

REPORT TO COUNCIL



Date: October 12, 2011

File: 1340-50

To: City Manager

From: General Manager, Community Services

Subject: Bernard Avenue - Construction Timing
Prepared by Manager, Parks & Public Places, and Director, Infrastructure Planning

Recommendation:

THAT Council receives, for information, the Report from the General Manager, Community Services dated October 12, 2011 regarding the preferred option for construction timing on the Bernard Avenue Revitalization project.

THAT Council support 'Scenario 1' as the recommended option for construction timing entering into the Contract Document Phase.

Purpose:

To provide Council an update on the recent Public Information Session for Bernard Avenue and approved the preferred option for construction timing and phasing.

Background:

The revitalization of Bernard Avenue has been under consideration for a decade. It is also considered a key component of the City's Downtown Plan Implementation Strategy. A petition process to determine the willingness of affected property owners to contribute 25% to the streetscape elements of the project was recently concluded and is being dealt with by Council at their meeting on October 17th.

A breakfast meeting regarding the Bernard Avenue Revitalization project was held on September 20th where many of the business owners raised concerns regarding the potential business impacts of construction timing and scheduling for this major urban streetscape project. They requested that more information be provided on the topic and that a construction schedule be determined as soon as possible. Since then staff has analyzed the issue in greater detail to determine possibilities and a preferred direction. While our staff team has significant experience managing design and construction projects in Kelowna and in cold weather, PCL Constructors Westcoast and SSA Quantity Surveyors were engaged to provide an independent assessment to identify realistic construction options and to document the impacts of each according to the following criteria: (1) procurement methodology, (2) cost impact (3) quality control and risks, (4) schedule, (5) scope control given the high potential for unknown subsurface conditions, (6) risk management, (7) the capacity of the local industry to do the work and (8) the impact on business. The project leader was Scott Adkins, P. Eng, Manager of Civil Projects in PCL with extensive experience in cold weather construction in northern Alberta. The key constraint adopted by the team was to avoid strive to avoid construction between the May Victoria Day weekend and the September Labour

A handwritten signature in black ink, appearing to be a stylized 'R' or similar character.

Day weekend since that is the period of highest revenue for many of the Bernard Avenue merchants. In addition, the team was to consider construction strategies that would minimize negative impacts to business as well as to traffic on the key crossing intersections of Water Street and Ellis Street.

Based on quantity take-offs and productivity curves for similar work, it was determined that conventional best-practice using an experienced contractor in good weather would require a 10 to 12 month construction period. A maximum of 6 months per year are available after eliminating the summer shut down and avoiding winter construction. It was also advised that a successful contractor would require four (4) months after contract award:

- to organize the sequence of job site activities required for seamless execution with minimum impact on businesses and traffic,
- to ensure the timely delivery of all required materials to minimize the risk of construction delays,
- to document a job-site safety plan for the benefit of workers and the public.

The Downtown Kelowna Association (DKA), as a partner in the project, also provided valuable insights into the potential impacts of construction to the business community. Staff, assisted by the DKA, held a follow-up public information session on October 11th at the Royal Anne Hotel where four construction scenarios were presented with the analysis on the merits and/or challenges of each. Staff, along with the consulting team, recommended 'Scenario 1' described as follows:

- i. Construction start in September 2012; finished November 2013
- ii. Target for no construction during summer months (Victoria Day to Labour Day)
- iii. Minimal construction during winter months
- iv. Phased construction broken into 3 sections
- v. Adequate timeframe:
 - to develop the construction drawings and specifications to maximize coordination;
 - to fully consult the property and business owners on streetscape finished, and communications & marketing plan to create excitement around the project and encourage customers to visit Bernard during construction;
 - to allow individual property and business owners time to develop their own business and marketing plans and inventory control
 - to provide the successful contractor with sufficient time to organize safety and work sequencing, and to mitigate business impacts.

Several other alternative scenarios were presented:

- Scenario 2: a fast track option that begins construction in March of 2012 and finishes Fall of 2013. Most people commented that this scenario seemed to be unnecessarily rushed and did not provide adequate offsetting benefit. This required some extra costs for design acceleration and job site mobilization, and the extra risks of inadequate job site planning.
- Scenario 3: a winter construction option that includes extensive nighttime construction starting in September of 2012 and finishing June 2013. This option represented a significant cost premium and also carries significant project risks associated with construction quality and unpredictability conditions over winter months.
- Scenario 4: a summertime construction option that begins March 2013 and finishes November 2013. This option, while the most efficient from a construction perspective, represents the most disruption to the many of local businesses during their high earning months.

