



# OSO

planning  
+ design

NOTES:

NOT FOR CONSTRUCTION



**Design Statement:**  
 The intention of the project was to create an off-grid, low-cost, cold-storage structure that could support the farm's needs and be potentially moved off site if needed in the future. The rationale was to have a very simple space oriented and programmed around functionality and thermal efficiency. The layout incorporates a simple vestibule and storage area that acts as an airlock to ensure the internal room is kept at temperature when the exterior door is opened, and the roof hosts a solar array that provides power to the cooling unit. The structure was positioned onsite to encourage a welcome environment on the farm, and was designed to use a screw pile foundation to have a light impact on the ground as well as make use of a location that is prone to flooding. The above-ground construction is unorthodox but necessary on this site to ensure that if the farm has to relocate that it won't lose the asset. Likewise with using solar power, the required temperature for the space could not be met fully passively, so the inclusion of a cooling system allows the system to meet the needs of the farm despite having no access to the power grid. The project is an experiment in using simple, low-impact construction techniques to create an efficient, climate-controlled space which can be utilised during each season for the varied needs of the farm. The main technique was to maximise the insulation and achieve as near to air-tightness as possible. Guided by OSO Planning + Design, the team developed the design to integrate with the farm environment, respond to seasonal conditions, and reinforce a sense of connection between people, place, and local food systems. This is in keeping with the farm's goals of resilience, accessibility, and community involvement. The structure was built with the help of many community members who volunteered their time to contribute to this infrastructure that will help many people in the community.

Included in this document are the plans for the CRUF standard model and two additional models that provide options for scaled starting points to recreate the project in different scenarios. This was a response to the feedback we received on the project and is meant to assist those who would like to produce a smaller version of the project.

The basis of the build in each case is a platform floor that can be placed on top of whatever foundation condition is most appropriate for the project site. In this case we used a screwpile foundation with beams placed across them that bear the weight of the building, but the exact same system could be applied to slab-on-grade, a crawlspace, or even a cribbing foundation.

PROJECT NAME		DRAWING No. <b>6</b>
Common Roots Cold Storage		
DRAWING TITLE		
Half-Size Cover		
DATE	INITIAL	DRAWING No. <b>6</b>
January 9, 2026	OSO	
SCALE		

