



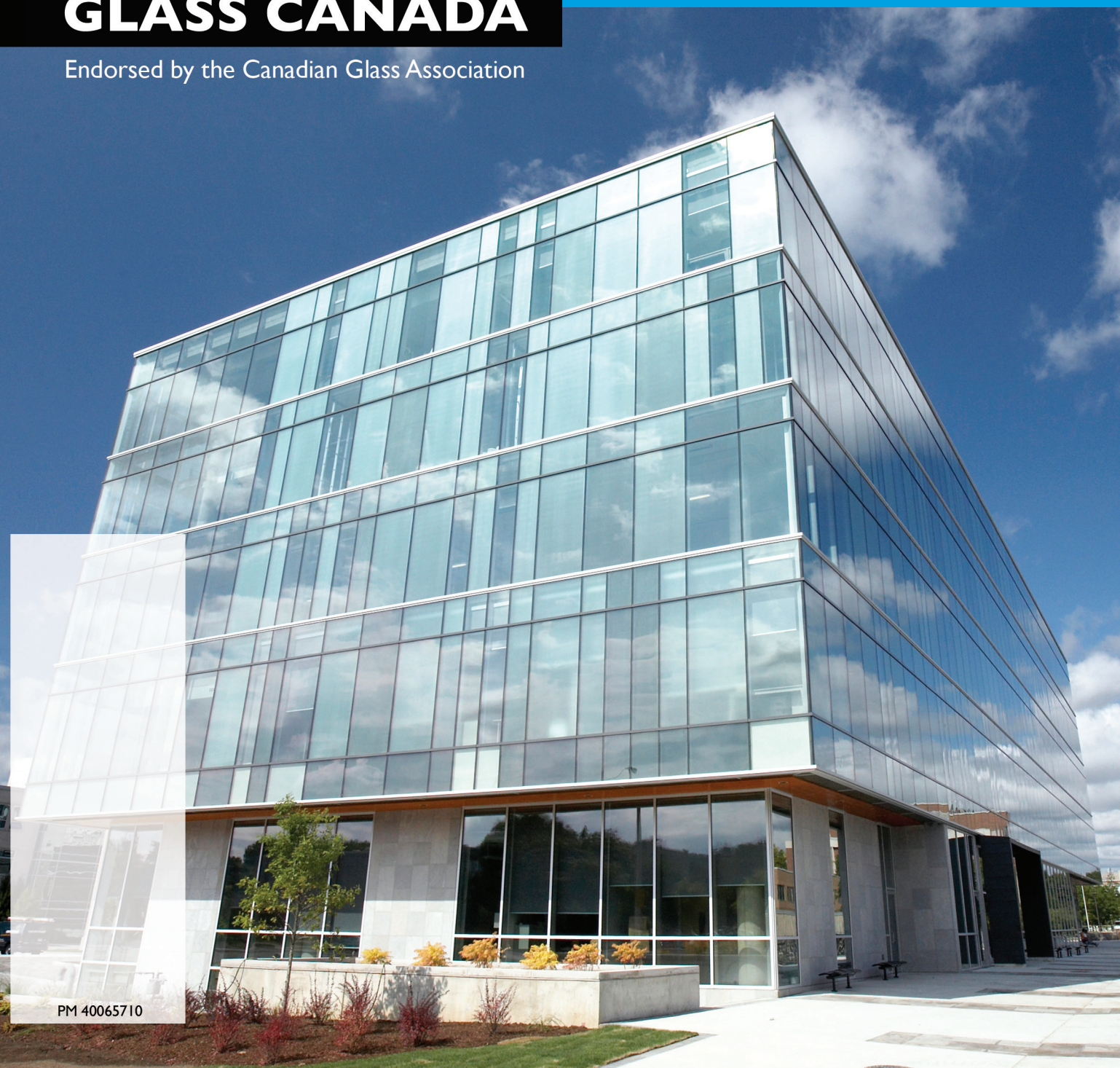
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Vancouver landmark shines

Glass companies credit communication and project.

The newly renovated Robson Square Ice Rink in Vancouver. It will be temporarily renamed GE Plaza for the duration of the 2010 Winter Olympics.



AT A GLANCE | Robson Square Ice Rink

Situated in the heart of downtown Vancouver, B.C., the newly renovated Robson Square ice rink will see a lot of activity during the 2010 Olympic and Paralympic Games. The skating area, temporarily renamed GE Plaza, will be the centrepiece of a large government and corporate presence featuring the International Media Centre and GE's corporate pavilion from late January through late March.

Part of a \$40.9-million-dollar refurbishment of the downtown Robson Square complex, BC Premier Gordon Campbell described the rink as "something that says you're invited to be in Robson Square. It's an exciting, lively place to be."

