

# Building Plans

## A Guide To Requirements & Example Plans

### City of Hopkins Inspections Division

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*Notice: This handout is intended only as a guide to the subject matter covered herein and is based in part on the 2015 Minnesota State Building Code. While every attempt has been made to insure the correctness of this handout, no guarantees are made to its accuracy or completeness. Responsibility for compliance with applicable codes and ordinances falls on the owner or contractor. For specific questions regarding code requirements, refer to the Minnesota Building Code or contact us.*

## Why building plans?

Probably the most important step in the permit process is the submittal and review of building plans. The purpose of the plans is to provide a detailed written document of the scope of your project.

There are at least three very good reasons why you should have building plans prepared for your project:

- First, the plans provide a method for you to determine if the project you are proposing meets your needs and to allow you to determine the cost of materials and other construction costs.
- Second, the Inspections Division will require plans be submitted as a condition of receiving a building permit for certain types of work.
- Third, if you are having a number of contractors bid on the job, which is recommended, you can provide them the same plans and you will more easily be able to compare bids.

When the City receives your plans, a staff member will review your plans to determine in advance that the proposed work complies with the various building rules. **The goal is to uncover potential problem areas while the project is still on paper and save you costly corrections later.**

Applicants are asked to provide two sets of plans. The City retains one set, the other set will be returned to the permit applicant with any corrections noted.

## Creating Your Plans

As stated above, plans should be detailed. They must also be neatly drawn and drawn to a useable scale. One-quarter inch to one foot is a common scale for floor plans and building plans. Typical residential plans would include a site plan (decks, additions, and garages only), foundation plans, floor plans, cross sections, elevations, details of various structural components, and a window schedule. Plans should be dimensioned and include information on use of rooms, wall and ceiling finishes, and lumber sizes and spacing. It is helpful if each page identifies the address of the project as well as the owner's name.

You can prepare your own plans or your contractor or a drafting service can prepare them for you. You can use 8 ½" × 11" sheets for projects that aren't too large.

If your project is very complex, you may find it advantageous to hire a professional designer to assist you. Also, if your design involves complicated framing techniques or the use of steel I-beams, for example, you may be required to verify that the designs meet code as a part of the plan review process. The Inspections Division may require that a licensed engineer provide this verification.

**Once your plans are reviewed and approved, it is very important that you do not change the plans without prior approval of the Inspections Division.** If you change the plans, you run the risk of code violations and negate the purpose of having the plans reviewed in the first place.



The following is a description of what should be included on various portions of the plans:

**Site Plan**

The site plan is a scale drawing of the lot showing the location of each building on the lot. The site plan should:

- indicate the address of the property, the scale to which the drawing was prepared, and the orientation of the drawing with a north arrow.
- show the size of each building as well as the distance from each building to the property lines and to other buildings.
- clearly identify the new construction.
- show any water features, retaining walls, or other physical features.
- show distances from buildings to property lines and not streets, sidewalks or alleys. (If you do not know the location of your property lines, you may need to have your lot surveyed.)

**Floor Plans**

Floor plans should be submitted for each floor affected by a building project. The floor plan should show the location and identity of each room, room dimensions, locations of windows and doors, fixture locations, and items such as smoke detectors.

A window schedule should be provided with the floor plans. The schedule should indicate the location of the window, the manufacturer, the window size (manufacturer’s model number), and if the window is safety glazed.

**Foundation Plans**

Foundation plans indicate the path and location of the footings and general notes on the foundation design. They should be fully dimensioned.

**Conclusion**

As you can see, there is much information that is to be included in the plans. However, this information is necessary to assist the Inspections Division in completing a thorough review of your project. If this portion of the permit process is diligently followed, the rest of your project should proceed smoothly without any significant code violations with which to contend.

**Elevations**

An elevation plan is a view of the building, as one would see it from each side of the building. Elevations help to show the scale of the project, the building height, and exterior finishes. They also help to determine the number of stories of a building, which can effect certain building code requirements.

