ATTACHMENT D



Capital Region Housing Corporation 631 Fisgard Street Victoria, BC, Canada V8W 1R7 T 250.388.6422 F 250.361.4970 www.crd.bc.ca/housing

January 21, 2020

Mayor and Council City of Victoria 1 Centennial Square Victoria BC, V8W 1P6

Dear Mayor Helps and Council:

Re: Michigan Square Redevelopment (330 – 336 Michigan Street) – Development Permit Application – Capital Region Housing Corporation (CRHC)

The Capital Region Housing Corporation (CRHC) is pleased to submit this development permit with variance (DPV) application to council for the proposed redevelopment of 330 – 336 Michigan Street. The proposed redevelopment is to convert the existing 62 unit development into a 106 affordable housing development.

To support our application, we have attached the following:

- Appendix A: Justification letter;
- Appendix B-1: Compliance with City of Victoria Policies
- Appendix B-2: City of Victoria Policy Excerpts
- Appendix C: Community Benefit and Feedback
- Appendix D: Green Building Features
- Arborist Report

Warm Regards,

Paul Kitson

Appendix A: Justification Letter

JUSTIFICATION LETTER

Project Description

This development permit application is for the redevelopment of the existing 62 unit apartment complex into a 106 unit development. The existing site consists of two 22-unit apartment buildings, a 9-unit stacked townhouse building, and a 9-unit registered heritage building with an attached townhouse. The three buildings fronting Michigan Street (two 22 unit apartment buildings and 9 unit stacked townhouse) comprises of 53 units. These buildings will be demolished and replaced with two 4 storey buildings, totaling 97 units. The existing 9-unit registered heritage building with attached townhouses will not be altered as part of this development permit application.

The redevelopment will require that the existing tenants be relocated and returned once the new complex is completed. The redevelopment will provide a greater number of affordable housing units, additional family units, a new amenity space, new accessible units, and a more energy efficient buildings. The complex will target seniors, adults with disabilities, working singles and small family units.

Over the years, the buildings have encountered water penetration issues, especially on the ground level units. Rot has developed within a number of floor cavities' between the existing buildings and parkade suspended slab at level one. Recognizing the cost of remediation, the challenges of replacing ground floor joists on three storey buildings, and potential deferred maintenance costs, the best course of action is to redevelop the property. Redevelopment would provide a completely new structure with new units, and private balconies in a convenient, walkable location.

The 9 unit heritage building with attached townhouse will not be demolished as part of this redevelopment project. Once funding has been approved, CRHC will develop a scope of work for the heritage build that corresponds with the approved budget. This work will happen under a separate permit. As part of this redevelopment project, a plaque (information board) will be installed in the vicinity of the main entrance to acknowledge the history of the registered heritage building.

Project Goals and Objectives

As per the CRD's 2019-2022 Corporate Plan, affordable housing has been identified as a significant priority to increase community well-being. Part of the *Strategic Plan*, set out by the CRHC Board, is to increase CRHC rent-geared-to-income (RGI) rental units in response to the core housing needs within the Capital Region District (CRD). Therefore, the project aligns with CRHC and CRD goals and will strive for social, environmental and economic sustainability that corresponds with policy objectives outlined by the City of Victoria.

Appendix A: Justification Letter

The project aims to provide a vibrant, green, and safe place where people of varying ages and incomes can live comfortably. The CRHC intends to partner with another non-for-profit housing provider to manage the seven accessible units.

The project's design will be guided by the Energy Step Code design principles and methods to reduce energy consumption and operational costs while meeting the resident's desire for comfort. The following key principles provide a framework for the development and design of the project:

- Design the project to meet the demand for Affordable Housing;
- Create a project that offers positive visual effects and relationships with the local community;
- Communicate and engage effectively with all stakeholders, including the community;
- Ensure that the design incorporates energy efficient measures & sustainability principles;
- Match building form and bedroom numbers with prospective residents and community;
- Continuously identify, evaluate and manage project risks;
- Promote operational efficiencies and affordability by optimizing density;
- The buildings will be adaptable as per the City of Victoria's Housing Strategy 2016-2025 Strategic Direction 2, to encourage housing diversity.

