



LWBSI.com

Head Office

911 20 St SE, High River, AB

Manitoba Office

54A Matheson Pky, Springfield, MB

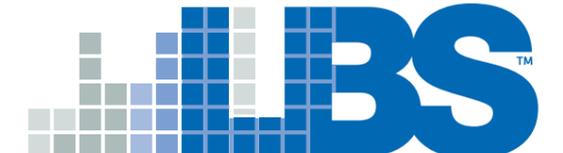
Ontario Office

434-1111 Davis Dr, Newmarket, ON

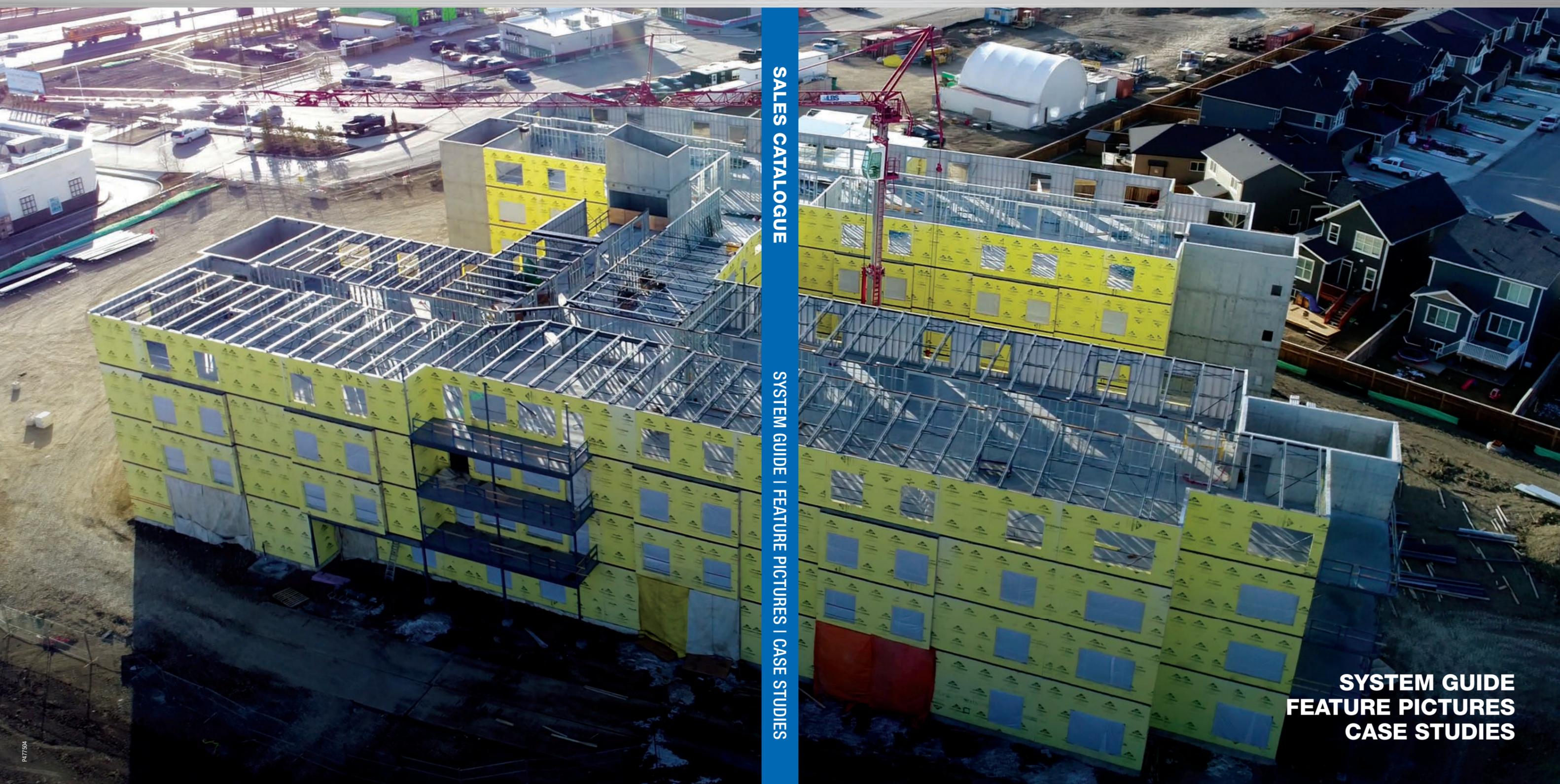
Office: 403-775-9801

Fax: 403-668-1142

Toll Free: 866-458-2573



Light-weight Building Systems Inc.



SALES CATALOGUE

SYSTEM GUIDE | FEATURE PICTURES | CASE STUDIES

**SYSTEM GUIDE
FEATURE PICTURES
CASE STUDIES**



Earn your success based on service to others, not at the expense of others.

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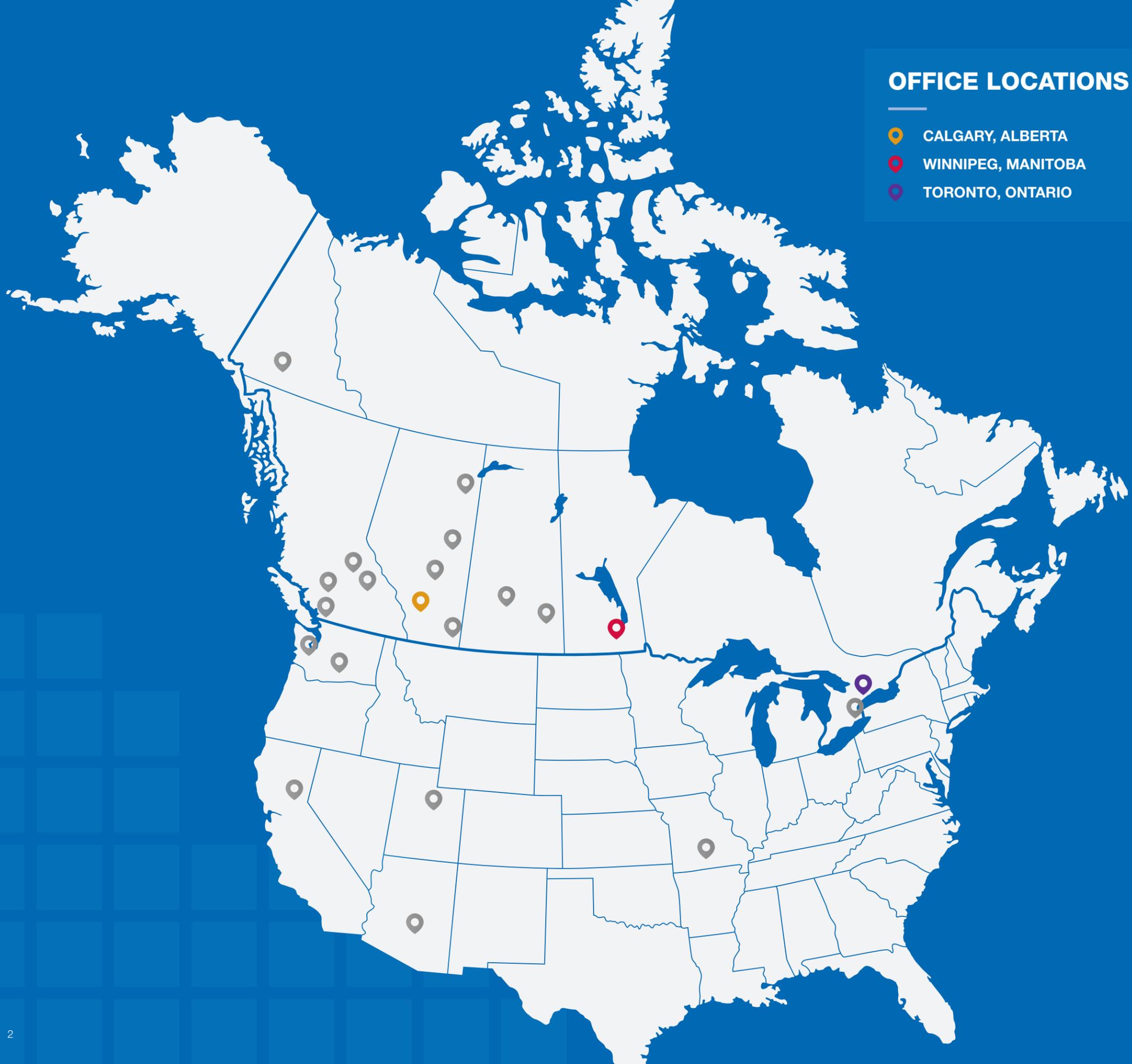




LBS SYSTEM GUIDE

The LBS system is the most cost-effective non-combustible system available.

We offer a multitude of services to help fit with your needs while providing a vast amount of experience and insight in these fields. With our unique building design and fabrication system we can accommodate any site across North America. We build faster and at a lower overall cost than traditional methods.



OFFICE LOCATIONS

- CALGARY, ALBERTA
- WINNIPEG, MANITOBA
- TORONTO, ONTARIO

NORTH AMERICA WIDE

LIGHT-WEIGHT BUILDING SYSTEMS INC.

Has experience with successfully completing projects North American wide. With our unique on-site panel plant, we can bring our non-combustible system approach to any location. We offer a competitive and local alternative to traditional approaches.

CANADA

- Stony Plain, Alberta
- Sherwood Park, Alberta
- Red Deer, Alberta
- Wetaskiwin, Alberta
- Cochrane, Alberta
- Fort McMurray, Alberta
- Edmonton, Alberta
- Leduc, Alberta
- Olds, Alberta
- Calgary, Alberta
- Okotoks, Alberta
- Vernon, British Columbia
- Vancouver, British Columbia
- Whistler, British Columbia
- Kamloops, British Columbia
- Yorkton, Saskatchewan
- Saskatoon, Saskatchewan
- Winnipeg, Manitoba
- Niagara Falls, Ontario
- Toronto, Ontario
- Whitehorse, Yukon

USA

- Seattle, Washington
- Issaquah, Washington
- Phoenix, Arizona
- Branson, Missouri
- Napa Valley, California
- Park City, Utah





WHO WE ARE

CORPORATE PROFILE

Light-weight Building Systems Inc. manages projects North America wide from its head office located just South of Calgary, Alberta. Light-weight Building Systems Inc. is an industry leader in providing Light Steel Frame (LSF) building design and construction services. The principals and management team of LBS have vast experience in seeing projects through from concept to completion.

- We dedicate ourselves to meeting customer needs and have been rewarded with a high percentage of repeat business and multiple project contracts.
- We pride ourselves in providing professional services, quality products, competitive options, a safe work environment and a well scheduled — on budget performance for all of our project ventures.
- We provide our building system anywhere in North America and our commitment to our clients on scheduling their project for success is unequalled in the industry.

Light-weight Building Systems Inc. provides design assist solutions, fabrication of all system components and all required on-site construction services for a complete steel stud structure and more. When you specify Light-weight Building Systems Inc. you get complete support from design through fabrication and installation.

One of the strongest recommendations for the selection of Light-weight Building Systems Inc. is the depth of our staff experience and their availability to the projects.

LBS MISSION

Light-weight Building Systems Inc. is a progressive company offering leading edge construction technology and processes at competitive rates. We are dedicated to bringing our construction process to new locations where the market has not yet developed. We bring factory quality construction right to the jobsite.

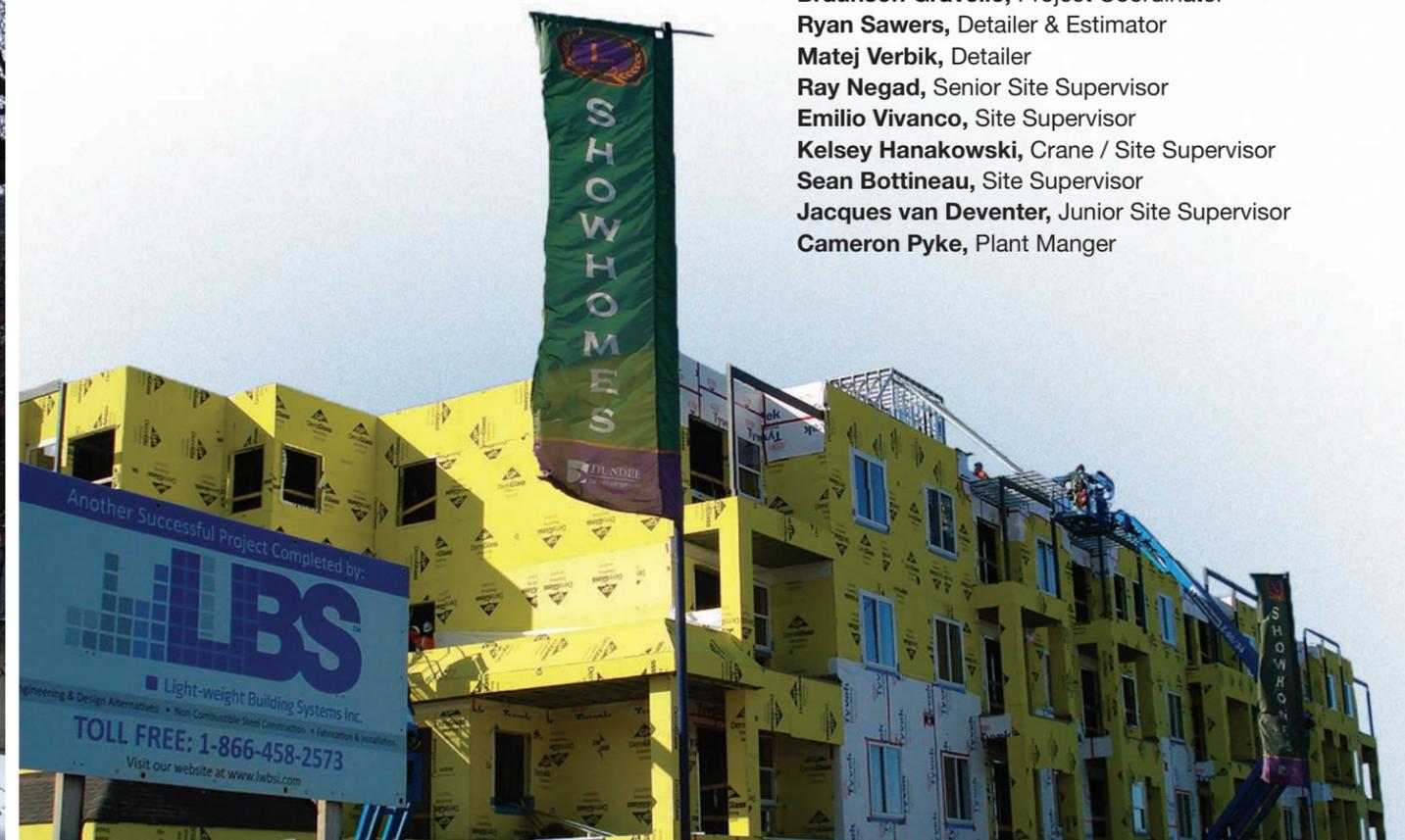
Our long-term goal is to develop lasting client relationships through a partnership approach based on honesty and integrity with the client's investments in mind.

