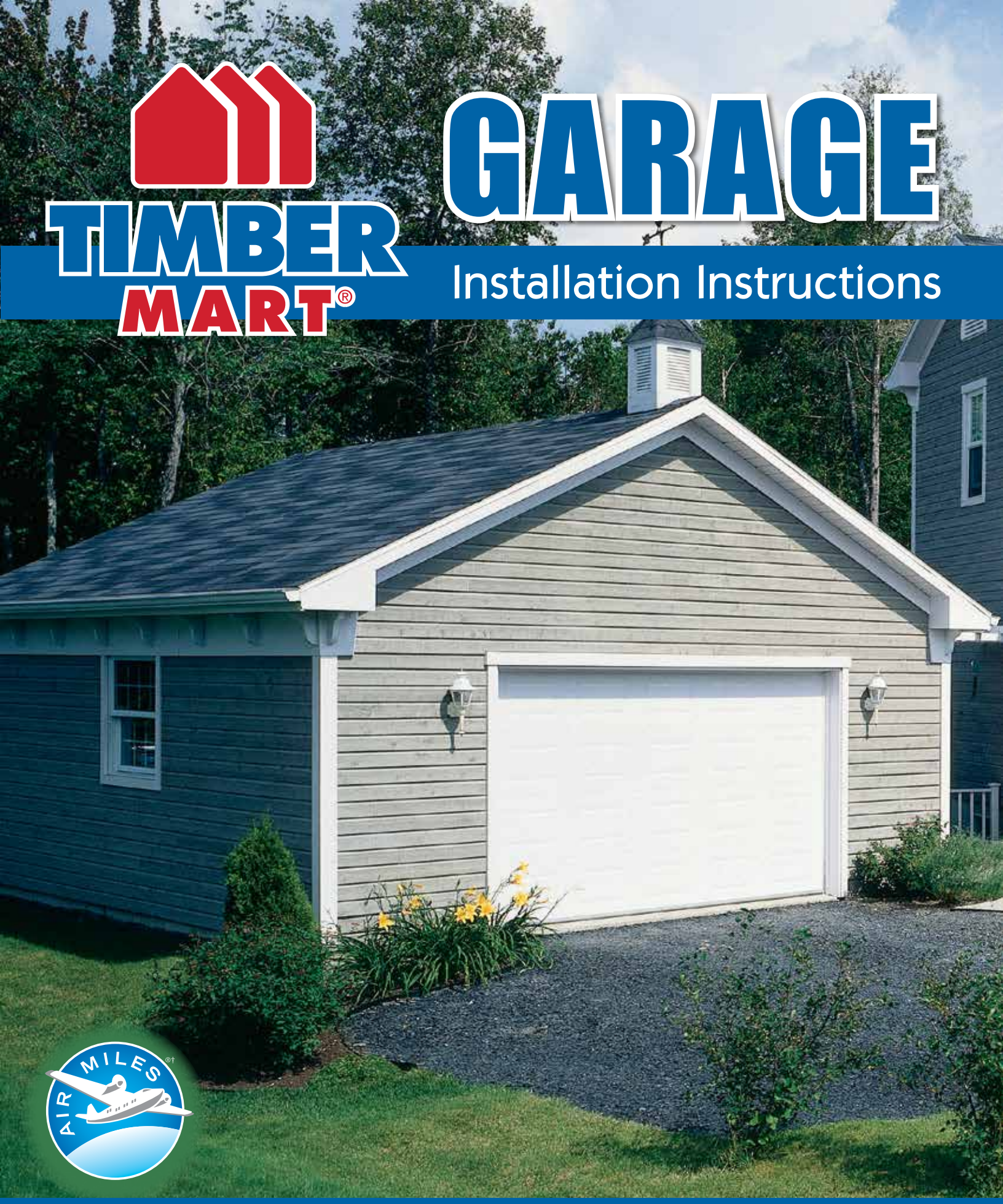
TIMBER MART®

GARAGE

Installation Instructions

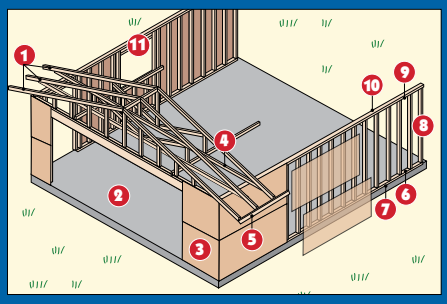


Thanks for choosing TIMBER MART in constructing your new garage.

