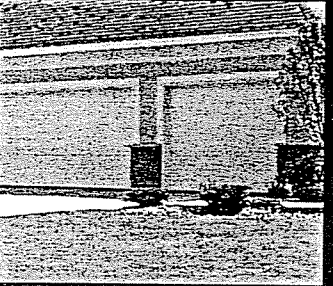
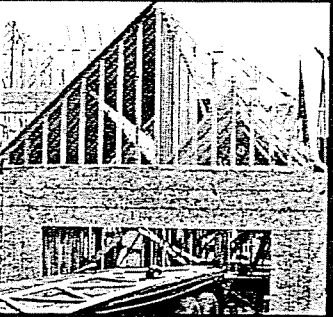


# GARAGES

*Guidelines for planning  
the construction  
of a garage.*



## PERMITS

Building permits are required for construction of all garages. The Minnesota Building Code differentiates between attached and detached garages and there are some differences in the requirements. Garages must also meet the land use and setback requirements of the City Zoning Code. Zoning questions should be directed to the local Planning and Zoning Department.

## PERMIT FEES

Permit fees are established by the municipality. The plan review is done by the building inspector in order to spot potential problems or pitfalls that may arise. The inspector will make notes on the plan for your use. Construction inspections will be done during the project to insure code compliance. The plan review and inspections are done to provide a reasonable degree of review and observation so the project will be successful, safe, and long-lasting. Actual permit costs can be obtained by calling your local Building Inspection Department with your construction costs. Actual permit fees will vary by community. Contact your local code official.

## REQUIRED INSPECTIONS

### a. Footing / Concrete Slab

To be made after all form work is set up, mesh laid, rods, wired, etc. but **PRIOR TO THE POURING OF CONCRETE.**

### b. Framing

To be made after all framing, blocking, bracing and rough electrical (if any) are in place. (This inspection can be completed at the time of the final inspection if all parts will be visible and accessible at the final inspection.)

### c. Final

To be made upon completion of the garage electrical, final, and finish grading.

### d. Other Inspections

In addition to the inspections above, the inspector may make or require other inspections to ascertain compliance with the provisions of the code or to assist you with your questions or concerns during the construction process.

## PLANS: SITE, FLOOR, and ELEVATION

The following samples show the minimum detail expected so the permit process can proceed smoothly. Plans should include all of the information requested.

**Submit TWO copies of all documents.**



## Building Codes and Standards Division

408 Metro Square Building  
121 East 7th Place  
St. Paul, MN 55101-2181  
651.296.4639  
TTY: 800.627.3529  
Fax: 651.297.1973

[www.buildingcodes.  
admin.state.mn.us](http://www.buildingcodes.admin.state.mn.us)

[www.mncodes.org](http://www.mncodes.org)

# GARAGES *continued*

## GENERAL BUILDING CODE REQUIREMENTS

a. **Footings** must extend to frost depth for all attached garages. A "floating slab" may be used for the foundation support of detached garages on all soils except peat and muck. Slab perimeter must be sized and/or reinforced to carry all design loads. The minimum slab thickness must be 3 1/2 inches and 6 inch x 6 inch mesh or equivalent is recommended. The minimum concrete strength required is 3000 pounds per square inch. Protect concrete from freezing until cured.

b. **Anchor Bolts or straps:** Foundation plates must be anchored to the foundation with not less than 1/2 inch diameter steel bolts, or approved straps, embedded at least 7 inches into the concrete and spaced not more than 6 feet apart. There must be a minimum of two bolts per piece with one bolt located within 12 inches of each end of each piece. Anchor straps must be installed per the manufacturer.

c. **Sill Plate:** All foundation plates on sills and sleepers on a concrete or masonry slab, which is in direct contact with earth, and sills which rest on concrete or masonry foundations must be of approved treated wood, heartwood of redwood, black locust or cedars having a width not less than that of the wall studs.

d. **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 2 X 4 and spaced not more than 24 inches on center.

e. **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 joints in double top plates must be offset at least 24 inches.

f. **Sheathing, Roofing, and Siding:** Approved wall sheathing, siding, roof sheathing and roof covering must be installed according to the manufacturers specifications. Wall sheathing may be required to have a weather-resistive barrier installed over the product prior to application of the siding product.

g. **Wood and Earth Separation:** Wood used in construction located nearer than 6 inches to earth shall be treated wood.

h. **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. Garages must be designed for the appropriate snow load in your area. (Contact your local building inspector). A snowload map is posted at: [www.buildingcodes.admin.state.mn.us](http://www.buildingcodes.admin.state.mn.us).

Rafters need to be framed directly opposite each other at the ridge. A ridge board at least 1 inch (nominal) 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 inches (nominal) 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 not parallel, rafters must be tied by a minimum 1 inch by 4 inch (nominal) cross tie spaced a minimum four foot on center. Manufactured trusses are to be installed per the manufacturer.

i. **Separation required.** The garage shall be separated from the residence and its attic area by not less than 1/2 inch (12.7 mm) gypsum board applied on the garage side. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than 1/2 inch (12.7 mm) gypsum board or equivalent.



Call at least 2 full business days before you dig.

1-651-454-0002 1-800-252-1156 [www.gopherstateonecall.org](http://www.gopherstateonecall.org)

Contact your local building code official regarding specific code and permit requirements in your municipality or if you have any questions regarding information presented in this brochure.

