

Township of Lucan Biddulph
November 2022

LUCAN BIDDULPH STREETSCAPE STRATEGY



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1.0 INTRODUCTION

Overview

Lucan Biddulph is a rural farming community that includes a number of settlement areas, including Lucan and Granton. Located in the County of Middlesex, these settlement areas consist of wide roads, unique facades and a rich history. Lucan and Granton's history can be seen in the buildings, public areas, and distinct character that shape and define its unique identity.

The Lucan Biddulph Streetscape and Accessibility Plan establishes a design framework and a set of guiding principles and standards for ensuring a comfortable and safe pedestrian realm. The plan prioritizes and respects the local history, while focusing on the enhancement of roadways, intersections, sidewalks and the public realm along Main Street and Granton Line to improve pedestrian comfort and visitor experience.

Process

The Streetscape and Accessibility Plan was developed by RE: Public (project lead) and thinc design (landscape architecture) through collaborations with municipal staff, members of Council, community stakeholders and the community. Engagement consisted of an online resident survey, a Staff workshop, and two community workshops.

Purpose

This Plan provides a design framework for improvements to the streetscape for Lucan Main Street and Granton Line. The public realm improvements proposed focus on both short term and long term strategies. The plan also identifies potential opportunities for consideration for both public and private parcels.

Purpose of this Plan

Provide direction to Township staff regarding short, medium and long-term strategies, principles and guidelines for the design and programming of Lucan's Main Street and Granton Line.

Demonstrate the application of design principles to Main Street and Granton Line.

Highlight the design / development opportunities for both public and private properties.

Provide direction of furnishing, materials, and other guidelines and specifications for Lucan's Main Street and Granton Line.

Public Realm Design Principles

The following design principles were developed to support a pedestrian friendly downtown where users will benefit from public realm improvements. These principles were established through both the inventory and analysis, and public and stakeholder consultation phases.

Prioritize Pedestrians

Both Downtown Lucan and Granton are located along major arterial roads. There is an opportunity to improve the pedestrian experience by buffering pedestrians from vehicular traffic.



Respect and Celebrate History

Ensure furnishing, materials, colours and signs enhance and celebrate the history of Lucan Biddulph.



Activate

Vacant and underutilized spaces are identified for potential future improvements to help activate the downtown and provide new civic spaces.



Prioritize

Focus on key public realm improvements and coordinate implementation with new development, as well as ongoing capital and maintenance projects.

Top: Parking Space Parklet
Left: Lucan Signage
Right: Active Street
Bottom: Main Street Lucan

Design Framework

This Plan organizes Main Street Lucan into four distinct character areas; commercial, mixed use, residential and recreational.



Figure 1-1: Lucan Character Areas Context



The plan structure of Granton consists of a one block radius on Granton Line between Fallon Drive and Ann Street.



Figure 1-2: Granton Line Context



2.0 STREETScape STRATEGIES

The following applies the design principles and strategies proposed for Lucan Main Street and Granton Line. While the focus of this plan is improvements to Main Street Lucan and Granton Line, some recommendations could be applied to side streets and intersections within each downtown area to provide a more comprehensive network of streetscape improvements.

Given the amount of parking in both Lucan and Granton, obtaining the space required for a more generous pedestrian realm is possible by adjusting the curbs and the strategic relocation of some on street parking. This will provide space for a more generous sidewalk, and the incorporation of greening opportunities and other public realm improvements.

Key strategies for an enhanced downtown streetscape include:

- Greening Opportunities
- Infrastructure Revitalization
- Accessibility
- Pedestrian Amenity
- Parking

Greening Opportunities

With the expansion of some sidewalks throughout Main Street and Granton Line, as well as some of the existing underutilized spaces, there is an opportunity to incorporate more landscape into downtown Lucan and Granton. This will improve the overall aesthetic and comfort of the street while also contributing to improved air quality, mental health, encourage biodiversity, and reduced urban heat-island effect. Recommended greening opportunities include;

- Expand Seasonal Planters
- Expand Hanging Baskets
- Streets Trees
- Boulevard/Bump out Plantings
- Parking Lot Greening/Planting



Seasonal Planter

Seasonal Planters

There is an opportunity to provide raised planters throughout the downtown. These can be provided/installed seasonally in locations that are not conducive to support permanent, in ground planting due to space restrictions. These planters can be removed and stored off-site during the winter months and instituted in the spring similar to the Township's hanging basket program.

Hanging Baskets

Building on the Township's already successful hanging basket program, it is recommended that this program be expanded in concert with other recommended improvements associated with additional pedestrian lighting infrastructure.



Hanging Basket

Street Trees

Providing an urban canopy through street trees will enhance pedestrian comfort and perceived safety through separation from vehicular traffic. Where space above and below grade permits, the feasibility of incorporating street trees should be explored. While opportunities for trees are currently somewhat limited, opportunities may present themselves in the future, in concert with other major infrastructure improvements or new urban redevelopment where the excavation in the right-of-way and restoration of the streetscape is necessary.

It is important to note that having sufficient soil volumes for trees is critical. The challenge in urban environments is being able to provide this uncompacted soil volume amongst all of the other competing elements in the street right-of-way including utilities and paving. Providing between 20 and 30 cubic metres of soil per tree has become the standard to ensure trees are healthy and can achieve their full potential. However, the tree's species and access to water are also important considerations.

To help achieve appropriate soil volumes without significant costs, planting trees in open planters is ideal. However, given the limited space available in the Lucan and Granton right-of-way, open planters would obstruct pedestrian movements. Therefore a structural soil cell system would be required to support paving and a tree grate with uncompacted soil below. However these systems are extremely costly and are recommended only at key locations where absolutely necessary. Structural soil can also be used as a bridging medium between growing medium and around utilities. However structural soil is not appropriate as an alternative to soil cells and conventional planting medium.

Acceptable species for Lucan Biddulph's street trees need to be hardy to zone 6b. As with all trees in a streetscape condition they need to

be tolerant of urban conditions including salt tolerance and able to withstand periods of drought, which may contribute to the challenge of supporting healthy street trees. Some suitable tree species include but are not limited to:

- Acer x freemanii
- Acer rubrum
- Celtis occidentalis
- Ginkgo biloba
- Gleditsia triacanthos
- Nyssa sylvatica
- Platanus x acerifolia
- Quercus sp.

Street trees should be actively maintained in their first few years following planting to help ensure their longevity. For the first few years the trees should be carefully monitored and maintained, including fertilizer and irrigation. However, after this initial establishment period the trees' requirements for active maintenance should be minimal.

