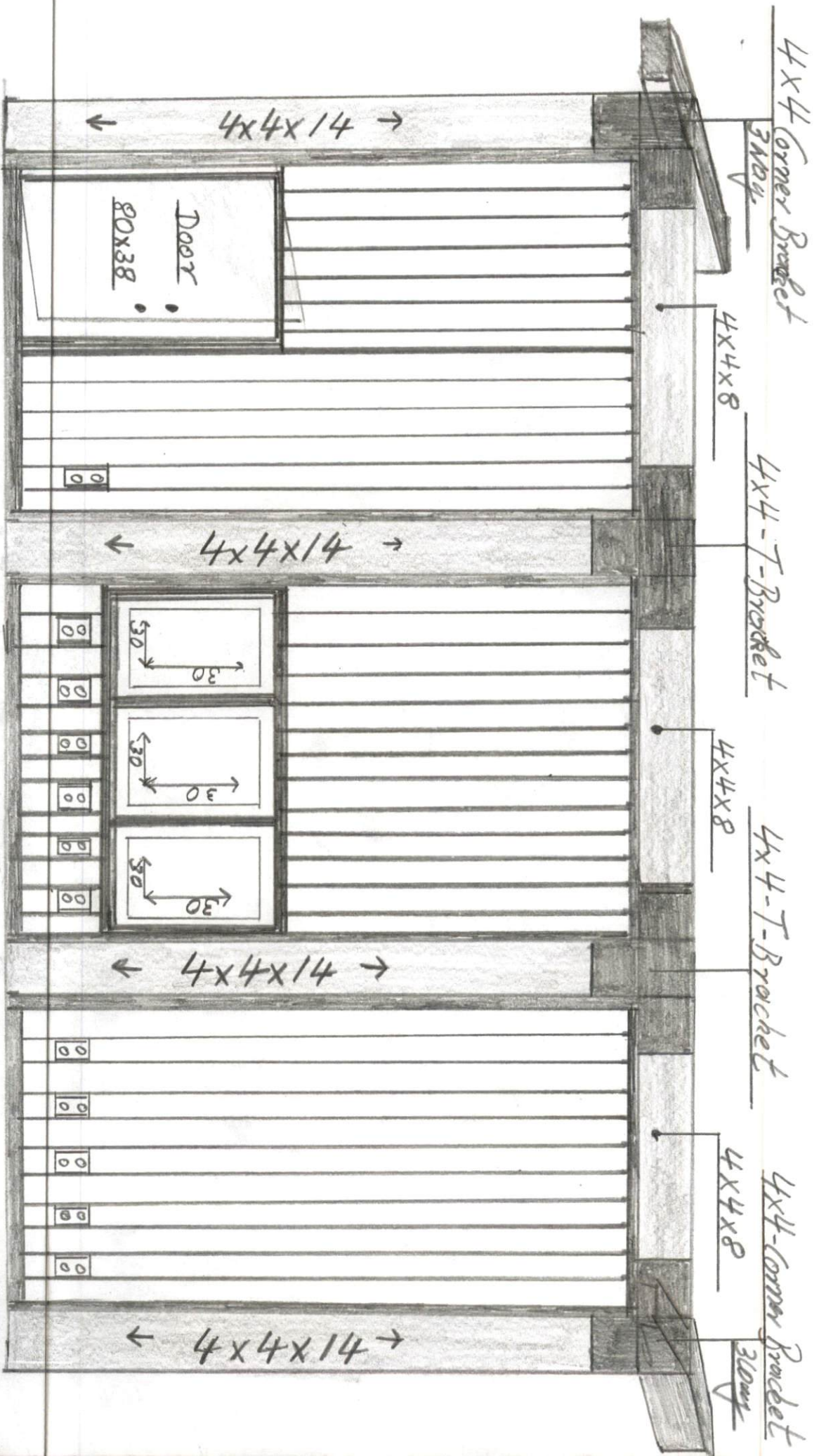
Power outlets and Lights will be connected in separate circuits by High Speed Electric.

