



Electra Business Awards 2013

CELEBRATING BUSINESS SUCCESS

**Silaca Glass Crushers**

**WINNER**

**MOST PROMISING CLEAN TECHNOLOGY BUSINESS AWARD**

Sponsored by




*"Silaca Glass Crushers supports New Zealand's love of the environment by processing recycled waste glass into specific profiles for their local downstream manufacture of a range of high-value added products and applications"*



[www.crushedglass.co.nz](http://www.crushedglass.co.nz)  
 1 Riverbank Road, Otaki  
 027 270 8206



## Silaca Glass Crushers Ltd

are

New Zealand Government Accredited

Glass Recyclers

 **Aquaculture Park fish swim in water filtered**  
Taihoon Nukurangi  
*through crushed recycled glass processed by Silaca Glass  
Crushers...*

*(and that's no fish story)*



Congratulations  
**BARRY LUCINSKY**  
Ruud Kleinpaste Award  
2015

*"The Ruud Kleinpaste Award of Keep New Zealand Beautiful is given to the KNZB member whose efforts to positively enhance the organisation's mission and values, have gone beyond that what many volunteers undertake. On 5 September 2015 it was an honour to award this to Barry Lucinsky.*

*There are many reasons for Barry to receive this Award:  
First of all he went well beyond the call of duty in his many years' association with Keep New Zealand Beautiful. Barry has worked tirelessly for many years in promoting the organisation, while himself keeping true to the principles of sustainability through his business ventures.  
Indeed, his work ethic can be summed up by an 8 day-a-week mentality that goes with everything he does for the Environment and Community.  
The unstoppable 81 year-old (!) is now re-using waste glass in various innovative ways to allow the silica to go once - more around the block - literally!*

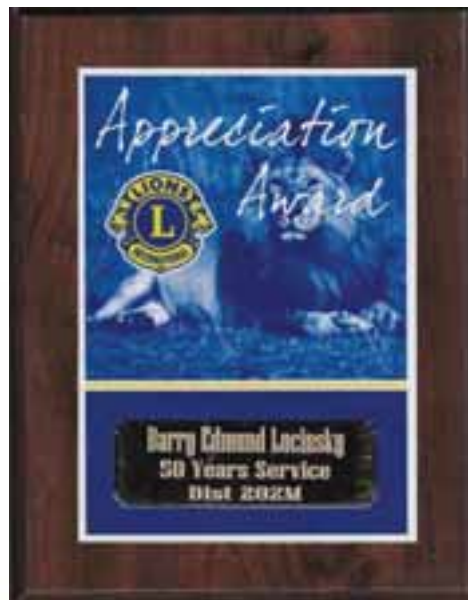
*Barry is also the person that gets the single most important concept behind Keep New Zealand Beautiful. No, it isn't the green landscape, nor is it the importance of Biodiversity and Ecosystem Services, or the glue that binds Communities together, it is a concept that transcends all of that and is the basis of why we actually work towards keeping Aotearoa Beautiful and restore its natural beauty...  
The word is RESPECT.*

*Barry knows this word well.  
Congratulations, Barry, we need a few more Barry's on our precious Planet!"*

*Ruud Kleinpaste  
(past Patron of Keep New Zealand Beautiful)*

## Barry Lucinsky's Awards Synopsis

- 1980: **New Zealand Energy & Conservation Award** (Lime stabilising roading aggregate)
- 1990: **New Zealand Commemoration Medal** (Service to the community)
- 1991: **Wellingtonian of the Year** (Runner up)
- 1996: **Kapiti/Horowhenua Business Development Board** (Business Awards Function)
- 1997: **Wellington Contractors Award** (State Highway Construction)
- 2010: **Kiwibank Local Hero**
- 2010: **New Zealander of the Year Award** (Semi-finalist Senior New Zealander)
- 2010: **Electra Clean Technology Award Winner**
- 2012: **Wellington Gold Award Finalist**
- 2013: **Kapiti Coast District Council Civic Award**
- 2014: **Sanitarium Innovator of the Year** (Certificate of Achievement)
- 2014: **New Zealander of the Year** (Semi-finalist)
- 2014: **Senior New Zealander of the Year** (Finalist)
- 2015: **Keep New Zealand Beautiful Rudd Kleinpaste Award**



