EXECUTIVE SUMMARY

● Proposal: Interior and exterior alterations to restore, retain, and designate the existing 11-storey office building (Old Stock Exchange) as Heritage “A” and construct a 31-storey addition, thereby creating a 31-storey mixed-use commercial building containing General Office and Retail Store uses and 7-levels of underground parking accessed from the lane north of West Pender Street, subject to Council’s enactment of the CD-1 By-Law and approval of Form of Development.

See Appendix A Standard Conditions
   Appendix B Standard Notes and Conditions of Development Permit
   Appendix C Processing Centre - Building comments
   Appendix D Plans and Elevations
   Appendix E Applicant’s Design Rationale
   Appendix F Proximity and Privacy Study

● Issues:
  1. Proximity and Privacy interface with Jameson House

● Urban Design Panel: SUPPORT (5-1)
DEVELOPMENT PERMIT STAFF COMMITTEE RECOMMENDATION: APPROVE

THAT the Board APPROVE Development Application No. DE416842 submitted, the plans and information forming a part thereof, thereby permitting interior and exterior alterations to restore, retain, and designate the existing 11-storey office building (Old Stock Exchange) as Heritage “A” and construct a 31-storey addition, thereby creating a 31-storey mixed-use commercial building containing General Office and Retail Store uses and 7-levels of underground parking accessed from the lane north of West Pender Street, subject to Council's enactment of the CD-1 By-Law and approval of Form of Development.

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:

1.1 design development to further reduce the direct sight lines between the proposed and the existing Jameson Building through the introduction of an increasing amount of translucent glazing, generally as described within illustration A (page 9), or redirection the vertical mullions to the west, parallel to the lane, generally as described within illustration B (page 9).

Note to applicant: Other measures that achieve a similar amount of reduction in direct sightlines can also be considered.

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.
**Technical Analysis:**

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<th>REQUIRED</th>
<th>EXISTING</th>
<th>PROPOSED</th>
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1 **Note on FSR and Floor Area:** Floor areas shown are from the applicant’s statistics table. However, areas on the applicant’s FSR overlays and statistics table do not match, Standard Condition A.1.1 seeks clarification.

2 **Note on Height:** “View Shadow” means an existing building that penetrates into a view corridor approved by Council and blocks a portion of that view across an area extending from the view point origin to the mountains. The draft CD-1 By-law permits an increase in building height from 348.0 ft. to a maximum of 424.0 ft. if the building is located entirely within a view shadow and does not further block a Council approved view corridor. See also comment on pg. 10, Rezoning Condition 6.

3 **Note on Parking:** Parking requirement is based on the area of the addition. As a Heritage designated building, there is no parking requirement for the old Stock Exchange building portion. Since there is no dwelling use in the proposed development, shared vehicles at a ratio of 1:5 cannot be used to meet the minimum parking requirement. By double-counting the required 13 disability parking spaces, as permitted by the Parking By-law, the proposal would still have a shortfall of 47 parking spaces. Payment-in-lieu is an option to make up the shortfall in this area of the city. Staff support an increase of the small car ratio from 25 percent to 40 percent for office use, as permitted by Section 4.1.8 - Number of Small Car Spaces, of the Parking By-law. Parking issues are addressed by Standard Conditions A.1.8 and A.1.9.
4 Note on Loading: Loading requirement is based on the area of the addition, as per Section 3 of the Council Report dated September 4, 2012. The proposal is deficient in the number of Class B loading spaces, and Standard Condition A.1.11 seeks compliance.

5 Note on Bicycle Parking: The proposal is deficient in the number of Class B bicycle spaces, and Standard Condition A.1.14 seeks compliance.
**Legal Description**
- Lot A  Lots 11, 12 & 13
- Block 21  Block 21
- District Lot 541  District Lot 541
- Plan 20419  Plan 210

**History of Application:**
- 13 05 13  Complete DE submitted
- 13 07 03  Urban Design Panel
- 13 07 17  Development Permit Staff Committee

**Site:** The site is located at the northwest corner of West Pender Street and Howe Street.

**Context:** Buildings immediately adjacent to the site include along West Pender Street, to the west of the site, a 2-storey retail building (Chapman’s) and an 8-storey office building. Across the lane to the north at the corner of Hornby and Hastings Streets is the 10-storey Heritage ‘A’ Credit Foncier office building, next to the 2-storey Heritage ‘B’ Chamber of Mines. Both buildings were designated as part of the rezoning approval process for the recently completed Jameson Tower. The Jameson building, with an FSR of 23.11 contains office uses up to level 15 with residential uses through level 16 through 37 with an overall height of 376 ft. (115.6 m). A 10-storey office building, 808 West Hastings, located at the corner of Hastings and Howe Streets completes the block frontage sharing the lane with the proposal.

(a) Jameson House - 37-storey commercial and residential building
(b) Chapman’s - 2-storey commercial building
(c) 889 West Pender - 8-storey commercial building
(d) Credit Foncier - 10-storey commercial building - Heritage ‘A’
(e) 808 West Hastings - 10-storey commercial building

**Legend**
- North: ↑
- Scale: 1 ft = 1 in
- Site: 475 Howe Street
- Date: June 12, 2013
- DD Zoning District
- Zoning Boundary
- City of Vancouver Planning and Development Services
● **Background:** The CD-1 By-law for this site, along with the form of development was approved by Council, subject to a series of conditions, following a Public Hearing in November 13th, 2012. The development application was reviewed by the Urban Design Panel on July 3rd, 2013. Staff have met with the applicant team to review progress on the responses to the rezoning conditions. In addition, prior to making the development application, a special meeting was held April 24th, 2013 where the applicant presented their proposal’s response to the rezoning conditions regarding proximity and privacy interface with residents of the Jameson House Building.

● **Response to CD-1 By-law (pending):**

**Use and Density:** The proposed office use and density generally conforms to the provision of the CD-1 By-law, subject to Standard Conditions A.1.1 through A.2.10.

**Height:** The CD-1 By-law allows for a height of 348 ft. with an additional maximum height provision up to 424 ft. if the building is located within a view shadow. The proposed height of 375.5 ft. utilizes the view shadow generated by the Jameson House which was built as an incursion through the Queen Elizabeth view corridor to a height of 376 ft. Staff support the proposal increase in height as it falls within this view shadow.

● **Response to Rezoning Conditions of Approval:**

**Proximity and Privacy:** There are two significant rezoning form of development conditions related to the proximity and privacy interface between the proposed development and the existing Jameson House building.

**Rezoning Condition 4.**

*Design development to northwest corner to improve the proximity between the proposed office tower and the existing residential units in Jameson House across the lane.*

*Note to Applicant: This can be achieved by modifying the northwest corner of the office building for the portion of the tower that overlaps with Jameson House, with the remaining tower floor-plate providing a 1'-6” setback as illustrated within Appendix E of the Rezoning Report, page 12. Floor area can be reallocated to other areas of the building provided that it does not further compromise Jameson House or increase the amount of building bulk over the former Stock Exchange Building. See also condition 7.*
Recommended design development to the form of development to address proximity and view impacts to the Jameson House compared to proposed building outline

Staff assessment: The proposal has provided a greater degree of separation than described in the rezoning condition, achieving an dimensional increase from the recommended 60 ft. to 72 ft. and a modest increase at the lane to 32 ft. This also achieves greater separation along the diagonal frontage between the Exchange building and the Jameson House, as illustrated below.

