

# ADVANCED CONSTRUCTION TECHNOLOGY FOR BUILDING AFFORDABLE HOUSING

Affordable / Sustainable  
Mid-Rise / Hi-Rise Buildings

1 to 21 Storeys



**8 Storey mixed-use standard building with 7 storeys of residential (70 units), ground floor retail/commercial & underground parking.**

**BEGIN**



**20 Storey mixed use standard building with 19 storeys of residential (190 units), ground floor retail/commercial & underground parking.**



Click Mouse to advance.

# A MODEL FOR ADVANCED CONSTRUCTION TECHNOLOGY TO CREATE:

more housing  
in less time  
at a lower cost  
with better & more consistent quality



## MINIMAL FABRICATION CUSTOMIZATION

Only 3 steel modules designs are required to provide for 6 residential suite layouts: Studio, 1 Bedroom, Bedroom & Den, 2 Bedroom, 2 Bedroom & Den, and 3 Bedroom including common area hallways & balconies.

**TIER'S** purpose-built fabricating facility provides for complete manufacturing and finishing of all modules employing 2 production lines capable of a maximum of five 8 storey building equivalents per year (*or two 20 storey buildings*) (*350 to 560 dwelling units per year per factory depending on suite mix*)



**Standard Structural Modules**  
 (Standard Module Dimensions 2025-07-06: 2 to 21 Storeys)  
 as at 2025/Jul/06

**HSS Column Positions & Module Width Specifications**

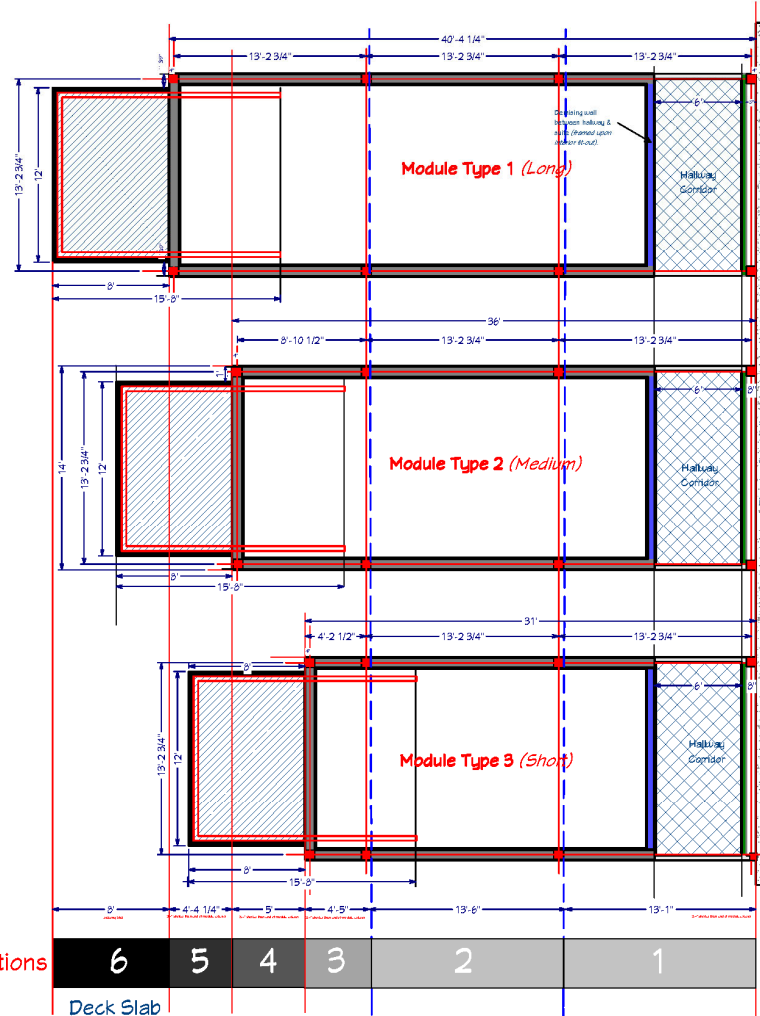
**Columns & Beams**

- W 18" x 33" H-Beams at base on each side
- 8" x 8" HSS Columns
- 4" x 4" HSS Beams
- Interior: 2 layers of 5/8" drywall
- Exterior: 1 layer of 5/8" cement (or glass fibre) backer board

