

# Housing/Dwellings

Building permits must be obtained by an owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure (Minnesota Rules 1300.0120).

**PLEASE INCLUDE THE FOLLOWING WITH YOUR PERMIT:**

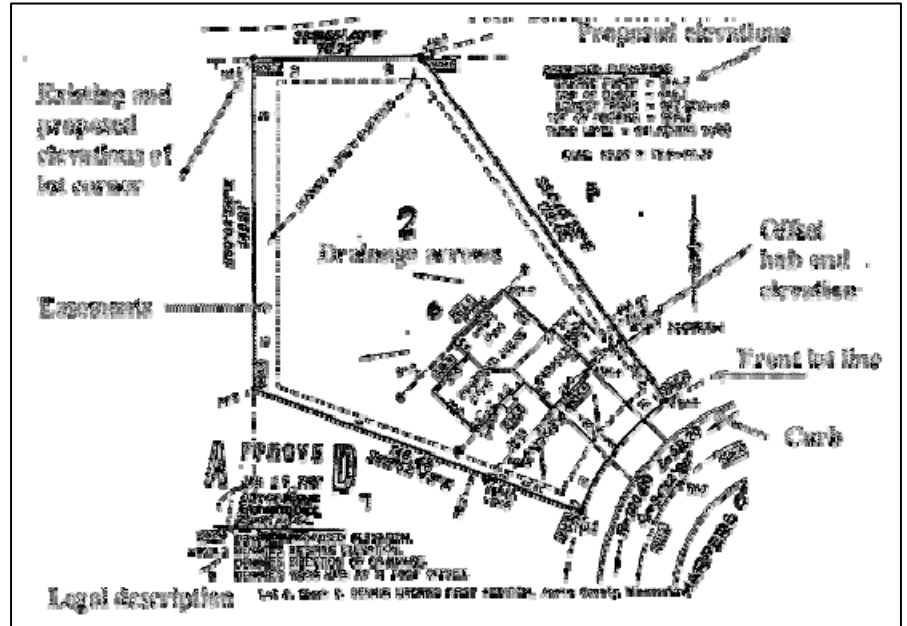
1. Completed **permit form**.
2. **Two copies** of the following building plans (See next page for detailed plan requirements):
  - A. **Site plan**
  - B. **Foundation plan**
  - C. **Floor plans**
  - D. **Exterior elevations**
  - E. **Cross section**
  - F. **Truss design and layout**
3. **Energy envelope calculations** (i.e. REScheck) showing compliance with the Minnesota Energy Code, Chapter 7672. (REScheck is available to download at [www.energycodes.gov/rescheck/download.stm](http://www.energycodes.gov/rescheck/download.stm). A CD-ROM is also available at City Hall with the required software.)
4. **Make-up air/ventilation form** (to be completed by a heating contractor and included in this packet).
5. Complete **septic system design** and evaluation report if applicable.
6. A signed **erosion control document** (included in this packet) agreeing to site erosion control requirements.

This information corresponds to the **2006 International Residential Code (IRC)** as adopted in **Minnesota Rules (MR), Chapter 1309** and applies to the construction, alteration, moving, demolition, repair and use of any detached one- and two-family dwellings as well as townhouses not more than three stories high. Other applicable codes and ordinances of the City of Saint Peter also apply.

