



Transformation of the Bonaventure Expressway at the Downtown Gateway

Principal development issues



Plan of Bonaventure Expressway transformation project

Context

The transformation of the Bonaventure Expressway from Saint-Jacques to Brennan Streets will create a major urban boulevard with lanes located on either side of a string of central city blocks to be made available for development. The transformation of this expressway segment frees up land owned by the City of Montreal and complements the redevelopment of the adjacent districts (QIM, Cité Multimédia and Griffintown).

The project will thus transform the main gateway to Montreal into a populated and vibrant district while extending the downtown area.

Development objectives

- Design a prestigious gateway to the city and a vital link between the downtown area and the Peel Basin (the river);
- Revitalize the surrounding districts: Faubourg des Récollets and Griffintown;
- Reduce road congestion by giving priority to public transit while maintaining traffic flow;
- Improve the quality and safety of surface and underground pedestrian movement, working in close collaboration with the public transit networks;
- Provide public places that are pleasant, safe and user-friendly;
- Facilitate vigorous real estate development linked to the downtown area.



View of the Bonaventure Expressway looking towards the Peel Basin, 2004



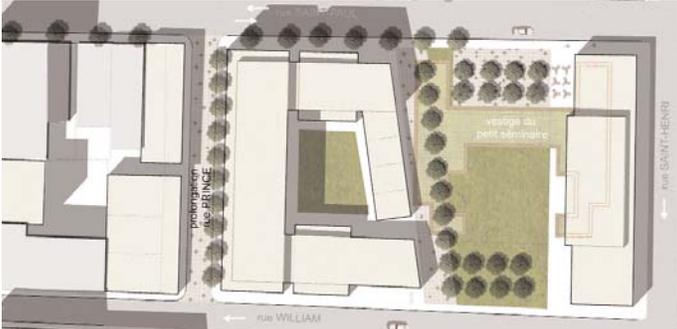
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Development concept



Model of De Nazareth Street looking south, south of Saint-Maurice Street

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Cross section and implementation plan for proposed buildings north of Faubourg des Récollets

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City model

The makeup of the new urban boulevard is defined by three elements:

Central blocks

The series of central city blocks between Duke and De Nazareth streets will be comprised of parallel buildings. Both the north and south ends of this row of buildings will give way to green spaces that will act as thresholds between the urban boulevard and downtown to the north and the urban boulevard and the more expressway-like segment of the Bonaventure to the south. The ground floors of the future buildings, open and transparent, will heighten the sense of safety for passers-by. The slender profile of the central blocks will contribute to the development of tall, elegant architectural structures. This "signature" architecture, refined and original, will become a cornerstone of the new urban sector.

Canadian National rail viaduct

The transformation of the Bonaventure corridor into a major urban boulevard involves a new interface between the rail viaduct and De Nazareth Street. Commercial or public use of the viaduct is recommended to spur the revitalization of the surrounding blocks. The original openings could be cleared to increase user-friendliness, transparency and a sense of safety and security for passers-by, particularly on intersecting streets.

Faubourg des Récollets

Along Duke Street, as an extension of the Cité Multimédia buildings, construction of a series of buildings will complement the Faubourg block ends. The buildings making up this frontage will accommodate businesses, primarily at the ground floor level, with offices built on the floors above.

The future configuration will reflect the historic profile of the district, and the development of the blocks bordering the new urban boulevard will help bring together the two worlds.

Validation of construction costs

During the pre-feasibility phase in 2005, feasibility studies notably allowed the estimated direct construction costs for the Bonaventure Expressway transformation project to be validated.

- **Cost of status quo** : \$60 M (in 2003 dollars) in order to prolong the useful life of this infrastructure for 35 years.
- **Construction costs**: the demolition of the elevated expressway structure and the reconstruction of Duke and De Nazareth Streets are estimated at **\$90.5 M** (in 2005 dollars, tax included) or **\$79 M** before tax. These costs most notably include development of the public domain and green spaces to reflect the area's status as a city gateway (on a scale with the QIM), but exclude the costs of the eventual replacement of the underground infrastructures.

Planning

The lowering of the expressway will contribute to urban renewal by freeing-up 17,370 m² of land for development. Moreover, the Faubourg des Récollets will provide 64,485 m² of available land, while the CN rail viaduct consists of 20,495 m² of ground-level space, a portion of which can be used for commercial or public purposes.

