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1853	1907	2009	2025

Quartier Bonaventure

Analyse pour l'Office de consultation publique de Montréal Presenté par le Comité pour le sain redéveloppement de Griffintown Le 7 janvier, 2010	**Analysis for the Office de Consultation Publique de Montréal** Presented by the Committee for the Sustainable Redevelopment of Griffintown January 7th, 2010

The Committee for the Sustainable Redevelopment of Griffintown and its Mission

The Committee for the Sustainable Redevelopment of Griffintown (CSRG) is a community organisation whose members live, work and/or own property in Griffintown. The CSRG's mission is to promote the redevelopment of Griffintown based on:

- respect for the neighbourhood's history, drawing upon it for inspiration
- respect of the existing and historically significant street grid
- respect for the architecture and construction materials specific to the neighbourhood
- respect for the environment and use of sustainable practices
- reasonable density at a human scale
- durable development for the new century

The CSRG promotes local projects and endeavours such as the Ottawa Street Cultural Corridor project and the Griffintown Horse Palace Foundation.

The CSRG maintains the website **www.griffintown.org**

Overview

The Société du Havre de Montréal's (SHM) Quartier Bonaventure proposal is excellent in spirit. The CSRG strongly supports the stated objectives of eliminating the elevated portion of the highway north of the Peel Basin, redeveloping the reclaimed land, and improving public transport while reducing the number of private vehicles circulating on the same axis. Unfortunately, the manifestation of these objectives in the currently proposed plan is severely misguided and toxic to the potential for redevelopment of the sector. In this document we will show that the Dalhousie Bus Corridor, an eight-lane urban boulevard and overzealous densities at the expense of heritage are extremely detrimental to the area's outstanding redevelopment potential. The CSRG instead strongly recommends the execution of the AMT's existing plans for electrified public transit through the corridor as the cornerstone of durable redevelopment respecting the existing and historic urban fabric of the neighbourhood.

Context

The Bonaventure Expressway was constructed, with urgency, in the 1960s, to provide access to the Expo 67 site. The highway links the Champlain Bridge, also a product of the 1960s, with the southern downtown core. In the early 1970s, the Ville-Marie Expressway finally provided the missing link between the Champlain Bridge and the downtown core, thereby eliminating any outstanding purpose of the Bonaventure Expressway. Nonetheless, more than three decades later, the Bonaventure Expressway still stands and only now is its future being seriously questioned.

Today, the Bonaventure Expressway serves primarily to move tens of thousands of South Shore commuters to downtown Montreal in the morning, then home again in the evening. These commuters currently use private vehicles and buses in an approximately 40/60% ratio. Although the Bonaventure Expressway has effectively been obsolete with respect to its original mandate for decades, it nonetheless survives as a pendulum transportation corridor. The SHM's proposal and our counter-proposal both address the need to preserve this function under a revised form.

Scope

The Quartier Bonaventure project is the first of three phases. The second and third phases encompass the redevelopment of the Bonaventure Expressway and its surroundings between the Peel Basin and the Champlain Bridge. The analysis provided in this document is limited only to this first phase of the project, except where decisions at this stage have a direct and significant impact on subsequent phases.

Concerns About the SHM's Quartier Bonaventure Proposal

This section identifies and details the CSRG's concerns with specific aspects of the SHM's Quartier Bonaventure proposal, and is divided into the following subsections:

- Dalhousie Bus Corridor
- Urban Boulevard and Road Infrastructure
- Redevelopment and Heritage Conservation

Dalhousie Bus Corridor

The initiative to create a public transit corridor is both welcomed and desirable, however, the proposed Dalhousie Bus Corridor is arguably the most contrived and inappropriate solution among many viable alternatives. We will argue the following two points:

- The Dalhousie Bus Corridor is an incomplete solution with dubious justification
- The findings of the 2008 Dessau/Groupe S.M. bus corridor study are invalid

The Dalhousie Bus Corridor is an Incomplete Solution With Dubious Justification

Currently, over 1000 buses pass through the sector daily, transporting passengers to and from the South Shore and Nun's Island. The current configuration entails the following problems ([1] p.34, [2] p.16-19):

- Buses must circulate through shared city streets in order to service an intermediate stop in Griffintown
- The Downtown Terminus or Terminus Centre-Ville (TCV) is currently operating above capacity and cannot accommodate all of the buses, many of which must now stop outdoors
- There is no marshaling/waiting area adjacent to the TCV, and many buses must wait, often at idle, on nearby city streets
- Buses typically travel empty half of the time due to the pendulum nature of displacements

While the SHM's proposed Dalhousie Bus Corridor would allow buses to follow a reserved, shortest-distance route from the Peel Basin to the TCV, this configuration only addresses the first of the aforementioned problems. In other words, *the corridor would only serve to move buses more efficiently to a destination incapable of handling their volumes.* Even if additional TCV capacity were to be added by the AMT, as the SHM suggest, critical problems remain:

> *...disruptions by congestion, pedestrians and manoeuvres inside the TCV affect the terminus's reception capacity and restrict its theoretical capacity. With arrivals every 31 seconds during the morning rush hour and departures every 29 seconds during the evening rush hour, the TCV is operating at its maximum hourly capacity. Moreover, worse traffic blockages, such as those caused by events at the Bell Centre, may disrupt operations for several minutes, or even for the remainder of the peak period.* ([2] p.18)

Fortunately, the SHM recognize their proposed bus corridor as merely a temporary solution. Clearly, a more effective and neighbourhood-friendly long-term solution is sought after which does not involve hoards of buses plodding through downtown city streets. The only such solution currently tabled is the AMT's proposed Light Rail Transit System (LRT) to the South Shore which, coincidentally, is slated to use right-of-way on the Bonaventure axis.

Consider the following characteristics of the Dalhousie Bus Corridor which, again, would merely act as a temporary solution, addressing only one of the many problems with the existing situation:

Cost	**$86M** by the SHM's estimate or **$131M / km** **$119M** by the AMT's estimate or **$181M / km** (Price per km based on the cited corridor length of 656m ([3] p.151))
Irreversible Changes	Dalhousie Street, in its current form, is no more than 175m long. To complete the remaining 70% of corridor length, the following irreversible changes are required: • Tunnel at an inefficient angle through the CN rail viaduct (approx. 100m) • Expropriate and demolish on all right-of-way between William and St-Maurice streets (approx. 200m) • Expropriate and demolish on all right-of-way between Wellington and Brennan streets (approx. 100m) • Place supporting piles immediately in front of and the length of the facade of a historical building on the northern tunnel portal
Health & Pollution	The City of Montreal confirmed at the OCPM hearings that the concentration of particulate matter ($PM_{2.5}$) pollution would increase from 29 to 37 $\mu g/m^3$ on the West side of the CN viaduct due to the expected bus traffic. Environment Canada and the MDDEP prescribe concentrations not exceeding 30 $\mu g/m^3$
Safety at Intersections	The proposed corridor closely parallels the CN viaduct causing severe blind spots at intersections with all East-West streets from St-Paul to Wellington. (see Figure 6: intersection of the Dalhousie tunnel with Wellington)
Barrier to Mobility	The proposed corridor would create another high-volume traffic street-level barrier to East-West mobility, further severing historic Griffintown in two halves.
Impact Studies	The western boundary of impact studies is almost exclusively limited to the CN viaduct. The effects of the proposed Dalhousie Bus Corridor, located to the West of the CN viaduct, either lack the necessary studies or are simply ignored.