Given the proposal has exceed the distance requirements, this condition has been satisfied.

Rezoning Condition 5.

Design Development to address privacy impacts by eliminating direct sight lines from distances of 60 ft. or closer between the proposed office building and the existing residential units in the Jameson House.

Note to Applicant: These privacy measures between the two occupancies must be implemented as a permanent component externally integrated with the glazing treatment.

Staff assessment: The building design is composed with a vertical mullion expression that, within the area between the Exchange and the Jameson House, utilizes this architectural feature as a system to address the privacy interface between the two buildings. This is achieved by a combination of a deeper mullion (26”) and reducing the mullion grid spacing to approximately 3’-6” along this vertical face to further limit the view aperture of the glazing.

The applicant has provided a substantial and comprehensive visual assessment of the views from the Exchange Building from locations five feet back from the glazing towards the Jameson Building. The analysis utilized a measurement point five feet back from the glazing as a reasonable location, on average, that an office occupant might be located from the window. Staff also recognized that within the analysis, the amount of open view aperture would increase as one moves closer to the window but that the amount of view aperture would decrease as one moves farther away from the glazing. The assessment does confirm that a significant decrease in amount of the view between the Exchange and the Jameson Building has been achieved. See Appendix F, pg. 1-8.

However, concerns remain from the residents of the Jameson, that despite the notable measures proposed by the applicant, direct views of the Jameson would still remain. The diagram below
indicates the distance from the glazing an office occupant would have to be located to observe the full width of the primary living spaces (living rooms) of the Jameson. The distance ranges between 3” to 4’-4” from the window plane. A location beyond 53 ft. of separation would put the occupant outside of the glazing line to be able to see the full width of the Jameson.

However, the condition of rezoning has placed a performance requirement to eliminate direct sight lines from distances of 60 ft. or closer between the two buildings. Staff acknowledge that there is a significant challenge with achieving the performance requirement of eliminating direct sight lines for an office tenancy without resulting in a continuous blank wall condition. The Urban Design Panel commented that the proponent’s effort and design response to address the privacy interface was a significant, well-considered solution and that the applicant had substantially addressed the issue.

Nevertheless, staff believe that in order to substantially meet the requirements of the rezoning condition, further measures need to be provided. To better address the substantive performance aspect of the rezoning condition, staff are recommending further design development to reduce the direct sight lines between the two buildings. Staff believe this could be achieved along the angled northwest corner through the introduction of translucent glazing for portions of the glazing panel (Illustration A below) or with redirecting the vertical mullions to the west, parallel to the lane (Illustration B below). See Condition 1.1.
Illustration A: Partial translucent glazing for windows to reduce limit extent of primary view aperture towards Jameson House based on occupant location 3 ft. from window plane.

Illustration B: Redirection of Mullions illustrates reorientation of primary view and reduction in view aperture towards Jameson House based on occupant location 3 ft. from window plane.
Rezoning Condition 6.

Design development to minimize the lighting impacts of the office occupancy on the existing residential units in Jameson House.

Note to applicant: In addition to measures that significantly reduce direct sightlines between the two occupancies, building features that reduce light impacts from the office occupancy, particularly during late-night hours should be implemented.

Staff assessment: The applicant proposes to utilize a daylight harvesting system that will allow the recessed LED light fixtures to adjust their light output according to the amount of available daylight in the space, minimizing light spillage and contributing to the energy efficiency of the building. In addition occupancy sensors light fixtures are provided throughout which will allow most floors to be remain largely dark at night when unoccupied. With the recommended measures (Condition 1.1) to reduce sight lines as noted above staff are satisfied that that this condition has been addressed.

Architectural Character: There were several conditions related to the architectural character and contribution to the city skyline as it was anticipated that the proposal would pursue additional height through the 9.2.2 Cambie view cone utilizing the view shadow of the Fairmont Pacific Rim beyond to an overall height of 424 ft. and the lower 3.2.3 Queen Elizabeth view corridor of 350 ft. taking advantage of the view shadow of the Jameson House tower, which had incurred into the Queen Elizabeth View corridor to a height of 376 ft.

The proposal has been revised to stay wholly within the view shadow of the Jameson House, with an overall height of 375.5 ft.

Rezoning Condition 1.

Design development to the upper portion of the building to further refine and enhance its architectural contribution to the city skyline and the public view corridor.

Note to applicant: The proposed building elements, including the architectural screen must be contained within the view shadow of the Fairmont Pacific Rim Building. Design development should further refine and architecturally integrate the rooftop mechanical penthouse, elevator override service volumes, other service equipment including window washing infrastructure and/or photovoltaic panels, if proposed, to minimize any incursion beyond the view shadow.

Staff Assessment: The revised building design presents a much finer grain than what was anticipated at the rezoning stage. The composition of materials and building expression demonstrates a sophisticated disciplined and design restraint resulting in an elegant building that provides both deference to the original Stock Exchange Building and the Jameson House across the lane. Overall, the Urban Design Panel supported the simple approach to skyline aspect of the building that allows for the mullions and glazing to gently form a crown to the building.

This condition has been satisfied.

Rezoning Condition 2.

Design development to further refine the detailing of the tower façade to fully demonstrate the design intent of the passive design features (solar shade fins) in combination with the mullion details, glass color and transparency, fritting and expected energy performance.

Note to applicant: Superior detailing and execution of the façade details are critical to achieving the proposed building aesthetic. Detailed sections and elevations demonstrating high quality
material treatments are required. Glass samples along with full performance specifications are also required.

Staff assessment: Integrated into the building's architectural concept of vertical aluminium mullions, as part of the triple glazing system that utilizing crystal grey low-e glass, is an applied graduated white frit pattern that will assist in controlling solar heat gain, the extent of is modified with each façade's orientation.

Staff are satisfied that the combination of materials and superb detailing will result in a sophisticated, well considered building composition with enhanced energy performance.

Sustainability: Through the rezoning process, the applicant committed to achieving a higher level of sustainable design and would pursue LEED Platinum in addition to the High Building Energy performance requirements.

Rezoning Condition 11.

Identification on the plans and elevations of the built elements contributing to the building’s sustainability performance in achieving LEED® Platinum, including a minimum of 80 points in the LEED® rating system and, specifically, a minimum of 13 points under Optimize Energy Performance.

Note to Applicant: Provide a LEED® checklist confirming the above; a detailed written description of how the above-noted points have been achieved with reference to specific building features in the development, and notation of the features on the plans and elevations. The checklist and description should be incorporated into the drawing set. Registration and application for certification of the project are also required under the policy.

Staff assessment: The LEED checklist provided confirms the applicant’s committed in achieving LEED Platinum with a total of 88 points and a minimum of 13 Optimize Energy Performance Points. Some of these measures include high efficiency glazing, exterior vertical fins for solar shading, reduced overall lighting power density, occupancy sensors, heat recovery system demand control ventilation and solar thermal panels. The proposal also includes a green roof and rainwater capture strategy.

