

Part 1: Project Description

Project Category

Category: 2. Residential [large]

Project Details

Project Name: shíshálh Nation 10 Home Rescue Project

Address: 5330/5334, 5342/5344. 5346/5350, 5356, 5362, 5376/5378, 5382/ 5384, 5388/5390, 5394/5396, 5400 Smayliih Way, Selma Park

Year completed: 2025

Program and context

Project type: Residential

Project site: Both (41% new and 59% recycled)

Metrics:

- Site area:
- Building gross floor area:

Energy Use Intensity (EUI)

**Ones relevant and available to the project are described qualitatively and quantitatively throughout their respective sections in the 'Main Project Description'.*

Part 1: Project Description

This project delivered 17 affordable rental units by rescuing, relocating, and retrofitting ten mid-century homes slated for demolition in Port Moody, BC. Part of a 59-home assembly for redevelopment, the development partner redirected their demolition budget to offset relocation costs. The First Nation partner led land use decisions, contributing land, infrastructure, and leadership.

The homes were transported by truck and barge to First Nation lands in Sechelt, BC, then modernized with energy-efficient upgrades and seven basement suites added.

The project navigated technical challenges of relocating buildings with varying ages, construction types, and renovation histories, requiring adaptive problem-solving across multiple jurisdictions.

Key sustainable design strategies:

Circularity: Diverted ~1,000,000 kg (59% of project materials) from landfill and preserved ~230 tonnes of embodied carbon. Retained 70-80% of lifecycle emissions compared to new construction, with projected 24% total carbon reduction over 60 years.

Energy performance: Installed air-source heat pumps, improved insulation, high-performance windows, and fully electric systems.

Adaptive reuse: Added seven basement suites, maximizing output from 10 to 17 units.

Community leadership: Nation-led site planning; exterior cedar elements reflecting Coast Salish cultural significance; views of ancestral Salish Sea waters.

Rating Systems: Not applicable – project predates formal certification frameworks for relocated buildings.

Main Project Description

1. Strategic Decisions

This project demonstrates how circular approaches to housing can simultaneously address ecological, economic, and social priorities through strategic innovation.

Ecological: Approximately 2,700 homes are demolished annually in Metro Vancouver, with an estimated 700 structurally viable for relocation. Each demolition generates ~100,000 kg of waste and releases embodied carbon. By relocating existing housing stock, this project preserved embodied carbon, diverted construction materials from landfill, and delivered lower emission housing than new construction.

Economic: The project introduced two strategic innovations. First, the development partner redirected their demolition budget (approximately \$35,000 per home) to offset relocation costs, transforming a sunk cost into community investment. This made responsible building removal cost-competitive with traditional demolition while delivering environmental and social returns. Second, seven basement suites were added to the relocated structures, maximizing housing output from 10 to 17 units and demonstrating how adaptive reuse can multiply housing capacity. Final housing costs were 20-40% below new construction or modular alternatives.

Social: The First Nation partner identified this as an opportunity to deliver affordable rental housing for Nation members while creating local employment opportunities. Over 70% of trades involved were Nation members, supporting workforce development and economic participation.

Passive and active strategies: High-performance windows maximize natural daylight and thermal performance. Air-source heat pumps provide efficient heating and cooling while eliminating fossil fuel dependency. Fully electric systems support long-term decarbonization goals.

2. Community

This project was led by the Nation's Chief and Council, who guided all land use decisions and housing priorities from initial concept through completion. The Nation contributed land, infrastructure, and local leadership, and aligned with goals for long-term affordability, cultural continuity, and economic participation.

Housing delivery created meaningful economic participation. Over 70% of trades were Nation members, providing hands-on skills training and employment.

3. Site Ecology

The project site is located on First Nation lands in Sechelt, BC. As project initiators, the team deferred to the Nation's leadership on all site planning and land use decisions. The Nation, as stewards of their territory with declared Aboriginal Title and Rights, guided site design through their territorial land management principles. Buildings were located to minimize impact on sloped areas and protect sensitive ecosystems like creeks and the Salish Sea.

