



To: Development Permit Panel

Date: June 12, 2007

From: Jean Lamontagne
Director of Development

File: DP 06-355443

Re: Application by Sun Life Assurance Company of Canada for a Development Permit at 10851 Shellbridge Way

Staff Recommendation

That a Development Permit be issued which would:

1. Permit the construction of a 6,330m² three storey office building at 10851 Shellbridge Way (Airport Executive Park Building 6) on a site zoned Business Park Industrial District (I3); and
2. Vary the provisions of the Zoning and Development Bylaw No. 5300 to:
 - a) Increase the maximum building height from 12.0 m to 16.7 m;
 - b) Reduce the minimum road setback to Shellbridge Way from 6.0 m to 3.85 m, and;
 - c) Increase the maximum number of small car parking spaces permitted from 30% to 36%.



Jean Lamontagne
Director of Development

JL:dcb
Att. 6

Staff Report

Origin

Sun Life Assurance Company of Canada has applied to the City of Richmond for permission to develop a 6,330m² three storey office building at 10851 Shellbridge Way (Airport Executive Park Building 6) on a site zoned Business Park Industrial District (I3). The site was formerly addressed as 10751 & 10851 Shellbridge Way but has since been consolidated.

The proposed development will replace two existing structures on the site with a single three storey office building designed to a Leed silver standard. Off-site requirements will include a meandering sidewalk along the Shellbridge Way frontage which will be addressed through a servicing agreement.

No rezoning is required for the project as the use is consistent with the uses permitted under the current Business Park Industrial District (I3) zoning applicable to the site.

The primary reason for the Development Permit is because of the proximity of the industrial use to the adjacent residential uses immediately to the north of the property.

Development Information

Please refer to attached Development Application Data Sheet (**Attachment 1**) for a comparison of the proposed development data with the relevant Bylaw requirements.

The subject site is located within an industrial business park in the East Cambie Area just north of Cambie Road and west of Shell Road. The Area Plan generally supports increasing industrial job opportunities within the designated industrial areas and includes two policies of particular relevance to the subject site:

- 1) Require and regulate the provision of screening or landscaping to mask separate uses as shown on the Land Use Map; and
- 2) Ensure that development permits, where required, conform to adopted guidelines. As noted under the "Staff Comments" discussing some aspects of this proposal do not strictly conform to adopted guidelines.

The site is also within the Aircraft Noise Management Policy area No. 4 (NEF 25 to 30). An acoustic report (**Attachment 3**) has been prepared by an acoustic engineer as part of the Development Permit review. The report indicates that no additional noise mitigation measures need to be incorporated into this project. A restrictive covenant related to aircraft noise will be secured as a condition of the Development Permit approval.

Background

Development surrounding the subject site is as follows:

- *to the north*, large lot single-family residential lots back onto the subject site. These lots are zoned R1/E. A pedestrian path and green belt runs between the existing buildings and the single-family residential lots. This amenity is located entirely within the subject property. A Right of Way to secure the use of this amenity by the general public will be secured prior to Development Permit adoption.

- *to the east, south and west*, business park industrial – typically office structures with significant parking areas.

Staff Comments

Design Guidelines Compliance

The proposed scheme pays close attention to the guideline requirements. Notable design guideline elements incorporated into the proposed design include the following:

- The building has strong commercial frontage character (i.e. significant use of glazing, strong architectural features on the front and rear elevations, use of a variety of “skin” materials used, etc.) along Shellbridge Way providing a good visual appearance from the street;
- The siting of the building is intended to minimize the setback from the property line next to the street and maximize the distance to the adjacent residential dwellings to the north. This also reinforces the street-orientation objectives sought by the OCP guidelines;
- The scheme has a well planned landscaping design which includes a 7.9 m wide landscape buffer between the development and adjacent residential dwellings along the northern property line, a central landscape feature intended to retain two large, high value redwood trees and provide for a bio-filtration swale and extensive perimeter planting which serves to define the site;
- Although there is no frontage pedestrian entrance to the building from the street, the design allows for a future access from the street if desired by the tenant(s);
- Exterior lighting is primarily down lighting or oriented away from the adjacent residential to minimize cross boundary impacts, and;
- Mechanical elements on the building rooftop are either fully enclosed or screened reducing both negative visual elements and noise.

The proposed scheme attached to this report has satisfactorily addressed the significant urban design issues and other staff comments identified as part of the review of the subject Development Permit application. With exception to the foregoing comments, it generally complies with the intent of the applicable sections of the Official Community Plan and is generally in compliance with the Business Park Industrial District (I3) zoning except for the zoning variances noted below.

Zoning Compliance/Variations (staff comments in *italics*)

The applicant requests to vary the provisions of the Zoning and Development Bylaw No. 5300 to:

- 1) Increase the maximum building height from 12.0 m to 16.7 m.

This variance is primarily to allow for an enclosed rooftop mechanical area and elevator. A minor portion of the height increase also accommodates a rooftop parapet and other design elements. The applicant has indicated that the enclosed penthouse increases the longevity for the mechanical equipment and will reduce the noise pollution to the surrounding neighbourhood by the HVAC systems. Staff support this variance because of the potential benefits to the neighbourhood in terms of noise reduction, improvement to the visual appearance of the building and the overall attempt to design a more sustainable building.

- 2) Reduce the minimum road setback to Shellbridge Road from 6.0 m to 3.85 m.

This variance allows an overhang and support pillars to project into the 6.0 m front setback area. The variance is supported as the positioning pulls the building further away from the adjacent residential dwellings and reinforces its street oriented character. The added features to the façade provide better articulation of the frontage elevation of the building imparting a more dramatic appearance than would otherwise occur.

Staff note that the building placement is in approximate alignment with the existing industrial building to the east (DP 00-182104 – 10991 Shellbridge Way) and will allow for a transition to the building to the west which is slightly setback.

The positioning also contributes to retention of the central green space and the two significant trees at the centre of the site.

- 3) Increase the maximum number of small car parking spaces permitted from 30% to 36%.

The reduction in the number of standard stalls allow additional vegetation fingers to break up long stretches of parking stalls and improving permeability while still meeting the client's targets for the number of stalls required. Staff also support the variance as the parking provided on the site is in excess of Bylaw parking requirements.

Both the Advisory Design Panel and staff have reviewed and support the proposed variances as generally necessary to support the design responses to the issues at this specific site or are reasonable requests that respond to the way that the owner intends to use the site.

Advisory Design Panel Comments

The Advisory Design Panel was April 4, 2007. A copy of the relevant excerpt from the Advisory Design Panel Minutes from the meeting is attached for reference (**Attachment 2**). The design response from the applicant has been included immediately following the specific Design Panel comments and is identified in '***bold italics***'.

Analysis

General Comments – Leed and Sustainability Features

The building is being designed to LEED Silver standard using the Integrated Design Process. The following is an overview of the key sustainable strategies being incorporated in the design:

- The project site has access to public transportation and the building design incorporates bicycle racks, showers and change rooms to encourage alternative transportation. Storm water management strategies including bio-swales, oil interceptors and detention tanks are being considered for the project along with infiltration into the ground. All exterior lighting will be full cut-off type fixtures to prevent light pollution.
- The landscape design will include native and adapted vegetation requiring little or no maintenance and reduce water consumption for irrigation by 50%. The central landscaping feature is centered around two high value redwood trees. It also includes a bio-filtration swale to reduce surface storm water runoff from the site.
- High efficiency plumbing fixtures including dualflush toilets, low flow urinals and showerhead and self-closing faucets are being considered for the project to reduce the burden on municipal water supply and wastewater system.

- The design of the building systems will maximize energy performance. The basic system is a 4-pipe fan coil system with fixed ventilation air. All exhaust air will pass through an Enthalpy Heat Wheel to recover 76% of the energy from the exhaust air. The boilers being selected are 88% efficient. Low-E glass is being considered for the building envelop.
- Building materials sourced locally and incorporating recycled content will be specified for the project.
- Mechanical ventilation systems will be designed to provide enhanced Indoor Air Quality (IAQ). Finish materials with low VOC contents will be specified.

Conditions of Adjacency

- Exterior Lighting: All exterior lighting installed on the site will be full cut-off type fixtures.
- No lighting will be incorporated into the trail along the north edge of the site; and
- Parking is being screened from the adjacent residential using Conifers at edges, thick growth and grade change along the trail along the north edge. Therefore the adjacent residential lots will not be unduly impacted.

Urban Design and Site Planning

- North Pedestrian Pathway: Firm crush gravel will be used on the pathway surface to ensure universal accessibility.
- A walkway connection to the north pathway from the main entrance to the building. Parking stalls have been realigned and unit pavers provided to provide definition to the walkway.
- A pedestrian connection is provided along the east edge of the property (located on the neighbouring property at 10991 Shellbridge Way) as a link to the street frontage sidewalk. This walkway connects to both the building's main entrance and the pedestrian trail at the rear of the site.
- The proposed site plan has 36% small cars. The percentage of small car spaces was adjusted in order to accommodate landscape strips between long rows of parking stalls.
- Only 2 loading bays have been provided as the owners experience has indicated that 2 loading spaces are more than adequate for a building of this use and scale. Staff have reviewed this component and accept the rationale given the proposed uses of the building. Both loading bays meet the Bylaw size requirement of 9.1 m by 3.1 m).
- The site plan indicates that turning maneuvering for an SU-12 truck can be accommodated with the proposed site plan.
- Rather than installing a green roof the design incorporates low flow drains and rain water harvesting to reduce storm water discharge rate and quantity. Additionally, roofing materials with high reflectivity and high emissivity are being considered.
- Garbage bins are proposed to be screened by their location on the west (service) side of the building and a block wall enclosure with wire mesh gates.

Architectural Form and Character

- Main Entrance and Street Presence: To enhance the street presence of the building, the site planning located the building towards the South of the site, adjacent to Shellbridge Way, and the parking towards the north. As a multi-tenant building the owners have indicated their desire to maintain only one entry to the building. The main entrance from the north parking area is the most practical from the owners perspective. The design has allowed for a second entry from the south if desired by a tenant. The grading and landscaping design can accommodate this (future) requirement. Any such future adjustment would be administered through a General Compliance application.

