

Honda Canada Campus, the car manufacturer's new Canadian headquarters in Markham off Highway 404, north of Toronto, is a move up from its quarters in Scarborough. The 53-acre campus features a 138,000-square-foot, four-storey office building, a training/research and development centre and a parts distribution warehouse for Ontario dealerships.

"We're going to do everything we did at our old headquarters but in a much more efficient and effective manner," says Barry Holt, vice-president of finance, Honda Canada Inc.

To reach that goal, a key objective was to create a mixed-use complex where employees from all of the various departments could essentially be under one roof. "At Scarborough, departments were spread over three buildings," says Marek Zawadzki, project architect, ZAS Architects, which is in joint venture with HOK Architects Corp. on the design.

The two architectural firms set up a single project studio to work side-by-side to complete the design. During preliminary design, the team organized "vision sessions" where Honda executives and staff provided input on design. It helped all of the disciplines in the design team focus quickly on an integrated design facility, says Richard Williams, project architect, HOK. Practical, efficient and versatile were design buzzwords.

At the heart of the campus is a common entry and lobby ("welcome centre") for staff and customers which leads to all divisions/departments. "We kept it very simple so that a central spine flows smoothly to all areas," adds Williams.

Honda's philosophy of building environmentally friendly vehicles was carried through in the design of the new office building, which is a LEED certificate candidate. The complex is simply adorned. The office building is faced with energy efficient ribbon windows and an aluminum panelled system complete with exterior sun shades on the south elevation to reduce solar heat gain. The adjoining training/technical centre is clad in insulated aluminum panels and the parts warehouse is faced in precast concrete, says Zawadzki.

Energy modelling was done during the design to ensure the complex was not

PHOTOS: WILLIAM CONWAY/PROGRESS PHOTOGRAPHY



Honda Canada Campus

by Don Procter

under- or over-insulated. The architects worked with a cost consultant to get "best value" for all the elements of the design, says Williams.

"The final product speaks so directly to the needs of the client that it has the appearance of being fairly effortless," he adds Williams. "But to achieve that has taken a lot of work by the entire team."

While construction was fairly straightforward, extreme weather conditions posed challenges for general contractor Vanbots, a division of Carillion Construction Inc. Construction commenced in April 2008, and was completed on schedule, despite record rainfall which affected site grading. In some areas the property required up to two metres of compacted engineered fill above existing grade, says Les Weidman, project manager for Vanbots, a contractor who has worked on a number of Honda projects since 1986.

Because of the remote location in Markham, Vanbots brought in temporary hydro, natural gas, phone and Internet services. The existing gravel road to the site had to be beefed up for heavy construction equipment. The construction workforce consisted of 150 workers during peak building periods.

The poured-in-place concrete office building has a structural steel roof. The adjoining buildings are structural steel designs – all with heat-reflective white PVC roofing to minimize cooling requirements.

Weidman says the LEED process required that the building team order its building materials well in advance of delivery because many green-friendly materials take longer to secure than

conventional materials. From the time of order LEED-certified plywood, for example, takes four to six weeks to receive compared to next-day delivery for conventional plywood, says Weidman.

Among the building's environmental features are:

- rainwater storage for site irrigation is provided from a 90-metre-long tank underground;
- bioswales to collect stormwater from parking surfaces to keep it on site for irrigation;
- raised flooring with underfloor HVAC for energy efficient cooling and heating distribution;
- sun shades overhanging south-facing windows;
- energy-efficient glazing;
- all low-VOC materials and green-certified wood;
- low-flow toilets and waterless urinals; and
- energy consumption monitors for hydro and gas.

Weidman notes that the construction waste management system implemented ensured 79 per cent of waste generated was diverted from landfill, which topped the LEED requirement of 75 per cent. Waste disposal areas set up around the site included separate bins for sorting general waste, drywall, steel and clean fill, cardboard and all recyclables. Further general waste was again sorted off site to ensure that recyclable materials were recycled.

The warehouse space required a superflat floor slab due to the narrow aisles and as the stock shelves (up to 40 feet high) posed a risk of dynamic lean



LOCATION

180 Honda Boulevard
Markham, Ontario

OWNER/DEVELOPER

Honda Canada Inc.

ARCHITECTS IN JOINT VENTURE

ZAS Architects Inc and
HOK Architects Corp.

GENERAL CONTRACTOR

Vanbots, a division of Carillion
Construction Inc.

STRUCTURAL / LEED CONSULTANT

Halsall Associates Ltd.

MECHANICAL CONSULTANT

Stantec Consulting

ELECTRICAL / IT CONSULTANT

Mulvey & Banani International Inc.

CIVIL CONSULTANT

Sabourin Kimble & Associates

LANDSCAPE CONSULTANT

Schollen & Company Inc.

TOTAL AREA

Office building – 38,424 square feet;
training/tech centre – 87,310 square
feet; parts/distribution warehouse –
224,115 square feet

TOTAL COST

\$65 million



WILLIAM CONWAY/PROGRESS PHOTOGRAPHY

on even a slightly unlevel floor. The flat concrete surface also ensures that forklifts keep loads balanced. Called an F min 100, the floor is “as flat as you can get,” says Weidman, noting that laser screeds and measuring devices are so precise that even the thickness of a sheet of paper is detectable. Metro Concrete Floors installed the floors.

Honda chose to move to its Canadian headquarters because it had outgrown its old facilities in Scarborough, says Lois Ferg, senior manager of administrative services, Honda Canada Inc., adding that the company’s staff numbers about 550. The move proved to be a smart decision, in part because it is situated beside a major highway and the large square-shaped lot allows for future expansion.

With the physical well-being of its employees in mind, Honda incorporated a walking path, soccer and baseball fields, a basketball court and shower facilities on site, adds Holt. “The facilities will be available to the community as well.”

Williams says from the outset Honda’s goal was to develop a comfortable and sustainable workplace, both inside and out. “The company knows that a quality workplace improves the quality for its associates (staff) which increases both productivity and satisfaction.” ■



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