Introduction - Height Control Review for Vancouver Stephen Bohus, BLA

There is currently an ongoing review of the height controls set for Vancouver under a 'capacity study'. This study is examining the relaxation and removal of some of the underlying height controls for Vancouver's downtown core. A detailed description of the study can be found at http://vancouver.ca/views on the web.

I personally attended an open house on Tuesday, October 26th downtown, one of three open houses put on by city staff.

I commented in detail on the presentation, yet I fear that none of my comments have made their way into the final report. Hence I've made the effort to write my own comments separately in this document and make these comments available to the public prior to the council meeting scheduled for Thursday Dec 16th, 2010.

Many other cities have implemented height control policies in order to protect views. This document will also compare some of the issues related to height control and views with the experience in Ottawa. A few of the key issues in the height study will be highlighted, and there will be a brief mention of other case studies.

Key Issue summary

At the last three public consultation sessions in October, a series of display panels were shown to the public. The panel images can be accessed via the following link:

vancouver.ca/commsvcs/planning/capacitystudy/pdf/oct10displayboards.pdf

On the first panel, when referring to proposed taller buildings, the second sentence clearly states:

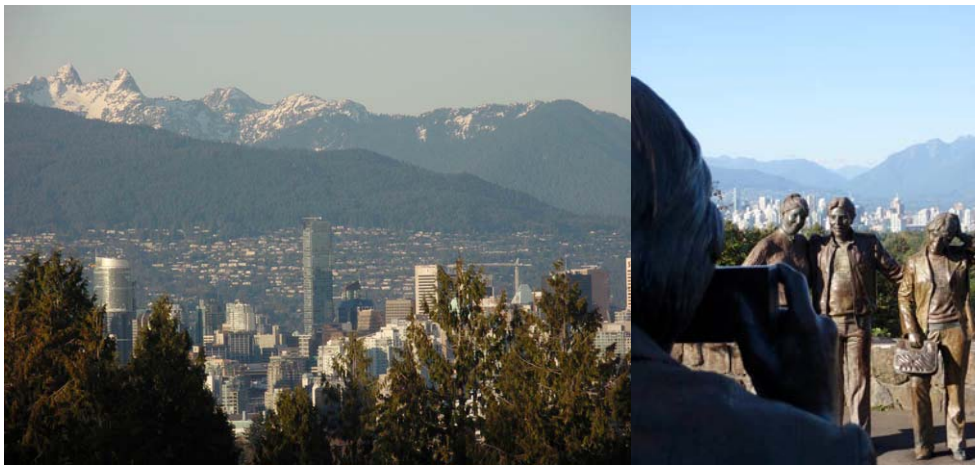
> "These buildings would be visible in the skyline but WOULD NOT IMPACT PROTECTED PUBLIC VIEWS of the mountains."

Yet is clear that staff later contradict the statement. For example, on panel number three in the section 'Study Methodology' step 1 is stated as:

> "STEP 1: DEFINING POTENTIAL LOCATIONS
>
> The first step was to identify all areas within the study boundary that met the basic requirement as a location for Higher Buildings: a location where no view cones would be impacted other than the Queen Elizabeth Park view. "

It is now abundantly clear that the study is indeed about impacting protected public views, since it is already proposing the removal of the Queen Elizabeth Park view from the start.

The beauty of the Queen Elizabeth Park view is that it serves a key role as a baseline height control over the downtown core. This view has prevented the unfettered increases in building heights downtown. The removal of this key protected viewpoint would be a mistake, as it would remove the underlying height control for a significant part of the downtown peninsula.



Photos from Queen Elizabeth Park / Little Mountain (Baseline View)

It is also worth noting that many of the 'protected views' alone currently do not adequately protect views of the North Shore mountains. There are still views to the

North Shore mountains from many locations *other* than those in the protected public views. A baseline view serves to protect other existing views of the mountains that are not currently classified as a protected view.

This document will later examine several of the proposed development sites, including the proposed 'Burrard Gateway' project.

A Tale of Two Cities: Vancouver & Ottawa

Precedents are very useful to look at, as many other cities around the world grapple with similar issues; Vancouver cannot be treated in isolation.

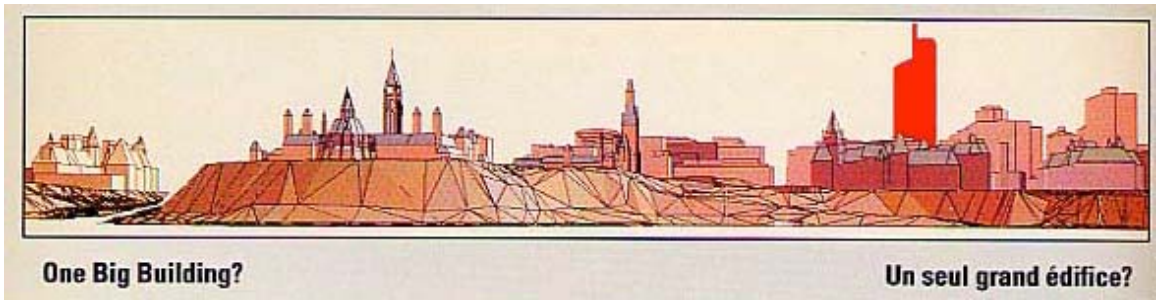
The City of Ottawa went through a very long and thorough process in the 90s and 2000s in the review and implementation of updated height controls in the downtown core. While the Vancouver height control bylaws and view corridors look at protecting the dominance of the North Shore mountains, the Ottawa height control bylaws are designed to protect the prominence of Parliament Hill and the Parliamentary precinct.

According to the last official census in 2006, the City of Ottawa had a population of 812,129 residents while the City of Vancouver had 578,041 residents. These two cities form the core of two of the six largest metropolitan areas in Canada (Vancouver 2,116,581, Ottawa-Gatineau 1,130,76). The top 6 urban centres in Canada all have a population of over a million residents, and are coincidently the only Canadian cities with NHL teams. Since both Vancouver and Ottawa have significant downtown cores with highrises and both of these cities implement comprehensive high control limits in order to preserve views, reviewing the experience in Ottawa can certainly be of value. Links to the Ottawa Height control are provided at the end of this document.

