

A Reference Guide to Building in Canyon County

Canyon County Building Department

111 North 11th Avenue, #140

Caldwell, ID 83605

(208) 454-7458 or (208) 454-6633 Fax

www.canyonco.org

Canyon County Building Department

This reference guide is intended to assist the building novice and the expert builder as well. Our hope is that we have provided a comprehensive guide to be used as a useful reference for your building projects. You may still have questions, in which case, please contact us. We will be glad to assist you.

Canyon County Building Department

Located across from the Canyon County Courthouse
111 North 11th Avenue, #140, Caldwell, ID 83605

Hours of Operation: 8:00 a.m. until 4:30 p.m.

Phone: (208) 454-7458

Fax: (208) 454-6633

Email: dsdinfo@canyonco.org

Or visit our website at

www.canyonco.org/dsd.aspx

*All Electrical and Plumbing applications and inspections are
Administered by the
State of Idaho, Building & Safety Division
Please call (208) 334-3950 for
Additional Information on how to apply*

Canyon County Building Department

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When are Building Permits Required?

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Building and Mechanical Permits May Be Required. Ask Before You Begin to Build

Commonly, No Building or Mechanical system can be constructed, enlarged, altered, repaired, moved, demolished or changed unless a Building Permit has been issued.

Common Examples of When a Permit is Required

- Carports
- Decks more than 30" above grade
- Dock repairs and additions
- Exterior doors, windows and skylights that require a new opening or larger opening.
- Electrical Circuits and service
- Fireplaces, wood-burning stoves and inserts
- Garage conversions
- Home-business conversions
- Interior remodels
- Guest Home
- Fences over 7' high
- Furnaces
- Gas Piping
- Rockeries and retaining walls over 4' in height
- In-ground or above ground swimming pools and swim spas 4' deep; or above ground prefabricated pools over 5,000 gallons
- Re-roof involving structural elements, including but not limited to sheathing, skylights, change of roof pitch, addition or relocation of mechanical units; and change of roof material where the total weight exceeds 10 psf (pounds per square foot)
- Building permits are required on all new constructions that is greater than 200 sq ft and/or is attached to another structure.

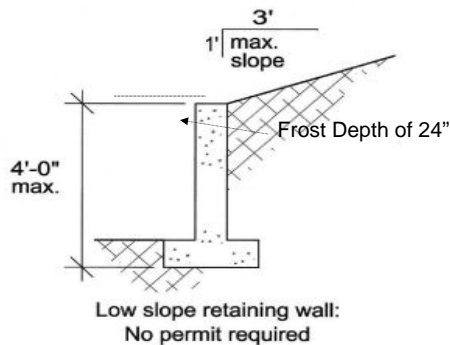
Common Examples of when a Permit is Not Required

- One-story detached accessory structures used as tool and storage sheds; tree-supported play structures, playhouses, with similar uses not exceeding 200. s.f. (Wall height of 10' maximum.)
- Fences not over 7' high
- Retaining walls or rockeries which are not over 4' in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or sloped ground (see page 5)
- Sidewalks, decks and driveways not more than 30" above grade and not over a basement or story below.
- Replacement of decking on docks and decks without replacement of any structural members
- Painting, nonstructural siding, papering, tiling, carpeting, cabinets, countertops, and similar finish work
- Swings, slides and other playground equipment
- Window awnings supported by an exterior wall which does not project more than 54" and does not require additional support
- Bathroom and kitchen fixture replacements without plumbing line modifications such as sinks and toilets
- Appliance replacement in the same location without modification to gas, plumbing lines or electrical circuits such as dishwashers, ranges, ovens, gas logs, washers and dryers.
- Portable swimming pools (under 5, 000 gallons)
- Flag poles

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Permits When Required

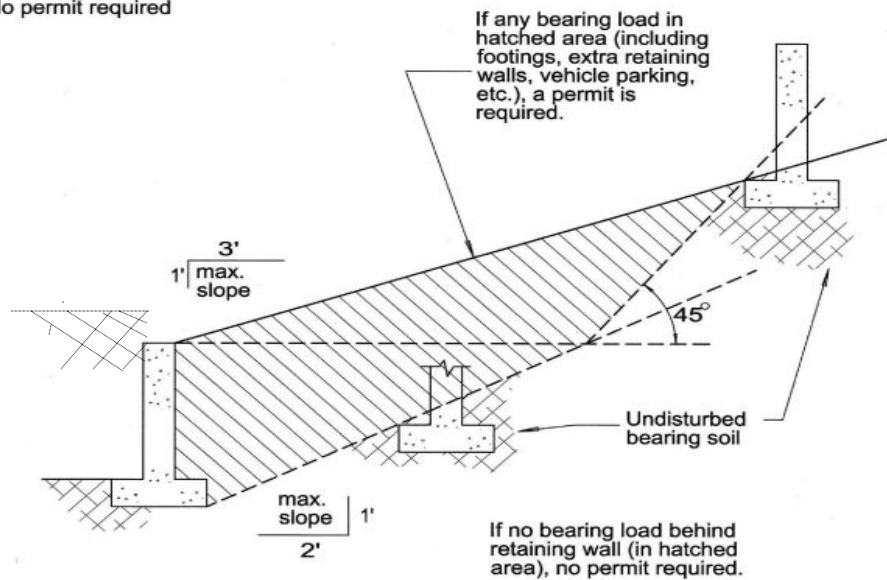
Page 1 of 1



NOTE:

Verify location of utilities and easements before starting the work.

Call before you dig.
Phone: 1-800-424-5555



General Information:

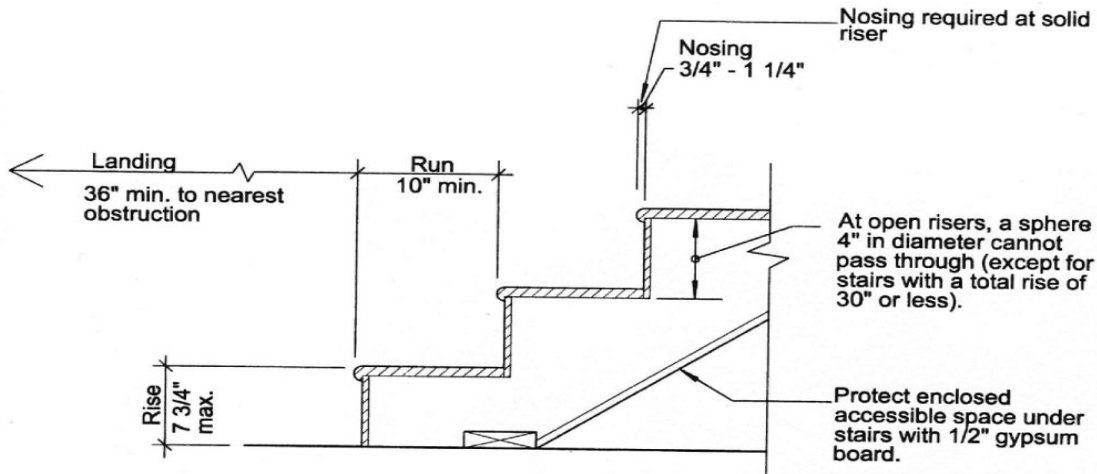
1. Consult with your local planning department regarding required setbacks.
2. The intent of this Sheet is to address the requirements of when a Building Permit is required. For residential projects, please contact your local building department regarding specific questions not addressed here or requiring further clarification.

Canyon County Building Department

Construction Tip Sheet 1

Basic Stairs - 2012 IRC

Page 1 of 4



**Typical Stair Section
R311**

Notes:

1. These regulations apply to stairways for one and two-family dwellings and townhouses subject to the 2012 International Residential Code (IRC). Refer to the 2012 International Building Code for requirements for stairs in other conditions.
2. For construction of circular, spiral or winding stairways, see R311.7.10.
3. The largest rise or run within any flight of stairs is not to exceed the smallest by more than 3/8".
4. A landing extending the width of the stair and measuring a minimum of 36" in the direction of travel is required at the top and bottom of every stairway.
5. A floor landing is not required at the top of an interior flight of stairs, provided a door does not swing over the stairs.
6. Handrails are required for stairways with four or more risers. See Tip Sheet 2 for additional information regarding handrails.
7. Interior and exterior stairs must be illuminated with an artificial light source at each landing or over each stairway section per R303.6. Light activation must be accessible at the top and bottom of each landing without traversing any steps. Exterior stairways must be controlled from inside the dwelling unit unless continuously illuminated or automatically controlled.

Also see: www.stairways.org

General Information:

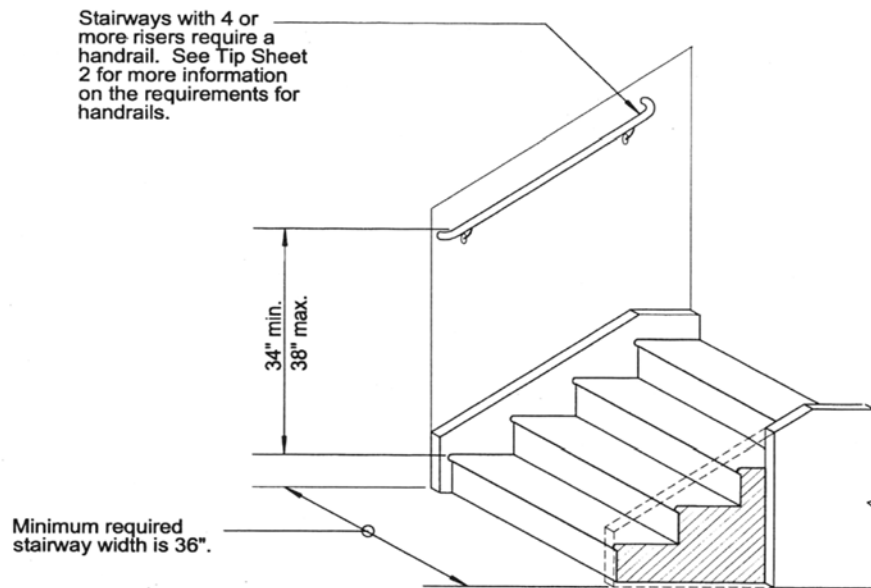
1. Consult with the Planning Department regarding required setbacks.
2. Obtain a Building Permit before starting construction.
3. The intent of this sheet is to address the basics of private residential stair construction *ONLY* and does not address the subject in great detail. Additional information can be found in your Building Department, home improvement store or library.
4. This Tip Sheet is intended to show code requirements per the 2012 International Residential Code.

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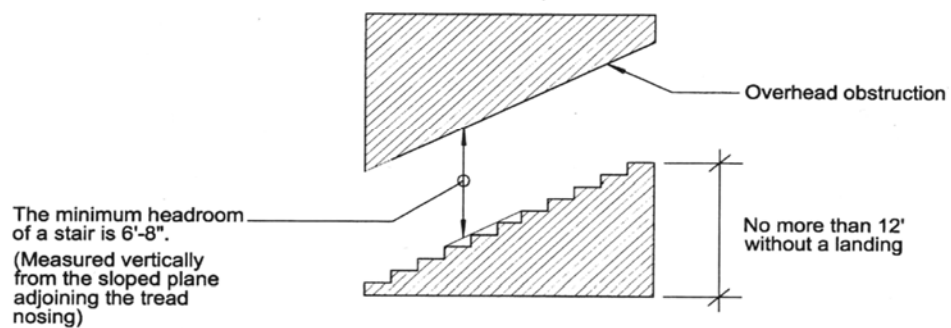
Construction Tip Sheet 1

Basic Stairs

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Typical Stair Elevation

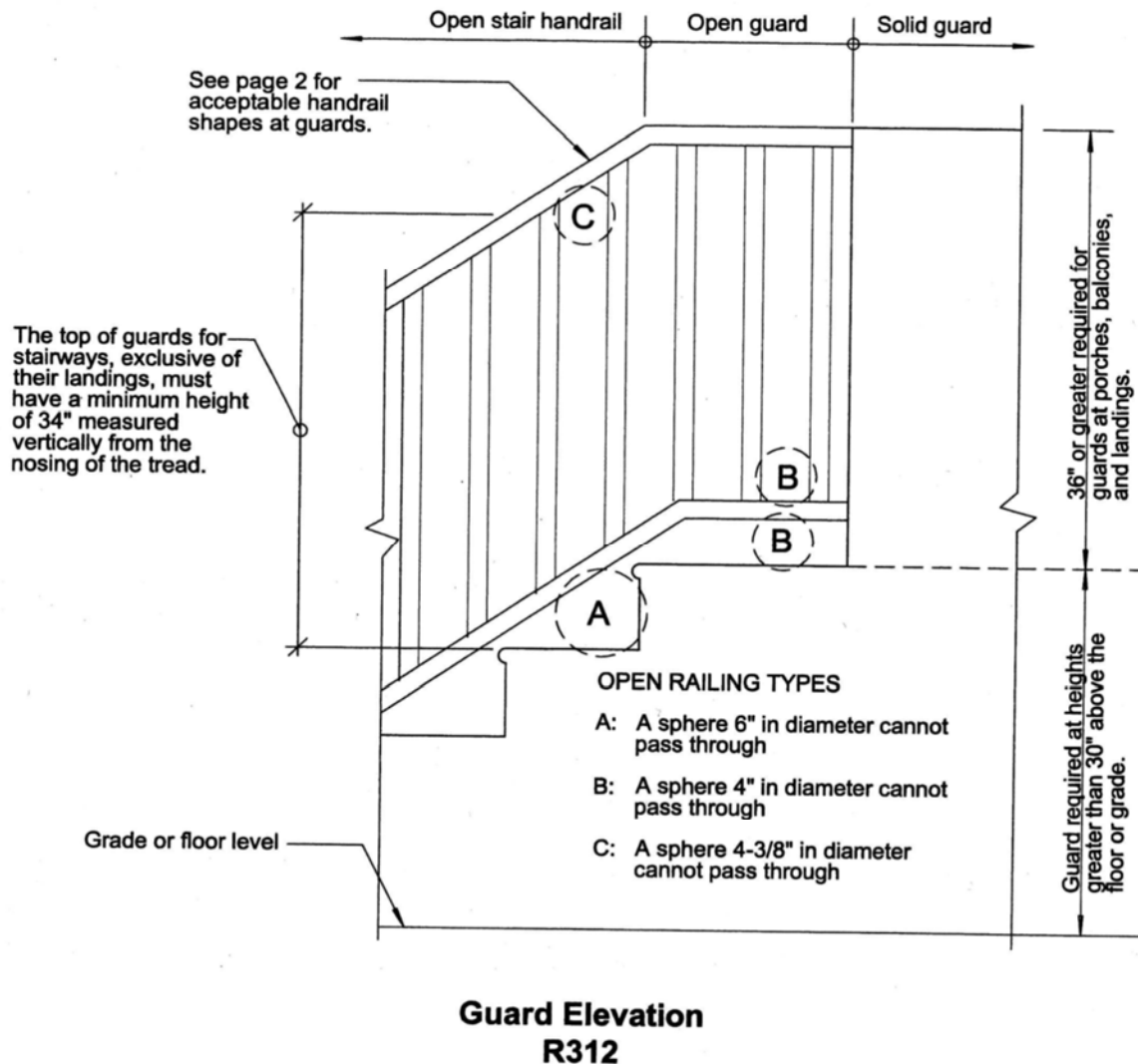


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Construction Tip Sheet 2

Basic Stairs - Guards

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General Information:

1. Consult with the Planning Department regarding required setbacks.
2. Obtain a Building Permit before starting construction
3. The intent of this sheet is to address the basics of private residential stair construction *ONLY* and does not address the subject in great detail. Additional information is available in your Building Department, home improvement store or library.
4. This Tip Sheet is intended to show code requirements per the 2012 International Residential Code (IRC).

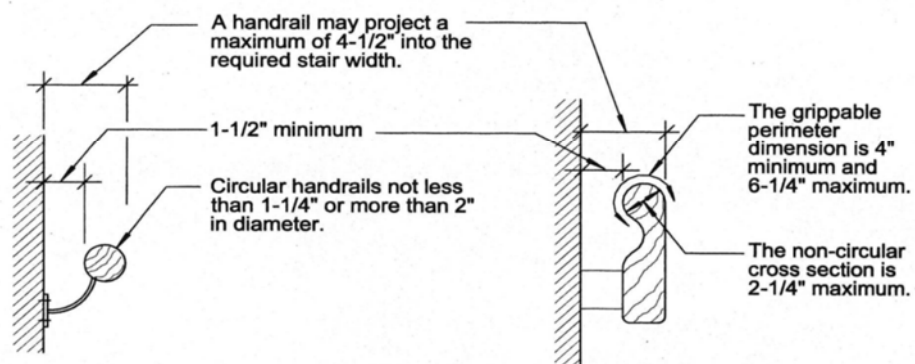
Canyon County Building Department

Construction Tip Sheet 2

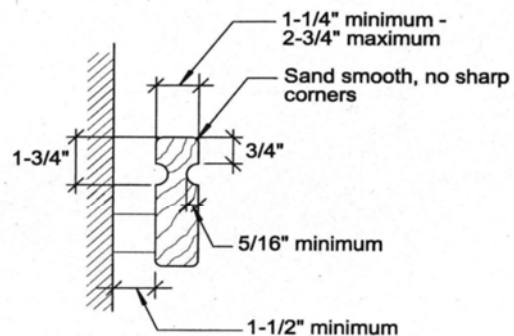
Basic Stairs - Handrails

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Acceptable Handrail Shapes at Guards



Type I Handrails R311.7.8.3



Type II Handrails R311.7.8.3

(At handrails with a perimeter greater than 6-1/4")

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Construction Tip Sheet 3

Smoke Alarms / Detectors

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R314

Smoke alarms must be audible in all parts of the house and installed per manufacturer's instructions.

