



**Committee of the Whole Report
For the Meeting of June 8, 2017**

To: Committee of the Whole **Date:** June 2, 2017
From: Fraser Work, Director of Engineering and Public Works
Subject: Fort Street AAA Bike Lane –Design Approval and Project Update

RECOMMENDATION

That Council direct staff to:

1. Approve the value-engineered, "complete streets" AAA Bicycle Facility in 2017/2018, and implement the three 800-1000 block crosswalk upgrades in future years;
2. Amend the 2017 Financial Plan to allocate an additional \$270,000 from the Gas Tax Reserve to fund the Fort Street project, and authorize staff to proceed to tender a construction contract as outlined in this report; and
3. Amend the 2017 Financial Plan to allocate an additional \$110,000 from the Accessibility Capital Reserve for accessibility features for the Fort Street Bike Lane project.

EXECUTIVE SUMMARY

Implementation of an All Ages and Abilities (AAA) cycling network is a key strategic priority of Council. The Fort Street "complete streets" AAA cycle track is the City's second fully protected cycling facility, and is deemed a critical component in supporting the City's transportation mode shift goals, climate action targets, economic development goals, and planning and land use policy objectives as set out in the Official Community Plan (OCP). "Complete streets" projects employ design features that fully integrate safer cycling, enhanced transit, pedestrian and accessibility infrastructure, urban forest stewardship, and public realm features.

Since the last update to Council in December 2016, staff have worked with consultant support to complete the Fort Street detailed design and engagement activities, obtaining project input from stakeholders along the corridor, and across the City. The design of the Fort Street bikes lanes has now progressed to the 90% stage and staff is seeking Council approval, and permission to proceed to construction.

The public engagement process has been ongoing, since October of 2016, with a recent, sharper focus on connecting with business leadership along Fort Street. Several businesses have remained concerned about the negative impacts of the AAA facility on operations, safety, parking, loading zones and financial impacts, and has questioned the route, alignment and the concept of bikes along Fort Street. Fort Street is a desirable cycling alignment that seamlessly connects the waterfront, business corridor, and easterly village connections, without interruption. A single two-way bike facility on Fort Street is more cost-effective and less disruptive than two separate one-way facilities. Staff's "complete streets" design has carefully considered all inputs, including a number of meetings and tours with several stakeholders. Assessments of design alternatives and

modifications have been completed to optimise benefits, and reduce risks to parking, loading zones, operational movements, traffic flow, safety, and cycling amenities.

The current design seeks to optimise and balance several requirements, including safety, pedestrian improvements, transportation efficiencies, parking, emergency services, transit efficiencies, operational and logistical necessity, and accessibility. The design supports pedestrians through traffic calming and enhancements to existing crosswalks as well as the addition of new mid-block crossings.

The cycling corridor uses a combination of paint and bollards, parked vehicles and limited concrete barriers. Travel through the intersections will be protected by both time and space with separate traffic signals dedicated specifically for bicycles. BC Transit operations staff have reviewed the design, provided feedback and participated in turning movement pilots. The design accommodates emergency access for Victoria Police and Fire Departments including turning movements, access to lanes and emergency protocols. The design accommodates commercial vehicle turning movements and provides designated loading space in each block. The design also accommodates all existing commercial bus/truck turning movements including the largest vehicles that currently use the corridor as well as transit and coach buses. Staff completed transportation models to confirm that the design accommodates existing traffic volumes and turning movements without impacting the level of service. A total of 31 on-street parking stalls would be removed with the realization of the full scope of this design, most notably in the 500 and 600 blocks. Parking stalls have been removed only where absolutely necessary. Parking types, rates, and times can and will be managed to support stakeholder-needs along the corridor. New audible pedestrian signals will be installed at Government, Blanshard and Quadra Streets. Additional accessibility features (truncated domes and audible pedestrian signals) will be added at select locations with funds from the Accessibility Capital Reserve.

The “complete streets” design includes several value-engineering modifications, which seek to reduce cost while retaining all necessary safety elements and an acceptable level of design quality. The Fort Street complete-street project is currently estimated at \$3.19M, which includes a 20% construction contingency and 30% contingency to cover market adjustment, engineering administration, inspection, and overall project risk. The AAA bike facility accounts for approximately \$2.3M (including contingencies) of the total, with the remainder required to fund infrastructure improvements and public realm treatments. Costs have been carefully controlled via value-engineering of design scope and impacts, to a level that does not compromise safety, or the quality standards dictated by the downtown public realm plan.

Staff recommends implementing the value-engineered, “complete streets” design, which intends to minimize costs, maximise safety, achieve appropriate design standards required in the downtown core, and maximise operational effectiveness and efficiencies across shared user groups. The recommendation includes installation of the AAA bicycle facility and critical infrastructure repairs/improvements, and prudent public realm enhancements.

PURPOSE

The purpose of this report is to present the design of the Fort Street bike lanes and seek Council direction to proceed to construction.

