

# HOUSING REQUIREMENTS



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CITY OF HUTCHINSON PLANNING/ZONING/BUILDING DEPARTMENT

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Web Site: [www.ci.hutchinson.mn.us/bldg.htm](http://www.ci.hutchinson.mn.us/bldg.htm)

To help expedite your permit application in a timely manor, the staff at the Hutchinson Building Department has put together a handout we hope you will find useful for your construction project.

## REQUIRED INFORMATION WHEN APPLYING FOR A HOUSING PERMIT

Two copies of the survey of the proposed construction site must be submitted. The survey must include the elevation of the referenced benchmark, top of foundation, and top of floor as indicated on the preliminary grading plan as platted, and as approved by the City Engineer. If natural drainage cannot be created through site grading, a storm inlet shall be installed by the contractor/developer draining to a low area on the site or to the storm sewer. This alternate drainage must be approved by the City Engineer and will be at the contractor's or developer's expense.

Two complete sets of building plans must be submitted with the building permit application. Building plans must be dimensioned to accurately represent the proposed building project. Complete building plans shall include the size, type, design, and layout of all structural components including micro-lams, glue-lams, beams, headers, floor and/or roof trusses etc.

The plan set shall also include elevation views of all sides of the proposed structure, and accurate foundation plan, a floor plan of each level of the building with rooms labeled by use, and a section view drawing showing floor systems, typical wall structure components, roof system components, insulation, type of sheathing, weather resistive barrier, exterior wall covering, roof covering materials, etc.

Other documents to be submitted with a new house building permit application include; Construction Plans Receipt, building envelope energy information worksheet indicating compliance with the MN Energy Code, building depressurization protection/ventilation worksheet verifying adequate ventilation is provided for the building, Utilities Information for Building Permit sheet, and Erosion Control for Homebuilders and Small Construction Sites worksheet. These documents can be obtained from the Building Department.

## TYPICAL REQUIRED INSPECTIONS

**Sewer & Water-** When building sewer and water service lines have been placed in the trench from the point of connection at the property line up to the foundation. Installer must have a valid MN pipe layer's certification on his/her person at the time of inspection. If using non-metallic water service material, a tracer wire must be installed with the piping. Water service lines will be tested with operating pressure, sewer lines will be tested with a 5 psi air test for 15 minutes. Installer is responsible for providing required means of testing.

**Footing- Prior to placing any concrete.** When excavation is completed, forms and any required reinforcing steel is in place. Contractor is required to have equipment on site to verify elevation of footing is as indicated on the approved survey. Survey is required to be on site.

**Poured/Block wall-** Poured walls; when forms and reinforcing steel are in place and prior to placement of any concrete. Block walls; when the block walls are laid and reinforcing steel is in place, prior to any core-filling.

**Foundation-** When foundation water-proofing has been installed, interior and exterior drain tile is in place, and minimum 12" of rock over exterior tile is in place. Prior to placement of any backfill.

**Plumbing Underground and Rough-in-** When all supply, drain, waste and venting pipes are installed and 5 psi air test is ready to be verified. Venting must be terminated above roof line. Underground and rough-in tests may be completed at two separate times if necessary.

**Mechanical Rough-in-** When all ductwork is in place, insulated as required, and all boring and notching of framing members has been completed.

**Electrical Rough-in Inspection-** Inspected by State Electrical Inspector (320) 275-2151

**Framing-** After plumbing, mechanical, and electrical rough-in inspections have been completed. Roofing and windows are installed. Sheathing is fastened completely, trusses/girders are braced and fastened per manufacturer's specifications, all concentrated loads are carried to the foundation, and all framing ties and hangers are in place. Any necessary repairs to engineered building components should be completed with a repair design from manufacturer on site for review. Insulation shall not be installed prior to completion of the framing inspection.

**Insulation-** When all exterior wall insulation, air barriers, and vapor retarders are in place. Insulation must be split around penetrating wires, boxes, pipes, etc. to fill the wall cavity completely. This will help prevent pockets of air allowing condensation inside the wall cavities.

**Plumbing Final / Manometer-** After all plumbing work is completed. Fixtures are all set in place, shut off valves are in place, all fixture caulking is complete, and water meter reader wire is stubbed to outside of building. Manometer test of 1 inch water column for duration of inspection must be successful. Curb-stop for water service is to be operational and set to be flush with the final grade.