**Pre-Cast Concrete "Basement" Floor**

All modules taper  
 from 5" thick at >27' from core to 4" thick at core  
 (with sloped curbs on each side)

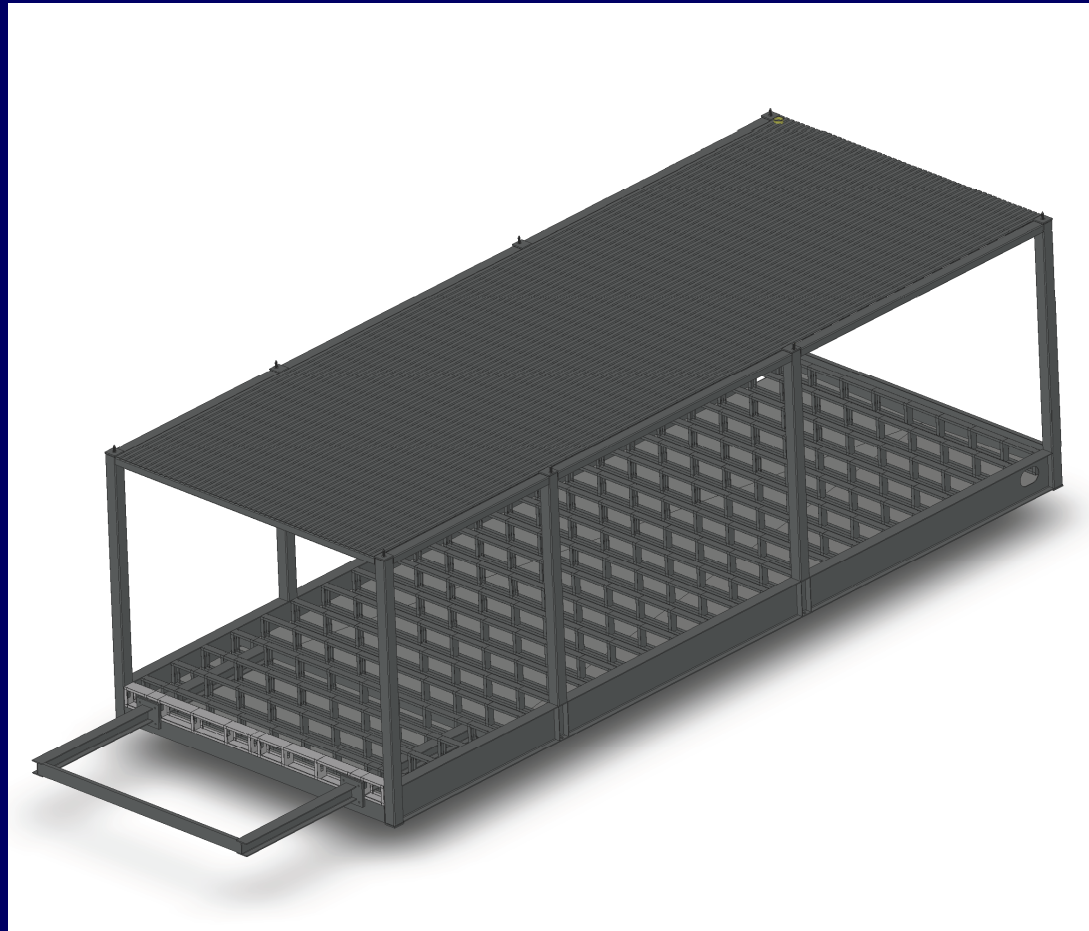
Concrete Slab Sections



Click Mouse to advance.



Click Mouse to advance.





Click Mouse to advance.

**Place Modules &  
Connect Utilities.**



**Clean & wrap for  
transport to site.**



**Finish Interior  
& Clad Exterior.**



**Weld Steel Frames  
& Integrate  
Panelized Wall &  
Floor Systems.**





Click Mouse to advance.