Recreational Barn Bi-Level



RIGHT SIDE WALL

Recreational Part A



LEFT SIDE WALL

Recreational Part A

INTERIOR OUTLETS

Corner Bracket - Steel

4x4 Corner Bracket

2x4x8

4x4x8

4x4-T-Bracket

2x4x8

4x4x8

4x4-T-Bracket

2x4x8

4x4x8

4x4 Corner Bracket

2x4x8

4x4x8

4x4x10

2x4x8

4x4x10

00

4x4x10

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4x4x10

2x4x8

4x4 Wall Studs distance 16 inches

2x4x8

MAIN ENTRY WALL

Recreational Part A

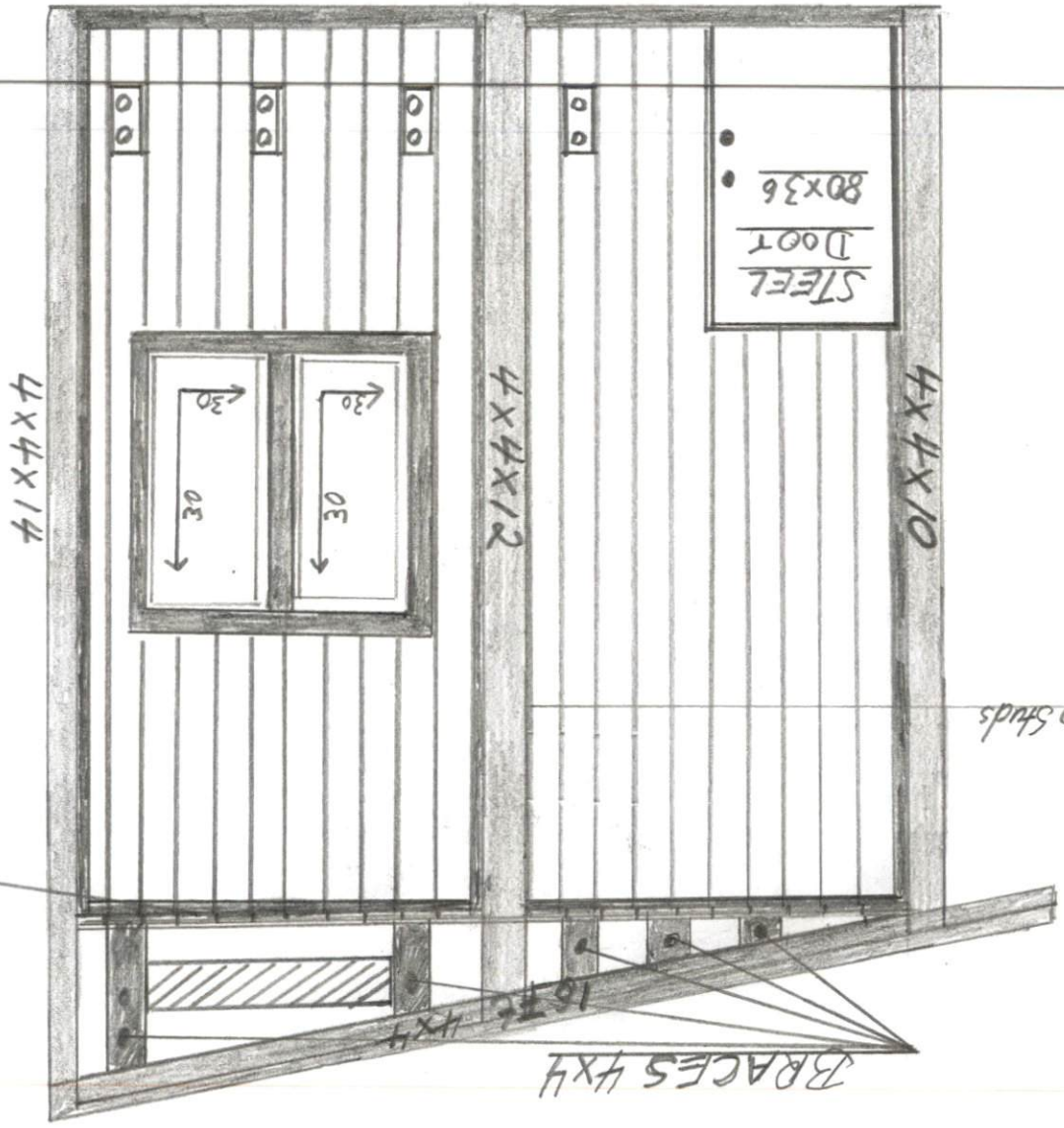
23.5 x 23.5 Window

80x36 Door

2x4 wall

AIR VENT

INTERIOR OUTLETS



2x4 WALL 16in Studs

BRACES 4x4

10T6 4x4

4x4x14

4x4x12

4x4x10

STEEL
DOOR
80x36

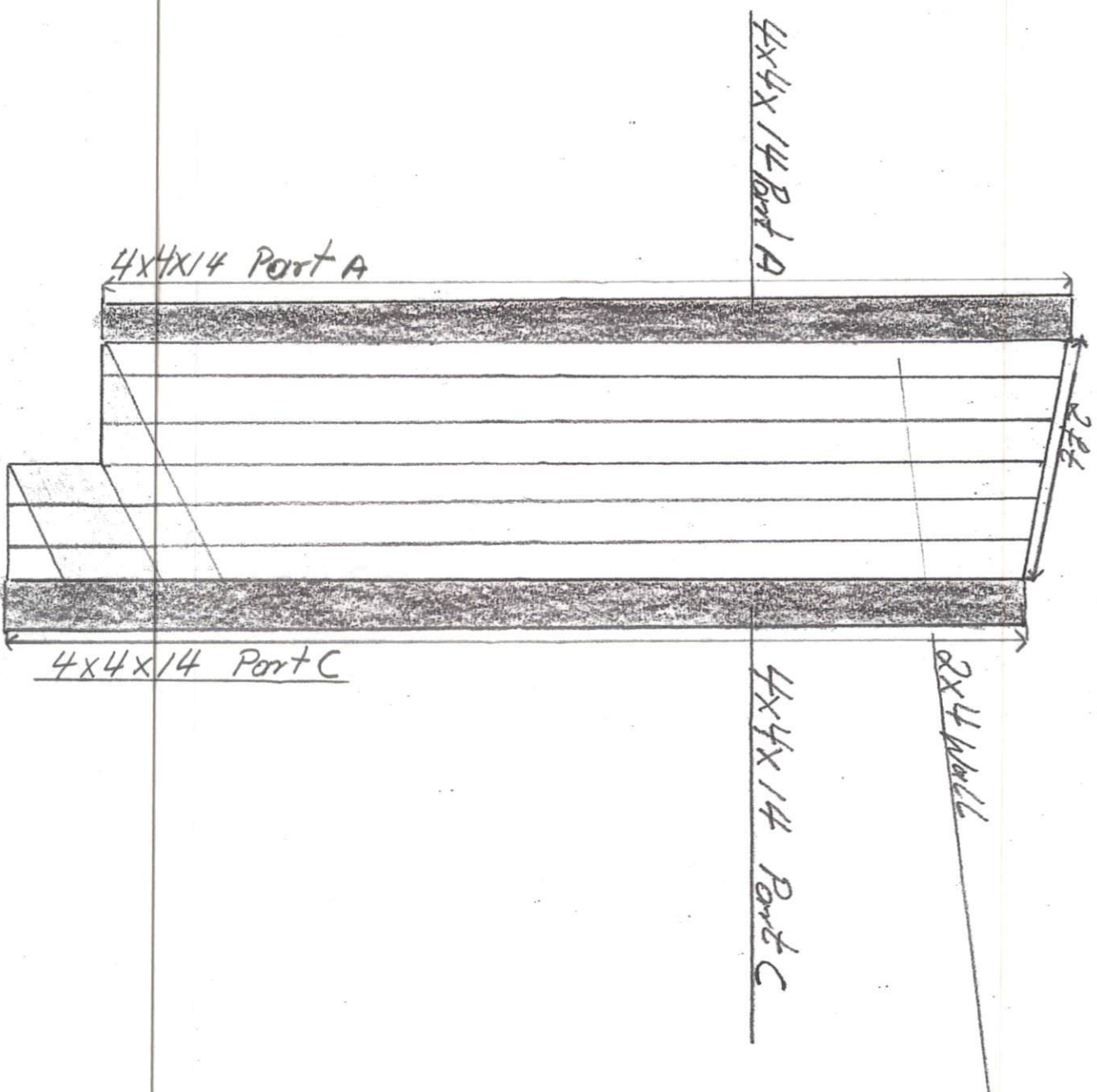
30
30
30
30

2x4x16

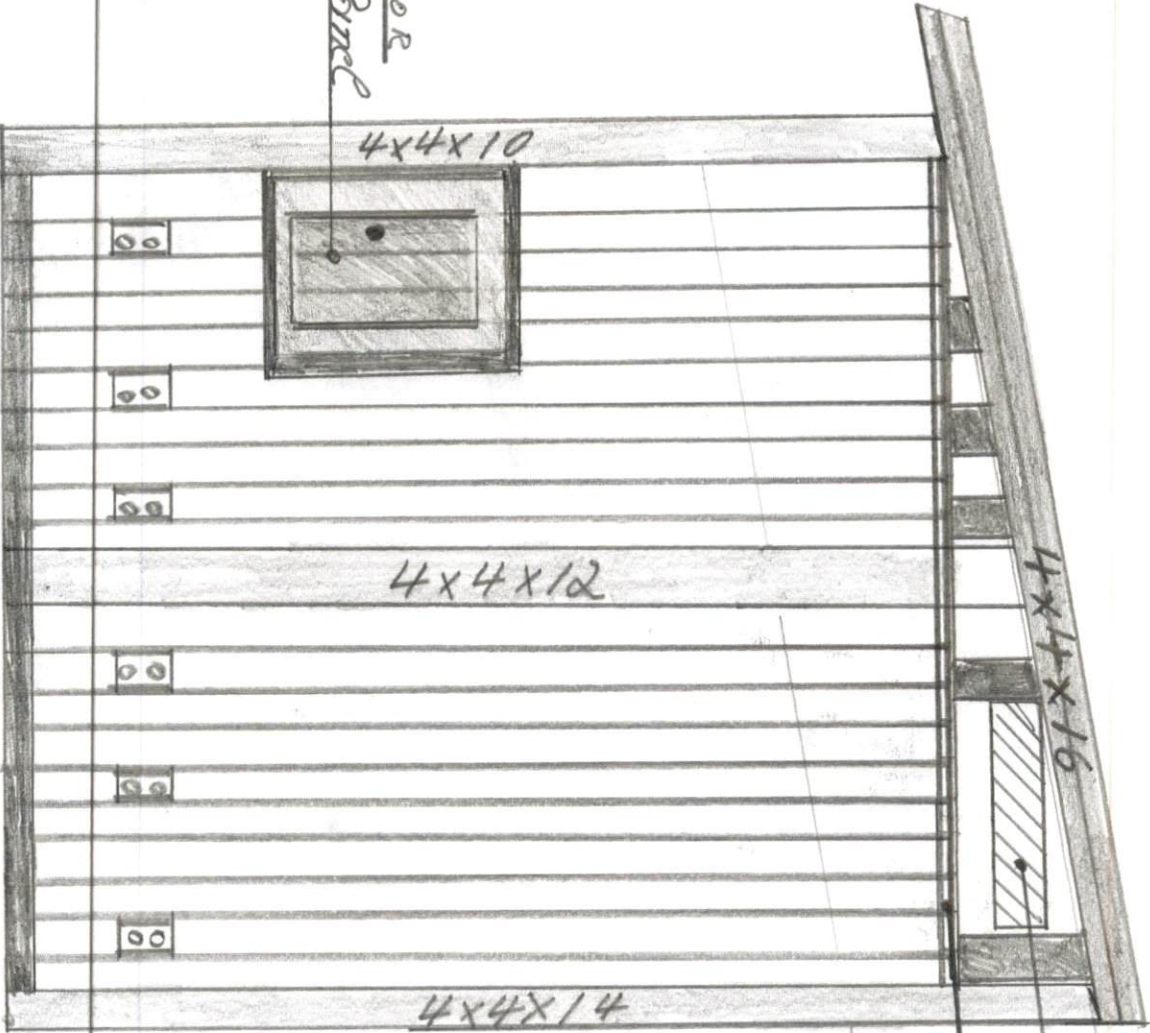
AIR VENT

INTERIOR OUTLETS

Wall Part B Main Entry Front Connects Part A and Part C



Back Wall
Recreational Post A



4x4 BRACES

Air Vent

2x4x16

2x4 Wall Stud distance 16 in.

