



**Host City Olympic Transportation Plan (HCOTP)  
for the 2010 Winter Games**

Dale Bracewell, M.A.Sc., P. Eng.  
Director, Olympic Transportation, City of Vancouver

Paper prepared for presentation  
at the Reducing the Carbon Footprint  
through Traffic Management Session

of the 2009 Annual Conference of the  
Transportation Association of Canada

Vancouver, British Columbia

*NOTE: The details of the HCOTP are subject to change. This paper reflects the status of the publicly available information on the HCOTP as of April 2009.*

## Abstract

The Vancouver 2010 Olympic and Paralympic Winter Games are the biggest events to occur in the history of the City of Vancouver, with more than a quarter of a million visitors and 10,000 media expected in the City during Games time. This will mean a significant increase in activity on city streets (30% more trips to Downtown), while dealing with a reduced road capacity in areas surrounding Games venues (20% less road capacity to Downtown).

To manage Games time conditions, the City developed a Host City Olympic Transportation Plan (HCOTP). The HCOTP includes measures designed to allow local businesses to operate and residents to get where they need to go while allowing athletes, officials, and the media to reliably travel to Games events. These measures include:

- Giving priority to athletes, officials and the media with Olympic lanes
- Create enhanced pedestrian routes and improved wayfinding
- Support transit capacity improvements, led by the City's partner TransLink
- Maximize capacity of streets such as limiting construction-related closures
- Adjustments to traffic flow such as 24 hour parking restrictions

As a world leader in sustainable transportation, the City is also actively encouraging measures to reduce vehicle traffic by at least 30% by increasing the use of sustainable transportation options such as walking, biking, public transit and carpooling as alternatives to single-occupancy vehicle travel.

The City is working closely with its transportation partners including the Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games (VANOC), BC Ministry of Transportation and Infrastructure, TransLink, BC Transit, and the Vancouver 2010 Integrated Security Unit (VISU), on an integrated Games time plan for getting around the region in 2010. A comprehensive integrated transportation plan was released in March 2009. This paper describes the Host City's Olympic Transportation Plan (HCOTP) and its relationship to the broader 2010 Winter Games integrated transportation.



## 1. Introduction

The Vancouver 2010 Olympic and Paralympic Winter Games (2010 Winter Games) present an opportunity to showcase Vancouver as one of the most liveable and beautiful cities in the world. Vancouver, the largest city to ever host the Winter Games, will welcome thousands of athletes and team officials from more than 80 countries in February, 2010. Over a 60-day period more than a quarter of a million visitors, 55,000 VANOC staff and volunteers, and 10,000 members of the media are expected. The City has garnered a positive reputation with residents and the world with recent transportation trends and initiatives. This reputation will be on full display during the Games.



Inviting the world to share the experience of the Games also presents us with a significant transportation challenge. While the Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games (VANOC) is ultimately responsible for delivering transportation to its clients, the City needs to work closely with VANOC and other transportation partners to ensure a functioning urban environment that minimizes impacts and maximizes legacies for Vancouver residents, businesses and visitors.

In March 2009, The City of Vancouver and its Olympic and Paralympic transportation partners released the first phase of the 2010 Winter Games integrated transportation plan. As part of this plan, the City of Vancouver released the Host City Olympic Transportation Plan (HCOTP). The HCOTP outlines the City's strategy to allow local businesses to operate and residents to get where they need to go while allowing athletes, officials, and the media to reliably travel to Games events.

## 2. Background

### 2.1. Host City Transportation Goals

The HCOTP was produced under the direction of existing City objectives and mission *to create a great city of communities, which care about its people, its environment, and the opportunities to live, work and prosper*. For the City, the success of the 2010 Winter Games goes beyond the performance of the athletes and the operation of the sport venues. Success will also be measured by the celebratory experience for our residents and visitors including the quality of transportation services provided.

The goals of the HCOTP are to:

- Ensure reliable travel for athletes, officials, and media, *“A Successful Games”*;
- Account for all trip purposes to and within the City, *“A Functioning Urban City”*;
- Promote sustainable modes of transportation, *“A Sustainable Olympic Games”*; and,
- Maximize the opportunity for longer term sustainable transportation behaviour, *“A Lasting Transportation Legacy”*.