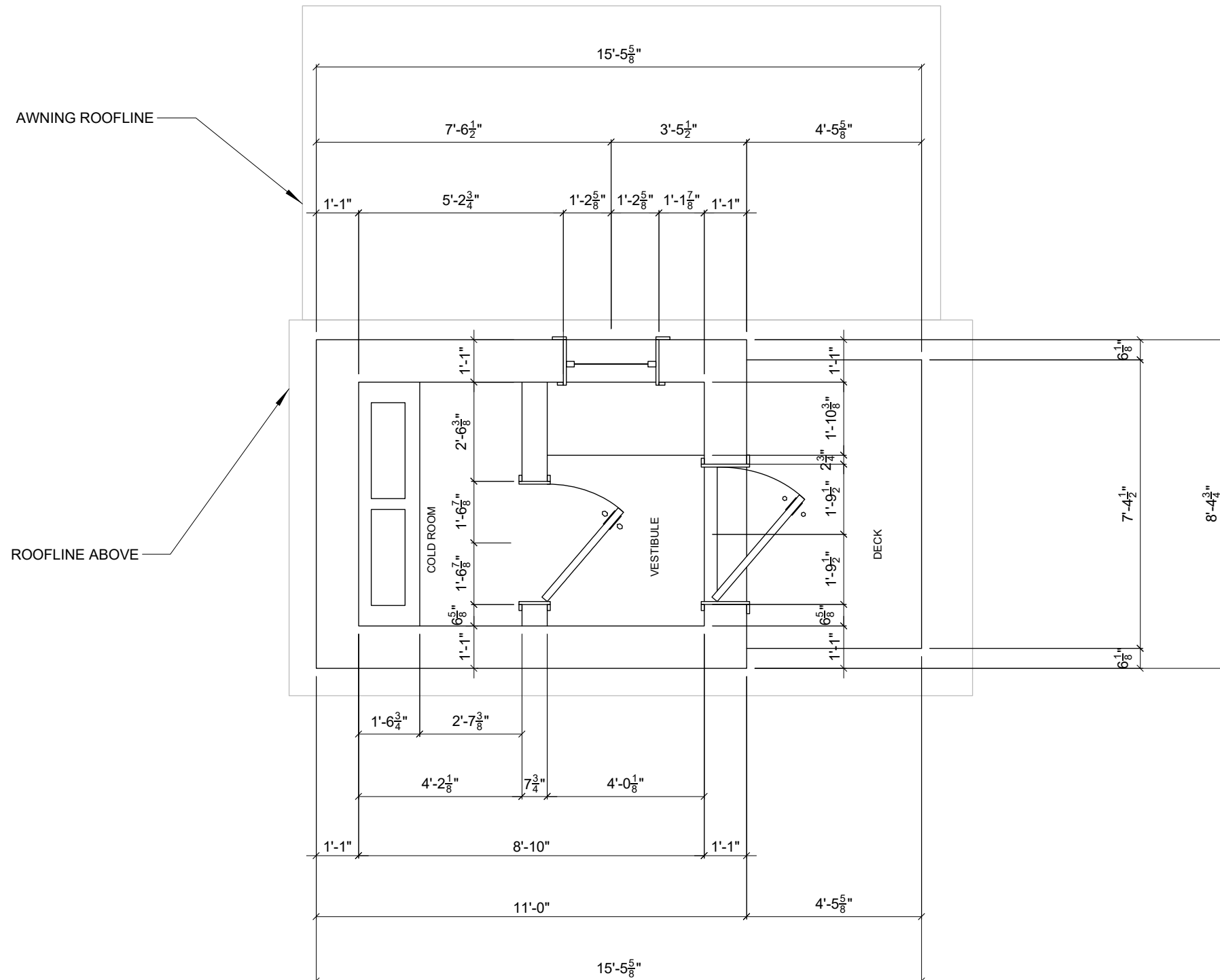


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PROJECT NAME

Common Roots Cold Storage

DRAWING TITLE

Half-Size Plan

DATE

January 9, 2026

DRAWING No.