A public input survey form was provided at the information session summarized below:

- The majority (63%) of respondents supported the City's preferred option;
- The phased approach to construction was seen by many as a benefit since it contained the construction to just a few blocks in each season;
- Many of the business owners appreciated no construction activity over the summer months;
- Option 3 was discussed at length, but the premium in cost was difficult to justify and the risks to project quality were significant. This option was supported by 22 % of respondents
- Option 4 was supported by 16% of respondents

Details results of the input are attached.

A petition from 111 of the local business formally stating their request for the minimization of negative business impacts had been received by Council on the same day. This issue was carefully considered in the presentations at the public information session and will continue to be central to the "next step" (see below).

It is important to note that the significant extra costs of almost \$7 million anticipated in Option 3 (hoarding, heating, reduced productivity of sinter construction) would require a Council decision to both increase the budget, to refer the property owners' portion to petition and to adopt a new and higher loan bylaw.

It must also be understood that these scenarios have been developed in absence of the detailed design and preparation of tendering options that may identify issues and opportunities to adjust the schedule both positively or negatively. However, they are based on our staff's and PCL's extensive knowledge and experience.

Next Steps

The City is in the process of selecting a consulting team for the detail design and contract document phase through a competitive bid process. The selected consultant team will be in place in the next few weeks. Staff are recommending that 'Scenario 1' be used for the development of the contract documents. This phase will include utility locates and geotechnical investigations that may reveal additional engineering challenges. The consultants will work with the property owners and business community in the selection of streetscape finishes, fixtures and equipment; this is a process that could take considerable collaboration and time. The development of Option 1 does not preclude other scenarios with a similar start time that compress the schedule. The DKA will remain a key partner in the development of the design, the construction work schedule, communications and marketing plans and throughout the construction period.

The communication consultant that worked on the recent and highly successful Banff mainstreet revitalization project has been hired to develop a communication strategy that will both keep businesses regularly informed of the construction activity that will affect them, and cultivate customer interest in visiting the new Kelowna main street and enjoying its reconstruction.

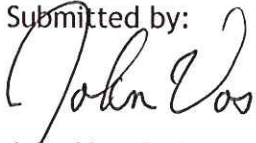
Internal Circulation:

General Manager, Community Sustainability
General Manager, Community Services
Director of Design and Construction Services
Director, Infrastructure Planning
Planning Specialist- Urban Design
Corporate Communications Coordinator

Considerations not applicable to this report:

- Legal/Statutory Authority
- Legal/Statutory Procedural Requirements
- Existing Policy
- Financial/Budgetary Considerations
- Personnel Implications
- External Agency/Public Comments
- Communications Comments
- Alternate Recommendation

Submitted by:



John Vos, P. Eng
General Manager, Community Services

Attachment: Open house panels including the scenario summary
Results of public input survey
Options Schedule
Letter from DKA

cc: General Manager, Community Sustainability
Director, Infrastructure Planning
Director, Communications
Director, Civic Operations

Welcome to the Bernard Avenue Revitalization Drop-In Session

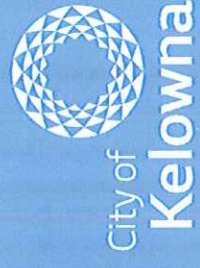


Bernard Avenue
Preliminary Design

Bernard Avenue Revitalization

Construction Schedule Timeline Scenarios

October 11, 2011



Background

- ▶ The design consultants have completed the preliminary design.
- ▶ The loan bylaw and Local Area Service Bylaw petition process is nearly complete and Bernard Avenue Revitalization is planned for next year.
- ▶ Completion of an independent preliminary schedule and cost review evaluation by PCL Construction.
- ▶ The development of a communications plan during the construction period to promote the project and a “businesses are open” message to provide adequate and accurate communication to the public and stakeholders is underway.
- ▶ Detailed design for the utility replacement, road improvements and streetscape makeover will begin.
- ▶ City has a preferred option (Scenario 1 - construction in September 2012 thru winter *weather permitting*, stop during summer and complete in the fall 2013.)

Bernard Avenue Revitalization

Construction Schedule Timeline Scenarios

October 11, 2011

Winter construction?

Whether it's Jasper Avenue in Edmonton or the main avenue in Jasper, no one does major road rebuilding in the dead of winter.

You will see some emergency water line replacements in cold climates, but not complete road and utilities replacements.

