STEEL DESIGN

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WEATHERING REFLECTIONS OF FUTURE PAST



IN THIS ISSUE

PLACE DES ARTS STEEL IN PASSIVE HOUSING INSULATED METALS PANELS BACKYARD OFFICE PODS



STEEL DESIGN

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About ArcelorMittal

ArcelorMittal is the world's leading steel and mining company. Guided by a philosophy to produce safe, sustainable steel, it is the leading supplier of quality steel products in all major markets including automotive, construction, energy, household appliances and packaging. ArcelorMittal is present in more than 60 countries and has an industrial footprint in more than 20 countries.

With a strong presence in North America, Europe, South America and South Africa, and an emerging presence in China, Arcelor Mittal delivers a large scale of products, solutions and services to customers with the same quality focus in all regions. Arcelor Mittal is the leader in steel technology, both in the breadth and depth of our product portfolio, and in our ability to supply a range of grades throughout the world. Arcelor Mittal is a supplier of choice for all markets, a testament of our commitment to working collaboratively with our customers to engineer advanced steel grades to meet their needs.

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COVER PHOTOGRAPH Place des Arts by Sandra Mulder

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CONTENTS



WEATHERING REFLECTIONS OF FUTURE PAST

Honouring past and present with weathering steel in Sudbury



AND THE CORRECT ANSWER IS...

The impact and durability of steel in Passive Housing

THE ALCHEMY OF WATER AND STEEL

The growing market of insulated metal panels in aquatic centres



A ROOM OF ONE'S OWN Modular pods create modern backyard offices

"Volumetric building. A lot of repeatable processes. Get rid of a lot of the room for error. Really it's about driving economies of scale and driving efficiencies."

Trevor Gilbert, founder of Modeco Construction. See full article on page 16.



WEATHERING REFLECTIONS OF FUTURE PAST

Honouring past and present with weathering steel in Sudbury

Story: Julia Preston Photography: Sandra Mulder

Go for a walk around Sudbury, and you'll find traces of both the region's history and industries. Black leathered rocks, etched from mining. Red-orange ore seeping through the weathered ground. The region's physical character was one inspiration for the new Place des Arts, a French arts and cultural centre currently under construction in Sudbury. Other inspirations were the city itself and the area's long francophone history.

"Architecture is an art form," says Stéphane Gauthier, chair of the Place des Arts board. "Why not have a building that expresses that [history]... and tells the story of Sudbury?"

Presented with this mandate, architect Louis Bélanger of Yallowega Bélanger Salach Architecture (YBSA) challenged the founders to come up with a metaphor to describe the vision for Place des Arts.

The resulting manifesto declared, "We therefore need to visualize a built structure that emerges from the landscape as if... its forms have been there forever as a natural part of the urban environment, like "the rock pregnant with holy poetry," to quote Desbiens. But also like the aftermath of an impact, a cultural big bang rippling bravely and endlessly through time. We need to visualize a building bursting at the seams, like a reverberation, a wave on which to ride from past to future."

4 STOREY, 40,000 SQUARE FOOT MULTI-DISCIPLINARY ARTS CENTER \$30 million project budget will host 850 activities annually the project will create 180 jobs + 29 jobs once opened

"ARCHITECTURE IS AN ART FORM, WHY NOT HAVE A BUILDING THAT EXPRESSES THAT [HISTORY]... AND TELLS THE STORY OF SUDBURY?"



In designing the structure to appear at one with its landscape, Bélanger's team in partnership with Moriyama & Teshima Architects were thoughtful in their selection of finishes.

The exterior masonry is meant to emulate the local rock, right down to the holes drilled when mining. "When you blast rock the lines they're making now are very, very straight, and it creates patterns in the rock. So they actually imitated that pattern in the way they laid out the bricks," says Gauthier. The masonry anchors the building both literally and figuratively.

Above the masonry, Bélanger and Moriyama & Teshima chose ArcelorMittal Dofasco's Indaten™ for the exterior cladding.

Indaten is a weathering steel, which oxidizes and corrodes when installed outdoors, eventually developing a rusty patina. Indaten draws on ArcelorMittal's decades of experience with corrosion resistance mechanisms. Due to its unique chemistry, the corrosion rate of Indaten and other weathering steels is generally much lower than typical carbon steel.

