

1055 CANADA PLACE (COMPLETE AFTER PRELIMINARY APPLICATION)
DE408490 - ZONE CD-1

RRS/MK/BM/VP/LJ

DEVELOPMENT PERMIT STAFF COMMITTEE MEMBERS

Present:

B. Boons (Chair), Development Services
M. Thomson, Engineering Services
T. Driessen, Vancouver Park Board
L. Gayman, Real Estate Services
M. Meszaros, Development Services
D. Jantzen, Vancouver Coastal Health Authority
V. Morris, Social Planning/Office of Cultural Affairs

Also Present:

R. Segal, Urban Design & Development Planning
M. Kemble, Urban Design & Development Planning
K. Magnusson, Engineering Services
B. Mah, Development Services
V. Potter, Development Services
P. Pinsker, Engineering Services

APPLICANT:

Downs Archambault/MCM + LMN Architects
#200 - 1014 Homer Street
Vancouver, BC
V6B 2W9

PROPERTY OWNER:

Vancouver Convention Centre Expansion Project Ltd. (VCCEP)
#1900 - 999 West Hastings Street
Vancouver, BC
V6C 2W2

- **Proposal:** Construction of a convention centre with approx. floor area totaling 78 871 m² (848,988 sq.ft.), including exhibition hall, associated ballrooms and meeting rooms, retail/service area, parking (442 cars) accessed off Canada Place, loading (24 bays along north water side of site) accessed off Waterfront Road, a perimeter walkway/bikeway, a partial lower level walkway (northwest portion of site), a major public plaza at the west part of the site (foot of Thurlow), and a landscaped transition zone to Harbour Green Park*.

[*Note: Separate approval is required for off-site work, including most of the Harbour Green Park transition zone, portal improvements, and portions of Burrard Plaza under Vancouver Port Authority or City ownership. These portions of work, however, are integral to the application before the Board, and resolution of issues pertaining to these works is sought prior to Development Permit issuance.]

See Appendix A - Standard Conditions

Appendix B - Standard Notes and Conditions of Development Permit

Appendix C - Processing Centre - Building and Fire & Rescue Services comments

Appendix D - Plans and Elevations

Appendix E - Applicant's Design Rationale

Appendix F - Park Board Detailed Comments

Appendix G - Minutes of Development Permit Board meeting, February 28, 2005

Appendix H - Minutes of Urban Design Panel Workshop, November 10, 2004

Appendix I - Supplementary Bulletin: Water-oriented Development

Appendix J - Applicant's View Analysis, Landscape Plan/Details, and Renderings

Appendix K - Illustrative Images (roof edges, exterior skin, landscape details)

● **Issues:**

1. Roof edges
2. Thurlow Plaza amenity and detailed treatment
3. Transition zone and "Portal" treatment
4. Burrard Plaza detailed treatment
5. Site creation

● **Urban Design Panel: Support**

DEVELOPMENT PERMIT STAFF COMMITTEE RECOMMENDATION: APPROVE

THAT the Board APPROVE Development Application No. DE408490 as submitted, subject to Council approval of the final form of development, the plans and information forming a part thereof, thereby permitting construction of a convention centre with approx. floor area totaling 78 871 m²(848,988 sq.ft.), including exhibition hall, associated ballrooms and meeting rooms, retail/service area, parking (442 cars) accessed off Canada Place, loading (24 bays along north water side of site) accessed off Waterfront Road, a perimeter walkway/bikeway, a partial lower level walkway (northwest portion of site), a major public plaza at the west part of the site (foot of Thurlow), and a landscaped transition area to Harbour Green Park, subject to the following conditions:

- 1.0 Prior to the issuance of the development permit, revised drawings and information shall be submitted to the satisfaction of the Director of Planning, clearly indicating:

Edges

- 1.1 design development to the treatment of the various roof edges (including the plaza restaurant roof edge), to achieve a more dynamic, articulated, less relentless expression;

Note to Applicant: The uniform vertical treatment (2.0 m to 2.6 m high) carrying continuously around all the roof edges creates a heavy expression emphasizing the building's huge scale and should be reconsidered, including:

- creating a more articulated, architectonic expression for the main building and plaza restaurant roof edges, perhaps responding to differing orientation and/or expressing more prominently the roof's various components (structure, planting, soffit, etc.);
- on the south (Canada Place) side, introducing more natural light and transparency by pulling back a portion of the green roof at a strategic location (perhaps the steeply sloping section over the stairs/escalators of the southeast lobby);
- in addition to articulating the edge of the uppermost roof over the ballroom/mechanical area, refining the mechanical louvre treatment; and
- on the north face of the building, creating a more significant visual break at the mid balcony location.

- 1.2 design development to the treatment and articulation of the walkway/bikeway perimeter vertical edges to provide more visual interest and differentiation from the building roof edge, and to refine details including the guardrail system;

Note to Applicant: This should include refining the proposed guardrail system to maximize visibility through it. The proposal to extend the Canada Harbour Place steel mesh guardrail is not supported. A design similar to the Coal Harbour guardrail is recommended.

- 1.3 design development to reduce the vertical dimension of the walkway/bikeway edge above the lower level commercial space at the northwest corner, to maximize the extent of storefront glazing, horizontally and vertically, thereby improving the space's retail viability and animation along the lower walkway;

Walkway/Bikeway

- 1.4 design development to refine details of the walkway/bikeway, including the following:

- a) enhanced surface patterning, materials and planting;
- b) reallocation of some public seating to take specific advantage of strategic viewing points;
- c) submission of a lighting plan (**Note:** This should address security issues with dark corners, and the provision of an attractive night-time ambience for this public area.);
- d) for the bikeway section, use of concrete with saw cut joints as the principal surface material (rather than asphalt);

- e) definition and separation of the bikeway portion of the path from the rest of the perimeter system (**Note:** To reduce or eliminate the need for vertical separation elements and maintain the desired openness, the bikeway should be at a slightly lower grade than the adjacent pedestrian walkway, with rolled edges to discourage cyclists and in-line skaters from leaving the designated bikeway portion.);
- f) for the ramped walkway/bikeway at the northwest side of the site, provision of more access opportunities between the bikeway and walkway (**Note:** Several sets of narrow steps should be provided through the separating planter for convenience and safety);
- g) ensure compliance for accessibility and ease of movement for novice in-line skaters for both the walkway/bikeway and the western switchback ramp (**Note:** Clarification of design grades of the walkway/bikeway is needed to ensure they meet accessibility criteria as well the possible introduction of features such as a railing to assist novice in-line skater users to negotiate the steeper grades. [See also Cond. A.1.16]); and
- h) at the northeast corner ("Bon Voyage Terrace"), providing one service location for electrical service for stage sound, water service and waste disposal (including grey water);

Note to Applicant: On the north section, details to enhance the retail portion should be considered, including creative signage, lighting, attractive soffit and wall treatment, and any other strategies to improve this space for pedestrians, cyclists, in-line skaters, etc, as well as addressing mechanical venting locations and their visual and acoustical impact. On the east section, provide details of the materials and articulation of the walls separating the bikeway section from the stepped sidewalk along the retail building face.

Thurlow Plaza

- 1.5 design development to the overall detailed landscape treatment (both hard and soft landscape) of the Thurlow Plaza and to its several component areas to provide additional public amenities and to improve its sense of place and "signature" quality;

Note to Applicant: The following design refinements should be pursued:

- a) creating a stronger identity and sense of arrival at the Plaza's southern "forecourt" adjacent to Canada Place through a more vibrant pattern of pavers, provision of a focal feature, way-finding etc. [**Note:** Distinctive lighting and bollards, stronger paver patterns, planting and furniture emphasizing various axes (Grand Stairs, central plaza axis, Thurlow Street, etc.) should be used as place-making tools to orient and guide people through the space, differentiate active and passive areas, and accommodate appropriate activities. See also condition 1.9(e)];
- b) for the raised planter area, incorporating a planter geometry that creates a defined space(s) with integrated seating. (**Note:** The proposed identical rectangular planter shapes should be reconfigured, using them as "place-making" elements);
- c) strengthening the large central area (north of planter area), as a formal plaza space by enriching its surface treatment and reinforcing its perimeter definition, including a more prominent expression of storm water conveyance (see d) below);
- d) strengthening the expression of the storm water collection and conveyance provisions as an overall plaza feature that energizes and animates the open spaces thus informing the sustainability theme of the landscape design concept; (**Note:** Explore the potential of the storm water flow to playfully enrich and counterbalance the more formal plaza aspects.)
- e) allocating seating, with back supports for comfort, for strategic water viewing locations (i.e. north raised viewing platform, roof of plaza restaurant) and along the two sloping switchback walkways west of the plaza restaurant. (**Note re:** switchback walkways: Edge detail at west sides of these walkways should be designed so that no guardrail is needed);
- f) integrating features including uniquely designed way-finding kiosks and signposts, to help draw people to the Plaza and waterfront edge; and
- g) extending the retail storefront glazing at the Plaza's east side as far south as possible to maximize animation of the open central Plaza area. (**Note:** Material and detailing of the remaining prominent blank wall should be refined.)

- 1.6 provision of on-site public washroom facilities (at least two are envisioned) to serve the public open spaces integrated with the commercial frontages or buildings;

Note to Applicant: These facilities should be convenient to the following general locations to best serve public needs while addressing CPTED issues: upper Thurlow Plaza level, walkway/bikeway level (along the north or east building face), Thurlow Plaza/Transition Zone area.

- 1.7 design development to the interface of the plaza restaurant and the Plaza, to improve the Plaza's animation by eliminating differences in levels between the restaurant floor and Plaza, including elimination of the proposed steps down to the restaurant entry, and maximizing opportunities for doors and outdoor seating to directly face on to the Plaza;

Note to Applicant: The proposed grade difference between the restaurant floor level and the Plaza grade near the restaurant's corner entrance should be eliminated in order to make best use of adjacent public open space and encourage restaurant activity to spill out on to the Plaza. The extent of glazing fronting the Plaza should be maximized at the restaurant's north end and the material and detailing of the remaining blank wall refined.

- 1.8 design development to Thurlow Plaza to maximize the flexibility of the space for public events programming and its use as a major civic gathering space on the waterfront, including the provision of a minimum of six service points (that include electrical service for stage sound, lighting, water service and waste disposal, including grey water disposal) to be spaced throughout the plaza, and accessibility to garbage facilities for Plaza patrons and an indication of how these facilities are serviced, to the satisfaction of the Director, Office of Cultural Affairs and the General Manager of Engineering Services; (See also condition A.1.21 (Cultural Affairs))

Harbour Green Park / Thurlow Plaza Transition Zone

- 1.9 design development to the Transition Zone landscape between Harbour Green Park and the southwest portion of Thurlow Plaza, to improve the quality of materials and integration of landscape elements, including the following (**Note:** The portion of the transition zone landscape west of the VCCEP property line shall be to the satisfaction of the General Manager Park Board in consultation with the General Manager Engineering Services and the Director of Planning); (See also condition A.1.25.)

- a) detailing of proposed glass block skylights as features within the landscape design and maximizing natural light down into the lower level tunnel below;
- b) using lighting elements as an open space structuring device to provide interest both day and night;
- c) aligning the double row of trees on either side of the "grand stairs" in a formal, regularized sequence integrated with the planters;
- d) confirming that ample soil volume for the above trees and any other trees on structure (i.e. parkade) is provided to ensure a healthy growing environment;
- e) refining the design of the public access stair from Thurlow Plaza to the plaza restaurant roof to achieve a more open, inviting form (**Note:** The public elevator to the plaza restaurant roof should be glass enclosed for views and safety.);
- f) for the City parkade elevator, providing a glass enclosure wherever it emerges above grade for views and safety; and
- g) adjusting the water's edge juncture between the existing Harbour Green Park seawall and proposed walkway extension to more dynamically acknowledge the seawall's strong curvature while respecting fish habitat conservation criteria;

- 1.10 design development to the lighting and finishing of the lower level tunnel/public connection from Waterfront Road to the Seawall, to achieve an attractive, safe environment with natural

light (skylights); (**Note:** This shall be to the satisfaction of the General Manager Engineering Services in consultation with the General Manager Park Board and the Director of Planning.)

Note to Applicant: Maximizing natural light from above (see cond.1.9 (a) above), provision of high quality, attractive finishing materials, and opportunities for casual surveillance from adjacent areas (CPTED) should be pursued. These considerations are also to apply to Waterfront Road. Particular attention must be paid to the treatment of the prominent, seawall-fronting Portal and northern-most covered area (immediately outside the VCCEP fire truck access security gate) to ensure safety (CPTED) and attractiveness. The extent of any bare concrete surfaces should be minimized. Special architectural lighting should be provided for pedestrian safety, attractive ambience, and way-finding. Detailed elevations, cross-sections and information on materials and lighting provisions are required. As emergency egress of the building relies on access to the tunnel link, details around doorways will need further resolution to ensure that egress is never blocked.

- 1.11 design development to the east end of Harbour Green Park, including all structures, improvements, and plantings including, groundcover, trees, shrubs and decorative plants, walkways, stairs, paved surfaces, retaining walls, civil works, lighting, drainage, irrigation works, park furniture and all related elements, to the satisfaction of the General Manager Park Board;

Note to Applicant: In quality, the park transition area needs to be conceived, designed and built to become indistinguishable from the park sections already built. A preliminary list of design issues has been attached as Appendix F. See also Conditions A.1.25 and A.1.26.

Burrard Plaza

- 1.12 design development to the detailed hard and soft landscape treatment of the Burrard Plaza area, to create a stronger sense of place and arrival for this important street-end and terminus of Burrard Street, (as well as the entry forecourt of the Convention Centre) that emphasizes the space's urban design quality and pedestrian use, including the following; (See also Conditions A.1.21 and A.2.17(g));

- a) integrating the various geometries and axes defining this space through a higher quality, more vibrant pattern of pavers (as opposed to predominantly scored concrete) as well as landscape and lighting elements;

Note to Applicant: Providing additional amenities for the public including seating, uniquely designed way-finding/information kiosk(s) and signposts, lighting etc. should be considered.

- b) providing a stronger visual terminus for the plaza, possibly in the form of a vertical element (**Note:** Designing the skylight as a vertical glass feature should be considered) (See also Condition 1.14, Note to Applicant);

Exterior Building Treatment

- 1.13 submission of details of the building's proposed exterior glazing systems to demonstrate its visual interest as a major element of the building's architectural quality, including the following;

- a) the proposed structural glass system, including architectural elements such as sun-shading features that create more variety; and
- b) glass transparency and colour, including submissions of glass specifications and samples;

Note to Applicant: Glass samples will be retained by the City to compare with the glass being installed at the time of construction.

- 1.14 Submission of details of the building's proposed glazed pedestrian level canopy system;

Note to Applicant: Consideration should be given to the Canada Place/Burrard Street building entry to incorporate a more prominent, distinctive glazed canopy that contributes to the visual interest of the Burrard Street-end as well as highlighting the building's main entrance.

- 1.15 Submission of details of the proposed translucent glass panel screening of the north-facing loading dock area, including the "wave wall", with consideration given to maximizing visual interest;

Note to Applicant: Increased articulation and the use of more colour should be considered, as well as exterior and interior lighting to enhance the night-time appearance of this water-fronting elevation.

Site Creation

- 1.16 arrangements to the satisfaction of the City Manager in consultation with the General Manager of Engineering Services and the Director of Legal Services for creation of a single parcel for the VCCEP site;

Note to Applicant: This will require first an approved plan of approach, then follow through of the full registration of alternatives for access to the water, including various options to purchase and rights of way currently under negotiation. This will also require resolution of all matters pertaining to proposed construction on portions of Lot 22. Consideration to be given to all agreements registered on these sites and the appropriate modifications, extensions, releases and replacements (see also Condition A.2.16 & A.2.17);

Infrastructure/Emergency Access (north side)

- 1.17 arrangements to the satisfaction of the City Manager in consultation with the Director of Planning confirming that provision of public elevator(s)/stairs outboard of the Walkway/Bikeway accessing future water-based uses (Master Plan) from el. 3.5 m, el. 9.5 m, and from Convention Centre parking will be constructed by the date of substantial completion of the Convention Centre;

- 1.18 design development to the north side loading dock area to provide emergency and fire-fighting access from both this area and the adjacent lower walkway which "dead-ends", connecting to the upper walkway/bikeway level. (**Note:** Should elevator/stair provisions with satisfactory emergency/fire-fighting access be proposed and approved as part of the future development application for the water area [refer to condition 1.17 above], this condition may be reconsidered); (Refer to Fire and Rescue Services Comments, p.38 and Appendix C)

Public Open Space

- 1.19 confirmation that the overall requirement for public open space area mandated in the Coal Harbour ODP will be met by additional area meeting City criteria to be provided within the water-oriented development area adjacent to the Convention Centre site, or by a zoning text amendment;

- 2.0 That the conditions set out in Appendix A be met prior to the issuance of the Development Permit.
- 3.0 That the Notes to Applicant and Conditions of the Development Permit set out in Appendix B be approved by the Board.