**Electrical Final-** Inspected by State Electrical Inspector (320) 275-2151

**Building Final-** When the home is ready for occupancy. All permitted work is to be completed. The mechanical final inspection will be at this time if not done with the plumbing final. The ventilation system must be operating, labeled, and balanced. All grilles and registers are in place. The final grading shall be completed and the permanent building address numbers are in place.

## FOOTING and FOUNDATION

Placing footings on fill, black dirt, water soaked or marginal soils is prohibited, unless specifically designed and approved by a soils/structural engineer licensed by the State of Minnesota. All organic material shall be removed from beneath building sites to a minimum depth of 12 inches.

If using the IRC Foundation provisions the requirement of Grade 60 steel minimum will be enforced.

Unless specific engineering is submitted for foundation design, the prescriptive requirements of the International Residential Code, as amended in the MN State Building Code, will be enforced for the design of foundations for one-and two-family dwellings.

In the typical clay type soils found in Hutchinson, exterior foundation walls that retain earth and enclose interior spaces and floors below grade shall be waterproofed at a minimum from the top of footing to the finished grade.

All houses with living space below grade shall be tiled inside and outside of the footing with fall to the sump basket or open air. Minimum of 12 inches of rock over the exterior drain tile is required. An aggregate base of minimum 8 inches with a vapor retarder of 6-mil polyethylene, or approved material, with seams either sealed or lapped minimum 6 inches is required directly beneath the basement slab.

## FRAMING

Foundation anchors must be installed at a maximum spacing of 6 feet on center. Minimum ½" diameter steel anchor bolts, embedded in the concrete foundation minimum 7 inches, within 12 inches of the end of each section of sill plate, and a minimum of 2 bolts per plate section.

Wood in contact with concrete or masonry must be preservative treated or a species naturally decay resistant.

Floor framing parallel to the foundation walls must be blocked and supported in accordance with Section 404.1 of the International Residential Code as amended by the 2007 MNSBC.

The permits, approved plans, engineered drawings, floor/roof truss layout and spec. sheets shall be on site at all times for construction and inspection.

Attached garages shall be separated from the residence and its attic area by not less than ½" 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 separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½" gypsum board or equivalent. Doors between the house and the garage must be not less than 1-3/8" thick solid wood, solid or honeycomb core steel not less than 1-3/8" thick, or a 20-minute fire-rated door.

On exterior walls, insulation, poly, and sheetrock must be installed behind the bath bay prior to the bath bay installation.

Interconnected electric smoke alarms with battery backup shall be provided in all bedrooms, hallways serving bedrooms, and at least one on each level of the house.

Basements and every sleeping room shall have at least one operable emergency escape and rescue opening (egress window). The minimum clear openings of an egress window are at least 20 inches wide and 24 inches high with no less than 5.7 total square feet.

Egress windows shall be located 44 inches maximum from the sill height to the finished floor. Basement window wells over 44 inches deep shall be equipped with a permanently attached ladder or stair.

Window well covers may be used provided no special tools or knowledge is required to open it. Window wells need a minimum clear area of 9 square feet with the smallest dimension being 36 inches.

Stair riser height maximum is 7-3/4", stair tread depth minimum is 10", having no more than 3/8 of an inch overall fluctuation between the greatest and least dimension of each.

Handrails shall be installed between 34– 38 inches high above the plane of the tread nosings and returned to the wall or other approved point of termination. Any stair with four or more risers must have a handrail on at least one side. This includes exterior stairs.

Guards are required where floors, porches, balconies etc. are 30" or more above grade or lower floor. Guards

shall be a minimum of 36" high with spindles spaced so a 4" sphere cannot pass through the opening. This includes the riser space between runs. Guards on the sides of stairs shall not allow a 4-3/8" sphere through.

A 22" x 30" attic access shall be provided to attic area, if attic area being accessed is 30 SQ FT or greater and has 30 inches minimum headroom above attic access.

Bathrooms and water closet compartments shall be provided a window area not less than 3 square feet with not less than one half of that area openable or a mechanical exhaust system providing at least 50 CFM's vented directly to the outside.