The Findings of the 2008 Dessau/Groupe S.M. Bus Corridor Study are Invalid

The study which promotes the choice of Dalhousie as a corridor is critically flawed, thus invalidating its conclusions. In 2007, the firm Tecsult produced a study which recommended Ann Street for a temporary bus corridor, citing the following concerning the Dalhousie Street option:

> *La rue Dalhousie comport l'inconvénient majeur de ne pas déboucher sur l'axe Wellington. Il serait très onéreux d'amenager une percée vers Wellington, à cause des voies ferrées surélevees et des emprises des batiments de la "New City Gas" situées dans l'axe de Dalhousie, entre les rues Ottawa et Wellington.* ([4] p.19)

Curiously, a follow up report 11 months later by the firms Dessau/Groupe S.M. [3] uses alternate and arguably contrived reasoning to arrive at the conclusion that Dalhousie is indeed the best option for a bus corridor. This second and final study places only 20% of the weight on the avoidance of major, difficult, long and expensive interventions, and, even more incredibly, accords a perfect 5/5 score based on the minimal impacts on the insertion into the immediate surroundings (Table 1). Recall that the majority of the Dalhousie route requires either major interventions and/or expropriations!

The study examines seven distinct routes. Interestingly, each route is presented on a map which shows Dalhousie Street extending north between William and St-Maurice streets (Figure 1). Dalhousie Street does not extend nor has it ever extended north of William Street! While the authors of the study may argue that this anomaly was used to present all seven traces on the same base map, why then does the Bonaventure option use this non-existent extension, and moreover only in the northbound direction? This would significantly and artificially inflate the cost and level of intervention required for the Bonaventure option, severely penalising its overall score (Table 1).

Figure 1. The three routes closely examined in the 2008 Dessau/Groupe S.M. study (adapted from [5])

The Dessau/Groupe S.M. study is in fact littered with additional deficiencies, including, but not limited to the following:

- The study only examines in detail three of the seven routes, one of which is essentially the existing route sought to be replaced.
- The Peel Street route (#1) receives only cursory examination, citing conflict with the tramway route. No explanation is given as to when, if ever, the tramway is likely to be implemented, and how this compares with the expected lifetime of a *temporary* bus corridor.
- The Bonaventure route (#5) considers only a contrived version of the existing configuration where buses exit and enter the axis at William and Notre-Dame streets, respectively. Variants where the buses use the axis further to St-Jacques or St-Antoine are not even considered, despite being significantly more viable than the LRT route (#4) among others.
- Despite the fact that the examined Bonaventure route would include a significantly greater proportion of reserved lanes than at present, it is still accorded the lowest score relative to the *improvement* of service and quality (Table 1)
- While the Dalhousie route is incorrectly accorded a perfect score for minimising impact on its surroundings, the Ann route is incredibly accorded the lowest score (Table 1)! *If the Ann route were correctly accorded any superior score to the Dalhousie route in this category, it would have the highest overall score.*
- The Dalhousie route is accorded the highest score for operation and maintenance conditions despite inherent difficulties with tunnel maintenance and the disastrous consequences of accidents and breakdowns in the narrow two-lane tunnel it would require (Table 1).

Table 1. Compilation of scores of the 2008 Dessau/Groupe S.M. study (adapted from [5] p.145 due to digitisation problems of the original document)

		Ann		Dalhousie		Bonaventure	
Améliorer l'offre et la qualité du transport collectif	30 %	3	18 %	4	24 %	1	6 %
Implanter une voie réservée sécuritaire	10 %	3	6 %	3	6 %	3	6 %
Minimiser les impacts de l'insertion sur le milieu local	20 %	1	4 %	5	20 %	3	12 %
Gérer efficacement les déplacements	10 %	3	6 %	5	10 %	1	2 %
Assurer de bonnes conditions d'exploitation et d'entretien à la voie réservée	10 %	3	6 %	5	10 %	3	6 %
Éviter les interventions majeures, complexes, longues et coûteuses	20 %	4	16 %	1	4 %	3	12 %
Overall Score			56%		74%		44%

The critical deficiencies with the Dessau/Groupe S.M. study invalidate its findings. In other words, if a temporary bus corridor is indeed required, a new study providing unbiased comparison of all viable options would need to be conducted to determine the optimal route.

In summary, the Dalhousie Bus Corridor is merely an exercise in geometry: it is the shortest route between two points. This temporary corridor, which would forever change the sensitive neighbourhood

into which it would slice at great expense and with dubious justification, would serve only to move buses more efficiently on the final 656m of their journey to and from a destination incapable of even supporting them.

Urban Boulevard and Road Infrastructure

The replacement of the Bonaventure Expressway by an urban boulevard is both welcomed and desirable, however the scale and function of the proposed artery are both excessive. As explained in the Context section, the Bonaventure Expressway is currently long outliving its mandate which became obsolete with the completion of the Ville-Marie Expressway connecting the Turcot Interchange and the downtown core. At present, the Bonaventure Expressway serves primarily to transport South Shore and Nun's Island commuters to and from downtown Montreal at peak hours. Outside of rush hours, the expressway, Duke and Nazareth streets receive minimal traffic and operate well under capacity.

The SHM's proposed urban boulevard consists of two unidirectional four-lane arterial roads following the existing trace of Duke and Nazareth streets. Unlike the elevated highway, these roads would have lower speed limits and traffic lights at all five intersections preceding Notre-Dame. As confirmed by the SHM at the OCPM public hearings, these roads will not be able to cope with existing traffic flows at rush hours, and will become severely congested. Outside of rush hours, these roads will operate far below capacity. Therefore, except for a narrow time window at rush hour transitions, these roads will either operate far below or above capacity. In other words, the urban boulevards proposed by the SHM will effectively never be correctly adapted to actual traffic flow requirements.