Standard (*Repeatable*) Module Design

Standard (*Repeatable*) Building Design

Off-Site Pre-fabricated Structural Steel Modules

On-site Conventional Construction



## INNOVATIVE / SUSTAINABLE

- Standard Module Design / Standard Building Floorplate – repeatable & scalable
- Structurally Designed for up to 21 storeys
- Totally Self-Contained Modules (*no penetrations thru modules below*)
- Fire-Proof & Hail Proof Exterior Cladding with Cement Board Backing
- Plumbing Leak-Proof (20” basement, *with space for all plumbing, HVAC & HRV equipment and full floor “drain pan connected to sewer riser” in hallway space.*)
- Smoke Mitigating (Air-tight Insulated with Heat Recovery Ventilation & MERV 13 Filter)
- **Earthquake-Tolerant up to Zone 5 (Victoria, BC)**



## **AFFORDABLE TO ACQUIRE** *(Rent or Purchase)*

- Average cost per suite gets lower with every storey built, due to land component cost
- Average cost per building gets lower with every building, due to reusable Architectural & Engineering designs *(saving hundreds of thousands of dollars per building, by repeating a standard design)*
- **Time from start to occupancy is reduced by 40% to 50% of conventional construction methods due to overlapped on-site construction & off-site fabrication** *(saving up to 50% of financing carrying costs)*

## AFFORDABLE TO OPERATE

- **Intelligent Mitsubishi HRVF (*Hybrid Variable Rate Flow*) System**  
Refrigerant based central system feeds distribution hubs on each floor  
Water based distribution on each floor into suites eliminating leak sensors
- **Mitsubishi HRV (*Heat Recovery Ventilation*) system with smoke filter in each suite**
- **High Efficiency Centra Heat Pumps (*150% – 170% efficient*)**  
*(Air or Ground Source depending on location - heating & cooling)*



Click Mouse to advance.

## PRICING EXAMPLE

**486 sq. ft.** Studio Suite

*(Including: wall bed / bookshelf unit & in-suite laundry & storage room)*

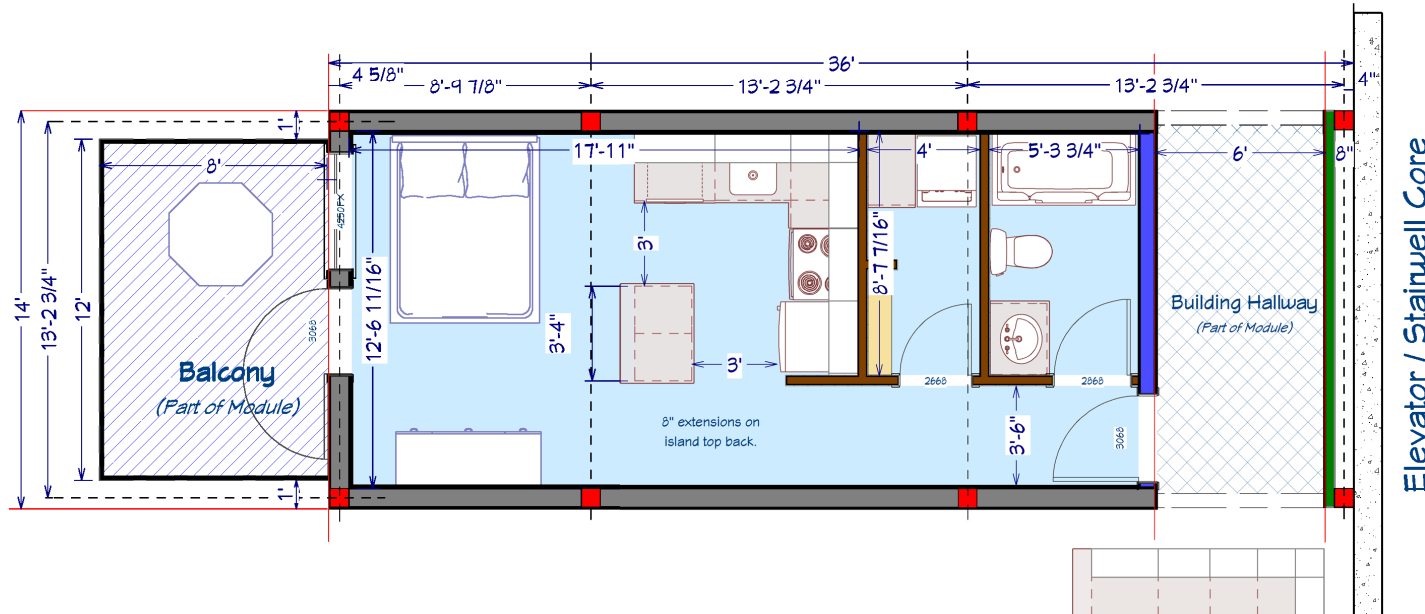
Purchase Price starting at **\$169,900.\***

*(\$808. / month based on 95% mortgage over 25 years @ 3.5%)*

*\* depending on municipality & land cost*



Click Mouse to advance.



