

City of Stillwater Stillwater, Minnesota

RESIDENTIAL ADDITIONS Information Sheet

Building Permits

- A. **Survey or scale drawing** must be submitted by owner or applicant. The following must be indicated:
1. Lot size and all adjacent public streets and buildings;
 2. Exact location and dimensions of all existing and proposed buildings and impervious surface on lot;
 3. Owner must be able to show corner irons on the site to the satisfaction of building inspector;
 4. Statement of elevation where elevation is not shown on survey.
- B. **Two sets of plans** - Submitted plans must have sufficient detail to build the addition from them. A plan view, section view and elevations are required; all drawn to scale. Indicate all materials and sizes being used.
- C. **Permit Application** must be completed. Be sure you add your daytime phone number.
- D. **Certificate of Occupancy** is issued to owner upon completion and approval of the Building Official. Addition must not be occupied until the Certificate of Occupancy is received.
- E. **Fees**
1. **Building Permit fee** is based on the valuation of the project (labor and materials) and per the fee table adopted by resolution.
 2. **Surcharge** on all building permits is required by the State of Minnesota and calculated: \$0.0005 X Valuation up to \$1,000,000.
 3. **Plan Checking fee** equal to 65% of the Building Permit fee is required when valuation of proposed construction exceeds \$1,000.00 and a plan is required to be submitted.

Other Permits

Separate plumbing, heating, fireplace and electrical permits are required for each type of work being done.

Setback Requirements

The City of Stillwater is divided into zoning districts. Please call the Community Development Department at 651-430-8820 for information on the zoning district you are located in and the regulations for use and setbacks in the zoning district you are located in.

Note: Maximum impervious surface coverage of **ALL**

buildings, decks, driveways, walks, patios, etc. may not exceed 30 percent of the lot area.

Framing Requirements

- A. **Base Plates** on concrete shall be of approved treated wood.
- B. **Studs** Minimum 2 X 4 studs, not more than 10' in length, maximum 24" O.C. single spacing. If only one top plate is used, trusses or rafters must bear over studs (1" tolerance allowed).
- C. **Rafters and Roof Sheathing** shall be designed for a 40 lb./sq. ft. live load. Trusses must be engineered by an approved manufacturer. Truss specs must be on-site.
- Collar ties are installed at a maximum of 4 feet within the top third of the rafters.
- D. **Allowable Header Spans** for openings in outside bearing walls on one story frame buildings, assuming a 16' wide addition and a 2' overhang. Spans are both Spruce-Pine-Fir and Hem-Fir.

Quantity	Size in Inches	Maximum Span of Header
2	2 X 6	4 feet
2	2 X 8	6 feet
2	2 X 10	7 feet
2	2 X 12	8 feet

Allowable Rafter Spans for roofs with a pitch of 3-12 or greater; assumes a "dead load" of seven pounds per square foot (PSF) and a deflection limit of 1/180 (span in inches divided by 180).

Spruce-Pine-Fir (SPF) #2 or better

Rafter Size	Ceiling Type					
	Flat	Vaulted	Flat	Vaulted	Flat	Vaulted
	12"OC	12" OC	16" OC	16"OC	24" OC	24"OC
2 x 6	12'-8"	11'-9"	11'-0"	10'-2"	9'-0"	8'-4"
2 x 8	16'-1	14'-10"	13'-11"	12'-11"	11'-5"	10'-6"
2 x 10	19'-8"	18'-2"	17'-0"	15'-9"	13'-11"	12'-10"
2 x 12	22'-9"	21'-1"	19'-9"	18'-3"	16'-1"	14'-1"

Hem-Fir #2 or better

Rafter Size	Ceiling Type					
	Flat	Vaulted	Flat	Vaulted	Flat	Vaulted
	12"OC	12" OC	16" OC	16"OC	24" OC	24"OC
2 x 6	12'-6"	11'-5"	10'-10"	10'-0"	8'-10"	8'-2"
2 x 8	15'-10"	14'-8"	13'-9"	12'-8"	11'-3"	10'-4"
2 x 10	19'-4"	17'-11"	16'-9"	15'-6"	13'-8"	12'-8"
2 x 12	22'-6"	20'-9"	19'-5"	18'-0"	15'-11"	14'-8"

E. Allowable Ceiling Joist Spans

Assumes limited attic storage (20PSF) and drywall ceilings.