"When the architects presented the idea of using [weathering] steel they actually had this presentation [with] pictures from the region of Sudbury... We have a lot of these bridges in Sudbury that are all rusty. Under the blackened rock you can see all this colour that is actually like [rusted] steel. That was their weathering precedent that they were showing us, hoping we were audacious enough to chose the material... For them it wasn't only the industrial past but it's also the physical landscape that it's referring to," explains Gauthier.

A unique aspect of Indaten is how the exposed surface changes over time. The initial dark grey mill finish transitions to an orange patina in a matter of weeks. The appearance continues to evolve, reaching a final dark brown colour after several years. Using Indaten requires some special considerations. As the metal oxidizes, small amounts of rust wash off. This discharge diminishes over time, but never stops completely and can stain neighbouring material, such as stone or concrete.

Place des Arts uses black brick along the lock stone at the bottom of the drip line to camouflage any discolouration. Flashings also help water flow away from the building.

The weathering steel cladding was chosen to underline the industrial past & present of Sudbury and celebrate its richness.

"We have a flashing that goes over top of the brick to direct the drip line away from running down the face of the brick," says Tony Niro, project manager for YBSA. Flashings are all caulked to ensure there is no leakage. Water was also channeled away from the aluminum curtain wall.

The authentic, natural patina of Indaten is made up mainly of stable iron oxide which is not harmful to the environment, vegetation or wildlife.

The distinct finish and coarse texture are not uniform and vary by local weather conditions. The result is an innovative, unique and location-appropriate feature for Place des Arts.

Indaten is a weathering steel, which oxidizes and corrodes when installed outdoors, eventually developing a rusty patina.

Place des Arts is a physical manifestation of a long and intentional history for Francophones in Ontario.

In the 1960s, separated from Québec's Quiet Revolution, the Franco-Ontarian community took charge of its own fate. Francophones set up institutions, created art and established a unique expression. The cultural movement, known as le Nouvel-Ontario, was rooted in Sudbury.

"We were very aware that we were emerging into a deficient environment," the arts integration committee writes in the Place des Arts metaphor. "We had to invent everything... Creativity therefore became our way of being."

The emergence of a wide-ranging cooperative arts movement called le Grand CANO ushered in a new sense of belonging and identity, which is still influential today.

The Nouvel-Ontario movement was a wave that rippled across the whole province. Writing of Place des Arts, the cultural integration committee says, "In essence, we must build a place that can capture and disseminate our energy."

That place is Place des Arts.

The vision for the facility is to continue Sudbury's role as a source, inspiration and transmitter for the Franco-Ontarian culture and identity.

Place des Arts is bringing together seven francophone organizations focused on arts and culture.

Carrefour francophone de Sudbury is a cultural and community centre. Le Centre franco-ontarien de folklore collects, preserves and enhances Franco-Ontarian oral heritage. Théâtre du Nouvel-Ontario stages contemporary works. Les Concerts La Nuit sur l'Étang is an annual music festival. Prise de parole is a national publishing house. Galerie du Nouvel-Ontario is a contemporary art gallery. Le Salon du livre promotes literacy, literature and French-language authors.

When complete, Place des Arts will include a 300-seat main theatre, multifunctional studio, boutique, bistro, daycare and offices for the seven founding members.



"The gathering space around the arts composition... creates a lot of energy and revitalization," says Gauthier. "The space will create a lot of opportunities. But being there together creates other kinds of opportunities."

Place des Arts will tell the story of Franco-Ontarians through the art created and presented there. However, the building itself is part of the story.

"We weren't born yesterday. There's a lot of history," says Gauthier. "The power of the narrative to inform a space in design is very uplifting and very rich... People love stories. They want the building to tell a story."

Part of the way to tell that story is what Gauthier calls "patina."

The Indaten cladding is an obvious and impressive source for patina. But it is just one layer that has been incorporated throughout the building.

Other layers include cultural artifacts, like bricks from the King Edward Hotel that originally occupied the site for Place des Arts, plaster moulds from the Grand Theatre built in 1902, copper ceiling tiles from l'École Saint-Louis de Gonzague constructed in the midst of the French language education crisis, and lockers from the province's first French public high school.

Gauthier says, "To bring those... into the Place des Arts is adding layers to the story. We're telling the story around objects and important cultural or historical events."

PLACE DES ARTS

ARCHITECTS Yallowega Bélanger Salach Architecture // ybsa.ca Moriyama & Teshima Architects // mtarch.com

GENERAL CONTRACTOR HEIN // hein.ca

STEEL

18ga Indaten (corten) panels from Agway Metals, with 22ga flashings

220,000+ kg of structural steel

4,000 m² of structural decking

Painted corrugated metal siding for penthouse and rear walls

AND THE CORRECT ANSWER IS...

