



City of Richmond
Planning and Development Department

To Public Hearing
Date: July 20, 2009
Items# 2, 3 + 10
Re: Bylaws 8439,
8440, 8505, 8494

Memorandum

To: Mayor and Council
From: Diana Nikolic, MCIP
Planner II (Urban Design)
Date: July 16, 2009
File: 08-4430-20-AMANDA
#/2009-Vol 01
Re: **Supplementary Assessment of Sustainability Features for RZ 07-397063, RZ 08-408104, and RZ 08-410760**

During the June 16, 2009 Planning Committee meeting, members of the Planning Committee requested that three (3) applicants further consider opportunities to incorporate sustainability features into their respective development applications.

Attached is a response package from each of the following active development applications:

- Ledingham McAllister Communities Limited for rezoning at 6760, 6780, 6800 Eckersley Road, 8500, 8520, 8540 Park Road, 6751, 6760, 6771, 6780, 6791, 6800, 6831 Park Place to facilitate development of approximately 296 dwelling units in 4-storey apartment buildings over a parking level;
- Polygon Development 222 Ltd. for rezoning at 9420, 9460, 9480, 9500 Odlin Road to permit two (2) 4-storey buildings consisting of approximately 229 units over a parking level; and
- 797460 B.C. Ltd. for rezoning at 9371 and 9411 Alexandra Road to permit two (2) 4-storey buildings consisting of approximately 139 units over a parking level and commercial space along Alexandra Road.

Diana Nikolic, MCIP
Planner II (Urban Design)

DN:dn

att.



**9371 and 9411 Alexandra Road Richmond BC
Proposed Multi Family and Retail Development
Home Creations**

Response to questions posed at City of Richmond Planning Committee

1. Geothermal : Will geothermal heating/cooling be considered within the project? Why or Why not?

The development team has considered geothermal as a source of heating and has consulted with MEG Geothermal Corporation in order to gain some insight into both the costs and the benefits as opposed to a more conventional heating system such as hot water or electric heating fueled by gas or hydroelectric power. Meg Geothermal estimates the combined cost of the geofield installation and the distribution sytem to be roughly \$15.00 per sellable square foot of building. With the current market conditions forcing all sales prices either downward or at best flat, we do not anticipate being able to successfully market this premium to the current profile of potential buyers whose mood is clearly adverse to price increases. The potential savings in monthly energy bills is not considered significant enough to warrant the price increase due to Geothermal . However having said this, we are aware that a significant portion of the capital cost is associated with the installation of the geofield and infrastructure (the physical plant). There may be a faint possibility that a 3rd party provider such as Terasen gas will be willing to provide this installation and retain ownership of the pyphysical plant. (Similar to BC Hydro for example owning the distribution infrastructure and paying back the capital cost over many years). We will continue to explore this option with Terasen.

2. If geothermal is not proposed but is being included within a nearby development, please expand upon why its inclusion in the subject development is not suitable.

If a multi family development with geothermal heat is being proposed nearby we would be delighted because it would indeed provide a means of comparison between our project and that one in order to test assumptions about the marketability of the extra costs associated with geothermal.

3. Percentage of landscaping: -Please articulate the % of the parking structure that is landscaped -If applicable, articulate the area of the site that that will not be developed as a parking level and will be treated with large scale landscaping that cannot be supported above a parking level -Highlight any unique features that will increase site permeability

Less than 5 % of the area is not covered by either parkade or entry road and these areas are at the perimeter of the site. Where the parkade is not covered by apartment buildings or roads it is covered by landscaping. In order to increase the effectiveness of these areas: we are planning to use 'smart root' barrier and moisture retention product on slab to help plants draw moisture from the soils and limit runoff to slab drains during storm events. In addition we plan to use permeable paving and biofiltration as a way to pick-up

stormwater in 'off-slab' locations and slow the 'time of concentration' for stormwater runoff.

4. Green Roofs: -Recognizing current challenges associated with securing building insurance for a green roof on a wood frame building, please provide an update related to the status of this discussion between the building industry and insurance providers.

Please find attached a letter from the warranty provider, Travelers Guarantee, outlining the challenges associated with this.

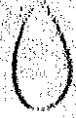
5. Supplementary sustainability initiatives synopsis: -Subsequent to consideration of the project by the Planning Committee, what supplementary sustainability initiatives have been considered? Please itemize any additional measures proposed to be incorporated into the project.