Joist Size	Spruce-Pine Fir #2			Hem-Fir #2	
	16" OC	24" OC	16" OC	24" OC	
2 x 6	12'-10"	10'-6"	12'-8"	10'-4"	
2 x 8	16'-3"	13'-3"	16'-0"	13'-1"	
2 x 10	19'-10"	16'-3"	19'-7"	16'-0"	

F. Allowable Joist Spruce Spans

Assumes limited attic storage (20PSF) and drywall ceilings

Joist Size	Spruce-Pine Fir #2			Hem-Fir #2		
	12"OC	16" OC	24" OC	12"OC	16" OC	24"OC
2 x 6	10'-3"	9'-4"	8'-1"	10'-0"	9'-1"	7'-11"
2 x 8	13'-6"	12'-3"	10'-3"	13'-2"	11'-0"	10'-2"
2 x 10	17'-3"	15'-5"	12'-7"	16'-10"	15'-2"	12'-5"
2 x 12	20'-7"	20'-10"	14'-7"	20'-4"	17'-7"	14'-4"

G. Allowable Joist Spans

Joist Size	Spruce-Pine Fir #2			Hem-Fir #2		
	12"OC	16" OC	24" OC	12"OC	16" OC	24"OC
2 x 6	10'-3"	9'-4"	8'-1"	10'-0"	9'-1"	7'-11"
2 x 8	13'-6"	12'-3"	10'-3"	13'-2"	11'-0"	10'-2"
2 x 10	17'-3"	15'-5"	12'-7"	16'-10"	15'-2"	12'-5"
2 x 12	20'-7"	20'-10"	14'-7"	20'-4"	17'-7"	14'-4"

Sheathing

Subfloor and Roof Sheathing may be of approved wood structural panels (plywood, oriented strand board). Panels must be installed continuous over two or more spans with long dimension perpendicular to supports.

Panel ID Index	Plywood Thickness in Inches	Maximum in Inches		
		Roof Span (with edges) Blocked		Floor Span
24/0	3/8	24	16	0
24/0	1/2	24	24	0
30/12	5/8	30	26	12
32/16	1/2, 5/8	32	28	16
36/16	3/4	36	30	16

Wall Sheathing may be of approved, plywood, fiber board, gypsum, hardboard panels or 1" boards which would require diagonal bracing at corners and at 25' intervals. Fiberboard may not be used where studs are 24" O.C.

Light, Ventilation and Ceiling Height

All habitable rooms shall have a window area equal to at least eight percent of the floor area. The minimum openable area to the outdoors shall be 4 percent of the

floor area being ventilated.

NOTE: Some exceptions apply.

Minimum ceiling height for habitable spaces is 7 feet, with exceptions for beams and sloped ceilings.

Additions over Garages

Fire separation is required. The underside of the floor joists and/or truss members require 5/8 inch type X gypsum. Walls supporting the joists and/or truss ends and the wall separating the house from garage require 1/2 inch gypsum.

Energy Code Requirements

Additions and alterations to homes built prior to April 15, 2000, must include methods, materials and mechanical equipment to meet the provisions of the current Minnesota Energy Code.

Crawl Space

Minimum depth between joist bottom and ground is 18". Ground must be covered with an approved vapor barrier. Space shall be ventilated either to basement or outside. If the crawl space is vented to the outside, the floor below the heated space must be insulated to R-30. Minimum net free access to the crawl space must be at least 18" X 24". This access, if unobstructed, may also serve as a vent for areas up to 250 sq. ft. provided the perimeter foundation wall is insulated. If foam plastic insulation is used, it must be of an approved type or be covered with gypsum wallboard or an equivalent thermal barrier.

Attic Ventilation

Attics above heated spaces must be provided with ventilation equivalent to 1/300th of the attic area, equally distributed between soffit vents and high roof or ridge vents.

Flashing

Required over all exterior exposed opening. Flashing must be designed to shed water **away** from the building wall. When installing vinyl siding, manufacturer's installation instructions **must** be followed.

Water resistive sheathing paper

A minimum of one layer of No. 15 asphalt felt or other approved water-resistive material shall be applied over sheathing of all exterior walls. Lap a minimum of 2 inches horizontally and 6 inches vertically at joints.

Note: Not required for detached accessory building or when specifically prohibited by sheathing and/or siding manufacturer.

