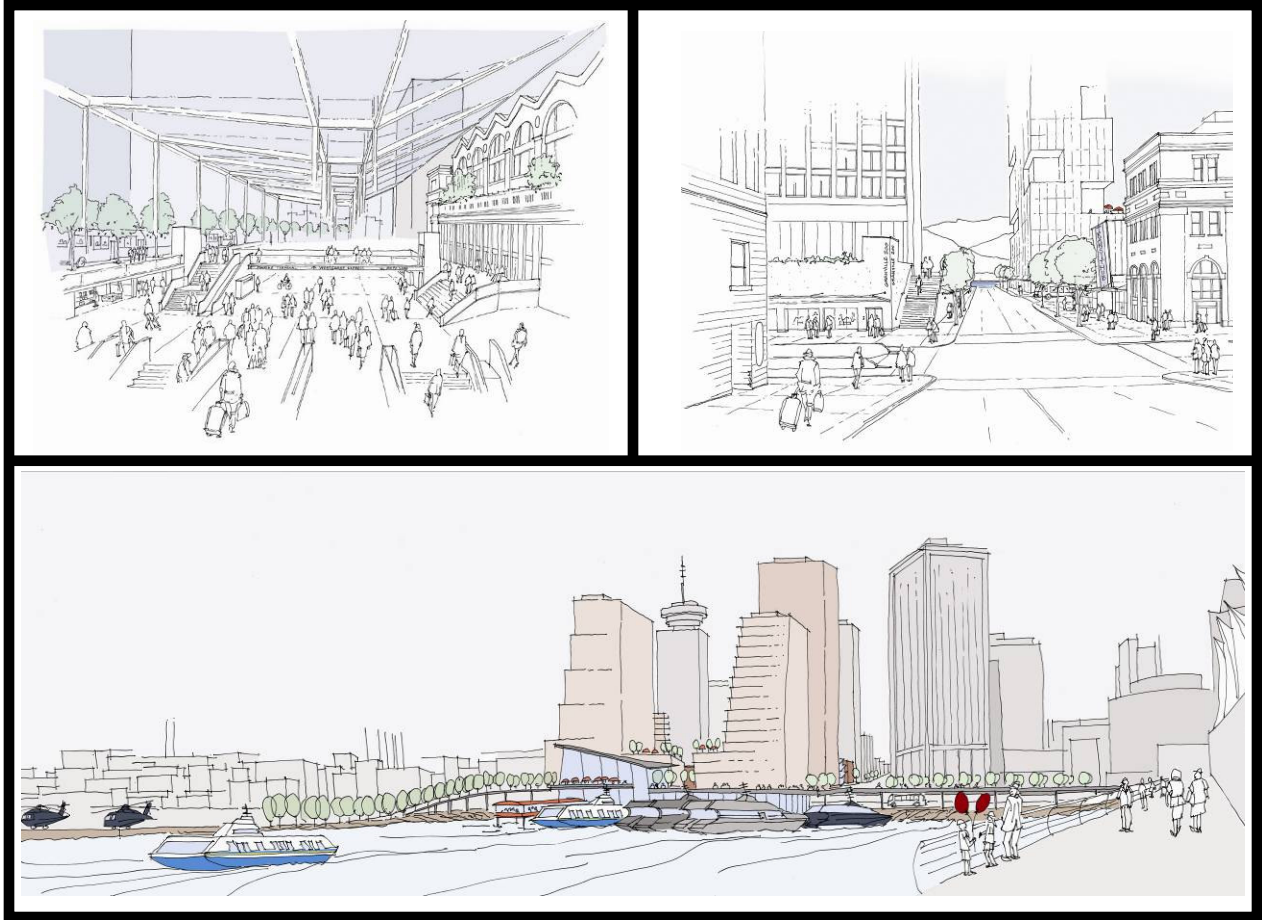


Central Waterfront Hub Study



Author: Steve Brown, P.Eng
City of Vancouver - Engineering Services

Contributor: Matt Shillito
City of Vancouver - Planning Department

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Abstract

The Central Waterfront is the principal focal point of the regional transportation network for Metro Vancouver, where multiple rail, road, marine and air transportation modes converge. The area is expected to see a significant increase in passenger volumes over the next few years as the current transit operations expand and new services are added, placing further strain on the existing infrastructure. As a result, there is a need to plan for an expanded, better-integrated transportation interchange with a wider range of facilities available to transit passengers.

At the same time, the potential exists to physically reconnect the city to the waterfront in this area and introduce new commercial and mixed use development in a location with unparalleled transit accessibility.

The City of Vancouver has a strong interest in realising these transportation and ‘city building’ benefits and is in a unique position to show leadership by creating an integrated vision for the area, given its mandate for overall land use planning. Through extensive technical work and consultation as part of the Central Waterfront Hub Study, the City has now prepared a Framework for the area that will be presented to Council in May 2009. The Framework outlines an exciting and compelling vision for the creation of a world-class transportation interchange and dynamic new downtown extension in the Central Waterfront.