## BUILDING PLANS MUST SHOW THE FOLLOWING:

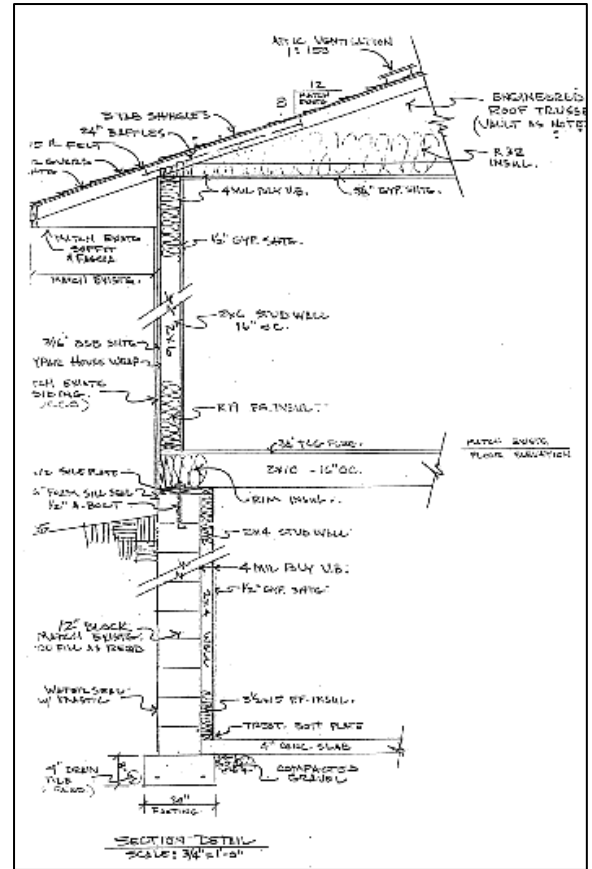
1. **Site plan** showing:
  - A. Full legal description including lot, block and addition name.
  - B. Complete property drawn to scale according to an accurate boundary line survey (If no property corner markers are visible, a certificate of survey is required.)  
Demolition: indicate structures to be demolished and the size and location of structures that are to remain.
  - C. Size and location of new construction and existing buildings.
  - D. Setbacks from all property lines of all existing and proposed structure(s).
  - E. Any easements on the property.
  - F. Established street grades and proposed finished grades.  
New dwellings: indicate difference in elevation between the garage floor and the street.
  - G. Proposed site drainage, driveway size and location.
  - H. Designation of side street for corner lot projects.

(The Building Official may waive or modify the requirement for a site plan if the application for permit is for alteration or repair or when otherwise warranted.)



2. Complete **foundation plan** (floor plan with cross section) showing:
  - A. Continuous and column pad footings.
    1. Width and thickness.
    2. Reinforcement size and placement.
  - B. Foundation wall thickness, height and material. Provide code/maker's design and installation requirements for non-traditional foundations (i.e. ICF and wood foundations).  
The following shall be labeled on the plan:
    1. Wall reinforcement location, size, spacing and point load locations.
    2. Method of damp proofing and drainage.
    3. Insulation (minimum R-5).
    4. Stairways.
    5. Egress window location(s).  
Basements with habitable space.  
Every sleeping room.
    6. Core filling.
    7. Sill plate anchorage type, location and spacing.
    8. Sizes of treated sill plates.

3. **Floor plans**, including:
  - A. Room uses, dimensions and whether room will be finished or not.
  - B. Location of mechanical equipment, including:
    1. Heaters (i.e. furnace, water heater, etc.)
    2. Ventilation (air exchangers, exhaust fans, etc.)
    3. Large appliances (washer, dryer, etc.)
    4. Decorative appliances (gas fireplace, etc.)
  - C. Smoke detector locations.
  - D. Size and locations of bath tub and attic/crawl space access panels.
  - E. Window and door locations and sizes, manufacturer and unit numbers.
  - F. Floor joist sizes, spans and spacing.
  - G. Size of beam supporting joists.
  - H. Sizes and spacing of posts supporting beams.
  - I. Safety glazing and egress window locations.
  - J. Stair and landing locations, dimensions and required lighting.



