



CARBONEAR ACADEMY

CARBONEAR, NL

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ArcelorMittal Dofasco Steel Design, Fall
2014)

DESIGN AND CONSTRUCTION TEAM

ARCHITECT: Gibbons + Snow
Architects Inc.

GENERAL CONTRACTOR:
Marco Group

STEEL SIDING CONTRACTOR:
Hampton Building Systems Inc.

STEEL SIDING SUPPLIER:
Agway Metals Inc.

**LIGHT STEEL FRAMING/
DRYWALL CONTRACTOR:**
CAD Construction

**LIGHT STEEL FRAMING
SUPPLIER:** Imperial Group

PHOTOGRAPHY: Stephen
Sheppard

Colourful pre-painted steel adds visual interest to new school in Newfoundland and Labrador



The Carbonear Academy, which has the capacity for 470 students from Kindergarten to Grade 8, opened for classes in September 2013. Although just completed, a higher than expected number of students forced the Province to spend an additional \$2 million on the construction of four additional classrooms which were completed early this year. The school replaces the 60-year-old Davis Elementary School.

Using steel allowed the architect to add visual interest to the school with horizontal cladding in bright primary colours. “We used steel because we were driven by the owner’s requirements. The main concerns were durability, weather-ability and low maintenance,” says architect Greg Snow of Gibbons Snow Architects Inc. “With steel there are a wide variety of profiles and colours you can use. We used bright colours and different textures to add interest.”

The school’s location posed a bit of a challenge for the crew, Snow says, “It is built into the side of a hill. If we had gone back any farther, the excavation would have become very expensive,” he explains. “It’s a very narrow, long site. We used blocks of colour, which breaks up the elevation and gives it a visual interest. For some sections around the windows, we used regular corrugated profiles to break up the elevation.”

The building is 137m (450 ft.) long and has 5,110m² (55,000 sq. ft.) of useable space inside. Constructed of structural steel, with pre-painted galvanized steel cladding and masonry walls, it was built to last. “It is a very visible landmark and it has a sense of permanence in the community,” says Snow. The school has been built to the highest possible efficiency and environmental standards and the architect was able to take advantage of some of the school’s green elements in a way that will engage students and teach them about energy consumption. Visitors touring the complex were

very impressed by the colourful exterior, neatly designed access lanes and parking, the spacious classrooms and sizable gymnasium.

“We incorporated interactive computer software tied into the building’s systems so students can see the mechanical and electrical systems of the school in real time. They can see the energy usage and compare it to other schools.” Snow says. “Some of the teachers are quite interested in using it as a teaching tool for energy consumption.” The building’s energy conscious features include higher efficiency lights with daylight sensors and geo-exchange heating and cooling.

A long yellow composite panel was used for the canopy in front of the building to add further visual interest and some weather protection. Inside the school, the yellow colour was again used for the corrugated metal stairs. “The lobby and entrance area are a real focal point for the building,” says Snow. “We used some custom colours.”



"We chose steel, not only for its durability, weather-ability and low maintenance but also for added interest - its wide variety of profiles, different textures and bright colours."

- Architect Greg Snow

STEEL CLADDING:

VERTICAL SIDING

PROFILE: Plank HF-12-F by Agway Metals

GAUGE: .76mm (.0299")

PAINT SYSTEM: Perspectra Series

COLOUR: Bone White QC 18273 - 1,579m² (17,000 sq. ft.)

SUBSTRATE: Z275 (G90) Galvanized

HORIZONTAL SIDING

PROFILE: Corrugated

GAUGE: .76mm (.0299")

PAINT SYSTEM: Perspectra Series

COLOUR: HMS 1 - Heron Blue QC 18330 - 604m² (6,500 sq. ft.)

HMS 2 - Bright Red QC 18386 - 130m² (1,400 sq. ft.)

HMS 3 - Custom Yellow - 74m² (800 sq. ft.)

SUBSTRATE: Galvanized Z275 (G90)

SOFFIT

PROFILE: Non Perforated Plank

GAUGE: .76mm (.0299")

PAINT SYSTEM: Perspectra Series

COLOUR: Bone White QC 18273 - 92.9 m² (1,000 sq. ft.)

SUBSTRATE: Galvanized Z275 (G90)

LIGHT STEEL FRAMING:

STEEL STUD

LIGHT GAUGE: 92mm (3 5/8") stud by 3.48m (10 ft.)

TRACK

LIGHT GAUGE: 92mm (3 5/8") track by 3.48m (10 ft.)

FURRING CHANNEL

LIGHT GAUGE: 22.23mm (7/8") furring channel by 3.66m (12 ft.)

CARRYING CHANNEL:

GAUGE: 1.52mm (.060") 38mm (1.5") Channel by 3.66m (12 ft.)



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