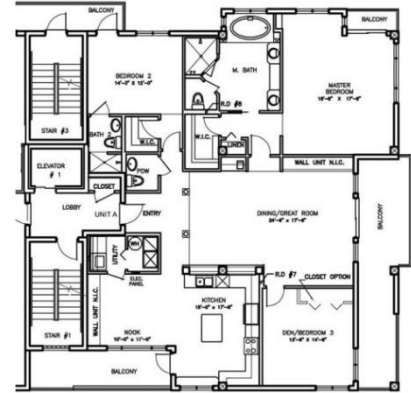


BUILDING PLANS



**BUILDING
INSPECTIONS
DEPARTMENT
507-537-6773**

www.ci.marshall.mn.us



This handout is intended only as a guide to the subject matter covered herein and is based in part on the 2015 Minnesota Residential 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 your local Building Department.

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. If you are having a number of contractors bid on your project, it is in your best interests if you provide plans independent of a contractor. That way all of the contractors that bid on your project will be bidding on the same conditions 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. Residential and small commercial projects will require just one set of construction documents. For larger commercial projects, one full size set and two half size sets will be required. One half size set will be stamped after review and corrections and sent back; this set will have to be kept on site and available to building inspectors upon request. You should review approved plans to determine if any corrections have been made.

Plans must be detailed. They must also be neatly drawn to a useable scale. One-quarter inch to one foot is a common scale for residential floor plans and building plans. Typical residential plans would include a site plan (new construction, 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 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. 8½" x 11" sheets may be used 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 Building Department 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 Building Department. 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 indicate the orientation of the drawing with a north arrow. The size of each building must be shown as well as the distance from each building to the property lines and to other buildings. The new construction should be clearly identified on the site plan. Any water features, retaining walls, or other physical features should be shown. Distances from buildings must be shown 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. Please see a separate handout for Site Plans for additional information.

Foundation Plans

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

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.

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.

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.