We are not being warm weather winter wimps -- there are good reasons why no one does wholesale road reconstruction in the middle of winter:

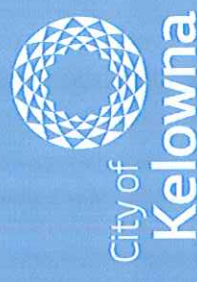
- ▶ Costs go up
- ▶ Progress is slow
- ▶ Risk of quality control
- ▶ Utility disruptions are likely

Ask us for more detailed answers to your questions about winter road construction.

Bernard Avenue Revitalization

Construction Schedule Timeline Scenarios

October 11, 2011



Timeline Scenario 1 (Preferred Option)

Sep 2012 through winter, stop during summer months, start Sep to Nov 2013

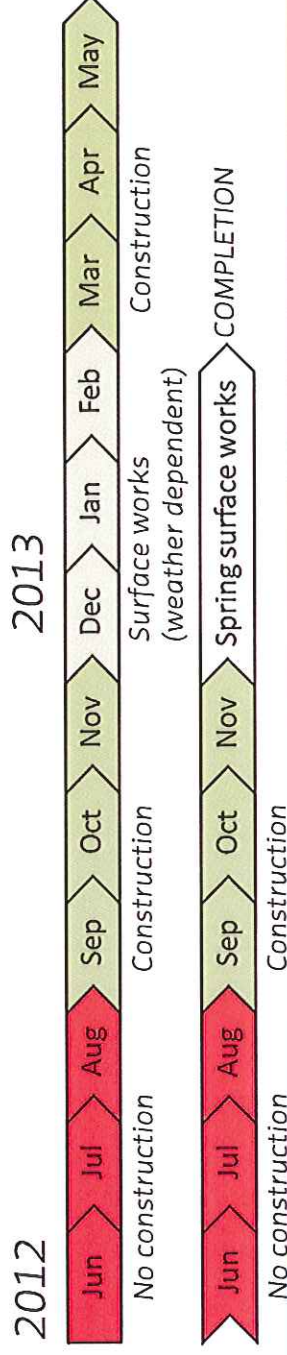
Strengths

- ▶ No construction during summer months
- ▶ Provides time to refine the detailed design and minimize costs
- ▶ Time to fully consult with property and business owners on design, communications & marketing plan
- ▶ Property/business owners more advance warning of work zones for planning
- ▶ Controlled phasing, direct impact reduced to each individual business
- ▶ Sneak peak of improvements for evaluation as each zone completed, good quality control

Weakness

- ▶ Start, stop, start, stop (four phases of construction)
- ▶ Additional costs for mobilization and demobilization of construction crews

Costs: An additional total premium of \$800K, based on Council approval (extra mob, demob, admin.)



Bernard Avenue Revitalization

Construction Schedule Timeline Scenarios

October 11, 2011

Timeline Scenario 2

Spring 2012 start, stop during summer and winter months, 2 year construction, complete Nov 2013

Strengths

- ▶ No summer construction and no construction activity during Christmas
- ▶ Start, stop, start stop (four phases of construction)
- ▶ One block completed in spring to have a “sneak peak” of improvements to come
- ▶ Context sensitive design; each block has different constraints
- ▶ Access disruption to businesses will be minimized -- project done in individual zones
- ▶ With phased construction the traffic management plan is less disruptive to transit and motorists

Weakness

- ▶ Smaller the contract, the less value in competitive pricing
- ▶ Smaller the scope of work, the less continuity
- ▶ Additional costs for mobilization and demobilization of construction crews
- ▶ Compressed timelines for detailed design can increase risk out in the field (change order – cost implications)

Costs: An additional total premium of \$800K, owner’s premium \$250K - extra as per scenario 1 (extra phase), accelerated costs. Extra coordination on block for quality control.

Bernard Avenue Revitalization

Construction Schedule Timeline Scenarios

October 11, 2011

Timeline Scenario 3

Winter construction September 2012 to June 2013

Strengths

- ▶ Completion is earlier
- ▶ No summer construction
- ▶ Multiple crews working in various zones at once
- ▶ Start, stop (one construction phase from September 2012 to June 2013)

Weakness

- ▶ Restart of Local Area Service Bylaw and petition process to cover additional costs
 - ▶ Bernard Avenue closed end-to-end during construction
 - ▶ Access to businesses impacted, coordination challenges (concrete work during the winter will require hoarding and heating with longer concrete curing times)
 - ▶ No asphalt available from December to March
 - ▶ Muddy conditions throughout downtown during winter (damage to store carpets/flooring)
 - ▶ Concerns about ability to dewater over winter months (Water Street to Sails)
 - ▶ Unpredictable winter time temperatures and paying a premium on worse case scenario
- Costs:** Winter construction activity would cost up to \$6.7 million total, \$2.7 million to property owners which includes hoarding, heating, coordination. Winter risk quality.