While there are many different ways to build a garage using a variety of tools and building methods, we have chosen those best suited for this 24' x 24' garage. Please read through the following steps carefully BEFORE proceeding, and, as always, **be sure to check local bylaws to ensure approval and/or necessary permits. A good starting point is the nearest Municipal Affairs and Housing Office.**

IMPORTANT: Manufacturer instructions will supercede all information and diagrams.

Know the Garage



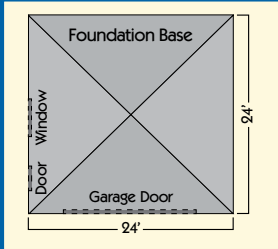
1 Engineered Roof Trusses
2 Foundation
3 Wall Sheathing
4 Horizontal Bracing
5 Fascia
6 Bottom Plate
7 Sill Gasket
8 Stud
9 Top Plate
10 Cap Plate
11 Header

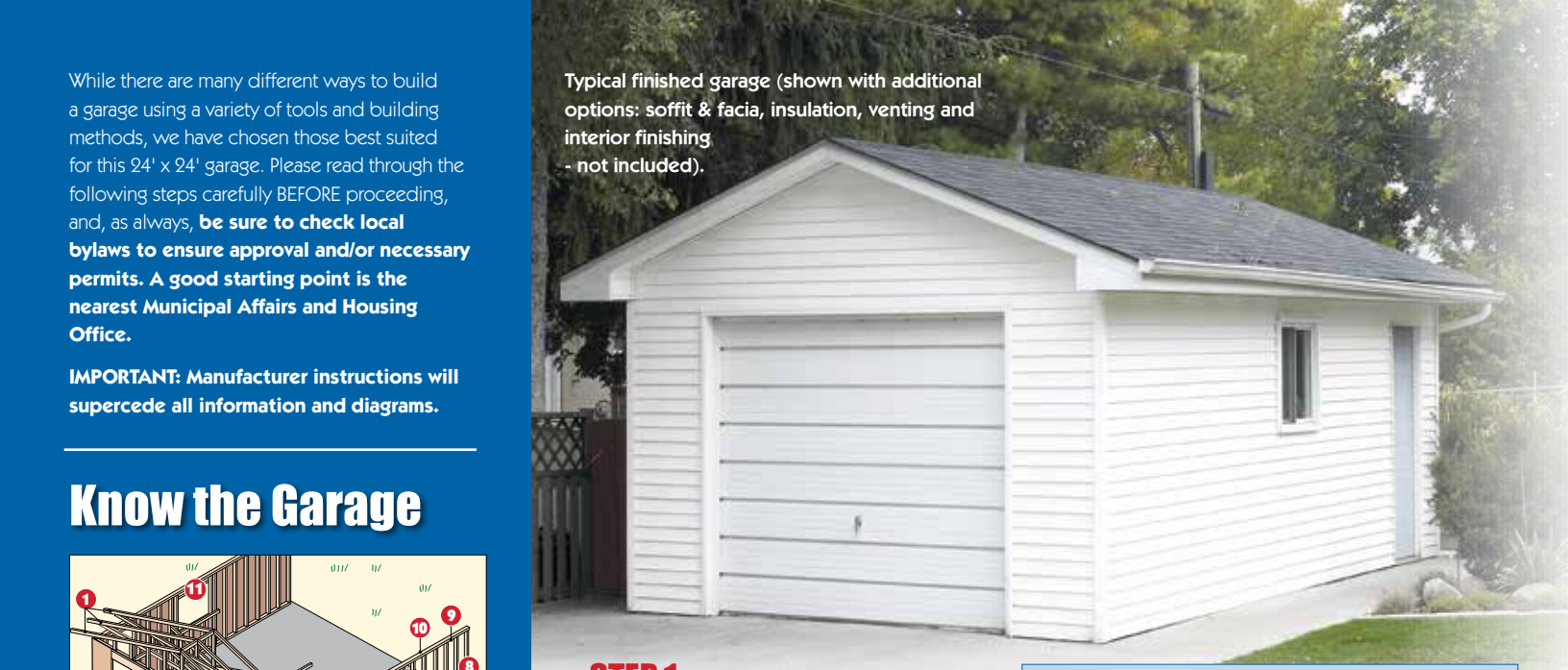
A Note about the Foundation

The foundation for a new garage is rarely a do-it-yourself project. Mistakes at this stage can significantly affect the integrity of the garage from the ground up – literally. Laying the garage foundation requires strict planning, adherence to (and understanding of) local building codes, and considerable experience in excavation. For these reasons, **TIMBER MART recommends contracting this job out to professionals.**

In most cases, a contractor will need to excavate the designated site to the required depth. Afterwards, a foundation specialist will ensure a smooth, solid and square base while also encasing and installing anchor bolts. (Anchor bolts are used to fasten the framing walls to the foundation and should be spaced every 4 feet.) Do not install anchor bolts in door openings.

