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SUSTAINABLE URBAN TRANSPORTATION AWARD

THE AMT VELOSTATION

AN INNOVATIVE PROJECT WITH POSITIVE IMPACTS

[TABLE DES MATIÈRES]

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[L'AMT TRAVAILLE POUR VOUS.]

THE AMT – WORKING FOR YOU

The Agence métropolitaine de transport (AMT) is pleased to submit the Velostation for the Transportation Association of Canada's 2014 Technical Excellence Awards, in the Sustainable Urban Transportation category.

AGENCE MÉTROPOLITAINE DE TRANSPORT

The Agence métropolitaine de transport (AMT) is a government agency with a mission to plan and implement the growth of public transit to improve the efficiency of people movement throughout the Greater Montréal Area. The AMT operates 5 commuter train lines, 51 stations, 1 regional express bus line, 62 park-and-ride facilities, 16 terminals and close to 90 km of bus-only lanes. The commuter train system currently accounts for 17.5 million trips per year, making it the sixth busiest in North America.

THE AMT VELOSTATION AN INNOVATIVE PROJECT WITH POSITIVE IMPACTS

DEVELOPING AND IMPROVING SUSTAINABLE URBAN TRANSPORTATION

In keeping with the policy direction and objectives laid out in its Public Transit Strategic Development Plan – Vision 2020, the Metropolitan Transportation Agency (Agence métropolitaine de transport – AMT) unveiled its first Velostation on July 2, 2013.

With this pilot project, The AMT is looking to further encourage the use alternative modes of transportation (as opposed to the ‘solo automobile’) to travel to and from AMT stations and facilities. To do so, it has opted to improve the facilities for those who travel by bicycle to and from AMT stations and terminals. As part of this initiative, the AMT built the Montréal Metropolitan Region’s first Velostation at the Deux-Montagnes Station, which serves the commuter rail line of the same name. The Velostation is a state of the art, controlled access, weather-protected bicycle parking facility available to commuter train users. This pilot project generated considerable interest among the cycling population as soon as it was announced. The community of Deux-Montagnes, with an extensive existing bike path network and a history of supporting bicycle use among its citizens, proved to be the ideal location for the first Velostation.

According to the results of an on-board user survey conducted by the AMT in 2012, close to 2% of the AMT clientele travel to and from AMT stations by bicycle. At the Deux-Montagnes station, this number is closer to 4.5 %. In addition, the park-and-ride lot operates at 90% of capacity or more on a year-round basis. Given the established interest in bicycle use among Deux-Montagnes commuters and given that the park-and-ride facilities are operating at or near capacity, the AMT considered the Deux-Montagnes station to be ideally suited for the Velostation pilot project.

The Velostation service is completely free of charge, and is offered exclusively to OPUS+ program subscribers. It is playing a key role in making active transportation more appealing to “solo automobile” users.

The OPUS+ program is an annual subscription featuring free use of AMT services in the twelfth month, in addition to providing a registration service insuring the subscriber against any loss, theft or damage to the OPUS+ card. The program has many others features and special offers designed to encourage year-round use of the commuter rail network and any other AMT services to which the user subscribes. By encouraging commuter rail users to include active transportation as part of their daily commute, the AMT is also making an important contribution to the promotion of public health in the Greater Montréal Area.

From an environmental standpoint, the Velostation is a concrete measure promoting public transit in an environmentally responsible manner in addition to contributing to public health and safety. It is well documented that transportation is the major source of greenhouse gas (GHG) emissions in the Greater

Montréal Area, and the AMT is committed to reducing GHG emissions resulting from the movement of people. One of the solutions developed by the AMT to achieve this objective is to provide the services required to encourage its clientele to use active transportation to travel to and from AMT facilities. Greater use of active transportation, such as bicycling or walking short distances, can significantly reduce the number of automobiles on the municipal and regional road networks.

Implementing a Velostation adjacent to a train station is a highly efficient use of the available land area, when compared to the space required for a single automobile, and the use of stackable bike racks, doubling the Velostation's capacity, optimizes the use of the available floor space even more. At 900 square feet, roughly the equivalent of six automobiles parking spaces, the Velostation holds 78 bicycles. In terms of land usage, the ratio is approximately 13 bicycles for 1 automobile, which is a major improvement in space optimization. In addition, the presence of established cycling facilities nearby (Route Verte and municipal bike paths) made the Deux-Montagnes station an even better choice as the site for the first Velostation. This station already had a higher than average percentage of bike users, as shown by the use of the existing bike racks, even during the winter months. Prior to the construction of the Velostation, the average daily use of the existing 171 bike racks was in the 60% range year-round, clearly indicating that there was demand for a suitable alternative to the solo automobile in this location.