- The height variance applied for (16.70 m) is the height of the mechanical penthouse measured from the crown of road abutting (Shellbridge Way). The inclusion of a mechanical penthouse will provide increased longevity and efficiency for the mechanical equipment housed inside.
- Rooftop screening will be provided for the cooling tower which is located outside the mechanical penthouse due to functionality. The proposed layout of the screening is indicated in the drawings.
- The placement of the building along the Shellbridge Way street edge serves to enhance its relationship to the street. The alignment is consistent with the placement of the building at 10991 Shellbridge Way to the east. The 2.0 m projection on the 3rd Floor is an architectural feature on the street front but does not take away from open space or landscaping as it is three floors up but serves to provide a more dramatic architectural element to the building frontage.
- The roof over the southeast corner of the third floor is raised (about 600mm) above the adjacent roof area. This does not affect the exterior appearance of the building as the higher roof area is behind the parapet. However, the high ceiling below, does allow for more vision glazing and added feeling of openness to the interior space.

Landscape Design and Open Space Design

- The Arborist's report indicates that 54 trees are proposed to be removed from the site. The Landscape Plan shows the installation of 145 trees of appropriate size and species in addition to various shrubs and ground covers in the green spaces and perimeter edges of the property. Of special note are the two significant and centrally located Redwood trees around which the site has been planned to ensure their retention. These are primary features of the site.
- Reasonable consideration was given to retaining as many trees as possible in the landscape design. The entire site layout is developed around efforts to save the two high value redwood trees. It was not possible to save tree number 788 due to its impact on site parking layout and subsequent drainage. Replacement trees are proposed in the landscape design of the site. Replacement trees that are not possible to accommodate on site will be planted at other locations within the Airport Executive Park subject to site availability. Trees on adjacent lands and City-owned lands will be protected during development.
- A 1.5 m wide public right of passage ROW for the pedestrian trail running across the northern portion of this lot and the adjacent lot at 10991 Shellbridge Way which is also owned by SunLife. The trail is already constructed on 10991 Shellbridge Way. Construction of a 1.5m (min.) wide trail will be undertaken on the subject lot through a servicing agreement. Maintenance of and liability for the Right of Way will be the responsibility of the owners, not the City.

Crime Prevention Through Environmental Design

- The landscape design has considered CPTED measures. The dense tree foliage is at a height that does not impact the view through the site. Adequate exterior lighting is provided.

Public Meeting

The proponent held an open house for neighbouring residents on April 2, 2007 that was attended by 8 people. As reported by the proponent's consultants (see **Attachment 5**) the attendees appear to have been generally supportive of the project. The proponent's proposed plans generally attempt to respond to the feedback they received.

Utility Analysis

The applicant has submitted a utility analysis which has been reviewed and accepted by the Engineering Department. Identified upgrades required to support the development at subject property will be incorporated into the site's Servicing Agreements.

Conclusions

The applicant has made considerable efforts to respond to staff's suggestions and has clearly attempted to design a building which is both functional and efficient. The application received favourable support from both the Advisory Design Panel and staff.

Attachments

Attachment 1: Development Application Data Sheet

Attachment 2: April 4, 2007 Advisory Design Panel Meeting Minutes

Attachment 3: Aircraft Noise Assessment

Attachment 4: Tree Protection Report

Attachment 5: Open house summary

Attachment 6: Conditional Development Permit Requirements



David Brownlee

Planner 2

DCB:cas



City of Richmond

6911 No. 3 Road
 Richmond, BC V6Y 2C1
 www.richmond.ca

**Development Application
 Data Sheet
 Development Applications Division**

DP 06-355443

Attachment 1

Address: 10851 Shellbridge Way

Applicant: Sun Life Assurance Co. of Canada Owner: Same

Planning Area(s): East Cambie Area

Floor Area Gross: 6330 m² (68,137 sf) Gross Leasable Area: 5,285 m² (56,889 sf)

	Existing	Proposed
Site Area	11,007.90 m ²	Same
Land Uses	Office	Office
OCP Designation	Business and Industry	Same
Area Plan Designation	Industrial	Same
Zoning:	Business Park Industrial District (I3)	Same

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	1.0	0.58	none permitted
Lot Coverage:	Max. 50%	21%	None
Setback – Front Yard:	Min. 6.0 m	3.85 m	Variance to accommodate overhang and support pillars
Setback – Side Yard:	N/A	N/A	None
Height – buildings (m):	Max. 12 m	16.7 m	Variance to accommodate mechanical enclosure and parapet
Off-street Parking Spaces – Commercial:	159	189 comprised of 117 std stalls, 68 small and 4 HC stalls	Variance to increase the number of small car spaces from 30% to 36%
Off-street Parking Spaces – Accessible:	4	4	None
Tandem Parking Spaces:	not permitted	none	None

**Excerpt from the Minutes from
The Design Panel Meeting**

**Wednesday, April 4, 2007 – 4:00 p.m.
Rm. M.1.003
Richmond City Hall**

Development Permit 06-355443

APPLICANT: Bunting Coady Architects
PROPERTY LOCATION: 10751/10851 Shellbridge Way

Staff Comments

David Brownlee, Planner reviewed the site context. This is a three storey office structure situated on two sites, located in the industrial park in the East Cambie area with a residential area immediately to the north.

The applicant is requesting the following four variances:

1. To reduce the loading bay requirements from four (4) stalls to two (2) stalls;
2. Increase the maximum building height from 12.0 m to 16.7 m;
3. To reduce the minimum building setback from 6.0 m to 3.85 m;
4. To reduce the minimum number of standard parking spaces required from 70% to 64% .

Mr. Brownlee spoke about staff concerns and requested input from the Panel about the following issues:

1. the inward focus of the building;
2. the pedestrian walkway in relation to the adjacent property;
3. the pedestrian trail through the North side of the park;
4. the green roof.

Applicant's Comments

With the aid of a model, material sample board and various artists renderings, Tom Bunting of Bunting and Cody Architects reviewed the site history, noting that the new development will be similar to the ones developed in the area during the past 15 years. The development is 3 storeys with an open design, and a high degree of landscaping in the parking lot. The building is very auto service oriented, and the applicant has pushed the building far to the south of the street as requested by neighbouring residents and to preserve two significant trees in the centre of the site. There is no street parking, and as a result all parking is located at the north and south sides of building.

The area does not have retail outlets or restaurants, and there is little pedestrian movement between buildings. There is a high degree of landscaping, and the green way along the north side has been treated by giving screening to neighbours from the parking lot.

Jonathan Losee, Landscape Architect reviewed the landscape scheme, noting that a formal approach was taken to planting of trees and shrubs along the south edge. Canopy trees will be located in areas where the building is recessed, small columnar trees where it protrudes, and the back of the building will have organic forms of planting.

Mr. Losee also spoke about the contribution of structural soil, planting of sequoia trees, existing berm on the north side of the building, a jogging trail that connects the site, lighting, and the roof which has low flow drainage for water arrogation system and storage.

Panel Discussion

In answer to several questions, the applicant provided the following advice:

- the roof has a low flow water storage capacity (6 inches of average water) in cisterns for the arrogation;
- the setback variance is requested to avoid having to take away landscaping in the back of the building;
- height variance is requested primarily to accommodate an enclosed mechanical facility on top of the building feature of 3 storeys;
- the parapet height is 12.6 meters;
- the parking location has had an affect on the location of the entry;
- during a public Open House, the residents indicated that they would be pleased to see the building located as far back as possible from the residential area.

Comments from the Panel were as follows:

- good provisions for accessible parking and public washrooms;
- great response to area residents;
- consider bringing the massing out on the Shellbridge Way corner;
- the entrance and parking at the side of the building is logical;
- supports height variance because it articulates the roof and supports the overall form of the building;
- appreciates the look of building;
- supports the setback reduction on Shellbridge Way;
- consider roof top treatment to further hide the mechanical block, try something to hide the height;
- the lack of entrance at Shellbridge Way is disturbing but the rationale is understandable;
- the pathway has inadequate lighting, posing a security risk;
- appreciated the approach to the landscaping;
- give consideration to the relationship between this building and the neighbouring buildings;
- the jog in the pathway between the building and the trail is awkward;
- appreciates how the landscape is a frame for the big tree;
- building out and creating the entrance on Shellbridge Way sends out a message that this is a very car oriented for a Leed building, consider promoting alternatives to car use to balance out this message;
- well planned project with good use of materials;

In response to the Panel's comments, the applicant advised that site is well maintained with a high level of security and with no issues.

Panel Decision

It was moved and seconded

That Development Permit 06-355443 move forward to the Development Permit Panel process taking into consideration the following comments provided by the Advisory Design Panel:

- 1. consider further design development to the roof top augmentation;*
- 2. further consideration to the security of the pathway, and explore option of illuminating the pathway.*

CARRIED

Applicant's Response**Staff Comments:****Pedestrian Access between Shellbridge Way and the Principal Entrance**

To define the pedestrian access from Shellbridge as the primary pedestrian access to the main entrance, the surface of the pedestrian access will have Holland Pavers (80mm, Grey Color) all the way to the point where it connects with the leg to the principal entrance. The walkway will also have appropriate lighting.

Further design development to the roof top augmentation

The mechanical penthouse on the roof is now reduced to half its original area. This is due to a value engineering exercise on the mechanical systems design. The major equipments outside the penthouse are:

- a) An air cooled chiller located on the east side of the penthouse above a raised concrete slab (top of concrete stairwell). This area is screened with metal screening as per the original design.
- b) Two (smaller) make-up air units on the west side of the penthouse mounted on the roof using isolation pads. Due to their smaller profile no screening is planned around these units.

Further consideration to the security of the pathway and explore option of illuminating the pathway.

The RCMP representative on the ADP recommended against illuminating the pathway as the lighting may invite more attention and visitors to the pathway. Based on their experience, the client feels that lighting the pathway will not be in the interest of the residential neighbors to the north or the tenants of Building 7 and Building 6 (proposed). Bentall Real Estate Services, which operates the office buildings in the Airport Executive Park, conduct adequate security patrol of the area including the pathway. Several residential neighbors expressed their satisfaction of the security patrols during the Public Open House held for the project on April 2, 2007.



Principals:
Douglas S. Kennedy, P.Eng.
Douglas J. Whicker, P.Eng.