Note:

Technical Analysis is a separate document in landscape format
(VCCEPTechnicalAnalysis.doc)

● **Legal Description**

Parcels D and E
Public Harbour of Burrard Inlet
Plan: BCP1698
Lot 23, Public Harbour of Burrard Inlet
Plan LMP29892 Road and
Portion of Lot 22

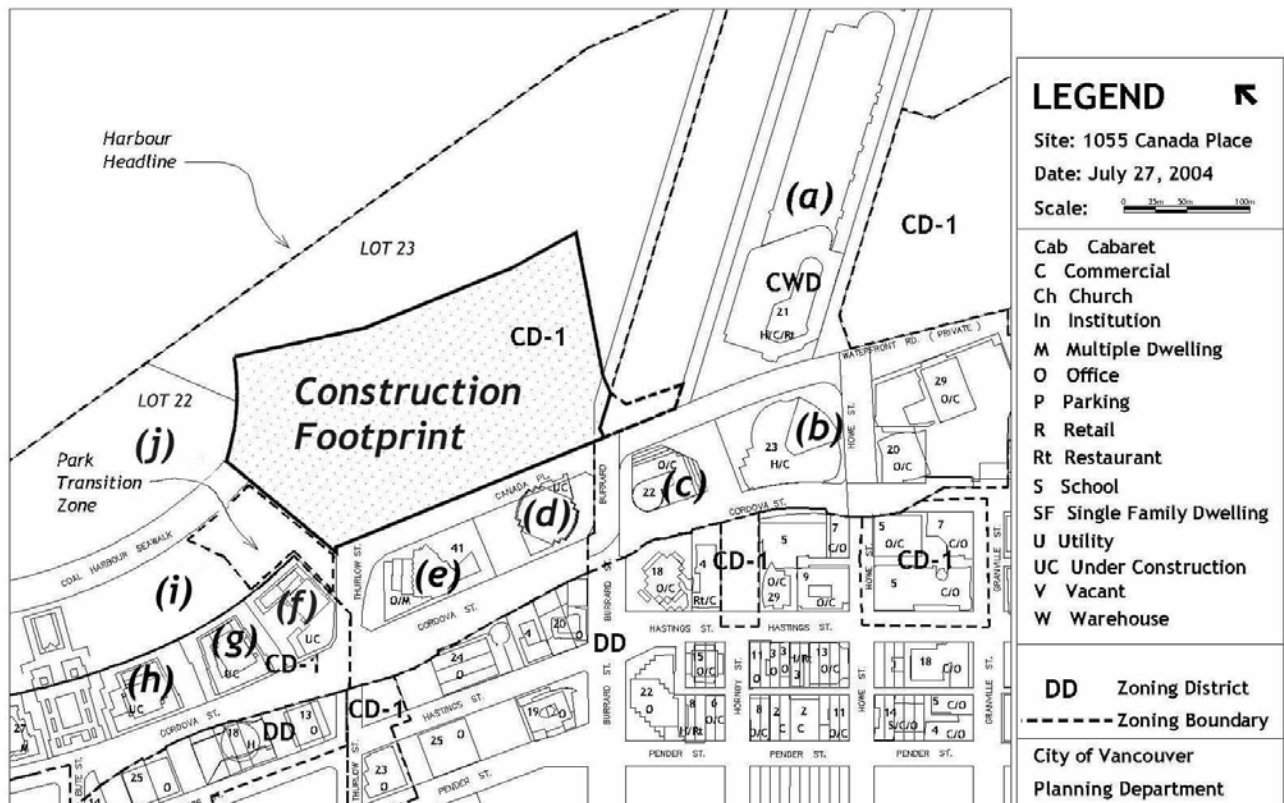
● **History of Application:**

04 09 13 PDP Approved in Principle
04 11 10 Urban Design Panel Workshop
05 02 28 Development Permit Board pre-application review
05 03 18 Complete application submitted
05 04 13 Urban Design Panel
05 05 11 Development Permit Staff Committee
05 06 08 Development Permit Staff Committee

● **Site:** The approximate 22.7 acre (9.14 hectares) site (including water area) is located on the Coal Harbour waterfront between Burrard and Thurlow Streets, north of the extension of the Canada Place viaduct, and extending to the Harbour Headline. Adjacent to the site on the west is Harbour Green Park. To the east is the existing Canada Place Convention Centre and Pan Pacific Hotel.

● **Context:** Significant adjacent development includes:

- (a) 999 Canada Place - existing Vancouver Convention Centre and Pan Pacific Hotel (21 storeys)
- (b) 201 Howe Street (Fairmont Waterfront Hotel) - 23-storey hotel
- (c) 200 Burrard Street (Waterfront Centre) - 22-storey office building
- (d) 201 Burrard Street -future hotel/live-work development (CD-1 zoning approved)
- (e) 1067 Cordova (Shaw Tower) - 41 storey office/live-work tower (partial occupancy)
- (f) 1105 West Cordova (Lot 20) - future residential tower site (354 ft. ht.)
- (g) 1139 West Cordova (Lot 19) - future residential tower site (308 ft. ht.)(under construction)
- (h) 1169 West Cordova (Lot 18) - 24-storey residential tower (238 ft. ht.) (under construction)
- (i) Harbour Green Park - 8 acre City Park including "Transition Zone" (below grade City-owned parking structure under construction)
- (j) 1075 Waterfront Road - interim float plane facility



● **Background:**

Staff have been in extensive discussions with the VCCEP team since early 2003. Prior to submission of the Preliminary Development Application the scheme had gone through a number of design evolutions in response to VCCEP's "value engineering" and programme adjustments. The preliminary DE was submitted in May 2004, and given approval-in-principle by the Development Permit Board in September 2004, subject to a number of substantive "prior-to" conditions. Following from this, a workshop with the Urban Design Panel on November 10, 2004 provided commentary on various design revisions. In a departure from normal procedure, VCCEP requested an interim review by the Development Permit Board, prior to submission of the complete application. This took place on February 28, 2005 and was based on the design revisions seen by the Urban Design Panel on November 10, 2004, with some further refinements. The Board, while making no decisions in this meeting, indicated its belief that the design, in key aspects specifically the conceptual design of the roof and the Thurlow Plaza, was moving in the right direction. The following motion was approved by the Board: *"THAT the Board is of the opinion that the current design for conditions 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.9 and 1.12, as reviewed at the February 28, 2005 meeting, is moving in the right direction to satisfy the preliminary development conditions established by the Board on September 13, 2004"*. (See DPB minutes - Appendix G.)

Other aspects of this project have also advanced. A Development/Building permit for construction of the foundation to the 3.25 m level was issued in April, 2005, and construction of the City-parkade at the eastern edge of Harbour Green Park is well underway.

● **Proposed Built Form**

The Vancouver Convention Centre Expansion Project consists of the following:

- Convention Centre, including Exhibition Hall, Ballroom, Meeting Rooms, Pre-function/Registration, Convention Centre Support;
- Parking (442 spaces) accessed from Canada Place;
- Loading (24 bays) located on north (water) side accessed from Waterfront Road;
- Partial lower level walkway (northwest portion of site);
- Continuous Waterfront Walkway/Bikeway;
- Major Public Open Space (Thurlow Plaza); and
- Commercial/Retail Space (along upper walkway/bikeway level, adjacent to east and west sides of Thurlow Plaza, and adjacent to the lower walkway at northwest corner).

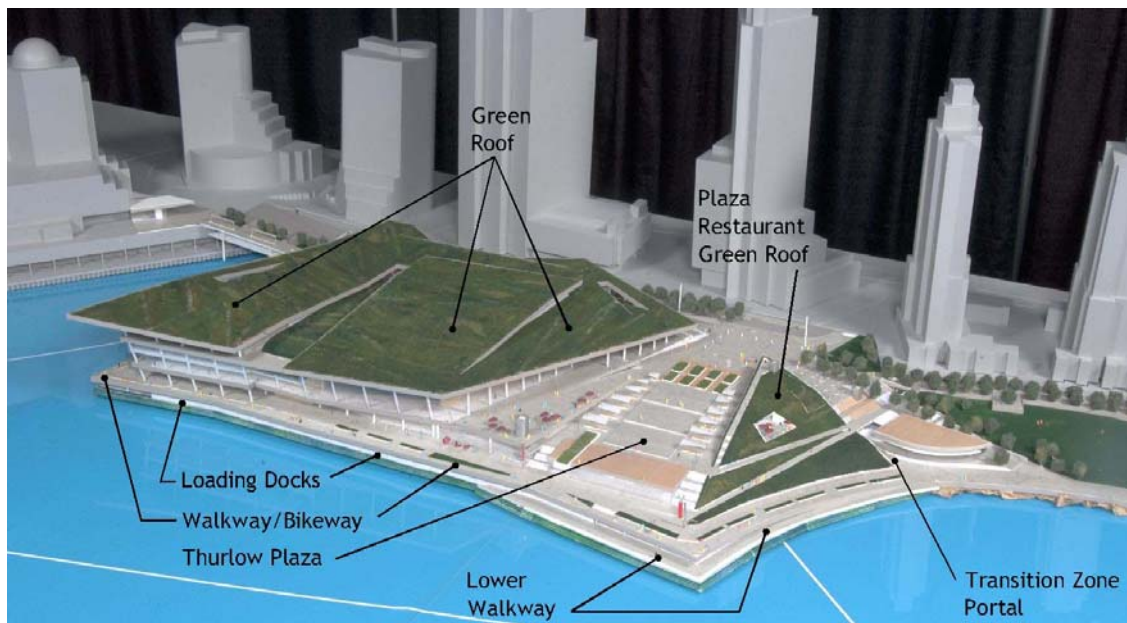


Fig. 1- Model of Proposed Convention Centre from water side (looking southeast)

● **Response to Preliminary Conditions:**

Introduction: Since the approval-in-principle by the Development Permit Board on September 13, 2004 a number of workshops and meetings have been held with Staff and the applicant, and other advisory and decision-making groups to provide commentary on the design. The following meetings took place, prior to the submission of the Complete Development Permit Application (CDP), wherein feedback supportive of the design direction of specific elements was offered:

- Urban Design Panel (workshop), November 10, 2004 (Appendix H: Minutes);
- Development Permit Board, February 28, 2005 (Appendix G: Minutes).

For convenience of this discussion and analysis, the principal twenty-six preliminary prior-to conditions (italicized and condensed where appropriate for brevity), applicant responses, and staff assessments have been grouped, consistent with the Preliminary DP report, under the following categories:

- Roof Design (1.1 - 1.4);
- "Master Plan" Uses (1.5 - 1.7);
- Walkway/Bikeway (1.8 - 1.10);
- Public Open Space (1.11 - 1.16);
- Building Expression (1.17 - 1.18);
- Public Views (1.19 - 1.20);
- Traffic (1.21);
- Parks (1.22 - 1.24); and
- Public Art (1.25 - 1.26).

Roof Design: [*Preliminary conditions 1.1- 1.4*]

1.1 design development to the roof form which, together with the building, creates a design of "landmark" quality as seen from pedestrian level, from above, and from the water and further design development and arrangements for over-viewing, experiencing and interpreting the "living roof" from locations around the site and, if possible, from locations on the roof itself, acknowledging that actual access onto the roof is not practical or desirable;

Note to Applicant: The proposed "Living Roof" is strongly supported as a "green", environmentally sustainable feature. Further, the proposed "folded land forms" concept can be an appropriate, potentially compelling architectural/landscape approach on this site, with the roof as a critical element. However, design development is needed to achieve the following:

- *strengthening the three dimensional expression of the overall roof form by:
-creating a more dynamic sequence of delineated planes that rise up to the north and the water, culminating in a more dramatic roof and building form at the northeast corner; and*
- *creating for the roof design a more compelling architectural and landscape expression of the "folded land forms" and "living roof" concept which proposes to integrate the building with the land and the water, and speaks to a sustainable, organic ecology within a built city environment.*

1.2 design development to the southwest roof "fold" covering the southwest building entrance/open space, to introduce more natural light to the public area beneath;

1.3 design development to incorporate and screen all rooftop mechanical equipment within the roof form so as not to compromise or erode the visual quality of the roof;

1.4 provision of architectural and landscape details of the "Living Roof" treatment;

Note to Applicant: Highlighting the channeling of storm water as well as incorporating planting to achieve seasonal colour, different foliage textures, etc. should be considered.

Applicant's Response:

1.1: Extensive design development by the Architectural Team has continued, resulting in significant refinements to the roof form. These Design Developments were presented to the Urban Design Panel Workshop on November 10, 2004, and have been further developed for the CDP submission. (At that meeting) The Urban Design Panel members generally expressed positive comments regarding the revisions to the roof design and it received favourable support on the re-design of the roof element.

The DP Board (Feb 28th) confirmed the suitability of the proposed roof design for the project.

1.2: The fold has been eliminated, thus maximizing natural light at the pedestrian level.

1.3: No mechanical equipment will be visible at the roof level.

1.4: Details are being developed and will be submitted with the CDP Application. See also the Landscape Architects Design commentary included in Volume I of the Sustainability Section 9 the CDP submission (Appendix E, p. 18). Specifically, living roof test plots have been established with a variety of up to 19 plants that are being considered for the living roof. The information derived from these test plots will influence the ultimate selection of the plant material.

Staff Assessment:

1.1: While it may be debated as to whether the current roof design achieves the "landmark" quality sought in the VCEC Guidelines or Preliminary Condition 1.1, it has been acknowledged by Staff, the Urban Design Panel, and, on February 28, 2005, the D.P. Board, that the overall roof form, together with the project's design integration of the plaza restaurant "green" roof, has evolved positively and is supportable (refer to Fig. 1). What remains is the resolution and refinement of the details of the roof design with specific focus on the array of roof edges around the building, noting that these edges will be the most visible element of the roof for the great majority of the public. (refer to Fig. 2).



Fig. 2 - Rendering showing south façade (Canada Place frontage) at Burrard / Canada Place corner

The Urban Design Panel, in its last two reviews of the scheme, has expressed serious concerns with its proposed roof edge treatment, specifically its thickness (2-2.6 m height) and uniform vertical expression regardless of orientation. From pedestrian level the roof edge will read as a heavy, continuous element that emphasizes the building's huge scale. While the applicant's intent is to emphasize the roof as a consistent "folded land form" all around the building, Staff agree with the Panel that its expression should be more articulated, more architectonic, less relentless, less uniformly vertical and "lighter" in its treatment (refer to Appendix K; Roof Edge Images). This is particularly relevant on the Canada Place frontage where the building interfaces with the city on a normalized street (versus the open condition on its north, east, and west sides). The Panel's suggestion of introducing more transparency and natural light on this side, perhaps by pulling back a portion of the roof at a strategic location, should be pursued noting that this could allow more light to penetrate down to the lower Waterfront Road lobby. (recommended condition 1.1).

1.2: As the southwest "fold" has been eliminated this condition is no longer applicable.

1.3: Staff agree that the applicant has done a commendable job in enclosing all rooftop equipment, with the one concern being the architectural treatment of extensive mechanical louvers prominently visible under the uppermost (ballroom) roof (refer to Fig.3, 7 & 12) (recommended condition 1.1, Note to Applicant, third bullet).

