

Profile

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Prospect Cemetery Gets New Wings

In recent years, it has become evident that cemetery space is becoming increasingly limited. Cemeteries in urban settings especially face challenges, including space limitations and new development requirements from municipalities. But some cemeteries are getting creative in order to continue excelling at serving their communities.

One of them is Prospect Cemetery in the heart of Toronto, which is owned by the Mount Pleasant Group of Cemeteries. It opened in 1890 to serve the needs of the west end of the city. The 105-acre cemetery includes options for ground burial, cremation disposition and crypt entombment. It features a small hillside mausoleum with exterior crypts; the Court Mausoleum (also featuring exterior crypts) built in four phases during the 1980s and 1990s that Carrier Mausoleums Construction Inc. was involved with; and two mausoleums with indoor crypts constructed between 2000 and 2010.

Facing continued demand for indoor crypt spaces from the local community, MPG Group was left with only one possible development option – to build upward by adding a new floor to the existing Court Mausoleum, a garden mausoleum complex comprised of several courtyards exposed to the elements with ramps and balconies connecting the various levels.



Left: The new main entrance to the Mausoleum of the Last Supper, formerly the Court Mausoleum, at Prospect Cemetery in Toronto. The expansive three-story atrium in the Mausoleum of the Last Supper was an exterior courtyard prior to construction. (Photos courtesy CMC – Carrier Mausoleums Construction Inc.)



CMC was retained by MPG, a longtime client, in early 2011 to perform a feasibility study. The study examined if a mausoleum expansion could complement the existing structures and add indoor crypt spaces while adhering to the city's defined streetscape guidelines.

The eventual design involved cutting and removing existing concrete roofs, tying in the new structure to the existing with structural steel and concrete, constructing new exit stairwells and installing a new elevator. Although a challenging design, CMC was confident that, with close collaboration with MPG's development team, it could be realized. As the leading mausoleum builder in North America, CMC was selected by MPG to construct this expansion due to its extensive experience in mausoleum design and construction.

This was not CMC's first time constructing on top of an existing mausoleum in an urban setting. CMC strongly believes that there is a



Opposite page: (Top) The concrete pour for the new second floor crypts during the winter of 2014. **(Middle)** Exterior wall formwork for the new third floor was done during the summer of 2015. **(Bottom)** A view of the interior formwork that became the new three-story atrium, conducted in such a way as to minimize the impact on visitors to the mausoleum complex. **Above:** The marble-front crypt bank on the third floor. *(Photo courtesy CMC – Carrier Mausoleums Construction Inc.)*

need for this and that the expertise it possesses with this type of development can truly help other cemetery operators in North America.

For Prospect Cemetery, the feasibility study began with an investigation of the existing concrete structure to determine if it could support the additional weight of the proposed structures that would sit on top of it. The existing mausoleum consisted mostly of exterior crypts and granite-front niches and a few interior areas, but the concept for the expansion was to create new indoor crypt inventory within a climate-controlled environment by building up and enclosing some of the exterior courtyards.

The original drawings and construction documentation for the existing mausoleum phases were gathered and digitized, and a geotechnical investigation was conducted to ascertain the soil bearing capacity. The CMC design team then produced preliminary concept drawings and a few options were contemplated to

ensure that the project would be both structurally and economically feasible as well as beautiful. CMC provided renderings to illustrate how this endeavor would look both during and after construction, and from the options proposed by CMC, cemetery owners elected to enclose 60 percent of the original footprint by adding 27,975 square feet in gross floor area, creating approximately 2,100 new casket spaces. The next step was to seek approval from the city and MPG's existing clients who would be affected by construction.

At the heart of MPG's core values is its dedication to families. For this reason, one of MPG's main goals was to ensure that families understood the scope of the proposed construction and would be willing to accept a significant alteration to the existing building design. Early communication was key, as these existing interment rights holders would have to live through the disturbance associated with 18 months of construction activities

during the expansion. Letters were sent out to affected families, and numerous public meetings were held during which the proposed project was explained at great length (in English, Italian and Portuguese to reflect the diverse community served by Prospect Cemetery). As large portions of the existing outdoor mausoleum were to become an indoor climate-controlled structure, existing families were informed that all areas affected by the construction would become enclosed, adding both heating and air conditioning to previously exterior crypts, as well as adding new interior finishes, including new carpet, new lighting, and decorative features such as statuary – at no cost to the existing families. This communication process allowed MPG to move confidently forward knowing it had the support of its existing families.

After gaining support from its existing rights holders, MPG negotiated a full design and construction contract with CMC.



*(Photo courtesy CMC – Carrier
Mausoleums Construction Inc.)*

The feasibility study and design coordination took about two years to complete, and toward the end of 2013, CMC was ready to take on the challenges of obtaining the necessary building permits from Toronto. As there was no space for a construction staging area, CMC was required to apply for street occupancy permits, tower crane permits and sidewalk hoarding permits.

After three years of planning, design and the negotiations with municipal authorities, CMC broke ground in August 2014 and erected its tower crane a month later. CMC's construction personnel always kept the day-to-day operation of the existing mausoleum and cemetery in their minds; the ability to continue with entombments and public visitation to existing crypts was maintained throughout construction. As areas of the mausoleum were required to be temporarily restricted to the public due to ongoing demolition and construction activities, temporary signage was installed and updated on a daily basis. On occasion, CMC constructed temporary platforms to allow for the safe use of the casket lift by Prospect Cemetery's personnel to perform crypt entombments. Close coordination between MPG's and CMC's teams of dedicated staff at all levels

was vital to the successful completion of this intricate project.

To give some perspective, the third-story addition over the existing two-story structure required approximately 3,662 cubic yards of cast-in place concrete – all while maintaining access for the public to the existing crypts throughout the project. Concrete work lasted approximately 12 months.

The overall result of this collaborative undertaking by MPG and CMC was 2,107 new casket spaces and 574 urn spaces of various sizes through installation of CMC's glass-front niches, adding choice to a mausoleum that previously only offered granite front niches.

Toward the end of construction, MPG revealed its new branding for the Court Mausoleum, which is now known as the Mausoleum of the Last Supper. Upon entering the complex, visitors are welcomed by an impressive bronze Last Supper statue on top of a granite base. The main entrance features a 20-foot high granite cross, and the expansive three-story atrium features a hand-painted 10-foot Risen Christ statue suspended from the second-floor balcony.

Some new crypts feature polished pink vermillion granite shutters matching the existing building crypt fronts, but most of the new crypts

feature polished White Carrera marble shutters. The building's exterior was constructed using Berea sandstone to match the existing stone, new acrylic stucco and massive precast concrete window surrounds.

This was one of the most complex mausoleum projects completed, and MPG and CMC are extremely proud of what was accomplished after five years of planning, designing, and construction. The end result is breathtaking and will allow Prospect Cemetery to keep serving clients for years to come.

"This was a truly collaborative effort, from design to completion. CMC's ability to work with MPG to construct such a complicated project, while allowing us to maintain access for our existing families, was key to the project's success," Jeff Dennis, MPG's director of development said. "In the end, the expanded building not only provides MPG with the required crypts to meet our family's ongoing needs, but the construction beautifully blends the existing and new, making it difficult for those not familiar with the project to tell the difference. We are already receiving great feedback on the building from both our new and existing customers who love the finished product." •