Also, by optimizing the use of the space available, the Velostation plays a role in reducing the impact of public transit facilities (densification, heat island effect, etc.) at the community level. The use of bicycles to travel to and from the park-and-ride facilities helps improve the quality of our environment. Finally, the Velostation provides an additional incentive by offering a safe and secure facility for those who would otherwise hesitate to leave their bicycle in an unsecure location at a transit station.

[PAGE 3 – DEGRÉ D'INNOVATION]

DEGREE OF INNOVATION

The Velostation is new concept developed from A to Z by the AMT, and it exemplifies the Agency's commitment to providing active transportation facilities in the Greater Montréal Area. This innovative project was implemented as a key component of the "2020 Targets" laid out in the new AMT Strategic Plan, *Transports collectifs d'avenir pour la région métropolitaine de Montréal*. Among its' key objectives, the Strategic Plan calls for 50% of the AMT clientele to travel to and from AMT facilities by active transportation modes by 2020. The AMT is also committed to simplifying its' clients daily commute by improving intermodal opportunities and by encouraging the use of active transportation to travel to and from AMT stations and facilities. Finally, the Velostation project is in line with overall government policy objectives regarding GHG emissions reductions in the area of personal transportation.

AN INNOVATIVE CONCEPT

The Velostation concept is in many ways an innovative pilot project, the first of its kind in the Greater Montréal Area. Although most of the region's transit facilities are equipped with bike racks, the Velostation offers a superior secure and weather-protected facility.

The Velostation holds 78 bike racks, stacked on two levels, which maximizes available space, ease of access and circulation within the facility. The cantilevered stacked bike rack system allows the user to

secure and raise his/her bike without having to physically lift it. In addition, the Velostation's wide sliding door provides easy access to the bike racks and opens automatically when the user slides his/her OPUS card over the reader.

The Velostation service is offered exclusively to OPUS+ program subscribers, an annual subscription featuring free use of AMT services in the twelfth month, in addition to providing a broad range of special offers and discounts from the AMT and other partners. Users can register both features (OPUS+ subscription and Velostation feature) on a single smartcard. At this time, AMT is the only transit system in North America to combine two such functions on the same card.

The construction of the first Velostation in the AMT system, or anywhere in Quebec for that matter, has played a key role in alleviating the saturation of the adjoining park-and-ride facility, in addition to allowing users to store their bicycle in a secure environment at the station. In order to attract a new population of cyclists, it was essential to equip the transit system with the facilities required to offer a quality experience for the cycling portion of the daily commute.

In an effort to respond to the needs of its cycling clientele and to encourage drivers to leave their car at home, the AMT developed the Velostation, which provides:

- An all-glass design providing high luminosity and a heightened sense of security for all users;
- Secure and controlled access to the facility through the use of the OPUS technology and the automatic door system;
- A strong visual identity and design consistency with other AMT facilities, for ease of recognition by all users;
- A bike repair kit, including a hand pump, providing the basics for minor bike repairs and maintenance;
- A purpose-built building designed for ease of maintenance, a distinctive look and durability;
- A highly cyclist-friendly design, with the sliding doors and a state-of-the-art island of stackable bike racks, for ease of movement within the facility;
- A facility that is open 7 days a week, 365 days a year.

TRANSFERABILITY TO OTHER COMMUNITIES AND ORGANISATIONS ACROSS CANADA

A Velostation-type facility can easily be replicated across Canada. Other Canadian transit agencies may want to learn from this innovative project and offer similar facilities to encourage their clientele to use active modes of transportation to travel to and from public transit access points. The Velostation has proven efficient and effective from an environmental standpoint. The AMT is making the Velostation plans and specifications readily available, along with user feedback reports, which has been of valuable assistance to other Quebec transit agencies and municipalities planning similar facilities. The Velostation pilot project has met and surpassed all expectations, and would certainly be a valuable and welcome addition to any metropolitan public transit system.

The Velostation was an instant success. Preliminary results show that a number of commuters have significantly increased how often they travel to and from the commuter rail station by bicycle, and some

have altogether stopped using their automobile for that part of their daily commute, for an extended period of time. The popularity of the Velostation speaks for itself: the 78 'bike parking' spaces snapped up in just three weeks, and the AMT has had to create a waiting list.

In an on-line survey of the 78 registered Velostation users conducted in the fall of 2013, the majority stated that their commuting habits have changed with the launch of the pilot project. Indeed, 37% of respondents indicated that prior to the opening of the Velostation, they would travel to and from the commuter rail station by bike on average less than once a week. Following the opening of the Velostation, 77% of respondents indicated that they travel to and from the commuter rail station four days a week or more. According to the survey results, the most valued Velostation features are ease of use and weather protection, followed by theft/vandalism protection. The main obstacles to increased bike travel to the Velostation are adverse day-to-day weather conditions and the need to make other stops between home and the station, such as dropping the kids off at school or shopping.

