BRIDGELAND RIVERSIDE

LAND USE & DEVELOPMENT STUDY

DYNAMIC CITIES

ACKNOWLEDGEMENTS

The creation of this document was only possible with collaboration and support of multiple groups and committees. Dynamic cities would like to thank and acknowledge everyone that facilitated the development of this Land Use and Development Study.

PROJECT SPONSOR:
Stantec

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SPECIAL THANKS
Dynamic Cities would also like to thank all the community members, local business owners, landowners and developers who attended the community workshops, and who's feedback and vision informed the creation of this planning document. Additionally, we would like to acknowledge the BRCA for their support, coordination and use of the association building for multiple events through out the process. This project would not have been possible without the ongoing support from both the community members and the community association.

REFERENCED DOCUMENTS

City of Calgary Landuse Bylaw IP2007

City of Calgary Secondary Suites Registry Program

Alberta Building Code 2014

Bow to Bluff Urban Design Frame Work, 02 Planning and Design.

City of Calgary Mainstreets program

Ontario Ministry of Municipal Affairs and housing Planning by design handbook

City of Calgary Revitalization Zone

City of Calgary Universal Design Handbook

DYNAMIC CITIES

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WHO WE ARE

Dynamic Cities is collection of planning students at the University of Calgary. What sets Dynamic Cities apart is our approach and planning philosophy. We view cities as living things, always changing, evolving and in motion. Our team's vision is to create planning processes that reflect the ever-changing nature of urban areas and to plan communities which allow for change over time.

Dynamic Cities encourages innovation within its interdisciplinary team, which includes Planners, Architects, and Urban Designers. We approach all our projects with a multi-scalar process looking at communities from both a local and regional context; and acknowledging the past, present and designed futures of our urban environments.

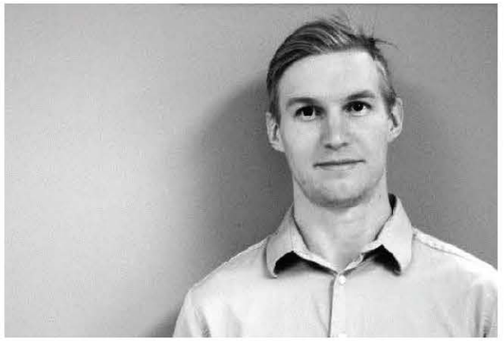
DYNAMIC CITIES

JOANNA PATTON
BFA, MPLAN CANDIDATE

Joanna is a Master of Planning Student in her second year of studies at the School of Environmental Design in Calgary. Her area of interest is Community Planning with a focus in Urban Design. She has 5 years of experience in community engagement as an event coordinator, race director, and festival organizer for Mountain Equipment Coop. In 2015, Joanna worked for the Regional Municipality of Wood Buffalo as an intern, where she created an Area Structure Plan best practices document for the Comprehensive Planning Department.

KSHITIZ JASWAL
M.ARCH, M.PLAN CANDIDATE

Kshitiz is a multi-disciplinary planner with a diverse background that spans the fields of planning, architecture, urban design & project management. Currently a candidate of Masters in Planning with a specialization in Urban Design, he also possesses a Master degree in Architecture. He has 4 years of experience working as an Architect where he worked on various small to large scale projects independently. He has been involved in various research projects and also had an opportunity of mentoring undergraduate architecture students for a term.



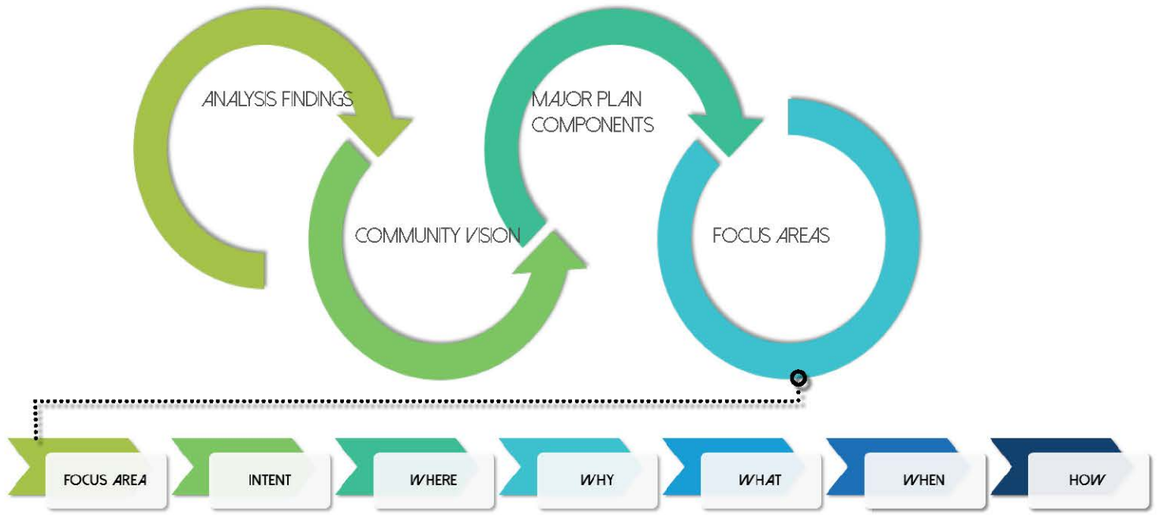
STEPHEN HEWS
BA, M.PLAN CANDIDATE

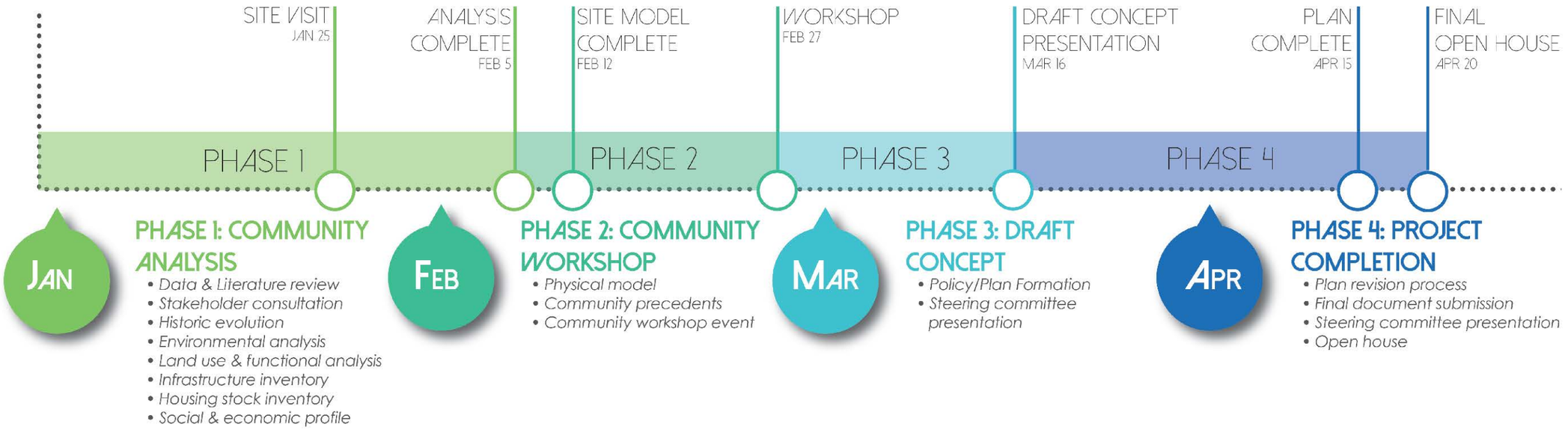
Stephen is completing his final year of the Master of Planning program at the University of Calgary. His academic pursuits have focused on urban planning and development practice. His previous work experience established a background in land develop and mechanical engineering. He has gained experience from development projects on Vancouver Island and the East Kootenay Regional District. He has also obtained international project experience working on environmental impact assessments for the Department of Environment in Belize.

ABOUT THE PROJECT

Bridgeland-Riverside has been guided by the same Area Redevelopment Plan (ARP) since 1980. The neighbourhood has changed drastically in the past 36 years, and has outgrown this document. The basic land use framework, transportation network, and community policies of the old ARP; along with the land use bylaw designations, need to be re-evaluated in order to create a new dynamic vision and strategy for Bridgeland-Riverside.

This Land Use and Development Study was completed by students as a final project for the Master of Planning Program, in the Faculty of Environmental Design at the University of Calgary. The study was done in collaboration with the Bridgeland Riverside Community Association and was completed in April 2016. The intent of this project was to develop a planning document which could potentially provide a framework for a new area redevelopment plan.





ANALYSIS SUMMARY

The development of this plan involved an in-depth community analysis including a review of existing documents, digital data survey, site observation, and community visioning workshops amongst other things. The major findings from this analysis process established the direction and recommendations put forward in this plan. The findings can be categorized into assets and opportunities, and issues and constraint.

*An indepth version of the community analsysis is included in the appendix.

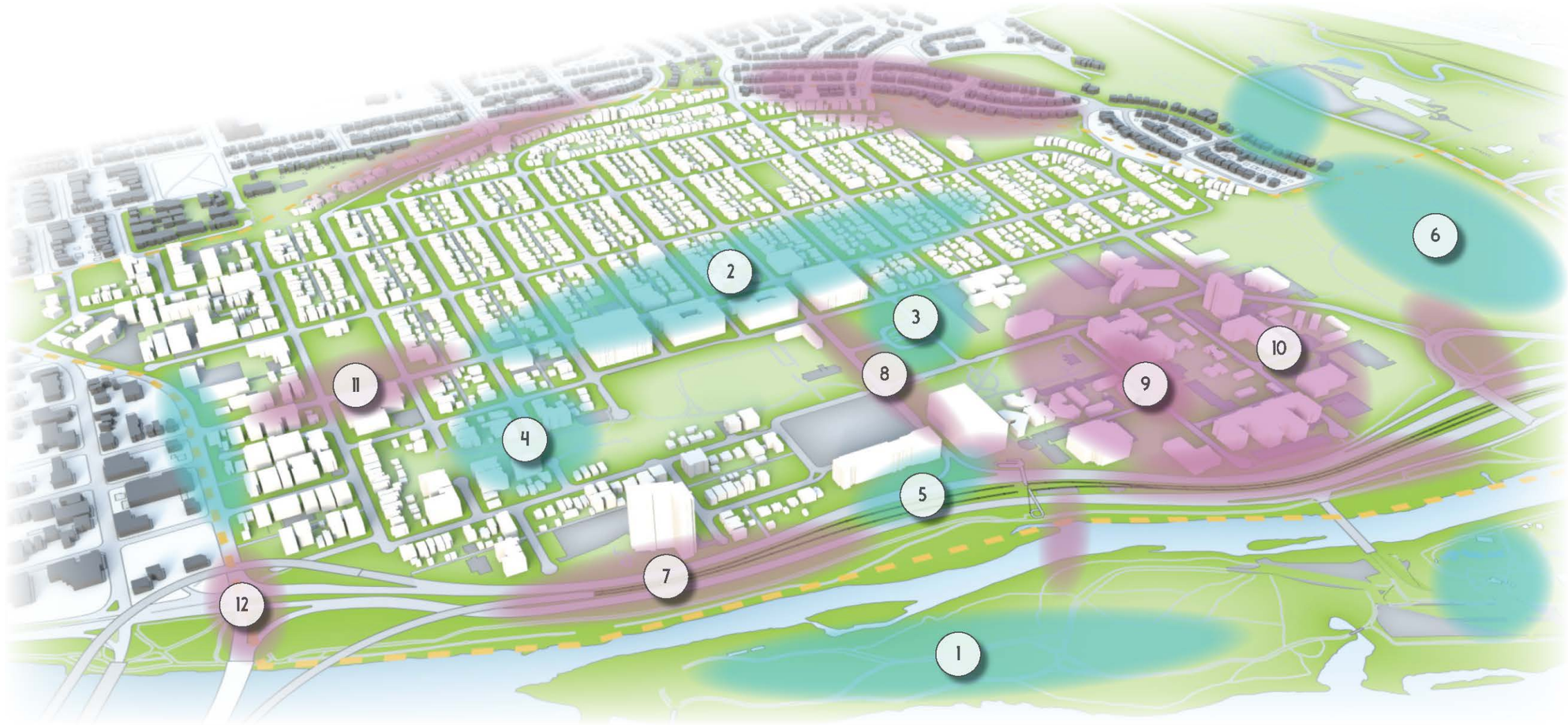
ASSETS & OPPORTUNITIES

1. PROXIMITY TO CITY CENTER & DESTINATIONS
2. MAIN STREET VIBRANCY
3. DEVELOPMENT POTENTIAL
4. HERITAGE & COMMUNITY BUILDINGS
5. LRT STATION & TRANSPORTATION OPTIONS
6. OPEN SPACE & STREET TREES

CONSTRAINTS & ISSUES

7. UNCLEAR ENTRANCES TO MAIN STREETS
8. INADEQUATE INTERSECTIONS / CROSSWALKS & CUT THROUGH TRAFFIC
9. GAPS BETWEEN MAIN STREETS
10. MEMORIAL DRIVE BARRIER
11. ISOLATION OF EAST RIVERSIDE
12. POOR CONNECTIONS TO DOWNTOWN & DESTINATIONS

ANALYSIS SUMMARY



PUBLIC ENGAGEMENT

On Feb 27 2016 students involved in this study facilitated a community workshop at the Bridgeland Riverside Community Association. Residents were presented with the analysis findings and asked to identify issues and opportunities within their community. The feedback from this session strongly influenced the proposals of this Land Use and Development Study.

Additional stakeholder engagement included discussions with local business owners, developers, and East Riverside landowners. A stakeholder committee with representatives from the Community Association, City of Calgary, and Stantec also reviewed and provided feedback on this study.

WHAT WE HEARD

"Pedestrian and cyclist friendly streets need to pursued, and can have better connections to downtown"

"There are not enough amenities at the Community Hall"

"Edmonton trail is busy and unpleaseant, especially during rush hour, it can be difficult to cross"

"Existing paths along the bluffs are good but need to be better connected"

"The Character of older houses is being lost with new infill being developed"

RESIDENTIAL OVERVIEW

INTENT:

- Promote a variety of housing options
- Enable innovative urban design
- Pro-actively manage growth & infill

CHARACTER

The residential areas of Bridgeland Riverside can be divided into a low density area and a mid-to-high density area.

The low density area is characterised by small lots laid out in a grid pattern that was established at the neighbourhood's initial developmentment. The streets are pedestrian oriented, with accessible laneways, and the homes are a mixture of heritage homes, mid century bungalows and new low density infill housing forms.

The mid to high density area was built out later in the development of Bridgeland. This area has a larger block size with a variety of lot sizes and housing options including town homes, duplexes, and apartments

LOW DENSITY RESIDENTIAL

HOUSING GAP

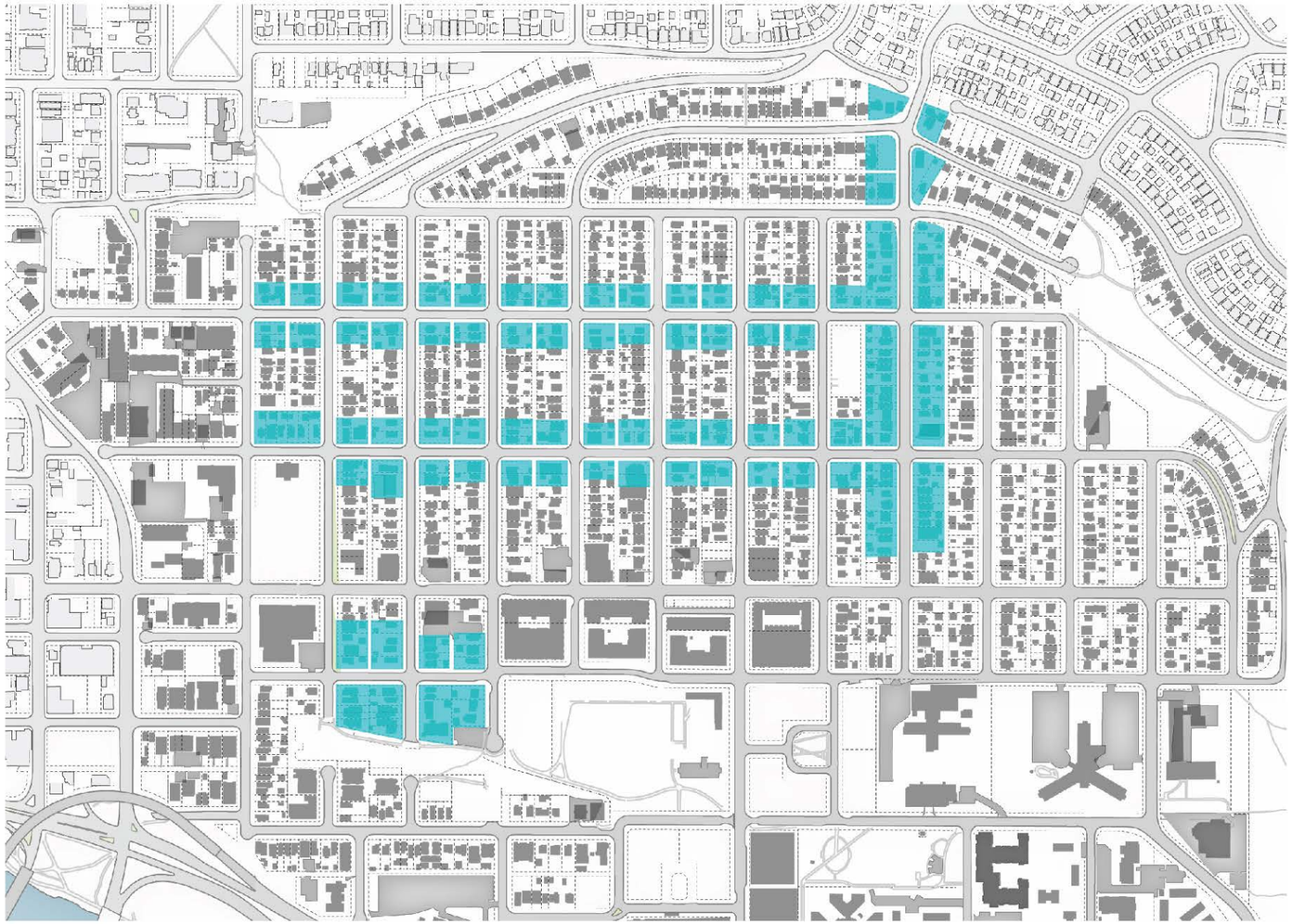
The neighbourhood analysis identified a housing gap in Bridgeland. Families with children between the ages of 4 and 18 are under-represented in the neighbourhood. This could mean that families buying their second home are unable to find attractive options within their price range. Supporting a variety of housing options, especially those which are more affordable, within the neighbourhood can start to address this gap.

LAND USE BYLAW CHANGES

The current zoning in the low density area allows single and duplex dwellings. In 2007 the Land Use Bylaw allowed subdivision of smaller lots, which resulted in more subdivision and infill in Bridgeland.

Rezoning key corridors to allow townhomes is a way of proactively managing and focusing infill, providing an increased variety of housing options in the neighbourhood, and protecting the low density character of the area. This study proposes rezoning to an R-CG land use bylaw designation two parcels deep along 2nd ave NE and 4th ave NE, and one parcel adjacent to 10th St NE. In addition, the low density area south of 1st is also an excellent location for this change because the zoning results in a better transition to the surrounding higher density areas.

PROPOSED LAND USE BYLAW CHANGES



PROPOSED R-CG LOTS

LAND USE BYLAWS

The current land use designation in the low density area of Bridgeland is R-C2. The proposed changes to R-CG do not effect setbacks or maximum heights, the difference is that R-CG allows a greater variety of housing forms. This is how the City of Calgary describes the two zones:

R-C2: Residential – Contextual One/Two Dwelling

This land use district can accommodate residential development including single detached dwellings, duplexes and semi-detached dwellings, which are contextually sensitive to existing community development standards.

Allows single detached dwellings on 7.5 metre or wider parcels. Allows semi-detached dwellings on 13.0 metre wide parcels. Secondary suites are a discretionary use on 15.0 metre wide parcels.

R-CG: Residential – Grade-Oriented Infill District

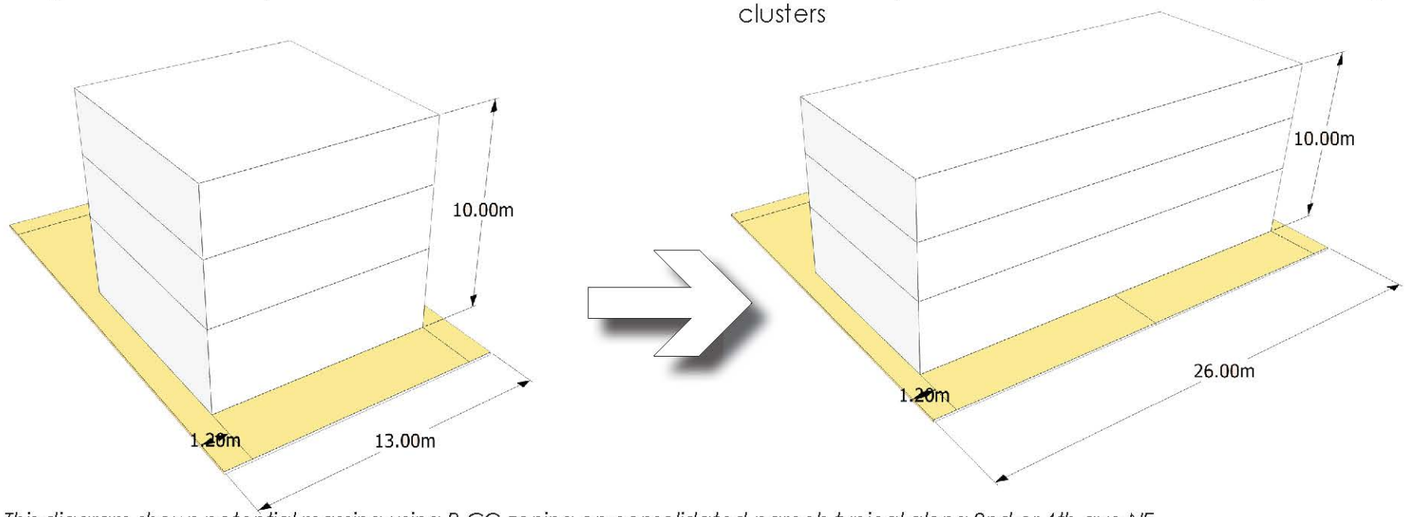
This land use district can accommodate grade-oriented residential development in the form of rowhouse buildings, duplex dwellings, semi-detached dwellings and cottage housing clusters, which are contextually sensitive to existing community development standards.

R-C2 ZONING

Max Height: 10m
single detached, duplexes, & semi-detached

R-CG ZONING

Max Height: 10m
rowhouss, duplex, semi-detached & cottage housing clusters



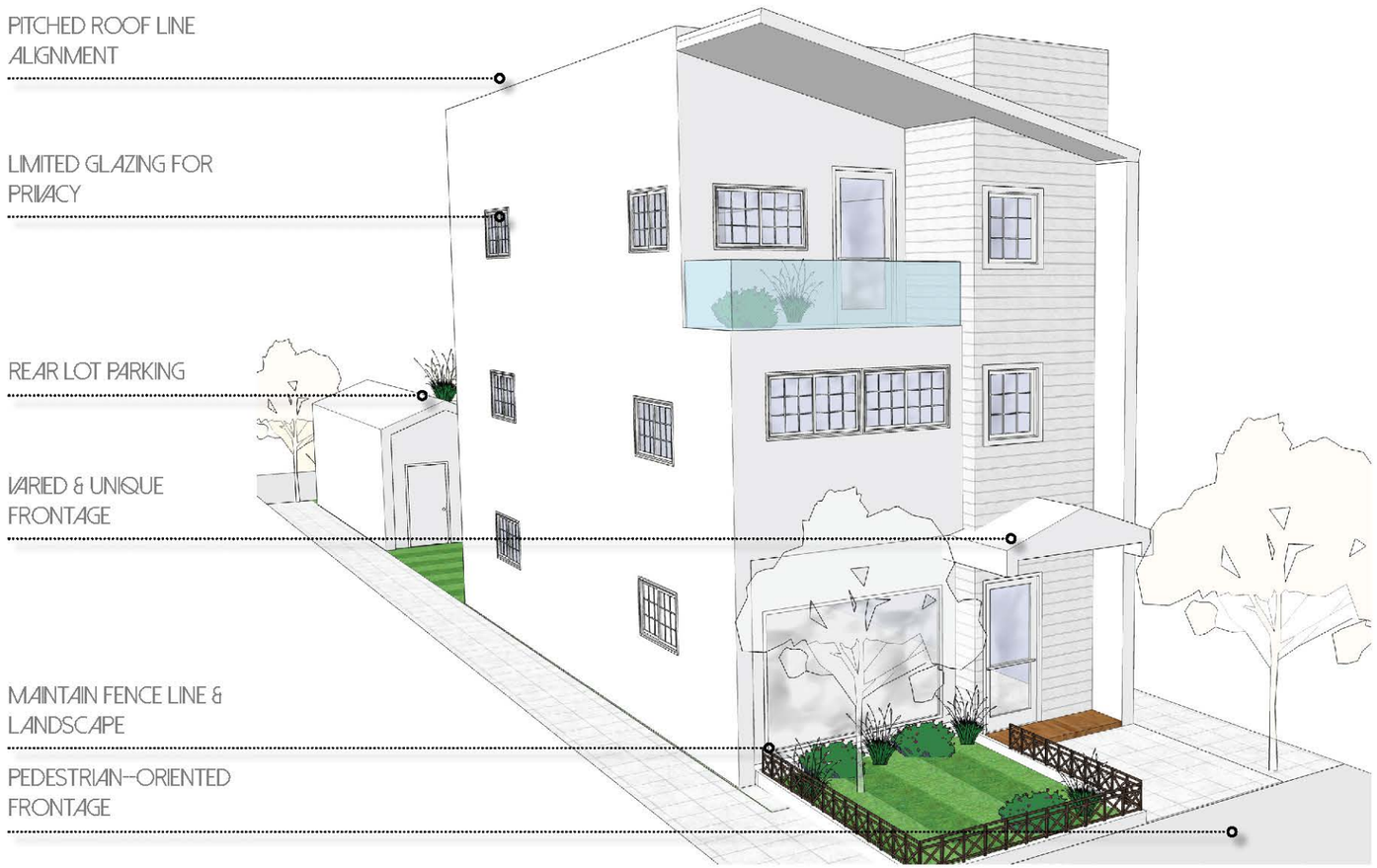
This diagram shows potential massing using R-CG zoning on consolidated parcels typical along 2nd or 4th ave NE.

This diagram shows potential massing using R-CG zoning on consolidated parcels.

INF ILL

During the community workshop residents noted that the character of older houses was being lost with new infill development. This is a growing concern to community members as more and more lots are being developed with infill housing. To preserve the community character the guidelines identified in the image on the right can be incorporated into new infill development. These elements can contribute to the continuous character along the street frontage without limiting architectural design.

INFILL GUIDELINES



LANEWAY HOUSING

Laneway housing is an affordable, low density housing option that can provide rental income for land owners and can contribute to laneway beautification. Currently, laneway housing is processed as secondary suites and are allowed on larger lots in Bridgeland with a council-approved development permit.

Many lots in Bridgeland do not qualify for laneway housing because they are too narrow. As a way of encouraging diverse housing forms this study proposes that the Community Association collaborates with the City of Calgary to investigate the feasability of allowing laneway housing on lots with a width of between 9 and 12 meters. This may require an overlay area in Bridgeland that allows a parking relaxation for lots with laneway housing.

