POLE BUILDING REQUIREMENTS

for Lewis County, Washington

The International Building Code requires the following provisions to be followed in the design and construction of pole type buildings.

1. All poles and posts are to be treated per preservative treatment by pressure processes using the following:
   a. Standard Specifications C1, C2, C3, C4, C9, C14, C15, C16, C22, C23, C24, C28 and M4, AQPA.
   b. Standard Specifications CP, LP2, LP3, LP4, LP5, LP7, LP22, LP33, LP44, LP55, LP77.
2. Provide minimum of 6" of concrete at bottom of holes occupied by posts which directly support rafters or roof trusses.
3. Provide minimum embedment of 4'0" for 6"x6" posts and 4'6" for 8"x8" posts or provide engineering data to substantiate lesser embedment for buildings exempt from engineering requirements.
4. Erect all walls and structural framing true and plumb. Bracing to be placed during erection where ever necessary to carry all loads.
5. Be designed to resist minimum horizontal and uplift wind pressures to 85 mph.
6. Have a roof structure with a design snow load per listings on back of page.
7. Have all truss designs stamped by a licensed structural engineer to include maximum spans for each given truss spacing and connection of trusses to poles.
8. Provide adequate anchorage of roof to walls and columns.
9. Backfill the space around columns not embedded in poured concrete by one of the following methods:
   a. Backfill shall be of concrete with an ultimate strength of 200 psi at 28 days. The hole shall be not less than 4" larger than the diameter of the column.
   b. Backfill shall be of clean sand. The sand shall be thoroughly compacted by tamping in layers of not more than 8".
10. Inspections:
    a. Call for hole inspection before backfill. Poles may be set and braced in holes.
    b. Call for framing inspection at completion of all framing and installation of exterior.

Section 107.1 of the 2009 International Building Code allows the Building Official to require plans, computations and specifications prepared by a licensed architect or engineer. Basic engineering showing the size of pole, depth of embedment, diameter of hole and backfill material, truss design engineering and connection of the roof system to the pole must be submitted for all pole buildings. **EXCEPTION**: Private storage and agricultural buildings (U-1 Occupancies) under 3000 square feet in floor area with an unsupported side wall height less than 14 feet, and a clear span width of less than 40 feet. Note: Truss design engineering required for all buildings.

ROOF SNOW LOAD REQUIREMENTS

for Lewis County, Washington

These requirements have been determined by the Building Official based on local conditions and the Second Edition of the Snow Load Analysis for Washington published in July 2009, by the Structural Engineers Association of Washington.

City	Actual Elevation	Minimum Roof Snow Load (PSF)
BURNT RIDGE	*1100	50
CENTRALIA	189	25
CHEHALIS	226	25
MINERAL	*1770	(Consult Building Official)
MORTON	940	40
MOSSYROCK	698	30
ONALASKA	505	25
PACKWOOD	*1051	(Consult Building Official)
PE ELL	412	30
RANDLE	880	(Consult Building Official)
TOLEDO	110	25
VADER	175	25
ASHFORD (Paradise Estates)	*1770	(Consult Building Official)
WHITE PASS	*4600	(Consult Building Official)

***For <u>non-residential</u> structures, elevations 1000 feet or over have a frost depth of 18 inches minimum from finish grade to the bottom of the footing. Any elevation less than 1000 feet will have a frost depth of 12 inches. <u>Residential</u> structures will have a frost depth of 18 inches minimum countywide. The Building department will assist you with the calculations for snow load if the actual elevation is known.**