One of the keys to realising this vision will be to identify a ‘champion’ to drive the project forward. This could either be a single party, or a consortium, with the capacity for multi-year involvement and significant financial investment, as well as the ability to present a comprehensive approach which unites the various landowners and stakeholders in the area. Senior levels of government will probably also need to become involved.

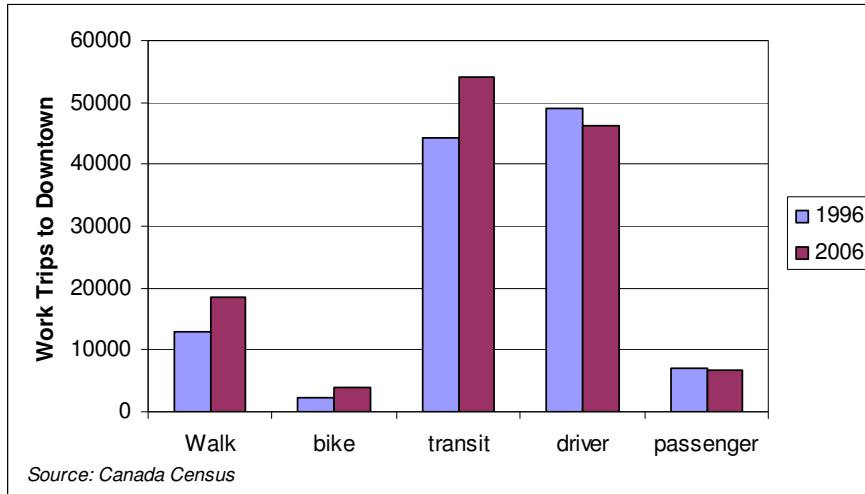
The Central Waterfront Hub is a good example of new development integrated with a major transit node and as such provides a case study to test the appetite of developers towards transit oriented development. Two pieces of technical analysis conducted through the planning work shed light on this issue: the parking supply market assessment and real estate focus group. Both of these studies examined developers’ attitudes towards transit accessibility and, in particular, to reducing the amount of parking that is provided on site to reflect the availability of sustainable transportation options.

This report provides an overview of the Central Waterfront Hub project and the insights it provided into the question “Are Developers becoming more Transit Oriented?”

1.0 Introduction

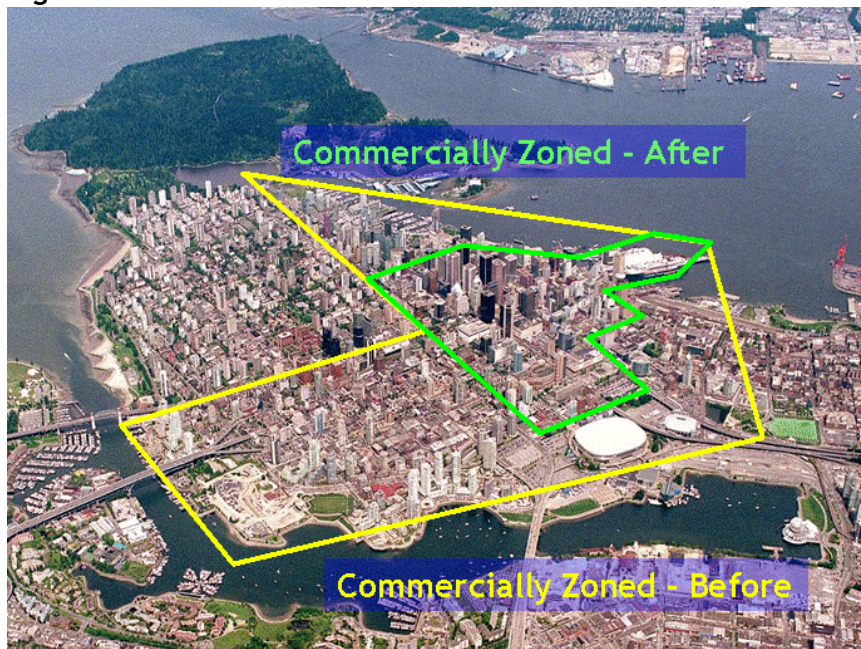
In recent years there has been a continuing trend towards a reduction in vehicle trips and an increase in walking, cycling and transit trips within the City of Vancouver, particularly in the downtown area. Figure 1 illustrates that over a 10 year period from 1996 to 2006 there was a 6% reduction in vehicle trips to the downtown.

Figure 1: Canada Census Journey to Work (Downtown Vancouver)



This trend can be at least partially attributed to two City policies that were adopted in the 1990’s: the Central Area Plan¹ and the Vancouver Transportation Plan². The Central Area Plan sought to improve the balance of office and transportation capacity. This was achieved by adjusting the downtown land use mix, reducing the commercial area and increasing residential development (Figure 2), with the commercial areas focused around existing rapid transit centres. This reduced the number of trips to the downtown and brought labour into closer proximity to the region’s largest concentration of jobs.