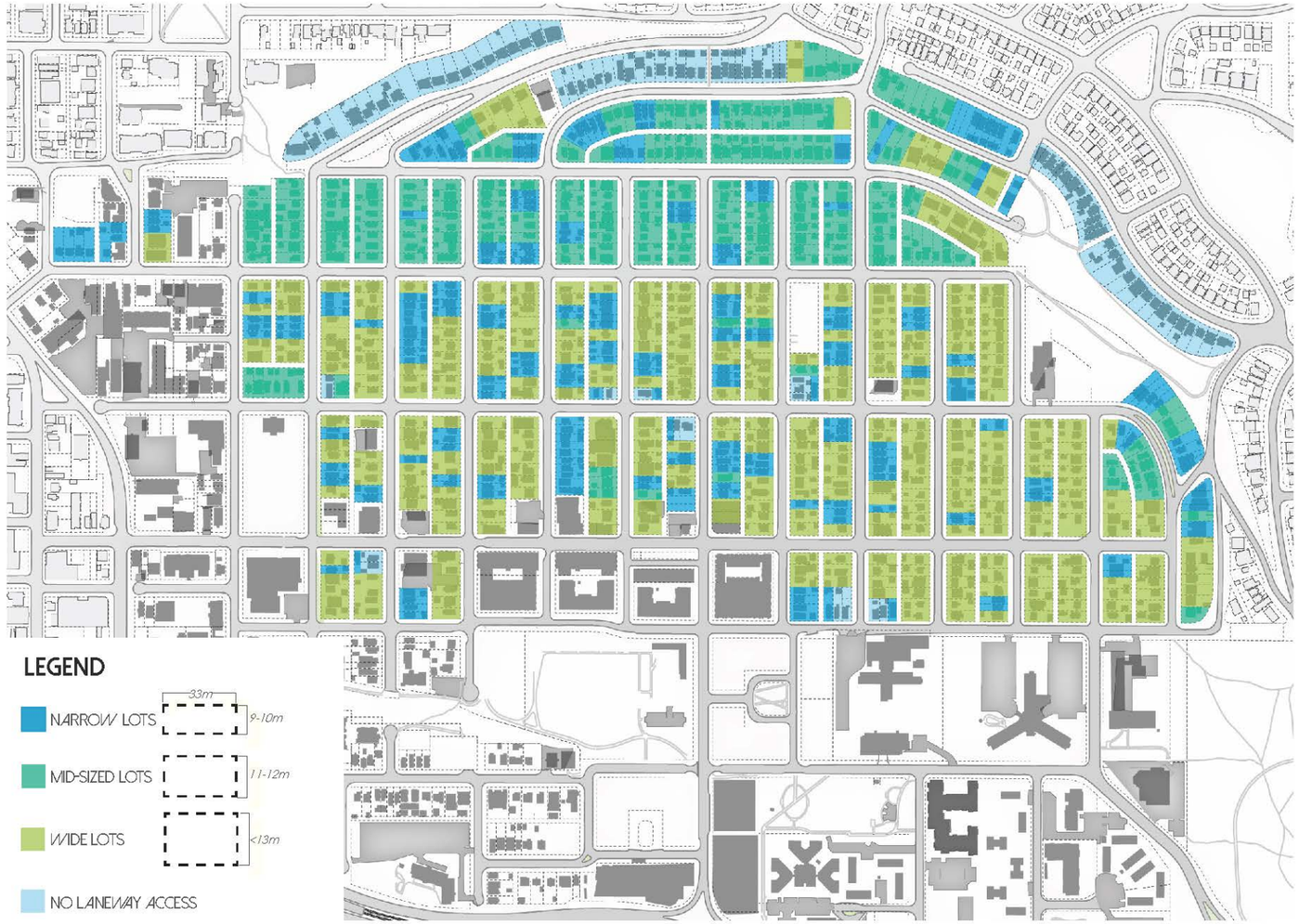
The diagrams on the following page illustrates how these backyard homes can fit on the three different lot sizes which are typical to this area. They also provide suggestions for back of lot parking requirements.

CALGARY LANEWAY HOUSING REQUIREMENTS

Min Lot Width - 13 m
Min Lot Depth - 30 m
Min Lot Coverage - 400 m^2
1 parking stall provided on lot
Council approved development permit

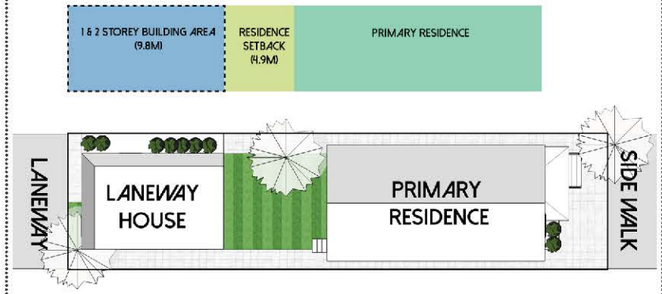
contact the City of Calgary for a complete set of requirements

LANEWAY HOUSING LOT TYPES



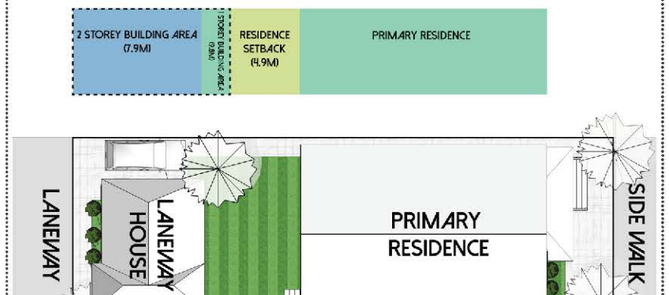
NARROW LOTS
9-10m x 33M

- Rear lot landscaping to provide 1 tree
- Rear lot parking provided up to 1 space
- 2 storey laneway house restricted to rear 9.8m of the lot



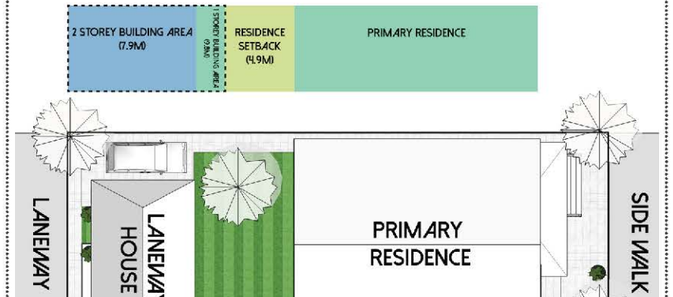
MID-SIZED LOTS
11-12m x 33m

- Rear lot landscaping to provide 2 trees
- Rear lot parking provided up to 2 spaces



WIDE LOTS
12-14m x 33m

- Rear lot landscaping to provide 2 trees
- Rear lot parking provided up to 3 spaces



LIVABLE LANEWAYS

Landscaping, lighting, signage and pavement are simple ways turn laneways into safe and enjoyable amenities for the entire neighbourhood.

Laneway houses can contribute to the evolution of a livable laneway with private landscaping, lane-oriented frontage features and increased eyes on the streets.

Blocks interested in creating livable laneways are encouraged to look into the City of Calgary process for petitioning and sharing the cost of laneway paving with neighbours.

MID-HIGH DENSITY RESIDENTIAL

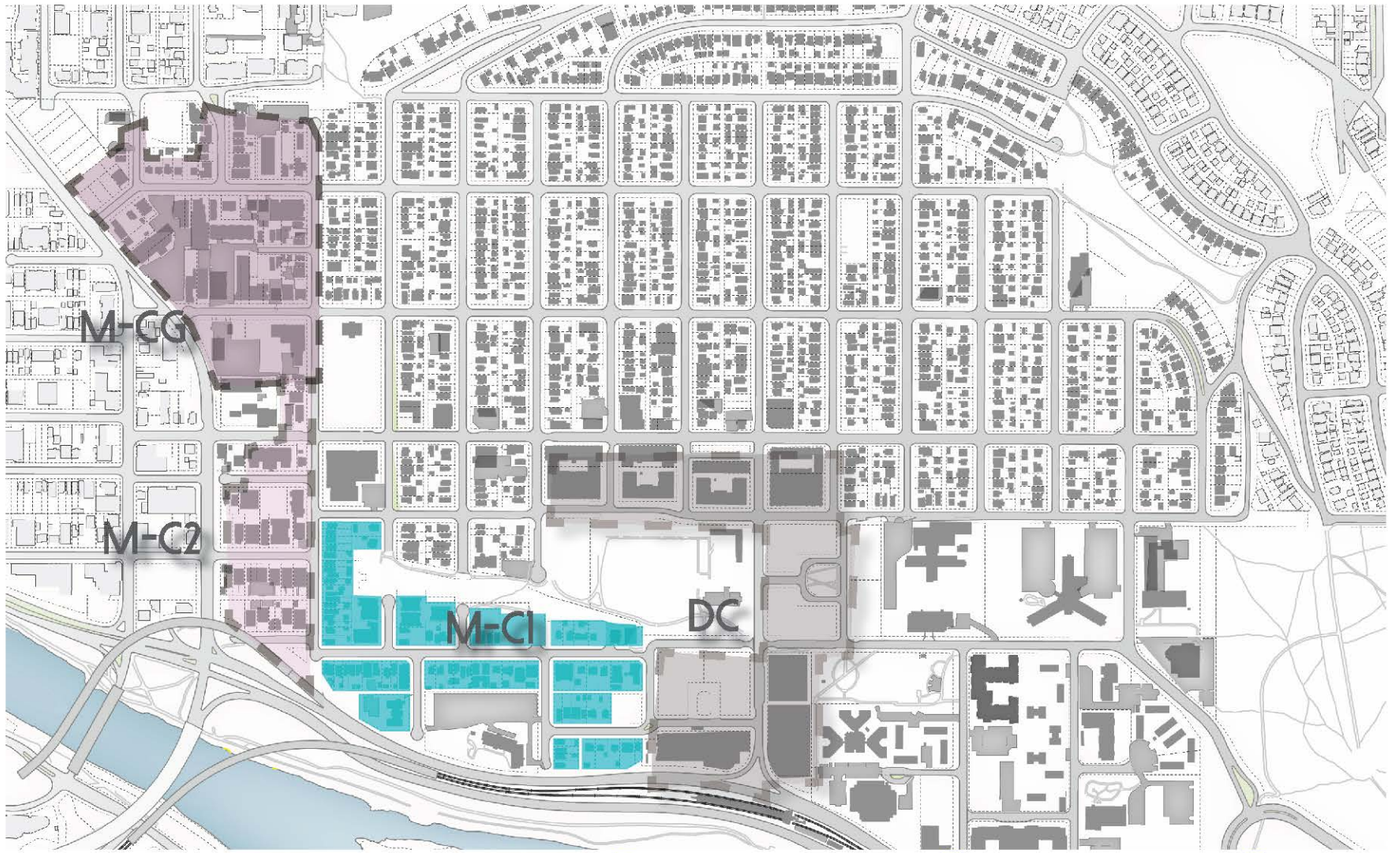
MULTI-FAMILY IN RIVERSIDE

Riverside has a diversity of housing form and potential for opportunities for future development.

In 2014 the building code changed to allow wood framed buildings up to 6 stories high. Building with wood frame construction was found to be an average of 10%-20% less expensive for developers than concrete frame buildings. Allowing developers to build wood frame buildings to maximum capacity provides an opportunitiy for lower housing costs for homebuyers.

Currently a large area of Riverside is zoned as Multi-Family One-Low Context Profile (M-C1) which has a maximum height of about 5 stories. This area is surrounded by higher density zones and is close to the city center and the LRT station, making it an excellent location for higher density developments. This study proposes a land use designation that better aligns with the new building code and allows up to 6 story buildings, encouraging the low cost wood frame built form.

MID-HIGH DENSITY ZONING



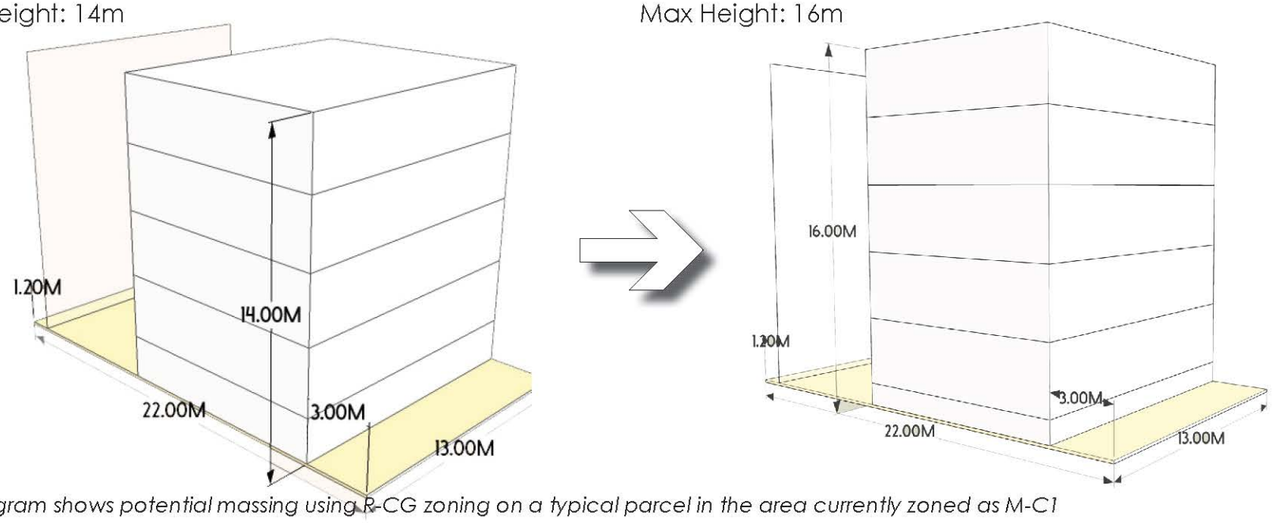
PROPOSED M-C2 LOTS

LAND USE DESIGNATIONS

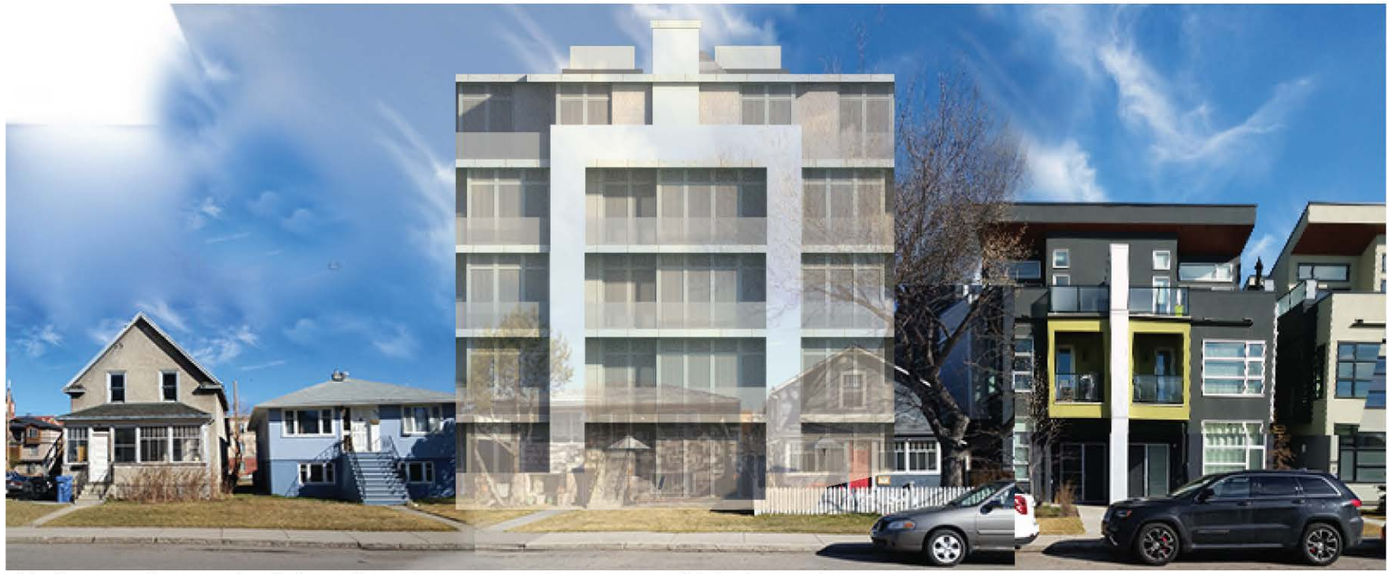
The proposed change from Multi-Residential – Contextual Low Profile (M-C1) to Multi-Residential – Contextual Medium Profile (M-C2) mainly effects the maximum height. M-C2 has a maximum height of 16m which accomodates 6 story buildings with a below grade lower level.

M-C1
Max Height: 14m

M-C2
Max Height: 16m



This diagram shows potential massing using R-CG zoning on a typical parcel in the area currently zoned as M-C1

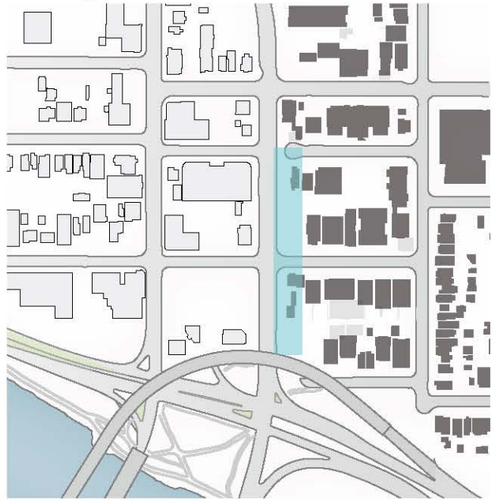


This diagram shows potential massing using M-C2 zoning on consolidated parcels.

EDMONTON TRAIL

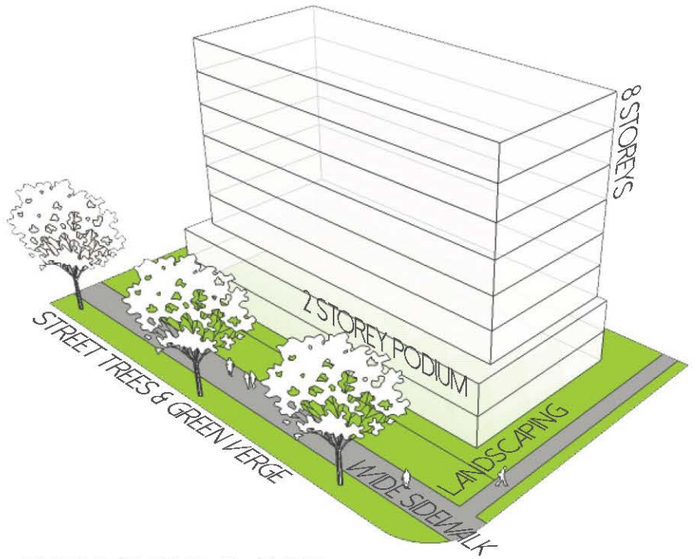
The residential area along Edmonton Trail is sparsely developed and relatively low density along the eastern side of the corridor between 1st ave NE and Memorial Drive. This area has the potential to contribute to a vibrant mainstreet. Increasing residential density, activating the street frontage and providing more eyes on the streets can help this area develop into an enjoyable urban corridor.

This study proposes a direct control district that supports a mixed use built form. A 2 story podium can accomodate retail and office space while concealing the residential units above. A maximum height of up to 8 stories would reflect current developments, like the Meredith Block. The corridor lies north-south, so shadows from taller buildings will have minimal impact on the existing residential areas in Bridgeland.



PROPOSED DC LOTS

DIRECT CONTROL ZONING



EXAMPLE

Casel Building Killarney, Calgary

FUTURE BUILD OUT

STRATEGIES FOR RESIDENTIAL PROPOSALS

There are plenty of vacant lots that are available for development within Bridgeland Riverside. In an effort to manage growth this study proposes that new development are directed towards these lots before redevelopment of existing buildings takes place. The Community Association is encouraged to collaborate with developers and the City of Calgary to proactively address new development. The BRCA is also encouraged to:

TALK TO DEVELOPERS ABOUT:

- Developing empty lots first
- Building a diversity of housing forms
- Including 3 bedroom units in new condos

TALK TO THE CITY OF CALGARY ABOUT:

- Allowing laneway houses on smaller lots
- Rezoning proposed R-C2 lots to allow town homes

GAPS IN RIVERSIDE

PLAZA OVERVIEW

INTENT

- Improve and increase number of plazas
- Employ environmentally sensitive infrastructure
- Provide spaces that cater to diverse user groups

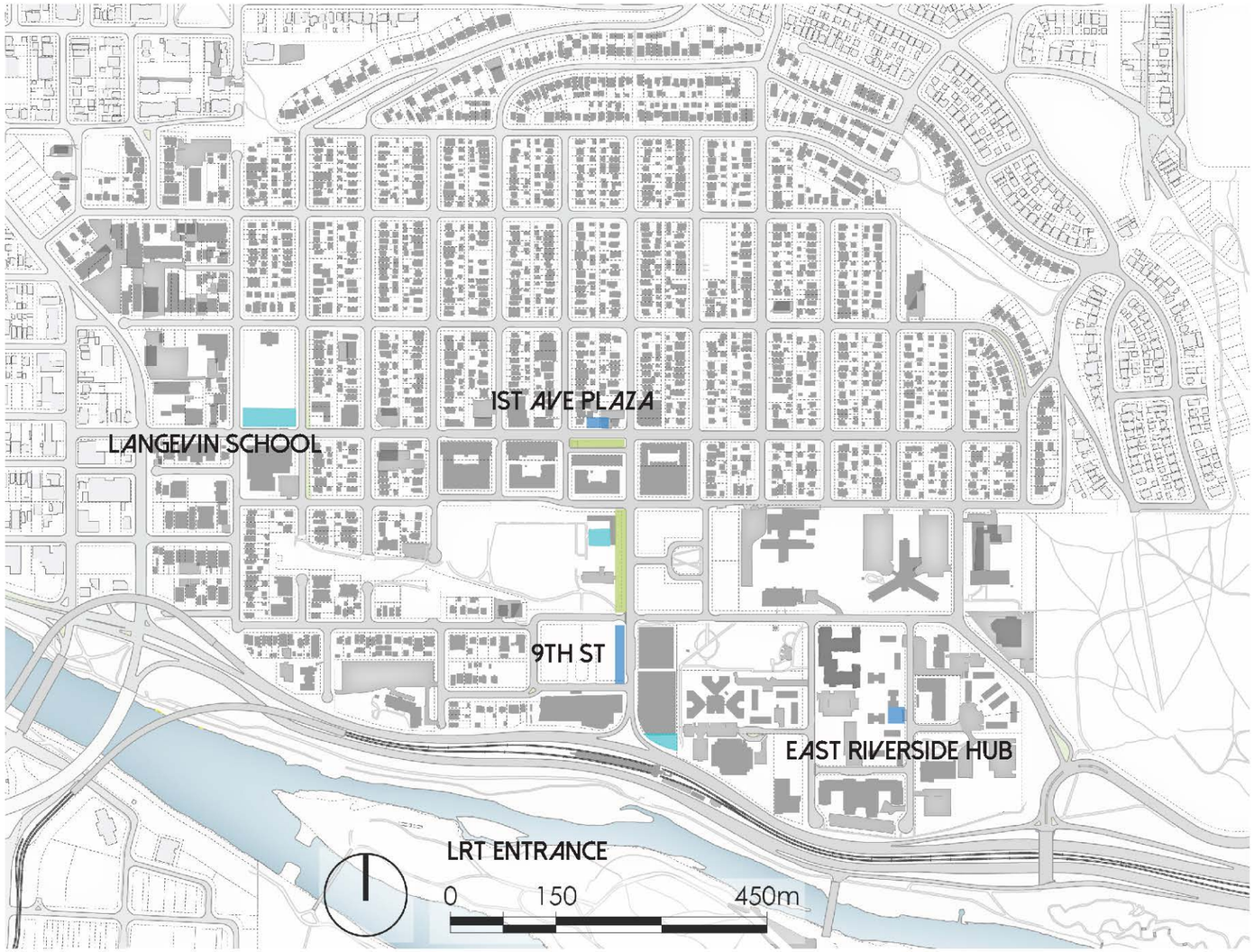
EXISTING

There are currently limited plaza areas distributed throughout Bridgeland. The existing areas can better serve the community by improving current plaza space amenities. This study proposes redesigns of the plazas located at the LRT entrance, the Community Association site and on 1st ave NE. Suggested improvements are context sensitive and take into account existing land uses.

PROPOSED

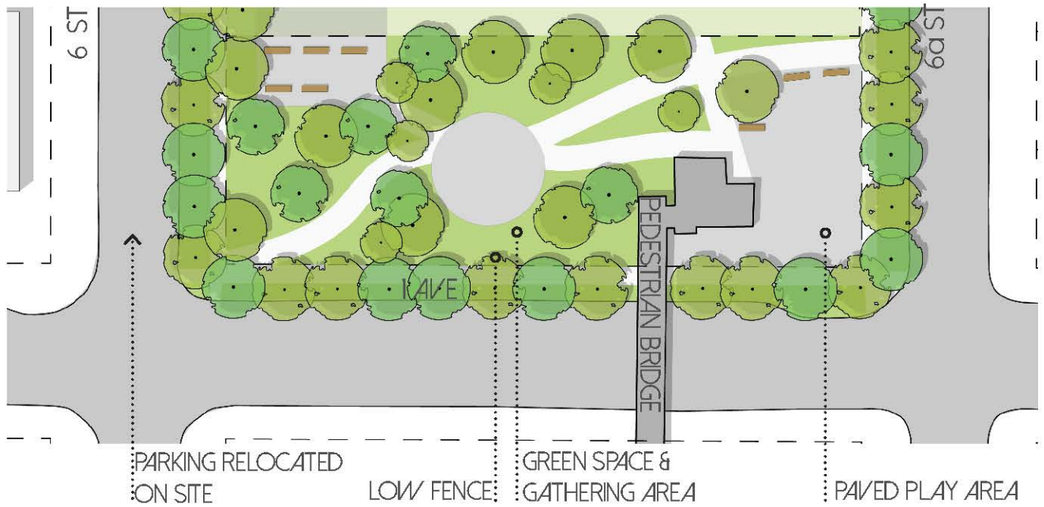
The distribution and accessibility of plazas can be improved by creating new spaces as proposed in the map to the right. The location and provision of these plaza aim to create a connected network of open hardsscape throughout Bridgeland . The proposed plazas on the Langevin School site and on 9th Street NE also consider the land uses and user groups in order to activate spaces.

EXISTING & PROPOSED PUBLIC SPACES



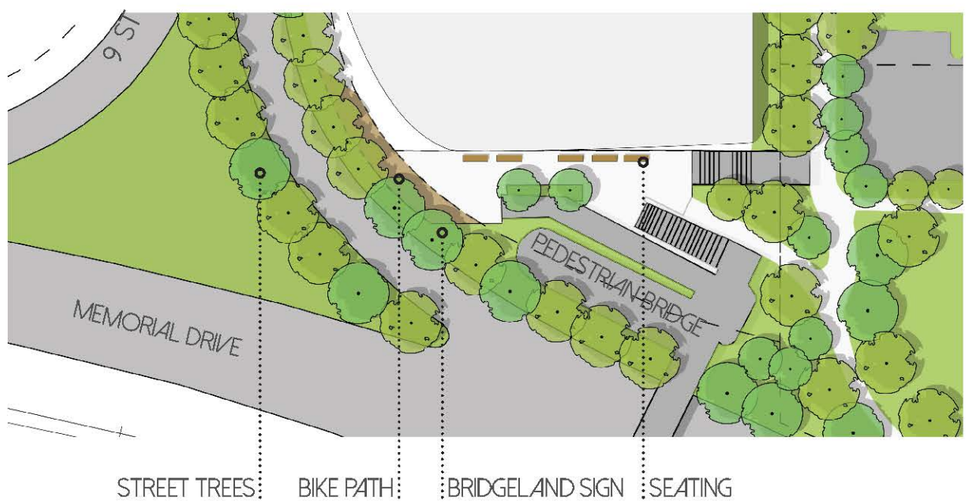
LANGEVIN SCHOOL CONCEPT

The current interface along 1st avenue at the Langevin school site detracts from the pedestrian experience and could be enhanced with landscape improvements to what is currently a parking lot. Th proposed plaza design can serve as a play and seating area for community members and Langevin school students.

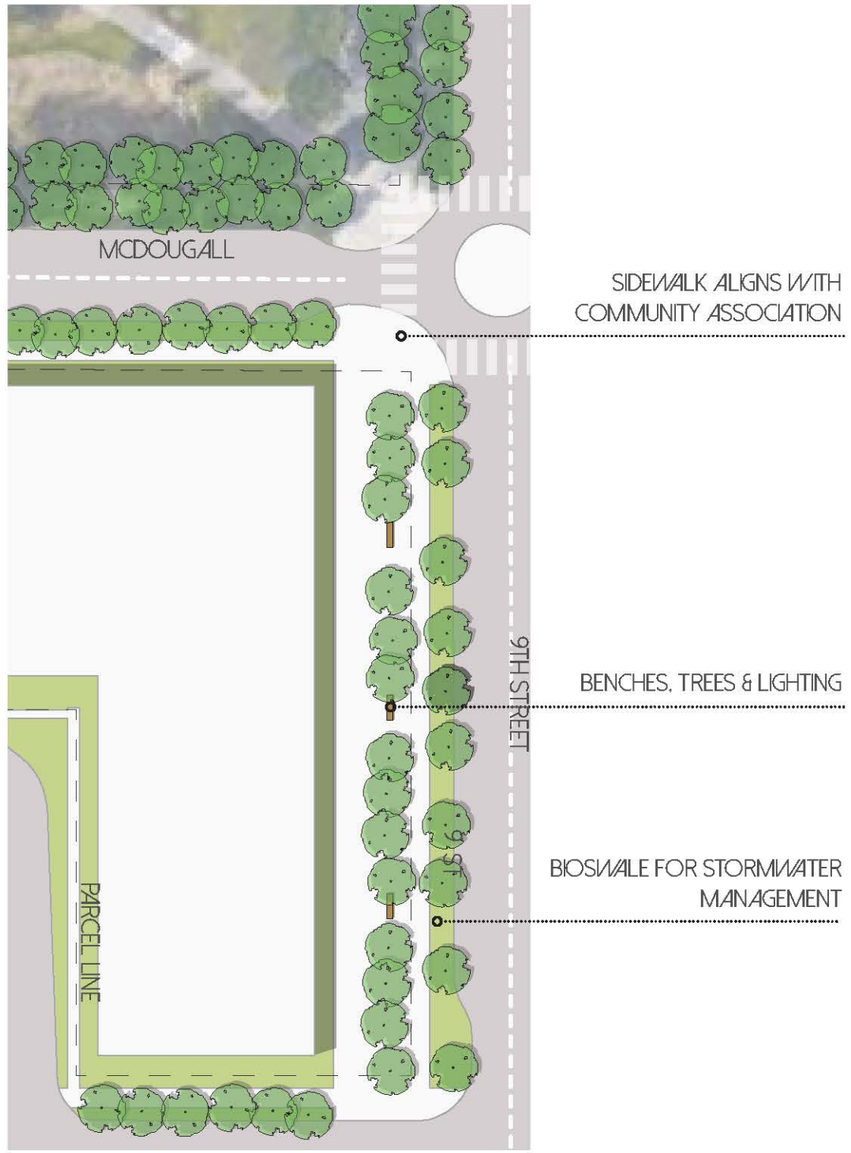


LRT ENTRANCE CONCEPT

This plaza acts as an entrance and meeting point for vistors and residents using the LRT. The current plaza area can be improved through the addition of a street tree buffer along Memorial Drive, seating, and Bridgeland sign. Extending the bike path to the overpass also improves cycling connections to the Bow River Pathway network.