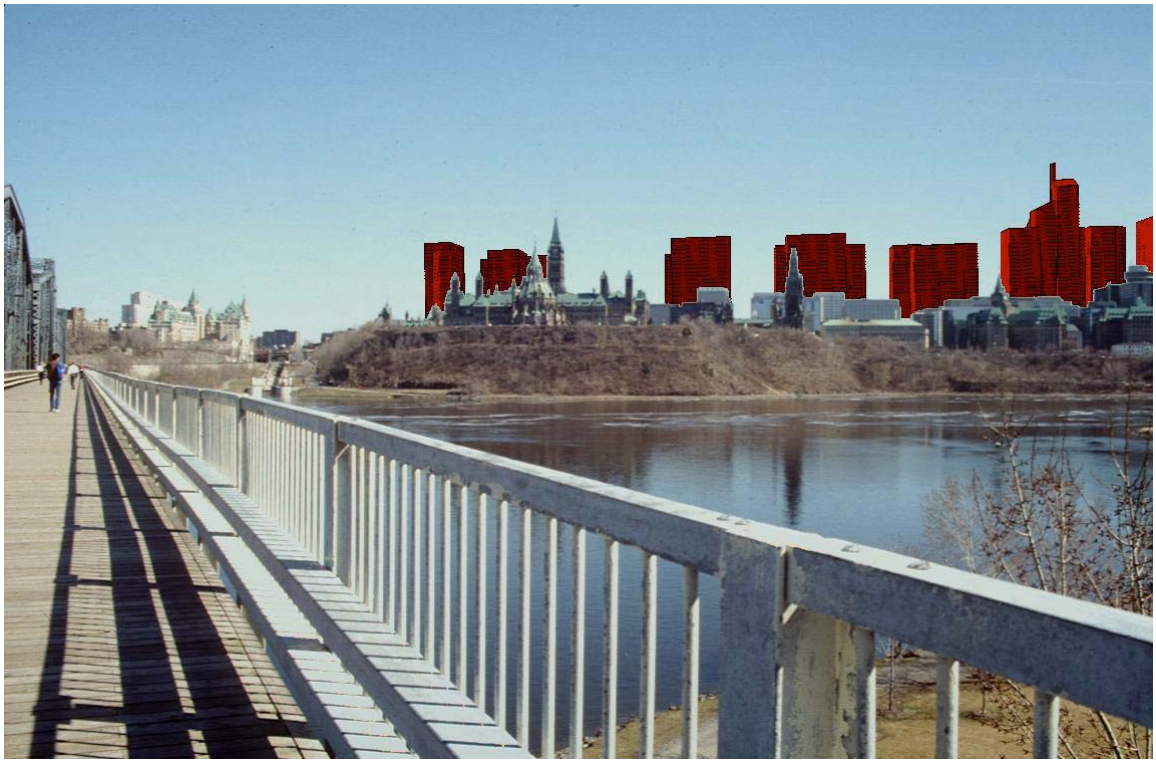
Extremely high tower proposals

In Vancouver, there is a proposal for an extremely high development called the 'Burrard Gateway'. The proposal was announced on October 26th, with a 48 storey tower (along with a 36 storey and 13 storey tower). The tower would have a significant impact on Vancouver's skyline. The current height controls do not allow for buildings of such height, as defined by the protected view from Queen Elizabeth Park. In order to proceed with this proposal, this key protected view from QE Park would have to be removed by council from the list of protected views. The Burrard Gateway proposal is thus directly challenging current height controls in Vancouver.

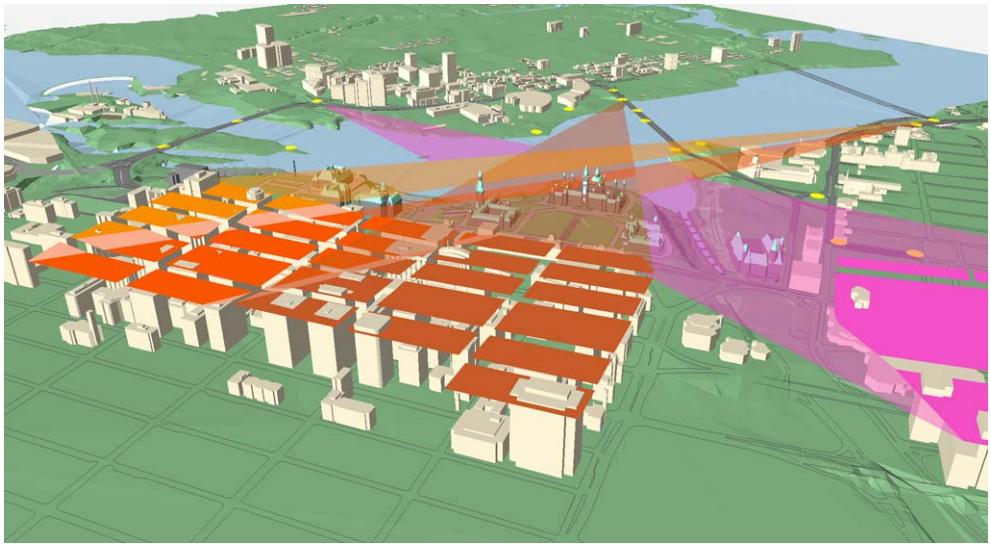
In Ottawa, back in the 90s, the developer Robert Campeau put a proposal for a very tall tower forward. This tower would have significantly impacted the Ottawa skyline, and the challenged the dominance of Peace Tower on Parliament Hill.



At the time, developers were praising the tower and claiming that it 'balanced' the Peace Tower and Parliament. Upon further examination, the 'Campeau tower' would have set a very bad precedent for further development. The National Capital Commission (NCC) commissioned several studies, and looked at the impact of the tower. One key question was, what would the Ottawa skyline look like if other developable sites were allowed to exceed current height control guidelines by 15 storeys?



After public consultation, there was a great outcry by residents against the Campeau tower and the proposal to increase height limits in the downtown core. The City of Ottawa council listened to their constituents, and turned down the Campeau tower proposal. The height controls in the downtown core were kept and strengthened after a series of studies. Both the residents and the Ottawa City Council saw the importance of protecting our national symbols.



In many ways, the North Shore mountains are a national symbol, inseparable from the Vancouver experience. Imagine a Vancouver with only the Fraser river, a few hills, and the ocean and ports, but without the mountain context. This just doesn't

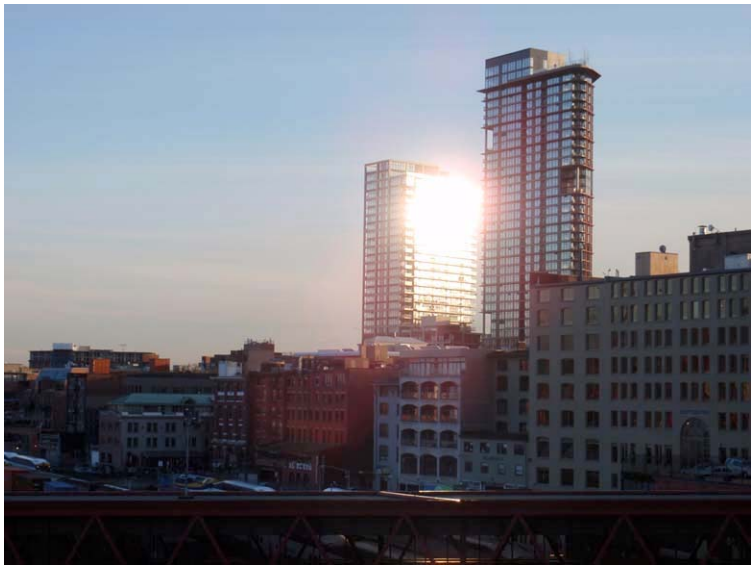
feel right; it isn't Vancouver. Hence the protection and preservation of the views of the mountains and the silhouette of the North Shore is a vital legacy to leave for future generations.

Study context

The views study examines several potential sites to allow higher buildings than what is currently allowed. Part of the premise is that there is a 'shortage' of land in the downtown and on the downtown peninsula. However, there is no way to increase the amount of land on the peninsula without further encroaching on Burrard Inlet or False Creek with landfill. Other cities, including Ottawa face similar challenges with what might be perceived as a shortage of land in the downtown core. However, as in the case of Ottawa, a few extremely tall buildings will not make a meaningful difference in the overall picture of available density. There are other ways to reach density targets, and there are also notable limitations such as vehicular traffic that limit the carrying capacity of the core. Other cities including Ottawa have found ways to keep their downtown core intact and only allow development in accordance with strict height limits and zoning bylaws.

High Building Creep into Neighbouring City Districts

The views study identifies several sites not only in the downtown, but also in the West End and in Coal Harbour. There is certainly a danger that if a maximum height of 700' (213m) were established, then this could be used as a precedent in other parts of the city. In particular, the removal of key baseline height controls could potentially open the door to 700' proposals in Chinatown and the Downtown North Eastside.



Paris Precedent and Recovering from Mistakes

In the natural course of the evolution of a city mistakes are sometimes made. It is important to recognize mistakes and not repeat them.