Figure 2: Commercial and residential areas as a result of Central Area Plan



Following the region’s “Livable Region Strategic Plan”³, the City of Vancouver developed the “City of Vancouver Transportation Plan”. This set the transportation principles and policies for the City of Vancouver and established transportation priorities in the following order: Pedestrians, Cyclists, Transit, Goods Movement and vehicles.

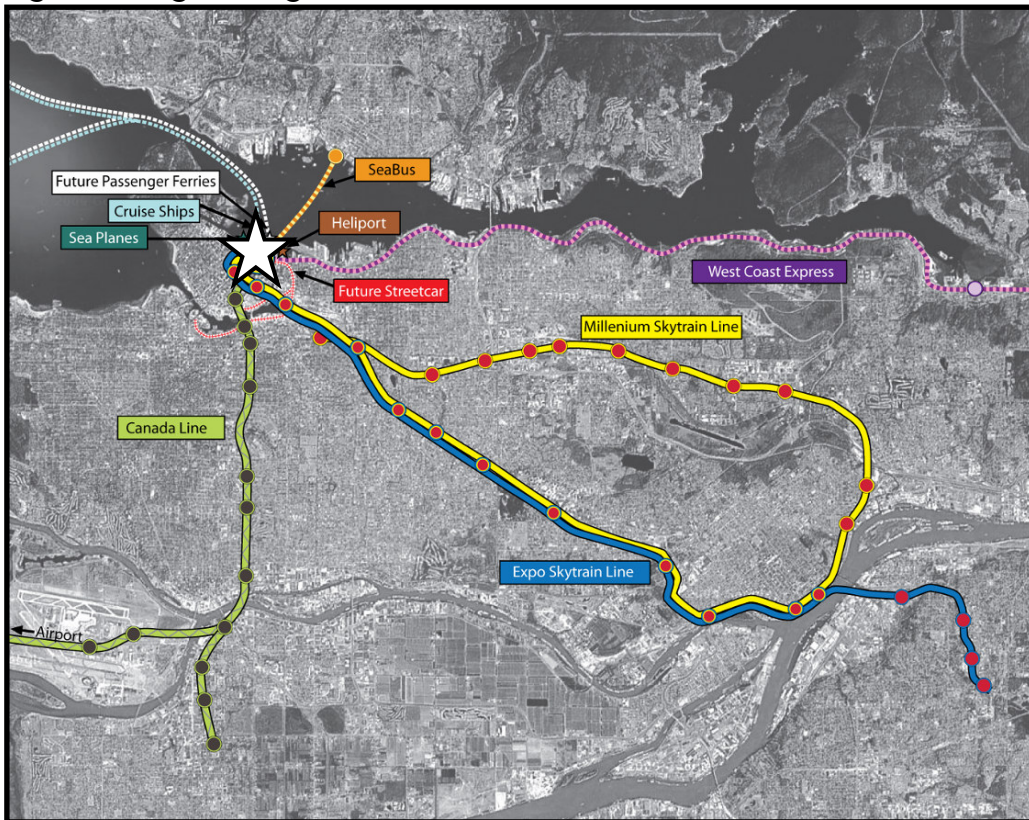
Within this general context, a recent City of Vancouver Engineering and Planning project - the Central Waterfront Hub Study - examined the potential for the creation of a new transportation interchange at the heart of the regional transit network integrated with high density new development. The following sections provide an overview of the Central Waterfront Hub study as well as a summary of two pieces of technical work that gave some insight into the question “Are developers becoming more transit oriented?”