Nazareth Street 4-Lane Boulevard

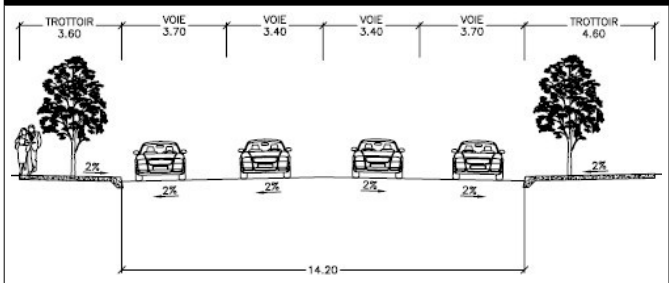


Figure 2. Nazareth Street Transverse View [6]

Duke Street 4-Lane Boulevard

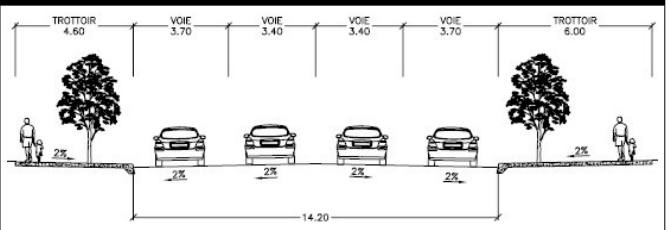


Figure 3. Duke Street Transverse View [6]

The SHM's proposed urban boulevard will actually increase the number of vehicles circulating at street level through the sector. While the existing elevated highway is an unfortunate and unsightly intrusion, it nonetheless serves to keep transitory traffic off of city streets. The proposed urban boulevard would transfer this traffic, which has no business in the sector, to street level. The SHM intends to reduce private vehicle displacements by 20% in favour of public transit. However, this would merely transfer traffic to the proposed Dalhousie Corridor which would, in turn, increase the number of bus displacements, also at grade. Because all of the vehicular traffic, including all buses, would circulate on a city grid with traffic controls at all intersections, significantly more time would be spent, on average, running polluting internal combustion engines in the neighbourhood. The net result being increased air and noise pollution despite the increase in public transit ridership. Note that at present, the empty returning buses are able to quickly and discretely transit the sector using the elevated

expressway, which will no longer be possible following its demolition.

The SHM's proposed road infrastructure includes many significant changes to the existing configuration which are poorly justified or lack rigorous study. For instance, Ottawa street changes from eastbound-only to bidirectional between Ann and Duke streets (Figure 6). More critically, a change in direction is prescribed for St-Paul & Montfort streets where the garage access to 750 residential units is located. The result is such that *in order to access these garages, drivers have no alternative but to use the urban boulevard located several hundred meters away* (Figure 4).

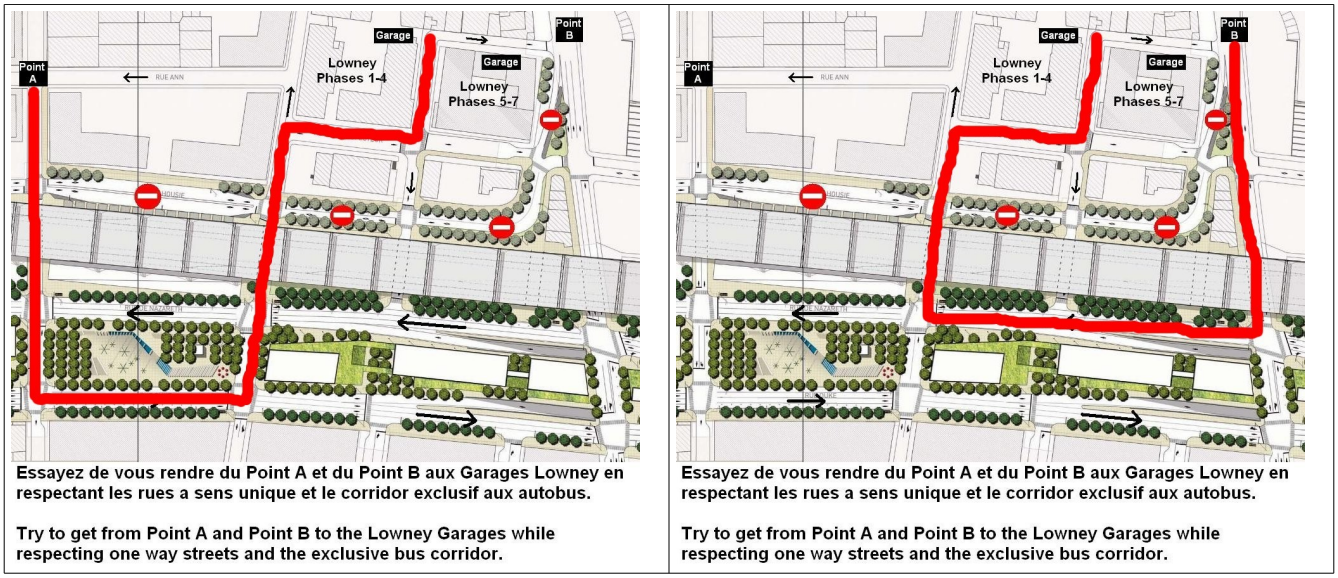


Figure 4. Access routes to Lowney garages
(http://www.griffintown.org/dalhousie/images/imgLowneyGarageRoutes.jpg)

The SHM's proposed interim connection with Phase III of the project is shortsighted. Although for the foreseeable future, a causeway will continue to span the Peel Basin, this link will be reexamined as the final phase of the project. The options include a tunnel, another causeway, a bridge on a different axis, or an unforeseen alternative. By displacing the highway-boulevard transition south to Brennan Street, the boulevards on Duke and Nazareth are forced to curve away from their historic trace and the margin to accommodate any non-causeway option is significantly reduced.

In summary, the urban boulevards of the Quartier Bonaventure are poorly adapted to daily traffic flows, the proposed road configuration actually increases the number of vehicles circulating at ground level and the problems this entails, poorly justified road configuration changes have unforeseen repercussions, and the proposed modification of the southern expressway connection restricts future alternatives.

Redevelopment and Heritage Conservation

Redevelopment of the Quartier Bonaventure sector and its eastern and western borders is long overdue. The SHM's mandate to redevelop these areas is therefore welcomed, however their vision is severely misguided.

The centerpiece of the SHM's Quartier Bonaventure is the image of tall futuristic buildings sprouting from the islands of land within an urban boulevard pair. Consider the justification for this core aspect of the project given the following characteristics:

Pure Imagery	The architecture presented is merely imagery. There are no firm clients to develop the central islands and the architecture is purely speculative.
Integration	The proposed heights and densities are considerably more imposing than in neighbouring Griffintown and the Faubourg des Récollets.
Lack of Demand	Neighbouring projects such as 701 University are stalled due to a lack of potential clients. Why would the prospects be different in Quartier Bonaventure whose zoning is even more ambitious?
Access	High density buildings sandwiched between a pair of urban boulevards pose serious access problems. Most notable is the island between Notre-Dame and William which has effectively zero road access on its two longest frontages due to the A-720 access ramps (Figure 5).

Figure 5. Poor accessibility of the island between William and Notre-Dame streets

In the case where no developers can be found for the central parcels of land and these stagnate, *Quartier Bonaventure essentially becomes nothing more than an elevated highway transferred to street level.*

The SHM's proposed Quartier Bonaventure ignores the deeply entrenched history of the sector, and the potential for reanimation of historical sites. Consider the following message from the Chair of the Board of Directors and the President and Chief Excutive Officer of the SHM:

> *We propose to invoke the "magic of the site" to bring history back to life in what was once the heart of the City, by mending the links between Griffintown and the Faubourg des Récollets while emphasizing the many aspects of their heritage.* ([1] p.1)

Despite this claim, the proposal ignores virtually all of the remaining historical buildings bordering the sector, instead replacing them with wooden blocks of "development potential" in their model. Buildings such as the historical New City Gas Company, which illuminated the factories that drove the industrial revolution of the New World, have their facades desecrated with the support pillars for a bus corridor (Figure 6). And the historic Haymarket Square park, which epitomized the division of Griffintown, being sliced in half first by the CN viaduct and then the expressway, would not have its "magic" brought back to life, nor its heritage emphasized. Instead the SHM propose to build a new park one block south as a matter of convenience, and slice a bus corridor through the western half of its historic counterpart.