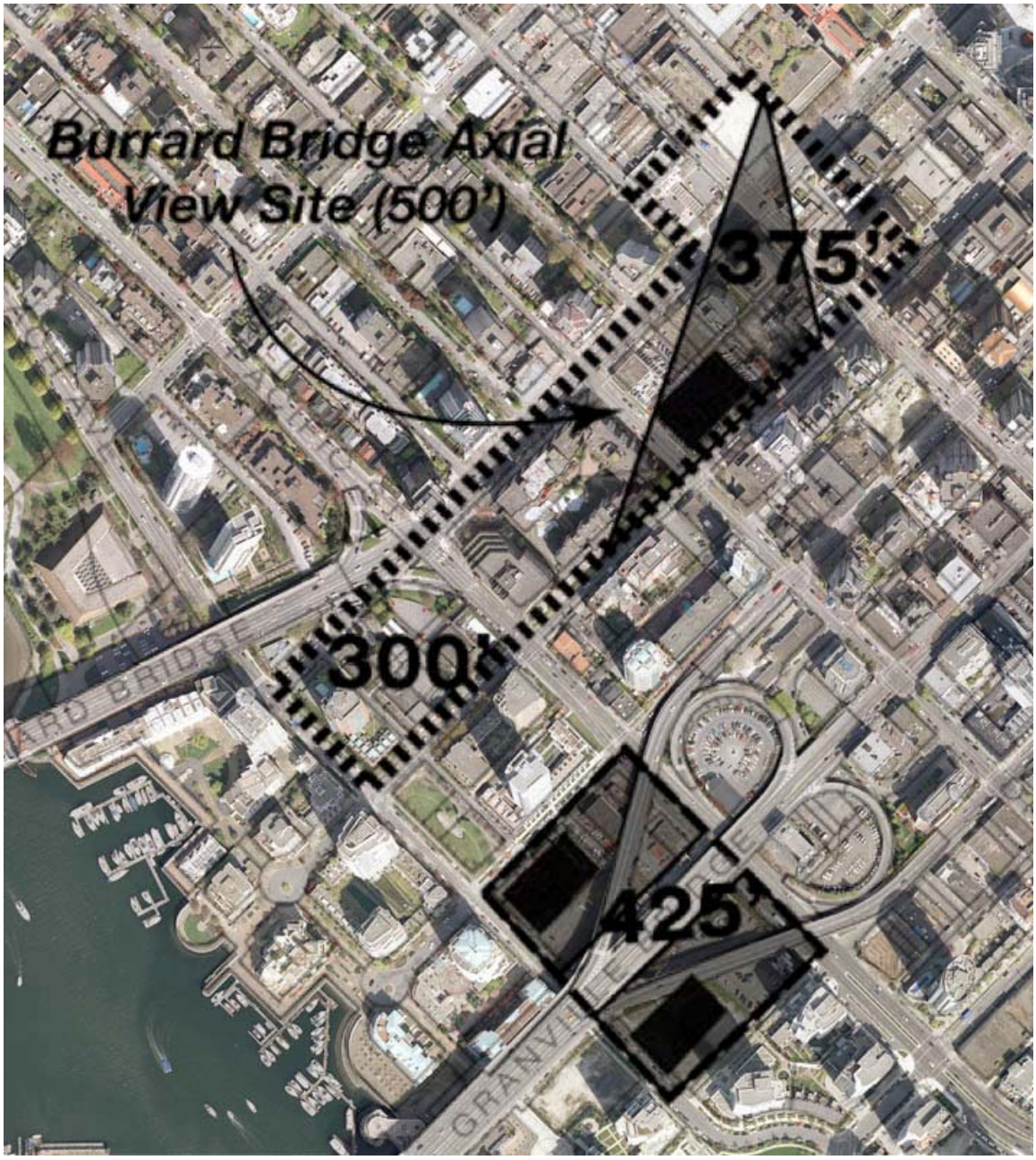
In Paris, the Montparnasse office tower was completed in 1972. This tower is 210m tall (689'), slightly below the maximum 213m (700') discretionary height proposed in Vancouver. Currently the Shangri-La tower is the highest building in Vancouver, with a height of 201m (659') and as shown in the photos it sticks out from the other buildings in the downtown core.

The scale of the Montparnasse tower is completely out of context from its surroundings in downtown Paris. Furthermore the tower interferes with important views. As a response to this tower, the construction of all further skyscrapers was forbidden in the downtown core. Parisians found out that it is possible to learn from mistakes. Hopefully Vancouverites can see that similarly the Shangri-La tower should never have been allowed in the first place. However, as this tower now

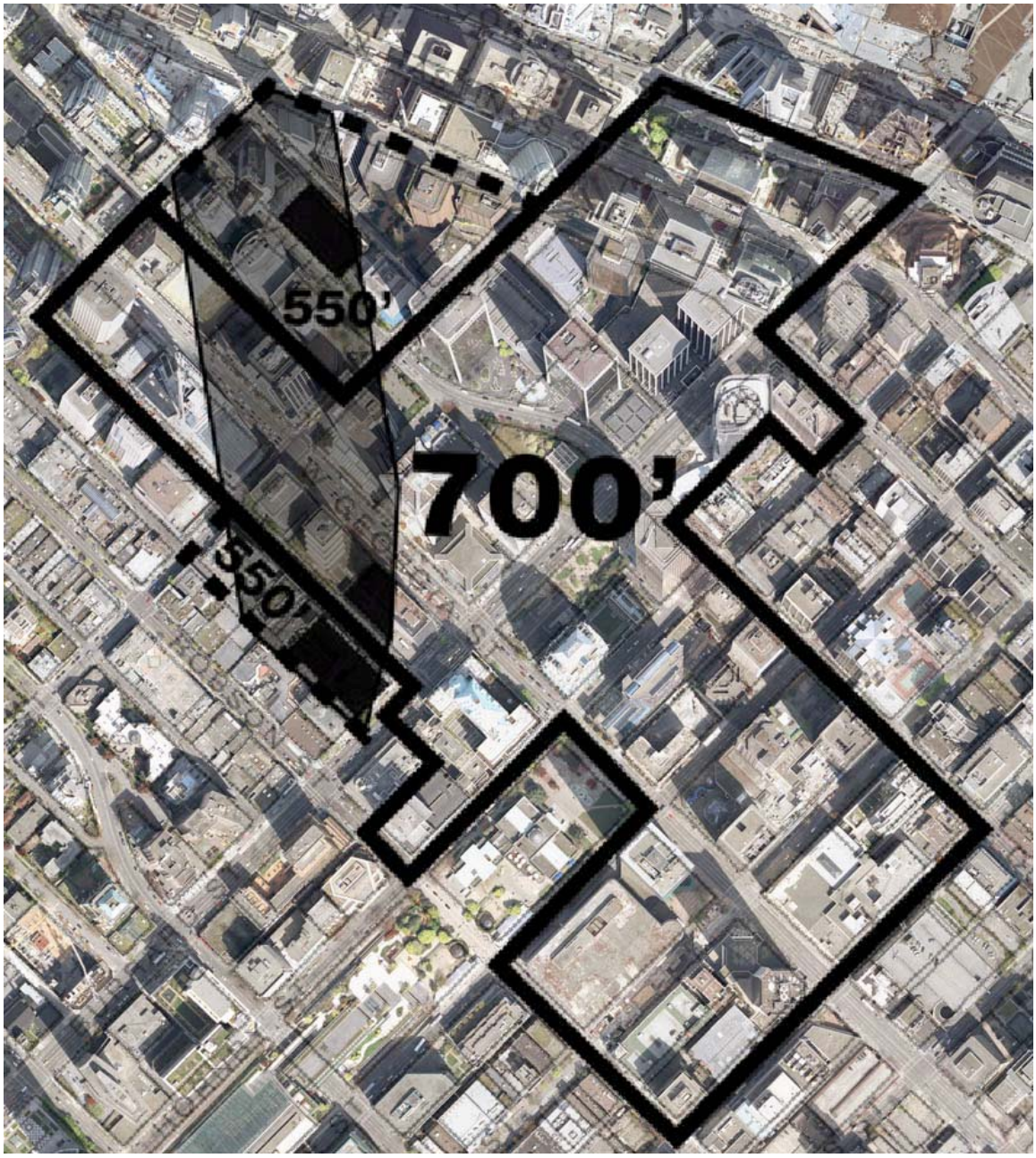
stands, it would be wise to follow the lead of the Parisians and not continue to build similarly tall structures.

West End and Downtown impact overlay

Below are two overlay images that combine the map from the staff report in Appendix B with aerial photographs from the City of Vancouver's Open Data site.



Please note that the overlay images are only an approximate calibration for reference purposes. The proposed changes impact not only the downtown, but the West End; Burrard Street is the boundary between these two districts. For reference, here are the metric equivalents for heights missing from the staff report: 213.3m (700'), 167.6m (550'), 129.5m (425'), 114.3m (375'), 91.4m (300').



A significant part of the Downtown and a bit of the West End have been proposed in the staff report to have a 213m (700') discretionary height limit.

Discretionary height and current practice

There can be a substantial difference between maximum discretionary building heights and the building heights that are allowed in reality.