Bernard Avenue Revitalization

Construction Schedule Timeline Scenarios

October 11, 2011

Timeline Scenario 4

March 2013 start, straight through to November 2013 (one year construction)

Strengths

- ▶ Standard construction time
- ▶ Quicker construction conditions
- ▶ Most efficient (continuity of project from start to finish), no mobilization and demobilization of crews)
- ▶ Optimal marketing and promotional planning and business planning
- ▶ Start, stop (one phase of construction)

Weakness

- ▶ Project start is delayed until 2013
- ▶ Uncertainty of construction costs in 2012
- ▶ Bernard closed end-to-end during construction and over summer peak
- ▶ Access to businesses impacted periodically to accommodate construction activity
- ▶ **Costs:** No premium costs for this scenario with best quality control.

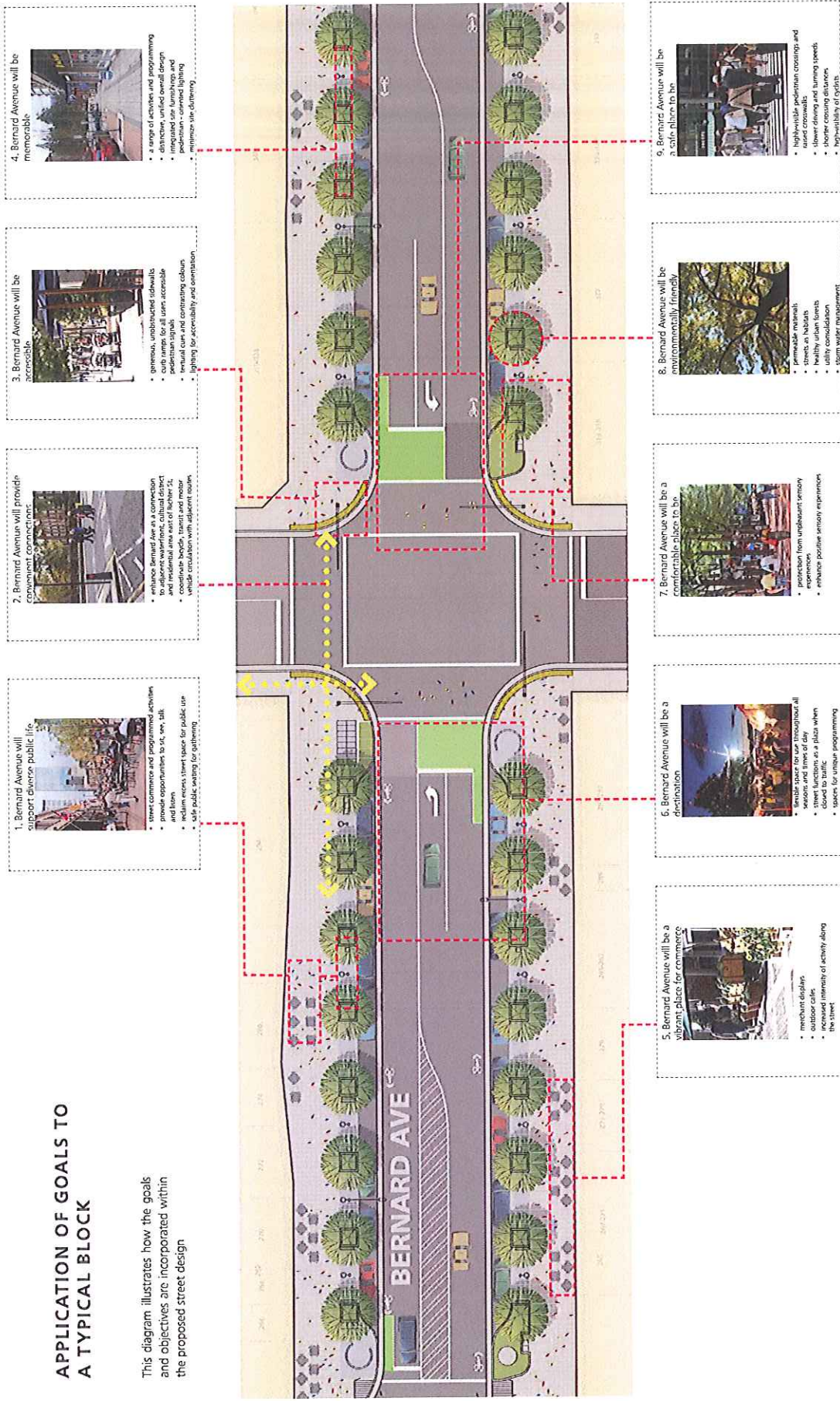
Bernard Avenue Revitalization

Construction Schedule Timeline Scenarios

October 11, 2011

APPLICATION OF GOALS TO A TYPICAL BLOCK

This diagram illustrates how the goals and objectives are incorporated within the proposed street design

