



BLUE DIAMONDTM

CONSERVATORIES

• C o n s e r v a t o r i e s o f D i s t i n c t i o n •

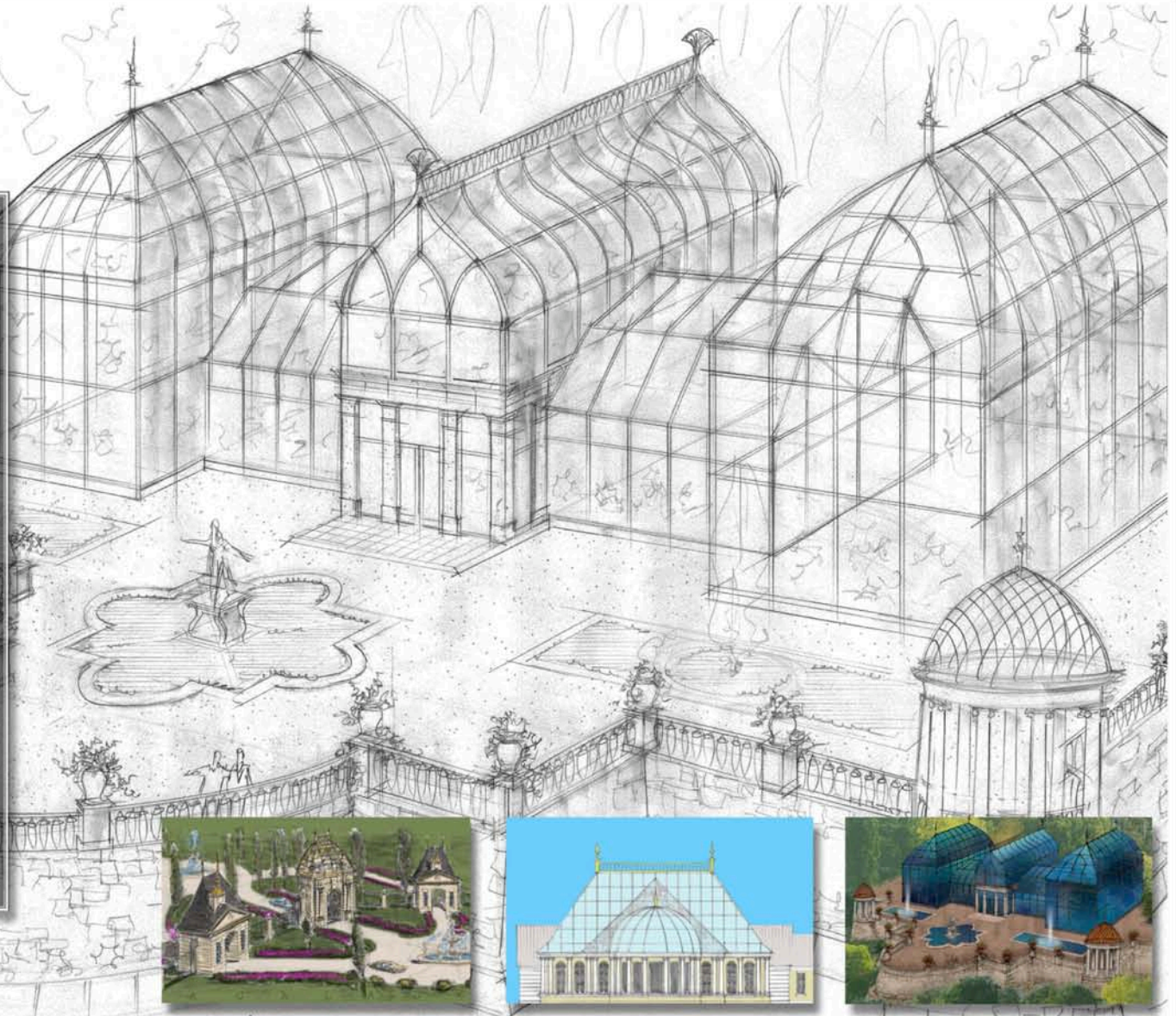
Dear Sir or Madam

Let Blue Diamond craft a unique English Conservatory as an articulation of your own special design style. We hope that you gain inspiration from this Conservatory Portfolio to create an impressive showcase for entertainment or a personal garden room retreat for rest and relaxation.

We look forward to meeting with you soon to establish a working relationship to the mutual benefit of all.