4. Light and Air

High-performance double-pane windows maximize natural daylight and thermal performance throughout all units. The single-family home typology ensures all occupied spaces have direct access to operable windows within required proximity. Air-source heat pumps provide fresh air ventilation alongside heating and cooling. Fully electric systems eliminate combustion appliances, improving indoor air quality.

5. Wellness

Exterior cedar elements were incorporated throughout the project, reflecting significant cultural meaning for the First Nation and creating visual and material connection to place. Cedar holds deep cultural significance in Coast Salish traditions.

The homes are situated with views of the Salish Sea, providing connection to the natural environment and ancestral waters. Units provide safe, dignified housing for Nation members, supporting both physical shelter needs and psychological well-being through cultural connection and community proximity on traditional territory.

6. Water Conservation

Stormwater management strategies protect local creeks and the Salish Sea, which support critical fish populations. Site design retains all rainwater on-site during storm events, with no excess runoff permitted. Buildings and parking were located outside sloped areas to minimize impact. Pervious surfaces enable subsurface water recharge while reducing erosion. Each unit includes rainwater storage devices (rain barrels or cisterns) for summer plant watering, reducing potable water demand.

7. Operating energy present and future

While specific EUI figures are not yet available for this relocated housing project, significant energy performance upgrades were implemented throughout all units:

- By relocating existing housing stock, the project retained 70-80% of lifecycle emissions compared to new construction, with projected total carbon reductions of 24% over 60 years.
- Air-source heat pumps provide efficient heating and cooling with significantly lower GHG emissions than fossil fuel systems.
- Improved insulation throughout building envelopes.
- High-performance double-pane windows reduce heat loss.
- Fully electric systems eliminate on-site fossil fuel combustion, positioning the buildings to benefit from grid decarbonization over time.
- LED lighting throughout.

8. Materials and Resources

The basis of this project's material strategy was maximizing reuse of quality, existing building stock. Ten complete homes were relocated rather than demolished, preserving structural framing, foundations, roofing systems, and finishing materials that would otherwise become landfill waste. Rescuing, relocating, and repurposing these ten homes, means approximately 1,000,000 kg of construction materials was diverted from landfill.

New materials added (basement suites, cedar siding elements, mechanical systems) represented a fraction of total project materials. Reclaimed cedar wood interior beams were reused throughout the renovated homes. Plus, new material selection prioritized durability, performance, and cultural appropriateness. Construction materials diverted from the landfill is 59%.

9. Building Life Cycle Considerations

Circular economy and life cycle principles are central to this project approach. A whole building Life Cycle Assessment (wbLCA) was conducted on a comparable relocation project to understand both embodied and operational carbon impacts.

That assessment found that relocating a building and performing energy efficiency upgrades resulted in 11.9 tonnes (38.6%) less embodied carbon emissions and 9.6 tonnes (24.1%) less total life cycle carbon emissions than an equivalent newly constructed Step Code 3 building over a 60-year lifespan.

This project retained ~230 tonnes of embodied carbon by preserving ten existing structures, demonstrating that existing homes are climate assets rather than obstacles to progress.

10. Education and information sharing

By proving responsible building removal is commercially viable and cost-competitive, the project influenced the development partner's future approach to demolition and sends a clear message to other developers that circular alternatives are economically feasible.

This project has generated significant interest and recognition nationally and internationally. Globally, the project has been featured at the 2025 Venice Biennale of Architecture as part of the French Pavilion exhibition. It received the National Trust for Canada Governors' Award and has been covered extensively in regional and national media (e.g., CBC, CTV, Global News). This visibility raises awareness among professionals, policymakers, and the public about alternatives to demolition-first development, supporting market transformation toward more sustainable housing practices.

Photos

Relocation



Home move in port Moody, BC.



Relocated homes transported to Sechelt, BC by barge.

Repurposing Process



Relocated homes upon arrival in Sechelt, BC.



Basement suites added to relocated homes.



Construction process.

Finished Homes



Completed repurposed home. Exterior shots.



One completed from the front. Cedar beams visible.



One completed from the front. Cedar beams visible.



One completed from the front. Cedar beams visible.



Example of a renovated kitchen.



Another example of a renovated kitchen. Cedar beam visible.

Other



First Nation partner Chief and Council at the project site.