We will develop our company from within bringing management and employees together through communication and skills training programs that will provide personal growth and pride in everyone's contribution. We will sum up our mission statement with three major points.

- Client Relations — growing LBS through the service we provide.
- Offering a quality and leading edge building system that is cost effective.
- To bring employees and management together in a combined effort to promote the LBS System.

KEY PERSONNEL

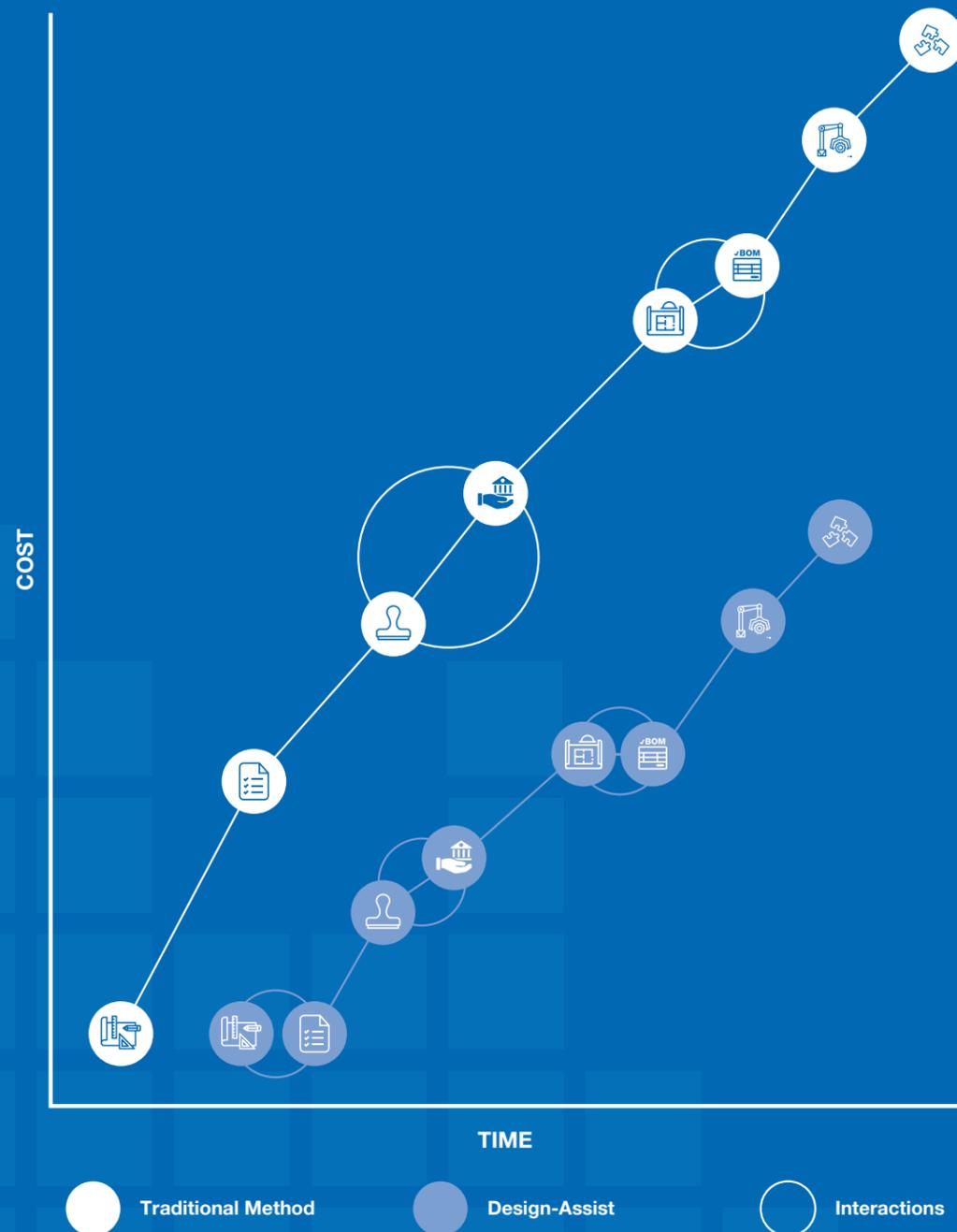
- Jeff Sawers**, Director of Operations
- Shawn Bennett**, Senior Project Manager
- Steven Doornenbal**, Business Development
- Liza Jacinto**, Project Administrator
- Braunson Gravelle**, Project Coordinator
- Ryan Sawers**, Detailer & Estimator
- Matej Verbik**, Detailer
- Ray Negad**, Senior Site Supervisor
- Emilio Vivanco**, Site Supervisor
- Kelsey Hanakowski**, Crane / Site Supervisor
- Sean Bottineau**, Site Supervisor
- Jacques van Deventer**, Junior Site Supervisor
- Cameron Pyke**, Plant Manger



DESIGN LED PROCESS

HOW DOES DESIGN-LED AND DESIGN-ASSIST CONSTRUCTION DIFFER FROM TRADITIONAL METHODS:

With traditional construction methods, much of the decision-making happens on site, relying on the skill of the builder on the job. Using a design-led construction process, the skill moves upstream; decision making responsibilities are transferred to the designers, and are no longer the domain of on-site laborers. Therefore, the size and skill of the on-site construction labor force needed for design-led methods is much less than with traditional building methods.



TRADITIONAL METHODS

DESIGN-ASSIST METHODS



Design Phase

Architectural packages produced ahead of Structural, Electrical and Mechanical consultants. Final design is produced with consultants fitting their scope in to the original concept.

Designs can be coordinated with the best and most cost-effective design principals from the start and with input early on from all consultants. LBS's design options and budget pricing can be confirmed early on to help maintain a budget.



Drawing Coordination Phase

Project owner then works with an engineer, who translates the architectural drawings into an engineered design typically using conventional building methods they are familiar with. Structure cost is estimated after working drawings are completed and if the project is found to be over budget — timely efforts are required to find an alternate approach.

3D structural design software is used by LBS to assist in real time coordination of the structure with all other building components. LBS's experience in using non-combustible wall and floor systems becomes an asset at this stage and we can move the drawing process ahead quicker than a traditional approach. Our experience with coordinating the LBS system saves time and money.



Tender Drawings

Once a design is finalized. Trades can then be sourced and brought in to price the project. This tender process can take time to complete.

With an LBS design-assist approach based around a committed cost, working drawings can be produced early and allow for real time budget reviews. Value Engineering is our focus at this stage.



Final Budget & Financing Stage

Once all of the tenders are received and reviewed the process of value engineering through trade input can lead to addendum's that hold up the construction phase. This process can push out the on-site start date.

With the idea that LBS has been involved from the start with an experienced design assist approach, the working drawings are more complete than traditional methods and the value engineering stage has already been coordinated. This saves time and money.



Fabrication Drawings

With a traditional approach — the fabrication drawings are not typically started until after all IFC drawings and specifications have been provided. The review and coordination of shop drawings begins. This can be a time-consuming process.

The software that LBS uses produces a detailed set of assembly and erection drawings that allows for easy fabrication and erection. This cuts down on errors and rework. Because we are involved early these drawings are quickly produced.



Bill of Materials

Most traditional applications do not generate a complete BOM. This is done independently using separate software. With a traditional approach — material waste becomes a factor increasing cost and waste management efforts.

LBS's design software generates a complete BOM report that can be used early on to order all required materials cut to exact length. This allows for the pre-construction phase to start early and efficiently. Fabrication schedules can delay on-site schedules — with LBS this is no longer a concern.



Manufacture

Traditional methods such as timber, concrete and brick construction have limited or no offsite manufacturing component, leaving the production and assembly of components to the on-site labour force. This requires a larger on-site force and a longer schedule.

Pre-manufacture of the LBS building system means that most of the work is completed ahead of on-site installations. All structure components are scheduled to be onsite as required, providing many benefits. LBS can build anywhere in North America using its mobile panel plant ability.



Assemble

Traditional methods require a large skilled onsite labor force. As there is more on-site assembly than a design led pre-assembly method — schedule is typically longer.

Depending on the method and building components involved, pre-assembled components can be transported to site (in some cases, on-site manufacturing can occur) and erection can occur quickly and accurately using local, less-skilled labor and basic tools [Time and cost decrease].



Make a Customer,
Not a Sale.



CONSULTANT COORDINATION

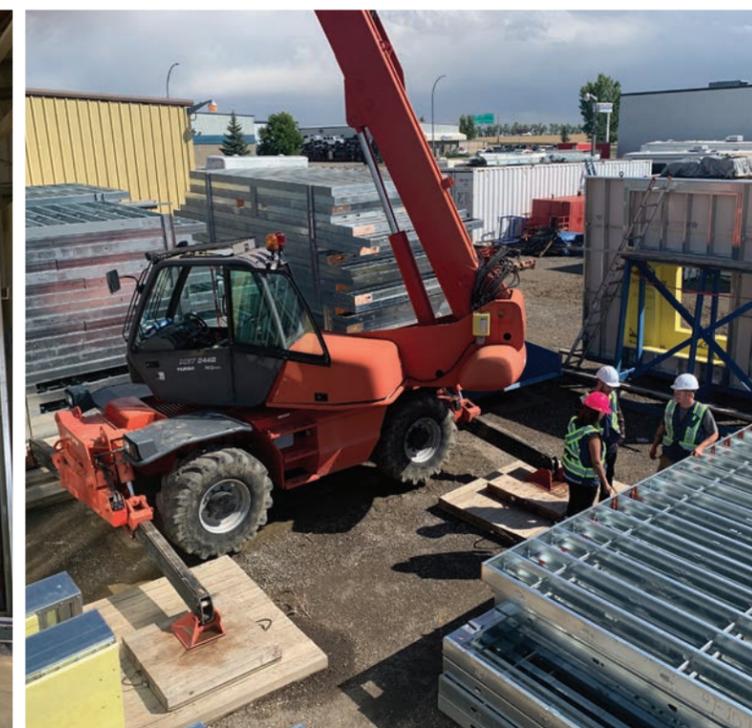
WE PROVIDE THE FOLLOWING OPTIONS:

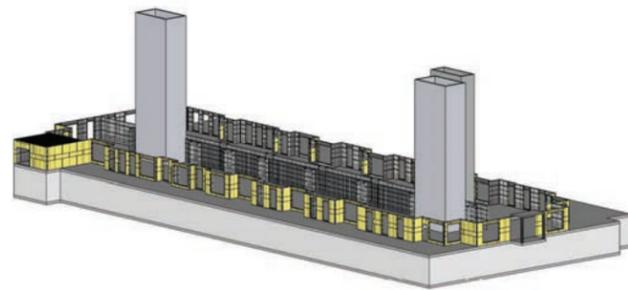
- Design Build and Design Assist packages to expedite the overall construction schedule.
- Conflict Management with steel stud load bearing design.
- 3D modeling of structural components to coordinate with consultants.
- Coordination of building requirements including — fire rating, assembly detailing and envelope ideas.

DESIGN ADVANTAGES

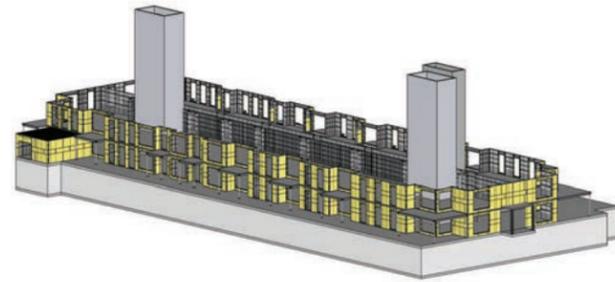
Versatility of design. The strength of steel studs makes it an ideal material for all building types — from hotels to care homes, as well as multi-story condos and apartment buildings. Light-weight Building systems Inc. is the right choice.

- Light weight steel stud framing is suited to all types of building designs.
- Our designs can provide larger span lengths due to less weight of structure.
- Light weight steel stud framing can accommodate architectural designs in a cost effective way when compared to traditional methods.
- Light weight steel stud framing can be erected up to 12 stories in height.
- Our designs provide high sound (STC) ratings with tested assemblies.
- Our designs provide fire rated assemblies from 1-4 hours.

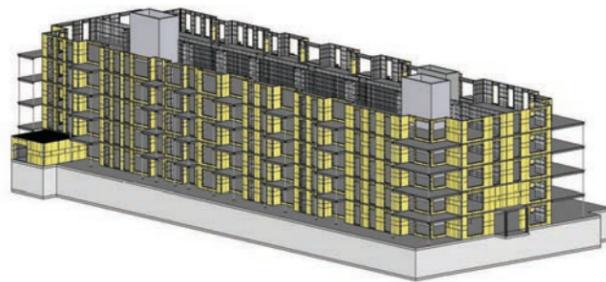




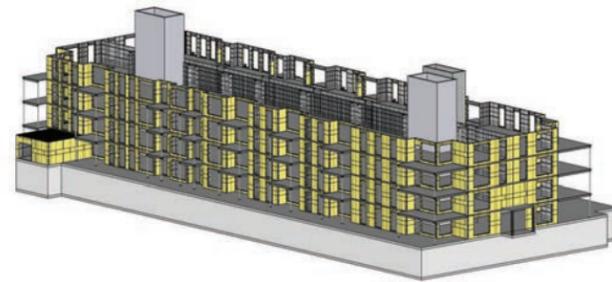
1st floor - 3 weeks



2nd floor - 5 weeks



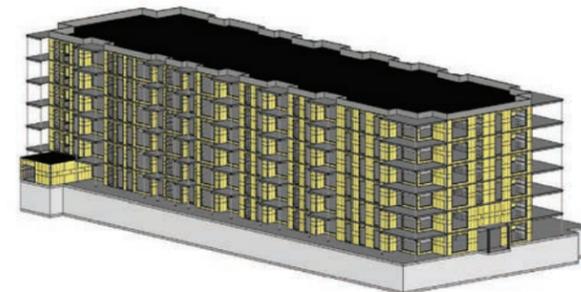
3rd floor - 7 weeks



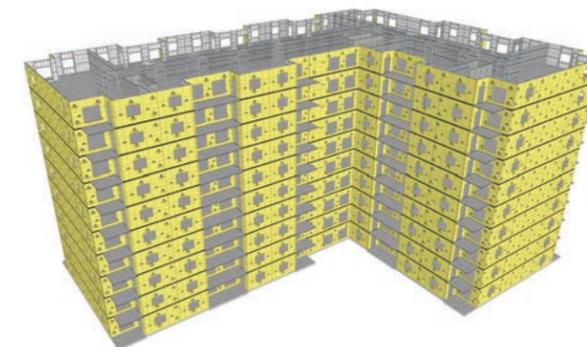
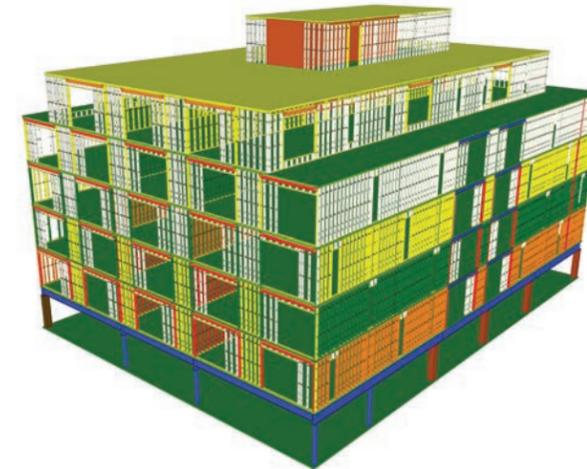
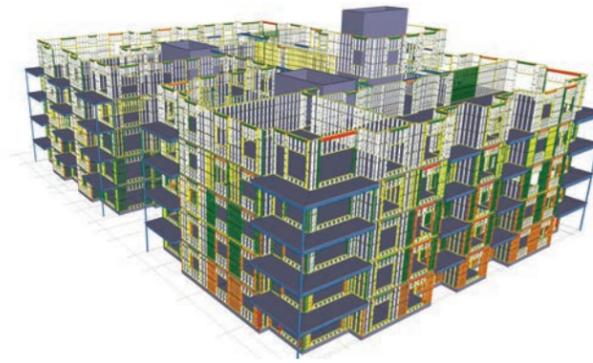
4th floor - 9 weeks



5th floor - 11 weeks



6th floor - 13 weeks



ENGINEERING

Our experience with designing load bearing steel stud structures is unequaled in the industry.

