



City of Richmond
Planning and Development Department

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

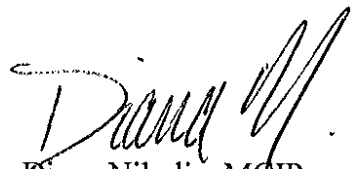
Memorandum

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.

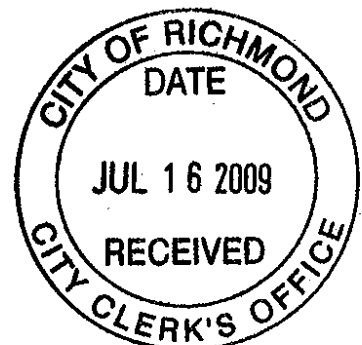
Attached is a response package from each of the following active development applications:

- 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.



**LEDINGHAM McALLISTER**

3rd Floor, 1285 West Pender Street, Vancouver, BC, Canada V6E 4B1 / (604) 662-3700-FAX: (604) 684-9004

July 15, 2009

City of Richmond
Planning and Development Department
6911 No. 3 Road
Richmond, BC V6Y 2C1

Attention: Diana Nikolic

Dear Diana:

RE: Park Place, RZ 07 – 397063: Sustainability Initiatives

In response to an inquiry raised during the June 16, 2009 Planning Committee meeting, and further to the sustainability initiatives already provided as part of our development proposal, this letter will summarize the sustainability features as proposed in our rezoning report and, outline our most recent efforts to examine additional sustainability features that may also be incorporated into our project.

LEED Equivalency:

As referenced on page 11 (PLN – 25) of the rezoning report and as outlined in Attachment 11, the building will incorporate various sustainability features associated with LEED, Leadership in Energy and Environmental Design. Included within the sustainability features are water efficient landscaping, use of recycled content and locally derived materials when possible and use of low-emitting adhesives, paints and carpets.

Bus Passes & Bike Lane Contribution:

This project will incorporate a Transportation Demand Management (TDM) strategy whereby the supply of car spaces will be reduced and, to encourage alternative forms of transportation, over 200 bus passes with an approximately cost of \$250,000 will be made available to residents for a period of one year. In previous discussions with transportation staff it was agreed to provide two-zone bus passes at a 100% subsidy for 70% of the units (208 units). In response to a Council comment at the June 16 Planning meeting regarding the provision of bus passes to all homes, our preferred approach and for the same dollar cost, would be to provide bus passes to all homes at a 70% subsidy. We advocate this approach because we believe if an individual is willing to make a partial contribution to the purchase of a bus pass they will have a greater

incentive to use the pass than if the pass was provided entirely for free. The greater the actual use of bus passes, the 'greener' the outcome. As noted by our transportation consultant, these passes will promote non-automobile use, even among residents who own a car; furthermore it is expected that these passes will be primarily used by residents for traveling to and from work. In addition to the provision of bus passes, the project is also contributing \$25,000.00 in design work and financial contributions towards the construction of a bike lane along portions of Garden City Road.

Green Roofs, Site Landscaping and Parkade Courtyard:

During the June 16, 2009 Planning Committee meeting a specific inquiry was made regarding the inclusion of green roofs within the project. Although there is increasing discussion about green roofs over residential buildings at this point in time the major Canadian warranty providers are not prepared to underwrite residential buildings for warranty coverage that incorporate green roofs. We have attached for your reference a letter from Travelers Guarantee of Canada in this regard.

Due to Richmond's high water table and soil conditions the prominent design typology for multifamily buildings is a parkade structure that covers most of the site (to accommodate the City's car parking requirement) with buildings, patios and courtyard spaces located on top of the parkade. As a consequence, a substantial portion of our parkade roof will function as a green roof. Those portions of the parkade not supporting the three residential buildings will be covered by a combination of grass, planting beds, tree planting areas, patios, walkways and grasspaving; collectively these areas cover approximately 45% of the parkade. Grasscrete or grasspaving using precast blocks with a vegetated grass void, can support low frequency vehicle traffic and will be used in the fire access lane along the east edge of the parkade. Aesthetically grasspavers will provide a softer look for the fire lane than hard pavers and, they will slow down and partially divert stormwater runoff that would otherwise be introduced into the City's stormwater collection system. We are also planning on using permeable pavers in the patios and walkways, similar to grasspavers, they will reduce the demand on the City's stormwater system particularly during storm events. Finally, bermed planter beds will be constructed around the base of the parkade.

