

Raising Garage Trusses & Sheeting The Roof

The objective of this section is to successfully raise/set the garage trusses, frame the lay-on to the house roof and to sheet the combined roof in preparation for shingling.

MATERIALS:

Garage trusses
1 x 4 truss lacers, 24OC,
8d/16d nails
8' step ladders
Push sticks from house truss install

SAFETY NOTES

Pay attention to where you are, wear a hard hat and safety glasses and don't fall off the roof or the scaffolding.

PRE-WORK:

Garage gable wall (if un-sheeted), rear and front walls must be **diagonally** braced with 2 x 4 x 14'/16'. The rear wall should also be plumbed and braced diagonally to the ground.

Lacers should be laid out 24OC, with 2- 8d nails $\frac{3}{4}$ " past the line on the X side.

NOTE: the first Lacer will have a set back mark at **21-1/2"**, the INSIDE space between the Gable Truss and the first Truss.

NOTE: Verify that height of garage walls will match the height of the house walls.
If they match, continue. IF NOT the truss tails will have to be adjusted.



FRAMING CHECK:

Measure the **depth** of the garage from outside of the front wall, 2 x 4 top plate to the rear wall parallel to gable wall.(SHOULD BE 239" - 240). Verify from the same points at house truss tails.

If dimensions are equal, continue.

If the dimensions are NOT equal, **STOP**. **CHECK** the garage wall to house connection for PLUMB and adjust as needed. If walls are plumb, measure the garage foundation at the gable wall and against the house.

TRUSS LAYOUT:

Layout truss location on top of the front and rear wall double top plate.

START the truss layout from the **garage gable truss**. The first layout mark is 21- ½" from **INSIDE** of Gable truss to the **INSIDE** of the first truss, with X **thrown toward the house**. Continue the layout from the 1st truss, **24 OC** with the X **thrown toward the house**.

FIX FOR GABLE TRUSS 24OC VS 16OC:

There will be VERTICAL seams in the OSB that do not have a truss web behind them. Pieces of 2 x 4 will have to be cut and toe nailed, in to the truss, to cover these seams.

Measure over 1 ¾" at the top, high side, of the "seam" and at the bottom of the seam. Measure down the seam to the bottom chord of the truss. This will be the length of the 2 x 4 which will be cut ,with a 22 degree angle at one end, to match the angle of the truss. Toe nail the 2 x 4, with 16d's, into the truss frame. ALSO, go to the outside of the wall and nail through the OSB into the 2 x 4 following standard nailing patterns.

For the HORIZONTAL seams, build a 2 x 4 assembly as shown in the Diag. and nail into the truss web, with the assembly centered on the seam, with16d nails. Complete this step by going outside and nail the OSB off as previously described.

NOTE: THE GARAGE GABLE TRUSS/WALL MUST BE PLUMB AND BRACED TO THE GROUND BEFORE STARTING THE NEXT STEP.

PREPARATION

This step will be to set a "control" to line up the peaks of the garage trusses.

Place a 16d nail in the peak of the Garage Gable truss. With a dry line attached, 1 ½" above the peak, give the dry line to a CREW member standing on the house roof.

Place the 1st Garage truss **TEMPORARILY** on the garage walls, against the bottom of the HOUSE roof.

Position the truss to match the overhang of the Gable Truss tails.

Set the dry line on the house roof, in line with the peaks of the 2 trusses, and 1 ½" above the peak of the temporary truss, set near the house.

Place a 16d nail through the roof and attach the dry line. Lay the truss on the house roof to be set LAST.

VERIFY that the REAR garage wall is **plumb, diagonally braced and braced to the ground.**

2 CAR GARAGE:

Nail 2 - 2 x 4 x 14' together to make a spacer that will "set" the distance between the front and rear walls, while setting trusses.

The distance should be aprx 239 inches **OR** the dimension established in previous steps.

Mark the dimension on the Temporary spacer, using it to set the distance between the walls.

Nail into the top plate between the 5th and 6th truss layout marks.