Project showcased at Venice biennale, Spring 2025.

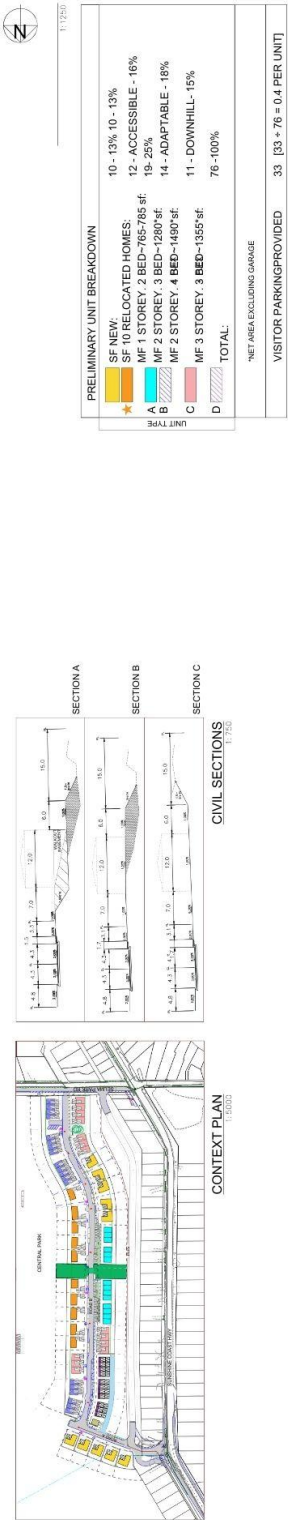
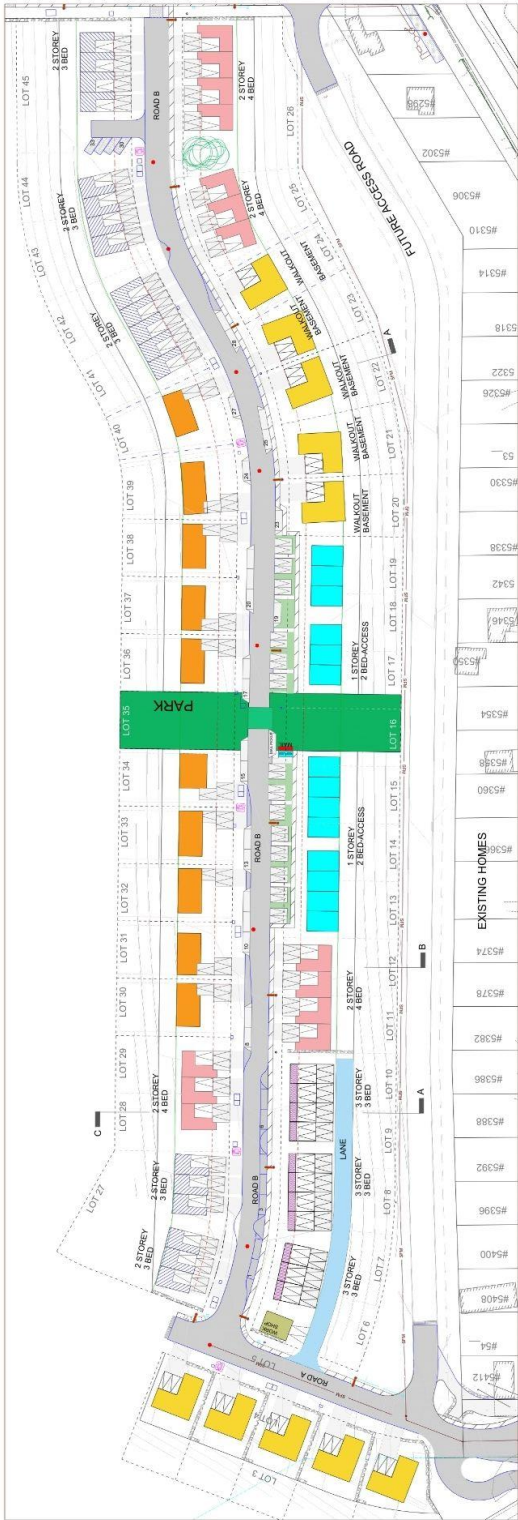


Ribbon-cutting event, February 2026.