**Cross Sections**

Cross sections show a view through the building’s framework from foundation to the peak of the roof. Multiple cross sections may be necessary to portray the various work proposed.

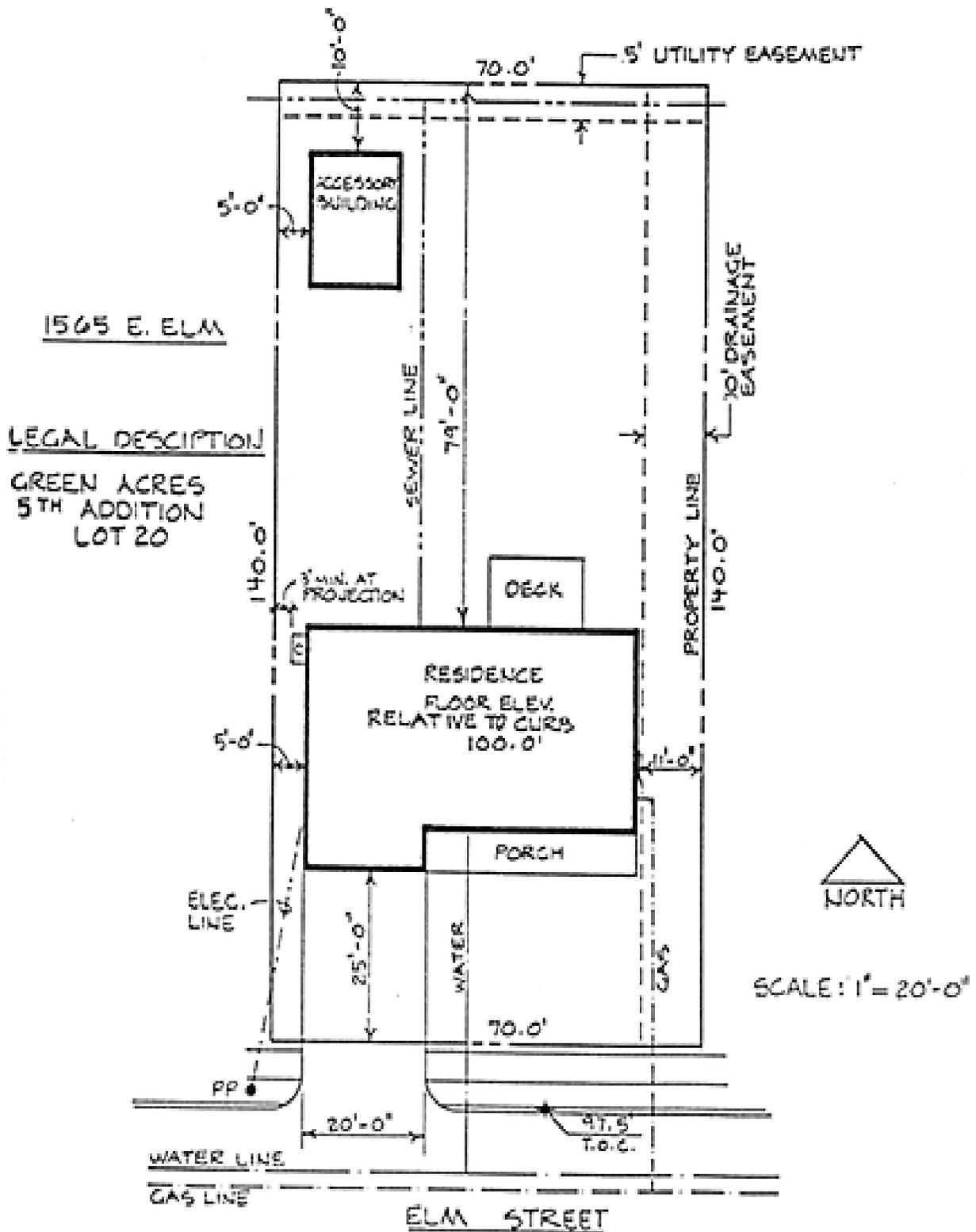
Cross sections should show:

- the footing width and depth including rebar placement;
- foundation type (masonry, concrete, or wood), foundation height and thickness, rebar locations, framing details;
- anchor bolt locations;
- sill plates, floor joist size and spacing, stud size and spacing, exterior and interior sheathing, exterior wall coverings, and insulation and vapor barriers; and
- roof framing including truss drawings or joist and rafter size and spacing, roof pitch, eave details, insulation and vapor barriers, roof sheathing, underlayment, ventilation methods, ice and water barrier installations, and roofing type.