First and foremost, *discretionary height should be used with discretion*. However, recent memory suggests otherwise. Under the Vancouver Charter and the powers that are assumed to be derived from this Charter, without any accountability the

Director of Planning *may* or *may not* grant the discretionary height when requested. As the experience at the rezoning of 1569W 6th illustrates, the maximum discretionary height is readily given out as requested. It no longer needs to be earned by good design or other criteria as in previous administrations. However, rather than being the maximum allowable height, precedent has proven time and time again that the discretionary height is merely the starting point for a building height. On top of the discretionary height, additional floors are requested for amenities, then for heritage transfer, and when it is all tallied a few more floors are requested for further height. On top of this comes the height of the elevator penthouse and other mechanical structures at the top of the building that are not currently counted in the overall height. The end results are rezoned buildings higher than what would be allowed under the maximum discretionary height.

The question here remains to be asked, if 700' (213m) is the maximum 'discretionary height', what will the total height of a building be after all of the bonuses and extras are added into the equation? 733'? Perhaps 760? 812'? What about 890'? How high can you go, is the sky the limit?

The percentage increase of maximum overall height for recently rezoned projects in the city might be an indicator. For example, the maximum discretionary height for 1569W 6th as stated in the Burrard Slopes 3-A guidelines is 30.5 m (100 ft) in section 4.3.1. After rezoning, the approved tower is 47.16m (154.7 ft), a 54% increase in height. According the staff report the current maximum height in the CBD is 600'; assuming that this was the height that would have been allowed for the Shangri-La skyscraper, then it is easy to compare with the completed height of the building at 201m (659'), a 10% increase.

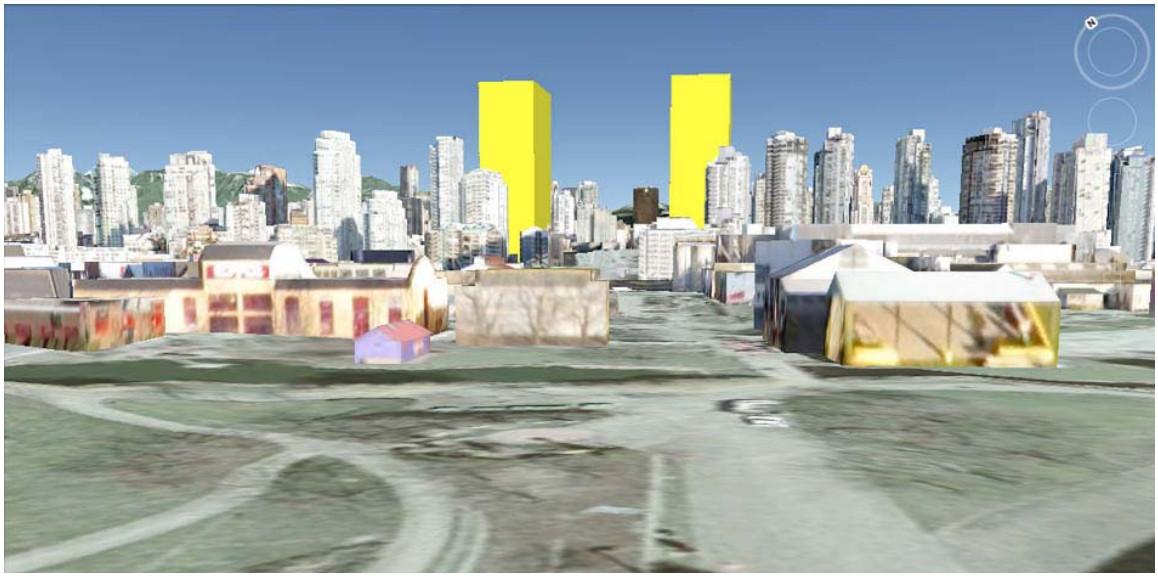
Currently the highest towers in Canada are located in Toronto and Montreal. A few examples of heights: Montreal's La Tour IBM-Marathon is 743' (226m) tall, while in Toronto the TD Centre is 731' (223m) tall, Commerce Court clocks in at 784', Scotia Plaza is 902', and the granddaddy of them all, First Canadian Place is 978 ft (298m) tall.

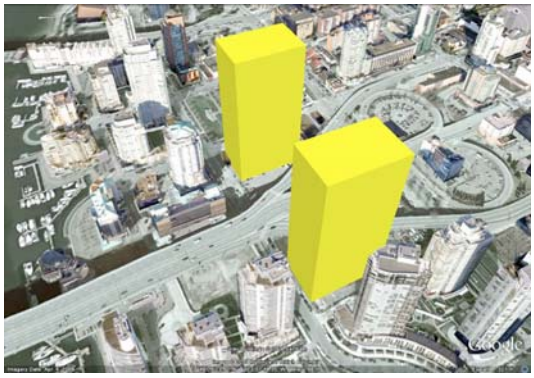
Toronto & Montreal; will extremely high buildings spread to Vancouver?

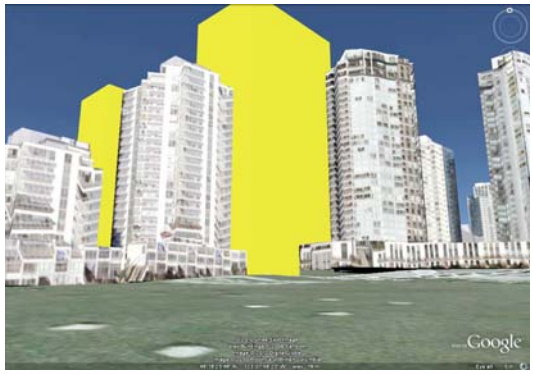
Granville Loops

There are a number of potential development sites identified in the staff report. To visualize the impact from street level and from varying vantage points, the author created rough massing envelopes of the extends of the possible building volume built out to the maximum proposed height. It should be noted that proposed buildings might not make use of all of this volume potential; in practice the buildings on the identified sites will likely make use of all of the available height.

In the Granville Loops there's an open question of whether the two tower sites would be subject to a 60' setback requirement for any part of the tower above the elevated bridge height (policy may affect north side of False Creek). For the purposes of the visualization, the buildings were constructed and extruded using the darkened rectangles indicated in Figure 1 from Appendix B. The constructed models were placed within Google Earth (GE). While the GE city model available in this environment is quite impressive in scale, please note that certain details may be missing; for example the bridges over False Creek are yet available in this platform.

