MORRISON HERSHFIELD

REPORT

PARC Victoria
Mixed-Use Seniors Residence
RZ Sustainable Design Report

Fort & Broughton, Victoria, BC

Presented to:

Ms. Helen Besharat Architect AIBC
Besharat Friars Architects
600 – 355 Burrard Street
Vancouver BC V6C 2G8

Report No. 5170882.00 / 01 2017.09.19

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1. INTRODUCTION

Morrison Hershfield Limited (MH) was hired by Pacific Arbour Six Residences Ltd (PASR) to provide sustainable design consulting services for the PASR Downtown Victoria Mixed-Use Seniors Residential & Commercial Development. This report is based on the strategies and requirements outlined in the LEED® Canada 2009-NC Green Building Rating System. The developer, Pacific Arbour Retirement Communities (PARC) has registered the project with the Canada Green Building Council, and the developer and design team are committed to apply the green building design and construction strategies contained herein.

The Sustainable Design Report is based on the seven categories outlined in the LEED 2009-NC green building rating system, and the intended compliance of the design and construction strategies with the reference guide requirements – namely Sustainable Sites (SS); Water Efficiency (WE); Energy & Atmosphere (EA); Materials & Resources (MR); Indoor Environmental Quality (IEQ); innovation in Design (ID); and Regional Priority (RP).

An MH green design independent assessment checklist is provided in Appendix A to document the potential points being pursued under each category. Under LEED 2009-NC, a threshold of 60 points out of a 110 point system is required to achieve Gold certification. It is estimated that this project could achieve LEED certification in pursuing green design, construction and facility management strategies outlined below.

2. LEED 2009 NC STRATEGIES

SUSTAINABLE SITES

- The civil engineer will prepare an erosion and sedimentation control system and work with the general contractor to prepare a construction pollution prevention plan.
- The site is previously developed and is well situated within the downtown core of Victoria with many amenities available to residents.
- The previous use site contamination will be remediated prior to construction start.
- Proximity to downtown and public transportation, promotion of bicycle use, car share and shuttle bus programmes, combined with resident electric vehicle parking, all promote the reduction of carbon emissions.
- Stormwater management measures controlling quantity and quality will be explored for applicability to this site.
- With 100% underground parking and the use of vegetated roofscapes combined with high albedo roofing materials will reduce the heat island effect commonly experienced in urban settings.




potential sustainable sites points = 21

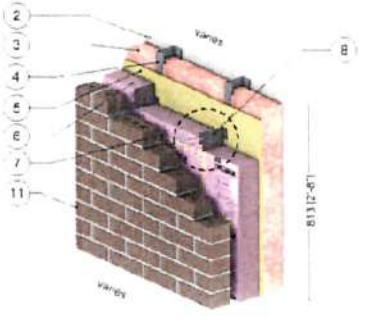
WATER EFFICIENCY

- To reduce the consumption of potable water, a high efficiency irrigation system will be combined with a selection of native and adaptive plant species for the vegetated roof areas.
- All plumbing fixtures will be specified to reduce the potable water consumption by at least 35% compared to a project with standard flow fixtures.

potential water efficiency points = 6

ENERGY PERFORMANCE AND REDUCTION OF ATMOSPHERIC POLLUTANTS

- The design of a high performance building envelope, and those of the mechanical and electrical systems, are integrated with the goal of reducing the project's overall energy consumption. An energy model will be compared to ASHRAE 90.1 2007, as modelled for LEED credit compliance, with an anticipated energy savings of 22% to a base building design.
- To ensure that the mechanical and electrical systems perform as designed and specified, the developer intends to hire an independent Commissioning Authority to perform both fundamental and enhanced commissioning activities throughout the design and construction phases.
- The integration of solar photovoltaic panels similar to the PARC White Rock project is being explored for this project.
- A building envelope consultant has been hired to be part of the integrated design team for the design and implementation of a high performance building envelope that will include triple glazed residential windows and exterior wall assemblies that reduce thermal bridging.
- All mechanical equipment will be specified to include enhanced refrigerant management to reduce or eliminate ozone depleting refrigerants support early compliance with the Montréal Protocol.



potential energy & atmosphere points = 11

MATERIALS AND RESOURCES

- A comprehensive recycling collection and storage programme will be implemented similar to those currently in place at other PARC facilities throughout the Lower Mainland. The collection of recyclable materials and organic kitchen waste will be conducted on a daily basis and stored in a room located on the P1 parkade level for weekly pick-up by a commercial recycling company.
- Building products and materials will be specified to contain high recycled content and where feasible, sourced locally or regionally.
- A construction waste management programme will be required of the general contractor with the goal of diverting 75% of construction activity waste from landfills, as achieved on other PARC projects.

