



# Residential Addition Construction Requirements



## City of Roseville MI

Revised February 2007

## PERMITS AND INSPECTIONS

### Before you begin:

- R105      **Permit Required:** A permit shall be obtained before beginning construction, alteration or repairs.
- R105.5    **Expiration:** Every permit issued by the Building Official under the provisions of this code shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within six (6) months from the issue date of the permit, or if the building or work authorized by such permit is suspended or abandoned at any time after work is commenced for a period of six months.
- R106      **Plans Required:** When required by the Building Official, plans shall be drawn to scale and shall be of sufficient clarity to indicate the nature and extent of work proposed and shall show in detail that it will conform to the provisions of this code and all relevant laws, ordinances, rules and regulations.
1. Two copies required of each drawing
  2. Size: Minimum 8½” x 11”, Maximum 24” x 36”
  3. Must be drawn to scale.
  4. Must contain sufficient clarity and detail to show the nature and character of the work to be performed.
  5. Plan review fee must be paid when plans are submitted.

### **TYPE OF PLANS REQUIRED:**

1. Site Plan, new homes also require survey if lot has not been previously platted.
2. Wall section, foundation to roof
3. Floor Plan, must indicate room dimensions, location and sizes of all doors and window openings.
4. Existing house floor plan.
5. Elevations, required for new homes.

### **PERMITS REQUIRED:**

1. Building Permit (covers structural work only)
2. Plumbing Permit (covers installation of plumbing only)
3. Mechanical Permit (covers installation of heating and air conditioning equipment, piping and ductwork.)

4. Electrical Permit (covers installation of electrical work only)
5. For new homes only or new water and sewer service: Water and sewer taps (tap fees must be paid at the same time as Building Permit).
6. All cement work including approaches and city sidewalks and curb cuts, require separate permit from the Engineering Department.
7. Homeowner's permits (one each for building, plumbing, mechanical and electric) may be issued to owner if they live in house that work is being done on. Under Home-owner's permit, homeowner takes all responsibility for work. Pursuant to State Law, the owner must also be the occupant.

## WEATHER CARD MUST BE POSTED ON SITE

**Performance Bond – Right of Way:** No work shall be performed in any right of way unless a performance bond shall have been obtained from the City of Roseville. For information on bonds, contact the City of Roseville Engineering Department at (586) 445-5445. (Ordinance #115, Chapter 290, Article 1).

Before digging underground or working near overhead wires, you must call **MISS DIG toll free at 1-800-482-7171**. Call at least three (3) working days in advance of starting your project.

## INSPECTIONS

1. Required inspections (Check with individual inspector for each type of permit).
2. It is the responsibility of the permit holder to call for all inspections at least 24 hours in advance.
3. All inspections will be either A.M. (9:00-12:00) or P.M. (12:00-4:00) unless special arrangements are made with the individual inspector. Inspectors are normally in the office 8:00 – 9:00 and 3:30 – 4:30.

## ZONING

### New Buildings and Additions

#### Article 19 Yard Requirements:\*

Front yard – minimum 25 feet.

Rear yard – minimum 35 feet

Side yard – Total 15', minimum 5' (for lots 55' or more at the building line)

Total 14', minimum 4' (for lots less than 55' at the building line)

\*Maximum % lot area covered by all buildings:

Lots containing less than 5500 square foot, 35%

Lots containing 5500 square foot or more, 30%

**Building Height:** The vertical distance measured from the established grade to the highest point of the roof. Maximum height of dwelling unit in R-1 District is Twenty-Five (25) Feet.

Maximum height of detached accessory structures is Fifteen (15) Feet.

