

Date: June 23, 2008



**TO: Board Members – Vancouver Park Board**  
**FROM: General Manager – Parks and Recreation**  
**SUBJECT: Design for VanDusen Botanical Garden Facilities  
Renewal Project**

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## RECOMMENDATION

*THAT the Board approve the concept design for the VanDusen Botanical Garden Facilities Renewal Project, as detailed in this report and illustrated in Appendix 1.*

## POLICY

**The Park Board reviews and approves design concepts for all major projects.**

## BACKGROUND

In 2001, the Park Board and the VanDusen Botanical Garden Association (VBGA) undertook a design exercise to develop a strategic plan for the Garden and its buildings, which led to the development of a concept plan and, subsequently, functional program documents. These documents form the basis for the programming of this project. The program has been developed by the Joint Building Committee (Park Board and VBGA participation).

In December of 2007, the Board approved the appointment of Busby, Perkins+Will as Architects for the project, with Cornelia Hahn Oberlander as Landscape Architect.

## DISCUSSION

### Design

The Architects have been working with the building committee since January of 2008, developing the master plan, including landscape, phasing, estimated cost, and concept design for the new facilities. The design features a new Visitor Centre with access from Oak Street, ‘a living building’ that in itself will attempt to model carbon neutral, ‘zero ecological footprint’ building concepts based on the most up-to-date principles of sustainability. Within the building, orientation to the garden will begin along with an engaging and inspiring interpretive program.

The schematic design (see Appendix 1) has been completed and was presented to the garden

community, stakeholders and the public at an open house held at the VanDusen Floral Hall on May 21st. The open house was well attended, with well over 100 visitors viewing the display and hearing presentations by Mr. Peter Busby. The project was well received with many positive comments (see Appendix 2) and has the support of the Building Committee, VBGA.

In Phase 1, the new facility will have an estimated gross floor area of 24,500 sq ft, over 30% larger than the existing buildings. Two phases of development are proposed – the new Visitor Centre in Phase 1 and a separate Garden Pavilion in Phase 2. Copies of floor plans and elevations are appended to the report. A representative of the architect will be in attendance to present the design.

The new Visitor Centre, in Phase 1, contains new educational, administration, library, visitor orientation and arrival spaces, as well as food service facilities. The Garden Pavilion, in Phase 2, will accommodate larger rental and horticultural events. As an interim strategy:

- the existing Garden Pavilion Building (containing the restaurant and gift shop) may be retained and used either for food services or rental/educational facilities and,
- the existing education centre building (formerly MacMillan Bloedel sponsored exhibit) is proposed as a potential home for some volunteer activities until the implementation of Phase 2.

## **Funding and Costs**

The project is jointly funded by the Park Board and the VBGA.

Funding status is as follows:

|  |                  |
|--|------------------|
| Park Board previously approved funding   | - \$3.05 million |
| Current level of fundraising by the Association<br>(including \$2.0 million Provincial contribution) | - \$5.92 million |
| 2009-2011 Capital Funding request  | - \$5.0 million  |

Fundraising efforts of the capital campaign committee continue with contacts established through both senior government programs and private donors. Phase 1 of the project has a projected project cost of \$23 million and Phase 2 is estimated in the order of \$8 million.

## **Schedule**

The design as presented here is conceptual and will be refined over the next several months with milestones at the following points:

- Project Definition Report completed by consultants (concurrent with this report).
- Park Board approval of concept design (this report).
- Apply for Development Permit – October 2008
- Construction Documentation – February – August 2009
- Construction Procurement – September – October 2009

- Construction – November 2009 – March 2011

Since there is still a considerable amount of funding to be raised, the schedule may need to be adjusted depending on the amount of funding secured in the coming months. At this stage, the project will proceed to Development Permit Stage. Development Permit drawings will be submitted to the Board for approval. At that time, the 2009-2011 Capital Plan will have been approved and the Association's fundraising campaign will have been highly focused and an informed assessment of project funding and phasing can be made.

### **Project Delivery**

The architect and staff have discussed a variety of options of construction contract formats to determine which is best suited to the current construction cost environment. In order to get early construction input into the design process, the following delivery system is intended to be used:

After an open selection process, a limited number of general contractors will be pre-qualified to submit bids as follows:

- A fee to provide pre-construction services, including design and budget review, and to call for competitive trade tenders.
- A fixed percentage cost for overhead and profit to be applied to a stipulated sum contract based on the trade tenders received.

Once a construction scope and cost that meet the budget are agreed to, a report to the Board would recommend awarding a maximum upset price or stipulated sum contract. This system has been successfully used at Sunset Community Centre, Trout Lake and Killarney Ice Rinks.