4. **Exterior elevations**, including:
  - A. All sides of the building.
  - B. Windows and doors.
  - C. Exterior finish.
  - D. Finish grade.
5. **Cross section** from footing to roof, including:
  - A. Footing dimensions, reinforcement and drainage
  - B. Foundation wall material, dimensions, reinforcement, damp-proofing and insulation.
  - C. Grade, distance from grade to bottom of footing and distance to wood framing.
  - D. Sill plate and rim joist type and size as well as rim joist insulation.
  - E. Anchor bolt size, type, location and spacing.
  - F. Floor joist type, span, spacing and sub-floor material.
  - G. Location and spacing of solid blocking or diagonal bracing where foundation walls are parallel to floor framing.
  - H. Wall framing type, height, insulation, headers, air/vapor barrier type and location, interior and exterior wall finishing materials.
  - I. Clear headroom dimensions at all floor levels.
  - J. Brick veneer, air space or lath, wall ties, weep holes and flashing.
  - K. Roof/ceiling framing, attachment to bearing walls, attic insulation, air/vapor barrier and ceiling finish.
  - L. Eave and rake overhang dimensions, energy heel height, wind-wash protection, roof ventilation, insulation baffles and fascia material.
  - M. Roof slopes, ice dam protection, roof underlayment and covering.
6. **Roof and floor truss designs and layout**, including:
  - A. Headers, beams and columns with their sizes.
  - B. Hangers, hold-downs and special attachments.

## REQUIRED INSPECTIONS:

The following inspections shall be obtained during the construction of the building. It is the responsibility of the party doing the work to make arrangements with the building department for inspections (MR 1300.0120):

1. **Footing Inspection**  
Prior to the placement of any concrete, footings must be formed on both sides and have any required reinforcement secured in place.
2. **Framing Inspection**  
To be made after the roof, interior partitions, fire blocking and bracing are in place and all rough plumbing, heating and electrical work has been completed.
3. **Electrical Inspection:** A SEPARATE PERMIT IS REQUIRED.  
Call Chris Gappa, State Electrical Inspector, at 507-317-7289 between the hours of 7:00-8:30 a.m.
4. **Insulation Inspection**  
Insulation and vapor barrier are in place prior to the installation of the wall covering.
5. **Gypsum Board (Sheetrock) Inspection**  
To be made after all material, interior or exterior are in place but before any plastering is applied or gypsum board joints and fasteners are taped and finished.
6. **Plumbing Inspection**  
Underground plumbing pipes must be inspected and air tested before covering with dirt or concrete. Above ground vent and waste pipes must be inspected and air tested before wall covering is applied.
7. **Mechanical Heating System Inspection**  
Ducts and pipes used to convey the source of heat throughout the structure must be accessible and exposed.
8. **Gas Piping Inspection**  
The inspection must be made after gas piping has been installed and before any piping has been covered or concealed. The inspection must include an air pressure test at which time the fuel piping must stand a pressure of not less than 25 pounds for at least 12 hours.
9. **Final Inspection**  
The final inspection is to be made after finish grading and the building is completed and ready for occupancy.



CALL AT LEAST 2 FULL BUSINESS DAYS BEFORE YOU DIG.