Sincerely

Andrew Roberts
Operations Director
Phone: 866-558-4237
Cell: 724-561-6382



JOHN HENRY, AIA ARCHITECT 2006

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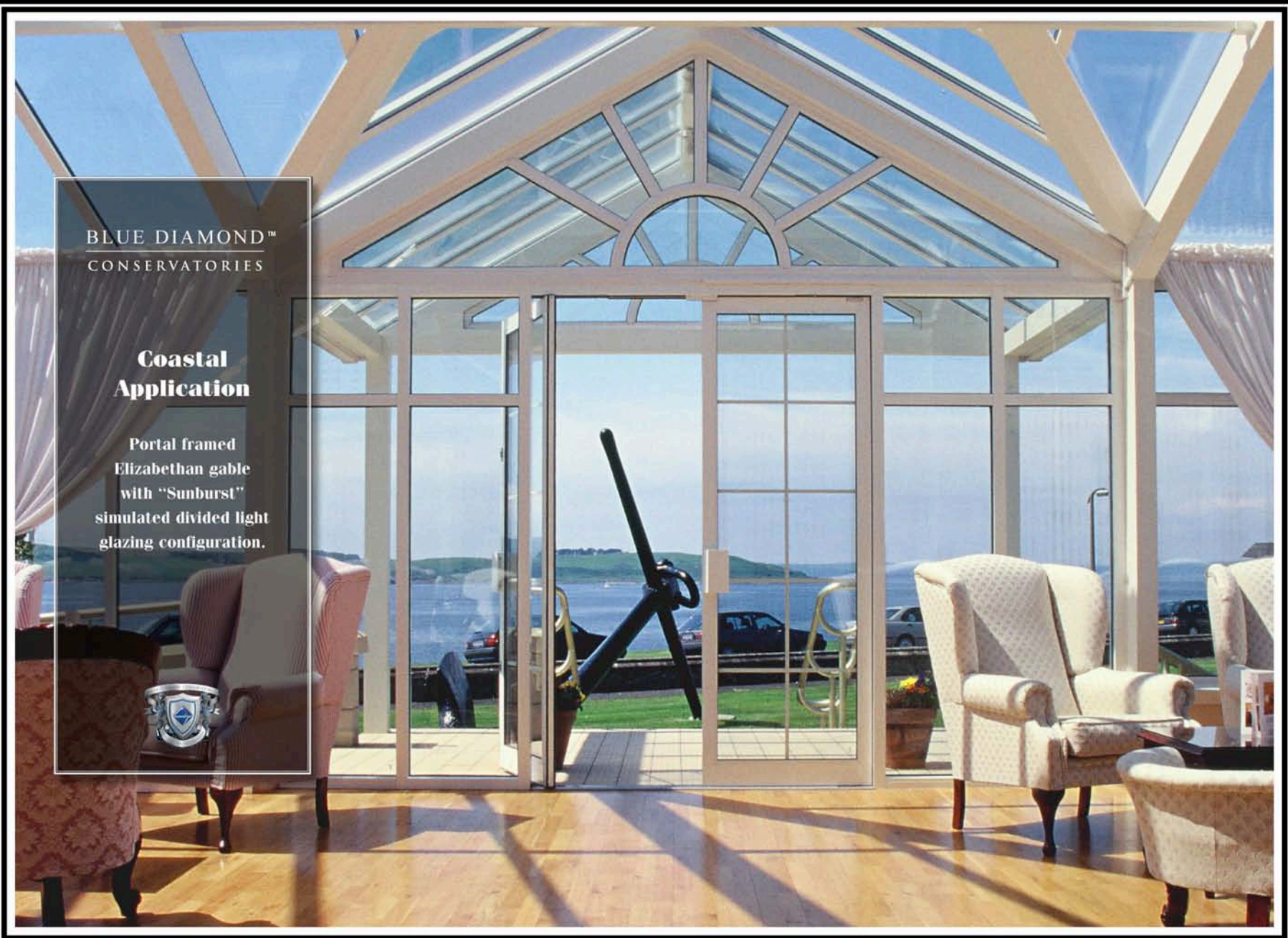
Elevated portal framed
Victorian Conservatory
with lantern roof and
gabled entry.



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**Coastal
Application**

Portal framed
Elizabethan gable
with "Sunburst"
simulated divided light
glazing configuration.



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**Garden Room
Conservatory**

Three faceted Victorian
portal configuration
with
true divided light
glazing configurations.



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**Victorian
Conservatory**

Illustrating a lantern
and thermostatically
operated
awning vents with
automatic rain sensors.