## **2.2. Integrated Transportation Planning and the City’s Role**

The 2010 Winter Games will affect the transportation network of the Metro Vancouver region. To oversee the integrated transportation plans, the Olympic and Paralympic Transportation Team (OPTT) was created. The OPTT members include City of Vancouver, VANOC, TransLink, BC Ministry of Transportation and Infrastructure, BC Transit, Resort Municipality of Whistler and the Vancouver 2010 Integrated Security Unit (VISU).

The principal function of the OPTT is to plan, co-ordinate and provide integrated transportation services to the 2010 Olympic and Paralympic Games’ client groups and spectators while minimizing the impact on the general population and local businesses. The OPTT has provided a unique opportunity for all transportation agencies to work together to ensure that the needs and demands of each partner’s client group are understood and satisfied.

Within the City, an Olympic Transportation technical team with members from each of the City’s Transportation branches has been providing a diverse range of expertise in transportation planning for the 2010 Winter Games. The technical team is responsible for working with VANOC and other relevant transportation agencies to develop and implement strategies for the 2010 Games and related events. The team’s scope of responsibilities include all transportation elements, including motor vehicles, bicycle and pedestrian movement, public transit, parking, street restrictions, traffic management, and by-law enforcement.

## **3. The Transportation Challenge**

### **3.1. Staging the Games**

The Games will be the largest special event ever hosted by the City of Vancouver and is one of the largest staged events in the world. The City will be host to three competition venues sites, Canada Hockey Place, Vancouver Olympic Centre, and Pacific Coliseum. In addition to these sport venues, the City will also host Opening, Victory, and Closing ceremonies at BC Place Stadium, the Olympic and Paralympic Village, Main Media Centre, training facilities and several large celebration sites and pavilions. On a typical

Games day, there are anticipated to be approximately 500,000 additional person trips to, from, or through the City of Vancouver by spectators, workforce, and Olympic clients.

Games venues have specific operational requirements, including significant staging space and security areas. As a result of these requirements several roads within the vicinity of the venues will lose a significant proportion of their ability to serve general purpose vehicles due to venue generated travel demand or may either be completely closed to all traffic

While a great deal of the Olympic activity will occur within the City of Vancouver, alpine skiing, Nordic skiing, sliding and snowboarding events will be held at Whistler and Cypress Mountain. In addition to these mountain venues, the City of Richmond, immediately south of Vancouver, will host long-track speed skating and the University of British Columbia, immediately west of Vancouver, will host women's hockey. Although not directly within the City, these venues will still result in a considerable amount of travel demand through the City.

### **3.2. Quantifying the Challenge**

As an OPTT member, the City of Vancouver was tasked with leading a transportation modelling effort within the Metro Vancouver Area. As the lead on this task, the City created a series of transportation models which enabled:

- Estimation of the demand generated by venue and celebration site demand for each day of the Games;
- Quantification of the capacity shortfalls on the vehicle network created as a result of increased demand and loss of capacity as a result of security closures;
- Projection of Olympic demand onto major transit services within Metro Vancouver; and,
- Identification of areas of congestion on the Downtown pedestrian network.

One of the key findings of the modelling program was that demand for trips to Downtown Vancouver by all modes is anticipated to increase by 30% while road capacity will be reduced by 20%.

Being able to quantify this fundamental challenge has been instrumental in not only developing the City's plans to modify the road and transit networks, but also, in the development of the OPTT's Transportation Demand Management strategy.

## 4. HCOTP Strategies

### 4.1. Olympic Route Network

To facilitate athlete, official, and media vehicle movements, the HCOTP designates an Olympic route network which will connect venues and accommodations for these Games-time clients. Olympic routes will consist of modifications such as extended or new parking and turning restrictions or, in most cases, exclusive-use Olympic lanes. Olympic lanes will ensure reliability for Olympic clients and operate 24 hours a day. Figure 1, shown below, outlines the Olympic route network.