As the trees grow, pruning will likely be required to minimize interference with street lighting since the design (photometrics) for street lights typically do not consider the impact that a tree's canopy might have on light levels and distribution.

Boulevard and Bump out Planting

To help expand the pedestrian realm, strategic relocation of curbs to increase the pedestrian boulevard should be considered to provide additional opportunities for planting. These can be designed to support both trees or when space does not permit, shrubs and ornamental grasses. However, as described above regarding the selection of appropriate tree species, suitable plants need to be salt and drought resistant, as well as not exceeding a height of approximately three feet to ensure sightlines for cars and crossing pedestrians are not compromised. Selected species should also be low maintenance

and require minimal pruning. Native ornamental grasses are especially suitable for these applications and provide all season interest. They also fit well with the native landscape of the area.

Boulevard and bump out planting also present opportunities to capture stormwater and direct it to street tree plantings should be capitalized on where possible. The design of planters with openings to allow stormwater to flow into tree pits will help minimize the need for irrigation over the long term. A system of area drains connected to a series of perforated pipes can also be used to capture and redirect stormwater where structural soil cells are used. In both instances, a perforated drain pipe should be placed in the bottom of the tree pits and connected to the municipal storm system to capture excess water and prevent trees from drowning during periods of extensive rainfall.

Parking Lot Greening/Planting

In concert with the proposed parking lot improvements, opportunities for planting should be incorporated following the principles described above. Trees will be especially beneficial to provide shade as well as opportunities for pedestrian refuge. However, considerations for winter maintenance, snow storage, sight-lines and parking capacity will need to be balanced with the benefits of trees and other forms of greening.



Planted Parking

Infrastructure Revitalization

Infrastructure such as lighting, site furnishings, paving treatments and public art are imperative to a successful public realm and streetscape. Both Lucan and Granton can benefit from enhancements to these elements. With improved comfort and aesthetics, this will encourage more users to visit their downtowns. This includes

- Pedestrian Lighting
- Street Furnishings
- Specialty/Accent Paving
- Infrastructure as Art

Pedestrian Lighting

The existing light standards focus on illuminating the street, rather than the sidewalk and storefronts. Additional lighting which is focused on illuminating the pedestrian realm will enhance the visitor experience in the evening. Key considerations include:



Pedestrian Post Top Light



Light with Pedestrian Arm



Light with Pedestrian and Banner Arms

- Additional pedestrian scaled lighting along main street and at the proposed public spaces at the municipal parking lot and proposed parkette in Granton;
- Lighting highlighting the historic facades along Main Street
- Selection of fixtures that are dark sky compliant and will minimize light spillage onto adjacent buildings. In particular second floor windows for residential apartments;
- Selection of LED fixtures for low energy use and longevity.

For added interest and to create a unique aesthetic for the downtown, colour changing lights may be of interest. These systems have an additional cost and require additional hardware to run the system of programmable colour changing lights. Alternatively lights with special event power, pedestrian level secondary fixtures, banner arms, and the ability to attach hanging baskets (as discussed above) should be considered in the selection of new pedestrian poles.



Barbara Hall Park

Street Furnishings

An enhanced and expanded street furnishing palette should be considered which works together as a family and fits with the existing aesthetic and palette of furnishings found throughout Lucan Biddulph. The palette of streetscape elements needs to include benches, waste receptacles and bike racks. Currently Lucan bike racks are designed with a shamrock, these designs could be enhanced further with the help of local artists and community members. The design and aesthetic of the lighting fixtures (described above) should also be complementary with the aesthetic of the street furniture.

While downtown has a heritage aesthetic due to the large number of older character buildings, a faux heritage aesthetic is not necessarily recommended. Instead a more contemporary approach to street furnishings will contrast and compliment the authentic architecture.



Metal Bench

A key consideration with these elements is appropriate selection of materials and finishes. In most instances stainless steel, natural weathered metal, cast iron or even galvanized is preferable over powder coated products. While powder coats look good initially, they typically do not

stand-up to the impacts of the street and will show their age relatively quickly as chips that expose the bare metal will show rust.

Specialty / Accent Paving

Conventional gray poured-in-place concrete paving is proposed for sidewalks throughout the downtown. It is a simple, readily available and therefore cost effective solution. In addition it is easy to repair, and patches are relatively unnoticeable. It is also more resilient to freeze thaw compared to unit paving and is easier to maintain in regards to snow clearing.



Broom Finish Concrete

To enhance the aesthetic of the sidewalk simple saw cuts could be introduced not only as control joints but also in a pattern that reflects the aesthetic of the new streetscape.



Decorative Concrete

In special locations, accent paving can be used to help create visual interest and a unique aesthetic for the downtown. This may include a brick edging along the building face or curb face. New bump outs and areas with an expanded streetscape may also be conducive to enhanced and more decorative paving.

Infrastructure As Art

Public art is and should continue to be an important component of the downtown. Additional opportunities to incorporate public art – as both stand alone features and as elements integrated into the streetscape – should be investigated as part of the downtown revitalization project. There are currently two locations with existing murals within Lucan, which can be found:

- On Bank of Montreal
- On Lucan Drug Mart

Feature public art are stand alone pieces with the primary role of providing art. These might include a sculpture, mural or other decorative element. Some potential locations for incorporating pieces of art include but are not limited to:

- On the Market Street Side of Construction Business/Lucan Optimist Thrift Store;
- Mid-block bump outs; and,
- Parkette on Fallon Drive (Granton)

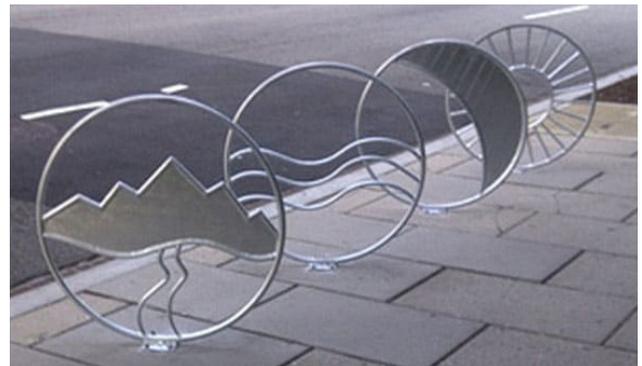


Mural

Integrated public art consists of designing artistic elements into standard elements. For the Lucan Biddulph downtowns, there may be an opportunity for an artist to create a unique design for items such as:

- Gateway elements;
- Lighting;
- Tree grates;
- Specialty paving;
- Bicycle racks;
- Benches; and,
- Trash receptacles.