**BLUE DIAMOND™
CONSERVATORIES**

**Superior
Glazing**

Blue Diamond's
EnviroGlaze II is a proprietary
ultra-high performing
glazing system (R 9.26)
ideal for projects in both
hot and cold climate extremes.
For example this project is
situated in a climactic zone that
regularly experiences daily
highs in excess of 100 degrees F





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**Portal
Application**

Portal framed
system supporting a
lantern roof.
Simulated divided light
glazing configuration.



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**Vancouver
Yacht Club**

Conservatory
used as a
multi-function
facility.



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Classic Estate

Installation
with
reverse hip Conservatory
including
lantern roof system.



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Classic Estate

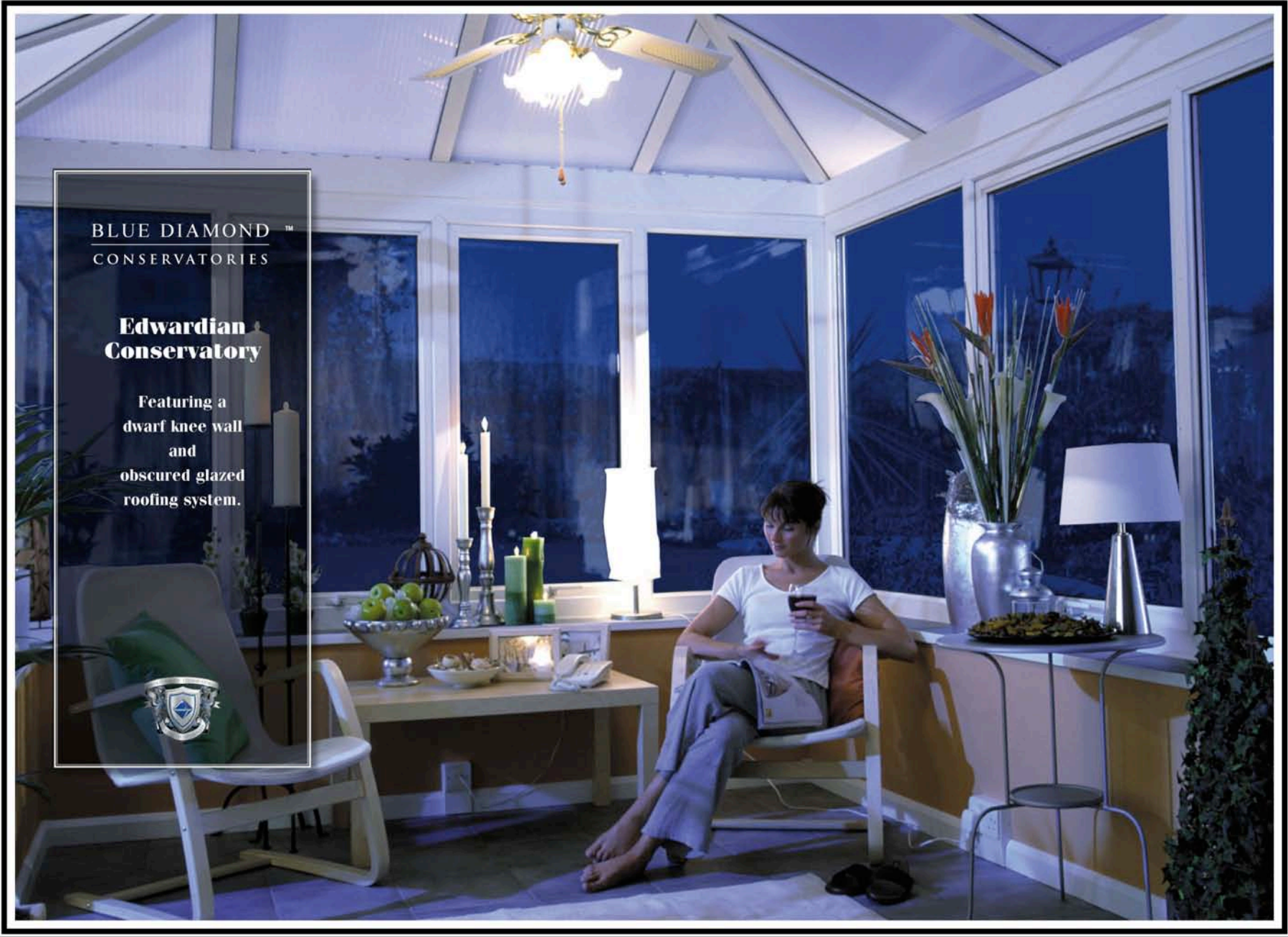
Interior aspect
featuring
clear glazed roofing
system with valley
formed sculptured box
gutter system.



