




ArcelorMittal

steel design


FALL 2010 | VOLUME 42 | NO. 2

- 3 University of Arkansas Innovation
- 6 Stageline Group, L'Assomption, Québec
- 8 Raiffeisen Co-Op housing, Sudbury, Ontario
- 10 Chemawawin Cree Nation K-12 school, Easterville, Manitoba
- 13 The Box House, Boulder, Colorado
- 14 The Last Word in Steel News



Steel's affordability, durability, light weight characteristics, efficient load bearing capacity, ease of installation and good colour range for exterior cladding options made it the ideal choice for construction of the two-storey 5,110m² (55,000 sq. ft.) Chemawawin Cree Nation School in Easterville, Manitoba. The vision for the school was to symbolize the journey of learning.

Prepainted steel cladding is representative of the land, the water and the sky



“Prepainted steel wall cladding provided the best quality finish that did not require any site preparation or application. The factory finish gives a long lasting, warranted colour rendition.”

Greg Hasiuk, Number TEN Architectural Group



The high protruding roof line, as seen at the east end of the school, tilts up over the main entry in order to define the space and bring in additional natural light. It reinforces the protecting nature of the design.

Interior and exterior colours were chosen that reminded their people of the bounty around them and paid homage to the rich history of the “old post” – the earth, the land, the water and the sky.

Greg Hasiuk, Number TEN Architectural Group, comments on the design objectives of the school. “The Chemawawin Cree Nation school was designed to accommodate the education program for kindergarten and grades 1 to 12. The evolution of the mind and body is like a flowing river that moves through one’s life. The transitions from kindergarten to grade 1, from grades 4 to 5, and from grades 8 to 9 each represent a rite of passage and a change in attitudes and abilities. Each of these levels is represented with unique patterns and colour palettes, located within different zones of the school, to symbolize the journey from one to the next and the growth of the student.”

When they were relocated to their current location in Easterville, due to the construction of a major hydro dam, they not only left behind their history, but also an area of rich soil and lush forest. Their former settlement, or “old post” as it came to be known, has become a small patch of precious land that is often visited by their people for special occasions, spiritual journeys or simple camping experiences.

Steel was used extensively throughout the building: for the prefinished exterior wall cladding, prefinished steel standing seam roof and fascias, steel floor and roof deck, structural framing (columns and beams), exterior wind bearing walls, interior walls, floor and roof open web steel joists and interior steel pan stairs. The Roll Form Group supplied the .76mm (.0299”) prepainted Z275 (G90) galvanized steel coloured Royal Blue QC8790 and Green QC8329 for the roof and the S12R wall cladding, which was installed by Flynn Canada.

The facility was designed along a north/south axis with an undulating corridor linking all of the school’s facilities. The linear corridor is expressed on the exterior of the building as a high, steel clad wall with a projecting eyebrow roof line. This bending wall faces the main entry side of the school and acts as a protecting element for the playgrounds on the southeast side of the building. The high protruding roof line reinforces its protecting nature. The high roof tilts up over the main entry in order



DESIGN AND CONSTRUCTION TEAM

OWNER: Chemawawin Cree Nation 204-329-2161

ARCHITECT: Number TEN Architectural Group 204-942-0981

GENERAL CONTRACTOR: NDL Construction 204-255-7300

STEEL SUPPLIER – ROOF AND WALL CLADDING: Roll Form Group 905-270-5300

ROOF AND WALL CLADDING INSTALLER: Flynn Canada 204-786-6951

STEEL ROOF AND FLOOR DECK SUPPLIER: Roll Form Group (905) 270-5300

ROOF AND FLOOR DECK INSTALLER: Imperial Metal 204-326-6683

STRUCTURAL STEEL FRAME: Imperial Metal 204-326-6683

LIGHT STEEL FRAMING SUPPLIER: Kingsway Interiors 204-326-4965

OWSJ SUPPLIER: Omega 800-661-3240



Prepainted steel's ample colour range and durability made it the ideal choice for exterior cladding options on the Chemawawin School.

to define the space and bring in additional natural light. The lower classroom volumes have simple shed roofs with masonry cladding.

A rich, deep brown clay brick was chosen for the base of the school. Prefinished Green steel panels were chosen for the lower roofs and fascias and prefinished Royal Blue steel panels adorn the upper walls, roofs and fascias. The combination of colours forms a palette that gives life and vibrancy to the school which is the centre of the community.

The school is used by the community during non-school hours, including evenings, weekends and summer months for continuing education programs, recreation and social events. In particular, the gymnasium, change rooms, library, computer/business education room, home economics and industrial arts rooms are used extensively.

The Chemawawin Cree Nation School was designed along a north/south axis with an undulating corridor linking all of the school's facilities. The linear corridor is expressed on the exterior of the building as a high, steel clad wall with a projecting eyebrow roof line.

ROOF AND WALL CLADDING

Roof Cladding:

.76mm (.0299") prepainted Z275 (G90) galvanized, coloured Royal Blue QC 8790 and Green QC 8329

Profile:

Flynn's Accu-Steel standing Seam – 5,156m² (58,500 sq. ft.)

Perforated Soffit:

.76mm (.0299") prepainted Z275 (G90) galvanized, coloured Royal Blue QC 8790 & Green QC 8329.

Profile:

S12R – 362m² (3,900 sq. ft.)

Wall Cladding:

.76mm (.0299") Z275 (G90) galvanized, coloured Royal Blue QC9790 & Green QC 8329.

Profile:

Roll Form Group's S12R 1,161m² (12,500 sq. ft.)

STEEL ROOF AND FLOOR DECK

.76mm (.0299") ZF075 Galvaneal Grade A –
4,552m² (49,000 sq. ft.) roof deck.
418m² (5,400 sq. ft.) acoustic deck.
5,900m² (63,500 sq. ft.) floor deck.