New Houses

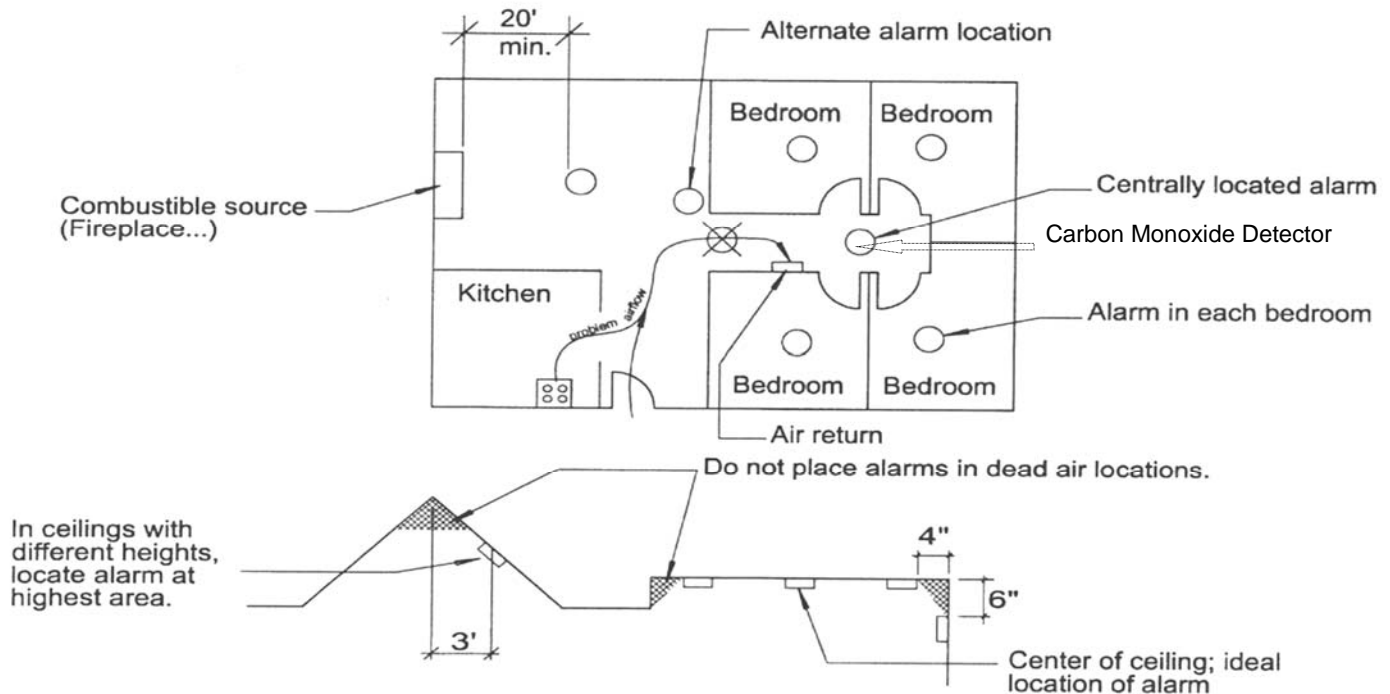
Alarms are required and must be connected to the main electrical system with battery backup. Wireless Detectors are allowed (R-314)

Existing Houses (IRC R314.3.1)

Alarms are required for any addition or repair work requiring a building permit, except exterior surface work such as re-roofing. Alarms must be interconnected and hard wired. Exception: Alarms will not be required to be interconnected and hard wired where the permit work does not require the removal of interior wall or ceiling finishes unless there is an attic, crawlspace, or basement available where access is provided.

Required Locations

- ▷ Each sleeping room and outside each sleeping area in the immediate vicinity of the bedrooms.
- ▷ Every floor level including basements, but not including crawlspace and uninhabitable attics.
- ▷ In split level floor plans, at the upper level, provided there is no intervening door between adjacent levels and the lower level is less than a full story below the upper level.



General Information:

1. Obtain a Building Permit before starting construction.
2. The intent of this Tip Sheet is to address the basics of private residential smoke alarms *ONLY* and does not address the subject in great detail. Additional information can be found at your Building Department, home improvement store, or library.

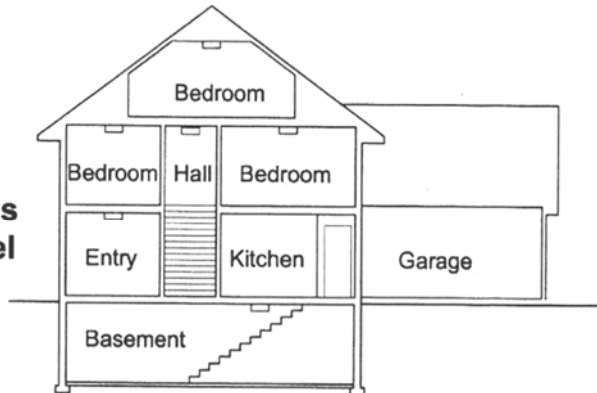
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Construction Tip Sheet 3

Smoke Alarms

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**Smoke alarms
on every level**



Avoid these locations for alarms:

Near combustible sources, fireplaces, furnaces, hot water heaters, space heaters, kitchens, garages with vehicle exhaust. Place alarms at least 20' away from such sources.

In air streams passing by kitchens, see page 1.

In damp areas such as bathrooms with showers. Place alarms at least 10' away from such sources.

In very cold or hot areas such as unheated or outdoor rooms where the temperature will fall out of the alarm operating range.

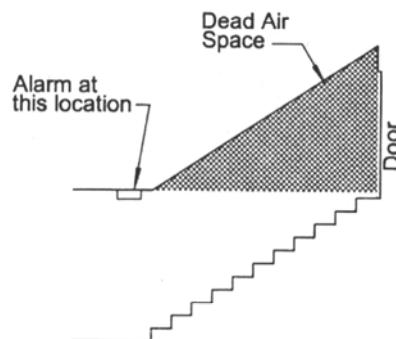
In very dusty or dirty areas where the vents of the alarm could become clogged.

Near fresh air vents or drafty areas such as air conditioners, heaters, floor and ceiling fans...

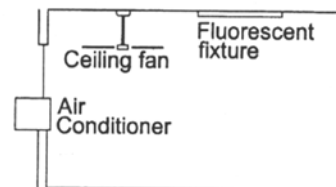
In dead air spaces. See this page for dead air at enclosed stairs and page 1 for other locations.

In insect-infested areas. Install bug screens.

Near fluorescent lights. Place alarms at least 5 feet away from such sources.



Enclosed Stairway



Avoid smoke alarms in these locations

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Construction Tip Sheet 4

Basic Decks

Page 1 of 5

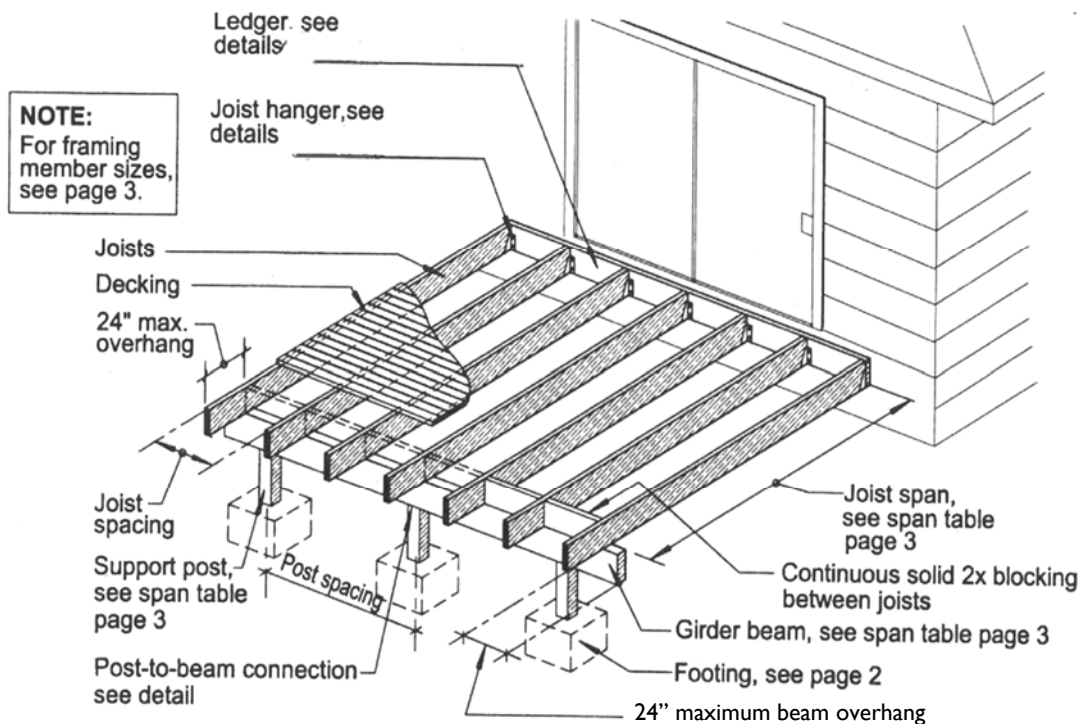
2012 IRC

This Tip Sheet may be used as a guide for single-family residential uncovered deck permits.

Submittal Requirements:

1. Two (2) Site Plans showing dimensions of the deck and its relationship to existing buildings or structures on the property; and the distance to existing property lines drawn to scale. Include the project address on the drawings.
2. Two (2) copies of Plans showing the framing layout of the deck.
3. A completed Building Permit Application with associated fees.

TYPICAL DECK



Deck Construction Notes:

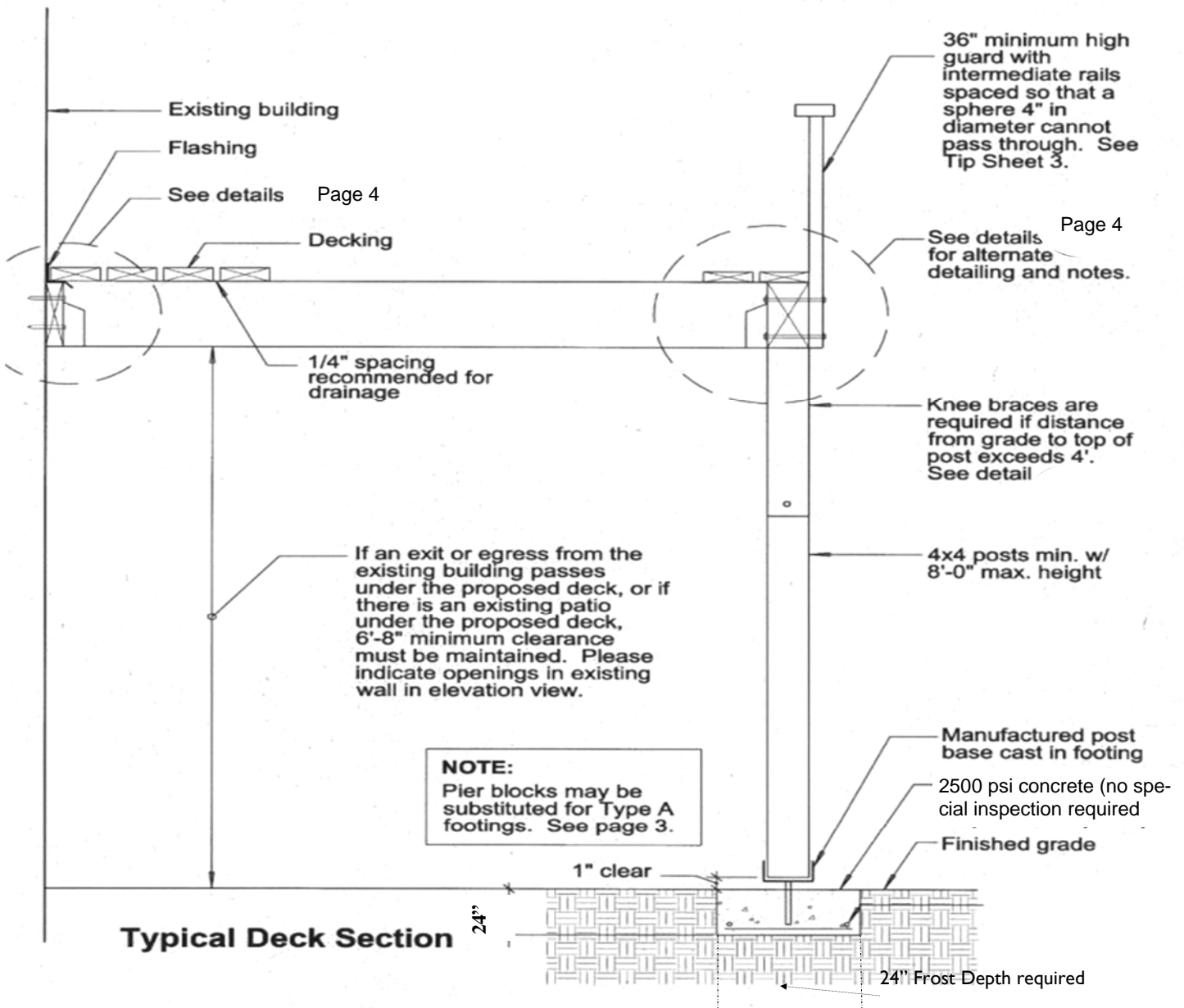
1. The illustrations and information in this Tip Sheet may be used for decks whether or not they require a permit.
2. All wood must be pressure treated or naturally resistant to decay. Treat all cut ends with end-cut solution. Use ground-contact treated wood.
3. Fasteners, hangers, nails, etc., must be stainless steel, hot-dipped galvanized, or as specifically required for the specified wood preservative used. The coating weights for zinc-coated fasteners to be in accordance with ASTM A 153. Provide documentation in the field showing the required fastener protection considering the wood chosen for the deck.
4. You may modify any components of this Tip Sheet with justification by analysis or calculation. Any modifications must be reviewed prior to permit issuance.
5. See Tip Sheet 1 for stairs; 2 for handrails and 3 for guards.
6. This Tip Sheet is intended to represent good construction practices for deck construction and related IRC requirements.
7. All wood assumed to be Hem-Fir #2 or better.

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Construction Tip Sheet 4

Basic Decks

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General Information:

1. Consult your local Planning Department regarding required setbacks.
2. Obtain a Building Permit before starting construction
3. The intent of this Tip Sheet is to address the basics of private residential deck construction *ONLY* and does not address the subject in great detail. Additional information can be found at your local building department, home improvement store or library.

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Construction Tip Sheet 4

Basic Decks

Page 3 of 5

Span Table Footing Schedule for Outside Decks

Spans based on use of No. 2 Hem-Fir or better

50 p.s.f. loading (10 p.s.f. Dead Load + 40 p.s.f. Live Load)

Beam spans and footings assume maximum 24" overhand

Joist Size	Spacing of Joists	Max Span of Joist	3/8" x 4 1/2" Lag screw max. spacing on 2x ledger	Max. span of girder beams between posts / footing type					
				4 x 6	Footing	4 x 8	Footing	4 x 10	Footing
2 x 6	@ 12 in	9 ft - 10 in	5 in	5 ft - 5 in	B	7 ft - 2 in	B	8 ft - 10 in	C
	@ 16 in	8 ft - 9 in	6 in	5 ft - 8 in	B	7 ft - 6 in	B	9 ft - 2 in	B
	@ 24 in	7 ft - 1 in	7 in		B	8 ft - 0 in	B	9 ft - 10 in	B
2 x 8	@ 12 in	12 ft - 9 in	4 in	4 ft - 11 in	B	6 ft - 6 in	B	8 ft - 0 in	B
	@ 16 in	11 ft - 1 in	4 in	5 ft - 2 in	A	6 ft - 11 in	B	8 ft - 5 in	C
	@ 24 in	9 ft - 0 in	5 in	5 ft - 7 in	B	7 ft - 5 in	B	9 ft - 1 in	B
2 x 10	@ 12 in	15 ft - 7 in	3 in	4 ft - 7 in	B	6 ft - 0 in	B	7 ft - 5 in	C
	@ 16 in	13 ft - 6 in	3 in	4 ft - 10 in	B	6 ft - 5 in	B	7 ft - 10 in	C
	@ 24 in	11 ft - 0 in	4 in	5 ft - 3 in	A	6 ft - 11 in	B	8 ft - 5 in	B

FOOTING TYPES

TYPE	SIZE	NOTE:
A	12" x 12" x 24"	
B	16" x 16" x 24"	
C	18" x 18" x 24"	

*Pouring based on assumed soil bearing pressure of 2000 p.s.f. Contact your jurisdiction for additional restrictions

Deck construction connections

All fasteners, nails, bolts, screws, etc. must be corrosion resistant. See Deck construction Note 3, page 1.

Follow manufacturer's instructions for timber connectors.

Connections

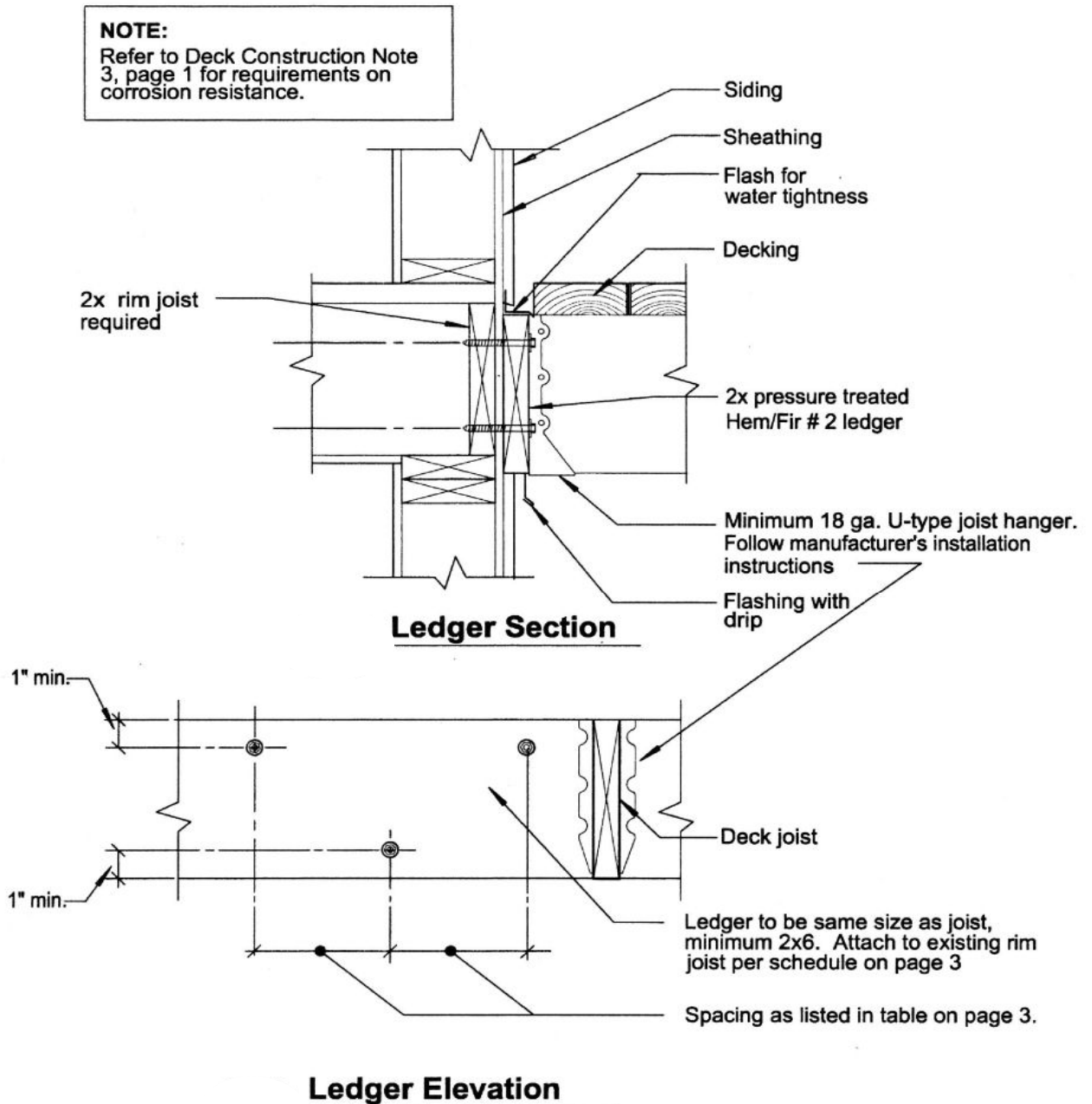
1	Joist on deck beam; toenail each end	(3) 8d
2	Bridging or blocking to joist; toenail ea. Side, ea. end	(3) 8d
3	2x decking to joist or deck beam; blind and face nail	(2) 16d

