Delivering the Active Transportation Infrastructure Stimulus Program (ATISP) in Winnipeg

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Abstract

The Active Transportation Infrastructure Stimulus Program (ATISP) is a $20 million program that includes the design and construction of approximately 35 individual bike routes, adding 100 km of new active transportation routes in the City of Winnipeg. The program is funded in part by the Federal Government's infrastructure stimulus program. This program was a challenging undertaking that has a completion date of March 31, 2011. The ATISP was managed by the City of Winnipeg's Public Works Department, Engineering Division, using a project delivery model, which is the subject of this paper.

One of the important responsibilities within the service delivery model was that of the Coordinating Consultant. The Coordinating Consultant provided assistance to the City of Winnipeg's project coordinator to ensure that all of the 35 bike routes were completed by the fall of 2010.

This paper explains the process involved in coordinating seven engineering service providers (ESPs), managing the information gathering and distribution, developing design guidelines for the ESPs and managing the involvement of a varied stakeholder community. Projects were grouped by level of complexity in design, approvals required and public consultation involvement to assist in the overall program scheduling. Each route had unique challenges relating to design details, public involvement, approval processes and political engagement, especially during an election year in Winnipeg.

With such a short time frame to deliver the project, the Coordinating Consultant developed many innovative methods to identify the level of effort required to facilitate consultation, approvals and design effort.

Show Me the Money

On September 11, 2009, the Federal Government announced that the City of Winnipeg's application for 37 new active transportation (AT) routes, representing a total investment of more than $20 million, had been approved as part of the new Infrastructure Stimulus Fund.

For a city that had only recently increased its annual active transportation budget to $3 million, this announcement was both a blessing and a curse. On one hand, it gave the City an opportunity to increase its active transportation system with $0.33 cent dollars (the City, Province and Federal governments each would contribute one-third, or $6.8 million to the project) and add over 100 km to its active transportation network. On the other hand, all 37 routes had to be completed in a very compressed timeframe. The official end date for the projects was set for March 31, 2011. However, because of Winnipeg's winter climate, construction on all projects had to wrap up in the fall of 2010.

When the applications were submitted, the possibility that all 37 applications would be successful appeared remote at best. The City had hoped to receive approval for a handful of routes, but had not anticipated funding for all routes coming through. Despite initial surprise, the City of Winnipeg had been actively engaged in the study and development of an active transportation network for over a decade, and was quick to accept the challenge. In December 2009, Winnipeg City Council approved the capital funding commitment.

Background on At in Winnipeg

Winnipeg's commitment to an active transportation program started in 1993 with the Winnipeg Bicycle Facilities Study. This study, developed by Marr Consulting, served as a guide to initiating cycling facilities in the city and kick started the addition of active transportation infrastructure to City streets and pathways (1). With a modest capital budget that averaged $233,000 from 1993 to 2005, Winnipeg's active transportation network began to grow. In 2005, the City Council demonstrated renewed awareness and support of active transportation by commissioning a follow up to the original 1993 study. The resulting City of Winnipeg Active Transportation Study report (2) was approved by City Council. It contained 36 recommendations that were summarized within five principles:

- PRINCIPLE 1: The city shall adopt AT principles as an integrated part of doing busi ness.
- PRINCIPLE 2: The city shall actively promote AT among staff and the citizens of the City of Winnipeg.
- PRINCIPLE 3: The city shall adopt an AT strategy.
- PRINCIPLE 4: The city shall be innovative and seek partnerships in funding and supporting AT facilities and programs.
- PRINCIPLE 5: The city shall establish a comprehensive city-wide network of AT facilities.

Council adopted all of the recommendations embodied within the five guiding principles. Two of the recommendations were central to the implementation of the study's remaining recommendations: the creation of an Active Transportation Coordinator position within the City and the development of an Active Transportation Advisory Committee comprised of volunteer representatives from local cycling and trail organizations, that would support this position. With the creation of the Active Transportation Coordinator position, the formation of the Active Transportation Advisory Committee (ATAC), and an increase in the AT budget to $1.75 million annually, active transportation moved ahead at a quicker pace within the city.