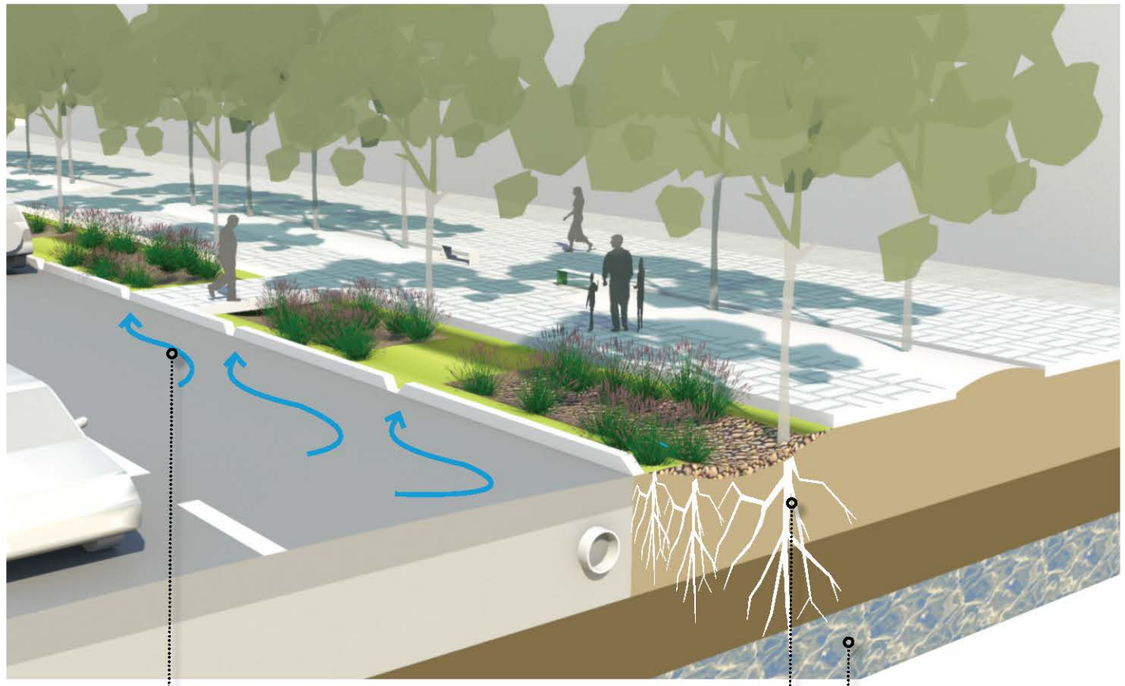
9TH STREET LINEAR PLAZA



9TH STREET LINEAR PLAZA

The vacant lot at McDougall and 9th Street provides an opportunity for a new linear plaza space which reflects the sidewalk design surrounding the Community Association Building. This could improve the linear connections between the community and the LRT and create an enjoyable the pedestrian experience along this corridor. As this area serves as storm water catchment zone, this plaza can include green infrastructure such as a bio swale to manage storm water run-off. Similar green infrastructure is encouraged for new developments in Riverside and other locations along drainage flows in an effort to offset increased runoff which occurs when green spaces are developed.

BIOSWALE



1ST *AVE* PL*AZA*

The community could benefit from a central plaza located on 1st avenue. This plaza, surrounded by retail and restaurants could serve as a central gathering space for the community and a destination for visitors. The plaza can complement an existing open space on the southern side of 1st avenue and provide an all-season, comfortable environment, with maximum southern exposure. The proposed design is intended to be accessible to all user groups through the incorporation of universal design elements. Community character is enhanced with the inclusion of trees, landscaping, and multiple seating options.

1ST *AVE* PL*AZA* CONCEPT

PEDESTRI*AN VIEW*

1ST *AVE* PL*AZA* CONCEPT

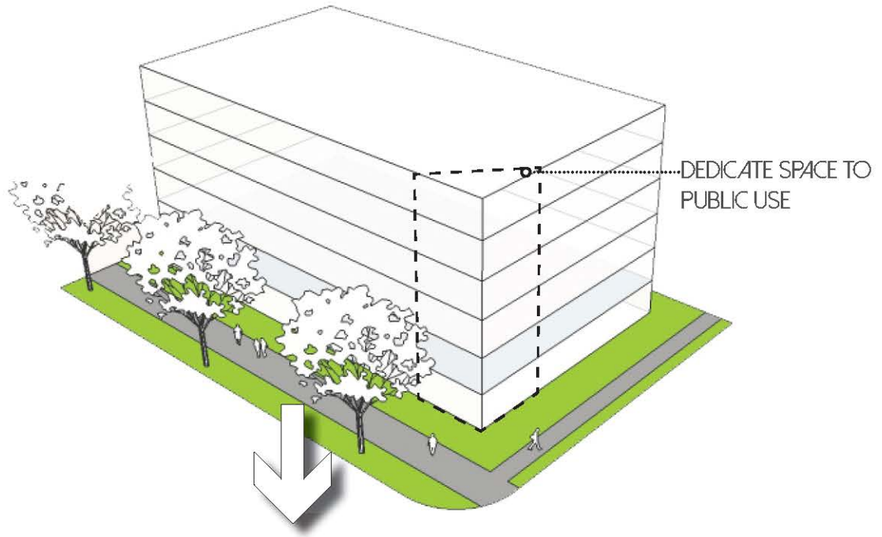
STRATEGIES FOR PLAZA SPACE

Density bonusing is a potential strategy for achieving plaza space in new developments. The basic concept is that developers dedicate a portion of their land to a public amenity (plazas, public parking lot, or other community space) in return, they are allowed to build more units on thier land. The trade is based on land values and the cost of the amenity being provided.

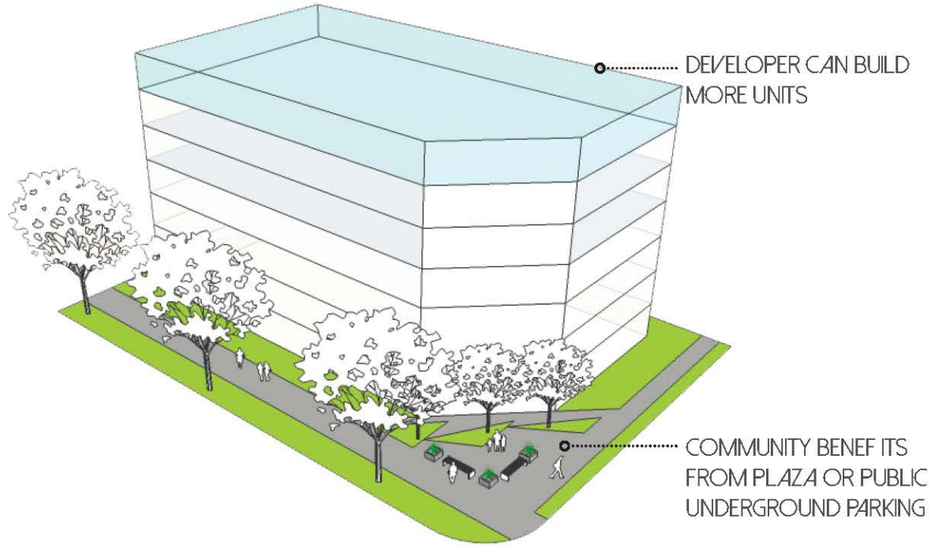
This study encourages the Community Association to focus on plaza space improvements and developments in the proposed locations. The BRCA should work with the City of Calgary and developers to explore programs and incentives for the acquisition of land for these new plaza spaces.

Strategies to implement the proposed plaza improvements include exploring sponsorship, grants, and volunteer groups.

WITHOUT DENSITY BONUS



WITH DENSITY BONUS



GREEN SPACES OVERVIEW

INTENT

- Improve green space amenities
- Comprehensive & diverse green space network
- Spaces that cater to a diverse user group

EXISTING GREEN SPACE

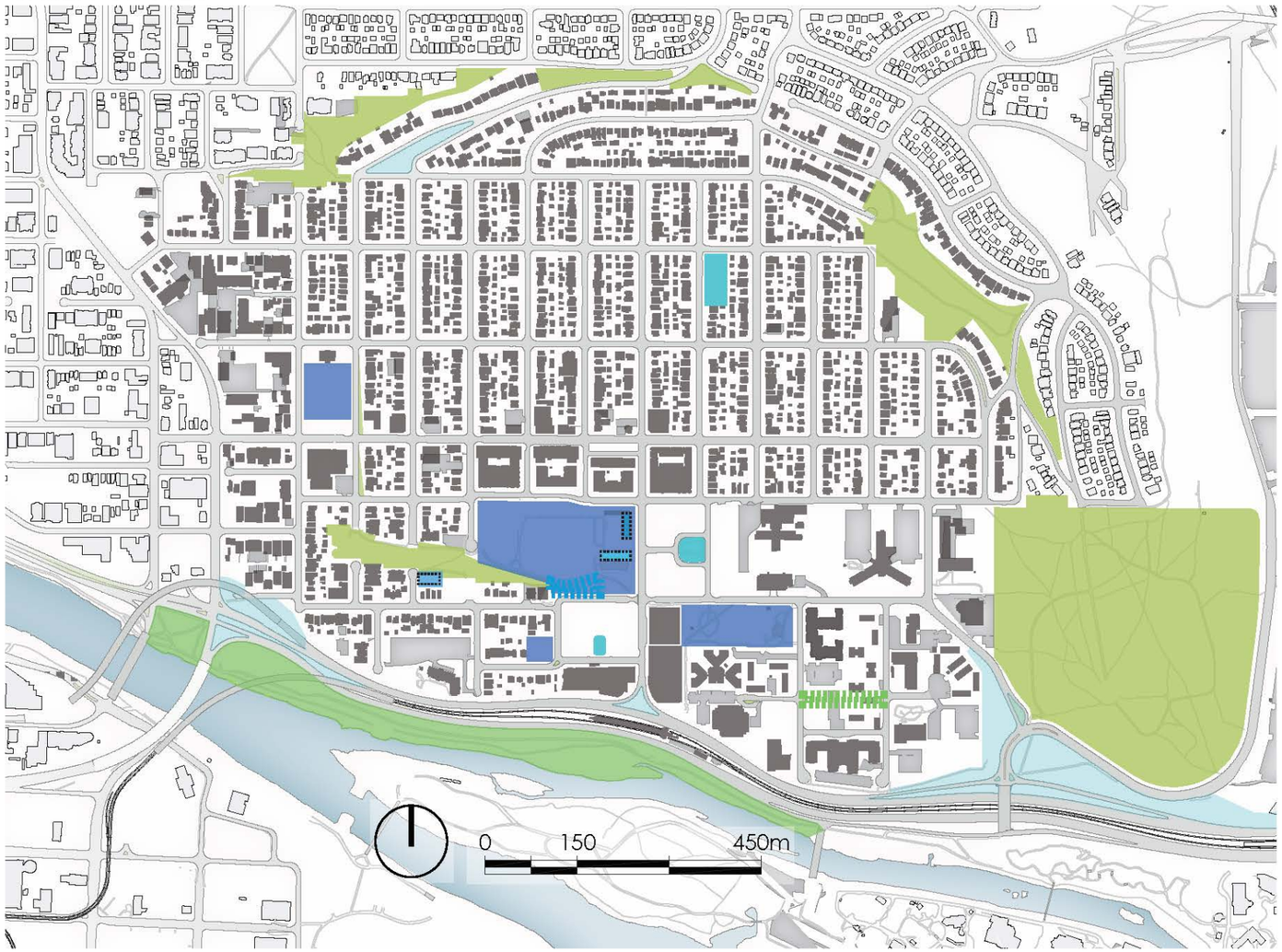
Bridgeland's current provision of green space in the community is a major asset. With regional park systems such as Tom Campbells hill and the Bow river pathway system, as well as community resources such as the BRCA site, Mcdougall Park and the bluff systems, Bridgeland has a great opportunity to expand and improve its current open green space network.

The quality and diversity of green open space can have a large impact to the desirability of Bridgeland as well as to the benefit of the community members. Green open space in Bridgeland should provide a range of opportunities for all community members by providing a diversity of a high-quality spaces.

PROPOSED NETWORK

This study addresses six primary categories of green space. These categories are: the naturalized and bluff areas, green linkages, lost spaces, pocket parks, community gardens and recreation areas. The current and proposed location and provision of these six categories are shown on the adjacent map. Specific recommendations have been made for each category.

GREEN SPACES



NATURALIZED & BLUFF AREAS

The bluff areas in Brigdeland include the slopes along the northern edge of the neighbourhood and Tom Campbells hills. These areas are characterized by naturalized and low maintenance vegetative growth.

APPROACH

- Take advantage of views
- Promote use
- Pathway and seating improvements

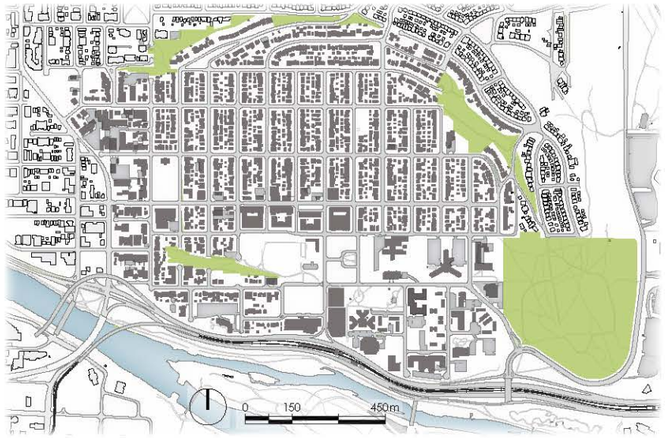
EXISTING

Bluff areas are currently an underutilized resource in Bridgeland. Many of the areas have poor pedestrian and pathway access, however they offer some stunning views of the community as well as downtown Calgary. The use value of these areas as well their function as naturalized landscapes could be improved.

PROPOSALS

The community value of the bluffs can be increased through the inclusion of a pathway system connecting the bluff areas which takes advantage of views by including rest areas, and also provides an opportunity for excercise spaces. A better connection to Tom Campbells hill from the community increases access for community members and visitors. Additionally, using naturalized vegetation on these bluffs promotes vegetation resiliency and hill stability.

NATURALIZED AREAS



BRIDGELAND BLUFF

NATURALIZED PALLET

The use of naturalized and native plant species in this area can improve to overall ecoligical functionality and resiliance of the bluff area. Below is a recommended native planting pallet which was included in the bow to bluff program for sunny side hillhurst. It is recommended the BRCA consult with a landscape architect on appropriate planting strategies for these areas.

The suggested natives plants in the image below come from the City of Calgary's Bow to Bluff Plan which addresses similar environments in Sunnyside.

THE BLUFF PATHWAY

The bluff pathway system proposal connects the bluffs with a paved path. Following a consistent topography line, the pathway features minimal elevation changes to increase accessibility for multiple user groups.

This pathway can be connected with outdoor workout stations at set intervals to create a recreation and activity opportunity. The existing stairs located throughout the bluffs should also be incorporated and highlighted with signage to promote fitness uses. This proposed pathway system would require the construction of a formal pathway, and implementing connectivity improvements outlined later in the document, including filling in missing sidewalk for continuous connection.

outdoor fitness
http://www.fittrail.com/features.html

Viewing platform
https://www.cip-icu.ca/Files/Awards/Planning-Excellence/2013-16-Bow-to-Bluff-FULL-PLAN.aspx

BLUFF PATHWAY CONCEPT

BLUFF PATHWAY NETWORK

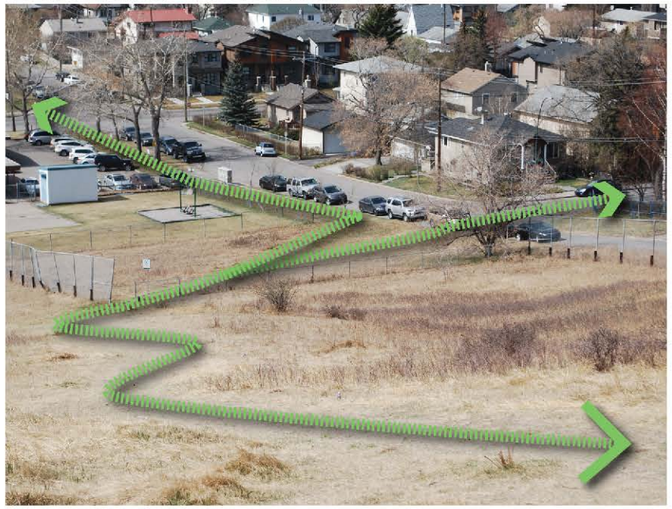
TOM CAMPBELLS

Tom Campbells hill offers high-quality pathways connecting the River Path to the Nose Creek pathway system as well as seating and destination elements that are attractive to residents and visitors.

The pathway network can be improved by adding a paved pathway that lines up with Center Ave and connects to Telus Spark. An existing dirt path follows a logical topographic route and could be paved to serve as a formal pathway.

This proposed pathway should be evaluated to follow the City of Calgary recommended design guidelines for grade.

CENTER AVE CONNECTION



TOM CAMPBELL HILL

PAVED PATHWAY NETWORK

GREEN LINKAGES

Green linkages provide pedestrian and cyclist with linear connections through the community. In Bridgeland they include the Bow River Pathway and will include the Bluff pathway proposal and a proposed linear park through East Riverside

APPROACH

- Available to everyone, all the time, every season
- Safe and well lit
- Improve pathway conditions

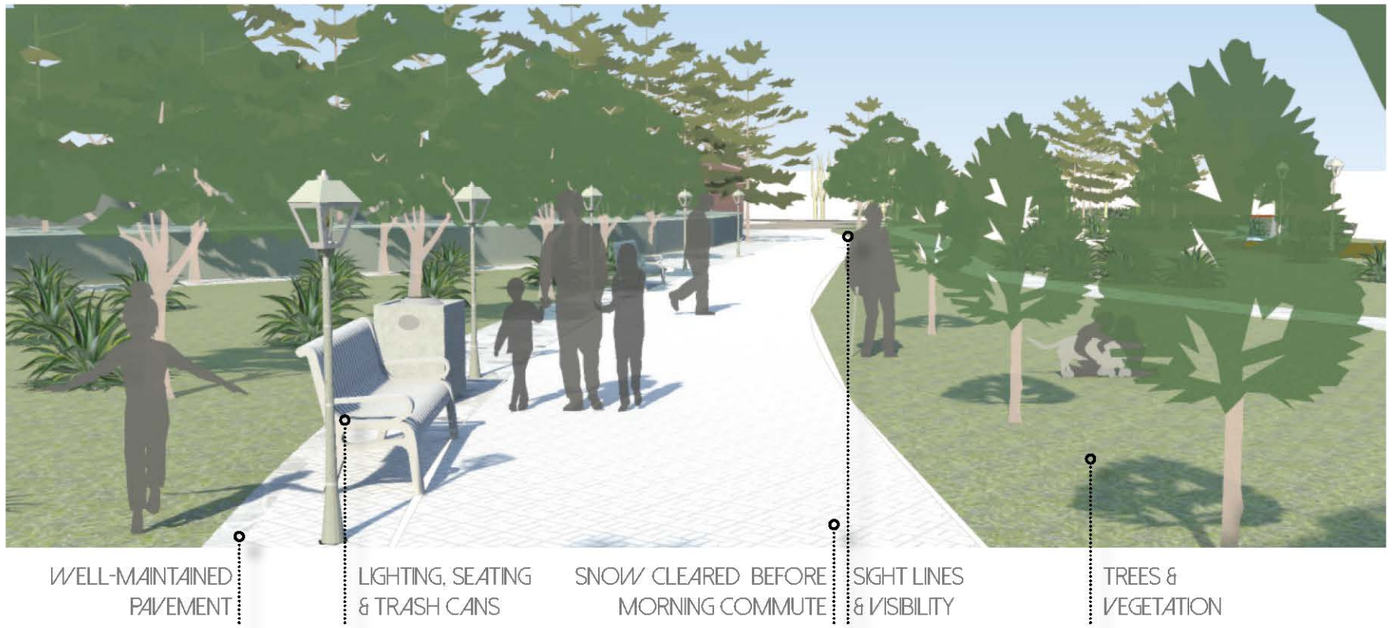
EXISTING

The river pathway system south of Memorial Drive provides a high-quality green linkage for Bridgeland residents and the larger region of Calgary. Currently within the community there are limited green linkages, improving the pathway network with the Bluff pathway proposals could increase the overall connectivity of the community.

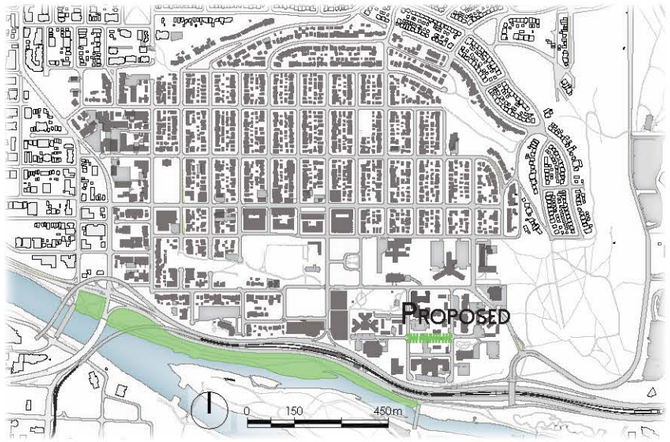
PROPOSALS

This study proposes improving the Bow River pathway system through the inclusion of design elements that increase safety and promote use. Pedestrian connections in East Riverside can be improved through a green linkage as shown on the map. All green linkages should be prioritized for snow clearing, positioned to maximize solar exposure, and designed to provide lighting, seating and vegetation. It is highly recommendated that pathways incorporate suggestions from the City of Calgary's Universal Design Handbook in order to allow all user groups to benefit from these spaces.

GREEN LINKAGE ELEMENTS



GREEN LINKAGES



BOW RIVER PATHWAY

Bow river Pathway
http://www.pixelcondos.ca/kensington/amenities/river-pathways.html

LOST GREEN SPACE

Lost Green space is generally the "left over" areas created through the provision and alignment of large infrastructure such as roadways. Lost spaces can include road verges, and access ramp green areas,

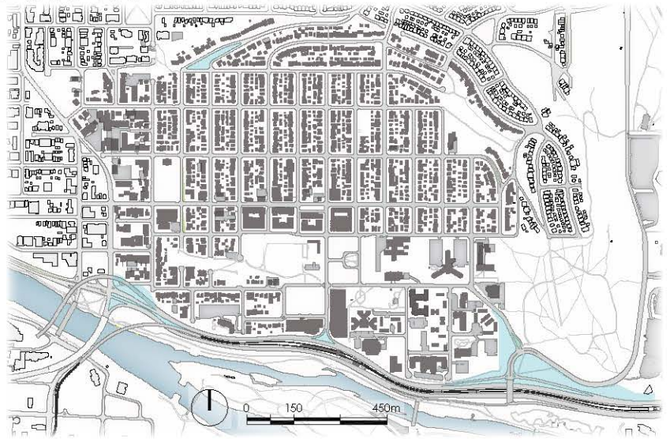
APPROACH

- Add value to community
- Naturalize manicured lost space
- Entrance features & landscaping

EXISTING

The road alignment, buffer areas and exchanges along Memorial Drive provides the majority of the lost spaces in Bridgeland. Some of these spaces are unfit for activities but could serve as visual amenities.

LOST GREEN SPACE



PROPOSALS

The existing lost space can be repurposed into a useful space or improved visually through naturalization and landscaping.

This study proposes repurposing a large lost space on McDougall Rd adjacent to Memorial Drive as a skate park. This park can be accoustically designed and take advantage of different surface materials to reduce noise conflicts with nearby homes. Improved lighting and an increase in users improves visibility in this area. This recreation space could activate a previously dark and unwelcoming entrance of Bridgeland. This skate park could become an amenty that benefits both local users and visiting skaters.

NATURALIZING LOST SPACE

These areas are covered in grass which requires seasonal maintenance. By filling these areas in with natural vegetation the community can reduce fertlizer usage and benefit from resilient, low maintenance vegetation.

ROADWAY LOST SPACE

SKATE PARK CONCEPT

POCKET PARKS

Pocket parks are small parks, generally surrounded on all sides by roads. They can include parklets which are temporary parks located on street parking spaces.

APPROACH

- Amenities that encourage use
- Design contributes to community character

EXISTING

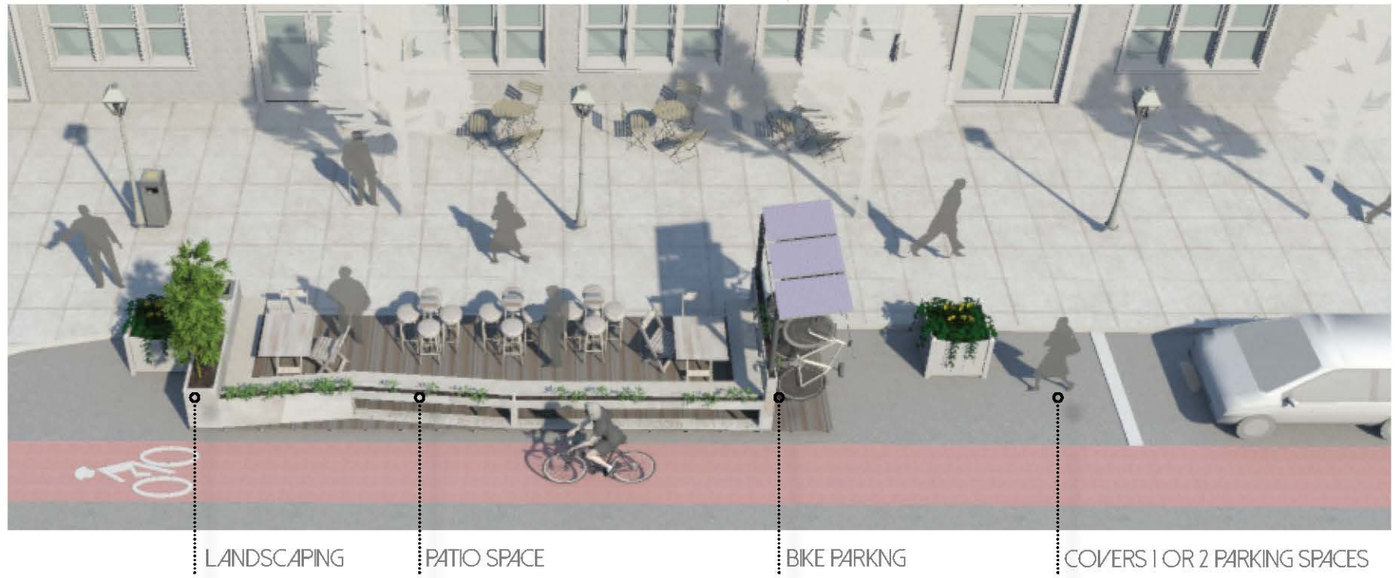
Bridgeland has a few existing pockt parks.These parks typically don't not have surrounding land uses supporting the activation of the park areas. The current pocket parks are identified on the adjacent map.

PROPOSALS

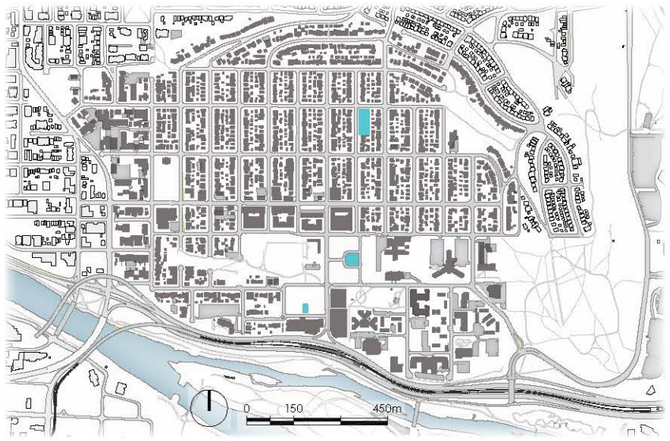
This study proposes that current pocket parks be improved by including features that promote use. This could include play structures, seating options, and gathering spaces which will attract residents to the space. Proposed park elements can be seen on the bottom right diagram.