The Impact and Durability of Steel in Passive Housing

Story: Julia Preston

Photography: Dasha Armstrong, Sarah King



Wrapped in black steel cladding, the Parkview House in Victoria, BC is visually striking. The home is a simple two-storey design with a typical peaked roof. Its simplicity makes it stand out. But under the steel, the Parkview House stands out for another reason—it is a passive house.

Passive house is an international system for constructing extremely energy efficient buildings. Passive house buildings require minimal energy to operate—as little as a tenth of the average energy needs.

Steel is an important part of achieving those targets.

"One of the reasons that we like to use steel is that when we're talking about passive house buildings, generally speaking durability and low maintenance costs are one of the key parts," says Will King, principal with Waymark Architecture and designer of the Parkview House. "We can take a building that is going to perform at just a tenth of the average energy needs. We also want the building to require a tenth of the average maintenance costs and ongoing ownership concerns." The passive house concept is focused on energy efficiency, comfort and affordability.

One of the reasons that we like to use steel is that when we're talking about passive house buildings, generally speaking durability and low maintenance costs.

Builders must achieve rigorous standards for heating and cooling, overall energy use, air tightness and thermal comfort.

Windows, insulation and the entire building envelope are carefully considered to ensure optimum thermal performance. As a result, the Passive House Institute notes that "internal surface temperatures vary little from indoor air temperatures" resulting in an extremely comfortable environment for occupants.

While construction focuses on air tightness, air quality is a key consideration. Ventilation systems ensure a constant supply of fresh air throughout a passive house.

The Parkview House is an example of design and sustainability on a residential scale.

Attaining passive house certification was the home owners' priority from the start of the project. To achieve the requirements, the clients eschewed custom millwork and expensive finishes and instead applied their budget to better windows, more insulation, and quality air barrier materials.

The result is "a fantastic, comfortable, interesting and thoughtfully designed home," says the owner.

On a larger scale, Waymark also designed Canada's first passive house office building. The Charter Telecom Headquarters in Victoria demonstrates that significant improvements in energy performance are achievable in a commercial environment.

For the owner of Charter Telecom, a quality environment for staff, lower operating, maintenance and overall life cycle costs motivated him to construct a passive house building.







Understanding how [materials] work well together and in isolation is really important so that we can get the best building in the end.

"When we think about steel and passive housing the first thing people think about is thermal bridging, which of course steel performs very poorly at. The key to using steel in passive house buildings is to know where to use it," says King.

In order to construct thermally efficient, air tight enclosures, steel must be fully protected from exterior conditions. One technique is structural thermal breaks for elements that extend through the insulation layer, like windows.

"We provide passive house buildings that are made out of lots of different materials," says King. "The design and the holistic impact of the building [are] paramount. Where steel becomes a very good answer to solve problems of durability or perhaps aesthetics or perhaps a mix of both, it really depends on what the building needs. Understanding how [materials] work well together and in isolation is really important so that we can get the best building in the end." At the Parkview House, Waymark mixed black steel cladding for the roof and outer walls with white cement panels on the end gable walls. Wood accentuates the soffits and windows.

"There's a lot of fun actually playing with the steel," says King.

Openings for windows or doors, flashings, and trim all present opportunities for creativity. "Steel is one of those really interesting things in that it's really malleable. You can pull it and stretch it and bend it and twist it and you can create lots of really cool effects," says King.

The Charter Telecom Headquarters is a mass timber building that, like Parkview, is also clad in steel. As a mass timber building, steel is relied on heavily for connection details, especially in this high seismic risk zone.

Waymark used different profiles and colours to emphasize the structure and components of the design. The main part of the building is clad with black corrugated metal. Perforated metals and flat panelized metal siding accent other portions.

"The variability within steel allows you to do contrasting materials that are technically the same material," says King. "They're a completely different look and different feel [and you can] change the profiles and the way that the building works."

Beyond creativity, steel has other benefits, particularly on the west coast.

Steel is both light and strong. Using steel for cladding, connections and detailing literally lightens the load. As a result, structural requirements inside the building are reduced, an important consideration for areas with stringent seismic requirements.

Another benefit to using steel is increased protection from forest fires.

As a result, Waymark uses steel for cladding, roof members and flashings on homes and other buildings they construct in wooded areas.