**M**ercurian  
Development Corporation

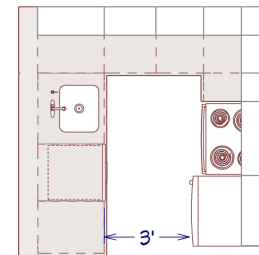


Wall Bed Included

### Studio Suite

(as at 2025-07-06)

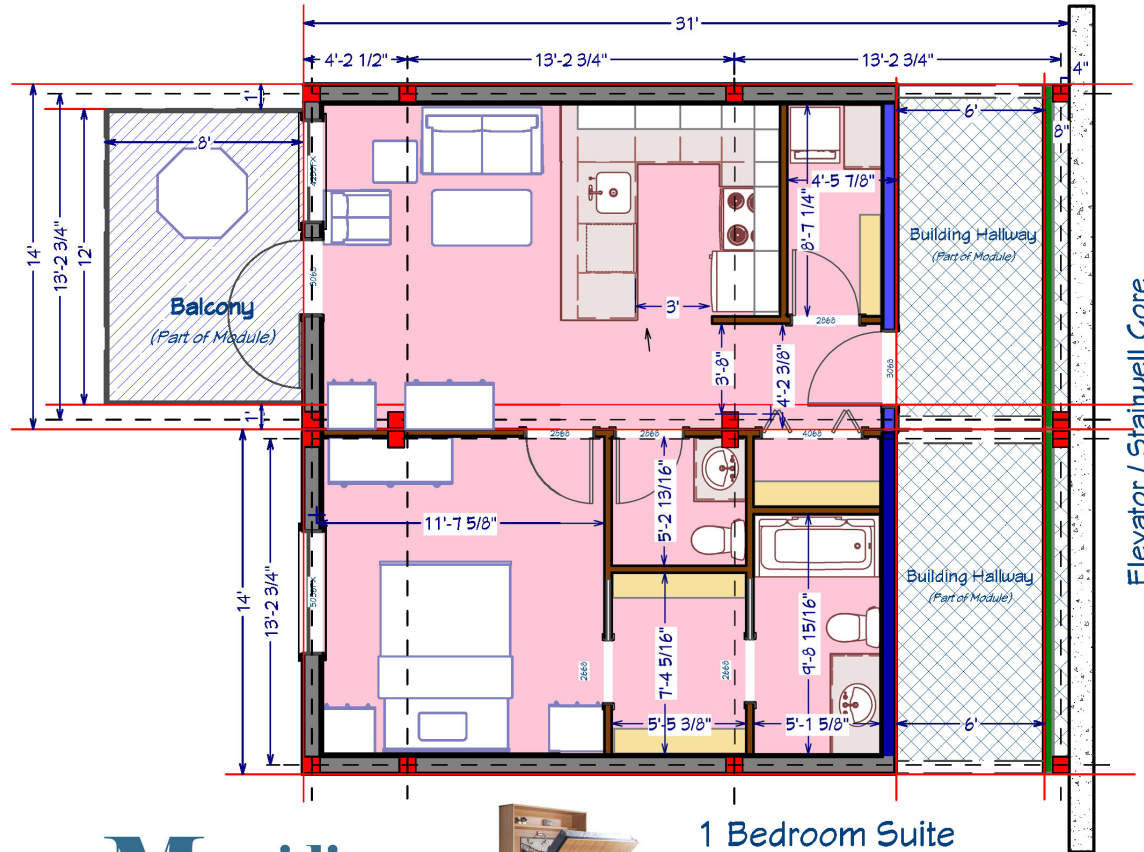
486 sq. ft.



Alternate Kitchen Layout



Click Mouse to advance.