We work with all project consultants to ensure they are properly informed about our system throughout the design and construction phases.

Light weight steel stud panelized structures are a design-led process, meaning that the need for skill to complete the building is required more at the design stage and less on-site.

Our engineers work closely with our clients to fulfill their needs, see their vision through and provide value added engineering services.

Our job is to optimize your design, provide professional advice, incorporate innovative approaches, save time and reduce costs during construction. Our key focus in the design process is to invest time and effort to making the entire project as efficient as possible.

We don't just design your building — we build it.

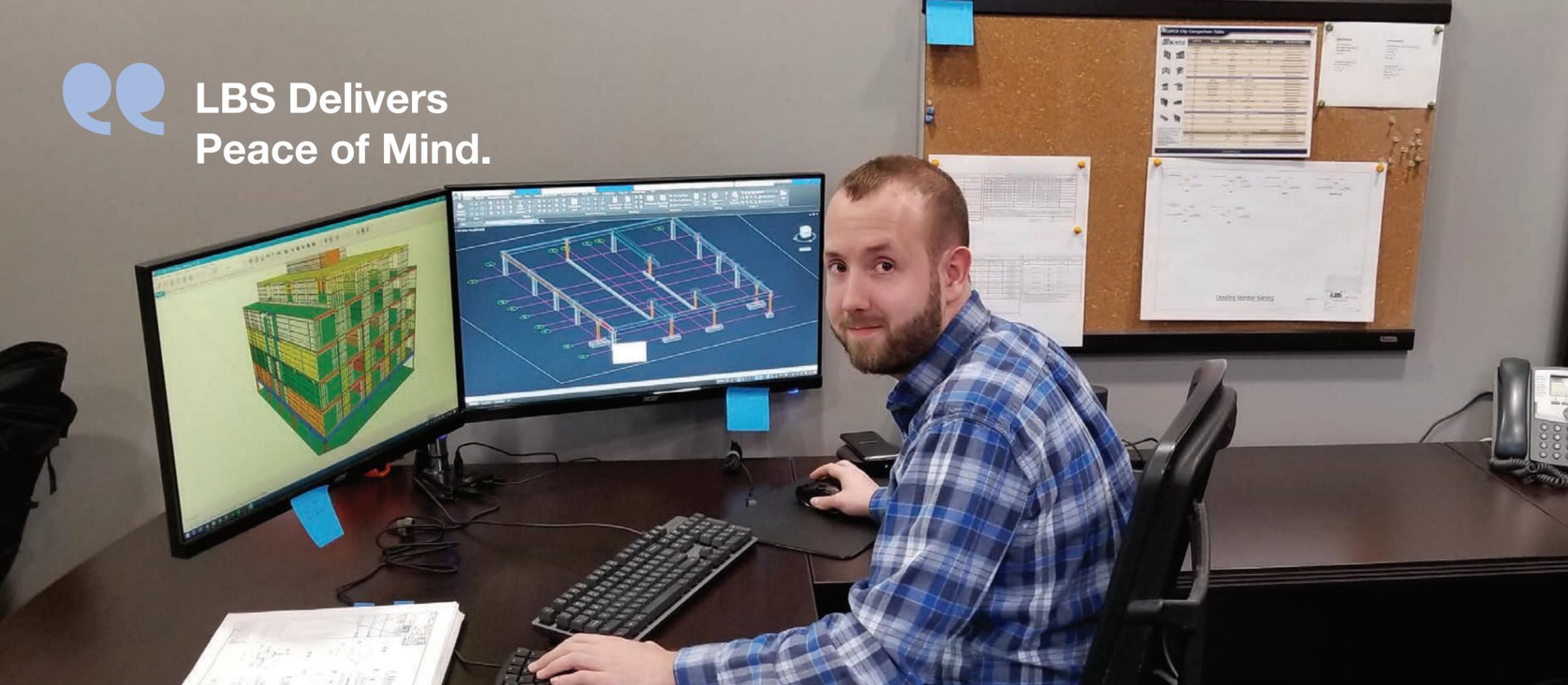
LIGHT-WEIGHT BUILDING SYSTEMS INC. IS THE NATURAL CHOICE FOR:

- Senior Living and Care Facilities
- Apartments
- Condominiums
- Student Housing
- Military Housing
- Hotels and Resorts
- Medical Facilities
- Office Buildings
- Housing Developments

 **Good Buildings come from Good People. All problems are solved by Good Design.**



**LBS Delivers
Peace of Mind.**



DETAILING — 3D MODELING

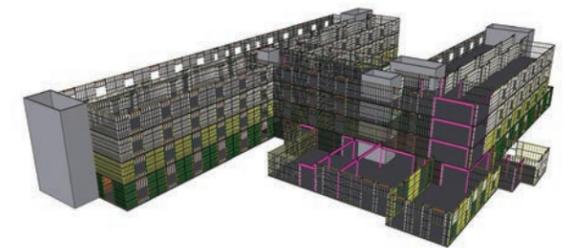
Light-weight Building Systems Inc. uses advanced software to provide accurate and constructible 3D models of our steel structures.

We can detail the entire superstructure to coordinate all design elements. With the use of this technology we can avoid detailing errors prior to fabrication and minimize any rework on site. This greatly mitigates any schedule delays.

Our in-house detailing team allows for a greater degree of control and freedom to accommodate what is best suited for the project at hand.

LIGHT-WEIGHT BUILDING SYSTEMS INC. PROVIDES THE FOLLOWING DETAILING PACKAGES:

- Foundation drawings coordinated with the superstructure
- Embed layout drawings
- Load bearing steel stud 3D design packages
- BIM services



WHAT DOES THIS MEAN TO ME?

For the Owner/Developer

Real time budget reviews on design helps to keep the project on track.

For the Architect

Architects can see 3D models that assist in project communication and early clash detection. We make it simple to coordinate the structure.

For the Engineer

Engineering design is easier with real time feedback from LBS and through reviews of 3D models.

For the Fabricator

Accurate and complete drawing packages benefit the Fabricator and save time and cost.

For the General Contractor

Integrated Project Delivery with 3D modeling speeds up and simplifies construction communication. Scheduling and costly site coordination issues can be avoided thus speeding up the project. Less time wasted on site saves cost.

For the Erector

3D modeling makes it much easier to understand complicated assemblies.



LONG SPAN OPEN FLOOR PLANS

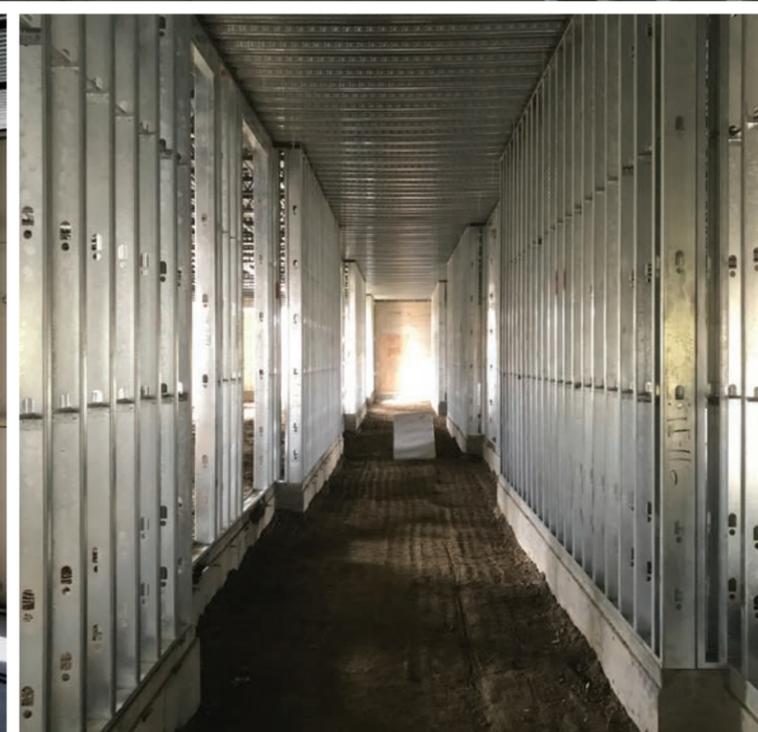
Light-weight Building Systems Inc. provides structures that are typically designed with large open floor plans.

- Clear spans up to 45 ft.
- Simple Integration with LBS Walls.
- Faster, safer and more cost effective than alternative systems.
- Up to 50% less dead weight than CIP Concrete — this lightens foundations and the support structure.
- Low-profile design are available to manage building height.
- Fire resistance rated up to 4 hours.
- No shoring requirements typically.

MARKETING ADVANTAGES

LBS Designs are of higher quality than other structure designs. Steel and concrete buildings provide benefits that owners are looking for in today's market.

- Higher resale values due to quality of materials.
- Modifications to an interior space is easily achieved using long span assemblies.
- Easier repurposing of the entire building. One unit can easily be redesigned into two using an open floor plan concept.
- Light weight steel stud framing is a highly sustainable building material that will add lifespan to your investment.
- Indoor air quality is improved, and steel is allergy free. Steel is no environment for mold.
- Non-combustible buildings are in demand.
- Insurance savings both during and after construction.
- LBS designs use up to 100% recyclable materials.
- Higher quality steel buildings sell faster than comparable wood buildings.
- Steel wall and floor systems provide high sound ratings. Minimum of STC 57 and IIC 30.





LBS PANEL PLANT

UNIQUE FABRICATION PROCESS

Our system allows us to produce panels on site in a controlled environment giving the LBS panels the quality of a large manufacturing facility without the overhead and shipping.

Our mobile panel plants can be supported by our brick and mortar facilities. All of this allows LBS to produce a lighter higher quality structure that cannot be matched at our price point.

SUPERIOR QUALITY

Structural steel stud framing is dimensionally stable and is not subject to moisture-related expansion and contraction, or predisposed to shrink, split, warp, crack or creep.

- Steel stud framing has the highest strength to weight ratio of any construction material.
- LBS designs are easier to maintain than conventional wood structures.
- Steel stud framing is a factory galvanized to prevent moisture related issues.
- Steel stud framing provides no environment for mold or insects.
- LBS designs are pre-engineered, and factory built to specifications.
- Properly designed and constructed steel structures provide long term durability and demonstrate excellent service life.
- LBS designs are earthquake resistant. Steel absorbs shock and provides benefits in an earthquake by dissipating its force.



 **Earn your success based on service to others, not at the expense of others.**

LOCAL DELIVERIES

COST SAVING ADVANTAGES

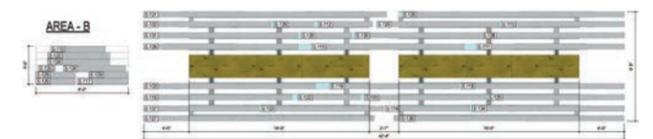
One Advantage to using Light-weight Building Systems Inc. is that we are a mobile company servicing projects across North America.

We mobilize a panel plant to the site or to an area close to the project. With this process we save cost on transporting of wall panels and we can deliver the panel stacked vertically. This allows far better control over shipping damages.

Quality, schedule and cost controls are key factors to our success.

Light-weight Building Systems Inc. uses its own fleet of trailers to maximize availability of equipment while minimizing rental costs.

Customized racks and equipment assist in the process. With this equipment we can ship our wall panels loaded vertically on a trailer to ensure the panels arrive on site safely.



 **Fast loading and unloading saves time and shipping cost.**



WALL PANELS

ABOUT OUR STEEL

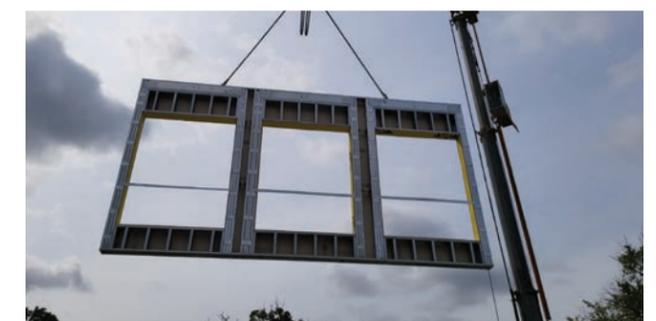
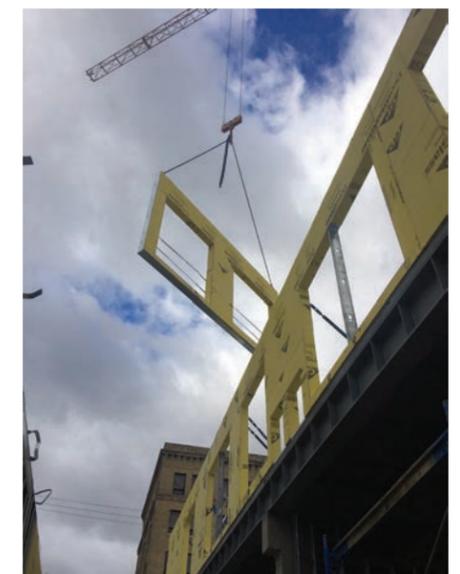
Light-weight Building Systems Inc. uses load bearing steel stud framing materials that are carefully designed to maximize structural capacity and efficiency. Our manufacturing process uses framing members that are supplied cut to length and that adhere to precise dimension requirements.