7

SCALE

1:30

INITIAL

OSO

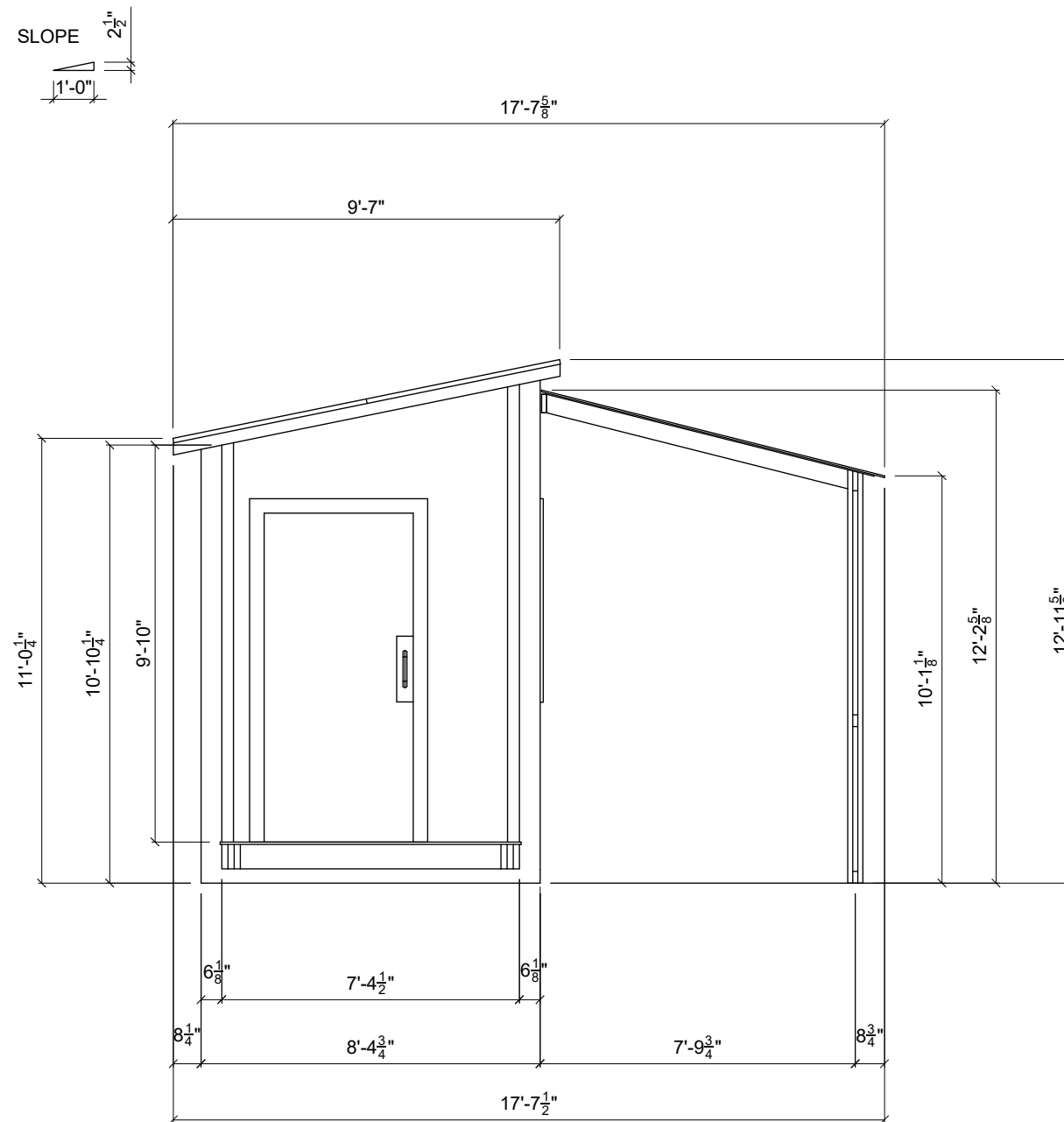
