

Minimum Building Plan Requirements

SO THAT DRAWINGS MAY BE PROCESSED QUICKLY AND EFFICIENTLY, THE FOLLOWING MINIMUM ITEMS SHOULD BE INCLUDED. SHOULD YOU NEED MORE DETAIL, DUPAGE COUNTY CODE BOOKS ARE AVAILABLE FOR A MINIMAL FEE IN THE OFFICE.

BUILDING ELEVATIONS – Complete, roof to and including foundation. ([See sample](#)).

Front, rear and side views of the proposed structure. If it is a room addition or attached garage, a portion of the existing structure at the portion of attachment must be shown. Label each elevation.

TYPICAL SECTION ([See sample](#))

A cutaway view through a frame wall and/or brick veneer wall showing footing, foundation, floor, wall, ceiling and roof construction. Each structural component must be labeled as to size and type of material. Drawings cannot be reviewed without this information.

FLOOR PLANS ([See sample](#))

These must show the locations of any doors or windows, electrical openings, plumbing fixtures, direction and size of floor and ceiling joints. Rooms should be labeled as to their use and whether or not they are new or existing. Second story additions must show what is on the first floor to support the addition. All plans to be fully dimensioned to scale.

WHIRLPOOLS, HOT TUBS AND SPAS

Must submit specifications and must have U.L. label or equivalent. Location of access to motor must be indicated on plans.

ROOF OR FLOOR TRUSSES

Submit structural specifications if prefab. If “home-built,” detailed drawings must be submitted. All truss plans and specifications must have an ILLINOIS Architect’s or ILLINOIS Structural Engineer’s seal. (Not required for “TJI” type pre-fab trusses.)

DRIVEWAY

Location must be shown on site plan.

PREDRAWN DRAWINGS

If obtained from mail order or from a plan service, must be revised to reflect alterations made by owner. For example, a poured concrete foundation is to be used instead of concrete block, this revision must be noted wherever the concrete block was shown. Please note some mail order plans are very “generic” and may require professional adjustments to be approved. Any “optional or future” items must be deleted from plans.

FOOTING/FOUNDATION PLAN ([See sample](#))

Footing Sizes (minimum)

- Supporting frame: 8 x 16
- Supporting brick veneer: 10 x 18
- Column pier footings: 30” x 30” x 12”
- Deck Piers: 8” diameter x 42” deep
- Masonry chimney footing: 12” thick

Foundation Thickness (minimum)

- Supporting frame: 8”
- Supporting brick veneer: 10”
- Trench foundations may be used with slab construction – Width: 8” for frame; 10” for brick veneer. Depth: 42”
- All wing wall must be reinforced with #2 rebars. Wing walls are required under all concrete stoops/steps.
- New foundations must be doveled into existing foundations with four #4 bars at each point of attachment.

FLOOR PLANS [\(See sample\)](#)

Garage

- Header size for 16' opening: three 2 x 12's, two 2 x 14's or two 2 x 12's with ¼" x 11" steel plate.
- All outlets to be on GFI circuit.
- Garages shall be separated from the dwelling by one-hour fire resistive rated construction. Separation shall include: all walls, ceiling, attic access, supporting girders, columns and beams.
- A 6" gas curb is required into house from garage; stairways leading down must have a 6" gas curb around them along with handrails and guardrails.
- Door into house: 2'8" wide, one hour rated; with self-closing device.
- Garage slab: 4" of concrete; 6 x 6 #10 wire mesh, 4" of stone and 6 mil vapor barrier.
- Any door leading to the outside (excluding overhead door) must have a separately switched interior and exterior light.
- Ceiling joist and roof rafters size, spacing and direction.
- If ceiling is drywalled, an attic access with a light switched at point of entry is required. Minimum opening size – 18"x 24".
- Pull down stairs are not permitted in garage where rated ceiling is required.
- A room containing a gas furnace or water heater cannot open directly into garage.
- Garage heaters require specs indicating heater is designed for that use being submitted and approved prior to installation.

Crawl Space

- Floor: 4" of stone plus a 6 mil vapor barrier.
- Cross ventilation or mechanical ventilation is required.
- Access and light switched at point of entry. Minimum 18"x 24".
- Beam and column sizes and locations.
- Size, direction and spacing of joists above.
- Minimum R-13 insulation required in floors above unheated crawlspaces.
- Minimum height of 24" is required between bottom of floor joists and top of grade inside crawl.

Basement

- Floor: 4" of stone, 6 mil vapor barrier and 4" of concrete.
- Beam, column and pier footing sizes and their locations.
- Size, direction and spacing of joists above.
- Metal window wells with drains tied into drain tile. (Minimum 36" projection window well required on escape windows.)
- At least one escape window minimum 24" width x 30" height with sill no more than 44" above basement floor or provide second set of stairs. (Exiting through garage does not meet second remote exit requirements.)
- Floor drain within 5' of furnace and water heater tied to sanitary or septic ejector pit.
- At least one switched light near furnace, etc., operated from stairway or entry to furnace room.
- No sump pumps or appliances may block escape window.
- Minimum of one non-dedicated GFI receptacle required in unfinished basement.
- Three-way light required to illuminate stairs.
- 110 volt smoke detector wired in series required.
- Below grade exits require floor drain, to sump pump, in landing.
- Passive Radon System design acceptable by Building Official.