Using the 2005 Active Transportation Study as a starting point, the Active Transportation Coordinator worked with ATAC to develop a formal active transportation master plan. The master plan included both on-road and off-road facilities located throughout the city. Although the plan did not include detailed design, what it did provide was guidance and direction in the establishment of future AT routes. In May 2008, City Council enacted a policy that requires the civic administration to incorporate the cost of implementing an active transportation route along any roadway that is identified on the City's AT network and scheduled for rehabilitation or renewal into the capital cost of the roadway works project.

When the City of Winnipeg became aware of the Federal Government's Infrastructure Stimulus Program, it was well positioned to identify active transportation routes for submission to the program. Active transportation facilities were prioritized for application because of Council's strong commitment to the AT program. Using the master plan, the Active Transportation Coordinator selected 37 on- and off-road active transportation routes that were a priority for the City for the federal application. The success of all 37 applications was rooted in the City's commitment to AT through its past study of AT for the Winnipeg context, development of the active transportation master plan, the guidance of the Active Transportation Coordinator, the commitment and dedication of ATAC members and policy that supported the AT infrastructure construction.

Laying the Groundwork for Program Delivery

With the funding in place, the City was faced with the challenge of delivering the Active Transportation Infrastructure Stimulus Fund Program (ATISP) in approximately ten months.

The ATISP project fell under the purview of the Project Management Branch of the Engineering Division of the Public Works Department on behalf of the Active Transportation Coordinator. The Project Management Branch quickly grasped that it didn't have the internal resources to deliver the program; it was very different than delivering a streets reconstruction or rehabilitation project. In a typical streets project, it's easy enough to estimate the time and effort required to provide the engineering support necessary to deliver the product, but for the 37 AT projects, engineering service providers (ESPs) would have limited familiarity with the infrastructure, resources or effort required, particularly within the Winnipeg context.

Even as a project manager was assigned to the ATISP project, it became apparent that a large number of ESPs should be engaged immediately to get the project off the ground. And, given its scope, the City would have to engage all of its major municipal ESPs to deliver the project. However, with the engagement of a large number of ESPs, how should they be managed and coordinated? It was important that with the delivery of 37 bike routes, there would be relative consistency among all of them. They had to share design standards, and whether on- or off-road, they had to share a similar look and feel so that the AT network would be almost seamless for the users. Additionally, the ESPs had differing experience in developing and designing active transportation facilities. Further complicating things, the City did not have an active transportation manual with design standards that would provide guidance to the ESPs.

It was clear a new service delivery model would have to be developed in order to respond to all the questions and challenges the project was raising and to complete the program within the tight time constraints. In response, the Project Manager developed a service delivery model with three key components (Figure 1):

- a Coordinating Consultant
- a Communications Consultant
- an Advisory Team

- Coordinating Consultant

The Coordinating Consultant was identified as the most important component in the model. This consultant would be the key liaison between the project manager and the ESPs. The role of the Coordinating Consultant would be to ensure continuity and quality of design among all of the ESP's and be the central point of contact between the ESP's and various civic departments.

- Communications Consultant

The role of the Communications Consultant would be to design an overall brand and distinctive look for the project which would be immediately recognizable to the public. The Communications Consultant would also develop the communications strategy to handle all press releases, coordinate public meetings and open houses and provide public education on the active transportation network and different type of facilities.

- Advisory Team

The role of the Advisory Team would be to provide technical and administrative support to the program and also provide guidance to the ESPs where regulatory approvals were required. The Advisory Team would be engaged at the beginning of the program so that their input would be considered early on to avoid surprises later on when the final design drawings were submitted for approvals. The Advisory Team was further subdivided into a Technical Advisory Committee (TAC). The TAC included members who could provide specific technical and regulatory guidance on where approvals were required prior to route construction.