The applicant has confirmed the project’s registration with CaGBC. The registration number is 15530.

Rezoning Condition 12.

Confirmation that the building demonstrates and advances the City’s objective for carbon neutrality in achieving a 40% to 50% reduction in energy consumption from 2010 levels.

Note to Applicant: Under the Higher Buildings Policy, the building must be designed to meet the energy performance target of 115 kwh/m²/year of energy on the site.

The applicant has indicated that the proposal is achieving approximately 80% carbon reduction with an energy intensity of 97.6kWh/m². Staff are seeking further clarification of these measures. Refer to Condition A.1.24.

● Conclusion: Staff believe the proposal’s comprehensive architectural response incorporating high quality materials and detailing will be an important and significant building within the Central Business District, that achieves LEED Platinum and contributes to the city’s targets for carbon neutrality and reduction in energy consumption. The applicant has demonstrated significant efforts to address the privacy interface with the existing residential building (Jameson House). However, further privacy improvements can be achieved without compromising the architectural intent of the building or the office tenancies. Staff recommend approval, subject to the conditions of this report.
URBAN DESIGN PANEL

The Urban Design Panel reviewed this application on July 3, 2013, and provided the following comments:

EVALUATION: SUPPORT (5-1)

- Introduction: Anita Molaro, Development Planner, introduced the proposal for a site located in the Central Business District in downtown. The site is located at the corner of Howe and Pender Streets and includes the existing Stock Exchange Building. This building is listed as an “A” building on the City’s Heritage Register but is not designated. Ms. Molaro described the context for the area noting the mixed-use tower, The Jameson, immediately to the north of the site.

The proposal is to retain the existing stock exchange building and insert an office building beside and above the existing building. The program for the building is to retain the existing retail/commercial space in the stock exchange building and to add retail/commercial space in the first two levels of the new development. The third level of the building is to be reserved as amenity space. The new and old building’s floor plates will be contiguous.

Ms. Molaro noted that there are two view cones affecting the site and the proposal will protrude through them which is not a supportable response and as such there are condition for the applicant to adjust the height of the building to comply within the view shadows.

The proposal is proposing to be LEED Platinum.

Advice from the Panel on this application is sought on the following:

Has the response to the rezoning conditions noted below been appropriately address?

- Proximity with the Jameson House in response to the rezoning condition noted below:
  
  Design development to the northwest corner to improve the proximity between the proposed office tower and the existing residential units in Jameson House across the lane.

  Note to applicant: This can be achieved by modifying the northwest corner of the office building for the portion of the tower that overlaps with Jameson House, with the remaining tower floor-plate providing a 1'-6” setback along the lane. Floor area can be reallocated to other areas of the building provided that it does not further compromise Jameson House or increase the amount of building bulk over the former Stock Exchange Building.

- Privacy with the Jameson House in response to the rezoning condition noted below:

  Design development to address privacy impacts by eliminating direct sight lines from distances of 60 ft. or closer between the proposed office building and the existing residential units in the Jameson House.

  Note to applicant: These privacy measures between the two occupancies must be implemented as a permanent component externally integrated with the glazing treatment.

- Architectural response to skyline noting the reduction in the height to align with the height of the Jameson.

- Detailed response to the building’s external treatments and expression, including the passive design elements, vertical and horizontal shading devices passive design attributes of the LEED™ Platinum.
• Integration of the lower massing with the overall tower composition.

• Massing response to lessen its visual impact over the former Stock Exchange Building.

• Landscape treatments: Green roofs, sky gardens, vertical green.

Ms. Molaro took questions from the Panel.

• Applicant’s Introductory Comments: Peter Hildebrand, Architect, further described the proposal noting this is one of the best locations in the downtown for office space. They will be registering the heritage building and they want to have the most sustainable building in Vancouver. It will be the first heritage building with LEED™ Platinum. He added that after the last Panel’s review and meetings with staff, they decided to have a fresh look at the design.

Harry Gugger, Architect, described the proposal using a power point presentation. He said they were looking for a coherent design response as well as addressing privacy and proximity, passive solar protection and a connection to the heritage building. As well they wanted to maximize views and light and to accentuate the verticality of the building. He described the architecture noting that they chamfered the edges in order to recess the building from the stock exchange building. They plan to use mullions to resolve heat gain and privacy issues.

Margot Long, Landscape Architect, described the landscaping which is imbedded in the public realm and in some roof decks. There were originally glass blocks in the sidewalk that will be reintroduced that will be lit from underneath. At the main entry there is local stone and the street trees will be redone. The fourth level has an amenity roof deck with an interior amenity space with an extensive green roof. On the heritage building the eleventh will have extensive green roof that is not accessible. On the twelfth floor there will be an extensive green roof with an outdoor amenity area.

The applicant team took questions from the Panel.

• Panel’s Consensus on Key Aspects Needing Improvement:

The Panel had no substantial aspects needing improvement.

• Related Commentary: The Panel supported the proposal and thought it was a response that often isn’t seen in Vancouver. They especially liked how the heritage building was being retained.

The Panel thought the applicant had done as much as possible for privacy against the neighbouring building, the Jameson building. One Panel member noted that the setback had been reinforced by layering materials and fins to block the view. Another couple of Panel members wondered if cranking the fins would help to improve the view to the Jameson building.

The Panel noted that the building had a finer grain than what was seen at rezoning. They saw the building as a background building to the heritage.

The Panel thought the architectural response to the skyline with allowing the mullions and glazing to disappear into the sky was an appropriate response.

The Panel supported the landscape plans although one Panel member thought there should be more heritage referenced to the base of the new building.
• **Applicant's Response:** Mr. Gugger thanked the Panel for their comments. He noted that they had tested the mullions for privacy and views and felt they had found the best solution.

**ENGINEERING SERVICES**

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

**HERITAGE PLANNING**

**Heritage Value**

The former Vancouver Stock Exchange Building is listed in the ‘A’ evaluation category on the Vancouver Heritage Register and will be municipally designated (protected) as part of the rezoning approval. The designation also includes the interior elevator lobby (marble clad walls and decorative ceiling). This 10-storey plus penthouse office building was built in 1928-29 to the designs of Townley and Matheson Architects, and is a good example of a between-the-wars high-rise. The building housed the Vancouver Stock Exchange trading floor and administration offices until the Stock Exchange moved to expanded facilities around 1960. The building is of heritage value for its contribution to the development of downtown Vancouver, its architectural expression, the role of its prominent designers, and for its representation of the business community in the City. A Heritage Revitalization Agreement (HRA) was a requirement of the Rezoning process to ensure the rehabilitation and long term protection of the former Stock Exchange Building.

**Conservation Approach**

The proposed conservation approach will be preservation and rehabilitation as the heritage building (principal exterior facades and concrete frame structure) is to be retained and the new portion of the development build beside and above it. The Heritage Conservation Plan, submitted as part of the Development Permit Application material, describes in detail the approaches to specific building elements on the heritage building. In summary, the major elements are proposed to be treated in the following manner: granite base blocks, terra cotta, brick, and concrete spandrels on the exterior walls are to be preserved, cleaned and repaired as required; window frames are to be retained and rehabilitated and a new window sash to match the historic appearance is to be installed; the areaways are to be preserved and rehabilitated; the storefronts and entrance canopy on Howe Street are to be preserved and rehabilitated; the elevator lobby will be preserved; and the Stock Exchange trading floor will be recreated based on archival drawings and photographs. Furthermore, the new construction is clearly distinguishable and compatible with the heritage building. The proposed heritage conservation work is generally consistent with the Standards and Guidelines for the Conservation of Historic Places in Canada and is supported by heritage staff subject to the conditions listed in Appendix A.

