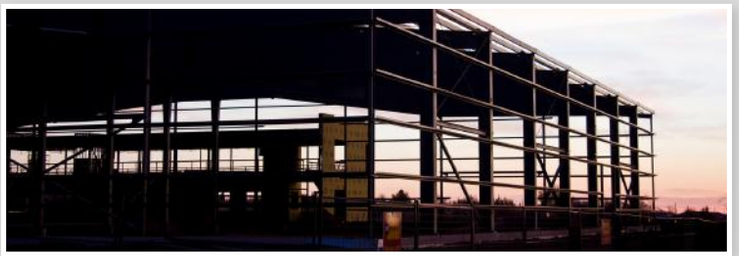
THE SMART BUILDER'S GUIDE TO:

PRE-ENGINEERED STEEL CONSTRUCTION

PAGE REFERENCE



WHAT IS PRE-ENGINEERED STEEL CONSTRUCTION?

Pre-engineered steel construction is a structural building system that consists of pre-fabricated, steel frames (roof beams and columns) that are manufactured and designed to bolt together flawlessly. Each building is custom designed and built specifically to suit each project's parameters, leaving no unused materials behind after construction. A pre-engineered metal building is often a large, column-free structure, perfectly suited for commercial and industrial applications such as storage facilities and maintenance shops.

At Cormode and Dickson, we've focused our efforts on four types of pre-engineered steel buildings. These include industrial construction (manufacturing warehouses, production facilities, storage and shop buildings.), institutional facilities (schools, training, church facilities), commercial buildings (office/shop complexes, automotive dealerships, warehouses), recreational facilities (arenas, community sports facilities, fitness centers, barns).

Through our pre-engineered steel building division, our collaborative design/build process, our feasibility studies, and our enhanced business relationship, we can offer you more than just the economical benefits of a pre-engineered steel building. We provide our partners with innovative custom design masterpieces at maximum cost savings, minimal labour costs, without sacrificing quality or functionality.

"We provide our partners with innovative custom design masterpieces at maximum cost savings, minimal labour costs, without sacrificing quality or functionality."

INDUSTRIAL CONSTRUCTION
- MANUFACTURING WAREHOUSES
- PRODUCTION FACILITIES
- STORAGE BUILDINGS
- SHOP BUILDINGS

INSTITUTIONAL FACILITIES
- TRAINING FACILITIES
- OFFICE COMPLEXES
- CHURCH FACILITIES
- SCHOOLS

COMMERCIAL BUILDINGS
- STORAGE WAREHOUSES
- AUTO DEALERSHIPS
- SPORTS FACILITIES
- FITNESS CENTERS
- ARENAS
- BARNS

"Ultimately, pre-engineered buildings offer a lower cost, less waste, low maintenance, durability, seismic soundness (flexible frames), and ease of expansion."

Committed to building long-term relationships.

WHAT IS THE DIFFERENCE BETWEEN PRE-ENGINEERED AND CONVENTIONAL STEEL BUILDING?

Pre-engineered steel buildings use prefabricated elements that are delivered to site whereas conventional construction is completed onsite using various elements (usually concrete, masonry, or wood, and steel). While both methods require the same essentials (design, foundation, framing, finishes) they have different processes.

First, with conventional construction the foundations tend to offer more structure than a project may need because the weight of the building's load cannot be predetermined – there are too many building elements to consider. In contrast, the pre-engineered metal building is almost completely pre-fabricated, allowing the builder to design foundations for an exact building weight – it's a more precise style of construction. Also, since the frame is fabricated offsite and designed to fit perfectly together, the building erection with pre-engineered steel buildings occurs more quickly, making for a faster overall project turnaround. Because they are design-built and pre-fabricated, pre-engineered building packages produce less construction wastes and require less sub trades for construction – both of which equate to a lower cost.

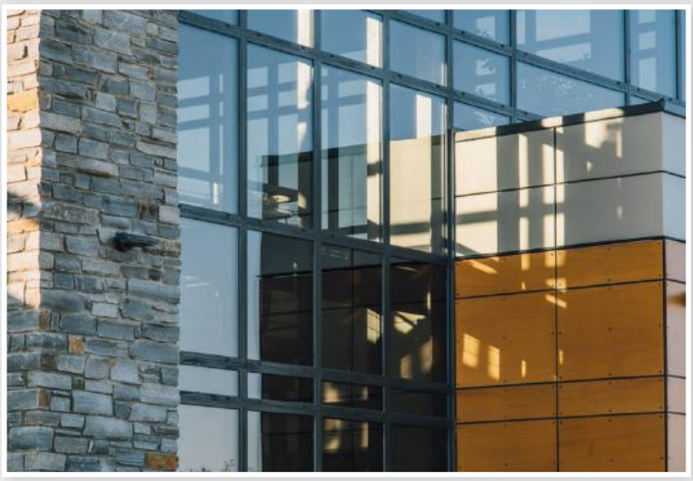
Conventional buildings require joists, which limit headroom, whereas pre-engineered steel buildings have no joists, allowing for a great overhead space to accommodate cranes or vertical storage. Additionally, because the roof is part of the structure, pre-engineered steel structures allow for easier expansion. Pre-engineered construction also utilizes wall systems instead of drywall and exterior metal cladding, which offers flexibility.

While conventional builds might produce more aesthetically pleasing buildings and tend to be energy efficient, this method has higher labour costs and produces a lot of construction waste. Conventional builds can provide more flexible design options, but they also require thorough, ongoing maintenance and, because they weigh more than pre-engineered buildings, their foundations weaken over time. Pre-engineered construction is often criticized for being boxy, but architects can get creative with building facades and curtain walls. Ultimately, though, pre-engineered buildings offer a lower cost, less waste, low maintenance, durability, seismic soundness (flexible frames), and ease of expansion.

