



JONAH
AMITNAAG
SCHOOL AND
COMMUNITY
CENTRE

BAKER LAKE, NUNAVUT

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Dofasco Steel Design, 2005)

Photos:

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Due to the harsh climate
Architects Smith Carter, selected
prefinished steel for the exterior
walls, soffit and roof and
galvanized steel for the exterior
ramps, handrails and canopy
extensions.

Prepainted Steel Cladding and Light Steel Framing Combat Harsh Conditions



The geographic centre of Canada, Baker Lake, is the only inland Inuit community in Canada, with access by water to Hudson Bay through Chesterfield Inlet. The concept for the new 4,580m² (49,300 sq. ft) school, occupied since August 2004, 'Broad Horizons', relates to the school's location adjacent to Baker Lake, as well as the ideals of the educational process.

The gentle arching plan of the school takes advantage of the school's location central to the community overlooking Baker Lake. A central triangular shaped atrium punctuated

by a central stair and bridge, expands outward toward the lake in both plan and section. The school is designed to function both as a school and as a community library. After hours both the library and gymnasium can be accessed directly from the entrance vestibule without entering the rest of the building. The foundation is built on 141mm (5-1/2") diameter rock socketed piles elevating the school over a sloped site and allowing the community area snow melt to drain below. Access is provided by a series of galvanized steel stairs and ramps.



Good Building Practice Guidelines

The Nunavut Government has prepared guidelines for good building practice for northern facilities to assist designers with reducing problems and eliminating past mistakes. Building overhangs are discouraged and special attention is encouraged regarding mechanical air intakes and exhausts regarding ice build-up and infiltration of fine blowing snow. The new

Photos:

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The entrance vestibule showing vierendeel truss bridge, long throw diffusers and steel decking.

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The library and gymnasium can both be accessed after hours directly from the entrance vestibule, without entering the remainder of the building.



school reflects these guidelines. Massing is straight forward without overhangs. The envelope design is simple, sheathing to the walls, soffit and roof is covered in a continuous air-vapour barrier with semi-rigid non-combustible insulation and prefinished steel on girts and clips on top. Outside field painting to wood or metal does not last in

this dry harsh climate. To reduce maintenance and achieve a long-lasting finish, Architects Smith Carter of Winnipeg selected prefinished steel for exterior walls, soffit and roof and galvanized steel for exterior ramps, handrails and canopy extensions. Elevations are enlivened by a variety of prefinished steel profiles, colours and finishes. The majority of the facade is

clad in 7/8" corrugated Z275 galvanized steel panels in .66mm and 0.81mm (.026" and 0.032") HMP Series Regent Grey QC6082, 0.81mm (0.032") 10000 Series, Twilight Blue QC3644 and 0.81mm (0.032") Metallic Series Bright Silver QC2624. Flat prefinished steel panels are also used to provide a contrasting texture at window areas. Primrose Yellow QC3729 is used between windows, with Silver.



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