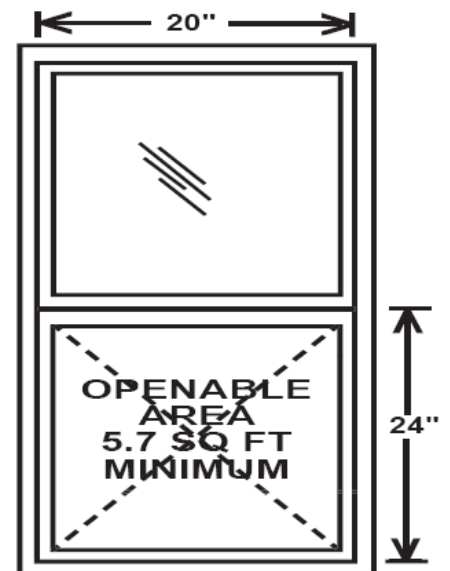
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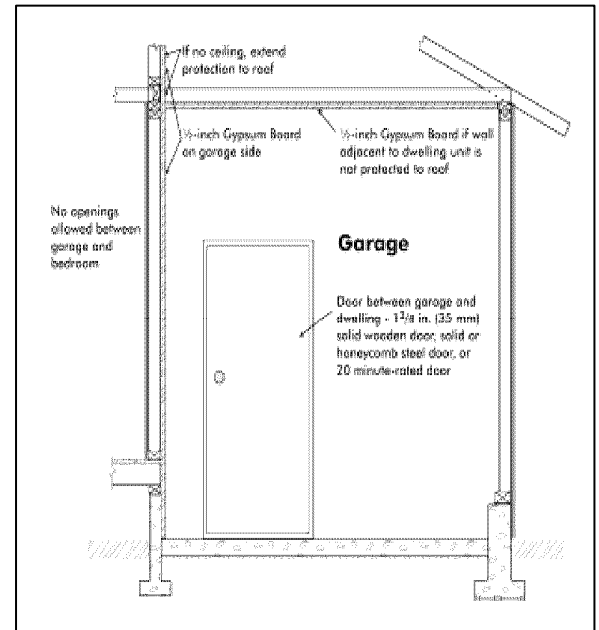
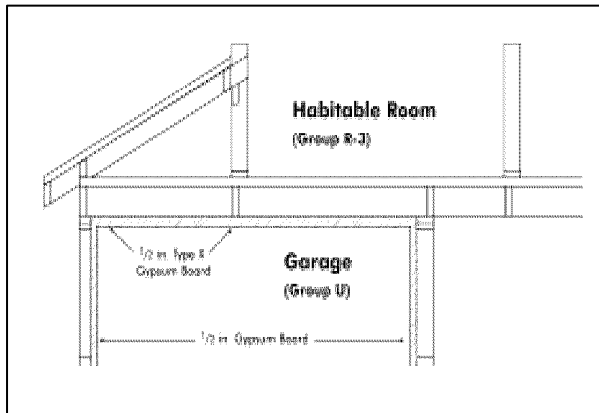
[www.gopherstateonecall.org](http://www.gopherstateonecall.org)

**NEW CONSTRUCTION MUST MEET THE FOLLOWING CODE PROVISIONS:**

1. All **new plumbing** will be required to be air tested as per the Minnesota Plumbing Code (MR 4715).
2. Outside **sill cocks** must be protected against backflow and back-siphonage (MR 4715.2000).
3. Every house shall have the following **plumbing installations** (IRC R306):
  - A. At least one (1) water closet (maximum 1.6 gallons per flush), lavatory, and a bathtub or shower.
  - B. A kitchen area with a sink.
  - C. A hot and cold potable water supply hooked up to applicable fixtures.
4. A shower or combination shower-bath must be equipped with an **anti-scald type shower control valve** (MR 4715.1380).
5. **Gas lines** will require an air test as required in the Minnesota State Code (MR 1346)
6. All **heating units** shall be inspected to meet minimum standards of applicable code(s).
7. All **electrical wire** must be inspected for code compliance (MR 1315).
8. Interconnected **smoke detectors** with battery backup are required (IRC R317):
  - A. In each sleeping room.
  - B. Outside of each sleeping area in the immediate vicinity of the bedrooms.
  - C. On each additional story.
9. **Emergency escape and rescue openings** required (IRC R310):
  - A. In the basement and every sleeping room.
  - B. Net clear open area must be at least 5.7 square feet when the sill is further than 44 inches above or below grade, otherwise the opening must be at least 5.0 square feet.
  - C. The clear opening height must be at least 24 inches, and the clear opening width at least 20 inches.
10. **Landings** are required on each side of each exterior door (IRC R312). They shall be no more than:
  - A. 1.5 inches lower than the top of the threshold.
  - B. 8 inches at exterior doorways, provided that the door, other than an exterior storm or screen door, does not swing over the landing.
11. **Guardrails** (36 inches high) and graspable **handrails** (34 to 38 inches high) must be installed where required (MR 1309.0315 and 1309.0316).
12. **Stairs** must have:
  - A. A riser height not exceeding 8 inches and a tread depth of at least 9 inches (MR 1309.0314).
  - B. Headroom of not less than 6 feet, 8 inches (IRC R314.3).
  - C. Illumination (IRC R314.7 and R303.4).
  - D. A minimum of ½-inch gypsum board under-stair protection if there is enclosed accessible space (IRC R314.8).