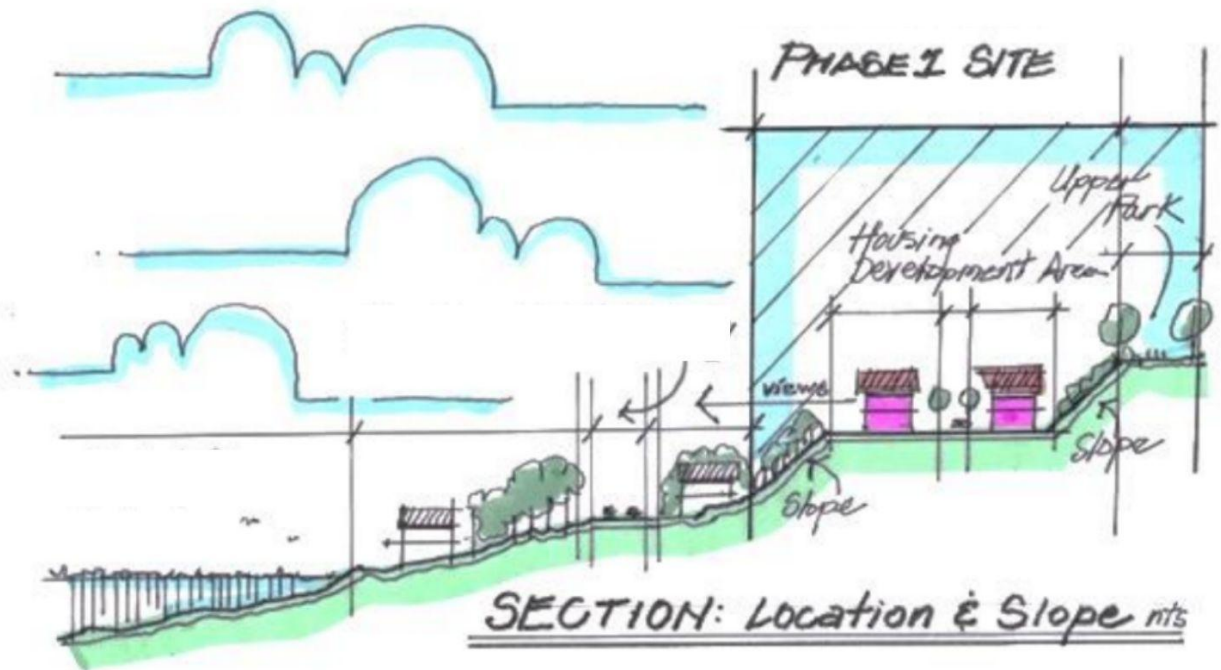
Site Plan & Drawings

AFTER

DESTINATION SITE PLAN

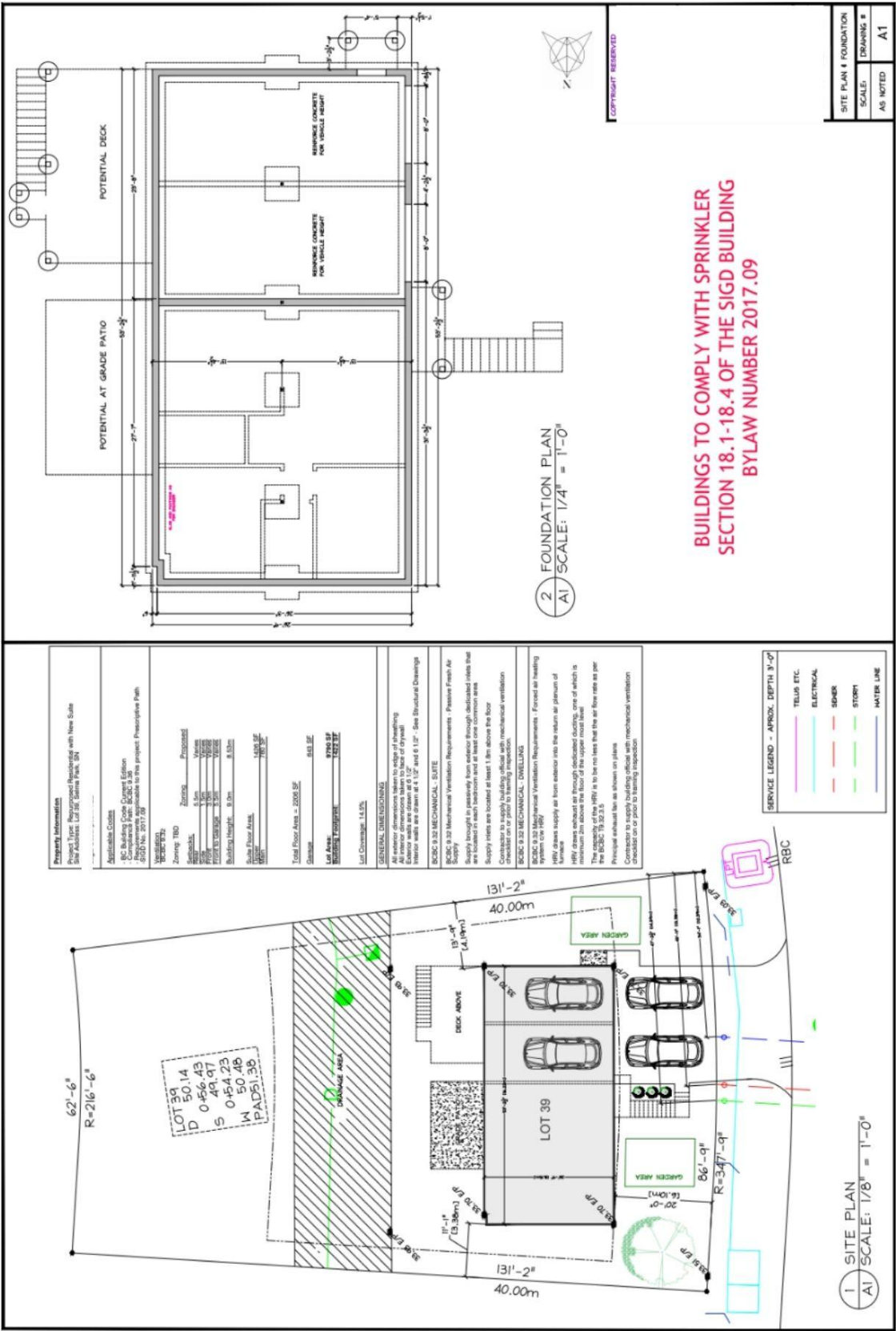


AFTER/
PLANNING



AFTER

Example Floor plan of Relocated & Revitalized Home with Basement Suite

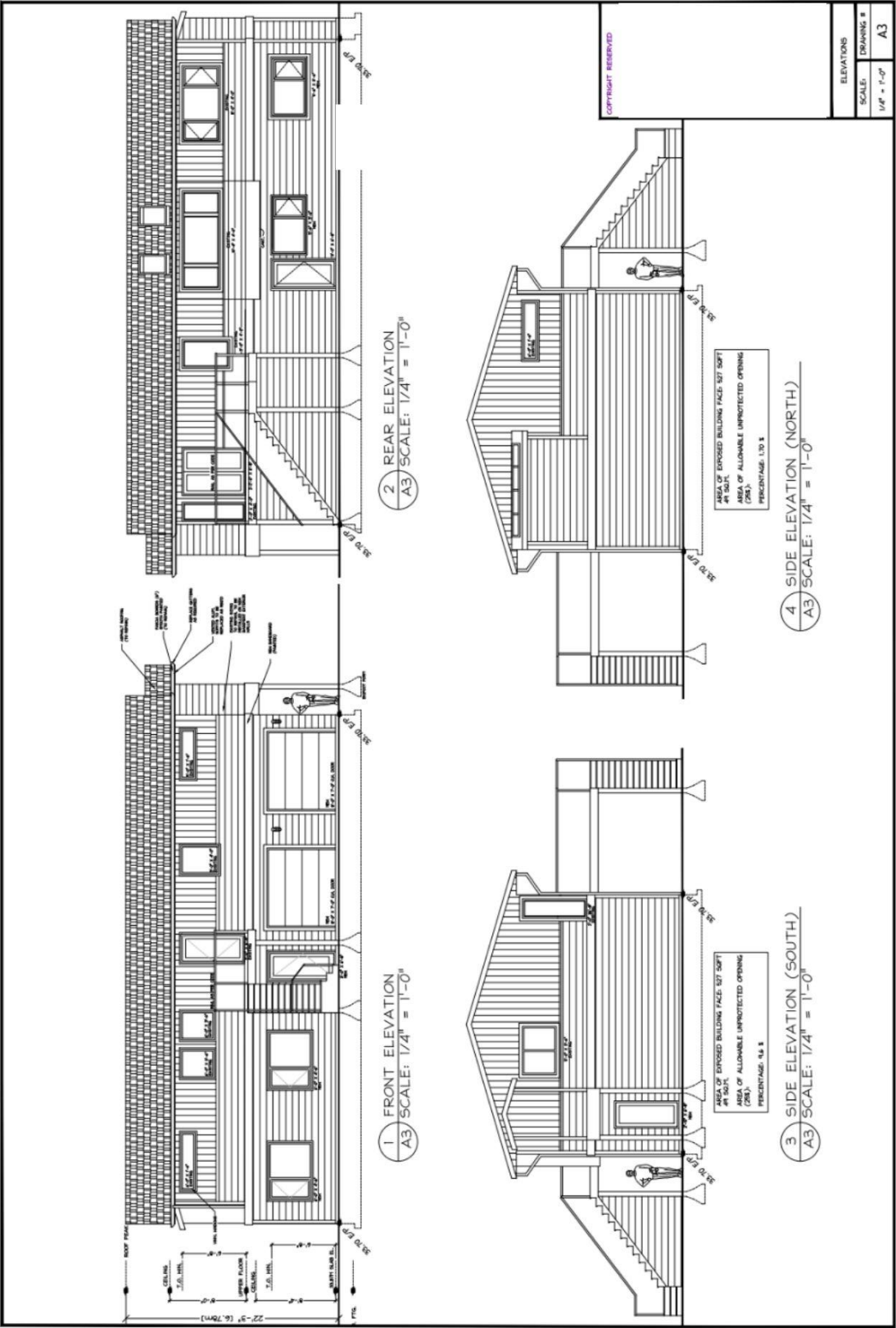


Example Floor plan of Relocated & Revitalized Home with Basement Suite



AFTER

Example Floor plan of Relocated & Revitalized