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Construction Tip Sheet 4

Basic Decks

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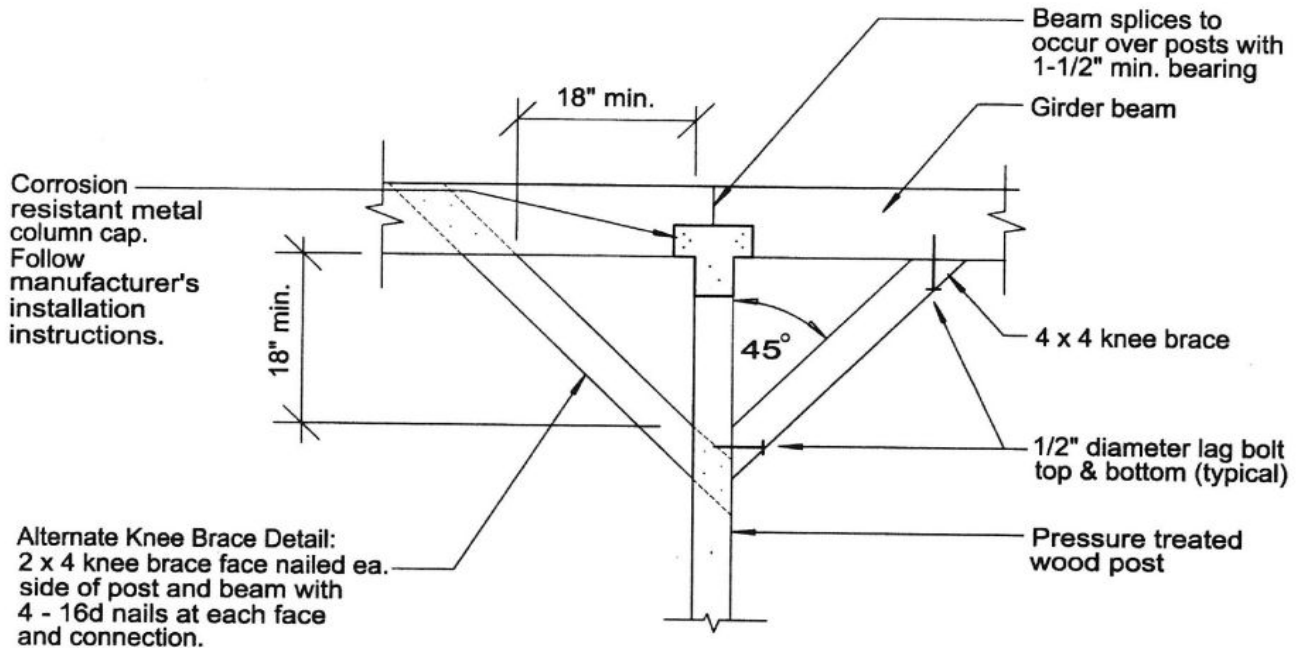


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Construction Tip Sheet 4

Basic Decks

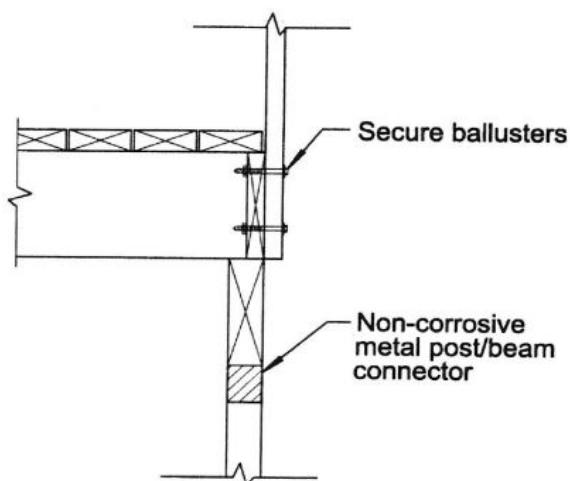
Page 5 of 5



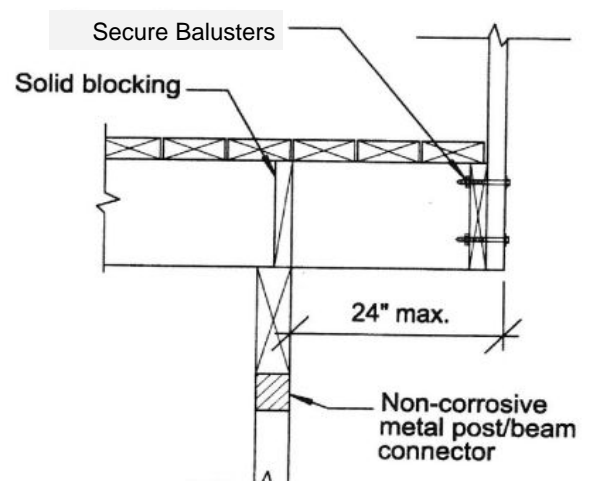
Knee Brace Detail

NOTE:

Knee braces are required if distance from grade to top of post exceeds 4 feet.



Alternate Joist-to-Beam Condition



Alternate Joist-to-Beam Condition

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Construction Tip Sheet 5

Garage Separation

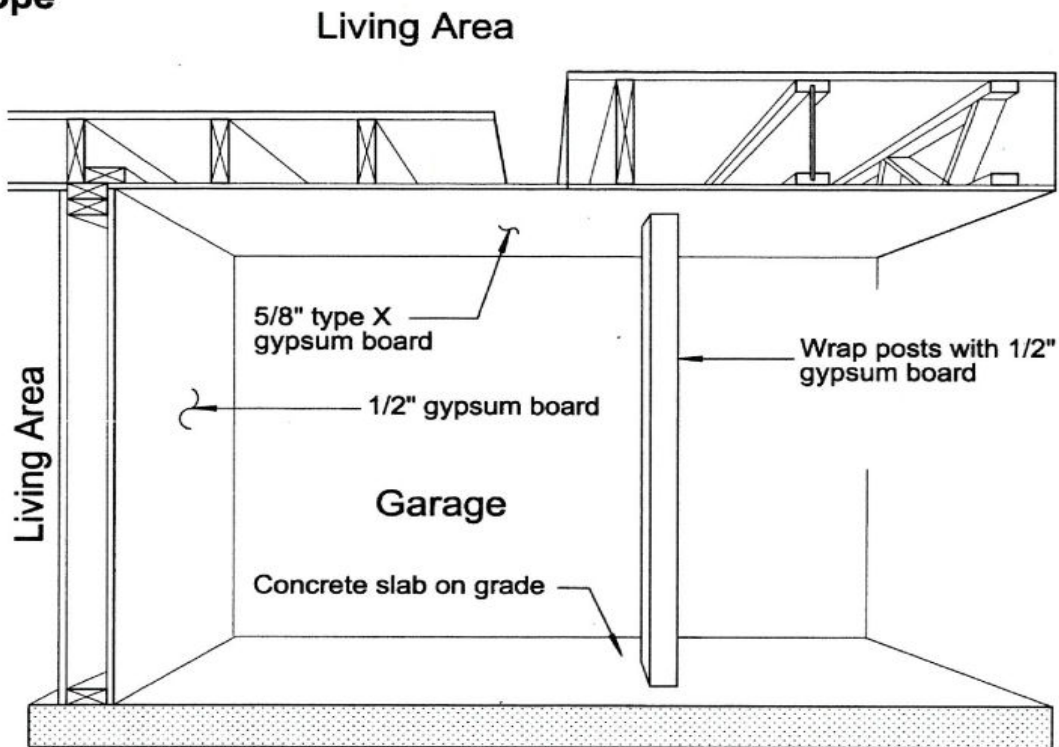
Page 1 of 3

IRC R302.6

2012 IRC

Garages beneath habitable rooms must be separated at the ceiling with 5/8" type X gypsum board. The structure supporting the separation and walls between the residence and garage must be protected by not less than 1/2" gypsum board.

Envelope



Garage to Living Areas

NOTE:

Fastening per IRC Table R702.3.5:

- 5/8" type X at ceiling: Fasten with nails @ 7" o.c. or screws @ 12" o.c. when framing is 16" o.c. Fasten with 6d coated nail at 6" o.c. or equivalent drywall screw when framing is 24" o.c.
- 1/2" gypsum board at walls: Fasten with 5d cooler nail at 8" o.c. or equivalent drywall screw at 16" o.c.

GENERAL INFORMATION:

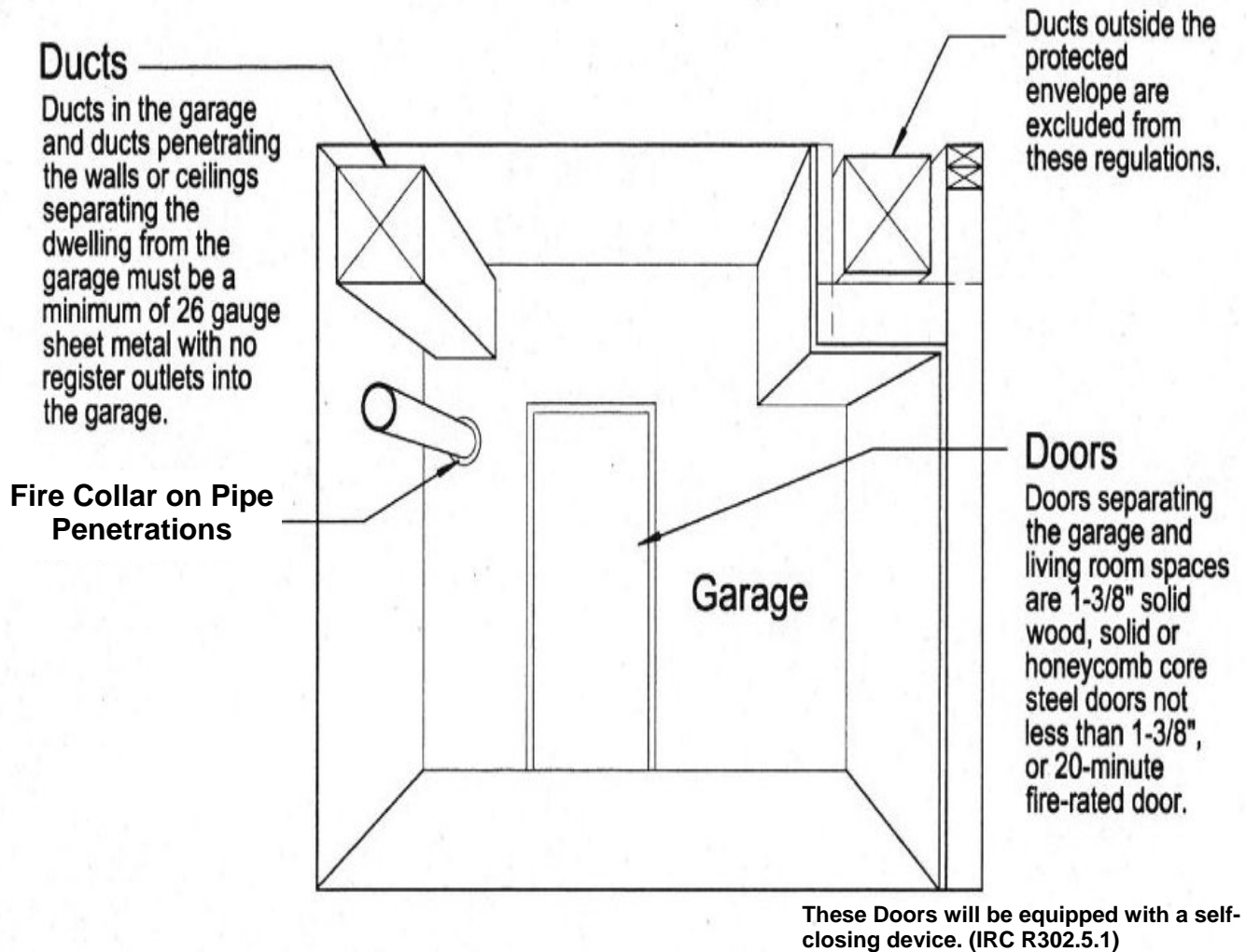
1. Obtain a building permit before starting construction.
2. The intent of this tip sheet is to address the basics of private residential garage construction *ONLY* and does not address the subject in great detail. Additional information can be found at your local building department, home improvement store or library.

Canyon County Building Department

Construction Tip Sheet 5

Garage Separation

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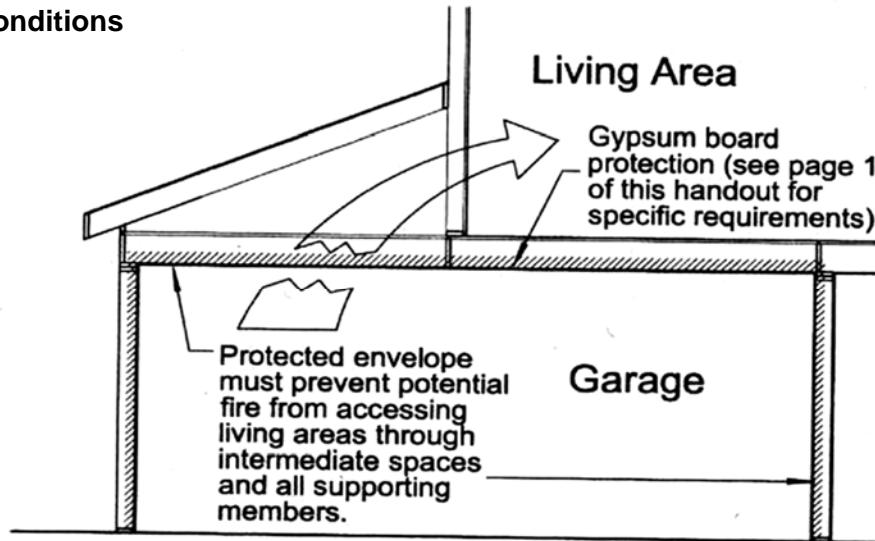
Canyon County Building Department

Construction Tip Sheet 5

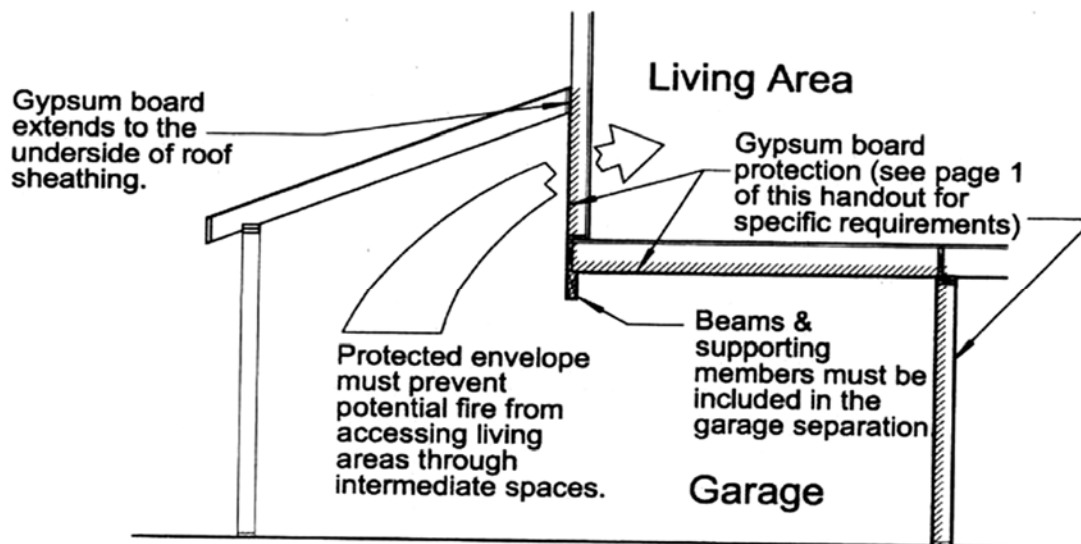
Garage Separation

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Special Conditions



OR

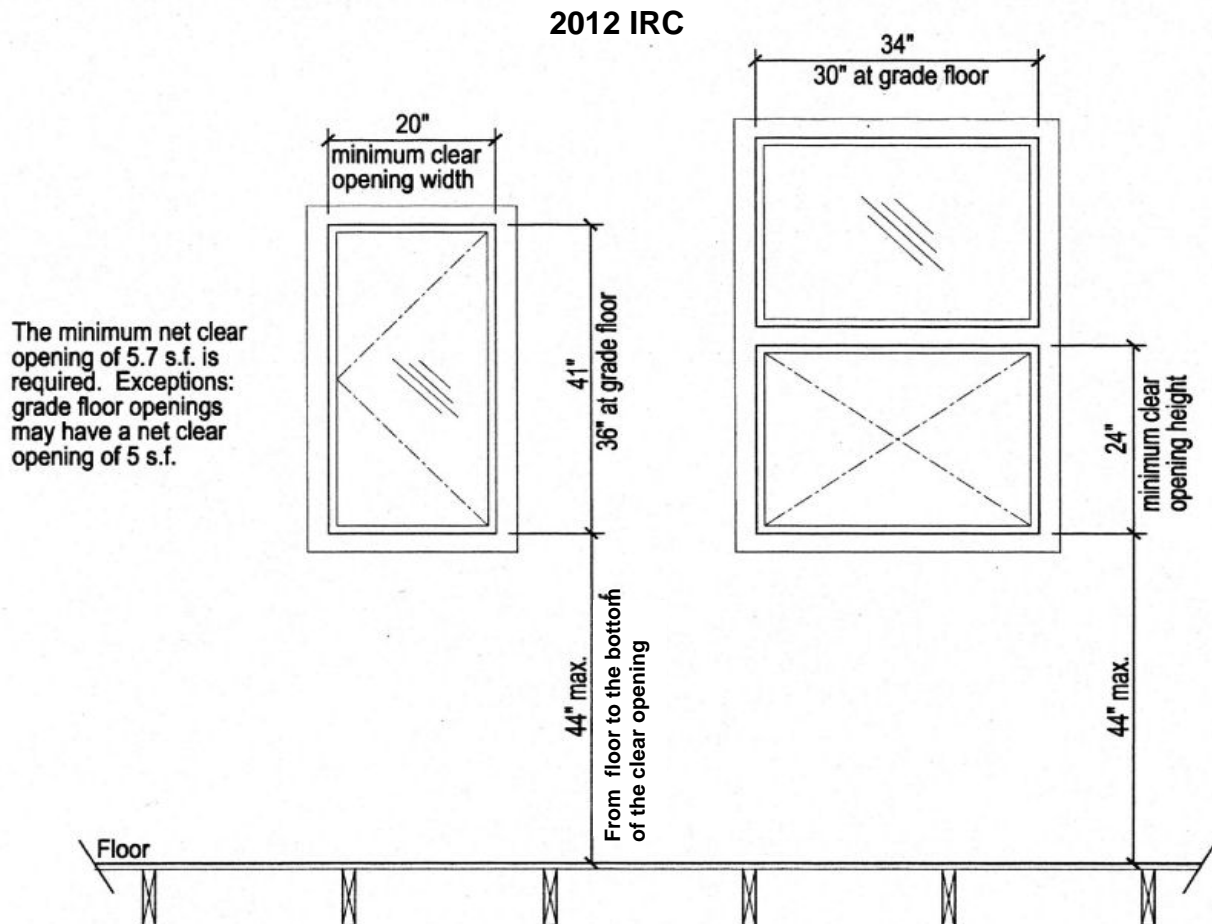


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Construction Tip Sheet 9

Residential Emergency Escape and Rescue Openings

Page 1 of 3



IRC R310:

Basements and every sleeping room need at least one openable emergency escape or rescue opening.