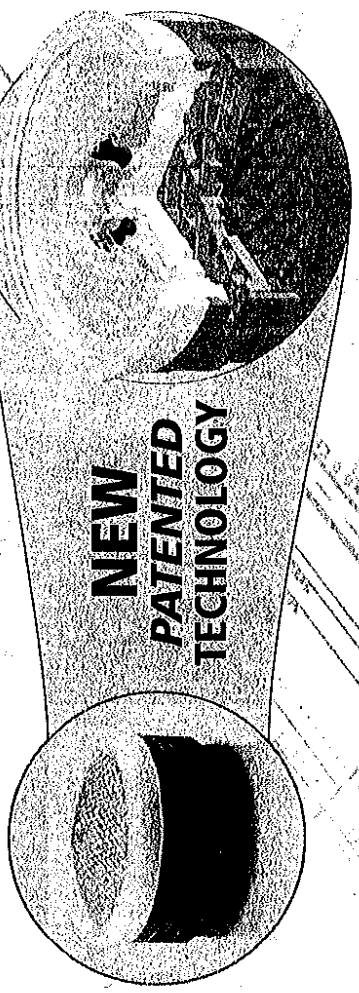
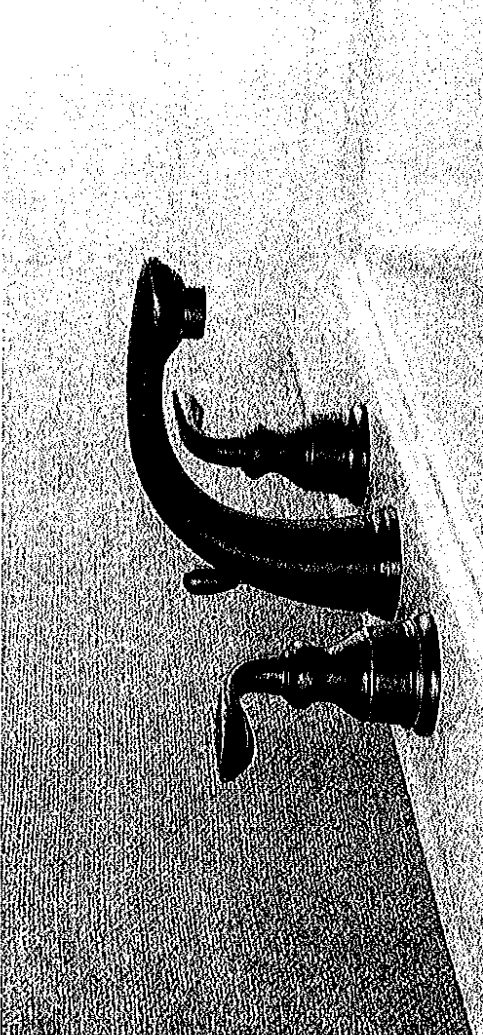
In addition to our original submission please note a description of our water conservation fixtures that we typically use.(Pfizer fixtures-attached) and our sustainable approach to landscape design and water conservation on site as outlined by Van der Zalm & Associates.