1.4: The technical details needed to ensure success of the "living roof" are still at an experimental stage. The applicant is expending all efforts needed for this important component of the project. The location of this immense green roof as part of Vancouver's waterfront and as part of this high profile project will evoke public interest and interaction with this site. The opportunity for close-up public viewing and interpretation of the green roof is accommodated on the plaza restaurant roof which is to be publicly accessible. The public and the media will want to know about the details and functioning of this structure, including opportunities for close up viewing, and the ability to comment on this large scale experiment (recommended condition A.1.13). See also detailed Landscape Comments on page 36.

Planning and Design of Water and Land-based Non-Convention Centre Uses ("Master Plan"):
[Preliminary conditions 1.5 - 1.7]

1.5 *design development to advance the "Master Plan" to the level of Preliminary Development Permit (architectural concept design) submission stage to be integrated functionally and architecturally with the design of the convention centre and the westerly Park "transition zone" and to include the following key components:*

- (a) seaplane floats and terminal (including fuel storage);*
- (b) marina(s) for charter boats, harbour tour boats, visiting boats, etc.;*
- (c) marine-oriented commercial on north side [floating and fixed (at el. 3.5 m)]*
- (d) commercial space at lower northwest corner of site, beneath the waterfront walkway/bikeway promontory; (NOTE: The conceptual design of this space should be integrated architecturally with the promontory above as a dynamic feature at this prominent west and northwest edge of the site);*
- (e) commercial (retail, restaurant, etc.) at walkways and plaza levels; and*
- (f) pedestrian ferry service;*

1.6 *design development to, and incorporation into the Complete Development Application for the convention centre, along with necessary legal agreement(s), the infrastructure and any integral elements necessary for implementation of the "Master Plan" components (condition 1.5 above) including:*

- (a) public vertical circulation (elevator, stairs, platforms and linking bridges(s) to on-site parking, etc.) outboard of the north waterfront walkway/bikeway for proper access (pedestrian, service, and fire exiting) to the future marina(s); [Note: This vertical element should be designed as a "signature" architectural feature, given its position in the Thurlow Street-end View Corridor (requiring a CHODP text amendment which Staff support), with consideration given to the opportunity for public over-viewing of the convention centre "living roof".];*

- (b) *a permanent, minimum 4 m wide outboard walkway at elev. 3.5 m along the western edge of the site to the northwest corner, extending east to the public, outboard elevator [see 1.6(a) above], providing public access from the seawall to future commercial land and water-based facilities; (NOTE: This permanent outboard walkway should provide public, service and fire access to both inboard and outboard (floating) commercial uses in the "Master Plan" as well as linking to the outboard vertical circulation [1.6 (a) above]);*
- (c) *structure, floor slab (at approximately elev. 3.5 m), access (public, service, and fire exiting), utilities, etc. for commercial space beneath the waterfront walkway/bikeway promontory at the northwest corner (refer to condition 1.5 (d)); and*
- (d) *water mains, sanitary sewer mains, hydro lines, telephone lines, gas mains and access ways (Construction scheduling and facilitation may require these items to be completed in advance of the date specified below.).*

AND FURTHER, that the above infrastructure and any integral elements be constructed on a schedule agreed at the complete application;

- 1.7 *design development to expand the proposed westerly small retail space ("sliver") fronting the seawall (lower) walkway/bikeway to reflect a viable, properly serviced commercial space contributing to walkway activity and animation as well as screening of utilitarian convention centre functions behind (storage, fire truck access, exit doors, etc.), as portrayed in submitted models and renderings;*

Applicant's Response:

1.5: VCCEP has undertaken the process to select a developer(s) for the water and land based elements together with the 440-car parkade. This process has received City approval and the first stage, consisting of two public information meetings for interested parties, has taken place. In March 2005, an Expression of Interest was issued, followed by the selection of a short-list of interested parties invited to respond to an RFP, which will be issued in April 2005, with final submissions in June 2005, followed by selection of the preferred proponent in the fall.

- (a) The location of the seaplane floats and terminal will be part of the submission by the successful developer for the water-based facilities. This proposal will be reviewed in conjunction with City staff prior to determining the final location. A location for the fuel tanks has been noted on the drawings and this location allows total flexibility for the location of the seaplane floats.
- (b) The scope, scale and concept for the marina component will be determined through the selection process for the developer for water-based facilities.
- (c) The extent of marine oriented commercial space on the water will be limited to the amount of area remaining once the FSR calculation for the Convention Centre and the proposed shell space for commercial space in and around the building is calculated. Should the developer(s) desire to add area beyond that allowed in the current zoning, a rezoning would be required.
- (d) This commercial space (lower northwest corner) is being constructed as a shell space (similar to that being constructed on the NE side of the 9.5 m level). This space will be constructed during construction of the expansion project.
- (e) The enclosure for all land-based commercial space is included as part of the CDP submission. The successful developer(s) will be responsible for the fit-out of all commercial space as illustrated on the plans.
- (f) The developer(s) identified as a result of the VCCEP future RFP will deal with the issue of potential ferry service at the site, together with other similar uses, which have not been illustrated to date.

Applicant's Response (continued):

1.6: These elements are not precluded from future development. Documents have been submitted with the Foundation "DB" Permit which confirm the viability of constructing these future elements. Further design work will be completed on the Master Plan elements.

- (a) This vertical circulation element(s) will be conceptually designed to service levels 3.5 m through 18.0 m but will not be included in the CDP submission. VCCEP will ensure that the design and construction of these vertical elements are consistent and compatible with the project's design.

Confirmation by Structural and Marine Engineers has been submitted with the Architects and the Environmental Consultant, that the vertical circulation element can be added at a later date.

A concept for over-viewing the "living roof" has been developed as part of the Thurlow Plaza Restaurant where, not only will the restaurant roof have planting similar to that on the main roof of the Convention Centre, so that it can be observed at close quarters, but from the highest point of the restaurant roof, there is a viewing area where the main roof can also be viewed.

- (b) A 4 m wide walkway is committed to be provided at the 3.5 m level on the west and on the west half of the north face. The determination of the requirements for a floating walkway(s) will be part of the selection process for the developer for water-based facilities.
- (c) See commentary on item 1.5(d) preceding.
- (d) We are presently assessing the infrastructure requirements of master plan elements and considering those elements to be developed as leased components to the Convention Centre and thus to be supported by Convention Centre services and utilities. This infrastructure will be installed during construction of the project.

1.7: As noted previously the submitted documentation has been revised and there is no opportunity for developing any commercial space on the location identified. Screening of the back of house elements will be proposed in the CDP.

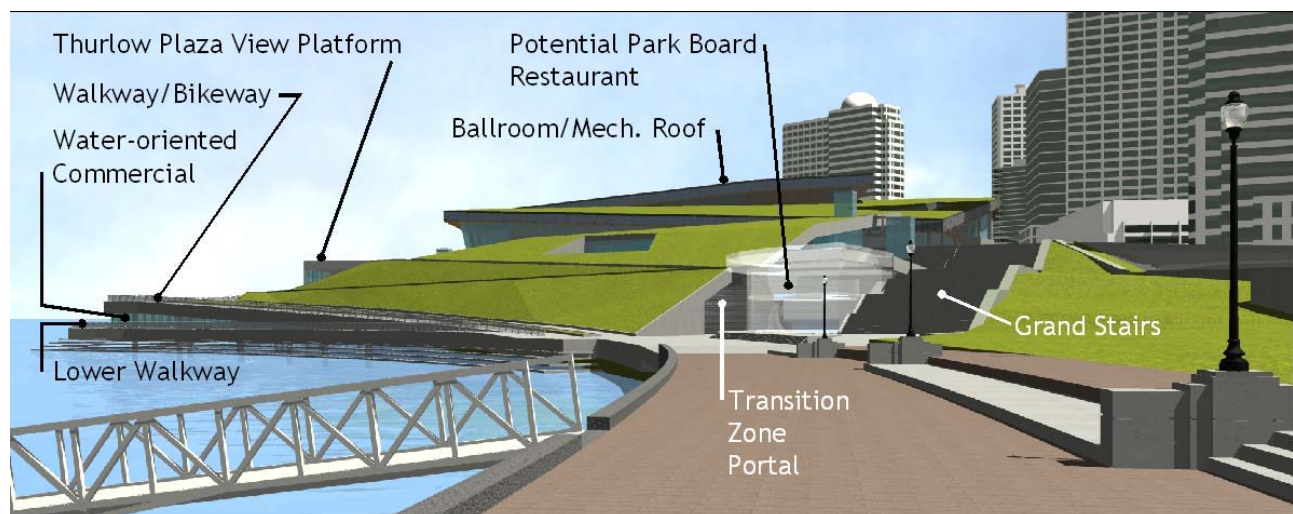


Fig. 3 - View East from Harbour Green Park Seawall

Staff Assessment:

1.5 & 1.6: Staff are generally very satisfied with the good progress made on land-based commercial uses and their incorporation as “shell space” in the CDP. Further, the inclusion of the lower level walkway from the Transition Zone Tunnel Portal, around the northwest corner and partially along the north water frontage, along with inboard “shell space” for animating water-oriented commercial use, as part of this CDP, is particularly important (refer to Fig. 3 & 4). Maximizing “storefront” glazing for this latter commercial space is sought (recommended condition 1.3). Although a concept design for the water-based portion of the Master Plan has not been submitted, VCCEP has advanced the timing of its RFP as noted in Applicant’s Response above. Staff note that a City-authored Supplementary Bulletin was issued in mid-April (see Appendix I), to clarify existing CD-1 Guidelines applying to the water-oriented development area. This document should assist the short-listed proponents responding to the RFP. There has yet to be public consultation around potential development of the water-based portion of this site.

Staff’s principal concern at this stage is the lack of certainty with respect to the provision and detailed design of public access (elevator and stairs) down to the lower level walkway and anticipated floating and fixed water-oriented uses in the water development area (Fig. 4). VCCEP is required under Preliminary Condition 1.6 to commit to the provision of such access in the event a Master Plan proponent does not provide it (recommended condition 1.17). Until that access is committed or provided, required firefighting access from the loading dock level up to the walkway/bikeway (el. 9.0 m) level is lacking. Initial public access concepts prepared by VCCEP provide for two sets of outboard elevators/stairs, one at each end of the water area close to the convention centre’s north edge, linked to the lower level and upper walkway/bikeway and Convention Centre parking. If these are provided, this would satisfy public and firefighting access needs. However in the interim, until this access is confirmed by a separately-approved development application for the water-oriented development area, emergency and fire-fighting stair access will be required. This is discussed more fully in Appendix C and recommended condition 1.18. There are a number of design and use issues remaining to be resolved for the water area development, which is expected to be addressed in a Development Application to be submitted by the chosen proponent later this year.

1.7 (“sliver” commercial space north of Transition Zone Portal): With the evolution of the design for this area, Staff are satisfied that this condition is no longer relevant, particularly as a future Park Board restaurant is anticipated to provide an animating use at this prominent location (Figs. 3 & 4). Further design development is required to the Transition Zone Tunnel and Portal to ensure an attractive, safe and high quality environment when viewed from the seawall and for people passing through this space (recommended condition 1.10).



Fig. 4 - Illustration of potential Public Elevator/Stairs design (Excerpt from “Supplementary Bulletin: Water-oriented Development” - Appendix I)

Walkway / Bikeway Amenity, Activity and Animation: [Preliminary conditions 1.8 - 1.10]

1.8 *design development to the north covered walkway/bikeway area to create a positive, inviting, comfortable and attractive environment for the public that supports fronting retail uses;*

Note to Applicant: This should include the following design improvements:

- *minimizing as much as possible the extent of covered area and the number of outboard columns;*
- *further cantilevering of this portion of the walkway/bikeway edge to increase the extent of open promenade;*
- *use of glass wind screens, public art features, lighting, signage, attractive soffit and wall treatment, and any other strategies to improve this space for pedestrians, cyclists, roller-bladers, etc., including addressing mechanical venting locations and their visual and acoustical impact;*
- *clear demonstration of how the pedestrian and cyclist portions of the walkway/ bikeway make their way through this zone and around the entire site considering the width breakdown of 4.8 m for pedestrians, 2.4 m for buffering and grade separation and 4.8 m for cyclists as well as maximum 5 percent gradient for both modes. Where there are uses such as retail along the inboard edge, additional width will be required. At no time shall the outboard pedestrian walkway have an unobstructed width less than 3.0 m; and*
- *further detailing of the landscaping used to separate the modes.*

1.9 *design development to the northwest promontory of the upper walkway/bikeway to create a generous public viewing area, including the provision of an architecturally prominent glazed canopy for weather protection and a possible public stair connection down to commercial uses below at the water level;*

1.10 *design development to the east walkway/bikeway to maximize and enhance amenities for public harbour viewing (benches, glazed canopies), and provide a special viewing feature area at the northeast corner;*

Applicant's Response:

1.8: This area has been revised and the present configuration is consistent with the objective identified in the Prior-to conditions. Workshops have been held around these elements and a further workshop will be held to enhance the design development of these elements. The amount of covered area has been substantially reduced. The location of the pedestrian, buffer zone and the cyclist zones will be clearly illustrated on the CDP documents. The pedestrian walkway has an unobstructed width of at least 3 m.

1.9: A covered canopy and access stair are not being contemplated at the NW corner pedestrian walkway at this time and this was confirmed by the DP Board at the Feb 28th meeting as being acceptable.

1.10: The NE corner is being extended as part of the base building work. A "new" plaza of some 500 to 600 m² will be created. Benches and glazed canopies will also be considered for this area. A revised design for the NE corner and the east walkway/bikeway is submitted as a result of the recent workshops.

Staff Assessment:

1.8 & 1.10: Staff acknowledge the positive changes made to the north side walkway/bikeway design to reduce the extent of covered area and to make it a more comfortable environment for the public (refer to Fig. 5). In particular the further extension and widening of the northeast corner area ("Bon Voyage Terrace") is a significant improvement (refer to Fig. 11). As smaller events are likely to occur at this location, servicing is sought under recommended condition 1.4(h).



Fig. 5 - Rendering of North Face of Building

In terms of overall walkway/bikeway functioning, various detailed items are either resolved or under discussion with respect to materials and design including confirmation that the outboard pedestrian walkway width meets the 3.0 m minimum in all locations (recommended condition 1.4). The submission does not contain much information as to how the north side walkway/bikeway environment will be enhanced for users through signage, wall and soffit treatments, lighting and other strategies. Further design consideration to refine and clarify the treatment of this area is sought under recommended condition 1.4: Note to Applicant.

1.9: Staff agree that, in light of design changes made to the northwest corner of the walkway and the Thurlow Plaza View Platform, an additional glazed canopy is not necessary.

Public Open Space Area, Use, Animation and Programming: [Preliminary conditions 1.11 - 1.16]

1.11 *provision of additional open space opportunities that maximize public access under the established open space criteria to meet the area provision specified in the CHODP;*

Note to Applicant: A shortfall of public open space has been identified at this preliminary stage. Consideration should be given to the provision of additional walkway area, expanded viewing promontories, etc. consistent with City-approved criteria for 'countable' public open space.

1.12 *design development to the Thurlow Plaza, including the infrastructure necessary to accommodate small and large public gatherings and events to the satisfaction of the Directors of Planning, the Office of Cultural Affairs and General Manager of Engineering Services;*

Note to Applicant: Confirmation of infrastructure to accommodate events with an occupancy load for large gatherings (up to 10,000 people), including specifically designed truck access to and onto the plaza for stage, technical and support vehicles. Infrastructure to include anchoring for tents and equipment, electrical service for stage sound and lighting, water service and waste disposal, including grey water disposal.

1.13 *design development to the Thurlow Plaza as a major civic open space on the waterfront to address issues of use for all ages, animation, and programming, including:*

- *provision of seating and viewing areas throughout the space;*
- *consideration of more animating uses and features, including introduction of water, throughout the space and particularly along the east and west plaza edges;*
- *provision of facilities supporting a range of activities for all ages that will help to draw the public to this area; and*

- *preparation of a preliminary programming plan for the Thurlow and Burrard Street Plazas on the activities and events expected for these spaces, in consultation with the Directors of Planning, the Office of Cultural Affairs and General Manager of Engineering Services;*

Note to Applicant: The location and acoustic performance of mechanical intake /exhaust vents should be carefully considered and integrated into the landscape so as not to compromise the Plaza's usability and amenity.