## Glass Recycling – Is it a Myth of Reality?

**Presently in New Zealand there are numerous attempts being undertaken to recycle waste glass, unfortunately there is no coordinated Central Government leadership to provide a dedicated singular approach to glass recycling in this country.**

**The minority that crush and recycle glass in New Zealand need Central Government to provide an overall programme to achieve an outcome from crushed recycled glass, presently there are a multitude of agendas relating to crushed recycled glass in New Zealand.**

**Canvassing those presently engaged in crushing recycled glass it has been revealed that the financial return is greater than consigning waste glass to landfills.**

**Recycling glass at its source also alleviates major transport costs plus landfill dumping costs. These cost savings combined with the financial returns from the sustainable marketable products manufactured from crushed recycled glass could make glass recycling a reality.**





### Glass Recycling Through The Eyes Of An O.B.E.\*

Glass bottles residue from the beverage industry has been around for a period of time. People enjoy the contents of the glass bottle, but when it is empty the bottle becomes an environmental problem.

But an O.B.E.\* like me has established a method to divert glass bottles from the landfill utilising innovative crushing and allied equipment to create sustainable, marketable products from the humble glass bottle.

Using O.B.E.\* ingenuity and tenacity with a sprinkling of bloody hard yacker the glass crushing operation is now producing graded sizes of crushed glass, that is used exclusively as an aggregate in courtyard pavers. The pavers comprise of crushed glass and cement, the only ingredients used in a Silaca courtyard paver.

The O.B.E.\* developed a grinding process which when applied to the paver produces an exposed texture representative of the colour of the crushed glass used.

The artistic O.B.E.\* has also developed a decorative courtyard paver with pattern inserts utilising crushed glass and epoxy resin.

The O.B.E.\* extended his talents to create garden ornaments using the proven formula that was applied to the courtyard pavers.

Being an O.B.E.\* one accumulates considerable knowledge and expertise which opens avenues to other applications that can be applied to crushed glass, so another product was formulated from crushed recycled glass, being filter medium for pools and spas, plus a larger size for grit blasting.

Being an innovated O.B.E.\* the design and manufacture of glass crushers and allied equipment was not beyond the realms of imagination, an export order of three crushers was exported to Darwin with the O.B.E.\* making the pilgrimage to Darwin to install the glass recycling machinery.

At times the O.B.E.\* felt like he was pushing ripe bananas uphill with a piece of string, but tenacity prevailed, the marketing of the crushed recycled glass products has been accomplished with sales exceeding production.

Even O.B.E.\*s like me must subscribe to modern digital technology, check our website [www.crushedglass.co.nz](http://www.crushedglass.co.nz)

The O.B.E.\* is currently consuming 1,000 tonnes of glass bottles per annum.

According to O.B.E.\* accountancy, the cost of crushing one tonne of bottles is \$115. Each paver consumes 14 kilograms of crushed recycled glass with a minimum market price of \$14 per paver, this equates to the O.B.E.\* reckoning of 71 pavers per tonne of crushed recycled glass.

\* O.B.E. (over bloody eighty)



Silaca Vetro paver



Silaca Standard paver



Silaca Design paver



Abrasive Blast Media



Filtration Media



Landscaping



Silaca Glass Crushers supports NZ's love of the environment by processing recycled waste glass into specific profiles for their local downstream manufacture of a range of value added products and applications, including:

- **Silaca Vetro Paver** – peak grade commercially made paver that has a unique, decorative, coloured, honed and pre-sealed finish.
- **Silaca Standard Paver** – a low cost individually decorative hand finished paver with high environmental credentials.
- **Silaca Design Paver** – creative design paver incorporating traditional NZ images.
- **Abrasive Blast Media** – made from recycled crushed glass and a perfect clear cut surface finishing material.
- **Filtration Media** – made from crushed recycled glass and ideal for pool, spa and waste water treatment systems.
- **Landscaping Applications** – crushed recycled glass for driveways, transport yards and general garden and path cover.
- **Garden Art** – range of garden ornaments and sculptures made with crushed recycled glass to enhance your garden or home.

[www.crushedglass.co.nz](http://www.crushedglass.co.nz)



**So what of the future?** Silaca Glass Crushers has entered into a lease of land from the Kapiti Coast District Council for a period of five years, with a further five year renewable term.



Electrification from the main grid has been installed in the form of a substantial transformer.