Once the foundation is complete and dry, you can mark and measure the locations of all four walls (and doors) on the foundation. You should also check if and when any inspections are required as you proceed.





Typical finished garage (shown with additional options: soffit & facia, insulation, venting and interior finishing - not included).

STEP 1

Build The Walls

Begin by keeping things simple: start with a side wall that will have no opening in order to get a feel for the work without any variables.

Lay the top and bottom plates together on a flat surface and, beginning from one side, mark the locations of the 2" x 6" wall studs, every 16" on centre.

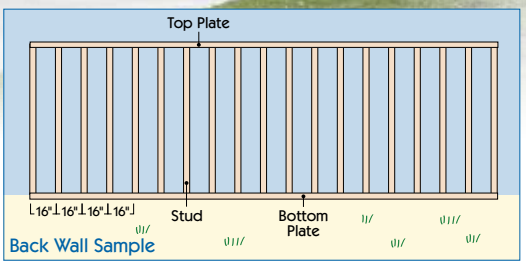
Now nail the studs to the top and bottom plates to form the framing wall. On all walls, stagger the top plate joints over a stud.

Drill holes every four feet across the bottom plate for the anchor bolts, which will be fastened later.

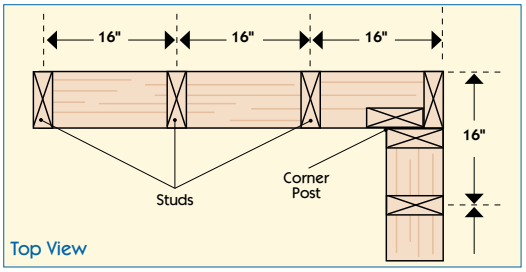
To ensure the end walls fit between the side walls, cut the top and bottom plates back by 11" (5.5" on each side). Continue by assembling the other walls on a flat surface in the same manner.

NOTE ON DOORS AND WINDOWS: Based on individual plans, window and door framing will vary. However, here are the basics: a secondary stud, called a jack stud, needs to be attached to the main stud to delineate the sides of the door or window. In essence, this will form a 'twin stud' on each side of the opening.

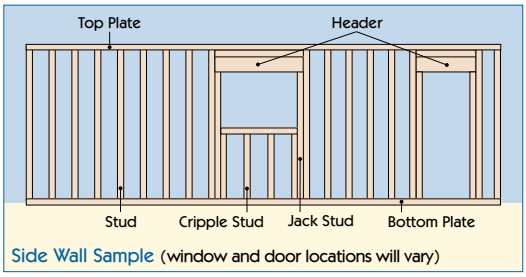
For the windows, you will also need to add extra studs, called cripple studs, between the base of the frame and the bottom plate to add extra strength (shown above).