Project Scope and functional program

The project's functional program has provided the necessary criteria against which the design team has assessed the validity and vitality of the design solution. The following has been used to guide our design:

- The City of Victoria's Design Guidelines Multi-unit Residential;
- BC Housing's Design Guidelines and Construction Standards 2019;
- Updated 2018 Building Codes;
- CRHC's project goals.

As per the Multi-Unit Residential Design Guidelines, the buildings will be:

- 1.1 Unifying, Sensitive, and Innovative The architectural approach will provide coherence in relation to the existing character and patters of development in James Bay and on Michigan Street.
- 3.1 Larger and longer buildings should be visually broken into human scale proportions the proposed buildings have a number of break in forms, projections, and roof lines,
- 4.1 Exterior Finishes the exterior building materials will be Hardie Plank. This is more expensive but more durable and capable of weathering gracefully.

Appendix A: Justification Letter

- 5.1 Open Spaces, Amenity and landscaping the buildings are designed to accommodate community and ecological needs by using community rooms, community gardens, and landscaping to promote social interaction.
- 9.1 Access and Circulation –the breezeway is used to create a fictitious barrier between the front of the buildings and the play areas to promote safety at the intersections between the public, semi-private and private domains.

Additional characteristics:

- It is likely that the foundation will be built on pilings and grade beams to support the building
 within the existing soil conditions. Subsurface conditions will be determined during a complete
 geotechnical investigation, early in the design phase.
- The existing City of Victoria sewer, water and stormwater services are adequate to meet the proposed demand of the development.

Sustainability features of the building include:

- Energy Step Code;
- Underground bicycle and scooter parking;
- Heat Recovery Ventilation (HRV) within each suite that will provide localized ventilation, a reduction in rooftop air handling equipment and an overall reduction in noise pollution;
- Controlled exterior lighting to reduce light pollution on surrounding residents;
- High Efficiency Irrigation system designed for the site using Smart Timer Technology to tailor the irrigation flow to the present climatic conditions.

Appendix B-1: Compliance with the City of Victoria's Policies

Compliance with OCP, Local Area Plans and Development Permit Guidelines

General: The property is currently zoned under the R3-2 zone for the proposed development and is ready for redevelopment. This application will require minor development permit variances. By redeveloping the property, it will address the current deteriorating buildings while increasing the number of units on the site from 62 to 106. The Project will further invigorate the James Bay neighborhood, provide additional housing diversity that complements the eclectic make-up of the neighborhood, encourage the use of multi-modal transportation options, and activate the streetscape.

The site is underutilized within the current zoning. This redevelopment will add 44 additional affordable rental housing units in the City of Victoria.

OFFICIAL COMMUNITY PLAN:

The Michigan Redevelopment project is considered to be consistent with and aligns with all of the pertinent objectives and policies within the Official Community Plan. This initiative by the CRHC also assists the City of Victoria in achieving its goals related to the critical affordable housing needs of seniors, singles, families and persons with special needs.

DESIGN GUIDELINES FOR: MULTI-UNIT_RESIDENTIAL, COMMERCIAL AND INDUSTRIAL

One of the key design principles was to create buildings that offer a positive visual effect and relationship with the local community.

The section of Michigan Street block where the property is located, is primarily lined with apartment buildings with the exception of one single family house. Other than the single house, all the remaining buildings exceed 3 storeys. The proposed 4 storey apartment buildings provide a cohesive visual identity with the neighbouring properties with similar massing, pattern, scale, roof lines, façade rhythm, and building height. The design has also used the form, projections, surface treatments and building articulations to break the appearance of larger buildings into human scaled proportions. Additionally, the inclusion of ground oriented suite entrances creates the appearance of a townhouse complex with strong relationships to the street.