In additional this study support parklets along 1st avenue as unique spaces that can increase seating and gathering opportunities on this mainstreet. Parklets take up very little space and can be located in parallel parking spaces.

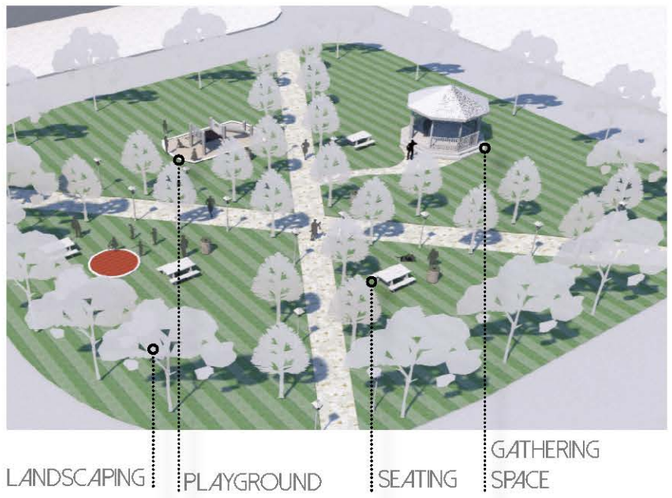
PARKLET PATIO SPACE



POCKET PARKS



POCKET PARK WITH AMENITIES



GARDENS

Gardens are community areas where residents can grow both edible and none edible plants and vegetables.

APPROACH

- Permanent space at community center
- Add amenities to support gatherings

EXISTING

There are two current community gardens in Bridgeland. One rooftop garden located at the Community Association building and a vacant lot garden in Riverside. These are currently great assets and provide a sense of pride to community members.

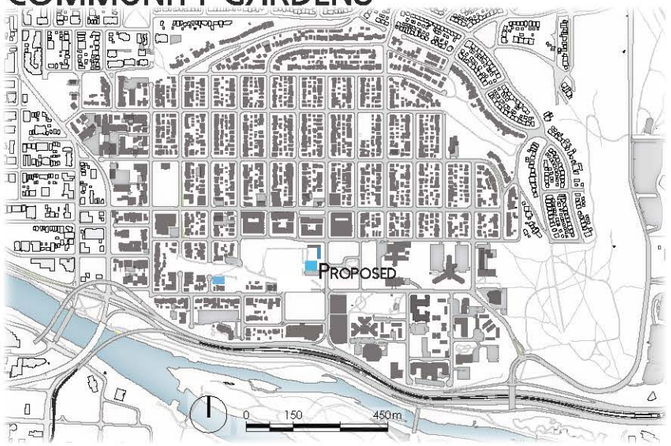
PROPOSAL

The vacant lot garden is not currently a permanent site and could be lost with future development of the land. To complement the existing gardens a third, permanent garden could be located just north of the BRCA parking lot as shown on the site plan. This can become a central gathering space for the community and could be integrated with the farmers market.

BRCA ROOFTOP GARDEN

Rooftop Garde
http://www.winkinteriors.com/weekend-happenings-126/

COMMUNITY GARDENS



PROPOSED BRCA PLOTS

EXISTING COMMUNITY GARDEN

Vacant lot garden
http://www.calgarycitynews.com/2011/01/calgary-heritage-authority-recognizes.html

RECREATION

Recreation areas provide opportunities for sport, physical activity, and leisure through the provision of space and amenities which accommodate these uses.

APPROACH

- Accomodate under-represented user groups
- Increase recreation opportunities

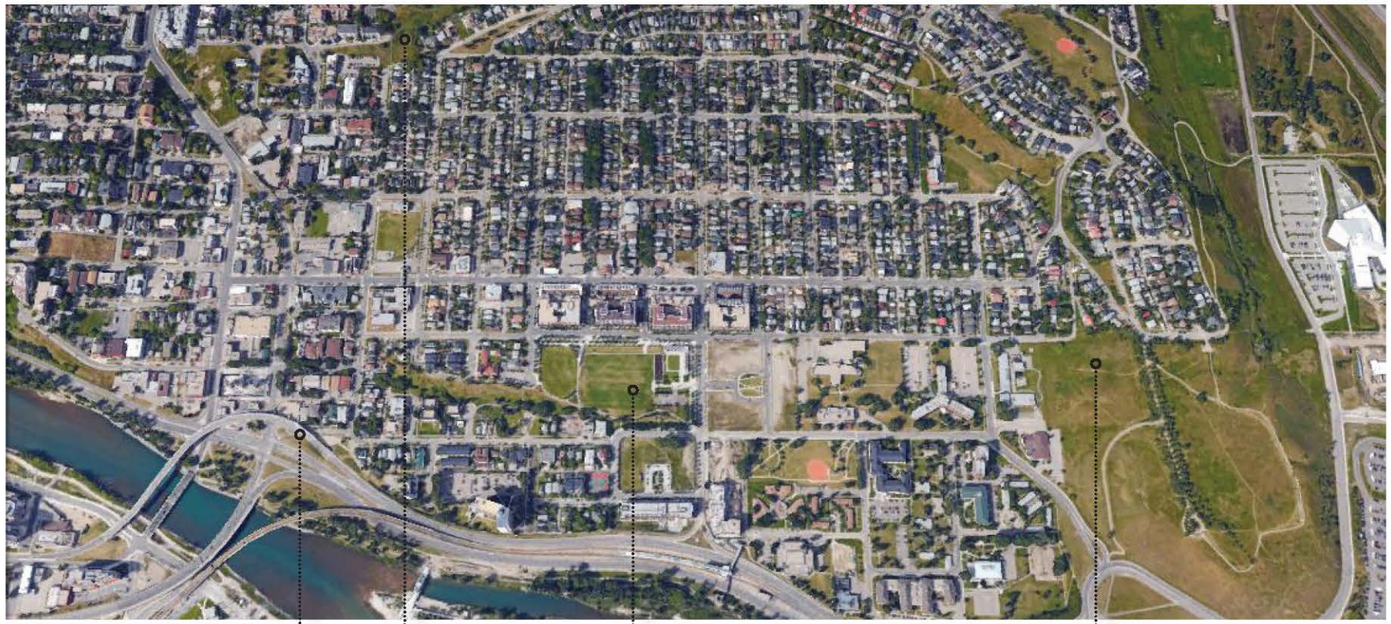
EXISTING

The majority of the recreation area in Bridgeland is comprised of field spaces used for soccer and other activities. Additionally there are tennis courts and a baseball diamond. These areas primarily provide single use recreation opportunities and cater to a specific demographic. This may limit the inclusion of different user groups as well as limit the flexibility of spaces throughout the seasons.

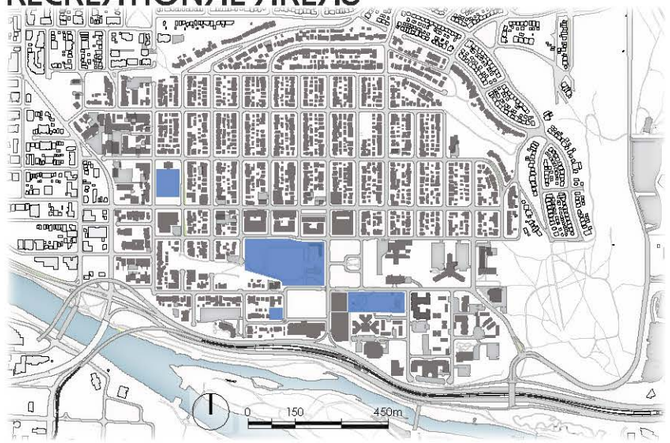
PROPOSALS

To improve opportunities for different user groups, recreation locations can be provided as shown on the map. Some of the options can include the skate park located under the Memorial Drive overpass, outdoor workout stations located along the bluff pathway, and building a temporary ice skating rink. Additionally, improved connections to pathways for walking, biking and leisure activities can offer other recreation opportunities. In the future, new development could provide an opportunity for the construction of an indoor recreation center.

RECREATION PROPOSALS



RECREATIONAL AREAS



BRCA PLAYGROUND

Playgorund
http://www.calgary.ca/CS/OLSH/Pages/The-Bridges/Parks-Open-Space.aspx

COMMUNITY *ASSOCIATION* SITE

During the community workshop, residents provided feedback about the use and quality of the existing BRCA site. Potential improvements to the area were identified to increase the value and benefit of the space for all community members.

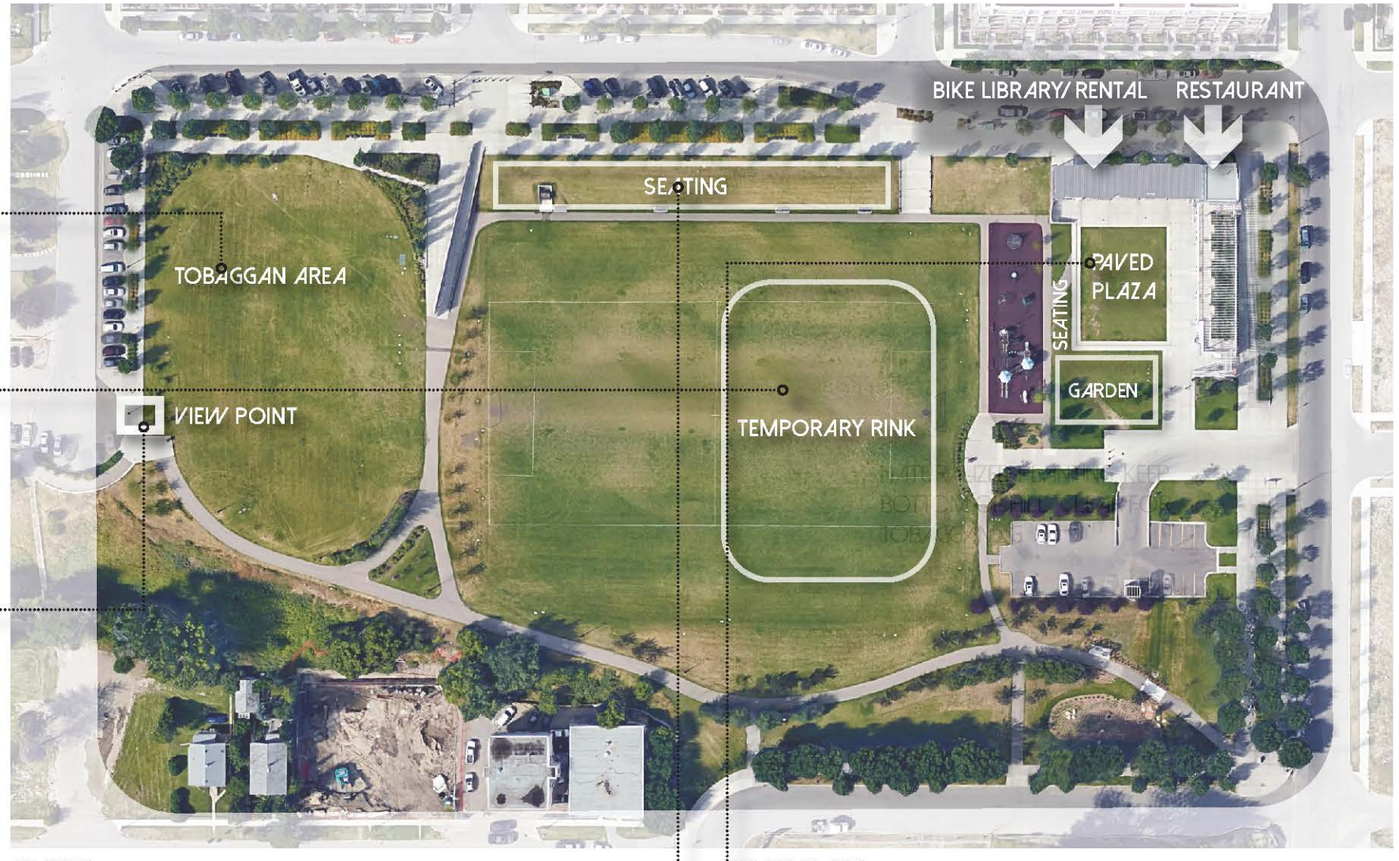
PROPOSALS

TOBOGGAN AREA
During the winter months, the slope on the west side of the site is an excellent tobogganing hill. This can provide an enjoyable winter activity for area residents and in particular young families.

WINTER SKATING RINK
During the winter months, boards can be erected in the central field space to create a skating and hockey rink. This promotes year-round recreation and provides an amenity which has been noted as missing from Bridgeland.

VIEW POINT:
A viewing platform and covered seating area promotes stunning views of the city and provides a good vantage point to view the field area. This platform could potential double as a warming hut for people using the toboggan hill in the winter.

COMMUNITY *ASSOCIATION* SITE PROPOSALS



SEATING
The slope to the north can incorporate seating, an amenity for people watching soccer in the summer or for taking in the views of the city. Maximum southern exposure can create a year round enjoyable seating area.

PAVED PLAZA
To increase the year-round flexibility of the area in front of the BRCA building the existing grass can be replaced with a paved surface. This will provide additional opportunities for programmed events in this space and with appropriate snow clearing the area can be used throughout the year.

COMMUNITY ASSOCIATION BUILDING

The current building area and layout of the BRCA building are limiting to events, uses, and programming. There is the potential and the desire to improve the building by expanding the available area and potential uses.

PROPOSALS

FILLING IN SPACE

The upper portion of the BRCA building can be adapted by filling in the existing structure to create enclosed spaces. In this manner, the building can accommodate a café restaurant area, a patio viewing platform, and a bike library.

CAFE

The BRCA has indicated a desire to include a commercial food space, including a local pub or cafe. This could provide a destination and community gathering area incorporating public and private patio spaces overlooking Riverside, the Bow River, and downtown Calgary.

BIKE LIBRARY

The build out of the BRCA building can also include a Bike rental/library area. This community run initiative would allow Community Association members to have access to bikes with baskets and other accessories such as trailers. Additionally, there is an opportunity to rent bikes to visitors during the summer season. Residents can use the service to access local amenities and do their shopping, or enjoy the surrounding cycle network. This system fits well with the existing tool library currently housed in the lower portion of the building.

BRCA CENTRE AVE DEVELOPMENT

PEDESTRIAN VIEW

CONNECTIVITY OVERVIEW

INTENT

- Improve connections between community spaces
- Improve accessibility to and from external destinations
- Create legible, safe, and enjoyable connections

EXTERNAL CONNECTIVITY

In community workshop and stakeholder meetings connections to external destinations was identified as a significant issue. Aspects such as topography, the Bow River and Memorial Drive all present constraints to connections to external destinations. The map shown on the right notes the travel times to locations outside the community, using different modes of transportation. Improvements to connectivity, as well as changes to land uses which is addressed in other sections of this document can improve the connection of Bridgeland to the surrounding area.

TRAVEL TIMES

SAFEWAY KENSINGTON
Drive - 8 mins
Transit - 32 (3 changes)
Walk - 51 mins
Bike - 17 mins

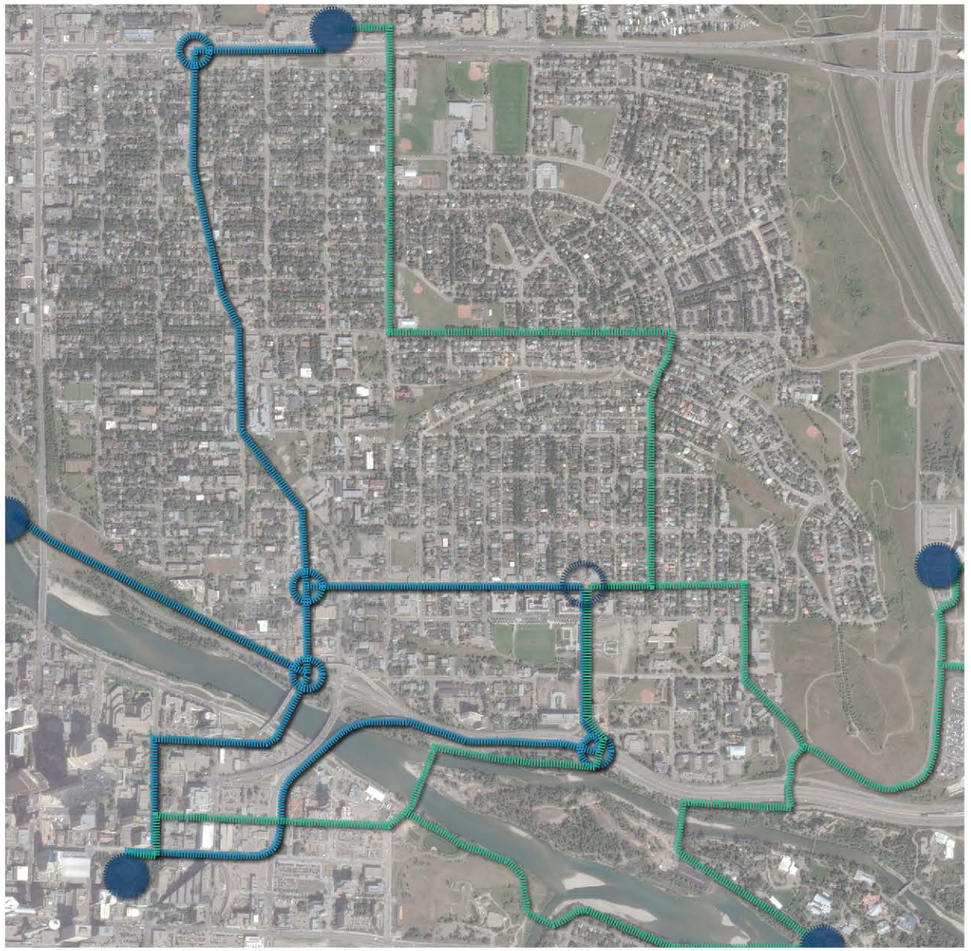
CO-OP 16TH AVE
Drive - 5 mins
Transit - 25 mins
Walk - 31 mins
Bike - 15 mins

TELUS SPARK
Drive - 4 mins
Transit - 20 mins
Walk - 25 mins
Bike - 7 mins

OLYMPIC PLAZA
Drive - 6 mins
Transit - 16 mins
Walk - 30 mins
Bike - 15 mins

INGLEWOOD
Drive - 10 mins
Transit - 30 mins
Walk - 30 mins
Bike - 12 mins

EXTERNAL DESTINATIONS



VEHICULAR AND TRANSIT ROUTES CYCLE & PEDESTRIAN ROUTES

PEDESTRIAN

WALKABILITY

Bridgeland developed on a grid street pattern, which results in well connected walksheds. There are, however, improvements that can enhance the overall quality and experience for the pedestrian realm.
This study proposes a variety of opportunites for improving pedestrian connections and the overall walkability of Bridgeland.

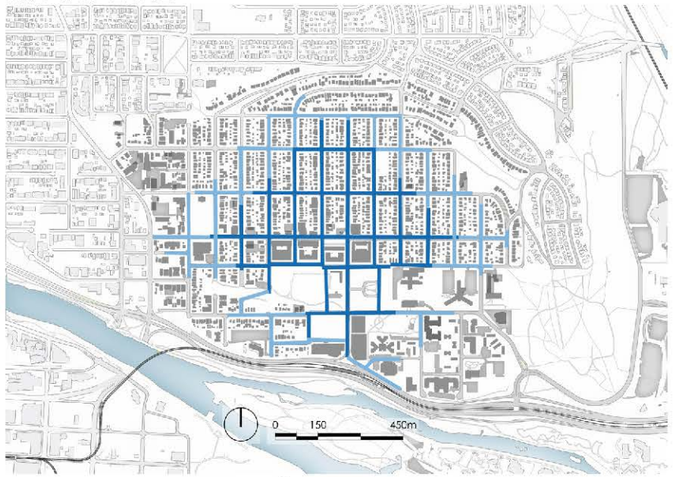
APPROACH

- Safe crosswalk design
- Integrate universal design
- Apply proposed walkability elements
- Connect pathways

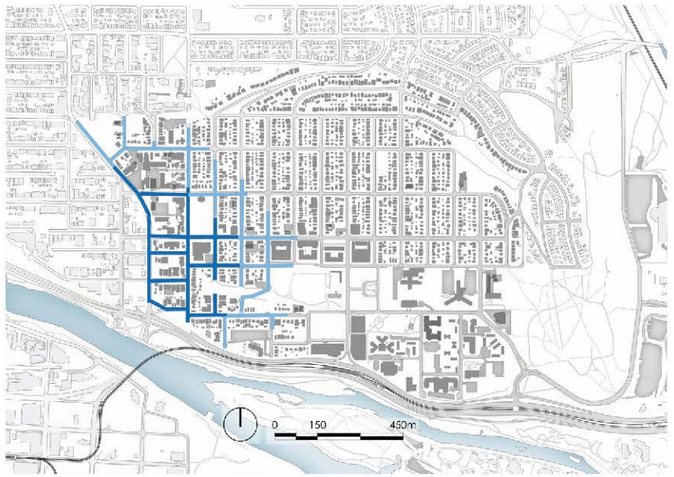
WALKSHEDS

The overall walkability of Bridgeland can be partially assessed through a walkshed analysis (see diagrams below). This uses specific starting points and analyzes the accessibility based on a 5 min walkshed for persons with mobility issues and 10 min for a general walking distance. This process can be used to assess specific accessibility or catchment areas, land uses can be strategically located within these areas to maximize pedestrian access to local amenities.

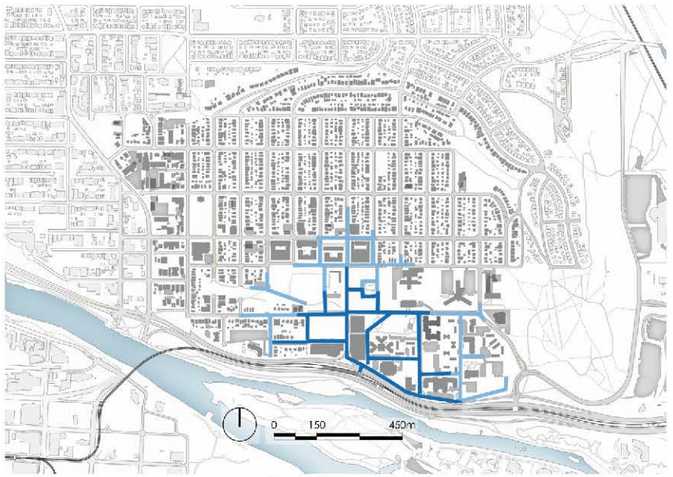
1ST AVE NE



EDMONTON TRAIL



LRT STATION



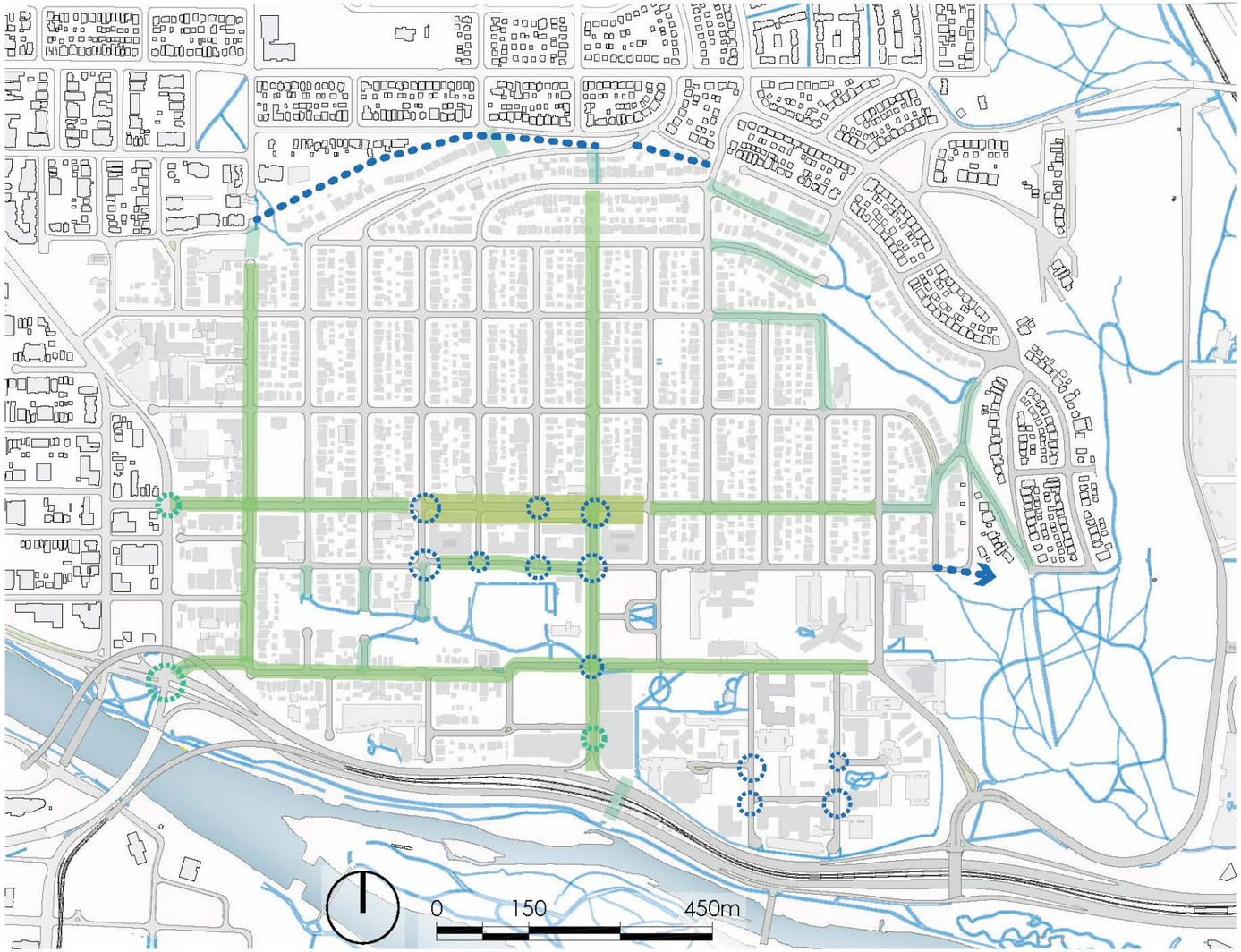
WALKABILITY ELEMENTS

The map on the right identifies proposed improvements to the pedestrian experience. Based on the analysis and community workshop, both primary and secondary pedestrian routes have been identified. These areas should be prioritized for pedestrian experience improvements in the form of sidewalk upgrades, lighting, and seating. These primary and secondary routes have also been established to provide connections to the pathway network.

Intersections which could be improved have also been indicated. These improvements could include painting or raising crosswalks, signage, lighting, curb extensions, and in specific cases pedestrian activated lights.

The following four pages provide proposals for walkability elements that, when used in conjunction, create enjoyable pedestrian experiences.

PEDESTRIAN ROUTES & PROPOSED IMPROVEMENTS



SEATING

Improving the distribution of seating can greatly improve the pedestrian experience, and provide resting areas for pedestrians. This can be especially beneficial for those with mobility issues. The adjacent map shows the current distribution of seating in Bridgeland. Based on the initial analysis three zones have been identified with proposals for different seating recommendations.

ZONE 1
This area includes East Riverside, Tom Campbells hill, the river path and the bluff areas. To accommodate both the seniors population in East riverside and the recreation and leisures uses of the area, benches should be provided at a spacing of approximately 200 m between benches.

ZONE 2
This area features higher density and the inclusion of street orientated commercial corridors. Seating options should be provided approximately every 2 blocks.

ZONE 3
This area is mainly lower density residential. Seating and benches should be provided approximately every 3 blocks.

SEATING IMPROVEMENT PRIORITIZATION

ZONE 1
BENCH SPACING APPROX. 200M

ZONE 2
BENCH SPACING EVERY 2 BLOCKS

ZONE 3
BENCH SPACING EVERY 3 BLOCKS

LIGHTING

Improving the standard of street and pathway lighting can improve the perception of safety in specific areas which can lead to increased use throughout the day and night. The adjacent map shows the distribution of existing city street lights within the community. Based on analysis, priority areas have been identified to improve the pedestrian environment.