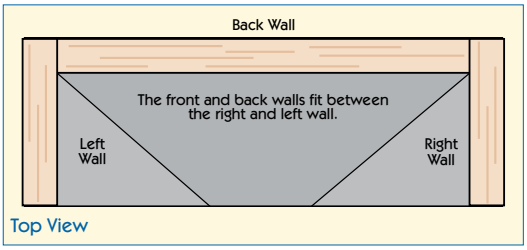
Back Wall Sample



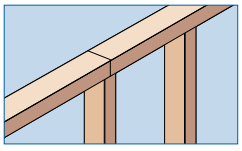
Top View



Side Wall Sample (window and door locations will vary)



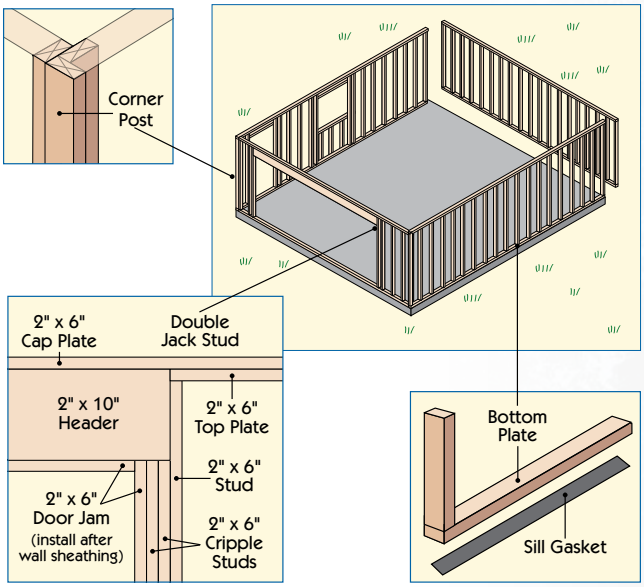
Top View



Timbertip Remember that top plates must break over a stud and all top plate splices must be at least 4' from any other splice. It may be necessary to cut the top plates as you progress to ensure that they join over a stud.

STEP 2

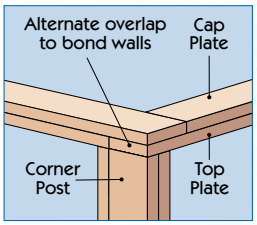
Raise and Anchor the Walls

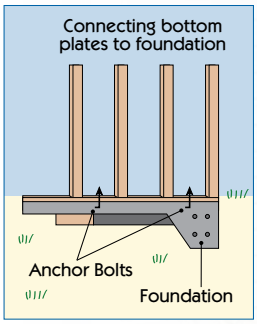


Before lifting the walls into place, construct the four corner posts as a unit and treat them as separate studs.

At this time you will need to install sill gaskets underneath the bottom plates to prevent moisture from coming through the base.

Now, working in tandem with two to three people, raise the walls into position. Use temporary braces to keep the walls in place. Nail the corners together using the corner posts ensuring that the walls are level and square. (A suggested method is to measure the walls diagonally from corner to corner; these measurements should be identical on every wall.)





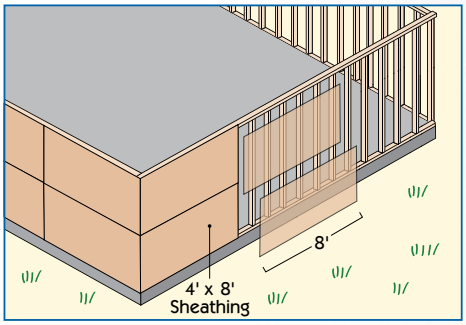
You can now secure the walls to the anchor bolts using appropriate fasteners.

Once the walls are assembled, add a cap plate for additional strength. A cap plate consists of an additional 2" x 4" across all the top plates. Essentially, it overlaps the connecting points of the top plate, beneath it, to provide extra strength.