ArcelorMittal Dofasco with third party industry consultants conducted a Steligence[®] case study to compare how steel, concrete and timber perform environmentally and financially in a midrise residential passive house building (see our fall 2020 issue for the cost comparison and spring 2021 for the environmental analysis). The study found that the steel-based design was the most environmentally sustainable and economical compared with concrete and timber alternatives. On the west coast, wood is an important part of buildings, both structurally and aesthetically. However, King emphasizes that materials should not be the starting point for design, especially in a passive house.

Instead, designers need to look at the overall holistic impact of a structure and select materials according to what is needed for a building's particular context.

Designers need to look at the overall holistic impact of a structure and select materials according to what is needed for a building's particular context.

King also argues that wood has been "overdone" in BC. "We have so much of it that we're just not careful with it... We can't cut down a 1,200 year old tree and pretend that it's going to grow back next year... While steel is energy intensive and has a larger carbon footprint generally speaking than wood... it has a durability and it has the ability to be recycled... When you consider the overall impact of using a steel product versus an old growth timber product, the better choice depends on the situation, and often steel is the right answer."

PARKVIEW HOUSE

ARCHITECT

Waymark Architecture // waymarkarchitecture.com

GENERAL CONTRACTOR R.C. Roofing Ltd // rcroofing.ca

INTERIOR DESIGNS Carly Sanderson Interiors // instagram.com/carlysandersoninteriors

STEEL

24 gauge steel

CHARTER TELECOM HEADQUARTERS

ARCHITECT

Waymark Architecture // waymarkarchitecture.com

GENERAL CONTRACTOR

Interactive Construction // interactiveconstruction.ca

STEEL

24 gauge steel

Charter Telecom Headquarters





THE ALCHEMY OF WATER AND STEEL

The Growing Market of Insulated Metal Panels in Aquatic Centres

Story: Julia Preston

Beloeil, Quebec, southwest of Montreal, is tucked between Mont Saint-Hilaire and the Richelieu River and surrounded by agricultural fields. Beloeil's new aquatics centre celebrates this unique setting through its architecture. Photography: David Boyer

The centre was designed as "a translucent and luminous glass case set on a solid black base," notes architectural firm Lemay. "Combining opacity and transparency, it embodies the contrast between the agricultural lands and the brightness of the sky that characterize the region."

The solid black base that grounds the centre is composed of more than 16,000 square feet of insulated metal panels (IMPs) by Norbec.

The Beloeil centre is one of several aquatic centres constructed recently in Quebec using Norbec's IMPs.

Insulated metal panels are a growing market in North America, says Alexandre Bélisle, Norbec's director of R&D and Technical Services.

Panels are made up of two metal faces—the interior and exterior face—sandwiched around a layer of rigid foam insulation (usually polyisocyanurate or PIR). Panel dimensions vary between manufacturers, but are approximately four feet wide. Norbec's typical panel is 42.5 inches, to maximize the use of a full 48-inch steel coil notes Bélisle.

Other dimensions, along with horizontal, vertical, coloured, smooth and textured options, are also available.

For architect Alexandre Guérin who designed the Donnacona Aquatic Centre, the flexibility and versatility of IMPs make them an ideal material. "The different lengths of Norbec continuous panels and the few visible joints allow for a very clean finish," he says.

Once the panels are installed, the building envelope is completed... It's an all-in-one solution.

IMPs also speed up the construction process. "Once the panels are installed, the building envelope is completed," says Bélisle. "There's no need to have a lot of different contractors on site and do the insulation, then do the cladding, then do all the vapour barrier. It's an all-in-one solution."

When the panel installation is complete, interior work can begin.

Typically, the interior face of the panels will be covered with drywall or other finishes. But it can be left visible, as in Beloeil where the bright white interior helps to flood the complex with light.

IMPs increase efficiency during construction. They also improve energy efficiency over the long-term operation of a building.

The insulation core outperforms materials like wool, spray foam or polystyrene and helps keep operating costs and energy requirements to a minimum. IMPs can also help to balance large amounts of glazing.

"It is natural that they will use big windows to make the look and feel of the aquatic centre more open. But those windows will also play a role into bringing heat inside this building," says Bélisle. "Where the IMPs will play a big role is in containing the heat inside the building and helping regulate this heat."

In Brossard, Quebec, architects Héloïse Thibodeau Architecte and Vincent Leclerc designed the aquatic centre to have full glass walls at either end. On the exterior side walls of the building, panels in dark grey and white give depth to the façade.

The width of the panels means fewer joints, making it easier to maintain the environment inside the building.

