

ROOF COMMITTEE III

FINAL REPORT

FOR ALL IPSWICH HOMEOWNERS

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Section 1

Our Mission from the Homeowners' Board

Our mission from the Homeowner's Board is to "Evaluate alternative (to red cedar shingles) roofing materials which are compatible with the style, appearance, and value of the existing roofing materials and the existing architectural scheme and concept of Ipswich Country Club Homes."

Section 2

Executive Summary

After extensive research, which is detailed in this report, the Roof Committee unanimously recommends that the ICC Homeowners approve the use of an alternative roof material (*Enviroshake*) in addition to the currently approved cedar.

According to the manufacturer, this product has a useful life that far exceeds cedar. It has a 50-year, non-prorated, fully transferable warranty. It requires little, if any, maintenance; and the installation is six to eight percent less expensive than cedar. If one chooses to take into account the longer life and no maintenance features, it is much less expensive than cedar.

This is a relatively new product from a Canadian company. It is environmentally friendly, has been professionally tested for durability, and has been installed on over 1,100 homes in the United States and Canada. After speaking with 21 of these homeowners, they all felt that they chose the right product and would do so again.

We found six possible alternative products to cedar in a myriad of sizes and colors. From an aesthetic point of view, *Enviroshake* was the unanimous choice of the Roof Committee. We believe *Enviroshake* looks good and blends in well with our existing roofs. The test roof on the mail kiosk allows everyone to see and judge for him/herself.

We also solicited five local realtors for their opinions on the new material, and they all reacted positively that this will protect/enhance the value of our homes.

This recommendation to accept *Enviroshake* as an alternative roof material must receive a "yes" vote of 50% of the Homeowner shares, plus one. If you want a choice of roof materials OR if you wouldn't mind if your neighbor used this alternative material, then you should vote "yes" if either one of these items applies.

It's now up to you to decide!

Respectfully submitted by the Roof Committee:

Yang Cho
Fred Glantz (Chairman)
Lothar Koob

Pat Mansfield
Dudley Miller

Bob Ruckstuhl
David Walton

Section 3

How We Found the *Enviroshake* Product and How/Why It was Selected

How we found the *Enviroshake* product:

The search for an alternative roofing material started with a literature search, including the yellow pages, trade journals and other publications, and the internet. These searches identified five alternative materials which appeared worthy of further investigation. They included *Enviroshake*, *DaVinci*, *Lamarite*, *Ecostar*, and *LifePine*, each having its own line of styles and colors. Once having identified these materials, we obtained samples and literature representing as many manufacturers, styles, and colors as possible. We also spoke with salesmen, distributors, and roofers and viewed many of these materials on roofs in the New England area. Most of these materials were functionally acceptable and appeared to be cost-effective. Thus, our primary focus became aesthetic appearance and how well we thought the roofing material would blend in with the existing ICC cedar roofs and complement the appearance of our community. *Enviroshake* was the only product that met the unanimous approval for aesthetic appearance of the seven members of the Roof Committee. The Roof Committee presented its findings and the recommendation to use the mail kiosk as a test roof to evaluate the aesthetic appearance of the *Enviroshake* material in the context of the existing ICC cedar roofs to the Design Review Commission and the Board of Directors of the Homeowners' Association. On February 8, 2007, the DRC and the BOD agreed to proceed with that recommendation.

Description of the product, color, and its attributes:

Enviroshake is a molded shingle made from 95 percent recycled plastic materials, crum rubber from tires, and wood flour. It is impregnated with a mildew inhibitor and comes in one color – black – which ages to a natural-appearing silver gray in six to nine months of exposure to the weather. It is manufactured by Wellington Polymer Technologies, Inc., located in Chatham, Ontario, Canada. *Enviroshake* conforms to local building codes and carries a Class C fire rating. It can be installed over both solid sheathing and skip sheathing bases. An *Enviroshake* roof requires no special maintenance and can be power-washed if desired, although it is not required. (As with any roof, twigs, leaves, pine needles, etc. should be removed on a periodic basis.)