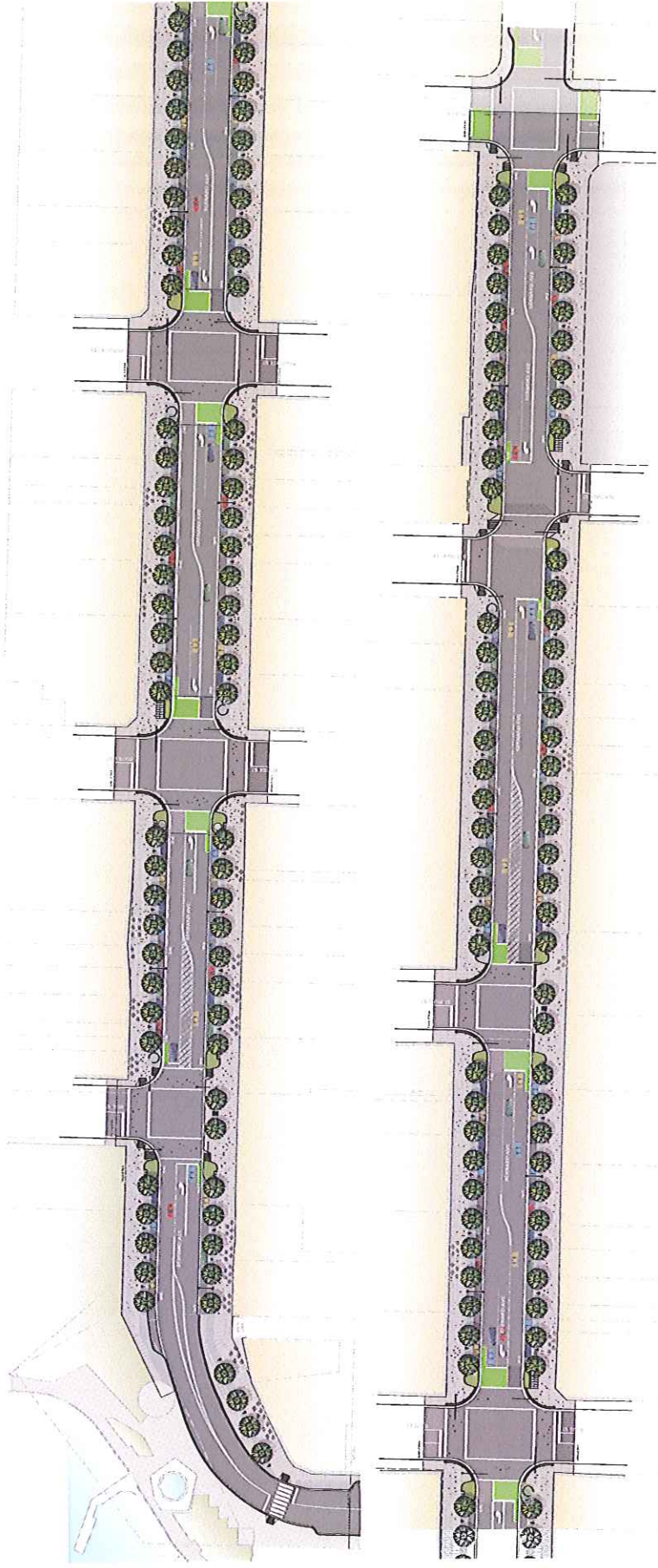


Bernard Avenue Revitalization Construction Schedule Timeline Scenarios

October 11, 2011

OVERALL PLAN

Note: for larger scale plans refer to streetscape plans dated August 18, 2011



Bernard Avenue Revitalization

Construction Schedule Timeline Scenarios

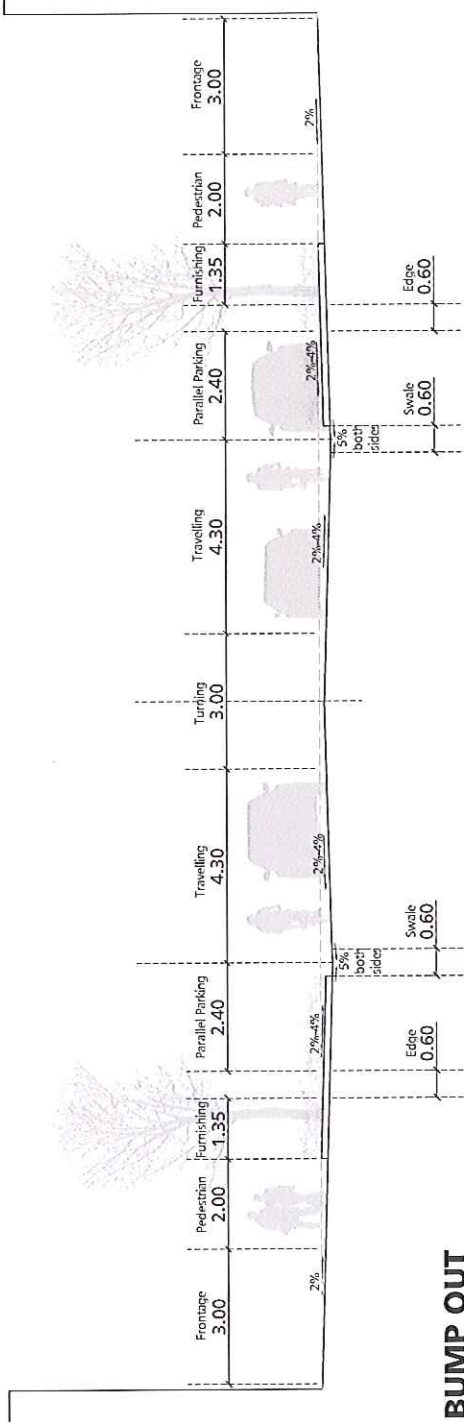
October 11, 2011

TYPICAL STREET CROSS SECTIONS