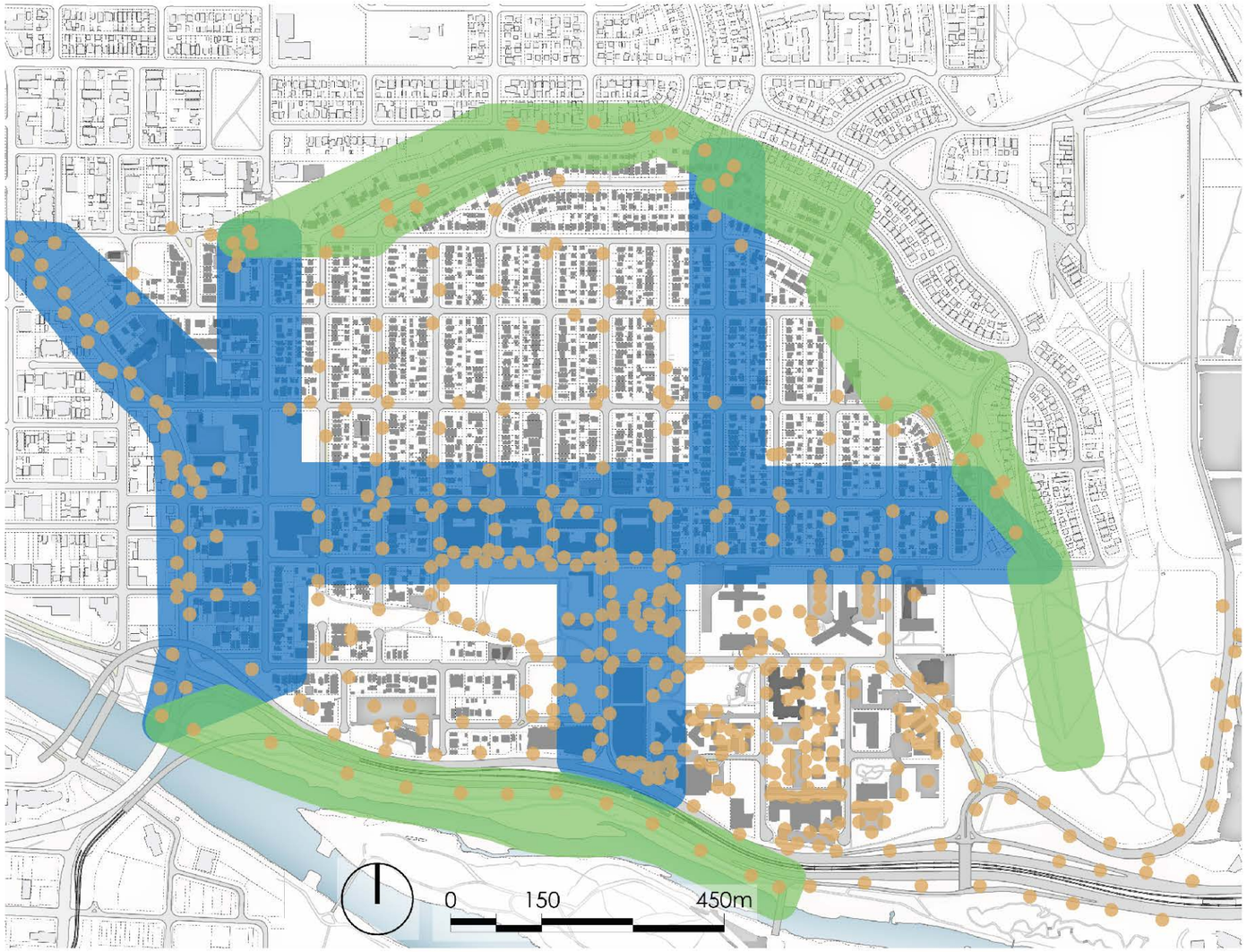
CORRIDOR STANDARD

These areas function as pedestrian corridors through the community and connect with external destinations. Lighting standards should include both street and sidewalk lighting. Flags, flower baskets or public art can be included to improve the legibility of these streets as primary routes.

PATHWAY STANDARD

These areas include the existing and proposed pathways in Bridgeland. Pedestrian-scale pathway lighting should be provided along pathway and sidewalk systems in these areas in order to promote their use in the evening and create safe corridors.

LIGHTING IMPROVEMENT PRIORIZATION



PARK STANDARD
PATHWAY LIGHTING

CORRIDOR STANDARD
STREET AND SIDEWALK LIGHTING

STREET TREES

Street trees play an important role; not only providing the benefits of an urban forest, but also adding to an enjoyable pedestrian environment. The map on the right shows the current distribution of street trees in Bridgeland.

TREE COVERAGE

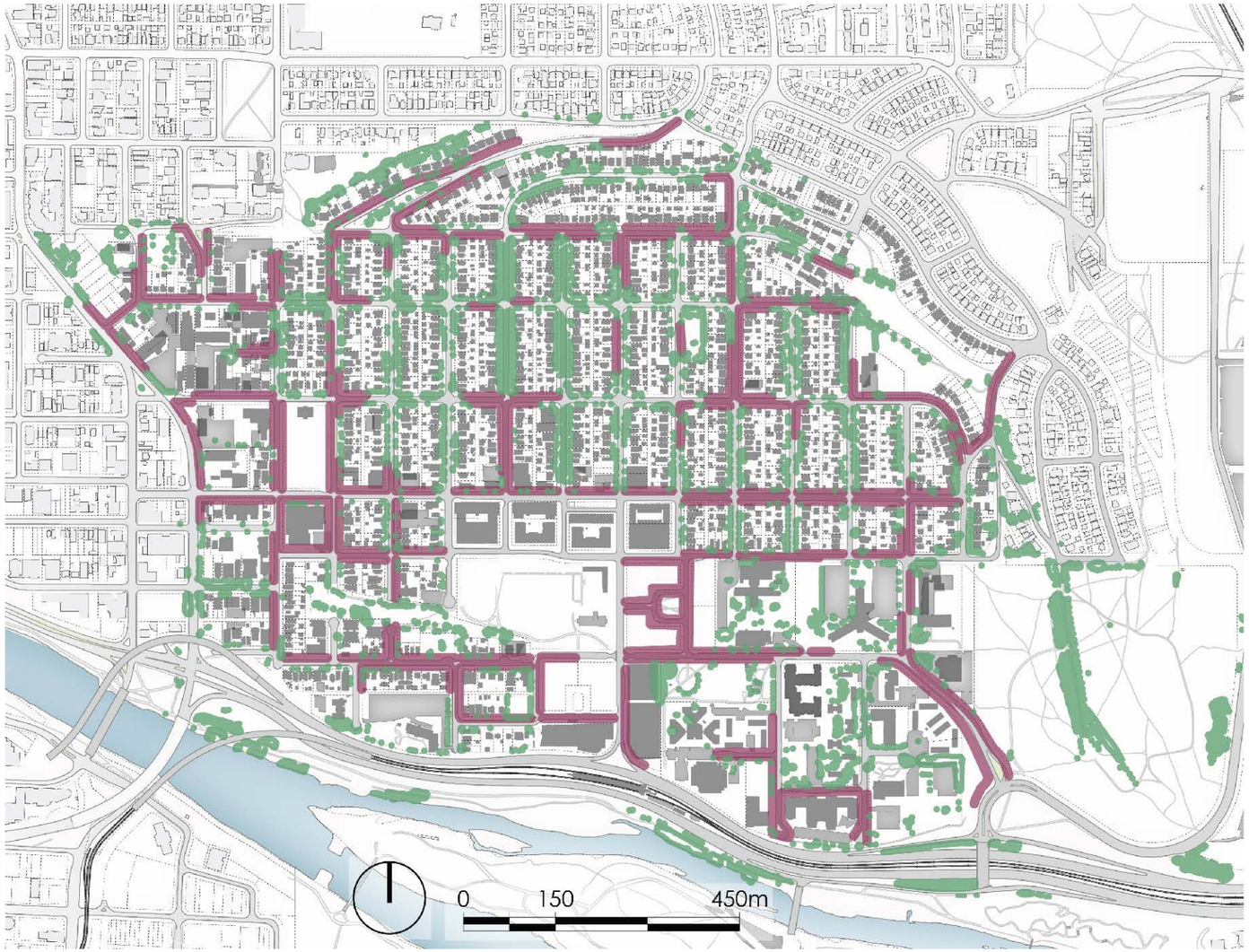
Areas with existing trees should be evaluated for age and health of the existing canopy. In areas with older, more vulnerable trees the community should plan for future replacement.

MISSING TREES

The city recommends a 5-6m spacing between street trees. Based on this standard, approximately 1,800 additional street trees could be planted in the community.

Priority for the planting of new street trees should be given to the primary and secondary pedestrian routes identified on page 44. It is also recommended that the BRCA investigate potential development levies as well as funding and grant opportunities. This could include Tree Canada & TD Friends of the Environment Foundation (TD FEF) or other potential partnerships with businesses and community stakeholder groups to begin replacing missing street trees.

MISSING STREET TREES



TREE COVERAGE
INVESTIGATE TREE HEALTH AND AGE

MISSING TREES
INCREASE URBAN FOREST WITH 6M TREE SPACING

SIDEWALKS

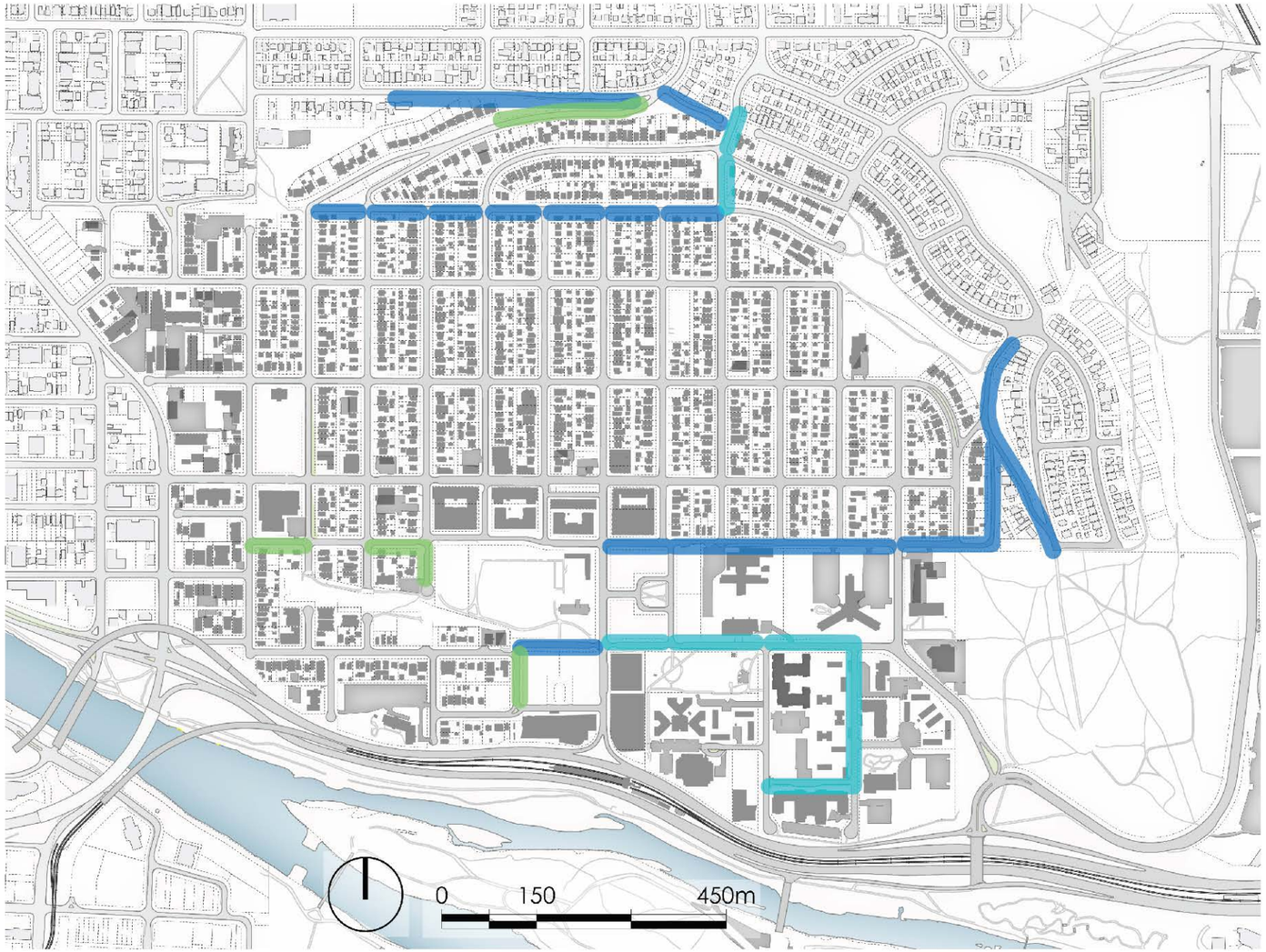
There are multiple locations in Bridgeland that are missing sidewalks, or sidewalks end abruptly. This can have an impact on the desirability, safety and overall experience of walking routes in the community. This map shows all the missing sidewalks in Bridgeland, priority for filling in these missing sidewalks has been assigned based on primary and secondary routes as well as pathway connections.

1ST PRIORITY
These areas are on primary pedestrian routes, or areas could have the most benefit from the addition of sidewalks.

2ND PRIORITY
These areas are on secondary routes but could still benefit from the addition of sidewalks.

3RD PRIORITY
These areas should be the lowest priority for inclusion of new sidewalks because they are not negatively impacting identified pedestrian routes, but they could still benefit from the addition of sidewalks.

SIDEWALK INSTALLATION PRIORITY



FIRST
SIDEWALKS ON MAJOR PEDESTRIAN ROUTES

SECOND
SIDEWALKS ON SECONDARY PEDESTRIAN ROUTES

THIRD
SIDEWALKS ON LOWER VOLUME PEDESTRIAN ROUTES

CYCLING

Bridgeland has large assets in its proximity to regional pathway systems which offer some of the best bike paths in the city. Currently, connections to and from these regional networks could benefit from improvements. Additionally, bike infrastructure in the community and the provision of dedicated and safe bike lanes is limited. Improvements to the bike amenities and the cycling network could greatly improve the benefit to the community and create an easily accessible destination from the regional pathways.

APPROACH

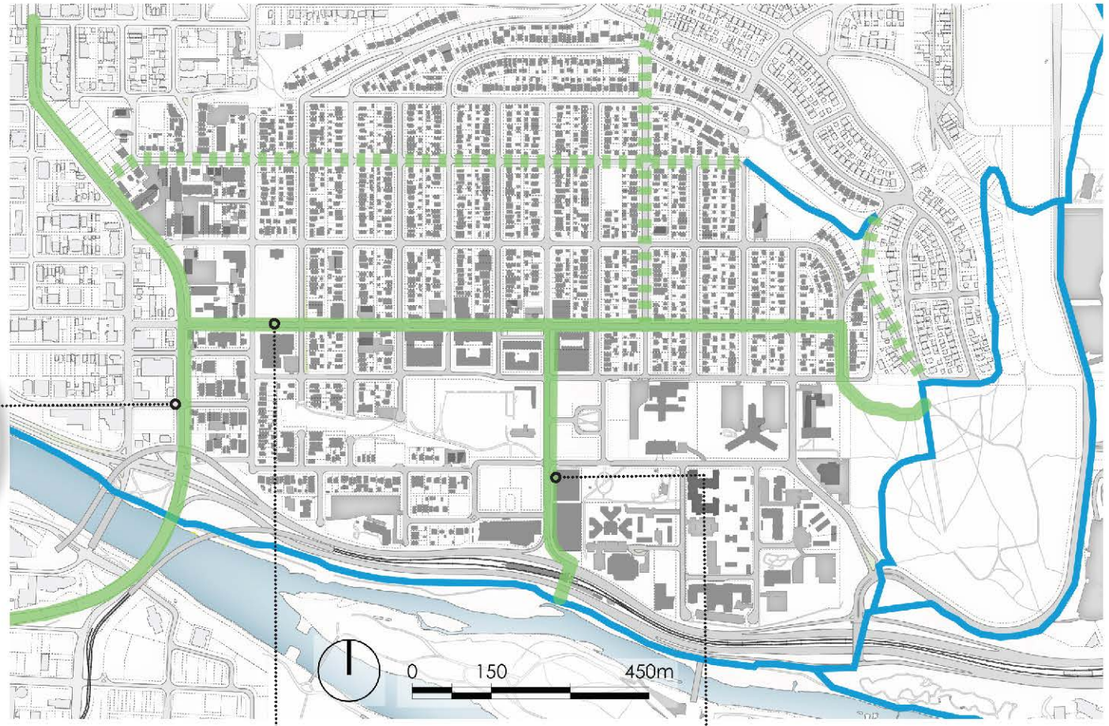
- Safe bike lane design
- Bike routes on main streets
- Improved connections to pathway systems

CYCLING NETWORK

The adjacent map shows the proposed cycling network for Bridgeland. This network features primary and secondary routes. Primary routes include separated and painted bike lanes. Secondary routes should provide pavement markings denoting the bike route. The City of Calgary is proposing a cycle track pilot on Edmonton Trail, this study recommends that the Community Association supports this initiative. Due to the current road width and multiple existing curb extensions one-way bike lanes are proposed to be included along 1st avenue. This system would be easier to implement and could be a cost-effective solution.

PILOT

PROPOSED CYCLE NETWORK



ONE-WAY, BOTH SIDES

TWO-WAY SEPERATED

REGIONAL CYCLE NETWORK

It is proposed that both the primary and secondary networks provide direct connections to the pathway system which can improve overall regional connectivity. Location specific improvement should be made at pathway street connections which can included improved pavement surfaces, lighting, and signage.

CYCLING AMENITIES

The cycling network should include bike amenities to complement the bike lane and connection improvements. Proposals include:

TOOL STATIONS

A central tool station could be included at the community association and proposed bike library. This allows cyclists to do quick fixes their bikes to get rolling again.

BIKE PARKING

Bike lock areas should be provided along all primary bike routes at a high frequency, with businesses and new developments providing bike parking approximately every 1-2 blocks. Along secondary routes lower frequency of lockup areas should be provided.

COVERED BIKE PARKING

Covered bike parking areas could be provided at the LRT station and near the intersection of 1st avenue and 9th street. These areas serve as destinations and have higher bike volume, higher quality parking should be provided.

BIKE LIBRARY

The proposed bike library at the BRCA building could be a great central bike amenity that could support community members needs and promote the high-quality bike infrastructure proposed in this study.

Tool station
http://www.dailycal.org/2012/10/14/self-service-bicycle-repair-station-installed-northwest-of-uc-berkeley-campus/

Bike Shelter
http://bikeportland.org/2014/08/07/close-look-best-business-bike-parking-portland-109875

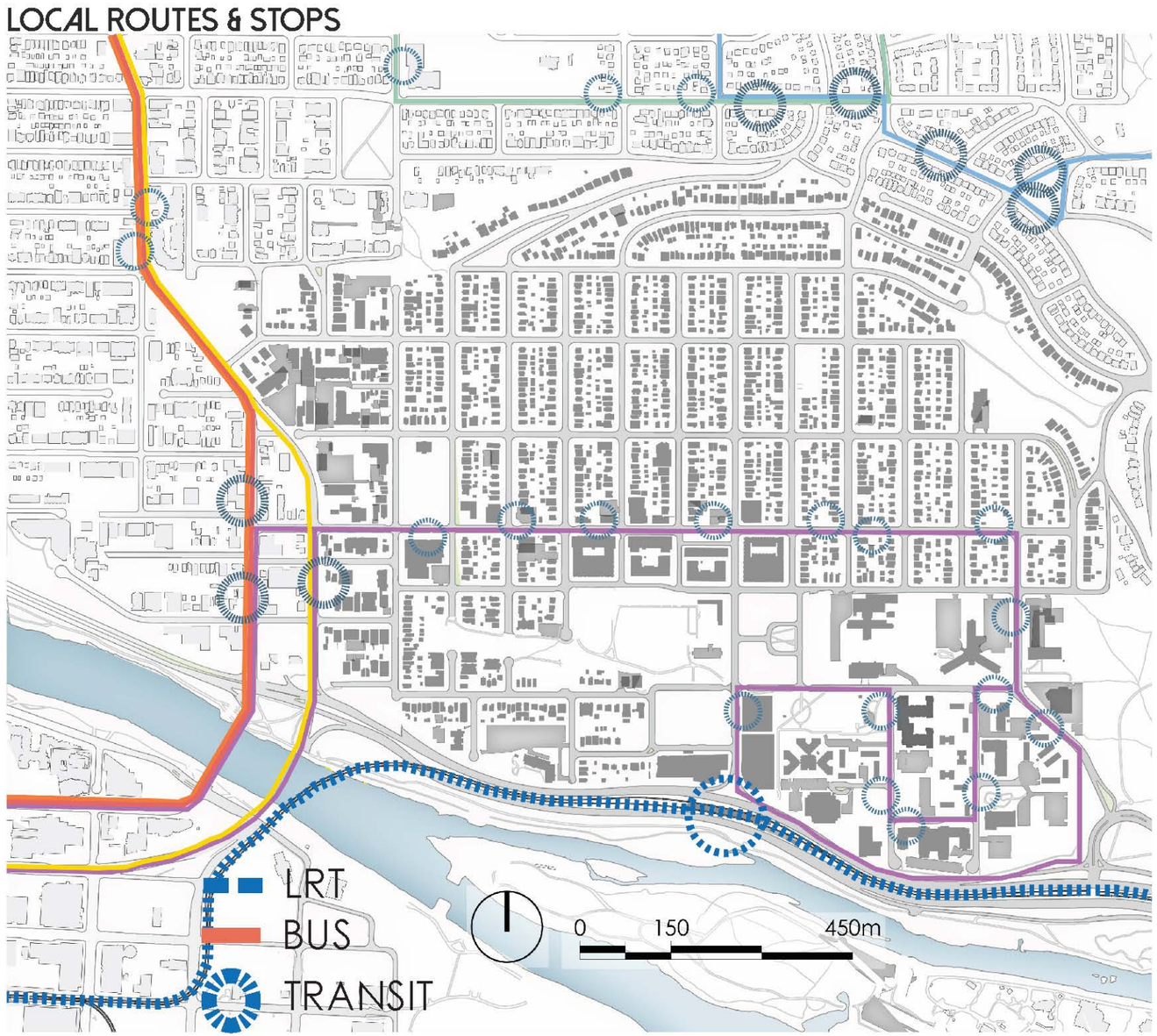
Water Station
http://travelingtwosome.weebly.com/traveling-twosome-blog/what-we-saw-on-a-long-ride-to-de-soto-kansas

TRANSIT

Transit service in Bridgeland provides a great opportunity. The greatest transit asset is the neighbourhood's proximity and access to the LRT. This can be improved to become a highlight for community member and visitors arriving by transit from the larger Calgary area. Additionally, the community is serviced by route 9, with stops that are accessible within a 10 min walkshed by the entire neighbourhood. With improvements to the existing stop amenities the community can maximize the benefit of the existing transit route service.

TRANSIT ROUTES

The adjacent map shows the transit routes and stops servicing the community. The range of transit service times are between 5-30 minutes throughout the day and night. The primary transit stops are the LRT station, Edmonton Trail at Marsh, and 1st Ave at 9th street.
It should also be noted that there is a high level of service and stops in East Riverside along route 9, an area which serves a large number of senior residents.



TRANSIT STOP AMENITIES

This study analyzed the existing transit stops in Bridgeland based on current amenities including benches and shelters. Stops with limited amenities were identified, and a priority for addressing these stop is established on the bottom right map.

FIRST PRIORITY
Stops currently provide limited amenities and are located in higher volume areas. Upgrades to stop amenities could include shelters and benches.

SECOND PRIORITY
Stops currently provide limited amenities and are located in lower volume areas. Upgrades to stop amenities should be considered after first priority stops are addressed.

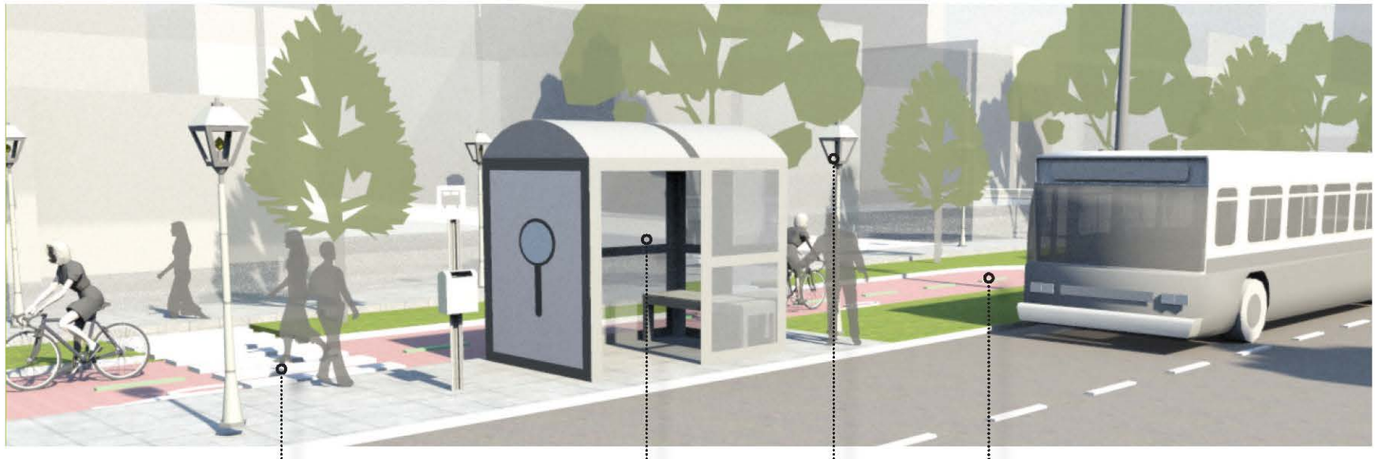
THIRD PRIORITY
These stops already have shelters and bencehes. Improvements mainly involve maintenance.

TRANSIT PLAZA

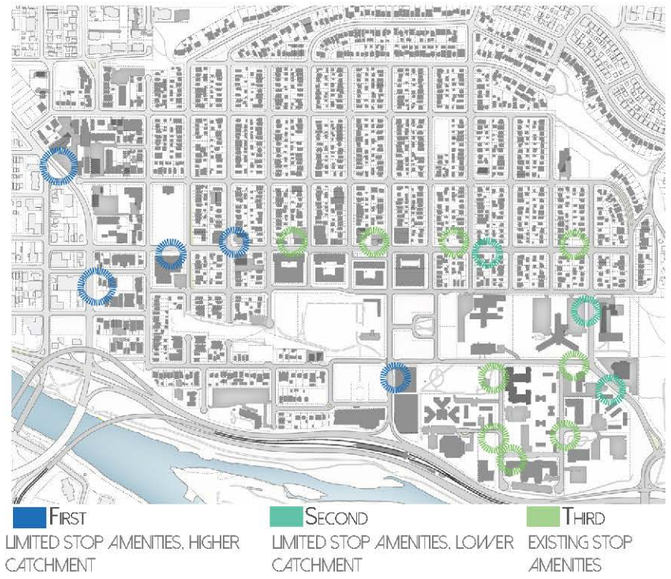
A transit plaza is proposed for the transit stop on Edmonton Trail and Marsh. This plaza can create a welcoming community entry point for residents and visitors using transit. The plaza should include high-quality bus stop amenities such as shelter, benches, and lighting.

The design shown in the top image incorporates the proposed cycle track along Edmonton trail. Different pavement materials should be used along the cycle track to make riders aware of the transit plaza area.

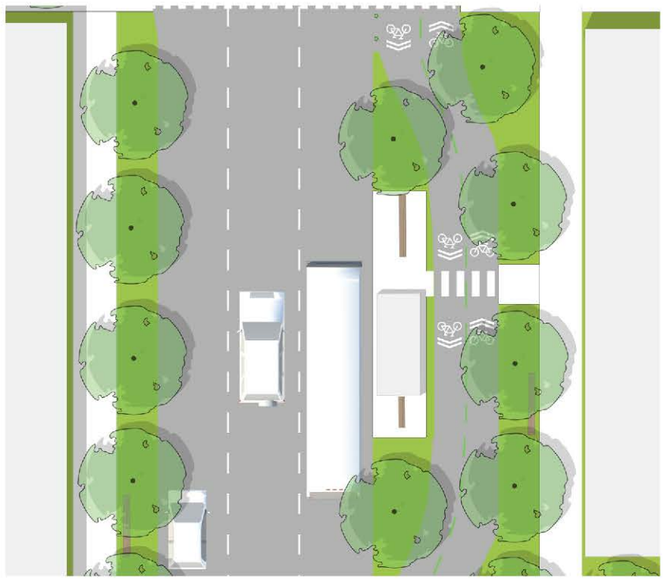
EDMONTON TRAIL TRANSIT PLAZA CONCEPT



PROPOSED STOP AMENITY UPGRADES



EDMONTON TRAIL TRANSIT PLAZA



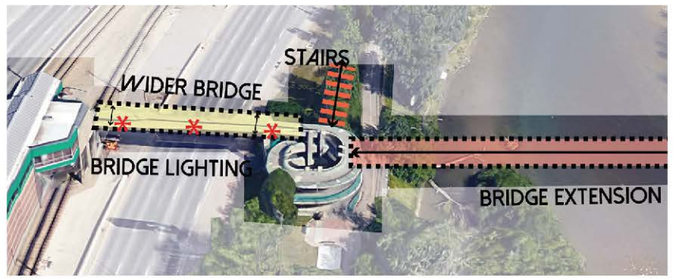
LRT CONNECTIONS

In the community workshop, it was identified that the current bridge to the LRT station does not contribute to an enjoyable pedestrian experience. The current bridge is narrow which causes conflict between cyclists and pedestrains.