IMPs are often used to help meet requirements for LEED or other environmental building certifications.

"IMPs can play an important role in bringing those buildings to where they should be in 2021," says Bélisle.









Donnacona Aquatic Centre

While IMPs have many benefits, using them in aquatic centres requires some extra considerations.

Indoor pools are typically a highly humid and potentially corrosive environment (depending on the water temperature, cleaning agents, water treatment chemicals, quantity of pool users, ventilation and other factors).

"These parameters are very different than the "normal" usage we see for our products—cold or temperate environments where the humidity level is somehow controlled," explains Bélisle.

Corrosion resistant fasteners and finishes ensure that panels will not be damaged by water splashes or humidity.

"We recommend to seal all the panel joints (inside the pool area) to ensure there won't be any water infiltration in the interior joints and this will also add an extra layer of protection in the panel joints for air infiltration," says Bélisle.

For the comfort of users, the temperature in the pool area is higher than a typical interior space. In the winter, differences between interior and exterior temperatures can be significant. IMPs help to control temperatures, minimize heat loss and meet the building energy requirements.

"This high temperature differential in winter, added to the induced negative pressure environment inside the pool area, could promote condensation at the different building envelope junction interfaces. Extra measures are to be provided to counteract this risk," recommends Bélisle.

Norbec has developed a deep expertise in aquatic facilities to support designers and architects throughout the design and construction process. Says Bélisle, "This support is backed by a good partnership with our suppliers and experienced installer network. We collaborate with them to ensure that no critical elements have been overlooked."

BELOEIL AQUATIC CENTRE

ARCHITECT

Lemay Architects // lemay.com

GENERAL CONTRACTOR Décarel // decarel.ca

INSTALLERS

Distribution Styro Inc. // styro.ca

STEEL Product Used: Norex-L by Norbec

Panel Thickness: 4 in.

Interior Steel: Gauge: 26ga // Colour: Imperial White // Profile: Silkline (striated) // Finish: Smooth

Exterior Steel: Gauge: 22ga // Colour: Rigel 2 // Profile: Micro-Ribbed // Finish: Smooth

BROSSARD AQUATIC CENTRE

ARCHITECT

Consortium Héloise Thibodeau // htarchitecte.com

Vincent Leclerc + Associés architectes // vlarchitecte.com

GENERAL CONTRACTOR EBC Inc. // ebcinc.com

INSTALLERS Distribution Styro Inc. // styro.ca

STEEL Product Used: Norex-L by Norbec

Panel Thickness: 4 in.

Interior Steel: Gauge: 26ga // Colour: Imperial White // Profile: Silkline (striated) // Finish: Smooth

Exterior Steel: Gauge: 22ga // Colour: Rigel 2 // Profile: Microrib // Finish: Smooth

DONNACONA AQUATIC CENTRE

ARCHITECT STGM Architectes // stgm.net

GENERAL CONTRACTOR Dalcon // dalcon-inc.com

INSTALLERS Distribution Styro Inc. // styro.ca

STEEL

Product Used: Norex-L by Norbec

Panel Thickness: 6 in.

Interior Steel: Gauge: 24ga // Colour: Advantica // Profile: Silkline (striated) // Finish: Smooth

Exterior Steel: Gauge: 22ga // Colour: Storm Grey // Profile: Microrib // Finish: Smooth

A ROOM OF ONE'S OWN

Modular Pods Create Modern Backyard Offices

Story: Julia Preston

Photography: Daniel Banko



A room of one's own is necessary, Virginia Woolf tells us, for creativity and productivity. The thousands of people working from home over the last year and a half would surely agree.

But where to find such a space? For Trevor Gilbert of Modeco, the answer was his own backyard.

Modeco specializes in modular, prefabricated "pods." Products include bathroom pods for multi-unit residential buildings or cell tower closets for telecommunications companies working on 5G expansion.

In the early days of the pandemic, Gilbert and his team designed medical pods that could serve as isolation units and extra beds in temporary hospitals that were being set up to treat COVID patients.

"I've got a three-year-old at home. I was on the phone. I was up late trying to get time to myself, and I couldn't get work done," he recounts. "I thought I can design a separate space for myself."

Gilbert used his pod model to design a standalone prefabricated office, which he installed in his backyard.

As word spread of Modeco's office pod, orders started to roll in.



Modeco is rooted in the green building movement. The company name comes from modular and modern combined with economical and ecological.

Gilbert had worked in energy and sustainability consulting, real estate and public equity. From his experience in those fields, he knew that eventually there would be a shift to modular and prefab techniques in residential construction.