Truss Shop Drawings

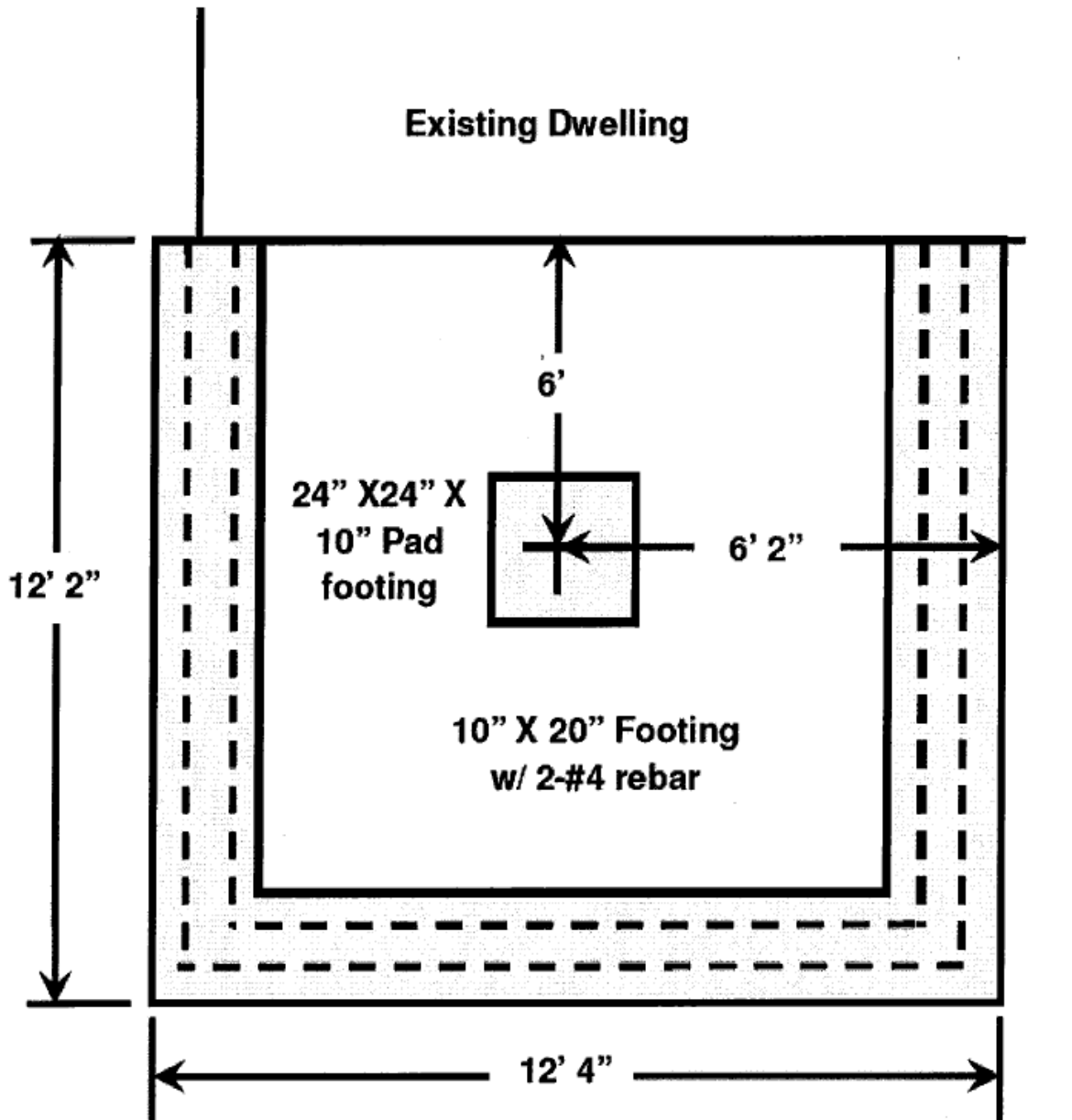
Floor and Roof truss shop drawings including the framing plans and individual trusses should be provided if pre-manufactured trusses are used in the project. Truss drawings shall be prepared by the truss manufacturer and include all relevant Code information. In addition, all beams and headers that are not conventional dimension lumber made should be structurally designed and the information should be included along with the truss shop drawings.

Additional Information

In addition to the required drawings, mechanical and Energy Code information should be presented for review. This should include Energy Certificate and heat gain and loss calculations as required by the Energy Code.