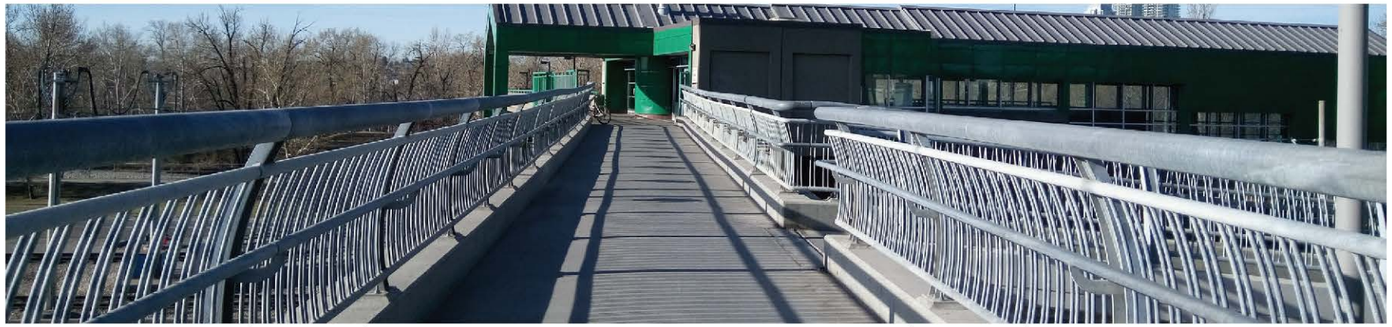
This study proposes a cost-effective solution to utilize the existing bridge infrastructure. Putting in new rails on the outer edge of the bridge creates 2 additional feet of space. A covered walkway, lighting, landscape elements and signage can also greatly improve the overall experience of accessing the LRT station.

The southern access point can be improved by including stairs for pedestrians. This study also recommends the BRCA explore options of extending this pedestrian bridge south to access St. Patrick's island. This potential extension could greatly improve the community's access to locations across the Bow River

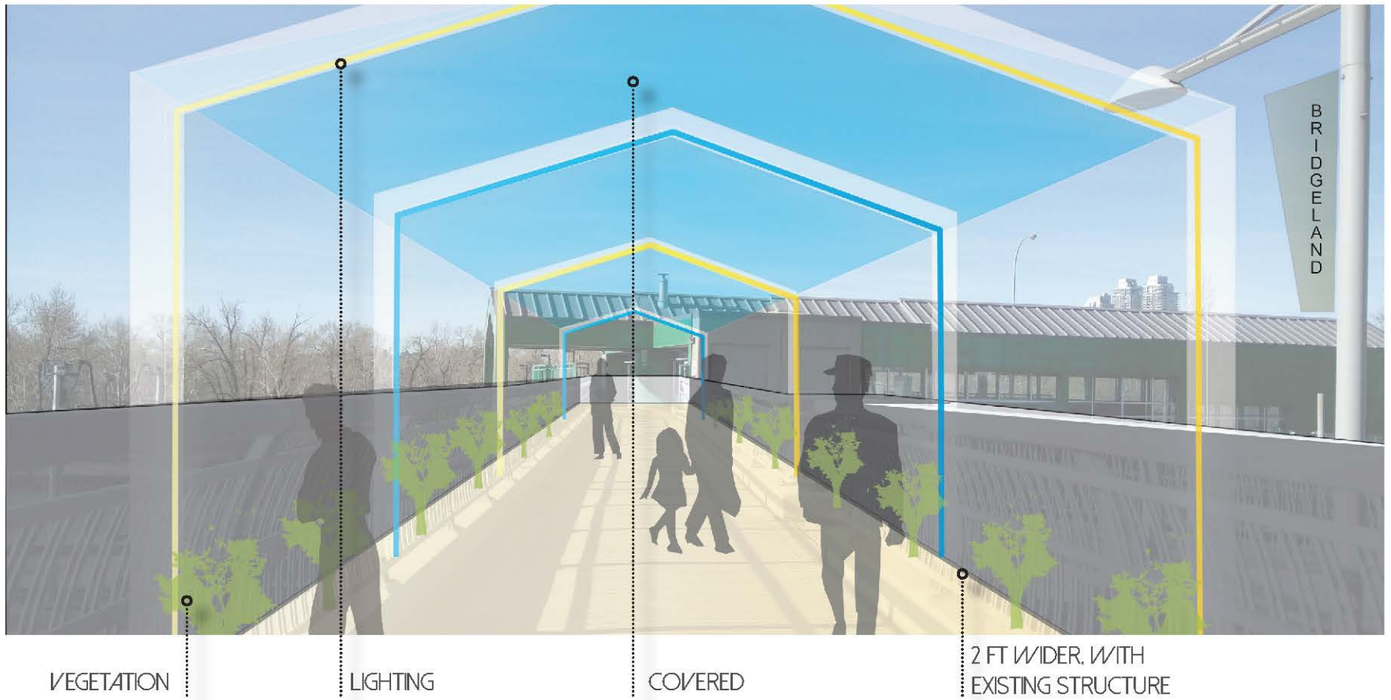
BRIDGE EXTENSION



EXISTING LRT BRIDGE



PROPOSED LRT BRIDGE IMRPOVEMENTS



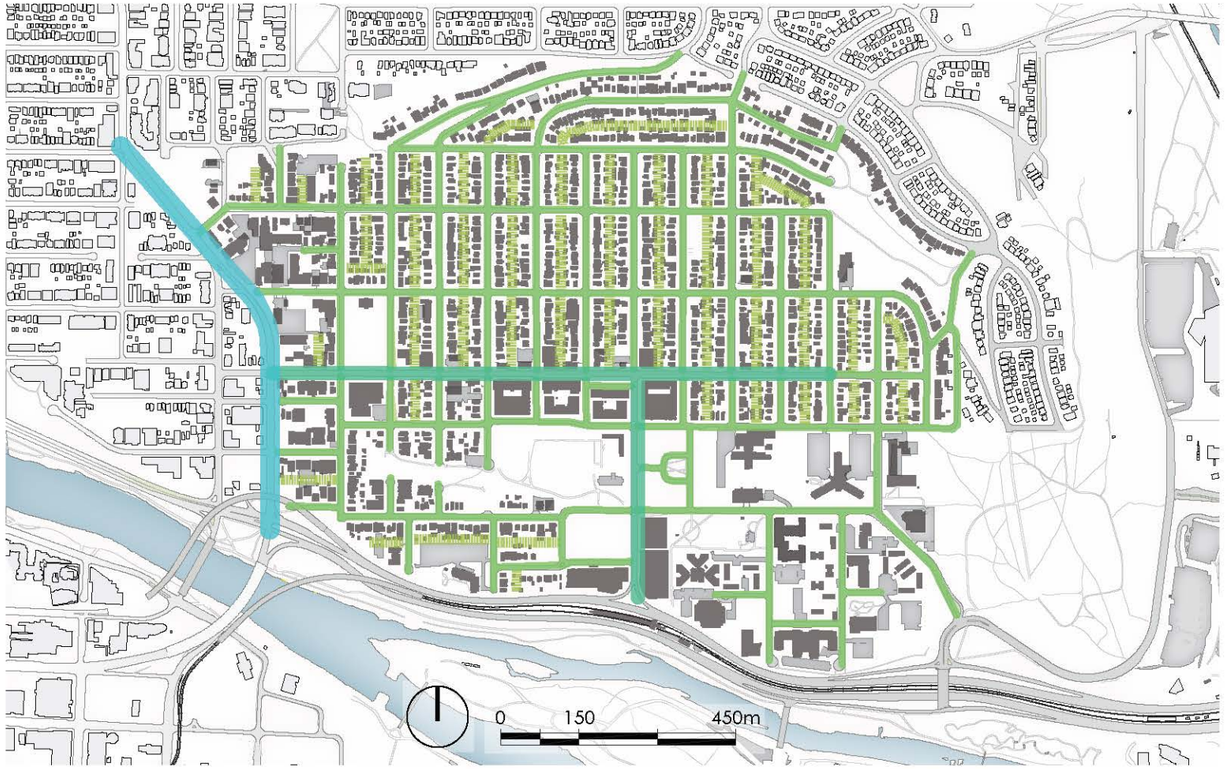
VEHICULAR

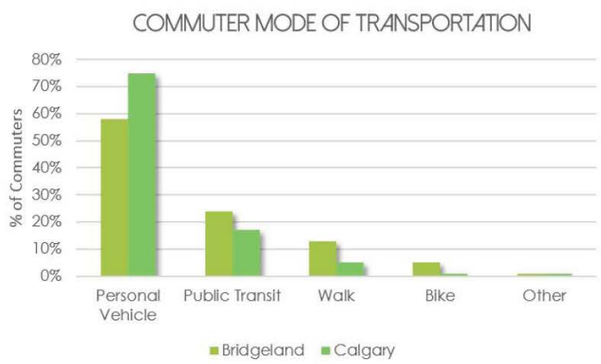
Although Bridgeland benefits from above average proportions of transit, cyclist, and pedestrian commuter rates, vehicular mobility is still currently the preferred method used by residents. Improvements to the road network and streetscape not only improves the landscape for vehicles but can greatly improve the experience of alternative modes of transportation. Proposals in this study for vehicular connectivity targets primary intersections, street legibility and traffic calming measures to dissuade cut through traffic and improve the public realm.

STREETSCAPE

The streetscape is a vital part of the public realm and improvements to these areas can greatly improve the experience of residents and visitors. This study addresses general streetscape improvements under four main categories: Laneways, Residential streets, Neighbourhood Boulevard and Urban Boulevard. The distribution of these categories is shown in the adjacent map. It should be noted that both 1st avenue and 9th street have been classified as neighbourhood boulevards, however, different recommendations have been made for these streets based on their function in the context of Bridgeland.

STREET HEIRARCHY





NEIGHOURHOOD BOULEVARD

URBAN BOULEVARD

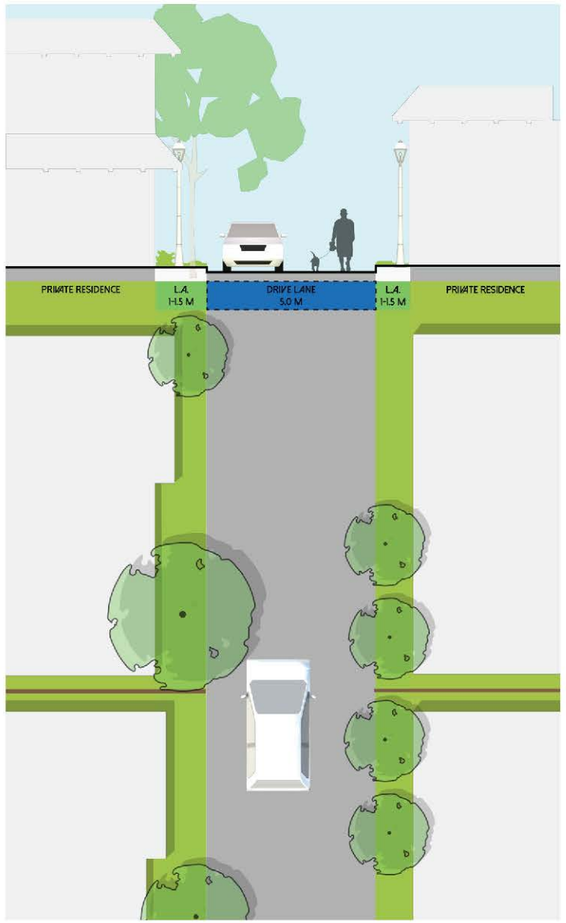
RESIDENTIAL

LANEWAYS

LANEWAYS

APPROACH

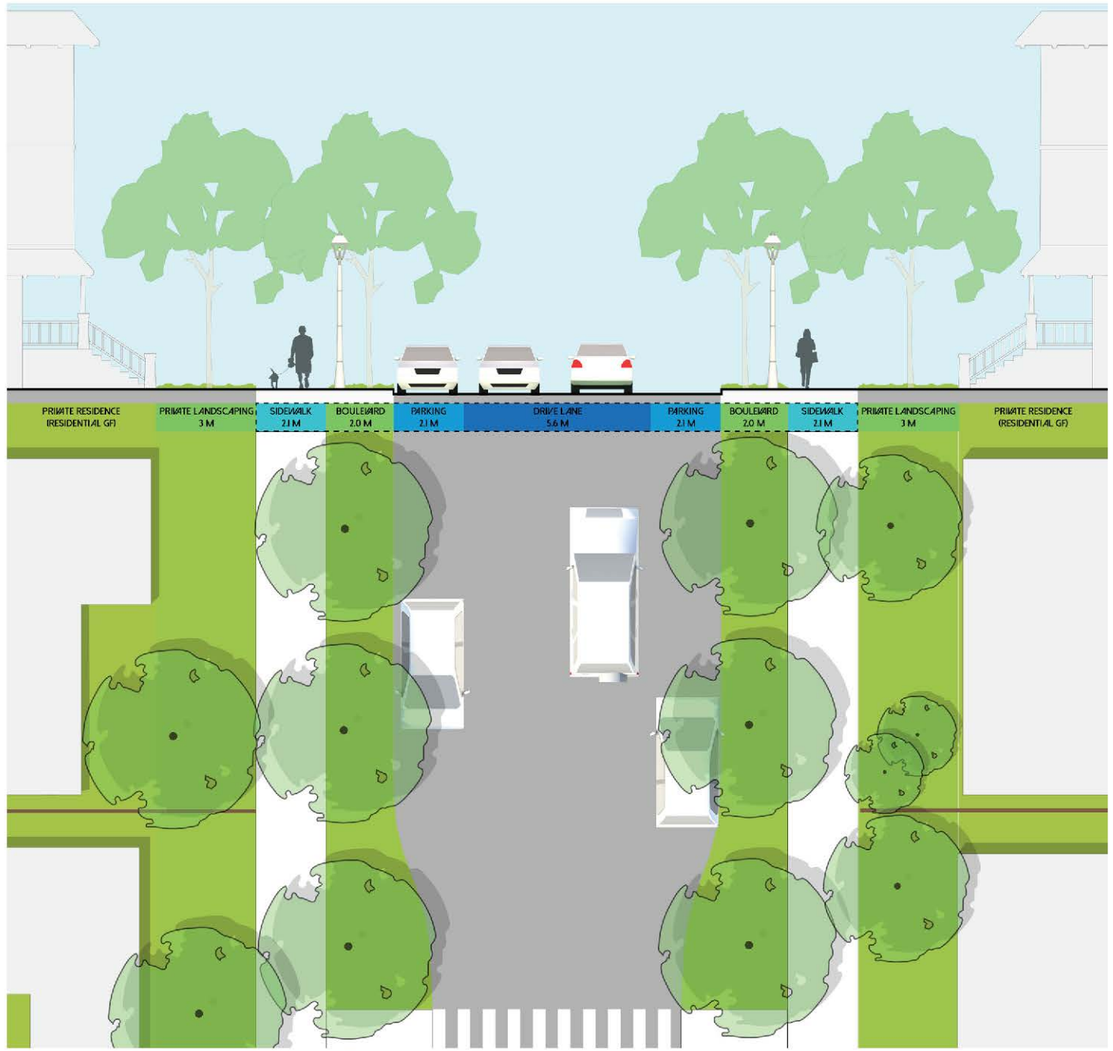
- Live-able laneways in low density residential areas
- Encourage laneways in new development areas



RESIDENTIAL

APPROACH

- Street Trees and vegetation
- Bollards & other intersection features
- Street parking

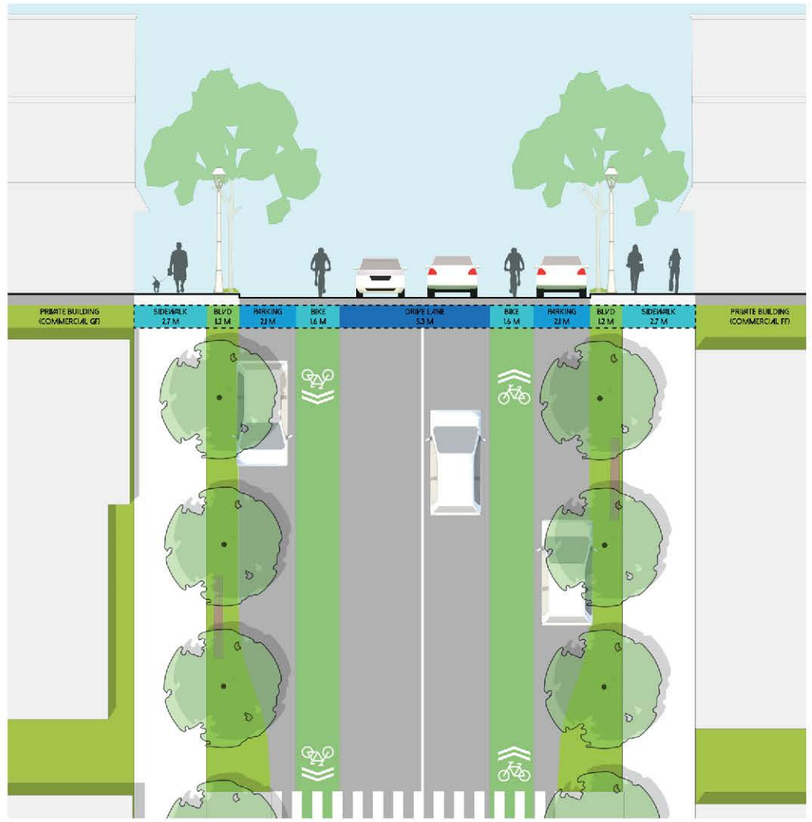


NEIGHBOURHOOD BOULEVARD

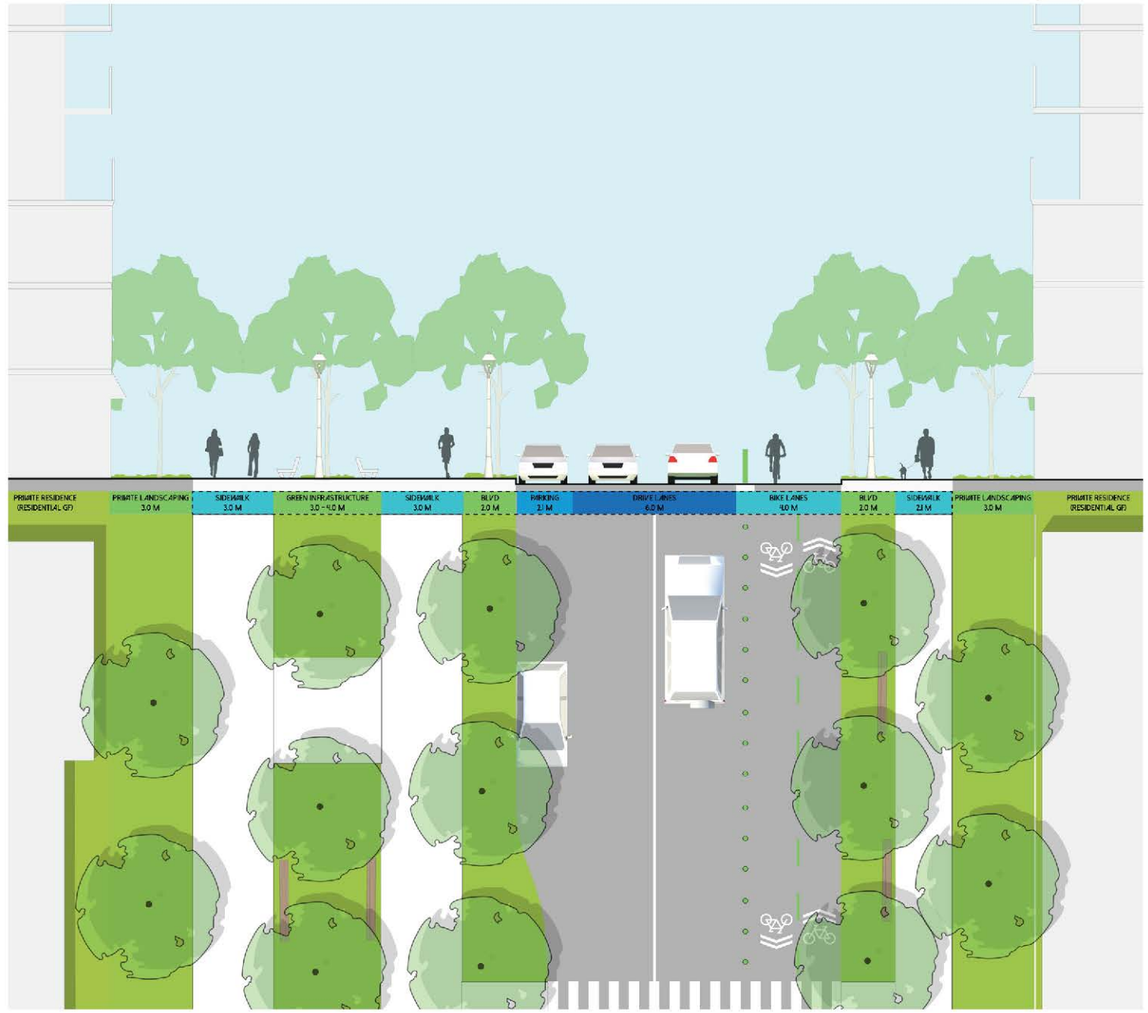
APPROACH

- **Prioritize** pedestrian experience
- Bike lane (one-way along 1st, two-way along 9th)
- Street trees, seating, lighting & other elements
- Street parking
- Reduced speed limits

1ST AVE NE



9TH ST NE

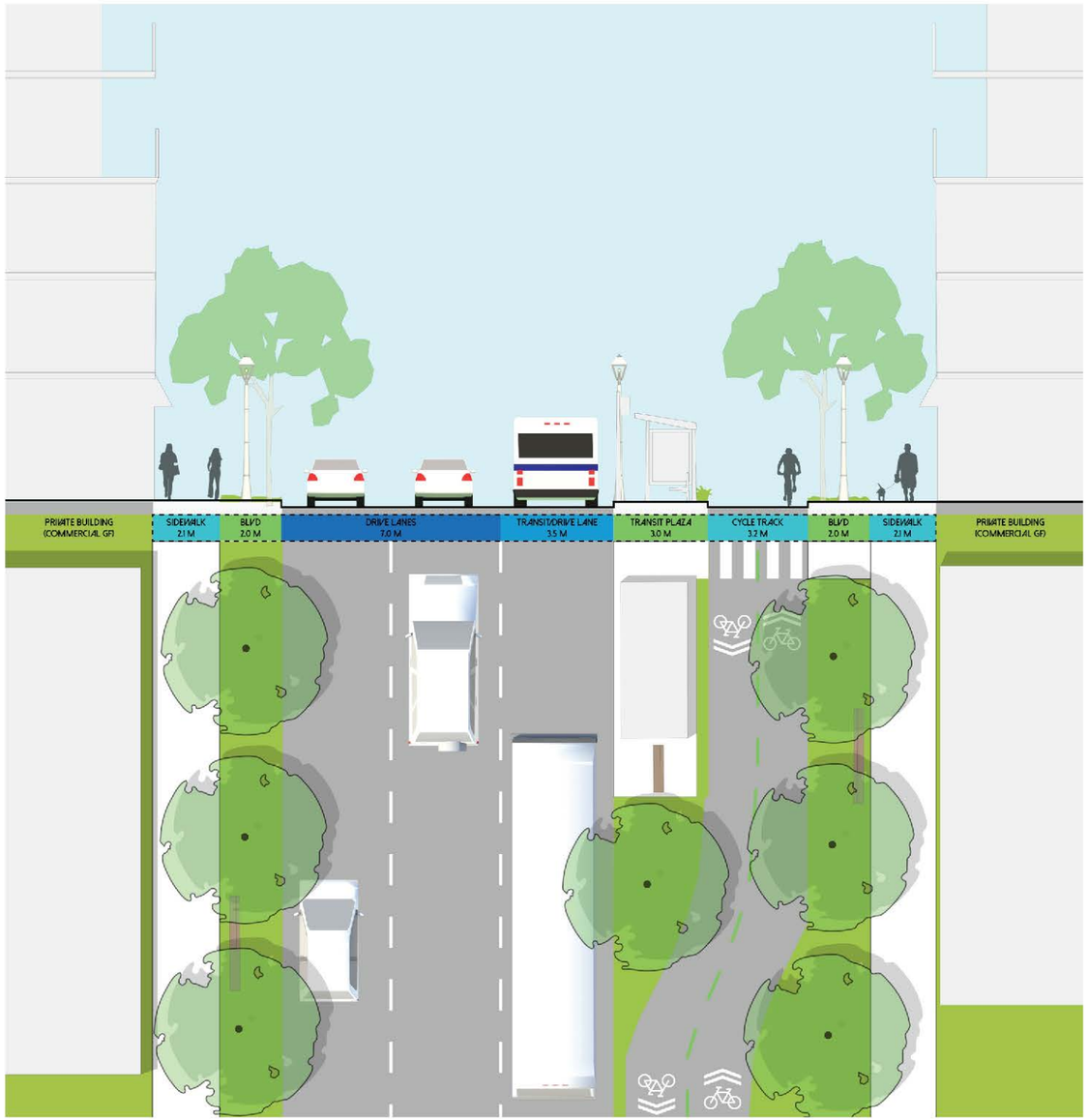


URBAN BOULEVARD

APPROACH

- Improve pedestrian experience
- Separated bike lane
- Street trees, seating, lighting & other elements

EDMONTON TRAIL

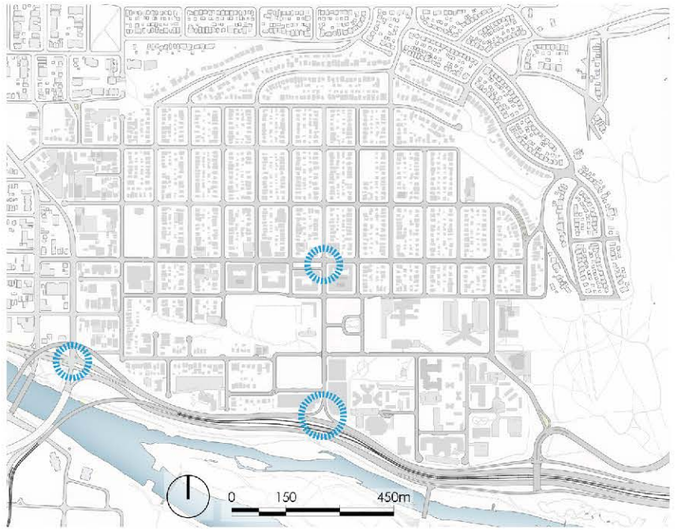


INTERSECTIONS

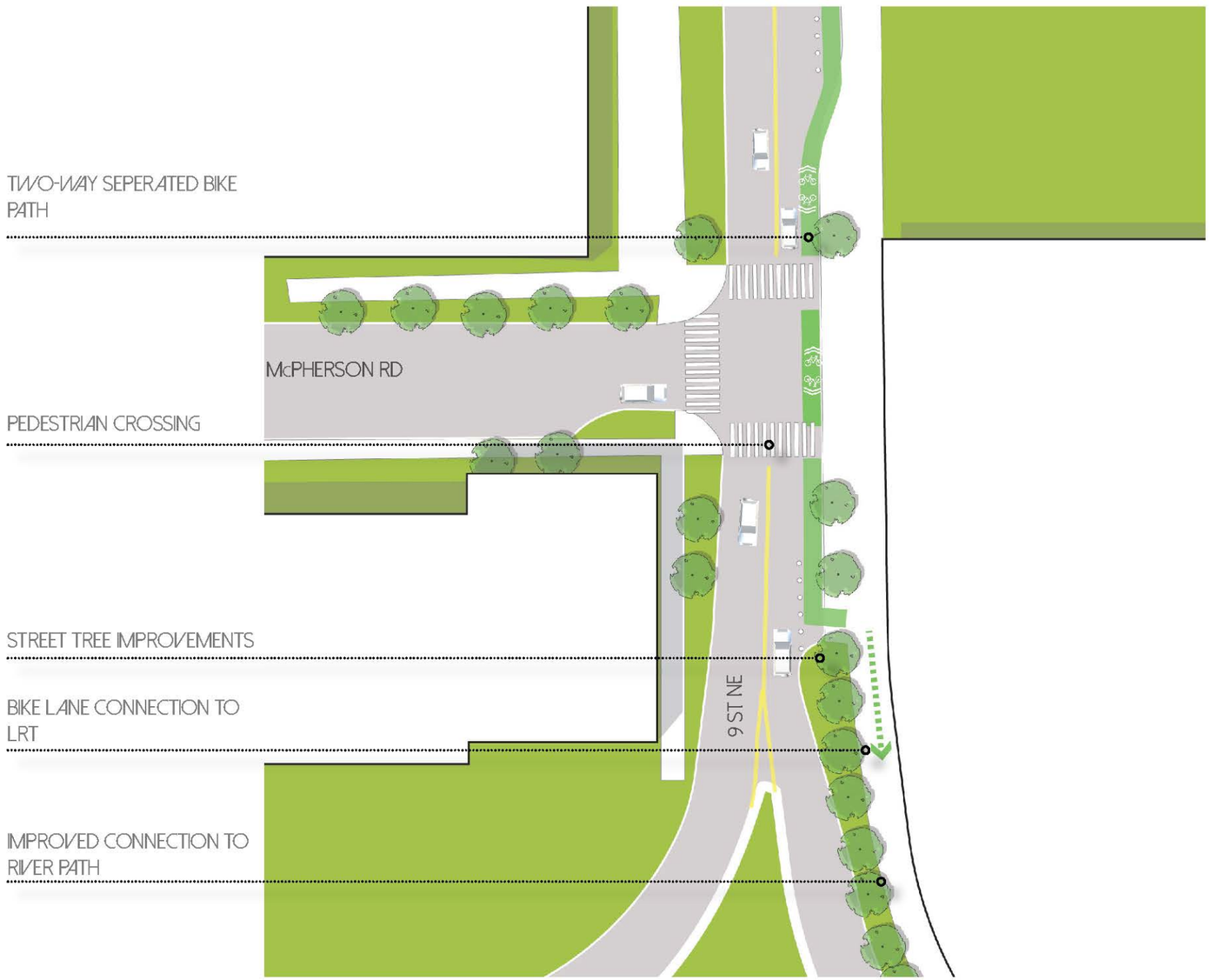
The study identified three major intersections and proposes intersection redesigns focused on improving the experience for users of all modes of transportation.

