



Planning and Development Services

Prepared for Council
Agenda Date June 18, 2018

Report No. PDS-40-2018
File No. 350314

Subject

BRIDGEBURG BIA STREETSCAPE IMPROVEMENTS

Recommendations

THAT Council approves the Bridgeburg Business District Streetscape Plan, and

THAT Council amends the 2018 Capital Budget to add the Bridgeburg Business District Streetscape Plan capital project BRID18 in the amount of \$350,000 with grant funding of \$56,756.09 from the Ontario Main Street Revitalization Initiative, \$201,971 from the Road Refurbishing Reserve, \$35,619 from the Sanitary Sewer Refurbishing Reserve, \$24,671 from the Storm Sewer Refurbishing Reserve, and \$30,983 from the Water Refurbishing Reserve.

Relation to Council's 2015-2018 Corporate Strategic Plan

Priority C: Strong Customer Service, Relationships And Communications
Goal C3: Expand and improve connections with internal and external partners, stakeholders and agencies
Initiative C3.6: Acknowledge the significant contribution the volunteer sector makes to the Town's economic and overall well-being

List of Stakeholders

Residents of the Town of Fort Erie
The Corporation of the Town of Fort Erie
Bridgeburg BIA

Prepared by:

Submitted by:

Approved by:

Original Signed

Original Signed

Original Signed

Signe Hansen, OALA, MBA
Manager, Community
Planning

Richard F. Brady, MA, MCIP, RPP
Director, Planning and
Development Services

Tom Kuchyt, CET
Chief Administrative
Officer

/sh

Purpose of Report

On behalf of the Bridgeburg BIA, the purpose of this report is to seek Council's approval of Bridgeburg Business District Streetscape Plan, and an amendment to the 2018 Capital Budget for the allocation of \$293,244 to commence the detailed design and preparation of construction drawings as the next step in implementing the plan.

Background

In 2015, at the request of the Bridgeburg BIA, staff prepared a street furniture plan for Jarvis Street, to provide some guidance relative to planned beautification initiatives. Since that time, the Bridgeburg BIA has undertaken a variety of improvements including the installation of benches, floral planters, bike racks and garbage receptacles. In addition, the Fort Erie Active Transportation Committee partnered with the Bridgeburg BIA, Fort Erie High School, and Ridgeway Crystal Beach High School to design, manufacture and install 6 themed bike racks along Jarvis Street.

In early 2017, representatives from the Bridgeburg BIA met with staff to discuss more extensive improvements to the business district, similar in nature to those undertaken in downtown Ridgeway. Desired improvements included changes to parking, signage and gateway features; new lighting, paved surfaces, landscaping and crossings; and the burial of utilities and irrigation services, as outlined in the BIAs letter attached as Appendix 1.

Staff recommended the development a conceptual streetscape plan to identify the design and location of various features, recommend materials, and estimate the cost and potential phasing of improvements. With such a plan in place, the Bridgeburg BIA and Town would be in a better position to plan and budget for future infrastructure improvements and apply for infrastructure funding. As staff resources were not available to prepare the conceptual streetscape plan, professional consulting services were to be retained.

By way of Report PDS-29-2017, dated April 18, 2017, Council approved the allocation of \$10,000 from the 2017 Operating Budget, to match funding allocated by the Bridgeburg Station Downtown Business Improvement Area Board of Management, in order to retain a consultant to prepare the conceptual streetscape plan to guide improvements to the downtown business district.

Request for Proposal PDS-17P-BRBIA was issued in October 2017, for the preparation of a conceptual streetscape plan. The Quartek Group was retained for the work pursuant to the Town's Procurement Policy, at a cost of \$20,352 including non-rebatable HST.

Analysis

Attached, as Appendix 2, is the proposed Streetscape Plan for the Bridgeburg Business District.

The proposed streetscape plan is the result of four project team meetings to guide the development of the plan and two public open houses to seek community and business district input. The first public open house was conducted at the annual general meeting of the BIA in December 2017 and promoted through the BIA. The second public open house was conducted in May 2017, was advertised in the Fort Erie Post and through social media, was promoted through the BIA, and invitations were mailed to all property owners within 150 meters of the business district. Approximately thirty property and business owners attended the second public open house and provided feedback relative to the proposed plan. The final streetscape plan, as presented through this report, reflects comments received from the BIA and community.

The highlights of the plan include gateway features strategically located to draw residents and visitors onto Jarvis Street and reinforce the branding of the business district; a widened sidewalk to create a pedestrian friendly atmosphere and opportunity for sidewalk cafes and other such activities; enhanced pedestrian crosswalks, complete with an urban braille system; traffic calming bump-outs, underground utilities and irrigation for street trees and in-ground floral displays; street furniture and floral displays to enhance the street aesthetic and atmosphere; and improved on and off street parking.

The cost of the improvements was not forecasted in prior capital budgets and is estimated to be \$6.5 million (with non-rebatable HST), which is comparable to the approximate \$7 million spent on improvements to Ridge Road in the Ridgeway Business District, in 2010. The Streetscape Plan, attached as Appendix 2, provides a detailed breakdown of the anticipated costs.

Financial/Staffing Implications

The Bridgeburg BIA is requesting that the Town immediately proceed with the detailed design of the streetscape and subsequent preparation of construction documentation, such that the project will be shovel-ready when an appropriate infrastructure grant funding opportunity arises. This would require the preparation of a Request for Proposal to solicit a qualified consulting engineer to perform the work, and the subsequent award of contract.

It is anticipated that a significant federal and/or provincial infrastructure grant will be necessary to proceed with this project, similar to the funding model for the Ridge Road improvements which included federal/provincial/municipal funding contributions. The municipal portion was funded by Town reserves and debt.

The Infrastructure Services Department will take the lead with this project. The Request for Proposal to retain a consulting engineer will not be issued until late 2018, due to the Departments existing work plan and priorities.

As this work was not considered through the 2018 Capital Budget deliberations, an amendment to the 2018 Capital Budget would be required to create and advance the

project at this time. Funding for the work would be derived from the Reserve Fund and this amendment would not negatively impact any other forecasted works at this time.