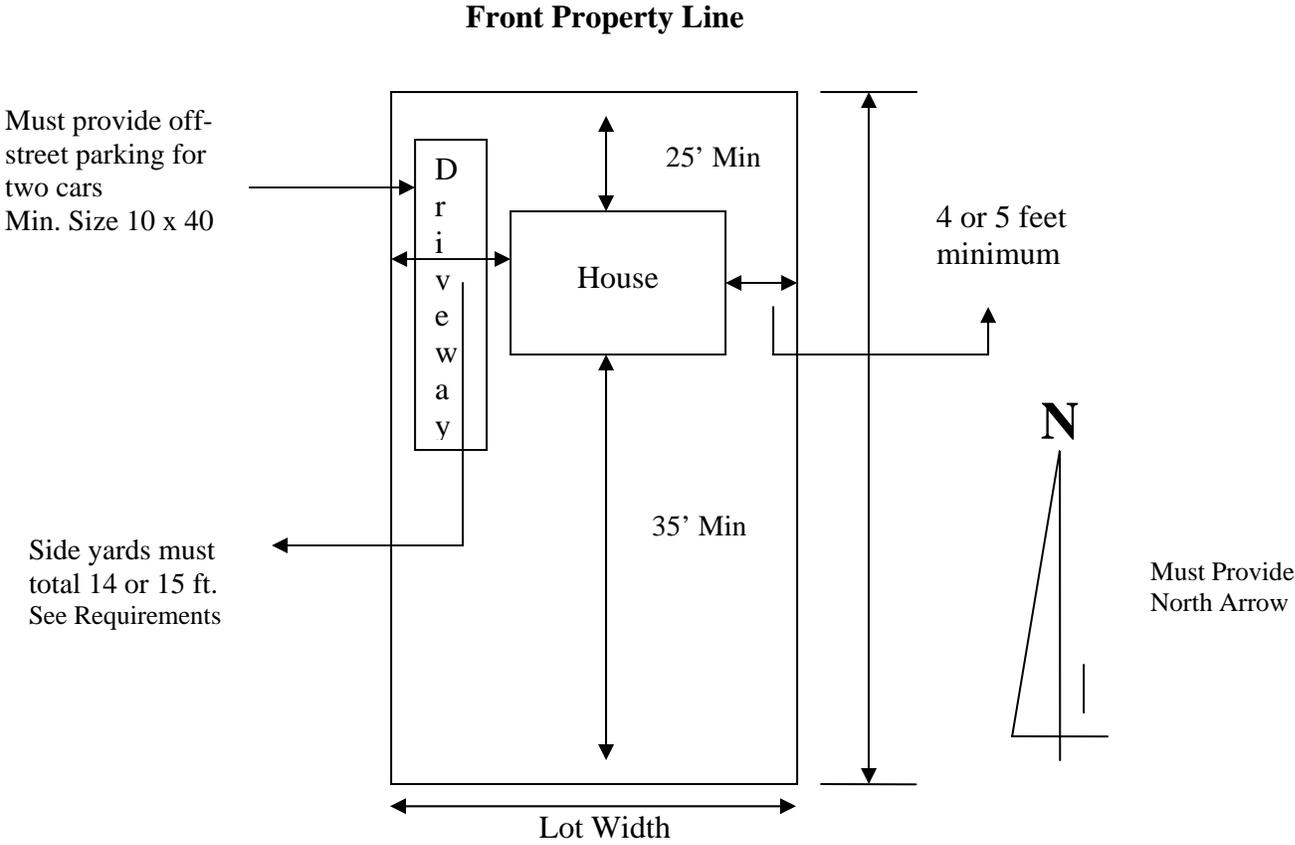
**Building Exterior:** All dwelling units shall be provided with exterior finish materials similar to the dwelling units on adjacent properties and surrounding neighborhood.

## BUILDING PLANNING

R-303.1 **Light and Ventilation:** All habitable rooms shall be provided with aggregate glazing area of not less than 8% of the floor area of such rooms. One half of the required area of glazing shall be openable.

R-304 **Room Sizes:** Every dwelling unit shall have at least one habitable room which shall have not less than 120 square feet of floor. **\*Habitable room shall have an area of not less than 50 square feet of floor area. Habitable rooms, except kitchens, shall be not less than seven feet in any horizontal dimension.**