9TH AND McPHERSON

It was indicated that this intersection had issues with speeding traffic entering the community from Memorial Drive which created an unsafe pedestrian crossing environment. Additionally, this route is a cyclist connection to the river path.



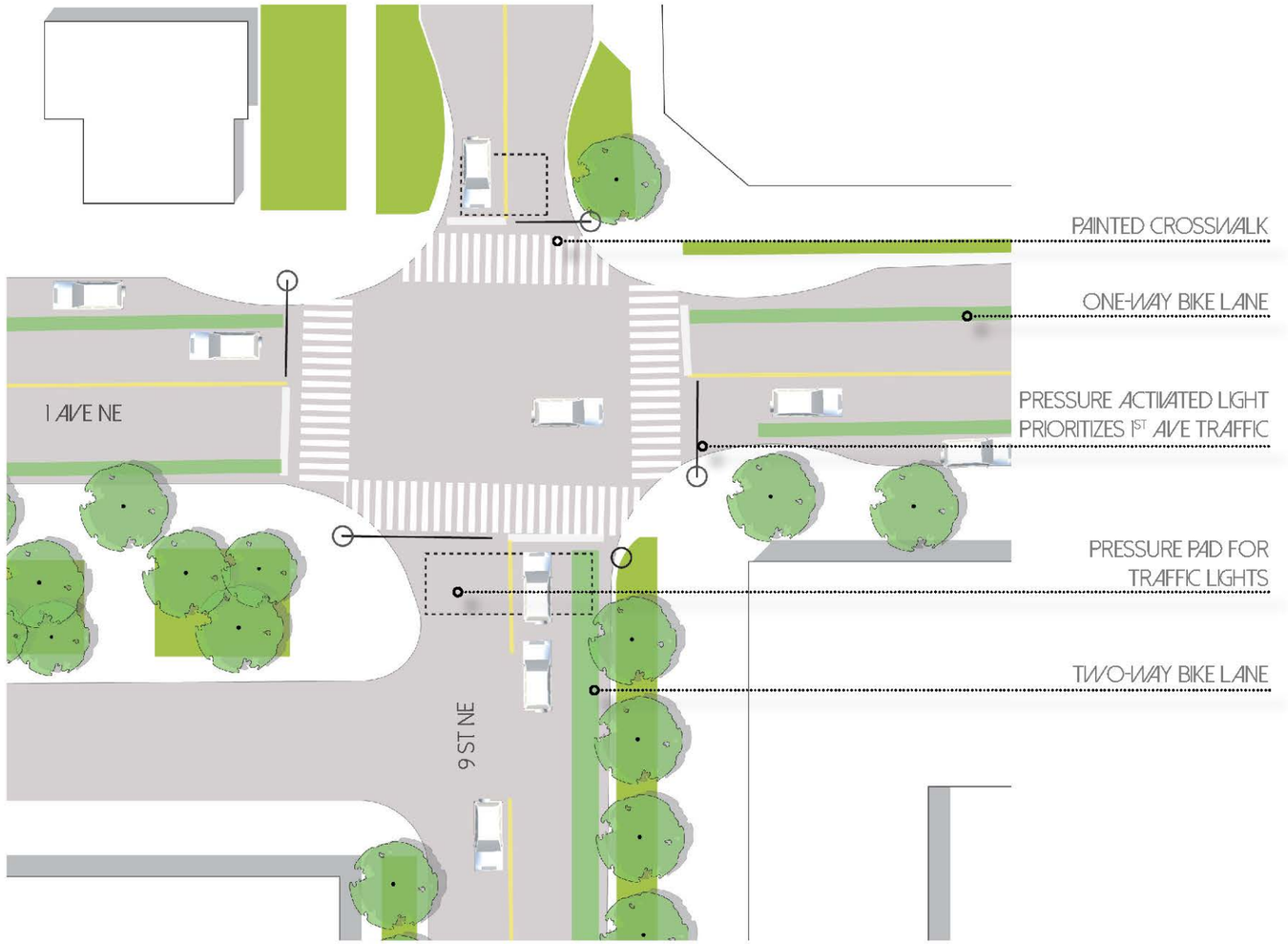
9TH ST NE & McPHERSON RD



1ST *AVE* AND 9TH STREET

It was noted in the community workshop that this intersection had an unsafe pedestrian crossing in all directions with no pedestrian crossing light. Also with free flow traffic along 1st ave, northbound traffic on 9th eexperiences issues crossing and turning left.

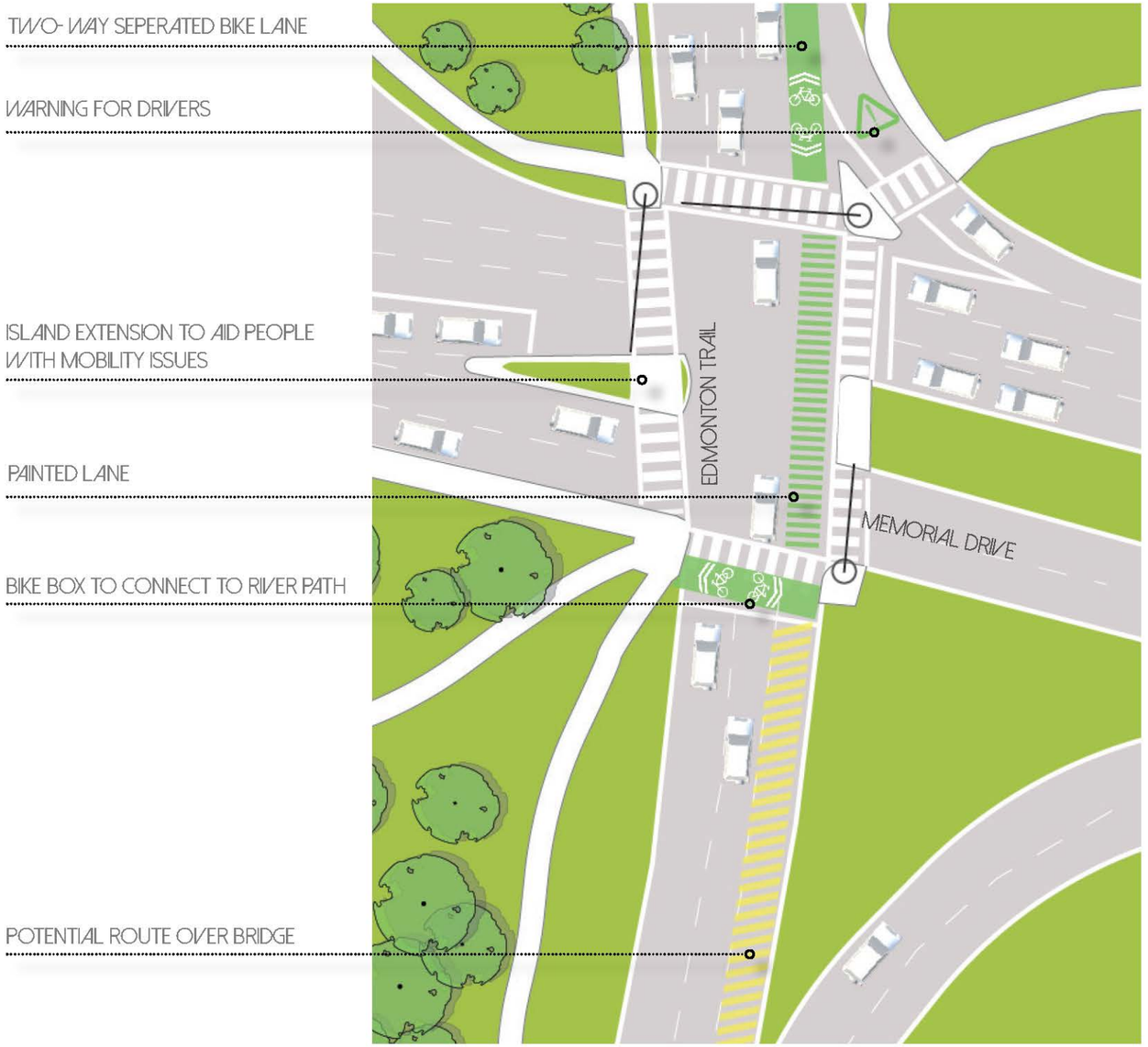
1ST *AVE* & 9TH ST NE



MEMORIAL DRIVE AND EDMONTON TRAIL

This high volume intersection primarily caters to vehicular traffic. Pedestrian and cyclist connections to the river path and community were noted to be of low quality. Additionally, provisions for the proposed cycle track on Edmonton trail are addressed in the proposed intersection design.

MEMORIAL DRIVE & EDMONTON TRAIL



CUT THROUGH TRAFF IC

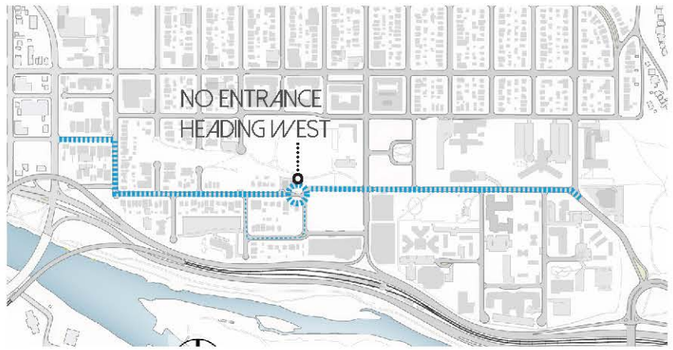
In the community workshop, cut through traffic along McDougall between 12th street and Edmonton trail was identified as a potential issue. As the traffic count data was not available, this study recommends that the BRCA coordinate with the city to initiate a traffic study along this street. Improved traffic counts for this area will better inform where appropriate traffic calming measures should be taken.

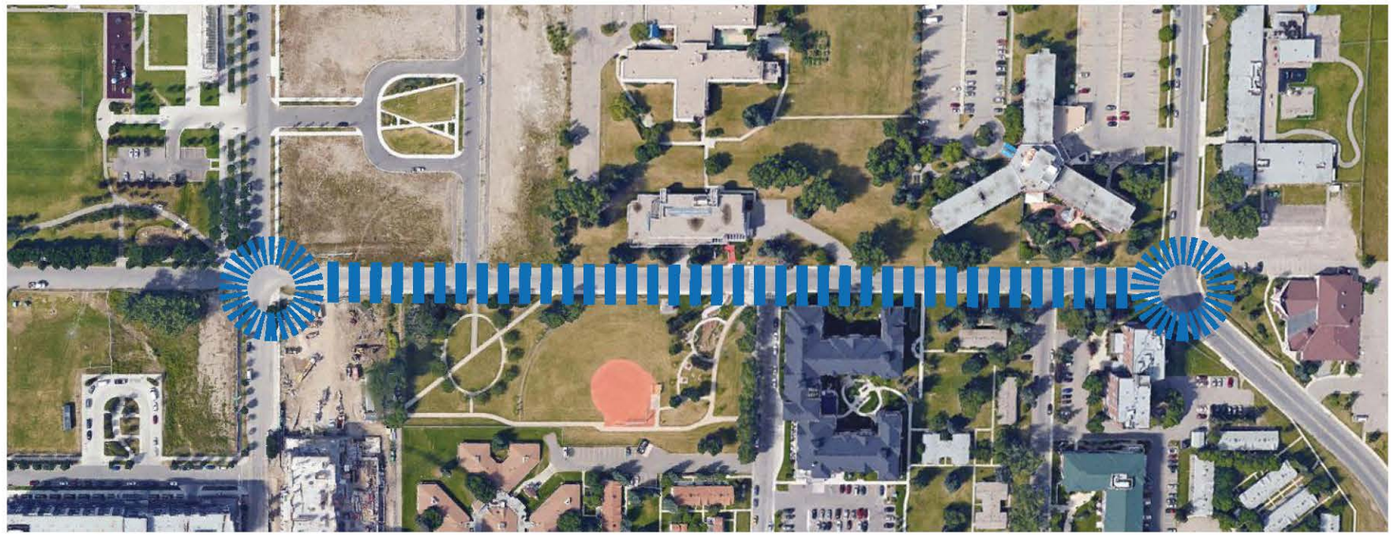
To dissuade potential cut-through traffic, this study proposes that elements such as curb extensions, speed limit reductions, speed bumps and design features that reduce the convenience of cutting through are implemented along McDougall Rd between 12 ave and 9th St NE. These elements should continue to keep connections open along this route for residents.

speed limit sign
http://calgaryherald.com/news/local-news/city-debates-residential-speed-reductions-to-40-even-30-kmh

traffic calming curb extensions
http://indianapublicmedia.org/news/tag/traffic-calming-devices/

CUT THROUGH TRAFF IC ROUTE

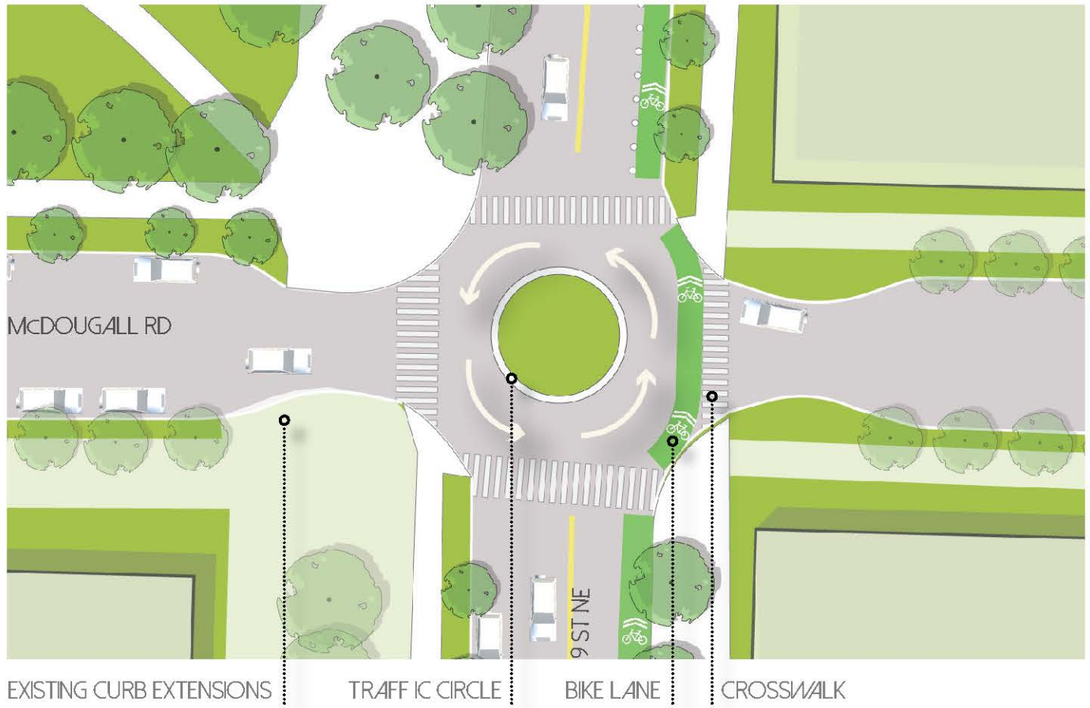




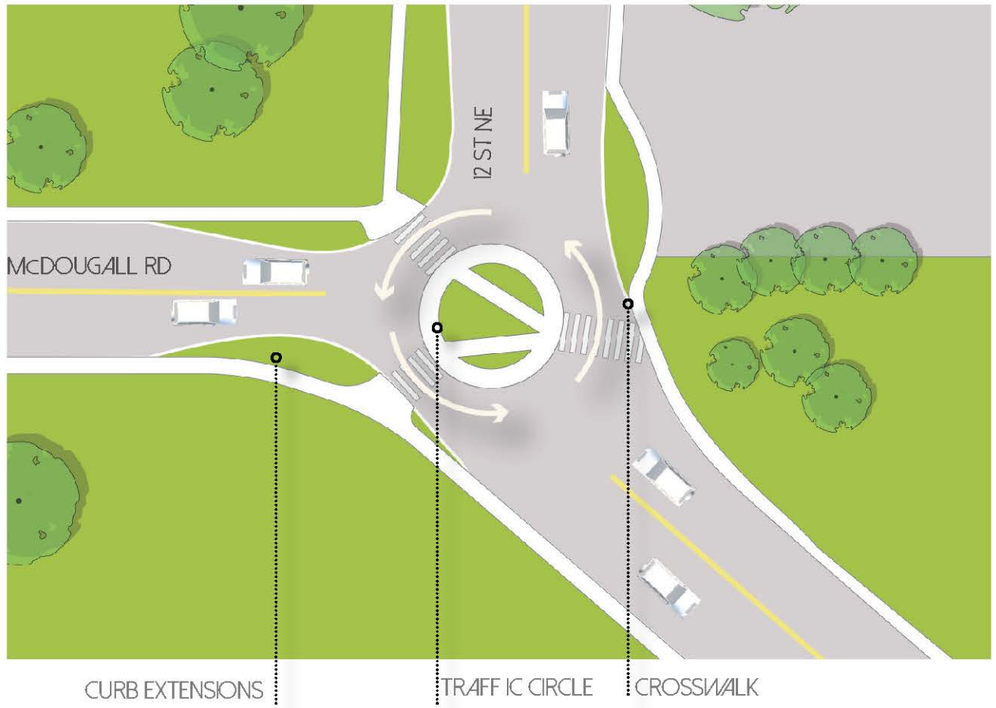
TRAFFIC CIRCLES

During the future development in East Riverside, traffic circles could be built at the intersection of 12th and Mcdougall and at 9th and McDougall. These traffic calming measures will decrease the speed of traffic entering the community and dissuade cut-through traffic. Additionally, traffic circles will improve the pedestrian crossings at these intersections by reducing vehicle speed.

McDOUGALL RD & 9TH ST NE



McDOUGALL RD & 12 ST NE



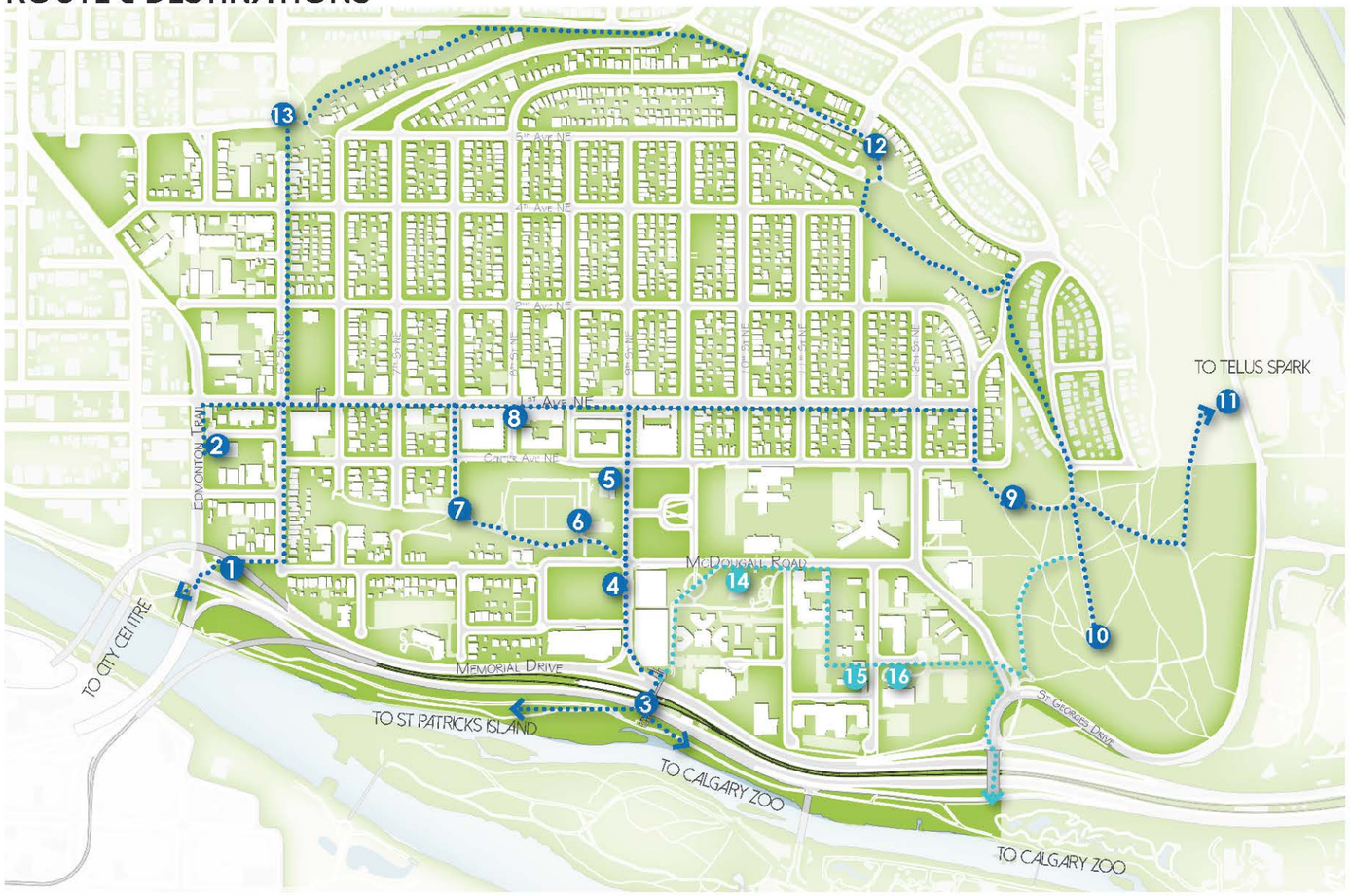
BRIDGELAND WALK

Bridgeland Walk is a proposed attraction designed to highlight many of the existing and proposed community destinations. This walk is intended to promote Bridgeland as a destination and become a valuable amenity for residents. The proposed route for the walk is shown in the adjacent map and features two distinct qualities: the natural and the urban. This walk would provide stunning views of the city, connect local businesses, and provide recreation opportunities.

To help visitors navigate the Bridgeland Walk, this study proposes community sign and a guided brochure.

Directory and Signs
https://www.behance.net/gallery/7841291/Calgary-RiverWalk-Urban-Pathway-Wayfinding

ROUTE & DESTINATIONS



1. SKATE PARK
2. FUTURE GROCERY & BUS PLAZA
3. LRT STATION
4. FUTURE BIOSWALE
5. COMMUNITY CENTER, CAFE, BIKE & TOOL LIBRARY
6. RAIN COMMUNITY GARDEN, PLAYGROUND, SOCCER FIELD, ICE RINK
7. *VIEW* POINT
8. MAINSTREET
9. TOM CAMPBELL PATHWAY SYSTEM
10. HISTORIC ROCK OUTCROP
11. PATH TO TELUS SPARK
12. BLUFF PATHWAY NETWORK & EXERCISE STATIONS
13. *VIEW* POINT

FUTURE ROUTE

14. MCDOUGALL PARK
15. EAST RIVERSIDE HUB
16. FRAGRANCE GARDEN

MAINSTREETS OVERVIEW

INTENT

- Promote Bridgeland as a destination
- Attract new businesses
- Connect main street corridors

MAINSTREETS

Mainstreets are described by the city as "*active areas that attract Calgarians to socialize, work, shop, dine, and celebrate local events. They are also often important transportation routes.*" Bridgeland is identified in the Municipal Development Plan as having two mainstreets: 1st ave NE and Edmonton Trail. Proposals in this section can be used as an aid for the Community Association when working with the City of Calgary on the Mainstreets Program.

Through neighbourhood analysis, workshops with the community, and discussions with business owners this study identified that currently the population of Bridgeland alone cannot fully support a thriving mainstreet. These corridors need to attract additional visitors to support businesses.

In order to attract visitors this study proposes focusing on developing 1st ave NE and Edmonton Trail as destinations. Many of the proposals from the public spaces and connectivity section can contribute to improving the Mainstreet experience.
In addition, supporting and facilitating new businesses, and filling in the gaps along corridors and between the two mainstreets can draw people into Bridgeland.

Edmonton Trail


1st Ave NE

ENTRANCES

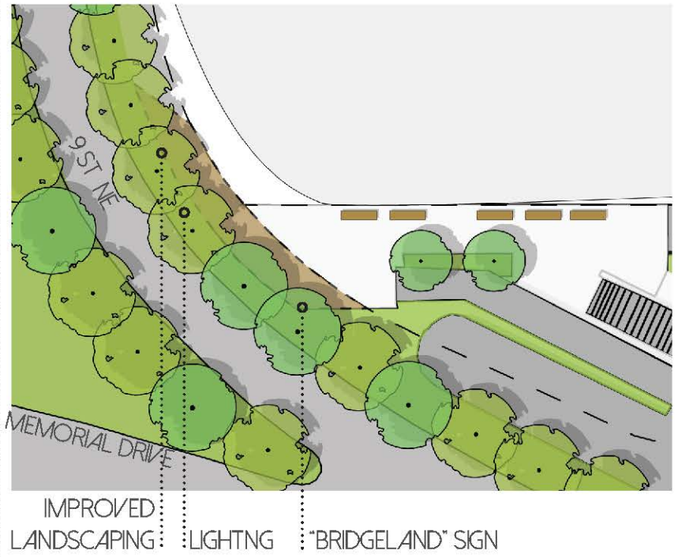
One issue brought up by the community was a lack of visual identity and "Bridgeland Branding". Improving entrance feature can create visual cues to visitors that Bridgeland is a destination worth visiting. These cues could be simple improvements to landscaping, lighting, and crosswalks. Entrance design features such as signs and public art at key locations can also draw people into the neighbourhood.

This study provides design concepts for the main entrances identified on the map below. These designs are site sensitive. For example, a community mural on the Memorial Drive overpass would be visible to cars driving along the busy Memorial Drive and Edmonton Trail corridors, and it would also visually connect to the proposed skate park. A "Bridgeland" sign and landscape improvements on 9th st NE and Memorial Drive would help create an enjoyable pedestrian and cyclist experience and draw LRT users into the community.

MEMORIAL DRIVE & EDMONTON TRAIL

COMMUNITY MURAL

LRT ENTRANCE PLAZA



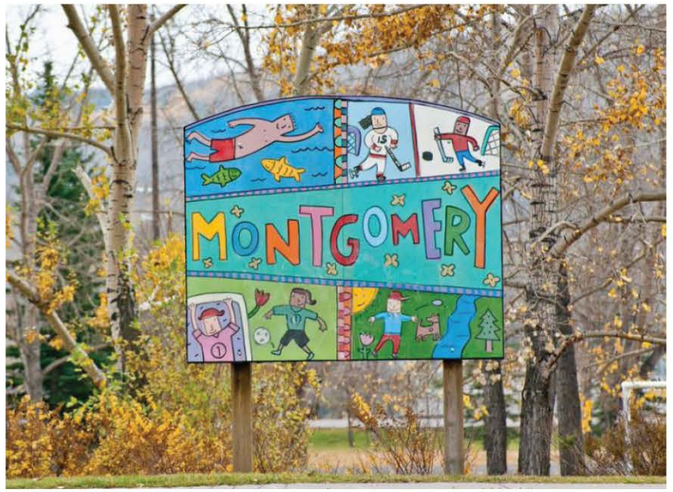
BRIDGELAND SIGN

LOCAL IDENTITY

Building a local identity and brand can be a community-led initiative. The community can build its own Bridgeland Brand by coming together to create simple signs like this one for the neighbourhood of Montgomery.

