



# MUSEUM POINTE-A-CALLIERE

MONTREAL

Architectural design always pushes the limits of the imaginable. To highlight and protect beautiful historic sites, it takes a determined team to solve all the visual and technical challenges. Plastifab, LightFactor and Techniverre collaborated with great enthusiasm to realize a project for the Ville-Marie Pavilion at the Pointe-à-Callières Museum. This project, inaugurated for the 375th anniversary of Montreal, aims to allow visitors to walk on the ruins of Fort Ville-Marie, while it is lit up with speciality lighting and preserved by a sealed glass floor.

LightFactor and his design director Alexandre Tougas was mandated to adequately illuminate the archaeological excavations. The challenge posed was not just on the light but on the preservation of the ruins. To protect the historic site, the cover needed to provide a climate controlled and preservative environment, therefore the lighting must not generate heat, in order to minimize condensation and fogging of the glass.

In order to reduce visual obstacles for the visitors of the ruins, lighting, ventilation and electricity devices were all integrated into the support beam specially designed for this purpose. Mr. Boris Basse Cathalinat, from Techniverre, was responsible to install the glass flooring, and collaborated with Plastifab to assure the custom light lens could be integrated into the beams without any risk of damage. The lens optical design helped to spread the light as much as possible between the beams to achieve a greater light coverage with the limited amount of light sources. The weight of the beams and people walking on the floor posed a risk of cracking the lenses. To avoid lens cracking and still achieving all the light requirements, Mr. Cathalinat and Mr. Tougas established a tight tolerance to assure the proper stability while meeting all lighting needs.

Plastifab's mission was to find a plastic material that will not yellow, which would influence the color of the actual ruins nor release any fumes which could cause the deterioration of the artefacts. After the right material was determined, the lighting lens had to be designed to meet all criteria based on light transmission and light diffusion. Due to the low height of the flooring over the ruins LightFactor designed specific optical features into the lens which allowed the light to be spread wide enough to cover the distance between to beams. This allowed for an even and consistent light coverage without shadowing throughout the facility.

Plastifab is honored to have been part of this project. It was a pleasure working with both LightFactor and Techniverre to solve all the challenges at hand.

**Realization:**  
LightFactor  
Techniverre

**Photo/Video:**  
Techniverre


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