Use of Light Coloured Roofing Material:

The residential buildings will feature gables, ridges and valleys along the perimeter of their roofs with the inner portion of the roof system being flat. This flat portion will have a two-ply SBS membrane roof. Often the finished roof is black. To reduce the heat on the roof, and the heat island effect, we will install a UV protected light grey coloured cap sheet over the flat roof.

Pre-ducting for Future District Energy System:

Briefly, a District Energy System centralizes the production of heating or cooling for a neighbourhood or community. The Central Heat Distribution System in downtown Vancouver is one example of a District Energy System as is the Southeast False Creek Neighbourhood Utility which will capture heat from the City's sewage system.

In the Richmond City Centre Area excess or waste heat from grocery store refrigeration units for example, could be a heat source for a District Energy System. Given this proposed project is within the City Centre Area and in close proximity to commercial and mixed-used buildings producing excess heat, we believe it is an ideal candidate to connect to a future City of Richmond District Energy System.

Accordingly we are committed to installing energy transfer water lines out to Eckersley Road that could connect to a future City of Richmond District Energy System with the heat derived from the Energy System being used to pre-heat domestic hot water for the buildings. More particularly, the water lines would convey heat from the District Energy System into the project's mechanical room where the heat would be extracted using a heat exchange unit. This heat would be used to pre-heat incoming domestic cold water within a buffer tank from a typical temperature of 40 degrees F to approximately 110 – 120 degrees F. This heated water would then be transferred into the main domestic hot water system and further heated another 20 – 30 degrees F via a natural gas boiler. Domestic hot water of approximately 130 – 140 degrees F will constantly circulate through the building. Preheating water using a district energy system results in lower usage of natural gas and given that approximately 35 - 40% of the total energy consumption of multifamily buildings is devoted to producing domestic hot water, this approach provides a significant environmental benefit.

Geo-Thermal:

At the June 16 Planning Committee meeting members of Council specify referenced Geo-Thermal technology. Residential developments not in close proximity to commercial or mixed use buildings generating excess heat are more logical candidates to use geo-thermal technology. As noted above, we believe our project is a more logical candidate for connection to District Energy rather than geo-thermal. The feasibility of the City or a private entity constructing a District Energy System in the City Centre will in part be dependant upon the number of buildings who will purchase their heat. Accordingly, if new residential buildings in the City Centre are encouraged to, and do install geo-thermal systems, the feasibility of a District Energy System is greatly diminished as these buildings will not therefore be customers for District Energy.

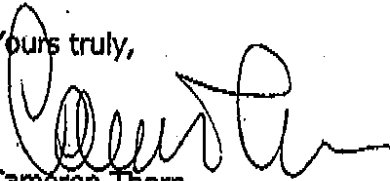
However, if Council and staff are of the opinion that a District Energy System is not feasible or likely within the City Centre Area, then based on achieving 3rd reading, we will undertake additional feasibility work on geothermal. This feasibility work would include test drilling at an approximate cost of \$10,000 - \$15,000 to determine if the ground conditions are suitable for a geo-thermal system. If a geo-thermal system was ultimately installed it would, as with the District Energy System, be used to pre-heat domestic hot water for the buildings. We have engaged in preliminary discussions with Terasen Energy Services regarding geothermal technology in the event the City should not deem District Energy to be viable or likely. Terasen Energy Services is part of the Terasen Inc. group of companies and designs, constructs and operates geo-thermal systems.

The system, once operational would be owned and operated by Terasen Energy Services who would charge a monthly fee to the residents for the energy provided by the geo-thermal system as well as for the operation and maintenance the system. We have

been told by Terasen that their monthly rates are based on the comparable cost of generating heat from natural gas.

We are proud of the sustainability features associated with this project and look forward to creating a residential development that in addition to being sustainable will provide a range of housing options and deliver a range of significant benefits to the City of Richmond including affordable housing, public art, and improvement to roads and infrastructure within the City Centre Area.

Yours truly,



Cameron Thorn
Development Manager
Saffron Homes LP