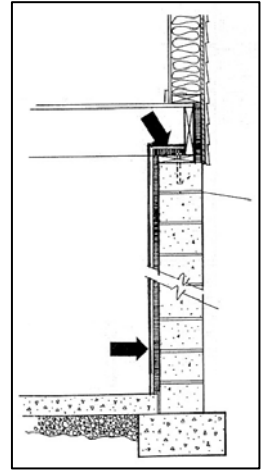


13. An **attached garage** is required to be separated from the house.
- A door in the common wall is required to be 20-minute fire rated or at least 1 $\frac{3}{8}$  inches thick if made of solid wood (IRC 309.1).
  - The house and its attic shall be separated by at least  $\frac{1}{2}$ -inch gypsum board (IRC R309.2).



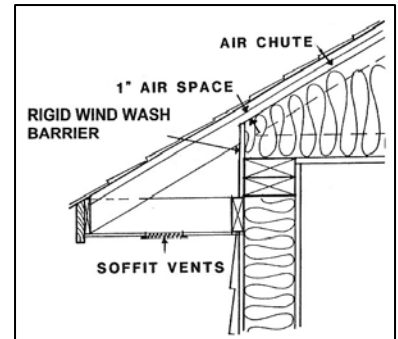
14. A 22-inch by 30-inch **attic access** is required in attics that are at least 30 inches in height (IRC R807.1).
15. **Enclosed attics** and **enclosed rafter spaces** are required to be vented as per IRC R806.
16. The following **roof members** must meet current span and loading requirements:
- All ceiling joists (IRC 802.4).
  - All rafters (IRC R802.5). They must also be able to support a minimum snow load of 35 psf (MR 1303 and 1309).
17. If two (2) or more layers of any type of **roof covering** are on an existing roof, they will have to be replaced to meet current code requirements (IRC R907.3), i.e.:
- Ventilation (IRC R806).
  - Ice & water protection (IRC R905.2.7.1).
18. **Footings** must be sized according to the following (IRC R403):
- Soil type.
  - Number of stories supported.
  - Total loads and point loads from point load path of structure.
  - Frost depth.
19. If **foundation walls** are parallel to floor framing, solid blocking or diagonal bracing must be installed at the anchor bolt locations in the first two joist or truss spaces (MR 1309.0404).
20. **Chimney connectors** must not pass through any floor or ceiling. They must be of approved materials and maintain required clearances where they pass through walls constructed of combustible materials. (IMC 803.10.4)
21. **Room size:**
- Every dwelling unit must have one (1) room with at least 120 square feet of floor area (IRC R304).
  - All habitable rooms must be at least 70 square feet (IRC R304.2).
  - Habitable rooms, hallways, corridors, bathrooms, toilet rooms, and basements must have a ceiling height of at least 7 feet (MR 1309.0305).
22. All habitable rooms must be supplied with natural **lighting** equaling at least 8 percent of its floor area and natural **ventilation** equaling at least 4 percent or approved mechanical ventilation capable of providing 0.35 air changes per hour (IRC R303).

23. **Address numbers** must be installed which are (IRC R325):
- A. At least three inches in height.
  - B. Contrasting in color to their background.
  - C. Placed on the front of the building, visible from street.
24. **Flash** the following with sheet metal or other approved flashing (MR 1309.0703):
- A. At top of all exterior window and door openings.
  - B. At the intersection of chimneys with frame walls.
  - C. Under and at the ends of masonry, wood or metal copings and sills.
  - D. Continuously above all projecting wood trim.
  - E. Where the porches, decks or stairs attach to wood-frame construction.
  - F. At wall and roof intersections.
  - G. Where exterior material meets in other than a vertical line.
25. **Foam plastic insulation** must comply with the following:
- A. It must have a flame-spread rating of not more than 75 and a smoke-developed rating of not more than 450 (IRC R318.1.1).
  - B. It must be separated from interior habitable spaces of the building by minimum 1/2-inch gypsum board (IRC R318.1.2).