**Mercidian**  
Development Corporation



### 1 Bedroom Suite

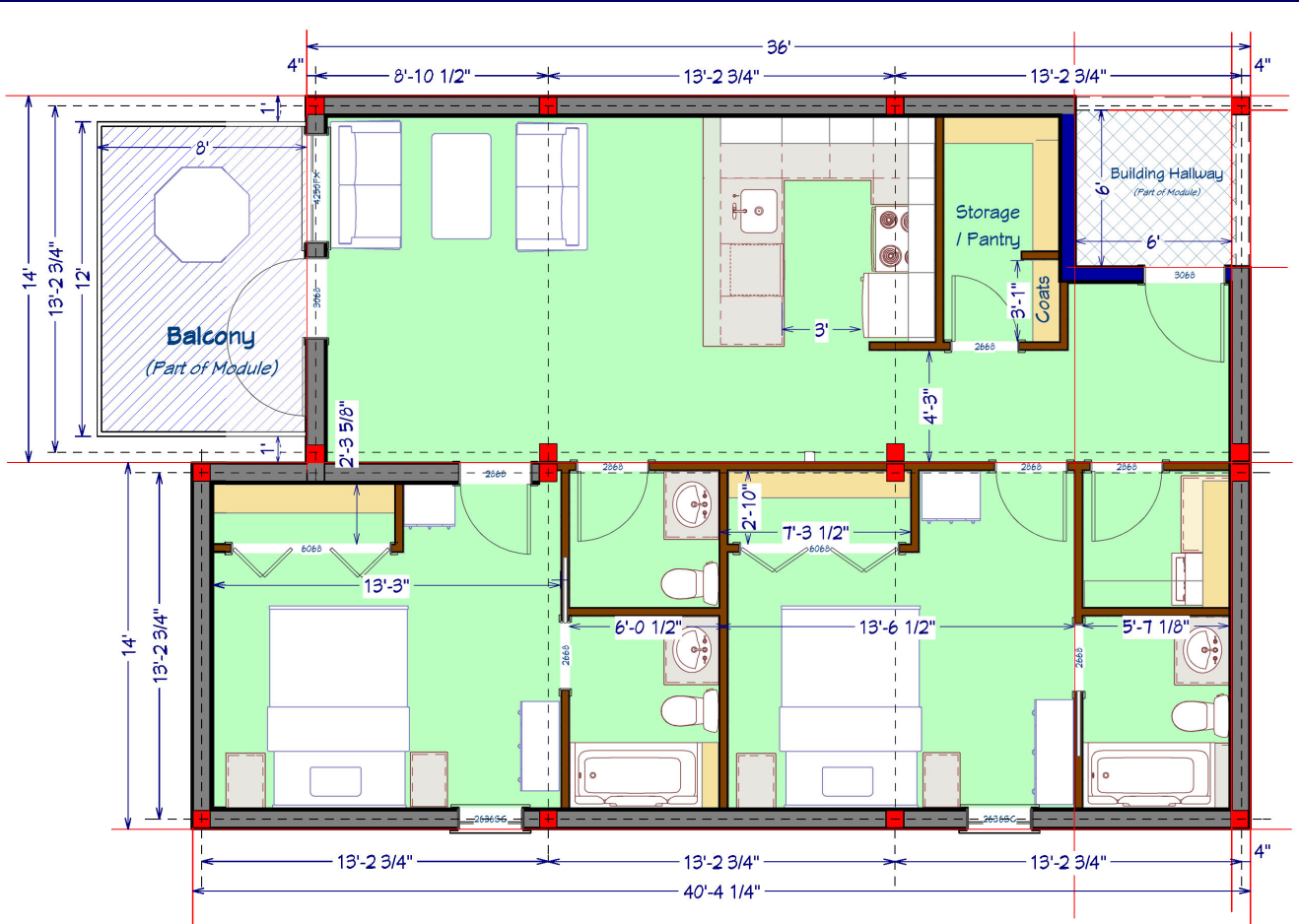
(as at 2025-07-06)

837 sq. ft.

Optional Wall Bed for  
Guest Accommodation



Click Mouse to advance.