Descriptive notes may be included to address specific issues such as treated plates, header sizes, fastener schedules, etc.



Typical Site Plan Illustration

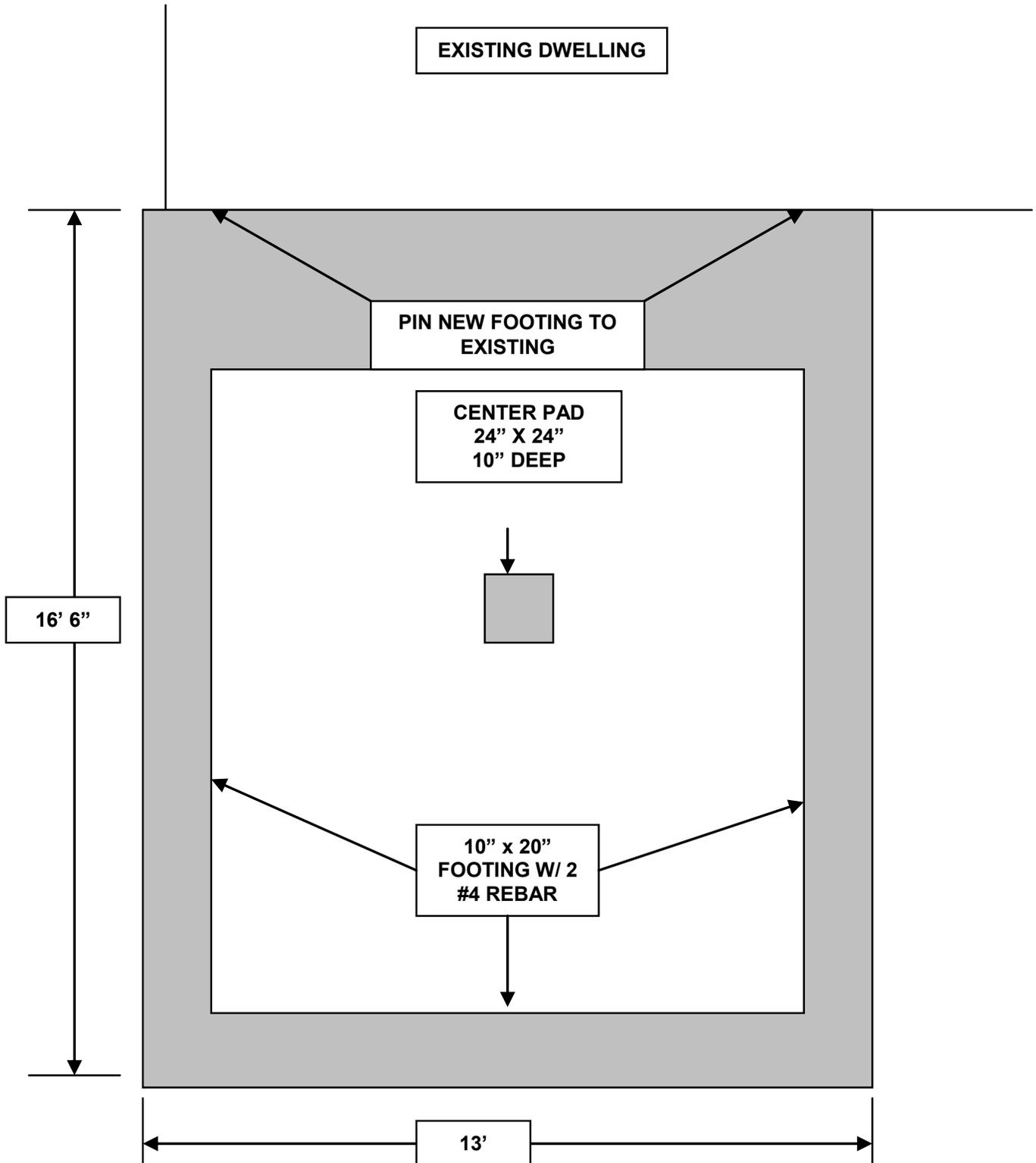






### Typical Foundation Plan for Dwelling Addition

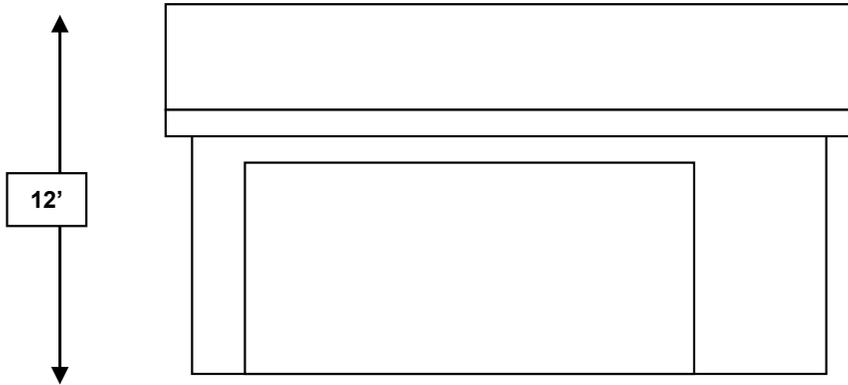