- **potential materials & resources points = 4**

INDOOR ENVIRONMENTAL QUALITY

- A major goal of the PARC Victoria Mixed-Use Seniors Residential project is to provide a healthy indoor environment for residents, staff and visitors alike. Interior products, materials and finishes will be specified to ensure that there is low or no VOC content, and the entryways will include regularly maintained permanent walk-off mats such that outdoor pollutants and allergens will not enter the building.
- The overall design of the common areas and resident suites is intended to offer access to daylight and views, as well as provide some degree of individual control of lighting levels and thermal comfort.
- Mechanical systems will be designed to monitor outdoor air delivery and indoor air quality performance.
- The building itself will provide a 100% non-smoking interior environment, while offering an outdoor smokers' shelter located more than 7.5m from entrances, operable windows and air intake louvres.
- Project specifications will require the general contractor to prepare and implement an indoor air quality plan during construction to eliminate pollutants from being absorbed by interior finishes or being trapped in mechanical system ducting.

- **potential indoor environmental quality points = 10**

INNOVATION IN DESIGN

- Several programmes and green design strategies will be implemented and included in the overall design and operations of this facility. These include: a green education outreach programme; a green cleaning and green grounds-keeping programme; reduced mercury in luminaires; and exemplary performance of 100% of vehicle parking underground.

- **potential innovation in design points = 5**

REGIONAL PRIORITY

- There are up to four credits that would contribute to this LEED category. A building envelope consultant has been retained to provide a durable building plan for the facility management to use; construction waste management of > 75% will be mandated; and the development density/community connectivity combined with accessible vegetated roofs all contribute to this category.

- **potential regional priority points = 4**

APPENDIX A: MH Independent Assessment Checklist

INDEPENDENT ASSESSMENT L E E D ® Canada 2009 - NC

Project Name: PARC Vitoria
Date: 2017.09.19
Assessor: J-P. Mahé

MORRISON HERSHFIELD

61 Estimated Points (Excludes Risk Credits) — ***Rating Anticipated = LEED GOLD*** — **Possible Points: 110**

Certified 40-49 points Silver 50-59 points Gold 60-79 points Platinum 80+ points

21 4 Sustainable Sites — Points 26

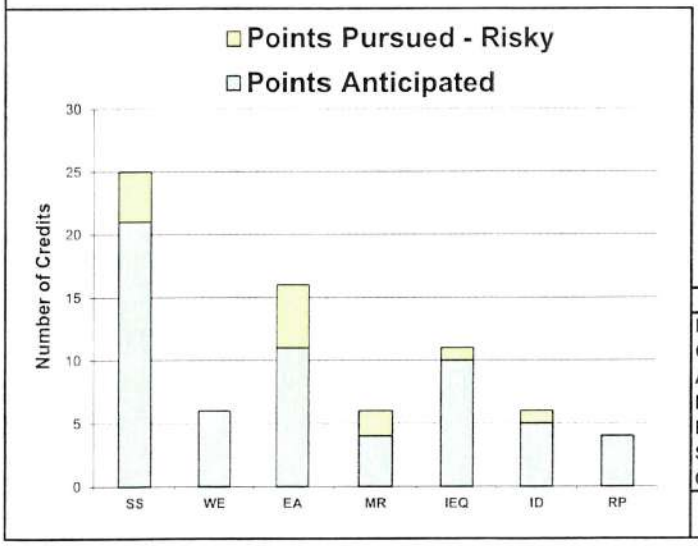
		CE	Prereq 1	Construction Pollution Prevention — Required
1		OW	Credit 1	Site Selection — 1
5		LC	Credit 2	Development Density — 5
1		CE	Credit 3	Brownfield Redevelopment — 1
6		LC	Credit 4.1	AT: Public Transportation Access — 6
1		LC	Credit 4.2	AT: Bicycle Storage & Changing Rooms — 1
3		EE	Credit 4.3	AT: Low-Emitting & Efficient Vehicles — 3
2		AR	Credit 4.4	AT: Parking Capacity — 2
	1	AR	Credit 5.1	Site Development: Protect & Restore — 1
	1	AR	Credit 5.2	Site Development: Maximize Open Space — 1
	1	CE	Credit 6.1	Stormwater Design: Quantity Control — 1
	1	CE	Credit 6.2	Stormwater Design: Quality Control — 1
1		AR	Credit 7.1	Heat Island Effect: Non-Roof — 1
1		AR	Credit 7.2	Heat Island Effect: Roof — 1
		EE	Credit 8	Light Pollution Reduction — 1