By way of PDS-41-2018, it is recommended that funding received through Ontario's Main Street Revitalization Initiative, totaling \$56,756.09, be directed to this project in addition to the \$293,244 funding request presented in this report. Funding is being requested from the reserve funds in proportion to the type of capital works to be performed, including \$201,971 from the Road Refurbishing Reserve, \$35,619 from the Sanitary Sewer Refurbishing Reserve, \$24,671 from the Storm Sewer Refurbishing Reserve, and \$30,983 from the Water Refurbishing Reserve.

Policies Affecting Proposal

By-law No. 90-15 adopted Council's 2015-2018 Corporate Strategic Plan. This Program supports one of the priorities, goals and initiatives as described herein.

Retention of a professional consultant to prepare the conceptual streetscape plan was performed pursuant to the Purchasing By-Law No. 2-10.

This report recommends a budget amendment, pursuant to Budget Policy By-Law No. 127-09.

Comments from Relevant Departments/Community and Corporate Partners

The Bridgeburg District Streetscape Plan is a Bridgeburg BIA initiative. Town staff have been working with the BIA to facilitate the preparation of the plan.

Development of the Streetscape Plan was led by a project team comprised of representatives from the Bridgeburg BIA, Councillors McDermott and Passero, staff from the Planning and Development Services and Infrastructure Services Departments, and the consultant team.

As outlined in this report, input has been received from the BIA, as part of the project team member and community partner, as well as members of the public and business district through the public open houses. Appendix 1 outlines the BIAs expectations for the improvements.

The CAO has reviewed this project and has concerns related to reserve balances over the long term, which will have an effect on projects forecasted. It is the CAO's preference that this project be included in the 2019 Capital Budget.

Communication Results

No additional communication is recommended at this time.

Alternatives

Council may elect to decline proceeding with the project, may defer the allocation of funding to future budget deliberations, or may reduce the scope of the work.

Attachments

Appendix "1"- Bridgeburg BIA letter, dated February 16, 2017
Appendix "2"- Bridgeburg Business District Streetscape Plan



209 Jarvis Street, Fort Erie, Ontario, L2A 2S7 | (289)321-0942 | info@bridgeburgdistrict.com

February 16, 2017

The Corporation of the Town of Fort Erie
1 Municipal Centre Drive
Fort Erie, ON, L2A 2S6

Attention: Rick Brady

Dear The Corporation of the Town of Fort Erie:

As per our discussions on February 15, 2017 the Bridgeburg Business Improvement Association has approved a budget expense to cover 50% up to a maximum \$10,000 for the development of a conceptual plan for our downtown core. The boundaries for this plan as discussed will be from the new Central Avenue Bridge to Dufferin Street and from the Niagara Parkway to 231 Jarvis Street.

The following is what we would like included in the conceptual plan

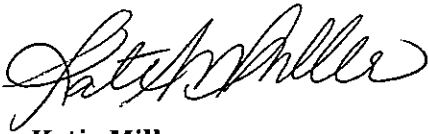
1. Underground Irrigation
2. Underground Electrical
3. Underground Drainage
4. New Bump outs between cars to be cut into the road with Replacement Trees and flower beds
5. Removal of existing angled parking spots and added parallel parking
6. A newly acquired parking lot on Dufferin St or Courtwright St with ample directional signage
7. Cobblestone/Historical Brick work between the sidewalks at approx. 12' intervals
8. Cobblestone/Historical Brick work between from all curbs to approx. 3' into sidewalk
9. Cobblestone/Historical Brick road features at the Niagara Parkway and Jarvis Street intersection
10. Cobblestone/Historical Brick work at each intersection for all walkways across the streets
11. Cobblestone/Historical Brick road features at the Central Avenue and Jarvis Street intersection
12. New Way find and street signs that are of high quality black iron construction with historical elements.
13. Cobblestone/Historical Brick crosswalk in front of approximately 67 Jarvis Street
14. New black iron light posts with brackets for Planters and Banners
15. Feature Planters at all intersections
16. Cleaning up the Airspace above the intersections

APPENDIX "1" TO ADMINISTRATIVE REPORT PDS-40-2018, DATED JUNE 18, 2018

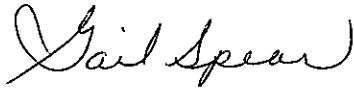
Sincerely,

A handwritten signature in cursive script that reads "Julie Brady".

Julie Brady
Bridgeburg BIA Chair

A handwritten signature in cursive script that reads "Katie Miller".

Katie Miller
Bridgeburg BIA Vice-Chair

A handwritten signature in cursive script that reads "Gail Spear".

Gail Spear
Bridgeburg BIA Board Member

Bridgeburg Business District Streetscape Plan

Town of Fort Erie, Ontario

STREETSCAPE PLAN REPORT

June 2018

Quartek Reference Project #17279

APPENDIX "2" TO ADMINISTRATIVE REPORT PDS-40-2018, DATED JUNE 18, 2018

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Attachment 1:	Proposed Site Plan
Attachment 2:	Detailed Conceptual Cost Estimates