**Mercidian**  
Development Corporation

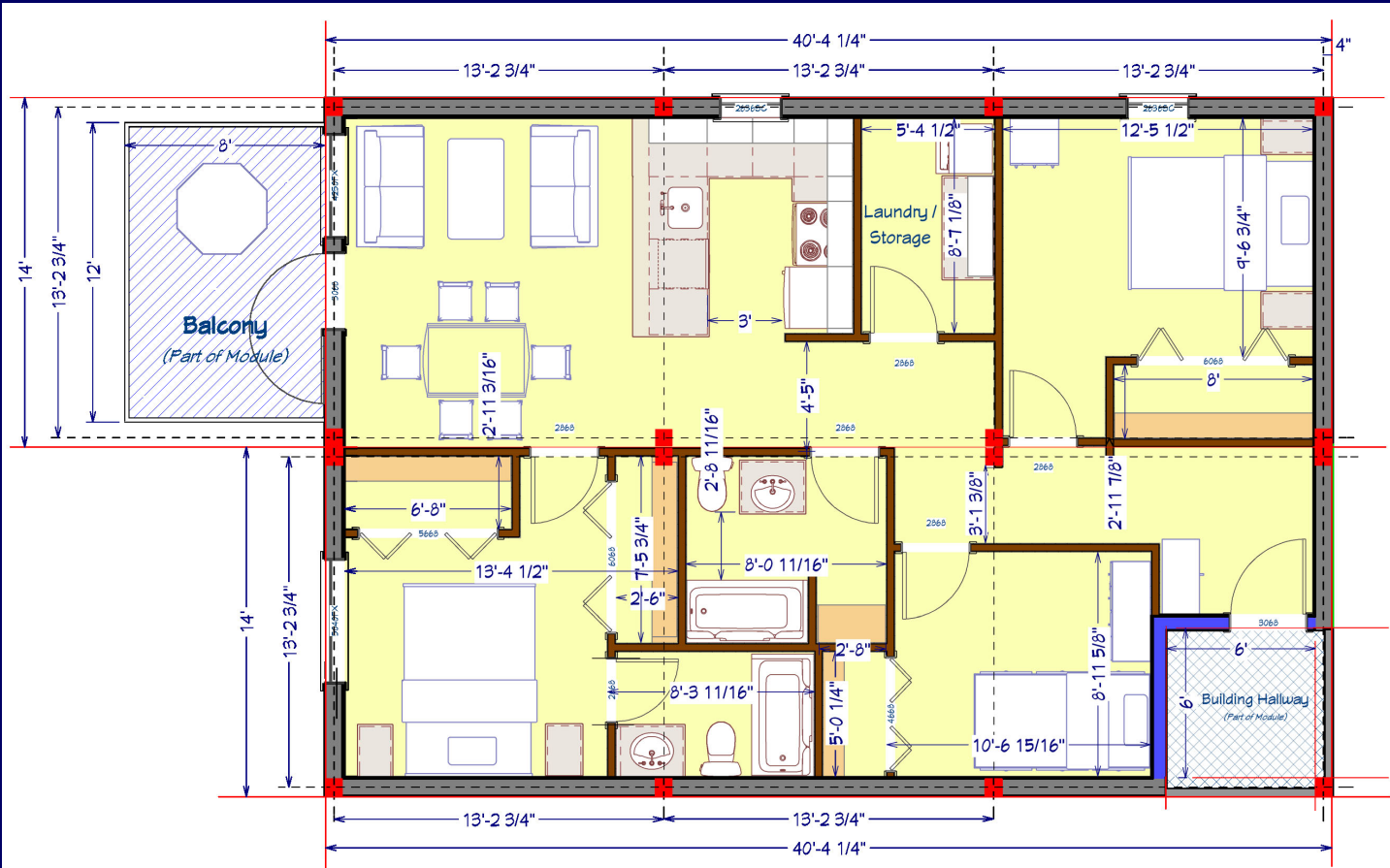
### 2 Bedroom Suite

(as at 2025-07-06)

1040 sq. ft.



Click Mouse to advance.



**Mercidian**  
Development Corporation

### 3 Bedroom Suite

(as at 2025-07-06)

1107 sq. ft.



Click Mouse to advance.

## HOMELESS SUPPORT

**One Suite in Every Mid Rise / High Rise Building Built by Mercidian  
Will be donated to a Person or Family in Most Need**

*(as selected by the Municipality or Non-Profit Intake Agency  
In the municipality where the building is constructed)*



Click Mouse to advance.