6 Water Efficiency — Points 10

		ME	Prereq 1	Water Use Reduction — Required
2		LA	Credit 1	Water Efficient Landscaping — 4
		ME	Credit 2	Innovative Wastewater Technologies — 2
4		ME	Credit 3	Water Use Reduction — 4

11 5 Energy and Atmosphere — Points 35

		CA	Prereq 1	Fundamental Commissioning — Required
		EM	Prereq 2	Minimum Energy Performance — Required
		ME	Prereq 3	Refrigerant Management — Required
6	2	EM	Credit 1	Optimize Energy Performance — 19
1		EE	Credit 2	On-Site Renewable Energy — 7
2		CA	Credit 3	Enhanced Commissioning — 2
		ME	Credit 4	Enhanced Refrigerant Management — 2
	3	OW	Credit 5	Measurement and Verification — 3
2		OW	Credit 6	Green Power — 2



4 2 Materials and Resources — Points 14

		AR	Prereq 1	Storage & Collection of Recyclables — Required
		AR	Credit 1.1	Maintain Existing Walls, Floors & Roof — 3
		AR	Credit 1.2	Maintain Interior Non-Structural Elements — 1
2		CO	Credit 2	Construction Waste Management — 2
		AR	Credit 3	Materials Reuse — 2
1	1	AR	Credit 4	Recycled Content — 2
1	1	AR	Credit 5	Regional Materials — 2
		AR	Credit 6	Rapidly Renewable Materials — 1
		AR	Credit 7	Certified Wood — 1

10 1 Indoor Environmental Quality — Points 15

		ME	Prereq 1	Indoor Air Quality Performance — Required
		OW	Prereq 2	Tobacco Smoke (ETS) Control — Required
		ME	Credit 1	Outdoor Air Delivery Monitoring — 1
		ME	Credit 2	Increased Ventilation — 1
1		CO	Credit 3.1	IAQ Plan: During Construction — 1
1		CO	Credit 3.2	IAQ Plan: Before Occupancy — 1
1		CO	Credit 4.1	Adhesives and Sealants — 1
1		CO	Credit 4.2	Paints and Coatings — 1
1		CO	Credit 4.3	Flooring Systems — 1
1		CO	Credit 4.4	Composite Wood & Agrifiber Products — 1
1		ME	Credit 5	Chemical & Pollutant Source Control — 1
1		EE	Credit 6.1	Controllability: Lighting — 1
1		ME	Credit 6.2	Controllability: Thermal Comfort — 1
		ME	Credit 7.1	Thermal Comfort: Design — 1
		ME	Credit 7.2	Thermal Comfort: Verification — 1
	1	LC	Credit 8.1	Daylight and Views: Daylight — 1
1		LC	Credit 8.2	Daylight and Views: Views — 1

5 1 Innovation in Design — Points 6

1		LC	Credit 1.1	Reduced Mercury in Lamps — 1
1		LC	Credit 1.2	Exemplary Performance SSc7.1 — 1
	1	CO	Credit 1.3	Exemplary MRc2 or EAc6 — 1
1		OW	Credit 1.4	Green Education Outreach Program — 1
1		LC	Credit 1.5	LEED EB: O&M - Green Cleaning — 1
1		LC	Credit 2	LEED® Accredited Professional — 1

4 Regional Priority — Points 4

1		LC	Credit 1	Durable Building — 1
1		LC	Credit 2.1	Regional Priority (SSc2) — 1
1		LC	Credit 2.2	Regional Priority (RPc1 or WEc3 - 35%) — 1
1		LC	Credit 2.3	Regional Priority (MRc2 - 75%) — 1