Rotating and featured pieces of art should also be considered to help make the downtown more dynamic and create visual interest as the art regularly changes. These rotating pieces may be undertaken in conjunction with seasonal displays, local art competitions, or special events.



*Top: Varying Bike Rack Designs
Left: Decorative Tree Grate
Right: Decorative Light Standard
Bottom: Painted Intersection Crossings*

Accessibility

Creating a downtown that is accessible to all Ontarians should be a key consideration during the design and implementation of the project. This includes the consideration of but not limited to:

- Unobstructed clearway;
- Tactile warning strips;
- Audible crossing cues at intersections;
- Improving store/business access (i.e. Stopgap portable ramps); and,
- Designated accessible on street parking stalls.

Sidewalks throughout the downtown should be wide, durable and meet current AODA requirements in regards to achieving minimum clearway and surface treatments. Key aspects of the sidewalk design include:

- Minimum 2.1 metre unobstructed width as a pedestrian clearway;
- Poured-in-place concrete surface with regular saw cuts (max. 2 metres on centre) to provide a safe, firm and predictable surface;
- Non-slip standard broom finish;
- Depressed curb with a tactile warning edge at intersections; and,
- Audible crossing cues at controlled intersections.

Designated on street parking stalls should also be introduced throughout the downtown to allow individuals to safely enter and exit their vehicles while parked.



From Top to Bottom: Tactile Warning Strip, Pedestrian Crossing, Crossing Button, Stop-Gap Ramps

Parking

The parking strategy for Main Street and Granton Line consists of:

- Providing a range of on and off-street parking options to accommodate the need of different visitors to the downtown areas;
- Providing ample signage indicating duration, location and public or private parking; and,
- The implementation of short duration parking in busy areas to reduce the number of long term vehicles on the roadway.

With the strategic removal of some on-street parking to expand the public realm (sidewalk widening and planting), new parking is proposed behind the businesses along Main Street Lucan, creating long term parking for users and visitors to spend more time at the local businesses. Parking lots should also be designed to be used as temporary flexible space for special events such as markets, festivals and fairs. This includes providing lighting, power and designing the space for pedestrians and vendors.



Parking Lot with Planted Medians

3.0 RECOMMENDATIONS

Granton

The streetscape plan for Granton is focused on creating an attractive, vibrant and accessible destination. The proposed plan described here integrates the following strategies:

- Greening Opportunities
- Infrastructure Revitalization
- Accessibility
- Pedestrian Amenity
- Parking

Together they will help support a lively and prosperous Granton that will serve residents, business owners and visitors alike.

Granton Line

The following are the proposed recommendations for Granton Line, from Ann Street to Fallon Drive.



Expanded Sidewalk and Pedestrian Level Lighting Example

- A** Remove on street parking on west side of Granton line for expansion of pedestrian zone
- B** Enhance main crossings with corner bump outs, new painted crossings
- C** Expand pedestrian zone, increasing sidewalk width with green buffer between sidewalk and road
- D** Street tree planting (*Long Term*)
- E** Install pedestrian level lighting to increase pedestrian safety and increase the sense of place
- F** Add benches/seating in pocket areas
- G** Stopgap program at the post office entrance



Figure 1-3: Granton Line Recommendations

Lucan

The streetscape plan for Lucan is focused on enhancing the four character areas utilizing the following strategies:

- Greening Opportunities
- Infrastructure Revitalization
- Accessibility
- Pedestrian Amenity
- Parking

In conjunction these strategies will create a lively and prosperous Lucan to serve residents, businesses and visitors alike.



Seasonal Hanging Basket Example

Commercial Core

The following are the proposed recommendations for the commercial area portion of Main Street, from William Street to Oak Street.

- A** Seasonal planters (*Short Term*)
- B** Widen sidewalk (*Long Term*)
- C** Street tree planting (*Long Term*)
- D** Pedestrian scale lighting with hanging baskets
- E** Convert municipal lot to public flex space
- F** Enhance connection between museum and historic buildings (paving and lighting)
- G** Upgrade corner with new paving, seating and street tree for pocket park
- H** Seating area at Service Ontario
- I** New/expanded parking lots
- J** New mixed use development residential above commercial
- K** Corner bump outs



Figure 1-4: Lucan Commercial Area Recommendations





Widened Sidewalk Example



Planted Parking

Mixed-Use Core

The following are the proposed recommendations for the Mixed-Use Core of Main Street, from Oak Street to the Fire Hall.

- A** Widen sidewalk
- B** Street tree planting (*Long Term*)
- C** Pedestrian scale lighting with hanging baskets
- D** Corner bump outs
- E** Convert into park with new trees and seating
- F** Cap site and replace with small parking area