General Information:

1. The intent of this sheet is to address the basics of residential emergency escape and rescue openings **ONLY** and does not address the subject in great detail. Additional information can be found at your local building department, home improvement store, or library.

Canyon County Building Department

Construction Tip Sheet 9

Residential Emergency Escape and Rescue Openings

Page 2 of 3

R312

Guards and Window Fall Protection

CHANGE TYPE: Modification

CHANGE SUMMARY: The provisions for window fall protection have been relocated from Chapter 6 to Chapter 3. The terminology for window opening control devices has been updated for consistency with the referenced standard ASTM F 290. Operation criteria found in the 2008 edition of the standard have been deleted from the prescriptive provisions of the IRC.

2012 CODE:

SECTION R312 GUARDS AND WINDOW FALL PROTECTION

R312.1 Guards. Guards shall be provided in accordance with Sections R312.1.1 through R312.1.4.

R312.1.1 Where Required. [No change to text]

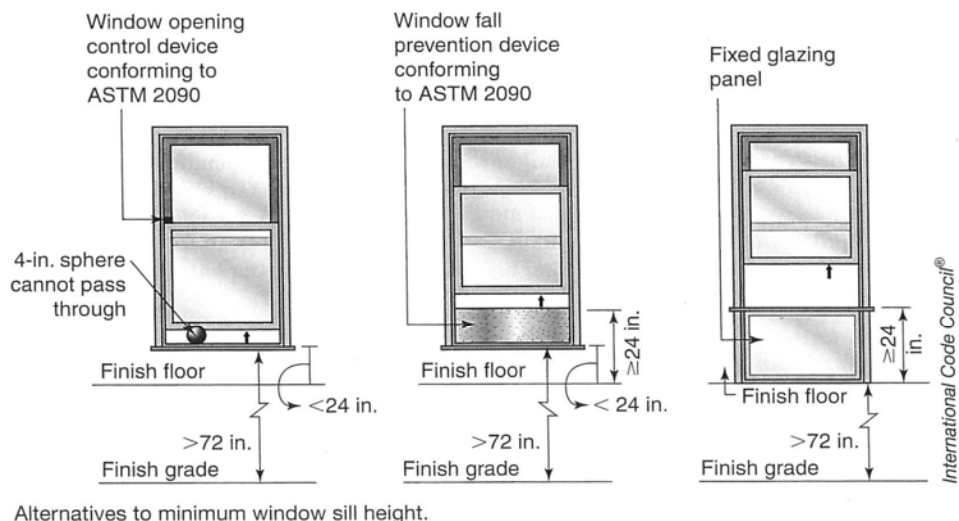
R312.1.2 Height. [No change to text]

R312.1.3 Opening Limitations. [No change to text]

R312.1.4 Exterior Wood/Plastic Composite Guards. [No change to text]

R312.2 Window Fall Protection. Window fall protection shall be provided in accordance with Sections R312.2.1 and R312.2.2.

R612.2 R312.2.1 Window Sills. In dwelling units, where the opening of an operable window is located more than 72 inches (1829 mm) above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches (610 mm) above the finished floor of the room in which the window is located. Operable



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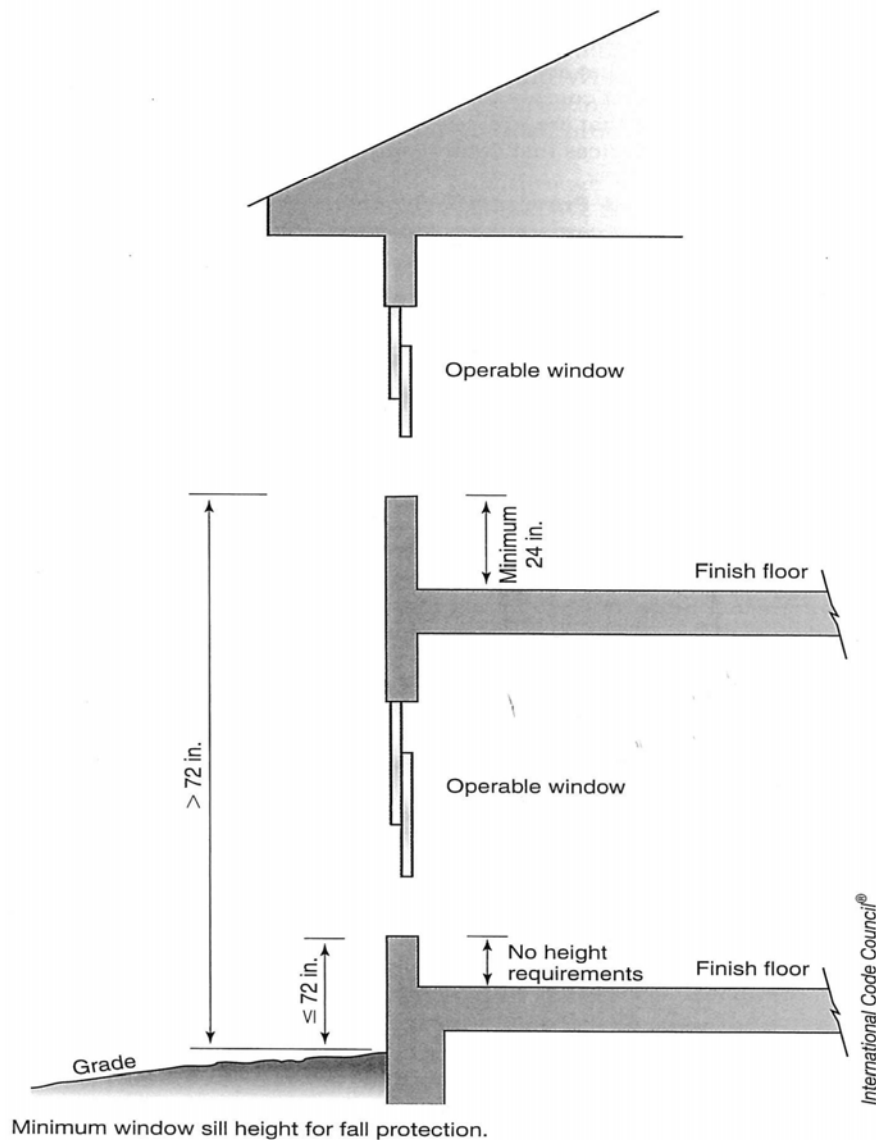
Construction Tip Sheet 9

Residential Emergency Escape and Rescue Openings

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Significant Changes to the IRC 2012 Edition

R312 ■ Guards and Window Fall Protection



Minimum window sill height for fall protection.

sections of windows shall not permit openings that allow passage of a 4-inch (102 mm) diameter sphere where such openings are located within 24 inches (610 mm) of the finished floor.

Exceptions:

1. Windows whose openings will not allow a 4-inch diameter (102 mm) sphere to pass through the opening when the opening is in its largest opened position.

R312 continues

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Construction Tip Sheet 10

Notching & Boring Rafters / Joists / Studs

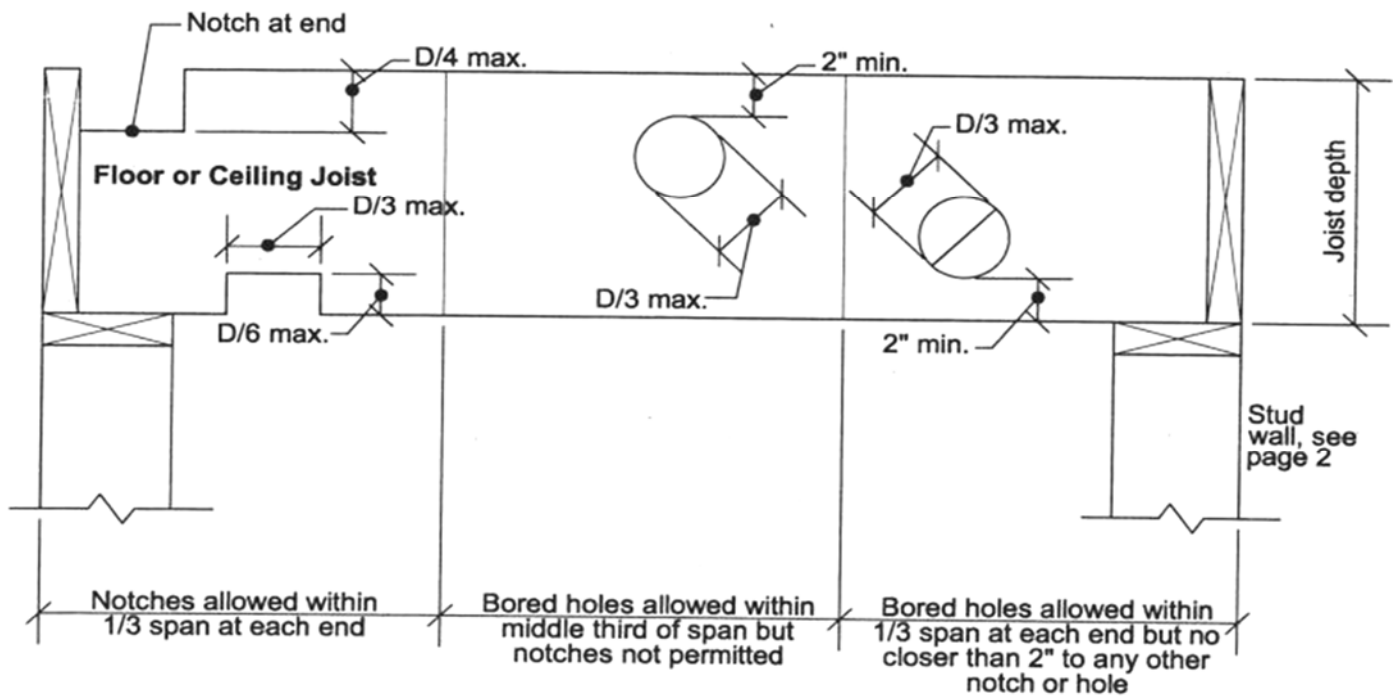
Page 1 of 3

IRC R502.8 & R802.7

$D/3 = 1/3$ the depth of the joist

$D/4 = 1/4$ the depth of the joist

$D/6 = 1/6$ the depth of the joist



NOTE:

A notch not exceeding $1/3$ the depth of the member is permitted in the top of a rafter or ceiling joist not further from the face of the support than the depth of the member.

The tension side of members 4" or greater in thickness must not be notched except at the ends of the members.

General Information:

1. The intent of this Tip Sheet is to address the restrictions of the Notching & Boring of studs in one, two and three-story residential structures. For specific questions not addressed here or requiring further clarification, please contact your Building Department.
2. This Tip Sheet does not supersede information shown on approved plans prepared by a licensed architect or engineer.

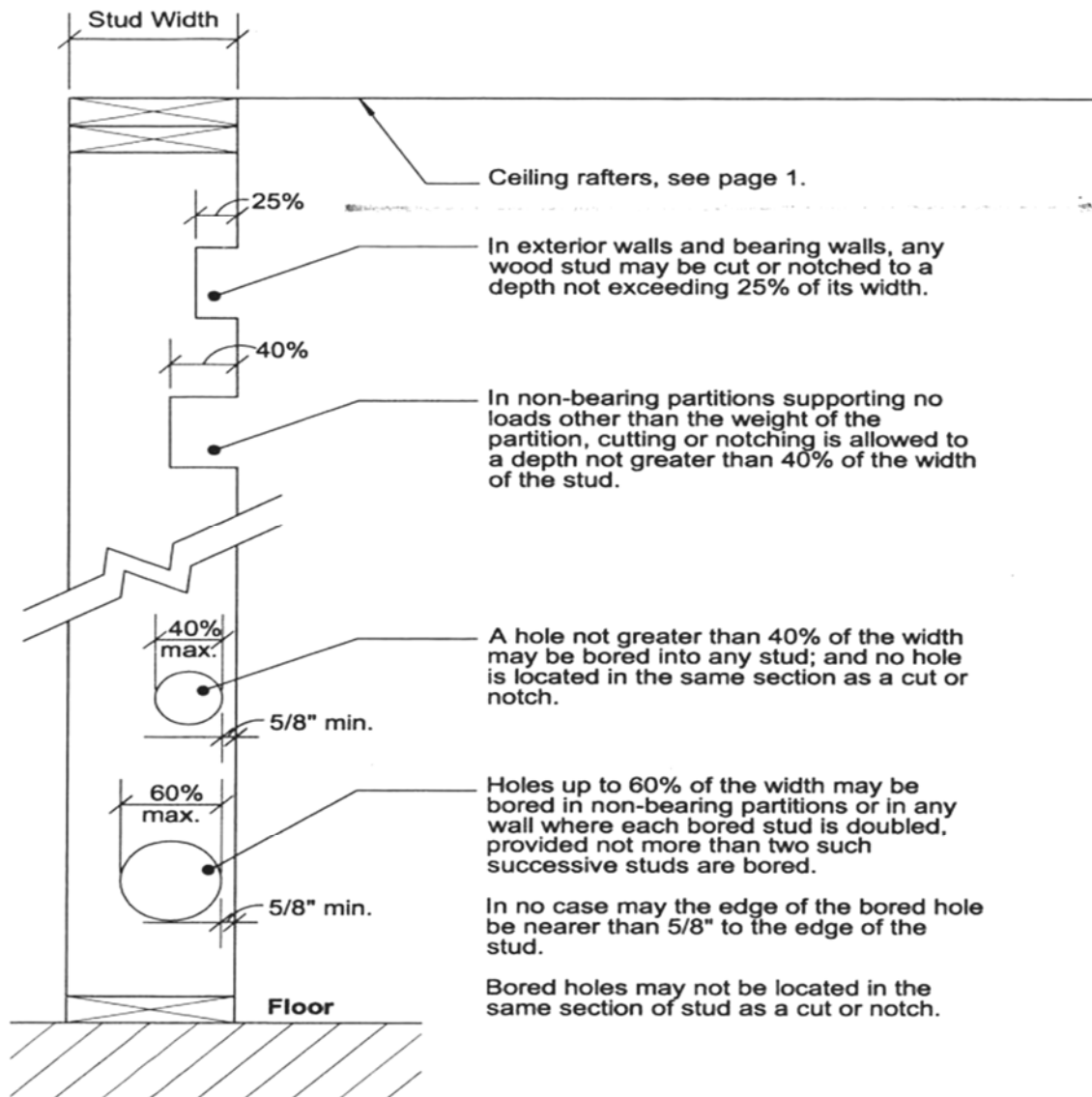
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Construction Tip Sheet 10

Notching & Boring Rafters / Joists / Studs

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IRC R602.6



Canyon County Building Department

Construction Tip Sheet 10

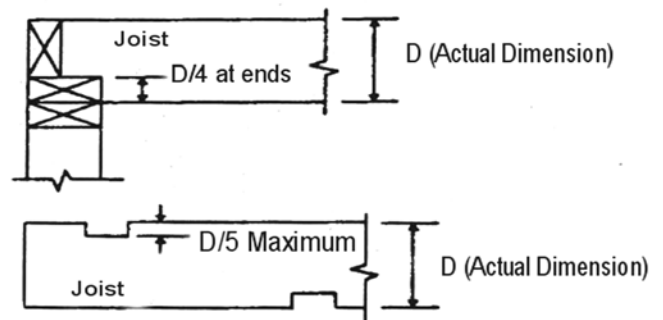
Notching & Boring Rafters / Joists / Studs

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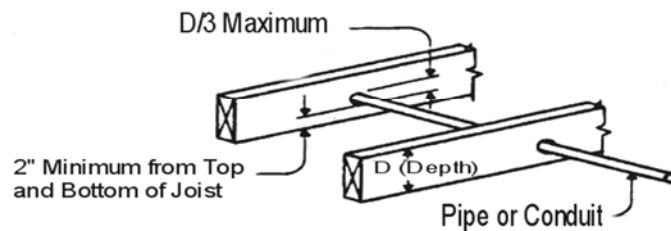
Typical Notching and Boring Details

Cutting and Notching Limitations

Note: Notching Not Permitted
in Middle 1/3 of Span



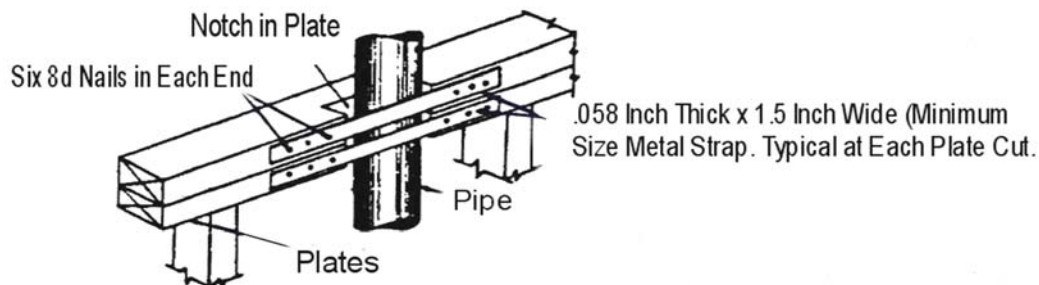
Cutting and Notching Limitations – Floor Joists



Bored Holes in Joists

Notching and Boring Limitations - Floor Joists

Plate Framing to Accommodate Piping



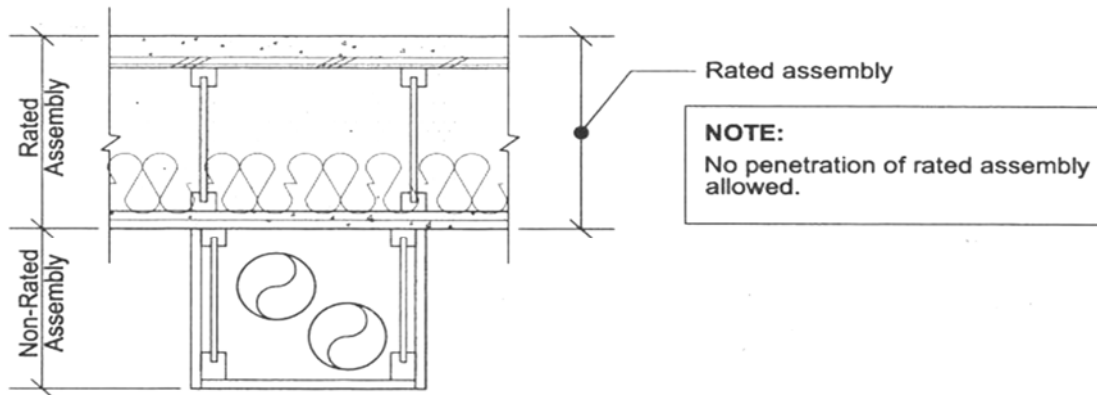
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Construction Tip Sheet 11

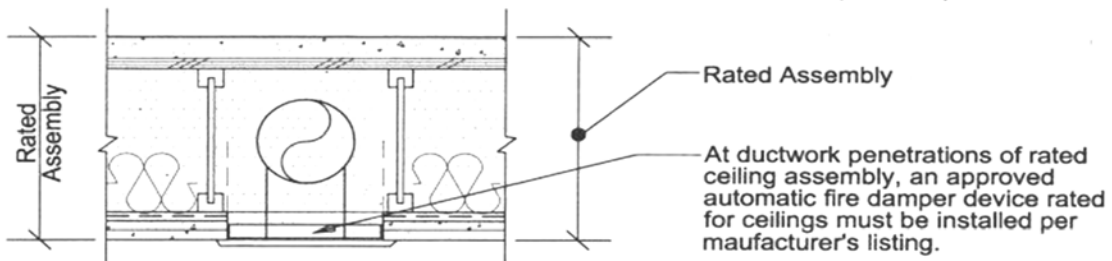
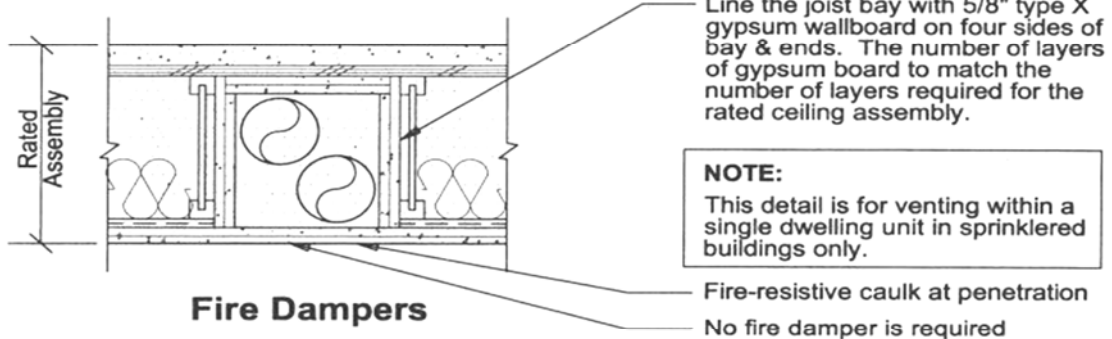
Fire Protection of Horizontal Venting

Page 1 of 2

Duct Below Rated Assembly



Duct Through Joist Bay



General Information:

1. The intent of this Tip Sheet is to address the requirements of horizontal venting *ONLY* in residential structures. For specific questions not addressed here or requiring further clarification, please contact your Building Department.
2. Intended for heat, vent, cooling and exhaust ducts only.