**Comments of the Vancouver Heritage Commission**

The Development Permit Application was reviewed by the Vancouver Heritage Commission at their July 8th, 2013 meeting where the following motion was approved:

**THAT** the Vancouver Heritage Commission supports the development permit application, the revised Statement of Significance, and the conservation plan for 475 Howe Street (former Stock Exchange building) as presented at its meeting on July 8th, 2013, noting the application’s improvement to increase the heritage retention and the improvements in the tower’s design that make it subordinate, compatible and distinguishable from the heritage building.
PROCESSING CENTRE - BUILDING

This Development Application submission has not been fully reviewed for compliance with the Building By-law. The applicant is responsible for ensuring that the design of the building meets the Building By-law requirements. The options available to assure Building By-law compliance at an early stage of development should be considered by the applicant in consultation with Processing Centre-Building staff.

To ensure that the project does not conflict in any substantial manner with the Building By-law, the designer should know and take into account, at the Development Application stage, the Building By-law requirements which may affect the building design and internal layout. These would generally include: spatial separation, fire separation, exiting, access for physically disabled persons, type of construction materials used, fire fighting access and energy utilization requirements.

Further comments regarding Building By-law requirements are contained in Appendix C attached to this report.

NOTIFICATION

On April 24th, 2013 a presentation was held by the applicants to the Jameson Residents at Terminal City Club to discuss the modifications on the building design in response to the rezoning conditions. 20 residents were in attendance. Comments were mainly concerned about how the mitigation of privacy was not achieved in the redesign with the new mullions proposed.

On June 13th, 2013, one site sign was posted and 404 notification postcards were sent to neighboring property owners advising them of the application, and offering additional information on the City’s website.

LETTER RESPONSES

There were 7 letters and 1 petition (43 residents) from the Jameson residents in response and to the mail out notifications.

Petition comment include:

The residents of the Jameson House still continues to have serious reservations about the application, they do not believe it meets the condition imposed by Council upon approval of Rezoning regarding the privacy impact on Jameson House.

5. Design Development to address privacy impacts by eliminating direct sight lines from distances of 60 ft. or closer between the proposed office building and the existing residential units in the Jameson House.

Note to Applicant: These privacy measures between the two occupancies must be implemented as a permanent component.

- The proposed design incorporates external mullions that will limit sightlines if the occupants of the Old Stock Exchange building stand at least 5 ft. back from the window. It is unreasonable to assume the average worker would stand 5 ft. back in order to look out, and many desks are often positioned directly beside a window. The privacy of the Jameson House residents remains compromised with these direct sight lines into the suites at Jameson House. There needs to be a better solution to guarantee the Jameson House residents their privacy.
Other Comments include:

- Concern that artificial lighting from the Old Stock Exchange was not addressed fully and would like more detail on what will be done to ensure that the lighting will not affect the Jameson residents.
- Concern that the proposed building’s shadow will impact the Jameson residents’ access to natural light. More detailed studies should be conducted at different times of the day and year.
- Proposal does not have adequate set-back on the south east portion of the building facing Jameson House.
- While the design has improved, especially on building passive design, some further sustainable improvements can include:
  - Providing detailed design on LED light control, reducing night light spill to Jameson units.
  - Increase amount of fritted ceramic glass to at least 5.5 ft. above finished floor to reduce privacy concerns on building facade facing Jameson House.
  - Study long window mullion orientation/angle and or introduce solid walls on proposed building wall facing Jameson House to further reduce privacy issues.
  - Reduce the sharp edge design configuration at the corners of the proposed building.
  - Disagree that the city core lacks office space.
  - Concern with construction impact such as construction noise, traffic, lane access, dust/dirt, etc.
  - The configuration and location of 3 loading bays off the lane is a concern for current Jameson residents as parking access is already a point of contention with current use and the proposal will exacerbate the situation.

Staff Response:

Proximity and Privacy: Staff are recommending Condition 1.1 to further address privacy and direct sight lines based on an occupant’s location 3 ft. from window plane.

Lighting: The light spillage analysis demonstrates that the provision of recessed LED lighting with occupant sensors will minimize the lighting impacts.

Shadow: The shadow analysis assessed through the rezoning process that public spaces will not be impacted.

Construction Impact on Street and Access:

Engineering staff will review all the development site construction plans to ensure that there are minimal impacts on neighbors, particularly with regards to parking and loading access. All street use is managed through permitting and any specialty works outside of the daily operations will require a review by Engineering staff of the activity to ensure it is well managed. Large sites also are reviewed by the Traffic Management Group to ensure routing conforms to the truck route requirements. Engineering Building Site Inspectors will conduct regular site visits to ensure the agreed upon street use is being delivered, and address related issues such as construction dust with the builder. If necessary, the City can put the builders in contact with the neighbors and review the results of the discussions to ensure that the extent of street use is as planned. The District Building Inspectors and Property Use Inspectors also have the authorities to direct the builders to take action. The City holds significant damage deposits for the large sites and will bring in City forces to deal with any immediate issue not being addressed by the builders.

The City’s standard practice is that sidewalks are maintained “open” by covered hoardings and walkways during construction to allow access to the sidewalks and ensure pedestrians have direct access across and beyond the site.
DEVELOPMENT PERMIT STAFF COMMITTEE COMMENTS:

The Staff Committee has considered the approval sought by this application and concluded that with respect to the Zoning and Development By-law it requires decisions by both the Development Permit Board and the Director of Planning.

With respect to the decision by the Development Permit Board, the application requires the Development Permit Board to exercise discretionary authority as delegated to the Board by Council.

Development Permit Staff Committee has considered this application and supports the proposal with the conditions contained in this report.

J. Greer
Chair, Development Permit Staff Committee

A. Molaro, Architect AIBC
Assistant Director Urban Design

B. Balantzyan
Project Coordinator

Project Facilitator: M. Au
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 clarification and confirmation of existing and proposed floor area, and the floor space ratio (FSR), noting the following:

i. areas shown on the statistics tables on Sheet No. A002 should match areas on the colour-coded floor plans;

Note to Applicant: A tabled summary of floor areas at each floor level is also required.

ii. the area of service rooms, including recycling and garbage rooms, at or below base surface may be excluded from the computation of the FSR; and

iii. the area of storage rooms in the underground parking levels, and the area of all covered mechanical rooms at the rooftop must be included in the computation of the FSR;

Note to Applicant: Submission of revised detailed FSR documentation indicating all spaces and uses included or excluded from FSR calculations is required.

A.1.2 notation/clarification of the uses of all rooms/spaces;

A.1.3 provision of a vertical vent space to accommodate future proposed restaurant exhaust from the lower commercial level;

Note to Applicant: Intent is to allow for a wider range of uses without requiring the retrofitting of exhaust ducting on the outside of the building.