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**Edwardian
Conservatory**

Featuring a
dwarf knee wall
and
obscured glazed
roofing system.



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**Tudor
Restaurant & Hotel**

Constructed
in 1988
and featuring a
Victorian lantern roof.



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“Built to a Tee”

Faceted, T-Shaped style
Victorian Conservatory
Club House
at a
British Golf Course
as featured in
“The Open Championship
Magazine”.



BLUE DIAMOND™
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**Residential
Application**

Featuring a
Three gable Elizabethan
custom designed
Conservatory
for a
private residence.



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**Domed Roof
Application**

2 Story
Portal Conservatory
featuring a
32 foot high dome.



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Bespoke & Unique Designs

Every project is bespoke
and uniquely designed for each
client by our own
design professionals here
in the USA.

Each project
is carefully crafted at our plant
in England that celebrated its
30th anniversary
in 2006





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**Victorian
5-Faceted
Garden
Conservatory**

Featuring
obscured glazing
and
lantern roof system.



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**3-Story Gabled
Combination
Elizabethan
Conservatory**

Featuring a
faceted Victorian
entry.



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**National
installation**

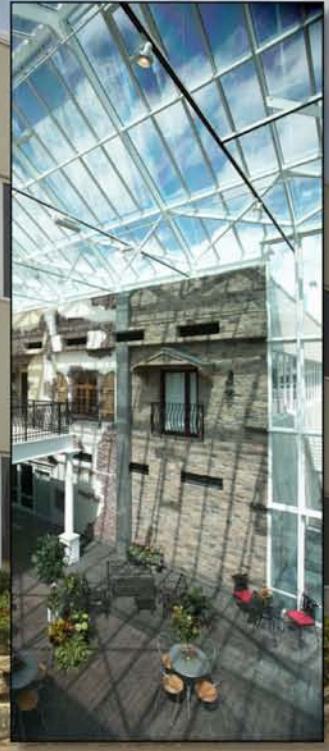
Blue Diamond Conservatories
installs nationally
from our facility here
in the USA



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Interior Aspects

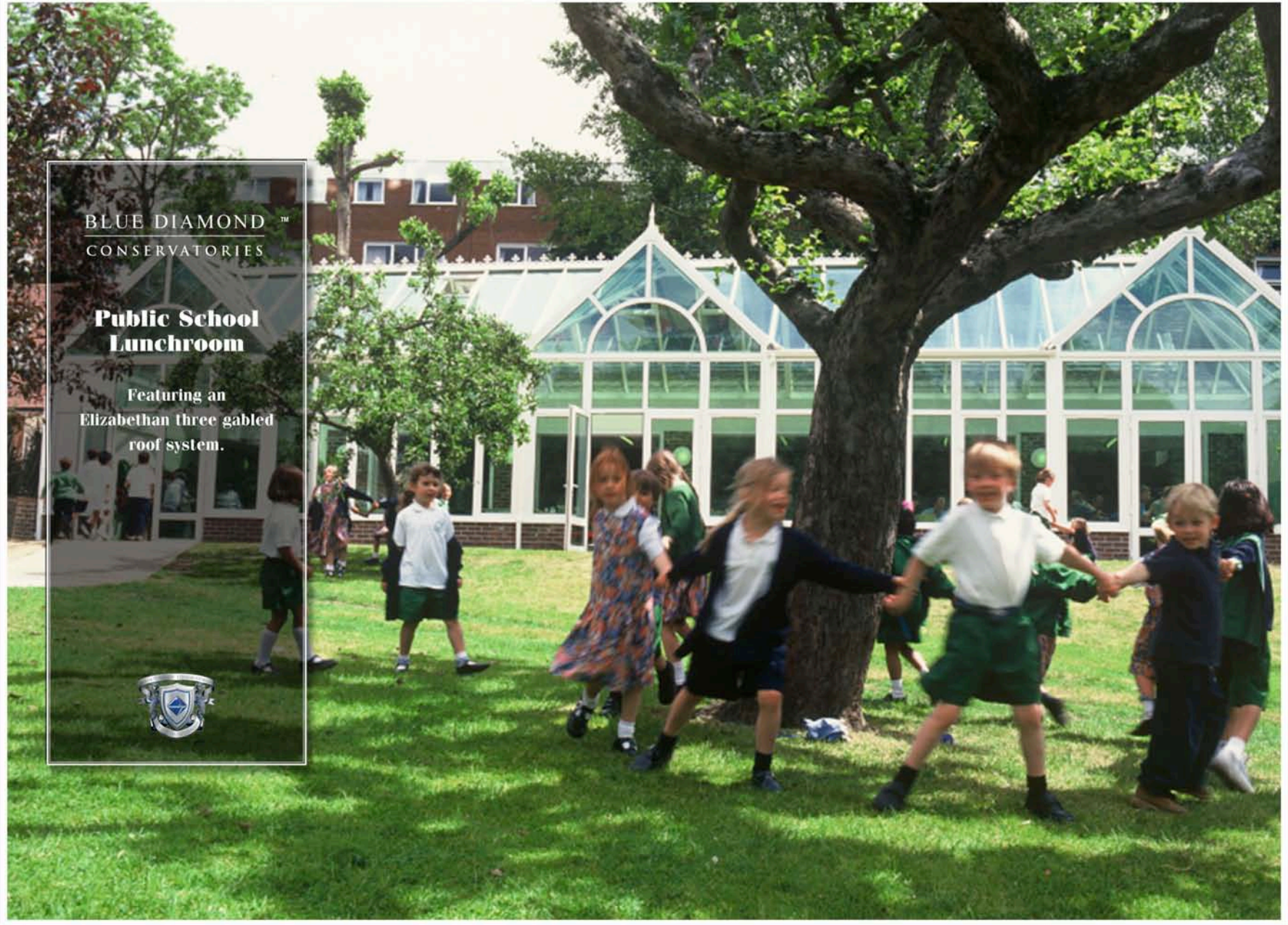
Enviroglaze, with a
9.26 R Value, creates a
high performance
thermally efficient
glazing system.