2.0 Central Waterfront Hub Study

2.1 Background

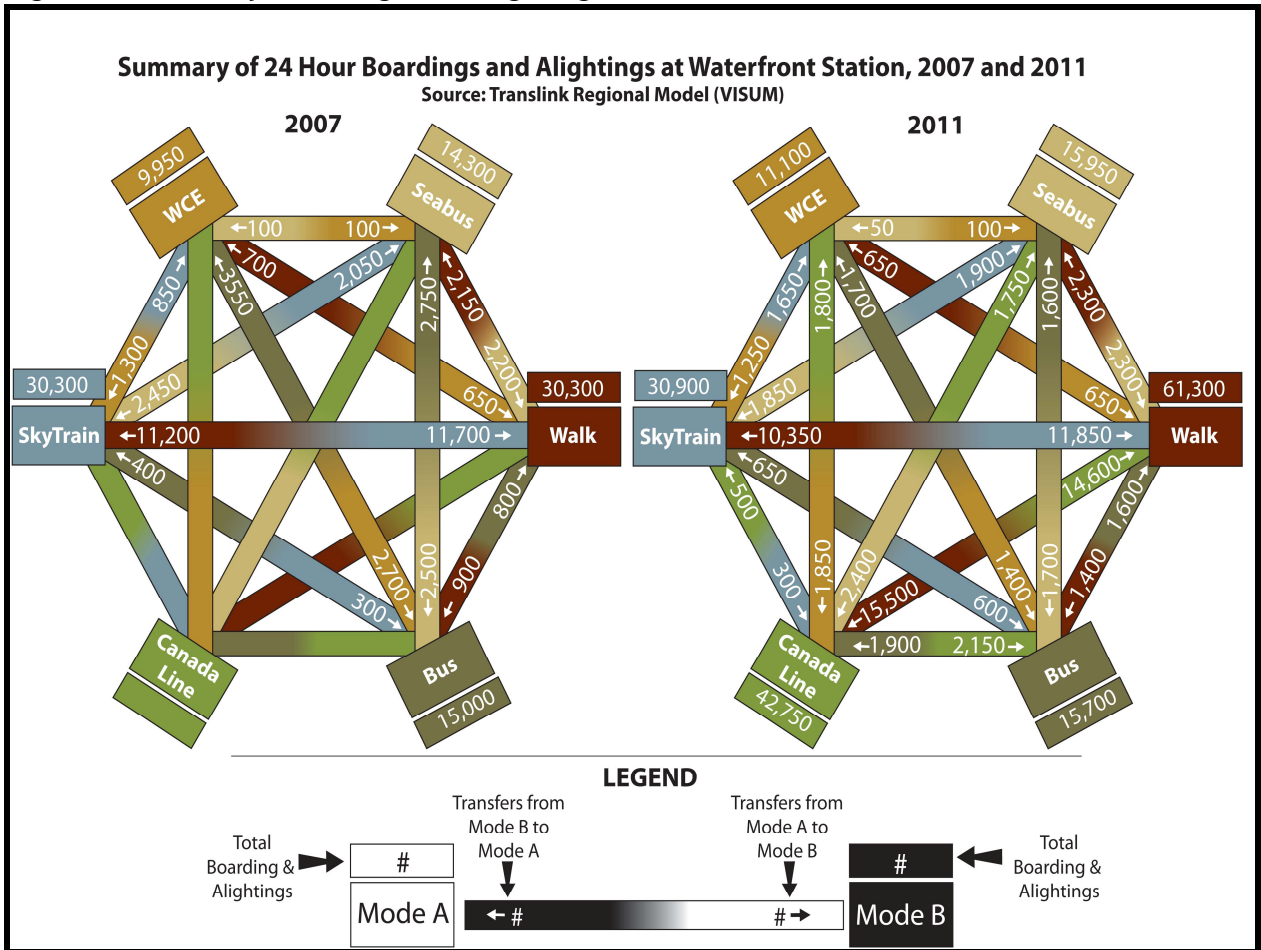
The Central Waterfront occupies a unique position in the regional transportation network due to the convergence of multiple transportation modes: including ALRT (SkyTrain), Heavy Rail (West Coast Express), passenger ferry (SeaBus), Heliport and numerous bus routes. This position will be further reinforced over the coming months and years with the completion of the Canada Line and the planned introduction of additional passenger ferry services and Downtown streetcar. The Canada Place cruise ship terminal and planned float plane dock at the Convention and Exhibition Centre are also in the vicinity.

Figure 3: Regional Significance of Waterfront Hub



As a result of increased passenger volumes on existing services and introduction of the new services, the number of passengers using the area daily is expected to increase from 50,000 in 2007 to approximately 90,000 by 2011⁴ (see figure 4). Having developed incrementally over several decades, the existing transportation infrastructure does not present a fully integrated facility, becomes congested at peak times, and lacks many facilities and amenities needed by transit users.

Figure 4: Summary Boardings and Alightings at Waterfront Station



Beyond the transportation role, the area presents significant opportunities to connect the downtown with the waterfront, and introduce high density commercial “job space” in an attractive location with unparalleled transit accessibility.

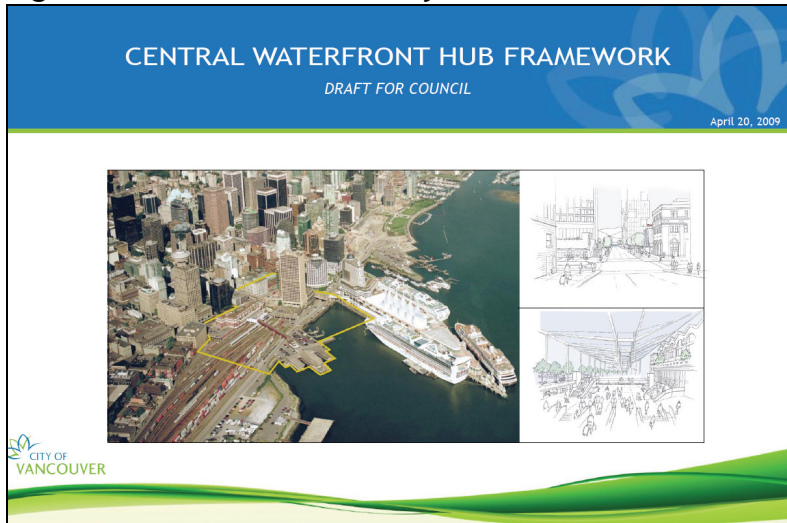
None of the previous planning for the area addressed the need for a transportation hub in keeping with the importance of this location, nor how development could integrate with it. In addition, none of the key landowners or agencies active in the area - Port Metro Vancouver, Whitecaps, Ontrea Inc, TransLink - had the creation of a vision for the whole area as a task within their mandate.