A.1.4 City building grades, existing and finished grades to be shown on the site plan and elevation drawings;

A.1.5 clarification of proposed use(s) of the amenity room on Level 4, including details regarding type, finishing, equipment, and/or furnishings;

A.1.6 deletion of all references to the proposed signage, or notation on plans confirming that: “All signage is shown for reference only and is not approved under this Development Permit. Signage is regulated by the Sign By-law and requires separate approvals. The owner[s] assumes responsibility to achieve compliance with the Sign By-law and obtain the required sign permits”;

Note to Applicant: The Sign By-law Coordinator should be contacted at 604.871.6714 for further information.

A.1.7 provision of a project north arrow by considering Howe Street as a north/south bound street, consistent with the City building grades plan and titles on the elevation drawings;

A.1.8 provision of a minimum of two hundred and five (205) parking spaces in accordance with the Parking By-law, to the satisfaction of the General Manager of Engineering Services, noting the following:
because of the absence of dwelling units in the proposed development, shared vehicle and shared vehicle parking spaces cannot be considered at a ratio of 1:5 to meet the parking requirement, as per Section 3.2.2 - Relaxation, of the Parking By-law;

**Note to Applicant:** By double counting the required thirteen (13) disability parking spaces, as permitted by the Parking By-law, the proposed development has a parking shortfall of forty-seven (47) parking spaces.

alternatively, arrangements shall be made, to the satisfaction of the General Manager of Engineering Services, Director of Legal Services, and Director of Financial Services, for the waiver of parking requirements by payment-in-lieu relief for a total of forty-seven (47) parking spaces;

**Note to Applicant:** The Development Permit cannot be issued until full payment is made to the Director of Financial Services and Council has approved the amending By-law. Therefore, subsequent to Council’s approval of the payment-in-lieu application, a full payment (certified cheque) shall be made to the Director of Financial Services. An application fee of $500.00 is required to initiate the payment-in-lieu process.

A.1.9 provision of parking spaces in accordance with the Parking By-law, to the satisfaction of the General Manager of Engineering Services, noting the following:

i. all parking stalls should be numbered, and all parking stall and manoeuvring aisle dimensions should be shown on the plans;

ii. a minimum parking stall width of 2.6 m (8'-6") is required for Parking Stall Nos. 32 on Parking Levels P2 to P6, and 144 on Parking Level P7; and

**Note to Applicant:** The adjacent column is longer than 4.0 ft. from the end of the parking space.

iii. no more than 40 percent of the total parking spaces may be designated as small car spaces provided the proposed small car spaces are clearly designated and marked for employee parking on the plans;

A.1.10 compliance with Sections 4.8.1 and 4.8.4 - Disability Spaces, of the Parking By-law, to the satisfaction of the General Manager of Engineering Services;

**Note to Applicant:** A minimum of 2.3 m (7.5 ft.) unobstructed vertical clearance is required for a disability parking space and all entry points, manoeuvring aisles, and access ramps leading to the disability parking space. Compliance with required vertical clearances should be clearly demonstrated on the submitted plans.

A.1.11 provision of loading spaces, in accordance with the Parking By-law, to the satisfaction of the General Manager of Engineering Services, noting that a minimum of five (5) Class A and a minimum of six (6) Class B loading spaces are required, based on submitted data, as follows:

i. no requirement for the existing portion of the proposed development;

ii. a minimum of five (5) Class A and a minimum of four (4) Class B loading spaces for the new office component of the proposed development;

iii. a minimum of two (2) Class B loading spaces for the new retail store component of the proposed development;
Note to Applicant: Staff may support an alternative arrangement of loading spaces subject to the submission of a detailed loading management plan. All loading spaces designated for each use are to be shown on the plans.

A.1.12 provision of a minimum unobstructed overhead vertical clearance of 3.8 m (12'-6"), to the underside of a raised security gate, for the Class B loading spaces at grade, in compliance with Section 5.5.1.2 - Design Standards for Loading Spaces, of the Parking By-law;

A.1.13 compliance with Section 5.5.2 - Internal Access to Loading Spaces, of the Parking By-law, to the satisfaction of the General Manager of Engineering Services, noting the following:
   i. loading spaces shall be located so that each individual occupancy use has access within a development to a space; and
   ii. means of access from the retail areas on the main floor and Level P1 to the loading dock should be clearly demonstrated on the submitted plans;

A.1.14 provision of bicycle parking in accordance with Section 6 of the Parking By-law, noting the following:
   i. at least 20 percent of the Class A bicycle spaces must be bicycle lockers, and a maximum of 30 percent of the required Class A bicycle spaces may be vertical; and

   Note to Applicant: Bicycle lockers, in accordance with Section 6.3.18 - Bicycle Locker Design and Security, of the Parking By-law, should be graphically represented with doors for easier identification on the floor plans.

   ii. a minimum of twelve (12) Class B bicycle spaces, readily visible to visitors, is required to be provided on site as follows:
      a. a minimum of six (6) Class B bicycles for the retail component and a minimum of six (6) Class B bicycle spaces for the office component of the proposed development;

A.1.15 design development to locate, integrate and fully screen any emergency generator, exhaust or intake ventilation, electrical substation and gas meters in a manner that minimizes their visual and acoustic impact on the building’s open space and the Public Realm;

   Note to Applicant: In order to prevent contaminated air from being drawn into the building, all fresh-air intake portals must be located away from driveways, and parking or loading areas.

A.1.16 provision of the following notations on the submitted plans:
   i. “The design of the parking structure regarding safety and security measures shall be in accordance with Section 4.13 of the Parking By-law”;
   ii. “A minimum of one electrical receptacle shall be provided for each two Class A bicycle spaces”;
   iii. “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”; and
   iv. “Mechanical equipment (ventilators, generators, compactors and exhaust systems) will be designed and located to minimize noise impacts on the neighbourhood and comply with Noise By-law #6555”
A.1.17 the pending CD-1 By-law can and does become enacted by City Council;

A.1.18 the proposed form of development can and does become approved by City Council;

**Standard Landscape Conditions**

A.1.19 design development to further articulate the public realm open space at the Pender Street building entry by incorporating places to sit, and/or sculpture to improve the pedestrian level of interest and amenity, as per condition No. 15 of Rezoning’s Conditions of Approval of the Form of Development;

**Note to Applicant:** This is in addition to the proposed bike racks. Provision of large-scale architectural drawings, as applicable, is required.

A.1.20 provision of larger-scale (minimum $\frac{1}{4}''=1'-0''$) architectural section drawing to illustrate the build-up of the proposed extensive green roof at various building locations and demonstrate the method of roof water collection;

A.1.21 provision of more detailed illustration on the Level 4 terrace planting detail on drawing L1.03 to show:

i. the location of the adjacent building to the west (if applicable); and

ii. the proposed extensive green roof installation;

**Standard Heritage Conditions**

A.1.21 provision of enlarged drawings including sections and plans that illustrate the interface of the new building and the heritage building with reference to the Pender Street elevation where the new glazed curtain wall connects to the heritage building; and on the Howe street elevation at the parapet level (levels 12-13);

**Note to Applicant:** Include section drawings at $\frac{1}{4}''=1'-0''$ or better, and detailed drawings at $\frac{1}{2}''=1'0''$ or better. Response should include architectural details and structural details and connections illustrating how new building additions are to be connected/attached to existing heritage materials.