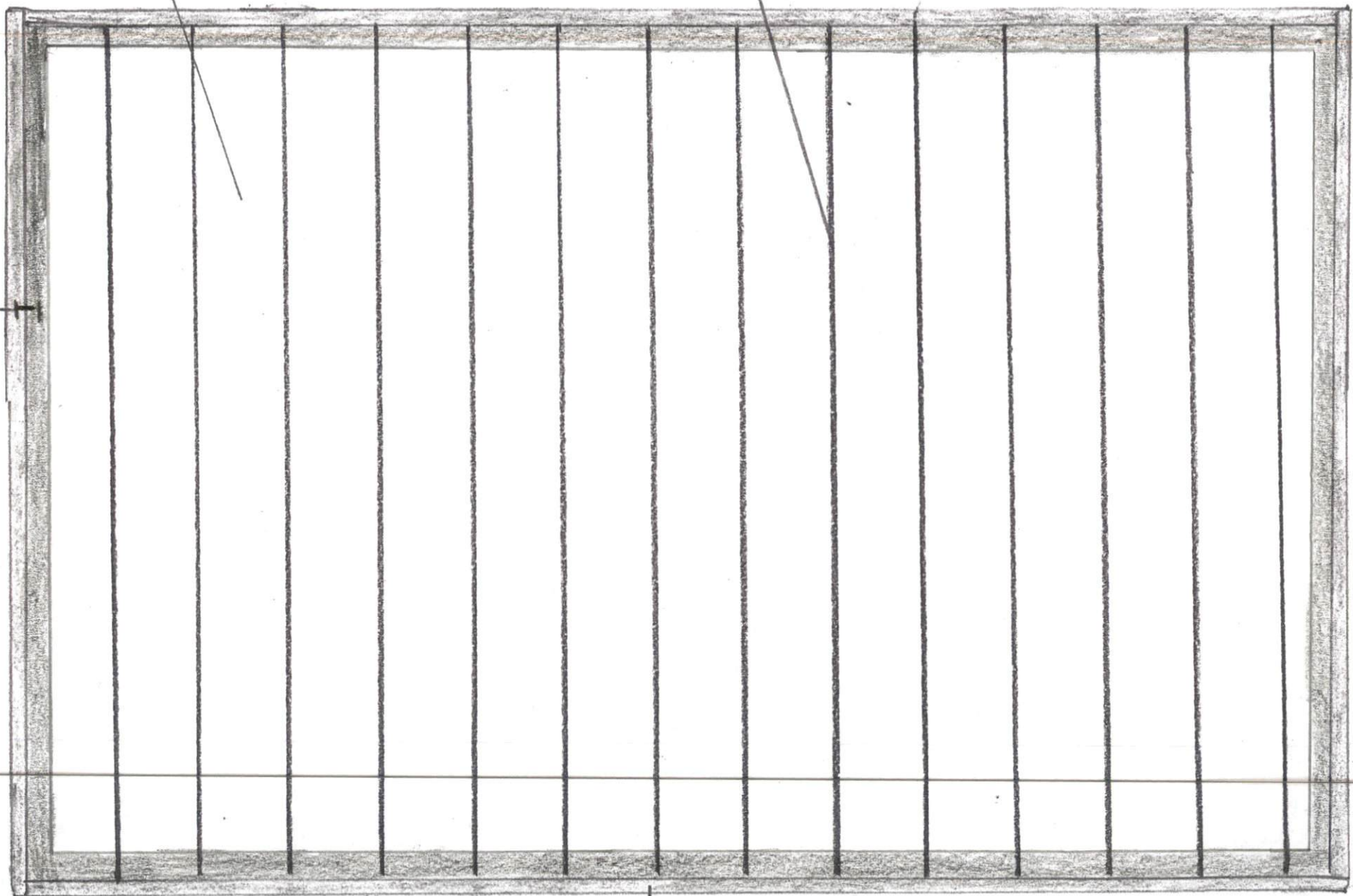
 INTERIOR OUTLETS

Wooden Floor - Recreational Barn Part A Subfloor

4x3/4x8 Floor Boards

2x6x16 Joist's

2x6x16 Frame



2x6x24 Frame

Roof boards 4x3/4x8

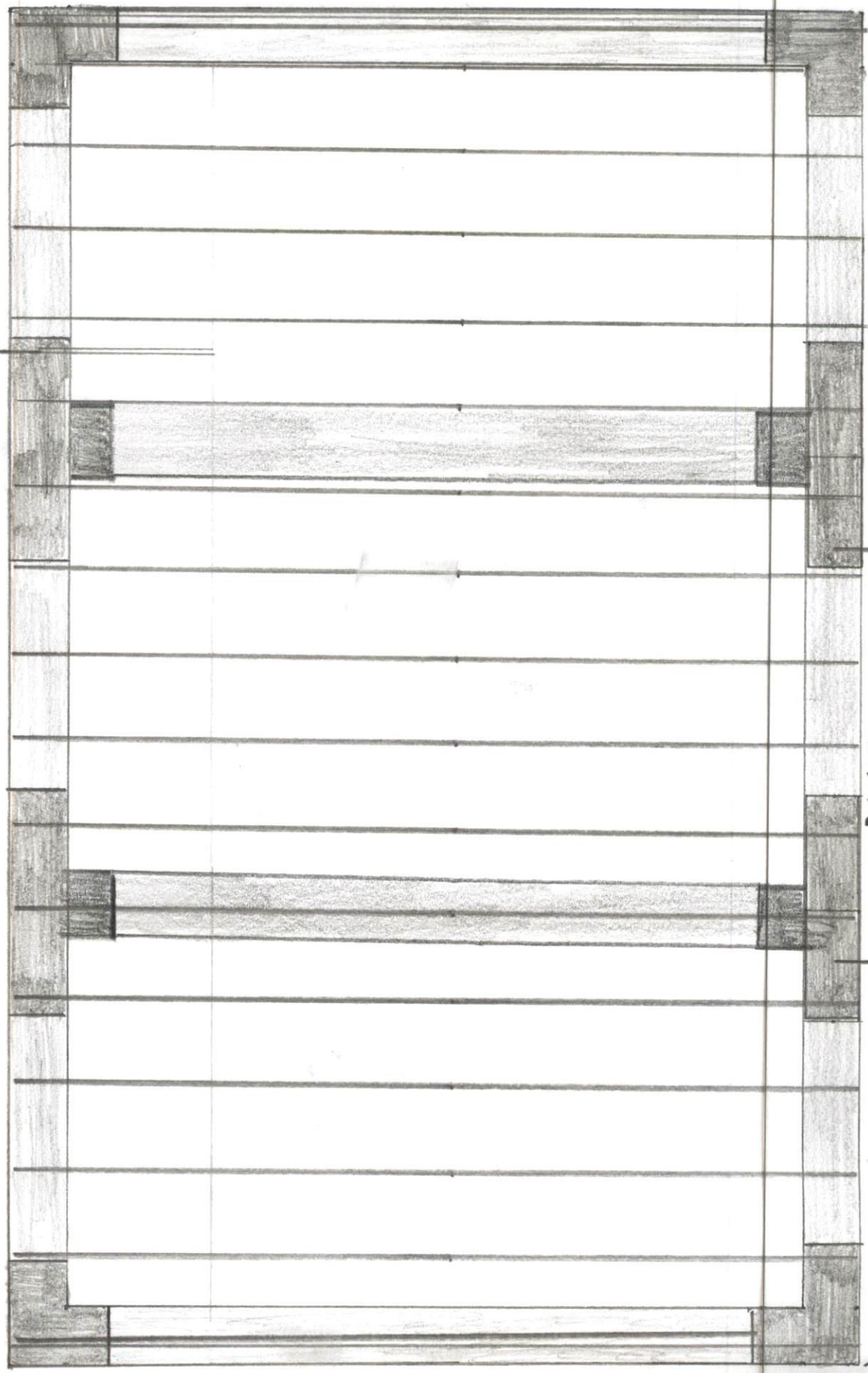
Roof Felt