BACKGROUND

Approved Downtown AAA Network

In May 2016, Council approved the location and conceptual designs of the AAA bicycle network including 24km of prioritized corridors and directed staff to proceed with design, consultation and construction of Phase 1, including 5.6 kilometres in the downtown core as follows:

- *Pandora Avenue*: 1.2 kilometres of two-way protected bike lanes on north side of the street from Store Street to Cook Street.
- *Fort Street*: 1.2 kilometres of two-way protected bike lanes on north side of the street from Wharf Street to Cook Street.
- *Cook Street*: 1.2 kilometers of protected bike lanes on each side of the street from Pandora Avenue to Southgate Street.
- *Humboldt Street*: 1.2 kilometres of shared traffic-calmed streets and a two way protected bike lanes on north side of the street from Douglas to Government.
- *Wharf Street*: 0.7 kilometres of two way protected bike lanes on the west side of street

In December 2016 Council received an update on the progress of Phase 1 implementation and approved the following motions:

“That Council:

1. Include Wharf Street in Phase 1 of the Biketoria network implementation and accommodate further planning and design for the Government Street mall as a part of the Visual Victoria process.
2. Report back to Council via a Biketoria planning workshop in early 2017 to explore recommendations related to future network implementation, prioritization and resource needs.”

In February 2017, Council received an update on the All Ages and Abilities Bicycle Network including a modified approach to the implementation sequencing which resulted in the following Council motions:

1. That Council direct staff to report back in June 2017 with further Cycling Network updates and recommendations regarding sequencing, scheduling, resourcing and costs to get the network implemented by 2022
2. That staff consider implementing interim protection on identified corridors to improve safety prior to completion of intersections to AAA standards; and
3. Develop an earlier and more robust engagement strategy going forward for those residents and business owners and operators on affected corridors.

Design Approach

The conceptual design for Fort Street developed as a part of the AAA network study in 2015/2016 consisted of a two-way bicycle facility on the North side of the corridor.

In June 2016, staff began work on the second phase of Fort Street cycle track design, called – “functional design”. This design stage provides the necessary level of analysis to ensure that the design will functionally work on the corridor and an opportunity to consider value engineering approaches to reduce costs and/or construction length compared to the concept.

The functional design was also developed using guidance from the 2015 – 2018 Strategic Plan applying “complete streets” principles. These principles aim to support policy directions from the

Official Community Plan and ensure the design and function of the roadway addresses the needs of pedestrians, cyclists, and transit riders.

“Complete streets” principles also encourage user interaction, infrastructure renewal, and integrate public realm objectives such as landscaping, street furniture or public art. Subsequent reports to Council highlighted that the design standard of the new AAA facilities would match the public realm quality along those sections of the downtown core. This approach was communicated to Council at the following references:

December 2016 Committee of the Whole Report

“Similar to Pandora, Fort Street employs a “complete streets” lens to accommodate vehicles, transit, pedestrians and cyclists while supporting other City priorities such as urban forest management. The design includes a bi-directional fully-protected bike lane with signalized intersections for cyclists on the north side of the corridor

The Fort Street design includes a number of design considerations to accommodate all road users. The design responds to a “complete streets” development while maintaining full transit service and minimizing impacts on parking loss.”

February 2017 Committee of the Whole Report

“Each corridor in the AAA network is made up of several segments. Staff use a zonal approach to determine the appropriate level of treatment and design features to complement the surrounding developments.

The desire for associated street furniture, landscaping, wayfinding, pedestrian crossing improvements and accessibility enhancements is more prominent in the downtown core than it is on neighbourhood corridors.”

Engagement on the Functional Design

City staff initially engaged corridor stakeholders on the functional design in October and November 2016. In December 2016, Council received an update on the engagement process including a summary of engagement activities and results of stakeholder feedback received during the period.

More than 450 people participated in two project open houses or visited the on-site information booth and a number of one-on-one stakeholder meetings were held. Participants during this phase included a variety of users including business owners, residents, developers, motorists, transit riders and cyclists. The majority of feedback received during these activities was positive with strong support for the two-way facility including the signalized and protected intersections, new mid-block crossings and additional bicycle parking.

In response to concerns that the process did not include enough direct engagement from key business leadership on the corridor, consultation activities continued in late December through April 2017 involving an additional 125 people. Staff continued to advance the project through the “detailed design” phase required for construction during this same period, considering feedback that was provided through engagement activities. A summary of the comments received during this engagement period and how they have been addressed is provided in Appendix A.

ISSUES & ANALYSIS

There are a number of issues identified for Council's consideration including:

- **Project Design:** A “complete streets” design is outlined below, which has essential elements to meet the AAA standard, as well as additional treatments to enhance pedestrian and public realm amenities.
- **Project Financial Information and Affordability:** Continual management of cost and quality remains a challenge, supported by value-engineering, de-scoping where possible and contributions from other departments.
- **Community Engagement:** The design reflects a series of stakeholder feedback and comments, but is unable to accommodate all requests, due to safety, costs, and design trade-offs.
- **Project Schedule:** An ambitious construction schedule must be balanced against project cost and quality risks.