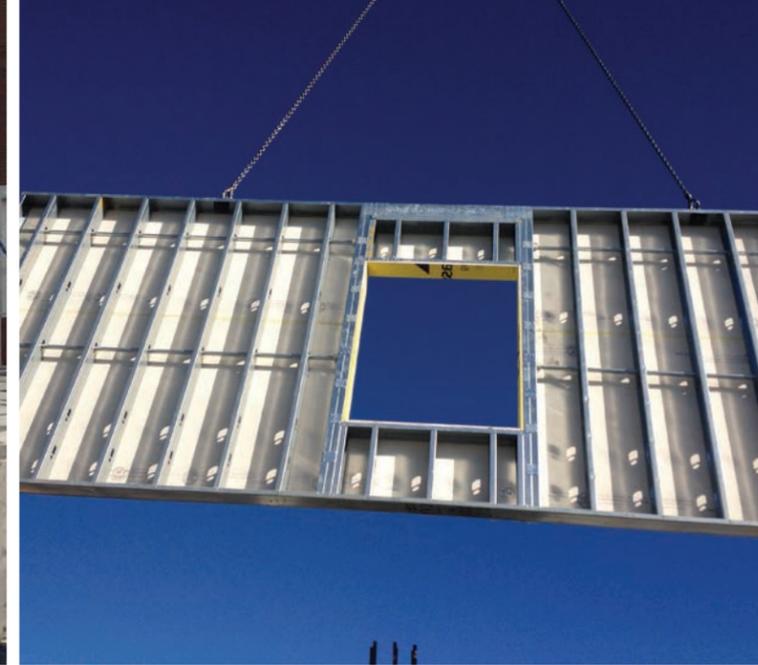
Steel stud framing has a longer life span than wood studs. Galvanized coatings protect steel framing used in residential and commercial buildings from corrosion.

Steel is a non-combustible material and consequently does not burn, provide an ignition source or add fuel that would enable a fire to spread or grow into a catastrophic event.

Steel is an inert material and does not absorb moisture, this benefits construction schedules and provides a quality end product through all adverse construction conditions.

Steel is the most recycled material in North America.





WALL PANELS

BENEFITS VS. WOOD FRAME CONSTRUCTION

- Environmentally friendly. All LBS materials are made from recycled steel (Green Construction).
- Published Fire & Sound Ratings that are more cost effective than wood.
- Builders Risk Insurance reduced for non-combustible construction.
- 100% termite, insect and vermin proof.
- Moisture resistant product with the use of galvanized and pre-primed materials.
- Faster speed of construction that is less unobstructed by adverse weather conditions including rain, cold or snow. Faster construction equals faster sales which reduces bank interest costs.
- Flexibility in design provides for easy interior renovations.
- Larger floor spans allow designers to create custom suite lay-outs.
- Manufacturing in a controlled environment under optimum conditions provides for a better product than site-built structures.
- Steel buildings have reduced requirements for costly, and unsightly time-consuming bulkheads.
- Non-combustible components enhance fire ratings.
- Pre-punched holes for electrical and plumbing services increased speed of installations for rough ins.
- Retains structural integrity and longevity. Steel buildings provide for a greater life term with your investment.
- Shrinkage and warping of structures are minimized so problems like settlement, cracking and nail pops do not occur. Less deficiency callbacks.
- Uniform, straight, flat and dimensionally accurate walls and floors add savings for installations of following trades.
- Higher speeds of sales have been realized through buyer awareness to increased product quality and the added comfort of living in a non-combustible building.
- Building owners realize long term benefits of reduced insurance rates due to non-combustible construction.



 **The road to success is always under construction.**



FLOOR SYSTEMS

BENEFITS VS. CAST IN PLACE CONCRETE CONSTRUCTION

LBS can construct using our assembly up to 12 stories. If you provide 3 floors of concrete and or structural steel we can then provide a 15 story structure.

Which building material should you choose: Cast-in-place concrete or the LBS System? Here's how the two systems compare.

1. STRENGTH-TO-WEIGHT RATIO

Cold-formed steel has the highest strength-to-weight ratio of any construction material.

Foundation savings

Due to its high strength and light weight, less weight of LBS materials are required to carry the same structural load as concrete. Here's how it works:

- The LBS System reduces a building superstructure's weight. In fact, the weight of an LBS framing system can be up to 50 percent less than a comparable concrete framing system.
- The LBS framing system's lighter weight (i.e., dead load) calls for smaller foundations with less concrete to support the structure. That means the foundation for an LBS structure can cost considerably less than a comparable concrete structure.

2. DESIGN BENEFITS WITHOUT COMPROMISING SOUND AND FIRE

Lightweight flooring systems provide high STC and IIC sound ratings along with independently tested fire assembly ratings of 1 to 4hrs.

- A lighter flooring system with longer spans allows for options in design that concrete floor structures cannot.
- A plenum space is provided typically to allow rough in trades the room they require for mechanical, plumbing and electrical requirements.
- No bulkheads required typically.

 **Due to its high strength and light weight, less weight of LBS materials are required to carry the same structural load as concrete.**

3. SCHEDULE

With LBS — schedule benefits are a major plus when comparing to cast in place concrete structures.

- There is a reduced labor force required to assemble the LBS structural framing system. This benefits everyone especially in locations where formwork labour contractors are scarce, out of town and or in high demand.
- Our installation minimizes costly weather delays as we are pre-fabricated for the most part in environmentally controlled fabrication plants.
- There is an extremely reduced cost for hoarding and heating as our exterior walls come with hoarding attached (sheathing) and the only time heating is required is during the suspended slab pours (if needed at all). No hoarding typically saves time and cost.
- With concrete — shoring is a requirement. Shoring is a very large cost. Availability is always a concern and it impacts the structure schedule as a timeline for erection. The interior and exterior trades also need to wait until the shoring is removed. This can have a negative affect on your schedule and add months to the overall completion. With LBS — a few days (1 to 4) and the floor area is 100% turned over to the following trades.
- Exterior walls are complete and ready for windows and exterior trades immediately after the floor is completed.

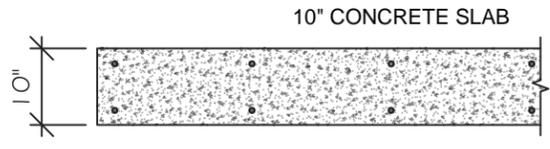
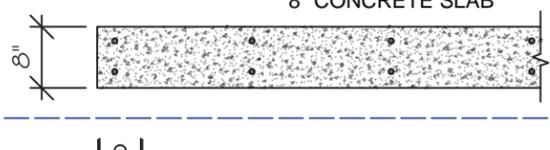
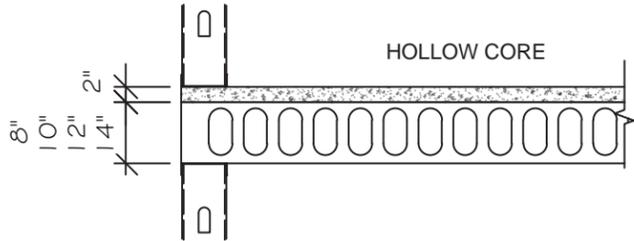
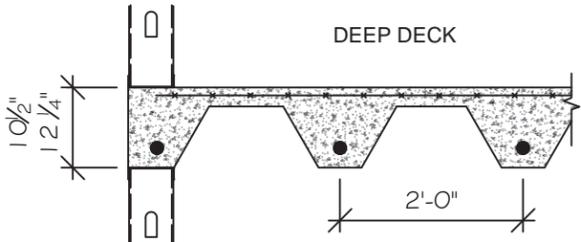
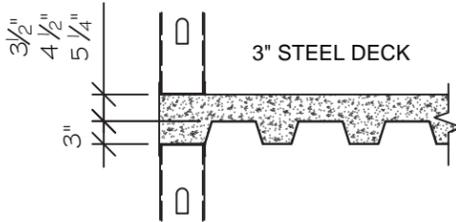
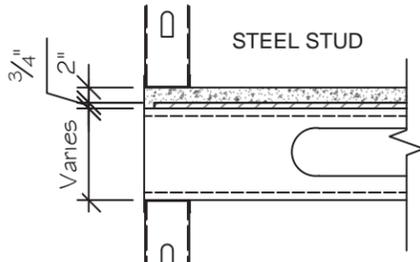
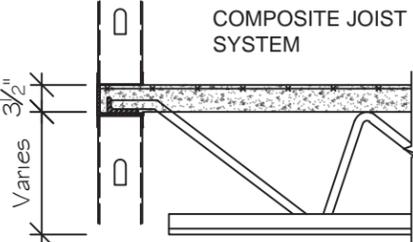
4. COST OF CONSTRUCTION

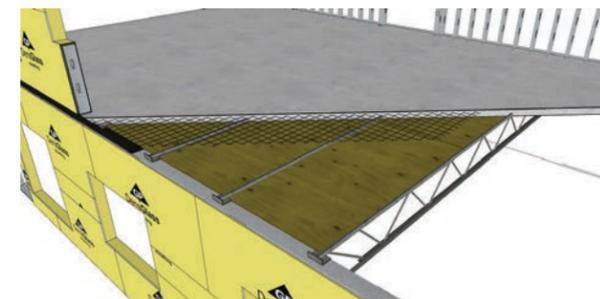
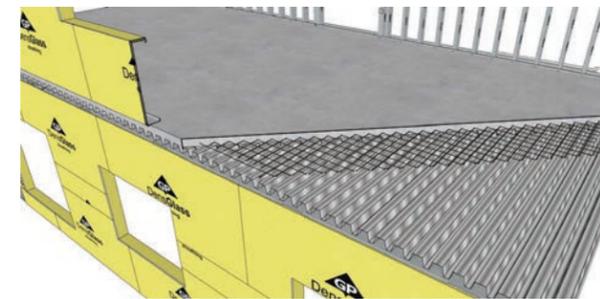
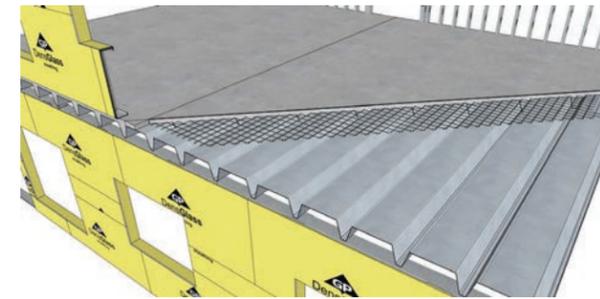
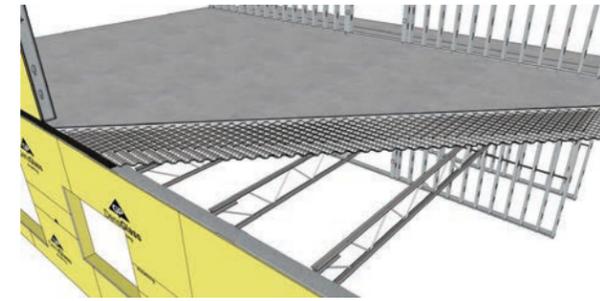
Ultimately, the benefits of the LBS System can lead to a lower overall cost of construction. Time-related savings alone can amount to between 5 and 10 percent of the overall project value.

Additional cost advantages

By allowing shorter construction time frames versus cast-in-place concrete, LBS projects tend to have:

- Lower project interim financing costs.
- Lower crane rental costs.
- Less scaffolding rental durations.
- Less management cost.
- Our assembly reduces construction waste.
- No drop ceilings or bulkheads required.
- Higher STC and IIC ratings reduces the requirements for additional sound attenuation work.

FLOOR SYSTEM	WEIGHT	NOTES	FIRE PROTECTION
 <p>10" CONCRETE SLAB</p>	125 lb P.S.F.	VARIES	1.5-3hr
 <p>8" CONCRETE SLAB</p>	100 lb P.S.F.	VARIES	1-3hr
 <p>HOLLOW CORE</p>	8" 86 lb P.S.F. 10" 96 lb P.S.F. 12" 105 lb P.S.F. 14" 114 lb P.S.F.	UP TO 33' SPAN UP TO 43' SPAN UP TO 50' SPAN UP TO 53' SPAN	1-3hr
 <p>DEEP DECK</p>	10 1/2" 62 lb P.S.F. 12 1/4" 80 lb P.S.F.	UP TO 26' SPAN UP TO 30' SPAN	1-3hr (10") PROTECTED 2hr (12 1/4") UNPROTECTED
 <p>3" STEEL DECK</p>	6 1/2" 66 lb P.S.F. 7 1/2" 78 lb P.S.F. 8 3/4" 90 lb P.S.F.	UP TO 15' SPAN	6 1/2" - 1hr 7 1/2" - 2hr 8 3/4" - 3hr
 <p>STEEL STUD</p>	VARIES	LIMITED SPAN STUD JOIST DEPTH DEPENDENT ON SPAN	VARIES BY DESIGN
 <p>COMPOSITE JOIST SYSTEM</p>	43 lb P.S.F.	UP TO 45' SPAN JOIST DEPTH DEPENDENT ON SPAN	1-3hr



FLOOR SYSTEMS

Light-weight Building Systems Inc. offers competitive pricing on several non-combustible floor assemblies allowing a selection that will be tailored to fit the needs of each project. Each floor system has individual benefits that LBS can advise on through our experience with each assembly and application.

LIGHT WEIGHT ADVANTAGES

When brought in early, LBS Structural can maximize the advantages of steel stud framing to the overall building design. Longer spans using less concrete and reinforcing steel provides a lighter structure.

CONSTRUCTION ADVANTAGES

LBS designs are coordinated well before installations are required on site. There are many construction advantages to using the LBS system.

- A typical mid-rise can be completed 3-4 months quicker than a wood structure.
- Exterior walls are panelized complete with exterior sheathing.
- LBS installations can progress during most adverse conditions.
- Scrap is drastically reduced, which lowers disposal costs.
- Panelized framing reduces the need for scaffolding at an early stage.
- A shorter construction cycle means equipment can move off the job site faster.
- Light weight steel framing is constructed in a factory-controlled condition — site safety is optimized, and a higher quality product is provided.
- Light weight steel stud framing does not absorb moisture so there is no waiting for framing materials to dry.

DESIGN ADVANTAGES

Versatility of design. The strength of steel studs makes it an ideal material for all building types — from hotels to care homes, as well as multi-story condos and apartment buildings. Light weight steel stud framing is the right choice.

- Light weight steel stud framing is suited to all types of building designs.
- LBS designs can provide larger span lengths due to less weight of structure.
- Light steel stud framing can produce some architectural designs not possible with traditional methods.
- Light steel stud framing can be erected up to 12 stories in height.
- LBS designs provide high sound (STC) ratings with tested assemblies.
- LBS designs provide fire rated assemblies from 1-4 hours.



STRUCTURAL STEEL

Light-weight Building Systems Inc. incorporates structural steel into the systems design.

WE USE STRUCTURAL STEEL FOR:

- Transfer slabs
- Large open spans
- Architectural details
- High vertical load requirements
- Balcony construction

We are experienced steel erectors and with LBS you only need to rely on one installer for the entire structure.

Incorporating structural steel into overall LBS design saves time and money.

COST OF STEEL

Steel is purchased by weight. The heavier the structure the more costly the building.