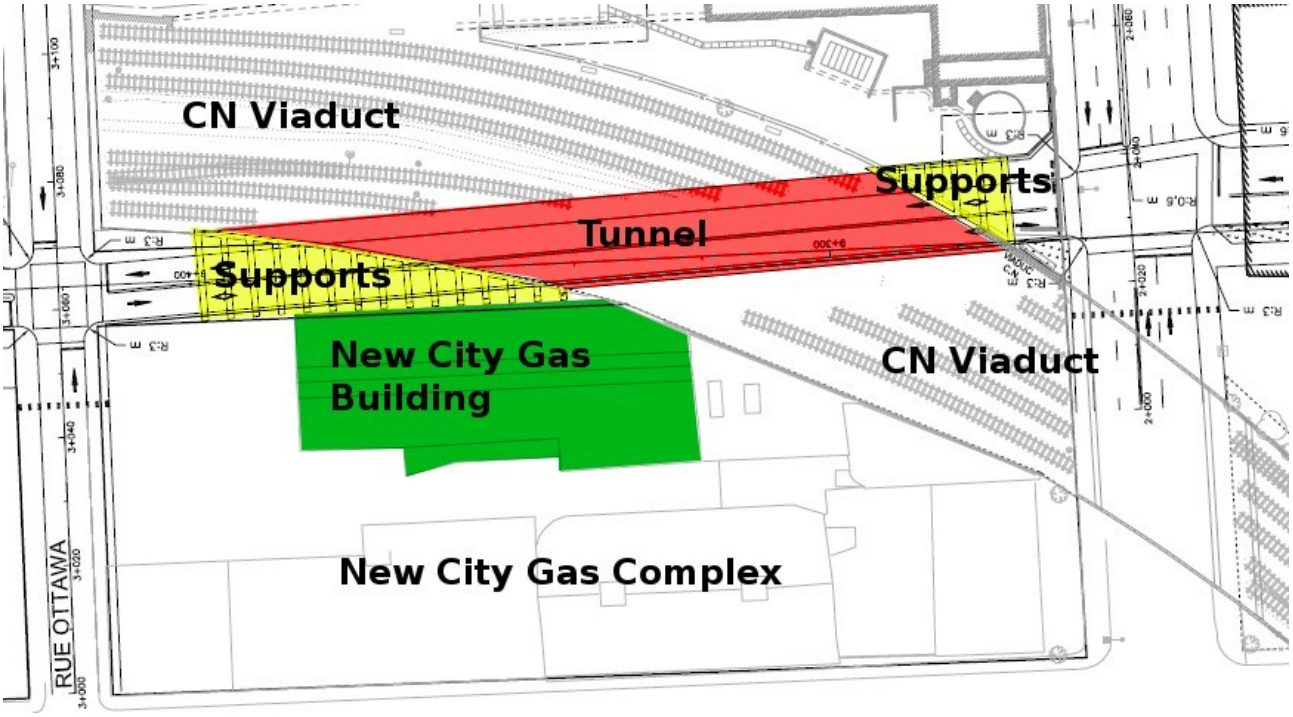


Figure 6. Tunnel supports block the entire front facade of the historic New City Gas Building

The Parc Pilote dog park, at the corner of Duke and Brennan streets, is the only "living" thing in the current Quartier Bonaventure, bringing residents from both the east and west sides of the expressway together on a daily basis. Although the SHM have promised to relocate the park during construction and find a permanent site for it later, curiously it does not figure into the final plans despite the availability of green space both at its existing location and nearby.

In summary, the redevelopment plans for the Quartier Bonaventure are overambitious and risk either integrating poorly with their surroundings or not being realised at all. Moreover, the proposal is ignorant to both the deeply entrenched history of the neighbourhood and its sites including precious signs of rebirth such as the Parc Pilote dog park.

Summary of Concerns

The CSRG's concerns with the SHM's proposed Quartier Bonaventure may be summarised as follows. The road infrastructure proposed to supercede the Bonaventure Expressway is poorly adapted to current and future needs and actually degrades conditions for both motorists and local residents. The Dalhousie Bus Corridor, which should provide an improved public transport alternative, is in fact an overpriced, ineffective and unjustifiable temporary solution which overflows the project boundaries into a sensitive adjoining neighbourhood. The redevelopment plans central to the proposal are overzealous, risk failure, and were clearly created in a vacuum with respect to integration and heritage.

Counter-Proposal for the Quartier Bonaventure

The CSRG shares the SHM's objectives to eliminate the elevated portion of the highway north of the Peel Basin, redevelop the reclaimed land, and to strongly favour and improve public transport alternatives in order to reduce the number of private vehicles circulating on the same axis. However, the CSRG instead promotes light rail in lieu of buses, urban roads suited to off-peak traffic flows, zoning complementary with neighbouring sectors and much stronger emphasis on heritage reanimation.

Electrified Light Rail Transit System As A Cornerstone

The solution to all of the problems of transporting tens of thousands of commuters on the Bonaventure axis without an expressway is simple, practical and ready to be deployed: the Light Rail Transit System (LRT) proposed by the AMT in 2007 and championed by the Réseau de Transport de Longueuil (RTL), which incidentally operates the most buses on this route.

The AMT's LRT would connect McGill and Bonaventure Métro stations with the South Shore (Figure 7), and run adjacent to Nazareth Street within the Quartier Bonaventure, with a station between William and Ottawa streets (Figures 7 and 8). It would replace the need for most buses connecting Montreal and the South Shore on the Autoroute 10 axis.

Figure 7. Route of the LRT connecting downtown Montreal and the South Shore (adapted from [2] p.34)

The LRT is an expensive and challenging project largely due to the need to cross the St-Lawrence Seaway, for which a major infrastructure investment is required. However, *the LRT would only need to extend as far as the south side of the Peel Basin in order to provide a viable public transportation alternative during Phase I of the Bonaventure Expressway redevelopment*. An intermodal station at the southern terminus would allow buses and private vehicles to transfer their passengers efficiently, directly from the expressway, without ever having to enter into a hostile urban environment.

