

Building Guide

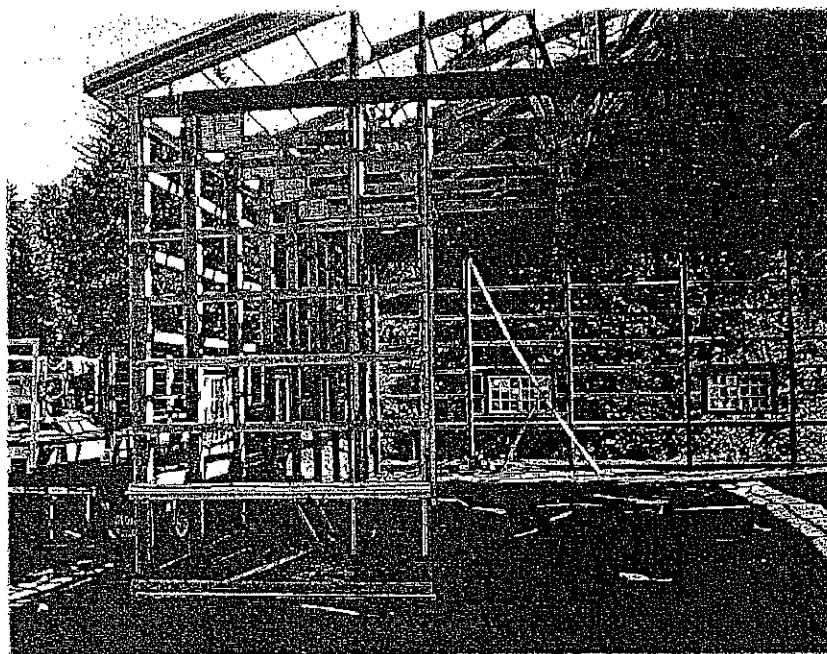
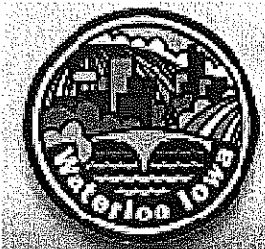
Pole Barn Construction

How to Use this Guide

Provide two sets of plans and complete the following:

- 1. Complete this Building Guide** by filling in the blanks on all pages, and indicating which construction details will be used.
- 2. Provide 2 Plot Plans** (site plan) showing dimensions of your project or addition and its relationship to existing buildings or structures on the property and the distance to existing property lines drawn to scale.
- 3. Fill out a Building Permit Application.**

The majority of permit applications are processed with little delay. The submitted documents will help determine if the project is in compliance with building safety codes, zoning ordinances and other applicable laws.



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Plan Requirements

Provide all of the details listed below on your plans. Two complete sets of plans and two site plans must be submitted at time of application.

Floor Plan

1. Provide plan view of pole location, spacing, dimensions of the building.
2. Framing plan should show direction, size, and spacing of roof system, purlins, girts, beams and header sizes.
3. Indicate the locations of all window and door openings.
4. Indicate the locations of the poles, and provide dimensions between the poles.

Section Elevation

1. Front, rear and both side views to scale (identify scale).
2. Finished grade line at building.
3. Label the depths to the bottom of the poles. Note that piers must be at least 48 inches in depth, or the plan must be engineered.
4. Label the pole size and type of material. Wood poles embedded in earth must be treated wood, labeled for ground contact.
5. Label the sidewall girt size, type of material, and spacing. Note that the bottom girt must be treated wood if located within 6 inches of grade.
6. Label the beam size and type of material above the poles. Detail the method of fastening the beam to the poles.