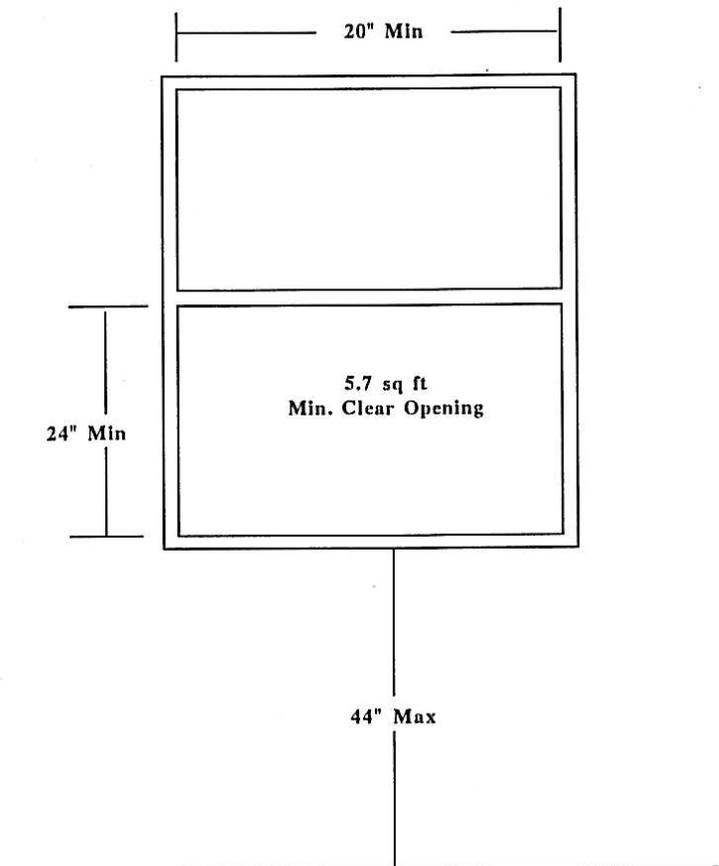
# YARD REQUIREMENTS



\*For information on Corner Lots  
See Inspector

R-305 **Ceiling Height:** Habitable rooms, including basements, kitchens, baths and hallways shall have a ceiling height of not less than seven (7) feet measured to the lowest projection from the ceiling. Basements without habitable spaces shall not be less than six (6) feet, eight (8) inches.

R-310 **Emergency Egress Opening:**



R-310 **Emergency escape:** Basements with habitable spaces and every sleeping room shall have at least one operable window or exterior door approved for emergency egress or rescue. The units shall be operable from the inside without the use of separate tools. Where windows are provided as a **means of egress or rescue**, the windows shall have the bottom of the clear opening not more than 44 inches (1118mm) above the floor. All egress or rescue windows from sleeping rooms shall have a minimum net clear opening of 5.7 square feet (9.53m<sup>2</sup>). The minimum net clear opening height dimension shall be 24 inches (610mm). The minimum net clear opening width dimension shall be 20 inches (508mm).

Bars, grilles or screens placed over emergency escape windows shall be releasable or removable from the inside without the use of a key, tool or excessive force.

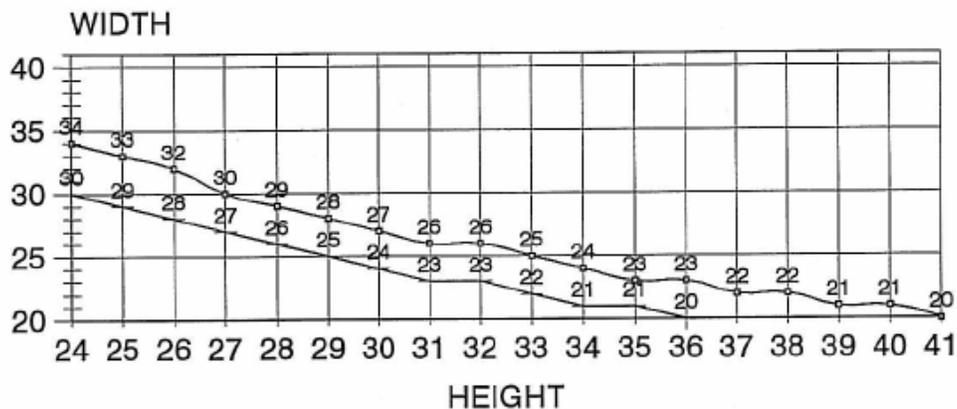
### Exceptions:

1. The minimum net clear opening for grade floor windows shall be 5 square feet (9.47m<sup>2</sup>)
2. An outside window or an exterior door for emergency escape is not required in building where the sleeping room is provided with a door to a corridor having access to two remote exits in opposite directions.
3. An outside window or an exterior door for emergency escape is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 1004.2.1 or 1004.2.2.