SETTING THE TRUSSES

Trusses will brought into the garage or pushed over the wall, with the ends set on the front and rear wall.

The truss will be rotated into position, with push sticks, and placed on the layout marks.

Place the truss with the layout line showing to the side and the TRUSS COVERING THE "X".

Use the dry line, set in the previous step, to align the truss peaks. Attach the trusses to the top plate, with 16D nails (2 on one side of truss, 1 on the opposite side).

A 1" X 4" lacer, marked at 24 OC, will be attached to the top of the trusses for alignment.

Place the spacer, even with the first layout mark, on top of the FIRST truss..

Move the truss so the Set Back LAYOUT MARK is on the **INSIDE** edge of the gable truss. The distance between the GABLE truss and the FIRST truss is 21 ½".

Nail, with 2-8d nails. Continue setting the rest of the garage trusses, on layout, at 24"OC.

1 CAR GARAGE:

Install 1-2 X 4-12' "rat run" on top of the truss bottom chord. Attach to gable wall truss and extend to last truss by house (apx 12ft).

Insure that trusses are 24" OC and the rat run is laid out at 24OC, **except for the space between the gable truss and first truss**, which is 21-½", before attaching with (2) 16D nails per truss.

2 CAR GARAGE:

After 8 trusses are set, load in 2- 2 x 4x14 and 2- 2 x 4 x 10' to be used as "rat runs". Follow the

same process as above for spacing and nailing.

ALL GARAGES:

Install a 2 x 4 diagonal brace, with 40 degree cut on the top end, from the top of the **gable truss/stiffback** to the bottom of the 3rd truss. Nail to the 1st and 2nd truss also.

GARAGE FASCIA

STOP !!

Verify that the **GARAGE** and **HOUSE** truss **TAILS** match, **front and rear**. Use a short piece of 2 x 6 to hold against the last garage truss to check for the match. **IF THEY MATCH, CONTINUE.**

IF THEY DO NOT MATCH, STOP and complete the following to fix.

If the Garage fascia is too LOW, the garage truss tails will have to be SHORTENED by trimming the ends, as needed.

Set the dimension to be trimmed on the first GARAGE truss, near the HOUSE.

Transfer the mark to the GAR GABLE RACK.

Snap a chalk line across the truss tails to set a cut line. Use a Bevel Gauge or equivalent, to maintain the angle at the end of the tails.

If the Garage fascia is too HIGH, the truss tails will have to be LENGTHENED.

Cut blocks of 2 x 4 and 1- 2 x 6 block for the Gable Rack, approx 18" long with a 5/12 cut on one end.

Place 1 block to the side of the truss closest to the HOUSE. Check Fascia match and nail.

If good, attach 2 x 6 block to the Gable Rack, extending the same as the 2 x 4 block.

Run a dry line between the tails. Attach the blocks using the dry line as a guide.

OR STOP AND GET THE CREW LEADER/SITE SUPERVISOR OR HOUSE LEADER.

AFTER MATCHING, VERIFY that the **FRONT HOUSE** fascia extends to the first truss **INSIDE** the garage wall.

VERIFY that the **REAR HOUSE** fascia extends to the first truss **INSIDE** the garage wall.

The other truss tails inside the garage **DO NOT** get fascia.

GARAGE FASCIA INSTALLATION:

The fascia board is 2" X 6" material in 14'-16' lengths. This board serves several important

tasks including:

- Tying the truss tails together while maintaining the correct 24" O.C. distance between them
- Providing lateral support for the trusses at their tails
- Providing backing for nailing off the sheathing along the eaves
- Providing a "ledger" for the attaching the outside edge of the soffit material to the framing

PREPARATION:

Confirm that trusses are set on layout, and completely nailed to the top plates.

INSTALLATION:

During this step, pieces of OSB Aprx 8" wide X 8' will be installed at the ends of the Truss Heels

NOTE: If the truss heels are **short** of the wall framing, OSB spacers 2" x 8" high will be installed first and nailed to the truss heels.