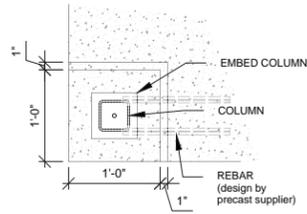
With LBS we minimize the weight of a building through experience using designs that reduce structural steel and optimize the use of light gauge steel framing.

We use structural steel where absolutely required by design and incorporate this into our overall 3D model.

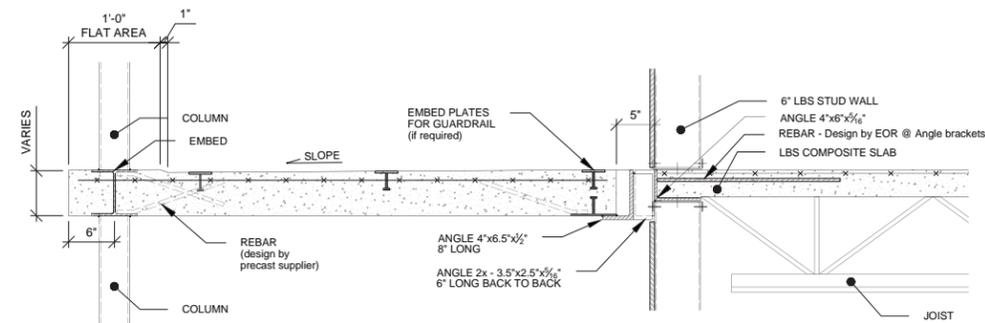
Light-weight Building Systems Inc. is CWB certified and so we fabricate, supply and erect the entire structure — no need for multiple subtrades.



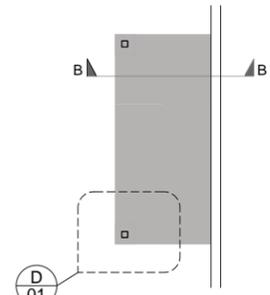
#4 PRECAST CONCRETE BALCONY



DETAIL - D01



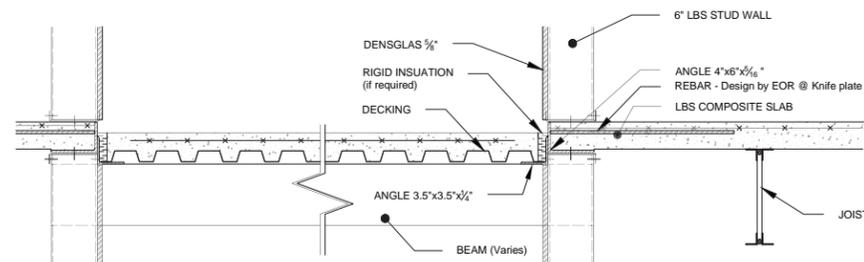
BALCONY - CUT SECTION B-B



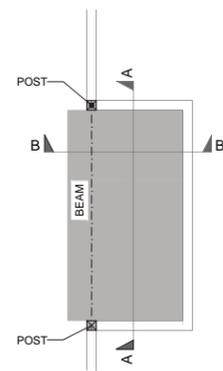
PLAN VIEW - BALCONY

LBS	
111 20th Street S.E., High River, Alberta LBS (Canada) Inc. Tel: 403-775-9001 Fax: 403-668-1142	
PROJECT:	
REFERENCE:	
TITLE:	Balcony - Precast concrete balcony
DATE:	
REV:	
PROJECT NO.:	#4

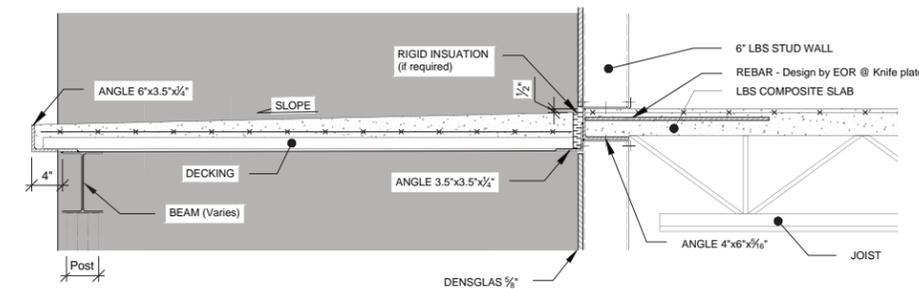
#1 BALCONY - IN LINE BEAM (Typical LBS Balcony)



BALCONY - CUT SECTION A-A

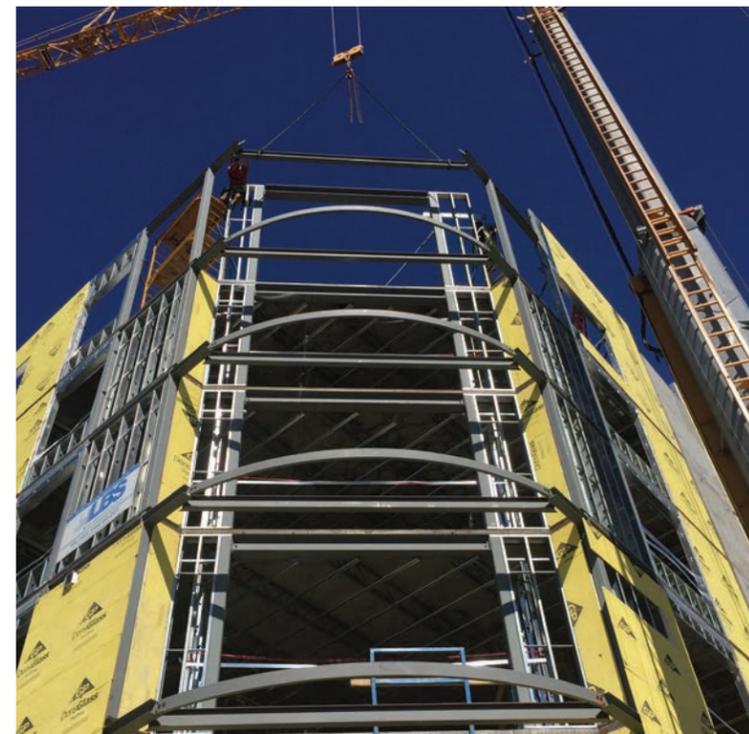


PLAN VIEW - BALCONY



BALCONY - CUT SECTION B-B

LBS	
111 20th Street S.E., High River, Alberta LBS (Canada) Inc. Tel: 403-775-9001 Fax: 403-668-1142	
PROJECT:	
REFERENCE:	
TITLE:	Balcony - In line beam
DATE:	
REV:	
PROJECT NO.:	#1

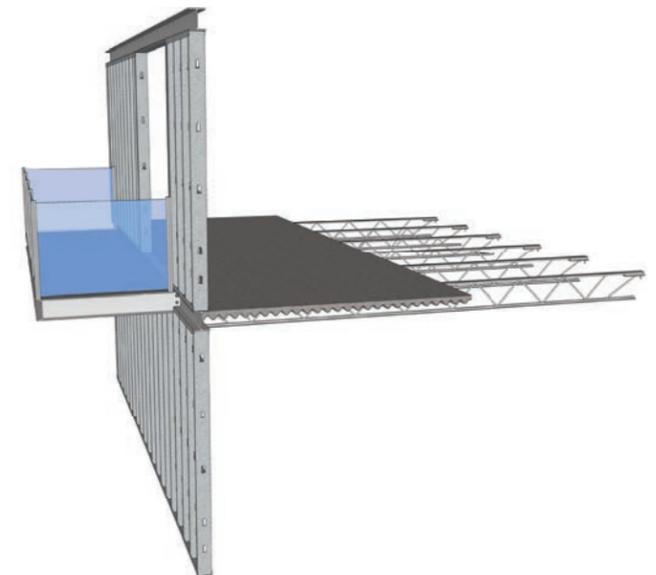


BALCONY SYSTEMS

Whether you are looking for a column supported balcony, cantilever balcony or a simple Juliette balcony – LBS has a solution and a budget price for you.

Our balcony design options accommodate slope, thermal transfer and membrane detailing with a focus on cost while meeting the overall Architectural design.

Let us review your project design and offer solutions that meet your needs.



Light-weight Building Systems Inc. provides alternatives to balcony designs for all projects.



LBS EQUIPMENT

LBS Equipment Supplies Inc. provides equipment for all of our projects. As a client this means you only have to deal with one company for equipment.

HERE IS A LIST OF OUR AVAILABLE EQUIPMENT:

- forklifts
- manlifts
- self erect cranes
- generators
- safety railings
- wall braces
- fabrication equipment
- unique LBS Mobile Panel Plants





DRYWALL PACKAGES

Light-weight Building Systems Inc. provides pricing on all drywall packages.

We provide drywall package pricing in order to give our clients the opportunity to have one trade to work with on all framing and drywall. Our experience with load bearing steel stud design allows us to mitigate any grey area conflicts between the drywall package and the structure package.

Light-weight Building Systems Inc. principles have over 50 years experience dealing with drywall packages. We provide detailed management services throughout the drywall stage from scheduling and coordination with other trades, to pre-board inspections and quality control reviews.

SCOPE OF WORK

- Interior Steel Framing
- Exterior Steel Framing
- Suspended Drywall Ceilings
- Soffit Framing
- Bulkheads
- PSF Frames
- Batt Insulation
- Drywall
- Taping
- Bead
- Spray Texture
- T-Bar
- Acoustic Tile
- Backing
- Parapets





DRYWALL PACKAGES

THROUGH THE DRYWALL PHASE LBS PROVIDES THE FOLLOWING:

- Installation schedules coordinated with Construction Manager, General Contractor and trades.
- Delivery schedules updated weekly.
- Material layout and storage drawings.
- Pre-board inspection check lists.

Pre-Board Checklist - Level 2

	Project Name	Project		
	Project Address	0		
	Project Number	0		
	Inspection Date			
	Inspection Completed By			
	Copies To			
% Work Reviewed For Completion	Unit #	Drywall Start Date	SF of Unit	
	1207		700	

<input type="checkbox"/> 0% Load Bearing Framing - Field Reviews	
<input type="checkbox"/> 0% Exterior Drywall - installation	
<input type="checkbox"/> 0% Interior Layout	
<input type="checkbox"/> 0% Party Wall Framing	
<input type="checkbox"/> 0% Drywall Fireproofing	
<input type="checkbox"/> 0% Finishing	
<input type="checkbox"/> 0% Coating of Slab	
<input type="checkbox"/> 0% Spray Insulation	
<input type="checkbox"/> 0% Ceiling Framing/Remaining Fireproofing	
<input type="checkbox"/> 0% Interior Wall Framing	
<input type="checkbox"/> 0% Exterior Windows	
<input type="checkbox"/> 0% Caulking @ Windows	
<input type="checkbox"/> 0% Firecaulking - drywall @ top of wall	
<input type="checkbox"/> 0% Plumbing - rough in	
<input type="checkbox"/> 0% Gas Lines - rough in	
<input type="checkbox"/> 0% Electrical - rough in	
<input type="checkbox"/> 0% Ducting - rough in	
<input type="checkbox"/> 0% Sprinkler - rough in	
<input type="checkbox"/> 0% Firecaulking - penetrations through wall	
<input type="checkbox"/> 0% Dust Shafting (as required)	
<input type="checkbox"/> 0% Tub delivery	
<input type="checkbox"/> 0% Pressed Steel Frame - delivery/installation	
<input type="checkbox"/> 0% Wood/Metal Backing	
<input type="checkbox"/> 0% Pocket Door Frames - delivery/installation	
<input type="checkbox"/> 0% Tub & or Showerstall - installation	
<input type="checkbox"/> 0% Data Cable	
<input type="checkbox"/> 0% Acoustic Caulking	
<input type="checkbox"/> 0% Marking of all Penetrations	
<input type="checkbox"/> 0% Marking of Access Panels	
<input type="checkbox"/> 0% Ball Insulation	
<input type="checkbox"/> 0% Structure Reviewed & signed off	
<input type="checkbox"/> 0% Building Inspector Reviewed	

Item #	Item Description	Company Work Required By	Date to be Completed	OK
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

1 of 80

 **Start Each Project with the End in Mind.**

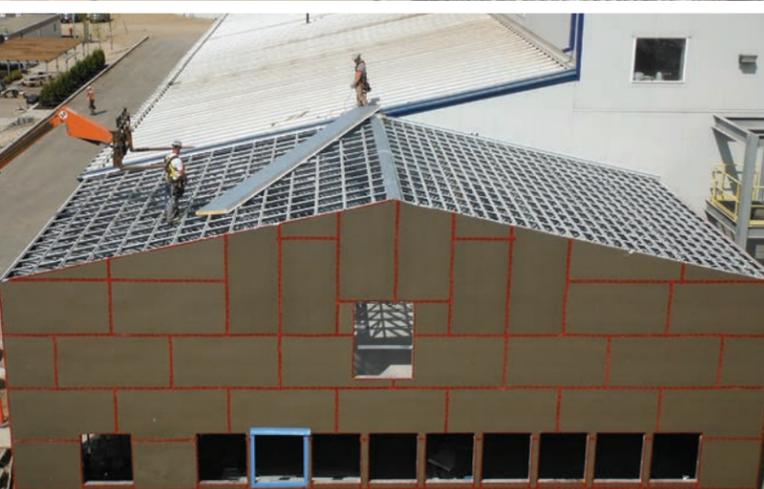


OTHER SCOPE ITEMS

LIGHT-WEIGHT BUILDING SYSTEMS INC. PROVIDES ALTERNATIVE BUDGET PRICING ON THE FOLLOWING:

- Concrete foundations
- Concrete and or concrete block
- Steel stud core wall alternatives
- Rebar
- Pour & place suspended slabs
- Parapets and Mansard roof framing
- Roof anchors and support steel
- Window and balcony door installations
- Brick ledger angles
- Backing — wood or steel
- PSF frame installations
- Drywall packages







BENEFITS OF STEEL



RECYCLABLE

All steel building products including steel framing are 100% recyclable. One of the key sustainable attributes of steel is its ability to be recycled without any loss or degradation of its inherent material properties, allowing it to exist for an infinite number of product life cycles. As part of a holistic approach, use of steel components can contribute to obtaining over 50 LEED points for building owners seeking certification under LEED Canada NC 2009. As a recycled product, steel provides marketing advantages over other building materials.



NON-COMBUSTIBLE

Steel can't burn, because it contains no elements that can serve as fuel. Steel provides no means for a fire to start, it does not contribute to fire growth or fire spread, and it does not contribute to the generation of smoke and toxic combustion products in fires. Building codes recognize steel framing as a non-combustible construction material. Steel remains non-combustible throughout the entire life cycle of the building — during building construction, occupation and future renovation and repair.



WATER RESISTANT

Steel stud load bearing walls are galvanized with a layer of zinc. The steel is protected from corrosion and does not absorb moisture. With steel stud framing, adverse weather conditions do not impede site progress and moisture is not trapped within the framing members. Steel framing does not dry out and shrink over time, thus the costly call backs to repair warped walls, nail-pops and squeaking floors are eliminated.