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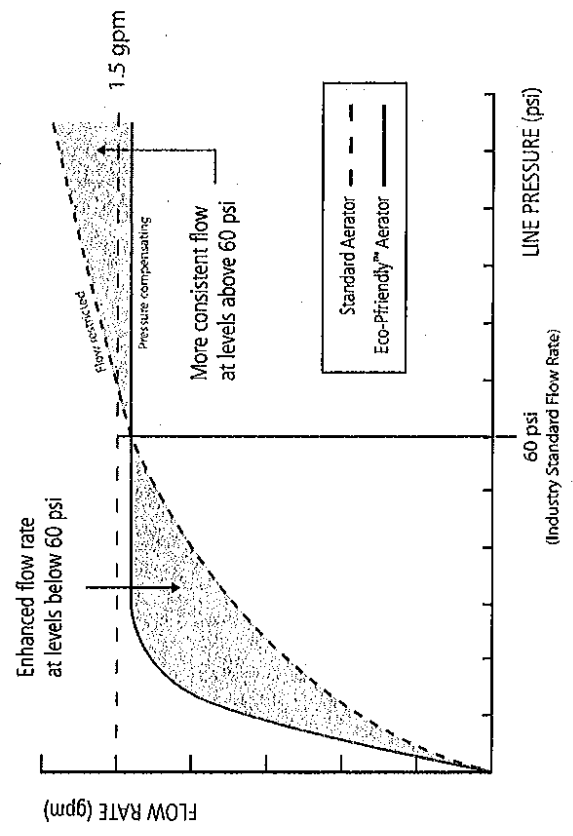
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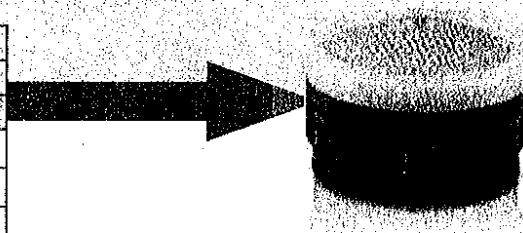
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Avalon	T49		■	
Catalina	T48	■		
Catalina	T49	■		
Catalina	T548		■	
Contempra	T48			■
Contempra	T49			■
Marielle	T46			■
Marielle	T49		■	
Parisa	T42	■		
Parisa	T48	■		
Parisa	T49	■		
Portland	T42	■		
Portland	T48		■	
Portland	T49	■		
Santiago	T42		■	
Santiago	T48		■	
Santiago	T49		■	
Savannah	T42	■		
Savannah	T43		■	
Savannah	T49		■	
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van der Zalm + associates inc.
Landscape Architecture • Environmental Planning • Urban Design

To all stakeholders
Re: Alexander Road

Van der Zalm + Associates is enthused to share some of our sustainable environment initiatives. Our initiatives extend from hardscape material selections through soft landscaping, with the goal of contributing to the environmental, social, and biological quality of the site.

Our design initiatives have been broken out into the following categories:

Bio-diversity Contribution

Plants selected for the Alexander Road development are primarily of a hardy native variety; and are drought tolerant. These plants have been selected for both their aesthetic quality and habitat function. Selected plants range from shade loving ferns through sun loving wild strawberries. By providing a wide variety of vegetation around the site with varying levels of shade; new microclimatic conditions will be formed; which is favourable when considering bio-habitats.

Irrigation

The selection of primarily native drought tolerant plants allows for a low emitting irrigation system; which will use low amounts of water. There will also be use of a "smart root" barrier system in planters where the moisture retention product will be used to help plants draw moisture from the soils and limit runoff to slab drains during storm events.

Storm Water Quality

The use of planted areas to naturally infiltrate and treat much of the site's storm water will greatly aide storm water quality. A central greening island has been strategically located in the center median of the drop off zone in the parking lot; which can collect and treat storm water while providing residents and visitors with an attractive visual focus in the parking area. Storm water can be diverted to this area and treated through the circulating tiered water feature. A use of native water loving in plants in the feature will remediate the storm water. A heavily planted perimeter landscape around the residences will also naturally aide in infiltrating and remediating storm water as storm water can be heavily absorbed by plants.

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Landscape Architecture • Environmental Planning • Urban Design

Shade & Microclimate

Much of the property is covered by either building or landscape at the surface. The majority of parking is located underground on the property; leaving the surface buildings and planted areas to provide residents with a range of shaded environments with various thermal benefits. An extensive canopy will be used near the commercial area for sheltering visitors. The canopy created will also reduce the heat island effect that would have been caused by the asphalt parking stalls. In areas that are open to the sun, the use of concrete slabs and light coloured pavers will reduce the heat island effect. By concealing the majority of parking underground, a vast amount of landscape has been dedicated to outer amenity space for residents. This space will stand on slab and will provide residents with a series of smaller open spaces within a central path system. Many of the materials within these zones will be permeable soft landscape and therefore aide in the heat island effect. In addition, the use of shade trees and large expanding trellis features will also provide residents with a range and depth of filtered light that will keep the site thermally comfortable during the summer months. Trees placed near buildings will also aide in the heating and cooling of buildings through their natural buffering.

Lighting & Furnishings

Appropriate lighting will be used around the property in consideration of pedestrian flows throughout the grounds. These lights will be low emitting lights or LED lights in landscape areas. Selected furnishings can be composed of materials that can be recycled in the long term. An appropriate number of bicycle stalls (fourteen) will also be provided to promote alternative transportation to the property.

