



# CITY OF ANN ARBOR, MICHIGAN

## Planning & Development Services

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### **GARAGES, CARPORTS, AND ACCESSORY BUILDINGS**

Building a garage? This information will help you understand some of the residential building codes for building an unattached or attached garage. Information is also included here on accessory buildings.

Note that one story detached accessory structures under 200 square feet in area do not require a Building Permit but do require a Zoning Compliance Permit.

#### **Site Preparation**

The area within the foundation walls must have all vegetation, topsoil and foreign material removed.

#### **Footings**

If the garage is attached to the house, footings must be below the frost line—a minimum of 42" below finished grade. The garage footings must be tied to the existing house footings with rods.

If the garage or accessory building is detached but over 400 square feet or larger in area, a minimum of 42" deep footings are required.

If the garage or accessory building is detached, has an area of less than 400 square feet and over 200 square feet, and an eave height of 10 feet or less, a minimum of 12" deep footings are required.

#### **Slab**

The garage slab must be a minimum depth of 4 inches of concrete on a minimum 4-inch base course consisting of clean graded sand, gravel or crushed stone.

On attached garages, a 6-mil polyethylene or approved vapor retarder with joints lapped not less than 6" must be placed between the concrete floor and the base course.

The garage floor slab used for the parking of automobiles or other vehicles must be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry door.

### **Attached Garage Separation**

The garage shall be separated from the residence and its attic by not less than 1/2 inch gypsum board applied to the garage side.

Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8" Type X gypsum board or equivalent. Where the structure is a floor-ceiling assembly, the structure supporting the separation must also be protected by not less than 1/2" gypsum board or its equivalent.

Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inch in thickness, solid or honeycomb core steel doors not less than 1 3/8 inches thick, or 20-minute fire-rated doors.

### **Additional Requirements**

Sill plates on all walls in contact with the concrete slab must be treated per Section R319.1.

The wood sill plate at exterior walls on monolithic slabs shall be anchored to the foundation with anchor bolts spaced a maximum of 6 feet on center. There shall be a minimum of two bolts per plate section with one bolt located not more than 12 or less than seven diameters from each end of the plate section per Section R403.1.6.

A minimum of one layer of No. 15 asphalt felt complying with ASTM D 226 or other water-resistive materials shall be applied over sheathing of all exterior walls.

In attached garages, an ice and water shield membrane is required. The ice barrier should consist of a least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall be used in lieu of normal underlayment and extend from the eave's edge to a point at least 24 inches inside the exterior wall line of the building.

Garages with drywall ceilings require a ceiling access that is a minimum of 22 inches by 30 inches.

### **Electrical Requirements**

At least one receptacle outlet shall be installed in each attached garage, and in each detached garage that is provided with electrical power.

All 125-volt, single-phase, 15- or 20-ampere receptacles installed in garages and grade-level portions of unfinished accessory buildings used for storage or work areas shall have ground-fault circuit-interrupter protection for personnel.

### **Carports**

Carports shall be open on at least two sides. Carport floor surfaces shall be of approved noncombustible material. Carports not open on at least two sides shall be considered a garage and shall comply with the requirements for garages.

The area of floor used for parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway.

### **Drawings Required for Building Permit**

Site Plan – This should show the location of the garage on the lot and the distance from all property lines.

Floor Plan – A plan drawn preferably at ¼ scale (1/4" equals one foot). This plan should show a plan of the garage, all framing sizes and spacing, location and depth of footings and other structural supports.

Elevation – Include at least one elevation of the garage.

Wall Section – A section cut through one wall showing footing, wall and roof construction.

Truss Drawings – When using manufactured trusses, manufacturers truss drawings must be provided. Submit to Building Department for review and approval and a set must be on site for the Building Inspector.

## **Inspection Requirements**

Footing – Before pouring foundation.

Framing

Final – After completion of all work (including trade work).

Note that any electrical work installed in garages must meet the current electrical code and will also require proper inspections