Section 3 (Continued)

Safety of the product, environmental and use advantages, quality, and warranties;

The benefits of *Enviroshake* versus red cedar are numerous. From the environmentalist's perspective, its benefit is clear. It is made from recycled plastics and old rubber tires, whereas red cedar must come from mature trees and forests. *Enviroshake* is also environmentally safe and contains no carcinogens. From the homeowner's perspective, *Enviroshake* requires less maintenance than red cedar, lasts longer than red cedar, has a better fire rating than red cedar, and has a better warranty than red cedar. *Enviroshake* shingles carry a 50-year, non-prorated, fully transferable warranty.* (Cedar warranties vary widely. The best is for only 20-25 years and is generally not transferable – CSSB Website.) *Enviroshake* shingles have been tested by the National Research Council of Canada, Institute for Research in Construction (a consumer "watchdog" group similar to UL in the USA), who issued a report approving the product for use as a roofing material that is in compliance with the National Building Code of Canada. Also, the Canadian Mortgage and Housing Corporation permits the use of this product in construction financed or insured under the National Housing Act.

In 2002, the manufacturer, Wellington Polymer, changed its raw material sourcing strategy with the objective of insuring an uninterrupted supply of materials and consistency and quality of the product through time.

*Some people have asked, "What is Wellington Polymer's basis for its 50-year warranty claim when the product has only been in commercial use for about five years?" The 50-year warranty is based on actual exfoliation data taken from shingles subjected to 2,000 hours of exposure to continuous cycles of heat/cold/moisture/UV light, etc., designed to simulate the long-term effect of seasons, temperature, sunlight, and precipitation fluctuations.

Section 4

Cost Analysis

Three roof committees have examined the cost of replacing our cedar roofs. Our most important finding on how to contain costs is that bids must be obtained from at least three to five qualified roofers. Whether it be *Enviroshake* or cedar, the roofer's quotes have varied on the same roof by as much as 100 percent. So, as the saying goes, *caveat emptor* (let the buyer beware).

In order to compare apples to apples and come up with a fair cost comparison, we used two homes (one attached, one single). We made some assumptions about what each house needed; but like buying an automobile, there are many options and each home here in the Country Club has its own individual needs.

Here are five different quotes we received from roofers on two actual homes at the ICC. The home at 26/28 Southpoint Lane is an attached, and the home at 33 Hawk Hill is a detached single-family home.

Total Cost to Re-Roof Home

The total all-in cost to re-roof each home is shown here.

33 Hawk Hill Lane			
Roofer	Enviroshake®	Total cost to re-roof home	
		Cedar Shingles	% less than cedar
South Eastern Carpentry Inc.		\$ 45,000.00	0%
Newton Roofing Co.		\$ 61,009.00	9%
Cape Cod Roofing		\$ 66,221.00	12%
Superior Roofing Industries, Inc.		\$ 64,970.00	5%
R.J. Talbot Roofing & Contracting, LLC.		\$ 72,300.00	13%
Averages	\$ 57,149.08	\$ 61,900.00	8%

26/28 Southpoint Lane			
Roofer	Enviroshake®	Total cost to re-roof home	
		Cedar Shingles	% less than cedar
South Eastern Carpentry Inc.		\$ 63,000.00	0%
R.J. Talbot Roofing & Contracting, LLC.		\$ 68,700.00	15%
Cape Cod Roofing		\$ 76,512.00	1%
Newton Roofing Co.		\$ 85,972.00	8%
Superior Roofing Industries, Inc.		\$ 88,490.00	6%
Averages	\$ 72,340.20	\$ 76,534.80	6%

The total cost to re-roof 33 Hawk Hill with Enviroshake® is an average of 8% less expensive than cedar, and the cost to re-roof 26-28 Southpoint with Enviroshake® is an average of 6% less expensive than cedar.

33 Hawk Hill Lane has 40 squares of roof area, and 26/28 Southpoint Lane has 60 squares.

Red cedar is at 5/5.5" exposure to the weather. Enviroshake is at 7" exposure to the weather.

Section 5

Inputs Collected from a Survey of Current *Enviroshake* Owners

We surveyed 21 current homeowners and three Associations with *Enviroshake* roofs installed since 2004.

The overwhelming sentiment was that they liked *Enviroshake*.

All homeowners/Associations surveyed would use *Enviroshake* again.

