

**Village of Vernon Hills
Community Development Department
290 Evergreen Drive, Vernon Hills, IL 60061
Phone 847-367-3704 Fax 847-367-2541 - [http:// www.vernonhills.org](http://www.vernonhills.org)**

REROOF PERMIT

This hand out is for **REFERENCE ONLY**. For more details see specific code sections.

TO APPLY FOR A PERMIT:

As long as the information below is provided at the time of submittal, a permit will be issued immediately over the counter.

1. Complete a permit application.
2. Submit a copy of the written and signed contract between the homeowner and contractor.
3. Provide a copy of the contractor's State of Illinois Roofer's License.
4. The permit fee and refundable cash bond will be calculated based upon the cost of construction, and may be paid in cash or check.

CONSTRUCTION REQUIREMENTS:

1. The maximum number of layers of shingles allowed on a house is two.
2. When existing roofing is removed, all decayed wood is to be removed and replaced.
3. A minimum of 15# asphalt felt paper must be applied when roofing over plywood and the roof pitch is 4/12 and greater. If the roof pitch is less than 4/12, 30#felt or 2 layers of 15# felt is required.
4. Existing roof vents should be replaced and soffit vents need to be checked for obstructions (see attached). Roof ventilation must comply with current code requirements. Additional venting may be required.
5. For exact ventilation requirements see attached sheet.
6. A shingle with a minimum 25 year warranty is required. Cedar Shakes are required in the Sugar Creek, Pebble Beach, Royal Birkdale and Sawgrass Subdivisions.
7. Ice & water shield is required from the roof eaves edge to a point at least 24" (two feet) inside the exterior building wall line along its perimeter and six feet along the entire valley area. (Code 905.2.7.1)
8. No equipment or construction materials shall be deposited or stored within the Village right-of-way.

REQUIRED INSPECTIONS:

The permit holder is responsible for scheduling the required inspections with the Building Division at (847) 367-3704 between 8:30 a.m. to 3:30 p.m. M-F at least a day in advance with the permit number ready.

1. A final inspection is required upon completion of the work.

HOW MUCH VENTILATION IS NEEDED?

To find the exact free area needed to properly ventilate your home, find the length of the area to be ventilated in the vertical column. The total net free area required is shown where these two columns intersect. This free area is expressed in square *inches*. (Chart utilizes 1/300 ratio; double for 1/150 ratios.) For example, let us suppose the total area to be ventilated is 1200 sq. ft., such as a house 30” X 40”. By looking at the chart we find that we would need total of 576 sq. in. If roof or gable end and undereaves vents are used, 50% of the 576 sq. in., or 288 sq. in. are required for the roof or gable end vents and the same amount would be required for the undereaves. This is equivalent to 1.300 ratio.

If undereaves vents are not used the above total free area requirement must be doubled. This is equivalent to 1/150 ratio.

Even if your attic area is presently vented it should be carefully checked to determine whether or not the present vent arrangement is adequate to provide proper ventilation.