- 1.14 *design development to the plaza at the foot of Burrard Street to strengthen its sense of place as the terminus of this important ceremonial street and the waterfront walkway/ bikeway system, as well as the main entrance to the convention centre (refer also to condition 1.16).*

Consideration should be given to the following:

- *provisions for seating and harbour viewing;*
- *continuity of public realm treatment with the proposed retrofit of the expanded sidewalk/walkway connection east to Canada Place (Vancouver Port Authority property);*

Note to Applicant: Separate approvals through Engineering and the Port Authority are required, as portions of the Burrard Plaza are on City Street and/or Port property. Reference should be made to Standard Engineering Conditions A.2.17 (b) and (i).

- 1.15 *arrangements shall be made, to the satisfaction of the Directors of Planning, Office of Cultural Affairs, Legal Services and General Manager of Engineering Services for a statutory right of way over the outdoor plazas, as well as a Community Use Agreement to provide community programming access to the Thurlow Plaza;*

Note to Applicant: The Community Use Agreement is to address non-exclusive access to convention centre public washrooms, garbage and recycling services during events.

- 1.16 *design development to the sidewalk and setback area of Canada Place to increase the extent of landscaping and pedestrian amenity within the public realm;*

Applicant's Response:

1.11: The amount of open space has been recalculated with additional items (NE corner and North West corner fixed walkway for example included). The open space calculation is included as a part of the CDP submission.

1.12: A series of workshops with City staff have occurred and are still ongoing to resolve the design issues and infrastructure requirements to accommodate the program expectations for the Thurlow Plaza. The results of this ongoing design development will be a "prior to" condition to the CDP application. The structural capacity of all areas of the public realm - Thurlow Plaza, Burrard Plaza, sidewalks and perimeter circulation routes will be included in the CDP application.

1.13: Sketches indicating various configurations of the Plaza for various size and types of events will be submitted, for consideration and discussion. The City will propose recommended infrastructure (water, power, communications, etc.) which will be reviewed as part of the ongoing dialogue with the City. There are no mechanical intake or exhaust vents which will compromise the Plaza's usability and amenity.

1.14: The design of the Burrard Plaza and the expanded NE corner at level 9.5 has been the subject of workshops with City Staff. One further workshop is anticipated to conclude this discussion.

1.15: Discussions on Legal Agreements commenced with the initial meeting on Jan 24, 2005. As presented to the D. P. Board at the February 28, 2005 meeting, due to the specific operational requirements of the Convention Centre, VCCEP will not consider access to Convention Centre washrooms, garbage and recycling services.

1.16: Discussions with City staff have resolved these issues with respect to Canada Place.

Staff Assessment: (comments are grouped below under the four major public open space topics)

Public Open Space Area (Preliminary condition 1.11):

The Coal Harbour Official Development Plan (CHODP) stipulates, after subtracting existing public open spaces (eg. Harbour Green Park, Shaw Tower Plaza, etc.), that 2.07 hectares (5.12 acres) of public open space be provided on the Convention Centre site. The CDP submission indicates about 1.89 hectares (4.67 acres), a small shortfall of about 0.18 hectare (0.45 acre). Staff believe that this relatively small deficiency can be met by publicly-accessible floating/fixed docks as part of the expected development application for the water-oriented area to the north of and bordering the Convention Centre site. This will need to be confirmed when the development proposal for this area is finalized later this year. Should it not prove possible to make up this small open space deficit on the water development site, a text amendment to the CHODP would be required to slightly decrease the public open space area requirement. (recommended condition 1.19).

The application has proposed that off-site public open space totaling about 0.13 hectare (0.32 acre) at the foot of Burrard Street as part of the expanded linkage along the north side of Canada Place to the existing Convention Centre be included in open space area. However, this public area, including the major portion of the Burrard Plaza, is VPA and/or City-owned property that is not part of the subject application, and further, is located outside of the CHODP boundary. Therefore the Burrard Street-end area outside of the VCCEP site cannot be considered for CHODP public open space area requirements.

Thurlow Plaza (Preliminary Conditions 1.12, 1.13 & 1.15):

The current design that includes the Plaza commercial spaces (plaza restaurant with publicly accessible green roof on the west, retail on the east, walkway/bikeway level retail on the north) has now resulted in a much more active, defined open space addressing many of the previous animation and urban design concerns (refer to Fig. 6). Given its size (equivalent to 3 or even 4 large downtown plazas), the detailed treatment of the Plaza and its several component areas needs to be advanced to achieve the desired level of public amenity and sense of place (recommended condition 1.5). Generally, more distinctive paver patterns, lighting, planting and furniture should be used as place-making tools to orient and guide people through the space and differentiate active and passive areas. Staff are also concerned that very little use of water as an animating element has been incorporated into the landscape design. The expression of storm water collection and conveyance as a sustainability theme should be strengthened as a plaza feature that energizes and animates the open spaces, perhaps in a way that playfully enriches and counterbalances the more formal plaza aspects.

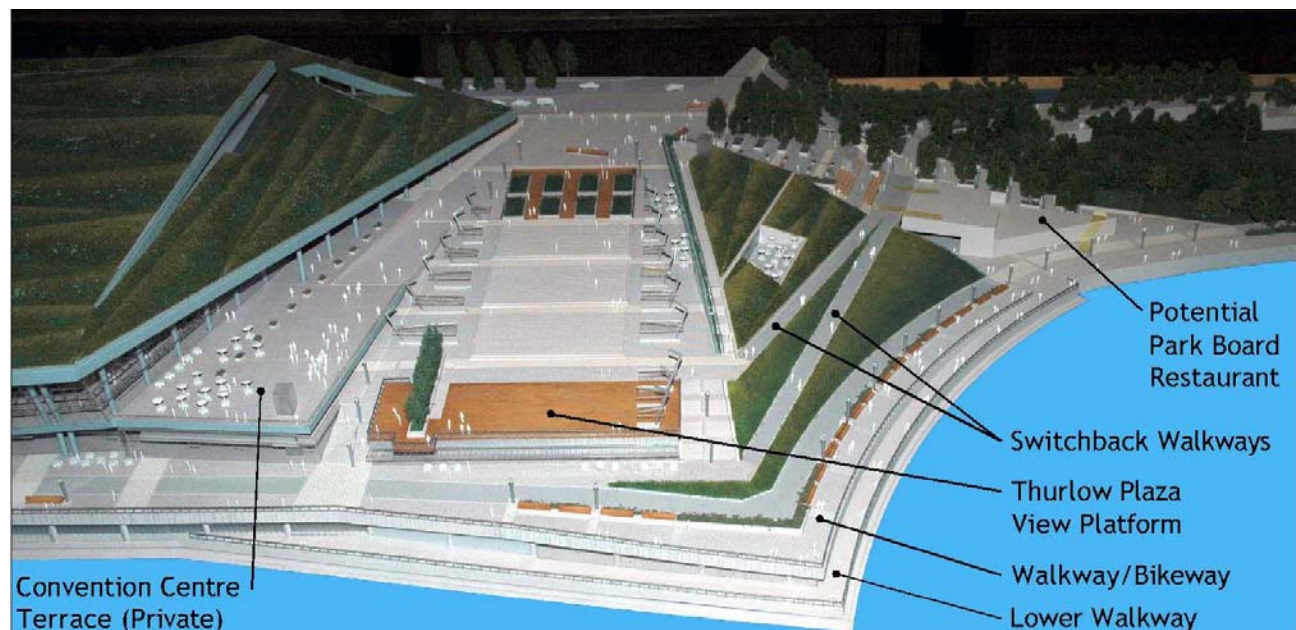


Fig. 6 - Model showing proposed Thurlow Plaza (from north, looking south)

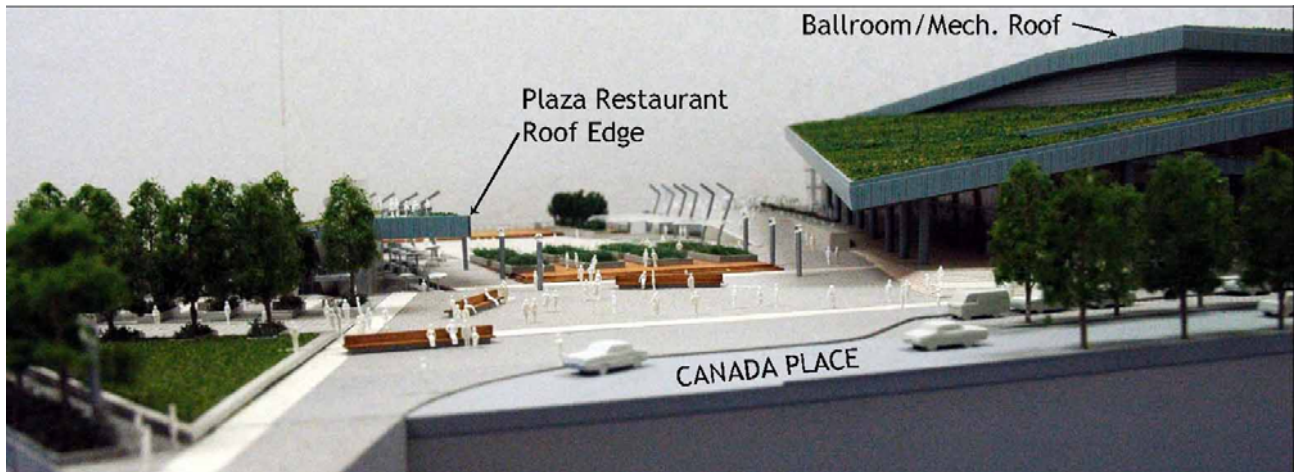


Fig. 7 - Model showing south portion ("forecourt") of Thurlow Plaza (looking north from Thurlow Street)

A number of detailed design refinements are described in recommended condition 1.5: Notes to Applicant a) - g) (refer also to Appendix K; Open Space Images). Specifically, the southerly portion of the Plaza (Figs. 7 & 8) lacks a sense of arrival, and the visual interest of its surface treatment needs to be improved. This "forecourt" of Thurlow Plaza needs a strong identity, animated and informed possibly by the extension or referencing of the "Grand Stairs" axis, the "prow" of the plaza restaurant roof, the north/south axis of the central open space, the angular entry of the convention centre and the Canada Place street frontage. For the raised planter area to the north of the plaza "forecourt" (Fig. 9), a revised planter geometry should be incorporated that creates a defined space(s) with integrated seating. Reallocating some seating to take specific advantage of strategic water-viewing locations (i.e. the north raised viewing platform and switchback walkways) is also recommended, as well as maximizing the extent of "storefront" glazing for the retail use along the east edge of the plaza. Staff are also concerned with the proposed 1 m difference in floor level of the plaza restaurant and adjacent plaza (recommended condition 1.7).



Fig. 8 - Model of Thurlow Plaza (south end looking west), showing plaza restaurant with public stair to roof



Figure 9 - Rendering of Thurlow Plaza looking northeast (raised planter area in foreground)

With respect to the programming of the Thurlow Plaza, the ability to stage major events has effectively been eliminated as a consequence of the Plaza's structural limitations that preclude the larger trucks necessary for such events (see Cultural Affairs comments, p.37). Nevertheless, the Plaza can still function as a major gathering space (i.e. Canada Day) and for minor events that do not require large trucks for staging. Staff are concerned that sufficient servicing infrastructure needed to accommodate public gatherings and minor events in the plaza be provided (recommended Condition 1.8).

Limited discussions have taken place regarding Plaza programming, but progress has not been made on developing a Community Use Agreement because VCCEP does not want any responsibility for this. (See recommended condition A.1.21) Staff accepts that for security reasons, VCCEP is unwilling to allow public use of convention centre washrooms. Alternate on-site provision of washrooms is required to fulfill the anticipated day-to-day needs of the public, with at least two facilities located convenient to the upper Thurlow Plaza level, walkway/bikeway level (along the north or east building face), and the Thurlow Plaza/Transition Zone area (recommended Condition 1.6).

The "Transition Zone" from Thurlow Plaza to Harbour Green Park needs further design development to enrich landscape/paving details, seating, and to clarify details of the proposed surface glass block day-lighting elements for the public tunnel portal area below (recommended conditions 1.9 & 1.10). See also discussion under "Harbour Green Park" p. 26 and Park Board comments p.35.

Burrard Plaza (Preliminary condition 1.14):

Further design development to the detailed treatment of this space is needed to ensure that the intent of the Guidelines and Preliminary Conditions is met, with respect to its overall quality and sense of place (Fig.10 & 11). This should include a better integration of the space's various pathways and geometries reflected through a higher quality, more vibrant pattern of pavers, providing a stronger visual terminus for the plaza, and providing additional amenities including seating, uniquely designed way-finding/information kiosks and lighting (recommended condition 1.12)



Fig. 10 - Model showing proposed Burrard Street-end Plaza (looking north) with Convention Centre Main Entry at left

Canada Place (Preliminary condition 1.16):

Staff are satisfied that the overall design of the Canada Place Public Realm (sidewalk, lay-by and setback areas) is well resolved. While the design of the major roadway elements of Canada Place have been concluded, further discussions regarding detailed sidewalk treatment and paver options are underway to ensure that a high quality and seamless public realm treatment is achieved.

Staff are requesting consideration of a more prominent, distinctive glazed canopy at the main building entry that contributes to the visual interest of the Burrard Street-end (Fig.10) (recommended condition 1.14: Note to Applicant).

Building Expression (other than roof): [Preliminary conditions 1.17 - 1.18]

1.17 design development to the extensively glazed exterior building "skin" to refine its scale, maximize its transparency, create visual interest through variations in glazing pattern and to enhance pedestrian amenity at all ground level interfaces including provision of glazed canopies for weather protection;

Note to Applicant: *Use of structural glass is encouraged. A finer scale at all lower levels along the pedestrian edges of the building along with the required weather protection is sought. A partial mock-up of the proposed glazing system(s) should be provided at the complete application stage.*

1.18 design development to enhance the proposed screening of the loading docks (pre-cast concrete) on the north, west and east edges to be an integral architectural component of the overall design, introducing more variety, pattern and higher quality materials as well addressing night-time conditions when the docks will be illuminated;

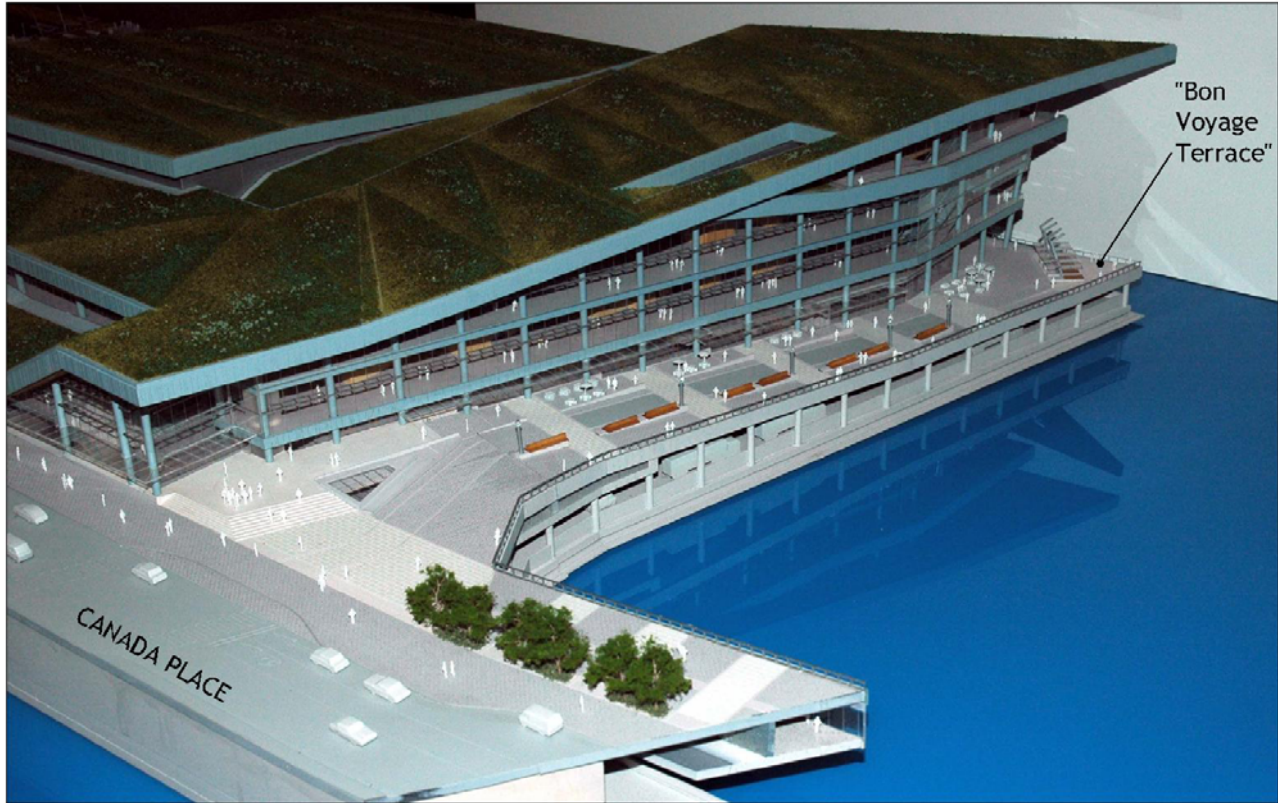


Fig. 11 - Model showing Burrard Plaza & east edge of Convention Centre

Applicant's Response:

1.17: The building envelope has been refined in design and together with glazed canopies is a part of the CDP submission.