Project Design

The Fort Street bike lanes are designed as a bi-directional, fully-protected AAA facility on the north side of Fort Street from Wharf Street to Cook Street. The detailed design and cost estimate is at the 90% stage. Design drawings block by block are provided in Appendix B.

Similar to the Pandora bike lanes project, the scope of work includes public realm enhancements as well as necessary replacement of aging infrastructure. The design reflects enhanced safety and functionality and supports the priorities identified in the OCP.

Input received from stakeholders through engagement activities has been carefully considered and incorporated into the design wherever possible. Although it is not possible to meet every expectation, the proposed design balances considerations for safety, functionality and the needs of all road users. Appendix A provides a summary of existing conditions on each block, stakeholder input, how feedback has been incorporated into the design, and, if applicable, why it has not been possible to include.

The “complete streets” design includes features such as:

- Fully protected corridors with use of paint, plastic bollards and concrete barriers
- Fully protected intersections with dedicated traffic signals for bicycles, and separate signals for Fort Street left turn traffic
- Use of green conflict paint through intersections and driveways
- Repaving of the bike lanes due to poor condition of existing pavement on the north side of Fort Street
- Three new mid-block pedestrian crossings in the 800, 900 and 1000 blocks
- Enhanced crosswalk surface treatment in the 600 block at the corner of Broad Street
- Safety improvements for existing pedestrian crossings at Langley, Broad and the 700 block of Fort
- Relocation of the “parklet” on the 700 block with at-grade access for those with mobility challenges
- Net addition of 9 new street trees, 2 in-ground and 7 above ground
- Addition of 23 new bicycle racks
- Addition of 10 new public benches
- Addition of 3 new audible countdown signals

- Integration of accessibility features for those with visual impairments
- Concrete medians with space for new bicycle racks, landscaping and public seating
- Bicycle corrals with at-grade parking areas
- New motorcycle parking area in the 600 block
- New passenger and commercial loading zones
- Reconfigured lane markings between Cook Street and Linden Avenue, to transition eastbound bike riders from the north side of the street to the south side
- Replacement of sidewalk segment along the north side of the 700 block (existing sidewalk is in poor condition due to wear over time; improvement in comfort and safety)

The current design must balance a number of key requirements and compromises, described below:

Pedestrian comfort and safety: The design supports pedestrians through enhancements to three existing crosswalks as well as the addition of three new mid-block crossings. A further design feature at Broad Street supports traffic calming.

Cyclist comfort and safety: People riding bicycles will be protected along the corridor using a combination of paint and bollards, parked vehicles and limited concrete barriers. Travel through the intersections will be protected by both time and space with separate traffic signals dedicated specifically for bicycles. A bicycle lane on the north side of the 1100 block Fort Street (between Cook Street and Linden Avenue), will transition eastbound bike riders from the north side of the street to the existing bike lane on the south side of the street.

Transit operations and turning movements: BC Transit operations staff reviewed the design, provided feedback and participated in turning movement pilots. There are no service-related concerns associated with the proposed removal of the bus stop at Vancouver Street, and operating times along the corridor will be delayed less than 1 minute. Post-construction, operational analysis of transit operations will be conducted, to determine if additional mitigation measures are required.

Emergency services: The design accommodates emergency access for Victoria Police and Fire Departments including turning movements, access to lanes and emergency protocols. In case the travel lanes are blocked (e.g. single travel lane in the 500 and 600 blocks), emergency vehicles may use the bike lanes to provide service.

Commercial loading and turning movements: Staff has shared the design and solicited feedback on loading requirements with various service providers. The design accommodates commercial vehicle turning movements and provides designated loading space in each block. The City will continue to work with commercial providers to address loading needs not only on the Fort Street corridor, but across the entire downtown. The design also accommodates all existing commercial bus/truck turning movements, the largest vehicles that currently use the corridor, as well as transit and coach buses. Staff have met with commercial services providers and piloted turning movements to confirm the proposed design is functional.

General purpose travel/turning movements: Staff completed transportation models to confirm that the design accommodates existing traffic volumes and turning movements without impacting the level of service, including left hand turns from Fort Street.

Parking/loading: There are 31 on-street parking stalls that are proposed to be removed with this design, most notably in the 500 and 600 blocks. Parking stalls have been removed only where absolutely necessary. As reported to Council in February, 27 new on-street parking stalls have been added in the downtown over the past two years which helps to offset this parking loss. Parking composition has also been reviewed and optimized for each block including metered parking zones,

accessible stalls and taxi zones. New passenger loading areas are also included in the 600 block to respond to business needs. This is an on-going process for City staff and corridor stakeholders.

Accessibility: The design includes new audible pedestrian signals at Government, Blanshard and Quadra Street, and additional accessibility features (truncated domes) added at select locations, with funds from the Accessibility Capital Reserve.

The project has been reviewed by the City's Accessibility Working Group and Active Transportation Advisory Committee. The design has also been reviewed with BC Transit (regular and HandyDART busses), the Police Department and the Fire Department.