7. Label the rafter size and spacing. (if engineered trusses are to be used, you may indicate this instead).

8. Label the rafter tie (or ceiling joist) size and spacing. (Not required for engineered trusses).

9. Label the roof purlin size and spacing, if applicable.

10. Label exterior wall finish material.

11. Label the roof covering material.

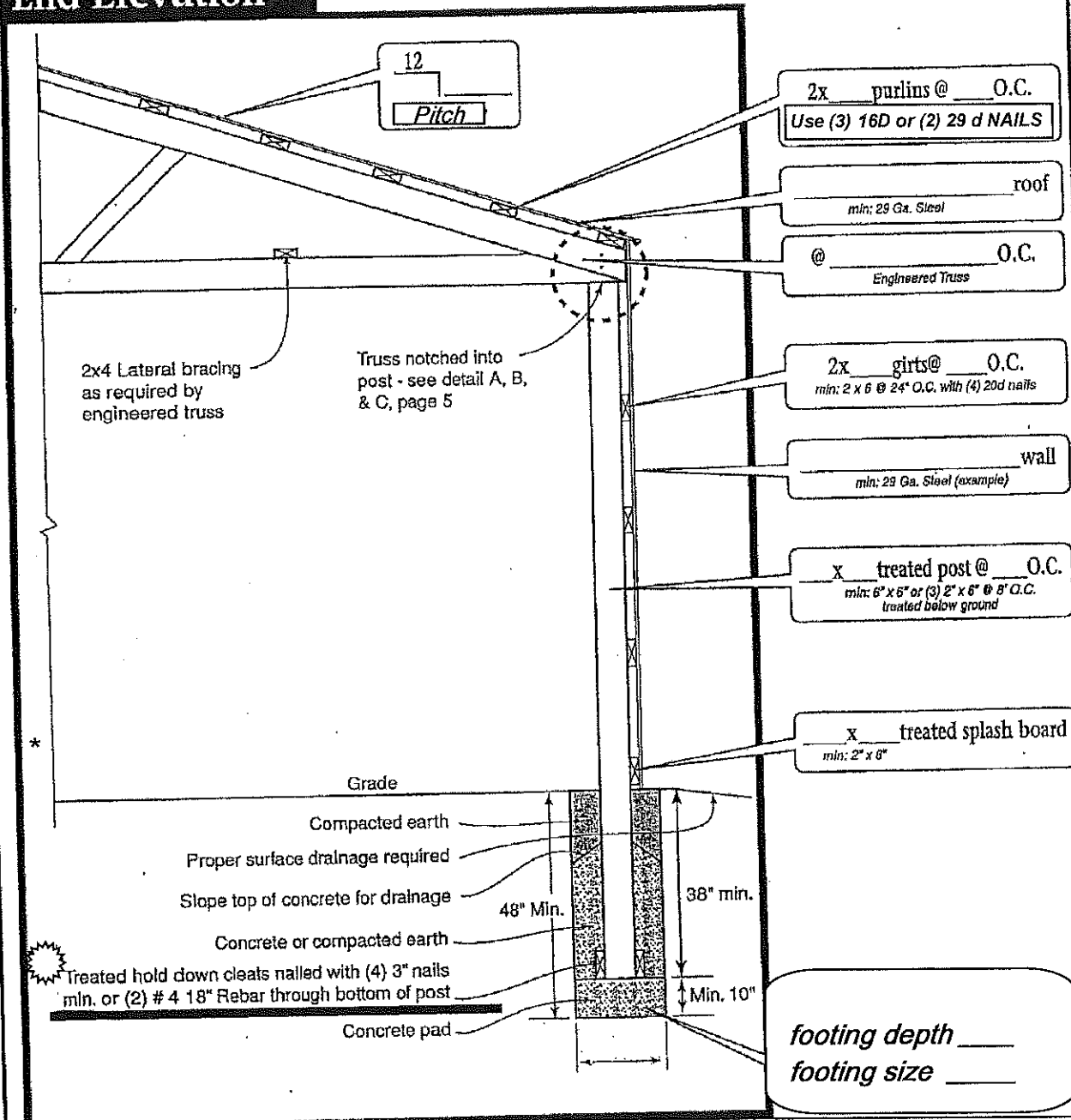
Inspections Required

1. Plans and cards need to be on-site at time of all inspections.
2. Setback and Hole Inspection: After holes are dug but before concrete pads are poured.
3. Framing Inspection: Requested after building is up and before any insulation or interior covering is installed. May be final also if no further work is being done.
4. Final Inspection: Requested after all work is completed, such as insulation, concrete slab, electrical, plumbing, heating, and/or sheetrock.
5. Additional inspections may be required by local jurisdictions.