STEP 3

Attach Wall Sheathing

Beginning with the bottom corner of a side wall, start nailing the sheathing panel into place. The edge of the panel should be flush with the end of the wall and the bottom plate. For secure nailing, make sure that the edge of every panel falls on the middle of a stud and that it butts tightly with the next board.



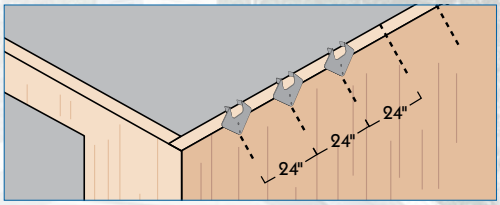
As you nail the sheathing panels for the end walls, remember to extend the sheathing 3.5" beyond the last stud. This will allow the end walls to be nailed to the side walls as you form the frame.

For the doorway(s), you can now cut out the bottom plate.

Timbertip To cut sheathing around openings, press the panel into position over the opening while another person marks the opening onto the back of the panel from the inside of the garage. Place the marked sheet on sawhorses and cut along the pencil lines with a circular saw set to the proper depth.

STEP 4

Building the Roof

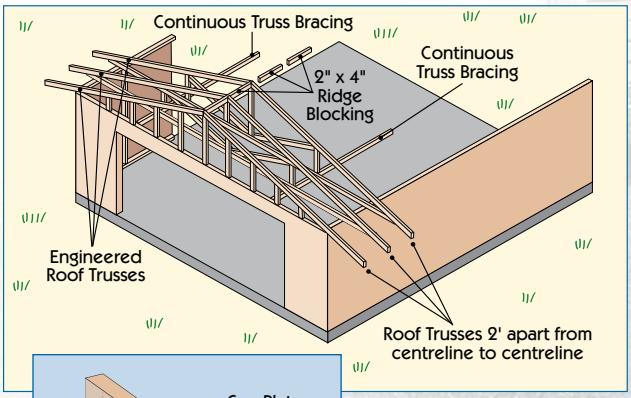


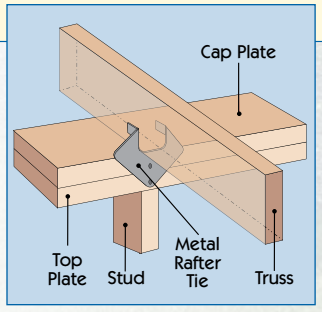
Just as you measured for spacing of the wall studs, you should begin by measuring and marking the locations for the roof trusses. (Pre-built roof trusses are specially designed to carry the load of the roof to the outside walls while saving considerable time during installation.)

Starting from either end, mark and measure 24" centres across the cap plate of both side walls. As you do so, nail a metal rafter tie in place over each marking to ensure an easier and more secure installation of the trusses.

Slide trusses into the ties and fasten. Position the first and last trusses flush with the fronts of the top plates.

Install ridge blocking between the roof trusses to ensure even spacing and additional support between the peak rafters.





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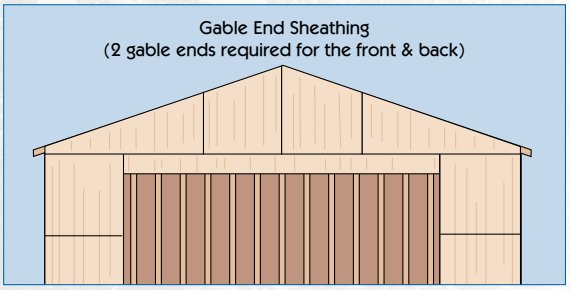
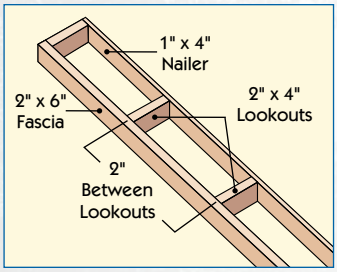
STEP 5