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**Public School
Lunchroom**

Featuring an
Elizabethan three gabled
roof system.



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Art Center

Lantern Style
portal frame roof system.



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Large span
ocean view
conservatory.



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Manor House

An open courtyard
converted into a ballroom.

Note the multiple
lantern skylights and
matching window
and door remodeling
maintaining the integrity
of the original
architecture.



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**Edwardian
Conservatory**

Featuring decorative
leaded light transoms and
portal frame lantern.

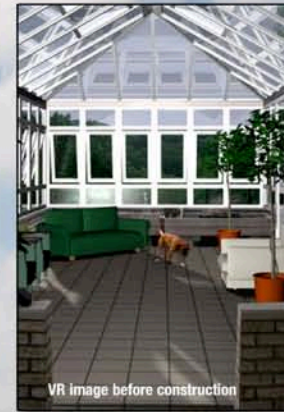
Project coordinated
to match
window colouration.



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**Computer
Generated
Imaging**

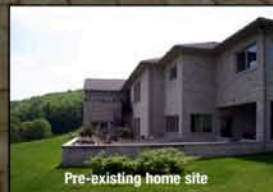
Virtual resolution imaging
enables the client to see
how the conservatory design
will appear prior
to construction.
This is referred to as a
VR image.



VR image before construction



completed conservatory



Pre-existing home site



VR image before construction



construction in progress



completed conservatory



BLUE DIAMOND™
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**Residential
Conservatory**

Featuring
portal frame
and hipped roof
with
faceted Victorian
entryway.



Glass is the largest surface area in any conservatory and damaging UV light can penetrate it to destroy fine furniture and art while a poorly insulated unit can cause energy loss. Blue Diamond Conservatories offers the finest high performance glazing products available in the market. Known as EnviroGlaze II™ it is the ultimate solution for year-round protection, comfort and cost savings.

EnviroGlaze II™ North - Frames

Krypton Gas Filled - 5/32"(4mm) Tempered/ 5/32"(4mm) Tempered
For climates that have varying degrees of temperature and humidity, experience snowfall and rainfall at least a quarter of the year.

EnviroGlaze II™ South - Frames

Argon Gas Filled - 5/32"(4mm) Tempered/ 5/32"(4mm) Tempered
For climates that have high heat indexes and experience high temperatures, humidity, and are exposed to intense UV light most of the year.