The development has also used landscaping design to allow a proper transition between public, semiprivate and private spaces throughout the development. A well-scaled forecourt has been created with both main entries framing a covered street-facing plaza. Informal seating and accessible walkways concentrate activity and movement into one welcoming space.

A number of existing trees to the Northwest section of the site will be removed as recommended by the hired Arborist. The proposed row of trees will be spaced more appropriately and be more drought resistant to withstand climate changes.

Appendix B-1: Compliance with the City of Victoria's Policies

JAMES BAY NEIGHBOURHOOD PLAN:

Mindful of the James Bay Neighbourhood plan, the project is scaled to harmonize with the surrounding neighbourhood through the form and scale between the proposed new buildings and adjacent residential units, while respecting the existing streetscape character.

DEVELOPMENT PERMIT GUIDELINES:

The site is located in James Bay; however, it is not in a specific development permit area. For sites not within a specific development permit area, DPA-16 applies. The proposed development interfaces with multi-family residential developments with similar form and character.

PROPOSED DEVELOPMENT VARIANCE PERMITS:

The project complies with the R3-2 zone and the design guidelines for multi-unit residential buildings pertaining to density, building height, location, orientation, massing, articulation, and materials; circulation; and the aesthetics of landscaping, open space, lighting, colors, windows, entrances, and signage.

- The development proposes 70 parking stalls versus the required 67 and therefore complies with the City of Victoria's Schedule "C". Additionally, the development will provide the required 131 long term and 11 short term bicycle parking.
- The development proposes a density of 1.56:1 within 4 storeys, while the R3-2 zone allows a density of 2:1 up to 6 storeys.

Proposed Development Variance Permit:

1. **Regulation:** R3-2 – Site Coverage – Site Coverage of 40%

Proposed: R3-2 – Site Coverage – Site Coverage of 43.5%

Justification:

- This regulation permits a site coverage 40% for a four (4) storey building when parking is contained in enclosed parking space. The proposed site coverage is 43.5% is 3.5% more than the current regulation which is consistent with the adjacent multifamily development on the corner of Michigan and Oswego Street.
- 2. Regulation: R3-2 Setbacks FRONT (Michigan Street): 7.5 m REAR (North): 6.8m SIDE (East): 6.8 m SIDE (West): 6.8 m

Appendix B-1: Compliance with the City of Victoria's Policies

Proposed:	R3-2 – Setbacks -	FRONT (Michigan Street): 5.50 m
		REAR (North): 5.78 m
		SIDE (East): 6.0 m
		SIDE (West): 6.0 m

Justification:

- This regulation requires that buildings be setback a minimum of 7.5m facing Michigan St and 6.8m from the other property boundaries. We are proposing a 5.50m setback facing Michigan Street, a 5.78m setback at the north property line and a 6m setback from the east and west property boundaries. This request is in keeping with the setback of the adjacent 300 Michigan Street, 4 storey apartment building which has a 3.66m setback facing Michigan Street and a 0m setback on the interior property boundary.
- The existing buildings on the site facing Superior Street will not be demolished as a part of this redevelopment and therefore has the same setbacks as the current development.

Appendix B-2: City of Victoria's Policy Excerpts

Policy Excerpts

Relevant excerpts from the City of Victoria *Official Community Plan*, the City of Victoria *Design Guidelines for: Multi-Unit Residential, Commercial and Industrial*, and the *James Bay Neighbourhood Plan* are shown below.