### **SUMMARY**

The project as designed has the approval of the Building Committee, and has been presented to the community and received a positive response. Staff recommends that the Board approve proceeding with the Design Development phase of the project, leading to the Development Permit application. Construction is targeted to commence in the Fall of 2009.

Prepared by:

Planning & Operations Division  
Board of Parks & Recreation  
Vancouver, B.C.

# Appendix 1



GREYWATER/BLACKWATER



RAIN GARDEN



PINE STAND

- LEGEND / KEY
- 1. ARRIVAL HALL
  - 2. CONCOURSE
  - 3. GREAT HALL
  - 4. EDUCATION
  - 5. RAIN SHELTER
  - 6. VOLUNTEER
  - 7. ADMINISTRATION
  - 8. LIBRARY
  - 9. GARDEN SHOP
  - 10. COVERED PLAZA
  - 11. FOOD SERVICE
  - 12. FOOD SERVICE
  - 13. GARDEN PAVILION
- PEDESTRIAN ACCESS  
 VEHICLE ACCESS



BUSBY PERKINS + WILL Raincoast Applied Ecology

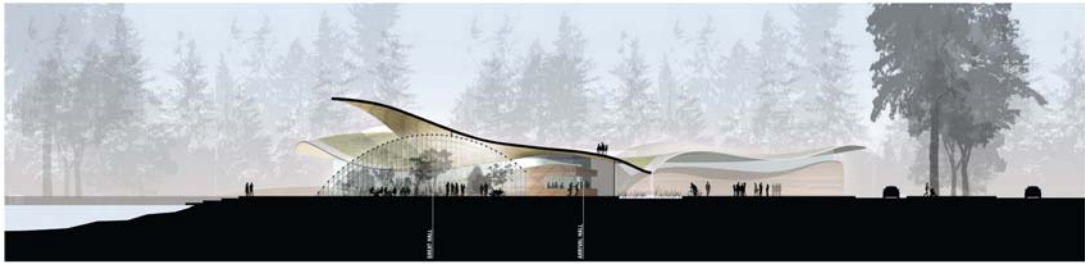


VANDUSEN BOTANICAL GARDEN  
Vancouver Parks & Recreation

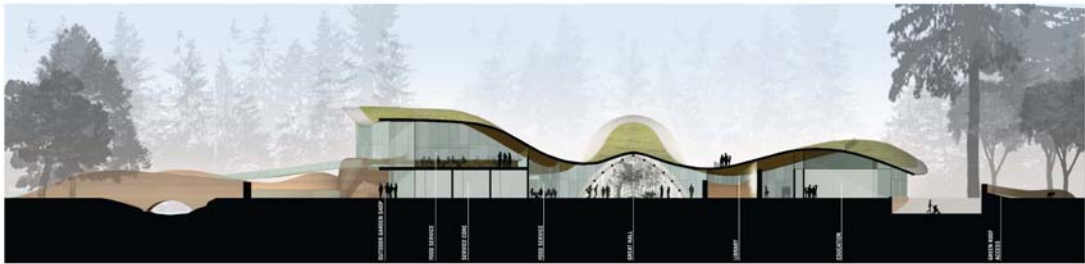


FLOOR PLANS





SECTION A:A



SECTION B:B

BUSBY  
PERKINS  
+ WILL

Raincoast  
Applied Ecology



S.L.A. Inc.

VANDUSEN BOTANICAL GARDEN  
Vancouver Parks & Recreation



SECTIONS

SCALE



EAST ELEVATION



SOUTH ELEVATION

BUSBY  
PERKINS  
+ WILL

Raincoast  
Applied Ecology



S.L.A. Inc.