Crickets

Chimneys greater than 30 inches wide require crickets.

Valley Flashing

Minimum 26-gauge galvanized steel extending at least 24 inches wide. Underlayment material required.

Kickout Flashing

Kickout flashing shall be installed where the lower portion of sloped roof stops within the plane of an intersecting wall cladding to direct water away from wall assembly.

Shingles

Shall not be installed on roofs with a slope of less than 2-12.

Ice Barrier/Roof Starter Material

A manufactured ice barrier protection membrane shall be installed to a point no less than 24" inside the exterior wall line. This product **must** be installed per the manufacturer's instructions.

***See Roofing Information Handout for more specific details**

Sleeping Rooms

Every sleeping room shall have an exterior door or an egress window meeting all these requirements:

- A. Sill height - not more than 44" above the floor.
- B. Clear openable area - not less than 5.7 square feet.
- C. Opening height - not less than 24".
- D. Opening width - not less than 20".

If this egress window is below exterior grade, then a window well is required. The well must provide a minimum nine square feet net clear opening with the window open and a minimum 36" X 36" area from the open window to the well. (*See Egress Window handout.*)

Foam Plastic Insulation

Shall be an approved type or covered with ½ inch gypsum board or equivalent material. Exposed foam plastic insulation is not allowed in any room, including crawl spaces and attics. (Exception: Spray foam in the rim joist area, not exceeding 5-12/ inches thick and having a flame spread of 25 or less and smoke development 450 or less.)