Asphalt Shingles

Roof

Recreational Part A

2x6x16 Rafter 12inch distance



3 way

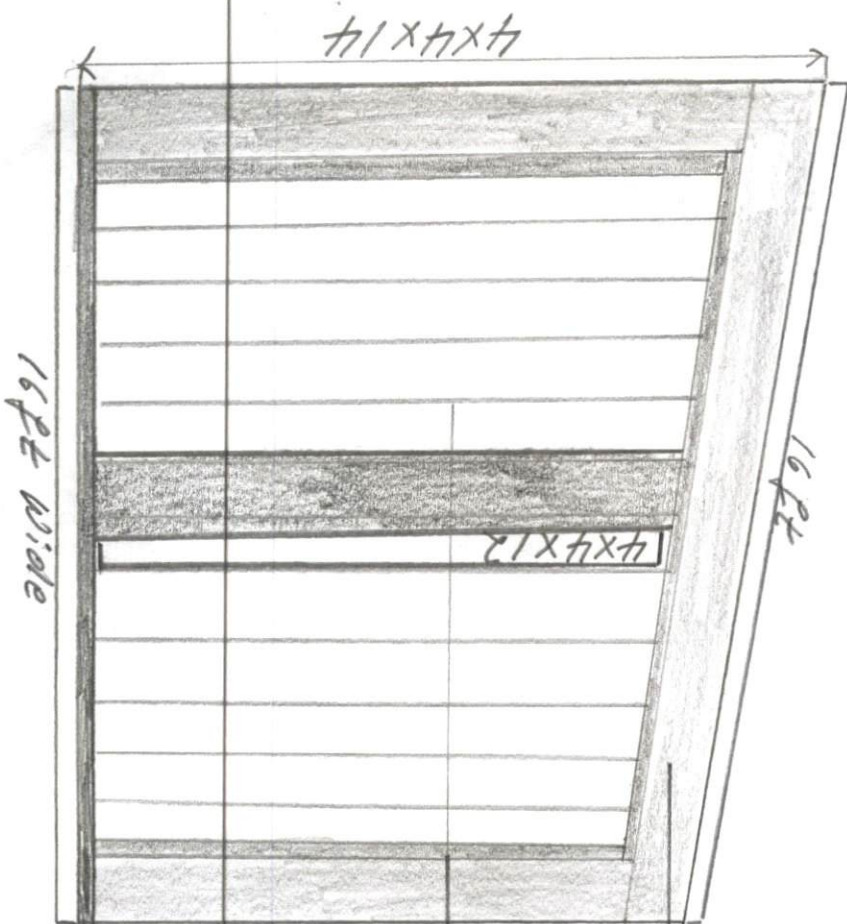
TOP 7-Bracket 24ft wall

4x4x24

Part C

Equipment Shelter

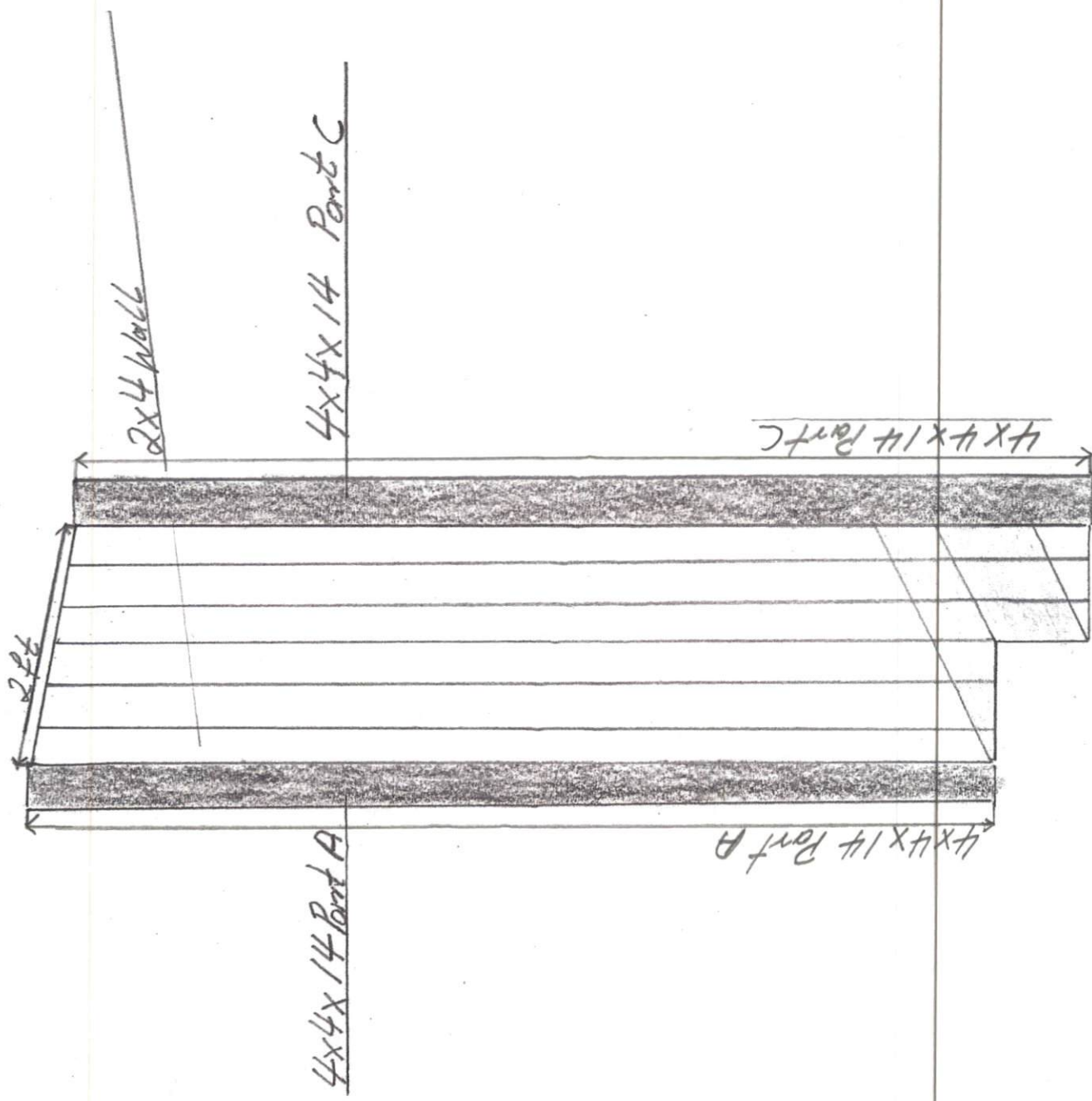
FRONT Side Wall



4x4x16