March 8, 2007

File: 7087

MHPM Project Managers Inc.
2609 Granville Street, Suite 310
Vancouver, British Columbia, Canada, V6H 3H3

Attention: Jean-Philippe Picard

Dear Sir:

Re: Sun Life Office Building in Airport Executive Park - Aircraft Noise Assessment

We understand that the proposed building for Sun Life, to be located at 10751 Shellbridge Way in Richmond, will be primarily office space and will contain no residential, school, daycare or hospital components, all of which are defined as Aircraft Noise Sensitive Land Uses in Richmond's Official Community Plan (Bylaw 7794). Although the site falls within "Area 4" of Richmond's Aircraft Noise Sensitive Development Map, offices are not considered to be noise sensitive land uses. Therefore, there is no reference to office buildings in Bylaw 7794 and there is no noise criteria identified for assessing potential impacts of aircraft noise on office buildings.

In view of the above, we have referred to the Transport Canada document TP 1247 entitled Aviation - Land Use in the Vicinity of Airports. Table 3 in Part IV of TP 1247 indicates that commercial office use in areas where the NEF is <30 "*is not considered to be adversely affected by aircraft noise and no special noise insulation should be required for new construction or development of this nature.*" TP 1247 can be viewed online at <http://www.tc.gc.ca/CivilAviation/publications/tp1247/menu.htm>. The site in question is outside the NEF 30 contour (see attached map) and therefore the proposed office building should not be adversely affected by aircraft noise.

Sincerely,

BKL Consultants Ltd.

per

A handwritten signature in black ink, appearing to read 'D. Kennedy', is written over a light blue horizontal line.

Douglas S. Kennedy, P.Eng.

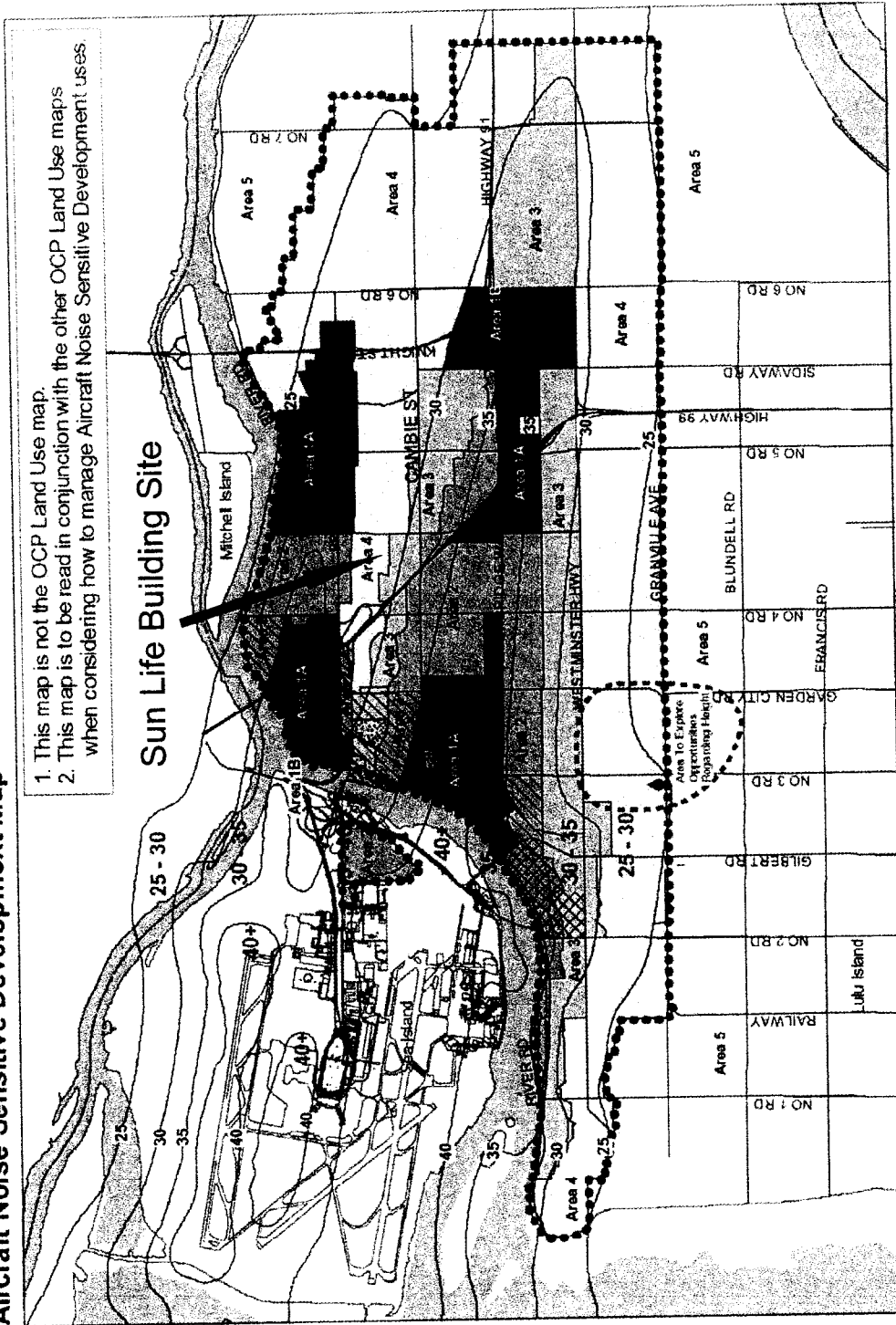
Enclosure

"Schedule B attached to and forming part of Bylaw 7794"

Aircraft Noise Sensitive Development Map

1. This map is not the OCP Land Use map.
2. This map is to be read in conjunction with the other OCP Land Use maps when considering how to manage Aircraft Noise Sensitive Development uses

Sun Life Building Site





**Froggers Creek
Tree Consultants Ltd.**

7763 McGregor Avenue Burnaby BC, V5J4H4
Telephone: 604-721-6002 Fax: 604-437-0970

City of Richmond
Policy Planning Department
6911 No. 3 Rd,
Richmond, BC, V6Y 2C1

December 20, 2006

Re: 10751 and 10851 Shellbridge Way, Richmond BC

Tree Protection Report

Please find enclosed my **Tree Protection Report**. I am also attaching as appendices to the Report, a **Tree Inventory** and a **Tree Protection Plan** drawing for reference purposes.

TREE PRESERVATION SUMMARY

92	Trees affected by this development.
69	On-site trees affected by this development.
18	Off-site trees affected by this development.
5	City trees affected by this development
54	On-site trees proposed for removal.
12	On-site tree proposed for retention
0	Off-site trees proposed for removal
18	Off-site trees proposed for retention
1	City tree proposed for removal
4	City tree proposed for retention
3	On-site trees to be transplanted

INTRODUCTION

The purpose of this report is two-fold: firstly, to describe the existing tree resource growing on site; secondly, to set forth measures to protect some or all of this resource; or, in the absence of any opportunities for meaningful tree retention, to explain why it is not feasible.

The report will document the following:

1. the extent, character and condition of all surveyed on-site and off-site trees that may be potentially impacted by the development;
2. trees proposed for removal and retention;
3. measures proposed to minimize tree loss and maximize successful tree conservation;

I have been provided with the following resources:

1. a tree survey of the existing property and adjacent lands;
2. a proposed site layout drawing.



I have visited the site and assessed the trees with a diameter of 10cm and greater located on the lot and on lands immediately adjacent. All trees have been tagged, inventoried and evaluated for health, structure and retention value.



Figure 1. Aerial photo of subject properties - from the City of Richmond's online mapping and GIS website – <http://www.richmond.ca/discover/maps.htm>

OBSERVATIONS

Current Site Conditions

The site is relatively flat well treed lots with most of the trees located around the perimeters.

Proposed Development Plans

The proposed development will create one large building and a parking on the sites.

Tree Resource

92 trees are inventoried in total. 69 of them are on-site, 18 of them are located on the neighbouring properties and 5 trees are located on the City Boulevard. Most of the trees on site are in good health and structure. 12 of the trees have a poor rating for structural condition. The table below shows the breakdown of retention values of the tree resource. Individual retention values can be found in the inventory.



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Retention Value	Number
low	10
fair	19
good	34
high	26
very high	3

Retention Values assigned:

1. Very High Retention Value- These trees are special, large, rare and in great condition".
2. High Retention- These are specimen quality trees.
3. Good Retention Value- These trees are nice trees and are good trees for retention.
4. Fair Retention Value- These trees often have small defects or require pruning work. They should be considered for retention where possible.
5. Low Retention Value- These trees are in either poor health or in poor structural condition and should be removed. They should not be considered for retention.

Details of this tree inventory are provided in the table attached as Appendix—1.

DISCUSSION

Tree Removals

54 on site trees are proposed for removal (see Appendix-3). These removals are categorized as follows:

- 1 tree is Dead:
- 1 tree has fallen over from the snow
- 4 trees are located within Building Envelopes or close to them:
- 44 trees are located in or will be critically impacted by the driveways and parking lot construction. The grade changes required along the north end of the parking lot will critically impact the tree located just to the north.
- 3 trees will be critically impacted by the grade changes to the front of the property.
- 3 trees are small enough to be transplanted. (Tree #'s 823, 798 and 786)

Tree Retention

12 on-site trees and 4 city trees have been proposed for retention. I have recommended that 3 trees be transplanted. The majority of the trees being removed are due to the parking lot construction. More trees could be retained if the number of required parking stalls was reduced from 194.

Off-site Trees

The canopy and the roots of 18 off-site trees are encroaching into the subject property.



Off site trees are not considered in the statistical calculations.
Off- site trees can not be altered in any way without the consent of the owner of the tree.

City Trees

There are 5 City trees located on the boulevard along Shellbridge Way in front of the site. One of the trees is located in the middle of the proposed driveway and will need to be removed.
The four other City trees can be retained if all excavation for underground services etc is kept outside the canopies of the trees. See Tree Protection Plan Drawing for the location of the protection fencing.

Drawings

Several drawings are included in this report.
A site plan showing all the trees and their canopies is included in **Appendix—4. A Tree Protection Plan** drawing, which plots all on-site trees, off-site trees and the canopies of the retained trees in relation to the proposed development layout is attached as **Appendix—5.**

Replacement Trees

The following is a list of the replacement trees required by the City of Richmond:

Conifers		Deciduous	
# required	size	# required	size
8	3.5m	12	6cm
10	4m	22	8cm
8	5m	14	9cm
12	5.5m	10	10cm
4	6m	4	11cm

A landscape drawing showing the location of replacement trees will submitted separately.