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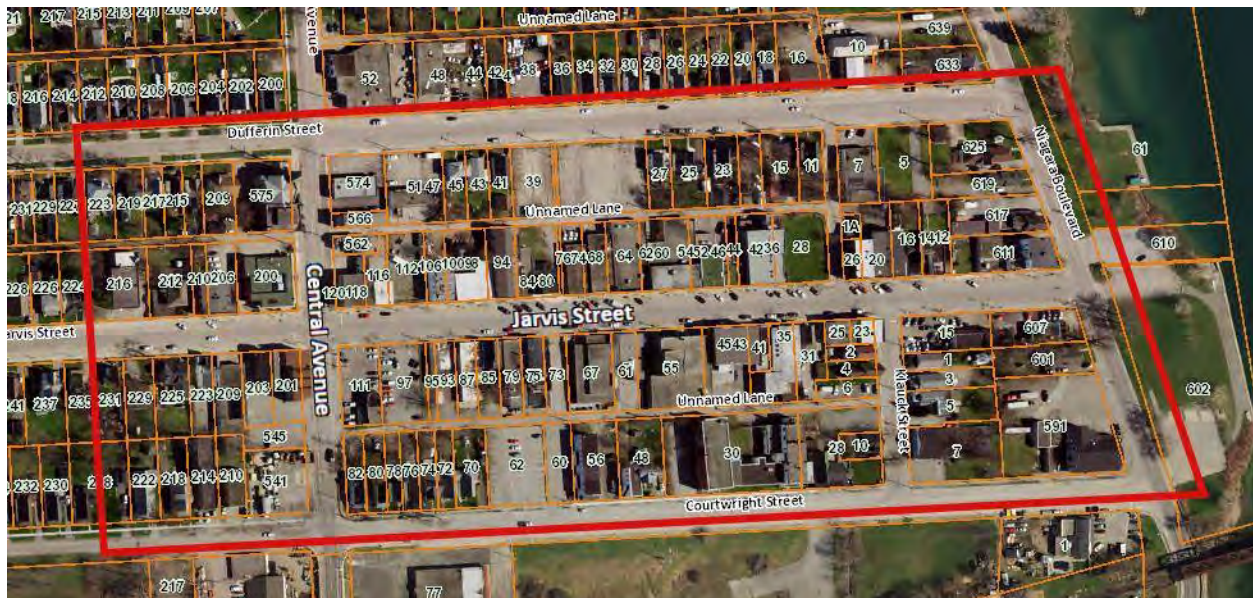
INTRODUCTION

Quartek Group Inc. (Quartek) has been retained by the Town of Fort Erie (Client) to create a Streetscape Plan and Conceptual Cost Estimates for Jarvis Street within the Bridgeburg Business Improvement Area (BIA) in the Town of Fort Erie. This report outlines the vision for Jarvis Street, the heart of Bridgeburg, the scope of the project, the concept's guiding principles and initial phasing, as well as the conceptual cost estimate. The driving force for the development of this plan is the Bridgeburg BIA.

PROJECT SCOPE

The scope of the streetscape plan extends from the Central Avenue Bridge and Dufferin Street, and from the Niagara Parkway and 231 Jarvis Street. The study area extends the entire width of the road allowance or building face to building face. (see Figure 1).

Figure 1: Subject Area (Source: Niagara Navigator, 2018)



The Bridgeburg BIA district is one of five core downtown areas within the Town of Fort Erie. Bridgeburg is home to over 100 businesses. The focus of this project is along 500± metres of Jarvis Street with a 20 metre wide right-of-way. The land uses are primarily commercial on the ground floor with residential apartments on upper floors of some buildings. The commercial core transitions to residential development to the west. The current parking configuration has angled parking along the north side of Jarvis Street and parallel parking on the south side of the street. In 2015, the BIA introduced street furniture including 16 new benches, 16 planters, 6 bike racks

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and 13 garbage receptacles. This Streetscape Plan intends to grow on prior enhancements with a larger scale, comprehensive re-design for Jarvis Street.

BRIDGEBURG

When creating the concept for the new Bridgeburg Streetscape enhancements for Jarvis Street, it was important to understand the overall vision for the Bridgeburg Neighbourhood. The design has been guided by the Vision Statement in the Bridgeburg Neighbourhood Plan:

“Bridgeburg is a vibrant neighbourhood with a strong sense of community and a rich history linked to the railroad industry. The most unique aspects of Bridgeburg include our beautiful riverfront location together with a defined, historic core area encompassing a number of heritage buildings and places. We promote business and tourism related to our riverfront and our railway heritage, while we remain connected to and mindful of our neighbouring residential community. Those elements that make Bridgeburg special for us and reflect our values and aspirations for the future are embodied in our commitments.”
(Bridgeburg Neighbourhood Plan, November 2008 – Vol. 2, Sect. 4.0)

This project will embrace the history of the area while revitalizing Jarvis Street into a destination for tourism and local commercial business. It intends to create a welcoming environment for surrounding residents and visitors to enjoy the history and the picturesque riverfront. The theme for improvements include the industrial heritage manifesting itself as black wrought iron street furniture, rail related signature features, and signature arches with metal webbing similar to that of the International Railroad Bridge.

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PROCESS TO DATE

Meetings

1. November 16, 2017: Project Team Kick off Meeting
2. December 12, 2017: Project Team Meeting, AGM Presentation of Existing Conditions, Parking Reconfiguration, solicit feedback
3. May 3, 2018: Project Team Meeting and Public Open House to present draft plan and solicit feedback
4. May 28, 2018: Project Team Meeting to discuss final plan
5. *June 2018*: Present Streetscape Plan to Council

CONCEPT GUIDING PRINCIPLES

There are three principles guiding the design of the Bridgeburg Streetscape which include pedestrian friendly elements, updated aesthetics that embrace the history of Bridgeburg, as well as ensuring ample parking for businesses and visitors. Each principle has unique challenges that have been mitigated in the Streetscape Plan planimetrically presented as Attachment 1.

Pedestrian Friendly

The proposed concept for Jarvis Street calls for narrower automobile travel lanes to increase the width of both the North and South sidewalks. The increased sidewalk width will allow for safer and more spacious pedestrian movement, as well as space for businesses to have outdoor space for greater customer engagement and enjoyment. The wider sidewalks will also have more room for street furniture and landscape elements that will be expanded on in the subsequent section. The design includes bump-outs which are extensions of the side walk that protrude into the roadway (as wide as the parallel parking space). These bump-outs create shorter distances for pedestrians to cross the travel lanes, enhancing pedestrian safety. They are located at intersections and other areas of pedestrian connections and corridors through the neighbourhood. This design allows for greater sight lines for drivers and pedestrians to create a safer environment. The narrow travel lane width also creates a traffic calming effect on the traffic movement that will also

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increase safety. The following depicts a typical urban pedestrian streetscape and crosswalk incorporating unit pavers.