VANDUSEN BOTANICAL GARDEN  
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EAST & SOUTH  
ELEVATIONS



## Appendix 2

### VanDusen Botanical Garden – Capital Project Open House

#### Feedback/Comments Summary

##### Liked Most/Why

- Innovative Design, sustainability, maximized views, opened up to Oak Street
- Organic feel and fluidity of design
- Curving, undulating roof
- New pavilion – fantastic - will not miss lath house.
- Sustainability acknowledged in design, presence from Oak Street, green roof, organic form.
- Fantastic concept to recognize urban gardens/sustainable urban oasis.
- Clean, green lines, futuristic design, water and heat conservation, light meal dining, increased toilet facilities, education of public/schools.
- Its relation to landscape.
- The whole thing – great!
- Visibility of building, invites curiosity, roofs may show new aspects of gardening.
- The roofs.
- The organic nature of the design.
- Shape of the buildings.
- Wow! Great Job!
- Flower building – very nice.
- Eye catching design from Oak St. Conservation elements excellent – cutting edge.
- Site planning, ecological concept & systems. Organic form, strong form.
- Blends with the landscape in a beautiful, flowing way.
- The building looks great. I like the sustainability.
- Vision and appeal to an international, national and local audience.
- Love the concept of petals, roof, etc. Visibility from Oak St. – fabulous.
- Flower shape, green sustainability, water use.
- Flow and shape of building; visibility off Oak St.; rationalization of holly lawn; attention to water conservation, ecology.
- Building shapes and functionality as well as the incorporation of a very natural interconnection with nature.
- The “futuristic” design is definitely appealing, especially if one of the goals is to attract more (and younger) generations. I am probably the youngest person at this community presentation and am quite interested in the vision. I believe this will help attract more visitors, especially the future generation that I find often lacks at VanDusen. The layout and the beautifying of this design is not going to simply work without the communication, marketing and plenty of outreach programs that needs to be implemented as well. – Great work!
- The floral theme; the accessible green roof.
- It is a striking, beautiful design – contemporary, west coast in feeling without the usual design clichés.
- The flow of the building, and the fact that it is a sustainable structure conserving water, etc.
- It is organic – looks like it just grew!
- Organic – feels built into the land. Flower motif. Flow. Ability to generate buzz about VanDusen and Vancouver.
- The architectural design – open up Oak Street! Nothing not to like!
- Integration of hard structure into landscape – restaurant built at height to make use of view.
- The sleek roof design that encompasses the natural feel of the garden. The shape is unique and has a feel that allows for the audience to become part of the building.
- The imaginative flower shape of the building.
- Most unusual concept of building. I hope that the original ideas for the plantings in the whole garden will not take second place. What will happen to the holly collection which is supposed to be a national treasure?
- Building design and LEED concept. Higher visibility and Oak St. entrance. More interesting entrance, more functional building.
- The linkage to natural garden elements – soil, water, leaves. I love the “trellis” quality of the roof undersides. Great to have this dark, dated building replaced by something so ethereal and visible from Oak St. Let there be light!

- Siting and programming look excellent. Ecological, sustainable systems approach is great. Detailing and sophisticated execution assured with this team.
- It is innovative. It respects the current garden and will enhance it in many, many ways. It will attract people to see the brilliant design of the building, the water system, the views, the demo gardens and the contemporary theme of sustainability in action.
- Main Building is stunning and perfectly sited – a better choice than renovating the existing structure. Water collection and storage makes sense. Second floor dining with view across Livingston Lake; agree with more holistic, ecological approach to collections, forest, meadow, etc.

### Liked Least/Why

- “Earth Works” – seems dark and oppressive compared to lightness/airiness of building – landscaping not inspiring.
- The projected cost of making it a reality
- Does not appear to maximize natural light/warmth into major spaces.
- Sinuous mounds – functional value? Could the space be more interactive?
- New pavilion – appears to “flatten” children’s garden, Loder rhodo walk and espaliered apples.
- Does not appear to provide space for adequate administrative and educational staff, volunteer and educational programs.
- The building denies the simplicity and symmetry of nature; structure should be justified – in nature all aspects of shape and colour are functional.
- Most everything around the building – demo gardens, waterway, driveways, etc. they take away from existing areas, increased traffic, demo garden area too large, doesn’t really fit with area.
- You will need more parking.
- Question of cost, if cutbacks to stay within cost we will not gain a lot of space – but may be more usable.
- What about integrating some solar energy?
- Room for expansion?
- Get rid of existing parking, move closer to building. Too far from drop off. Maybe underground?
- Architectural form too literal. Hitting us over the head with flower metaphor – try to simplify. Move away from the gimmick.
- Plan covers a large area. Demonstration gardens maybe too large. Need western N. America collection inside as well as out.
- Lack of detail – facilities to enable human connection to plants and the natural world.
- A bit unsure about the water run-off.
- Open plaza off Oak – would like more “garden’ and less “plaza”; waterways pictured in slides artificial, man-made, no natural feel or look – work on these ideas. Don’t like what have seen so far in schematics of “landscape garden – architectural” elements – too rigid, but realize all this is preliminary. Waterways should look natural.
- Questions about the service area and functionality of being a very busy area for workers and public – composting, grey water, etc. I like the ideas very much, but wonder how all that will work. I’m sure it will be explained at a later date.
- The cost and the level of work/labour that will be vital for completion. Also, I hope that we do not lose the “traditional” value the garden has always represented.
- There could be more indoor and outdoor space allocated to public gatherings and events. The venue is one of my favourites and I believe funding for the future success of VanDusen will continue to rely heavily on donations and volunteers. To create more user space for events and education would bring in more support and money from the public.
- It may not be bold enough or big enough for the long term needs. Concerned that the idea of returning parts of the garden to a more “natural” state could have a negative impact. Vancouver is surrounded by forests, wetlands, meadows. Small, isolated specimens of these ecosystems can end up looking unkempt – like the wasteland that is now part of the PNE’s “natural” park.
- Open views into the garden is a two edged sword – are the berms created going to mitigate the sound of traffic off Oak or is the solitude of the garden going to be compromised. Once the building is complete has any thought been given to the noise factor from Oak St. especially once the old buildings have been demolished and traffic flows have been brought closer to the garden.
- That the roof will require high maintenance since it is a green roof. There are no rails along the edges. The safety of the people will be an effect since the rails are required. Some areas are steep and people could roll down.
- Will overflow parking take place in the neighbourhood? Will you resort to local parking meters to control it? Will people stay away because of lack of parking?
- The parking. I think it will be a huge problem for the neighbours.