	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
20	192	211	230	250	269	288	307	326	346	365	384	403	422	442	461	480
22	211	232	253	275	296	317	338	359	380	401	422	444	465	486	507	528
24	230	253	276	300	323	346	369	392	415	438	461	484	507	530	553	576
26	250	275	300	324	349	374	399	424	449	474	499	524	549	574	599	624
28	269	296	323	349	376	403	430	457	484	511	538	564	591	618	645	672
30	288	317	346	374	403	432	461	490	518	547	576	605	634	662	691	720
32	307	338	369	399	430	461	492	522	553	584	614	645	676	707	737	768
34	326	359	392	424	457	490	522	555	588	620	653	685	718	751	783	816
36	346	380	415	449	484	518	553	588	622	657	691	726	760	795	829	864
38	365	401	438	474	511	547	584	620	657	693	730	766	803	839	876	912
40	384	422	461	499	538	576	614	653	691	730	768	806	845	883	922	960
42	403	444	484	524	564	605	645	685	726	766	806	847	887	927	968	1008
44	422	465	507	549	591	634	676	718	760	803	845	887	929	972	1014	1056
46	442	486	530	574	618	662	707	751	795	839	883	927	972	1016	1060	1104
48	461	507	553	599	645	691	737	783	829	876	922	968	1014	1060	1106	1152
50	480	528	576	624	672	720	768	816	864	912	960	1008	1056	1104	1152	1200
52	499	549	599	649	699	749	799	849	899	948	998	1048	1098	1148	1198	1248
54	518	570	622	674	726	778	829	881	933	985	1037	1089	1140	1192	1244	1296
56	538	591	645	699	753	806	860	914	968	1021	1075	1129	1183	1236	1290	1344
58	557	612	668	724	780	835	891	947	1002	1058	1114	1169	1225	1281	1336	1392
60	576	634	691	749	806	864	922	979	1037	1094	1152	1210	1267	1325	1382	1440
62	595	655	714	774	833	893	952	1012	1071	1131	1190	1250	1309	1369	1428	1488
64	614	676	737	799	860	922	983	1044	1106	1167	1229	1290	1352	1413	1475	1536
66	634	697	760	824	887	950	1014	1077	1140	1204	1267	1331	1394	1457	1521	1584
68	653	718	783	849	914	979	1044	1110	1175	1240	1306	1371	1436	1501	1567	1632
70	672	739	806	874	941	1008	1075	1142	1210	1277	1344	1411	1478	1546	1613	1680

FHA CHART

ROOF VENTILATORS

Model No.	Finish	Opening Size Inches	Base Dimensions Inches	Free Area Sq. In.	Will Ventilate* Sq. Ft.
405	Aluminum	8 ¾	18 ⅛ x 16 ½	45	94
405A	Aluminum	7 ½	16 x 13 ½	37	77
405AB	Black	7 ½	16 x 13 ½	37	77
405AW	White	7 ½	16 x 13 ½	37	77
405BK	Black	8 ¾	18 ⅛ x 16½	45	94
405W	White	8 ¾	18 ⅛ x 16½	45	94
505	Galvanized	8 ¾	18 ⅛ x 16 ½	45	94
505A	Galvanized	7 ½	16 x 13 ½	37	77

*Square feet of area ventilated @ 1/300 ratio – divide by 2 for 1/150 ratio

UNDEREAVES VENTILATORS

Model No	Finish	Size Inches	Screen	Free Area Sq. In.	Will Ventilate* Sq. Ft.
614	White	16x4	None	26	54
614	White	16x8	None	62	129
616	White	16x4	8-Mesh	21 ½	44
616	White	16x8	8-Mesh	51 ½	107
624	Aluminum	16x4	None	26	54
624	Aluminum	16x8	None	62	129
624-1	Aluminum	16x4	None	26	54
624-1	Aluminum	16x8	None	62	129
626	Aluminum	16x4	8-Mesh	21 ½	44
626-1	Aluminum	16x4	8-Mesh	21 ½	44
626-1	Aluminum	16x8	8-Mesh	51 ½	107

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MEMORANDUM
Community Development Department
Building Division