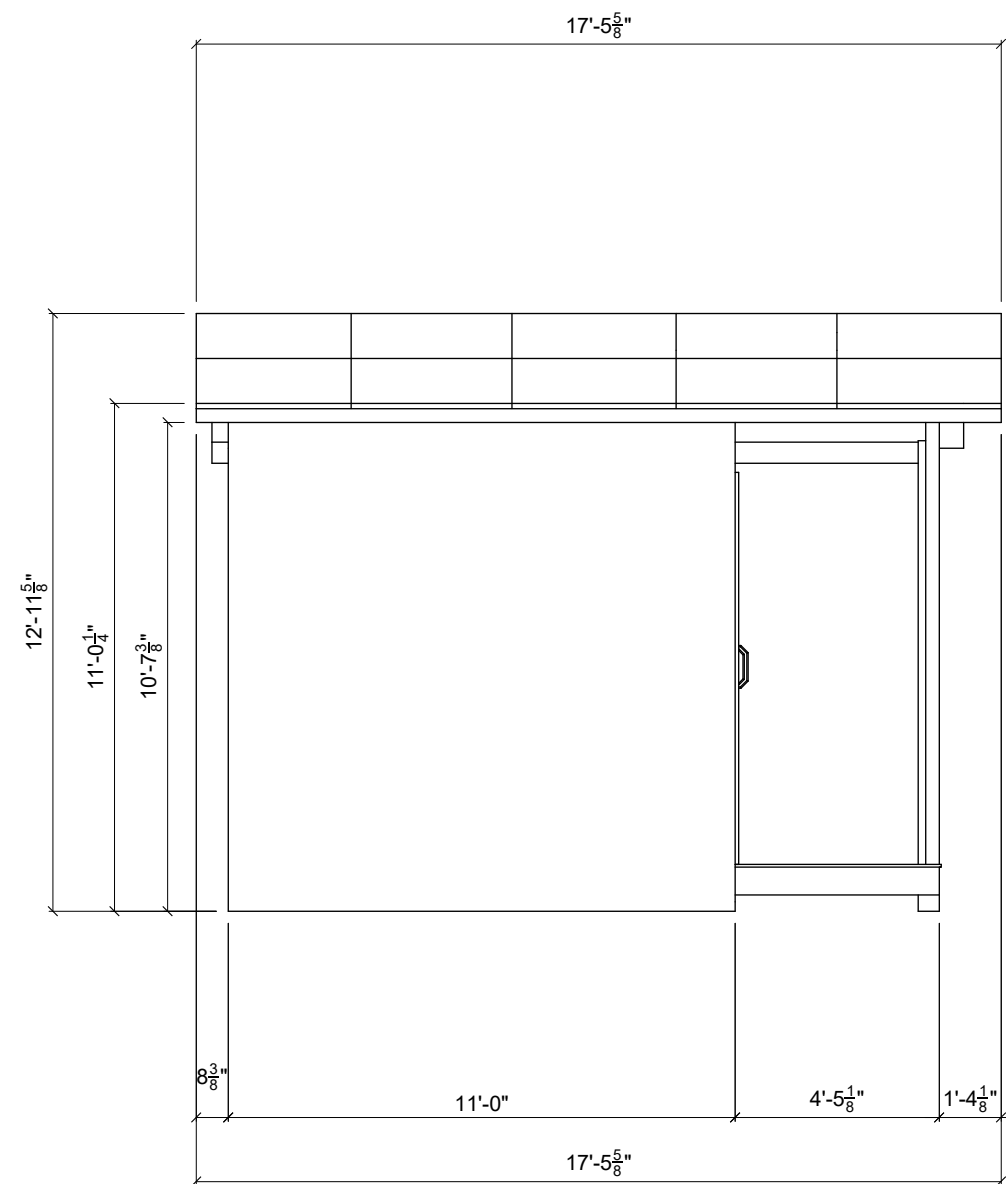