Floor Slabs on Grade (habitable rooms only)

- 4" of stone, 6 mil vapor barrier, 1" x 24" rigid perimeter insulation and 4" of concrete with a ½" thermal break.

Habitable Floors

- Size, direction and spacing of joists and rafters above ceiling or second floor.

- Cathedral ceilings: size, direction and spacing of roof rafters and ridge beams. Rafters must be deep enough to allow R-30 insulation and minimum 1" air space.
- All rooms must be completely labeled as to their use.
- A handrail, as well as guardrails on all open sides, is required at all stairs over two risers.
- Minimum bedroom sizes are: 120 square feet for master bedroom and 100 square feet for others, excluding closets.
- All appliances (furnaces, water heaters, washers, dryers, etc.) must have at least 36" clearance in front for servicing.
- All attics must have access as well as switched light at the point of access. (Access is not allowed in closet ceilings.) Minimum opening size – 18" x 24".

BASIC ELECTRICAL REQUIREMENTS – 2008 NATIONAL ELECTRICAL CODE WITH ADMENDMENTS

- All outlets in garage, in bathrooms, exterior, in crawl spaces and unfinished basements, in floors and within 6' of any sink must be on GFI. GFI outlet required at each bathroom sink.
- Each room must have outlets spaced no farther than 12' apart.
- Each wall space 24" or wider must have an outlet.
- Every 4' of kitchen counter space including island and peninsular countertops must have an outlet as well as counter 12" or wider. A minimum of one outlet is required in islands, peninsular countertops, etc., and is to be maximum 12" below top. These outlets cannot be installed in "face-up" position in countertop. Kitchen countertop, island and peninsular outlets must be GFI protected and on a 20 amp circuit.
- If an exhaust fan is installed in a bathroom it must be switched separately from any lights.
- Each room must have either one switched overhead light or one switched outlet. If a room has more than one entrance it must have a switch at each entrance all tied to the same light or receptacle.
- Tamper proof receptacles required.
- Every exterior door must have a switched outside light including sliding glass doors.
- At least one weatherproof GFI must be installed on the exterior front and rear of the house, in the garage and in each bathroom, near sink. Each bathroom sink requires its own GFI outlet.
- A 110 volt smoke detector is required on each floor level including basements. If a bedroom is isolated in another portion of the house, it also requires a detector outside of bedroom. All detectors must be wired in series.
- All whirlpools, hot tubs and spas must be on a GFI circuit.
- No switches or outlets can be closer than 5' to the edge of a tub or shower unless by GFCI breaker in panel.
- Any lights above bathtubs or showers must be waterproof and on a GFI circuit.
- Any hallway 10 feet in length or longer requires one outlet.
- All 20 amp circuits must have 20 amp receptacles.
- Closet lights to be florescent or recessed can incandescent fixture.
- All to be AFCI as required by NEC.

PLUMBING

- Must comply with State of Illinois Plumbing Code and DuPage County Amendments.
- Where laundry facilities occur on second floor, pan with floor drain to sanitary is required under washer.

CROSS SECTION [\(See sample\)](#).

- Roof sheathing must be at least ½" thick.
- Sub-flooring must be at least 5/8" tongue and grove.
- Drain tile in 12" of stone cover as well as foundation damp-proofing is required on the outside of all crawl spaces and basements.
- If brick veneer is used, a separate cross section must be submitted.
- Attics and cathedral ceilings must meet the 2012 Illinois Energy Code.

- Exterior walls must meet the 2012 Illinois Energy Code.
- Cathedral rafters must be deep enough to meet the 2012 Illinois Energy Code.
- If cedar shakes are to be installed, 30# felt must be used.
- Separate section required for all crawl spaces.

FIREPLACES ([See sample](#))

- Must indicate if prefab or masonry.
- If a pre-fab fireplace is going to be used, it must have an Underwriter's Laboratories label (or equal) and at least a manufacturer's brochure of the fireplace.
- If the fireplace is to be constructed of masonry, a complete cross section through the fireplace must be submitted. The section must show the footing size (at least 12" thick), wall thickness (at least 8" of solid brick) and the flue size (size varies depending upon the opening size of the fireplace). Indicate height and width dimensions of opening and depth of firebox along with hearth dimensions.

GUARDRAILS/HANDRAILS

All stairs over two (2) risers require 36" guardrails with balusters maximum 6" on center on all open sides. A handrail 30" – 36" is required on one side. This may be incorporated into guardrail if proper grasp requirements are met.

DETACHED GARAGE/SHED ([See sample](#))

PORCHES AND DECKS ([See sample](#))

- Size, direction and spacing of beams and floor joists.
- If any portion of the deck or porch floor is over 24" above grade it must have a 36" high guardrail with intermediate members spaced not more than 6" apart.
- Stairs over two risers require the above guardrail/handrail requirement. (Lattice is an acceptable substitute for guardrail requirements.)
- Support posts must be anchored to the top of concrete piers. (Cannot be encased in concrete).

AGAIN, THE PRECEEDING REQUIREMENTS ARE TO BE CONSIDERED AS MINIMUMS. THEY DO NOT COVER ALL CONCEIVABLE DRAWINGS OR CONDITIONS. FOR SPECIFIC ITEMS, THE DU PAGE COUNTY BUILDING CODE MUST BE CONSULTED.