Responsibility Legend

LC = LEED Consultant	LA = Landscape Architect
OW = Owner	EM = Energy Modeller
AR = Architect	ID = Interior Designer
ME = Mechanical Engineer	CA = Comm. Authority
EE = Electrical Engineer	CO = Contractor
SE = Structural Engineer	TE = Tenant
CE = Civil Engineer	MU = Multiple

www.morrisonhershfield.com

Alicia Ferguson

Subject: RE: Proposed Redevelopment at 819-827 Fort Street

From: Kristine Liu
Sent: January 23, 2019 3:10 PM
To: Robert Fung
Cc: Sydney Schwartz; Renante Solivar; Kristine Liu
Subject: Proposed Redevelopment at 819-827 Fort Street

Dear Mayor and Council,

I am writing to you in regards to the proposed Rezoning, Heritage Alteration Permit & Heritage Designation application at 819-827 Fort Street, that will be reviewed at Committee of the Whole this Thursday, January 24th (item E2 on the Agenda under 'Land Use Matters'). As we do not have an opportunity to make a formal presentation to the Committee, I would like to take this time to provide some background on the application for your reference.

We have worked with Staff over the past two years through several iterations of our application to create a proposal that satisfies many of the City's objectives for housing, heritage, character neighbourhoods and growth. **The resulting proposal that you have received is for a 10-storey building with 100-purpose built rental apartments, secured for the life of the building in the form of a housing agreement. The unit mix includes studios, 1-bedrooms, 2-bedrooms, and 3-bedroom homes.** The architecture of the building started with the retention of 2-historic facades at 825 Fort Street, and 819-823 Fort Street, from which the design evolved.

We note that Staff's report recommends 3-conditions:

1. Design amendment to accommodate additional setback at the top floor;
2. Design amendment to accommodate 12-short term bike stalls within the property site;
3. Preparation of legal agreements securing rental (to which we have agreed).

We are concerned about the design conditions proposed, as they have impacts that are not clearly outlined in the report:

1. **Additional Setback at the Top Floor Above 30-Metres**

We note that Staff are recommending a further step back at the top floor, for the portion of the building above 30.0m at the side and rear elevations. For clarity, this is a setback that will only affect the 10th floor, for portions above the 30m height guideline.

Please find attached a mark-up of the existing elevation for your reference.

This guideline in the DCAP is intended to reduce space between taller towers with more than 10-storeys and up to 45m. The additional height of this project that is over the 30m guideline is a direct result of retaining the historic building facades 819 and 825 Fort, which has higher floor to ceiling heights than a new residential building. Therefore the entire project is pushed 'upwards' requiring more height overall for a 10-storey building, above the 30m. This results in the overall height increase of entire building where only a portion of the top floor exceeds 30m.

Most importantly, the setting back of the 10th floor, even though only a portion of it exceeds 30m, reduces the number of rental units by 2 2-bedroom homes.

2. **Short-Term Bicycle Parking**

The current proposal includes 8 short-term bicycle stalls as part of the public realm, within the portion of the sidewalk that will be widened as part of the mid-block crosswalk adjacent to 825 Fort Street. The City's new Schedule C has an increased requirement for 12 short term bicycle stalls (from 8 under the previous Schedule C, which the project was deigned to). Staff are requesting that the entirety of the new short term bicycle parking requirement is contained within the property.

The ability to accommodate short term bike parking within the property is very difficult in mid-block infill projects such as this one, especially with retained existing heritage facades and a strong planning mandate for continuous and active commercial storefronts at the property line. Any publicly accessible bike parking located within the site has a very negative impact on the retail space and storefront continuity.

With the oversupply of long term bike parking within the project (we have a surplus of 21-long term bike parking spaces), we suggest a potential solution would be to designate the residential requirement for short-term spaces internally within the currently designed bike parking area of the building. In practice, a residential guest or visitor would be escorted by the resident to the short term bike parking area in the main floor of the building.

For the commercial portion of the building, as the project does not introduce any new commercial space than what is currently existing, we ask that the City relax the requirement for commercially-designated short term bicycle stalls for the project. In addition, there is a tremendous amount of short term bike parking within the 800 Block of Fort Street already, as part of the public realm and the City's Fort Street Bikeway Plan. Alternatively, we would continue to propose that the commercial requirement for short term bicycle stalls can be accommodated as part of this projects newly constructed public realm, if Staff believe that there is not enough capacity on the street to accommodate the short term bicycle parking for commercial users.