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PROJECT NAME

Common Roots Cold Storage

DRAWING TITLE

Half-Size Elevations

DATE

January 9, 2026

SCALE  
1:50

INITIAL  
OSO

DRAWING No.

8



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PROJECT NAME

Common Roots Cold Storage

DRAWING TITLE

Half-Size Roof Plan

DATE

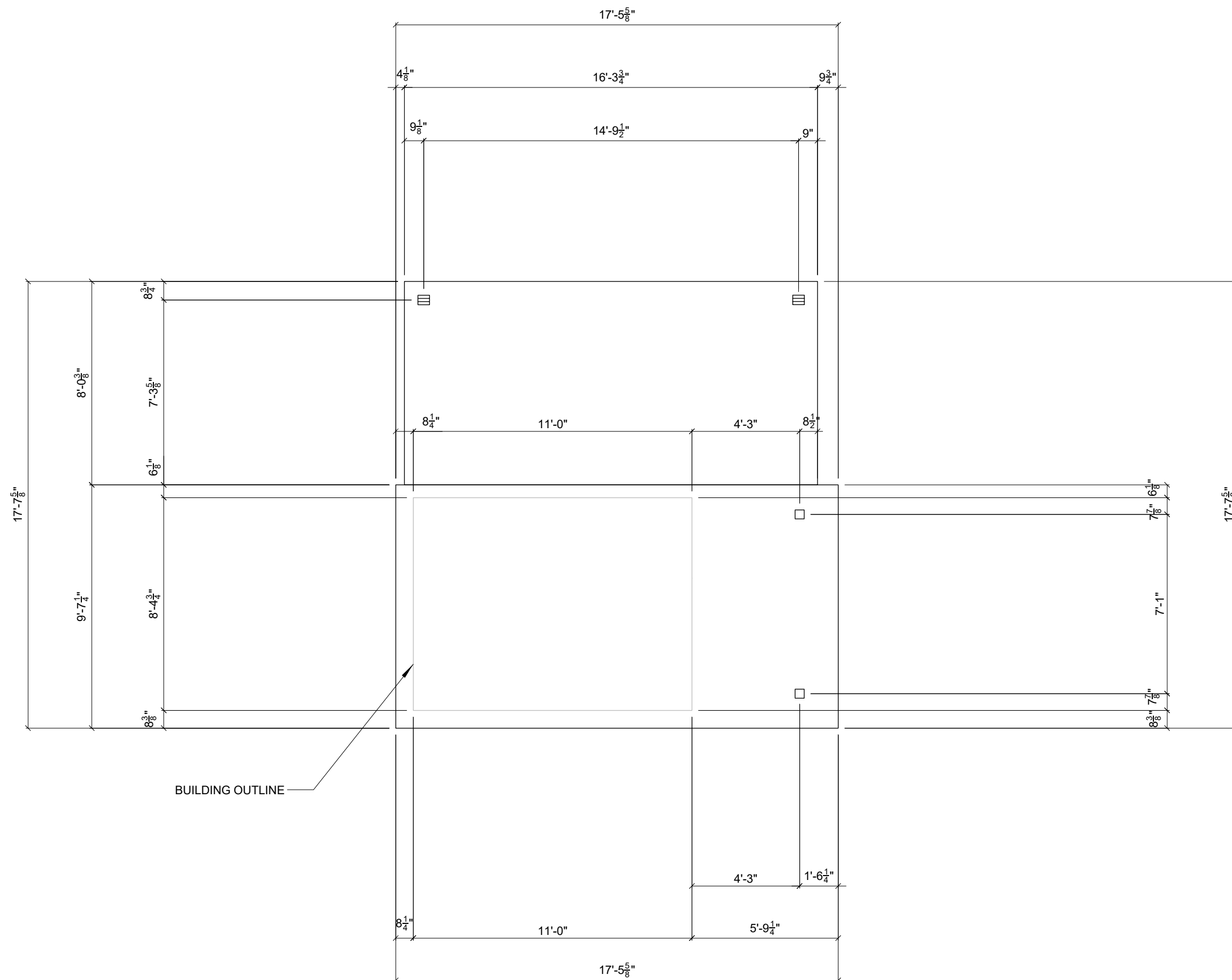
January 9, 2026

DRAWING No.

9

SCALE  
1:50

INITIAL  
OSO



BUILDING OUTLINE

**R1 ROOF**

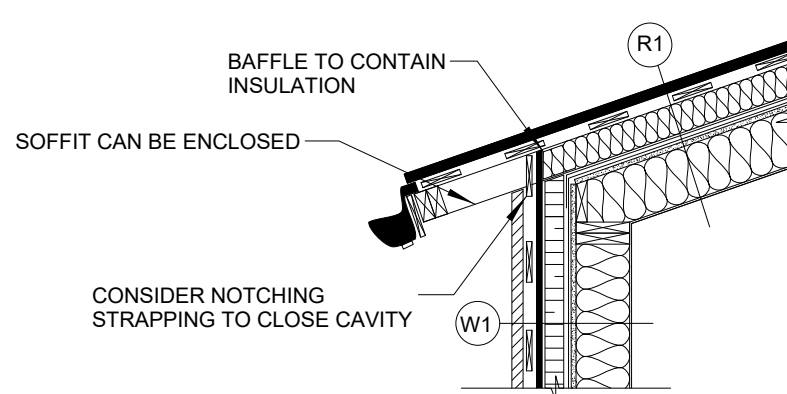
- .75" - Metal Roof System
- .75" - SPF Strapping 12" O/C
- 3.5" - 2 x 4 SPF Const 12" O/C
- 0.1" - Water Proof membrane
- 0.1" - Tyvek Air Barrier
- 7.25" - 2 x 8 SPF Const 16" O/C
- 0.125" - Meranti Plywood

**R2 SHED ROOF**

- .75" - Metal Roof System
- .75" - Vertical strapping 12" O/C
- .75" - Horizontal SPF Strapping 12" O/C
- 0.1" - Water Proof membrane
- 0.1" - Tyvek Air Barrier
- 7.25" - 2 x 8 SPF Const 16" O/C

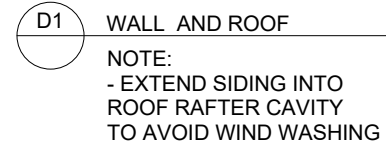
**W1 EXTERIOR WALL**

- 1" - Hemlock Batten (1x3)
- 1" - Hemlock Board (1x10)
- 0.75" - Horizontal SPF Strapping
- 0.75" - Vertical SPF Strapping
- 1.5" - Mineral Wool ext insulation
- 0.1" - Tyvek Air Barrier (Continuous)
- .75" - Ext Sheathing
- 7.25" - 2 x 8 SPF Const 16" O/C with rockwool batt
- .125" - Meranti Plywood



**W2 INTERIOR WALL**

- .125" - Meranti Plywood
- 7.25" - 2 x 8 SPF Const 16" O/C with rockwool batt
- .125" - Meranti Plywood



