

Garfield Park Conservatory

Restored

Chicago's Garfield Park Conservatory Palm House has been rebuilt to its iconic status among historic public conservatories. From the 1960s to the early 1990s the 1.8-acre Conservatory suffered from deferred maintenance and was failing. What Jens Jensen had called his "landscape art under glass" was threatened. This trend has now been reversed.

In 1905, master landscape architect Jens Jensen drew up plans for a dome-like steel and wood Palm House conservatory central feature, which he envisioned would "remind visitors of giant Midwestern haystacks." One of the first conservatories to display plants in a natural setting instead of in pots on benches, the Conservatory was innovative both inside and out. The entire concept was considered such a novelty that when construction was completed in 1907, thousands of visitors a day visited the facility, as much in awe of the structure as of the plants. The planting design was so effective that visitors actually thought that the building had been built around an already existing landscape.

In 1958 park authorities, citing safety reasons and budget considerations, razed the wood, steel, and glass roof and replaced it with an I-beam infrastructure with a fiberglass covering. Over the years, the fiberglass roof darkened to an undesirable yellow strawcolor that reduced light infiltration to less than 50% creating a gloomy interior. People stopped coming, plants stopped growing, and the legacy that had been nurtured over many years was imperiled.

Recognizing the deterioration of its park jewel, the Chicago Park District, with the aid of a grant from the Illinois Department of Natural Resources, began a \$4 million project to restore the Palm House roof in a way that would respect Jensen's original design intent. Introduction of a modern horticultural infrastructure fitting the needs of the extensive plant collection was also a priority. The new roof would



The interior of the Palm House at the restored Garfield Park Conservatory.

consist of 7,664 panes of glass; interior lighting would be updated; misting capabilities would be added; and a climate control and fan system would be installed for the first time.

There were a number of challenges to be overcome. According to Chicago Park District Preservation Architect Michael Fus, "Construction had to be done between the frost dates, early spring through late fall of 2003, because there were 36 plants in the Palm House that were either too large or too valuable to be moved, and a few are the only plants of their type under glass in the world."

"Additionally," said Fus, "the original plans drawn up by Jensen and implemented by Lord & Burnham were nearly 100 years old and were vague on structural detailing. A whole new set of plans had to be drawn up. A lot of foundation digging had to be done to determine how deep the structure actually went. What potentially could have become a construction project phased over two years was instead accomplished in six months, with all adjacent areas of the facility remaining open to the public."

Rough Brothers, Inc., was selected to do the renovation work in part because they had acquired the Lord & Burnham archives, and in part because of its experience in renovating historic conservatories. While the relationship was smooth, the challenges were significant. "We were responsible for the

design, engineering, fabrication and installation at the Palm House," said Eric Ford, Project Manager for Rough Brothers. "In the design phase we worked with the Chicago Park District for approximately eight months to determine the facility's needs and to address the architectural and historic concerns of the building. The primary challenge was the limited window of opportunity to perform the demolition and installation. Work had to be done between April 15 and October 1 to ensure that irreplaceable plants would not be exposed to frost. Another major challenge was the necessity of re-designing the vent system so that the vents resembled the look of the 1908 design without modifying the structure. We also had to design a scaffolding system that enabled us to reach all areas of the roof, which peaked at 60 feet, without harming the palm trees, some of which reached 40 feet in height."

"Keeping the nation's conservatories attractive and functioning benefits all of floriculture," says Rough Brothers' President Richard Reilly, "The effect of showpieces such as the Garfield Park Conservatory will ultimately benefit the local community and the floriculture market as people visit the facility and become more interested in plants. It was an honor to be affiliated with the project—and the people at the Chicago Park District and the Garfield Conservatory were true professionals."