

WHEN COMPLETE, THE
NEW PARKING GARAGE
WILL ACCOMMODATE
APPROXIMATELY 2,000
PARKING SPACES



By Rolfe Kaartinen

Halifax Robert L. Stanfield International Airport

The Halifax Robert L. Stanfield International Airport is Atlantic Canada's gateway to the world. It is the region's principal full-service airport providing passengers and cargo clients with access to markets across Canada, the United States of America, and Europe. HIAA is the only airport in Atlantic Canada to offer U.S. Preclearance services and Canada Customs services on a 24 hour, seven day a week basis. The Airport welcomes almost 3.5 million passengers annually, and is an internationally recognized leader in customer service.

The Halifax Robert L. Stanfield International Airport has been undergoing major improvements to its facilities in order to improve the quality of services it provides to passengers and the community at large. As part of the current improvements, a new Parking Garage and Consolidated Rental Car Facility are nearing completion. When complete, the new Parking Garage will accommodate approximately 2,000 parking spaces for passengers, well wisher, and meeters & greeters. Also part of the new Parking Garage will be a Consolidated Rental Car Facility housing approximately 400 spaces. The parking structure has been organized over five (5) levels with the Consolidated Rental Car Facilities located at grade and the Passenger parking on levels two (2) to five (5). The parking levels will be connected with high speed ramps to facilitate entry and exit in the Garage. Also to better facilitate vehicle movements, the Entry and Exit points have been located at opposite ends of the facility. The Exit Plaza will offer multiple lanes with automated and staffed cashier positions.

The Parking Garage and Consolidated Rental Car Facility will be state of the art with a full Parking and Revenue Control System which is linked with the local bridge authorities MacPass system. Also part of the PARCS systems will be parking level controls and Pay on Foot kiosks located both in the facility and the Terminal Building to assist the travel public with using the new Parking

Garage. The new Parking Garage will be the largest and most modern and user friendly facility within all of Atlantic Canada.

To facilitate the design and construction of this key component of the Halifax International Airport Authority's strategic plan, a selection process was conducted to seek out the best possible consultants to deliver this project. NORR Limited, Architects & Engineers was selected as the prime consultant. NORR assembled a team of key local firms and experts which includes Barrie & Langille Architects Ltd., BMR Structural Engineering, and F.C. O'Neill, Scriven and Associates Limited all from Halifax and Walker Parking Consultants from Boston.

During the design process, NORR engaged Strescon Limited of Bedford, Nova Scotia to provide design assistance towards the review of precast concrete for the structure of the new Parking Garage. After design reviews with both NORR's team and Strescon, it was determined that precast would be the best solution for the structure. It became evident that precast concrete would be the best design solution based on cost, schedule, quality, and the proximity of Strescon's plant in nearby Bedford, Nova Scotia.

By engaging Strescon directly to provide the precast structure, the Halifax International Airport Authority was able to start the design and fabrication process well in advance of the general tender call for the remainder of the new Parking Garage. This provided both cost and time savings to the Halifax International Airport Authority.

The last precast component for the project was delivered prior to the end of December 2008, just over ten (10) months after starting fabrication in the plant. In order to meet the fast paced schedule for erection Strescon started fabrication in early January 2008 working in close cooperation with the NORR team. Approximately 2,200 pieces were manufactured for the new Parking Garage with the last piece being cast in September 2008.

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PARKING STRUCTURE BEING
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THE PRECAST PARKING GARAGE
CONSTRUCTED OF 3.5 METRE
WIDE DOUBLE T'S.



One of the unique aspects of the new Parking Garage is its architectural design for the North and South Elevations. The load bearing Precast panels on these elevations are designed using a "basket weave" pattern. Strescon was up to the challenge brought forward by Rolfe Kaartinen, Principal for NORR. After many hours of consultation, NORR and Strescon were able to come up with a cost effective plan for the fabrication and installation of these intricate panels. The garage was designed as an open concept with the majority of the parking structure being supported by precast columns and inverted tee beams with the floors of the precast parking garage constructed of 3.5 metre wide double T's. The east and west elevations are also very unique with the slim look of the precast double tee being exposed to view. Stainless steel tensioned cables along with stainless steel mesh protect the safety of the passengers and their vehicles on these elevations plus provide the slim look that NORR was trying to achieve. The stainless steel mesh is framed with precast eyebrow panels capping off these elevations.

"The collaboration during the pre-design, design, and fabrication stages of the project with Strescon has been a rewarding and extremely successful relationship," says Rolfe Kaartinen, Principal for NORR. "Our entire team from Barrie & Langille Architects Ltd. to BMR Structural Engineering to F.C. O'Neill, Scriven and Associates Limited to Walker Parking Consultants appreciated the attention to detail and cooperation that was put forward by Strescon. The Strescon team put in additional time and effort to ensure the highest possible quality both in the design and fabrication of the new Garage".

As the new Parking Garage and Consolidated Rental Car Facility near completion, the entire team is putting forward all efforts to assist the Halifax International Airport Authority reaches its next milestone in the redevelopment of their facilities.

The new Parking Garage and Consolidated Rental Car Facility will enhance the services provided by the Halifax Robert L. Stanfield International Airport and ensure the success of the airport within the community and region at large. ■