A.1.22 provision of an elevation drawing illustrating the existing west wall of the former Vancouver Stock Exchange building clearly indicating portions of the wall that are being retained, portions being removed, and any proposed interventions;

**Note to Applicant:** At present, the west wall is on the exterior of the building, when the new portion of the development is completed, this wall will become an interior wall. Additional material and documentation is required to determine the proposed level of retention and/or alteration contemplated.

A.1.23 provision of an interpretive plan for recreated trading hall.
Sustainability Condition

A.1.24 confirmation that the building demonstrates and advances the City’s objective for carbon neutrality in achieving a 40% to 50% reduction in energy consumption from 2010 levels.

Note to Applicant: Under the Higher Buildings Policy, the building must be designed to meet the energy performance target of 115 kwh/m²/year of energy on the site.

A.2 Standard Engineering Conditions

A.2.1 arrangements are to be made, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services, for the consolidation of Lot A, Plan 20419, & Lots 11, 12 & 13, Plan 210; All of Block 21, DL 541 to form a single parcel;

A.2.2 arrangements are to be made, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services, for the release of Easement & Indemnity Agreements L72784 (existing building encroachments from Lot A onto City street) and N28008 (existing horizontal lighting encroaching from Lot A onto City street) prior to building occupancy;

Note to Applicant: Arrangements are to be secured prior to issuance of the development permit, with release to occur prior to issuance of an occupancy permit for the site. Provision of a letter of commitment will satisfactorily address this condition at the Development Permit stage.

A.2.3 arrangements are to be made, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services, for all existing and/or proposed encroachments onto City property (Easement & Indemnity Agreement G76847 covers only existing ground-level encroachments from Lots 11 to 13). Upon completion of the proposed exterior work, a new BC Land Surveyor’s Location Certificate will be required to confirm the extent of all building encroachments at that time; following which an application to the City Surveyor will be required to initiate entering into a replacement Encroachment Agreement;

A.2.4 arrangements are to be made, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services, for the release of Easement & Indemnity Agreement BG30714-18 (for canopies on both the Howe and W Pender Street frontages), and provision of an encroachment agreement for the rehabilitated entrance canopy on Howe Street unless it can be shown that this canopy meets the criteria to qualify under a standard canopy agreement;

A.2.5 arrangements are to be made to the satisfaction, of the General Manager of Engineering Services and the Director of Legal Services, for the registration of a replacement agreement for Easement & Indemnity Agreement 485495M (areaways under both Howe and W Pender Streets);

Note to Applicant: Provision of a letter of commitment and a security deposit of $10,000 will satisfactorily address this condition at the Development Permit stage. Requirements for the retention, rehabilitation and use of the areaways are contained in the Rezoning Report.

A.2.6 provision of design elevations at the property line adjacent all entrances;

A.2.7 provision of the following notations on the Site Plan regarding the areaway restoration:

   i. the proposed new areaway roof structure and glass prism panels shall be constructed to support current areaway loading requirements, in compliance with Subsection 4.1.5.
Live Loads Due to Use and Occupancy, of the Vancouver Building By-law #9419, i.e., 12 kPa distributed load and 54 kN concentrated load;

ii. the walking surface of the exterior areaway roof structure, excluding the precast glass prism panels, and any adjacent sidewalk repairs shall be finished in accordance with the City of Vancouver Street Restoration Manual, and shall match adjacent sidewalk standard for the area;

iii. the walking surface of the areaway roof structure, if not broom finished concrete but glass prism blocks, shall have a minimum coefficient of friction of 0.6, and a minimum wet coefficient of friction of 0.6;

iv. the areaways shall remain as an encroachment in accordance with existing areaway agreement registered against the title of the property and the Encroachment By-law, or validated under a new Encroachment Agreement as the case may require;

v. the new areaway roof structure shall be reconstructed such that it meets the existing sidewalk grades;

vi. the areaway shall be waterproofed to the satisfaction of the property owner;

vii. no uses deemed essential to the operation of the building or any of its tenants shall be allowed in the areaway;

viii. no new equipment shall be installed in the areaway that would preclude its removal in the future, e.g., heating systems (boilers), electrical systems, water valves, utilities, etc.; and

ix. no hazardous materials shall be stored in the areaway;

A.2.8 submission of the following information/drawings regarding the areaway restoration:

i. structural drawings, signed and sealed by a Professional Engineer registered in the province of BC, for the proposed reconstruction of the areaway roof structure and glass prism panels for Engineering’s review and approval prior to construction;

ii. shop drawings, signed and sealed by a Professional Engineer registered in the province of BC, for the glass prism blocks and/or prism panels for the proposed reconstruction to the areaway roof structure including prism and panel details and design loads from the supplier as well as installation details;

iii. a Product Data Sheet from the supplier of the glass blocks including specifications for loading, slip resistance and shatter resistance;

A.2.9 compliance with the Parking and Loading Supplement, to the satisfaction of the General Manager of Engineering Services, including the following:

i. modification of the bottom of the main parking ramp at Parking Level P1 to provide vehicle accessibility onto the corner-cut by way of an improved and gradual transition through the corner-cut;

Note to Applicant: Access onto the parking ramp by outbound vehicles uses the space in front of the small car parking stall for manoeuvring, but as designed, the vehicle must drive over the abrupt grade change where the parking ramp has a 12.5% slope.
ii. provision of design elevations on both sides of the parking ramp at all break points including notation of the length of ramp at the specified slope, along the property line at the lane in front of the loading spaces, and also at the rear of the Class B loading spaces;

iii. provision of a section drawing showing the main parking ramp from grade to Parking Level P1;

iv. provision of overhead security gates at the building face on the lane for both the main parking ramp and the loading spaces;

   **Note to Applicant**: Since the loading spaces are covered by building above, unsecured loading will likely result in CPTED issues.

v. provision of an improved design for the transition ramp at the top of the parking ramps which have a 15% slope;

   **Note to Applicant**: The provision of a 4.0m long transition section of 7.5% to 10% slope is typically required. If this is not possible, it may be possible to slope the area at the top of the ramp to achieve a maximum 12.5% break.

vi. provision of a parking ramp slope not to exceed 5% where access to loading is taken.

   **Note to Applicant**: The westerly loading space takes access from the parking ramp with a slope of 8.7% noted on the plans.

**Note to Applicant**: Rob Waite, of the Neighbourhood Parking and Transportation Branch, should be contacted at 604.873.7217 for more information.

A.2.10 submission of a separate application to the General Manager of Engineering Services for street trees and/or sidewalk improvements;

   **Note to Applicant**: A set of Landscape Plans should be submitted directly to Engineering for review.
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 July 17, 2013. 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 The Environmental Protection Branch advises that an Erosion and Sediment Control Plan is required at the Building Permit application stage for review and acceptance.

B.1.3 It should be noted that if conditions 1.0 and 2.0 have not been complied with on or before **February 10, 2014**, this Development Application shall be deemed to be refused, unless the date for compliance is first extended by the Director of Planning.

