



## **CITY OF DELANO**

Department of Building Inspections

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### **THREE AND FOUR SEASON PORCH REQUIREMENTS**

This handout is a guide only and does not contain all of the requirements of the Minnesota State Building Code or City Ordinance.

#### **PERMITS:**

Building permits are required for construction of all new three or four season porches and for conversion of a three season to a four season. The Building Code in Minnesota requires porches that are to be heated (four season) to comply with the state energy code in addition to the other provisions of the code for construction of unheated structures. Porches must also meet the land use and setback requirements of the zoning code. Setbacks from property lines vary depending upon the zoning district your home is located in. This is an important first step in planning your porch.

#### **PERMIT FEES:**

The building permit fee is based on the project's construction cost and is designed to cover the cost of a plan review fee and the field inspections that will be required during construction. A building inspector, in order to spot potential problems and to see that the minimum building code is being met, does the plan review. Inspection will be done during the project to insure code compliance.

#### **INFORMATION NECESSARY WHEN APPLYING FOR A BUILDING PERMIT:**

##### **Building Permit Application**

##### **Site Plan or Survey:**

- Indicating lot dimension
- Location and size of existing structure(s)
- Location and size of proposed structure
- Indicate setbacks from property lines of existing and proposed structure

##### **Floor Plan**

- Proposed size of porch
- Location and size of windows and door openings
- Size of headers over all doors and window openings

- Size, spacing and direction of rafters (roof) materials
- Size and spacing of floor joist
- Size, location and spacing posts
- Type (grade & specie) of lumber to be used

#### Section Plan

- Height of structure from grade
- Size and depth of footings
- Beam size supporting floor and roof joist
- Floor joist size and spacing
- Flooring material
- Ceiling height
- Type(s) of sheathing and siding
- Header size over windows, doors and screened openings
- Size and spacing of rafters
- Type(s) of roofing underlayment and roof covering
- Pitch of roof

**Note:** If truss roof system is to be used, submit one copy of stamped engineering truss design from manufacturer

#### Elevation Plan:

- Guardrail and height (if any)
- Type of openings (screened, sliding doors, etc)
- Method of attachment to existing structure
- Other information not shown on the section plan, that may be needed to clearly show the construction being proposed.

Energy Calculation Worksheet (required if porch is to be heated).

**Note:** Plans do not need to be professionally drawn, but should include all the information requested. Two complete sets are required.

### **BUILDING CODE REQUIREMENTS**

- Footings must extend below frost depth
- Wood joists 18" or closer to grad or wood beams 12" or closer to grade and their supports must be of an approved treated wood.
- Columns and posts supporting porches and stairways exposed to the weather or to water splash must be supported and connected to concrete piers or metal pedestals projecting above grade. Columns and posts in contact with the ground or embedded in concrete or masonry must be of special pressure treated wood approved for ground contact.
- All porches, balconies or decks, open sides of landings and stairs which are more than 30" above grade or a floor below must be protected by a guardrail not less than 36' in height.

Open guardrails and stair railings require intermediate rails or an ornamental pattern less than a 4" diaper or opening.

- If a stairway is to be provided, it must be not less than 36" in width. (Stairways must be constructed having a 7 ¾" maximum rise (height) and a 10" minimum run (length). The largest tread run may not exceed the smallest corresponding rise or run by more than 3/8".
- Handrails are required on all stairways having four (4) or more risers. Handrails may not be less than 1 ¼" nor more than 2" in cross sectional area (diameter). Handrails must be installed not less than 34" nor more than 38" above the nosing (front edge) of treads and they must be returned to a wall or post.
- If an exterior stairway is to be provided, the construction members, which form the structural support shall be of approved wood of natural resistance to decay such as cedar, redwood or treated wood when such members are exposed to the weather.
- Wall framing studs must be placed with their wide dimension perpendicular to the wall, and not less than three studs must be installed at each corner of an exterior wall. Minimum stud size is 2x4 (2x6 for four season) and spaced not more than 24" on center.
- Top plate bearing and exterior wall studs need to be capped with double top plates installed to provide overlapping at corners and at intersections with other partitions. End joist in double top plate must be offset at least 48".
- Sheathing, roofing and siding, approved wall sheathing; siding, roof sheathing and roof covering must be installed according to the manufacturer's specifications.
- Approved ice and water barrier underlayment materials must be installed on all roofs over porches. It is required from the eaves to 24" inside the exterior wall line.
- Roof framing size and spacing of conventional lumber used for roof framing depends upon the roof pitch, span, the type of material being used, and the loading characteristics being imposed. Porch must be designed for the snow load required locally.
- Rafters need to be framed directly opposite each other at the ridge. A ridge board at least 1" thickness and not less in depth than the cut end of the rafter is required for hand-framed roofs. At all valleys and hips, there also needs to be a single valley or hip rafter not less than 2" thickness and not less in depth than the cut of the rafter. Rafters must be nailed to the adjacent ceiling joist to form a continuous tie between exterior walls when the joists are parallel to the rafters. Where to form a continuous tie between exterior walls when the joists are parallel to the rafters. Where not parallel, rafters must be tied to a minimum 1" by 4" crosstie spaced a minimum four foot on center. If manufactured trusses are to be used, submit one copy of truss plans signed by a registered engineer.

## REQUIRED BUILDING INSPECTIONS

- **Footings:** After the holes are dug and any reinforcements are in place, but prior to the pouring of the concrete.

- **Framing:** To be made after the roof, all framing, fire blocking and bracing are in place and all pipes, chimneys and vents are complete and the rough electrical, plumbing and heating are approved.
- **Insulation:** To be made after all insulation material including the vapor barrier is in place but before covering (required for a four season porch).
- **Final:** To be made upon completion of the building and finish grading.
- **Other Inspections:** In addition to the called inspections above, the building official may make or require other inspections of construction work to ascertain compliance with the provisions of this code and other laws which are enforced by the code enforcement agency.