OFFICIAL COMMUNITY PLAN:

Section 6: Land Management and Development

- 6.1.6 Urban Residential areas are generally located within 400 metres of the Urban Core, a Large Urban Village, Town Centre, or frequent transit route, or within 800 metres of a rapid transit station.
- 6.23 Generally support new development in areas designated Urban Residential that seeks densities toward the upper end of the range identified in Figure 8 where the proposal significantly advances the objectives in this plan and is: 6.23.1 within 200 metres of the Urban Core; or

Section 8: Placemaking - Urban Design and Heritage

8.50 Encourage new development to avoid the demolition of heritage property, or one or more of its facades

Section 12: Climate Change and Energy

12.17 Continue to support and enable the private development of green buildings, subject to development control and building regulation, with features that may include but are not limited to:

12.17.2 Sustainable landscaping;

- 12.17.5 Energy efficiency technology;
- 12.17.8 Efficient plumbing fixtures and systems.

Section 13: Housing and Homelessness

- 13.9 Support a range of housing types, forms and tenures across the city and within neighbourhoods to meet the needs of residents at different life stages, and to facilitate aging in place.
- 13.10 Encourage a mix of residents, including households with children, by increasing opportunities for innovative forms of ground-oriented multi-unit residential housing.
- 13.16 Provide a range of housing choice for persons with mobility challenges by developing voluntary guidelines for enhanced adaptable housing to provide a higher standard of adaptability and accessibility for all housing types.

Appendix B-2: City of Victoria's Policy Excerpts

- 13.16 Provide a range of housing choice for persons with mobility challenges by developing voluntary guidelines for enhanced adaptable housing to provide a higher standard of adaptability and accessibility for all housing types.
- 13.23 Support the retention of existing rental units in buildings of four units or more by considering higher density redevelopment proposals on these sites only if, as a voluntary amenity:
 - 13.23.1 The same number of rental self-contained dwelling units is maintained on-site, and the general rent level identified, through a housing agreement; or,

DESIGN GUIDELINES FOR: MULTI-UNIT RESIDENTIAL, COMMERCIAL AND INDUSTRIAL

General guidelines

- 1.1 New development should be compatible with and improve the character of established areas through design that is unifying, sensitive and innovative:
 - 1.1.1 The architectural approach should provide unity and coherence in relation to existing place character and patterns of development through the use of appropriate forms, massing, building articulation, features, and materials.
- 2.1 New development should contribute to cohesion, visual identity and the quality of streetscapes, particularly when adjacent and nearby buildings are similar in scale, proportion, rhythm, and pattern:
 - 2.1.2 New development is encouraged to add interest to the streetscape through variations in building height, rooflines and massing.
- 2.2 New development should avoid long unvaried stretches of frontages in ways that include, but are not limited to:
 - 2.2.1 Massing that gives the impression of small blocks.
 - 2.3.5 Visual and physical connections between the public street and buildings should be developed (e.g. patios and spill-out activity, views to and from interior spaces, awnings and canopies).
- 2.4 Residential use at street level should have strong entry features and building designs that encourage interaction with the street.
- 5.1 Open space should be usable, attractive and well-integrated with the design of the building.
- 5.2 Public and semi-public spaces should be distinguished from private spaces through design elements, including, but not limited to:

5.2.1 Building and site design.

- 5.3 Consideration should be given to landscaped open space, accessible from the adjacent right-ofway, to soften the impact of larger and longer buildings. Possible locations include the corners of lots, at building entrances and walkway entrances.
- 5.8 Consideration should be given to the inclusion of private open space in residential developments in the form of courtyards, recessed balconies, terraced balconies or rooftop gardens.
- 7.1 A high standard of accessibility in site, building and landscape design is encouraged to address the needs of all users, including people who have disabilities.
- 9.1 Site access and internal circulation should be designed to emphasize public safety at the intersections of public and private domains, internal security and efficient flows.
- 9.3 Safe and easily identified access for pedestrians, bicycles and vehicles should be provided.