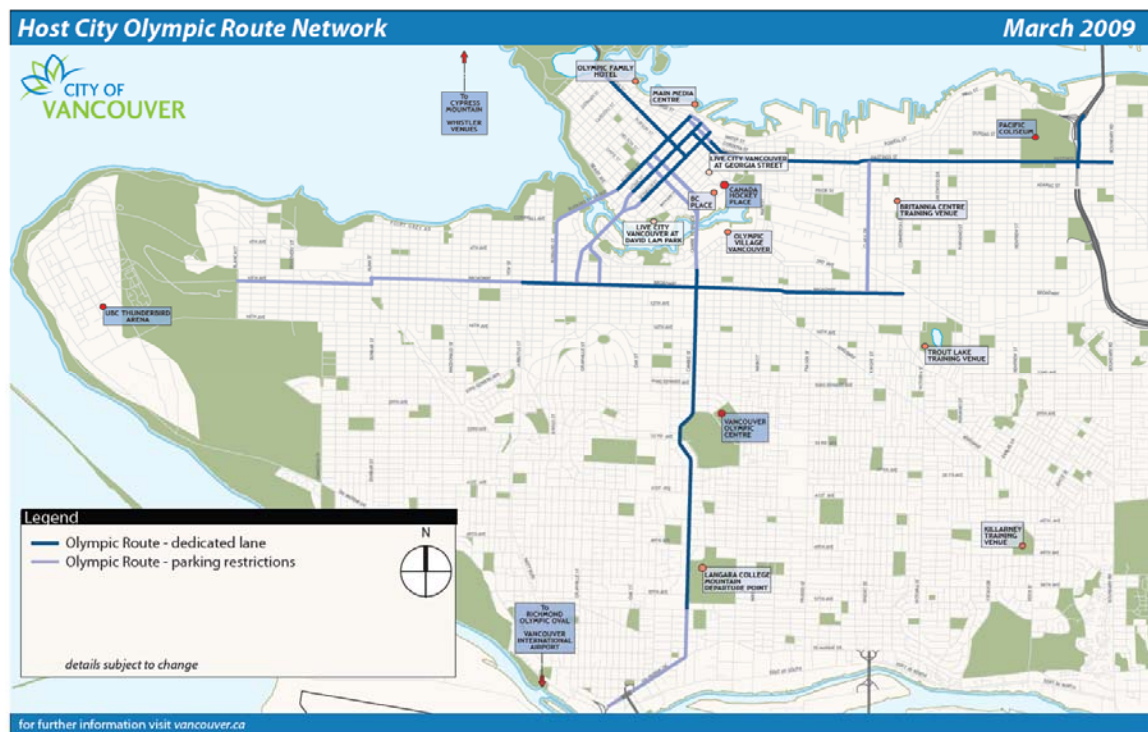


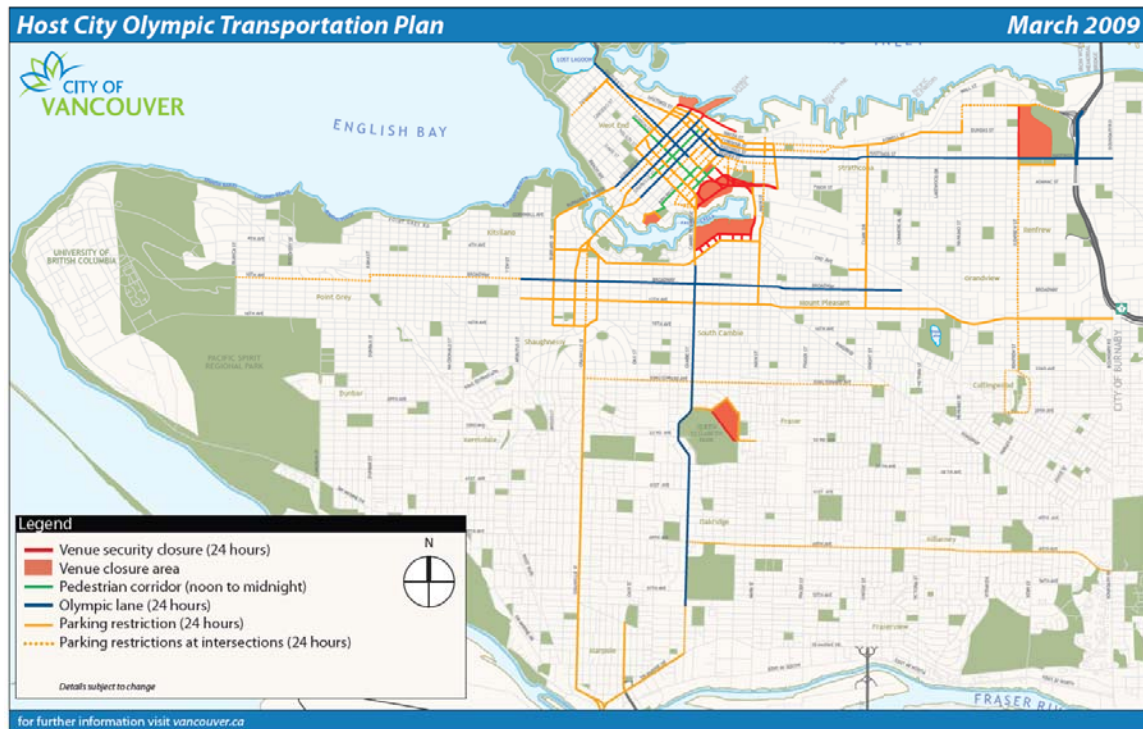
Figure 1 - Vancouver's 2010 Olympic Route Network