EnviroGlaze II™ Roof

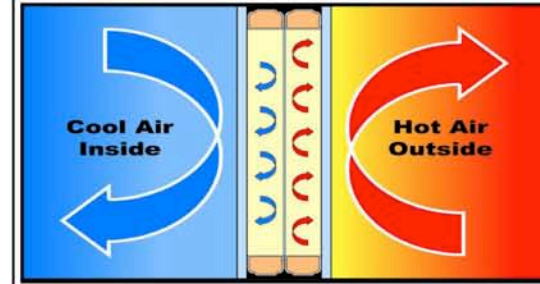
Argon Gas Filled - 5/32"(4mm) Tempered/ 1/4"(6mm) Laminate
The perfect balance for all climatic environments specifically designed for horizontal and sloped surfaces which are exposed to the sun all hours of the day.

Features of EnviroGlaze II™

- 1) Double LowE Coating provides optimal year-round energy saving benefits by selectively filtering the sun's energy in summer and reducing heat loss in the winter.
- 2) Absorbent and reflective insulating coatings helps deflect UV light as well as warm air in the summer and cold air in the winter.
- 3) Dual Stainless Steel Spacers improve thermal performance while maintaining the structural integrity and gas/moisture retention properties required of a spacer bar. Enhances performance of LowE² coatings and gas filled units.
- 4) Desiccant filling for increased protection against moisture absorption.
- 5) Overall 1-1/8" (28mm) Insulated glass unit is optimal for sound insulation and thermal performance.
- 6) Dual PIB seals prevent air leaks. EnviroGlaze II™ sealants that offer the best possible performance.



EnviroGlaze II™ features two LowE coated layers combined with a triple glazed unit, producing a greatly superior double insulation barrier. In the spring and summer the hot outside air cannot easily heat the inside pane, so warming of the internal air conditioned cool air is minimized. EnviroGlaze II™ acts as a barrier on both sides of the glass. The cool air on the inside of your home is deflected



Balance is Key

A well balanced glazing package is critical to energy efficiency. All LowE glass packages provide for a high R-value, but results can vary on SHGC (Solar Heat Gain Coefficient). In climates where energy consumption is dominated by air conditioning, a low SHGC is preferred to help block the heat transference from the sun. In climates, where energy consumption is dominated by heating, a high SHGC is preferred to let the warmth of the sun help heat a structure. Although LowE packages which provide high R-values may seem the best choice, it may actually be worse if it has a very low SHGC. Therefore, it is extremely important that the best glass package

off of the glass to maintain a constant cycle of cool air throughout the Conservatory. The hot air outside is deflected the same way to prevent energy loss from inside the home. In the fall and winter, the double insulation barrier helps to prevent the warm inside air from leaking through to the external cold pane. Warm air is deflected off the interior surface of the glass and cool air on the outside, which causes energy loss and discomfort, is prevented from penetrating your home. EnviroGlaze II™ also filters out almost all harmful Ultra-Violet light and retards the damage to furniture, carpets and artwork.

NOTE - Color change or fading is caused by a number of factors of which UV exposure is one of them. See other Blue Diamond Conservatories information sheets on the factors behind color change and fading.

Blue Diamond Conservatories Glazing Comparisons										WHAT'S Important!	
Map of US	Transmittance %			Reflectivity %		Interior Glass Surface Temp.	Shading Coefficient	Solar Heat Gain Coefficient	U Value	R Value	ASHRAE Winter
	Visible	Solar	Ultraviolet	Visible Outside	Visible Inside						D Value
BDC EnviroGlaze™ North - Frames	55	24	<0.5	17	20	63	0.34	0.30	0.11	9.26	
BDC EnviroGlaze™ South - Frames	55	24	<0.5	17	20	61	0.35	0.30	0.15	6.67	
Best of the Rest - Frames	56	29	13	10	17	57	0.38	0.33	0.25	4.0	
BDC EnviroGlaze™ Roof 20° Slope	54	23	<0.5	17	19	61	0.35	0.30	0.16	6.10	
BDC HeatGuard™ Polycarbonate	XX	XX	XX	XX	XX	XX	XX	XX	XX	4.5	
Best of the Rest - Roof 20° Slope	16	10	7	11	25	57	0.18	0.15	0.25	4.00	

for the region is chosen and EnviroGlaze II™ is one of the most energy efficient glass packages available in any Conservatory today. This critical balance between R-Value and SHGC needs to be achieved without lowering the visible light significantly. EnviroGlaze II™ offers the best visible light to R-Value ratio on the market today.

EnviroGlaze™ data obtained using (Laurence Berkeley Laboratories) • Window 5.2 analysis program American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) • National Fenestration Rating Council (NFRC)