Appendix B-2: City of Victoria's Policy Excerpts

JAMES BAY NEIGHBOURHOOD PLAN:

The following are applicable excerpts from the James Bay Neighbourhood Plan:

Housing - Goals & Objectives

- 3. To place emphasis on promoting family housing including new affordable housing for families
- 5. Encourage visual form and scale between new buildings and adjacent residential units
- 6. Encourage high standard of design for new residential developments
- 9. New developments should respect existing streetscape character

Heritage Preservation – Policies and Recommendations

- 2. Any redevelopment in the above areas should be encouraged to enhance existing heritage/ character with regard to scale, form, quality and materials
- 4. Promote the continued economic life of heritage structures through land use controls such as density, mixed uses, and creative parking provision solutions.

DEVELOPMENT PERMIT GUIDELINES:

The following are applicable excerpts from the Development Permit Area 16 (DPA 16):

The special conditions that justify this designation include:

(c) Commercial, industrial and multi-unit residential buildings often share an interface with Traditional Residential areas with low-rise built form and established character that require consideration for sensitive transition

(d) The presence of heritage properties throughout the city warrants special design consideration that balances heritage conservation and new development that responds to historic setting, where this is relevant

Community Benefit and Consultation

Included in this section:

- Community Benefit
- Community Consultation and Feedback
- Tenant Communications
- Tenant Relocation Policy
- Open House Boards

COMMUNITY BENEFIT

Benefits to the community are achieved through promoting and realizing the objectives of City of Victoria's Official Community Plan. These benefits relate to:

- Providing affordable housing in close proximity to services and amenities;
- Providing housing in close proximity to parks and transit;
- Implementing City of Victoria's growth strategy by keeping urban development compact;
- Developing a parking strategy to create the optimum number of parking stalls;
- Improving housing affordability by ensuring units have energy conservation which maintains long term affordability by minimizing the overall income spent on housing;
- Helping seniors remain in the neighbourhood and transition into more affordable housing that meets their needs;
- Creating housing opportunities for those in core housing need; and
- Increasing housing opportunities for individuals with physical disabilities.

COMMUNITY CONSULTATION AND FEEDBACK

In keeping with our design principles of communicating and engaging effectively with all stakeholders, including the community, the CRHC conducted two open house meetings on November 5th and 6th between 4pm and 7pm.

CRHC received valuable feedback from the community and have since remained in contact with several residents who continue to provide valuable feedback.

The following are modifications made to our drawings as a result of the feedback received through the community consultation process:

- <u>Storage in units</u>: We have modified the layout stalls in the underground parkade. This has resulted in additional parking stall and more space for storage in the parkade.
- <u>Pedestrian Walkways</u>: We have modified the pedestrian walkways by increasing the number of walkways to the northwest section of the site which has been previous not used by Tenants.
- <u>Trees:</u> CRHC has hired an Arborist who determined that there are a number of trees that need to be removed due to their ailing condition. The Arborist has also recommended removing the cluster of trees on the Northwest section of the property. This cluster of trees would be replaced by new drought resistant tree species.
- <u>Unit Mix:</u> CRHC had to adjust our unit mix to accommodate changes in unit layouts. Through design development, we have increased the number of studio units by three and reduced the number of three bedroom units by one. Additionally the amenity space was increased.
- <u>Parking</u>: CRHC had initially proposed a total of 69 total parking stalls at the time of the community consultation. This has since been revised to allow for 70 total parking stalls; the accessible parking stalls are now positioned immediately adjacent to the elevators.
- <u>Building Colour</u>: CRHC has modified the building colours where colours are being used to break up the appearance of a long building;

We have included the following as a part of our application:

- 1. Community consultation boards
- 2. Resident's sign in sheet
- 3. Summary of resident's concerns

TENANT RELOCATIONS

The CRHC has developed a tenant relocation policy which has been approved by the CRHC Board. CRHC staff have provided current tenants with information sessions about the proposed redevelopment, and have gone door-to-door to gather tenant feedback toward creating the relocation policy. Additionally, the CRHC has worked with City of Victoria Staff to develop a Tenant Assistance Plan that meets the criteria set out by the City of Victoria.