The City not only has an interest in realising the major transportation and ‘city building’ benefits, but is also in a unique position to provide leadership in creating an integrated vision for the area, given its mandate for overall land use planning. The Hub Study was

undertaken to create this longer term vision, in close cooperation and consultation with the area landowners and stakeholders. It identified and examined a complex array of technical planning considerations, as well as numerous, often conflicting interests.

The complex nature of the area, together with the absence of a current development proposal, indicated that a Framework document⁵ which established the City's vision and provided guidance for subsequent work would be the most suitable planning tool at this stage. The Framework document can be found at <http://vancouver.ca/hub>.

Figure 5: Waterfront Hub Study Framework Document



2.2 Technical Work and Consultation

The Hub Study involved a wide range of technical work carried out by City of Vancouver staff and consultants as well as extensive consultation with a broad range of interested parties. The technical work carried out included:

- Transportation needs assessment.
- Urban design analysis, option generation and concept plan preparation.
- Traffic and parking analysis.
- Preliminary street and intersection design.
- Structural feasibility study and costing.
- Real estate analysis.
- Preliminary financial analysis.

The study also involved extensive consultation with a broad range of interested parties, including study area landowners, a Hub Study Working Group, Council Advisory Committees, local interest groups and the public.

2.3 The Central Waterfront Hub Vision

The Waterfront Hub Framework presents an exciting and compelling vision for the creation of a world-class transportation interchange and dynamic downtown extension in the Central Waterfront. The key elements of the vision can be briefly summarized as:

- A fully-integrated transportation interchange which combines the best attributes of successful transit nodes around the world and celebrates its unique Vancouver setting.
- A ‘land terminal’ focused on a grand, contemporary passenger concourse which complements the historic Waterfront Station building and provides a wide array of passenger facilities and amenities (Figure 6).
- A ‘marine terminal’ on the waterfront serving Seabus and other ferry passengers within a coordinated facility (Figure 7).
- A vibrant downtown extension which re-unites the city with the waterfront.
- High density commercial and mixed use development which expands the central business district and complements the activity of Gastown.
- Architecture of exceptional quality, reflecting the prominence of the setting and respecting the existing heritage buildings.
- A welcoming and beautiful public realm of new streets and open spaces which entices people to the area to enjoy the waterfront and views.
- A strong commitment to environmental sustainability expressed in all aspects of the design and construction of the buildings and infrastructure.