We developed 17 questions to determine each homeowner's satisfaction with *Enviroshake* on all aspects of installation, costs, and service. This questionnaire is available to anyone who wishes to see it.

Section 6

Is Wellington Polymer a Financially Stable and Viable Company?

Enviroshake is owned by a Canadian company named Wellington Polymer. This privately owned company was established in 1998, and there was a change in ownership in 2000. Today, the actual owners are the CEO (10 percent) and three venture capital firms – Lawrence Enterprises of Toronto, Best Funds of Toronto, and SoundVest Capital Management of Ottawa.

The venture capital firms are providing the necessary capital to ramp up production and expand the business. Over the last five years, they have invested approximately \$8 million in developing this product and establishing a manufacturing facility in Chatham, Ontario, and have about 40 employees. They sell through a network of roofing supply distributors in the US and Canada.

There is a company website at www.enviroshake.com.

The company's current sales are approximately \$6 million per year, and their Balance Sheet shows assets of \$3.5 million.

They are raising additional capital to double their production capacity and are currently working around the clock to produce this product, as demand increases from large distributors in Texas, British Columbia, Quebec, Ontario, and North Carolina.

The company hopes to double production by early 2008. To do this, they are raising another \$4.5 million in capital. This should allow them to bring their sales into the \$12 million range per year.

The CEO said they expect 2007 to be a profitable year.

Their goal is to expand their business to become the next Trex, a company that produces artificial decking material and has annual sales of \$300 million. In order to continue their growth, they will establish manufacturing sites in the US and western Canada; and they have a business plan to accomplish this.

They have installed about 1,100 roofs in the US and Canada. It is important to note that the way the current CEO became involved with the company was that he had the roof on his own multi-million dollar home installed with this product (versus cedar) and then became an investor, risking his own money and career. He truly believes in the product and its future.

Section 7

What Local Realtors are Saying about Enviroshake Roofs at the ICC

Over the years, we have heard a number of anecdotal comments regarding the impact that our cedar roofs have on the re-sale of ICC homes.

We decided to research this and assemble some factual data on the subject. Below are statements from five local realtors who are regularly engaged in selling homes in our community.

Ed Dick of Coldwell Banker said:

- The roofs are a factor in the sale of homes at ICC.
- The perceived problems and remedies are as varied as the inspectors who review them for buyers. There is no consistency.
- The remedy at the time of sale is often viewed similar to Title V (septic system) remedies, although there is no obligation for the seller to remedy the problem (or perceived problem). There is an expectation by the buyer that they not inherit a problem that will have to be cured in the immediate, or short-term, future.
- As a result of these issues, I believe having a roofing alternative is imperative. Although it is not the quick fix, it allows a buyer to justify a home purchase because there is a cure that allows buyers to amortize the replacement cost of a longer life span, or enjoy a longer life expectancy if the new roof is already in place.
- Thank you for your continuing efforts to provide alternatives.

Kim Folan of Coldwell Banker said:

- An alternative roofing material to the cedar roofs at Ipswich Country Club would add a sense of comfort to a potential buyer.

Section 7 (Continued)

Judy Hansen of Coldwell Banker said:

- The cedar roofs at Ipswich Country Club are an issue with buyers, and they are already aware that the roofs do not last long and are expensive to replace. I have seen the roof on the mail kiosk, and it looks fine. I do not see it as a negative to homes at the Club. Remember, no one will be climbing on the roofs - they will be looking at them from a distance. Good choice!

Sally Longnecker of Coldwell Banker said:

- The cedar roofs at Ipswich Country Club are starting to become a concern to potential buyers.
- It would be helpful if there was an alternative material which could be used that had a longer life expectancy and came with a guarantee.
- I think that the roof which is on the front of the mail house looks good and would be an appropriate alternative to cedar.

Dudley Miller of Coldwell Banker said:

- As a homeowner (with a new cedar roof) as well as a realtor, I feel that having an alternative to cedar would be a positive factor in the marketing of Ipswich Country Club properties.
- The 50-year guarantee from *Enviroshake* would answer many of the concerns of potential buyers.
- I am also pleased with the appearance of this new material on the front of our mail kiosk.

Section 8

Key Questions if You are Replacing Your Roof

Should you decide to install a new roof on your Ipswich Country Club (ICC) home, here is a list of questions and answers which you should study as you undertake this effort.