## Bedroom Emergency Egress

### Required Clear Opening Size of Egress Window (MIN. TOTAL AREAS OF 5 & 5.7 SQ FT)

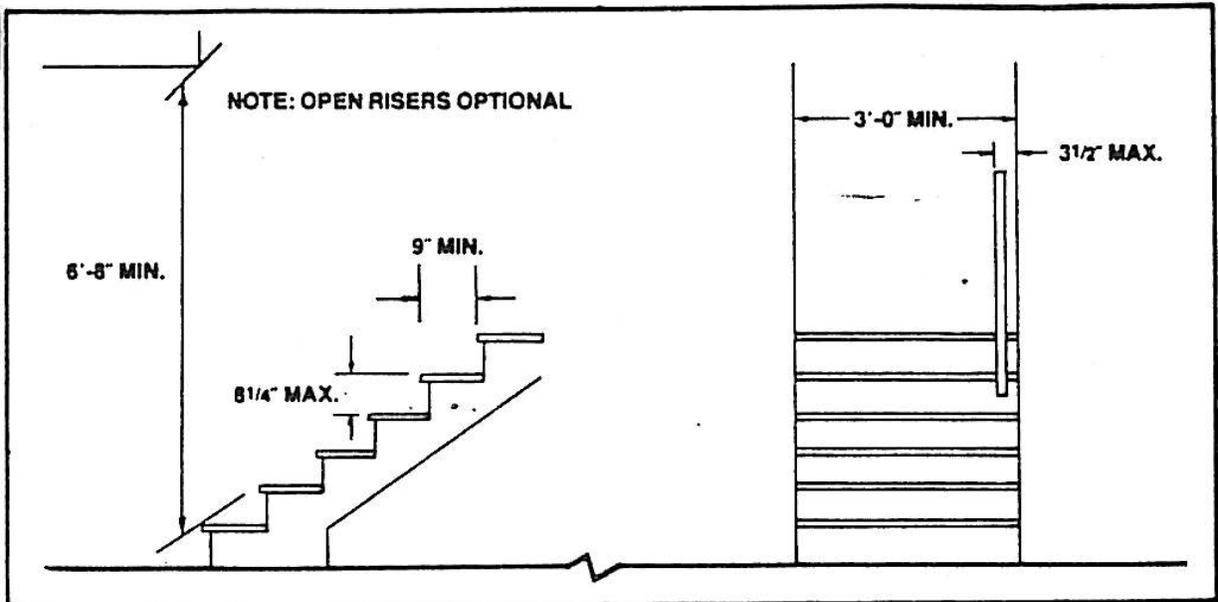
5.7 SQ FT & 5 SQ FT  
—○— Series 1 + Series 2



(SIZES ARE IN INCHES)

- R-311 **Doors and Hallways:** The required exit door shall be a side-hinged door not less than three (3) feet in width and six (6) feet, eight (8) inches in height. \*The minimum width of a hallway or exit access shall be not less than three (3) feet.
- R-311 **Landings:** A minimum three (3) foot by three (3) foot landing shall be required on each side of an egress door.
- R-313 **Smoke Alarms:** Interconnecting hardwired smoke detectors with battery backup shall be required:
1. In every sleeping room.
  2. Outside each sleeping area
  3. On each additional story including basement.

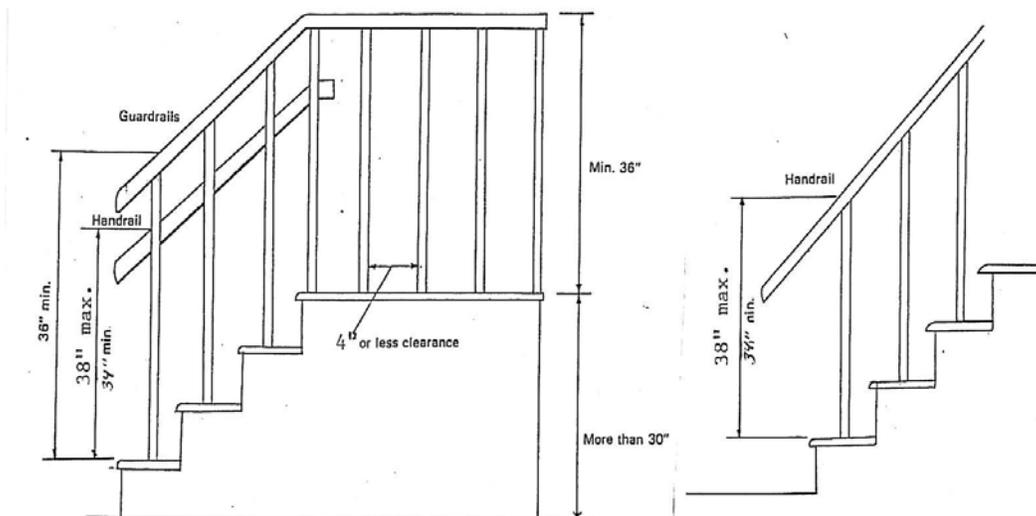
- R-311.5 **Stairways** Minimum tread – nine (9) inches  
 Maximum rise – eight and one quarter (8¼ inches)  
 Minimum width – three (3) feet