### 4.2. Road Network Optimization

Given the environment of increased demand and reduced capacity, the City of Vancouver saw the need to optimize the use of the remaining road network. The HCOTP identified two ways to achieve this end. Firstly, since transit is one of the City of Vancouver's highest priority transportation modes and will be instrumental in supporting local residents, businesses and public spectators destined to Olympic events, Olympic lanes will be made available for use by transit buses as well as Olympic vehicles. Secondly, 24-hour on-street parking restrictions will be implemented on key streets which are expected to have considerably more demand during the Games due to



Olympic generated or rerouted traffic. Figure 2, shown below, outlines where Olympic lane and on-street parking restrictions will be implemented.



**Figure 2 - HCOTP City-wide Road Network Changes**

### **4.3. Reducing Vehicle Traffic**

Due to the increased use of the transportation network and decreased road capacity during the Games, reducing local vehicle traffic will be critical in ensuring a successful Games experience for everyone in the region. To accommodate the movement of Games visitors, and facilitate smooth transportation for those who must travel in the region, a minimum 30 per cent reduction in vehicle traffic is required in key areas such as Downtown Vancouver and the Burrard Inlet Crossings.

Steps to achieve this reduction are already underway. Metro Vancouver post-secondary institutions will have an extended reading break during the Games, which will ease demand on the transportation network. The City's OPTT partner, TransLink, will be leading a comprehensive TDM program called TravelSmart in 2010 which will help businesses and residents identify and implement a variety of vehicle trip reduction tools such as rideshare/carpool programs; walking and cycling; corporate car sharing, pre-paid transit passes and telework options.

#### 4.4. Pedestrian corridors

Downtown Vancouver, home to two large stadiums and multiple celebration sites, will see a significant increases in pedestrian activity during the Games. To accommodate this increase in demand, a number of streets connecting venues will be dedicated to the movement of pedestrians by either closing some or all of these streets to vehicle traffic. Not only are these measures expected to facilitate walking, they also will protect other aspects of the transportation network from excessive conflicting pedestrian movements. Figure 3, shown below, identifies the streets which will be pedestrian corridors.



