

Order manufactured lumber in 2 foot length increments.
Check price for 42' pieces.
Shorter pieces might be same price.

Roof Rafters: I-beam: 1 3/4 x 11 7/8
Ridge: I-beam: 2 5/16 x 9 1/2
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Dimensions:

Roof Area: 1341 ft²
Rake edge: 19 19 18 8 11 11 18 18 17 17 = 156 ft
Drip edge: 15 10 12 7 8 shortPieces = 52 + 15 = 67 ft
Valley Length: 23' 22' 22' 17'= 84 ft
Ridge Cap Length: 29' 24' 15'= 68 ft

Ridge Beam Length:

Rough length	Actual length
26' Left Ridge Beam:	23' 7 7/8"
16' Right Ridge Beam:	14' 2"
32' Front to Back Ridge Beam:	28' 4"

Ridge beam top bevel, laminated and glued.
10 pieces, 1 1/4" x 2 1/2" x 8', bevel layer
10 pieces, 1 1/4" x 2 1/2" x 8', base layer

16 ridge beam plywood web filler plates

$$(2 \frac{5}{16} - \frac{3}{8}) / 2 = 0.96875$$

Use double thick 1/2" plywood.

These plates fill-in end of I-beam.

5/8" plywood web filler plates

for bottom end of I-beam rafters.

Think about this.

Valley Framing Ledgers for Rafter Overlay

Width is 1' 4 5/16", thickness is 1 1/2"

Use a triple layer of 1/2" plywood to make a ledger plate where valley rafters overlap.

Make all three layers the same width.

Or make parallel rails from 2x3s, 2x4s, or 5/4 decking material.

Think about this.

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Stainless Chimney Pipe from Basement:

or install direct vent gas furnace in current location.

DuraVent, DuraTech, Double Wall, Insulated

ID: 6", OD: 8" Length: 23' 7" plus cap

4 sections 60", 1 1/4" overlap, 6DT-60SSCF,810000091

1 section 48", 1 1/4" overlap, 6DT-48SS, 810000088
Square Ceiling Support Box, HEIGHT:24"
 Cut 24" box to 1' 3 3/8", 6DT-CS24, 810000099
Wall Strap, 6DT-WS, 810000137
Adjustable Re-Support Bracket, 6DT-RES, 810008000
Firestop Radiation Shield, 6DT-FRS, 810000121
Angle Trim Collar for Roof Support, 6DT-RSTC9, 810000107
Adjustable Roof Support bracket, 6DT-ARS, 810007992
Large Base Roof Flashing, 6DT-F6L, 810000133
Storm Collar, 5DT-SC, 810000043
Chimney Cap, 6DT-VC, 810000135

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Stainless Chimney Pipe from Second Floor:

DuraVent, DuraTech, Double Wall, Insulated
ID: 6", OD: 8" Length: 6' 10 3/4" plus cap
1 section 60", 1 1/4" overlap, 6DT-60SSCF, 810000091
1 section 24", 1 1/4" overlap, 6DT-24SSCF, 810000081
Locking Band, 6DT-LB, 810000136
Square Ceiling Support Box, HEIGHT:36", 6DT-CS36, 810000100
 Cut 36" box corner 8 1/4" W x 5 13/16" H
Adjustable Roof Support bracket, 6DT-ARS, 810007992
Large Base Roof Flashing, 6DT-F6L, 810000133
Storm Collar, 5DT-SC, 810000043
Chimney Cap, 6DT-VC, 810000135

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Wood Shingles in Basement

145 rows

100 inches wide

5" exposure per shingle

2 shingles per row

==> 10" exposure per row

$100 \times 10 = 1000 \text{ in}^2$ per row

$145000 \text{ in}^2 / 144 = 1000 \text{ ft}^2$