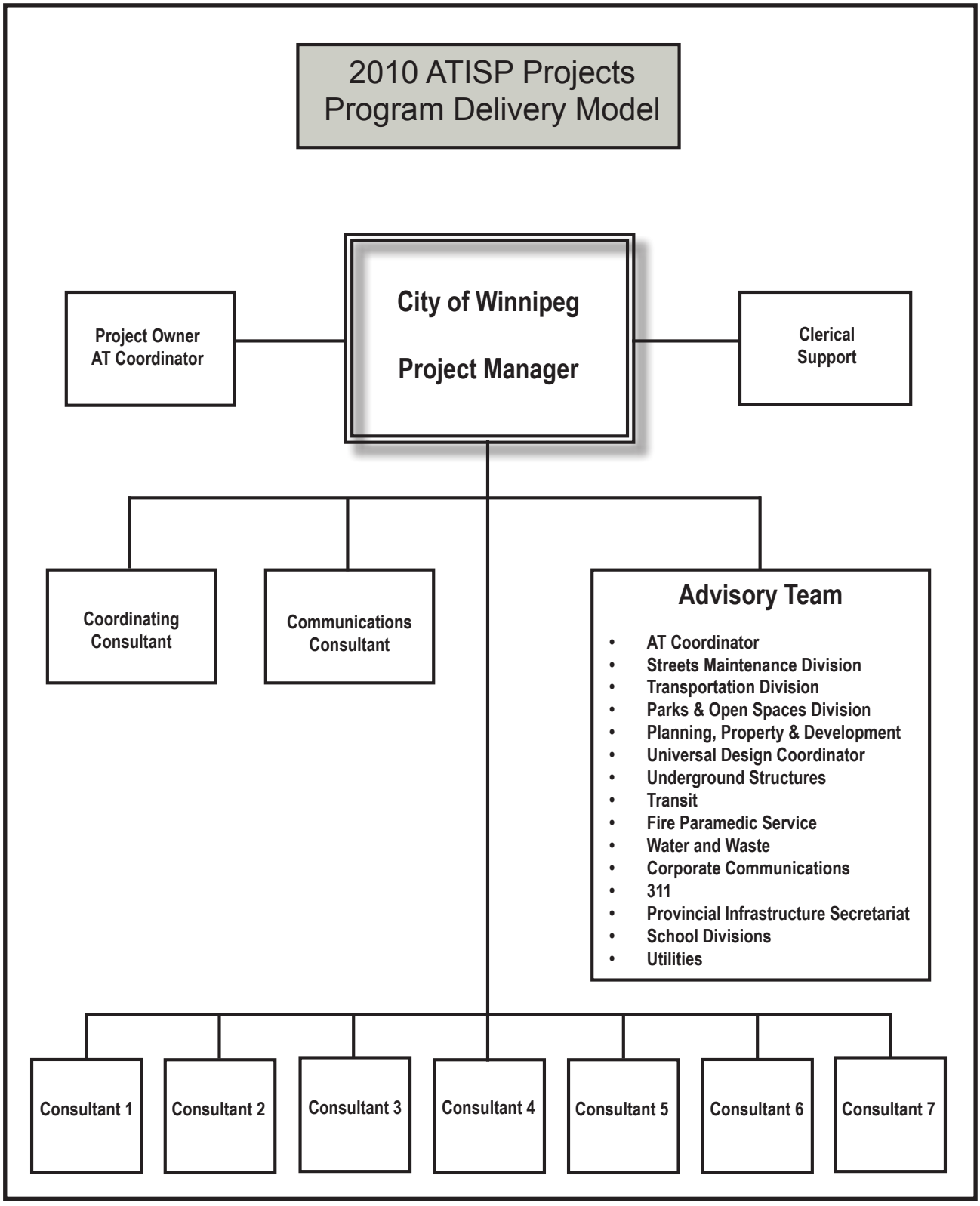


Figure 1: Program delivery model

Creating the Right Team

With the development of a program delivery model the team of Marr Consulting Services and Stantec Consulting was engaged as the Coordinating Consultant. As the coordinating team was confirmed, the City was also engaging ESPs. The 37 approved active transportation routes were divided into seven packages. Each package was assigned to a different ESP company, seven in total. The packages were based primarily on their geographical location within the city in the hopes of realizing some savings given their proximity once routes were sent to tender. The role of the Communications Consultant was assumed by the City's Communications department.