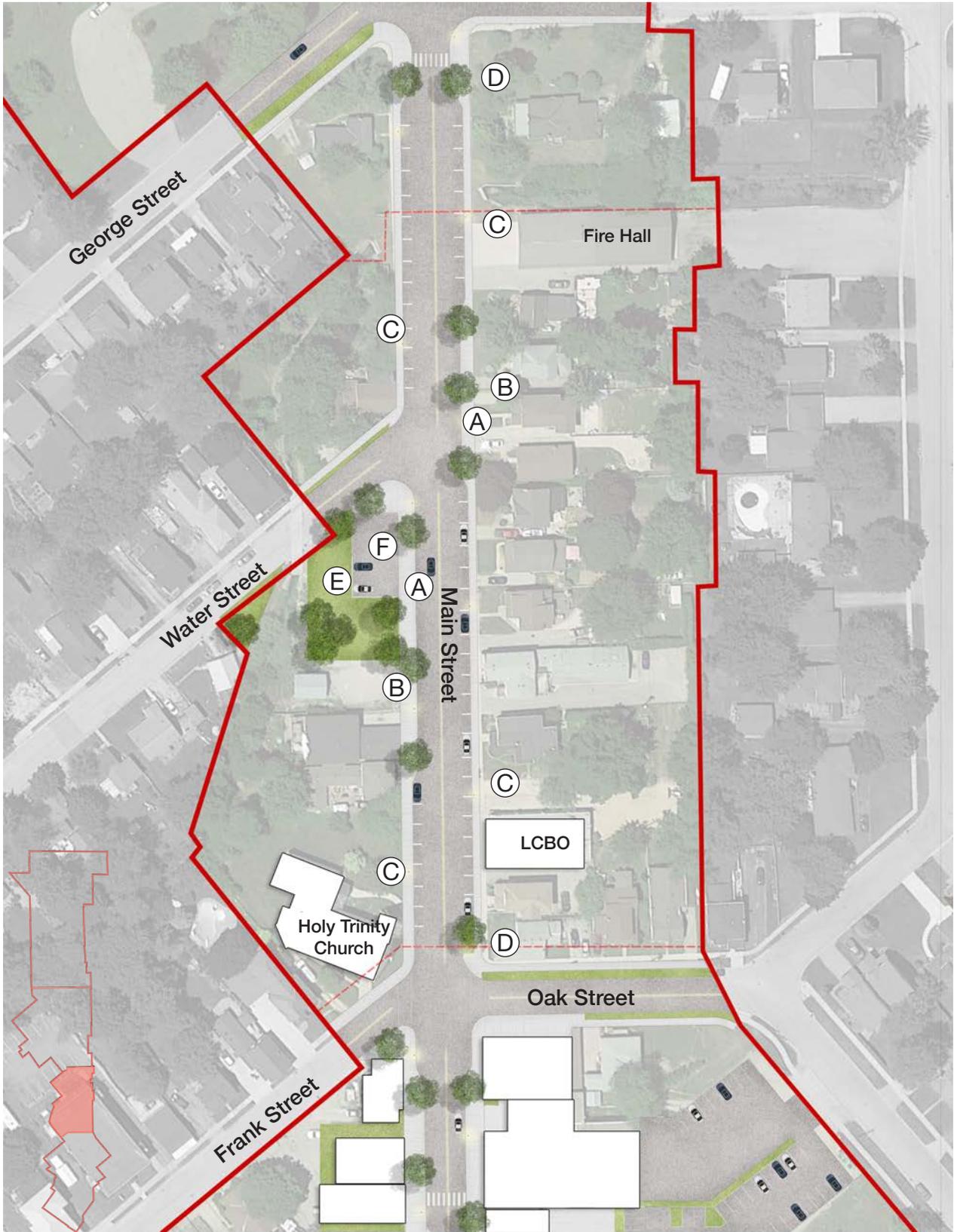


Figure 1-5: Lucan Mixed-Use Area Recommendations





Widened Sidewalk Example



Planted bump out

Residential Core

The following are the proposed recommendations for the Residential Core of Main Street, from the Fire Hall to Community Drive.

A

Widen sidewalk, remove on street parking

B

Street tree planting (*Long Term*)

C

Pedestrian scale lighting with hanging baskets

D

Corner bump outs

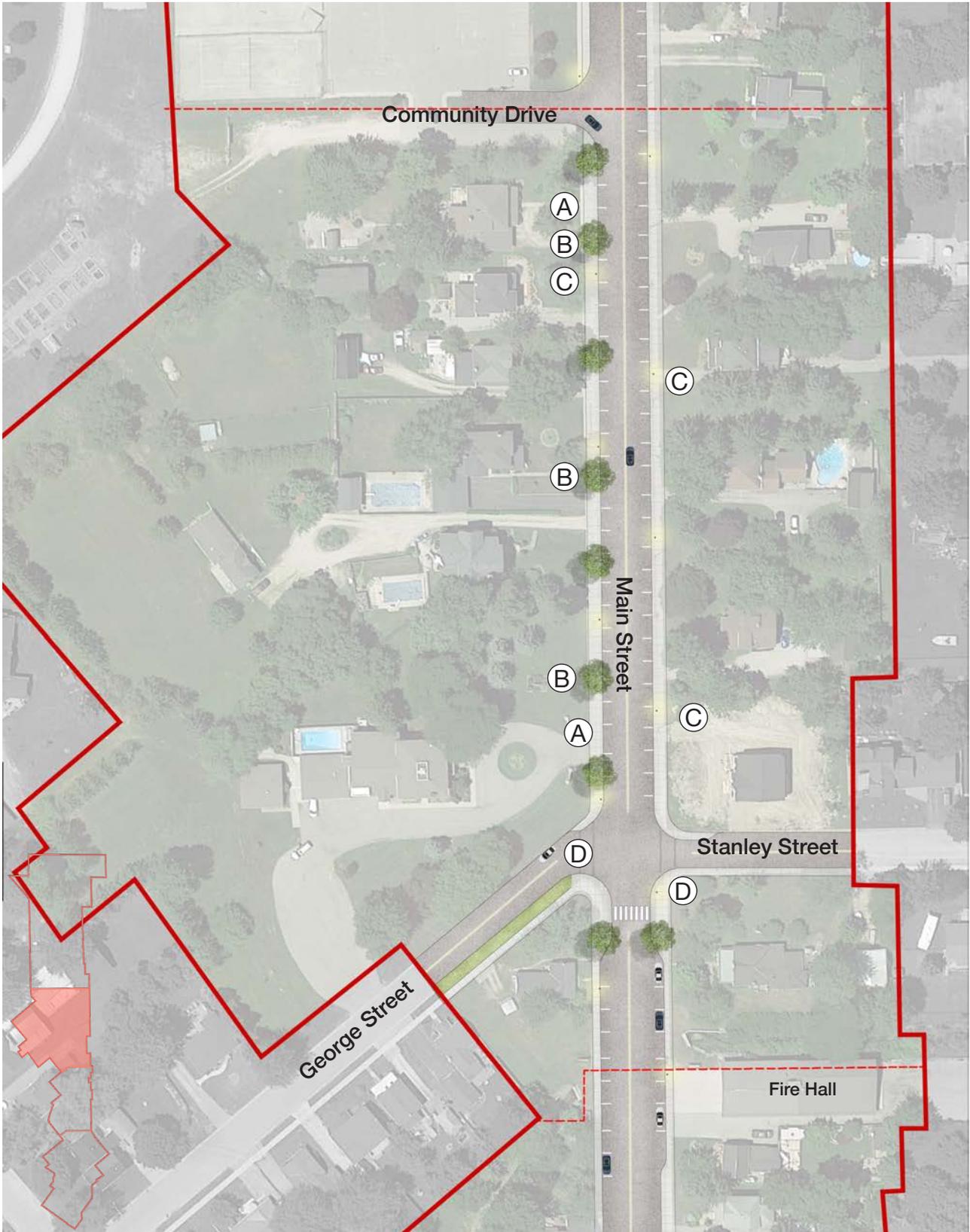


Figure 1-6: Lucan Residential Area Recommendations





Widened Sidewalk and Planting Example



Seasonal Hanging Basket Example

Recreation Core

The following are the proposed recommendations for the Recreation Core of Main Street, north of Community Drive.