Tree Protection

All retained trees on the City Property and neighbouring properties will be surrounded by Tree Protection Fencing as laid out in the **Tree Protection Plan** drawing Appendix 5. All fencing must be constructed to a robust standard and clearly signed: "TREE PROTECTION AREA – KEEP OUT" See Appendix 2 for construction details.

Retention of the Very High Value Giant Redwoods

The two Giant Redwoods that are in good condition, (#789 and #790), require special measures to retain. The trees are very large and have very large critical root zones¹ these are shown on the drawings. The Critical Root Zone is considered the amount of soil and root area required to ensure the

¹ Critical Root Zone - I have calculated this area using the method approved by the International Society of Arboriculture and the American Society of Consulting Arborists, which calculates the CRZ on the basis of biomass, species, age and condition. See Methaney, Nelda and James Clark, Trees and Development, A Technical Guide to Preservation of Trees During Land Development. (International Society of Arboriculture, Champaign, Illinois. 1998.)



Froggers Creek Tree Consultants Ltd.

long-term biological viability of the tree. Any excavation or grade changes within the critical root zones could impact the future health of the tree. Generally healthy trees can handle losing up to 25% of its critical root zone

Redwoods are intolerant of fill soil being added over their roots. Special "no dig type" driveway and parking lot construction methods will need to be used to ensure that the trees survive the construction. See appendix 3: The final grade can only be increased by a maximum of 8 inches within the Critical Root Zones of the Redwoods. Permeable materials will need to be used to allow water and air to infiltrate into the soil. Tree protection fencing will need to be installed around the critical root zones of the trees before any construction or demolition begins. The fencing will stay up until the parking lot is being built. The construction of the parking lot within the critical root zones will need to be closely overseen by the Project Arborist.

BEST PRACTICES DURING SITE PREPARATION AND CONSTRUCTION

Notwithstanding the special mitigation measures outlined above for specific trees, there are general best practices to be followed on the rest of the site to lower the potential for tree damage during construction. These best practices include:

- Tree protection fencing. The attached Tree Protection Plan includes locations and specifications for Tree Protection Fencing.
- Transplanting of the three trees should be done by Professional Tree Movers before any construction begins. These trees should be carefully moved and if possible placed into their final resting spot rather than moved multiple times.
- Several of the protection areas fall within the parking lot areas. These fences will need to be left in place until the construction for the parking lot begins. The project Arborist should monitor the construction with the critical root zones.
- On-site supervision and monitoring. The Project Arborist should be on-site whenever site grading or site servicing is occurring adjacent to protected trees. A monitoring program should also be implemented during site preparation to ensure compliance with the Tree Protection Plan.
- I recommend that the trees be inspected at the completion of project and a letter report be prepared detailing any deficiencies, if present.
- Encroachment pruning of affected tree branches and roots.
- Supplemental irrigation, fertilization and mulching are recommended for particular trees that may be placed under stress during the development of the site.
- Guidelines for on-site trades and contractors. These guidelines may include site access routes, how close digging can occur to the tree, where soil can be piled and where equipment can be parked.
- Contractual penalties for failure to comply with tree protection measures or for damage to protected trees.

End Report.

CERTIFICATION:

This report and the opinions expressed within it have been prepared in good faith and to accepted arboricultural standards within the scope afforded by its terms of reference and the resources made available to the consultant.



Froggers Creek Tree Consultants Ltd.

Dated: December 20, 2006

Glenn Murray – Board Certified Master Arborist
I.S.A. Certification # PN-0795B
Certified Tree Risk Assessor #0049
Froggers Creek Tree Consultants Ltd.



ASSUMPTIONS AND LIMITING CONDITIONS

1. This report and the opinions expressed within it have been prepared in good faith and to accepted arboricultural standards within the scope afforded by its terms of reference and the resources made available to the consultant. The report provides no undertakings regarding the future condition or behavior of the trees reviewed within it. Tree hazard and condition assessments are not an exact science. Both qualities can and do change over time and should be reappraised periodically.
2. This assessment was limited to a visual tree evaluation only. No core samples were taken. No tissue samples have been cultured or analyzed by plant pathologists. No root crown excavations were undertaken. No aerial reconnaissance was attempted, beyond that made possible by binoculars. The evaluation period for this assessment is 12 months.
3. Any legal description provided to the consultant/appraiser is assumed to be correct. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
4. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, or other governmental regulations.
5. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee nor be responsible for the information provided by others.
6. The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
7. Loss or alteration of any part of this report invalidates the entire report.
8. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.
9. Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant/appraiser—particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initiated designation conferred upon the consultant/appraiser as stated in his qualification.
10. It is impossible to predict exactly how a tree will react to any excavation near the tree. Sometimes underground soil water movement can be changed because of the building of a house and this could stress or kill a tree.

Appendix-1
Tree Inventory Table
Offsite Trees

#	Action	Type	dbh	Retention Value	Critical Root Zone m	Ht feet	Ht m	Drip line Radius m	Health	Structural Condition
1	Retain	Pin Oak	11	Good	1.0	20	7	2	Good	No apparent defects
2	Retain	Pin Oak	10	Good	0.9	20	7	2	Good	No apparent defects
3	Retain	Pin Oak	10	Good	0.9	20	7	2	Good	No apparent defects
4	Retain	Pin Oak	10	Good	0.9	20	7	2	Good	No apparent defects
5	Retain	Pin Oak	12	Good	1.1	20	7	2	Good	No apparent defects
6	Retain	Pin Oak	10	Good	0.9	20	7	2	Good	No apparent defects
7	Retain	Douglas Fir	62	Good	6.2	75	25	5	Good	Topped multiple trunks
8	Retain	Douglas Fir	65	Good	6.5	75	25	5	Good	Topped multiple trunks
9	Retain	Douglas Fir	45	Good	4.5	45	15	5	Good	Topped multiple trunks
10	Retain	Norway Maple	60	High	6.0	60	20	7	Good	No apparent defects
11	Retain	Norway Maple	28	Good	2.8	35	12	3	Good	No apparent defects
12	Retain	Norway Maple	31	Good	3.5	60	20	5	Fair	No apparent defects
13	Retain	Norway Maple	20	High	1.8	35	12	3	Good	No apparent defects
14	Retain	Norway Maple	16	Good	1.4	35	12	3	Good	No apparent defects
15	Retain	European Beech	35	High	4.5	55	18	5	Good	No apparent defects
16	Retain	European Beech	35	High	4.5	55	18	4	Good	No apparent defects
17	Retain	European Beech	38	High	4.9	55	18	5	Good	No apparent defects
18	Retain	Norway Maple	46	High	4.6	55	18	7	Good	No apparent defects



Froggers Creek Tree Consultants Ltd.

On-Site Trees

#	Action	Type	dbh	Retention Value	Critical Root Zone m	Ht feet	Ht m	Drip line Radius m	Health	Structural Condition
754	Remove	Manitoba Maple	26	High	2.6	30	10	4	Good	No apparent defects
755	Remove	Manitoba Maple	23	Good	2.0	30	10	4	Good	Fair, trunk damage
756	Remove	Western Red Cedar	46	Good	5.9	40	13	4	Good	Fair, topped at 5 feet, 3 tops
757	Remove	Douglas Fir	49	Fair	4.9	50	17	4	Good	Poor, topped at 15 feet, 3 tops, ugly
758	Remove	Norway Maple	38	High	3.8	40	13	5	Good	No apparent defects
759	Remove	Burning Bush Tree	14	Low	1.6	10	3	2	Fair	Poor, fallen over
760	Remove	Red Maple	36	High	3.6	45	15	6	Good	No apparent defects
761	Remove	London Plane Tree	34	High	3.4	50	17	5	Good	No apparent defects
762	Remove	Red Maple	33	High	3.3	45	15	6	Good	No apparent defects
763	Remove	Paper Birch	15	Fair	1.7	30	10	3	Fair	Poor, suppressed
764	Remove	Black Pine	53	Good	5.3	35	12	5	Good	No apparent defects
765	Remove	Black Pine	55	Good	5.5	45	15	5	Good	Fair, multiple top, requires cabling if retained
766	Retain	Honeylocust	41	Good	4.1	45	15	6	Good	No apparent defects
767	Remove	Black Pine	58	Good	5.8	55	18	5	Good	Fair, multiple top, requires cabling if retained
768	Remove	Honeylocust	47	Good	4.7	55	18	6	Good	Fair, leaning slightly
769	Remove	Pacific Dogwood	16	Fair	2.1	25	8	3	Fair	Fair, suppressed
770	Remove	Fernleaf Beech	40/20/20	High	6.4	40	13	7	Good	Fair, multi-stemmed
771	Remove	Goldenchain tree	20/12/10	Low	4.1	20	7	3	Poor	Poor, almost dead
772	Remove	English Yew	13/10/10	Fair	2.1	15	5	2	Fair	Fair, multi-stemmed
773	Remove	English Yew	13/10/10	Fair	2.1	15	5	2	Fair	Fair, multi-stemmed



Froggers Creek Tree Consultants Ltd.

#	Action	Type	dbh	Retention Value	Critical Root Zone m	Ht feet	Ht m	Drip line Radius m	Health	Structural Condition
774	Remove	English Laurel	5x15	Low	2.3	20	7	3	Poor	Poor, recently uprooted
775	Remove	Bitter Cherry	30	Low	4.9	35	12	4	Poor	Poor, decay and bacterial canker
776	Remove	Bitter Cherry	32	Low	5.2	35	12	4	Poor	Poor, decay and bacterial canker
777	Remove	Fernleaf Beech	42	High	5.4	40	13	5	Good	Fair, multi-stemmed
778	Retain	Honeylocust	32	Good	3.2	45	15	6	Good	Fair, leaning slightly
779	Remove	European Birch	42	Good	5.4	60	20	6	Good	No apparent defects
780	Remove	Black Pine	59	Fair	6.7	45	15	5	Fair	Fair, multiple top, requires cabling if retained
781	Retain	European Birch	52	Good	6.6	70	23	7	Good	No apparent defects
782	Remove	European Birch	35/22	Fair	6.1	50	17	6	Fair	No apparent defects
783	Remove	Black Pine	58	Fair	5.8	45	15	6	Good	Fair, multiple top, requires cabling if retained
784	Remove	Norway Maple	43	High	4.3	40	13	6	Good	No apparent defects
785	Remove	European Birch	26/20	Low	4.9	40	13	5	Declining	Fair, Bronze Birch Borer infection
786	Move	Japanese Maple	17	High	1.7	15	5	3	Good	No apparent defects
787	Remove	Juniper	22	Fair	2.8	25	8	3	Fair	Fair, leaning slightly
788	Remove	Giant Redwood	102	High	11.6	55	18	6	Good	Fair, topped at 40 feet, mangled new growth
789	Retain	Giant Redwood	94	Very high	10.7	60	20	6	Good	No apparent defects
790	Retain	Giant Redwood	108	Very high	12.3	60	20	6	Good	Fair, topped, new growth looks good
791	Remove	Shore Pine	31	Fair	4.0	45	15	5	Fair	No apparent defects
792	Retain	European Birch	42/39	Good	5.9	70	23	8	Good	No apparent defects

12/19/06
178

Froggers Creek Tree Consultants Ltd.