Home with Basement Suite

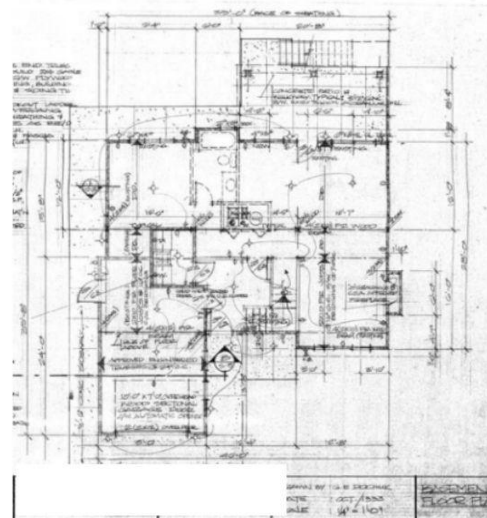
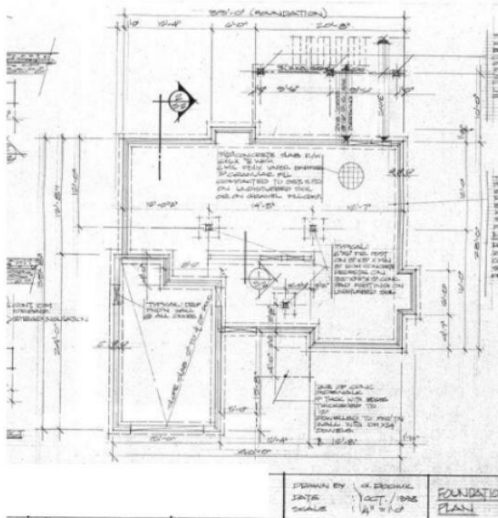


BEFORE

Inventory of 10 Single-Family Homes to be Relocated from Port Moody, BC.