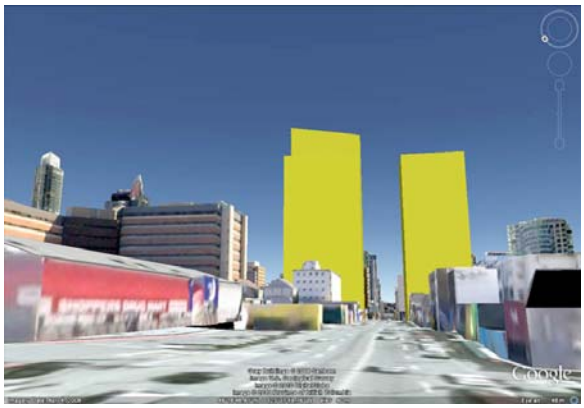


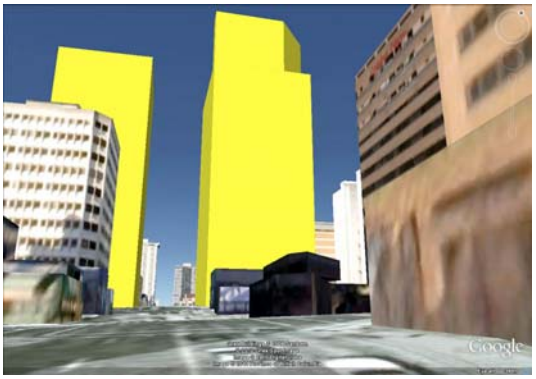


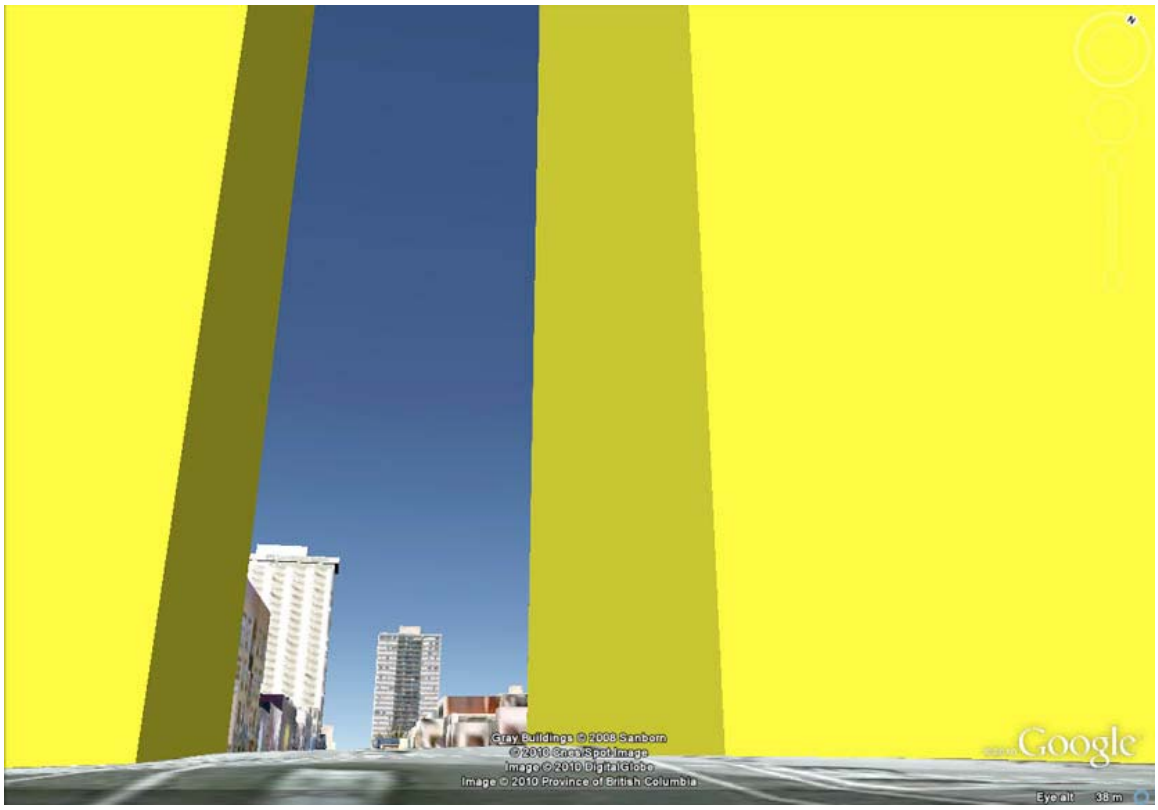


Davie & Burrard (West End)

The report identifies a part of the West End on the west side of Burrard at Davie. There are two undeveloped lots here, one site contains a gas station while the other has gardens. The potential development volume of the north west side to the maximum height (in permitted area) is modelled; similarly the site on the south west shows a potential volume extents below:

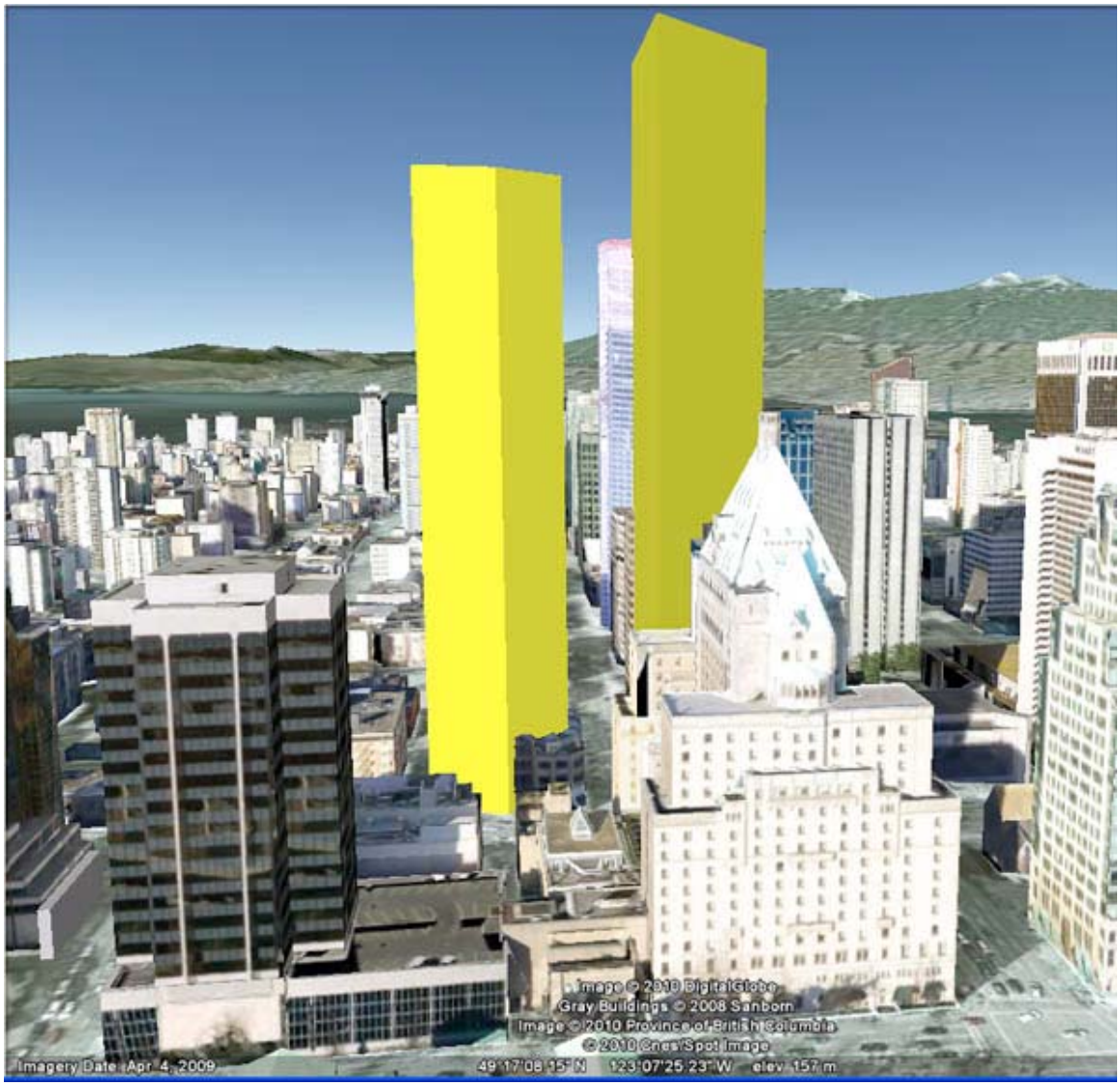




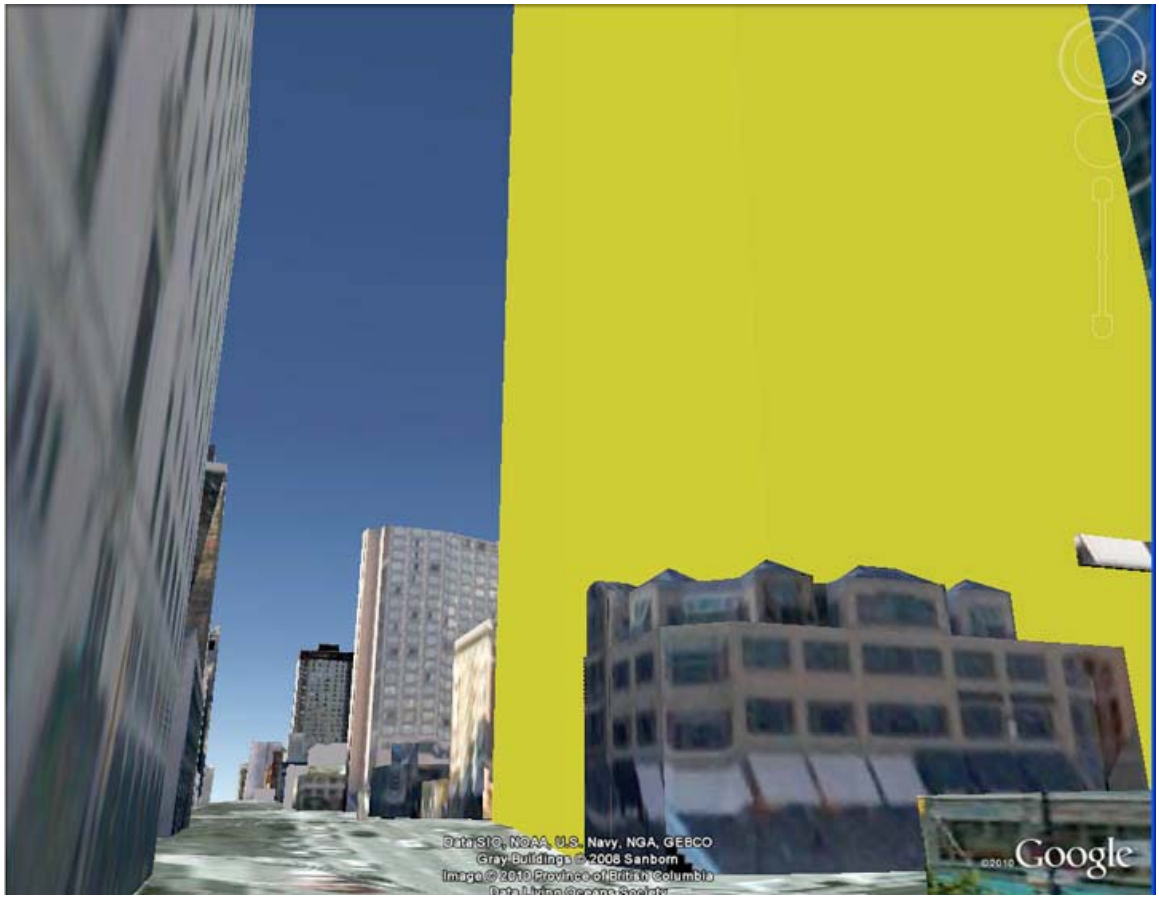


Burrard and West Georgia

Again the West End is impacted on two identified sites south of West Georgia. Note the potential for high wind tunnels between the 700’ and 550’ identified tower sites.



The two sites potential sites for extremely high towers identified of the south west of Burrard and West Georgia are actually in the West End. The report is very misleading in the fact that it continues to refer to identified sites being in the 'downtown'. The identified potential towers also diminish the heritage value of the Fairmont Hotel Vancouver. This chateau style hotel is still an important icon in the downtown; and the Hotel Vancouver is one of the landmarks adjacent to the public square adjacent to the Art Gallery.



While reviewing the images from the staff report, it may be safe to assume that there is a 3D computer model of the downtown buildings, terrain, bridges, and North Shore mountains in house at the city. In a similar manner to the author's exercise of modelling the 3D envelopes of identified sites to the maximum proposed discretionary height, the creators of the staff report also did this same modelling task in order to produce their renderings for the report. Additional street level views and analysis done to show the public or council the full impact of allowing extremely high skyscrapers downtown could have been provided by staff.

The final site at Melville is identified for a potential 550' tower, as illustrated below:

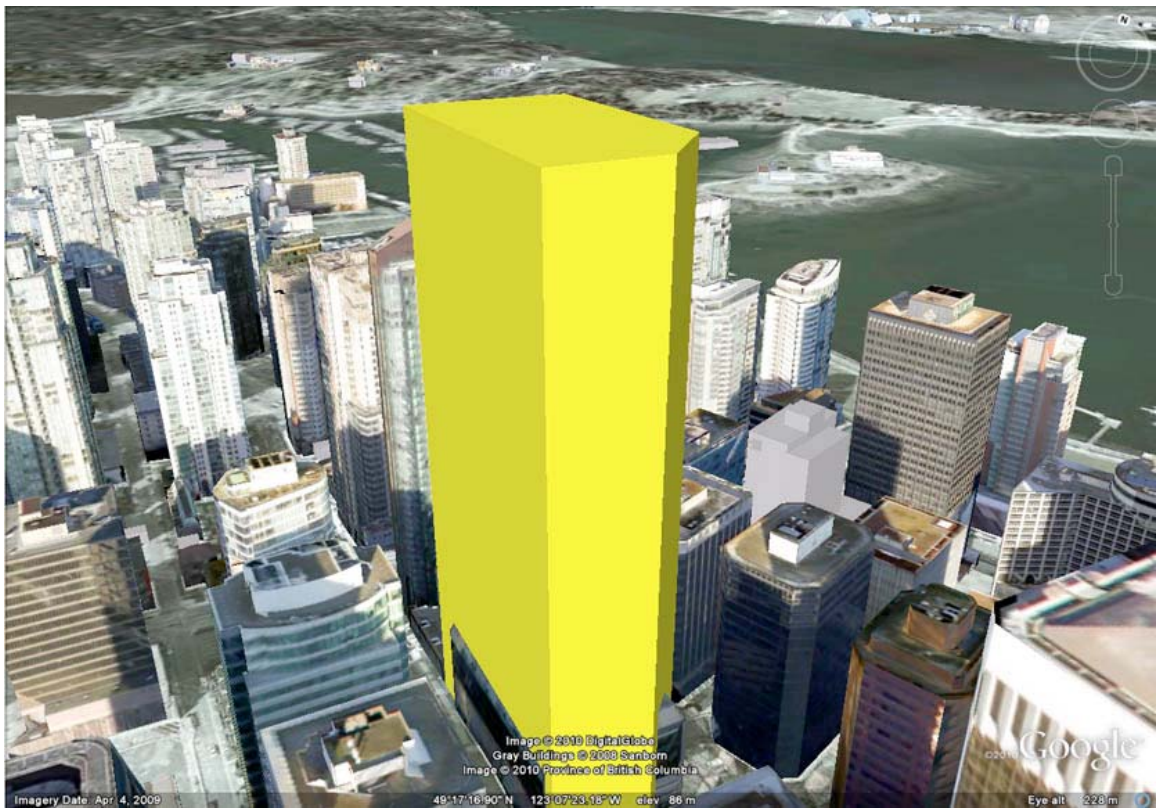
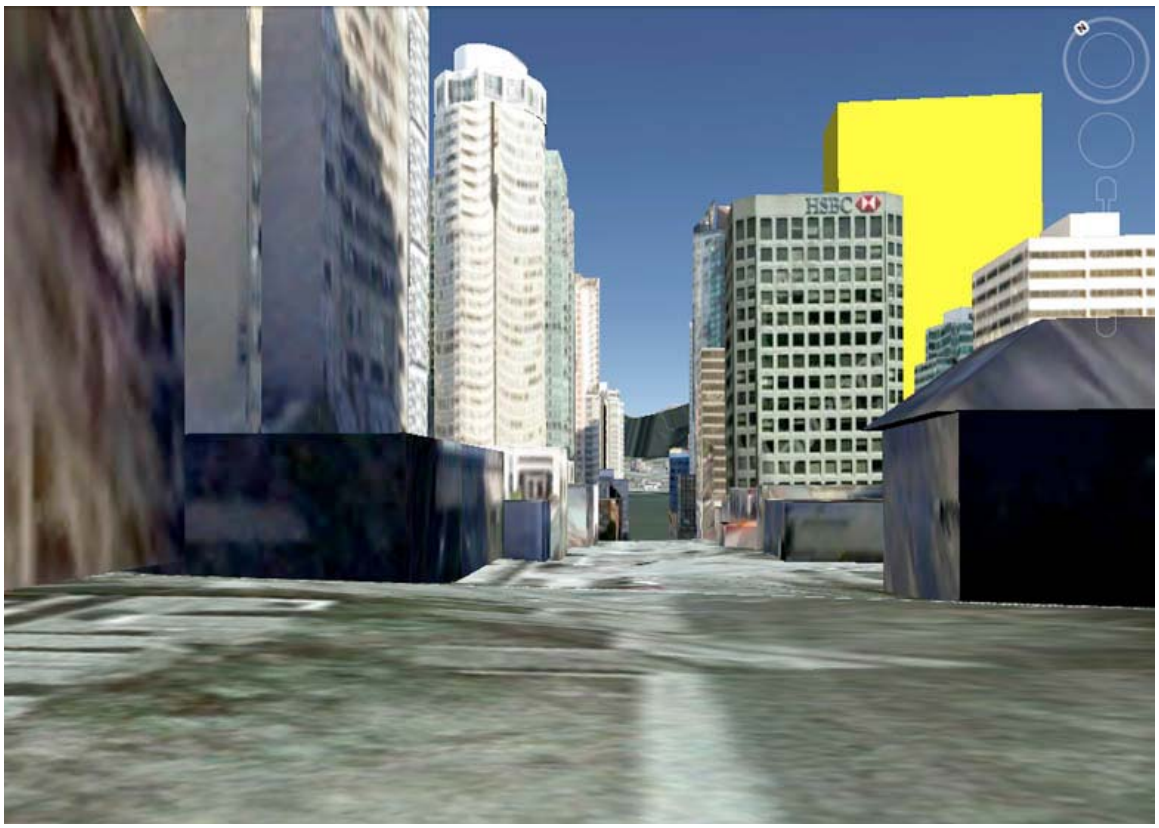