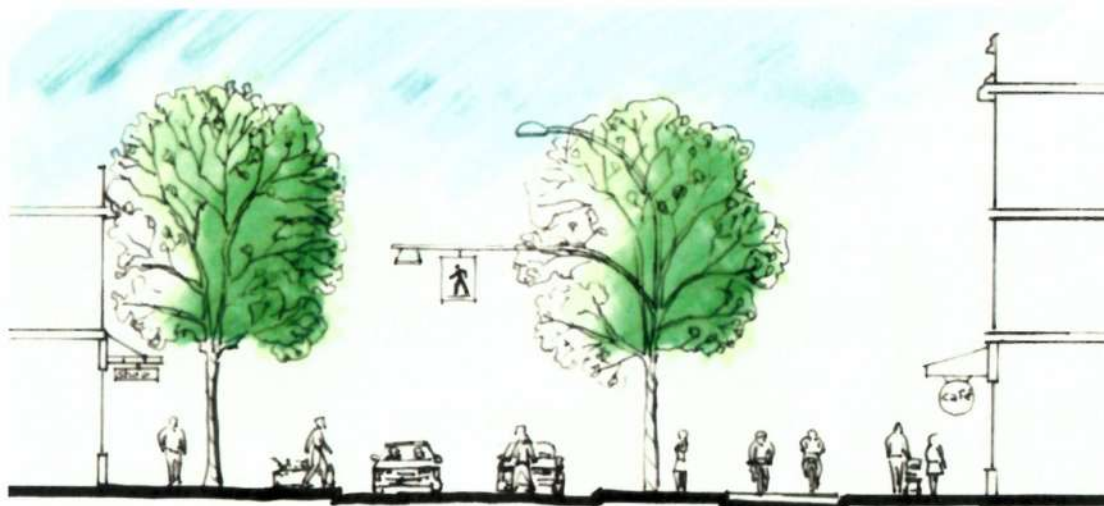


Figure 1: Cross-section of roadway design in 700 – 1000 blocks consisting of sidewalk, 2 general purpose travel lanes, pedestrian refuge, the two-way bicycle facility and another sidewalk.



Figure 2: Enhanced pedestrian crossing at 600 block



Figure 3: Protected bike lane design Fort & Government

Coordination of the Project with Repair of Existing Infrastructure

Watermain Upgrades 500 and 600 Blocks

The Fort Street bike lanes project was reviewed to ensure that any required underground utility work in the area of the new bike lanes will be completed in coordination with bike lane construction. A planned watermain repair project will be coordinated with the bike lanes to minimize disruption

and maximize efficiency. Watermain repair costs are not included in the project budget.

Sidewalk Repairs 700 Block

Staff reviewed the condition of sidewalks on the north side of Fort Street to determine if any critical sidewalk repairs are required at this time. Staff identified a section of sidewalk in the 700 block that will be replaced by City forces, through the Pedestrian Master Plan capital budget in 2018. Staff will coordinate with the contractor to reduce construction related impacts for affected businesses. These costs are not included in the project budget.

Project Financial Information and Affordability

Total Project Cost Estimate:

The current approved budget for construction of the Fort Street protected bike lanes is \$2,000,000, which was estimated for implementation of the AAA conceptual bike lane. The "complete streets" design elements were not included in the original Bicycle Master Plan Implementation budget allocations, since design work was yet to commence. If supported by Council, could be funded via other business units or additional project funding will be required.

The total project cost estimate is \$3,190,000 based on the 90% design. The summary of the cost estimate breakdown is shown in Table 1.

Table 1: Fort Street "Complete Streets" Design Project Cost Estimate

AAA Bike Lane	\$1,440,000
Public Realm Enhancements	\$120,000
New Mid-Block Crossings	\$270,000
Aging Infrastructure Replacement	\$200,000
Construction Contingency (20%)	\$410,000
Sub-total Construction Cost Estimate 90% Design	\$2,440,000
Market Adjustment Factor (10%)	\$250,000
Engineering Fees - Contract Administration & Inspection (10%)	\$250,000
Project Contingency (10%)	\$250,000
Total Project Cost Estimate	\$3,190,000

Project Cost Contingencies

The total project cost includes a 20% construction contingency to reflect the 90% design status. Additional project contingencies have been added and include:

- 10% market adjustment factor to account for the current competitive construction market
- 10% engineering fees for project contract administration and inspection
- 10% overall project contingency to account for unforeseen project risks

It is important to note that there is still a risk of higher than anticipated tender prices with the Fort Street bike lanes project due to the current busy construction market. Staff are mitigating this risk by using construction industry newsletters, websites and contacts to ensure contractors are aware of the upcoming contract as well as the remaining Phase 1 corridors. If the lowest eligible tender price is higher than the approved budget, staff will report back to Council.

Cost Control

Costs are continually controlled via value engineering, scope management, funding support from

appropriate budgets, and external grant funding. The design team carefully considered project requirements/scope, critical bicycle facility elements, and value engineering principles to minimize lifecycle costs. The new bike lanes have been designed to fit within the existing curbs to minimize costs wherever possible.