1.18: The screening of the loading docks will be reviewed with staff at a future workshop. The issue of the height of the "wave wall" should be resolved prior to the determination of the extent and detail of the loading dock screening.

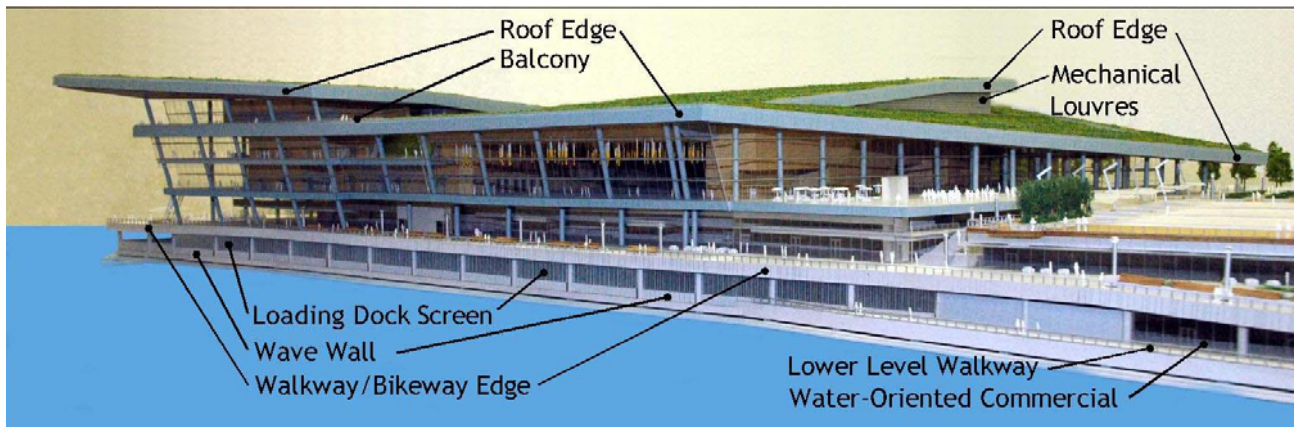


Fig. 12 - Model view of building's north side showing edges of roof and walkway, and loading dock screening

Staff Assessment:

1.17: Considerable work has been done by the applicant to refine details of the proposed glazing system. Further clarification of structural glass details is required to confirm its high quality expression and transparency contributing to the building's architectural quality. (recommended condition 1.13).

1.18: Loading Docks Screening: The lower level loading docks on the north water side are now screened with translucent glass panels approximately 5 m (16 ft.) in height and extending a total frontage length of about 175 m (575 ft). Staff strongly endorse the proposed screening for the loading docks. Submission of details is required, with consideration to introduce more visual interest, perhaps through colour, as well as addressing night-time conditions when the docks will be illuminated (recommended condition 1.15).

Public Views: [Preliminary conditions 1.19 - 1.20]

1.19 *subject to Council approval of a CHODP text amendment that would allow minor intrusions into the Burrard Street-end view, design development to the southeast corner to introduce a dynamic canopy design announcing the main building entrance that forms part of an exciting Burrard Street-end visual composition;*

Note to Applicant: The proposed "folded glass roof" element should be reconsidered.

1.20 *design development to delete the one-storey, angled retail projections along the building's east face that project into the Burrard Street-end view in favour of more continuous weather protected retail frontages integrated with the sloping walkway;*

Applicant's Response:

1.19: Council approved a text amendment that would allow minor intrusions into view corridors at a Public Hearing on November 26, 2004. The folded glass roof element has been deleted from the roof design.

1.20: This change has been made.

Staff Assessment:

1.19: Council has approved the CHODP text amendment allowing minor intrusions into the Burrard Street-end view. The roof configuration at the southeast corner entrance at Burrard Street has been revised from the previous sloped glass roof extension to provide a generally flat edge expression extending around the corner on Canada Place and partially into the view corridor, which Staff support. The entry facades are fully glazed, extending about 17 m in height, with glazed canopies at the lower pedestrian level. Staff consider this resolution to have satisfied the condition with the one further suggestion to introduce a more dynamic canopy design announcing the main building entrance (recommended condition 1.14: Note to Applicant).

1.20: This condition has been met by the revised design.

Traffic Management: [Preliminary Condition 1.21] (refer to Engineering Services Comments on page30)

1.21 *submission of a Traffic Management Plan, Transportation Studies, Parking Studies and the related management plans completed to the satisfaction of the General Manager of Engineering Services and prior to Development Permit Issuance the completion of any agreements required by these studies on terms and conditions acceptable to the General Manager of Engineering Services and the Director of Legal Services;*

Note to Applicant: Traffic management plans for the operation of the facility for both day to day activity and for each threshold-scale event are required. These traffic management plans should

address the activities of: Limousines; Taxis; Private Vehicles; Buses (tour, shuttle and event); Couriers; and Convention Loading Vehicles.

Applicant's Response:

1.21: A Traffic Management Plan has been submitted to the city for review.

Staff Assessment:

A draft Traffic Management Plan, that primarily deals with on-site movement, parking and loading, has been submitted and feedback has recently been provided to the applicant. Parking Studies have been submitted and are satisfactory. Still outstanding is the final version of the Transportation Study which is an essential tool in determining off-site infrastructure improvements that should be required as conditions of development and therefore condition A.2.3 asks for the submission of the revised Transportation Study and notes that such Study may trigger additional conditions that are unconfirmed at this time.

Harbour Green Park: [Preliminary conditions 1.22 - 1.24]

- 1.22 *design development to the east end of Harbour Green Park ("Transition Zone"), including all structures, improvements and plantings, including groundcover, trees, shrubs, and decorative plants, walkways, stairs, paved surfaces, retaining walls, civil works, lighting, drainage and irrigation works, park furniture and all related elements, to the satisfaction of the General Manager of the Park Board, in consultation with the General Manager of Engineering Services, with regard to the integration of the walkway;*
- 1.23 *legal arrangements in replacement of the existing park agreements securing the delivery of the park, to the satisfaction of the Director of Legal Services, the General Manager of Engineering Services and the General Manager of the Park Board;*
- 1.24 *legal arrangements allowing for project-related encroachments onto park land, to the satisfaction of the Director of Legal Services, the General Manager of Engineering Services and the General Manager of the Park Board;*

Applicant's Response:

1.22: The transition from HGP to the Plaza and Convention Centre has been the subject of workshops between the Design Team and City staff, with Park Board Staff and has been resolved with the exception of the ultimate design of the future Parks Board Restaurant. The stairs, portal and Earth Retaining Structure parkade, which is currently under construction, are identified in the documents submitted and have generally been agreed to.

1.23: This will be dealt with at the same time as other legal agreements, commencing with the meeting on Jan 24, 2005.

1.24: Legal Agreement discussions commenced Jan 24, 2005.

Staff Assessment:

1.22: The park design has not been developed to a satisfactory level of completion. The condition has not been met. Recommended Condition 1.11 re-states the requirements. See also Appendix F for preliminary design commentary.

1.23: The condition has not been met, see recommended condition A.1.25.

1:24: The condition has not been met, see recommended condition A.1.26.

Public Art: [Preliminary conditions 1.25 - 1.26]

1.24 *execute an agreement for security in a form and amount satisfactory to the Directors of Legal Services and the Office of Cultural Affairs for the provision of public art in accordance with the City's Public Art Policy;*

1.25 *submit a preliminary public art plan to the satisfaction of the Director, Office of Cultural Affairs setting out the proposed public art program aims, artist terms of reference, site and artist selection methods, project budget, implementation plan and schedule;*

Note to Applicant: There are a number of public art opportunities for this site including both the Thurlow and Burrard St Plazas and the walkway/bikeway that could be considered for public art. The applicants are encouraged to give prominence to the location of public art and maximize visual and public interest.

Applicant's Response:

1.25: Meetings continue, and the agreement will be executed prior to issuance of the CDP.

1.26: A Draft Preliminary Plan has been submitted to the Director, Office of Cultural Affairs for comment. It was presented to the Public Art Committee on April 11, 2005 (and given approval-in-principle?).

Staff Assessment:

The Preliminary Public Art Plan submitted meets the formal requirements, but does not indicate a hierarchy of sites among those having the most public art potential. Given the advanced stage of the design, possibilities for artist interventions in the façade or other building components or processes need to be identified soon to ensure their timely accommodation into other civic review processes (see recommended conditions A.1.22 & A.1.23)

• **Other Items**

Treatment of Lower Level Pedestrian Environment (Waterfront Road and Tunnel): The CDP submission has provided very little information on the proposed treatment and finishing of the lower Waterfront Road level and access tunnel connecting to the seawall, waterfront walkway/bikeway and Harbour Green Park. Staff are concerned that this lower access area not become a "left-over" dark, unattractive and unsafe space. It will be an important access to the Convention Centre as well as for other waterfront amenities, public open space and commercial development. A high quality, safe environment needs to be provided. Opportunities for natural daylighting of this lower level space, casual surveillance from adjacent uses, and attractive materials, finishes and lighting need to be fully considered. (recommended condition 1.10).

Treatment of Perimeter Walkway/Bikeway Edge:

This prominent vertical edge around the site's entire perimeter needs detailed design attention as a continuation of the Coal Harbour Seawall, including further articulation and details of the guardrail (recommended conditions 1.2 & 1.3)

Legal Agreements: Arrangements are required with respect to securing obligations on and off this project site, necessitating modification, release or development of a substantial number of legal agreements. Of key importance are the Services Agreement, Shoreline Agreement, Plaza Agreement, Parks Agreement, and arrangements for site consolidation. Resolution of these Agreements is integral to completion of final design development on these works, and should be pursued promptly.

Prior to issuing the Development/Building permit for construction of the foundation to the 3.25 m level, the City secured an agreement in which VCCEP concurred with the City that VCCEP accepted all risks inherent in relying on a partial building permit to construct the foundation of the Convention Centre when the City had not given its approval for the design and construction of the whole Centre and further agreed to release the City from any claims stemming there from.

- **Conclusion:** The complete development application has responded positively to many of the prior-to conditions, including the improvements to the primary waterfront walkway/bikeway, inclusion of a partial lower level fixed waterfront walkway (northwest portion), and animation of the walkway/bikeway and Thurlow Plaza. Several key objectives and directions outlined in the Guidelines and sought in certain PDP conditions are not yet fully achieved. Staff and the Urban Design Panel have continuing concerns with the roof edge design. The detailed landscape treatment of both Thurlow and Burrard Plaza areas needs further attention. Design development in a number of detailed areas is required to address these items. Staff recommend Approval with numerous conditions to cover these detailed items.

URBAN DESIGN PANEL

The Urban Design Panel reviewed this project on April 13, 2005 and provided the following comments: (see also minutes from the UDP Workshop held November 10, 2004 attached as Appendix H)

EVALUATION: SUPPORT (4-3)

- **Introduction:** Ralph Segal, Sr. Development Planner, presented this application. The Panel has reviewed the project several times previously, including two workshops in 2003 and 2004. At that time, the Panel indicated that the folded land form approach, if properly executed, was a worthy design concept. In June 2004, the Panel reviewed the preliminary development application and did not support it, the major issue relating to the roof which was thought not to be sufficiently dynamic. There were also concerns about the treatment of the Burrard Street end. In September 2004, the preliminary submission was approved in principle by Development Permit Board, subject to a lengthy list of conditions. In November 2004 the Panel reviewed, in a workshop, the applicant team's response to the Panel's earlier input and the Board's conditions. The Panel indicated there had been good progress on the roof design and responded positively to the "weave" concept presented, the landscaping and introduction of a plaza restaurant which also contains a smaller version of the "living roof". The introduction of retail at the north Thurlow plaza edge was also welcomed, along with improvements to the northeast corner. It was also thought that the "skin" of the building was headed in the right direction. The concerns identified at that time related primarily to the various roof edges. There were also comments about the southeast edge and the entry at the Burrard Street end and the connection of the Thurlow plaza to the waterfront walkway at its north edge.

In an unusual departure from normal procedure, VCCEP requested an interim review by the Development Permit Board, prior to submission of the complete application. This took place on February 28, 2005 when the Board reviewed the scheme based on the submission seen by the Panel in November 2004, with some further refinements. The Board indicated it believed the current design was going in the right direction to satisfy the preliminary conditions. The complete application will be considered by the Board on June 6, 2005.

The current complete submission incorporates refinements to the November 2004 design. The "transition zone" from Harbour Green Park to Thurlow Plaza, including the future Park Board restaurant, has been substantially reworked and staff are very pleased with the work done in this area. The application no longer includes a northeast corner elevator and the third floor restaurant has also been removed from the program.

Mr. Segal noted the following areas in which the advice of the Panel is now sought:

- roof edge treatment (the various edges including lower structures);
 - waterfront walkway edges around the perimeter, including the northwest corner commercial;
 - the "transition zone", noting the Park Board restaurant is not yet designed;
 - Burrard Street end/entry;
 - detailed public realm treatment;
 - landscape design, including hard surface, soft landscape, features and sense of arrival;
 - the "sense of place" for:
 - Burrard Plaza;
 - Thurlow Plaza;
 - Seawall walkway/bikeway;
 - Canada Place; and
 - Various links.
- **Applicant's Opening Comments:** Russ Anthony, VCCEP, noted that in addition to the design refinements they have advanced the process for selecting a proponent for the water-based development. The RFP will close at the end of May. Jim Brown, Architect, said they are excited to be at this stage after two years of design work. He briefly reviewed the basic concepts of the project and fundamental guiding principles. Bruce Hemstock described the living roof and the open space plan and the proponent team responded to questions from the Panel.
 - **Panel's Consensus on Key Aspects Needing Improvement:**

Roof Edge Treatment:

- The roof edge needs further design development. It needs greater clarity and the architectonics should be pushed a bit further to achieve a more dynamic expression;
- Reconsider the vertical panelling;
- The roof edge will be a very critical component of the building, as has been stressed in previous Panel reviews.

Walkway Edges:

- These are much more successful but they need more clarity in the details - possibly a further differentiation in material between the walkway edges and the roof edge.

Transition Zone:

- This area deserves more design development;
- Much of the success of the transition zone relies on the Park Board restaurant, which is outside the purview of this project but should be carefully considered by the City;
- Concerns raised about the detailing of the portal/drop-off area with suggestions to explore issues of paving and glazing.

Burrard Street End:

- The Burrard Street end and entry deserves more attention. There should be some recognition that this is an important junction, including within vertical elements and paving.

Canada Place:

- Concerns expressed about the Canada Place elevation in terms of issues of transparency and light and the relationship between interior convention centre activities and the public realm as well as the lower entrance and the public at the street level, coupled with the vertical circulation.

Public Realm:

- Richness in the public realm is required and it must be of the highest quality;
- Features such as public art and interpretation of the green roof must not be overlooked;
- It is very important that the building is treated as being part of the public realm;
- The success of the building will be in the details and the budget.