MOLD & INSECT RESISTANT

Steel is an inert material that doesn't release harmful chemicals and resists the growth of mold, mildew and other bacteria. Indoor air quality is regarded as one of the top environmental risks today, affecting the well being, productivity and performance of many people. Steel stud framing reduces these issues. Steel stud framing does not provide a home for insects and rodents.





BENEFITS OF STEEL

INSURANCE SAVINGS WITH COLD-FORMED STEEL

Non-combustible structures, like those built with cold-formed steel, have greater loss histories and are often viewed by insurance underwriters as lower risk. This can translate to lower costs and wide range coverage than combustible wood framing.

Insurance premiums are one of the many factors that can determine a project's definitive cost, representing 5% of costs during construction and up to 10% of the cost for long-term operation of the structure.

These costs are beginning to escalate as a growing construction industry creates demand for insurance coverage which, in turn, is tightening underwriting capacity. This is encouraging developers and owners to take a closer look at different options, with many starting to consider insurance beyond simple *protection against loss* to an actual tool for maximizing return on investment.

Smart Insurance companies recognize steel framing as non-combustible and therefore superior construction material.

BUILDERS RISK INSURANCE

This insurance covers the structure during the course of construction. Coverage can be written for the direct causes of loss. As well as indirect results such as business income lost and soft cost lost usually generated from interest on income expense delay. Construction material plays a significant role in the costs of builders risk premium. Loss history for wood construction has been poor and carriers are very restrictive of the amount of the risk they will take.

PROPERTY OWNERS INSURANCE

After the structure is completed, construction material will impact the owner for future property renewals. Like builders risk insurance, property coverage can include business income caused by a covered event and becomes an annually recurring expense. Similar to builders risk insurance plans, capacity will become an issue. This can represent a huge advantage for owners of a steel-framed structure because the savings recur every year when the policy is renewed at the non-combustible rate.

GENERAL LIABILITY AND OTHER INSURANCE PRODUCTS

For some types of coverage, construction materials may not be specifically considered when pricing policies. Savvy insurance brokers work with insurance carriers to develop and gain access to insurance products with premium savings and possibly broader policy terms for projects with cold-formed steel framing.

Example savings of negotiated insurance incentives:

- 16 to 60 percent savings of Workers Compensation premiums.
- 5 to 15 percent savings on Surety/Bonds.
- Up to 50 percent premium savings on General Liability Insurance.



 **Non-combustible Steel Equals Lower Cost Insurance.**



 CERTIFICATION • MEMBERSHIP
EDUCATION • PUBLIC SAFETY



CWB CERTIFIED



Light-weight Building Systems Inc. is a certified member of the Canadian Welding Bureau to CSA Standard W47.1 – Certification of Companies of Fusion Welding of Steel.

The Canadian Welding Bureau is a certification and registration organization for companies involved in the welding of steel structures. Welders in Canada are required to be retested every two years by the Canadian Welding Bureau.

CWB has been ensuring the safety of welded structures in Canada through their certification services. As a CWB certified company we are part of this process and have shown that we understand and support the use of Canadian standards for the protection of Canadian citizens.

Our welders are certified to perform welding of all positions required by the project.

LBS has maintained and continues to meet the requirements of the certification since 2009.

LETTER OF VALIDATION

The CWB acknowledges that

Light-Weight Building Systems Inc.

911 20th Street SE, High River, AB, T1V 2A6, Canada

is certified to **CSA Standard W47.1**

"Certification of Companies for Fusion Welding of Steel"

In the **DIVISION 2**

Company Code: LIGWE1

Scope: Fabrication and installation of structural steel items.

For the latest CWB certification Documents & Forms and Certification Terms & Conditions, please visit: www.cwbgroup.org

Registrar

8260 Parkhill Drive, Milton, Ontario L9T 0V7
 1-800-844-6790 | Tel: 905-542-1312 | Fax: 905-542-1318
 Email: info@cwbgroup.org | Web: www.cwbgroup.org



LBS FEATURE PICTURES

Light-weight Building Systems Inc. has completed many projects since taking up operations in 2009. Our project list is varied with total area footage of between 20,000 sq. ft. and 200,000 sq. ft.

We have constructed the following types of structures from 3 to 9 stories in height.

- Care Facilities (Assisted Living)
- Hotels
- Mixed Use Condominiums
- Rental Apartment Buildings
- Office Buildings
- Non-profit Housing

Please see the following sample photos.

















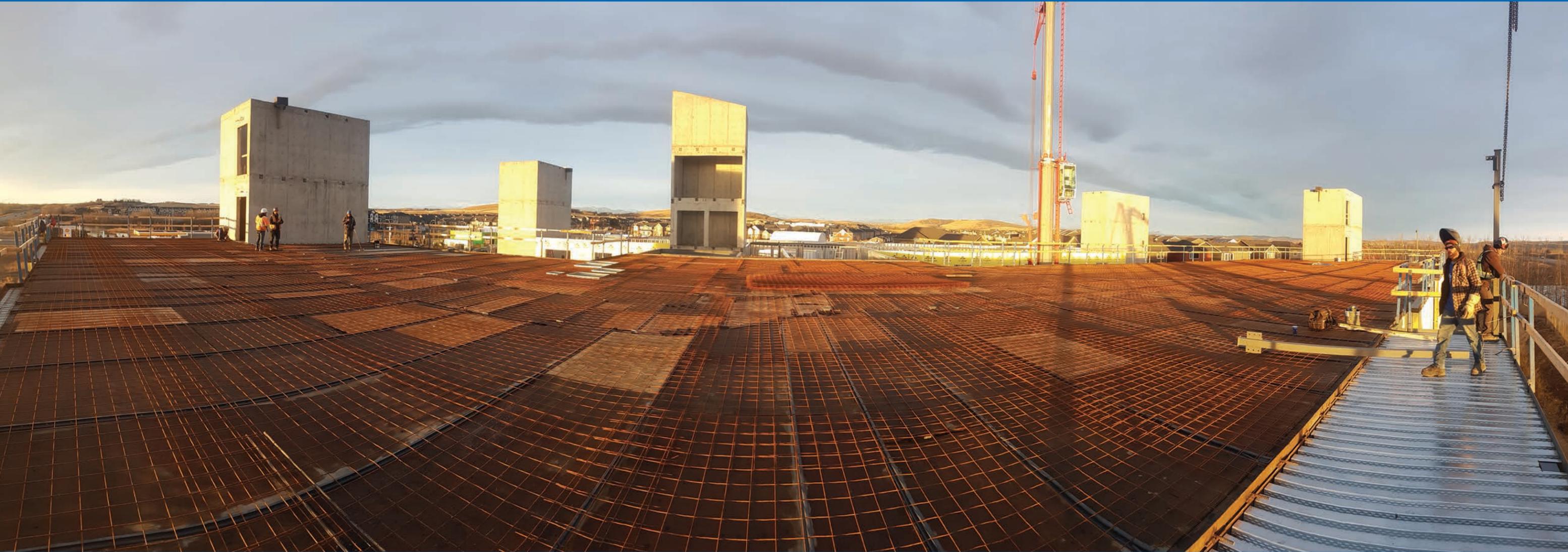








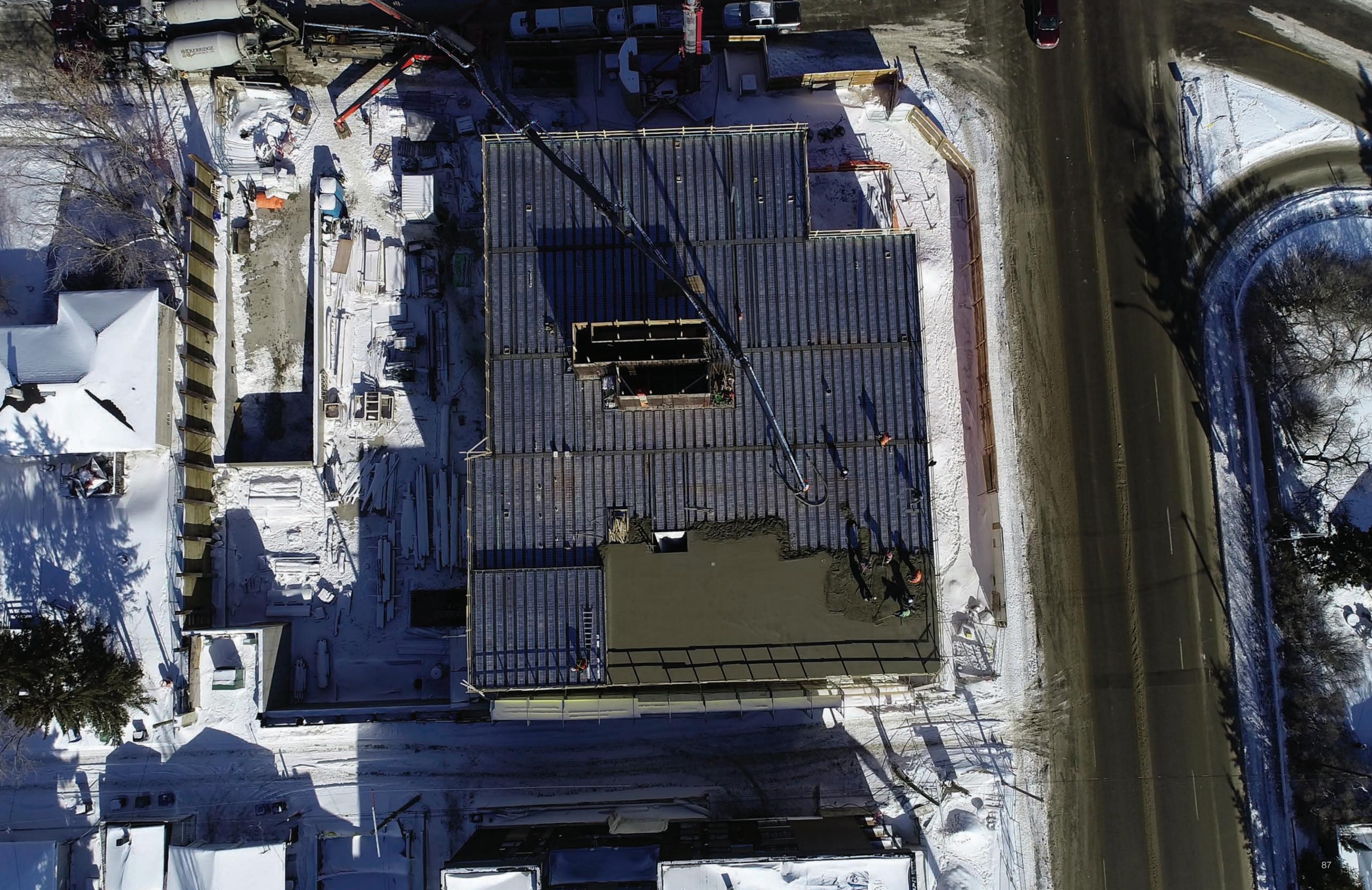














LBS
LBS Equipment Supplies Inc.











LBS CASE STUDIES

The following are case studies from six projects we completed. These projects involve a variety of different challenges that Light-weight Building Systems Inc. had to overcome in order to provide the Owner, Construction Manager and or General Contractor with the structure they envisioned in the time frame they required it.

Through our efforts in multiple steel stud load bearing projects we are able to bring our experience forward with new and existing clients and their exciting new ventures.





CASE STUDY

Marie Rose Place Winnipeg, Manitoba

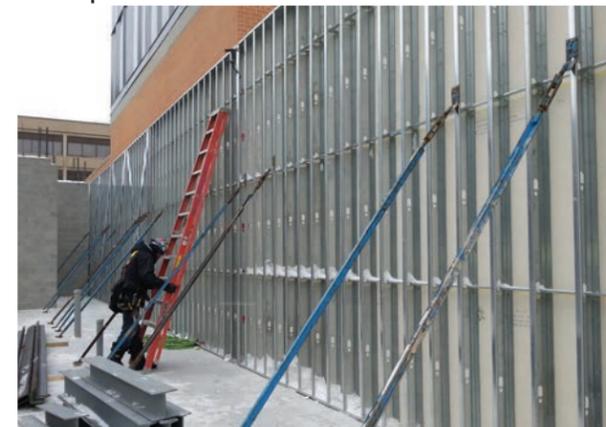
PROJECT INFORMATION

Marie Rose Place is located on 207 Edmonton Street in downtown Winnipeg, MB. It provides a safe, affordable, supportive environment for single newcomer women and their children in which their cultures are honored and by which they have a stable home foundation to pursue their other goals. Marie Rose Place is a 40-suite apartment block owned by Hargrave Holdings and was completed in the fall of 2014. The building includes 36 two-bedroom suites and 4 one-bedroom suites.

THE CHALLENGE

The challenges presented with this project were;

1. The proximity to the adjacent two buildings was inches away. Fire rating of our finished wall assembly was required.
2. The schedule was accelerated to ensure that by the fall of 2014, the community of women and children had a safe place to go. Light-weight Building Systems Inc. was required to install the structure through extremely cold winter months.
3. The exterior load bearing wall panels were required to be fabricated complete with exterior densglass and EIFS pre-installed.
4. Exterior load bearing walls were required to incorporate lateral loads and wall panel bracing designs had to be developed and implemented.

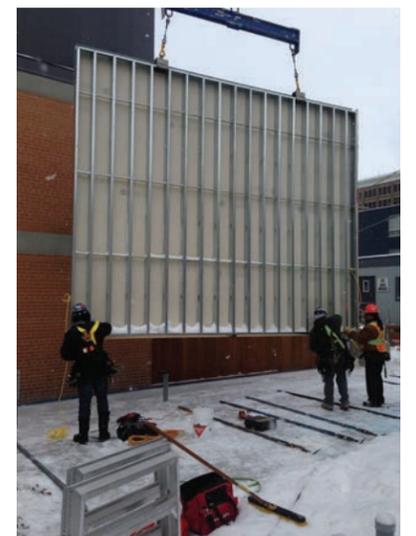


HOW LIGHT-WEIGHT BUILDING SYSTEMS INC. MET THE CHALLENGES

Light-weight Building Systems Inc. was contacted to assist in design, engineering, fabrication and installation of the structure. The adjoining two properties were right against the structure being proposed. In order to provide an insulated exterior wall we designed our exterior panels complete with pre-installed densglass, trowel on membrane and a fire rated EIFS System.



The winter months in Winnipeg in 2013 were extreme. LBS worked with PCL to manage the temperature through hoarding and heating. All structural components were pre-fabricated and the amount of hoarding required was minimized. Only severe temperatures slowed our progress.





CASE STUDY

Mah's Point Whitehorse, Yukon

PROJECT INFORMATION

Mah's Point is a six story design-build, mixed use, 52 Unit, steel stud load bearing condominium.

The \$18-million apartment complex, located on 2nd and Jarvis has a total of 52 units selling from \$287,900 to \$385,900.