Together we are stronger.

HERE'S 3 TOPICS TO CONSIDER BEFORE EMBARKING ON YOUR ENDEAVOUR.

Delivering quality without compromise.



Defining excellence when it matters most.

BUDGET

Your project budget must account for all of your building costs, including land purchase. Be sure to budget for land, foundations, permits, and taxes in addition to the steel structure itself. The beauty of a pre-engineered steel building is that it's considerably more cost effective than conventional construction and it's designed specifically for your purposes. If you're unsure what is required of you for a budget, our team will collaborate with you to come up with all aspects of your business plan, from conception to completion, and we can begin working on a steel building package that suits your all of your project needs.

LAND

If you don't already own the land you wish to build on, you'll need to factor the purchase into your budget as it makes up the bulk of your investment. As you research properties, you'll need to determine the site conditions: soil, excavation, trees, asphalt, physical barriers etc. Together with your Cormode & Dickson project manager, who has unparalleled knowledge of the industry, the competitive landscape, and what you are looking for, we determine not only the requirements for your building's foundation, but also the zoning bylaws and permitting requirements for your potential location. You want to be certain that your parcel of land will allow you to build your project before you purchase it, or, if you already own a piece of land, you want to ensure that your building is designed and constructed within the parameters of the existing parcel's zoning, permitting, and building regulations. Before beginning foundations, we'll figure out the climate conditions, stressors,dimension potential, and seismic loads that will impact your pre-engineered steel building so that we can design it accordingly.

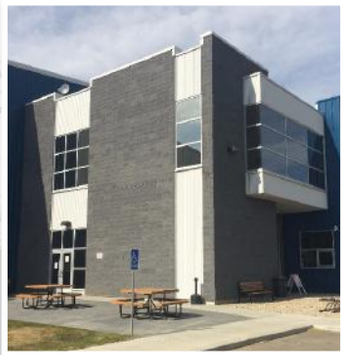
SCHEDULE

Pre-engineered steel buildings can often be delivered within a couple of months, but site conditions for foundations may negatively impact your schedule. Ensuring that you've properly assessed and prepared the site is crucial to meeting your schedule. However, because of design simplicity, pre-engineered metal buildings make for speedy construction, if properly managed. Thus, project management is of the utmost importance in schedule management. As pre-engineered building experts, Cormode & Dickson provides you with efficient and precise project management to ensure that your steel structure is delivered on time.

TOPICS BUDGET, LAND & SCHEDULE

FOUR PROOF OF CONCEPT PROJECTS



DIVERSIFIED TRANSPORTATION

FORT MCMURRAY, AB. A 12,000 square foot Operations Centre for Northern Alberta's Diversified Transportation operations, this facility is a three-storey, steel-framed structure with an insulated, metal panel cladding and curtain wall highlights. In addition to constructing the pre-engineered steel building, Cormode & Dickson also completed the interior fit-out and improved the standby to prevent interruptions to the Operations Centre's communications in the event of a major power failure.

CLAC

FORT MCMURRAY, AB. The Christian Labour Association of Canada's (CLAC) Fort McMurray office is a 21,000 square foot, pre-engineered steel building. Cormode & Dickson design-built this project using pre-fabricated steel frame construction with curtain wall features and an insulated panel envelope. The project was completed to include the interior fitout, landscaping, and a fully developed parking lot.

The most important thing we build is value.

CONSOLIDATED GYPSUM

EDMONTON, AB. Another Edmonton project, this 66,000 sq. ft. project consists of a state-of-the-art warehouse with high ceilings, narrow aisle racking system, and "super flat" floors. The additional 26,000 sq. ft. of space is made up of beautifully modern designer offices, & a polished showroom with concrete floors and architectural handrails. The site includes a large fenced in yard, asphalt paving and landscaping.

GRIMSHAW MULTIPLEX

GRIMSHAW, AB. A pre-engineered steel building, this recreational facility features a large field-house that boasts three full size basketball courts, a regulation indoor soccer field, and a running track suspended above the field house. The full NHL hockey rink is serviced by eight large locker rooms, two referee rooms, a Zamboni room, and a seating area for 1,000 spectators. The naturally lit second floor fitness center has two full service change rooms, while the main floor includes a large commercial kitchen, meeting rooms, administrative offices, a pro shop, and ticket sales desk.

A SHORT WORD ON CORMODE & DICKSON

In 1962, Cam Cormode and Don Dickson created the foundations for the company by building long term relationships with our clients, vendors, employees, and business associates. Today, we are a full service general contractor using innovation and expertise to serve our clients in Alberta. We are experts in new commercial and industrial construction including design-build projects, petroleum related facilities, pre-engineered metal buildings, modular construction, extensive renovation projects, and upstream oil and gas services.As your Alberta construction expert, we offer the resources and commitment to guide you from your project's inception to construction to completion. Collaborative, flexible, and innovative, we work with our clients to exceed their expectations and achieve their goals. Guided by our core values of passion, integrity, respect, accountability, teamwork, and excellence, we measure our success through client satisfaction. Your success is our success.

Do you have a pre-engineered steel construction project that you want to get off the ground, but you don't know what the next steps are? Cormode & Dickson specializes in taking your project, whether it's modular, pre-engineered, or conventional, and bringing it from conception to completion!

CONTACT MICHEAL DOWSE michaeljd@cormode.com (780) 405-5603