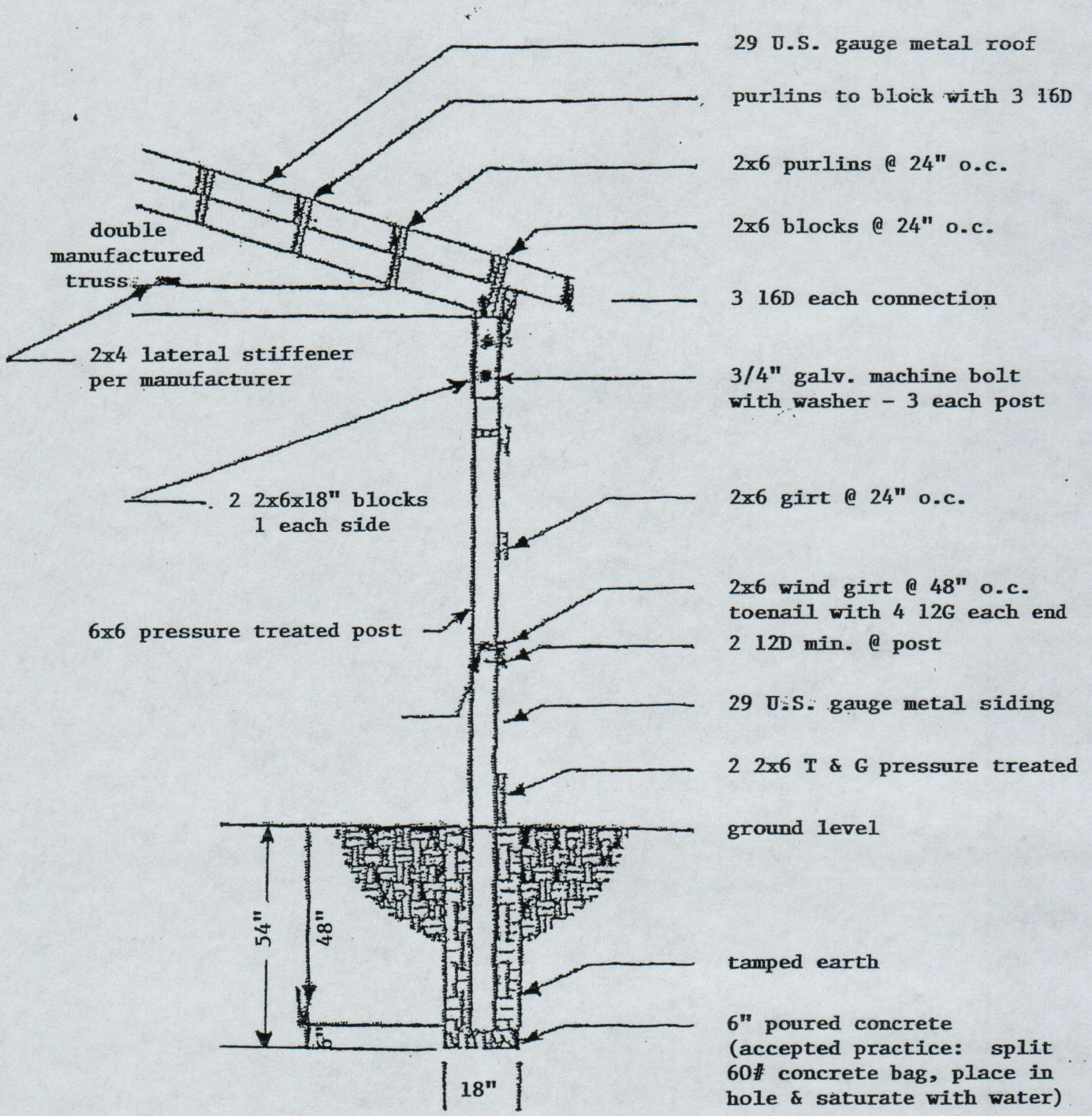
WIND LOAD REQUIREMENTS

for Lewis County, Washington

Basic Wind Speed is 85 miles per hour with the exposure determined by the following definitions:

<u>Exposure B</u> has terrain with buildings, forest, or surface irregularities, covering at least 20 percent of the ground level area extending one mile or more from the site.

<u>Exposure C</u> has terrain that is flat and generally open, extending one-half mile or more from the site in any full quadrant.



TYPICAL POLE SECTION