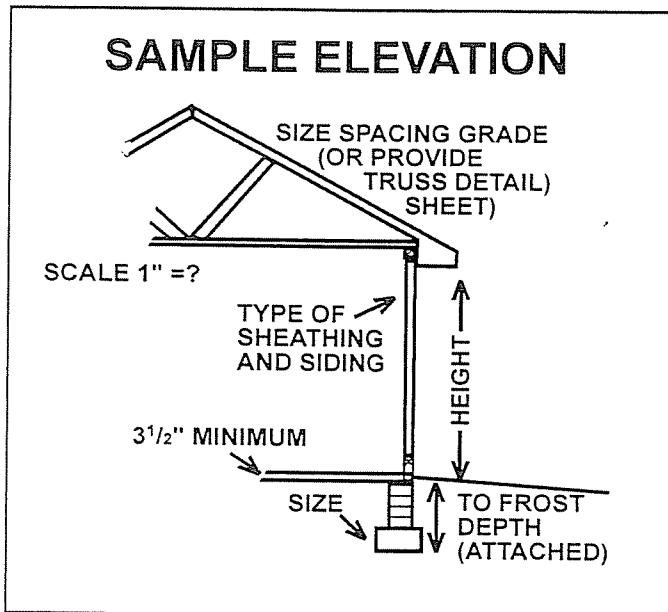
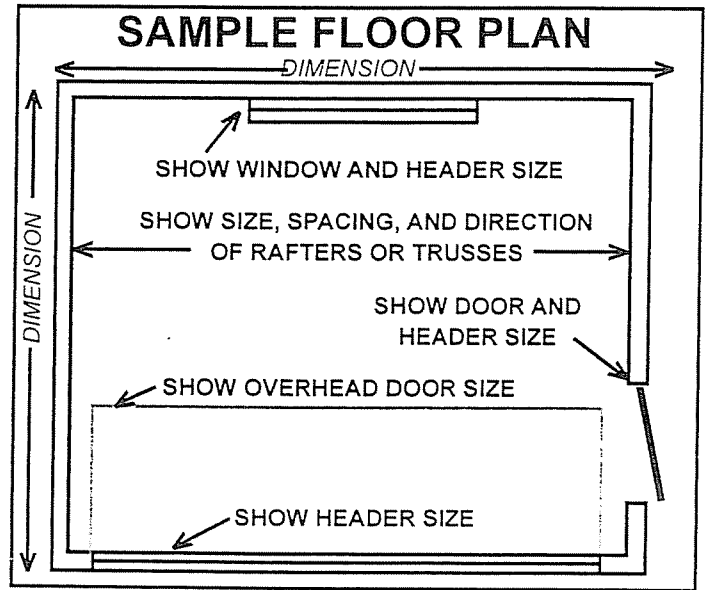
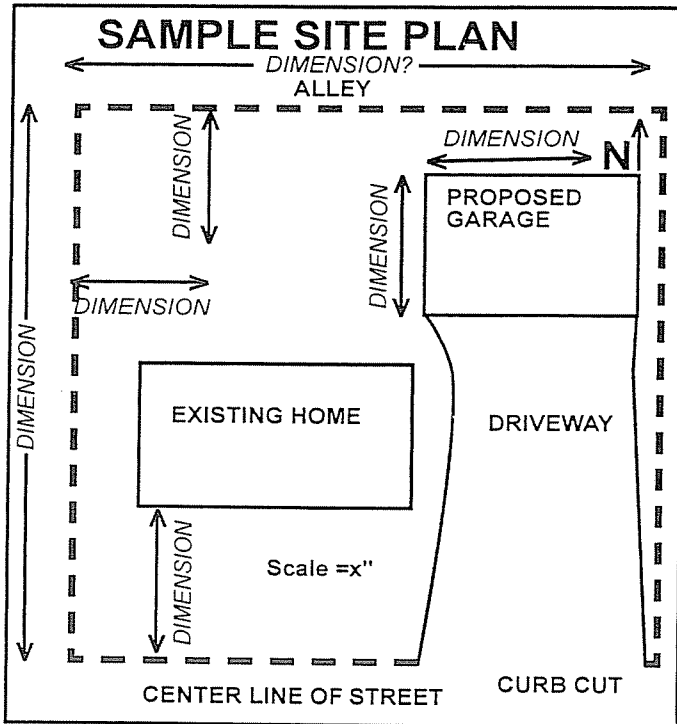
# GARAGES continued

## PLANS: SITE, FLOOR, and ELEVATION

The following samples show the minimum detail expected so the permit process can proceed smoothly. Plans should include all of the information requested. **Submit 2 copies of a survey or site plan** drawn to scale indicating the lot dimensions, the location and size of the existing structure(s), and the location and a size of the proposed structure. Indicate the setbacks from property lines of the existing and proposed structure(s). Including septic system area and wells if applicable.

### SITE PLAN

1. Proposed size of garage.
2. Location and size of door and window opening.
3. Size of headers over all doors and window openings.
4. Size, spacing, and direction of rafter (roof) materials.
5. Type (grade and specie) of lumber to be used.



### ELEVATION:

1. Height of structure from grade.
2. Size and depth of footings.
3. Wall and roof construction.