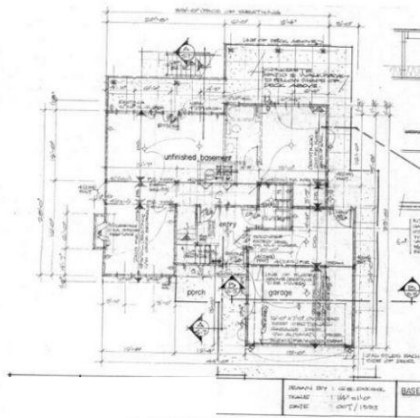
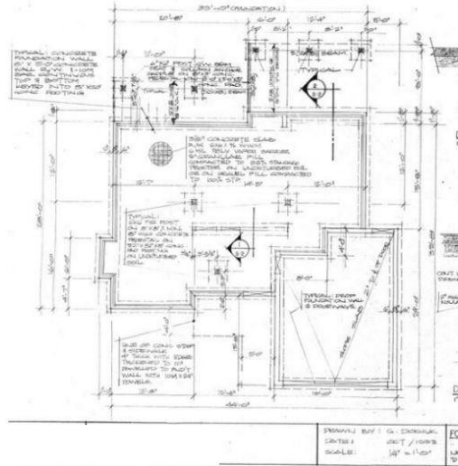
1.

40'-0" WIDE x 39'-8" DEEP + 10'-0" REAR DECK, LEFT GARAGE



BEFORE

2. 112 BALMORAL DR: 40'-0" WIDE x 39'-8" DEEP + 10'-0" REAR DECK, RIGHT GARAGE



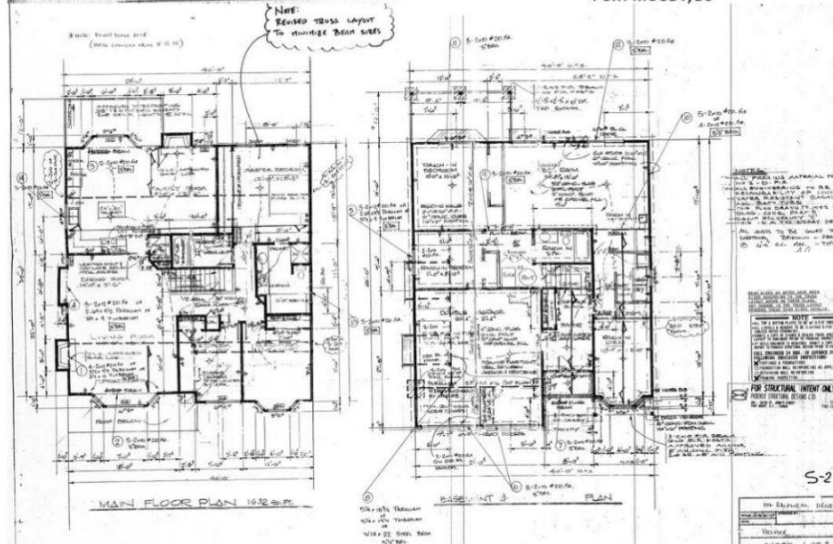
3. 40'-0" WIDE x 45'-0" DEEP + 12'-0" REAR DECK, LEFT GARAGE