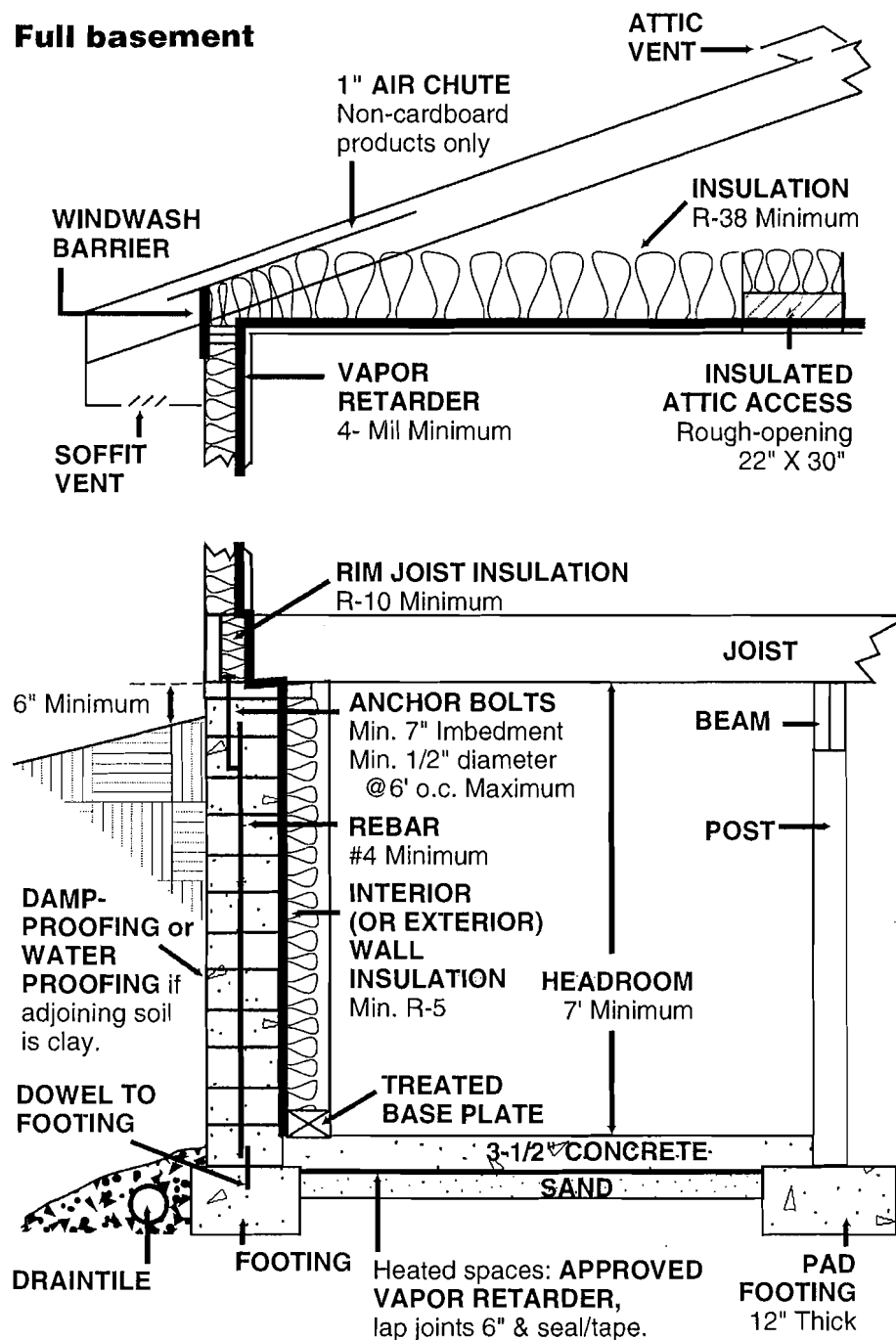
Fire/Smoke Alarm System

When alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or

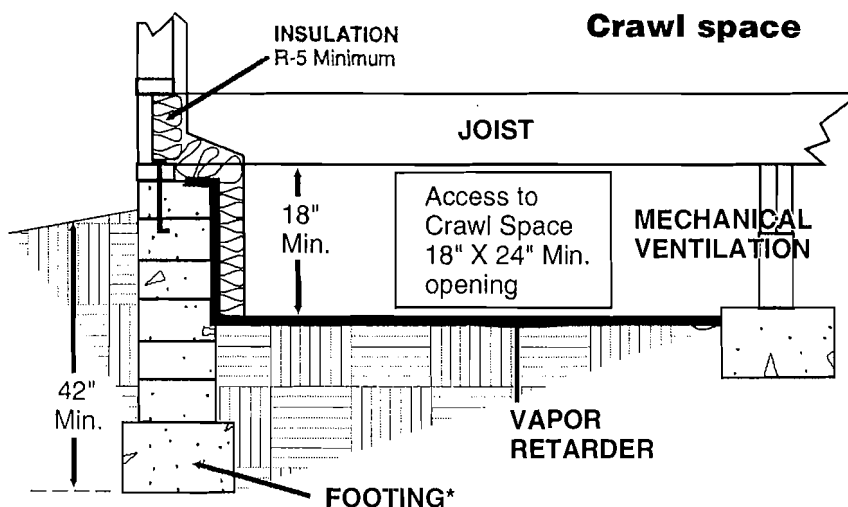
created in existing homes, the entire building shall be provided with smoke detectors as required for new homes. This includes the installation of a smoke detector in the basement of houses, in all sleeping rooms and hallways leading to sleeping rooms. Smoke detectors may be battery operated when installed in existing buildings unless walls and ceilings are open and new wiring is being installed. In that case, smoke detectors must be "hard wired"

This pamphlet is a guide to the most common questions and problems. It is not intended nor shall it be considered a complete set of requirements.

Full basement



Crawl space



*Note: Submit soil type on plans submitted for permit.

Inspections needed

- ☐ **Footing:** When footing is excavated and formed or slab is formed and sand cushion and reinforcement are in place but before placement of any concrete.
 - ☐ **Poured foundation walls:** Prior to pour. All reinforcing must be in place and secured by time of requested inspection.
 - ☐ **Foundation walls of concrete, block or wood:** Prior to backfill. The drain tile system is in place. dampproofing and/or waterproofing are completed. Any proposed exterior insulation is installed to manufacturer's specifications. The walls shall have sufficient strength and be anchored to the floor above or be braced to prevent damage by the backfill.
 - ☐ **Rough-in:** For any plumbing, heating or electrical work that is involved.
 - ☐ **Water resistive barrier:** Prior to installing siding.
 - ☐ **Framing:** When all framing is complete, all mechanicals installed, but before insulating.
- Note:** Rough-in inspections for all trades must be approved and signed off on the orange permit card before a framing inspection will be performed.
- ☐ **Insulation:** When all wall insulation is in place and ceiling and wall vapor barriers are in place.
 - ☐ **Fireplace:** Masonry smoke chamber inspections are required before the placement of flues.
 - ☐ **Final:** When all work is complete and before occupancy.
- Note:** Final inspections for all trades must be approved and signed off on the orange permit card before a building final inspection will be conducted.