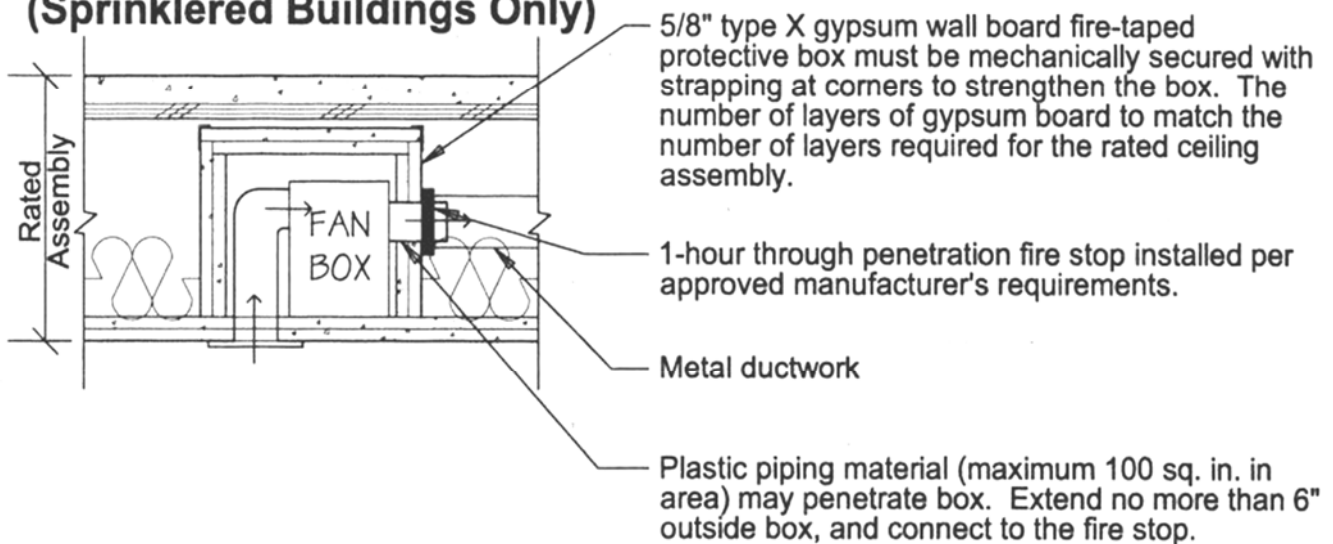
Canyon County Building Department

Construction Tip Sheet 11

Fire Protection of Horizontal Venting

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Protected Fan in Joist Space (Sprinklered Buildings Only)



Canyon County Building Department

Construction Tip Sheet 12

Safety Glazing

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Safety Glass Identification Required

Each pane of glazing installed in hazardous locations must be provided with a manufacturer's or installer's label, designating the type and thickness of glass and the safety glazing standard with which it complies. The label needs to be visible at the final inspection, and it must be acid-etched, sandblasted, ceramic-fired, or an embossed mark or of the type which once applied cannot be removed without being destroyed.

Safety Glazing Required Locations:

1. Glazing in swinging doors except louvered windows and jalousies complying with IRC R308.2.
2. Glazing in fixed and sliding panels of sliding door assemblies and panels in sliding and bi-fold closet door assemblies.
3. Glazing in storm doors.
4. Glazing in all unframed swinging doors.
5. Glazing in doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathrooms and showers. Glazing in any portion of a building wall enclosing these compartments where the bottom exposed edge of the glazing is less than 60" above any standing or walking surface.
 - **Exception:** Openings through which a 3" sphere is unable to pass.
6. Glazing in fixed or operable panels adjacent to a door where the nearest vertical is within a 24" arc of either vertical edge of the door in a closed position and where the bottom exposed edge of the glazing is less than 60" above the walking surface.
 - **Exception:** Where there is an intervening wall or partition between door and glazing or where the door accesses a closet 3' or less in depth (see details, page 3 of this section).
7. Glazing in an individual fixed or operable panel, when all of the following apply:
 - 7.1 Exposed area of an individual pane greater than 9 s.f.
 - 7.2 Bottom edge less than 18" above the floor.
 - 7.3 Top edge greater than 36" above the floor
 - 7.4 One or more walking surfaces within 36" horizontally of the glazing.
 - **Exception:** Where a protective 1 1/2" wide bar is installed on the accessible side of the glazing 34" - 38" above the floor and is capable of withstanding a load of 50 lbs per lineal foot, or where the bottom edge of the glass is 25' or more above grade, a roof, walking surface or other horizontal surface.
8. Glazing in railings regardless of area or height above a walking surface. Includes structural baluster panels and nonstructural infill panels.
9. Glazing in walls and fences enclosing indoor and outdoor swimming pools, hot tubs and spas where the bottom edge of the glazing is less than 60" above a walking surface and within 60" horizontally of the water's edge. This will apply to all single glazing and all panes in multiple glazing.
10. Glazing adjacent to stairways, landings and ramps with 36" horizontally of a walking surface when the exposed surface of the glass is less than 60" above the plane of the adjacent walking surface.
 - **Exception:** Where a handrail or guard is installed per IBC 1003.3.12 & 1607.7 or when the glass is greater than 18" from the railing (see details, page 5 of this section).
11. Glazing adjacent to stairways with 60" horizontally of the bottom tread of stairway in any direction when the exposed surface of the glass is less than 60" above the nose of the tread.
 - **Exception:** Where a handrail or guard is installed per the IBC 1003.3.12 & 1607.7 or when the glass is greater than 18" from the railing (see details, page 5 of this section).

General Information:

1. This Tip Sheet is intended to show code requirements per the 2009 International Residential Code (IRC) R308 and the 2009 International Building Code (IBC).

Canyon County Building Department

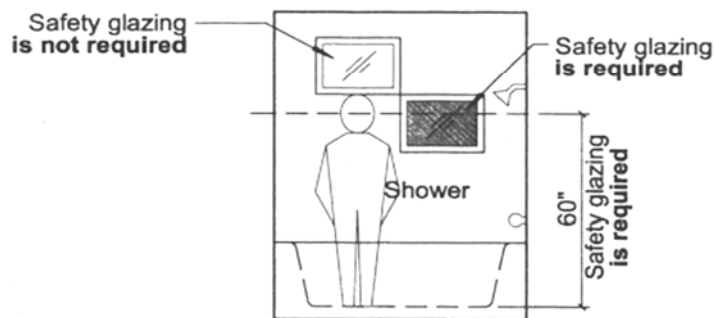
Construction Tip Sheet 12

Safety Glazing

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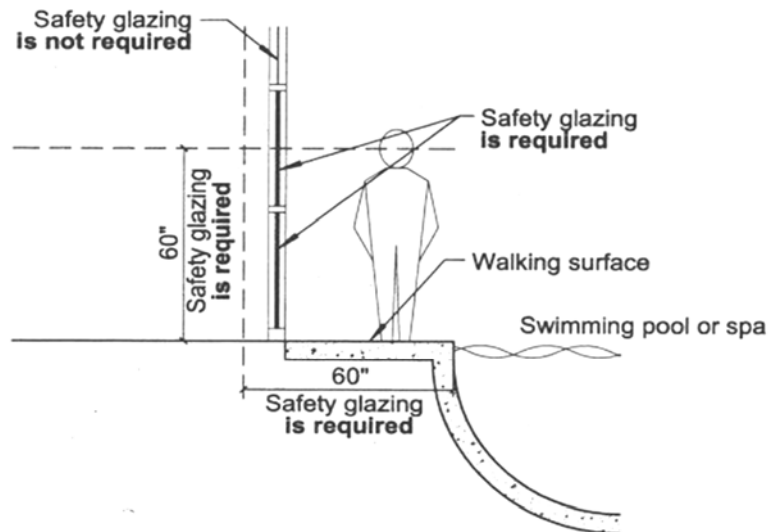
Glazing in Doors, Enclosures for Hot Tubs, Whirlpools, Saunas, Steam Rooms, Bathtubs, and Showers:

Safety glazing is required at glazing in a building wall enclosing these wet areas where the bottom edge of the glazing is less than 60" above a standing surface and drain inlet.



Glazing at a Swimming Pool or Spa:

Safety glazing is required when the bottom edge of the glazing in walls and fences used as the barrier for indoor and outdoor swimming pools and spas is less than 60" above the pool side of the glazing, and the glazing is within 60" of a swimming pool or spa water's edge.



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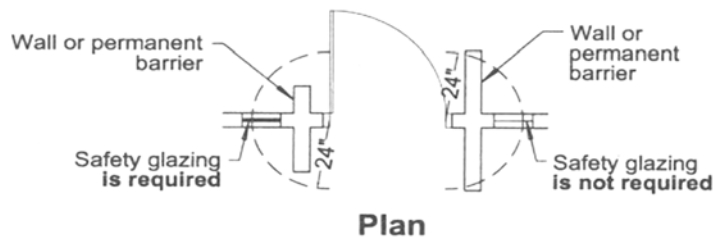
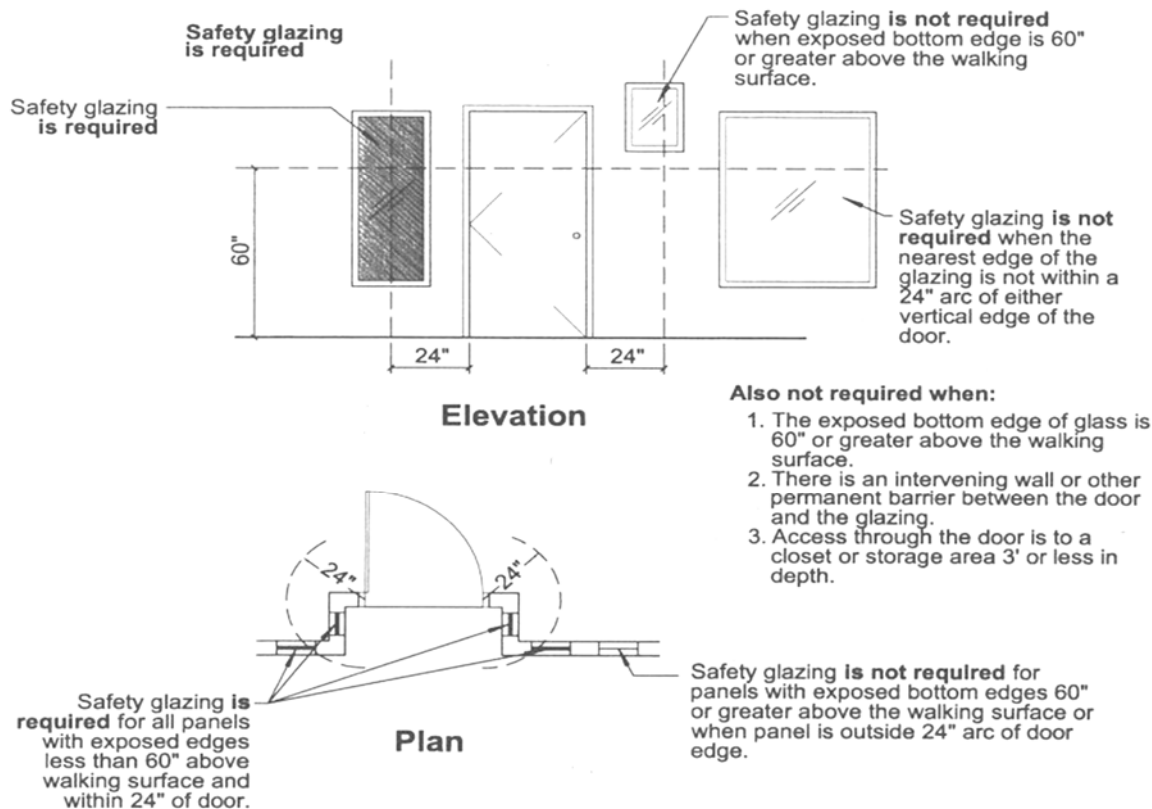
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Safety Glazing

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Glazing Adjacent to Doors:

Safety glazing is required for all glazing within a 24" arc of either vertical edge of a door.



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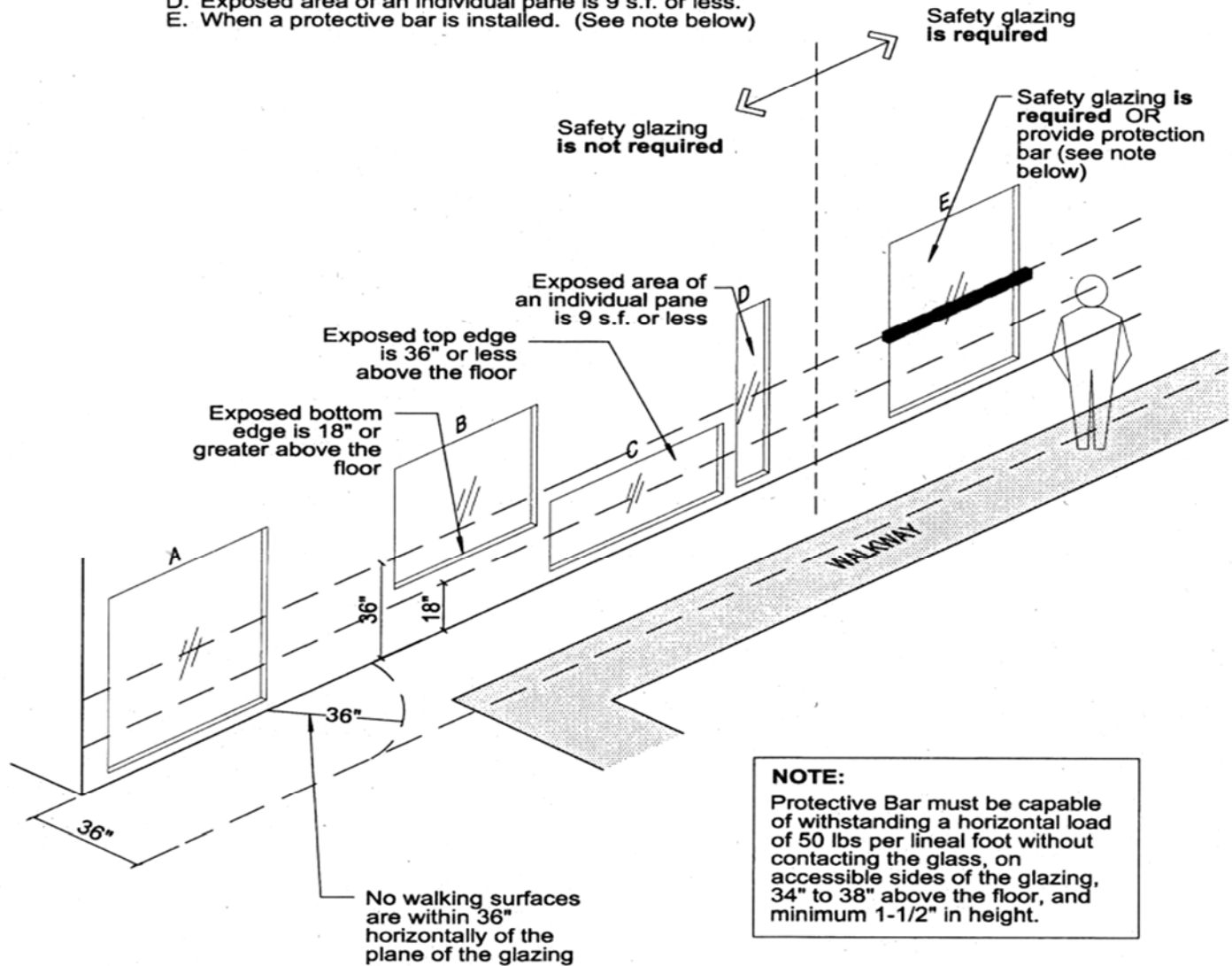
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Safety Glazing

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Safety glazing required at fixed or operable panels at interior and exterior glass except as noted below:

- A. Walking surface is away horizontally 36" or more from the plane of the glazing.
- B. Exposed bottom edge is 18" or greater above the floor.
- C. Exposed top edge is 36" or less above the floor.
- D. Exposed area of an individual pane is 9 s.f. or less.
- E. When a protective bar is installed. (See note below)



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Safety Glazing

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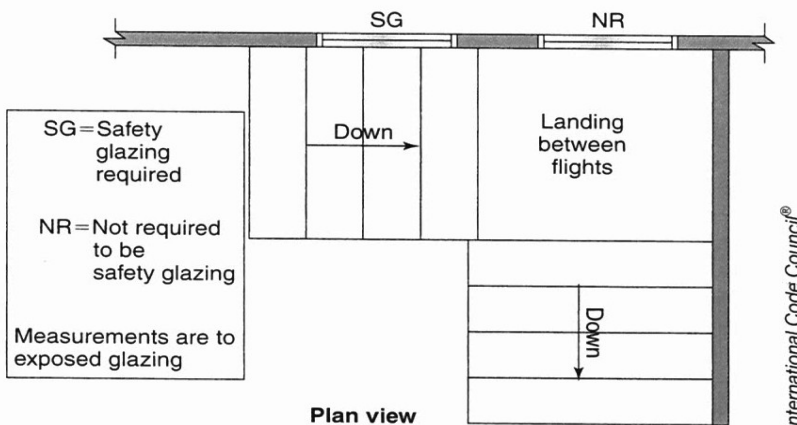
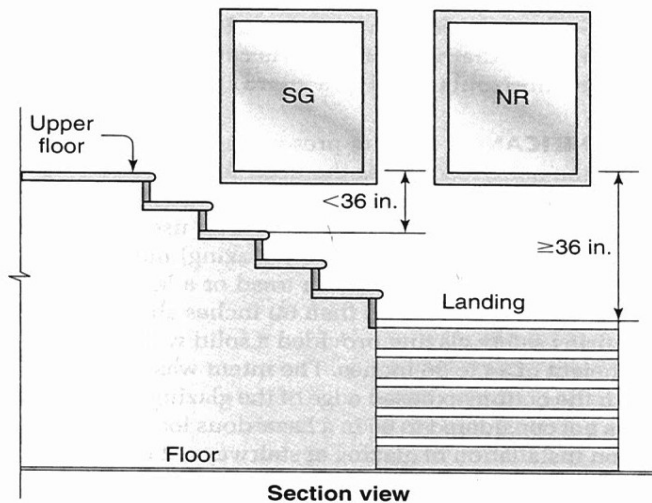
CHANGE TYPE: Modification

CHANGE SUMMARY: For glazing that is not considered to be in a hazardous location, the rule for the minimum height above a tread at the side of a stairway is now 36 inches to correspond to the height of a guard as previously found in the exception. Other revisions to the text clarify the meaning and application of the glazing requirements at stairways.