All efforts will be made to relocate tenants who continue to qualify for housing within the CRHC or through another social housing provider. The exception would be if a tenant chooses to live with a private housing provider. Tenants will have first option to move back into an RGI unit in the new building. The policy aligns or exceeds the regulations and/or expectations under Residential Tenancies Act, BC Housing and City of Victoria. (See attached CRHC Tenant Relocation Policy).

CRHC has committed to:

- Supporting tenants in finding alternate housing;
- Offering tenants choice;
- Compensating for moving costs;
- First right of refusal;
- Ensuring the needs of the most vulnerable are met; and
- Offering frequent, accurate and timely information as the redevelopment process progresses.

APPROVED FUNDING

In March 2019, the City of Victoria Council approved a capital grant of \$1,395,000 to assist with the Michigan Redevelopment project. The funding program used to guide the unit mix and affordability levels of the Michigan project is defined by the Building BC: Community Housing Fund program. These affordability levels also align with the City of Victoria Affordable Housing Fund Requirements. Since the March 2019 the project has gone through several design changes due to comments received by City of Victoria Staff, BC Housing Staff and the Advisory Design Panel. The result of these changes has decreased the requested funding amount to \$990,000.

The project will target clients with very low to moderate income levels. The project offers the following:

- 20 very low-income units
 - 7 studio units, 12 one-bedroom, 1 two-bedroom
 - 22 low-income units:

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- o 9 one-bedroom, 11 two-bedroom, 2 three-bedroom
- 55 moderate income level units:
 - 12 one-bedroom, 35 two-bedroom, and 8 three-bedroom units

The equity requested through the City of Victoria is aligned with the program guidelines as outlined in the table below:

Unit Type	Target Income Level	Original Unit Count	Updated Unit Count	Monthly Rent	Eligible VHRF grant per Unit	Original Total VHRF Contribution	Updated VHRF Contribution
Studio	Very Low	4	7	\$375	\$10,000	\$40,000	\$70,000
One bedroom	Very Low	7	12	\$375	\$10,000	\$70,000	\$120,000
Two bedroom	Very Low	7	1	\$570	\$20,000	\$140,000	\$20,000
Three bedroom	Very Low	1	0	\$660	\$30,000	\$30,000	\$0
Studio	Low	0	0	\$641	\$10,000	N/A	\$0

Total		98 units	97 Units			\$1,395,000	\$990,000
Three bedroom	Moderate	6	8	\$2,480	N/A	N/A	\$0
Two bedroom	Moderate	15	35	\$1,800 - \$2,000	\$10,000	\$150,000	\$350,000
One bedroom	Moderate	9	12	\$1,250	\$5,000	\$45,000	\$60,000
Studio	Moderate	0	0	\$1,025 - \$1,250	\$10,000	N/A	\$0
Three bedroom	Low	5	2	\$1380	\$30,000	\$150,000	\$60,000
Two bedroom	Low	33	11	\$960	\$20,000	\$660,000	\$220,000
One bedroom	Low	11	9	\$739	\$10,000	\$110,000	\$90,000

January 7, 2020

City of Victoria Sustainable planning and Community Development Development Services division 1 Centennial Square Victoria, BC V8W 1p6

Re: Michigan St. Green Building Features

To whom it may concern:

Regarding our development application for 310-338 Michigan St. and 333 Superior Street, please note that the project will include the following Green Building Features:

1. Step 3 of the BC Energy Step Code

- As a BC Housing-funded development this project will be built to comply with Step 3 of the BC Energy Step Code; operating at a 20% reduction in energy use and with substantially increased envelope performance relative to prescribed references.
- Energy modeling will be conducted at multiple stages during the pre-construction stage to validate compliance.
- Air tightness testing will be conducted prior to occupancy to verify that building performance meets modelled criteria.
- All ventilation is mechanical rather than passive, with heat recovery exchangers at every exhaust vent. This ensures all makeup air is pre-conditioned and reheating energy loads are minimized.
- The Heat Recovery Ventilation (HRV) system is decentralized into individual suites, reducing rooftop air handling equipment and providing an overall reduction in noise pollution.