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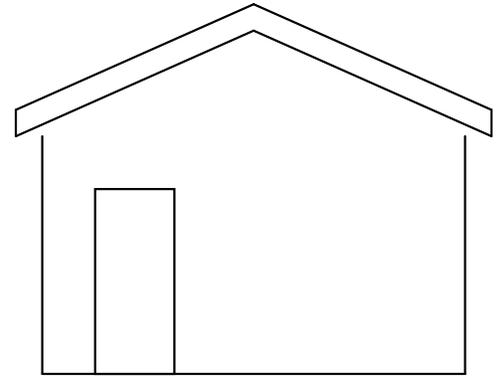


### Typical Building Elevations

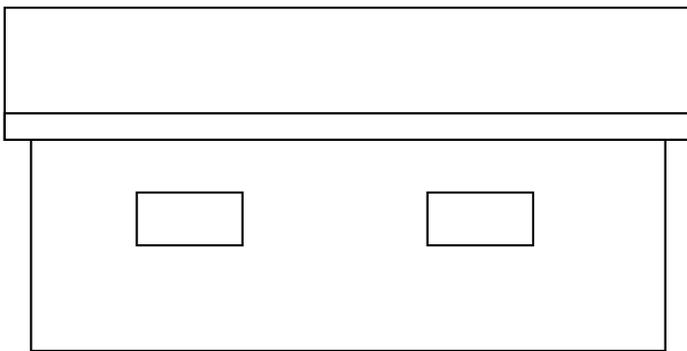
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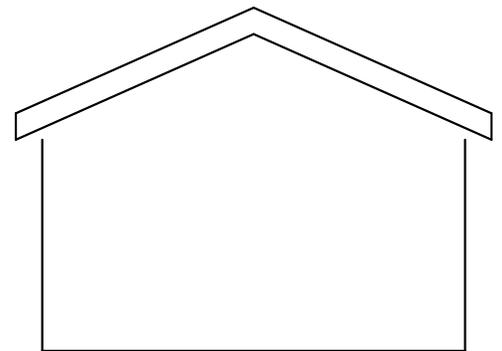
FRONT