Exterior Skin:

- Further design development of the skin of the building is required;

- The structural glazing system could be pushed further, noting it will be a major element that the public will be able to see and feel: it must be truly unique and part of the sense of place of the building.

- **Related Commentary:**

The Panel complimented the applicant team on the high quality of the presentation and the work achieved to date. The Panel has seen the project evolve through the process but acknowledge that it has also maintained its conceptual clarity. In general, the Panel found the changes made to the scheme have improved it, with some exceptions.

The Panel's comments and suggestions included:

The Roof and Roof Edge Treatment:

- the applicant's rationale is a good way to give consistency to the building but it gets lost in terms of the overall depth of the roof edge and the lack of dynamic treatment;
- it would be more interesting if the roof edge diverged from the rationale for the building and took on a character of its own, with greater interest and stronger architectonics in the expression of the elements;
- expressing the three elements is good, but is not enough;
- the choice of materials is interesting and the addition of the dimples adds another level of interest;
- it would be nice to have a distinction between the roof edge, the building edge and the building base edge; perhaps more clarity so that lay people can more easily understand the building;
- where the roof is canted to reinforce the thrust over the water, question whether consideration might be given to having a reverse cant at the south edge to create some interest;
- the third floor balcony on the north side fails to reinforce the folded plane image;
- the theory of the three parts is good but in reality it is quite unpoetic and expedient;
- a non vertical roof edge can be resolved architecturally;
- the concept of the three parts is quite interesting but the least important part is the structure and the most important is the green roof;
- focus on one concept that would work: for instance, project the roof edge out, exposing what is important and downplaying the rest; this cannot be done vertically but could be resolved and look much better with a projecting thin plate top;
- the solid zinc roof edge panels expressing precisely the truss depth is weak and lacks character;
- would like to see a lot more public roof access;
- horizontal rather than vertical striations would make the edge feel thinner, as would setting back the green roof from the edge;
- the roof edges in the lower plaza are much improved;
- some challenging design development is required where planes intersect each other;
- the vertical edge seems heavy and could be made a lot more dramatic with a non vertical edge, especially at the prow on the northeast corner;
- encourage you to carefully consider how the convention centre will be seen at night, especially with the overhang thrusting out over the water: it could be an opportunity to really make it an icon on the water;
- very disappointed that the opportunity for the public to go into the building and the restaurant has been removed from the package - it was a nice gesture for the public to be able to go in the building.

Walkway:

- the waterfront walkway edges have improved;
- there are good inside/outside connections;
- the bikeway/walkway on the north side is much improved; the success of the space will depend on the retail components on this edge;
- paving can go a long way with respect to wayfinding;

Transition Zone/Thurlow Plaza:

- the transition zone and Park Board restaurant is much improved; all the restaurants will work well;

- the stair joining the two levels together is interesting and the connection on the north face is equally successful in the way that the plaza reaches that point in the project;
- the strong curve of Harbour Green Park where it meets the grand stair is not well resolved; the power of the Harbour Green Park curve must not be diminished and with some refinement it can be achieved; the power of the curve seems to be ignored;
- no details are shown about how the ground plane ties in with the Harbour Green Park treatment with respect to railings and lamp fixtures, etc.;
- lighting is very important in this area;
- the Park Board should be given some guidelines for its restaurant because if it is not done properly it could be a serious detriment to this project;
- the portal to the underground parking at the drop-off might take clues from what is proposed on Burrard Street and Canada Place, i.e., there may be an opportunity next to the restaurant to introduce the same glass treatment for natural light;
- Coal Harbour Park ends unsuccessfully at its west end and there is a danger it will end unsuccessful at the east end as well: this junction deserves something more;
- the design of the Park Board restaurant will determine the success of the entry to the underground walkway. The City must gain control over the urban design aspects of this restaurant;
- careful attention to sightlines should be given in redesigning the edge of Harbour Green Park because with so many trees in there people might not be able to experience the green roof from the park;
- some really nice moves have been made on the Thurlow Plaza design but there are a few elements that are not generous or grand enough. As well, the skylights seems random and could be stronger and better integrated; the stairs to the restaurant roof should be a bit grander and not spiral;
- this was seen as a gathering place for the city for special events and programs and it is important that this role is supported;
- disappointed the public will not be able to access convention centre washrooms. They must be provided somewhere in the plaza.

Burrard Street

- where the Thurlow entry plaza has great interest in terms of the view down Thurlow, the Burrard street end is lacking; it should have a terminus, whether in the form of public art or a plaza, but more than just a meeting point of the various directions of travel;
- the piece connecting the Pan Pacific to the underground access needs to be given more thought; it could be stronger and contrasting with the Pan Pacific to become more iconic;
- the paving pattern at the end of Burrard could be better resolved with respect to the different geometries coming together.

Canada Place

- the building will be perceived as having a front door on Canada Place but the presence of the building on Canada Place is diminished by the lack of public place, notwithstanding the escalators with views down;
- suggest moving the escalators inward to allow people to look down. Consider the interior space from the convention floor level all the way up; treatment of this wall will be very important;
- Canada Place suffers because there is no activity on it; suggest pulling back the green roof at this point (30 - 40 ft.) and making it a glass roof. It currently feels like the large green roof is being dragged into the city where the scale is inappropriate; there is also a problem getting light into the lower entrances, so suggest you accept that it's about vertical circulation and getting light down below; if the roof can be pulled back, this is the place to do it;
- the Canada Place canopies are fairly understated and should be reconsidered.

Sustainability

- Assume the principles presented previous remain very much a part of the building.

Public Realm

- Burrard plaza feels a bit bland compared to Thurlow;
- Richness of surface treatments is required for wayfinding and durability. Texture can also slow down bicycles and roller blades;

- it is incumbent on the City to make sure that where people are invited it be of the highest quality - I have a major concern that there is a move to reduce the quality of the materials for the public realm to simpler, less expensive and less rich, because much of the success of the public realm will be in the quality of its detailing;
- there should be consideration of public art and some nice details and interesting features for the public, including interpretation of the green roof.

Exterior Skin

- the vertical surfaces deserve much more time and study, and probably budget, than they have been given. It is the least convincing aspect of the building and it will be the most visible. From most places a lot more of the walls than the roof will be seen;
 - disappointed with the detailed design - the skin feels like an inert material
 - the building is described in terms of bold, sculptural, iconic forms and these qualities are also required in the walls.
- **Applicant's Response:** Mr. Brown stressed it is not intended to diminish the quality of the finishes of the public realm to create a special place and a cultural facility. Frank Musson, Architect, pointed out there is a public art program for the project and the process is now underway with a public art consultant.

ENGINEERING SERVICES

Building Limits and Site Creation

Creation of a single parcel for the VCCEP site remains a critical component of the CDP requirements (see Condition 1.16). This will involve the consolidation of City Road, the closure of which was approved by Council on June 22, 2004 but will need amending to meet the CDP building layout, with Parcel D, Parcel E, Lot 23 and a portion of Lot 22. This will require the full registration of alternatives for access to the water, including various options to purchase and rights of way currently under negotiation. This will also require resolution of all matters pertaining to proposed construction on portions of Lot 22. Consideration to be given to all agreements registered on these sites and the appropriate modifications, extensions, releases and replacements. This creation of a single parcel must occur before any construction above grade.

There remain a number of important issues related to site limits that must be resolved:

1. **Northwest Corner**
The design in the northwest corner of the site has changed significantly from the PDP submission as the roof of the building now meets the seawall grade well into Lot 21 (Harbour Green Park) and a portion of the emergency drive aisle is located partially over Road. The result is that the proposed road closure plan, the proposed consolidation plan and the option to purchase and statutory right-of-way plans in the northwest corner must be reconsidered and Council approval of additional road closures will be required. (See condition 1.16)

Even once the consolidated site is created portions of the roof will be constructed on Lot 21 and will require Encroachment Agreements as well portions of the out-board decking and walkways will be constructed on dedicated road and will require Encroachment Agreements (see condition A.2.17(e)).
2. **Southwest Corner**
At the intersection of Waterfront Road and Thurlow lower level there is a turn around which is integral to the new design of Waterfront Road. This turnaround provides trucks an opportunity to return eastbound on Waterfront Road rather than enter the downtown core via the Cordova Ramp, it provides vehicular access to the parking structure under the park transition zone and it provides pedestrian and cyclist access to the seawall connector tunnel. A portion of this turn around is located over Parcel D. At a minimum, we will require a statutory right-of-way over this area; however consideration must be given to acquiring a dedication for road purposes (see Condition A.2.17(f)).

3. **Burrard Street End**
The CDP design submission includes construction over portions of the currently dedicated Burrard Street end and also within the future option-to-purchase and statutory right-of-way area which the City will be acquiring through site creation as the northerly production of Burrard Street. See Condition 1.16.

On May 5, 2005 VCCEP provided a request to the acquire ownership of portions of the dedicated Burrard Street end. Due to the late submission of this request it is still under review.

The walkway/bikeway immediately east of Burrard Street and north of Canada Place is designed to be built on the Unsurveyed Crown Land under the Vancouver Port Authority's (VPA) control (the VPA lands). The public's use of the VPA lands must be secured for the long term (perpetuity) to ensure the public walkway/bikeway is not blocked (see Condition A.2.17(a) & (g)).

4. **Interface of Thurlow Plaza with Harbour Green Park Boundaries**
The design of the interface between the Thurlow Plaza and Harbour Green Park creates a seamless transition which, while desirable from an urban design perspective, will pose challenges with demarking the limits of and the physical maintenance responsibilities for the Park Transition Area. It will be next to impossible to identify on the ground the difference between the (VCCEP) Thurlow Plaza and (Lot 21) Harbour Green Park. Agreements around maintenance responsibilities are sought, possibly as reciprocal encroachment and easement agreements, in conditions A.1.25 and A.1.26.

Off-site Works

VCCEP has existing obligation to complete a number of off-site items required for the development of this site. This infrastructure includes, but is not limited to, the 1000 block Canada Place viaduct, the 1000 block Waterfront Road, water and sewer mains adjacent to the site, street trees, traffic signals and street lighting. Improvements to the existing sections of Waterfront Road (on COV owned Lot 11 and 12) east of the site will also be required to handle the additional traffic volumes and requirements for public access. Currently completed or under construction are Waterfront Road and associated utilities, and the 1000 block Canada Place viaduct. Additional off-site infrastructure works may be recommended by staff after reviewing the final Transportation Study which is outstanding (see Condition A.2.3). Replacement of the existing Burrard Landing Services Agreement is sought as a condition of development to clearly define the required off site servicing and infrastructure improvements (see Condition A.2.16).

Shoreline Walkway Design and Bicycle Networks

As noted previously in the report, the shoreline walkway/bikeway around the perimeter of this site is an extension of the Coal Harbour waterfront walkway system. This link in the system will conclude continuous bike and pedestrian paths from Stanley Park to the heart of downtown including connecting to the downtown network of bicycle lanes. The design considered in this application is conceptually complete; however, there is extensive design development required to refine materials, and layout including careful consideration to clearly define and contain the wheeled portion of the path system [see Condition 1.4(e)]. A slight grade separation is recommended and will reduce the need for vertical separation elements that would interfere with the desirable openness currently shown along the north retail frontage. Portions of the walkway/bikeway have significant grades (up to 5%) and will require further design development, and possibly design features, to help novice wheeled users negotiate the slope safely (see condition 1.4(g)).

The design considered by this application also provides for a tunnel connection from the seawall to Waterfront Road at the 3.5 m elevation. This connection follows the natural desire line for cycling trips to and from the Seabus terminal and Portside Park via a newly designed Waterfront Road, and may be designated as a segment of the Trans Canada Trail.

The Canada Place viaduct will also see bicycle traffic. Ongoing design development of this road is currently underway with VCCEP's consultants and staff. Two possible options for road space allocation

exist for the accommodation of cyclists. Council will ultimately approve the designs for Waterfront Road, Canada Place and the Waterfront Walkway/Bikeway.

Vehicle Parking

Parking provision for the convention centre has been the subject of much study. A "90th percentile event" would define the demand level to be catered to, using a blend of event activities likely to transpire. A need for 420 parking spaces was determined under the design demand conditions. Under the Parking By-law's standards for this location, a minimum of 848 and a maximum of 985 spaces are required/permitted. Staff support a considerable relaxation, concurring with the provision of a minimum of 420 spaces to satisfy the convention/meeting functions of the site; however, additional parking is required for other associated site components, including the on-site retail/service and restaurant. The applicant proposes 442 spaces to be accessed from Canada Place viaduct, which leaves 22 spaces for the non-convention/meeting uses. While the 442 spaces were supported at the Approval-in-Principle stage, Staff recommend that a total of 470 spaces be required now, given the significant increase in retail/service uses now proposed (see Condition A.1.1).

Staff are also concerned about the parking demands that will be created by the future water-based uses to occur outboard of the convention centre building, known as the water based Master Plan uses. Work is underway to develop a City owned parkade to provide some convenient additional parking. This parkade will be accessed off Waterfront Road and is located directly adjacent to the site beneath the Harbour Green Park "transition zone". Approximately 100 spaces will be created to be available for park users and the future water based Master Plan users. Further parking needs will be assessed when the outboard component of the Master Plan is better defined and is seeking development permit.

Loading

The new convention centre will handle goods loading requirements much better than the original at Canada Place by way of their well-designed loading area along the north face of the facility. All trucks will access the site via Waterfront Road. The submission proposes 20 semi-trailer and 4 single-unit truck loading spaces on-site, all at the Waterfront Road level. With restaurant use being added at the western border of the site, additional loading is required; however, in order to avoid unnecessary conflicts with pedestrians and bicyclists using the tunnel link to/from the seawall, it is recommended that loading and servicing for these restaurants be achieved primarily from within the nearby turnaround at the western end of Waterfront Road or, for smaller vehicles, by using the drop-off loop at the north end of the City's transition site parkade (see Condition A.1.4). An approved Loading Management Plan will be required (see Condition A.2.7)

Bicycle Parking

Convention centres do not generally have a large amount of bicycle use among attendees, though employees should be provided for at the usual By-law rate [equivalent to a minimum of 4 percent of the peak shift]. For conventioners, provision equivalent to one percent of the design attendance of 6000 persons should be split equally between long-term Class A and short-term Class B spaces reflecting the varying durations of attendance. Including provisions for retail/restaurant uses, couriers, and visitors to the plaza/seawall, the applicant should provide a total of 49 Class A and 80 Class B bicycle spaces. (Condition A.1.2)

Passenger Spaces

The new convention centre will generate much passenger loading activity from special [charter/tour] buses, taxis, private vehicles, and shuttle vans/buses. While the convention centre has no off-street provisions for passenger loading, technically requiring a complete relaxation, a strategy has been adopted to address the functional needs. The bulk of bus activities will take place at the exhibition floor level in a drop-off lane along the north side of Waterfront Road, where there is curb length for approximately 11 large buses. At the upper Canada Place level, a multi-way is being designed whereby the convention centre will be able to manage its drop-off and pick-up activities in a segregated portion of Canada Place,

with capacity for 3 Class B sized vehicles including a HandiDart, and 11 passenger cars/taxis. While this should be adequate to accommodate 90 percent of events, there could be 20 to 40 days per year during which at peak activity periods the available space would prove deficient. Thus, the applicant has provided a draft Traffic management Plan, which requires further detailing of procedures to deal with the largest types of events that will occur. The convention centre operator will be responsible for managing all aspects of the north side multi-way. An agreement is required to lay out performance terms including provisions for ongoing review and adjustment of the operation and, should it not perform satisfactorily in the opinion of the City Engineer, stipulate provisions for reverting to management by the City. (See Condition A.2.17(e))

Tunnel Link (Transition Zone)

The application shows a tunnel connection from Waterfront Road to the seawall at the 3.5m elevation on Harbour Green Park property. Condition 1.10 details the further design development required for this tunnel link. The 6.0m wide tunnel also provides emergency vehicle access to the convention centre's north side loading bay and an emergency egress route from the main exhibition hall. Because the tunnel is integral to the operations of the convention centre, agreements to secure rights of passage will be required (see Condition A.2.17(k) and A.2.8). The application also shows a restaurant on the west side of the Thurlow Plaza with a loading bay accessed from the tunnel. Engineering Staff do not support unlimited vehicular access to this tunnel (See comments in the loading section above).