The pieces will be nailed to the wall top plate and to the truss heels. **ONLY NAIL THE BOTTOM OF THE OSB, IN TO THE WALL TOP PLATES, UNTIL THE TRUSS LAYOUT HAS BEEN CONFIRMED AND TRUSS TAILS NAILED TO THE FASCIA.**

When installing fascia, maintain the 24" OC layout. Do not just nail the board into a truss where they lay. When installing the fascia board, straighten the truss, plumb it and ensure it is on layout.

Crown ALL 2 x 6 that will be used for the fascia.

Sight down the top edge of the board, looking for a "hump" or a "dip". The hump is the crown and is marked with a large arrow in the direction of the hump.

1 CAR GARAGE:

Attach the Garage Fascia, using 1- 2 x 6, to extend the **full distance** from the house to the garage gable rack.

If full length pieces are **not** available, the 2 x 6 will be spliced, like the Big Garage.

Start installation **with the Crown UP, at the House Fascia**, on plane with the truss tails.

Nail with 2-16d's on a slight upward angle, as the truss tail is 4" and the fascia is 5 ½" wide.

2 CAR GARAGE:

The fascia board sections will start at the House Fascia and **MUST END BETWEEN 2 TRUSSES.**

A piece of 2 x 6 (22 ½ " long) will used as a backer to attach the next piece of fascia. The backer will be installed flush with the bottom of the fascia with 4-16d nails into **each** piece of fascia.

All Garages:

As you progress from tail to tail, move the fascia by lifting or dropping the unattached end to ensure the fascia is on the same slope as the truss tail before nailing. **Use a speed square set on top of the truss for alignment.**

See separate Procedure for the Framing Garage Frame Lay-On

SHEETING THE ROOF

Materials:

18-20 sheets of OSB (Morningside only)

26-28 sheets of OSB (Dearborn)

Saw horses

8d nails loose

8d gun nails

Framing gun

Air compressor and hose

Extension chords

Circular saw

PREPARATION FOR SHEATING

See attached Diagrams for sheeting layout on Small and Big garages

Measure up **EXACTLY 48 1/2"** from the fascia at the outside of the gable rack and at the last garage truss and snap a line between theses points.



This will establish the Control line for the **top** of the first row of OSB. **DO NOT DEVIATE FROM THE CONTROL LINE AS THE SHEETS ARE SET.**

Setting the first sheet will require the trusses **to be moved** to keep on layout. As you progress up the roof, the 1 x 4 lacers will be removed, and trusses moved, to maintain 24OC layout..

ALL GARAGES:

Start the **1st row** with a full sheet splitting on truss # 3, from the gable end (aprx 83")
Install the full sheet and trim off later.



ALL GARAGES:

Continue with a 4' x 4' piece covering the half the 3rd, all the 4th and half e 5th truss. Continue toward the house with full sheets.

Install plywood clips on the next rows, centered, between each truss.

When placing cut sheets **KEEP THE FACTORY EDGES TOGETHER AND DO NOT OVER HANG THE GABLE RACK. IT IS BETTER TO BE SHORT, THAN OVER.** IT WILL CAUSE PROBLEMS WHEN THE ALUMINUM TRIM IS PLACED ON THE GABLE RACKS.

ALL GARAGES:

NOTE: Use a **rip of OSB with a factory edge** and extend the OSB control line on to the House roof framing and **the snapped line in the valley.**

Measure the sheets at the TOP and BOTTOM, where they touch the Valley line. Cut to fit and install.

1 CAR GARAGE:

Start the **2nd row** with a full sheet on truss 2, from the gable end. Continue with full sheets on to the house roof.

Go back and cut a piece to fit from truss 2 to the edge of the roof (aprox 60-61"). Place the factory edges together and the cut edge to the **outside**.

2 CAR GARAGE:

Starting the 2nd row on truss # 2, place 1 full sheet, then a $\frac{1}{2}$ sheet and then use full sheets continue on to the house roof.

Cut the piece from truss #2 to the edge of the roof.