Value Engineering

Staff and the City's consultant carried out value engineering exercises using lessons learned from the Pandora Avenue bike lanes. Cost saving opportunities have been identified and incorporated into the design wherever possible, while maintaining minimum AAA bike lane design standards. The following is a list of design improvements/cost reductions achieved through value engineering:

- *Concrete.* The overall extent of concrete used for medians and physical separation has been reduced. Corridor protection is provided through concrete medians, on-street parking adjacent to the bike lanes, as well as paint and bollards.
- *Bike Corrals:* The design includes at-grade bike corrals, or parking areas, which cost less money compared to bike parking on raised medians. Corrals require less concrete and provide improved functionality for riders because they do not have to lift their bikes onto a concrete median.
- *At-Grade Access to the Parklet:* The proposed raised asphalt platform to provide at-grade pedestrian access to the parklet was reduced by 50% from two access points to one access point. The second access point will be included as optional in the tender documents.
- *Bollards:* The number and type of bollards on the corridor were reduced or amended to be consistent with the design philosophy used for the Pandora Project.
- *Road Marking Standards:* The amount of thermoplastic markings has been reduced from the original design. Thermoplastic will be used in high-traffic locations such as intersections and driveway crossings. Although it has a higher initial capital cost than regular paint, the life cycle cost will be lower in these areas. Regular street paint will be used in low-traffic areas, including bike lane stencils and centre-lines, all road markings east of Cook Street, and on the buffer between parked vehicles and the bike lane.
- *Automated counting equipment:* Automated counting display equipment has been eliminated from the design. The City will be using a combination of in-ground detector loops, mobile counting equipment, and manual traffic counts.

City staff also investigated the following cost saving ideas but did not include these in the design for a number of safety, lifecycle costing or operational reasons:

- *Eliminating Left Turn at Fort / Government:* Staff reviewed the option of eliminating the left turn. It was determined that this would save approximately \$150,000 - \$200,000 in civil works (the existing curb would not need to be cut back to allow space for a dedicated left turn lane) and traffic signal upgrades (would not require a separate phase for left turns onto Government Street). However, eliminating this traffic movement would result in increased traffic congestion, and additional safety conflicts between pedestrians and vehicles associated with vehicle re-routing. Staff also considered allowing left turns from Fort Street to Government Street without a dedicated left turn lane, however this option was also not considered further due to traffic flow impacts.

- *Crosswalk at Fort/Langley:* Staff reviewed the option of diverting the bike lanes around the existing curb bulb at Fort/Langley to reduce the cost of removing the existing curb, and building the concrete pedestrian refuge in the crosswalk. However, it was determined the concrete median at this location is necessary for pedestrian and cyclist safety, due to the proximity of the existing driveway to the Fort Street/Langley Street intersection.
- *Existing Mid-Block Crosswalk in the 700 Block:* Staff reviewed the option of diverting the bike lanes around the existing bulb out. Although possible, there would be a loss of an additional 2 on-street parking stalls. The value of these parking stalls is approximately \$15,000 each per year, or a total of \$30,000 per year. The cost savings from diverting bikes around the bulb is approximately \$60,000, so the payback is only 2 years, plus the benefit of the additional on-street parking. Therefore, the current design does not support a diversion of the bike lanes around the existing bulb out.
- *Transition of AAA Bike Lanes on Fort Street East of Cook Street:* The design includes extending the AAA bike lanes along Fort Street, east of Cook to Linden Street, to provide a transitional AAA corridor for cyclists traveling east along Fort Street. Cyclists would cross to the south side of the street at the Fort/Linden intersection and then use the existing marked bike lane. Staff considered not providing this transition, however determined that removal would not be considered, as transitioning to the south side of the street at Linden Avenue was a safer option than doing so at Cook Street.
- *Enhanced Pedestrian Crossing at Fort/Broad (600 block)* – Staff considered removing this work from the project. The crossing at Fort/Broad is a high volume pedestrian crossing due to the location at the Bay Centre. In reviewing the design, ICBC identified the curb bulb on the south side as an important safety improvement. This bulb also allows for an additional passenger loading zone which provides a desired amenity based on feedback from businesses on the block.

Project Scope Reduction

Reducing project scope is an effective way to manage costs, but must be balanced with design quality. The following scope reductions have been explored for removal from this phase of development, since they represent the lowest priority treatments, which can be added at a later date, without any re-work requirements. It should be noted that any future work would create additional disruption and some cost inefficiencies, when compared to completing during the main project, due to the mobilization/demobilisation impacts.

These items considered for de-scoping do not impact overall AAA effectiveness, safety and pose the least impacts to overall design quality. These elements, their considerations, and their potential cost savings are listed below.

- *Mid-Block Crosswalks:* The three new mid-block crosswalks in the 800, 900 and 1000 blocks, which will cost approximately \$270,000, plus contingencies. Currently, no mid-block walkways exist in the 800, 900, or 1000 blocks of Fort Street.

Staff examined the impact of completing the above crosswalks, while deferring other 2017 crosswalk installations/upgrades and similar projects planned for 2018, to divert funding to these three installations. This is not recommended, as the currently proposed projects are either higher-priority locations, are currently under construction, or are being coordinated with other development work (mid-block crosswalk in 700 block Caledonia Avenue) or neighbourhood upgrade projects (Brighton/Richmond).