It's worth noting that the City's Material Management procurement policy at this time allowed the civic administration to sole source consultant assignments where estimated fees would be less than $500,000. This policy has recently been amended and the threshold lowered to $100,000. The former policy was a particular boon given the tight timelines of the project, as project managers were able to avoid the preparation of requests for proposals (RFPs) and the evaluation and selection process.

With the Coordinating Consultant, the ESPs and the Communications Consultant engaged, the program delivery began to take shape.

Program Kick Off

With so many program partners and team members, a kick-off meeting was set to introduce the advisory team and the ESPs to the coordinating consultants, to advise them of their specific roles in the service delivery model, and to make clear to the team the tight time constraints of the program and the need to provide timely input into the process.

Following the kick-off meeting, an "Active Transportation 101" workshop was organized for ESPs. The course was designed by the Coordinating Consultant to raise the level of understanding and awareness of all of the ESP's regarding active transportation terminology, design and infrastructure. The workshop also served as a team building exercise, creating a spirit of cooperation and purpose among the program partners. Later on, the great repertoire between the Coordinating Consultant and the ESPs proved invaluable as the inevitable challenges and complications developed, were resolved and the program moved ahead.

Evolution of the Project Team, Messaging

As the program progressed, the Communications Consultant engaged the assistance of volunteers in the active transportation community to form a Communications Advisory Committee (CAC). While some of the individuals who volunteered their time to CAC were also members of ATAC, their involvement in CAC was not contingent on their representation of an organization. The purpose of CAC was to help "get the word out" about the new routes to their constituents across the city. The program team adopted the catch phrase "HIKE IT, BIKE IT,

LIKE IT!" for its communications materials, press releases and media advertisements. As part of the communication and education strategy, the Communications Consultant also designed a travelling display booth to be set up at malls or other community events. The display booth provided information on the City's active transportation network and the specific ATISP routes and program. Additional materials bearing the "HIKE IT, BIKE IT, LIKE IT!" brand included brochures describing the active transportation network, the stimulus program and examples of different types of AT treatments in a coordinating folder. The display booth was staffed by volunteer CAC members and City staff.

The Communications Consultant was also responsible for developing a sub-section on the City's Web site dedicated to the Active Transportation Infrastructure Stimulus Program. This site provided the public with information on scheduled open houses, work shops, preliminary route designs and summaries of community consultation events.

Project Toolkit

1. Project Rankings

As the design process evolved, the Coordinating Consultant undertook an evaluation of all routes with respect to:

- complexity of design,
- complexity of consultation, and
- regulatory approvals.

In an effort to bring clarity to the efforts of the project team and to identify where emphasis should be placed in moving the program forward, the Coordinating Consultant ranked the individual routes as high, medium and low status (Table 1). This ranking ensured that a proper focus could be placed on all routes by each of the ESPs and also placed emphasis on which routes would require closer scrutiny.