FROM: Vernon J. Gerth, Building Commissioner

SUBJECT: Ridge Vents

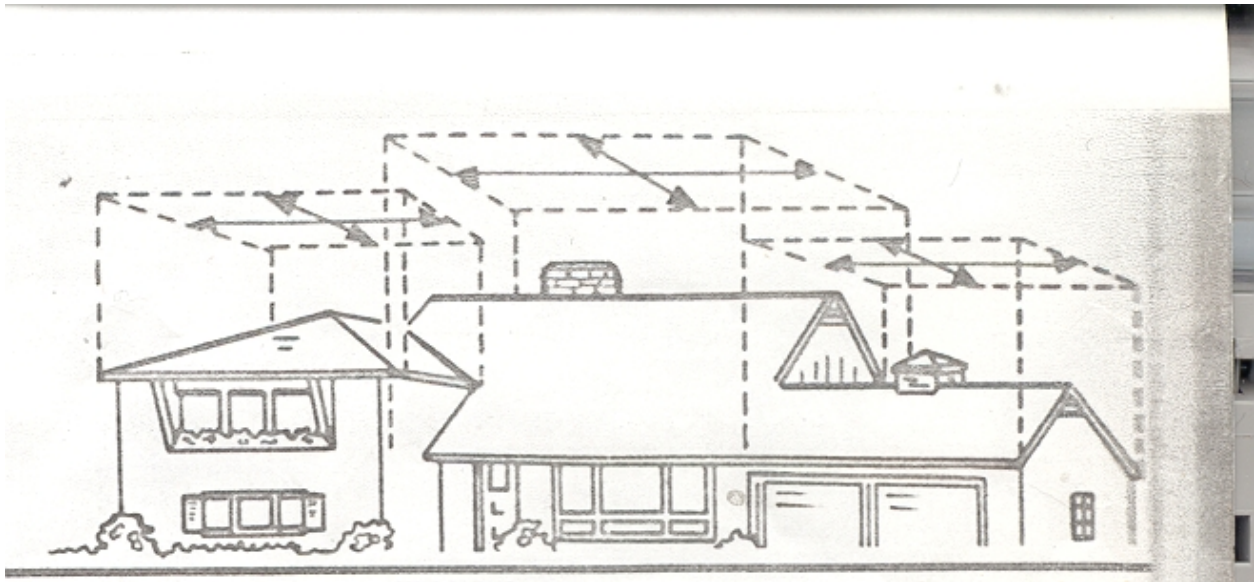
DATE: September 19, 1999

As a result of snow and rain infiltration problems associated with the use of ridge vents, I have contacted a number of area builders and ridge vent manufacturers to explore the possibility of prohibiting their use within the Village. The majority of builders I contacted had experienced similar problems and are not using the product anymore. They have reverted back to the use of the square "mushroom" style roof vent. Also, I found some ridge vent manufacturers have included an added flange/baffle feature, designed to help eliminate the snow and rain infiltration problem.

Whether ridge vents or the square "mushroom" type roof vents are used, the majority of the snow and rain infiltration problems are a result of negative pressure being created due to insufficient soffit venting. To eliminate this vacuum effect, a minimum 1 to 1 ratio of ridge vent area to soffit vent area must be achieved. It is always best to provide more soffit venting than ridge/roof venting.

The Building Department will continue to monitor weather infiltration problems. It appears, however, that the "mushroom" style roof vent coupled with adequate soffit venting will meet the attic space ventilation requirements while minimizing the snow and rain infiltration problem.

Because the Midwest is exposed to a wide variety of weather conditions, the use of the "mushroom" style roof vents is recommended wherever possible.



70	672	739	806	874	941	1008	1075	1142	1210	1276	1344	1411	1478	1545	1612	1680
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FHA Chart Under-eave Ventilators

The illustration shows a rectangular under-eave ventilator with a slatted screen. Below it, a cutaway view shows the ventilator being installed into a rectangular opening in the roof's eave.

Model	Finish	Size	Screen	Free	Will

803.3 Particleboard sheathing.

803.3.1 Identification and grade. Particleboard roof sheathing shall conform to Type 2-M-W as set forth in ANSI A208.1 and shall be so identified by a grade mark or certificate of inspection issued by an approved agency.

803.3.2 Allowable spans. The allowable loads and spans for particleboard roof sheathing shall not exceed the values set forth in Table 803.3.2.

803.3.3 Installation. Particleboard roof sheathing shall be installed in accordance with Tables 602.3a and 803.3.2. Where walls are subject to wind pressures of 30 pounds per square foot (1.44 kN/m²) or greater, as determined in Table 301.2a, particleboard roof sheathing shall be attached to the gable end with 8d common nails spaced at no more than 4 inches (102 mm), or equivalent fasteners.