Figure 6: Berlin Central Station



Figure 7: Land Terminal

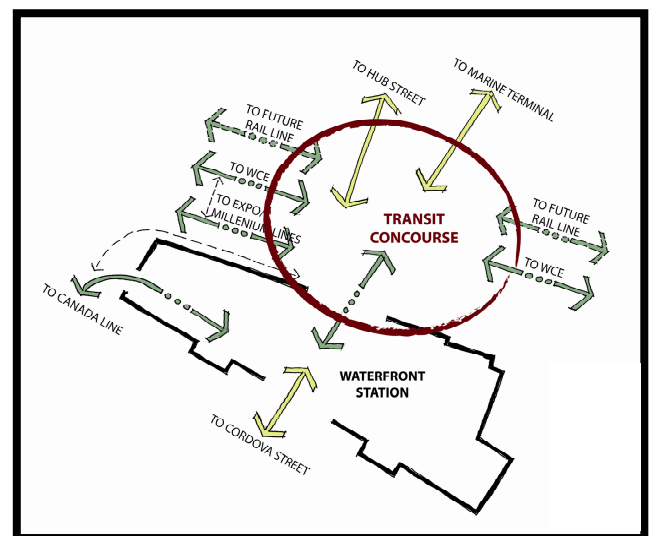
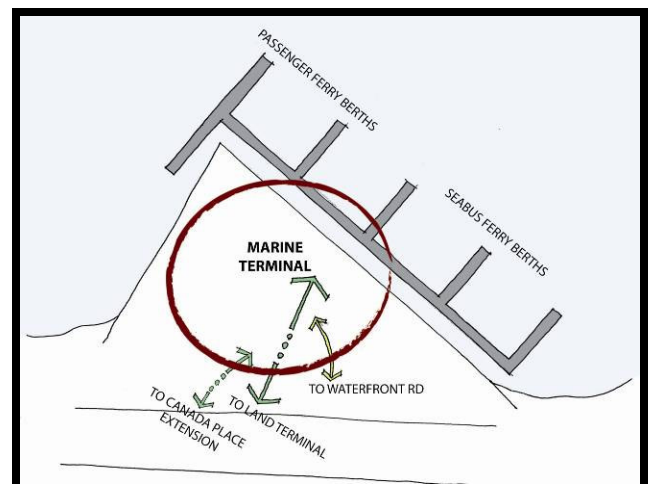
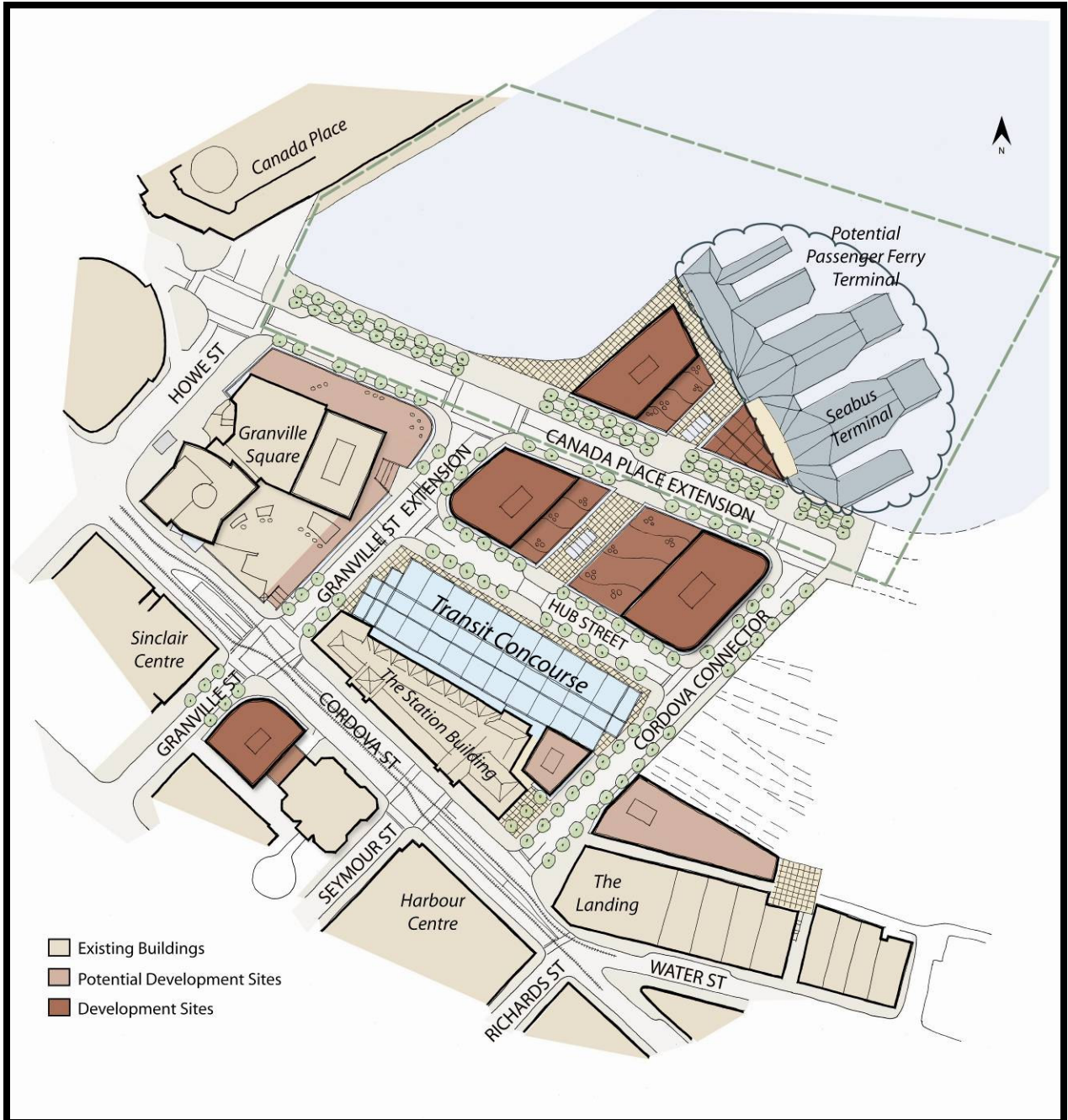


Figure 8: Marine Terminal



The Framework includes an Illustrative Concept Plan which indicates one possible development scheme for the area (Figure 9). The specifics of the transit facilities, connections, and development could be different once detailed planning occurs. Other scenarios are possible for the development around the transit interchange: another convention centre expansion is something that has been suggested, for example.

Figure 9: Illustrative concept of Central Waterfront Hub



2.4 Central Waterfront Hub Land Use

The proposed land use mix for the Hub was developed to create an opportunity for increased job space in the downtown as well as to include supporting uses such as retail, hotel, cultural and entertainment to ensure that the area remains vibrant and active in the evenings and weekends. A limited component of residential development is also envisioned.