The slopes across the width of the streetscape function to direct storm water and melting snow from the pedestrian and vehicular zones into the concrete drainage swales where it is picked up in catchbasins (refer to storm water schematic drawings).

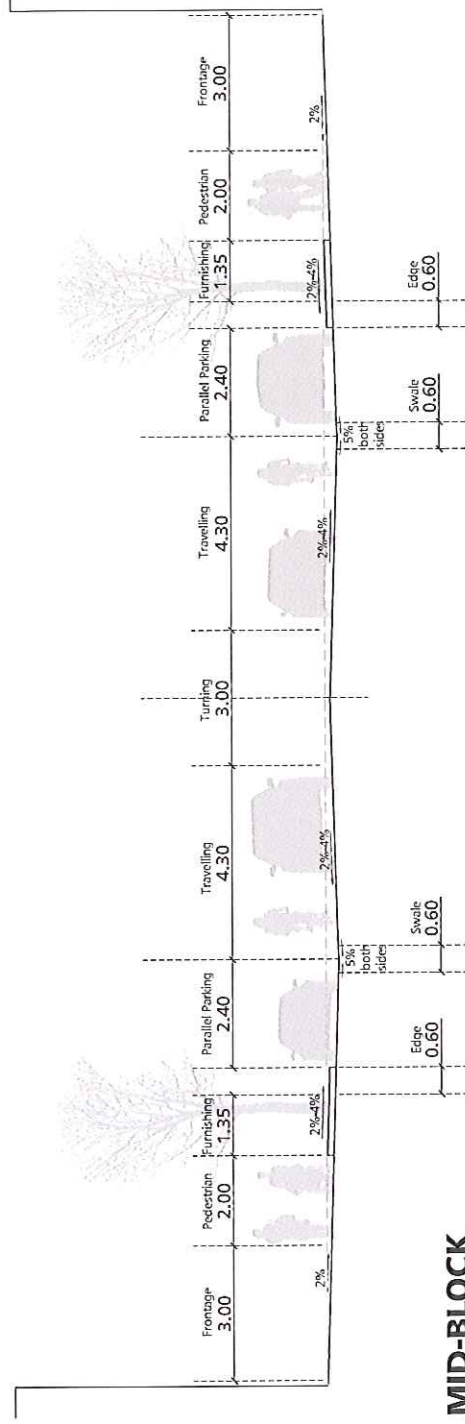
The section diagrams on this page show the typical slopes for each zone across the width of the street between the faces of buildings on the north and south sides of the street.