We believe this solution would enable the frontage of the building to continue and maintain the historic pattern of storefronts that are core to the identity of this neighbourhood.

Thank you very much for your consideration of this application and for the above. If you have any questions in advance of Thursday, please do not hesitate to give me a call at 604.818.7210.

I look forward to meeting you tomorrow.

Thank you, and best regards,

Robert Fung

Robert Fung
President

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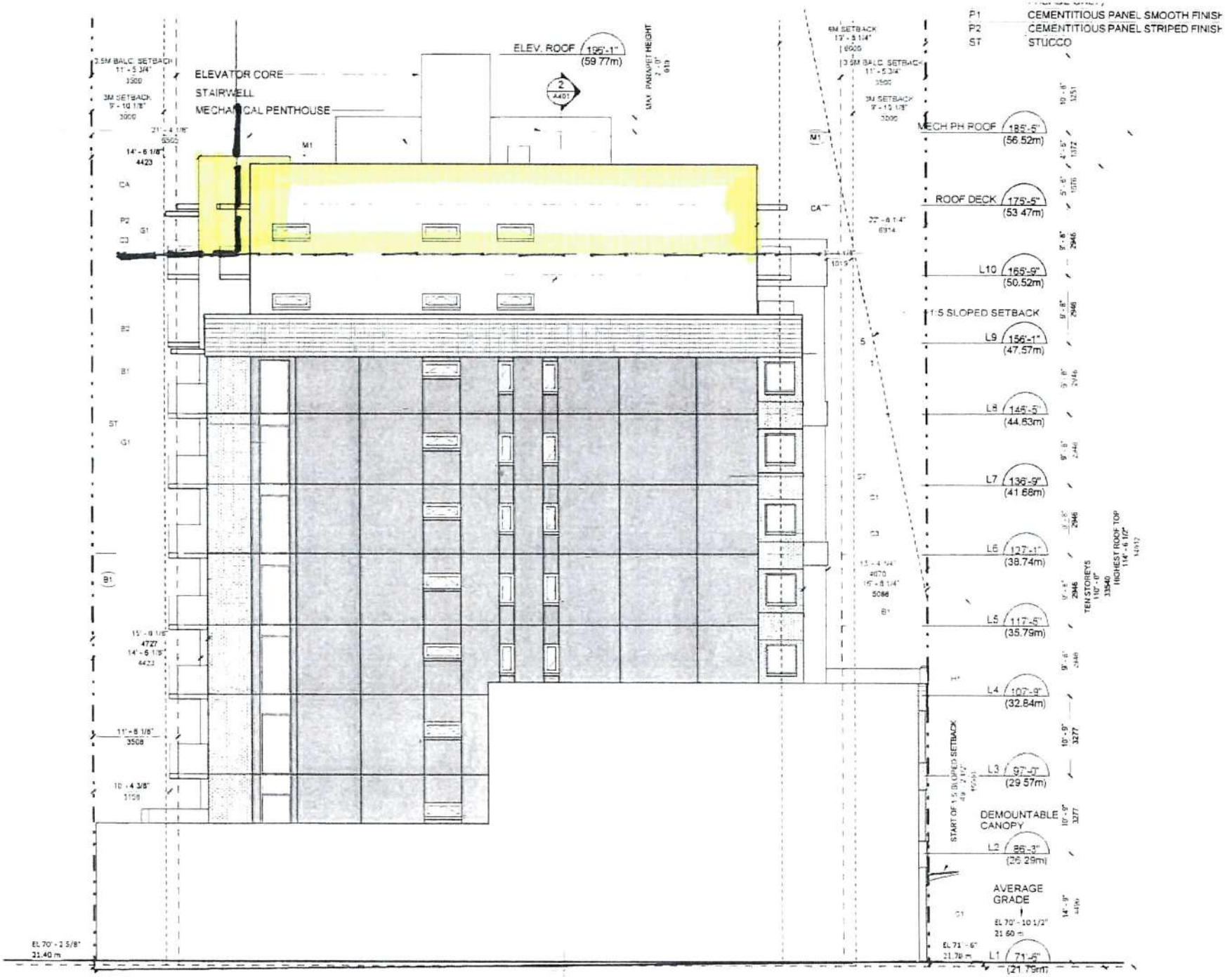
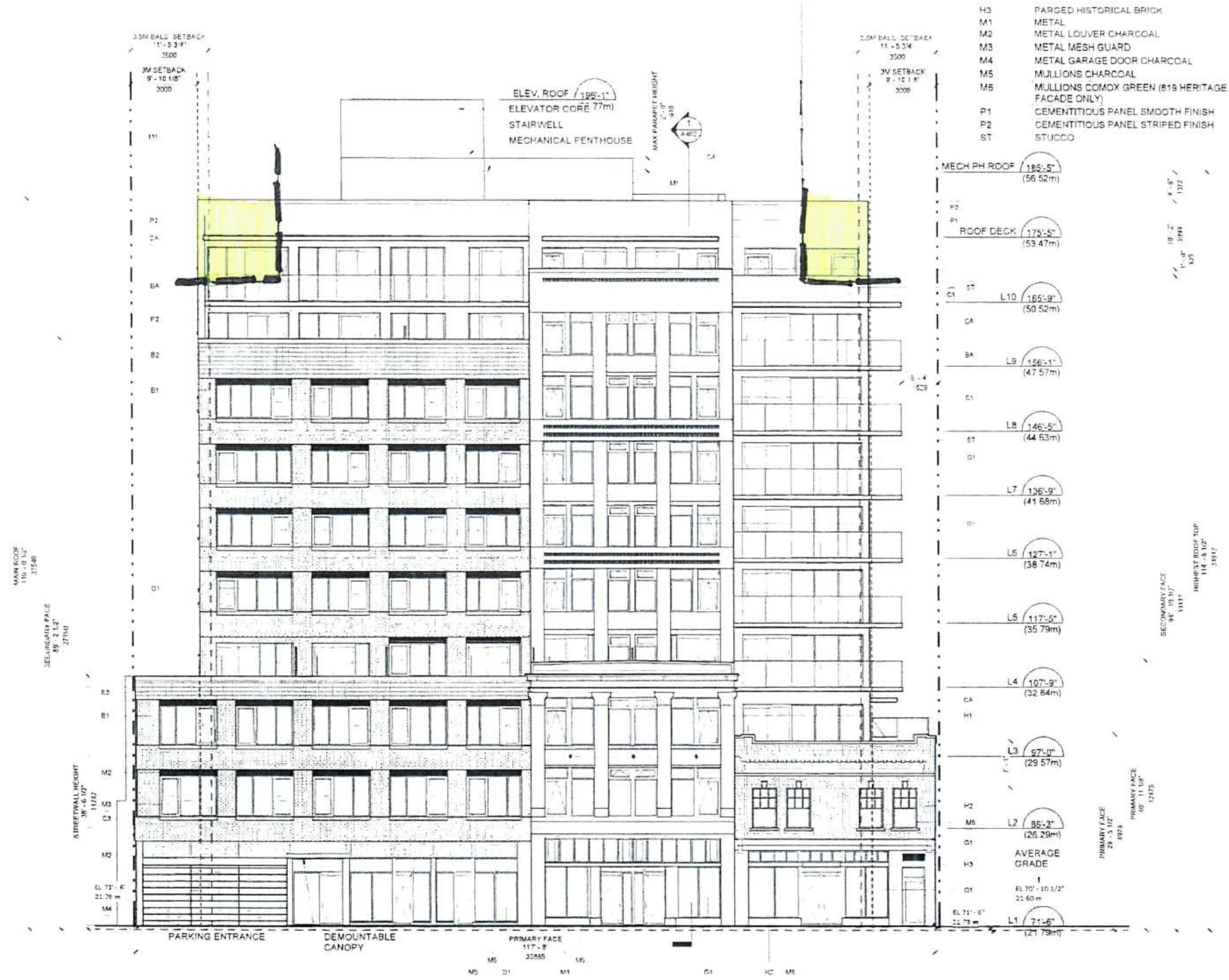


1 A303 EAST ELEVATION

SCALE 1/8" = 1'-0"

2 A401



1 / A302 NORTH ELEVATION

SCALE: 1/8" = 1'-0"

From: Livia Meret

To: City of Victoria
Mayor and Council

428 Kipling Street

Victoria, BC,

V8S 3J8

March 9, 2019

RE: Development Proposal for 819-827 Fort Street

Dear Mayor and Council,

This is to register opposition to the development that is currently proposed for 819-827 Fort Street. We are dismayed by the sheer mass of what is proposed for the site. Currently, Fort Street is relatively low rise with lots of light and considerable openness, all of which would be lost by the various development proposals along Fort Street. We expect City representatives to stand firm and to be prepared to recognize that turning the Cityscape into a concrete jungle is not an acceptable response to our current challenges, whether that be lack of affordable housing, homelessness, loss of green space, loss of parking space, and loss of public amenities.