2x4 Wall Spacing 16 inches distance


Wall Part B Back Side Connects Part A and Part C

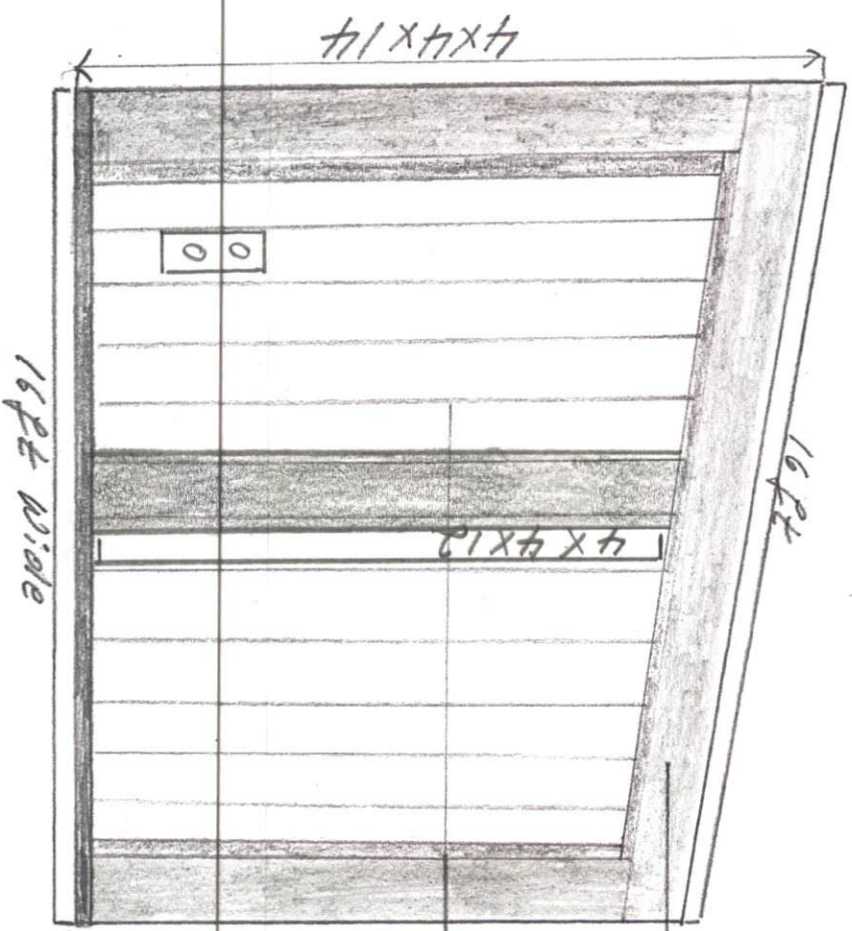


Part C

Equipment Shelter AREA

BACK SIDE WALL

 OUTLET

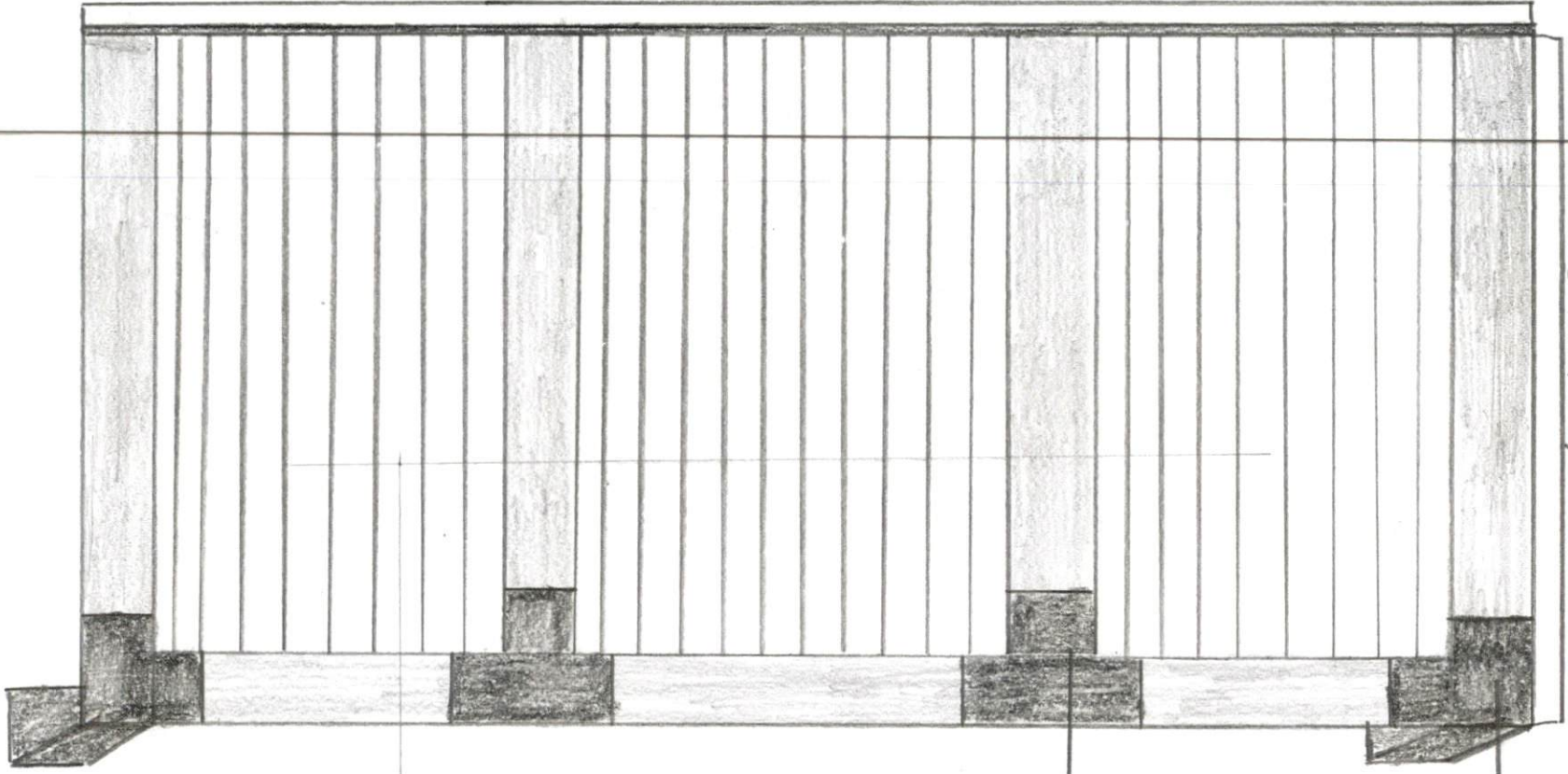


4x4x16