Hardscape Materials

The hardscape materials that have been specified are from local manufactures and can contribute to reducing the heat island effect through their colour and reflectance. Materials such as concrete slabs and light coloured pavers have a high albedo and will reflect heat rather than absorb heat on the site. The use of local manufactures for these products also reduces the environmental footprint of the site through the reduction in transportation and coordination for obtaining these materials.

Please feel free to ask any questions you may have at this time.

Best regards,
Jaki Lowe
van der Zalm + Associates Inc.

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Travelers Guarantee Company of Canada
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P.O. Box 11542
Vancouver, British Columbia V6B 4N7
www.travelersguarantee.com

July 13, 2009

Home Creations
#950 - 1200 West 73rd Avenue
Vancouver, British Columbia
V6P 6G5

Attention: Tom Morton

Re: Green Roofs

We are aware that a number of local governments, in support of a sustainable housing initiative in the Lower Mainland, are requesting "green roofs" be incorporated into the building and design of new residential housing projects. This requirement often takes the form of a condition to a development permit.

Local governments were notified by the Homeowner Protection Office of an issue related to the imposition of green roofs for new residential developments. Under provincial legislation, all new homes must be provided with home warranty insurance in a form prescribed by the Homeowner Protection Act and Regulations. This insurance is underwritten and delivered by the private sector insurance market.

In reference to your request, unfortunately Travelers Guarantee is not prepared to underwrite residential buildings for warranty coverage that incorporate extensive green roofs, particularly green roofs on wood frame construction. Our position on this matter is significant because we currently provide legislated insurance for nearly 50% of all annual housing starts in British Columbia.

If you have any questions or comments, please give me a call directly.

Yours truly,

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Sustainable Features

9371-9411 Alexandra Road, Richmond, BC

HOME CREATIONS

OPERATIONAL SYSTEMS

- Separate rooms within the dwelling units control heating with individual thermostatic controls.
- Windows are Energy Star labeled.
- Electric Range is an Energy Star labeled product.
- Refrigerator is an Energy Star labeled product.
- Dishwasher is an Energy Star labeled product.
- Clothes Dryer (where provided) is an Energy Star labeled product.
- All exterior lights to common area are controlled by sensors to automatically regulate their operation and eliminate unnecessary energy consumption.
- All light fixtures in common areas and parkade are fluorescent, compact fluorescent light bulbs or LEDs
- Insulated ceilings contain no recessed lights.

BUILDING MATERIALS

- Metal header joist hangers.
- Dimensional lumber used for wall framing is prefabricated to eliminate waste.
- Engineered wood products for all wood floor systems.
- Engineered wood products for all wood roof systems.
- Finger jointed wood studs for 90% of non structural wood framing.
- Rain screened cladding with a drainage plane.
- Non HCFC expanding foam around window and door openings all exterior wall penetrations.
- All sill plates sealed with foam sill gaskets.
- Exterior insulation in walls increased to R 20.
- Weather stripped and insulated attic hatches.
- Exterior insulation in roofs increased to R 30 .

EXTERIOR & INTERIOR FINISHES

- A combination of naturally cementitious stucco, fiber cement siding and brick for 100% of exterior cladding.
- Exterior trim materials manufactured from OSB.
- 5 or 10 year roof or parkade slab inspections to RCABC standards.
- Either MDF or finger jointed wood casing and baseboard used throughout .
- Paint with a minimum 20% recycled content.
- Natural granite countertops.

INDOOR AIR QUALITY

- All interior wire shelving is factory powder coated.
- All laminate flooring is factory finished.
- Water based paints used on all millwork, doors, casing and baseboards.
- Interior paints have low VOC content.
- Exterior wall whisper grilles.
- Hard surface flooring in all areas except bedrooms and corridors.

WASTE MANAGEMENT

- Off site pre fabrication of all wood framed walls.
- Off site pre fabrication of all wood framed roofs.
- Comprehensive recycling program for building site including education, site signage and bins.
- Separation of waste by material type into separate containers.
- Suppliers and trades recycle their own waste, including leftover material and packaging.

WATER CONSERVATION

- Dual flush toilets.
- Clothes Washer (where provided) front loading.
- Landscaping incorporates water wise landscaping with drought tolerant plants.
- Storm water management system with no drain tile connection to municipal storm water.
- Use of permeable paving materials in specific areas of walkways and driveways.