Figure 8. Multimedia Station of the LRT ([2] p.45-46)

The advantages of the adapted LRT solution are the following:

- provide a modern, electric mass transport alternative during the transformation of the sector and well beyond
- allow buses to transfer passengers earlier, without ever entering into city traffic, thereby shortening their routes (in terms of distance but especially time) and increasing on-time performance
- eliminate the need for the expensive and unpopular Dalhousie Bus Corridor or any alternative bus corridor
- eliminate the need to expand the TCV (bus terminal) and allow all remaining bus lines to enjoy the full use of its internal facilities
- allow South Shore and Nun's Island public transit commuters to directly reach both the Orange and Green Métro lines, balancing the load at Bonaventure Métro Station
- allow Orange and Green Métro line users another possibility to transfer between the lines and continue beyond, alleviating congestion, especially at Berri-UQAM Station
- strongly encourage dense development near the Cité Multimédia LRT Station between William and Ottawa streets (Figure 8)
- greatly reduce air and noise pollution in a long-suffering area
- operation is unaffected by traffic or weather disturbances

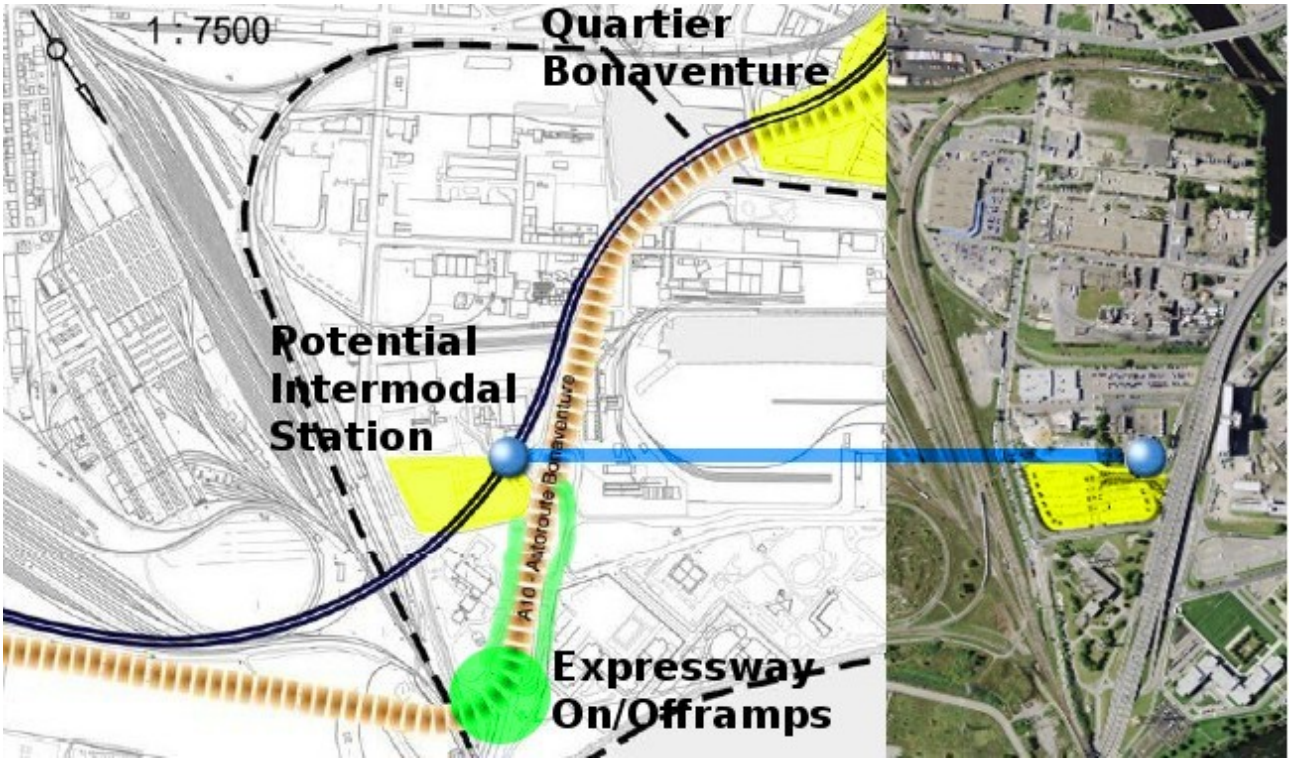


Figure 9. Potential (initial) southern intermodal terrminus of the LRT near Pierre-Dupuy ave. (adapted from [7] p.90)

Plans and studies have already been conducted which would allow for construction of the LRT to commence within a short delay, and become operational before any major interventions on the expressway take place ([2] p.75). The current number of public transit displacements is above the threshold required to justify light rail, and this number is expected to increase ([1] p.30, [2] p.63-64). Moreover, *the LRT is competitively priced when compared with the proposed Dalhousie Corridor* (Table 2).

Table 2. Comparative pricing of the Dalhousie Corridor and South Shore LRT

	Dalhousie Corridor	LRT
Estimated Price (AMT)	$119M (2009)	$870M (2007)
Length	0.656 km	12.8 km
Price / km	$181M	$68M

Clearly, investments not related to LRT track length (rolling stock, maintenance sheds) would increase the price/km figure of any shortened route, however, the corresponding reduction of bus route length would result in savings that would offset these additional costs. Studies would be required to determine the optimal initial length of the LRT in this regard. For a very rough initial estimate, consider that approximately 2km of track would be required to join Bonaventure station with a station near Pierre-Dupuy Avenue: 2km x $68M/km = $136M, or only 14% more than the cost of the Dalhousie Bus Corridor.

While the Quartier Bonaventure proposal indicates that the right-of-way for the LRT is indeed preserved, in a September 2008 consultation meeting with the SHM it is concluded:

> *La [SHM] affirme que protéger l'emprise d'un service de transport en commun à haut débit est bien au-delà de son mandat.* ([7] Annexe 7, p.20)

It is clear that the SHM are neither capable, nor mandated, nor motivated to assume the role of elaborating the LRT solution (it does not appear in their final plans). Therefore, the CSRG urges that all means and control be accorded to the AMT, the rightful developer of any public transportation system or corridor in the sector. Moreover, the AMT is best qualified to establish whether the LRT right-of-way could be advantageously moved east toward the areas liberated by the demolition of the expressway, and study any possibility of integrating the future airport train, depending on the technology used.

In summary, an adapted version of the AMT's South Shore LRT is the ideal solution to the problem of displacements on the Bonaventure axis given its cost-effectiveness and readiness for deployment. The adapted LRT successfully counters all of the problems inherent to an urban boulevard and bus corridor solution. This undertaking would be the cornerstone of the project, providing a modern, clean and popular entryway into the city, attracting new development and stimulating growth.

Road Infrastructure for Long-Term Local and Through-Traffic Needs

A simple yet effective rule in transportation planning is the following:

> If you build it, they will come

With respect to the LRT described in the previous section, this adage is of course advantageous. However, the same rule applies to the proposed urban boulevards: if you build four lanes, private vehicles will indeed fill these four lanes.

Instead, the CSRG proposes to build only the capacity required at off-peak hours. With an excellent alternative to private transportation in place (the LRT), and with adequate parking facilities at its southern terminus, there is no urgency for additional road capacity, even in the absence of an expressway. If rush hour traffic is too heavy, commuters in private vehicles have the option to park and transfer to the LRT. Or instead, they may enter downtown via Turcot and A-720: the designated highway link since the mid-1970s.

Revised studies may be required to determine the ideal off-peak capacity of Duke and Nazareth streets, however any local resident can readily point out that two lanes in each direction would be more than ample. Given that Duke and Nazareth currently have the capacity to support three lanes, an option with two lanes and street parking (outside of rush hours) would surely suffice. This option would save the expense of modification of these streets for additional or reduced capacity.