To progress the Otaki operation into a fully automotive plant requires capital, capital that Silaca Glass Crushers do not have, they have expended all of their finances in the development of the process to date.

The expansion programme envisaged will consume all of the waste glass in the area of Horowhenua to Wellington, which can be consumed in a market that has been proven and consolidated.



Waste will not stop, it will increase. To achieve a zero waste solution the Ministry has to accept and nurture an established, proven recycling programme.

***There are no easy answers to problems of pollution.***

***Making the world a better place to live in will require a lot of effort and a great deal of money and goodwill.***

***It must involve everyone.***

***If you are not part of the solution, you are part of the problem.***



- ✓ **MADE FROM 100% CRUSHED RECYCLED GLASS AGGREGATE**
- ✓ **LOCALLY MADE USING A WET-MIX VIBRATION METHOD**
- ✓ **SMOOTH GRIND HAND-FINISH**
- ✓ **SUITABLE FOR RESIDENTIAL APPLICATIONS**
- ✓ **HIGH ENVIRONMENTAL CREDENTIALS AT A LOW COST**
- ✓ **TRADITIONAL NZ DESIGNS AVAILABLE**
- ✓ **UNIQUE AND DECORATIVE HANDMADE FINISH**
- ✓ **MADE WITH CRUSHED RECYCLED GLASS**

Income 71 pavers @ \$14 per paver	\$994.00
Costs	
Crushing 1 tonne	\$115.00
Paver cost 71 x \$5	\$335.00
<b>INCOME PER TONNE</b>	<b>\$525.00</b>





### GLASS RECYCLING

*Recycling waste glass to regain re-usable, sustainable, marketable products, to save from a loss and restore to usefulness, pursuing a zero waste doctrine to reduce waste – a discarded material.*

**Silaca Glass Crushers**, since 2004, has applied the above to the recycling of waste glass.

The formation of Silaca Glass Crushers was a challenge issued by John Weber of the Glass Packaging Forum, his problem was how to dispose of the waste glass that was being stockpiled throughout New Zealand.

Silaca Glass with financial assistance from the Glass Packaging Forum designed a portable crusher and demonstrated throughout New Zealand that waste glass was a recyclable commodity.

The company was responsible in implementing a change in the then Transit New Zealand roading specifications to include crushed recycled glass in their roading aggregate.

Silaca Glass Crushers then established a glass recycling operation at the Otaki Reuse Depot, utilising glass from Otaki and Waikanae Transfer Stations, which exceeded 1,000 tonnes per annum.

The machinery employed to process the waste glass from this operation was designed, manufactured and operated by Silaca Glass Crushers, seeding finance was supplied by the Kapiti Coast District Council from the Waste Levy Fund.

The establishment of the pilot plant at Otaki was financed by Barry Lucinsky from Silaca Glass Crushers.



Export orders for Silaca Glass Crushers were fulfilled with exports to Australia and the Pacific Islands.

Silaca Glass Crushers also developed, designed and manufactured allied screening equipment which expanded the vast range of sized products that have been achieved from crushed recycled glass.

Additional glass crushers were manufactured to expand the processing of recycled crushed glass.

Presently the range of recycled crushed glass embraces a varied spectrum of manufactured products ranging from:

- (A) Courtyard Pavers
- (B) Garden Ornaments
- (C) Landscaping Material
- (D) Filter Media
- (E) Roading Aggregates
- (F) Blasting Grit
- (G) Paint additives

Silaca Glass Crushers endured substantial opposition about the utilisation of crushed glass mixed with cement, conclusive testing and due diligence overcame the issue whereas today the courtyard pavers are now a sought after product.

Assessing the progress of Silaca Glass Crushers from 2004, it has not been easy, development consumes finance. Failures have to be conquered, markets have to be explored and consolidated.

The present situation now exists that Silaca Glass Crushers has developed, manufactured and trialled the machinery to a point that the incubation stage has been achieved.

The marketing of the products from recycled crushed glass has been established, viewing the website [www.crushedglass.com](http://www.crushedglass.com) will fortify the market potential, the 'hits' on the website exceed 15,000 per month.

Silaca Glass Crushers has contributed large volumes of finance to achieve and progress the project to its present level.

Silaca Glass Crushers is now at the crossroads of expansion, its financial exposure is limited to the stage that now exists.