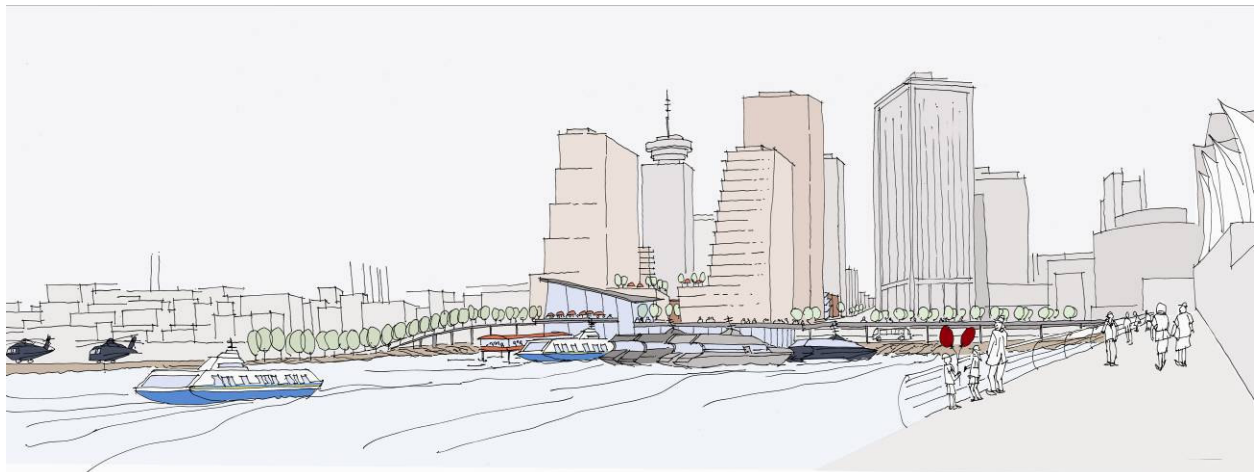
Figure 10: Summary of proposed Hub land uses

Retail / Recreational	Office	Hotel	Residential	TOTAL
448,500	758,000	234,000	390,000	1,830,500

The City’s Metro Core Land Use Plan⁶ identified the need for at least 1.1 Million square feet of non residential space in the Hub area to help meet the employment capacity targets to 2021 in the downtown. This fits well with the desire to locate office space adjacent to transit nodes as commercial space generates more transit trips per square footage of development than residential. Figure 11 below shows a summary of the number of transit trips generated by various land use types for 1000 square feet of development. The office development was calculated for a range of office types from general office at the low end to medical dental at the high end.

Figure 11: Summary transit trips by development type⁷

Land Use	Daily Trips Per 1000sqft
Residential	1.4 to 2.8
Retail	2.6 to 5.0
Office	5.3 to 16.9



Illustrative concept of Central Waterfront Hub development

3.0 Are Developers Becoming More Transit Oriented

The Central Waterfront Hub is a good example of new development integrated with a major transit node and as such provides a case study to test the appetite of developers towards transit oriented development. In particular, two elements of the Hub study work shed some light on this issue:

- Parking Supply Market Assessment
- Real Estate Focus Group

Both of these studies examined developers' attitudes towards transit accessibility and, in particular, to reducing the amount of parking that is provided on site.

Prior to examining the findings of these two studies, a brief overview of the baseline changes that the City is making to the parking standards in the downtown provides some context.

3.1 City of Vancouver Parking Bylaw

The City controls the provision of off-street parking through regulations in the Parking By-law. Off-street parking in commercial developments is seen as a major factor in determining automobile trips, especially in the Downtown. For this reason, Vancouver has a policy of no net growth in commuter parking spaces downtown and uses the Parking By-law provisions to control this. Emerging policies in the City have led to significant growth of commercial development in Downtown, and if this continues under the current Parking By-law, there will be an increase in overall parking supply, counter to the City's transportation goals. For this reason, staff recently recommended significant reductions in the parking required for non-residential uses Downtown and in the Metro Core. This has led to a maximum parking requirement of 1 stall per 115m² of non residential development and a minimum of 1 stall per 145m². This is equivalent to 1 spot per every 4-5 employees. There is also only one parking standard for all non-residential uses.

3.2 Parking Supply Market Assessment

In the Central Waterfront area, along with the desire to minimize parking supply in order to encourage higher transit mode share in an area that is well connected by high capacity transit, there are also significant physical constraints to building over an active freight rail yard. This would limit the ability to supply parking to a range of around 1/185m². It is generally perceived that "AAA" office buildings require a substantial amount of parking supply due to the travel characteristics of the tenants of these buildings, often executives that tend to drive rather than taking transit. As such, Bunt and Associates Engineers were commissioned as part of the Hub Study to examine how low the parking supply could be before affecting the marketability of the office building⁸.