We oppose any departure from Official Community Plan (OCP) zoning and land use requirements currently in place for that site. OCP's should not be given "lip service" as something to be worked around. Nor should they only be "official" until the next developer comes along. They are intended to guide development not by exception but by application. This is true throughout the City and particularly in its historical areas.

There is absolutely no reason why OCP standards should not apply, both in terms of height, density and parking requirements especially. We routinely walk, sometimes drive, sometimes bus up and down Fort Street to and from home to downtown for work. From personal observation, there's already a lot happening in those blocks of Fort Street, particularly in the vicinity of Blanshard, including a left hand turning lane, 2 way bike lanes, pinched and heavily used bus, truck and car lanes. It is already seriously challenging to travel those blocks.

The sheer mass of the proposed development will only make those issues much worse. Further, the City should insist on adequate parking, as well as adequate provision for access by emergency and commercial vehicles, including safe pull-ins for passenger pick-up and drop-off. The problem is that, at that location, this is not really possible without seriously interfering with others making use of those particular blocks of Fort Street.

However, perhaps most concerning is the impact that such an extensive development would have on the Fort Street corridor, including its historic characteristics and open feel. Our vision for Fort Street would be that the current height profile, (existing) density, parking and setback requirements be maintained. No concrete jungle, no blocking of views and no dominating of the streetscape.

We do not want to see another development approved which would overwhelm the existing character of Fort Street, such as has occurred at the corner of Fort & Cook Streets. Too high, too dense, too many unnecessary relaxations of City requirements including setbacks, and on a street that otherwise has managed to maintain a relatively low profile for the most part, as well as for decades maintaining light and openness unrestricted by high rises, easily strollable and with historic resonances.

With construction projects, including many high rises everywhere in the City including the immediate vicinity, we are urging the City to be thoughtful in how it approaches proposed developments. The City's residents deserve proper respect, including proper application of OCP principles.

Given the extensive development that has occurred in only the last 5 years, and which has been referred to as occurring at a "blistering" pace, with more of the same proposed for the next 5 years, existing residents are and will be paying the price in terms of loss of community, loss of amenities, loss of green space, etc. And for what market? Much of what is proposed, including at this location and other lots (e.g. along Cook Street where even more intensive development is proposed), is altering the cityscape to the detriment of its livability, accessibility and urban environment.

There's a reason why development is proceeding at such a pace: a proverbial gold rush fueled by expectation of increased profits tied to whatever OCP amendments will be secured. This should not be allowed to dominate over the public interest as protected by the OCP. Most of what is proposed is at market prices, not the much touted "affordable" housing required for the longer term. Even in the case of so-called affordable

housing, the concessions that the City makes far exceed what we receive in return.

Also, there are high rise developments being constructed on every street paralleling Fort Street, such as on the back side of these same streets along View Street. Fort Street certainly doesn't need to add yet another high rise. Enough already! Stop this uncontrolled development!

Just a few summary points with respect to the development proposal:

- In no way should the City accept inadequate parking. There should be sufficient parking spaces required for each unit (no less that one per residence, as well as adequate spaces for access, as noted above). And if parking is not taken up by residents, there will surely be others prepared to rent those spaces as parking is being lost without being adequately replaced, particularly in that area.

- No relaxations to setbacks. Fort Street should continue with wide boulevards. Business owners have already sacrificed enough.

- Maintain consistency with the current OCP, which apparently is for no more than 6 stories at that location. Any new development should be no higher than other nearby historical buildings in order to preserve the historical surroundings on that street.

- Limit height and density so as to not darken the street with the shade from concrete high rises, nor add to traffic congestion and create further gridlock. Provide adequate space for access, without loss of public parking.

- Maintain openness, access to light and add possible green space.

Sincerely,

L. Meret

Livia Meret