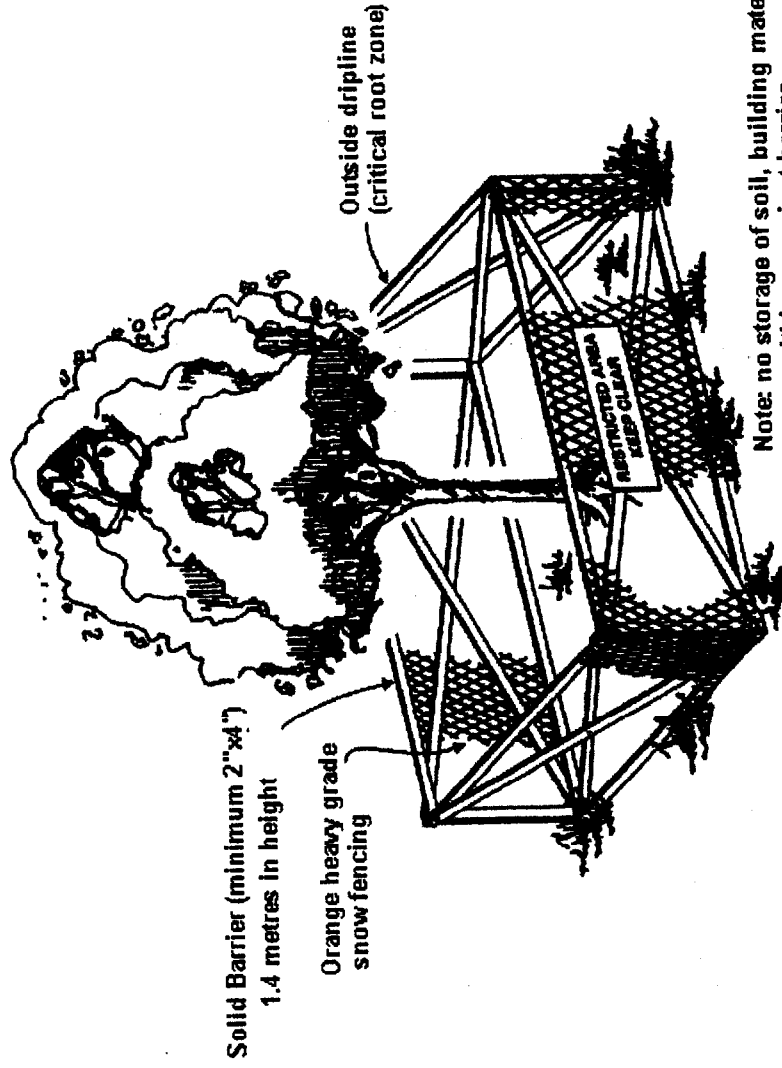
#	Action	Type	dbh	Retention Value	Critical Root Zone m	Ht feet	Ht m	Drip line Radius m	Health	Structural Condition
793	Remove	Western Hemlock	40	Good	5.1	55	18	5	Good	No apparent defects
794	Remove	Japanese Cedar	24	Good	2.4	40	13	5	Good	No apparent defects
795	Remove	Japanese Cedar	22/20	Good	3.1	40	13	5	Good	Fair, multi-stemmed
796	Remove	Japanese Cedar	28/25	Good	3.6	40	13	5	Good	Fair, multi-stemmed
797	Remove	Japanese Cedar	40	Good	4.5	45	15	5	Good	Fair, multi-stemmed
798	Move	Katsura	10	High	1.0	15	5	1	Good	No apparent defects
799	Remove	Shore Pine	42	Fair	5.4	35	12	5	Fair	No apparent defects
800	Remove	Norway Maple	51	Fair	5.1	45	15	6	Good	Fair, large pruning wounds on trunk
801	Remove	European Birch	41	Low	7.5	30	10	3	Poor	Poor, top gone, BBB
802	Remove	Black Pine	68	Fair	6.8	45	15	5	Good	Poor, included bark, multiple heavy topped, requires crown thinning and cabling if retained.
803	Remove	London Plane Tree	54	Low	5.4	55	18	7	Good	Poor, Major decay in trunk from previous large branch failure
804	Retain	Black Pine	43	Good	4.3	55	18	5	Good	Fair, trunk buried a bit
805	Retain	Poplar	54	Fair	6.1	70	23	6	Good	Fair, it's a poplar
806	Remove	Blue Atlas Cedar	44	Good	5.6	60	20	5	Fair	No apparent defects
807	Remove	Poplar	58	Low	7.4	65	22	5	Fair	Poor, decay at base
808	Retain	Black Pine	37	Fair	4.2	60	20	5	Fair	Fair, tree has been topped
809	Retain	European Birch	32/15	Fair	5.5	60	20	6	Fair	Fair, leaning slightly
810	Retain	London Plane Tree	50	High	5.0	65	22	6	Good	No apparent defects
811	Remove	European Birch	23	Fair	2.9	45	15	4	Fair	Fair, leaning slightly

Froggers Creek Tree Consultants Ltd.

#	Action	Type	dbh	Retention Value	Critical Root Zone m	Ht feet	Ht m	Drip line Radius m	Health	Structural Condition
812	Remove	Western Red Cedar	35/30/20	Fair	6.5	30	10	4	Fair	Fair, multi-stemmed
813	Retain	European Birch	45/40	Fair	7.5	70	23	7	Fair	Fair, multi-stemmed requiring cabling if retained
814	Remove	Norway Maple	39	High	3.9	50	17	5	Good	No apparent defects
815	Remove	European Birch	37	Low	5.3	50	17	5	Fair	Poor, decay at base
817	Remove	Cherry	86	Good	9.8	40	13	9	Good	No apparent defects
818	Remove	Sugar Maple	31	High	3.5	50	17	5	Good	No apparent defects
819	Remove	European Beech	62	Very high	7.9	70	23	9	Good	No apparent defects
820	Remove	Vine Maple	15/12/10	Good	2.0	20	7	3	Good	No apparent defects
821	Remove	Vine Maple	15/12/10	Good	2.0	20	7	4	Good	No apparent defects
822	Remove	Shore Pine	45/30	Good	5.9	40	13	6	Good	No apparent defects
823	Move	Japanese Maple	18	High	1.8	15	5	4	Good	No apparent defects
		City Trees					0			
816	Retain	Norway Maple	23	High	2.0	35	12	4	Good	No apparent defects
824	Remove	Norway Maple	34	High	3.4	40	13	4	Good	No apparent defects
825	Retain	Norway Maple	27	High	2.7	40	13	4	Good	No apparent defects
826	Retain	Norway Maple	24	High	2.1	40	13	4	Good	No apparent defects
827	Retain	Norway Maple	29	High	2.9	40	13	4	Good	No apparent defects



Tree Protection Fencing Detail





Appendix 3

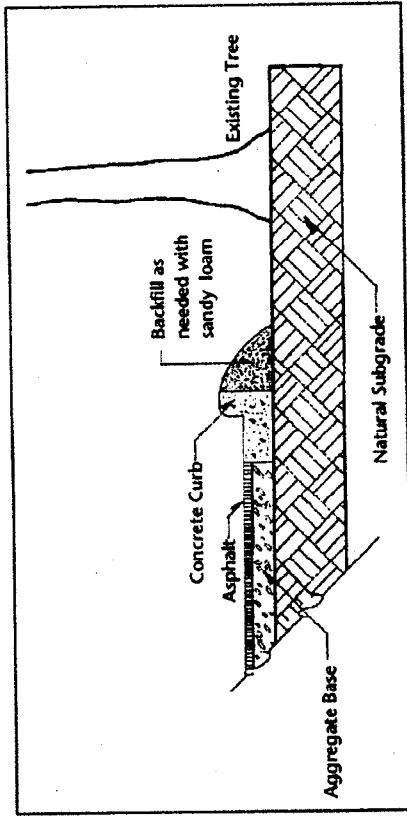


FIGURE 8.3 A "no-dig" type of pavement places the pavement section atop natural grade, thereby minimizing root disturbance and soil compaction. Extra reinforcement in the pavement and use of a geotextile under the base material may be needed to increase the stability of the pavement. (Adapted from a detail provided by Mary Ann Beale, City of Charlotte, North Carolina.)

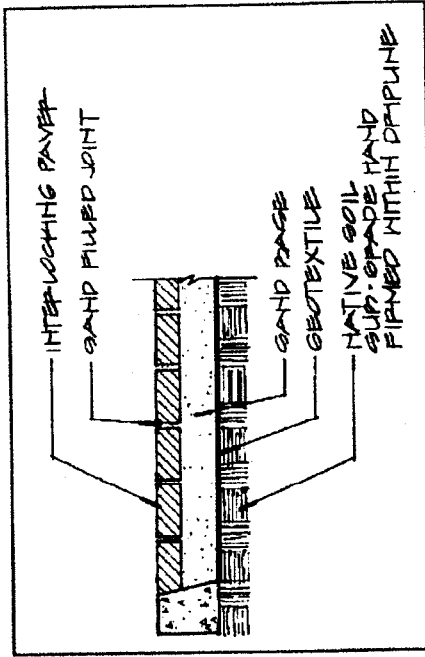


FIGURE 8.4 Brick or interlocking pavers on sand often are recommended as pervious paving. Use of geotextile under the sand and hand-firmed subgrade can minimize root impacts.



MEMORANDUM

To:	DAVID BROWNLEE	For Action of:	N/A
From:	JEAN-PHILIPPE PICARD	For Info of:	N/A
Respond By:	N/A	Doc. No.:	89147-9114
Subject:	Sun Life Open House – 10751 and 10851 Shellbridge Way	Date:	April 4, 2007

David,

This is to confirm that an open house was held on April 2, at Building #7, 10991 Shellbridge Way for the neighboring residents to attend and submit comments on the design. All the panels being presented at the Design Advisory Panel were presented to the residents as well as the model.