The recommendations of Engineering Services are contained in the prior-to conditions noted in Appendix A attached to this report

PARK BOARD

The proposed expansion of the Vancouver Convention Centre will be located immediately east of Harbour Green Park. Once completed, the convention centre will contribute to and be integrated into a seamless public realm with a park landscape that rises up in elevation to become an expansive public plaza at the foot of Thurlow Street, and with Seaside Route pathways that wrap around the water side of the project to connect to the foot of Burrard Street. To visitors, the property lines between convention centre, park, and street right-of-ways will not be visible.

The recent construction of Harbour Green Park has purposely left an area of park unbuilt. This park transition area is awaiting final design, also including a portion of the already finished park that will have to be rebuilt. The design and construction of the park transition area is the obligation of VCCEP. The subject complete development permit application has to address the park design on the adjacent park site even though technically the park design is not part of this application, as the integration of the convention centre expansion into its context cannot be properly evaluated and approved unless the park design is advanced to a greater level of detail and quality.

Harbour Green Park has been designed and built with richness of form, meaning and detail, from intricate paver patterns to elaborate concrete work, from generously varied lighting to sensitive incorporation of public art works into the park landscape. The Park Board expects that the park transition area is conceived and built with the same level of attention and quality, not yet documented in the application drawings. Condition 1.11 thus requires further design development to the east end of Harbour Green Park to the satisfaction of the General Manager Park Board. A preliminary staff review of the application has led to the identification of some design issues, listed in Appendix F.

In replacement of existing park agreements, the development permit should be conditional on legal arrangements securing the quality and delivery of the park, see condition A.1.25.

Also, the permit should be conditional on appropriate legal arrangements allowing for encroachments onto park land for subterranean infrastructure and other project-related requirements. (Condition A.1.26). At present, approximately 3,000 square feet of convention centre roof are shown to encroach on park land. The Park Board expects that maintenance of that roof becomes an obligation of VCCEP. Further, the area under the roof adjacent to the emergency egress of the convention centre should be developed as a storage and garbage holding area for the Park Board.

The Park Board is planning to build a restaurant situated between the proposed grand stair and the tunnel connection from the seawall to Waterfront Road. This restaurant can only be built once the floatplane operators have vacated their current temporary quarters; this is expected to occur at the beginning of 2008. A design consultant is scheduled to prepare a development permit application for this restaurant sometime later this year.

LANDSCAPE

A "living roof" is meant to be an imitation of a naturally occurring ecosystem, in this case, coastal marine grassland. There are many examples of existing green roofs that are successful. The details of roof structure and irrigation technology have been tested and proven in existing green roofs. The unusual factors in this case are the very large size of this roof and the, as yet, unproven performance of the plants over time, in this climate.

The applicants are to be commended on their plan to extensively test different plant combinations before deciding on the final plant list for the roof. [See Design Rationale Section 7.2 (Appendix E: p.20)]. The current list of plants provided in the submission drawings represents all the plants that are being tested. The intent of the roof design, to provide a group of plants that could be found in a coastal grassland, allows for some variation in the final plant list.

It is expected that the roof will evolve over time, as the plants adapt to roof environment and the local climate. The applicants have described a regime of maintenance and review of the roof performance [Design Rationale: Section 7.0 (Appendix E: p.18)]. The application also proposes the goals and performance objectives for the roof be based on current 'best practices' that have been deemed necessary for a Leeds Gold certification.

It is expected that green roof technology will improve and change with time and that the methods used to ensure roof performance will also change. The details of the LEED Gold certification or the BCSLA Landscape Standards will also evolve with time and should not be considered as hard and fast rules.

As a part of this development application, the maintenance and review schedule as described in the applicant's Design Rationale, Section 7.0 should be accepted as the standard required for the upkeep of the roof (recommended condition A.1.14).

Details of the green roof, including large scale cross sections, should be required as part of the Landscape Plan of this development permit. (See condition A.1.15)).

Opportunities for skateboarding should be reduced, while maintaining a high degree of public amenity (See condition A.1.19).

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

There are many challenges presented by a large scale, public proposal. Generally, the challenges fall into categories: adding presence and vitality to the seawall wrapping the outside of the convention centre, legitimizing the lower road as a functioning street, management of the public open spaces and parking security. Staff consider that many of these challenges have been addressed with only a few remaining areas which need to be addressed as noted in the conditions of this report. The Portal from the lower road requires some design development to improve visibility from the seawall. An alcove at the 14200 level should be resolved. The exterior elevators in public open spaces should be glazed to the maximum extent possible for visibility. (See condition A.1.20.)

SOCIAL PLANNING / CULTURAL AFFAIRS

The Thurlow St. Plaza located to the west of the proposed convention centre building is approximately 4 acres (1.6 hectares) in size with excellent views to the north and west while adjoining to the popular Harbour Green Park. There is considerable opportunity for public gathering and events in this space.

The Burrard St. Plaza is immediately to the east of the proposed building and presents an opportunity for a more urban experience adjacent to the downtown.

Since the Preliminary approval in September 2004, it is clear that large events which require staging and technical support are not likely to occur on this plaza due to the load capacity restrictions which limit access by technical support vehicles. Smaller events, and large events which do not require equipment could be accommodated. Because the space is so large and the events will be smaller in nature, it is important to build in as much flexibility as possible for future users. Conditions 1.4(h) and 1.8 seek this flexibility by requiring additional power and water outlets on both the Thurlow Plaza and northeast corner of the site.

The existing Plaza Agreement sets out the applicant's responsibilities for the Plazas, including ensuring public access, maintenance, animation and programming. This Agreement needs review and updating, and this is sought in condition A.1.21.

The Preliminary Public Art Plan submitted met the requirements set out for this stage. For the Detailed Public Art Plan, the public art consultant is currently reviewing all opportunities at the VCCEP site and seeking out those having the most public art potential. Given the scale of the development and its relatively modest budget (\$800,000), staff is particularly interested in finding focused opportunities for the artist to engage the development in the public realm. (See also conditions A.1.22 and A.1.23)

PROCESSING CENTRE - BUILDING

Equivalency Development:

The Chief Building Official's Office have reviewed and accepted the Code Consultant's conceptual approach to the development of building by-law equivalencies related to fire and smoke modeling as well as the exit analysis for the Convention Centre. Conceptual type equivalencies were submitted to the City last year and accepted. Since this date there have not been any further meetings or discussions with the Chief Building Official's office related to these equivalencies. It is important that these discussions continue and the Chief Building Official receive updates with respect to this work through progress meetings. These equivalencies must be finalized prior to the applicant's request for full building permit.

After carrying out numerous meetings with Staff, an Equivalency request related to the design of the parkade floor has been accepted by the Chief Building Official.

See also comments from Processing Centre-Building, Appendix C.

VANCOUVER COASTAL HEALTH AUTHORITY

The VCHA advises the applicant to take note of the following:

- (i) Detailed drawings of food/retail spaces are to be submitted for review by the Environmental Health Division for compliance with Health By-law #6580 and the Food Premises Regulation prior to construction.
- (ii) Adequate kitchen space must be supplied for banquet seating indicated.
- (iii) Floor mounted water and sewer hook-ups are required in the exhibit space at various locations.
- (iv) The garbage storage area is to be designed to minimize nuisances.
- (v) The enclosed parking and loading are to be adequately ventilated to prevent the build-up of noxious gases.

- (vi) All fresh-air intake portals are to be located away from driveways and parking/loading areas in order to prevent vehicle exhaust from being drawn into the building.
- (vii) Detailed drawings of amenity spaces to be submitted for review by the Environmental Health Division for compliance with Health By-law #6580 and the Food Premises Regulation prior to construction.

ENVIRONMENTAL PROTECTION

A hold will be placed on the Occupancy Permit until such time as a revised Certificate of Compliance and/or Conditional Certificate of Compliance have been provided or confirmation from MWLAP that the existing Certificate of Compliance and/or Conditional Certificate of Compliance are valid. See condition B.1.6

FIRE & RESCUE SERVICES

Staff from Fire and Rescue Services reiterate the requirement of providing fire fighter stair access from the loading dock to the above levels, and from the "dead end" waterfront walkway, as discussed in condition 1.18.

NOTIFICATION AND PUBLIC PROCESS

Two site signs were revised and reinstalled on the site on April 8, 2005. On that day, letters were mailed to 1,463 neighbours in which details about the Complete Development application were provided and comments sought.

The applicant held three public meetings since the September, 2004 Preliminary approval. Two meetings were held in February, at which the applicant discussed with attendees the upcoming call for Expressions of Interest for the water and land-based developments that are not part of the Convention Centre application. VCCEP also hosted an Open House, on April 18, 2005, to provide the public with an opportunity to review the model and other materials submitted for the Complete Development Application. Twenty six people signed in.

Two comments were submitted at the Open House. One suggested that the plants and trees in the completed Harbour Green Park be labeled. The other comment pertained to the final location of the float plane terminal, and suggested that the planes be sited as far east on the water lot as possible.

One letter was received during the response period. The writer was critical of the project's design, believing a more spectacular building should occupy the site. The writer also questioned the viability of a building with such a large capacity.

Staff Response

The comment regarding labeling of plants in Harbour Green Park has been brought to the attention of the Park Board, who has jurisdiction over such matters. The siting of the permanent float plane facility is not part of this application. The comment regarding the building's design is noted.

DEVELOPMENT PERMIT STAFF COMMITTEE COMMENTS:

Staff Committee considered this application on two occasions and notes several important items.

The Committee notes that an extensive amount of staff and applicant time has been spent since the preliminary approval to advance a number of design and technical issues. Despite that, a number of preliminary prior-to conditions remain unresolved at this complete application stage, and as such are restated in this report.

Staff Committee draws particular attention to the minimal progress made advancing work on legal agreements, and believes this work will become critical in the months ahead in order to advance design work, specifically in the areas of Thurlow Plaza and the Harbour Green Park transition zone.

With respect to the lower level pedestrian environment, the Committee acknowledges the challenge in completing final design development of this space prior to full understanding of future water-based developments. However, it is critical that these processes be well coordinated to ensure the land and water-based developments and their associated public spaces read as one seamless entity.

Finally, the Committee is especially committed to final design resolution of Thurlow and Burrard Plazas. These spaces are crucial elements of this project and indeed of the completion of the Coal Harbour waterfront area. The Committee believes that implementation of the recommended conditions will result in high quality public spaces that are well designed for a wide range of uses and users.

B. Boons
Chair, Development Permit Staff Committee

R. R. Segal, MAIBC
Senior Development Planner

M. Kemble
Development Planner
Development Planner

B. Mah
Project Coordinator

Project Facilitator: V. Potter

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DEVELOPMENT PERMIT STAFF COMMITTEE RECOMMENDATIONS

The following is a list of conditions that must also be met prior to issuance of the Development Permit.

A.1 Standard Conditions

- A.1.1 provide 22 additional parking spaces and details of all parking spaces to comply with the applicable provisions of the Parking By-law, having particular regard to space sizes, manoeuvring, height clearances, curbs, etc., including the identification of all small car and disability spaces;

Note to Applicant: The Director of Planning, in consultation with the General Manager of Engineering Services, supports the minimum required number of 470 parking spaces (see Note on Parking under Technical Analysis table, p. 8). An off-site parking arrangement, to the satisfaction of the Director of Planning, General Manager of Engineering Services and Director of Legal Services, may be achieved to satisfy the minimum parking requirement. The parking row along grid line M does not scale as full-sized spaces, leading to an excessive small car ratio. Spaces located next to walls and structure require extra width. Column sizes, spacing and encroachment into parking spaces may be permitted, subject to compliance with the City Engineer's guidelines. Annotate on plans stating: "The design of the parking structure regarding safety and security measures shall be in accordance with Section 4.13 of the Parking By-law."

- A.1.2 provide a minimum of 49 Class A and 80 Class B bicycle spaces;

Note to Applicant: Although a bicycle parking area has been designated on floor plan elevation 14200/16500, a layout of Class A bicycle spaces with dimensions and manoeuvring aisles is required to determine the number of spaces provided. Annotate on plans stating: "The design of the bicycle spaces (including bicycle rooms, compounds, lockers and/or racks) regarding safety and security measures shall be in accordance with the relevant provisions of Section 6 of the Parking By-law."

- A.1.3 provide a minimum of 34 clothing lockers for each gender in compliance with Section 6.5 of the Parking By-law;

Note to Applicant: When reviewing the building application, under Article 3.7.4.10 of the Building By-law, shower and other change facilities are required when the number of required Class A bicycle spaces exceeds 3.

- A.1.4 identify types of loading spaces, add dimensions and manoeuvring aisles on floor plan elevation 3500, and supplement the on-site loading by providing the maximum achievable additional loading spaces within the westerly turnaround of Waterfront Road;

- A.1.5 provide on Canada Place Viaduct a minimum of seven Class A, one Class B and two Class C passenger spaces;

Note to Applicant: Refer to Sections 7.3 (Class A), 7.4 (Class B) and 7.5 (Class C) of the Parking By-law for space dimensions, manoeuvring aisle and vertical clearance. Refer to Section 7.7 of the Parking By-law for signage and location of these spaces. A proposal was received on May 2, 2005 indicating 11 Class A and 3 Class B spaces on Canada Place (i.e., off-site). The General Manager of Engineering Services is prepared to support a relaxation of all on-site passenger spaces, provided the off-site passenger spaces are secured and are to the satisfaction of the General Manager of Engineering Services. See also condition A.2.17(e).

- A.1.6 clarify and identify all major uses of areas and rooms, other unidentified structures or symbols and all balcony/terrace areas;

Note to Applicant: Uses should be consistent with the uses defined and listed (i.e., convention & exhibition centre, exhibition hall and retail in conjunction with convention & exhibition centre) in the CD-1 By-law. Clarify all voids, open to below spaces, open exterior spaces, abbreviations, specifications, grade/floor elevations, stair directions and access into rooms.

- A.1.7 show property lines, dimensions, setbacks and extent of project (work) on all floor plans;

Note to Applicant: Dimensions on FSR overlays must be shown on all floor plans, including floor plans with attached FSR overlays. Add company name (Butler Sundvick & Associates) to the sealed and signed FSR overlays. Clarify extent of exhibition hall use on FSR overlays. Add "(under separate application)" to all future structures and/or work, including portions of building beyond development site. Portions of building beyond the development site (property lines) will require separate development applications where required. Clarify existing shoreline and all proposed alterations to it.

- A.1.8 provide details of living wall/roof, canopies, lighting feature structures and light structures;

- A.1.9 clarify stair/elevator/walkway over water on north side, escalator on Canada Place, hotel connection on floor plan elevation 14200/16500, and harbour concourse on floor plan elevation 9000/10000;

- A.1.10 clarify floor and roof elevations on building elevations, and inconsistent building sections;

- A.1.11 provide statistics and by-law requirements under Project Data on sheet CDP001;

- A.1.12 design development to the location and acoustic performance of mechanical intake/exhaust vents throughout the development so as not to compromise the usability, amenity and visual quality of the Public Realm;

Standard Landscape Conditions

- A.1.13 provide opportunities for interpretive displays or programs about the green roof;

- A.1.14 provide a notation on the development permit drawings, stating that construction and planting of the "living" roof system, using the coastal grassland format as a model, the maintenance and periodic review schedule will be as described in CDP Landscape Submission, Design Rationale; section 7.0;

Note to Applicant: Provide a notation on the plant List for the Roof, "Final Plant List to be determined through Test Plots before Building Permit Issuance";

- A.1.15 provide detailed typical large scale cross sections showing the roof layers, including any relevant details of drainage, impermeable layers, soil depth, etc.;

- A.1.16 provide a large scale cross section of the walkway/bikeway in the north west corner of the site showing the pedestrian and bicycle paths, the proposed seating bench facing the water and the planting strip facing the bikeway;

Note to Applicant: The provision of a low curb at the outside edge of the bikeway will prevent cyclists from accidentally entering the planting beds. Consideration should be given to providing a railing on the inner or outer edge of any path over 3% grade to allow novice in-line skaters to safely negotiate the downward slope of the bikeway.