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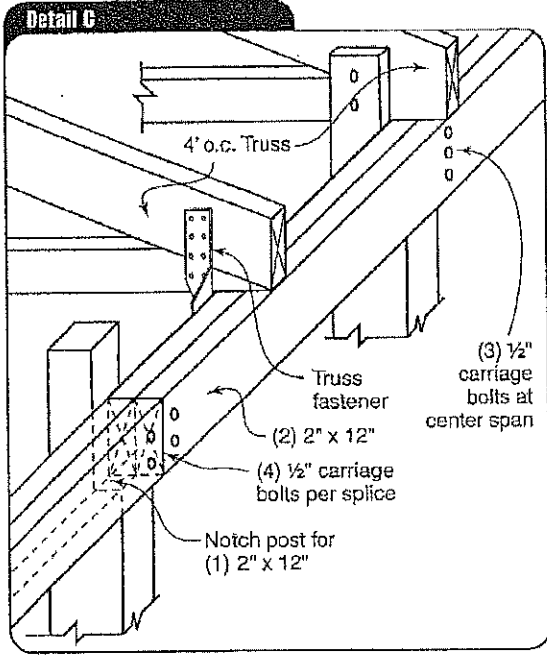
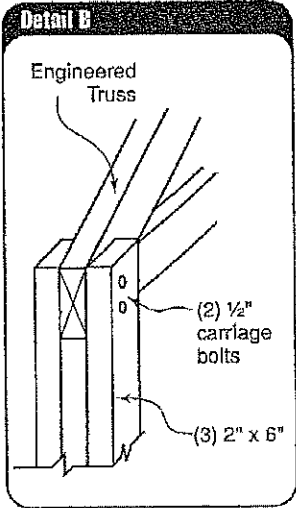
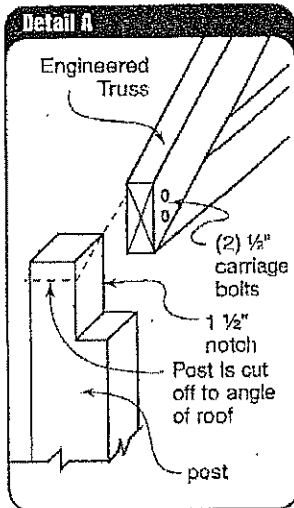
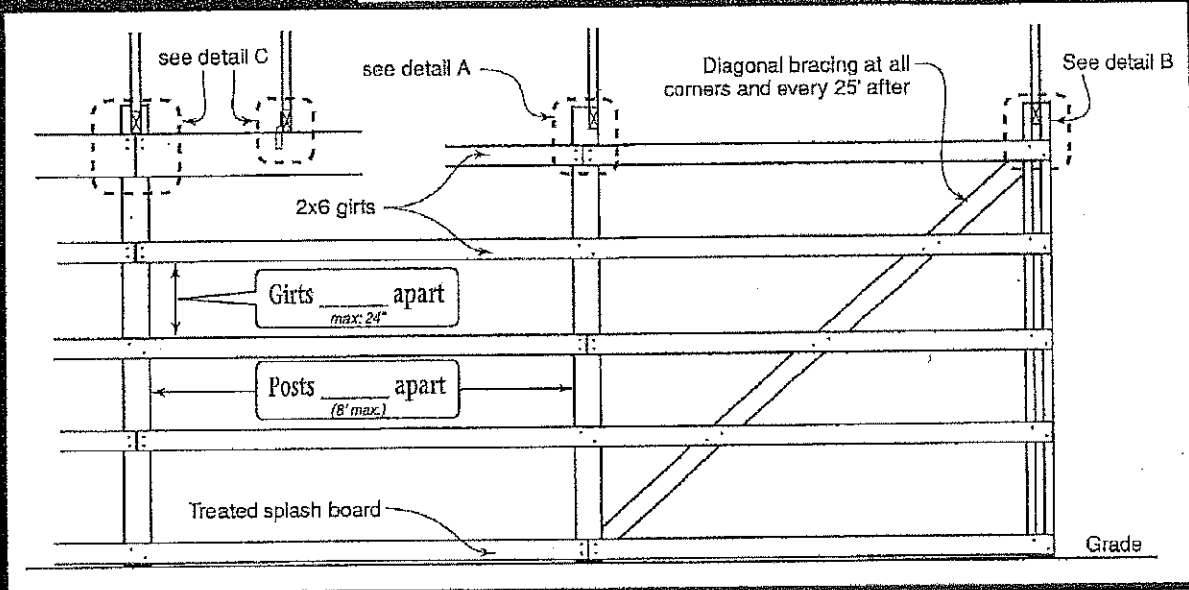
End Elevation