The entire space represents a development potential of more than 415,000 m². The proposed plan focuses particularly on all of the commercial (offices and hotels) and residential uses.

The central blocks, municipally owned, will be capable of accommodating almost 600 residential units, 5,000 m² of retail business, and 43,000 m² of available office space.



Transformation of the Bonaventure Expressway at the Downtown Gateway Real estate potential and economic benefits



Grouppe Cardinal Hardy

Model of Duke Street north of Wellington

Context

The transformation of the Bonaventure Expressway at the gateway to downtown offers an opportunity to enhance the main entry point to the city's business core, extend downtown functions along the University Street corridor, and rebuild the surrounding area, while increasing the property tax base of the City of Montreal.

This large scale project will generate more than \$800 M in real estate investments for the district – \$550 M in the Faubourg des Récollets and \$284 M in the land owned by the City of Montreal – while drawing both public and private investors to the business opportunities presented by the project.

Real estate success factors

Office market

- The strategic location of the site, at the downtown entry point and in close proximity to the Quartier international de Montréal (QIM) and Cité Multimédia, provides it with a strong, prestigious image and offers high visibility potential to future corporate tenants.

Residential market

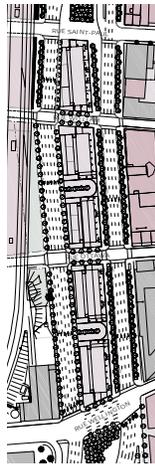
- The 2010-2011 market will open an attractive window for the delivery of residential projects in the Bonaventure Expressway sector, where competition will be nonexistent.
- Over a 20 year horizon, the construction of more than 2,000 housing units will bring some 3,500 new residents to the heart of Montreal.

Retail market

- The creation of an economic hub will draw commercial traffic to the area and generate interaction among clients of the various businesses.

Hotel market

- The areas surrounding the Bonaventure Expressway are seeing growth in the hotel market twice that of the downtown core.
- One or more hotel development projects could see the light of day in the sector within five to ten years.



Three central blocks

The first phase of the transformation of the Bonaventure Expressway will allow the City of Montreal to make better use of its real estate assets, which are currently used primarily for maintenance and parking.



Views of the central blocks along De Nazareth Street, looking south and towards downtown

Economic and tax benefits generated by City of Montreal land

- Revenues from the sale of the three central blocks belonging to the City of Montreal would be close to **\$16 M**;
- Potential annual property and school taxes would total **\$7.65 M**;
- Welcome taxes are estimated at **\$3.3 M**.

Other benefits associated with the development of the central blocks:

- Potential real estate investments of **\$284 M**;
- **4,020 jobs** (person-years);
- More than **\$235 M** in added value for the Quebec GDP;
- Revenues of **\$17 M** for the Government of Canada and **\$43 M** for the Government of Quebec (income tax, incidental taxation, and taxes).



Transformation of the Bonaventure Expressway at the Downtown Gateway

Technical studies: Transportation, traffic and environment



One of the many South Shore buses that use the Bonaventure corridor



The gateway to the city from the Bonaventure Expressway

Proposed road geometry

It has been proposed that an artery of four through lanes be developed in each direction with occasional auxiliary turn lanes as required. Northbound, an auxiliary left-hand turn lane reserved for public transit is needed when approaching Wellington from the south. Southbound, auxiliary right-hand turn lanes are planned on approaches to Notre-Dame, William and Wellington Streets to facilitate exiting the downtown area during evening rush hour.

Impact on traffic

- Drivers in a minimum of approximately 600 vehicles (10% of current number) would opt for routes other than the northbound Bonaventure corridor during morning rush hour in order to reduce their travel time.
- In light of the future development projects, the new corridor could accommodate 6% fewer vehicles during morning rush hour and 8% fewer during evening rush hour.
- During morning rush hour, the traffic backlog from Wellington is estimated at less than 300 metres.
- A 350-metre backlog is estimated on the exit ramp of the Ville-Marie Expressway towards Nazareth Street. However, this backlog would not create congestion on the expressway itself, as the junction is located 550 metres beyond this point.
- There would be an increase in congestion during evening rush hour at the intersection of Saint-Jacques and University Streets and to a lesser degree at the intersection of Notre-Dame and University Streets.
- Morning rush hour congestion would be reduced at the intersection of University and Saint-Jacques Streets as well as at the Saint-Laurent and Sanguinet exit of the Ville-Marie Expressway.