- A** Widen sidewalk
- B** Street tree planting (*Long term*)
- C** Pedestrian scale lighting with hanging baskets
- D** Corner bump outs/expand sidewalk at crossing for community Centre
- E** Extend sidewalks to increase access to existing businesses
- F** Create green buffers between sidewalk and existing businesses
- G** New townhouse development to connect to future new developments
- H** New parkette connected with townhouse development

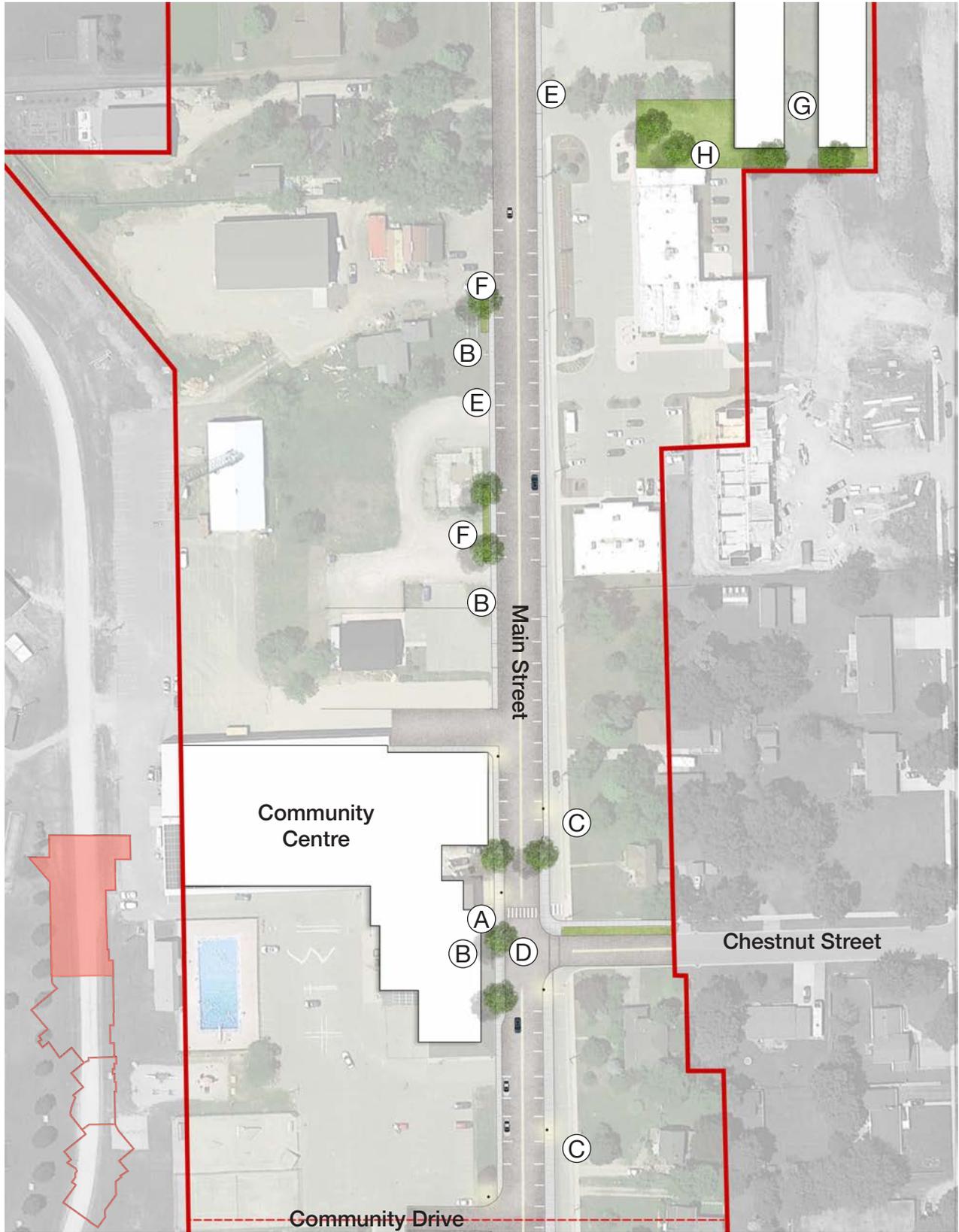


Figure 1-7: Lucan Recreation Area Recommendations



Priority Public Realm Improvements

Lucan

New Civic Flex Space (Municipal parking lot adjacent post office)

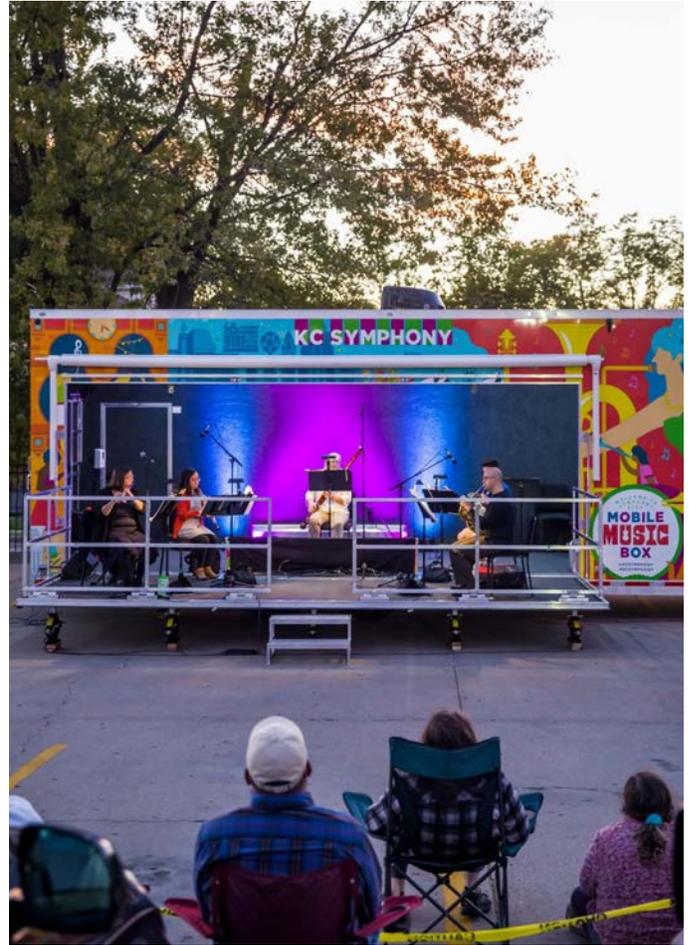
There is currently no central square or gathering place within Lucan. Transforming what is currently a parking lot with frontage on Main Street into a flexible square/plaza will create a central gathering space in the downtown core for special events. This space would remain a municipal parking lot for most days, but would be designed to be transformed into a pedestrian focused space for various markets, festivals, and fairs. This transformation should include:

- Repaving the surface into a unique and stimulating pattern.
- Installation of ample seating throughout the edges of the space.
- Installation of shade trees where appropriate.
- Breaking up the space with new planting areas or seasonal planters while still allowing for the space to function as a parking lot.