### **INSULATION**

Walls, ceiling, floors, crawl spaces, cantilevers, foundations etc. must be insulated to meet approved submitted building envelope requirements.

## **PLUMBING REQUIREMENTS**

### **WATER**

Water services shall be sized to sufficiently supply water to the building in the pressure and quantities required. But in no case less than 3/4 inch nominal. If polyethylene water service is used, a #12 GA. solid copper wire shall be installed with the service line from the curb stop to the water meter for future tracing capability. All water meters shall have an outdoor remote reader installed near the natural gas and electric meters. Contractor must install the wire from the meter to the remote prior to insulating and gyp board. Meter must be a minimum of 12" off of finished floor, mounted securely horizontally, accessible for service, and with a valve mounted on each side.

Water heaters shall be provided with a Temperature and Pressure relief valve and a pipe extension to within 18" of the floor or floor sink.

No more than 3 fixtures, in the same room, can be serviced from a single 1/2" water line.

Water softener installation shall include the installation of a bypass valve at the supply side of the softener. Provide air gap or other approved method at the discharge line from the softener.

City potable water supply shall be protected by means of vacuum breakers, air-gaps, backflow preventers or other approved methods.

### **WASTE DRAIN AND VENT**

A minimum 4" sanitary service is required, with a clean out within 10' of the point where the sanitary sewer enters the building.

Cleanouts are to be provided at the base of all waste stacks.

Joints fastening dissimilar materials must be made of transition couplings.

Glue cap fittings are required on future fixture rough-ins.

Final manometer test is required prior to issuance of Certificate of Occupancy.

## **MECHANICAL REQUIREMENTS**

In 2003 the State Legislature passed State Statute MS 326.992 requiring anyone who contracts to install gas

piping, heating, ventilation, cooling, air conditioning, fuel burning or refrigeration equipment to post a \$25,000 bond and file it with the Department of Labor and Industry, Construction Codes and Licensing Division. This bonding requirement is not covered by the bonding your business may have for plumbing. The City of Hutchinson is obligated to enforce this requirement.

Required fresh air intakes must be sized and ducted. Fresh air must come directly from the outside.

All supply and return ducts must be sealed with an approved tape, caulk, mastic or other approved method at all joint locations.

Clothes dryer and kitchen range exhaust ducts must terminate outside, be smooth metal, and cannot be connected by screws. Flexible transition ducts shall not be concealed in construction or exceed 8 feet.

The AC condensate discharge line must be full size - 3/4", or per manufacturers directions.

Ducts in unheated spaces such as attics, crawl spaces, cantilevers, and garages must be wrapped with a minimum of R-8 insulation and a vapor retarder.

When installing transit heat - drain tile is required beneath the ductwork. Insulate below grade ductwork to R-5 minimum.

Garage Heating - Warm air supply ducts must not be installed for the purpose of heating private garages from any forced air system serving habitable areas.

Fireplace installation shall be inspected at the rough-in stage (fireplace set, framing around it, with gas line pressure test on, and exhaust installed). Installation instructions must be available at time of inspection.

## FUEL GAS

Residential natural gas pressure in the City of Hutchinson is 7" water column (1/4 psi). If increased pressure is needed contact Hutchinson Utilities. (320) 587-4746

As the 2000 International Fuel Gas Code has been adopted by the state, the City of Hutchinson will test gas lines using the 25# 1/2 hour method. Other tests may be considered with prior approval.

All fuel gas appliances require a shutoff valve. These valves are to be located within six feet of the appliance. This includes appliances with shutoff valves already installed in the appliance.

Natural gas piping material – Shall be approved threaded black iron pipe, type K or L copper, galvanized pipe, or flexible stainless steel. All gas piping must be protected from contact with masonry and concrete by a sleeve. Type K or L copper tubing is acceptable with flared fittings. No compression-type fittings are allowed. Copper joints in concealed areas must be brazed to withstand 1000 degrees F temperatures. All other gas pipe joints can not be concealed without an access panel.

Copper fuel gas piping shall be labeled as gas line every 5'-0" and be visible. This is so the copper fuel gas line is not confused with copper water lines.

Gas valves, fittings and piping must be "AGA" approved.