In their research Bunt found that some progressive local leasing agents indicated that currently office space in the downtown area can be marketable with 1 stall per 139m², however for areas with a higher level of transit accessibility and for buildings / locations that are particularly desirable, this could be reduced further to 1 stall per 186m² or perhaps even as low as 1 stall per 372m² for exceptional locations (prime views, and proximity to the office core). To date the lowest parking ratio that has been built in the downtown is the Guinness tower at 1 per 125m², however with the recent change in the

bylaw for the downtown there have been indications that some new office developments could be closer to the new 1/145m² minimum.

Figure 12: Summary of parking market assessment

Vancouver Bylaw Rate	Minimum Marketable Rate	Recent Downtown Example
1 per 145 m ² (min) 1 per 115 m ² (max)	1 per 185 m ²	1 per 125 m ² Guinness office tower

3.3 Real Estate Focus Group

As part of the Waterfront Hub Study, a focus group was held with a broad cross-section of developers, leasing agents and consultants representing the office, hotel, and retail industries. The objective was to gain feedback on the desirability of the Central Waterfront hub location for commercial development, the proposed land use mix, and the affect of the transit node on parking needs and marketability.

A variety of opinions were expressed about the desirability of the location for major office development. While there was a general consensus that the excellent transit accessibility was a positive attribute, opinion differed over the degree to which it would enhance marketability. Some felt that particular companies or sectors would strongly value the opportunity to locate in an area where their staff could readily commute by transit. Others felt that adequate, easily accessible parking supply would be a more important consideration for the ‘typical’ company executives that make decisions on office location.

Some speculated that this dichotomy may be partly generational and that the situation could be quite different in 10-15 years if commuting by car becomes increasingly expensive and time-consuming, while transit becomes more frequent and desirable. Interestingly, other factors such as the waterfront views (positive) and distance from the heart of the central business district (negative) seemed to be as important as transit accessibility in determining how attractive the area is to office development.

The focus group suggested that both retail and hotel development could be successful components of the land use mix. The waterfront location and proximity to downtown businesses, conference facilities and tourist amenities were the big draws in terms of hotel use. Easy access to the airport via the Canada Line was also noted as an advantage. With respect to retail, it was felt that the transit node would support some commuter-serving retail and food/beverage outlets, but that the location probably would not compete with the established downtown retail centres for the high-end or destination retail sectors. Again, this suggests that transit accessibility is only one of several considerations affecting the desirability of the location for commercial development.

With respect to parking, the focus group members felt that 1 space per 93m² would be desirable for office development, but that rates could potentially go down to approximately 1 space per 140m² if on-site supply could be augmented by existing parking in the area. The higher end of this range suggests that the desire among developers and agents for parking supply is not greatly reduced by the transit accessibility of the location. This likely reflects the fact that the location is most suitable for high-end (AAA) office

space, and that this sector of the office market still requires substantial parking rates in order to be leasable.

4.0 Conclusions

The Hub Study has been completed and the Framework is due to be presented to City Council in May. The next step will be working with the area landowners (PMV, Vancouver Whitecaps, Ontrea Inc) and major stakeholders (TransLink, CPR). This will require a combination of technical work and dialogue and implies a collaborative effort between the parties. Senior levels of government will probably also need to become involved.

One of the keys to moving forward will be to identify a ‘champion’ for the project. This could either be a single party, or a consortium, with the capacity for multi-year involvement, lengthy negotiations and significant financial investment, as well as the ability to present a comprehensive approach to development which demonstrates how the complex, interlinked challenges could be resolved.

In terms of the question “Are developers becoming more transit oriented?” the following observations can be noted:

- Commercial developers recognise the benefits of transit accessibility, however, it appears to be only one of a number of factors in determining marketability.
- In areas where higher end office development is situated, higher parking rates are generally required despite excellent transit accessibility. This may well change over time if driving becomes less attractive, transit is more frequent and reliable, and environmental awareness continues to grow. In fact such a trend is already evident in situations where a tenant has a clearly defined environmental component to their company vision. Progressive City policies relating to parking and Transportation Demand Management are needed to support this trend.
- What developers see as required parking for this area, in terms of marketability, is likely higher than what can currently be provided due to the physical constraints.

As the Hub development proceeds the combination of very good transit accessibility and constrained parking supply will require developers to accept lower parking rates. This will be a good test of developers’ attitudes towards transit, their willingness to reduce parking and the marketability of high end office space with reduced parking spaces but excellent transit accessibility. These unique circumstances will also force a re-evaluation of the City’s parking standards for this area.

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- ¹ City of Vancouver Central Area Plan, adopted by Council December 3, 1991
 - ² City of Vancouver Transportation Plan, adopted by Council May 27, 1997
 - ³ Livable Region Strategic Plan, Adopted by the Vancouver Regional District Board of Directors, January 26, 1996
 - ⁴ TransLink Regional Transit Model, 2009
 - ⁵ Central Waterfront Hub Study Framework Document, April 21, 2009
 - ⁶ Metro Core Land Use Plan - Issues and Directions Report, 2007
 - ⁷ Transit trip generation based on ITE trip generation rates and City of Vancouver Transit mode share
 - ⁸ Bunt and Associates parking Market assessment