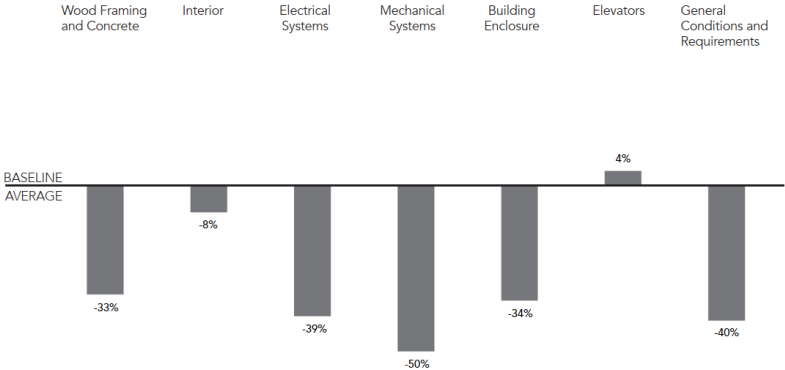


# Innovation Building Group Best Practices for Modern Methods of Construction

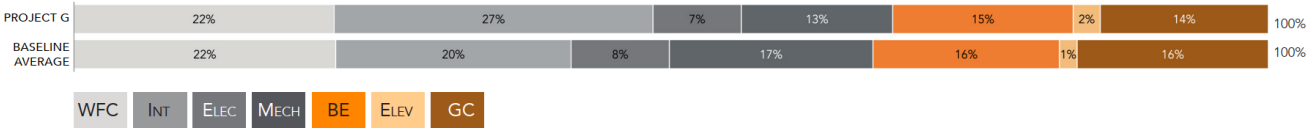
## PEMBERTON

### PROJECT G (Step 4)

- Very little concrete used
- Insulated concrete forms used for concrete walls
- Own labour forces used for a significant portion of the construction
- Wood studs in exterior walls aligned with spacing of wood joists
- One energy recovery ventilator inter-connected with two heat pumps to temper ventilation air
- Passive House-certified windows imported from Europe
- Previous experience in high-performance buildings



### COST DISTRIBUTION



## 7. Why High-Performance Housing Should Lower Costs — Not Increase Them

High-performance housing is often perceived as a premium product associated with increased construction costs, specialized technologies, and demonstration-scale projects. In practice, this perception is frequently a result of how projects are delivered rather than the performance targets themselves.

When performance strategies are added onto otherwise conventional delivery systems late in the process, costs often increase. However, when projects are designed as integrated systems from the outset, improved performance can reduce both capital costs and long-term operating costs simultaneously.

Over the last decade, IBG projects demonstrated that meaningful cost reductions are achievable through:

- integrated delivery methods,
- repeatable assemblies,
- manufacturing-informed detailing,
- simplified mechanical systems, and
- coordinated procurement strategies.

On several projects, these approaches contributed to capital cost reductions while simultaneously improving:

- thermal performance,
- operational efficiency,
- climate resilience,
- durability, and
- occupant comfort.

Importantly, these outcomes were not achieved through reduced construction quality or lower-performing materials. The primary change was process integration. Conventional housing delivery frequently contains systemic inefficiencies including:

- repeated redesign,
- fragmented consultant coordination,
- oversized HVAC systems,
- procurement uncertainty,
- duplicated detailing, and
- extensive reworking during construction.

When projects begin with integrated and validated systems, many of these inefficiencies can be reduced or eliminated.

For example:

- improved envelopes reduce thermal demand,
- lower thermal demand reduces HVAC sizing,
- simplified HVAC systems improve coordination, and
- repeatable assemblies improve manufacturing and construction efficiency.

These efficiencies compound across the project lifecycle.

As a result, high-performance housing should not be viewed as an additional layer applied to conventional construction. The larger opportunity is redesigning the delivery process itself to improve performance, constructability, and affordability simultaneously.

Projects such as the Alders in Pemberton have begun demonstrating that high-performance family housing can compete directly with older resale housing in both purchase pricing and long-term operating affordability.

This distinction is critical.

If new housing continues to cost substantially more than existing housing stock, affordability pressures will continue regardless of supply targets. Meaningful attainability requires reducing both:

- upfront capital costs, and
- long-term operational costs.

In this context, the future of high-performance housing depends less on adding technology and more on improving integration, coordination, and delivery efficiency.