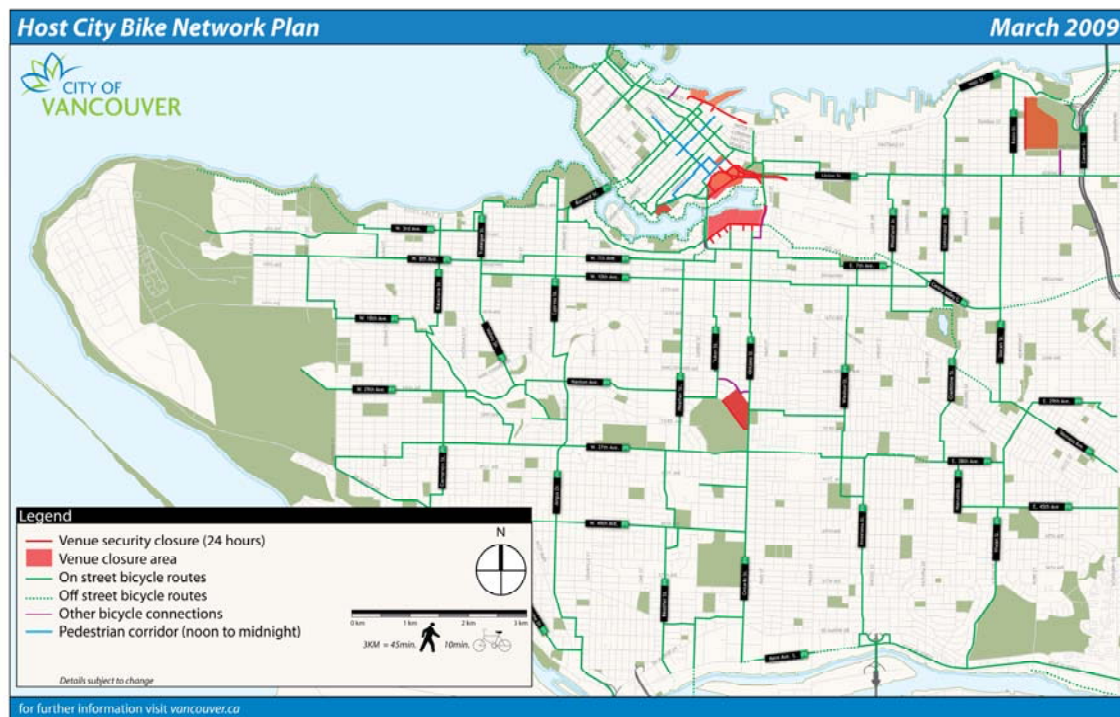
Figure 3 - Downtown Pedestrian Corridors

#### 4.5. Bike network changes

Getting around the City by bike will be one of the most reliable forms of transportation during the 2010 Winter Games. The City's goal is to minimize impacts on Vancouver's extensive existing bike network. However, some bike routes are on streets and pathways that will be closed during the Games for security or venue operational



reasons. Wherever possible, alternate routes and detours will be provided. Figure 4, shown below, outlines the anticipated cycling network during Games time.



**Figure 4 - Olympic Bike Network**

For those that choose to cycle to Olympic and Paralympic events and celebrations, the City is working with our 2010 Winter Games transportation partners to potentially provide secure and convenient bicycle parking facilities near Olympic and Paralympic venues and Live City Vancouver celebration sites.

#### **4.6. Transit Capacity Improvements**

With road access and parking limitations at 2010 Winter Games venues and celebration sites, transit will be vital to moving people around during the Games. The Metro Vancouver transit system, operated by TransLink, is made up of a network of bus, ferry, regional light rail, and commuter rail services that serve an area of over 1800 square kilometres. To facilitate the large number of people expected to use transit during the Games, TransLink will be increasing the capacity of nearly all of its rapid transit systems. In September of 2009, a new rapid transit line serving Downtown through to Richmond, the Canada Line, will open. In addition to these increases, the service levels of many key bus routes will be increased and a 180 “surge management” buses will be available for deployment throughout Vancouver and the region. An example of how the City is supporting these increases in bus service is by allowing buses within the Olympic lanes.

#### **4.7. The Olympic Line – Vancouver’s 2010 Streetcar**

While TransLink, the regional transit authority, is responsible for public transit in the Metro Vancouver region, the City of Vancouver is leading efforts to bring back streetcars to Vancouver. The City of Vancouver, in partnership with Bombardier Transportation, will showcase a modern streetcar service during 60 days of celebration. The project will further enhance TransLink’s regional transit system and to provide a high-capacity transit link between the new Olympic Village Canada Line station and Granville Island.

This showcase streetcar service, called the Olympic Line – Vancouver’s 2010 Streetcar, will be a free transit system and will run between Granville Island and 2nd Avenue and Cambie Street between January 21 and March 21, 2010.

The Olympic Line will run about every seven to ten minutes on approximately 1.8 kms of dedicated track. The demonstration streetcar will extend the regional transit network during the 2010 Winter Games and decrease the number of private vehicles, motor coaches and transit diesel buses to and from Granville Island.