RIGHT SIDE



REAR

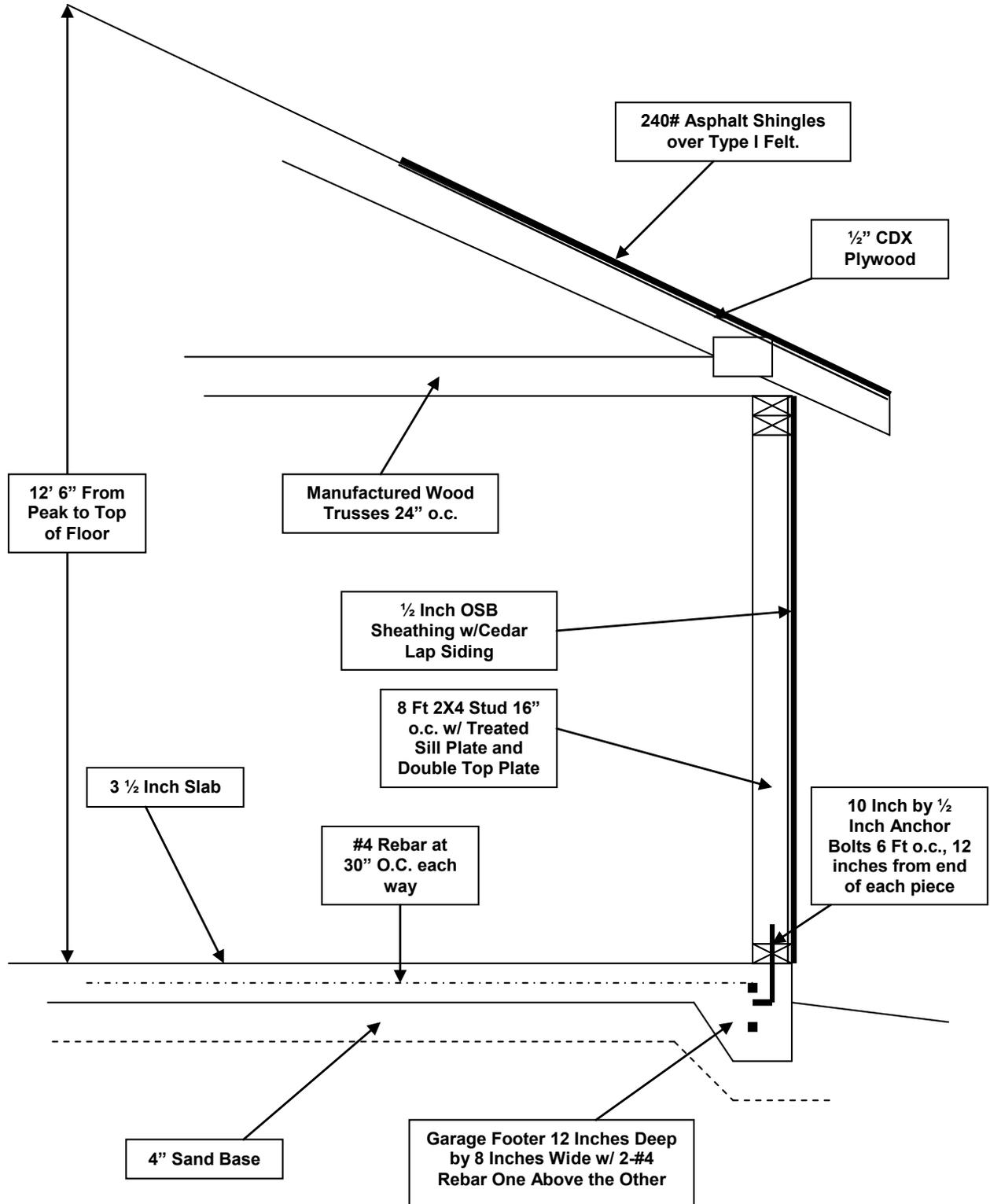


LEFT SIDE



### Typical Garage Cross Section