Figure 1-8: Lucan Civic Flex Plaza





Top Left: Parking Lot as Farmer's Market
Top Right: Parking Lot as Concert Space
Middle Left: Parking Lot as Play Space
Bottom: Parking Lot as Food Truck Festival

Granton

Parkette (Corner of Granton Line and Fallon Drive)

Currently the only public gathering space along Granton Line is at the corner of Fallon Drive. The space is home to a war memorial with no other amenities located on site. While keeping the monument in place, improving the surrounding landscape should be the focus for this public space.

A reimagined space should include seating, feature planting, shade trees, bike racks and potentially a bike repair station since Fallon Drive is part of the Middlesex County cycling route.



Top Left: Existing War Monument
Top Right: Example Bike Repair Station
Bottom: Example Parkette with seating

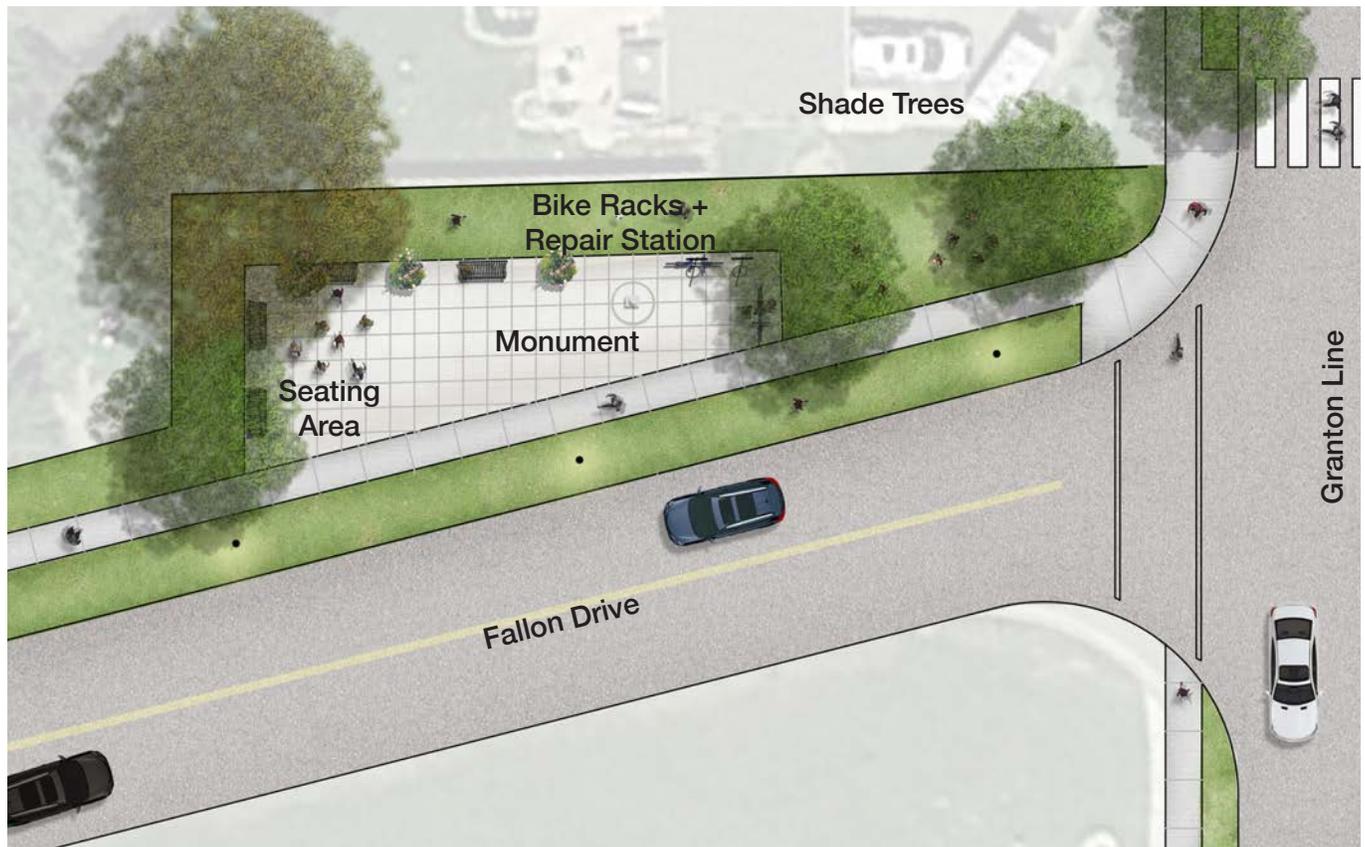


Figure 1-9: Granton Parkette



Streetscape Improvements

To improve the public realm along Main Street and Granton Line, proposed streetscape improvements focus on providing wherever possible:

- Reduced pedestrian crossing distances
- Traffic calming measures
- Wider sidewalks
- Opportunities for street trees, public art and outdoor retail/spill-out spaces

The existing 20.1 metre wide Main Street right-of-way consists of two lanes of traffic at 8 metres wide with 3 metres of parallel parking on either side. The sidewalks on either side of the street vary in width.

Various options were investigated to understand the opportunities and challenges associated with reconfiguring the street. This included reconfiguring the sidewalk and on-street parking to;

- Strategically remove some on-street parking
- Expand the overall width of the sidewalk
- Introduce corner bump outs

Each approach provides a series of opportunities and challenges for consideration with the primary trade-off being on-street parking for a wider pedestrian realm. However it should be noted that as discussed previously, alternative locations for parking are possible to accommodate the removal of parking.

The following plans and cross sections illustrate opportunities to narrow the roadway (Figure 1-10), parking on both sides (Figure 1-11) and Parking on one side (Figure 1-12).