Refer to 2.5 Storm Water Management for detailed drainage of sidewalk zones.



BUMP OUT

Section illustration showing typical cross slopes at a corner bulb-out



MID-BLOCK

Section illustration showing typical cross slopes within the middle portion of the block

Bernard Avenue Revitalization

Construction Schedule Timeline Scenarios

October 11, 2011

| Bernard Avenue Construction Options | 2012 | | | | | 2013 | | | | | 2014 | | | | | | | | | | | | | |
|--|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|
| | January | February | March | April | May | June | July | August | September | October | November | December | January | February | March | April | May | June | July | August | September | October | November | December |
| Option 1 - Preferred Option | | | | | | | | | | 3 mos. | | | | | | | | | | | | | | |

Cost Premium: \$383,000; \$156,000 apportioned to property owners; extra costs for mobilization and demobilization of materials and equipment; plus associated administration costs.
 Quality: Good

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|--|--|--|--|--|--|--|--|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Option 2 - Quickest Start | | | | | | | | | | 3 mos. | | | | | | | | | | | | | |
|----------------------------------|--|--|--|--|--|--|--|--|--|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|

Cost Premium: \$800,000⁺; \$250,000 apportioned to property owners; extra costs as per Option 1; plus extra costs to accelerate Detail Design.
 Quality: Extra coordination would be required on the initial block.


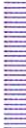
| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Option 3 - Winter Construction | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Cost Premium: \$6,700,000; \$2,700,000 apportioned to property owners; extra costs for hoarding, heating, and coordination.
 Quality: Poor to average

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Option 4 - Summer Construction | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Cost Premium: no construction premium; greatest impact on businesses.
 Quality: Best among the options.

Legend

- Active Construction 
- Surface work only 

DOWNTOWN KELOWNA

October 12, 2011

City of Kelowna
1435 Water Street
Kelowna, BC V1Y 1J4

Re: Letter of Support to the City of Kelowna for the support of Construction Option 1

Dear Jim Paterson,

The Downtown Kelowna Association (DKA) would like to communicate its support of the revitalization of Bernard Avenue and recommends Construction Option 1 as the most appropriate of the four options regarding construction timing, as presented at the Bernard Avenue Revitalization Drop-In Session.

The DKA Board of Directors' decision to support Construction Option 1 was made after weighing the pros and cons of all four options. The Board believes that Construction Option 1 best represents the interests of the entire Downtown Kelowna stakeholders due to the fact that it is the least expensive, has the least amount of risk, yet still has minimal impact in the pivotal summer business months. Of the remaining choices, Construction Option 3 was strongly considered due to its least impact on the stakeholders of Bernard Avenue but felt that the cost implications for the broader Downtown could create risk and delay the project.

The primary concern expressed by our stakeholders was the length of the construction period and the impact that construction will have on their businesses. For this reason, the DKA would request that every effort is made to continue the first phase through the winter months if weather permits and that incentives/penalties are put into effect to encourage the construction company to complete this project as quickly as possible.

Regards,



Peggy Athans
Executive Director

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Exit Survey
Project: Bernard Avenue Revitalization -Construction Timeline Scenarios