**Handrails and Guardrails:**

- R-311.5.6 \***Handrails:** Handrails having minimum and maximum heights of 34 inches and 38 inches respectively, measured vertically from the nosing of the treads, shall be provided on at least one side of stairways of three or more risers.

- R-312 **Guardrails:** Porches, balconies or raised floor surfaces located more than 30 inches above the floor or grade below shall have guardrails not less than 36 inches in height.



R-403 **\*Footings:** All exterior walls, bearing walls, columns and piers shall be supported on continuous solid masonry or concrete footings, wood foundations or other approved structural systems which shall be of sufficient design to support safely the loads imposed.

Minimum depth – 42 inches  
Minimum width - 12 inches

R-408 **\*Crawl Space:**

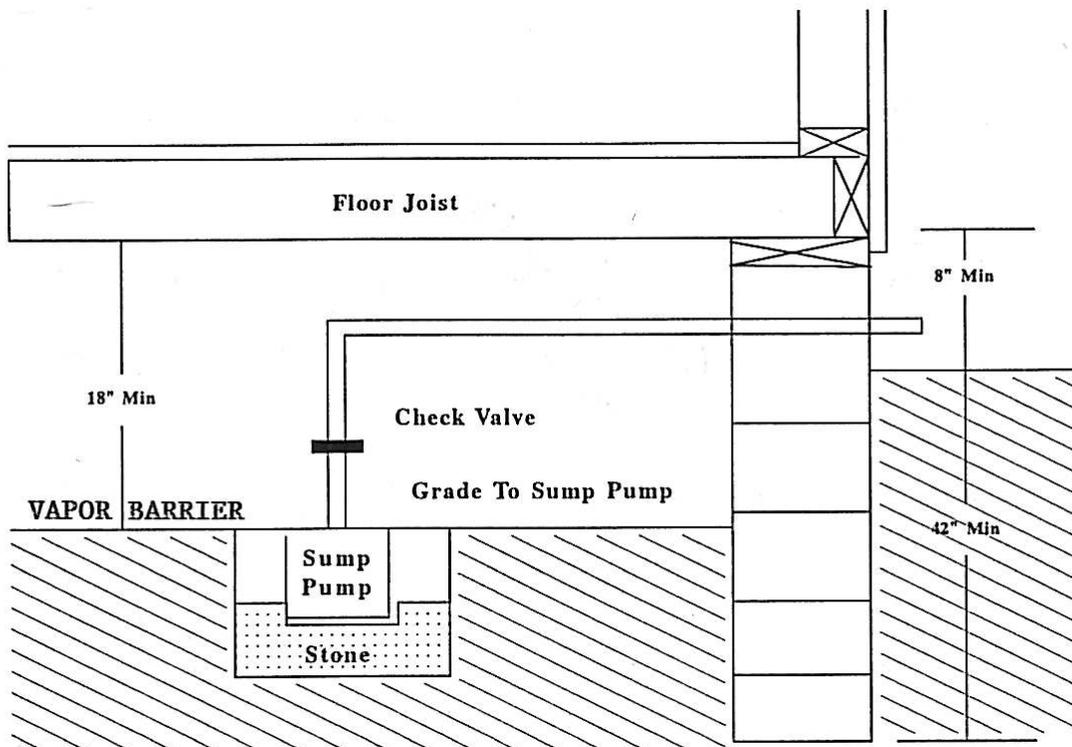
**\*Depth:** Minimum depth – 18 inches

**\*Ventilation:** The minimum net area of ventilation opening shall be not less than one (1) square foot for each 150 square feet of crawl space area. One such ventilating opening shall be within three (3) feet of each corner of said building.