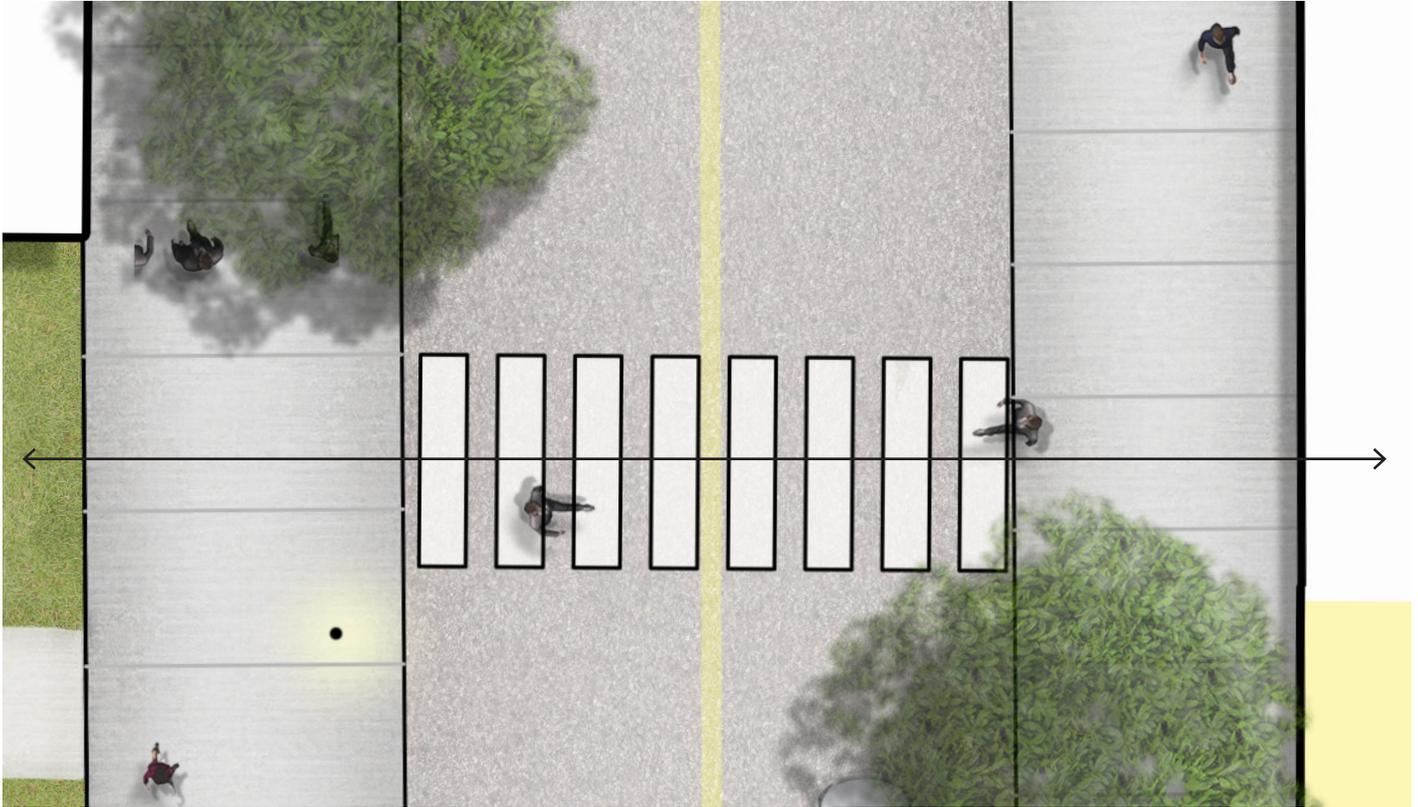


Figure 1-10: Section 1: Narrowed Roadway at Pedestrian Crossing

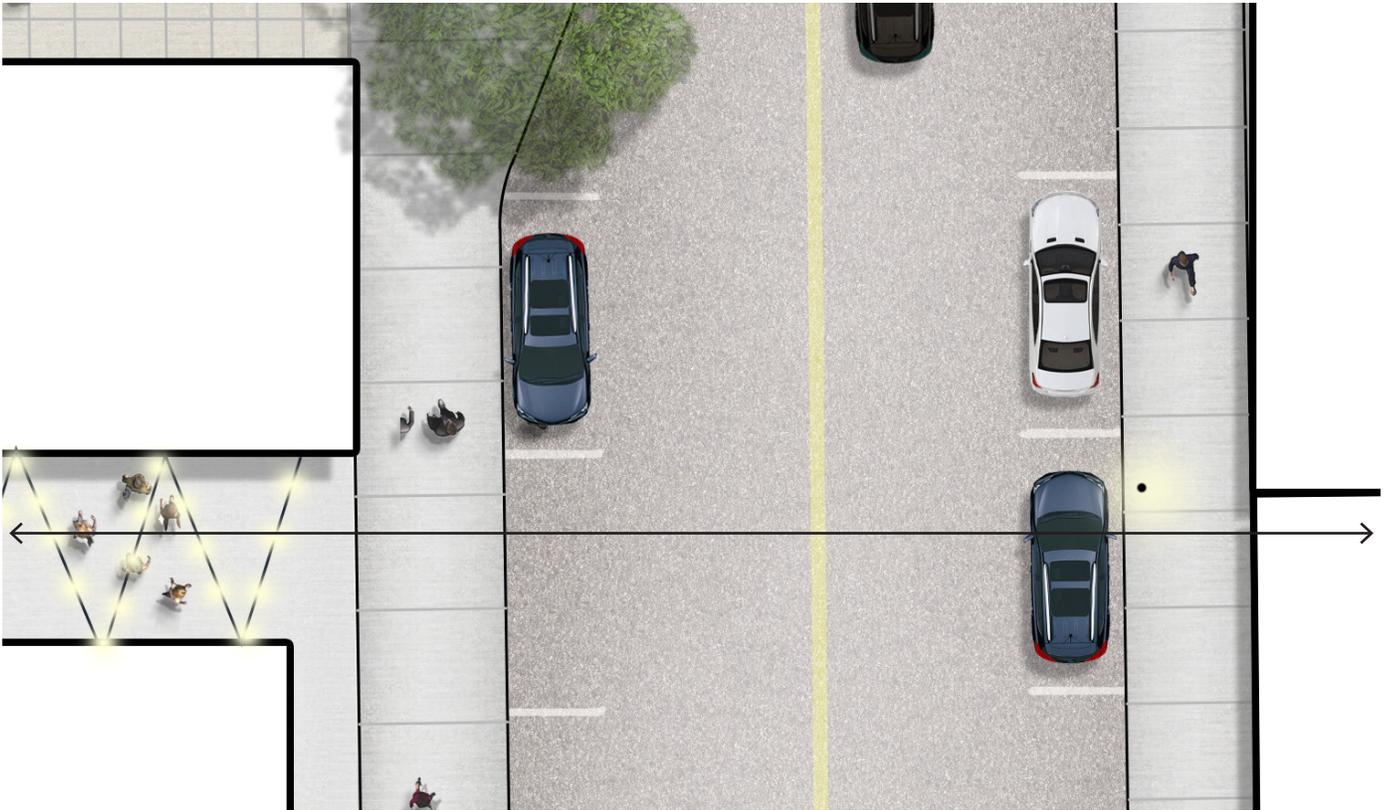


Figure 1-11: Section 2: Typical Road Cross Section Parking on Both Sides

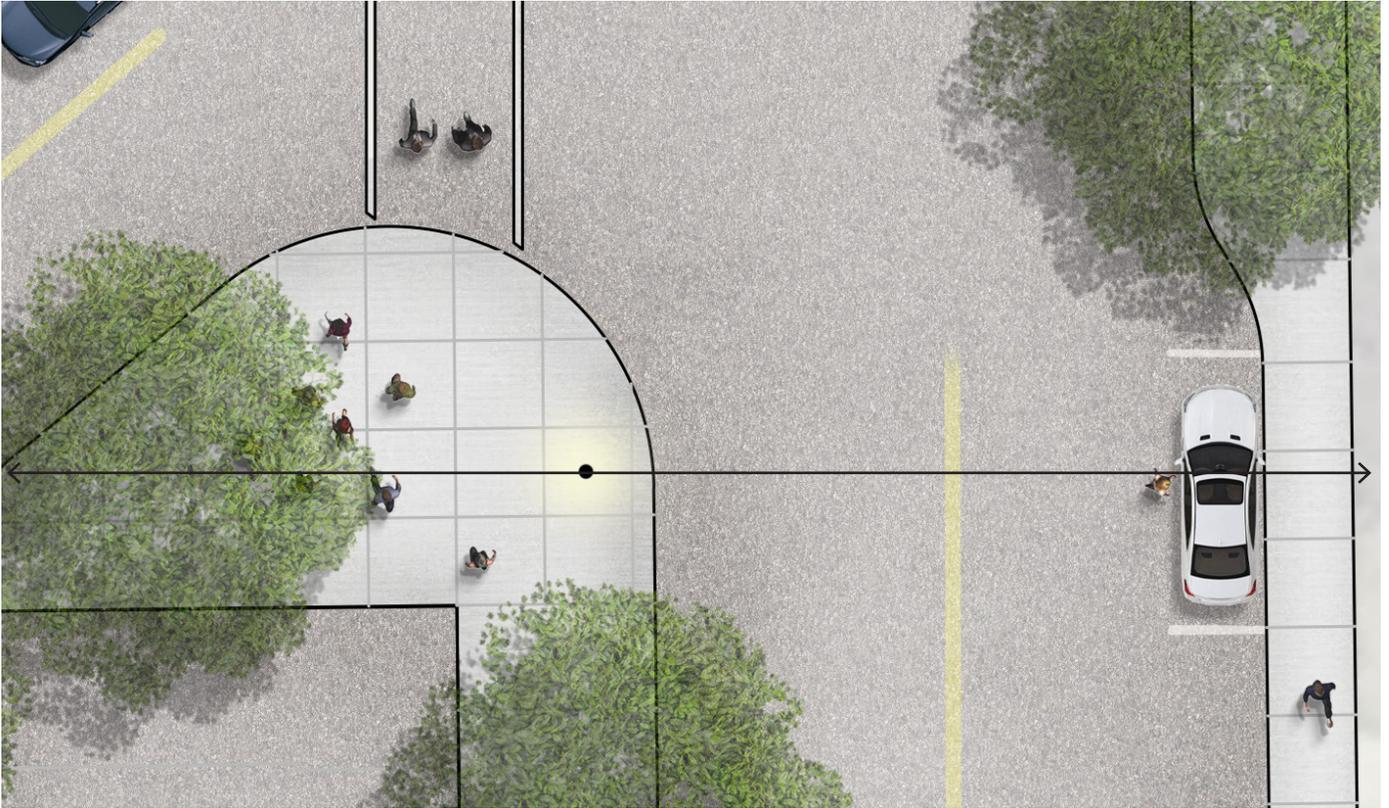


Figure 1-12: Section 3: Parking on One Side

4.0 IMPLEMENTATION

The following is an implementation framework including identification of short and long term actions.

Streetscape Standards

The implementation of streetscape furnishing, materials and other improvements should occur gradually over time through a combination of the following:

Development Initiated Improvements

New streetscape elements should be implemented as part of any new development/ redevelopment that is to take place, primarily through significant renovations or new infill development.

Beautification Program

New streetscape furnishings and materials specified through this plan be implemented over time through the Township's Community Improvement initiatives. Where these projects involve significant excavations impacting the public realm, opportunities for wider sidewalks, street tree planting and pedestrian gathering spaces may be possible.

Major Road Works

The most significant opportunity for public realm enhancements may be in the long term in association with upgrades to underground services in the right away or roadwork

improvements such as curb replacement and resurfacing. In the future when this type of work is scheduled, there is an opportunity to work with the Ministry of Transportation to upgrade the streetscape and consider incorporating some of the longer term initiative proposed such as road narrowing, street tree planting and bump outs.

Other Considerations