There are likely advantages in deferring these installations at this time. Much of the benefit derived from these crossings is increased when installed in conjunction with development/mid-block walkways. Staff estimate that there is the potential for significant development at or adjacent to these proposed crosswalk locations over the next 2-3 years. This forecast supports delaying implementation, which could increase quality and reduce implementation costs, and provide increased pedestrian connectivity when designed in parallel with new development. Deferring the crosswalks at these locations reduces the immediate parking loss from 31 to 19 stalls removed in 2017/18. Additional parking stalls would be impacted with the future installation of crosswalks.

There is no requirement for re-work to accommodate these crosswalks in the future.

- *Decorative Bollards*: The current design includes plastic flexible bollards that are required for safety as part of the minimum AAA design in concrete medians at intersections and at strategic locations along the corridor. The design considered including decorative steel bollards (solar and non-solar) along the corridor for visual aesthetics. However, these decorative bollards are currently undergoing a design review, to determine a more affordable design that will be consistently applied via the City's public realm plan. Deferring the installation of the decorative bollards is prudent, until such a time that we can be assured we have the best, affordable standard. Project cost savings were \$100,000 plus contingencies.
- *Lamp Post Replacements*: Staff determined that there were three lamp posts on the corridor (Langley Street and on the 700 block) that did not have to be replaced as a part of the project. Project cost savings were \$50,000 plus contingencies.

Funding from Other Budgets

Elements of the "complete streets" design to be funded from other budgets, totalling \$500,000 including contingencies, include:

- a) *Paving of Bike Lane* (\$156,000): Paving of the bike lane is required due to the poor condition of the existing asphalt. This element will be funded from the existing 2017 Major Roads program budget. There is no impact on the Major Roads program budget as the projects originally slated to be constructed with these funds have been deferred to 2018 to coincide with other capital works.
- b) *Traffic Controllers* (\$156,000): There are four traffic controllers that are at the end of their useful life on this corridor and are due for replacement from the existing Public Works maintenance budget. Controllers originally slated for replacement in 2017 will be re-budgeted in 2018.
- c) *New Bike Parking* (\$11,000): There are currently 64 bike racks (2 bikes per rack) along the corridor. The design proposes to add 23 new bike racks for a total of 87 along the corridor. Parking Services will fund this component of the project.
- d) *Street Furniture* (\$5,000): The design includes new benches and garbage cans which can be paid for through the Surface Infrastructure fund.
- e) *Landscaping* (\$62,000): The existing corridor has 60 street trees. There are 5 trees associated with mid-block crosswalk development and 6 associated with the design of the corridor. If the proposed three crosswalks are deferred, then installation of 6 new trees will be paid for through the 2017/2018 Parks Budget.
- f) *Tactile Domes & Audible Pedestrian Signals* (\$110,000): These will be paid from the Accessibility Capital Reserve.

Grant Funding

The City's most recent application for \$1 million in Bike BC funding was unsuccessful. No additional grant funding has yet been awarded to the Cycle Network program. The City has also applied for the UBCM Strategic Priorities Fund and will be working with partners such as the Federation of Canadian Municipalities and ICBC to explore other grant opportunities.

Community Engagement

The City engaged stakeholders between October 2016 and April 2017. A number of stakeholders were supportive of the design features, particularly the two-way facility with bicycle parking, mid-block crossings and new public seating. Concerns were also raised by businesses along the corridor related to the following issues:

- Level of engagement – during the AAA network planning process
- Rationale for bike lanes, including the two-way design, on Fort Street
- On-street parking loss
- Commercial loading zone locations and number
- Construction related impacts
- Rationale for bike lanes on the north side of Fort Street in the 500 block

Since the last report to Council, staff has continued to engage with stakeholders who were concerned about the project through the following activities:

- **Information meetings:** The City hosted a number of feedback sessions and meetings for businesses, property owners, residents and organizations in December, January and February, including one information meeting hosted by the DVBA with more than 50 attendees. A meeting with the Executive Director of the Disability Resource Centre was also held to review and discuss design treatments. The City also participated in a DVBA-hosted "Bike Lane Summit Meeting" with a small group of stakeholders to discuss challenges and solutions for the corridor.
- **Walking tours:** A corridor walking tour with property and business owners on the 500 and 600 blocks to discuss emergency access, operational parking composition and commercial/passenger loading needs
- **Corridor Information Signs:** In March 2017, the City installed information posters along the corridor and in parking payment stations to thank people for their participation in the design process and update stakeholders with proposed next steps and timing

In April 2017, the City provided stakeholders with a project update via email and held an information session on the 60% design features. The purpose was to share the design features and gather further feedback on operational needs or outstanding concerns. Issues that were raised at this meeting included:

- Continued concern that stakeholders were not involved in previous consultation efforts
- Desire for the bicycle facility to be built on an adjacent corridor rather than on Fort Street
- Interest in design elements that would minimize on-street parking loss (600 block)
- Desire for sidewalk restoration (particularly 700 and 900 blocks)
- Interest in coordinated promotional campaign leading up to and during construction
- Support for enforcement and education activities to promote accountability of all roadway users including pedestrians, cyclists, skateboarders, and motorists