01-Feb-10	01-Mar-10	15-Mar-10	01-Apr-10	15-Apr-10	01-May-10	15-May-10	01-Jun-10
Assiniboine	Seel Ave	Fleet/Warsaw	Brazier/Roch	Lagimodiere	Jubilee Ave.		Charles/Flora/ King
Alexander/P acific	Waverley	Nassau St.	Dakota/Dunkirk	Rue Archibald	Hay St.		Machray Ave.
Eugenie	Wilkes Ave.	Harrow St.	Sherbrook/Maryland	Dugald Rd.	Kildare or Pandora Ave.		Pritchard Ave.
Bannatyne/ McDermot		Grosvenor	Berry St.	Transcona I	Seine River		Powers
Bison Dr.		Silver Ave.		Transcona II	York Ave.		Ellice/St. Matthews
		Moray			St. Mary Ave.		Kildonan Golf Course
		Serwin Rd.					Omand's Creek Bridge

Legend
Fast Track
Intense Consultation
Site Specific Consultation
Low Consultation

Table 1: Tender ready timing and consultation intensity

2. Gantt Chart

Rankings were translated to a modified Gantt chart which became an essential tool for day-to-day management of the project. Most of the routes required some political approvals as proposed treatments required changes to existing infrastructure such as stop sign locations, and, some routes required property easements. In both of these cases, the project team anticipated there could be delays in getting routes ready for tender. With these issues in mind, target tender dates were determined first, and scheduling of route design and consultation activities were set using target tender dates as deadlines.

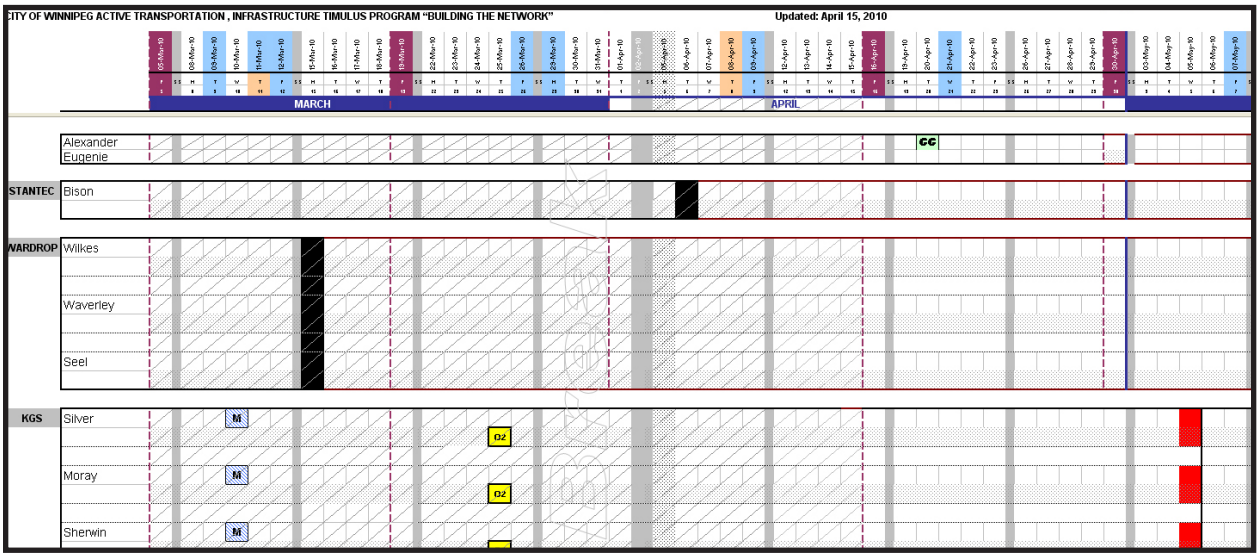


Figure 3: Close up section of modified Gantt Chart

3. FTP Site

To assist the transfer of information between the Coordinating Consultant, ESPs, the Advisory Team and the Project Manager, an FTP site was set up by the Coordinating Consultant. This proved very useful in the sharing of information, particularly with large file sizes of maps and technical drawings.

4. Weekly Meetings for Centralized Design Review

As the process moved along and the route designs developed, weekly meetings with the TAC were scheduled. At these meetings, ESPs would present the status of their work and the TAC would review the proposed designs and provide technical direction. This was especially valuable where vehicular travel lane widths were being considered to accommodate certain treatments, or where the ESPs proposal called for switching parking from one side of the street to the other, or the removal of parking entirely.