| | Did the information help you understand the timelines options of the project? | | | Was the information presented in a format that was understandable? | | | Option 1- Start Sept 2012 Complete winter 2013 work through Winter | | | Option 2- Start Spring 2012 work through Summer | | | Option 3 - Winter construction only | | | Option 4- Start in Spring work through Fall | | | If you disagree with Option 1, why? |
|------|---|----|-----------|--|----|-----------|--|----|-----------|---|----|-----------|-------------------------------------|----|-----------|---|----|-----------|---|
| | Yes | No | Undecided | Yes | No | Undecided | Yes | No | Undecided | Yes | No | Undecided | Yes | No | Undecided | Yes | No | Undecided | |
| 1 | x | | | | | | | | | | | | | | | x | | | Option 4 makes the most sense. Timeline is shorter. |
| 2 | x | | | x | | | | x | | | | | | | | x | | | Opt 4 is quick Restricting project into smaller pieces would be difficult to coordinate; likely higher cost if over the 3 month timeline; less continuity in appearance due to breaking up project |
| 3 | x | | | x | | | | | | | | | | | | x | | | |
| 4 | x | | | x | | | | | | | | | | | | x | | | Opt 4 - less disruption with stopping & starting 3 x's |
| 5 | | | x | | | x | | | | | | | | | | x | | | 1 yr and get it done |
| 6 | x | | | x | | | | | x | | | | | | | | | | Most revenue for my business from Jan -June |
| 7 | x | | | x | | | | | x | | | | | | | | | | Least disruptive option for customers |
| 8 | x | | | x | | | | | x | | | | | | | | | | |
| 9 | x | | | x | | | | | x | | | | | | | | | | |
| 10 | x | | | x | | | | | x | | | | | | | | | | |
| 11 | x | | | x | | | | | x | | | | | | | | | | |
| 12 | x | | | x | | | | | x | | | | | | | | | | |
| 13 | x | | | x | | | | | x | | | | | | | | | | |
| 14 | x | | | x | | | | | x | | | | | | | | | | |
| 15 | x | | | x | | | | | x | | | | | | | | | | |
| 16 | x | | | x | | | | | x | | | | | | | | | | |
| 17 | x | | | x | | | | | x | | | | | | | | | | |
| 18 | x | | | x | | | | | x | | | | | | | | | | |
| 19 | x | | | x | | | | | x | | | | | | | | | | As long as no summer constr |
| 20 | x | | | x | | | | | x | | | | | | | | | | Have to pay mortgage with only 3/12 of salary |
| 21 | x | | | x | | | | | x | | | | | | | | | | |
| 22 | x | | | x | | | | | x | | | | | | | | | | |
| 23 | x | | | x | | | | | x | | | | | | | | | | |
| 24 | x | | | x | | | | | x | | | | | | | | | | Do not want summer disruption |
| 25 | x | | | x | | | | | | | | x | | | | | | | Opt 3. pls do work in one shot during winter Project should be done within 1 yr for the survival of DT businessess |
| 26 | x | | | x | | | | | | | | x | | | | | | | work thru winter to avoid summer shutdown |
| 27 | x | | | x | | | | | | | | x | | | | | | | Largest impact on shop owneres; Opt 3 6.7 mil grossly overestimated |
| 28 | x | | | x | | | | | | | | x | | | | | | | |
| 29 | x | | | x | | | | | | | | x | | | | | | | |
| 30 | x | | | x | | | | | | | | x | | | | | | | Requires more shutdowns & inconvenient to retailers |
| 31 | x | | | x | | | | | | | | x | | | | | | | Townspeople will not want Opt 3 due to extra cost & street torn up for 2 yrs |
| Tota | 30 | 0 | 1 | 29 | 0 | 1 | 19 | 1 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 5 | 0 | 0 | |

| Which best describes you? | | | | Comments |
|---------------------------|------------------|-------------|---------------------------------|--|
| Bus. Owner DT | Prop own Bernard | Resident DT | Interested from outside DT area | |
| X | | | | Opt 4 if they start at Richter & Abbot-work toward middle or Opt 1 |
| X | | | | This was an impressive meeting |
| X | | | | Opt 4 is the most efficient & cost effective option; it would be over quickly.. Wants strong advertising campaign to attract visitors to DT despite construction |
| X | | X | | |
| X | | | | When is ground frozen on Bernard? Felt City reps were biased toward preferred option. |
| X | | | | If winter is mild, should have option to keep going with construction |
| X | | | | Consider that lost sales or failed businesses should be part of consideration in terms of stated & estimates; neg affects to businesses during constr always worse than expected |
| X | | | X | Designs look clean & consistent thru DT |
| X | | | | Believe in this project; hope it has little impact on DT core during peak season |
| X | | | | Opt 1 seems like best opt |
| X | X | | | |
| X | | | | % cost of project being deferred to owners is sad-all of Kel paid for H2O-having a beautiful DT benefits all |
| X | | X | | Stress the making of the plan; major block party when completed |
| X | | | | Thanks for considering our money making months |
| X | X | | | Still strongly disagree with parallel parking |
| X | | | | A rent subsidy should be included in constr costs |
| X | | | | No constr during summer; shortest duration per block as possible |
| X | | | | adjust the project as weather permits |
| X | | X | | Terry Barton was amazing at explaining the options -opt 1 the way to go. |
| X | X | | | Obtain \$ estimate from reliable contractor; 3 mos very short-sighted |
| X | X | | | Pls don't destroy our businesses by dragging constr for 2+ yr or more |
| X | X | | | Pls listen to the merchants when they say they will not survive constr wrk no more than 9 mos |
| X | | X | | |
| X | | | | Opt 3 only if \$ can be 3-4 mil which s/b possible; get another \$\$ on opt 3 |
| X | | | | Prefer Opt 3; if necess, plan constr over 2 winters |
| X | | | | Need hose for washing sidewalks; need electrical outlets for tee lighting for ambiance |