PRE-DEMOLITION
HAZARDOUS MATERIAL INSPECTION REPORT

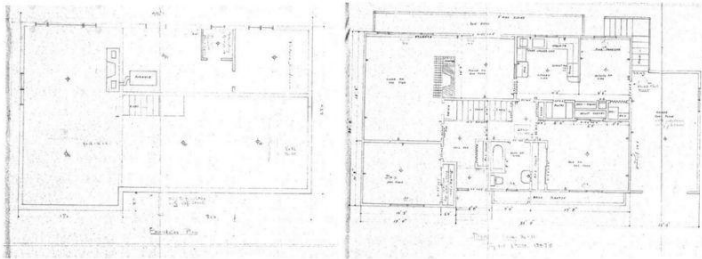


PORT MOODY, BC

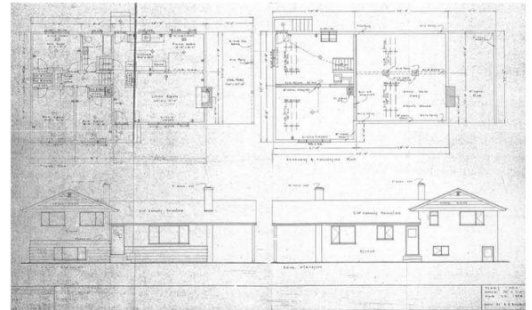


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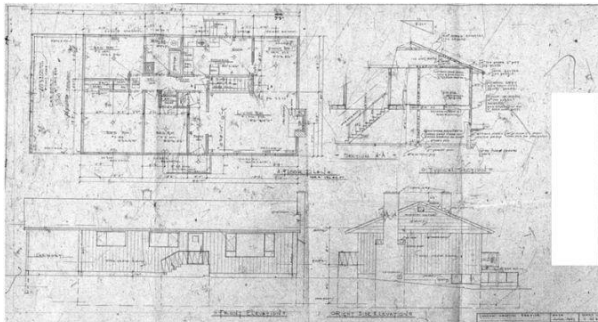
4. 132 BALMORAL DR: 60'-0" WIDE x 30'-0" DEEP, RIGHT GARAGE



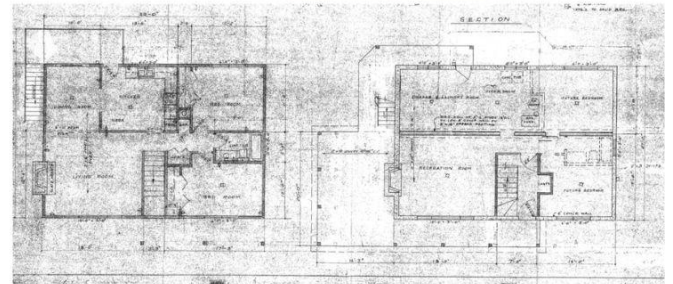
5. 56'-6" WIDE x 27'-0" DEEP, RIGHT CARPORT



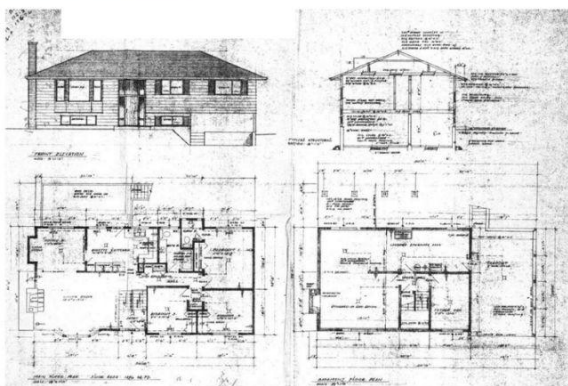
6. 57'-0" WIDE x 26'-0" DEEP, LEFT CARPORT



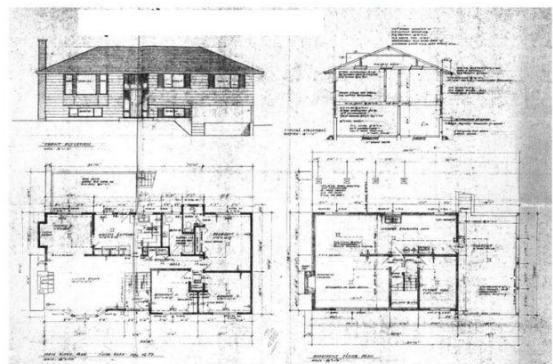
7. 39'-0" WIDE x 27'-0" DEEP + 6'-0" REAR DECK, LEFT CARPORT



8. 50'-0" WIDE x 27'-0" DEEP + 10'-0" REAR DECK, RIGHT CARPORT



9. 50'-0" WIDE + 1'-9" CHIMNEY x 27'-0" DEEP + 10'-0" REAR DECK, RIGHT GARAGE



BEFORE

10.

52'-0" WIDE x 27'-0" DEEP, LEFT GARAGE