Environmental success factors

- The initial analyses revealed that the land planned for development presents few environmental issues.
- The transformation of the expressway into an urban boulevard with stoplights will contribute to noise reduction in the area.
- The sector should not be affected by vibration problems.
- In principal, any potentially negative environmental effects associated with the Bonaventure Expressway transformation project will be relatively easy to manage through the implementation of adequate mitigation measures.

Context

The key challenges that must be overcome in the first phase of the Bonaventure Expressway transformation notably involve balancing the supply and demand of movement in the corridor, maintaining the interfaces with the Ville-Marie Expressway, identifying optimal public transit routes, and freeing up space for real estate development in the area.

Moreover, to ensure that the project contributes to a true revitalization of the sector, the road network will need to be reconfigured on a more urban scale according to recognized urban development principles.

Public transit

Given the vital role the Bonaventure corridor plays in linking the city to the South Shore, the objective of transforming the main entry point to Montreal into a populated and dynamic district while reducing automobile traffic dictates that particular attention must be paid to public transit in the area.

Recommendations to promote a modal shift to public transit*:

- Establishment of a reserve bus lane between Wellington Street and the Champlain Bridge (over the short term);
- Implementation of a downtown satellite terminal;
- Optimization of bus routes between Wellington Street and the downtown terminals;
- Launch of a harbourfront tramway service;
- Implementation of measures during construction to help change the habits of users (e.g. introduction of a commuter train).

* It should be noted that the simulations conducted during the feasibility study sought to project worst-case traffic scenarios and did not take into account the potential benefits generated by a modal shift.



During construction, commuter rail service from the Chevrier park-and-ride facility could promote a modal shift to public transit.



The southern section of the sector, currently poorly served by public transit, will benefit from the arrival of the harbourfront tramway.



Transformation of the Bonaventure Expressway at the Downtown Gateway

Pedestrian networks and active transportation



Groupe Cardinal Hardy

Model of the gateway to the city looking towards the Peel Basin at the intersection of University and Notre-Dame Streets

Context

The Bonaventure Expressway sector and the area surrounding it play a vital role in the economic and urban development of Montreal. Redevelopment of this space with its considerable potential must be carried out within a perspective of sustainable development, notably by promoting public transit and active transportation as primary means of accessing the area.

For this reason, the development project proposes targeting the integration of existing networks (metro, underground city, Lachine canal) as well as future networks (tramway) by promoting urban planning that heightens the comfort and safety of pedestrians and cyclists.



In the Quartier international, wide sidewalks facilitate the coexistence of pedestrians and cars

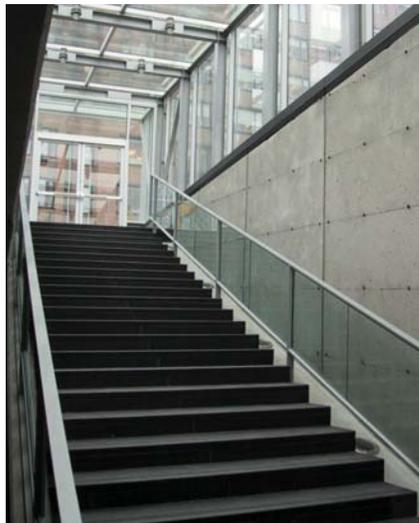
Active transportation success factors

The configuration of the new major urban boulevard will provide a user-friendly and safe environment conducive to active transportation:

- Wide sidewalks and safe intersections to facilitate pedestrian traffic;
- Urban planning that promotes active transportation (bicycle stands, interior bicycle parking, etc.);
- Parking on the street during off-peak hours to help reduce the speed of cars;
- Commercial or public use of ground floor areas to spur activity in public areas;
- High quality street furniture, lighting and landscaping to enhance the wellbeing of passers-by.



Cyclist-friendly pedestrian walkway in Cité Multimédia



Access to Place Jean-Paul-Riopelle from the underground city

The underground city (RESO)

The large scale real estate projects planned for the city blocks north of the Faubourg des Récollets justify extending the underground city network of indoor walkways. Two RESO circuits could converge at the new development from the Bonaventure and Square-Victoria stations. These circuits would allow people who work in downtown Montreal as well as visitors to the city to reach a number of sought after destinations. Depending on the development of the blocks to the south, the underground city could be extended further along the major boulevard.



Expansion plan for the underground city at the northern end of the Faubourg des Récollets