- Desire for the bicycle facility to be built on the south side rather than the north side because there are fewer business entryways on the south side (500 block)

As reported to Council in December 2016, there is an option to spend additional funds to accommodate parking on the north side by modifying the sidewalk and relocating assets, in order to increase the curb-to-curb pavement. This would create a total of 8 new on-street parking stalls on the north side and 1 taxi zone. The cost of this option is estimated at near \$500,000 or approximately \$60,000 per stall. This option alleviates some of the parking pressures in the vicinity of the Bay Centre and 600 block businesses, which are still served by parking on the south side, and nearby. Due to the significant costs of this portion of work, and the removal of pedestrian amenity in this busy foot-traffic location, staff consider this option to be unaffordable and a departure from the priorities outlined in the OCP. Therefore, this option has not been included in the “complete streets” design, but is presented for Council’s consideration.

Appendix A provides a summary of the concerns received through public engagement since the December 2016 report and how each concern has been addressed.

The City will continue to engage with Fort Street stakeholders to gather information and feedback on construction planning and to work with businesses to identify the best times for construction to minimize impacts on businesses. For example, businesses have unique needs during the winter holiday season and the City will ensure these are accommodated. A special meeting will be held over the summer to discuss construction planning.

The City is committed to providing corridor stakeholders with regular updates during construction through a variety of communication channels, including continued support through the DVBA’s network. Leading up to and during construction, the plan is to have a dedicated person from the DVBA attend regular update meetings to be the point of contact for the stakeholders with the project team to ensure concerns are addressed in a timely manner. Additional efforts will be explored with the DVBA to execute promotional campaigns before and during the holiday season to encourage visitors and shoppers while the corridor is under construction.

Staff will also work with stakeholders on an on-going basis to optimize parking stock to support the diverse, and sometimes conflicting, needs, of businesses along the corridor. In addition, there will be continued optimization of passenger and commercial loading.

Similar to Pandora Avenue, the City will deliver a comprehensive education and awareness program once the project is complete. On-street safety ambassadors will be present along the corridor for the first two weeks after opening along with traditional and on-line advertising to alert road users of changes. The City will also collaborate with Victoria Police, Bike to Work Society, and other organizations to promote the facility and increase awareness about the changes. Similar to Pandora, staff will also monitor the performance of the facility from a ridership perspective and will review traffic signal timings upon opening and adjust as required.

Project Schedule

Construction of the Fort Street protected bike lanes is planned to start in fall 2017 and be completed by the end of the first quarter in 2018.

The original schedule identified the tendering process to be completed in April/May 2017, however additional engagement activities and exploration of alternative design treatments delayed progress. As such construction tender is planned for release in June/July 2017. Staff are promoting the tender opportunity through the Vancouver Island Construction Association. The construction end-date would be left open in the tender documents to obtain the most favorable tender prices.

The Fort Street project was reviewed to ensure that any required underground utility work in the area of the new bike lanes will be completed in coordination with the bike lane construction. There is one watermain repair project in the 500 and 600 blocks which will be coordinated with the project. Sidewalk repairs in the 700 block will be completed by City forces in early 2018.

City staff will work closely with corridor stakeholders to develop a suitable construction schedule that avoids major activities around the holiday season (November 15 – January 5) and accommodates road users with limited disruption.

OPTIONS & IMPACTS

Option 1: Approve the value-engineered, “complete streets” AAA Bicycle Facility in 2017/2018 and implement the three 800-1000 block crosswalk upgrades in future years, amend the 2017 Financial Plan to allocate an additional \$270,000 from the Gas Tax Reserve and \$110,000 from the Accessibility Capital Reserve, to fund the Fort Street project, and authorize staff to proceed to tender a construction contract as outlined in this report. **(Recommended)**

Under this option the City would construct the AAA bicycle facility, excluding the mid-block crossings and their associated public realm elements. This would be financed by:

- \$2,000,000 from Bicycle Master Plan Implementation program
- \$270,000 via increased allocation from the Gas Tax Reserve Fund
- \$500,000 from other budget contributions, including \$110,000 from the Accessibility Capital Reserve

\$2,770,000 Total Project Cost (excluding mid-block crossings)

The remaining scope, including the three mid-block crossings and the optional tender items (if not completed as part of the first stage), would be completed in future years, as development occurs. This option will deliver the AAA bicycle facility within the approved timeframe, addresses replacement of aging infrastructure, and reduces the immediate on-street parking loss from 31 to 19 spaces, until future stages of pedestrian improvements require additional parking removal. The risks associated with this approach include delays associated with pedestrian and public realm improvements and use of Gas Tax Reserve Funds that could be used for other City projects.

Option 2: Approve the “complete streets” design and implement the full project in 2017/2018. Allocate an additional \$690,000 from the Gas Tax Reserve and \$110,000 from the Accessibility Capital Reserve, to fund the Fort Street project, and authorize staff to proceed to tender a construction contract as outlined in this report.