A staged sequence for implementation will be key to minimize disruption to businesses and residents of Lucan Biddulph. However a staged approach will need to be balanced with the cost efficiency of working on multiple street segments simultaneously. Therefore, the most prudent approach to implementation should be determined once a more detailed understanding of improvements is understood in relation to impacts to above and below grade services, and be considered in consultation with business owners and local residents.

In determining the phasing for implementation, some key considerations include:

Scheduling of Work

Work should be scheduled to start after Labour Day to not impact the tourism season. While spring construction may work for smaller projects, spring weather can be unpredictable and can easily delay work into the summer. Instead the Spring should be used to complete work initiated in the Fall but not completed before the end of the construction season.

Above and Below Grade Services

The underground servicing work can often take the majority of the time and budget. It is therefore important that the project is carefully planned using the most current and detailed information available. Surprises in the field can result in significant delays and impact local businesses.

Block by Block Sequence

Confining work to a block or two at a time, or one side of the street at a time, can help minimize disruption to the downtown and not force shoppers elsewhere during construction. Providing temporary access measures to businesses during construction, communicating the stages of work and service interruptions with shoppers and business owners (through signage and regular communications), will help ensure a smooth implementation process.

Neighbourhood traffic flow, construction access, materials storage and contractor staging areas, all need to be carefully planned and considered in the final approach to phasing and implementation.

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October 2022