2012 CODE: 7. **R308.4.6 Glazing Adjacent Stairs and Ramps.** Glazing adjacent to stairways, landings, and ramps within 36 inches (914 mm) horizontally of a walking surface when where the bottom exposed surface edge of the glazing is less than 60 36 inches (1524 914 mm) above
R308.4.6 continues

R308.4.6

Glazing Adjacent Stairs and Ramps



Glazing adjacent stairs and landings between flights of stairs.

International Code Council®

Construction Tip Sheet 12

Safety Glazing

R312

Guards and Window Fall Protection

CHANGE TYPE: Modification

CHANGE SUMMARY: The provisions for window fall protection have been relocated from Chapter 6 to Chapter 3. The terminology for window opening control devices has been updated for consistency with the referenced standard ASTM F 290. Operation criteria found in the 2008 edition of the standard have been deleted from the prescriptive provisions of the IRC.

2012 CODE:

SECTION R312 GUARDS AND WINDOW FALL PROTECTION

R312.1 Guards. Guards shall be provided in accordance with Sections R312.1.1 through R312.1.4.

R312.1.1 Where Required. [No change to text]

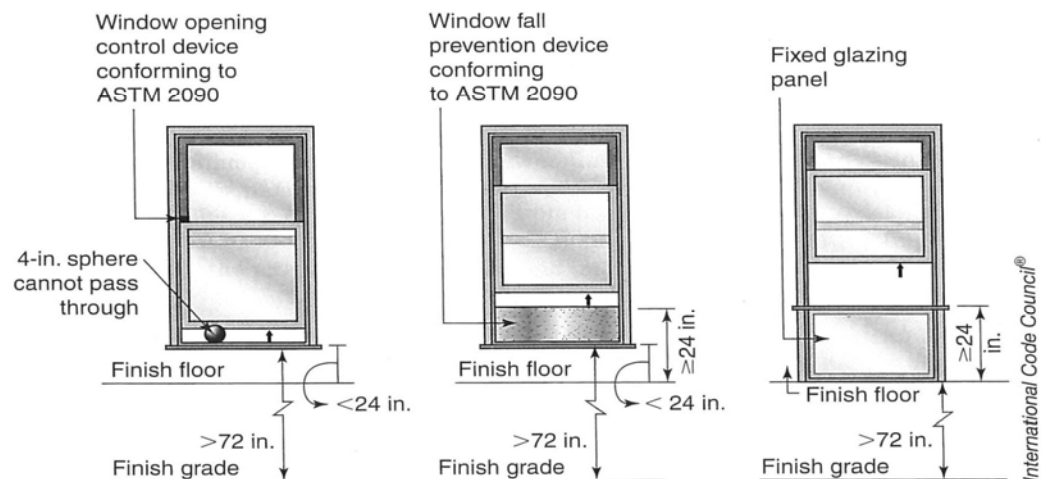
R312.1.2 Height. [No change to text]

R312.1.3 Opening Limitations. [No change to text]

R312.1.4 Exterior Wood/Plastic Composite Guards. [No change to text]

R312.2 Window Fall Protection. Window fall protection shall be provided in accordance with Sections R312.2.1 and R312.2.2.

R612.2 R312.2.1 Window Sills. In dwelling units, where the opening of an operable window is located more than 72 inches (1829 mm) above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches (610 mm) above the finished floor of the room in which the window is located. Operable



Alternatives to minimum window sill height.

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Safety Glazing

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Significant Changes to the IRC 2012 Edition

R308.4.7 Glazing Adjacent to the Bottom Stair Landing

CHANGE SIGNIFICANCE: In residential occupancies, the greatest risk for a fall into glazing causing injury occurs at the bottom of stairways and the code has always defined the locations adjacent to bottom landings as hazardous locations. These provisions have undergone modification to clarify their intent and application, and provide consistency with the other safety glazing provisions. Item 8 in the list of hazardous locations related to glazing becomes Subsection R308.4.7 in the 2012 IRC. The title of this subsection clarifies that it is glazing adjacent to the bottom landing that is being regulated, not glazing adjacent to the stairway. Similar to the stairway provisions in the previous item, the exception is more appropriately located in the main rule of this subsection. Previously, the rule stated that the glazing (other than safety glazing) required installation at least 60 inches above the walking surface. Exception 2 to the rule allowed installations less than 60 inches above the walking surface without requiring safety glazing provided a solid wall or panel protected the glazing to a height of 34 to 36 inches. The intent was that a window installed in a wall with the bottom exposed edge of the glazing at least 34 inches above the walking surface was not considered to be in a hazardous location. Because the standard installation is a window that is installed in a wall, the exception becomes the rule for the 2012 edition of the IRC. The references to stairways in Subsection R308.4.6 contains information related to glazing near stairways, and it was not thought necessary to repeat the requirements in the subsequent subsection. The previous range of 34 to 36 inches shown in the exception intended to correspond to the minimum heights of handrails and guards, respectively, but implied to some that there was a maximum height limit. A range of dimensions is confusing in this case, and the new code now sets a minimum height of 36 inches to correspond to the guard requirements. Therefore, where the bottom exposed edge of the glazing adjacent to the landing is less than 36 inches above the walking surface and the glazing is within 60 inches of the bottom stair nosing, it is considered a hazardous location and safety glazing is required. Conversely, satisfying either of the following conditions means the glazing at the bottom landing is not considered to be in a hazardous location and therefore does not require safety glazing:

- The bottom exposed edge of the glazing is 36 inches or greater above the walking surface.
- The glazing is greater than 60 inches from the nosing of the bottom tread of the stairway measured horizontally.

The modified provisions for glazing near a bottom landing differ from those for glazing adjacent to stairways in one significant way. Glazing adjacent a stairway that is less than 36 inches above the tread may be protected by a single rail meeting the prescribed load and dimension requirements or be protected by a guard. When so protected, the glazing is not considered to be in a hazardous location and does not require safety glazing. This exception does not apply to glazing near a bottom landing. To eliminate the need for safety glazing requires both a guard and a horizontal clearance of 18 inches between the guard and the glazing. The 18-inch requirement has been deleted from the provisions related to glazing at the side of a stairway.

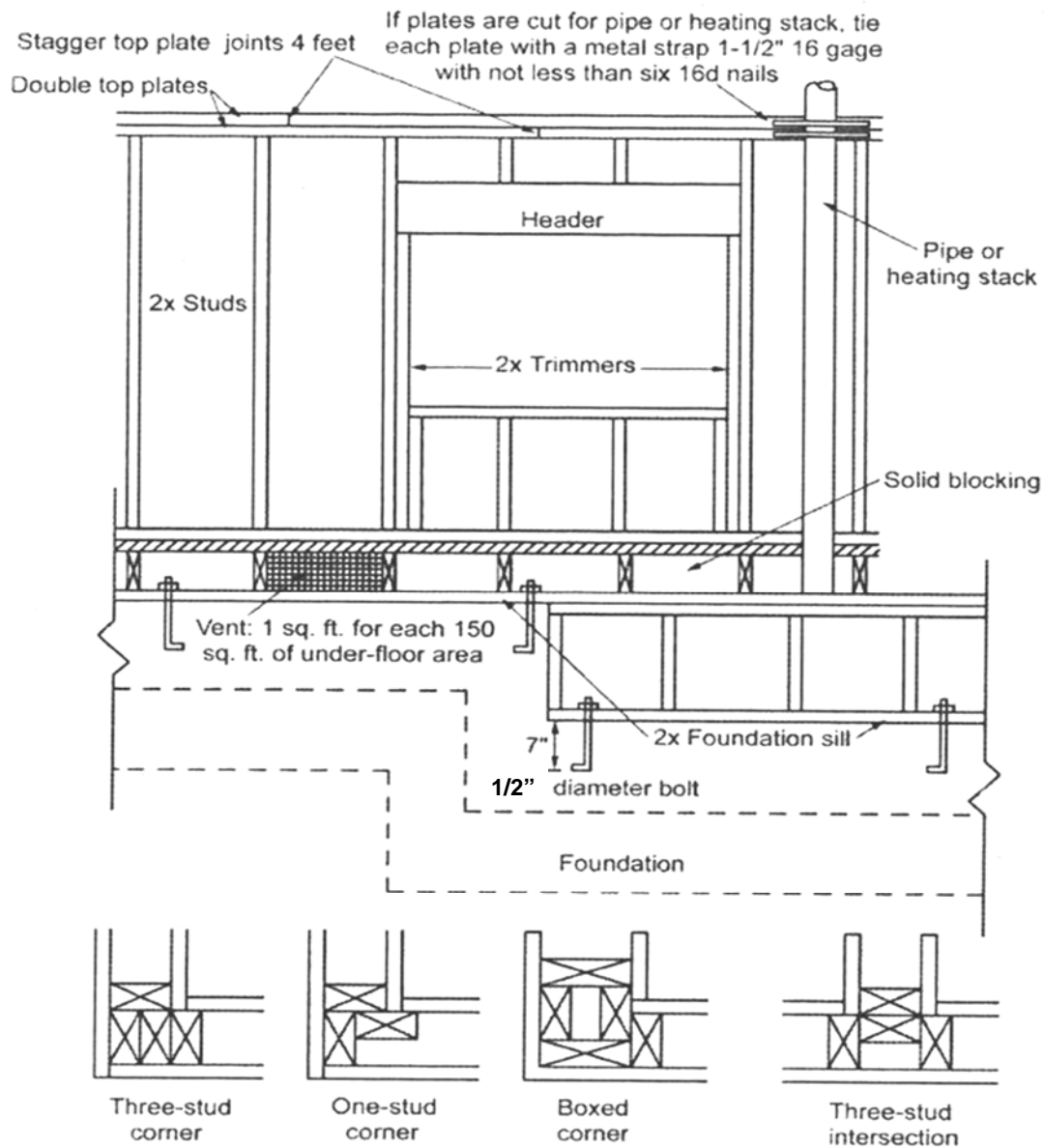
Revision of these provisions clarifies the meaning, provides objectively measurable dimensions, and brings consistency to the application of glazing requirements in the vicinity of the landing at the bottom of stairways.

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Construction Tip Sheet **

Typical Wall Framing

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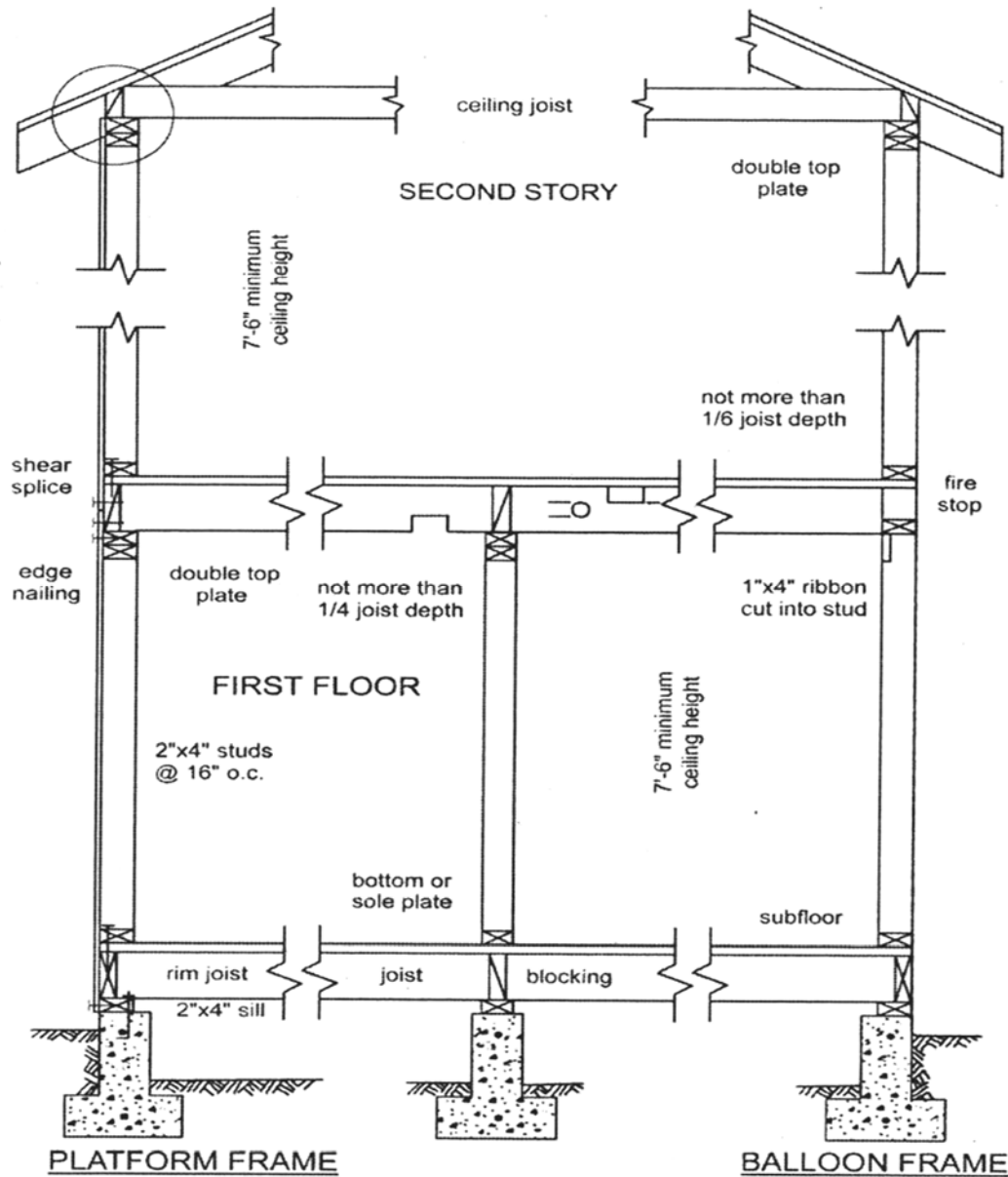
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Typical Wall Framing

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Typical Two Story Wall Framing