**W3 SHED WALL**

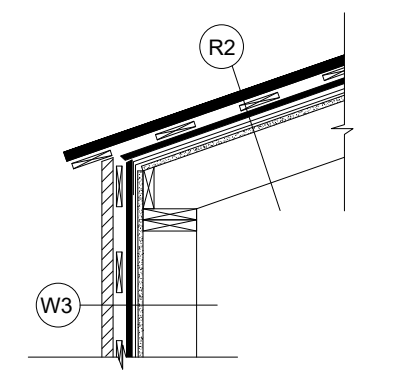
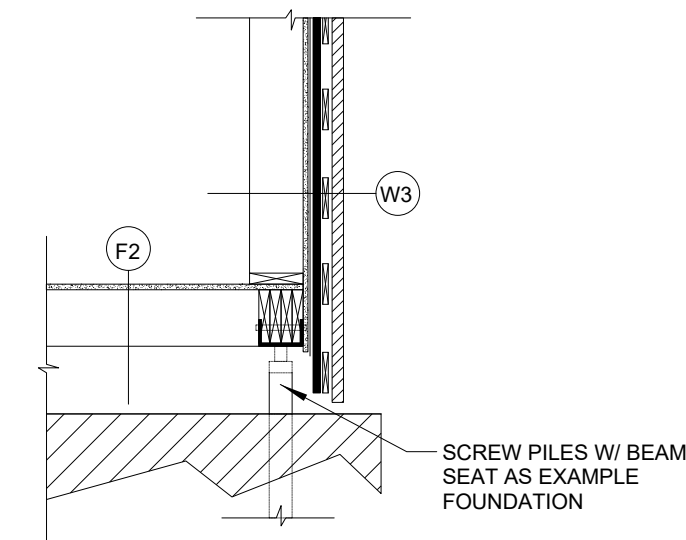
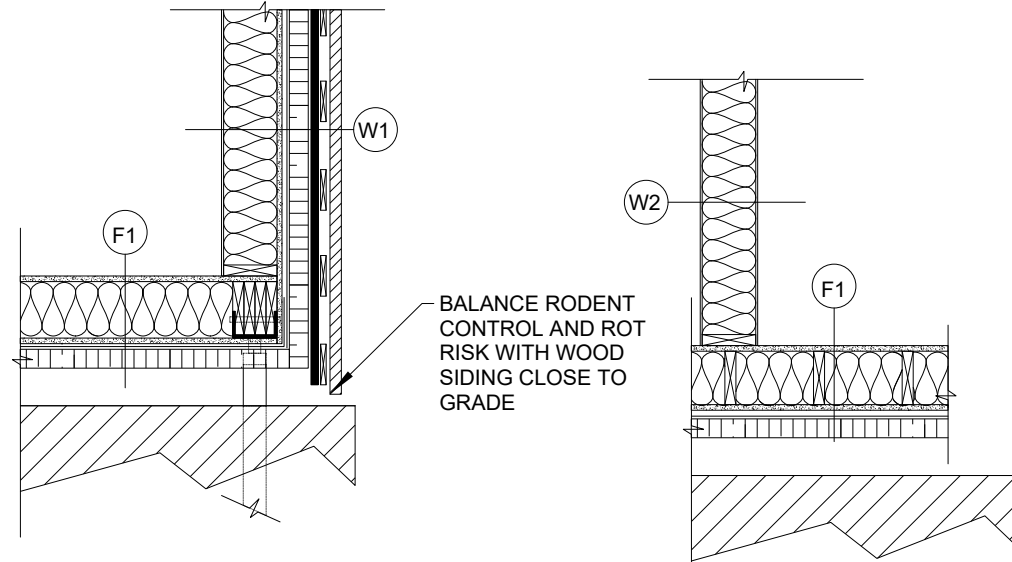
- 1" - Hemlock Batten (1x3)
- 1" - Hemlock Board (1x10)
- 0.75" - Horizontal SPF Strapping
- 0.75" - Vertical SPF Strapping
- 0.1" - Tyvek Air Barrier (Continuous)
- .5" - Ext Sheathing
- 7.25" - 2 x 8 SPF Const 16" O/C

**F1 FLOOR**

- 1.5" - Mineral Wool ext insulation
- 0.1" - Tyvek Air Barrier (Continuous)
- .5" - Ext Sheathing
- 7.25" - 2 x 8 SPF Const 16" O/C with rockwool batt
- .75" - OSB Subfloor

**F2 SHED FLOOR**

- 0.1" - Tyvek Air Barrier (Continuous)
- .5" - Ext Sheathing
- 7.25" - 2 x 8 SPF Const 16" O/C
- .75" - OSB Subfloor



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PROJECT NAME		DRAWING No.
Common Roots Cold Storage		
DRAWING TITLE		
Wall Assemblies -		
DATE	DRAWING No.	10
January 9, 2026		
SCALE	INITIAL	
1:50	OSO	