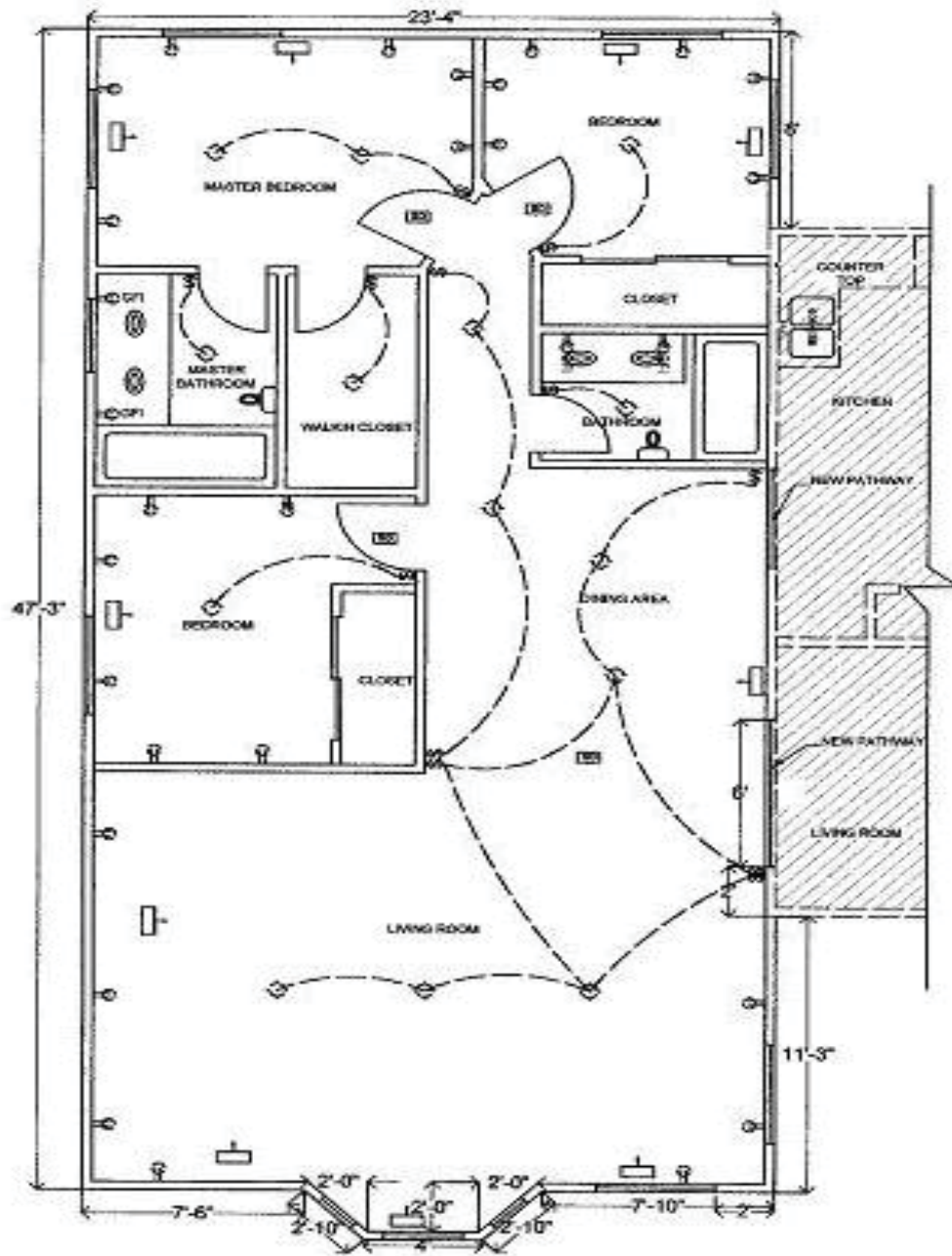
Below are some examples of acceptable construction drawings.

TYPICAL FOUNDATION LAYOUT

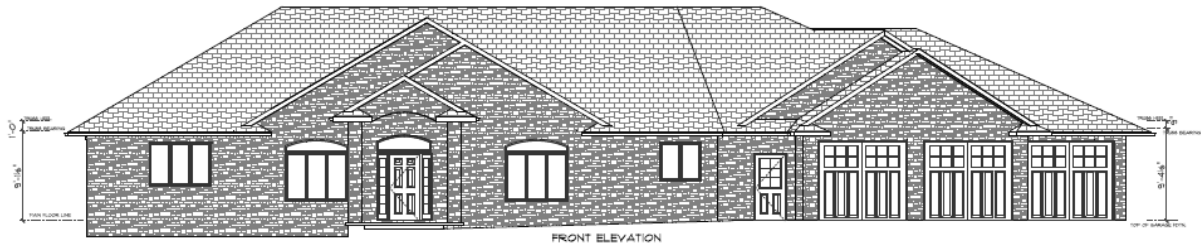


Scale 1/4" = 1'

TYPICAL BUILDING



MAIN FLOOR PLAN
SCALE 3/16"=1'-0"