A total of 8 people attended, three of which were immediate residents to the North. General comments were as followed:

- 1- The residents were pleased that the building was further away from their property.
- 2- The residents liked the extensive greenery between the building and their property.
- 3- The residents expressed concern with light pollution and they were advised that the building is LEED and that light pollution is kept to a minimum, and that the fixtures are shielded to prevent light from reaching their properties.
- 4- The residents were pleased that trees were being cut down and replaced as they are concerned with some of the trees may fall in a wind storm.
- 5- The two residents that do not have a fence indicated that they did not want a fence.
- 6- Residents were pleased with the location of the garbage enclosure.
- 7- One resident noted that a Cherry Blossom Tree should be planted behind 10540 Caithcart Street.
- 8- One of the residents indicated that the presence of additional parking is welcomed as it may mitigate the quantity of street parking.
- 9- Residents generally liked the look of the building.
- 10- Only one comment sheet was submitted and is attached to this document.

2. Prior to Building Permit issuance, a construction parking and traffic management plan is to be provided to the Transportation Department to include: location for parking for services, deliveries, workers, loading, application for request for any lane closures (including dates, times, and duration), and proper construction traffic controls as per Traffic Control Manual for Works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570. (Ref: <http://www.richmond.ca/services/ttp/special.htm>).

[Signed Original On File]

Signed _____

Date _____

Conditional Development Permit Requirements

**10851 Shellbridge Way
DP 06-355443**

Prior to forwarding this application to Council for Development Permit approval, the developer is required to complete the following requirements:

1. Receipt of a Letter of Credit for landscaping in the amount of \$136,275.56. The amount is based on the total floor area of 6330m², including areas which may be exempt from floor area ratio (F.A.R.) calculations.
2. Registration of a cross-access agreement between 10851 and 10991 Shellbridge Way for vehicles and pedestrians.
3. Registration of a 1.5m wide public rights of passage (PROP) right of way (ROW) will be required for the pedestrian walkway across the north end of the site, the walkway leading to Shellbridge Way on 10991 Shellbridge Way and the trail across the north portion of 10991 Shellbridge Way. Maintenance of and liability for the Right of Way will be the responsibility of the owners, not the City.
4. Registration of an aircraft noise indemnity covenant will be required.
5. Registration of a Floodplain Indemnity Covenant will be required.
6. Contributions for water, storm and sanitary upgrades – the amounts are identified below:
 - a. City acceptance of voluntary contribution towards the following City Identified Catchment Upgrades:
 - \$12,946.03 for water;
 - \$90,622.21 for storm sewer; and
 - \$38,838.09 for sanitary sewer
 - \$142,406.33** TOTAL

If the developer is required to pay Development Cost Charges (DCCs) at the new rate applicable as of July 1, 2007, the voluntary contributions specified in paragraph 7(a) will not be payable. Given the timing, it is expected that this project will be subject to the new DCC rates.

Prior to the Building Permit being issued the developer is required to complete the following requirements:

1. The developer is to enter into the City's standard Servicing Agreement to design and construct a meandering sidewalk (min 1.5m wide) along the Shellbridge Way frontage and a meandering trail across the rear (north edge) of the site, as proposed on the Landscaping plan. This continues a standard which was established by SunLife via SA97-123081 for the overall Subdivision, then SA01-187234 at 10991 Shellbridge Way. Should upgrades be identified via the capacity analysis process, they are to be included as part of this Servicing Agreement. The Servicing agreement designs are to include all service connections including connecting to the existing 600 mm drainage pipe fronting

the property and NOT to the existing 375 mm pipes located west and east of the development properties. All works are at the developer's sole cost - no credits.

As noted earlier, all sidewalk or trailway works which are not in City's jurisdiction, should be placed in a PROP ROW.

2. Prior to Building Permit issuance, a construction parking and traffic management plan is to be provided to the Transportation Department to include: location for parking for services, deliveries, workers, loading, application for request for any lane closures (including dates, times, and duration), and proper construction traffic controls as per Traffic Control Manual for Works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570. (Ref: <http://www.richmond.ca/services/tp/special.htm>).

[Signed Original On File]

Signed

Date



No. DP 06-355443

To the Holder: SUN LIFE ASSURANCE COMPANY OF CANADA

Property Address: 10851 SHELLBRIDGE WAY

Address: C/O BUNTING COADY ARCHITECTS
 SUITE 200 –171 WATER STREET
 VANCOUVER, B.C., V6B 1A7

1. This Development Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. The "Richmond Zoning and Development Bylaw No. 5300" is hereby varied to:
 - a. Increase the maximum building height from 12.0 m to 16.7 m;
 - b. Reduce the minimum road setback to Shellbridge Road from 6.0 m to 3.85 m, and;
 - c. Increase the maximum number of small car parking spaces permitted from 30% to 36%.
4. Subject to Section 692 of the Local Government Act, R.S.B.C.: buildings and structures; off-street parking and loading facilities; roads and parking areas; and landscaping and screening shall be constructed generally in accordance with Plans #1 to #4 attached hereto.
5. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
6. As a condition of the issuance of this Permit, the City is holding the security in the amount of \$136,275.56 to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Holder if the security is returned. The condition of the posting of the security is that should the Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the City may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Holder. Should the Holder carry out the development permitted by this permit within the time set out herein, the security shall be returned to the Holder. The City may retain the security for up to one year after inspection of the completed landscaping in order to ensure that plant material has survived.
7. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse and the security shall be returned in full.

Development Permit

No. DP 06-355443

To the Holder: SUN LIFE ASSURANCE COMPANY OF CANADA

Property Address: 10851 SHELLBRIDGE WAY

Address: C/O BUNTING COADY ARCHITECTS
SUITE 200 -171 WATER STREET
VANCOUVER, B.C., V6B 1A7

8. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.

This Permit is not a Building Permit.

AUTHORIZING RESOLUTION NO.
DAY OF , .

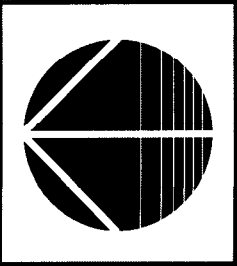
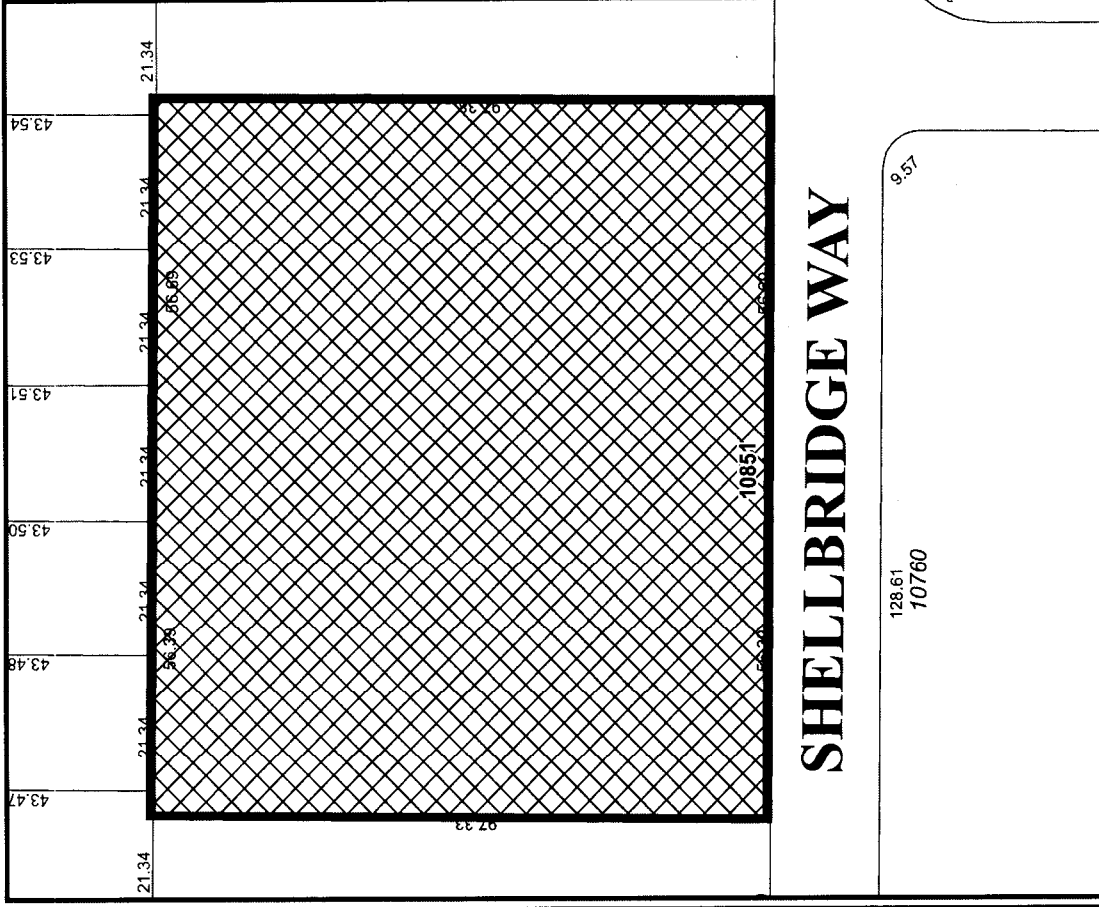
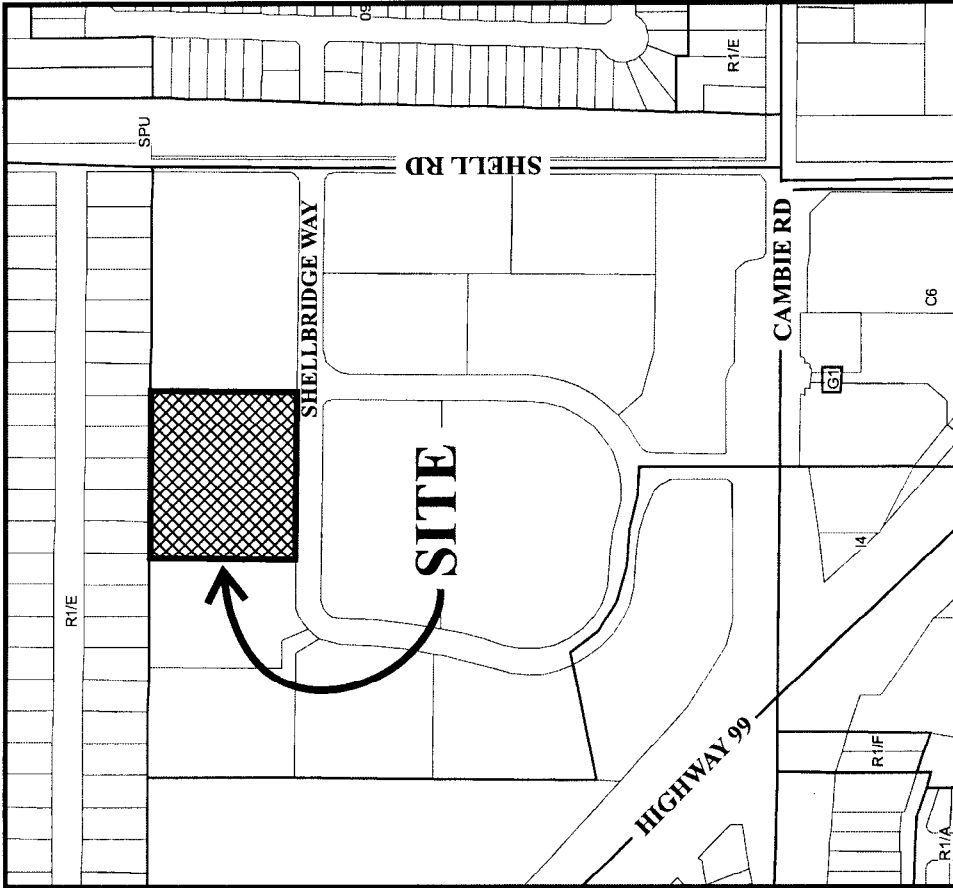
ISSUED BY THE COUNCIL THE