**TABLE 803.1
MINIMUM THICKNESS OF LUMBER ROOF SHEATHING**

RAFTER OR BEAM SPACING (inches)	MINIMUM NET THICKNESS (inches)
24	5/8
48 ¹	1 1/2 T & G
60 ²	
72 ³	

For SI: 1 inch = 25.4 mm, 1 psi = 6.895 kPa.

¹ Minimum 270 F_b, 340,000 E.

² Minimum 420 F_b, 660,000 E.

³ Minimum 600 F_b, 1,150,000 E.

**TABLE 803.2
ALLOWABLE LOADS FOR PARTICLEBOARD
ROOF SHEATHING^{1,2,3}**

GRADE	THICKNESS (inches)	MAXIMUM ON-CENTER SPACING	LIVE LOAD (pounds per square foot)	TOTAL LOAD (pounds per square foot)
2-M-W	3/8 ⁴	16	45	65
	1/16 ⁴	16	105	105
	7/16 ⁴	24	30	40
	1/2	16	110	150
	1/2	24	40	55

For SI: 1 inch = 25.4 mm, 1 psi = 6.895 kPa.

¹ Panels are continuous over two or more spans.

² Uniform load deflection limitations: 1/180 of the span under live load plus dead load and 1/240 of the span under live load only.

³ The panels may be applied parallel or perpendicular to the span of the rafters or joists and shall be continuous over two or more spans. If the panels are applied perpendicular to roof supports, the end joints of the panels shall be offset so that four panel corners will not meet. Cutouts for items such as plumbing and electrical shall be oversized to avoid a forced fit. A 1/2-inch gap must be provided between the panel and concrete and masonry walls. Leave a 1/16-inch gap between panels and nail no closer than 3/8 inch from panel edge.

⁴ Edges shall be tongue and groove or supported with blocking or edge clips.

**SECTION 804
METAL**

804.1 General. Elements shall be straight and free of any defects which would significantly affect their structural performance.

**SECTION 805
CEILING FINISHES**

805.1 Ceiling installation. Ceilings shall be installed in accordance with the requirements for interior wall finishes, as provided in Section 702.

**SECTION 806
ROOF VENTILATION**

806.1 Ventilation required. When determined necessary by the building official due to atmospheric or climatic conditions, enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilating openings shall be provided with corrosion-resistant wire mesh, with the least dimension being 1/8 inch (3.2 mm).

806.2 Minimum area. The total net free ventilating area shall not be less than 1 to 150 of the area of the space ventilated except that the total area is permitted to be reduced to 1 to 300, provided at least 50 percent and not more than 80 percent of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents. As an alternative, the net free cross-ventilation area may be reduced to 1 to 300 when a vapor barrier having a transmission rate not exceeding 1 perm (57.4 ng/s·m²·Pa) is installed on the warm side of the ceiling.

806.3 Vent clearance. Where eave or cornice vents are installed, insulation shall not block the free flow of air. A minimum of 1-inch (25 mm) space shall be provided between the insulation and the roof sheathing at the location of the vent.

**SECTION 807
ATTIC ACCESS**

807.1 Accessible attic access. A readily accessible attic access framed opening not less than 22 inches by 30 inches (559 mm by 762 mm) shall be provided to any attic area having a clear height of over 30 inches (762 mm).

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Phone 847-367-3704 - Fax 847-367-2541 - [http:// www.vernonhills.org](http://www.vernonhills.org)

PERMIT APPLICATION
RE-ROOF

PLEASE PRINT

Homeowner's Name: _____

Address: _____

Phone: _____ E-Mail: _____

Applicant's Name: _____
(If different from above)

Phone: _____ E-Mail: _____

**NOTE: COPY OF THE CONTRACT *SIGNED BY THE HOMEOWNER* MUST
BE INCLUDED WITH THIS PERMIT APPLICATION**

Answer the following:

Estimated Value \$ _____

Type of Roofing Material _____

Number of Overlays _____

Material Warranty (yrs) _____

Work being performed by:

Homeowner

Contractor Info:

Name: _____

Address: _____

Phone: _____ E-Mail: _____