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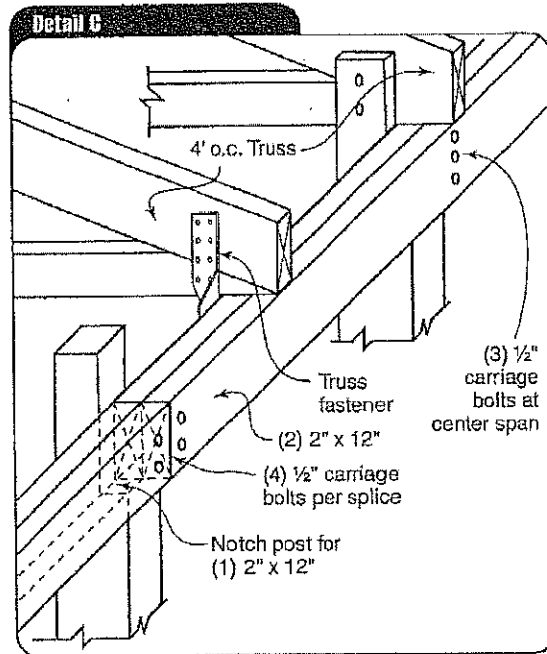
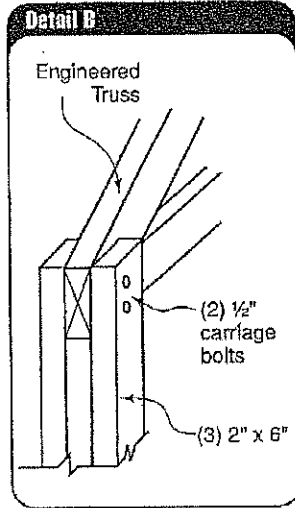
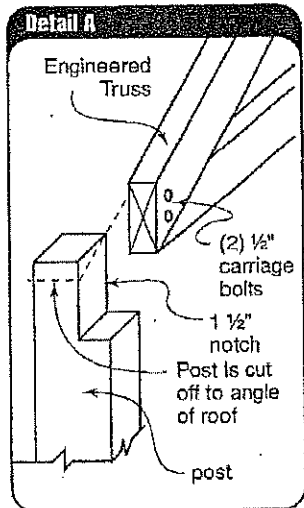
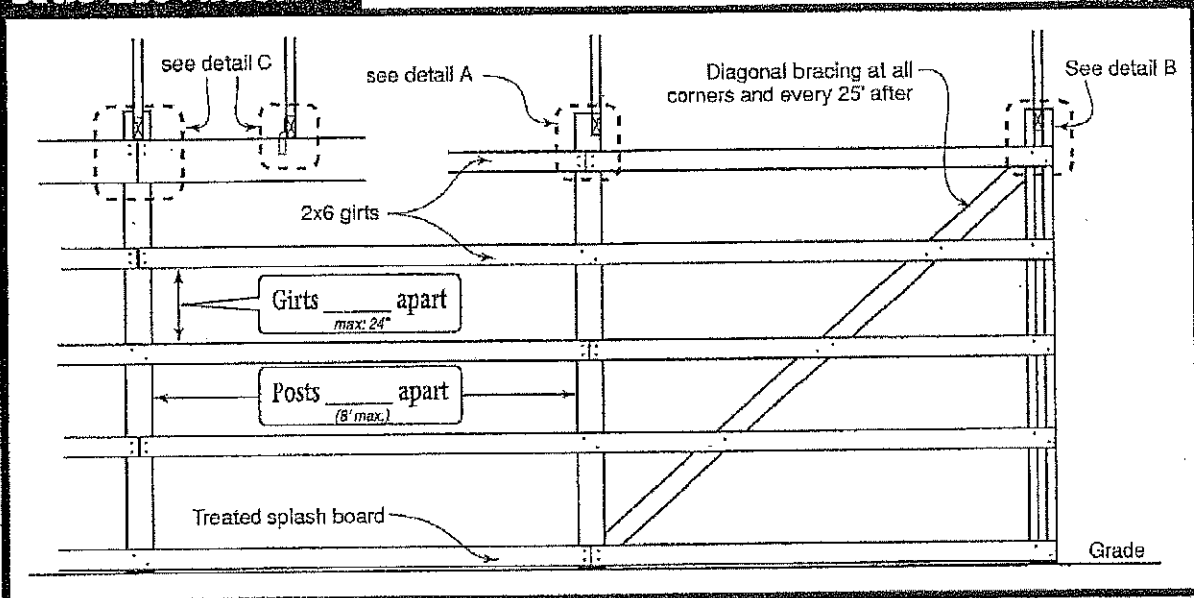
Side Elevation