DELIVERED THIS DAY OF , .

MAYOR



City of Richmond

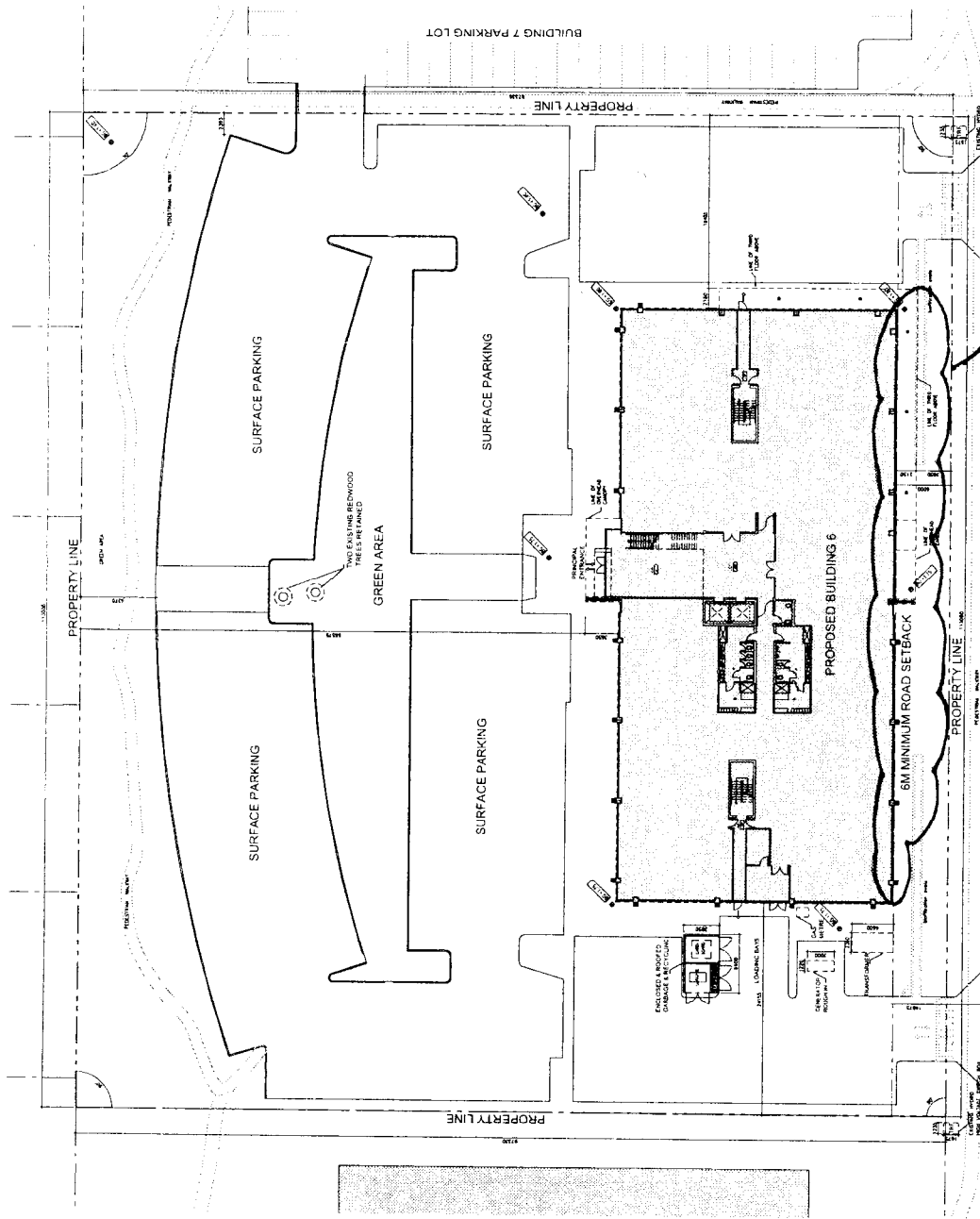


DP 06-355443
SCHEDULE "A"

Original Date: 01/11/07

Revision Date: 06/11/07

Note: Dimensions are in METRES



PROJECT STATISTICS

LEGAL DESCRIPTION
 STREET ADDRESS: 10114 1000 SHELLBRIDGE WAY

ZONING
 ZONING DISTRICT: R200 (RESIDENTIAL, DISTRICT 01)

AREA CALCULATIONS

Site Coverage permitted	50%
Site Coverage provided	2%
Area Area (existing)	1.5
Area Area (proposed)	6.88
Proposed (Total) Area (GFA)	2.30 M2
Ground Area (GFA)	2.20 M2
Net Area (GFA)	2.20 M2
TOTAL GFA (Gross + include Area)	5.38 M2

VARIANCE

REQUIRED	PERMITTED	PROPOSED
Setback from Shellbridge Way	1.5m	1.5m
Setback from Islingrove Way	1.5m	1.5m
Setback from Islingrove Way	1.5m	1.5m
Setback from Islingrove Way	1.5m	1.5m

AIRPORT EXECUTIVE PARK - BUILDING 6
 DEVELOPMENT PERMIT APPLICATION - JUNE 2007

SITE PLAN - PLAN #1 SCALE 1:200



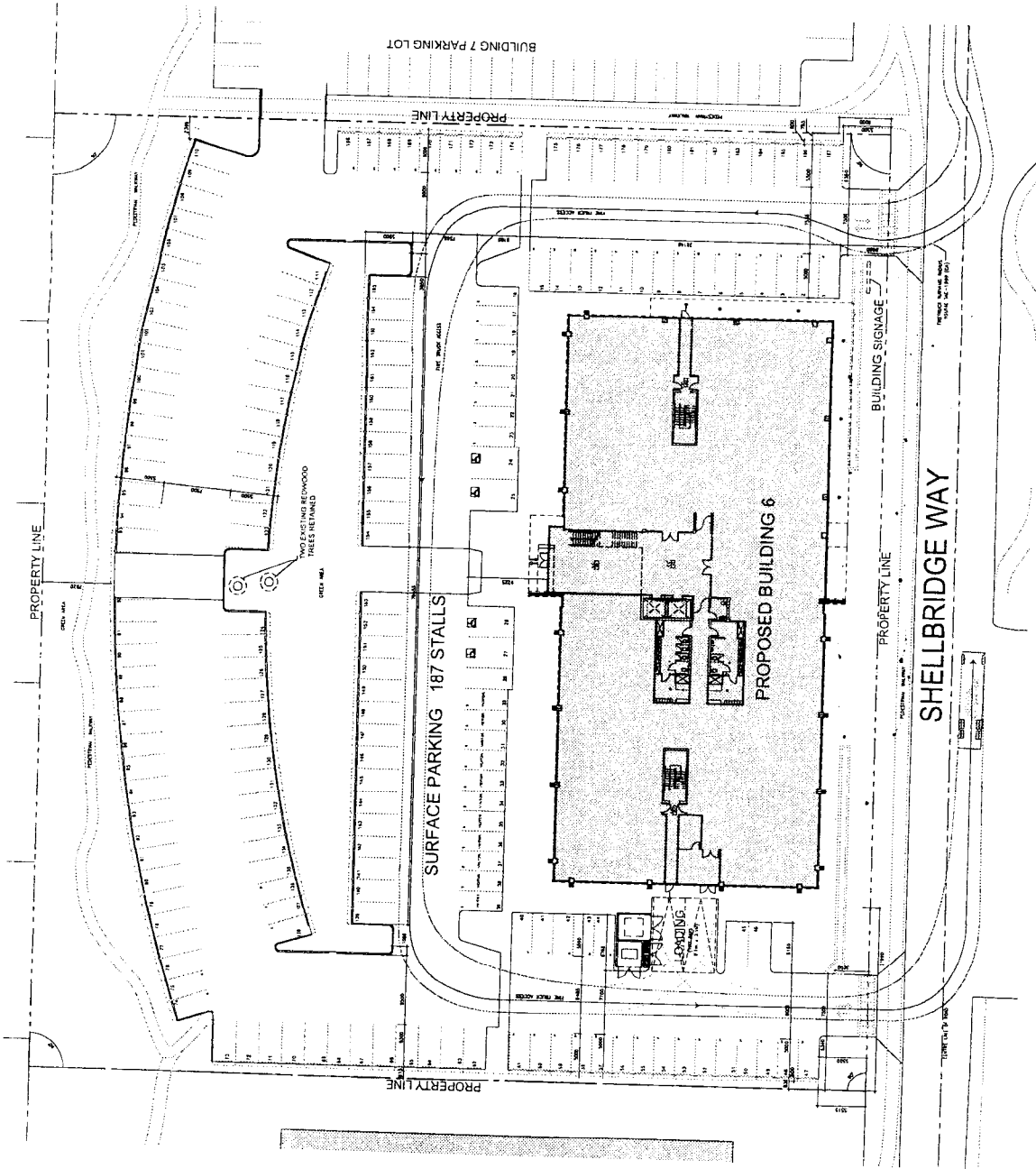
DWG 12 JUNE 2007 Issued for DP Application
 Scale: 200 - 171 Waver Street - Adelaide - B.C. 5001 147 - Adelaide - Tel: (08) 405 1913 Fax: (08) 405 5504 www.buntingcoady.com