2. Site selection and design

- The proposal is to rebuild and densify an existing affordable housing project within an already densely populated centralized urban location with strong pre-existing infrastructure and amenity.
- Significant excavation, shoring, concrete, and demolition work will be avoided by retaining as much of the existing underground structure as possible.
- As with the previous development we proposed to preserve the heritage house and attached townhouses.

3. Green Spaces

- A community garden is being added to the south-facing front yard.
- All trees with compromised health are being more than replaced with healthy new site-appropriate species.
- New plants will be drought-tolerant, non-invasive indigenous species selected for quality of appearance and ease of maintenance.



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102-5190 Dublin Way V9T 2K8 T +1 250-585-5810 mail@dhk.ca www.dhk.ca • The extent of grass turf will be minimized, with a combination of less water-intensive landscaping treatments used instead.

4. Transportation

- The densification of this centralized site in James Bay means that a higher number of residents will be within close walking distance of well-established neighbourhood services and amenities. Personal vehicle usage will be low relative to walking and transit usage.
- The underground parkade will have dedicated areas for secured bicycle and scooter parking.
- Additional electrical circuit capacity and conduit rough-in will provide scalability for electrical vehicle charging stations to keep pace with rising demand.

5. Storm water management

- A majority of the site will be occupied by an underground parkade which will limit the available space for rainwater management infrastructure in particular the use of surface feature treatment and storage methods like Raingardens and Bioswales. The use of cisterns and/or rainwater barrels to collect runoff from the buildings is a preferable alternative and will also supplement the water required for on-site irrigation.
- An erosion and sediment control plan will be developed for the duration of construction.
- The project patios and sidewalks will be designed to discharge to landscaped areas or the storm water detention system.
- The paved driveway and parking areas will be designed to discharge to the storm water detention system.

6. Water usage

- All interior plumbing fixtures will be low water, low flow fixtures, including dual flush toilets (4.8 LpF).
- Water efficient (Energy Star) Clothes Washers will be specified (95 litres per load or less).
- All hot water piping will be insulated and will be on a recirculating loop.
- A high efficiency irrigation system will be customized for the site, using Smart Timer Technology to tailor the irrigation flow to the present climatic conditions.

7. Sustainable Materials

- Concrete will contain 30% 50% fly ash.
- Timber framing will use finger jointed studs, engineered wood products (LSL, SCL, wood I-Joists, pre-engineered wood trusses).
- Thermal wall assemblies will use insulation meeting EPP guidelines where possible.
- Millwork panel products will be free of urea-formaldehyde.



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- SCS Floor Score Certified hard flooring products will be used throughout (no carpet will be used).
- New paints and finishes will meet low V.O.C. contents (i.e. flat paint – 50g/l, non flat – 150 g/l, clear wood finish – 350g/l, floor coatings – 100 g/l, stains – 250 g/l).
- Low VOC adhesives will be used (wood floor adhesive 100 g/l, Construction adhesives – 70 g/l, ceramic tile adhesive – 65 g/l, subfloor adhesives – 50 g/l, VCT adhesive – 50 g/l).

8. Energy Efficient Detailing

- Window specification is energy star vinyl windows
 – double-glazed units with Low E coatings and argon fill for best energy conservation. U value of 0.31 or lower.
- Increased levels of insulation in walls and roof: R22 R28 in exterior walls; R40+ in roof.
- CFL / LED light bulbs in energy efficient light fixtures specified throughout, with motion detectors in public areas for reduced energy usage.
- Energy Star rated appliances for unit kitchens and the common laundry rooms.
- Central high efficiency gas fired condensing hot water heater(s).

In conclusion the owners and consultant team are fully committed to sustainability in aspects of this redevelopment, and believe it this a key factor and providing exceptional new affordable housing units in James Bay.

Regards,

Rob Whetter Architect AIBC RAIC