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Side Elevation



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Footings

- Size and Thickness of footings See Table A—Footing Requirements
- Collar requirements: See Sketch A or Sketch B following Table B.
- Embedment material requirements are noted following Table B.
- Depth of Post See Table B—Depth of Embedment Requirements

Size of Poles See Table C—Post Spacing

Wall Girts See Table D—Wall Girts

Roof Purlins See Table E—Roof Purlins

Truss Design

- Stamped Engineered Drawings shall be submitted showing Truss Design.
- Trusses shall be braced per engineered drawings.

Truss to Header Connection

- Trusses spanning 30 feet or less may be attached to the post by 1 one-half inch bolt.

Submittal Documents:

- Plans shall show details demonstrating that the proposed structure will be in compliance with all of the requirements of the Post Frame Building Guidelines.
- Two sets of plans shall be submitted when applying for a building permit.
- Plan review of submitted plans may reveal items that will require an engineers stamp to assure that the items are in compliance with the building code.
- One set of plans will be stamped "Reviewed for Code Compliance" by the building department signifying that the plans have been reviewed. This stamped set of plans shall be on the job site during construction and shall be available to the inspector at the time of inspections.

Footings

- Size and Thickness of footings See Table A—Footing Requirements
- Collar requirements: See Sketch A or Sketch B following Table B.
- Embedment material requirements are noted following Table B.
- Depth of Post See Table B—Depth of Embedment Requirements

Size of Poles See Table C—Post Spacing

Wall Girts See Table D—Wall Girts

Roof Purlins See Table E—Roof Purlins

Truss Design

- Stamped Engineered Drawings shall be submitted showing Truss Design.
- Trusses shall be braced per engineered drawings.

Truss to Header Connection

- Trusses spanning 30 feet or less may be attached to the post by 1 one-half inch bolt.

- Trusses spanning 30 feet to 60 feet shall have trusses attached to posts by 2 one-half inch bolts.
- Trusses attached to headers or girders shall be detailed on plans and shall meet or exceed the above requirements.

Header Requirements

- Header size shall be sufficient to meet all imposed loads on the structure. Engineered materials (Laminated Members) shall have supporting documents demonstrating how the material meets the load requirement.
- Plans shall show the nailing schedule for all members.

Bracing

- Show any proposed lateral bracing on the plans.

Table A—Footing Requirements

Building Width*	Post Spacing	Footing Size Diameter / Thickness
24	4	14 / 6
	6	18 / 6
	8	20 / 6
32	4	16 / 6
	6	20 / 6
	8	24 / 8
36	4	16 / 6
	6	20 / 6
	8	24 / 8
40	4	20 / 6
	6	24 / 8
	8	28 / 8
44	4	20 / 6
	6	24 / 8
	8	28 / 12
48	4	20 / 6
	6	24 / 8
	8	28 / 12
52	4	20 / 6
	6	24 / 8
	8	28 / 12

Building Widths between specified sizes in Table-A requirements shall go to the larger footing size.