The other value of this centralized, weekly technical review was to identify where design standards had to be developed because none existed such as for neighbourhood traffic calming circles, or for incorporating universal design standards into new AT treatments. If no standard was available, one had to be developed. Route design also had to accommodate transit movements; The City's Transit Department provided their input and guidance to the process as part of the Technical Advisory Committee.

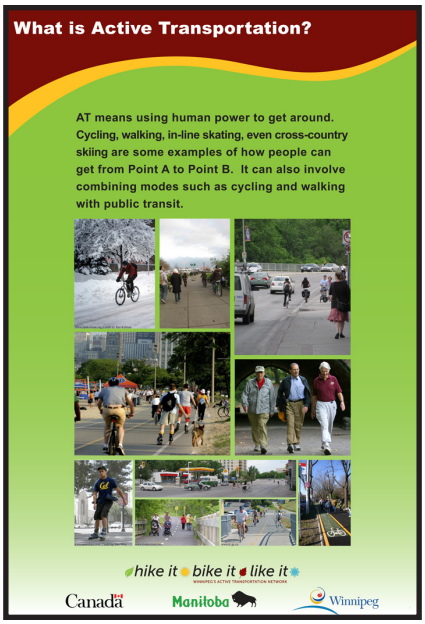
Consultation and Public Involvement

Once the ESPs received their assignments, they quickly began to familiarize themselves with the routes in order to develop a set of preliminary designs. During this early stage, the Project Manager and the Coordinating Consultant started to develop a long term strategy to deliver the program, with a particular focus on the mid-stage of program delivery – processes for analysis, review and public input regarding conceptual and preliminary route designs.

It became clear early on that with a membership that included several of the City's most avid cyclists, CAC could provide another level of technical advice to route development. The Coordinating Consultant invited them to scrutinize the ESPs preliminary designs and provide advice to them from a user's perspective, adding their specific site knowledge of the 37 routes. The CAC became very engaged and provided important advice to the ESPs from a route familiarization and traffic impact perspective.

As part of the ATISP delivery strategy, the mid-stage of the program would involve extensive public engagement. The Coordinating Consultant, together with the Communications Consultant categorized each route according to complexity of design, consultation and regulatory approvals required. Off-road pathways received the lowest priority for consultation, while routes with site-specific issues such as a loss of parking received a medium priority. Routes with on-road facilities or where potential controversy could reasonably be expected received the highest priority for consultation. Local trail stewardship groups, where present, were engaged for all routes.

The community workshops and public open houses became an essential step in the program delivery process. It was an opportunity to engage the public, especially those individuals immediately affected by the proposed treatment options along their streets or in their neighbourhoods. The methodology used in workshop-style events was intended to provide participants with an opportunity to actively illustrate their questions, concerns, and visually share their neighbourhood knowledge and suggestions for the proposed route designs. At these events, large scale roll out maps with an overlay of tracing paper were utilized to encourage participants to draw changes and share comments with the ESPs while gathered around the map. This proved critical where less familiar facilities such as forced right turns, traffic calming circles or raised intersections were being proposed. At all public events, storyboards were used to share specific information about route treatments and about AT in general, and questionnaires were used to collect additional comments from participants. Comments from the workshops and open houses were transcribed, tabulated and shared with all of the ESPs.



Figures 4 & 5: ATISP public consultation events storyboards

Political Approach

As the process continued to move along, it was very important to keep the ward councillors informed. This is especially important, as the project was taking place during an election year. Councillors reacted differently to the active transportation initiative; some saw it as an opportunity to champion investment in their wards, while others were concerned about potentially agitating constituents.

Together with the Communications Consultant, the Coordinating Consultant arranged periodic meetings with the ward councillors. These meetings were usually scheduled before workshops and open houses so that the ward councillor was aware of what designs and treatments were being presented. In some instances, the ward councillor attended the workshops and open houses to gauge the support of the constituents on the proposed active transportation facility.