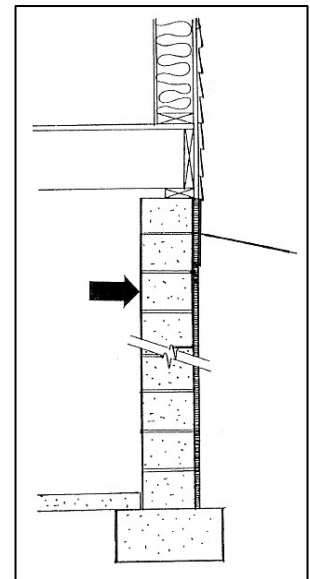
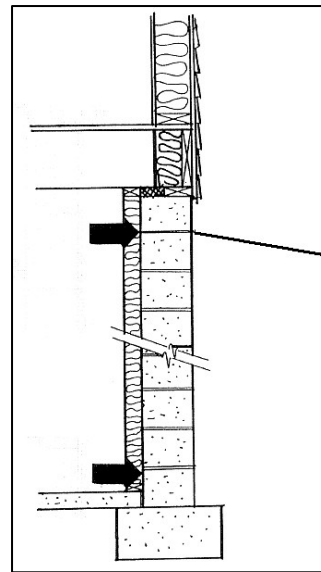


26. The provisions of the **Minnesota Energy Code (MEC), Chapter 7672**, including:

- A. Where eave or cornice vents are installed, insulation must not block the free flow of air. A minimum 1 inch of **air space** shall be provided between the insulation and the roof sheathing. Insulated ceilings must have a **vertical clearance** of not less than 6 inches from the outside edge of the exterior wall top plate to the roof sheathing and not less than R-19 insulation at the inside edge of the top plate. A rigid **wind-wash barrier** must be attached to the top plate and extend to the underside of the roof truss top chord

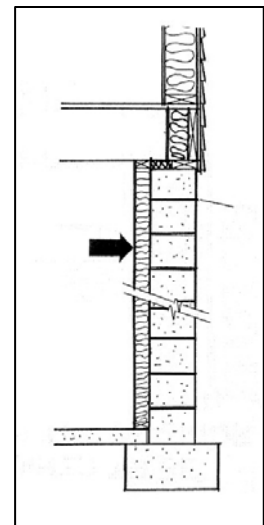


- B. A **moisture barrier** is required on the foundation wall from basement floor to exterior grade level. The application of the moisture barrier at the foundation wall above grade is optional. **Interior** foundation wall insulation must not be less than R-5 from the top of the wall down to the top the **floor**.

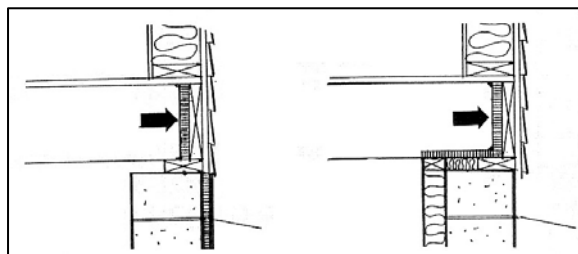


- C. A **moisture barrier** is not required on the interior face of the foundation wall if the insulation is on the exterior face of the foundation wall. **Exterior** foundation wall insulation must not be less than R-5 from the top of the wall down to the top the **footing**.

- D. A **vapor retarder** must be installed on the warm side of the foundation insulation. It is not required to be sealed at the top, sides, bottom or penetrations. An interior air barrier is not required at this location



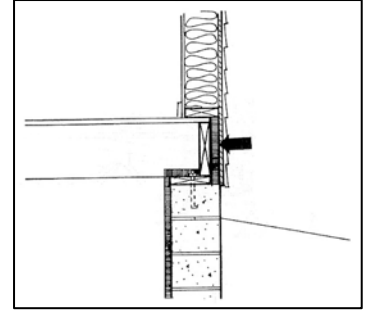
- E. A **vapor retarder** must be installed on the warm side of the floor rim joist insulation. It is not required to be sealed unless it also serves as the interior air barrier, which is required to be sealed.