**Figure 5: On loan from Brussels, Belgium – State-of-the-art Flexity Outlook Streetcars**



Figure 6 - Future Downtown Streetcar and Olympic Line routes

#### 4.8. Taxis at Games time

With the large number of visitors and spectators expected during the Games, an increase in demand for “for hire” vehicles is expected. The Committee on Taxis & Limousines Requirements during the Olympics (CTLRO) was formed to manage this demand. The board developed a draft that will see taxi and limousine licences expand their capacity to respond and meet the demand at Games time. All Vancouver venues will have designated drop-off zones for taxis and limousines these zones will be a short walk from venue entrances.

#### 4.9. Goods movement and deliveries

Understanding the Goods movement and deliveries will still need to occur during the Games, the City is relaxing its noise by-law to allow deliveries to be accommodated in

the Downtown 24 hours per. Additionally, the City is looking at options for changing garbage collection schedules downtown.

#### **4.10. Street Use Limitations during the Games**

Private street use activities such as construction, film production and utility work will still be able to take place during the Games; however, there will be a number of competing priorities for the use of streets and other public spaces during Games time. In addition to the transportation needs to keep people and goods moving smoothly during the Games, there will also be an increased demand for street space for loading and other activities.

Street use limitations may occur between January 1 and March 31, 2010. Broadly, affected areas will include Downtown Vancouver, areas around Games venues and key arterial streets within the city.

#### **4.11. Planning for snowstorms**

Late 2008 and early January 2009 Vancouver received an above average snowfall. This presented the City with the opportunity to evaluate and enhance current snow removal strategy for the Winter Games. Major roads and the Olympic Route Network will receive priority snow removal at Games time. This is to ensure that emergency vehicles, transit, athletes, officials, and spectators can continue to travel reliably.

### **5. Public Engagement**

One of the key factors in the success of the 2010 Winter Games will be the experiences of residents, businesses and visitors have beyond the competition venues. This experience will in part depend on a robust communications program that ensures that residents, visitors and businesses have access to timely, accurate information.

The 2010 Winter Games offers the City of Vancouver a broad range of opportunities to engage with residents and other local stakeholders, encourage their participation in a rare civic experience, and give them the tools they need to make informed decisions about how they wish to participate. A goal of the public communications and engagement process is to help residents, businesses and visitors understand the impact the Games will have on their city and the mitigation plans intended to minimize any disruptions of their daily routines and activities. Strategic, timely and sustained communications with the City's key stakeholders will help maximize its success as a Host City.

Throughout 2008, City staff met with various transportation stakeholder groups, to provide information on the Host City Olympic Transportation planning process, and to hear about Winter Games transportation concerns. Groups that staff met with included



the city-wide Business Improvement Association group, Vancouver Board of Trade, the Business Coordinating Committee, the Downtown Vancouver BIA, BEST, Smart Growth BC, Vancouver Cycling Coalition, Port Metro Vancouver, BC Trucking Association, and Vancouver Gateway Council. Staff also met with several development industry, utility companies and film and special event industry representatives to discuss potential street use limitations during Games time

In addition the City along with the VANOC and other partners held a series of public information sessions in 2008 to keep neighbourhoods and stakeholders informed on plans for 2010 and how they might be affected. Meetings were held in enighbourhoods throughout Vancouver with Winter Games competition and non-competition Venues. During the Summer and Fall of 2008,. A public information session was held in early 2009, where staff were on hand to answer questions and listen to comments on the current plans. Similar sessions for venue neighbourhoods are also planned for Summer 2009. Updates on the plan have also been shared on the City's website.



**Figure 7 - March 2009 Public Information Session**

## **6. Conclusion**

As the City assists in creating and delivering an accessible, reliable, and sustainable transportation system for the 2010 Olympic and Paralympic Games, its Olympic Transportation technical team will need to depend greatly on the integration of its transportation planning with VANOC and other transportation partners. While hosting the 2010 Winter Games poses a great transportation challenge for Vancouver's residents and businesses, the City will continue to refine and improve its Host City Olympic Transportation Plan to achieve both a successful Games in a functioning urban city.

*NOTE: The details of the HCOTP are subject to change. This paper reflects the status of the publicly available information on the HCOTP as of April 2009.*

## **Contact Information**

Dale Bracewell, P. Eng.  
Director, Olympic Transportation  
453 West 12th Avenue  
Vancouver, BC, V5Y 1V4  
tel: 604-871-6440  
e-mail: [dale.bracewell@vancouver.ca](mailto:dale.bracewell@vancouver.ca)