Image © 2010 DigitalGlobe
Gray Buildings © 2008 Sanborn
Image © 2010 Province of British Columbia
Imagery Date: Apr 4, 2009
49°17'16.90" N 123°07'23.18" W elev 86 m
Eye alt 228 m
Google


HSBC

Broadway Corridor views

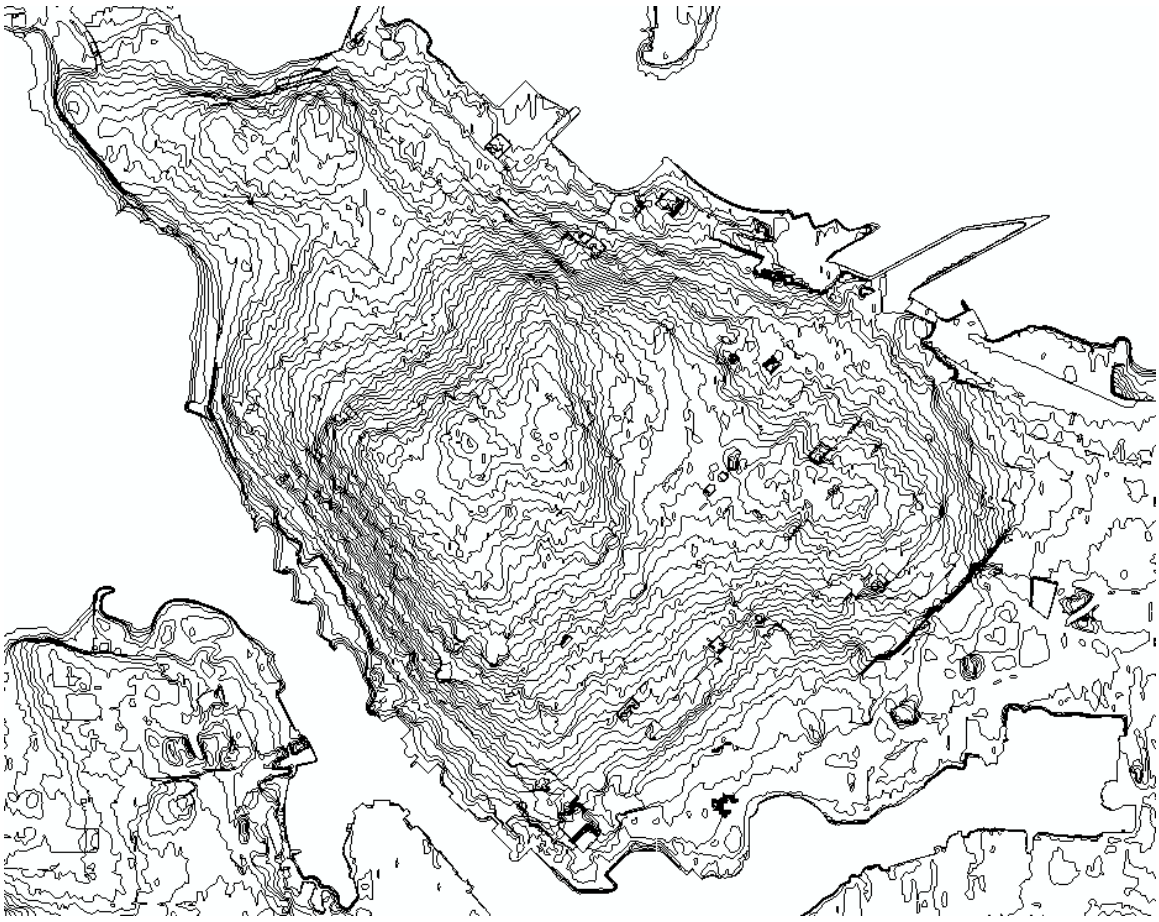
There are many views of the North Shore along the Broadway corridor. This is the most heavily used bus transit corridor in BC with 115,000 rides per day and an extremely high traffic vehicular corridor; preserving views of the North Shore for all commuters, pedestrians, workers, residents and tourists should be of significant concern. However, issues related to the experience from the Broadway corridor are not adequately examined in the staff report. There are opportunities to protect important views, such as the one from Vancouver Community College on Broadway between Clark and Glen Drive. Other views, such as from Oak and Broadway are almost completely lost, as there was no view protection at that intersection. Thus the issue of preserving some of the more cherished existing views to mountains from Broadway should really be examined in further detail; it's worth considering saving what we can for future generations.

Identification of other unprotected views

There are iconic views in parts of the city, including the Main Street corridor. The areas around Heritage Hall still have significant visual access to the mountains. An additional viewpoint could be considered from Clark Park.

Role of Topography in Height Controls

A very simple fact of life is that downtown peninsula is not flat. This can be clearly seen by looking at a map of the contour lines (source: data.vancouver.ca):

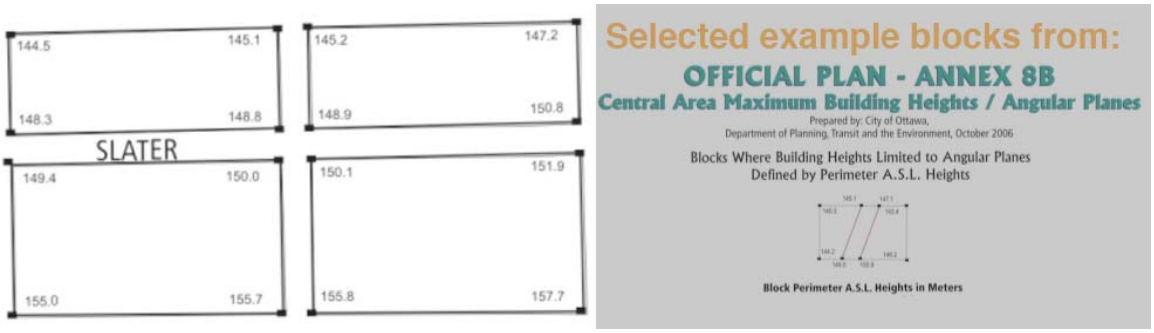


Yet the entire staff analysis designates sections of the West End and the downtown by absolute heights, with no or little regard to the topography of the city. More precise view protection could be allocated by using angular planes on a block by block basis. This approach can also enable unallocated development potential.

Block by block zoning vs. maximum discretionary height over an area

The analysis and zoning in the City of Ottawa was done with a different methodology. In order to protect views, an absolute maximum height above sea level was established on a block by block basis, using angular planes projected from protected viewpoints on a corner by corner basis for each city block. In this manner developers were permitted to build anywhere below the height control (nothing can protrude above the height limit, including elevator penthouses and other mechanical structures that are currently exempt in Vancouver from maximum height control). Using this methodology very clear protection could be granted for the defined view corridors.