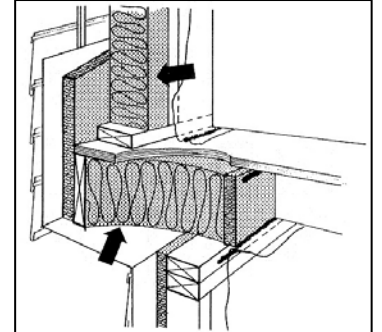


- F. **Rim joist insulation** need only be applied between the floor joists or trusses.

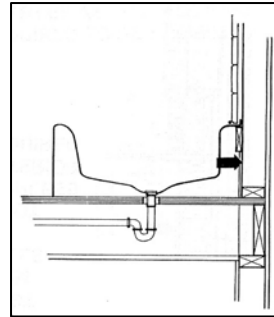
Foam plastic insulation may also be installed between the ends of the floor joists or trusses and the exterior wall sheathing material as long as all framing requirements are met.



- G. Special care must be taken to ensure that **floor cantilevers** have a continuous warm-side vapor retarder and air barrier as well as adequate insulation.

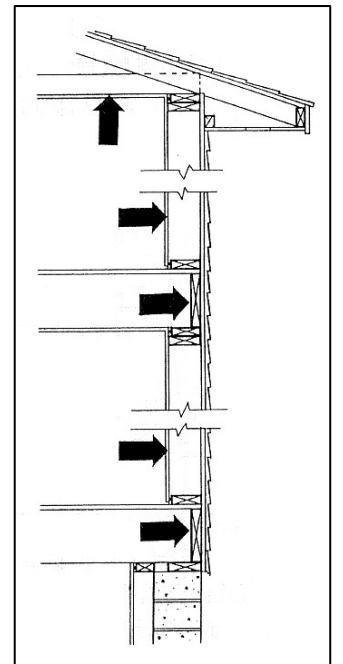


- H. Prior to installing a tub, shower or spa located at an exterior wall, a **vapor retarder** must be installed. It must be covered to protect against physical abuse.



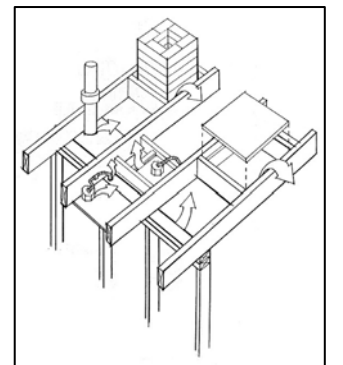
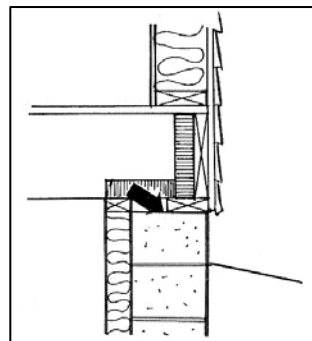
- I. A sealed, continuous interior **air barrier** must be installed on the warm side of the building envelope.

“Seal” means to secure at all edges, joints, openings and penetrations of barrier materials in a permanent manner to resist the passage of air and airborne moisture into the building envelope. Sealants must be compatible with substrate and other materials being sealed.

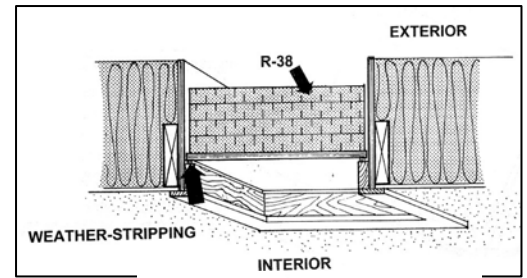


- J. Exterior wall intersections of wood, masonry and other dissimilar materials must be sealed to maintain continuity of interior **air barrier**.

- K. All **penetrations** installed through the interior air barrier must be sealed prior to the framing inspection. This would include pipes, ducts, wires, equipment, flues and chimneys.