As confirmed by the SHM at the OCPM hearings, the road link across the Peel Basin represents the third phase of the project, and therefore its exact nature is uncertain. The link could be a highway

causeway, as is currently the case, or a more expensive but less visually abrasive tunnel, or even another alternative not yet identified. For this reason, we urge that the interim (Phase I) connection between the highway and the urban roads minimise the impact on the existing and historic city grid. The lowest impact solution (and likely the least expensive) would be to widen the existing offramp at Wellington and the onramp at Brennan streets, and simply demolish all northern portions of the elevated highway (Figure 10). The SHM justify the displacement of the junction to Brennan Street based on safety and maximisation of development space, but the only plausible reason to move this connection, at considerable additional expense, would be to accommodate the Dalhousie Bus Corridor.

Figure 10. Expressway junction and demolition

The SHM's objectives include "mending the links between Griffintown and the Faubourg des Récollets". Given that the Quartier Bonaventure is essentially a North-South sliver of land, any barrier-effect, be it real or perceived, would be the most detrimental to East-West continuity and displacements. For this reason, the CSRG again recommends limiting the urban boulevards to two lanes plus parking, and eliminating any bus corridor in favour of the LRT which would operate above street level. Moreover, in order to actively promote East-West displacements, something the proposed Quartier Bonaventure fails to achieve, the CSRG recommends favouring St-Paul Street as an active transportation link between Old Montreal and a reanimated Haymarket Square park spanning the Quartier, described in the following section.

Figure 11. Prestigious and historical city gateway via Wellington and McGill streets

While the Bonaventure Expressway is primarily used on a daily basis by commuters, tourists arriving from Southern Quebec and the United States will typically follow the same route which becomes their first up-close encounter with Montreal. For these reasons, the SHM repeatedly emphasize the need for a prestigious city gateway or "entrée percutante". At this phase of the project, the solution for tourists is simple and effective: encourage them to turn east on Wellington, and enter Montreal via McGill Street and Victoria Square, or alternatively leave McGill to enter Old Montreal. This route is a well executed showcase of the integration of old and new Montreal, and actually deposits tourists at tourist destinations rather than the corner of University and René-Lévesque (Figures 11 and 12). The additional cost of this solution: signage.

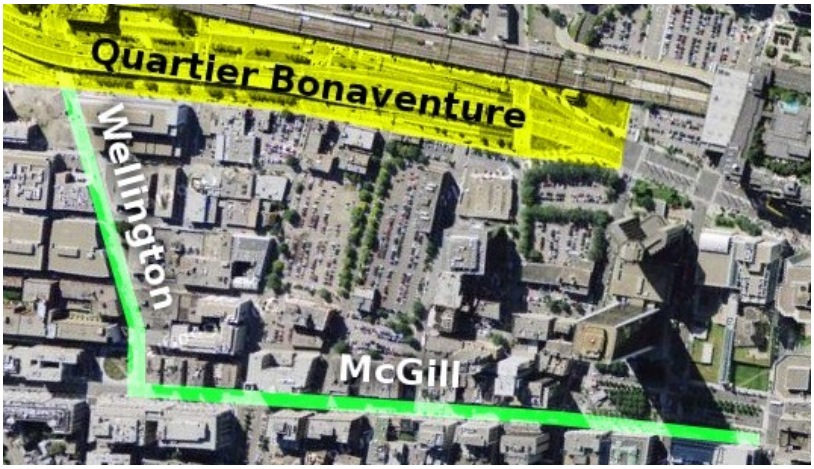


Figure 12. Tourist route via Wellington and McGill streets

Wellington-McGill Sights

- Poste Adélard-Godbout
- Windmill Park
- Customs House
- Centre d'histoire de Montréal
- Gérald-Godin Building
- Hotel St-Paul
- Boris Bistro Ruins Terrace
- Victoria Square Park
- W Hotel
- World Trade Centre

Optimal and Realistic Zoning To Maximise Redevelopment Potential

The CSRG cautions strongly against overzealous zoning in the Quartier Bonaventure. The currently proposed zoning would allow for buildings of greater height and density than their immediate surroundings, which would create a wedge between the neighbouring sectors, rather than reconnecting them. More likely however, given the current economic situation, if the required densities are too ambitious, the central islands might never develop, sit idle, and fail to collect tax revenues. Considering that the grandiose Projet Griffintown has yet failed to materialise for similar reasons, and that the 701 University tower is stalled pending clients, unfortunately this is a realistic outcome.

The CSRG therefore recommends that the lots liberated by the demolition of the expressway be zoned for densities complementary to their surroundings. The use of sustainable, durable building practices should be imposed on developers. Buildings could employ the services of the nearby CCUM, and this possibility should be considered for all new construction. Given the popularity of the nearby Lowney, McGill Ouest and M9 residential projects, the City of Montreal should welcome similar developments, especially those oriented toward affordable family living. Younger residents in the aforementioned developments must typically abandon the neighbourhood when starting families, given the lack of affordable family spaces.

The CSRG strongly encourages the placement of the Quartier's park in the historically appropriate location: Haymarket Square. Table 3 illustrates the history of this park which was located between St-Paul, William, Inspecteur and Duke streets. For the first time ever, all of the prerequisites to restore this landmark to its pre-expressway configuration exist:

- the expressway will be demolished
- Police Station 20 will be relocated, as confirmed by the SHM at the OCPM hearings
- CN Rail is prepared and willing to negotiate the use of the interior space of its viaduct

Reclaimed Haymarket Square

Portals through the CN viaduct allow access to both sides of the park. Public art could be displayed in the portals, and/or small shops could create an arcade.

Centenary buildings (red) with complementary facades protected.

St-Paul Street crosses the urban boulevards (blue), ensuring continuity with Old Montreal.

Elevated crossing over Nazareth Street could connect the eastern quarter of the park to the LRT Multimedia Station (not shown).