The building features many firsts in the Whitehorse condo market. The concrete-and-steel stud non-combustible frame work provides greater permanence, safety and sound proofing in comparison to traditional wood framed buildings. It is the first and only six-story structure within the city of Whitehorse. The building erects to a staggering 20-meter height.

The construction also provides a new standard of downtown riverfront living and offers its residents underground heated parking and storage, triple-glazed low-e windows, laminate flooring, baseboard heating, kayak and canoe storage, in addition to porcelain and glass tiles.

THE CHALLENGE

1. Schedule was extremely critical for this project as the summers in the Yukon are very short and the winters are not a good environment for construction.
2. Coordination with the other trades had to be carefully orchestrated in order to achieve the client's goal of a quick turnover.
3. There was no room on site for material storage - The LBS wall panel plant was shipped to Whitehorse and assembled just off site.
4. Due to the project being located in Whitehorse, Yukon – the load bearing steel stud structure was required to be designed for a high seismic zone.

HOW LIGHT-WEIGHT BUILDING SYSTEMS INC. MET THE CHALLENGES

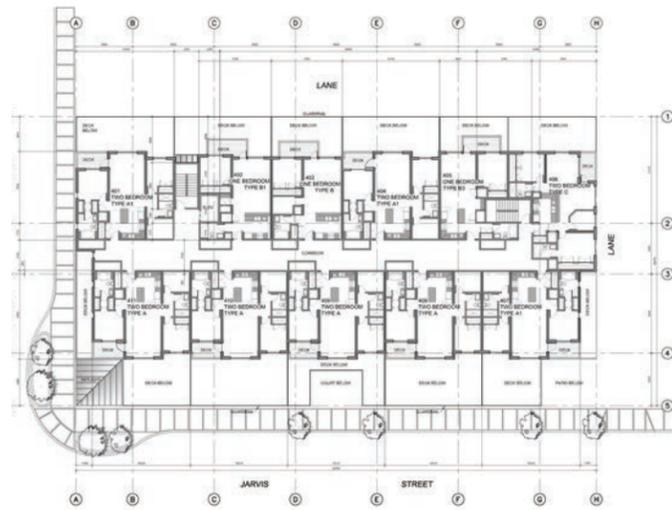
Whitehorse, Yukon's average yearly temperature is -1 degree Celsius. This means you need to plan your construction schedule a little tighter than other Canadian cities. With LBS we provided a benefit to the project by having all of the trade coordination completed ahead of construction and with our panels pre-fabricated – the erection of the LBS structure was only 12 weeks overall.



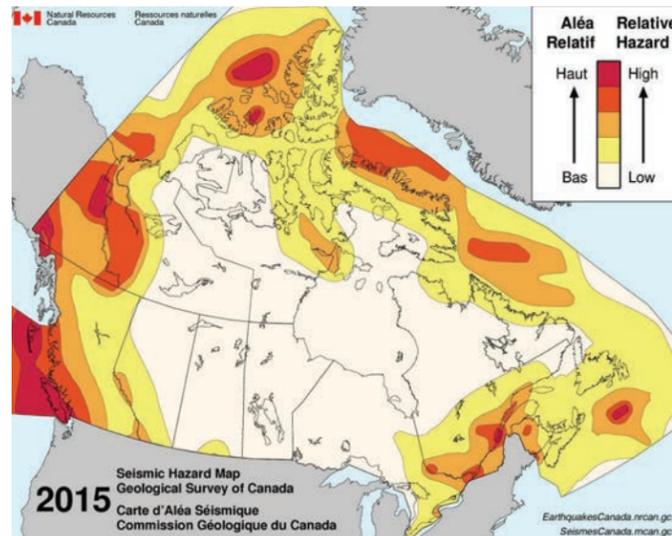
In order to complete the building within the 10 month overall schedule required by the owner, the local General Contractor had to closely schedule all interior and exterior trades. The exterior and interior finishes chased the structure up as it was erected. 3 days after the pour on each floor the interior trades started to install interior framing and rough in items.



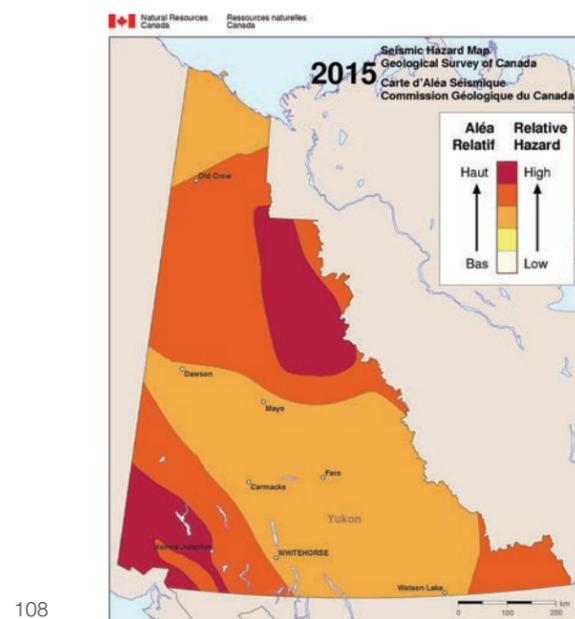
HOW LIGHT-WEIGHT BUILDING SYSTEMS INC. MET THE CHALLENGES



By using the LBS light steel framing system we were able to ship the entire wall panel fabrication plant to Whitehorse and build the wall sections off site. Once the wall sections were built they were then loaded onto a truck to be shipped to site therefore speeding up the building process.



The 6 story structure was the first of its kind in Whitehorse, Yukon. No other structure in Whitehorse is as high as Mah's Point (20 meters). The load bearing steel stud design was a natural fit for the high seismic zone. Steel has the highest strength to weight ratio of any other construction material and is a great system to use in high seismic zones.

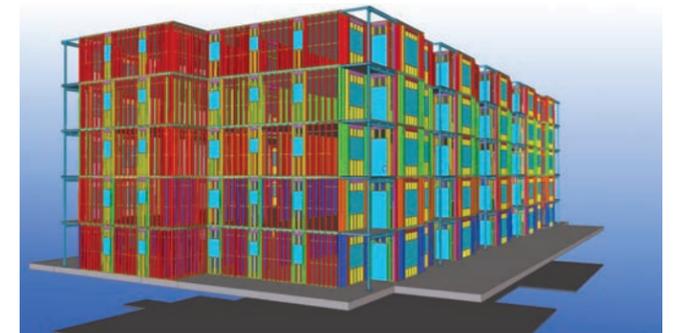


RESULTS, RETURN ON INVESTMENT AND FUTURE PLANS

Through careful planning and coordination LBS was able to complete their portion of the 6 story structure, including the roof, in 12 short weeks. The General Contractor was able to schedule the following trades behind LBS very closely and achieved occupancy 10 months after they started digging out the 2 level parkade.



With this project LBS was able to provide a pre-fabricated steel stud load bearing building in a distant location at a comparable price to buildings provided locally. With our experience we will be able to competitively price similar projects in the future.



Our efforts to condense schedule and work with other trades to expedite their scope following the structure is something we are bringing forward to our future clients.





CASE STUDY

Points West Living Wetaskiwin, Alberta

PROJECT INFORMATION

The building has close to 80,000 sqft of floor area and is comprised of non combustible steel stud framed walls and composite concrete floors, offering superior fire rating and strength. PWL Wetaskiwin is dedicated to the Eden Alternative model of care, which promotes maximum independence, choice and dignity for each resident and encourages the involvement of family, neighbours and friends. Residents bring their belongings including some furnishing, and may keep their small pets in their suites.

THE CHALLENGE

1. LBS Structural Inc. was required to coordinate the complete engineering design of the structure.
2. As the building was being completed structurally LBS was also completing the interior framing and drywall.
3. Local off-site wall panel manufacturing was required.
4. An architectural structural steel front entrance canopy is a main feature of the building.



HOW LIGHT-WEIGHT BUILDING SYSTEMS INC. MET THE CHALLENGES

LBS Structural Inc. coordinated the engineering of the foundation, concrete block cores, structural slab on grade, LBS walls and suspended composite concrete floors. LBS was chosen to not only build the super structure of this building but was chosen to complete the interior framing and drywall package as well. This offered its own set of challenges and coordination with the other trades. The medical enhancements and features of this building were carefully designed and coordinated. One example would be the many patient lift devices that were designed into the floor system and seamlessly incorporated into the suite finishes.

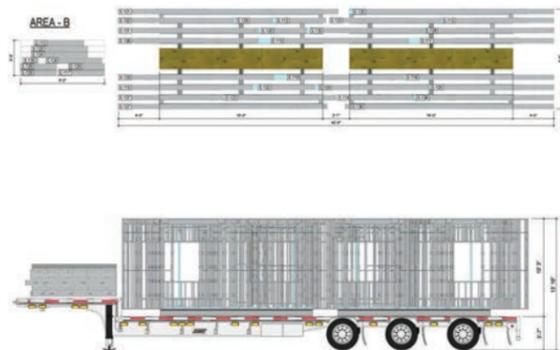


HOW LIGHT-WEIGHT BUILDING SYSTEMS INC. MET THE CHALLENGES

Due to the site conditions of the project, LBS was not able to set up a wall panel manufacturing plant on site. LBS came up with a solution and rented a near by vacant lot in order to manufacture the structural components and LBS wall panels for the project. Once fabricated we then shipped the steel load bearing wall sections locally to the site ready to be installed. Extra coordination and care was taken when sequencing the fabrication of the load bearing walls and deliveries to meet the overall site schedule.



LBS was presented the challenge of designing, fabricating and installing the detailed front entrance canopy out of structural steel. Through planning and using our 3D model design, LBS was able to fabricate the structural steel components with great accuracy and all the pieces fit seamlessly together, especially when the canopy structure was connecting to the block walls and the LBS wall system at the same time.



RESULTS, RETURN ON INVESTMENT AND FUTURE PLANS

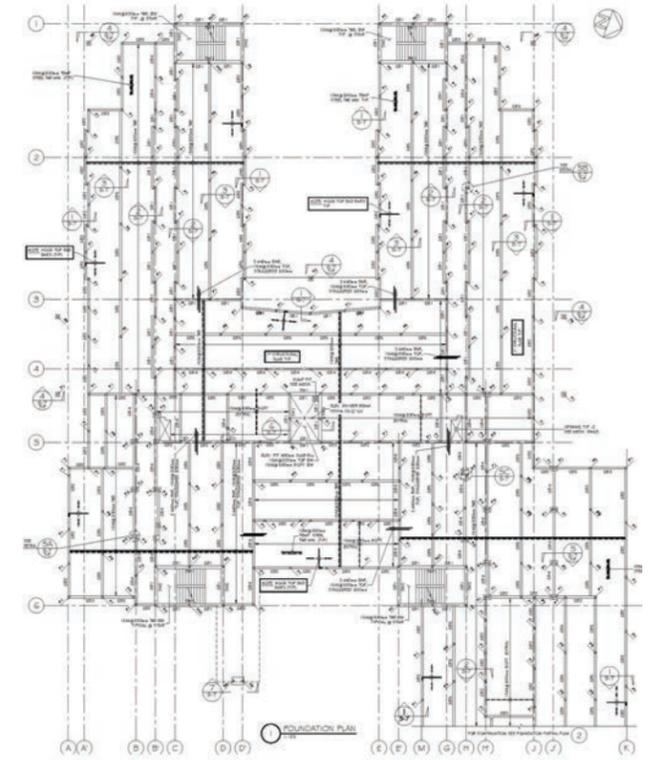
As a result of careful planning and hard work LBS was able to deliver this non combustible structure on schedule.

Adding the drywall package to our overall scope of work helped with the overall coordination of the site.

Fabrication off site in our mobile panel plant, but still locally, kept the cost of shipping wall panels to a minimum.

Our engineering and detailing experience using 3D models helped to make the installations seamless.

We look forward to bringing our experience forward to future clients.





CASE STUDY

McMillan Condos Winnipeg, Manitoba

PROJECT INFORMATION

The McMillan, an executive luxury development in the heart of Winnipeg's Crescentwood / River Heights area. The high end, multifamily project will feature 12 customizable residences, ranging in size from 1,200-1,500 sq. ft. Right in The Construction Manager's wheelhouse, this project adds a unique and innovative twist as it will be constructed using pre-fabricated structural wall panels in order to alleviate some constraints of the infill site. "Everyone is always striving to do things faster and for lower costs, but still maintain quality. So being able to do things in a controlled environment as opposed to being at the whim of an open site makes complete sense," says he Construction Manager CEO

THE CHALLENGE

1. Provide a competitive composite floor system.
2. The main floor parking transfer slab was to be designed by LBS using girder trusses.
3. Precast concrete balconies were designed for this project each weighing over 9,000 lb. Through careful planning and coordination LBS would work with the client on design solutions.
4. A fast installation schedule was required.



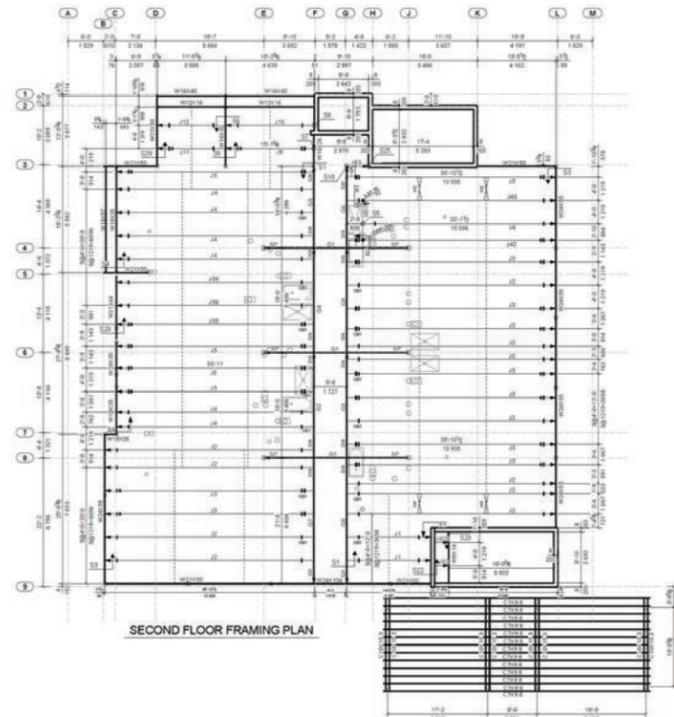
HOW LIGHT-WEIGHT BUILDING SYSTEMS INC. MET THE CHALLENGES

This project is the 1st project where LBS has used a new composite floor system. It is a unique flooring system made up of open web steel joist, steel decking and concrete. LBS is constantly striving to build using the most advanced and cost effective flooring systems to decrease schedules and increase quality.



HOW LIGHT-WEIGHT BUILDING SYSTEMS INC. MET THE CHALLENGES

The main floor parking had structural challenges that LBS had to overcome. The entire building was designed to be supported by specially made girder trusses, each weighed approx. 9,000 lbs. An extra crane was brought in to ensure the trusses were installed safely and correctly on site.