Table B—Depth of Embedment Requirements

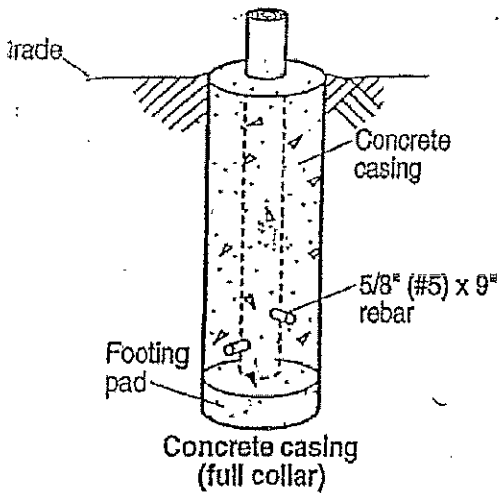
Post Spacing	Eave Height (Ft.)	10 Ft.	12 Ft.	14 Ft.	16 Ft.
4		48	48	54	60
6		48	54	60	66
8		54	60	66	66f
10		60	66f	66f	66f

66f indicates a full collar foundation. See Sketch A.

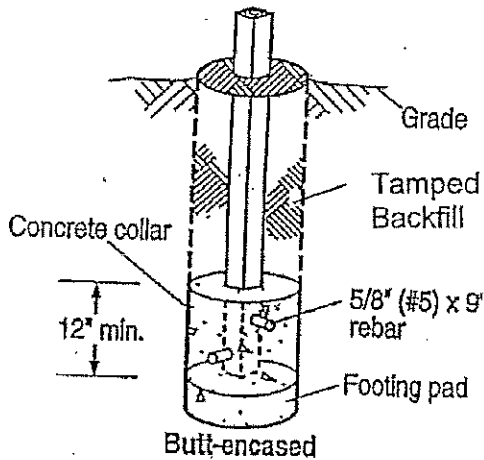
Posts exempt from full collar foundation shall have pressure treated uplift blocks installed on all sides of poles or butt-encased poles. See Sketch B and C.

All post excavations shall be filled with one of the following: Concrete, a well-graded, granular aggregate; gravel or sand. Fill materials other than concrete shall be installed in maximum 8-inch lifts and compacted by hand or mechanically.

Sketch A
Full Collar



Sketch B
Butt-encased



Sketch C
Blocks

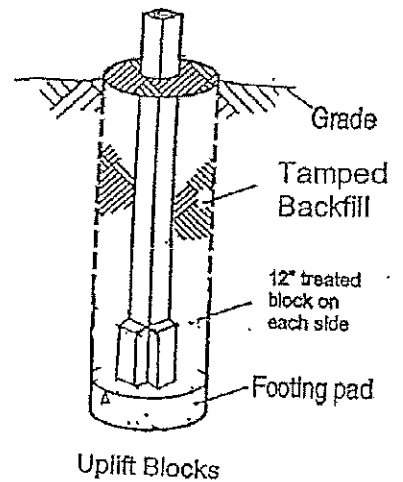


Table C—Pole Size on Maximum of 8-foot Spacing

Eave Height	Pole Size / Building Span
8'	4 x 4 through 40 foot span 4 x 6 through 60 foot span
10'	4 x 6 through 60 foot span
12'	6 x 6 through 60 foot span
14'	6 x 6 through 60 foot span

Table D—Wall Girt Size and Spacing

No. 1/No. 2 Spruce-Pine-Fir

These spacing do not apply to Partially Enclosed Structures

8 ft. post spacing	Acceptable Spacing
2 x 4 (Flat)	2'-4" o.c.
2 x 6 (flat)	3'-4" o.c.

Table E—Roof Purlins

No. 1/ No. 2 Spruce-Pine-Fir

8 ft. post spacing	Acceptable Spacing
2 x 4 on edge	2'-0" o. c.

Headers supporting trusses shall be sized to carry the live load and the dead load.