In general, ward councillors proved fairly reactive to feedback from constituents during the consultation process. In the proposed River Heights / Fort Rouge Bikeway System, forced right turns were not supported by constituents and ward councillors received negative feedback about the proposed treatments. In their place, raised intersections were adopted. This type of treatment was more appealing to area residents because they still preserved their ability to travel through their neighbourhood without having to make any detours. In almost all cases, where local residents and stakeholders didn't support proposed treatments, other options were developed by ESPs and brought back to the community and councillors for input.

Omands Creek Bridge: Public Opposition

One of the proposed AT routes established an important east-west connection over Omand's Creek. This route is an alternative to Portage Avenue, a major traffic artery in Winnipeg that is poorly suited to use by the average cyclist due to heavy traffic volumes.

There was an existing multi-use bridge in place just above the normal summer water flow elevation of the creek. The bridge was also close to the creek's outlet to the Assiniboine River. As a result, it flooded each year during spring runoff due to the backwater from the river.

A new bridge at a higher elevation was proposed as part of the route, in order to incorporate universal design standards and eliminate overtopping during the spring runoff conditions. When the proposed design was shared with area residents, it became clear they were not supportive of the replacement bridge. Feedback from residents brought some unanticipated local knowledge into play; the proposed bridge design would interfere with a popular neighbourhood tobogganing hill. Additional bridge design options were developed and presented at an open house on the proposed route. Over 500 local residents, politicians and media attended. The majority of participants made their views well known to the City that a replacement bridge was not wanted.

As a result, this route did not proceed; it was a casualty of a tight timeframe and the funding restrictions of the project. In a normal capital project without these constraints, it would have been possible to hold further discussions with area residents and develop a compromise, and a comprise did seem possible. As a result of the public consultation, residents were able to voice their concern over safety in the park and the need for improved lighting and other facilities.

Financial Management

With 37 individuals projects, came 37 individual budgets. One of the peculiarities of the ATISP project was that it was actually 37 individual projects with no flexibility to use cost savings from one route against over-expenditures on another. As a result, City administration had to request an additional $1 million in funding from the City's Standing Policy Committee on Public Works to augment the $20 million Council originally approved for ATISP.

Some route overages resulted from a lack of preliminary designs for each route prior to the Infrastructure Stimulus Fund application. As route designs progressed and as community stakeholders provided input on proposed treaments, changes such as traffic signals, raised intersections, bump-outs, traffic calming circles and moving some routes off-road, all added to project costs.

The funding conditions presented another critical issue. The City did not anticipate having to engage a Coordinating Consultant and a Communications Consultant because they hadn't anticipated receiving funding for all 37 projects. While their work was central to the success of the overall program, there was no mechanism for the City to recover those costs directly as an elegible cost. Their costs had to be charged against the individual routes.

While currently the additional costs of the project almost matched the shortfall, there will be ongoing budget management challenges for the City once all routes are tendered. If projects come in over budget, the City is responsible for the full overage, but if the projects come in under budget, the City loses two-thirds of the cost savings due to the funding arrangement.

Lessons Learned and Outcomes

The ATISP routes are projected to be completed by the fall of 2010. As of May 2010, the public consultation on the route design has concluded and the project team was dealing with final approvals, detail designs and tender deadlines.

Throughout the process there have been valuable lessons to be learned about delivering a project of this magnitude within a condensed timeframe.

1) The Coordinating Consultant was invaluable to the project in:

- Coordinating the work of all of the ESPs
- Coordinating the development of interim technical guidelines
- Mentoring the ESPs
- Keeping the Communications Consultant on track
- Developing a work flow diagram and tools to keep the project focused and on track
- Having adequate number of qualified and experienced staff to support the project
- Acting as an "Owners Advocate" by assuming the day to day project management coordination with the ESPs
- Employing a form of an Incident Command Structure where there were always staff synthesizing past data, looking at the present, and anticipating what needs to be done next in the context of future deadlines

2) The City needs to incorporate the newly developed technical guidelines into a formal technical or design manual to capture the knowledge gained through this process and to inform future AT development. This is in the process of being done. The manual will include guidelines and standards for design details such as turning radii, facility dimensions and materials, when and where facilities should be used, use of universal design concepts, and instruction for special cases and exceptions.