- A.1.17 confirmation that seating is provided at the back of the Canada Place sidewalk parallel to the drop-off area;
- A.1.18 confirm the Trans Canada Trail route(s) through the site, interim and permanent if applicable, and provide appropriate acknowledgement of the Trail within and/or abutting the site.
- A.1.19 design development to reduce opportunities for skateboarding while maintaining a high degree of public amenity;

Note to Applicant: Provide details of planters, seating edges and handrails.

Crime Prevention Through Environmental Design (CPTED)

- A.1.20 design development to reduce opportunities for mischief in alcoves;

Note to Applicant: The exit alcove on the 14200 level on the west corner of the convention centre should be made flush with the retail façade.

Social Planning/Housing Centre/Cultural Affairs

- A.1.21 arrangements for modification to or replacement of the existing Plaza Agreement, to the satisfaction of the Director of Legal Services, Office of Cultural Affairs and Director of Planning;

Note to Applicant: The Agreement will include the right of access to all areas intended for public use (walkway/bikeway, Thurlow and Burrard Plazas, plaza restaurant roof, lower waterfront walkway, etc.) and arrangements for community use of the plazas, establishing a minimum number of hours per week that the Thurlow Plaza will be made available at no cost to Vancouver-based non-profit community, cultural and recreational organizations for community programming and animation. Community use to include access at no cost to services (power, water, etc.) and support areas (public washrooms, loading, garbage).

- A.1.22 arrangements for modification to or replacement of the existing Public Art Agreement, satisfactory to the Directors of Legal Services and the Office of Cultural Affairs;

Note to Applicant: The existing Public Art agreement for Coal Harbour is outdated. A legal agreement specific to the proposed Vancouver Trade and Convention Centre development is required.

- A.1.23 secure the approval of the Managing Director, Office of Cultural Services, of a Detailed Public Art Plan setting out the public art program aims, public art sites, artist terms of reference, project budget, implementation plan, and schedule.

Note to applicant: The applicants are encouraged to give prominence to the location of public art and maximize visual and public interest. In addition, the Detailed Plan should consider the Thurlow and Burrard Street plazas and the walkway/bikeway as potential public art sites.

Park Board

- A.1.25 legal arrangements in replacement of the existing park agreements securing the delivery of the park, to the satisfaction of the General Manager Park Board, the Director of Legal Services and the General Manager of Engineering Services;
- A.1.26 legal arrangements for allowing project-related encroachments onto park land, to the satisfaction of the General Manager Park Board, the Director of Legal Services and General Manager of Engineering Services. (See also Note to Applicant (d), condition A.2.17)

A.2 Standard Engineering Conditions

- A.2.1 provide a construction phasing plan that addresses changes resulting from items including, but not limited to, reorientation of site access; commissioning of new street works, structures or parks;
- A.2.2 arrangements shall be made, to the satisfaction of the General Manager of Engineering Services, for street trees;

Note to Applicant: Street trees must conform to standard spacing and clearance. Tree species must be approved by the Park Board. Before purchase of trees, final tree locations are to be determined, to the satisfaction of the General Manager of Engineering Services. Also, a separate application to Engineering Services is required for street trees, tree grates and any other non-standard treatment of City sidewalks.

Transportation

- A.2.3 provide a revised Transportation Study prepared by a Transportation Engineering Consultant, to the satisfaction of the General Manager of Engineering Services;

Note to Applicant: A draft report was submitted in 2003 and comments were provided. A final draft is expected and the review of this final submission may lead to further street and/or signal works, at the applicant's cost, as a requirement of approval;

- A.2.4 provide:
- plans for signage, way finding and info booths to occur at the Canada Place frontage to encourage the use of the lay-by as the front door drop off location, to the satisfaction of the Director of Planning and General Manager of Engineering Services;
 - a minimum of 6 disability spaces in close proximity to elevators PE1 and PE2, as the disability spaces currently are shown too far removed from public elevators; and
 - "Lot Full" advisory signage, linked with internal tracking of occupancy levels, at a visible location on the vehicular approach to the on-site parking;
- A.2.5 submit approved plans and construct temporary public access, to the satisfaction of the General Manager of Engineering Services, to the seawall from the City street network to replace the connection that had been provided by the now demolished Burrard downramp;
- A.2.6 provide clarification on:
- details on NE corner turnaround at the 3.5m level;
 - the service route for deliveries to the easterly retail units on level 14200;
 - the apparent conflict with elevator PE05 with loading space #7 on level 3500; and
 - the service route between elevators FE01, FE02, and SE02 and retail units on level 9000;

- A.2.7 provide an approved loading management plan for the proposed restaurant on the west side of the building;
Note to Applicant: Engineering staff do not support unlimited vehicular access into the lower level tunnel due to primary function as emergency access and egress and as a bike and pedestrian connection; physical controls are likely to be required to be installed, at the applicant's cost, as part of this plan;
- A.2.8 design development of tunnel details around emergency egress doorways to ensure that egress is never blocked;
- A.2.9 design development of the northerly retail with respect to the entrance and egress points and their interaction with the walkway;
- A.2.10 confirm availability of and access to loading facilities for future water-based uses;

Infrastructure and Site Servicing

- A.2.11 update plans to show approved road designs for Canada Place viaduct and Waterfront Road, including turnarounds;
- A.2.12 prepare and provide demolition plans for those portions (specifically the projecting viewing platforms) of the existing Canada Place and Burrard Viaducts;
Note to Applicant: This demolition is to allow for the widening of the entire walkway north side of Canada Place viaduct;
- A.2.13 relocate Gas Meter to an area off of City Street and on to the proponent's property, and provide details of the gas meter;
Note to Applicant: An approvable location was shown on the approved DB 419322.
- A.2.14 update plans to show provision for opportunity for servicing future water based uses;
- A.2.15 provide a consultants study of air quality for Waterfront Road;
Note to Applicant: this should be modeled for future build out of all adjacent parcels;

Legal Agreements

- A.2.16 replace existing Services Agreement and Shoreline Agreement
Note to Applicant: An updated Services Agreement will include amongst other things project related works contained in Lots 11 and 12, Plan LMP20247, and Waterfront Road exhaust fans if deemed required by the review of the consultants study by the General Manager of Engineering Services (see also condition A.2.15 above);
- A.2.17 arrangements shall be made, to the satisfaction of the Director of Legal Services and General Manager of Engineering Services, for completion of the following:
- a) modification to the following agreements: Sidewalk Right of Way for additional width on viaduct level (BT380873 - BT380880), and Burrard Street End Blanket SRW (BT380884 - BT380887) to accurately reflect the current building design;
Note to Applicant: This includes perpetual uninterrupted rights of public passage at approximate 3.5m and 13.0m elevations.

- b) relocation of the Burrard Combined Sewer Overflow from dedicated street to land owned by the City (Lots 11 and 12, Plan LMP20247) and the VPA;
- c) public access rights, maintenance, restoration and reconstruction of those sections of waterfront walkway supported by a structure integral with this development;
- d) project related encroachments onto Road;

Note to Applicant: this includes portions of waterfront walkway at the northwest and southeast corners of the site which are supported by a structure integral to the development and portions of building to be constructed on Burrard Street noting that an application has been submitted to acquire said portions;

e) VCCEP's Ltd's rights to use, maintain and enforce those sections of Canada Place viaduct that are required to meet VCCEP's passenger loading requirements;

f) dedication as road or rights of way over Parcel D and E, Plan BCP1698 for those portions of Canada Place viaduct that extend into and across, and for those areas at 3.5m elevation that are integral to the roadway system for Waterfront Road;

g) construction, maintenance, reconstruction and access across Burrard Street and unsurveyed Bed and Foreshore of Burrard Inlet for the plaza and sidewalk connections at the approximate 13.0m elevation, the Harbour Concourse at the approximate 9.5m elevation, and the vehicular turnaround and related dock structure at the approximate 3.5m elevation;

Note to Applicant: This includes perpetual uninterrupted rights of public passage at approximate 3.5m and 13.0m elevations.

h) Easement of Support for Waterfront Road required due to the sheet pile wall proposed for installation of unsurveyed Bed and Foreshore of Burrard Inlet adjacent to Lot 11, Plan LMP20247;

i) easement for anchor rod installation securing and supporting the sheet pile wall proposed for installation of unsurveyed Bed and Foreshore of Burrard Inlet adjacent to Lot 11, LMP20247;

Note to Applicant: These anchor rods will run across unsurveyed Bed and Foreshore of Burrard Inlet and anchor in Lot 11, Plan LMP20247.

j) to permit delivery and storage of fuel across and within VCCEP's site;

k) to secure use of tunnel from Waterfront Road to Road (seawall) to access westerly ramp to loading dock for emergency vehicle access;

l) out of grade drainage agreements for those parties impacted by grading proposed for Waterfront Road; and

m) public passage, construction, maintenance and demolition of the "Future connector to Hotel" over lower-level road. Should agreement pertaining to this not be secured it will have to be deleted from plans.

A.3 Standard Vancouver Coastal Health Authority Conditions

- A.3.1 annotate on plans stating: "Acoustical measures will be incorporated into the final design and construction, based on the consultant's recommendations as concurred with or amended by the Medical Health Officer (Senior Environmental Health Officer)."; and

- A.3.2 annotate on plans stating: "Mechanical equipment (ventilators, generators, compactors and exhaust systems) will be designed and located to minimize the noise impact on the neighbourhood and to comply with Noise By-law #6555."

B.1 Standard Notes to Applicant

- B.1.1 The applicant is advised to note the comments of the Processing Centre-Building, Vancouver Coastal Health Authority and Fire and Rescue Services Departments contained in the Staff Committee Report dated June 8, 2005. Further, confirmation that these comments have been acknowledged and understood, is required to be submitted in writing as part of the "prior-to" response.
- B.1.2 It should be noted that if conditions 1.0 and 2.0 have not been complied with on or before **December 20, 2005**, this Development Application shall be deemed to be refused, unless the date for compliance is first extended by the Director of Planning.
- B.1.3 This approval is subject to any change in the Official Development Plan and the Zoning and Development By-law or other regulations affecting the development that occurs before the permit is issuable. No permit that contravenes the by-law or regulations can be issued.
- B.1.4 Revised drawings will not be accepted unless they fulfill all conditions noted above. Further, written explanation describing point-by-point how conditions have been met, must accompany revised drawings. An appointment should be made with the Project Facilitator when the revised drawings are ready for submission.
- B.1.5 A new development application will be required for any significant changes other than those required by the above-noted conditions.
- B.1.6 The Occupancy Permit will be held pending issuance of a Certificate of Compliance from the Ministry of Water, Land and Air Protection for this site.

B.2 Conditions of Development Permit

- B.2.1 All approved off-street vehicle parking, loading and unloading spaces, and bicycle parking spaces shall be provided in accordance with the relevant requirements of the Parking By-law within 60 days of the date of issuance of any required occupancy permit or any use or occupancy of the proposed development not requiring an occupancy permit and thereafter permanently maintained in good condition.
- B.2.2 All approved passenger spaces shall be provided in accordance with the relevant requirements of the Parking By-law and thereafter permanently maintained.
- B.2.3 All landscaping and treatment of the open portions of the site shall be completed in accordance with the approved drawings within six (6) months of the date of issuance of any required occupancy permit or any use or occupancy of the proposed development not requiring an occupancy permit and thereafter permanently maintained in good condition.
- B.2.4 All approved street trees shall be planted in accordance with the approved drawings within six (6) months of the date of issuance of any required occupancy permit, or any use or occupancy of the proposed development not requiring an occupancy permit, and thereafter permanently maintained in good condition.
- B.2.5 No exposed ductwork shall be permitted on the roof or on the exterior face of the building without first receiving approval of the Director of Planning.

B.2.6 Any phasing of the development, other than that specifically approved, that results in an interruption of continuous construction to completion of the development, will require application to amend the development to determine the interim treatment of the incomplete portions of the site to ensure that the phased development functions are as set out in the approved plans, all to the satisfaction of the Director of Planning.

Processing Centre - Building Comments

Processing Centre - Building comments

The following comments are based on a meeting May 5, 2005 with the code consultant Glenn Gibson of LMDG and the Certified Professional, Andrew Harmsworth of GHL relative to the architectural drawings prepared by Downs / Archambault, Musson Cattell Mackey, and LMN architects dated March 18, 2005 which have been submitted for the Complete Development Application, DE408490. This is a cursory review in order to identify issues which do not comply with Vancouver Building by-law #8057.

A number of equivalencies are being prepared to address issues such as exiting, occupant loads (including not doubling required exit capacity for license beverage establishments), some combustible construction, reduced drainage slopes in the parkade, interconnected floors, unrated structural steel beams in exhibition halls, protected glazing in fire separations by sprinkler water curtains, deletion of CO vestibules by the loading docks, using overhead doors as part of the egress/exiting system, protection by water curtain for discharge of emerg. gen. room, separation of building at Harbour Link (link to Canada Place), exiting through a lobby, and egress from the Utilidor corridor (elevation 0025).

1/ Clarify Stair 3's discharge route (too many doors to go through to get to the exterior, and bottom venting for smoke measures for the exit stairs is questionable).

2/ Indicate the locations of the exhaust and air intake provided for the kitchen (e.g., exhaust discharge is required to be > 10 ft from combustibles) ... for all the restaurant locations (e.g., Thurlow Plaza, water front, etc.)

3/ Access to egress in two different directions from the future Marina and Float Planes is required or adequate exit exposure protection between the convention centre and the Marina and Float Plane walkways. The connections for the access to egresses should be dotted in so that they can function relative to the Convention Centre layout.

4/ For fire fighters' access to the 3200 elev. floor level, the Sentence 3.2.6.5.(5) link between the fire fighters' elevator connected to the fire fighter's access entrance (SE corner) and the fire fighters' elevator in the NE corner should be in a protected corridor alike to Sentence 3.2.6.5. or be otherwise acceptable to the Fire Dept.

5/ Regarding the equivalency for occupant loads, the capacity for the Fire Dept's occupant load certificates should be coordinated with the Fire Dept.

6/ Additional water closets, wash basins, showers and grooming stations are required when > 3 Class A bicycle spaces are required (refer to Article 3.7.4.10).

7/ Exits should be spaced max. every 60 m along the perimeter - e.g., north wall.

8/ The Utilidor Corridor (Elev. 0025) to comply with the flood plain requirements (A-1.1.3.2).

9/ A stair connection from the 3.5 meter northwest walkway is required to make the walkway not "dead ended". The application may delete these stairs at a future point when they can be replaced by another design, such as one integrating the outboard development.

Fire and Rescue Services Comments

Fire and Rescue Services staff reviewed the plans dated March 18, 2005, and offer the following preliminary comments. Further comments may be forthcoming when more detailed drawings are submitted for review.

- 1) There have been numerous meetings with Code Consultant and Architectural team to review Fire Department access. Because of the size of the floor plate of this single building (6 football fields), it will be extremely difficult, if not impossible to access this building from a single entry point. The Deputy Chiefs of Operations have been involved with the review of this very COMPLEX building and have provided invaluable input as to Fire Department response and operational procedures.
- 2) Fire Department response @ Canada Place Way (Main Fire Dept Command Centre). Secondary Fire Department response @ Waterfront Road. The service drive (for tractor trailers) and loading dock area is to be used as an 'internal' fire dept access route. This access route complies with 3.2.5.6. VBBL except for height in the ramp area to the west. VFRS have agreed to the 'reduced' height in this area of the access route. Note: At the request of VFRS, the access route is continuous back to Waterfront Road. This will ensure that the Fire Department could access the rear of the building from 2 directions/not have to turnaround large fire vehicles.
- 3) At the loading dock area, fire dept connections are to be provided. Provide water pressure and volumes available. In addition, a standpipe manifold for multiple hose connections is to be provided for fire dept use.
- 4) 2 stage Fire Alarm System is to be reviewed with Electrical Department & Fire Department.
- 5) It was intended that vertical Fire Department access be provided at the rear of the building from the 'internal' fire department access route, i.e. Fire Fighter's Elevator and stair access from the waterside of building. In addition, any and all activities at water's edge are to be provided with access for fire department. This access would have to be provided at this time to ensure that any future proposal would meet fire department access.
- 6) Review of Occupant Load for ALL assembly areas.
- 7) Review kitchen exhaust systems.