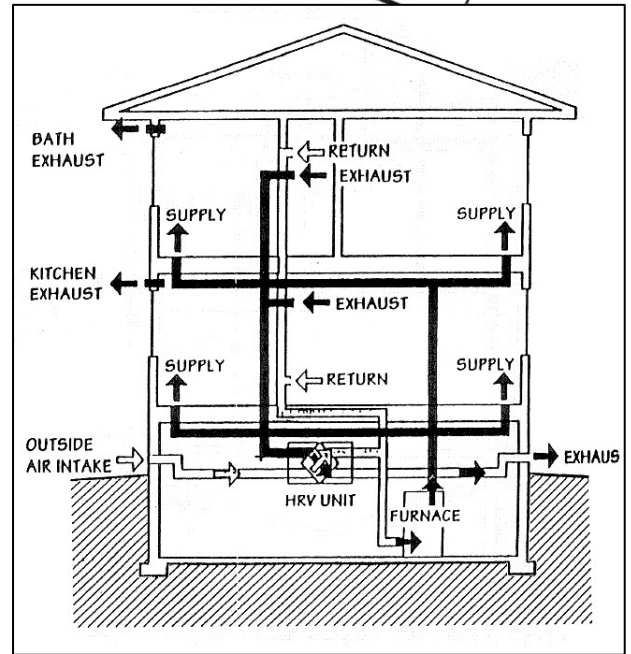
- L. **Attic access panels** must be insulated to a minimum R-38 for ceiling panels and R-19 for wall panels and must be weather-stripped.



- M. A completed **insulation receipt attic card** must be attached to the framing near the attic access. It must identify the type of insulation, the manufacturer, the R-value, the installer, the design settled thickness, the square footage of coverage area, and the number of bags installed. It must be signed and dated by the installer.



- N. All new residential buildings must be equipped with a **residential ventilation system** meeting the requirements of MEC 7672.1000 subparts 3 through 6 or subpart 7. Exhaust requirements for kitchens and baths are provided by the Minnesota State Mechanical Code.



**ADDITIONS AND ALTERATIONS MUST ALSO COMPLY WITH THE FOLLOWING:**

1. Minnesota Energy Code (MEC) part 7672.1200.
2. If converting from a different occupancy and energy use is not greater than the prior occupancy, there are no requirement changes. If energy use is greater, then compliance with MEC Chapter 7672 is required and may be demonstrated in one of three ways:
  - A. The addition alone.
  - B. The addition together with the entire existing building.
  - C. The addition together with energy improvements or remodeling other components of the building as part of the same permit.
3. MEC 7672.1000 requires a residential ventilation system.
4. If the alteration reduces air leakage, then combustion air is required in the altered area per the Minnesota Mechanical Code.
5. Roof and ceiling alterations require:
  - A. Ventilation as per IRC R806.
  - B. Attic insulation may not be installed unless accessible attic bypasses have been sealed.
  - C. When an uninsulated attic is finished, the insulation at the sloped ceiling must not be less than R-18.
  - D. Alterations comprising the removal of at least 50 percent of an existing membrane or built-up roof covering must provide for a maximum U-value of 0.033 (R-value of R-30 or greater).
6. Storm windows may be installed over existing glazing without meeting the requirements of MEC Chapter 7672.
7. Re-glazing and repairs to existing windows are not required to meet MEC Chapter 7672.
8. Interior wall finish may not be replaced unless wall cavities have been insulated to full depth. This item shall apply whenever plaster is removed, even though lath may not have been removed. Exception: Walls that are back-plastered, walls that are more than 50 percent filled with insulation and walls without framing cavities. Small openings for purposes of installing, altering or repairing plumbing, electrical and mechanical systems are also excepted.
9. A vapor retarder is not required if the interior wall finish is not removed.
10. New HVAC equipment must meet federal minimum efficiency requirements.
11. Provision must be made to limit excessive depressurization in buildings with fuel burning appliances according to MEC 7672.900 subpart 8.



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