An illustration from part of the Ottawa's 2006 zoning bylaw is below:



The full document for the zoning of downtown Ottawa is available online: http://www.ottawa.ca/city_hall/ottawa2020/official_plan/vol_1/07_annexes/annex_08b_en.pdf

Other cities have different criteria for approaching heights. Washington DC is another good precedent to see a case of where height controls are very evenly set. Rather than looking for ways to maximize all possible density while protecting views as in Ottawa, Washington DC tends to err on the side of caution and there are policies in place for low and medium building heights (90', 130', 160').

A Higher Burrard Gateway Skyscraper proposal?

The final planning report quietly slips in the following sentence on page 13:

> *The rezoning application was originally submitted with a building height of 500', but a supplemental application has since been submitted for a* ***building height of 550'***

However, there are no further details given on the timeline for this supplemental application for the Burrard Gateway. One can only assume that it is after the developer's October 26th, 2010 media release.

Removal, Modification and Addition of Other View Controls

As previously noted, the staff report seeks to eliminate the key baseline height control over much of the downtown from Queen Elizabeth park. The public consultation process and staff report also considered modifying, removing and adding control points. Over the next few days prior the author of this report hopes to have sufficient time to summarize issues related to the other viewpoint changes.

As a note, removing or ignoring viewpoints sets a dangerous precedent. If there is a protected view that interferes with a extremely high proposed development in the future, then will it also be removed or modified?

Report title: West End and Downtown District Boundaries

The title of the report suggested that only the downtown is affected by the proposed changes. However, as noted, sites and changes have been also identified in the West End. In order to properly describe the report, shouldn't the 'downtown' in the title

be changed to ‘downtown and West End’? Below is a graphic of the boundaries in the city, from the online version of VanMap beta (labelling & colouring mine):

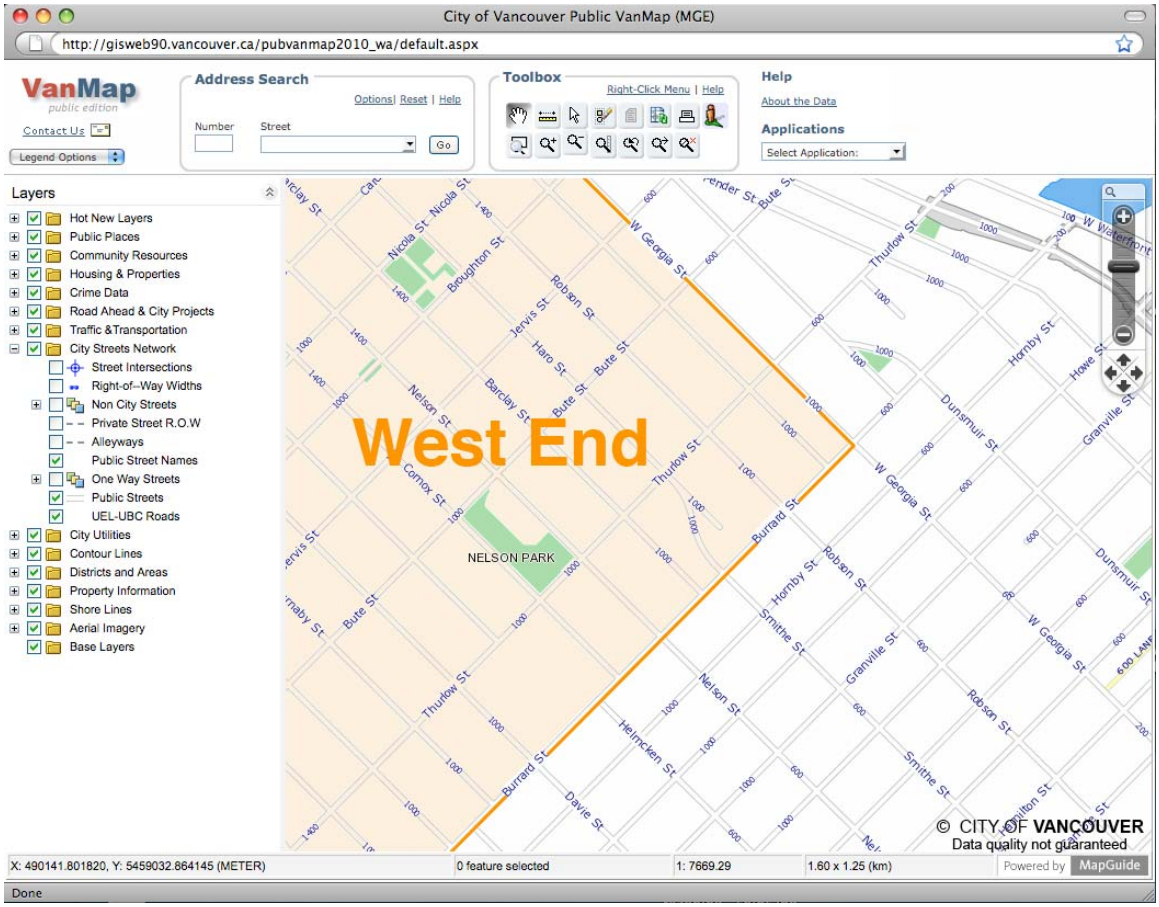


Photo Credits, Illustrations and Background References

All photographs in this document are original photos taken by Stephen Bohus, with the exception of the combined computer generated & Ottawa photo. Other graphics are credited; Ottawa height control study images are from CLR (Centre for Landscape Research) from work done in cooperation with du Toit Allsopp Hillier (dtah.com) for the National Capital Commission. The author, Stephen Bohus did work as part of the team consulting for the NCC on the Ottawa Heights Study, hence his familiarity with the study. The captured screens from Google Earth combine massing models of proposed development sites and the Google Earth 3D database.

Appendix A

Think in Metric – support recent immigrants & minorities

Is there a possibility that planning is accidentally disenfranchising recent immigrants and minorities who only think in metric? Upon reading the staff report, it is clear that distances and areas are stated almost exclusively in feet and square feet. Furthermore the height limits are in imperial, round numbers (or half &

quarter). Rather than stating 300', 375', 425', 550' and 700' could the heights just as easily been 90m, 110m, 130m, 170m and 210m?

Is there any other rationale then using a round imperial number to increase a 600' discretionary height in the CBD to 700'?

On another note, the use of the metric system is federal law; the staff report extensive use of imperial measurements harkens back to the early 70s. Planning staff should note that the City of Vancouver's GIS database is in metres.

Links

Additional documents and web sites that can be referenced include:

Ottawa – proposed high buildings 8 page summary by NCC:
http://cityhallwatch.files.wordpress.com/2010/12/protecting-parliamentary-precinct-skyline-ncc-pamph.pdf

Final Ottawa height control report by NCC and consultants (DTAH & CLR)
http://cityhallwatch.files.wordpress.com/2010/12/ncc_views-protection-u-of-t-2002-finalreport.pdf

Ottawa city downtown core height controls
http://www.ottawa.ca/city_hall/ottawa2020/official_plan/vol_1/07_annexes/annex_08b_en.pdf

Paper: Virtual Conservation: Using Computer Simulation to Protect our Heritage
http://www.heritagecanada.org/eng/news/archived/summer2006/virtual.html

Tallest tower in Ottawa:
http://en.wikipedia.org/wiki/Place_de_Ville

List of tallest buildings in Canada:
http://en.wikipedia.org/wiki/List_of_tallest_buildings_in_Canada

Paris, Montparnasse Tower:
http://en.wikipedia.org/wiki/Tour_Montparnasse

Canadian metric policy since 1983:
http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=a1ARTA0005262

Burrard Gateway proposal links to media and developer:
http://www.vancouversun.com/business/Burrard+Gateway+project+million+makeover/3729505/story.html
http://burrardgateway.ca

Further notes on Ottawa case study
One of the reasons that the Ottawa Height Control review took many years is complete is due to the way municipal council rezoning decisions can be appealed in

Ontario. Unlike BC, where the ultimate decision stands with City Hall, in Ontario there is a body called the Ontario Municipal Board (OMB). The OMB can overturn or modify a council's decision. By using the OMB, developers can try to extract extra height and go beyond the height and density permitted by a municipality. Hence the bylaws enacted in Ottawa had to be ironclad and allow no room to maneuver for developers. Fortunately we do not have a similar situation in BC.