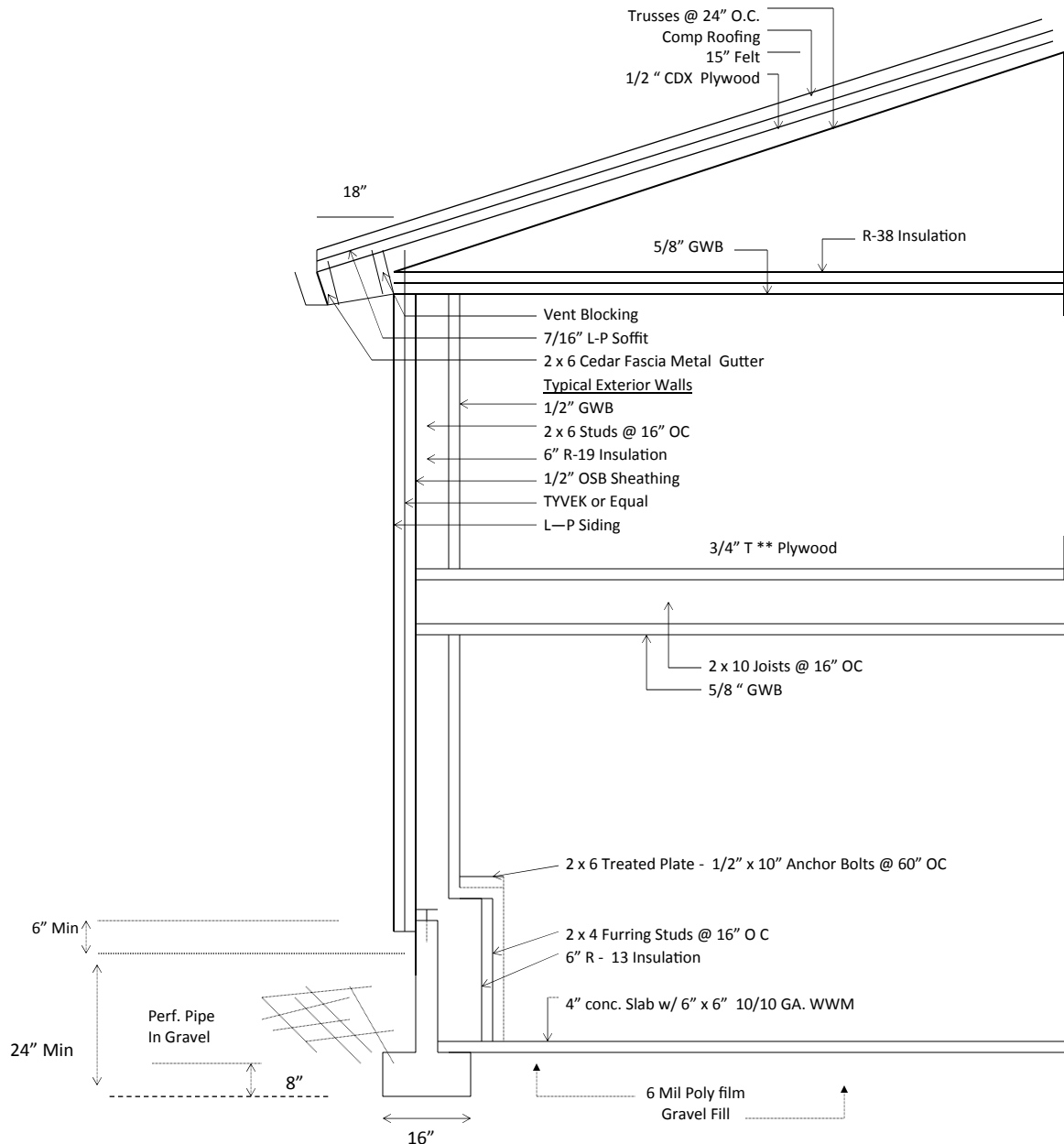


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Wall Section & Basement

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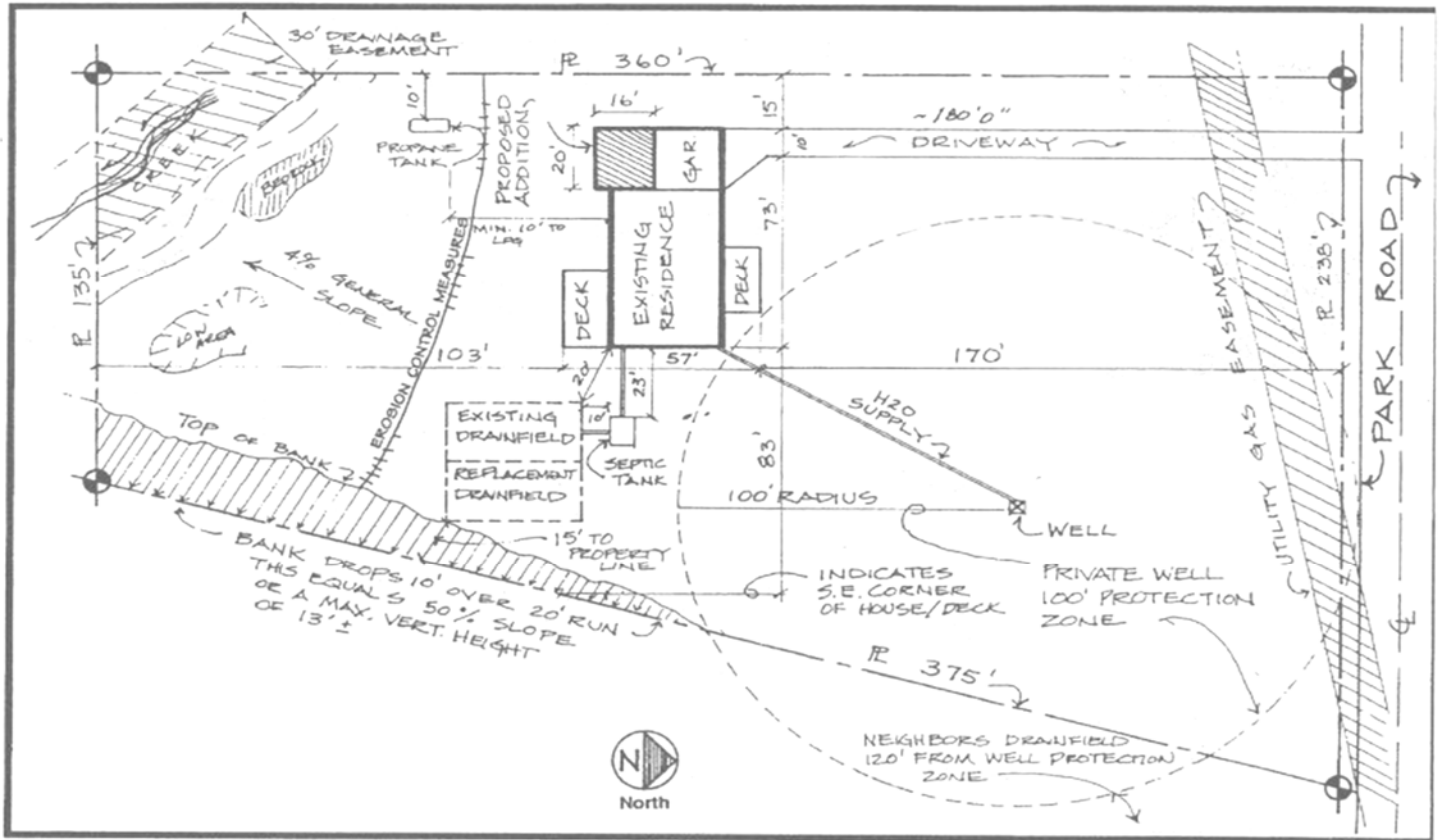
Wall Section & Basement

* Drawing Not to Scale

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Site Plan Example

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John Doe	Site Plan Example	1/4" = 10'
1115 Albany Street	6R380224 011	Date: 12/9/2011

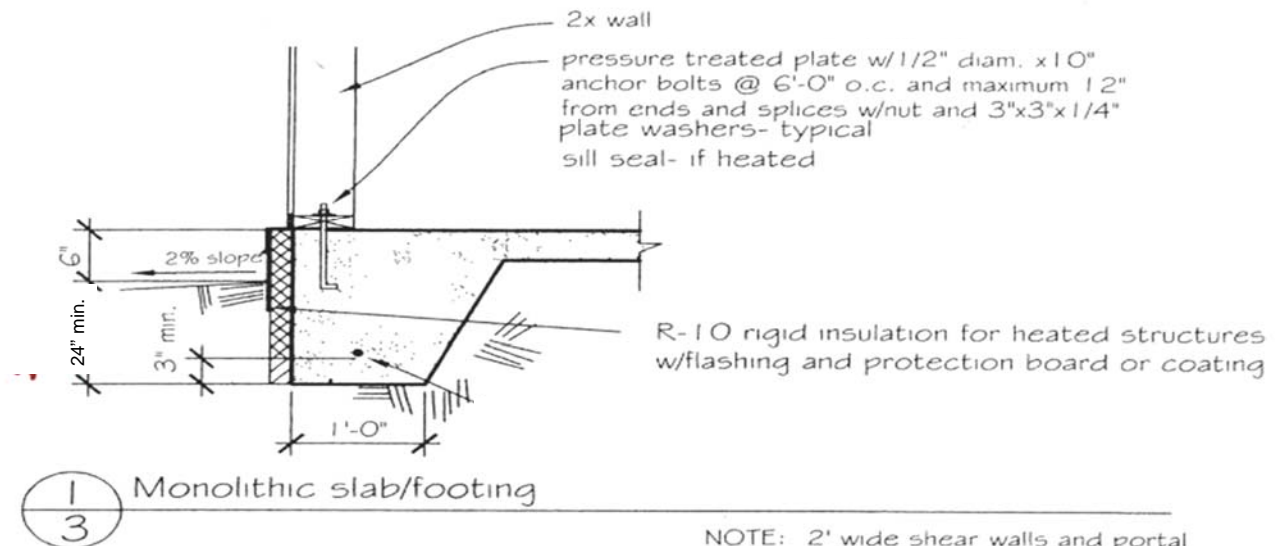
Inspection Requirements:

- There is a 180-day period in which to begin construction.
- A start constitutes a poured foundation or equal.
- It is the applicant's responsibility to make sure the permit does not expire.
- Failure to commence the project or abandonment of construction for 180-days results in expiration of the permit.
- Continued construction activity must be verified through regular inspections.
- Post your INSPECTION RECORD in a conspicuous place when construction begins and leave it posted until all inspections have been satisfied.
- That inspection record is your proof that the required inspections have been completed and it should be retained along with all other important paperwork concerning the project.
- Post the job address at the road so that the site can be found easily by the inspectors.

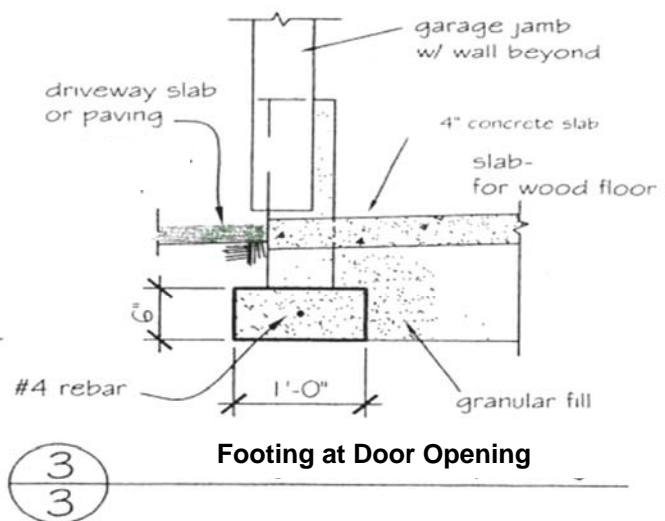
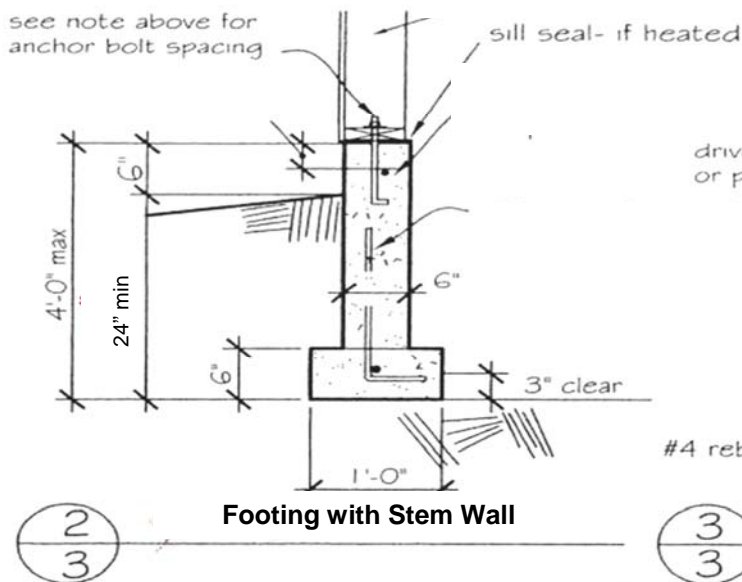
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Footings

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NOTE: 2' wide shear walls and portal frame will require larger continuous footings at garage opening



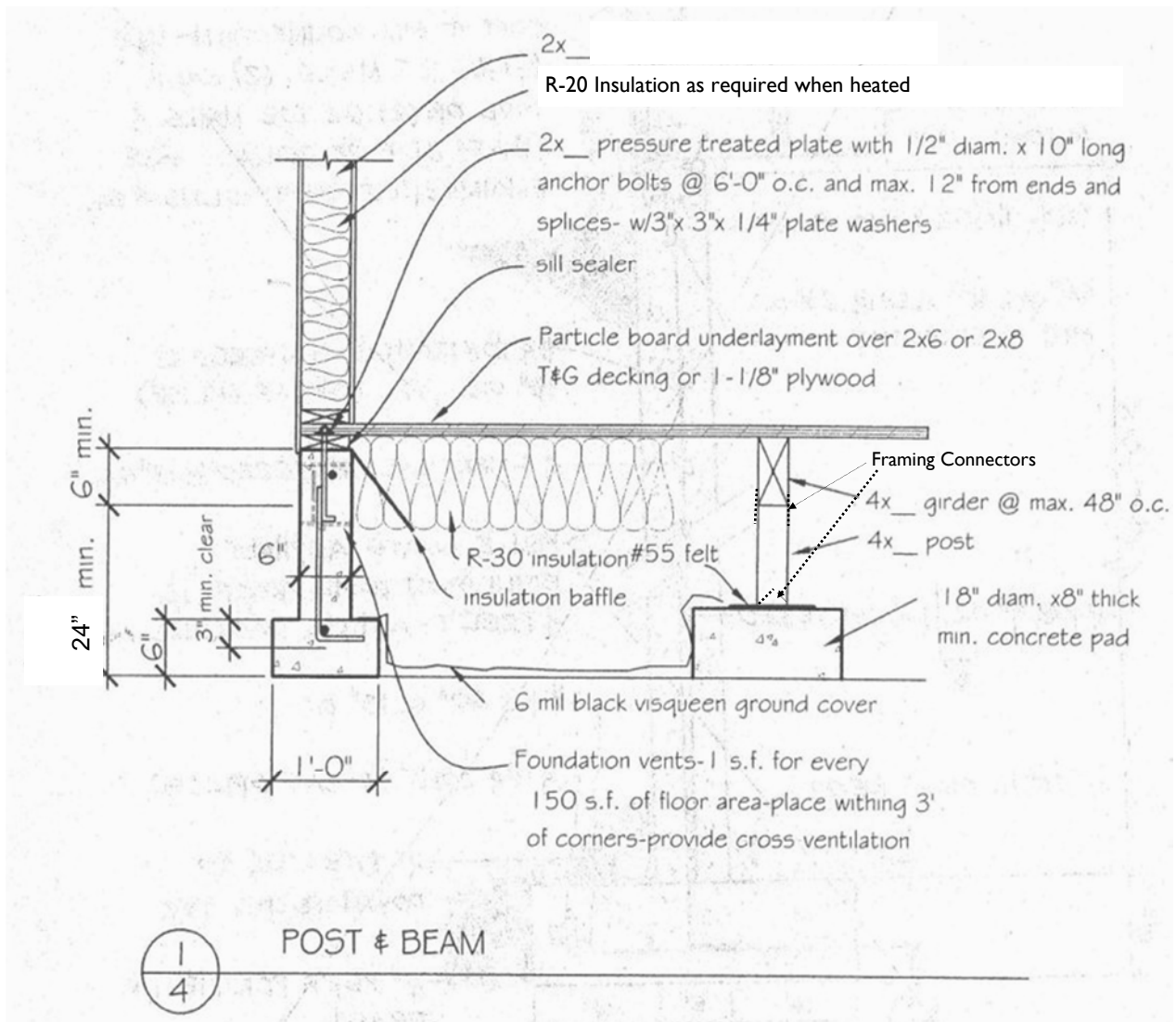
Note:

1. Footings over 4' 0" high are required to be designed as retaining walls. Minimum concrete strength 2500 p.s.i. lap rebar min. 40 diameters at splices - secure with tie wire.

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Footing / Floor

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Notes:

1. 4 x 6 D.F. #2 Girders - Maximum 7' span.
2. 4 x 4 D.F. #2 Post. 4 x 6 required at girder splices.
3. Decking must be covered with 3/8" plywood or type 2M particle board.
4. 4x post over 3' high must be braced.
5. Refer to rebar requirement on following pages for requirement in footing.
6. Support insulation at 12" O.C. to hold tight to underside of floor deck. Do Not Compress.
7. Minimum concrete strength 2500 p.s.i. lap rebar min. 40 diameters at splices secure with tie wire.

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Typical Cross Section

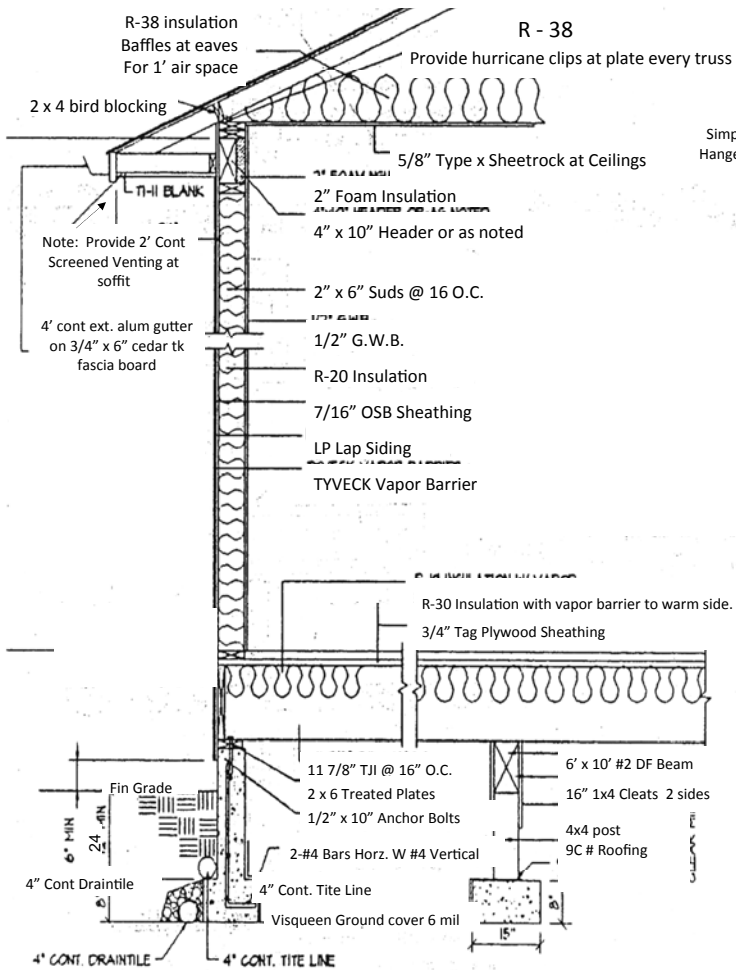
Note:

Shingles to be 30 Year Comp

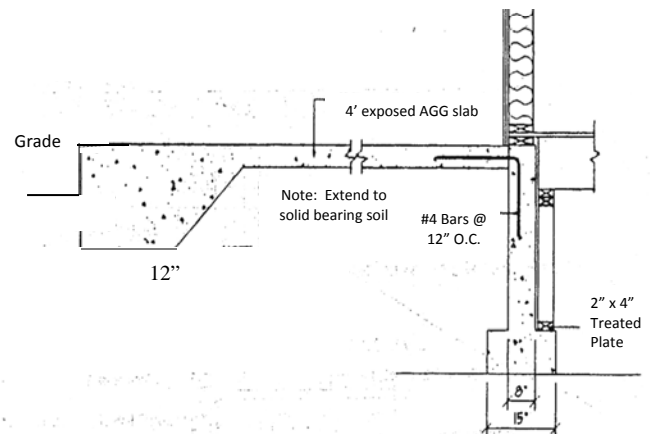
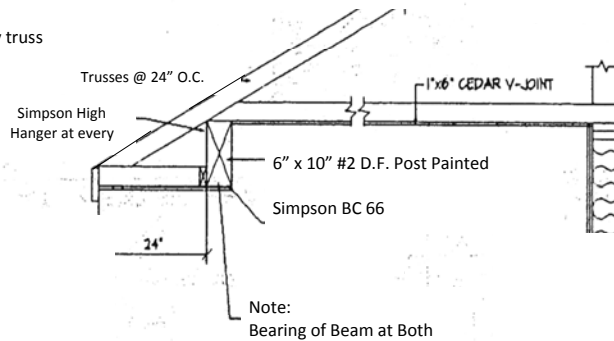
3- Tab Asphalt Shingles over 15# Roofing Felt over

1/2" CDX Plywood or Equiv. CC at eaves or engineered

& stamped Factory - built trusses @ 24" O.C.