The results achieved with the Velostation from Day One clearly demonstrate that it has significantly enhanced active transportation opportunities in the Deux-Montagnes area and would most likely have the same beneficial effect in other communities in Quebec and across Canada. Although it is still too early to quantify the impact of a Velostation facility in alleviating the saturation levels of an adjacent park-and-ride facility, as was the case in Deux-Montagnes, the user survey results confirm that a number of users have changed their commuting practices and now more often travel to and from the commuter rail station by bike. The AMT Velostation enhances the region's public transit possibilities, in addition to providing an appealing alternative to those who wish to use active transportation to travel to and from the commuter rail station. Encouraging increased bike use as part of the daily commute presents many advantages to all stakeholders involved, including:

- For **users**: a great opportunity to include physical activity as part of the daily commute, plus added comfort and safety with an access-controlled, weather- and vandalism-protected structure.
- For the **public transit authorities**: very low cost per user, from an operational standpoint; compared to the equivalent number of automobile parking spaces, the Velostation has a much lower environmental impact (surface area coverage, heat island effect);
- For the **Greater Montréal Area**: no impacts in terms of GHG emissions, and limited land use impacts (roadways and parking);
- For the **Municipality of Deux-Montagnes**: optimization of existing cycling infrastructure.

All of these advantages are readily transferable to other regions across Canada, using a Velostation-type project to enhance active transportation facilities adjacent to public transit networks. At both the national and local levels, the construction of future Velostations would have a positive impact on all stakeholders involved.

The development of future velostations is a forward-looking solution that will lead to increased bicycle use as part of the daily commute, reduced congestion in park-and-ride facilities and fewer cars on the road. Encouraging active transportation in our larger cities will have a measurable impact in alleviating traffic congestion and reducing GHG emissions. The implementation of Quebec's first ever Velostation is an important first step in the development and promotion of substantial active transportation networks and facilities. This innovative concept is easily transferable to other municipalities, and has the major advantage of facilitating the optimizing of available space, which is a growing concern in most if not all of Canada's larger cities. As mentioned previously, the primary object of this type of project is to encourage the use of bicycles to travel to and from public transit facilities. That being said, the Velostation concept is easily applicable to a broader range of urban mobility situations. Already, large Canadian cities, including Montréal, are looking at ways to apply the Velostation solution to other urban mobility issues. Finally, this

type of project will play a key role in increasing the number of commuters using their bicycle as an integral part of their daily travels.

[PAGE 6 – VALEUR AJOUTÉE]

VALUE ADDED

Essentially, what differentiates the AMT Velostation from other bicycle-commuting facilities in the Greater Montréal Area is the focus on commuter comfort and safety, as illustrated by the all-glass, entirely weather-protected structure described previously. The safety aspect is an important feature for those who travel to the commuter rail station by bike and are looking for a safe environment to store their bike during the day. Also, the fact that access is restricted to a limited number of registered users is seen as a major plus.

To ensure success, it is essential to integrate the Velostation into a bicycle-friendly environment. In this instance, the proximity to an established network of bike paths was of key importance as commuters had the possibility of reaching the commuter rail station and other public transit facilities by way of safe paths designed to provide optimal bicycle mobility in the urban environment.

In terms of media coverage, the AMT started receiving positive feedback as soon as the development of the Velostation was announced, with a majority of comments focused on the project's positive impacts region-wide as to the travel habits of commuter rail users. From the earliest planning stages right up to the official opening, the Velostation was met with nothing but positive coverage from the local and national media. Indeed, these leading-edge active transportation projects generate a lot of positive public interest. Walking and cycling do not generate any GHG emissions, and are the most sustainable modes of transportation. When it comes to travelling to and from public transit facilities, active transportation is the ideal solution.

[PAGE 8 – APPENDICES]

APPENDICES

APPENDIX 1 – VELOSTATION IMAGES

(Divers angles...)

The Velostation in summer, from various angles

(La Vélostation en hiver)

The Velostation in winter

APPENDIX 2 – INTERIOR VIEW OF THE VELOSTATION

(Les supports à vélo sont disposés...)

Stacked bike racks inside the Velostation

APPENDIX 3 – USING THE TOP BIKE RACK

(Une employée...)

AMT staff demonstrating how to place a bicycle on the top bike rack

APPENDIX 4 – OPUS CARD READER

(Le lecteur de carte OPUS...)

Placing the specially coded OPUS card on the card reader opens the sliding door

APPENDIX 5 – BROCHURE DESCRIBING CONDITIONS OF USE

(Ce dépliant explicatif...)

This descriptive brochure was given to all Velostation users