**\*Access:** Minimum 18" x 24"

## Crawl Space Detail

If crawl space is below outside grade install positive drainage



## **Floor Joist Span**

40 pounds per square foot

2 X 6	(16 inches on center)	8 feet 10 inches maximum clear span
2 X 8	(16 inches on center)	11 feet 8 inches maximum clear span
2 x 10	(16 inches on center)	14 feet 11 inches maximum clear span
2 X 12	(16 inches on center)	18 feet 1 inch maximum clear span

30 pounds per square foot (Bedrooms)

2 X 6	(16 inches on center)	9 feet 9 inches maximum clear span
2 X 8	(16 inches on center)	12 feet 10 inches maximum clear span
2 X 10	(16 inches on center)	16 feet 5 inches maximum clear span
2 X 12	(16 inches on center)	19 feet 11 inches maximum clear span

## **Ceiling Joist Span**

2 X 4	(16 inches on center)	8 feet 1 inch maximum clear span
2 X 6	(16 inches on center)	12 feet 9 inches maximum clear span
2 X 8	(16 inches on center)	16 feet 10 inches maximum clear span
2 X 10	(16 inches on center)	21 feet 6 inches maximum clear span

## **Rafters Span**

Slope over 3 in 12 30 pounds per square foot

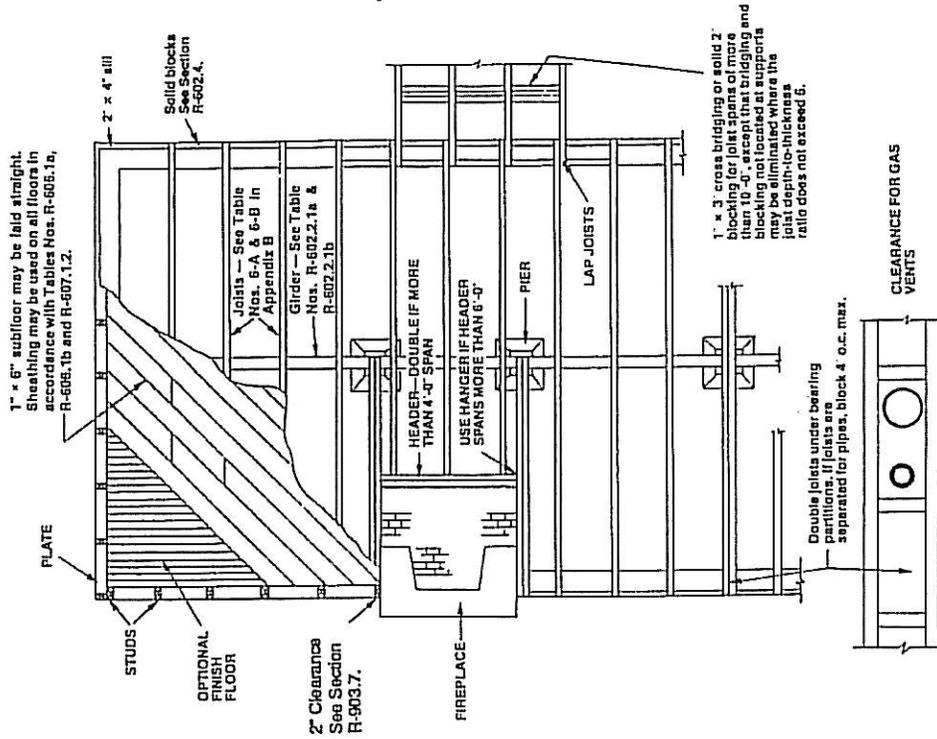
2 X 4	(16 inches on center)	7 feet 11 inches maximum clear span
2 X 6	(16 inches on center)	12 feet 5 inches maximum clear span
2 X 8	(16 inches on center)	16 feet 4 inches maximum clear span
2 X 10	(16 inches on center)	20 feet 1 inch maximum clear span