B.1.4 This approval is subject to any change in the Official Development Plan and the Zoning and Development Bylaw or other regulations affecting the development that occurs before the permit is issuable. No permit that contravenes the bylaw or regulations can be issued.

B.1.5 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.1.6 A new development application will be required for any significant changes other than those required by the above-noted conditions.

B.2 **Conditions of Development Permit:**

B.2.1 All services, including telephone, television cables and electricity, shall be completely underground.

B.2.2 The amenity area of 2,140.0 sq. ft. on Level 4, excluded from the computation of floor space ratio, shall not be put to any other use, except as described in the approved application for the exclusion. Access and availability of the use of all amenity facilities located in this project shall be made to all occupants and/or commercial tenants of the building;

AND

Further, the amenity spaces and facilities approved as part of this Development Permit shall be provided and thereafter be permanently maintained for use by users/tenants of this building complex.

B.2.3 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.2.4 A qualified environmental consultant must be available to identify, characterize and appropriately manage any environmental media that may be contaminated and may be encountered during subsurface work at the site. In the event, contamination of any environmental media is encountered, a Notice of Commencement of Independent Remediation must be submitted to the Ministry of Environment (MOE) and a copy to the City of Vancouver (COV).
i. upon completion of remediation, a Notification of Completion of Independent Remediation must be submitted to the MOE and a copy to the COV;

ii. de-watering activities during remediation will require a Waste Discharge Permit; and

iii. submission of a copy of the Completion of Remediation report signed by an approved professional, and a Ministry of Environment “Instrument of Approval” for the applicable land use is required prior to the Occupancy Permit application stage.

B.2.5 If the development is phased and construction is interrupted, the project will require an amendment, to the satisfaction of the Director of Planning, to address how the incomplete portions of the development will be treated.

B.2.6 In accordance with Protection of Trees By-law Number 9958, all trees are to be planted prior to issuance of any required occupancy permit, or use or occupancy of the proposed development not requiring an occupancy permit, and thereafter permanently maintained in good condition.

B.2.7 In accordance with Protection of Trees By-law Number 9958, the removal and replacement of trees is permitted only as indicated on the approved Development Permit drawings.

B.2.8 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 prior to the 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.2.9 All landscaping and treatment of the open portions of the site shall be completed in accordance with the approved drawings prior to the 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.2.10 The issuance of this permit does not warrant compliance with the relevant provisions of the Provincial Health & Community Care and Assisted Living Acts. The owner is responsible for obtaining any approvals required under the Health Acts. For more information on required approvals and how to obtain these, please contact Vancouver Coastal Health at 604-675-3800 or visit their offices located on the 12th floor of 601 West Broadway. Should compliance with the Health Acts necessitate changes to this permit and/or approved plans the owner is responsible for obtaining approval for the changes prior to commencement of any work under this permit. Additional fees may be required to change the plans.

B.2.11 This site is affected by a Development Cost Levy By-law and levies will be required to be paid prior to issuance of Building Permits.
Processing Centre - Building comments

The following comments have been provided by Processing Centre - Building and are based on the architectural drawings received on May 13th, 2013 for this Development application. This is a preliminary review intended to identify areas in which the proposal may conflict with requirements of the Vancouver Building By-law (VBBL).

The project involves a 31-storey vertical addition to an existing building. The major occupancies are proposed to be office (D), mercantile (E) and parking (F3). The proposed project will be constructed as one building and the address (and Fire Department access) will be off the Howe Street. The preliminary review comments are:

1. The development must comply with ASHRAE 90.1-2007 Standard. Compliance forms to be submitted for building permit applications.

2. **100% Upgrade**: The building permit submission for the addition and existing portions will be required to fully comply with the latest version of the VBBL and 100% upgrade of the existing portion in accordance to the VBBL will be required. Any existing nonconforming conditions in the existing portions will be required to either conform to Section 10.4 of the VBBL (Heritage building) or Request for minor Relaxation need to be submitted to the Chief Building Official’s office for acceptance.

3. **Applicable Version of the VBBL**: Depending on the timing of the building permit application, it’s likely that the next version of the VBBL (2013) will be in effect. The Certified Professional can advise on the Bylaw changes prior to building permit submission.

4. **Interconnected Floor Space**: There are unprotected openings and/or Interconnection between levels P-1, 1, 2, 3 and 4 in both existing and new construction portions. Please demonstrate floor to floor fire separations in accordance to 3.2.2 and 3.2.8 or Alternative Solution(s) will be required.

5. **Spatial Separation**: It was noted on the plans that an alternative solution will be proposed to address the spatial separation requirements 3.2.3 for the north façade of the building.

6. **Exit/Egress**: There are a number of locations that do not meet the egress and exit requirements of the VBBL. Please revise the design or Alternative solution will be required.

**Suite and Public Corridor Separation**: It is unclear in some areas how suite to suite and public corridor separations are maintained. Suite separations and Public corridor separations are required to comply with 3.3.1.1. and 3.3.1.4.

Written confirmation that the applicant has read and has understood the implications of the above noted comments is required and shall be submitted as part of the “prior to” response.

The applicant may wish to retain the services of a qualified Building Code consultant in case of difficulty in comprehending the comments and their potential impact on the proposal. Failure to address these issues may jeopardize the ability to obtain a Building Permit or delay the issuance of a Building Permit for the proposal.
### Materials Facade, Lobby, Roof and Sky Gardens

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**General Notes:***
- All values presented are preliminary and are dependent on further development and review of designs and are to be treated as guidelines.
- All information is subject to change at the discretion of the architect.

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**Appendix D; page 2 of 28**
Urban Design Rationale

Surrounded by water and framed by mountains, the unique urban cityscape of Vancouver's downtown is defined by its spectacular natural setting.

The Exchange is located in the heart of the downtown area. As one of a select few new high density office developments in the city's central business district, the new tower will bring valuable diversity, revenue and jobs to the neighbourhood and to the city as a whole.

The design rationale for the new Exchange tower is entirely derived from its surrounding context and environment, in particular the existing Old Stock Exchange building, which is to be preserved and rehabilitated on the site. This refined, handsome and elegant building has facades of carefully composed vertical plasters that are designed both to best accentuate its height and to the same time ground the building within the streetscape of the city.

The new tower does not attempt to dominate or compete with this prominent original building but rather to successfully work together with it in order to create an overall composition that looks at once to Vancouver's future without obscuring its past.

By both breaking up the mass of the tower over its entire height and by recesing its bulk from the perimeter of the site above the Old Stock Exchange, the new building allows the existing structure to fully define the streetscape, relating and confirming its proud position within the heart of Vancouver's downtown.

As the form of the tower retreats lower down to better define the original form and independence of the Old Stock Exchange, it consistently grows higher above to maximize its potential on the site. Here at the upper, more valuable floor levels, the tower steps out in two directions to provide larger, more efficient floor plates. These steps consequently create terraces on the tower's sides that are optimally positioned to exploit the best views of the surrounding city and the dramatic panoramas of the mountains beyond.

The terracing and stepping of the tower's form, coupled with the chamfering of its corners both reduces its overall bulk and impact on its neighbours and leaves the Old Stock Exchange building as the single largest element on the site, emphasising its presence in the city once again.

