# ENVIRONMENTAL TECHNOLOGY CENTRE

## OTTAWA, ONTARIO

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## Steel Plays a Role In Unique Design of Environmental Technology Centre Addition

Design and Construction Team

**Owner:** Environment Canada

**Project superintendent:** Environment Canada

**Architect:** Honorata P. Roseman.

**Structural engineer:** Cleland Jardine Structural Engineering Ltd.

**General contractor/Project management:** Morley Construction Inc.

**Steel cladding supplier:** AgwayMetals. T: 1-800-268-2083

**Steel siding installer:** Watkins Design & Construction Ltd.

**Steel fabrication:** Fortran Steel Inc.

**Steel stud supplier:** Bailey Metal Products. T: 1-800-668-2154

**Steel stud and drywall installer:** Nation Drywall Ltd.

**Steel frames/doors and door hardware:** Allmar Distributors

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The new 4,000 $m^2$ (43,000 $ft^2$) addition to the Environmental Technology Centre, located on River Road in Ottawa, has been recognized as one of the best architectural designs of 2002. The building, used by Environment Canada for vehicle handling and emissions testing, is an all steel structure. Steel is used extensively throughout the interior and exterior: 1,860 $m^2$ (20,000 $ft^2$) of Agway 22 mm (7/8") deep C-360 corrugated cladding profile with a sheet width coverage of 944 mm (37") was used for the exterior cladding. The cladding was rollformed from 0.76 mm (.0299") Dofasco Galvalume Plus™ sheet steel to ASTM A792/A792M, SS Grade 33, AZ165 coating. Interior liner panels, Agway profile L-800, were rollformed from Dofasco's 0.61 mm (.0239") thick prepainted galvanized (Z275 coating) sheet steel to ASTM A653/A653M, SS Grade 33, Dofasco prepainted 8000+ Series paint, coloured White-White QC8317. In addition to the very visible steel cladding, the project incorporated steel roof and floor deck, wide flange beams (350W), OWSJ (700 mm/27.5" deep) and both exterior (200 mm/7.8") and interior (250 mm /9.8") square HSS (350W ).

Architect Honorata P. Roseman comments on the strong aesthetic role sheet played in the open concept interior layout: "The interior steel beams, open web joists, and decking are exposed to create an open, airy environment and allow more light into the area," she says, noting that the building is two storeys with potential for a mezzanine.

The new facility is an addition to the original structure built in 1955 and which has undergone several upgrades from 1989 through 1997. Project Manager Randy Bloom of Environment Canada explains that the goal was to replace the industrial warehouse look with that of a more upscale architecture. "Galvalume Plus steel melded with the existing building, but suited the design of the new addition, allowing it to make a stand-alone statement." Randy also noted that the durability of the product and the timing of construction during the winter months played a key role in the choice of steel for the project.

Honorata Roseman concurs. "Steel is faster to erect in any weather conditions. Many pieces are pre-designed and can snap easily into place. It is lighter and allows for a continuous expanse of floor space—quite a requirement when housing large vehicles. It's a green product that is easily recycled."

There were five phases to the project, funded out of several Environment Canada programs. From design to completion, including changes to hydro and introducing a new road access, the project took 14 months to complete. Although it's been used since August 2002, the building was officially opened by the Honourable David Anderson, Minister of the Environment, at the end of February 2003.