Attach the Gable Ladder & Fascia

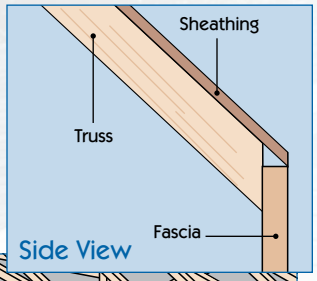


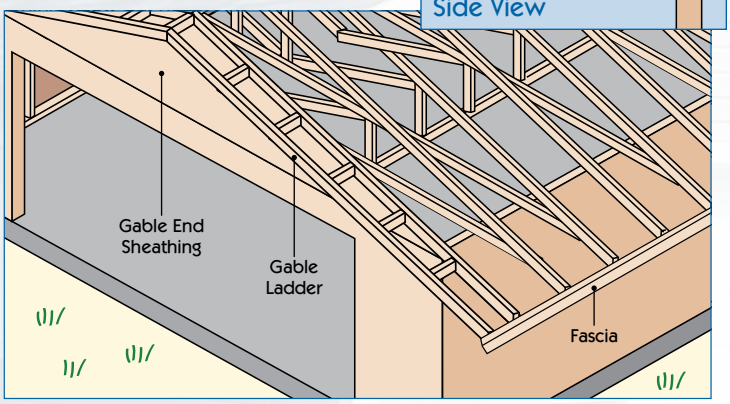
Once the roof trusses are in place and secured, nail the gable end sheathing to the roof peaks at the front and back of the garage.

You can now construct the four gable ladders. Measure and cut the fascia and nailers the same length ensuring the angles match the top cords of the roof. The assembled gable ladders should be securely nailed directly to the last roof truss on both the front and back of the garage.



Measure and cut two 2"x6" boards to serve as the fascia. Line up and attach onto the ends of the trusses. Because the roof sheathing will be nailed directly to it, the fascia must sit below the top edge of the rafter.

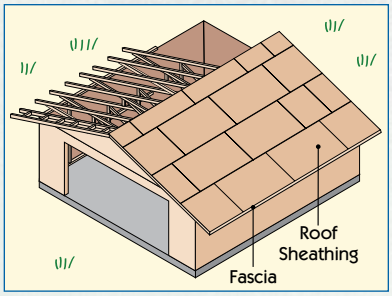


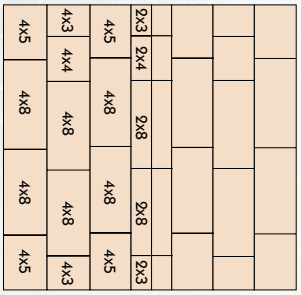


STEP 6

Attach Roof Sheathing

Begin applying the sheathing panels from the bottom of the truss and work the way up to the top ridge. (The last panel at the top may need to be cut.) Panels should meet in the center of a truss and you should stagger the joints of each panel.





Above right: Layout pattern for 24' x 24' garage. 23 4'x8' panels are required.

Glossary

Foundation: the concrete base that provides the main support for the garage

Studs: boards that run vertically from the foundation up and serve as the base structure for the walls

Fascia: length of wood that hides the exposed rafter tails

Jack Stud: runs from the header of a door or window to the bottom plate

Cripple Stud: board that runs between the base of a window frame and the bottom plate

Roof Trusses: pre-built series of structural supports designed to carry the weight of the roof to the outer walls

Cap Plate: 2"x4" that 'caps' the top plate after the walls are raised and secure

Header: the head of an entrance way that provides overhead support

Rafters: the main components of the roof that serve as the platform for roofing materials

Joists: boards that run horizontally and serve as the main support for the roof; they attach to the tops of the walls on both ends

Sill Gasket: provides a water-tight seal and prevents moisture from coming through the base

Sheathing: sheets of plywood nailed to the outside face of studs to add extra strength and act as a base for exterior siding

Tools

- ☐ Carpenter's Level
- ☐ Circular Saw
- ☐ Drill
- ☐ Framing Square
- ☐ Hammer
- ☐ Measuring Tape
- ☐ Plumb Bob
- ☐ Socket and Ratchet

* Please note materials can vary on garage size and style

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