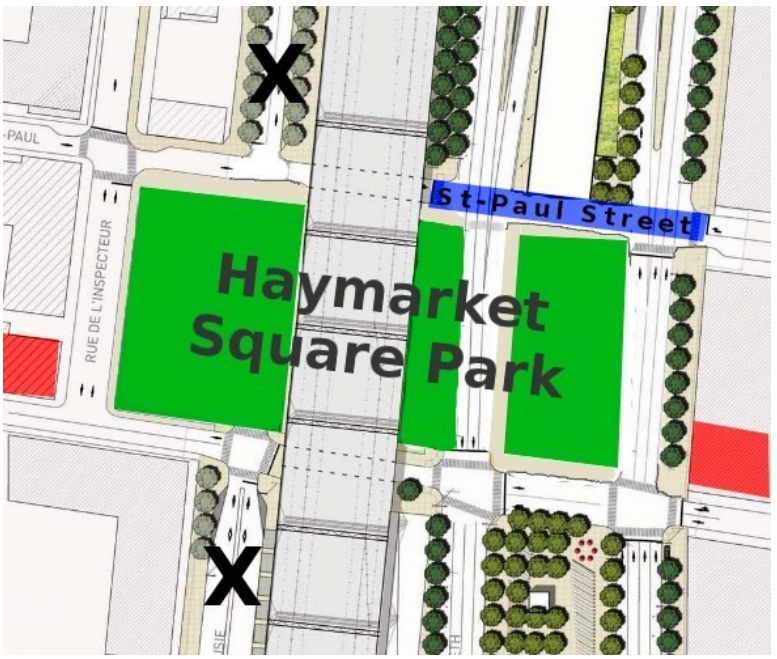
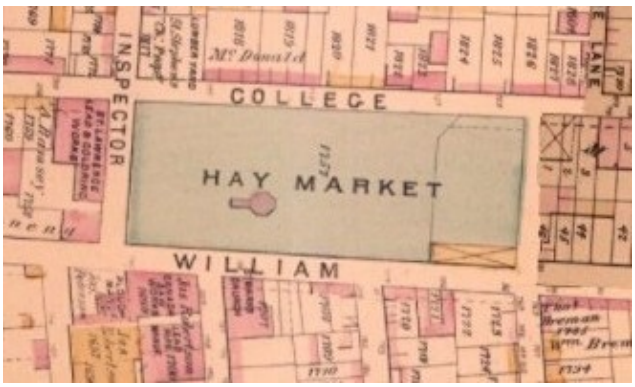
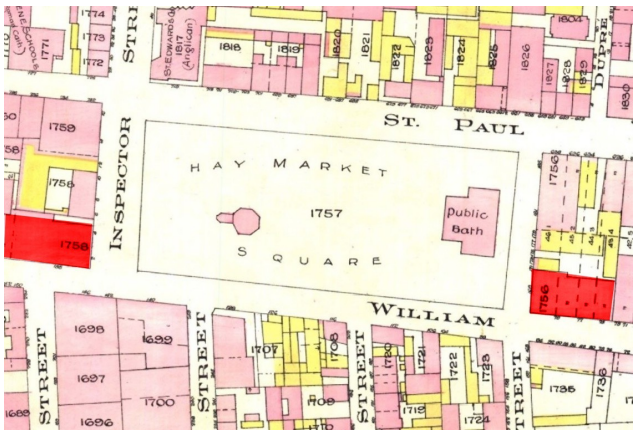


Figure 13. Configuration of Haymarket Square Park

These favourable conditions would allow the park to occupy its historic location, straddling the entire Quartier Bonaventure between Inspecteur and Duke streets (Figure 13). With appropriate pedestrian access through the ground floor of the CN viaduct, and crosswalks on St-Paul and William streets, the park would provide a safe, inviting and engaging East-West link for active displacements.

Table 3. The rise and fall of Haymarket Square
(Source: www.griffintown.org/maps)

1879 – Early Origins	1914 – Complementary Facades Appear
	
1949 – CN Viaduct Bisects Park	**1968 – Expressway Shrinks Park**
	 *Police Station 20 later eliminates remaining western quarter of park.*

A long-forgotten tunnel exists under St-Paul Street which crosses the Quartier, and was used to transfer material between the breweries on either end. Depending on the integrity and condition of this tunnel, it may even be possible to include pedestrian crossings under Nazareth and Duke streets, paralleling or using these ruins.

With Haymarket Square restored, and St-Paul Street providing a pleasant pedestrian environment across the Quartier, the eastern portion of St-Paul between Duke and McGill streets should be encouraged to develop as a medium density mixed use neighbourhood. A pedestrian mall could eventually span St-Paul Street from Old Montreal westward to Haymarket Square, and form the

spearhead for redevelopment of the Faubourg des Récollets. Approximately 200m of frontage require redevelopment, currently employed as parking lots (Figure 14). St-Paul is unique in having mature trees lining its sidewalks, and is also in fact Montreal's oldest street, two additional qualities which make it an excellent candidate for redevelopment and reanimation.

Figure 14. Redevelopment of St-Paul Street

Currently, the only active public space within the Quartier Bonaventure sector is the Parc Pilote dog park at the intersection of Duke and Brennan streets (Figure 10). Here, residents from both the east and west sides of the highway meet daily with their dogs and socialise. It is therefore important that this unique space, which successfully connects Griffintown and the Faubourg des Récollets, be preserved both during and after construction. If displacement is necessary, temporarily or otherwise, a nearby location approximately equidistant to the two neighbourhoods should be selected.

Summary of the CSRG's Counter-Proposal

The following summarises the CSRG's counter-proposal for Quartier Bonaventure (Phase I of the Bonaventure Expressway transformation) in point form:

Public Transit Improvement:

- Cancel Dalhousie Bus Corridor
- AMT update their studies for the LRT between McGill Métro and an intermodal station south of the Peel Basin
- LRT construction between (at least) Bonaventure Métro and the southern intermodal station
- South Shore and Nun's Island buses rerouted from TCV to southern intermodal station

Road Infrastructure Reconfiguration:

- Expressway demolished from Notre-Dame Street to the Wellington offramp
- Duke and Nazareth streets reconfigured to two lanes plus street parking
- St-Paul Street restored between Nazareth and Duke streets
- All other proposed road infrastructure modifications cancelled

Redevelopment and Heritage Conservation:

- Reclaimed islands zoned to similar heights/densities as neighbouring sectors
- Haymarket Square reestablished at its historic location
- Redevelopment of St-Paul street between Duke and St-Henri streets encouraged
- Parc Pilote dog park retained at its current location

Summary of Economic Advantages and Disadvantages of the CSRG's Counter-Proposal

The following summarises, in point form, the economic advantages and disadvantages of the CSRG's counter-proposal compared to the SHM's proposed Quartier Bonaventure:

Economic Advantages:

- Saved expense of $119M for Dalhousie Bus Corridor
- Saved expense of TCV upgrade or satellite construction
- Saved operating costs of buses which henceforth travel only to the southern LRT terminus
- Saved expense of displacing expressway junction to Brennan Street
- Saved expense of expanding Duke and Nazareth streets
- Greater likelihood of real-estate development due to proximity of LRT Multimedia Station, which subsequently increases tax base

Economic Disadvantages:

- Greater initial investment required for LRT (compared to Dalhousie Bus Corridor)
- Lower density of islands reduces tax base (assuming complete development)

Final Remarks

At the time of presentation to the OCPM, the overall length of the expressway tranformation is 1026m which satisfies the criteria for examination by the Bureau des audiences publiques sur l'environnement. (BAPE). Although the project was originally centimeters under the BAPE threshold of 1km length, since the response to the security audit published September 16th 2009, the project is 1026m long (Figure 15). Given the extensive scale and environmental footprint of this project, the CSRG recommends that at the conclusion of the OCPM hearings, the project be subject to BAPE proceedings.