Framing Detail/Section

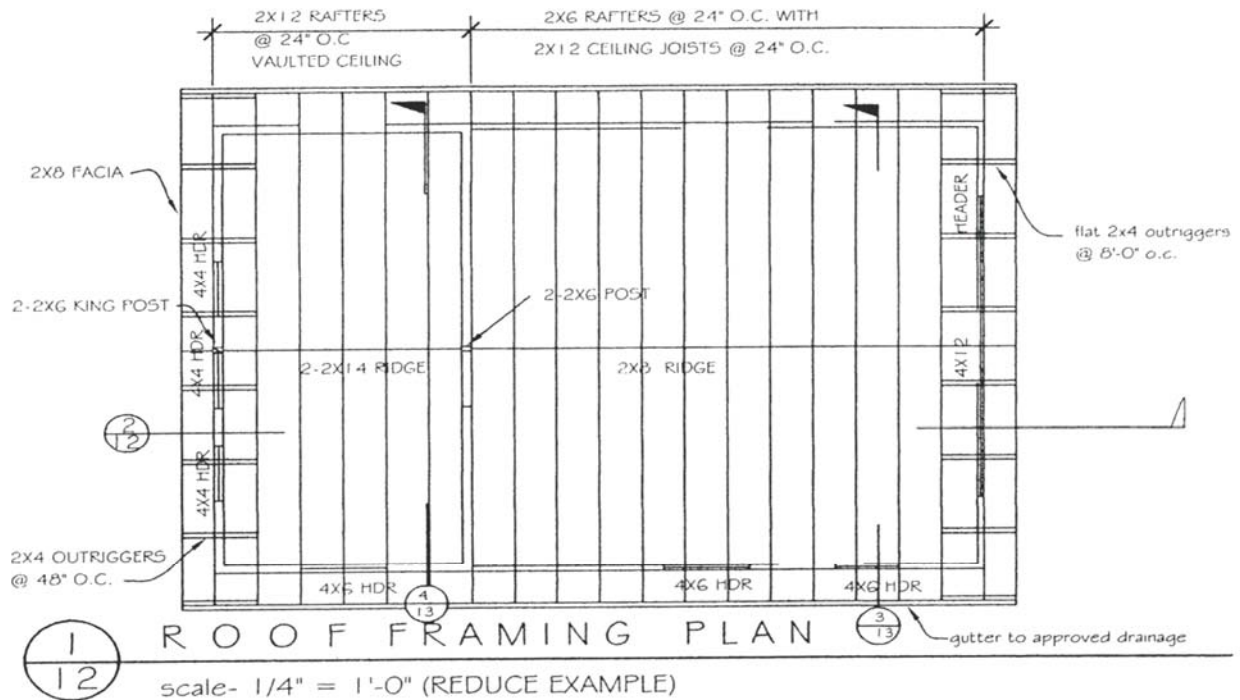


Footing Detail at Front Porch
Scale 3/4" = 1 foot

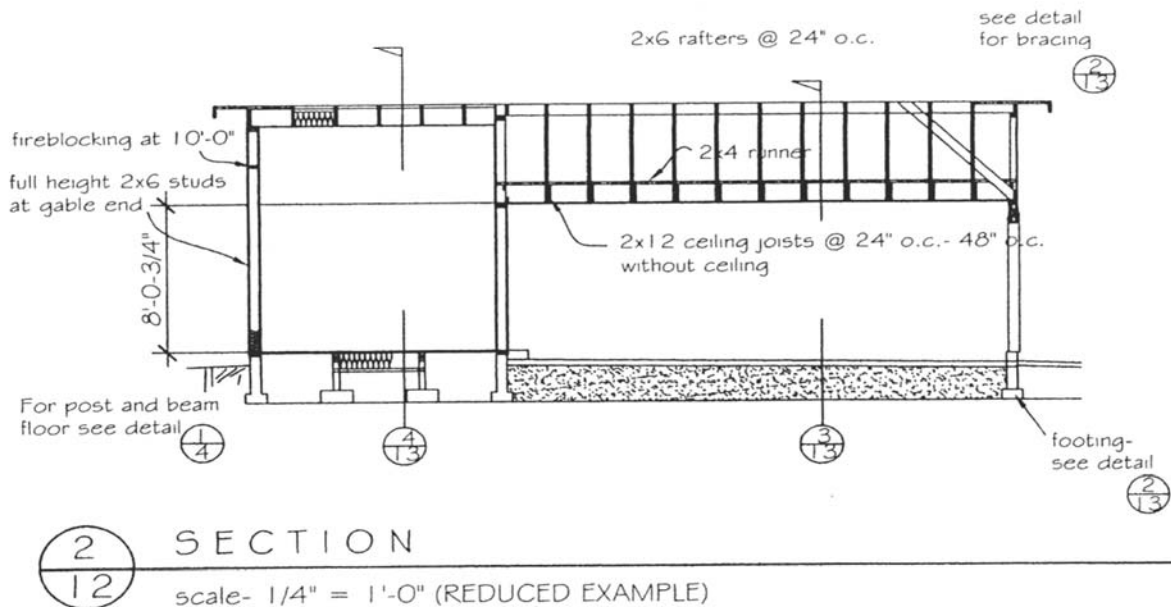
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Roof Framing Plan

Scale 1/4" = 1'0"



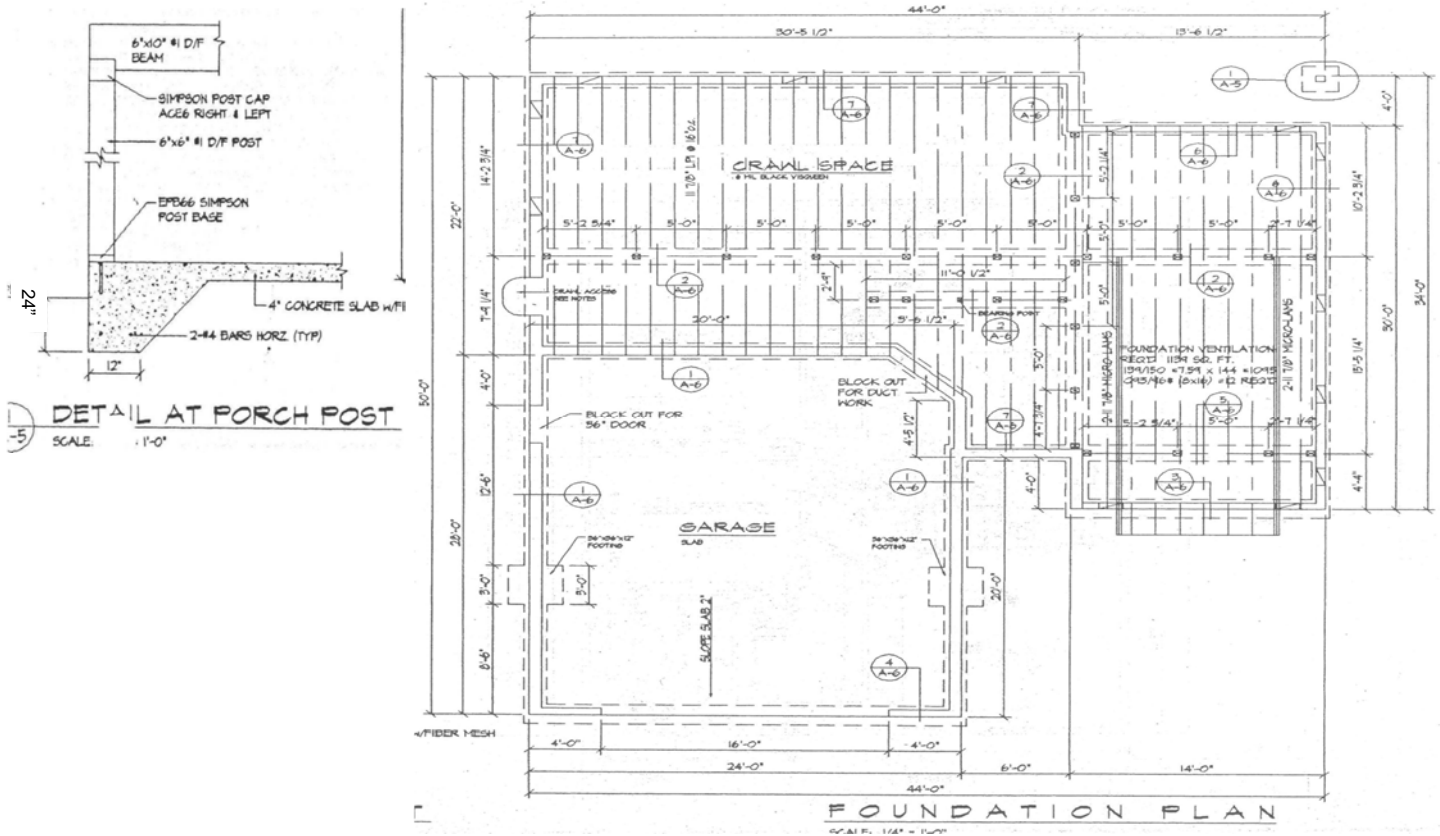
NOTE: If attaching to existing home- show attachment to existing and all structural modifications



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Sample Plan

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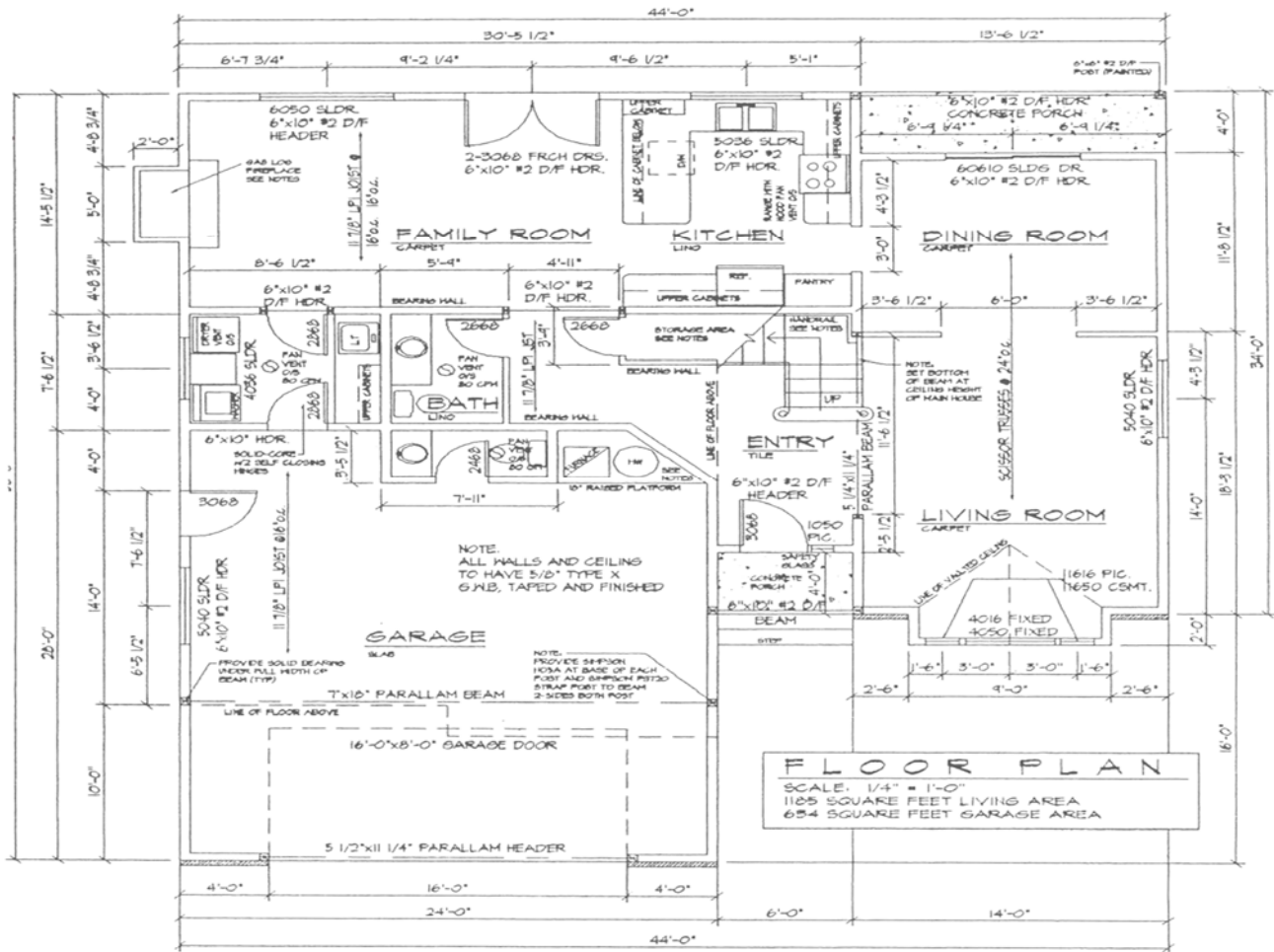
Notes:

1. Slab at garage floor shall be 4" thick with 6 ml black visqueen over compacted fill.
2. Foundation plates shall be bolted to foundation with not less than 1/2" steel bolts embedded 7" minimum into concrete spaced not more than 12" apart with at least 2 bolts per piece. Washers are required.
3. See framing plan for steel requirements.
4. Foundation ventilation shall be 1/150 of under floor area and shall be vented by approved mechanical means or by openings in exterior perimeter wall. Opening shall be located as close to corners as practical and arranged to provide cross ventilation on at least 2 sides. They shall be covered with corrosion-resistant wire mesh 1/4" openings.
5. Crawl space under floor shall be at least 18" and a minimum of 12" under bottom of girders.
6. Under floor area shall be provided with a minimum of 18" x 24" access hole.
7. Provide 6 ml black vapor barrier lapped a minimum of 6" at each joint and extend up to the foundation wall.
8. Dryer to be vented separately to outside.
9. Anchored veneer shall be supported on footing. It shall have an air space between veneer and sheathing. Anchor ties to be corrosion resistant; 1 for each 2 sq. ft. Add weep holes and flashing.

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Sample Plan

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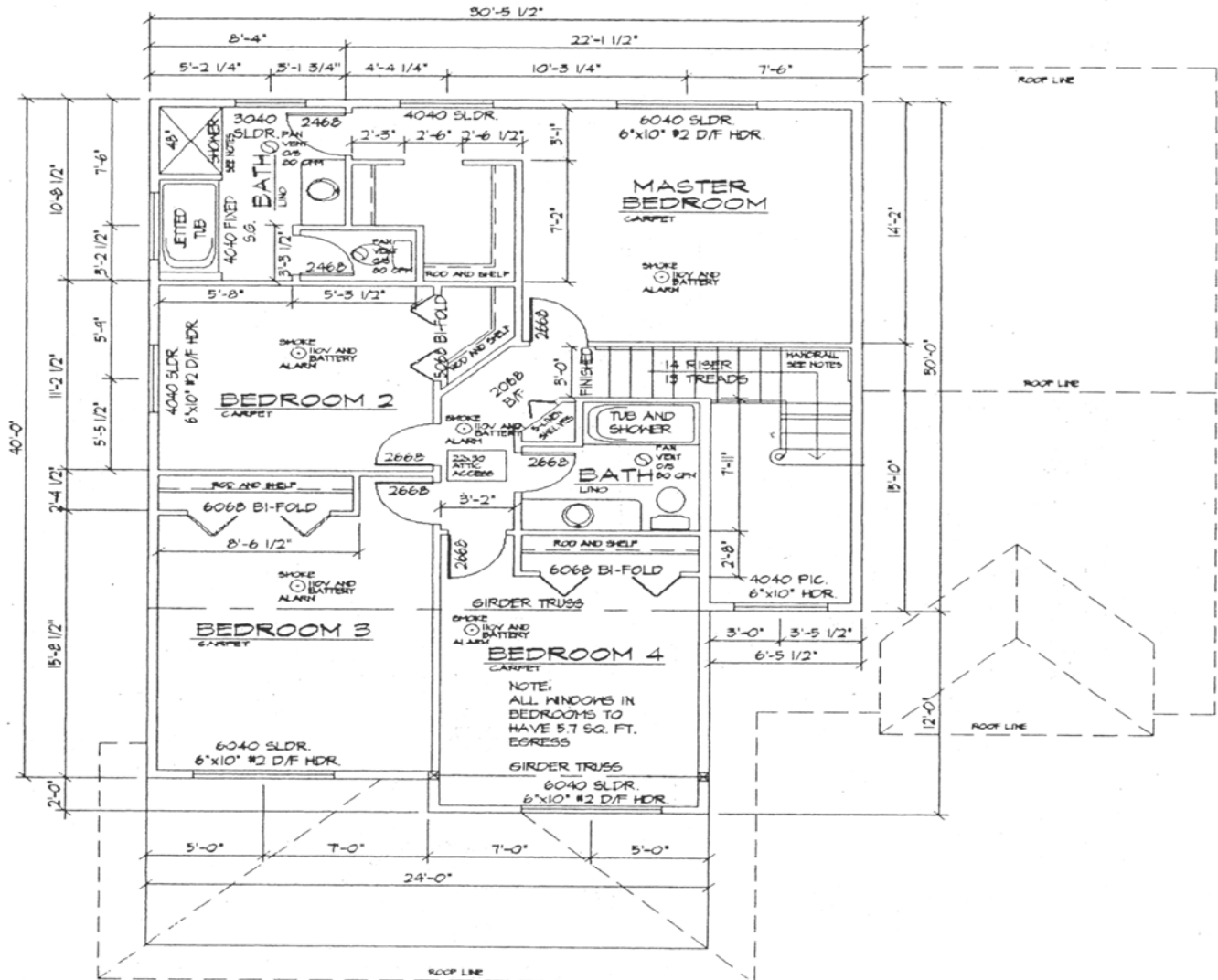
Notes:

1. Solid Fuel Stoves shall be installed in accordance with manufacturers instruction.
2. Dryer to be separately vented to outside.
3. Attic access to be readily accessible. Minimum size 22" x 30" with 30" unobstructed headroom.
4. Appliance installed in garage shall be located out of the normal path of vehicles or a means of protection shall be provided. Units generating a spark of flame shall have pilots and burners 18" above the floor.
5. If the lid of the garage is used as a fire separation, layers of 5/8" type X G W B shall be applied to framing.
6. Handrails shall be provided on two side opening and continuous on one side only. Handrail shall be 34" above nosing of tread and shall be continuous the full length of the stairs and the ends shall return to the wall or shall terminate in a newell post.
7. Maximum rise 7 3/4" minimum run 10" minimum width 36" minimum headroom 6'8".
8. Handrail to be minimum 34" to 38" in height with balusters not over 4" apart.

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Sample Plan

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2nd FLOOR PLAN

SCALE: 1/4" = 1'-0"
1065 SQUARE FEET LIVING AREA

Notes:

1. Attic access to be readily accessible. Minimum size 22" x 30" with 30" unrestricted headroom.
2. Handrails shall be provided on two side openings and continuous on one side only. Handrail shall be 34" above nosing of tread and shall be continuous the full length of the stairs and the ends shall return to the wall or shall terminate in a Newell post.
3. Fireblock stairways between stringers and along run between studs.