Under this option the City would construct the AAA bicycle facility, including the mid-block crossings. This would be financed by:

- \$2,000,000 from Bicycle Master Plan Implementation program
- \$690,000 via increased allocation from the Gas Tax Reserve Fund
- \$500,000 from other budget contributions, including \$110,000 from the Accessibility Capital Reserve

\$3,190,000 Total Project Cost

This option delivers the AAA bicycle facility as well as all other project elements which were consulted with the community, minimizes disruption on local businesses, and provides enhanced pedestrian environment and public realm elements. The risks associated with this approach include use of Gas Tax Reserve Funds that could be used for other City projects.

Option 3: Approve the value-engineered, “complete streets” AAA Bicycle Facility in 2017/2018 and implement the three 800-1000 block crosswalk upgrades in future years (Option 1), plus the option of adding parking on the north side of the 600 block. Allocate an additional \$770,000 from the Gas Tax Reserve and \$110,000 from the Accessibility Capital Reserve, to fund the Fort Street project, and authorize staff to proceed to tender a construction contract as outlined in this report.

Under this option the City would construct the AAA bicycle facility, excluding the mid-block crossings and their associated public realm elements, but including the work required to add 8 parking stalls and 1 taxi zone on the north side of the 600 block. This would be financed by:

- \$2,000,000 from Bicycle Master Plan Implementation program
- \$770,000 via increased allocation from the Gas Tax Reserve Fund
- \$500,000 from other budget contributions, including \$110,000 from the Accessibility Capital Reserve

\$3,270,000 Total Project Cost

The remaining scope, including the three mid-block crossings and the optional tender items if not completed as part of the first stage, would be completed in future years as funding allows. This option will deliver the AAA bicycle facility within the approved timeframe, addresses replacement of aging infrastructure, and reduces on-street parking loss from 31 to 11 spaces, and adds one new taxi zone, until the completion of the “complete streets” design. The risks associated with this approach include delays associated with pedestrian and public realm improvements and use of Gas Tax Reserve Funds that could be used for other City projects.

Option 4: Defer the Fort Street project

Under this option the Fort Street Project would be deferred and considered for construction as the last corridor in Phase 1. No additional funding would be required at this time and designs would be kept as “shelf ready” for a later date. A delay in the project, however, would mean the Phase 1 AAA network would not be completed by the end of 2018.

Option 5: Cancel the Fort Street Project

Under this option the downtown AAA grid would have a gap in the centre with increased spacing between corridors. Staff would continue to construct Cook/Wharf/Humboldt before the end of 2018.

Urban Forest Considerations

The recommended design include a net gain of 4 trees. There are an additional five trees designed in association with the future mid-block crossings.

Accessibility Considerations

This project has been reviewed by the City of Victoria Accessibility Working Group and includes the City’s current standards for accessibility as well as accessibility enhancements (audible pedestrian signals and truncated domes).

2015 – 2018 Strategic Plan

The 2015 to 2018 Strategic Plan identifies a desired outcome for Victoria to be “a national leader for cycling infrastructure and “complete streets” planning, with completed all-ages and abilities cycling network connecting all neighbourhoods and village centres.” Actions include: “collaborative design and completion of network of 4 – 8 high quality cycling corridors by 2016” and to “Designate money in 2015, 2016, 2017 and build it.”

Impacts to Financial Plan

The 2017 Financial Plan includes \$2.0 million for construction of the Fort Street Bike Lane project with funding from the Gas Tax Reserve. Based on the recommendation, the 2017 Financial Plan would need to be amended to allocate an additional \$270,000 from the Gas Tax Reserve and \$110,000 from the Accessibility Capital Reserve to construct the minimum AAA bicycle facility in 2017/2018. This amount is in addition to the elements paid from other approved budgets for aging infrastructure and some public realm elements. Sufficient funding is available within the 2017 Gas Tax Reserve, due to the deferral of other major capital projects.

Official Community Plan Consistency Statement

The Cycling Network Implementation Program supports actions in the Official Community Plan under Goal 7: Transportation and Mobility (specifically objectives 7B and 7C and policies 7.5.2, 7.5.3, 7.7.2, and 7.16.7).

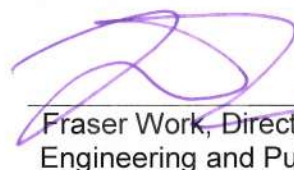
CONCLUSIONS

On balance, this report recommends implementing the value-engineered, “complete streets” design, which intends to minimize costs, maximise safety, achieve appropriate design standards required in the downtown core, and maximise operational effectiveness and efficiencies across shared user groups. The recommendation includes installation of the AAA bicycle facility and critical infrastructure repairs/improvements, and prudent public realm enhancements.

Respectfully submitted,


for Brad Dellebuur, Manager
Transportation


Jacqueline Weston, Assistant
Director Transportation


Fraser Work, Director
Engineering and Public Works

Report accepted and recommended by the City Manager: 

Date: June 2, 2017

Appendices

Appendix A – Engagement Summary

Appendix B – Fort Street Design Overview Block By Block