BUNTING COADY
 ARCHITECTS

Project No. 0022 Drawing No. SITE PLAN-PLAN #1
 www.buntingcoady.com

JUN 17 2007 DP

110



PROJECT STATISTICS

PARKING STATISTICS	
TOTAL REQUIRED	187
OFFICES (31' x 60' x 41')	18
TOTAL PROVIDED	187
MC	117
SMALL	70
STALLS	187
TOTAL %	100%
PERCENTAGE OF SMALL CARS PERMISSIBLE	
PERCENTAGE OF SMALL CARS PROVIDED	36%
LOADING DOCK	
TOTAL PROVIDED	1

*NOTE - INCREASE MAXIMUM
NUMBER OF SMALL CAR PARKING
SPACES FROM 30% TO 36%*

AIRPORT EXECUTIVE PARK - BUILDING 6
DEVELOPMENT PERMIT APPLICATION - JUNE 2007

PARKING PLAN - PLAN #2 SCALE 1:200



DATE: 12 JUNE 2007
 Issued for DP Application
 Project No: 1802
 Drawing No: PARKING PLAN - PLAN #2
 BUNTING COADY ARCHITECTS
 Suite 200 - 117 Wood Street, Vancouver, B.C. V6B 1A1, Canada Tel: (604) 685-9913 Fax: (604) 685-0994 www.buntingcoady.com

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04	June 11/07	Issued for D.P.
05	April 27/07	Issued for Tender
06	April 27/07	Issued for Pricing
07	March 6/07	Resolved for D.P.
08	Feb. 14/07	Issued for Review
09	Dec. 7/06	Issued for D.P.
10		REVISION

Airport Executive Park
BUILDING 6
 1991 Beedevig Way, Richmond B.C.
 D.P. 06/16/04

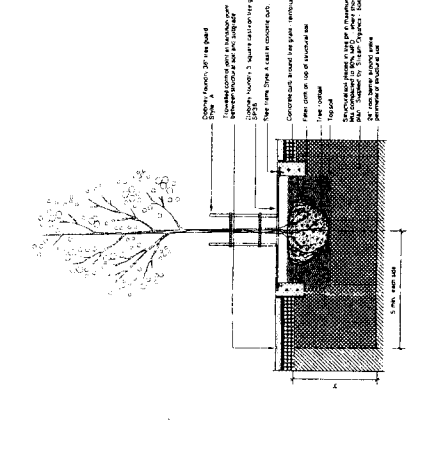
Landscape
 Details

3b

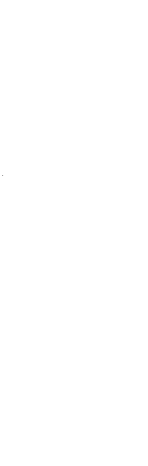
DATE	PROJECT NO.
2006-53	
PROJECT NAME	PROJECT LOCATION
Airport Executive Park	Richmond, B.C.
DATE	SCALE
2006-53	AS SHOWN



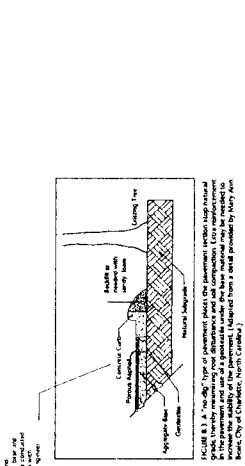
1 SEATING WALL PLANTER AND STRUCTURAL SOIL
 SCALE: 1/2\"/>



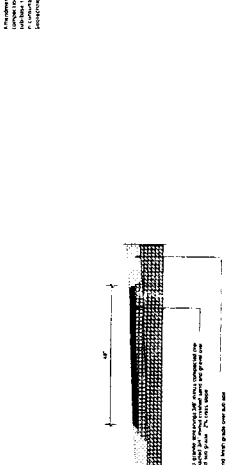
2 THE GRATE AND STRUCTURAL SOIL
 SCALE: 1/2\"/>



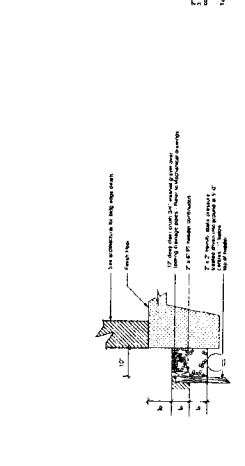
3 BIOTULSION SWALE
 SCALE: 1/2\"/>



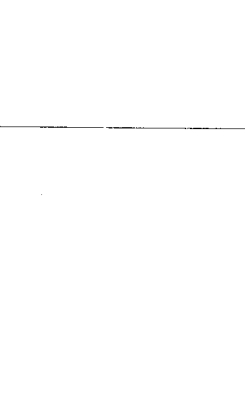
4 Gravel Grid at Edge of Slope
 SCALE: 1/2\"/>



5 Compressed Gravel Pathway
 SCALE: 1/2\"/>



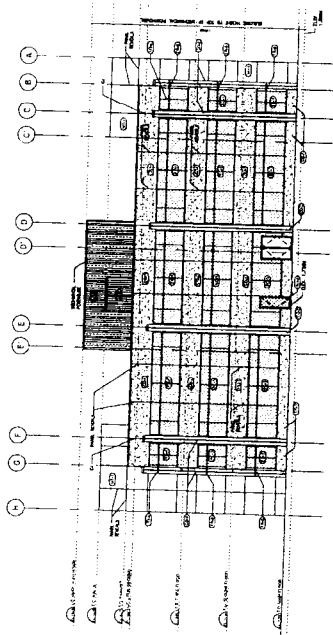
6 No-Dig paving surface atop existing tree roots
 SCALE: 1/2\"/>



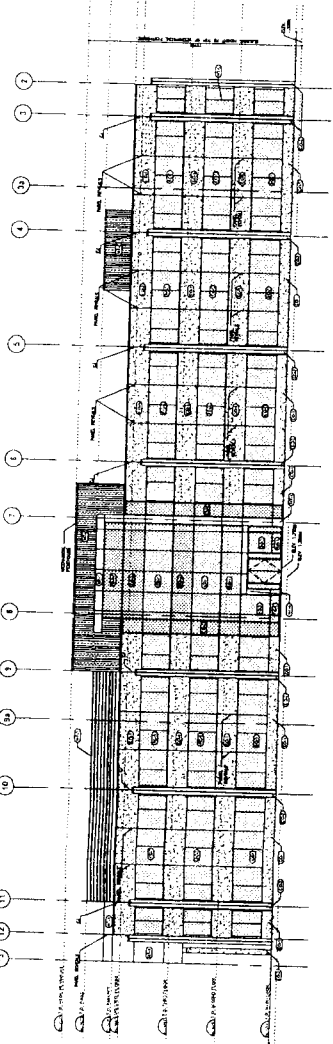
7 A 'trough' type of pavement
 SCALE: 1/2\"/>

DP

JUN 12 2007



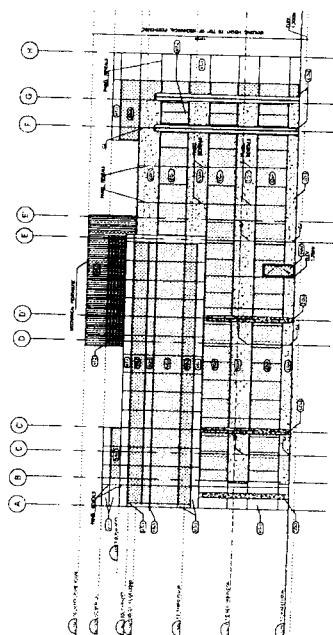
WEST ELEVATION



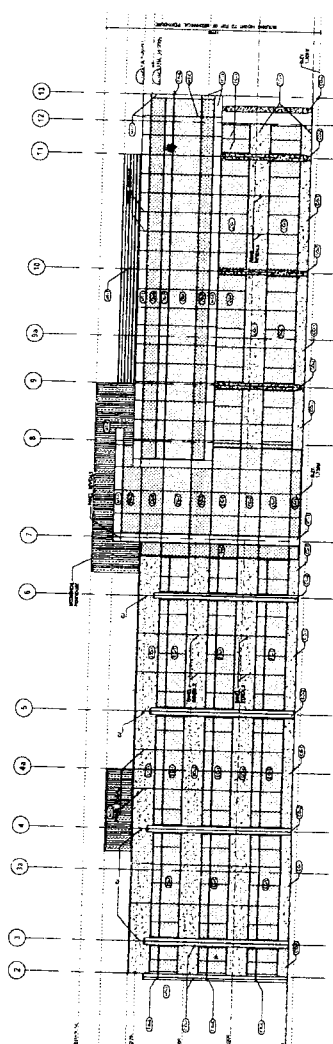
NORTH ELEVATION

LEGEND FINISH SYMBOLS	
(1)	FORM JOIST
(2)	CLIP JOIST
(3)	SHIMMER GLASS
(4)	7/8" UP CONCRETE FINE
(5)	1/2" UP CONCRETE
(6)	1/2" UP CONCRETE
(7)	1/2" UP CONCRETE
(8)	1/2" UP CONCRETE
(9)	1/2" UP CONCRETE
(10)	1/2" UP CONCRETE
(11)	1/2" UP CONCRETE
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(96)	1/2" UP CONCRETE
(97)	1/2" UP CONCRETE
(98)	1/2" UP CONCRETE
(99)	1/2" UP CONCRETE
(100)	1/2" UP CONCRETE

*Maximum Finishing Height
Increased from 16.0m to
16.7m*



EAST ELEVATION



SOUTH ELEVATION