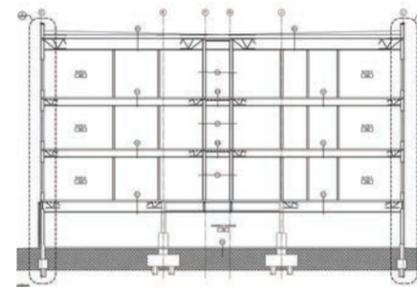
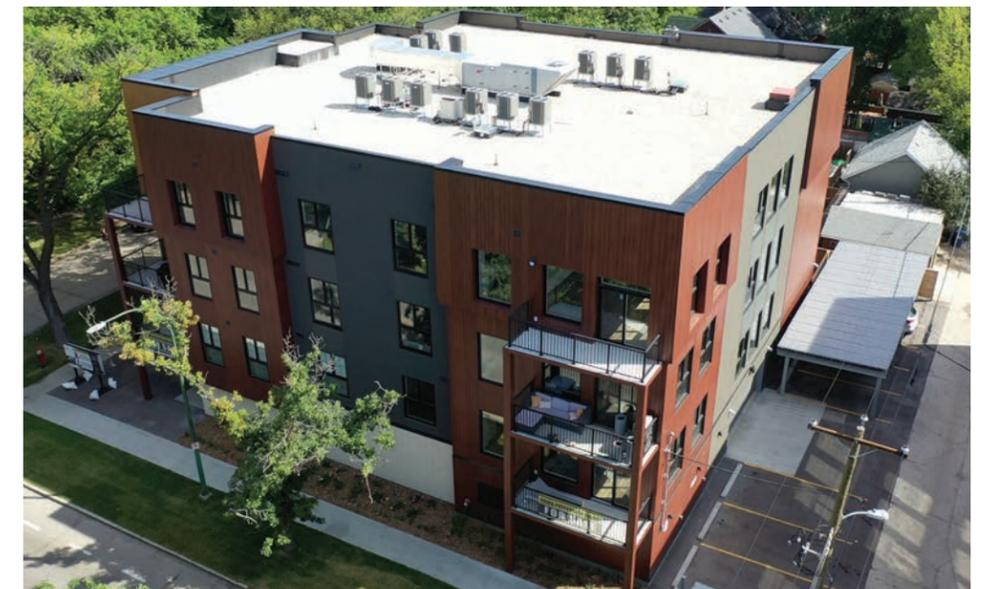
RESULTS, RETURN ON INVESTMENT AND FUTURE PLANS

The room on site was minimal for material storage. Fabrication off site in our Winnipeg Panel Plant helped with just in time delivery of the steel stud wall panels.

Using a composite Q-deck floor system and designing girder trusses to carry the transfer slab benefited the entire project.

Coordination of the LBS system and precast balconies was a learning experience we will bring forward to future clients.

LBS met schedule on this project and the Construction Manager is looking forward to working with us on future projects.





CASE STUDY

Hargrave
Winnipeg, Manitoba

PROJECT INFORMATION

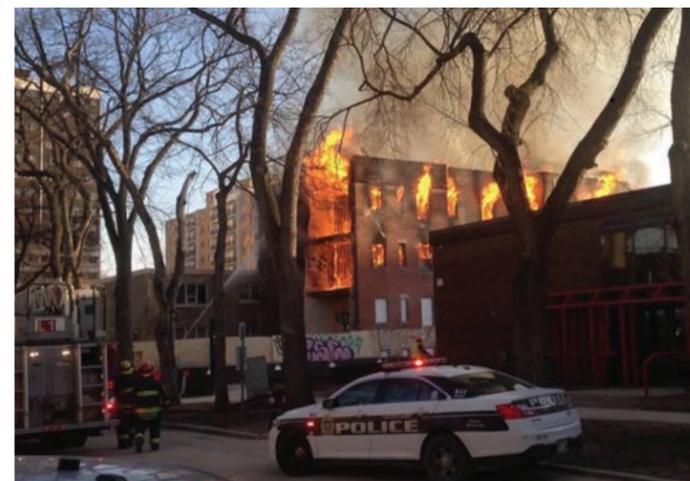
Hargrave is a 65-unit purpose-built apartment building located at 50 Hargrave Street. Construction of the property is well underway and is projected to be complete in the summer of 2020 featuring an attractive mix of modern one and two bedroom suites over six storeys with covered parking located on the main level designed to offer functional rental units in an amenity rich urban infill location. The building is made of high-quality concrete and steel construction designed with modern interiors and exciting exterior curb appeal with energy efficiency being a major design consideration.

THE CHALLENGE

1. Fire destroyed the previous building on the property. LBS was requested to provide a non combustible structure.
2. LBS Structural Inc. coordinated the engineering for the entire project including foundations, cores and all other structural requirements.
3. A fast schedule was required to meet the occupancy date.
4. A small site with no storage, required coordination of just in time deliveries.

HOW LIGHT-WEIGHT BUILDING SYSTEMS INC. MET THE CHALLENGES

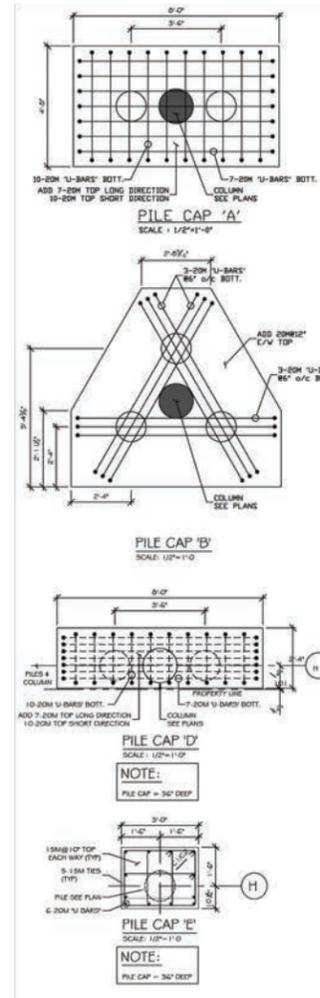
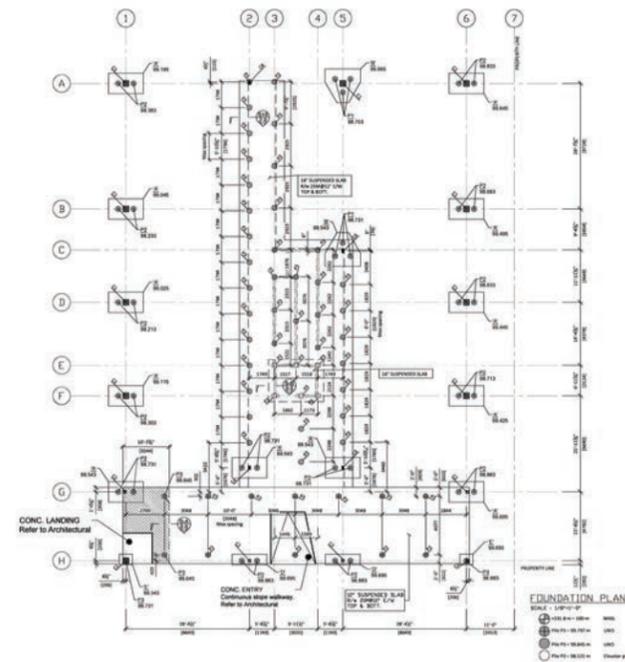
Flames engulfed the vacant 4 storey apartment block at 50 Hargrave Street which was in the process of being demolished. The building was built in 1910 as Kenilworth Court apartments and closed down in 2007 after 97 years. The wood framed structure was engulfed by the fire and it took the fire crews several hours before the Demolition crews began pushing the building's walls in on themselves just before 10:30 p.m. The residents of 42 Hargrave Street have been evacuated and will remain so until the building at 44 Hargrave Street is completely demolished.





HOW LIGHT-WEIGHT BUILDING SYSTEMS INC. MET THE CHALLENGES

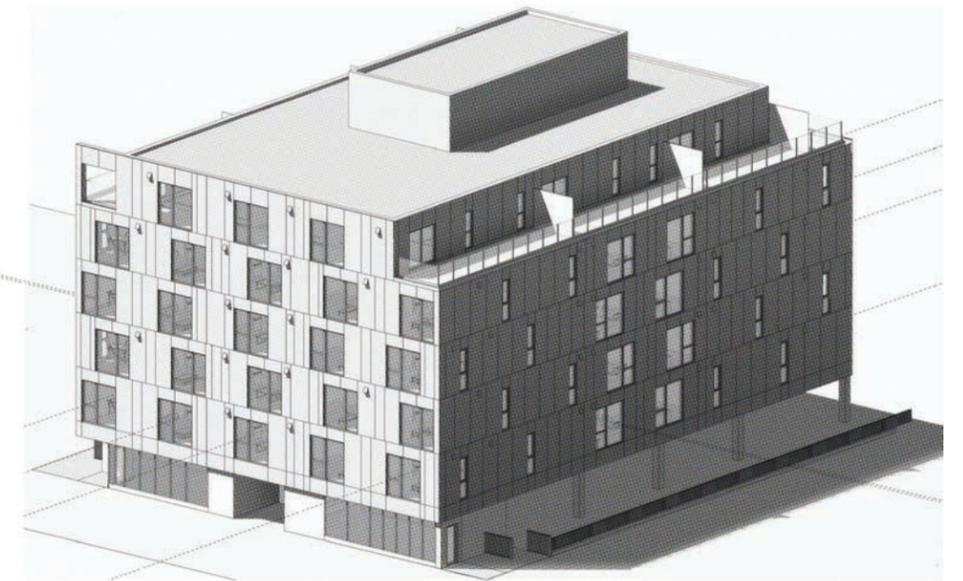
LBS Structural Inc. coordinated the engineer of record for the entire project. This included the design and engineering of piles, pile caps, foundations, concrete slabs, structural steel, LBS wall panels, the suspended composite floor system and the roof system just to name a few.



RESULTS, RETURN ON INVESTMENT AND FUTURE PLANS

Light-weight Building Systems Inc. pre-assembled all of the structural steel and LBS wall panels at its Winnipeg, Manitoba panel plant ready for shipping to site. The wall panels were stacked in order of what was required on site in a way that made it easy to coordinate.

LBS will be bringing its experience with designing, engineering, fabricating and just in time delivery scheduling to future clients with similar project requirements.



50 HARGRAVE ST
50 HARGRAVE ST, WINNIPEG MB





CASE STUDY

Clover Bar Lodge
Sherwood Park, Alberta

PROJECT INFORMATION

The new lodge facility is located at 4000 Sherwood Dr., replacing the existing Clover Bar Lodge built in 1963, with the build coming at a cost of \$32.4 million as funded through the provincial and federal governments. The facility is owned by Heartland Housing.

THE CHALLENGE

1. Precast concrete was revised to the LBS Wall and Floor System. LBS Structural Inc. coordinated the complete engineering design.
2. Slab on grade was installed after the 2nd floor was completed. Coordination with the other trades had to be carefully orchestrated.
3. A February deep freeze in 2019 required extra efforts with the LBS mobile panel plant



HOW LIGHT-WEIGHT BUILDING SYSTEMS INC. MET THE CHALLENGES

This project was originally designed as a precast concrete structure. LBS was approached to offer a more cost effective structural design while maintaining a fully non combustible building. Schedule was also a key factor and by LBS providing prefabricated wall panels, we were able expedite the schedule while meeting the budget requirements.





HOW LIGHT-WEIGHT BUILDING SYSTEMS INC. MET THE CHALLENGES

Due to the weather conditions, the main floor slab on grade could not be completed on schedule. LBS offered a solution to install the main floor walls and 2nd floor framing prior to completing the main floor slab on grade. This approach saved several weeks of vital schedule time and the other trades were able to work in a covered heated area on the ground floor to complete their work.



LBS Structural Inc. coordinated engineering for the complete structure using the LBS system.

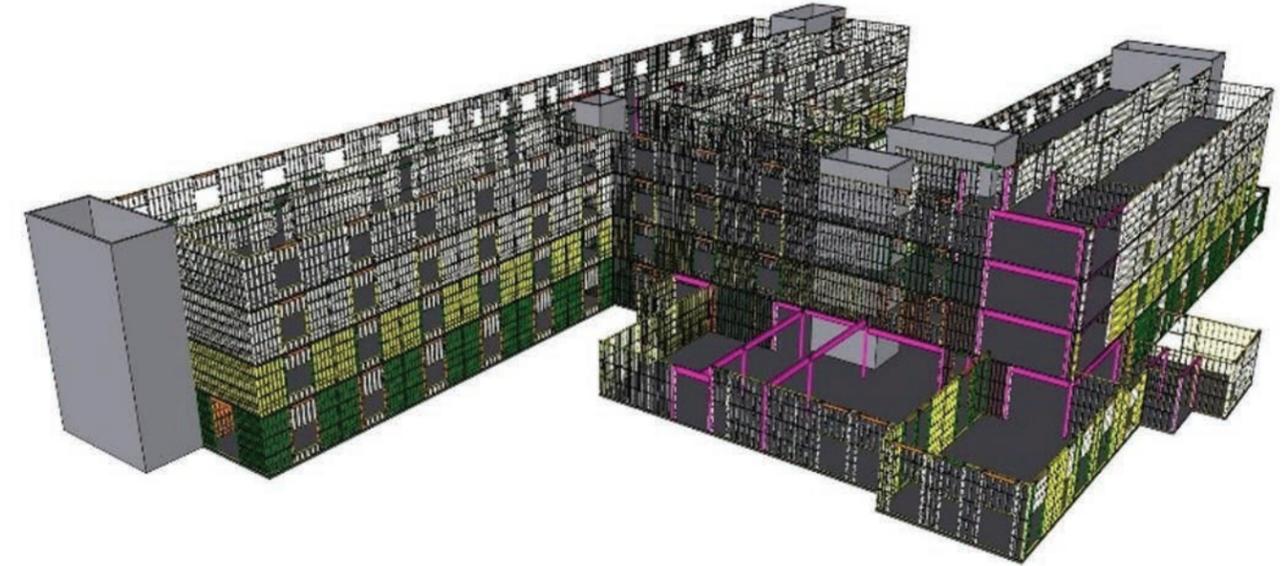
February deep freeze of 2019. In the first 18 days of February we had 3 days which hit -30°C , while in the past 20 years we had only had 2 other -30°C February days (in 2018 and 2008).

We had 14 lows which hit -25°C , compared to the coldest recent February in 2014 which we only had 6.

LBS provided wall panel fabrication through winter months in our, on site mobile panel plant. All of the LBS wall panels were completed while the GC completed the foundation and concrete block cores.

RESULTS, RETURN ON INVESTMENT AND FUTURE PLANS

LBS Structural Inc. was able to coordinate the revision of a precast concrete structure to an LBS structure design within a three month time frame, thus allowing excavations to start on schedule. Our ability to expedite an LBS structural design, prefabricate through extreme winter conditions, erect a structure without a slab on grade in place and provide a complete structure through tough weather conditions is something LBS can provide to future clients.





**Whatever good things we
build end up building us.**