2x4 Wall Studs 16 inches distance

16 FT wide

4x4x24 Long



4x4x10

2x4 Wall Studs 16 inches on center

4x4-T-Bracket

4x4 Corner Bracket

LEFT WALL

Equipment Area Part C

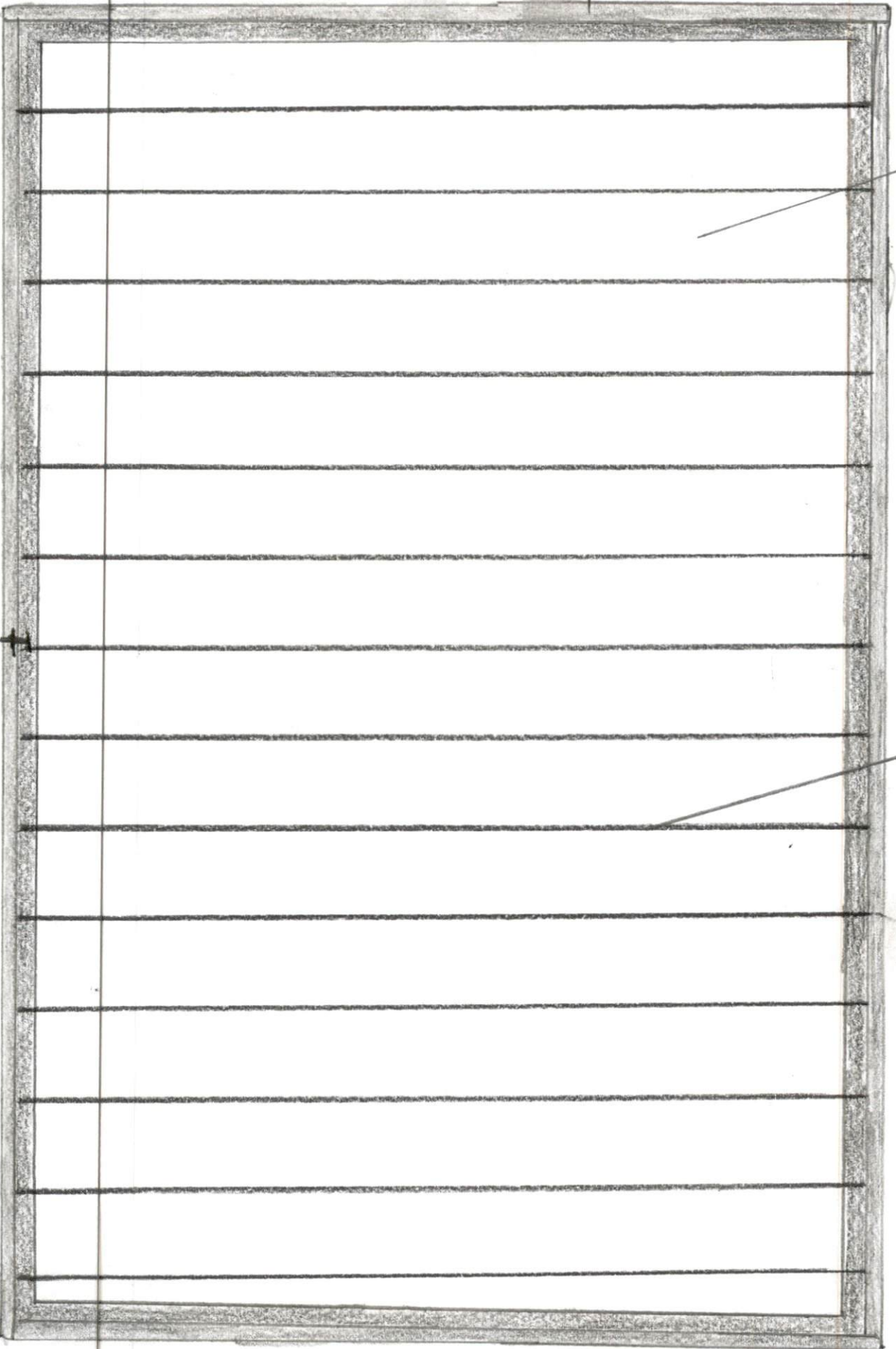
Wooden Floor Equipment Area Part C Sub Floor