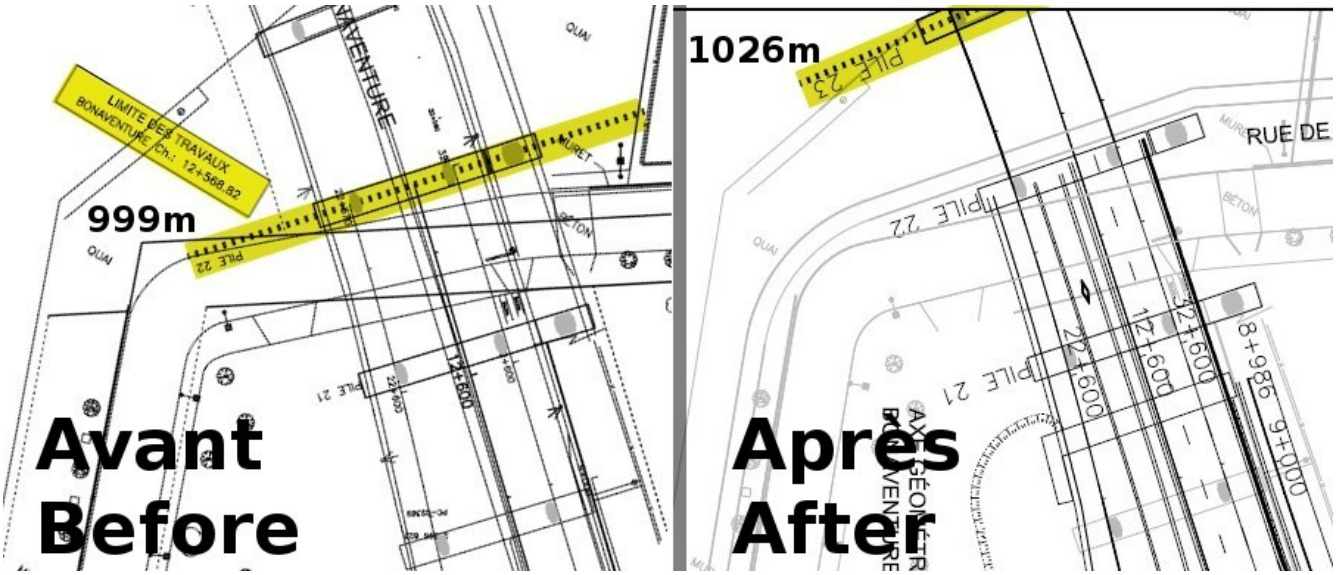


Figure 15. Change in length of project to 1026m after the response to the security audit (adapted from [8] Annexe-1)

Conclusions

Redevelopment of the sector is long overdue, and demolition of the Bonaventure Expressway north of the Peel Basin is the ideal catalyst. While the CSRG agrees with the SHM's mandate for the transformation of the expressway, we strongly disagree with its manifestation as the currently proposed Quartier Bonaventure. The project should be extensively revised and improved by the OCPM based on the detailed alternative proposals of this document and those of other submitted memoirs, and then ultimately be subject to BAPE proceedings.

References

[1] *Quartier Bonaventure: Summary of the Detailed Pre-project Design Studies*, Société du Havre de Montréal, March 2009.

[2] *Preliminary Design Studies for a Light Rail Transit System (LRT)*, Agence Métropolitaine de Transport, February 2007.

[3] *Réaménagement de l'autoroute Bonaventure à l'entrée du centre-ville de la rue Saint-Jacques à la rue Brennan*, Société du Havre de Montréal, March 3, 2009.

[4] *Projet de réaménagement de l'autoroute Bonaventure, tronçon centre-ville: Volet transport et circulation*, Tecsult Inc., April 2007.

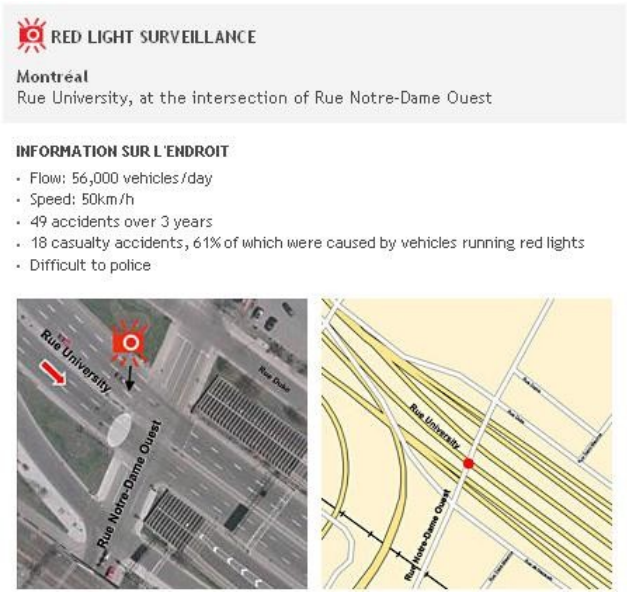
[5] *Quartier Bonaventure: Consultation publique Transport et circulation*, Société du Havre de Montréal, December 1, 2009.

[6] *Plan et profil du projet – Aménagement géométrique (Annexe 2)*, Dessau/Groupe S.M., August 15, 2008.

[7] *Annexes : Étude sur le potentiel de développement urbain d'un corridor de transport collectif renforcé dans l'axe du pont Champlain et dans l'axe du boulevard Taschereau*, Communauté métropolitaine de Montréal, March 18, 2009.

[8] *Quartier Bonaventure – Transition Bonaventure / Brennan, Note technique – Version finale, Réponse à l'audit de sécurité du 5 novembre 2008*, SNC Lavalin, September 16, 2009.

Photographs:	Jeffrey Dungen
Satellite Imagery:	maps.google.ca (2009 Google - Imagery)



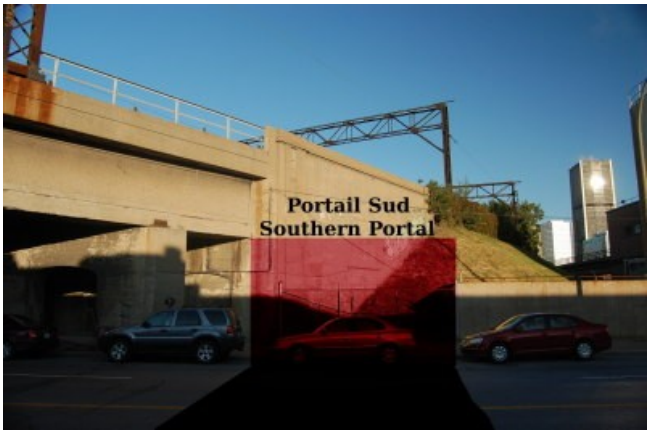
MTQ Red Light Surveillance at Current Expressway Junction

In Quartier Bonaventure would this dangerous, accident prone intersection simply be displaced from Notre-Dame to Brennan Street?
(Source: www.focusonsafety.gouv.qc.ca)

Earlier SHM Vision for Quartier Bonaventure

- Buildings above the CN viaduct
- Less imposing building heights
- New City Gas building replaced by green space
- Neither bus corridor nor LRT visible
- No causeway over Peel Basin?

([7] p.43)



Proposed Southern Dalhousie Tunnel Portal

Proposed Northern Dalhousie Tunnel Portal