# SENIOR MANAGEMENT

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## **FRED JOHNSTON, President & CEO**

**Commercial Real Estate Development, Construction & Sales 1995 to date**  
**CommunityFirst Health Centres, Community First Diagnostic Imaging**  
**Lake Sundance Business Centre**  
**Akokli Creek Resort**  
**Kaniksu Sands Resort**

### **Computer Software Development and Project Management 1970 to 1994**

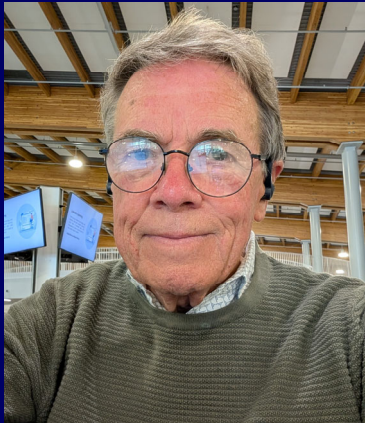
Designed, programmed, maintained, and managed information systems for companies including Riley's Datashare International, Calgary Power Ltd., TransAlta Utilities Corporation, Cybernetics Computer Systems, Re/Max of Western Canada, DenTell Systems, E.K. Williams & Company International, B.C. Tree Fruits Ltd. And SunRype Products Ltd.

### **Professional Associations**

Rotary International  
Toastmasters International  
Systems Committee Chairman, Texas Instruments Users Group

### **University of Calgary, Faculty of Engineering 1967 to 1969**

Completed common courses curriculum in Civil, Mechanical, Electrical, and Chemical Engineering.





## Ed Romanowski, Shareholder/Advisor

President & Director at Nunastar Properties/Touchstone Holdings: Alberta, NWT, & Nunavut, Canada; Board Chair, Travel Nunavut; CEO, Lakeland Living; Instructor, Westman Centre for Real Estate Studies, U of C..

Founded Bellstar Hotels & Resorts in 2003.

Educated in planning, engineering, architecture, valuations and real estate development in both Canada and the U.S.

Bachelor of Arts Honours from the University of Winnipeg

Master of City Planning from the University of Manitoba.

Certified Management Consultant (CMC)

Fellow of the Quantum Shift Leadership Program at the Ivey Business School.

Teaches senior level courses in Real Estate Development, Finance, Leadership and Policy Development at the University of Calgary's Haskayne School of Business and the Faculty of Environmental Design.





## David Craig, Shareholder/Advisor



Graduate of University of Toronto  
Bachelor of Applied Science & Industrial Engineering  
Chartered Accountant, CPA, CA  
President Consolidated Management Consultants  
Consultant, Equifaira Advisors  
Consultant. BC Hydro  
Consultant, City of Kelowna



Click Mouse to advance.

# CORPORATE TERRITORY & EXPANSION PLANS

**MERCIDIAN** plans to confine it's dedicated/exclusive territory to Western Canada  
British Columbia, Alberta, Saskatchewan & Manitoba

**TIER Modular** main fabricating facility & head office:  
Calgary, AB

**TIER Modular** additional planned purpose-built fabricating facilities:  
Victoria, BC \* Merrit, BC \* Olds, AB \* Winnipeg, MB

**National & International expansion will be by way of:**  
Technology Licensing Agreements

**MERCIDIAN DEVELOPMENT CORPORATION  
BUILDING DESIGN LICENSING PROGRAM**



**TERRITORY LICENSE FEE**  
(Exclusive Geographically Defined Territory)  
**\$269,500. CAD**  
per 500,000 territory population

Includes:

- module structural engineering drawings
- Architectural fit out drawings
- start up training/consulting
- volume-purchase supply chain pricing for materials, fixtures & appliances
- 5 Year Renewable License, subject to an annual quota of 8 storey equivalents/year  
*(if quota cannot be met, License can be maintained by paying a top up for quota shortfall)*

**BUILDING PER STOREY FEE**

**\$29,500. CAD**  
per storey on approved Development Permit Application

*Includes Building Plans, Building Code review for local jurisdiction, Development & Building Permit Application assistance, Architectural & Engineering oversight.*



Click Mouse to advance.

**TIER MODULAR CORPORATION  
MANUFACTURING FACILITY LICENSING PROGRAM**



**TERRITORY LICENSE FEE**  
(Exclusive Geographically Defined Territory)  
**\$374,750. CAD**  
per 500,000 territory population

**Includes:**

- *module structural engineering drawings*
- *Architectural fit out drawings*
- *start up training/consulting*
- *volume-purchase supply chain pricing for materials, fixtures & appliances*
- *5 Year Renewable License, subject to an annual quota of 112 modules/year*  
*(if quota cannot be met, License can be maintained by paying a top up for quota shortfall)*

**PER MODULE FEE**  
(TIER Modular Corporation owned / leased facility)

**Facility Monthly Lease** (*varies depending on location*) **plus:**  
**\$2,900. CAD**  
per module fabricated



Click Mouse to advance.

**EXIT**