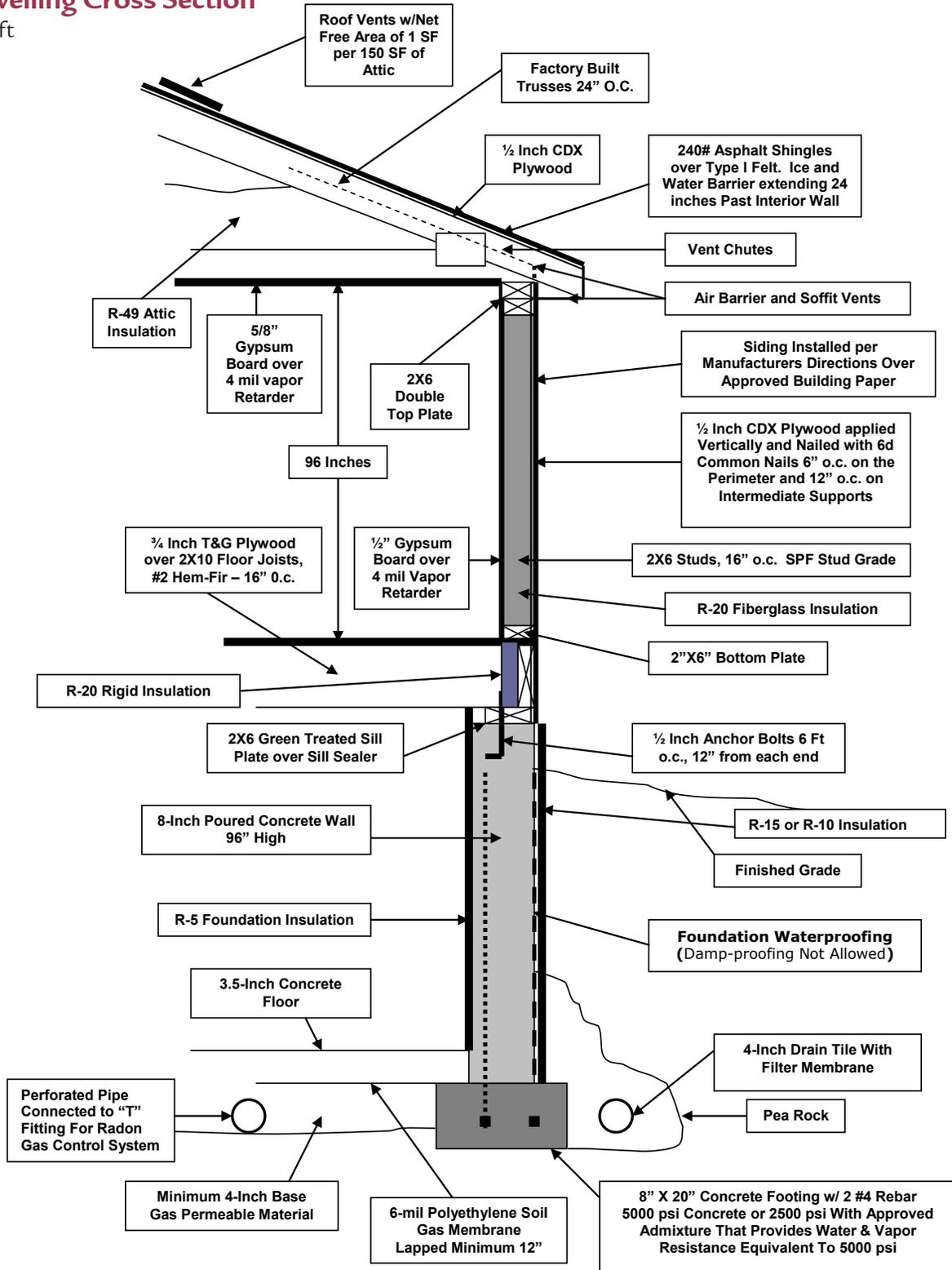
Scale 1/4" = 1 ft





### Typical Dwelling Cross Section

Scale 1/4" = 1 ft



Revised 5/01/2015