Figure 2, 3, 4: Typical Urban Pedestrian Streetscape



Figure 2 (above) is representative of the anticipated road cross-section with the travel lane for automobiles, a concrete roll-over gutter, parallel parking spaces formed of unit pavers, and a concrete sidewalk to the building face.

Leading up to intersections, an Urban Braille system will be incorporated into the pavement to provide guidance for the visually impaired.

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Aesthetics

There are three major aesthetic enhancement focuses incorporated into the design that help achieve the Bridgeburg vision. They are:

- vegetative plantings, including the street trees, floral planters, flower beds and hanging baskets,
- sidewalk details using unit pavers,
- new signature Bridgeburg signage and signature features.

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These all play a part in creating a streetscape that is aesthetically pleasing to patrons while creating an atmosphere that pays homage to the past.

John Morley, the Landscape Architect for the consultant team, chose the landscape materials that will be low maintenance and manageable into the future. The recommended trees, shrubs, and perennials are mostly native to the area, hardy, and salt and drought-tolerant. The trees are typically columnar which will compliment the streetscape allowing for ample greenery while maintaining sight lines along the street and towards the riverfront. Columnar trees will allow visibility of business signage and reduce the probability of conflicts with trees contacting buildings. Colour and volume will be incorporated in the planters and hanging baskets for added aesthetics.

Figure 5: Street Trees and Urban Plantings



A way that the design brings in a historic atmosphere is using unit pavers. A paver will be chosen that resembles cobblestone or brick. This will be featured along the sides of the roadway as accents where parallel parking will be available. The paver will also be arranged artistically across the travel lanes creating designated pedestrian crossings at the bump-out locations which also act as an aesthetic feature and bring visual attraction to the crosswalks distinguishing them as well-defined pedestrian routes.

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An important part of revitalizing the Jarvis Street commercial district and the Bridgeburg Neighbourhood is making it distinctive and recognizable. The proposed concept design incorporates two signature Arch Features and a Locomotive Monument. The proposed arch features span Jarvis Street at the intersection of Niagara Boulevard and the intersection of Central Avenue. The most recent iteration uses the idea of laser-cut metal that is reminiscent of the old railway bridge while having bold lettering across reading "Bridgeburg". This will help to create a sense of place and promote the neighbourhood as a destination. The following figures depict the proposed arches.

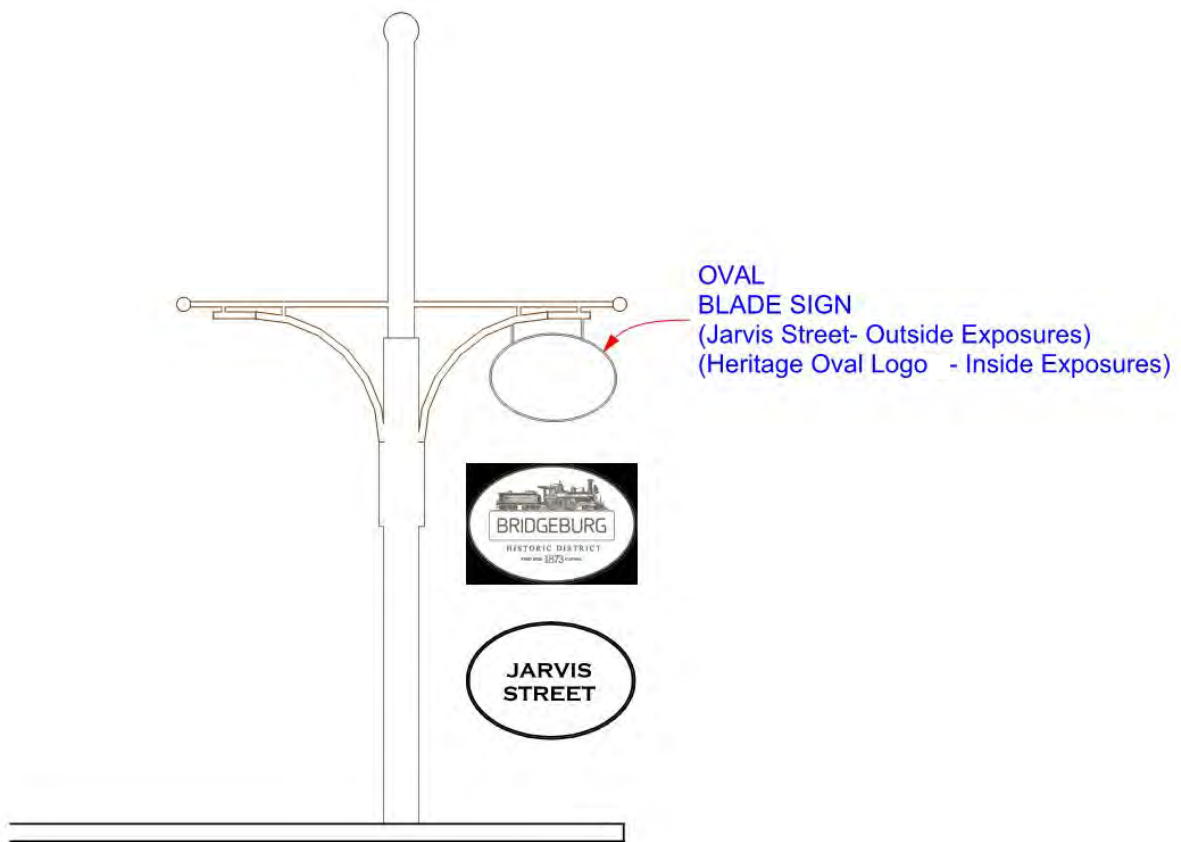
Figure 6, 7, 8: Proposed Options for Signature Arches

OPTION 1:



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OPTION 2:



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To help tie in future plans for the public property along the Niagara River, a large, monumental feature is being proposed to be located near the riverfront on Niagara Boulevard adjacent to Jarvis Street. This is to be a large structure resembling a vintage locomotive surrounded by vegetative plantings and flanked by bench seating. The name Bridgeburg will be seen across the front of the feature base, and there will also be historic plaques on each side for historic context and information about Bridgeburg. In addition to the larger features, there will also be new wayfinding signage that will also tie into the design and assist in directing locals and visitors alike. A figure depicting the proposed Locomotive monument is as follows.