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A respect for the architectural and significant social heritage of this original building is also paramount to the origins and identity of the tower’s façade design. The strongly vertical nature of the Old Stock Exchange’s façade is echoed in the elegant pilaster of the tower’s external aluminum mullions. This synergy between old and new facades provides a clear connection and continuation with the site’s heritage. The material difference between the masonry cladding of the Old Stock Exchange building and the precisely engineered metallic finish of the new tower identifies the individuality of the two structures.

These aluminum mullions run through the full height of the building, anchoring it to the ground and creating a unified system that also integrates its wider podium levels and entrance lobby entirely within its bespoke design. The verticality emphasizes the building’s height continuing the dialogue already established with the Old Stock Exchange.

In a single gesture the vertical orientation of this pilaster accommodates all the different contextual conditions that the building is required to deal with. Not only does it respect and respond to the heritage of the Old Stock Exchange building but its external mullions also provide passive solar shading to the external envelope, significantly reducing heat gain to the interior. When combined with the building’s chamfered geometry, this screening effect additionally improves the privacy between the tower and its immediate neighbour, whilst at the same time maximizing the site’s spectacular views. The considered geometry of the tower’s floor plan is carefully aligned to this systemized façade to create precise and controlled interior spaces.

From the street, the tower’s angled facades play off one another and their appearance changes throughout the day. These planes vary in their degree of transparency and simultaneously both distinguish themselves from, and provide a complement towards, their surroundings as their degree of opacity shifts and changes from different points of view. The overall impact of these dynamic effects lends the simple, straightforward façade system, and the building as a whole, a surprising degree of graceful sophistication.

The pilasters of the new ‘Exchange’ tower façade come to ground along West Pender Street where the new tower is entered through a high colonnade of mullions. This large-scale colonnade recedes the entrance back from the street, widening the available public area whilst maintaining a continuity of commercial program at ground level. The colonnade itself forms an echo of the nodes inspired by the Terracotta tower level found on the Old Stock Exchange’s façade. Alternating mullions are terminated at this level to provide wide public entrances into the tower. The material of these mullions effortlessly adapts from aluminum to pre-cast concrete, reflecting this implied base further within the established façade system of the new tower.

Beyond this colonnade the large, spacious lobby of the new tower rises up through five levels, linking the street level with the elevated external terrace above. The existing wall of the Old Stock Exchange Building forms the lobby’s eastern façade, to west a large balcony at the level of the terrace opens into the lobby drawing light down to the ground level.

The large volume of the public entrance area also forms the location for the development’s public art intervention. Visible not only from the street this artwork will sit within the volume of the lobby and be visible from multiple different angles around the various spaces of the lobby.

To further reinforce the clean lines and strataform of the tower, its vertical mullions are tailored with a series of bespoke pilaster connections that highlight the seams and shifts in its overall geometry and enable the smooth transition of the mullions across its façade. These pilasters create an additional layer of refinement to the façade, differentiating the tower within the downtown area.

These pilaster mullions also articulate the tower’s terraces, balustrades, cantilevers and shape its spired crown, screening all the necessary mechanical spaces behind the filigree of its glass façade and creating a delicate profile for the building within the city’s busy skyline.

Restricted from creating a strong intervention on this skyline, The Exchange’ instead looks to create a distinctive icon within the spaces of the city itself. Viewed from the street, its cantilevered form creates a unique identity for the tower at the centre of Vancouver’s business district. Seen in-the-round, The Exchange’s form is different from all angles yet remains indistinguishable the same coherent structure, clearly distinct from its neighbour’s and further pronouncing its individuality and historical pedigree.
Jameson House Proximity and Privacy Study

The Jameson House Tower is a mixed-use building comprised of office space on its lower levels and residential condominiums on its top 23 floors. Being constructed in the financial district of downtown Vancouver, the tower is inevitably impacted by future high-density office developments that could potentially be built in close proximity to the residential units. In an effort to be sensitive to this relationship, the Exchange Tower has been offset from the property directly south of the Jameson House Tower allowing all of the units to maintain generous views from the principle living spaces within the units.

Throughout the rezoning application process, residents of the Jameson House Residential Tower were engaged in discussions and consultation by both the Planning Dept. and the Exchange design team in order to understand their concerns and assess the privacy conditions from the perspective of both the office tenant in the Exchange and the residents in Jameson House. The result of this design process was a privacy guideline allowing for greatly increased access and exposure to daylight and views for the affected Jameson suites while maintaining a visible office floor plate.

Consultation between the Exchange design team and Jameson residents has continued in an effort to further address privacy concerns. Through extensive and thoughtful design development and urban design analysis it was determined that a wholesale change to the envelope design would be necessary. The result was a further improvement on the privacy relationship and an envelope detailing strategy which substantially addresses privacy concerns. A graphic description of the issues and proposed solutions follows.

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Proximity & Privacy - Environment & Context

In addition to changes to its roof-scape, the reworked proposal also changes the overall form and plan of the tower. In order to address concerns relating to its proximity to its residential neighbour to the north-east, the new plan features a chamfered northern corner, minimizing the impact this proximity has on the living spaces which were originally only 30' away from the office levels within the tower. This angled facade greatly improves the situation affording residents increased views and light. Following the reworking process, further refinements were made to the design to improve upon perceived privacy and light spillage concerns.

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No Parkings - Jameson Visibility

In an effort to deal with privacy mitigation, a detailed view analysis was undertaken to understand the view conditions from The Exchange to Jameson House and vice versa. A 60° view mitigation zone was mapped over both The Exchange and Jameson House. Beginning with a basic case of typical floor-to-ceiling glass and a typical curtain wall framing system, the level of exposure was documented.

Privacy & Proximity - Increased Set-back distance

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Full Grid Mullions - Jamesson Visibility

The addition of 24" deep vertical mullions (excluding back section) aligned on a 3' grid was then analyzed for its effectiveness in blocking sightlines. The result was a reduction in visibility of 38%.

Full Grid Mullions - Effected View Cones

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'Half Grid' Mullions - Jamason Visibility

Along the 45° chamfered north face of the building, an additional row of vertical mullions have been introduced on the half grid. This additional measure further reduced visibility by 57% over the base case. The addition of the double row of mullions along this north elevation forms the basis of the enclosed development proposal.

'Half Grid' Mullions - Effective View Cones

[Diagram of view cones and building layout]

The view cones illustrate significant visual impacts, especially with the use of 14' deep vertical mullions, which vary depending on 4.4% gain.

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Oblique Views to North
The addition of the deep vertical mullions has been extensively analyzed for its impact on oblique views. As can be seen from the iterative renderings below, the addition of the 24" deep vertical mullions significantly reduces the ability to view the exterior from the perspective of an office tenant looking in either direction.

Oblique Views to West

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Views from Jameson - No extended 'Full Grid' Mullions

Level 35

Level 26

Level 14

Views from Jameson - 18" Deep 'Half Grid' Mullions

Level 35

Level 26

Level 14

View of the Building Separation

Viewed from the affected Jameson House suites, the impact of the vertical mullions is apparent. From this perspective the envelope design not only contributes to the screening of views, but also importantly contributes psychologically to an impression of opacity and separation.