Slope 3 in 12 or less 30 pounds per square foot

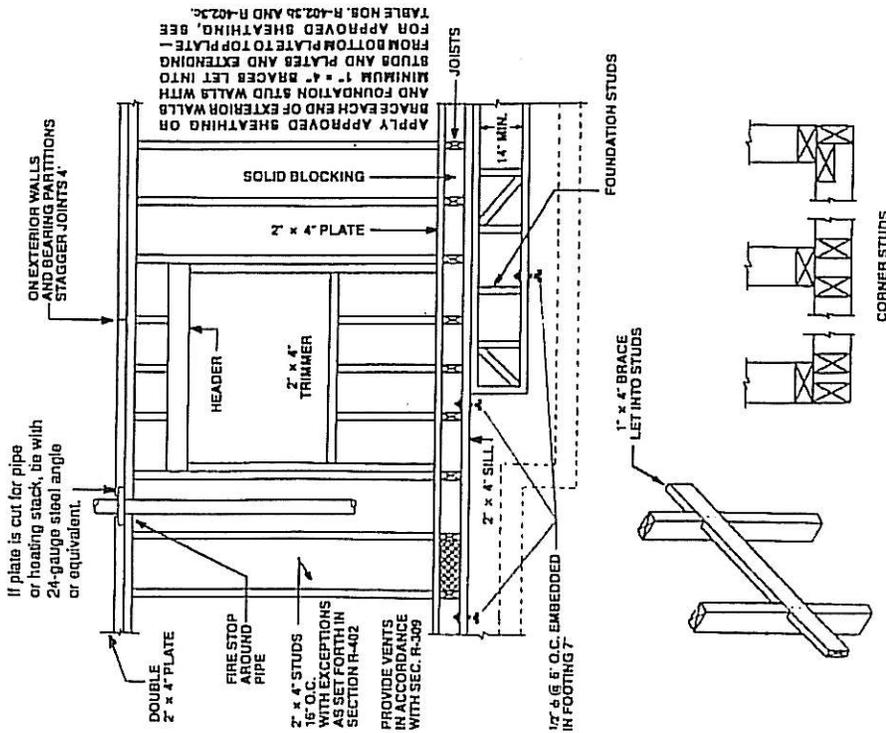
2 X 6	(16 inches on center)	11 feet 6 inches maximum clear span
2 X 8	(16 inches on center)	15 feet 2 inches maximum clear span
2 X 10	(16 inches on center)	19 feet 4 inches maximum clear span
2 X 12	(16 inches on center)	23 feet 6 inches maximum clear span

# FLOOR CONSTRUCTION AND FRAMING DETAILS

## FLOOR CONSTRUCTION



## FRAMING DETAILS



Note:  
A third stud and/or partition backing studs may be omitted through the use of 3/4" x 4" or 1/2" x 4" pieces of 3/4"-thick plywood, 1"-thick lumber or other approved device which will serve as an adequate backing for the attachment of facing materials.

This figure is for illustration purposes only and the written text shall apply.

R 806.2 **Attic Ventilation** – The net free ventilating area shall not be less than 1 to 150 of the area of the space ventilated, except that the total area is permitted to be reduced to 1 to 300 ratio provided that 50 to 80 percent is vented at the top of the roof and the remainder vented at the eaves.

R 807.1 **Attic Access** – A readily accessible attic access framed opening not less than 22 inches by 30 inches shall be provided to any attic area having a clear height of over 30 inches.

## **Roof Coverings**

R 905 **Slopes of 4 inches in 12 inches or greater** – Asphalt shingle roofs shall have an underlayment of not less than one ply of No. 15 felt. An ice shield must be installed from eave's edge to a point 24 inches inside the exterior wall line.

R905.2.7 **Slopes less than 4 inches in 12 inches but not less than 2 inches in 12 inches** – Nominally double-coverage asphalt shingles may be installed on slopes as low as 2 inches in 12 inches, provided the shingles approved self-sealing shingles or are hand sealed and are installed with an underlayment consisting of two layers of No. 15 felt. Where there is a possibility of ice forming along the eaves and causing a backup of water, the two layers of felt shall be cemented together in addition to the required nailing, from the eaves up the roof to overlie a point 24 inches inside the interior wall line of the building.

**THIS HANDOUT IS MEANT TO BE ONLY A GUIDE AND DOES NOT CONTAIN ALL OF THE CODE REQUIREMENTS FOR CONSTRUCTION. SHOULD YOU HAVE ANY QUESTIONS REGARDING THE REQUIREMENTS, PLEASE CONTACT THE BUILDING DEPARTMENT.**

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### **Building Department**

586/445-5450

#### **Zoning**

Glenn Sexton

#### **Building**

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#### **Electrical**

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#### **Mechanical**

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#### **Plumbing**

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