Figure 7, 8, 9: Proposed Locomotive Monument





An additional element affecting the aesthetics of the proposed streetscape design is the lighting and electrical power distribution along Jarvis Street and the surrounding corridors. With insight from Canadian Niagara Power, it's possible to include proposed electrical upgrading for the Bridgeburg BIA. For Jarvis Street, all electrical service wires will be underground. As part of the proposed Streetscape design, all existing light poles will be

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removed for construction and reinstalled in new locations with underground servicing. Underground wiring will de-clutter the street, making signage more readable and overall, a more aesthetically-pleasing streetscape. The Unnamed Lanes parallel to Jarvis Street will house the poles and wires that service the buildings along Jarvis Street from the rear. Canadian Niagara Power is in the process of replacing the existing overhead primary power supply with a new secondary power supply which will be less visually obstructive. These will all be replaced which will eliminate some of the existing transformers to further improve the aesthetics. The final electrical change will be to have service wires run underground at the intersection of Jarvis Street and Central Avenue. Running the wires along Central Avenue between the Unnamed Lanes underground will enhance the gateway including the new signature arch. The anticipated costs for street lights and servicing can be found within Attachment 2.

Parking

To create a more pedestrian friendly environment, the layout of the roadway needed a change from its current orientation to be less auto-centric and more pedestrian oriented. Currently the roadway is 13± metres with wide travel lanes and both parallel and angular parking. The new design proposes to narrow the travel lanes and transform the angular parking to parallel to increase sidewalk widths. In doing this, there will be a slight decrease in available street parking spots from 128 spaces to 125 spaces (see Table 1) under the current configuration.

Table 1: Street Parking Spots

Jarvis Street Between:	Side of Street	Existing	Proposed
Klauck St - Niagara Parkway	North	19	14
	South	3	8
Central Ave - Klauck St	North	46	34
	South	29	30
Mack St - Central Ave	North	18	23
	South	13	16
Total		128	125

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Part of the parking strategy is to identify areas and lots surrounding Jarvis Street that will allow for both private and public parking opportunities that are easily accessible along pedestrian corridors. (see Figure 2).

Figure 10: Additional Parking Opportunities and Enhanced Pedestrian Corridors

(Source: Niagara Navigator, 2018)



It is recognized by existing business owners that the existing parking supply seems inadequate at certain times and locations. There is an ample supply of on-street and off street parking proximate to Jarvis Street. However, the current state of pedestrian linkages to Jarvis Street are somewhat deteriorated and give the impression of being undesirable and unsafe. A key to a successful parking supply enhancement is to improve the quality and safety of pedestrian linkages by reconstructing finished surface treatments, adding lighting, and adding pedestrian signage. Also, people that work downtown should be directed by their employers to surrounding parking lots as to leave on-street parking for patrons visiting the businesses along Jarvis Street.

IMPLEMENTATION

The development of this plan is to be carried out as a phased approach.

The first phase is recognizing the parking opportunities that are off of Jarvis Street so that as construction on Jarvis commences, the businesses will not be as adversely affected. In this phase it is important to create safe pedestrian connections through the upgrading

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of paved surfaces along pedestrian corridors, ensuring ample lighting and signage to illuminate laneways and make sure they are easy to navigate. See the prior figure (Figure 10) for the proposed enhanced pedestrian corridors.

The second and third phase of the project will involve the larger scale construction on Jarvis Street that will be carried out in sections between the blocks in order to diminish traffic concerns. These phases will include the total reconstruction of the roadways, upgrading water service and sanitary and storm sewer systems, installation of unit pavers and new, wider concrete sidewalks, installation of urban braille, installation of Bridgeburg signature arches and monument feature, altering locations of lamp posts and fire hydrants, burying above ground services, installing new street trees and flower beds, as well as laying out painted linework for parallel parking and shared bike lanes. Following the road and sidewalk construction, additional floral planters, hanging baskets, and street furniture will complete the new look of Jarvis Street. All of these proposed enhancements are graphically presented in planimetric view as Attachment 1.

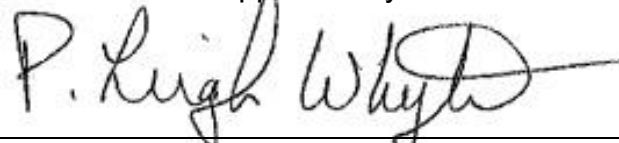
CONCEPTUAL COST ESTIMATES

Detailed conceptual cost estimates are included as Attachment 2. These cost estimates are preliminary and subject to refinement as detailed design progresses. The plan as presented has a total estimated cost of slightly over 6.3 million dollars.

Prepared By:

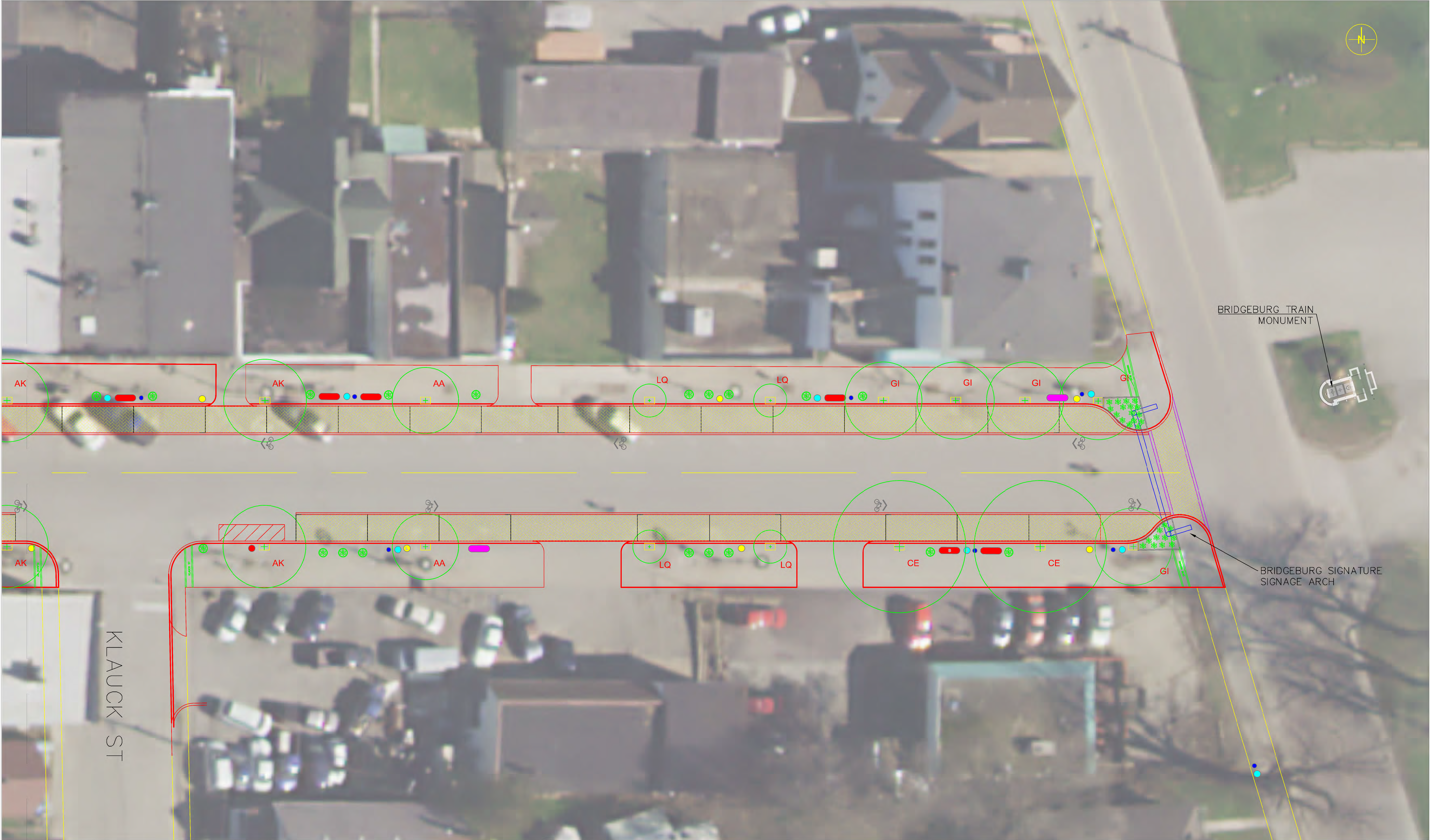
Jillian Richards
Planning Technician

Reviewed and Approved By:



P. Leigh Whyte, MCIP, RPP, ACIP
Senior Planner

Attachment 1: Proposed Streetscape Plan



Issue	Issued for	Date	Init.
D	FINAL CONCEPT	29MAY2018	JR
C	FOR CLIENT REVIEW	26APR2018	JR
B	REVIEW	12MAR2018	JR
A	Preliminary Landscape Design	21FEB2018	JR

LEGEND

● PROP. LIGHT POLE	NO PARKING - HYDRANT
● PROP. FIRE HYDRANT	— PROP. CENTERLINE OF ROAD
● PROP. GARBAGE CONTAINER	— PROP. PARKING
● PROP. RECYCLING CONTAINER	— PROP. CURB
● PROP. BENCH	— PROP. TREE
● PROP. BIKE RACK	— PROP. SHARED BIKE LANE
● PROP. FLORAL PLANTER	

Do not scale drawings. Report any discrepancies to Quartek Group Inc. before proceeding.

Drawings must be sealed by the Architect and / or Engineer prior to the use for any building permit applications and / or government approvals. Seals must be signed by the Architect and / or Engineer before drawings are used for any construction.

All construction to be in accordance with the current Ontario Building Code and all applicable Ontario regulations.

All drawings and related documents remain the property of Quartek Group Inc., all drawings are protected under copyright and under contract.

approved by:

APPROVED BY

date:

DAY/MONTH/YEAR

CAD file:

17279-LP1_29May2018.dwg

Quartek

Architects • Planners
Engineers • Project Managers

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project title

Bridgeburg Streetscape

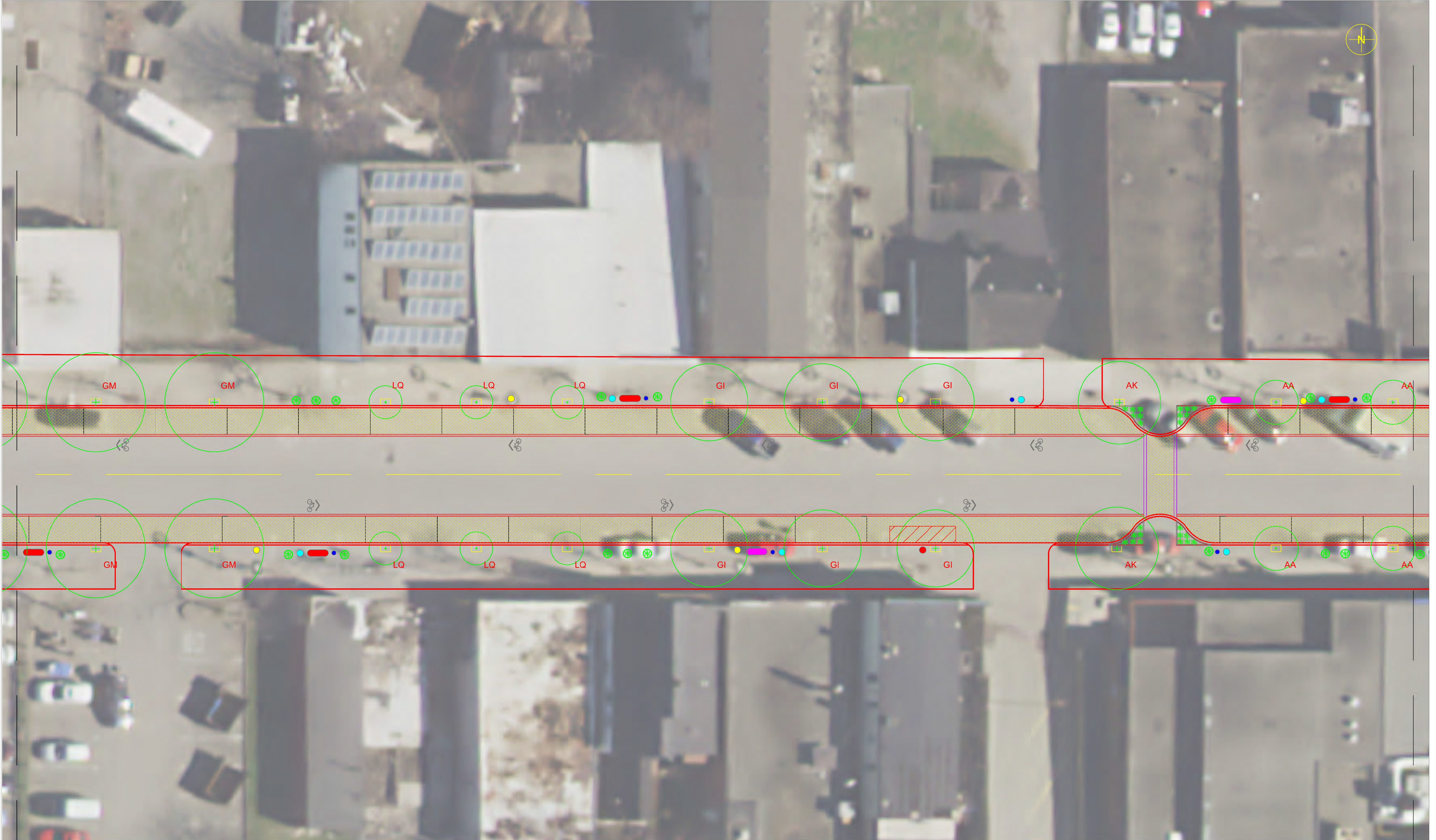
JARVIS STREET, FORT ERIE

drawing title

Streetscape Concept Plan

drawn by	designed by
JR	LW/JR
scale	date
1:150	29 May 2018
job number	issue
17279	D
drawing number	
	LP - 1A

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approved by:

APPROVED BY

date:

DAY/MONTH/YEAR

CAD file:

17279-LP1_29May2018.dwg

Quartek

Architects Planners
Engineers Project Managers

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www.quartekgroup.com

project title

Bridgeburg Streetscape

JARVIS STREET, FORT ERIE

drawing title

Streetscape Concept Plan

drawn by	designed by
JR	LW/JR
scale	date
1:150	29 May 2018
job number	issue
17279	D
drawing number	
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Attachment 2: Detailed Conceptual Cost Estimates

Phase 1: Pedestrian Corridor Enhancements

Item	Conceptual Cost
Laneway Improvement	\$ 500,000.00
Lighting	
Wayfinding Signage	

Unit Pavers

Unit Paver Streetside (2.4 m width)

Portion of Street	Sq. m	Installed \$/sq. m	Approximate Cost
Niagara Blvd to Klauck St	446.5	\$ 150.00	\$ 66,975.00
Klauck St to Central Ave	1,215.8		\$ 182,370.00
Central Ave to Bump out	540.0		\$ 81,000.00
		Total	\$ 330,345.00

Unit Paver Walkways

	Sq. m	Installed \$/sq. m	Approximate Cost
6 Crosswalks	117.2	\$ 150.00	\$ 17,580.00
Banding of Crosswalks	15.0		\$ 2,250.00
		Total	\$ 19,830.00

APPENDIX "2" TO ADMINISTRATIVE REPORT PDS-40-2018, DATED JUNE 18, 2018**Road Reconstruction**

Description		Quantity	Unit	Unit Cost	Total Cost
1. REMOVALS					
1.1	Asphalt	6700	m ²	\$ 40.00	\$ 268,000.00
1.2	Excavation for road base	4200	m ³	\$ 30.00	\$ 126,000.00
SUBTOTAL					\$ 394,000.00
2. NEW ROAD WORKS					
2.1	Driving Lanes Asphalt and Granular Base (assume 450mm)	4045	m ²	\$ 115.00	\$ 465,175.00
2.2	Curb & Gutter c/w Subdrain	1134	m	\$ 90.00	\$ 102,060.00
2.3	Parking Lane Granular Base (assumed 450mm)	2315	m ²	\$ 30.00	\$ 69,450.00
2.4	Sidewalk	3870	m ²	\$ 90.00	\$ 348,300.00
SUBTOTAL					\$ 984,985.00
3. ROAD DRAINAGE					
3.1	Catchbasin	20	ea.	\$ 1,500.00	\$ 30,000.00
3.2	Catchbasin Lead (200mmØ)	175	m	\$ 150.00	\$ 26,250.00
SUBTOTAL					\$ 56,250.00
TOTAL					\$ 1,435,235.00

Underground Services Replacement

Description	Quantity	Unit	Unit Cost	Total Cost
1. WATERMAIN				
1.1 Watermain (300mmØ)	560	m	\$ 500.00	\$ 280,000.00
1.2 Water Services	62	ea.	\$ 3,000.00	\$ 186,000.00
1.2 Hydrants	7	ea.	\$ 6,000.00	\$ 42,000.00
SUBTOTAL				\$ 508,000.00
2. SANITARY SEWER				
2.1 Remove Sewer (up to 375mm)	560	m	\$ 50.00	\$ 28,000.00
2.2 Sanitary Sewer	560	m	\$ 600.00	\$ 336,000.00
2.3 Remove Maintenance Hole	10	ea.	\$ 2,000.00	\$ 20,000.00
2.4 Sanitary Maintenance Hole (1200mm)	10	ea.	\$ 5,000.00	\$ 50,000.00
2.5 Sanitary Lateral	60	ea.	\$ 2,500.00	\$ 150,000.00
SUBTOTAL				\$ 584,000.00
3. STORM SEWER				
3.1 Remove Storm Sewer	580	m	\$ 50.00	\$ 29,000.00
3.2 Replace Storm Sewer				
a) 900mm	200	m	\$ 700.00	\$ 140,000.00
b) 825mm	210	m	\$ 550.00	\$ 115,500.00
c) 675mm	170	m	\$ 400.00	\$ 68,000.00
3.3 Remove Maintenance Hole	9	ea.	\$ 2,000.00	\$ 18,000.00
3.4 Storm Maintenance Hole	9	ea.	\$ 7,000.00	\$ 63,000.00
SUBTOTAL				\$ 404,500.00
TOTAL				\$ 1,496,500.00