In addition to this report, a significant amount of general roof information (as well as information specific to red cedar roofs) can be found in the ICC Roof Committee Report published in May 2006, and which is available from the Homeowners' Association Property Manager.

What material(s) are approved for a replacement roof?

At this time, the only material approved for ICC roofs is red cedar. There are a number of types of red cedar shingles. The two that are approved for ICC use are 18" Perfection sawn #1 grade red cedar shingles or 18" taper sawn 5/8" butt red cedar shingles, both installed with 5" to 5-1/2" exposure to the weather. Each of these types of shingles can be purchased with either a pressure-treated preservative or a fire-retardant chemical which is applied at the factory. (See the May 2006 Roof Committee Report for more details.) If other types of red cedar shingles are being considered, the Ipswich Homeowners' Property Manager should be contacted to determine if they are acceptable.

If approved by the Homeowners, an additional material manufactured under the name of *Enviroshake* can be used for ICC roofs. *Enviroshake* shingles are a molded synthetic material made primarily from old tires and recycled plastic and come in one color – black, which ages to gray. They are installed at 7" exposure to the weather. No additional treatment or coating is needed, as these shingles carry a Class C fire rating and contain a mold inhibitor. (See earlier in this report for more detail.)

What are the material and labor costs associated with installing a new roof?

Material and labor costs are based on the size of the roof. The commonly used unit of measure is a "square" which is equal to 100 square feet. Roofers will estimate the number of squares of roof area and will bid on the job accordingly. It behooves the homeowners to know this measurement for their dwelling so they can keep the roofers "honest" during the bidding process and to make sure all bids are based on the same number of "squares". A home's roof area can

Section 8 (Continued)

determination of replace or reuse. Do not let the roofer talk you into replacing the copper at the time that the bid is prepared. Try to leave this open as an item to be decided once the old roof has been stripped away.

What material (underlayment) should be installed between the shingles and the sheathing (roof base)?

With the exception of cedar breather, the underlayment materials (ice and water shield, felt, etc.) are the same for both cedar and *Enviroshake* shingles. Please see the Underlayment section of the May 2006 Roof Committee Report for more detail.

My roof base is strips of wood (skip sheathing) to which the shingles are nailed directly. My neighbor's roof base is 4x8 sheets of plywood (solid sheathing) to which his shingles are nailed. Can both cedar shingles and *Enviroshake* shingles be installed over both of these roof bases?

Both of these roof bases are standard techniques used when installing cedar shingles; and as such, if you choose your new roof to be cedar shingles, they can be installed over either base. The same is not true with *Enviroshake* shingles. *Enviroshake* shingles can be easily installed over a plywood roof base. However, because the strips of wood in skip sheathing are spaced to accommodate an exposure-to-the-weather dimension of 5 to 5-1/2 inches for cedar shingles, they are necessarily not spaced correctly for the 7" exposure-to-the-weather dimension of the *Enviroshake* shingles. If your roof base is skip sheathing and you wish to install *Enviroshake* shingles, your roofer may have to either install additional wood strips or overlay the existing wood strips with plywood, both of which will involve additional cost.

Although the installation of *Enviroshake* shingles requires the modification of the roof base if the existing base is skip sheathing, the homeowner may elect to make the same modification to the roof base when installing cedar shingles. Below is a paragraph extracted from the Roof Committee Report of May 2006.

"Several technical manuals recommend solid plywood sheathing in geographic areas which often have snow and high winds. Some of the contractors who have replaced roofs at ICC have recommended that spaced sheathing be replaced with solid plywood sheathing as part of the (cedar) roof replacement. Homeowners who have spaced sheathing should request an estimate on installing plywood as part of the roof replacement and determine whether it makes sense to move to a plywood sheathing base."

Section 8 (Continued)

Do cedar shingles and *Enviroshake* shingles require different maintenance?

Other than removing loose debris such as leaves and twigs, *Enviroshake* shingles require no maintenance. However, depending on a number of factors such as sun, shade, dampness, air flow, debris accumulation, age, etc., cedar roofs may require various degrees and techniques of maintenance. For more detail on the maintenance of cedar shingle roofs, see the Roof Committee Report of May 2006.