3) The AT master plan needs to be revisited. The master plan should incorporate some preliminary design work, so that when the routes are selected for construction, many of the potential challenges, constraints or issues have been identified. In hindsight, more thorough work at the master plan level might have included a broader and earlier public consultation process to identify potential alternative routes, as well as a high-level analysis of each route. Helpful data would have included traffic volumes and speeds, cross-streets, residential and business uses and parking, and impact of universal design considerations. Some initial work identifying easements would have also been useful; due to the compressed timeframe of this project, securing easements became particularly challenging.

4) The City needs to invest in advertising the AT network to encourage its use and build public support for its future development. Through the public consultation process, the project team was able to begin building public support through a meaningful engagement with local residents and stakeholders who shared important local knowledge with the project team, such as school bus pick up locations, intersections where safety was a problem, locations where non-local traffic cuts through back lanes or where neighbourhood children go tobogganing. In most cases, the project team was able to reflect that knowledge in the final detailed design of a route. At the same time, the project team encountered residents who simply didn't see the necessity of new AT infrastructure or who took a "NIMBY" stance by supporting the idea of AT in general, but not on their street. Future advertising and public education messages should include a focus on the benefits that a well developed AT network and new AT facilities have for all citizens, including home owners, drivers and business owners.

5) The City needs to create a strategy for educating the drivers, cyclists and pedestrians about new AT and traffic calming facilities introduced through the ATISP program.

6) Issues management can become resource intensive for such a large project in an election year.

7) Designing and implementing new AT routes is truly a process, and involves educating the public and inviting their input. Public consultation and involvement early on is essential to building support for individual projects and active transportation in the city. The project team developed several tools that became invaluable to the stakeholder meetings, open houses and workshops that were held throughout the project. Large-scale roll out maps of the project routes served an essential role in facilitating discussions between project engineering, AT experts and participants, and were often marked up with comments and insights from those discussions. A 3D video illustrating AT treatments that were new to Winnipeg such as traffic circles and forced right-hand turns helped the public visualize and understand the use of new facilities. Comment forms and questionnaires, transcribed and summarized, reflected citizen views back to politicians engaged in the process and were useful in bolstering political will for projects to move forward which was particularly important in an election year. In addition, the comment forms enabled names to be collected of potential volunteers who could take on important neighbourhood-level stewardship responsibilities of new AT facilities.

8) While tender-related cost savings from the geographic grouping of routes for ESP assignments cannot be measured until projects are complete, other benefits became clear. Having one ESP in a neighbourhood was helpful in their understanding of how the local routes interacted with each other. Additionally lessons learned from stakeholder reactions to certain treatments could be applied across all routes in the area.

Conclusion

Looking back, receiving $20 million in funding for these projects was like winning the lottery -- you want to spend it all! However, like any government funding arrangement, there are

strings attached. To accomplish all 37 projects in such a condensed time frame required incredible focus, coordination and effort from all project partners. In fact, ATISP was red flagged federally due to the $20 million plus in investment, the broad scope and condensed timeframe of the 37 projects. In a unique partnership, Winnipeg's consulting community came together to deliver the program. The project consultants shared openly and the working relationship between the Coordinating Consultant, Communications Consultant, the City, and the project ESPs was extraordinary. As a result, by the end of 2010, Winnipeggers will enjoy close to 400km of active transportation routes.

References

1. Marr Consulting and Communications. Winnipeg Bicycle Facilities Study, February 1993.

2. Marr Consulting and Communications. The City of Winnipeg Active Transportation Study, February 2005