4x3/4x8 Floor Boards

2x6x16 Joists

2x6x24 Frame

2x6x16 Frame



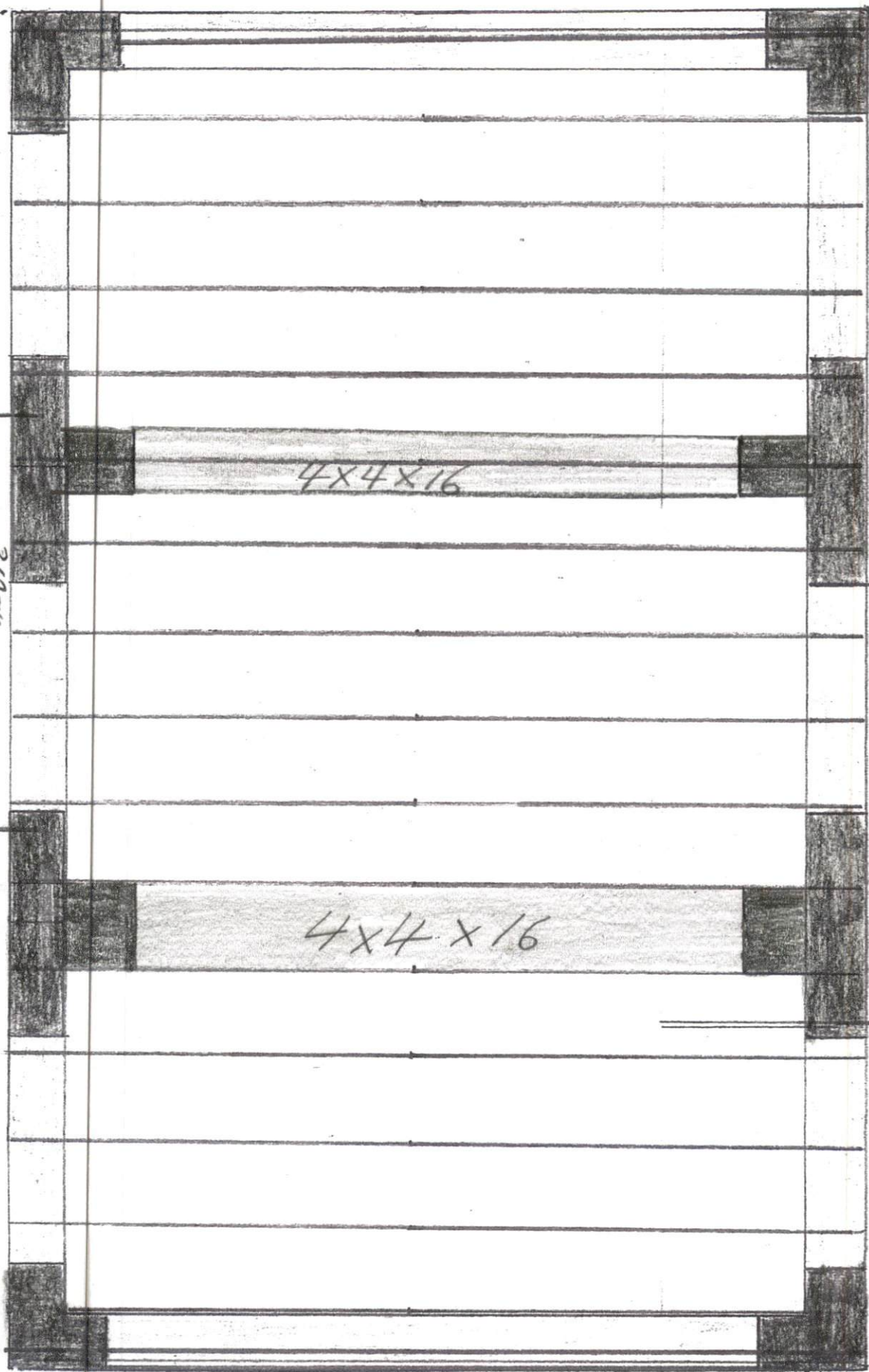
Roof boards 4x3 1/4 x 8

Roof Felt

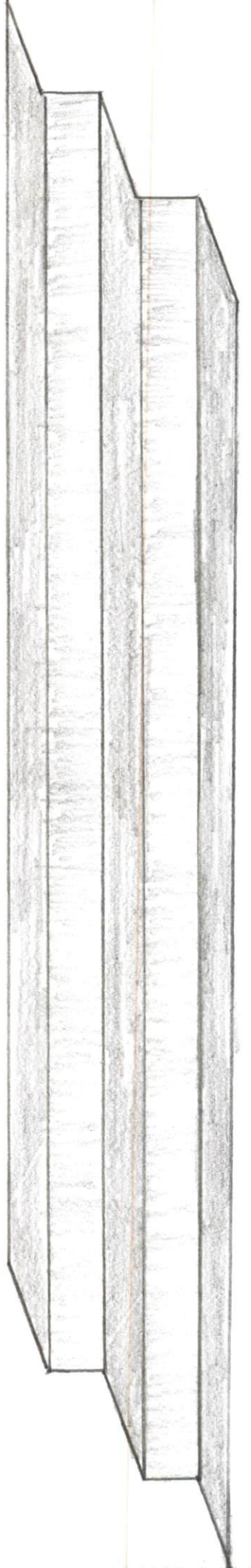
Asphalt Shingles

Roof - Equipment AREA Part C

2x6x16 Rafter 12 inch o/c



3 Day
Top Truss + 24ft Wall 4x4x24



6 Stair Stringers are used to connect Recessional Part A+C
Elevation of It between Part A+C