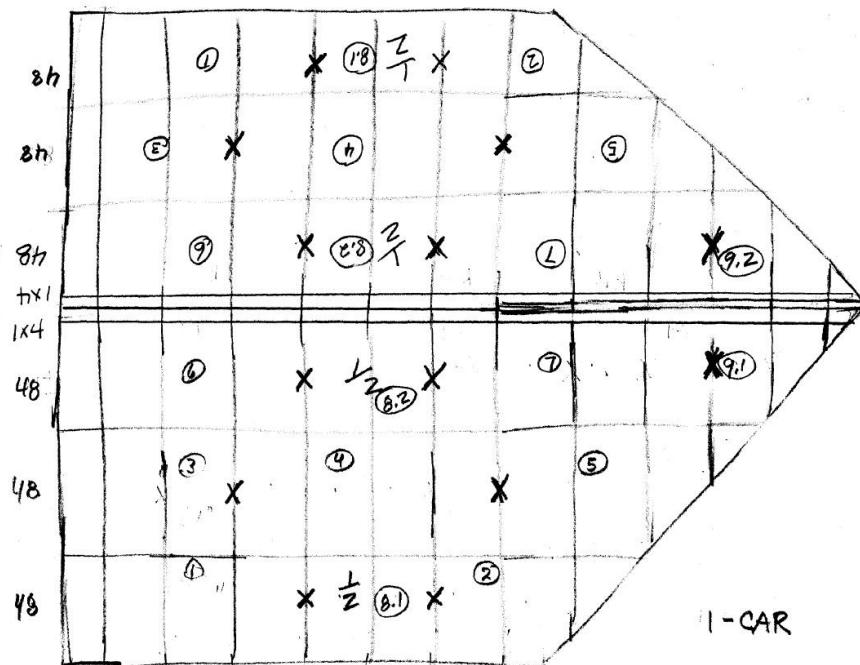
ALL GARAGES:

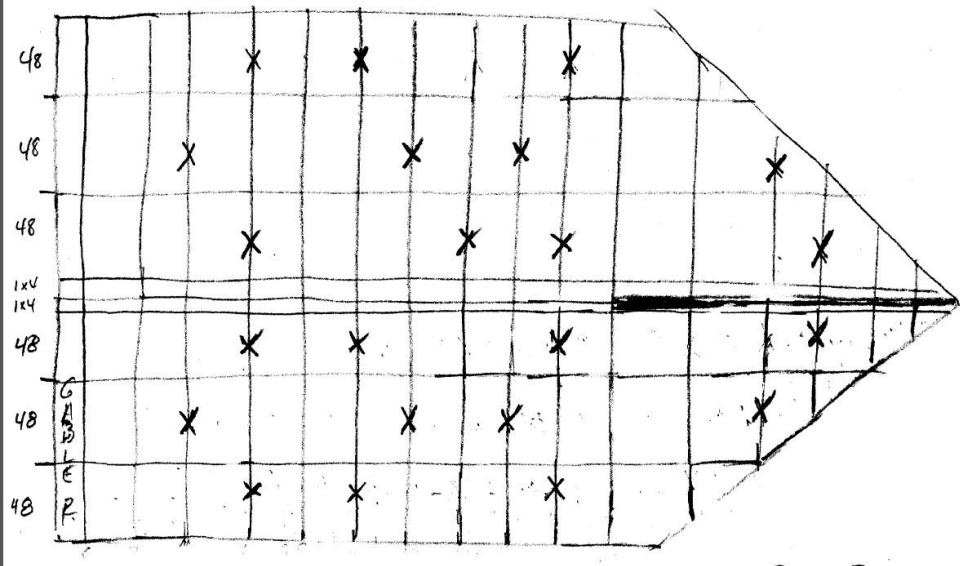
Complete row 3 the same as row 1.

ALL GARAGES:

The last row will be a 1 x 4 nailed to fill the gap between row 3 and the truss peak. A 1 $\frac{1}{2}$ " gap between the 1 x 4 and the peak of the truss will be left for the Ridge Vent.

Quality Check that the sheeting is completely nailed off, including up the "valley" where the sheeting gets nailed in to the lay-on boards.





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