"Technically, it was a very difficult job," says Colin Rimes of Superior Glass, glazing contractor for the project. "Every single piece of glass on that dome is different. In fact, there isn't a single piece that is even close to the same. If it wasn't for Lami Glass being as organized as they were, we could have potentially lost tens of thousands of dollars a day in fines and penalties."

Project complexity aside, in preparation to host the world's largest party, the City of Vancouver implemented extremely strict regulations on scheduling and logistics for all construction sites throughout the Olympic corridor. Rimes explains, "It changed at the last minute, after we had bid the job and we were told to 'somehow make it work'. We finished glazing the whole thing with 20 guys in two back-to-back weekends. That's all they gave us. They were 16 hour days but it was still two Saturdays and two Sundays. It was a big challenge and it was a big win for everyone."

On top of odd shapes and sizes, extremely tight deadlines and a complex installation, the project specified a high performance glass makeup that utilized the lowest shading coefficient possible with the highest level of light transmission; "After all, it is an ice rink and they don't want the sun to melt it," says Rimes.

"Surface one is self-cleaning Pilkington Activ which is a pyrolytic coating that also offers solar control properties. It was complemented with Pilkington.

Laminator: Lami Glass

Glazing Contractor: Superior Glass

Fabricator: Garibaldi Glass Industries

Lead Architect: Clive Grout Architects

Photographer: Michael Elkan

Location: Vancouver, B.C.

Dome Glass Makeup: 6MM Pilkington Activ - 0.090 clear interlayer – 6MM Pilkington Energy Advantage

Ceiling Glass Makeup: 6MM clear – .060 diffused white interlayer – 6MM Clear

SQ. FT.: 10,000

Energy Advantage Low E on the #3 surface and laminated with a clear 0.090 interlayer."

"Lami Glass did better on this project than any other glass supplier in the history of our company", says Rimes. "I can't thank everyone enough. The service provided by Claudia and the shipping

TOP: Andrew Eyjolfson takes care of some taping and caulking. Below: Dean Helgeson staging glass panels for install. All glazing on the project was completed in just two weekends.

department was outstanding.”

“The images are excellent but they are a little deceiving,” says Bruce Butler, Director of Operations for Metro Vancouver based Lami Glass and Hartung Glass Canada. “If you flattened the two domes out, the surface area is actually a lot bigger than it looks. Including the 12 mm diffused white laminated glass ceiling above the ice surface, the project required almost 20,000 square feet of glass.”

“The provincial government and the architect insisted on the maximum amount of shading possible but still specified a huge amount of light transmittance, which ended up being very complicated to do so we had at least a dozen project meetings with the glazing contractor, government representatives, the general contractor, the engineering firm and the architect. There were a lot of interested parties involved in this project.”

It wasn't your typical job where the type of glass that is required is specified. Butler continues, “They wanted a very specific performance level but didn't specify the glass makeup. For example, due to the difficulty in cleaning the domes, they had also wanted self-cleaning glass. So we analyzed all the major glass manufacturers' performance data and Pilkington's Activ and Energy Advantage Low-E products had the closest match to the specification.”

Lami Glass was instrumental in developing the final glass makeup. “A big reason we got the job was because we were heavily involved in the R&D of the samples leading up to the project,” says Butler. “We were involved from the very beginning, invested a ton of time and produced a lot of samples however it worked out great. Everyone at Lami Glass is very proud of this project.”

Producing a large quantity of odd sized high performance laminated lites, some over six feet wide and weighing up to 300 pounds each, while under an extremely demanding delivery schedule requires a huge amount of project management. “Communication was constant and vigorous,” says Butler. “Every person

that touched that glass throughout the supply chain knew what the job was, where it was going, when it needed to be there, what the application was and how their role contributed to the process.”

Coordinating the logistics for a job of this nature is never easy, let alone when you are required to provide 100 per cent order fulfilment over a maximum of two weekends. “We had to have everything inspected and ready to be shipped on Friday afternoon so it could be delivered directly to the jobsite on Saturday morning with zero backorders,” says Butler. “In order to achieve that, we actually finished the job a week ahead of time so that we could thoroughly inspect each piece and produce any remakes that didn't pass our quality control tests.”

A job of this nature is never easy, let alone when you are required to provide it over a maximum of two weekends.

“Superior Glass was very happy with our performance on this job and it had a lot to do with our team in the plant. One of our guys was involved in the production meetings and knew how critical it was for the glass to be organized. He spent hours with an assistant sorting each A-Frame so that the glazing contractor could unload each dolly in a pre-determined sequence which allowed them to focus on glazing the structure and not on searching for glass.”

Butler reflects, “It was a challenging, interesting and unique project. We actually had officials from the government come and inspect our facility. Lami Glass has been serving the glass industry for 25 years and completed quite a few high profile projects and never had that happen before. Needless to say, we got the job and everyone is very happy.” •

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