FRONT ELEVATION



REAR ELEVATION

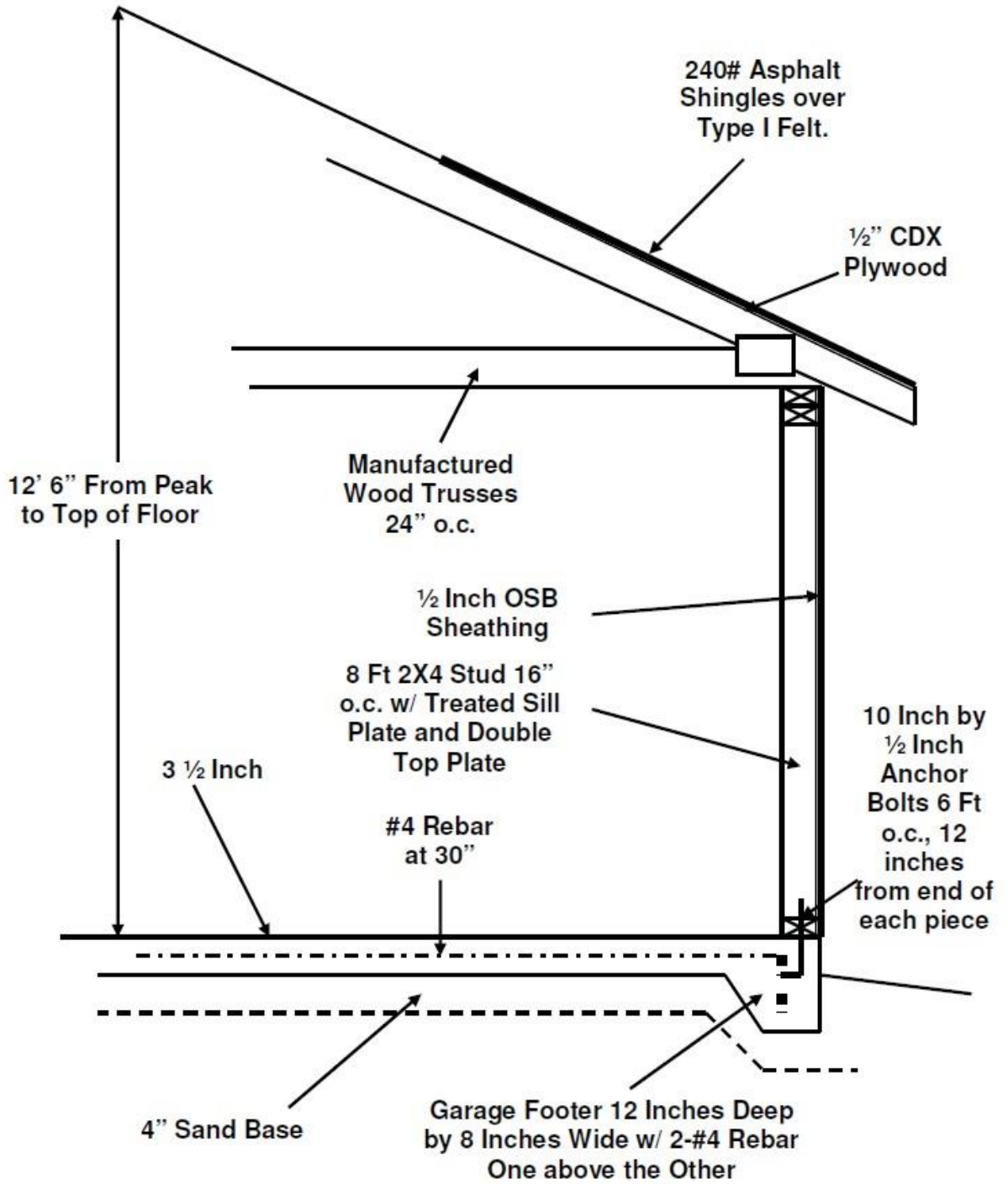


RIGHT ELEVATION



LEFT ELEVATION

TYPICAL GARAGE CROSS SECTION



SCALE 1/4" = 1 FOOT