He also drew on his experience growing up in his family's punch and die business, where he saw cold formed steel and roll forming.

"I saw how a manufacturing process works and the benefits of the repeatability and the adaptability of doing steel studs or steel buildings with cold formed steel," he explains. "That's what I wanted to do with these pods. Volumetric building. A lot of repeatable processes. Get rid of a lot of the room for error. Really it's about driving economies of scale and driving efficiencies."

I saw how a manufacturing process works and the benefits of the repeatability and the adaptability of doing steel studs or steel buildings with cold formed steel.

On the sustainability side, Gilbert emphasizes that it's important to be resilient and adaptive when working in the green building space. Pods can be bathrooms, telecom base stations, hospital rooms or offices. "I knew if I was going to start a business and bring in machinery, it wasn't going to be set to just one thing, like single eight foot studs. I was going to rely on my own creativity and know if things [changed], there would always be another market that I could fill or hopefully build for."





For the office pods, Gilbert started with his own personal needs. He wanted the office to have a modern design aesthetic and be a space that would function year round.

Trusses are engineered and designed for snow loads in Ontario, and the pods are fully insulated with Rockwool in the floor and spray foam on the walls and roof.

Units are 8x8, 8x10, or 8x12 and start at \$9,500. With Modeco's modular design, the same trusses, walls and floor bases can be used in different size pods.

We're essentially like Lego. They're repeatable builds, which helps speed up the assembly process.

"Every unit is going to be 8 feet wide," says Gilbert. "It's the same floor. It's just built out in a larger section that we assemble together. We're essentially like Lego. They're repeatable builds, which helps speed up the assembly process."

Modeco uses 18 gauge cold formed steel in its designs. The light gauge steel is easy for crews to transport and erect.

Thanks to precision manufacturing, once on-site the components go together perfectly and quickly. "I've yet to have a single challenge where something doesn't fit or something is little bit off," says Gilbert.

Once the shell is assembled, Modeco also handles interior finishes, like drywall. "We've made some really good partnerships and built really good relationships with other trades," says Gilbert. Those relationships allow Modeco to ensure builds are completed quickly—ideally in less than two weeks.

Office pods are sold out for the next year. As demand has grown, Gilbert has focused on maintaining the quality of construction, materials, aesthetics and price. "I want to maintain the expectations of clients, communicate and hopefully deliver on time and deliver a great product."





Canadian steel has some of the lowest carbon emissions in the world. Steel is precision made. We have some of the best producers here in Canada. It's mold resistant. Galvanized steel is corrosionresistant. It's termite resistant. It really is built to last.

While the pods are in demand, Gilbert admits that the market for steel in residential projects is still limited.

"People are used to doing stick builds, typical wood frame buildings," he says. "I think there's a great spot for timber buildings or even hybrid buildings. But I'm a firm believer that trees should be left to do what they do best, which is producing air and oxygen, and we should find a better way to use other resources."

Modeco's commitment to sustainability is why Gilbert is committed to steel.

"Canadian steel has some of the lowest carbon emissions in the world. Steel is precision made. We have some of the best producers here in Canada. It's mold resistant. Galvanized steel is corrosion-resistant. It's termite resistant. It really is built to last."

With more of a movement towards green steel, Gilbert hopes that Modeco's work will contribute to greater sustainability in the steel industry.

He also sees the company advancing the modular and prefab building sectors. "What can be made with cold formed steel and prefab steel construction is limitless. It's only limited by people's creativity."

What can be made with cold formed steel and prefab steel construction is limitless. It's only limited by people's creativity.

Looking to the future, Modeco is pursuing larger builds, remote and offgrid projects. Gilbert is focused on continuing to adapt the company's practices and projects and compete in the green building space.

"At Modeco we want to push the envelope and challenge ourselves with some of these really neat interesting cool builds. We want to create these great creative spaces that are not traditional office places. Where people can do more with less. That make them happy and more productive."



OFFICE PODS

GENERAL CONTRACTOR

Modeco Construction // modecoconstruction.com

STEEL

18ga Cold formed galvanized steel, with steel studs Painted flat metal sheets for roof



Want a steel expert on your team?

Visit our Architect's Corner website – it's like having our steel experts on your team and at the table. You'll find product information, specifications, building information modelling and all the steel resources you need to help bring your building design to life. Plus, we are just a phone call away to talk through your need!

Visit and bookmark: architectscorner.ca

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