Aesthetics and Details

Landscape	Quantity	Unit Cost	Total Cost
Tree and Stump Removal	33	\$ 500.00	\$ 16,500.00
Floral Planters (Structure, Floral plantings, fill, etc.)	63	\$ 1,000.00	\$ 63,000.00
Hanging Baskets (Structure, Floral plantings, fill, etc.)	30	\$ 750.00	\$ 22,500.00
Ground Level Flower Beds (Floral plantings, ornamental grasses, fill, etc.)	18	\$ 3,000.00	\$ 54,000.00
Underground Irrigation System	1	\$ 100,000.00	\$ 100,000.00
Subtotal			\$ 256,000.00

Additional Landscape	Quantity	Unit Cost	Total Cost
Silva Cells	74	\$ 1,700.00	\$ 125,800.00
Light pole Brackets for Banners	14	\$ 200.00	\$ 2,800.00
Wayfinding Signage	1	\$ 25,000.00	\$ 25,000.00
Urban Braille	10	\$ 1,000.00	\$ 10,000.00
Subtotal			\$ 163,600.00

Electrical	Quantity	Unit Cost	Total Cost
Remove and replace street lights with underground servicing	28	\$ 2,500.00	\$ 70,000.00
Underground service on Central Ave between Unnamed Lanes	1	\$ 100,000.00	\$ 100,000.00
Subtotal			\$ 170,000.00

Aesthetics Summary	Cost
Landscape	\$ 256,000.00
Additional Landscape	\$ 163,600.00
Electrical	\$ 170,000.00
Total Aesthetics	\$ 589,600.00

APPENDIX "2" TO ADMINISTRATIVE REPORT PDS-40-2018, DATED JUNE 18, 2018**Street Trees**

Tree Type	Common Name	D.B.H.	Unit Price	Installed Price	Quantity	Cost
Acer rubrum 'Armstrong'	'Armstrong' Red Maple	60 mm W.B.	\$ 675.00	\$ 2,025.00	8	\$ 16,200.00
Acer saccharum 'Endowment'	'Endowment' Sugar Maple	60 mm W.B.	\$ 585.00	\$ 1,755.00	7	\$ 12,285.00
Acer rubrum 'Karpick'	'Karpick' Red Maple	60 mm W.B.	\$ 675.00	\$ 2,025.00	10	\$ 20,250.00
Celtis occidentalis	Eastern Hackberry	60 mm W.B.	\$ 585.00	\$ 1,755.00	2	\$ 3,510.00
Ginkgo biloba 'Princeton Sentry'	'Princeton Sentry' Ginkgo	60 mm W.B.	\$ 795.00	\$ 2,385.00	13	\$ 31,005.00
Ginkgo biloba 'Magyar'	Magyar Maidenhair Tree	60 mm W.B.	\$ 795.00	\$ 2,385.00	15	\$ 35,775.00
Liquidambar styraciflua 'Slender Silhouette'	'Slender Silhouette' Sweetgum	60 mm W.B.	\$ 555.00	\$ 1,665.00	17	\$ 28,305.00
Pyrus calleryana 'Chanticleer'	'Chanticleer' Ornamental Pear	60 mm W.B.	\$ 525.00	\$ 1,575.00	2	\$ 3,150.00
					Total	\$ 150,480.00

Bridgeburg Signature Features

Train Monument	Cost
Foundation, Stepped Platform and Planter (Masonry with concrete sub-surface footings)	\$ 46,000.00
Optional Bermed Ramp to provide Accessible Platform Approach	\$ 13,000.00
Ornamental Engine Element (Plate Steel, Shaped Steel, Piping, painted)	\$ 61,000.00
U/G power supply and Specialty Lighting	\$ 12,000.00
Planting and Curbing plus bench system and bollards (4)	\$ 18,000.00
Design, Construction Admin and other Soft Cost Allowance	\$ 14,000.00
Heritage Plaque Allowance	\$ 6,000.00
Total Estimate (including Options)	\$ 170,000.00

Street Arch (Each)	Cost
Foundation	\$ 9,000.00
Pipe Supports (2) Tapered and blade sign pipe arms	\$ 12,000.00
Laser-Cut 5-layer plate Arch Frame, laminated, and powder coated	\$ 17,000.00
Laser-Cut lettering and Mounts	\$ 6,000.00
Optional Illumination of Arch	\$ 11,000.00
Design, Construction Admin and other Soft Costs Allowance	\$ 3,000.00
Total Estimate for 1 Arch	\$ 58,000.00
Total Estimate (2 Arches plus Options)	\$ 116,000.00

Administration Costs

Detailed Design and Construction Documentation	\$	350,000.00
Contract Admin (6.5%)	\$	312,519.35
Total	\$	662,519.35

Summary

Phase 1: Pedestrian Corridor Enhancements	\$	500,000.00
Unit Pavers	\$	350,175.00
Road Reconstruction	\$	1,435,235.00
Underground Services Replacement	\$	1,496,500.00
Aesthetics and Details	\$	589,600.00
Street Trees	\$	150,480.00
Bridgeburg Signature Features	\$	286,000.00
Contingency (20%)	\$	961,598.00
Administration Costs	\$	662,519.35
Total Conceptual Cost Estimate	\$	6,432,107.35