

## EXAMPLES OF RESIDENTIAL BUILDING METHODS AND BASIC CONSTRUCTION CODES

These examples are a general outline for residential construction. Refer to your **2015** Michigan Residential Code Book and other resources for actual methods and code specifications, as they apply to your specific project.

### Garages and Utility Buildings -Revised per 2015 MRC

#### Attached Garages (Garages attached to a Dwelling)

##### **General Requirements**

Foundations must be properly designed for the building loads and soil conditions. Common foundations are concrete footings with concrete block, poured concrete stem walls or treated wood stem walls on stone footings. Concrete footings 8" deep x 16" wide set 32" below grade (in approved soils) with 2-#4 rebar continuous are common. Foundation stem walls of concrete block, poured concrete or other approved systems are common. Stem walls and/or wall bases must provide a min. 8" of non-absorbent decay resistant exterior material above grade. Concrete floors must have a 2% slope to a drain or directly to the vehicle access door. Floor drains may drain to the soil directly below the floor or have a solid pipe to an exterior containment tank. Garage/ Dwelling common walls must be covered with ½" drywall and fire taped on the garage side of the wall. Garage ceilings that require fire separation from a dwelling area, loft, or over framing must be covered with 5/8" type X drywall and fire taped. Garage area must have one hinge type service door that provides direct egress from the garage to an outside area. Electrical interior lighting, outlets, and an exterior light for each hinge type egress/access door is required.

#### Detached auxiliary Garages and Utility buildings

##### **General Requirements**

Foundations must be properly designed for the building loads and soil conditions. Common foundations are concrete footings with concrete block, poured concrete stem walls or Monolithic concrete slab foundations. Concrete footings 8" deep x 16" wide set 32" below grade (in approved soils) with 2-#4 rebar continuous are common. Monolithic foundation that have an integrated 4" floor and 24" deep x 12" wide footing with 2-#4 rebar's continuous at the perimeter are also a common foundation system. **Note:** Buildings of 600 sq. ft. or less, that are single story (no lofts) and have an eave height of 10' or less do not have to be frost protected. The top of traditional 8" x 16" concrete footings must be a minimum of 12" below the finish grade. Monolithic foundations must extend to a minimum of 12" below finish grade. The rebar is required for both systems. Foundation stem walls of concrete block, poured concrete or other approved systems are common. Stem walls and/or wall bases must provide a min. 8" of non-absorbent decay resistant exterior material above grade. Floor drains may drain to the soil directly below the floor or have a solid pipe to an exterior containment tank. Garage area must have one hinge type service door that provides direct egress from the garage to an outside area.

#### Framing Requirements for Attached and Detached Garages and Utility buildings

Wall bases and/or stem walls must provide a min. 8" of non-absorbent decay resistant exterior material above grade. Support walls, beams and related components must be designed for the wall height and loads from the roof and/or additional stories including a minimum 60 lb. snow load. . Wood framing members that contact masonry must be treated material. Exterior walls must be anchored to the foundation as per wind uplift requirements. Roof structure must be designed for appropriate loads including a minimum of 60 lb. snow load. Roof structure must be fastened to the exterior walls as per wind uplift requirements. Exterior walls and roof structure must have approved long term all weather coverings, and be secured against infestation by rodents and/or insects.

#### Garage and Utility buildings with Lofts

Drawings must be provide to the code official showing construction details, main floor and loft windows, doors and stairs. Foundations, walls and other building elements must be properly designed for the additional building loads. Unfinished storage lofts with ceiling heights of **6'-8"** or more must be accessed by a code compliant stair system and have 1 egress window. Occupied lofts areas must have a fire protected stairway /egress route to outside the building. The vehicle area of the building must have 5/8" type X drywall on the ceilings and ½" drywall on all walls, drywall must be fire taped. Each loft room area must meet the natural light and ventilation requirements.