- Rainforest/wood area. Returning to 'nature' – loss of current garden and additional coyote issues. Meadow among mowed lawn – delineation of formal vs. informal area + possible problems with meadow flowers being invasive.
- I would like to understand more fully how the "sinuous berm" concept will play out – hard to imagine, based on what's been presented tonight – if this will be as effective as we hope. This building REALLY requires a powerful but complementary landscape.
- The literal flower metaphor is silly I think – is it driven by the liebskind, gehry precedents that are almost trite in their literal expression.
- Too bad we have to wait a year or two – wish the ground-breaking could have occurred immediately!

### **Additional Comments**

- Truly an educational concept which lends itself to interpretation of protecting environment and ecosystems.
- Do not believe that the landscaping, except for the roof and the area surrounding buildings should be in the current mandate of this team It should be excluded for financial, aesthetic and 'political' reasons. The garden staff, foreman, gardeners and new director are in a much better position to deal with this.
- I look forward to VanDusen's new face.
- Don't forget to put money into the botanical end and not just the building.
- Could demo gardens/service area reside further south (maybe smaller) so that existing areas are undisturbed. Parking underground would allow this. Also concerned re: potential loss of peace and quiet in garden by increased traffic in entrance.
- Great concept, however, huge cost. Car park full now, if increasing visitors – not enough parking. Shuttle bus good idea in future. Keep maintaining and changing garden. Without garden no amount of new building will work. Need better advertising of garden – very poor at present.
- A thrilling new addition to Vancouver for resident and tourist to be educated and entertained.
- Not enough parking now.
- Need more toilet facilities away from main buildings.
- Presentation assumed car access – no mention of public transportation. More toilet facilities in upper garden.
- Need banquet facilities for restaurant.
- Hope it will go ahead quickly.
- How many people will experience the plan view? How constraining is the adherence to the flower metaphor? Stick to a strong message. Do not water down living building, sustainable gardening etc.
- I'm very excited about the project – I like it all. It's so positive!
- We share a fence with the garden – enjoy early morning trips to the area by the tractor! Enjoy country living in the middle of the city.
- Botanical gardens are a global resource.
- Vancouver buildings have been having a "leaky" syndrome!
- Please don't change the original concept of the garden too much.
- Overall – like direction. Will look forward to seeing details as they develop.
- I really am looking forward to this future – being a full time gardener, I'm very excited for all the new ideas, buildings and gardens.
- Overall, a fabulous improvement and very thoughtful and intriguing design. Congratulations on a job well done.
- Congratulations on a creative and innovative approach to the project. Overall, I think it's superb – and long overdue.
- Love it!
- Do not disturb the turtles. Ensure that the venue space is large – creates revenue.
- The overall design is very unique and creates that feel that you are in a natural space. This extension of the garden is a good idea. I liked to "V"s used at the entrance to represent VanDusen.
- I love the general appearance – well done!
- Don't lose fact that this is a botanical garden and education is a function. Please continue to correctly name plants and keep a botanical collection while at the same time making plants interesting and accessible to the average visitor.
- Wish it were already built! So tired of construction in this city and trying to live, work and travel around it! Would love to see serious composting/zero waste. Can't wait to see the rammed earth wall.

- I can imagine all ages of people – residents and visitors being drawn to the garden and inspired by it. The building will become an icon of Vancouver and an example of a new way to integrate architecture and gardening and responsibility to the earth. I also look forward to seeing the forest and marshland enlarged – they are natural to our west coast rainforest climate and location and they will help the garden thrive. The new roof will provide breathtaking views that we have not had before. Overall the concept and design is BRILLIANT. Thanks to all involved for the planning and consideration of all the garden users.