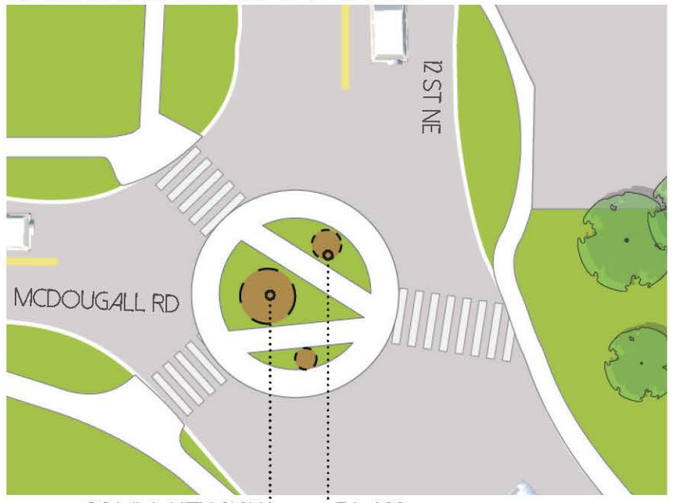
Linear flags along corridors at key locations are an effective way to create legible entrances to mainstreet corridors and the community. This study proposes that the Community Association holds a contest for local residents to design community flags that would be attach to existing lighting features and can be accomodated in new lighting features.

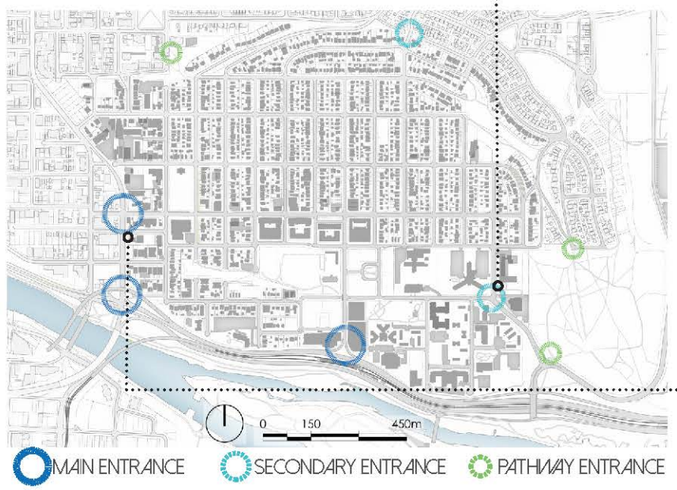
COMMUNITY SIGN



Montgomery sign
http://www.kenrichter.com/montgomery-real-estate

MCDOUGALL RD & 12 ST NE

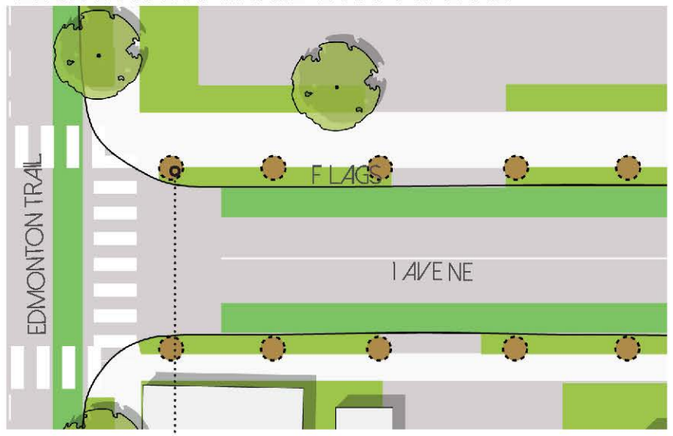




LINEAR F LAGS & LIGHTING

Flag
http://faculty.arts.ubc.ca/henryyu/Hist429/Katy-Anne/Webpages/History.htm

EDMONTON TRAIL & 1ST AVE NE



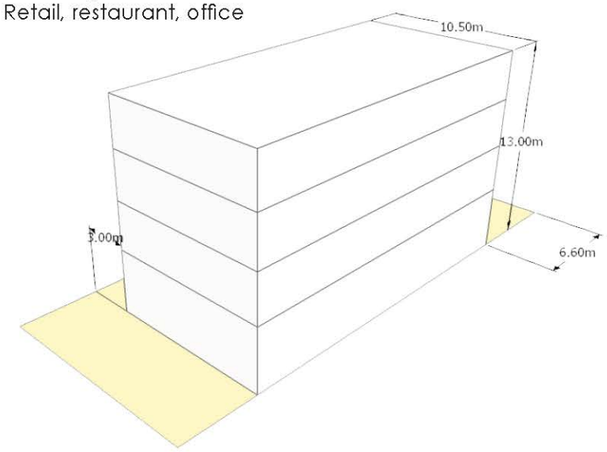
CONNECTING THE MAINSTREETS

Edmonton Trail and 1st Ave NE have a variety of commercial land uses, however, there are noticable gaps in the commercial street wall along both corridors. Many of the buildings along the northern side of 1st ave are seperated by empty lots, vacant buildings, and parking along the street frontage. On Edmonton Trail there are vacant buildings and other gaps on the eastern side between Meredith and 1st Ave.

On the western side of 1st ave there are residential blocks which currently divide the commercial areas. This study proposes rezoning these gaps and extending the 1st ave corridor East with a C-Cor1 designtation (Commercial- Corridor one, the same designation that occurs along the commercial zone on 1st avenue). This means that existing homes could house businesses and future development could bridge the gaps between the two mainstreets.

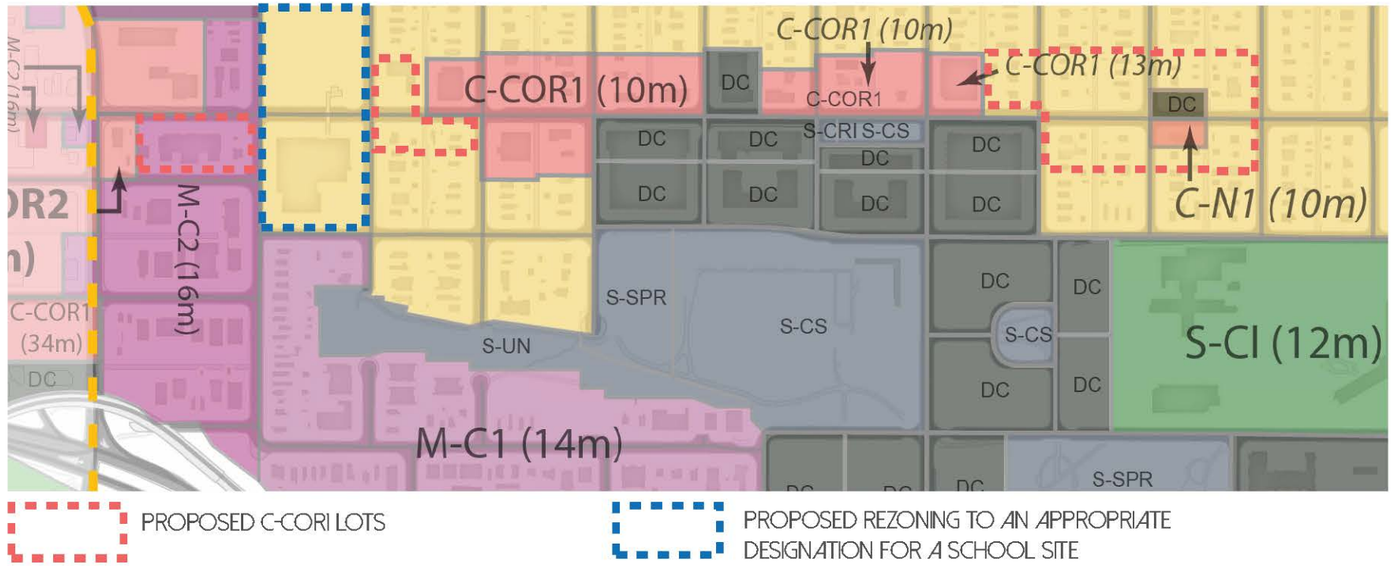
C-COR2 ZONING (f.2.0 h.13m)

Max Height: 13m Floor Area Ratio: 2.0
Retail, restaurant, office



CURRENT LAND USES

PROPOSED ZONING CHANGES

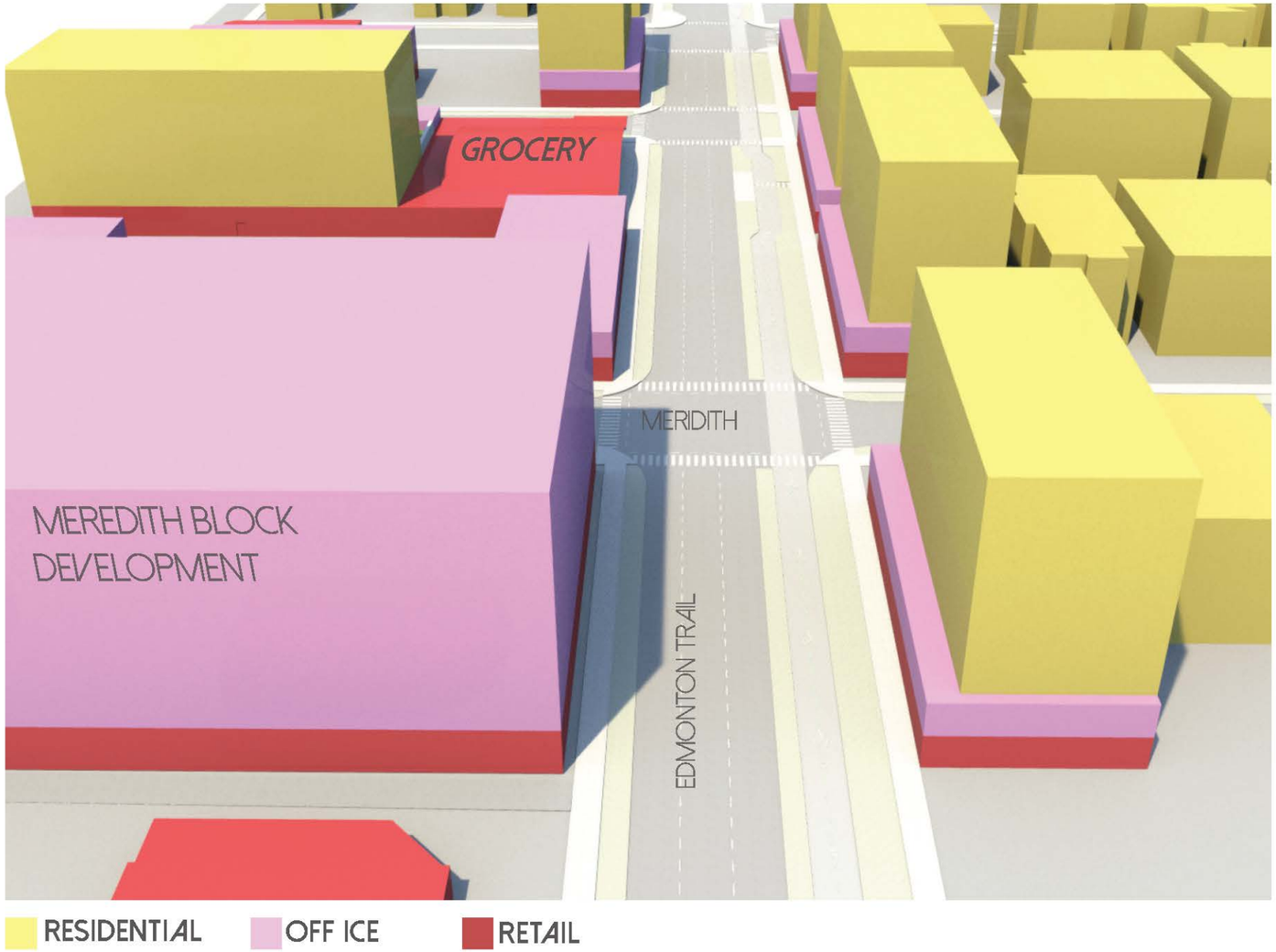


EDMONTON TRAIL

Edmonton Trail is a car-oriented regional corridor that connects Bridgeland to other neighbourhoods and the city center. It is a ideal location for businesses and amenities that serve both Bridgeland and the surrounding areas.

This corridor is ideally situated across the river from the city center, and is easily accesible via a main transit and vehicular route. Edmonton trail has the potential to become a vibrant Mainstreet. In addition to applying streetscape improvements as outlined previously in the document, this study proposes that Edmonton Trail Corridor develop in a mixed use manner with a focus on a commercial-oriented street wall. Regionally-oriented land uses should be emphasized along this corridor, benefiting from the higher volume of flow through traffic.

PROPOSED LAND USE



PROPOSED IMPROVEMENTS & DEVELOPMENT

GROCERY

TRANSIT PLAZA

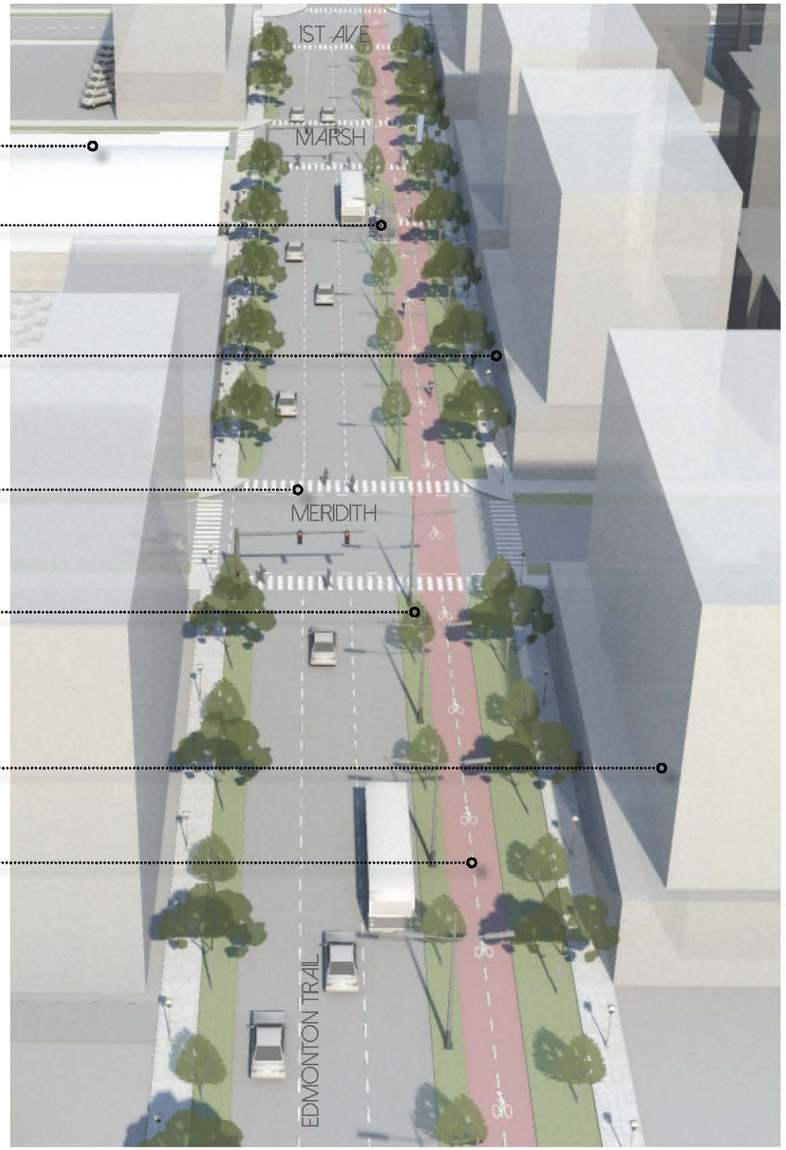
CONTINUOUS STREET WALL

CROSS WALK IMPROVEMENTS

LANDSCAPING

MIXED USE RESIDENTIAL DEVELOPMENT

SEPERATED BIKE LANE



PEDESTRIAN ENVIRONMENT

STREET FRONTAGE

GROCERY

When finding locations for large format grocery stores retailers generally look for large lot sizes, a large catchment area, and an appropriate distance to other grocers. Edmonton Trail corridor is an excellent location for a large format grocery store because:

- the catchment area includes multiple neighbourhoods
- lots can be amalgamated to accomodate a large format grocery
- the location is easily accessed with different modes of transportation
- the nearest grocery (Calgary Co-op) is 2.5 km away

Large format grocery stores act as anchor retail and can positively contribute to street upgrades and support smaller retail in the area. The potential for a grocery store at Marsh and Edmonton Trail is demonstrated on the bottom right of this page. This proposed development would include small format retail along Marsh and six stories of residential units above. Parking would be provided in the back with access on Meredith and 2nd Street NE.

GROCERY CATCHMENT AREA

TRAVEL TIMES TO CALGARY CO-OP

CAR: 5-10 MINUTES
CYCLE: 10-15 MINUTES
TRANSIT: 20-30 MINUTES
WALK: 25-30 MINUTES

STREET FRONTAGE

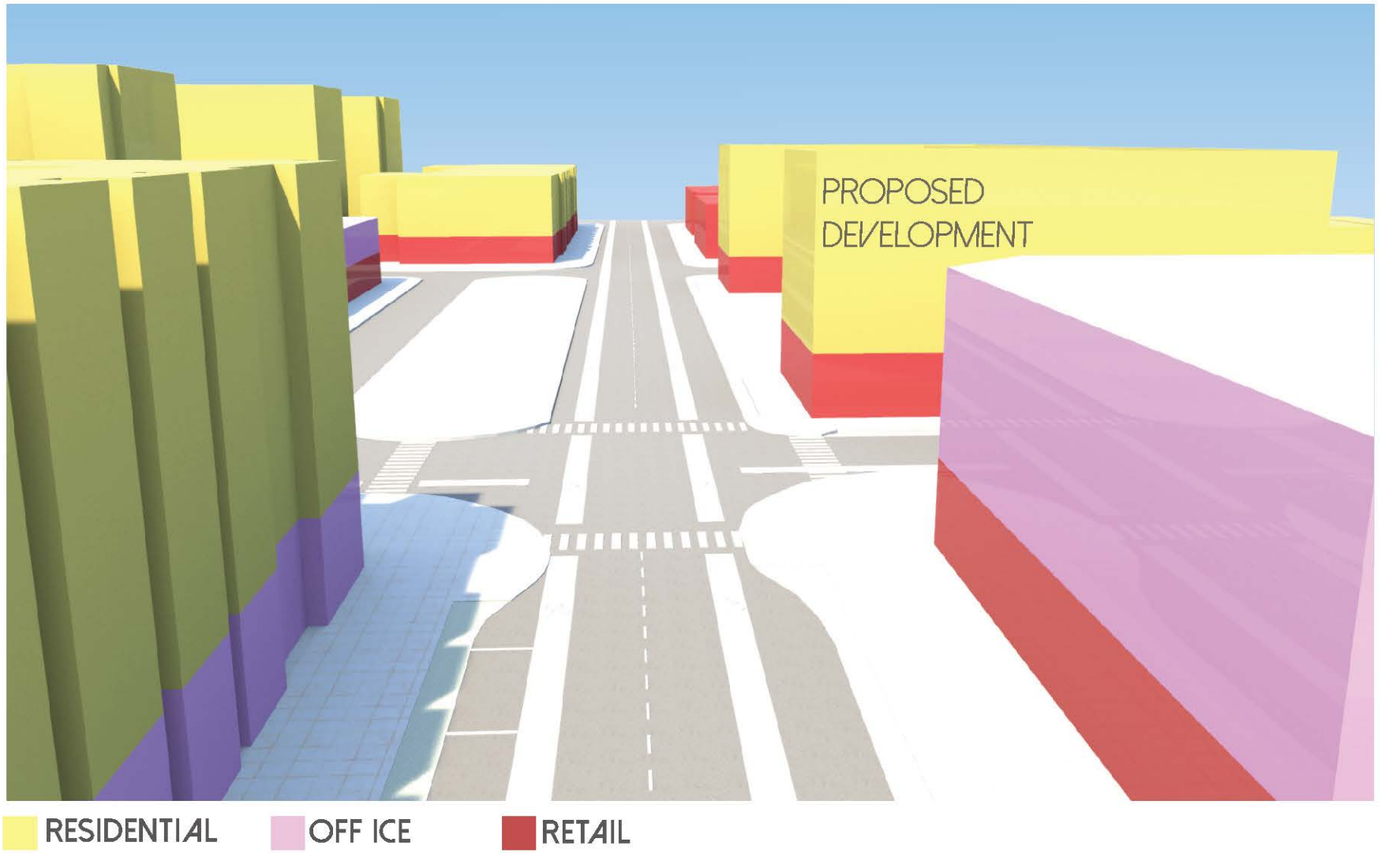
MIXED USE DEVELOPMENT

1ST AVENUE NE

1st avenue NE is a pedestrian-oriented neighbourhood corridor with a vibrant mix of commercial and residential uses. The southern side of this mainstreet is already developing in a compact, mixed use manner that is beneficial to the local businesses.T his study proposes that it continues to develop in this manner.

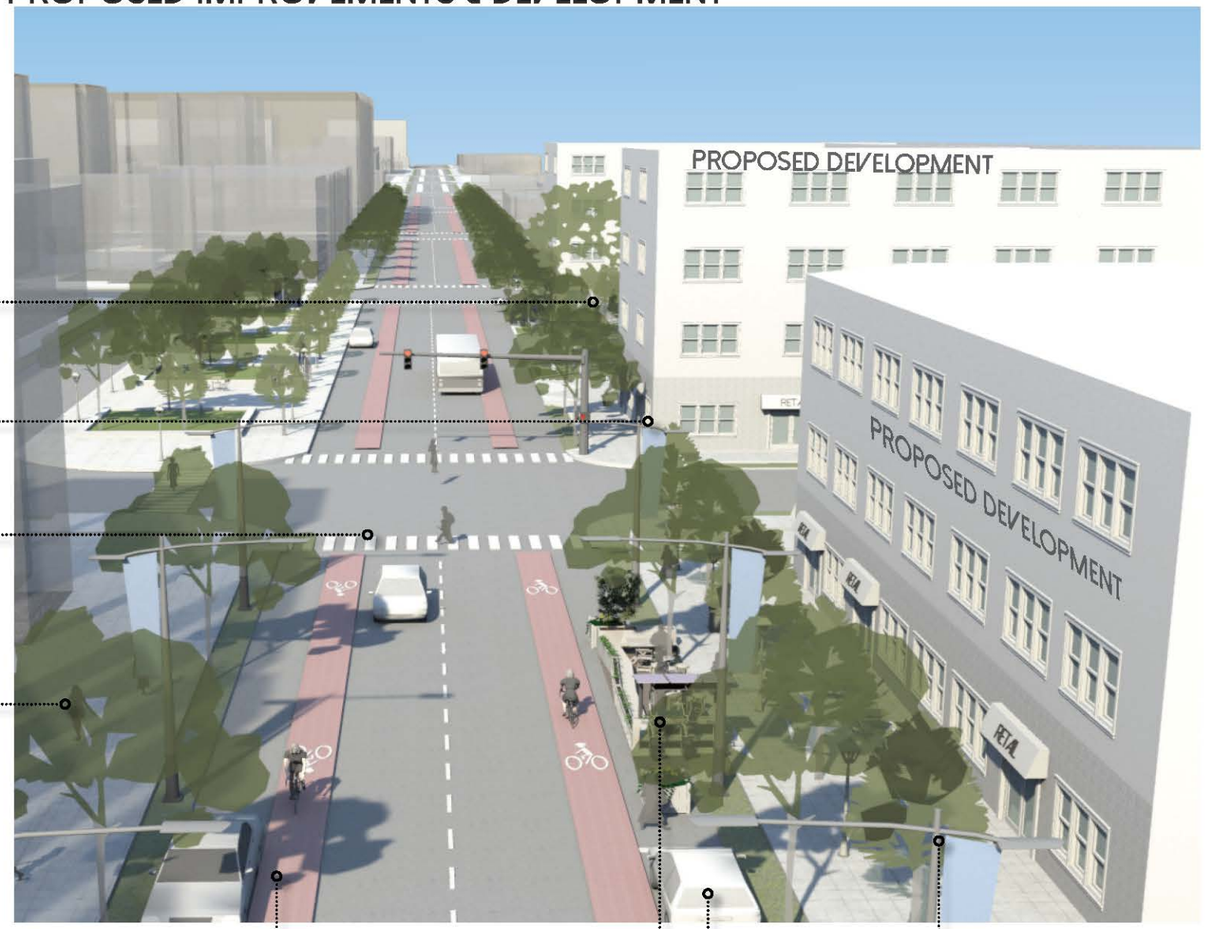
1st avenue NE is known for it's thriving restaurant scene. Appropriate businesses that could support these uses include artesenal and market-style retail, fashion, fitness-based businesses, and office space. Facilitating new businesses and encouraging visitors with the improvments outlined earlier in this document can help 1st ave to develop into a well known destination for Calgarians.

VERITICAL LAND USE



PEDESTRIAN ENVIRONMENT

PROPOSED IMPROVEMENTS & DEVELOPMENT

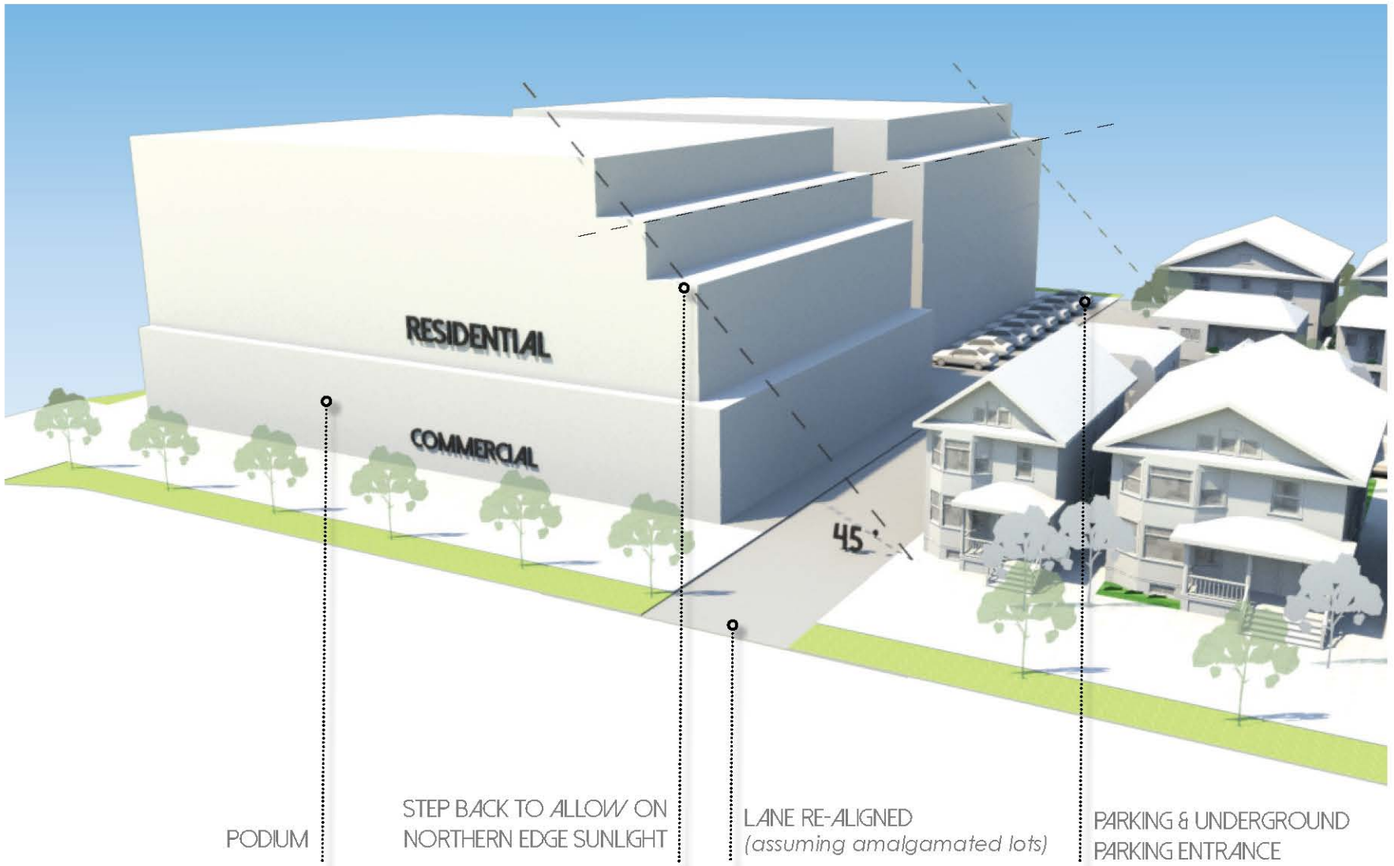


REDUCING RESIDENTIAL CONFLICT

Proposed development along 1st ave NE may result in conflict with the existing low density residential areas. This study proposes that new development follow the massing guidelines on the right in order to minimize conflict. These guidelines include:

- A 45 degree angle from the top of the building to the start of a residential parcel reduces shadows.
- Building on a podium can conceal the height of buildings and creates an illusion of human scale.
- Re-aligning lanes provides better access to parking and a buffer between homes and the commercial building. (existing utilities permitting)
- Providing both above ground and underground parking relieves parking pressure on residential streets.

PROPOSED MASSING



PARKING STRATEGIES

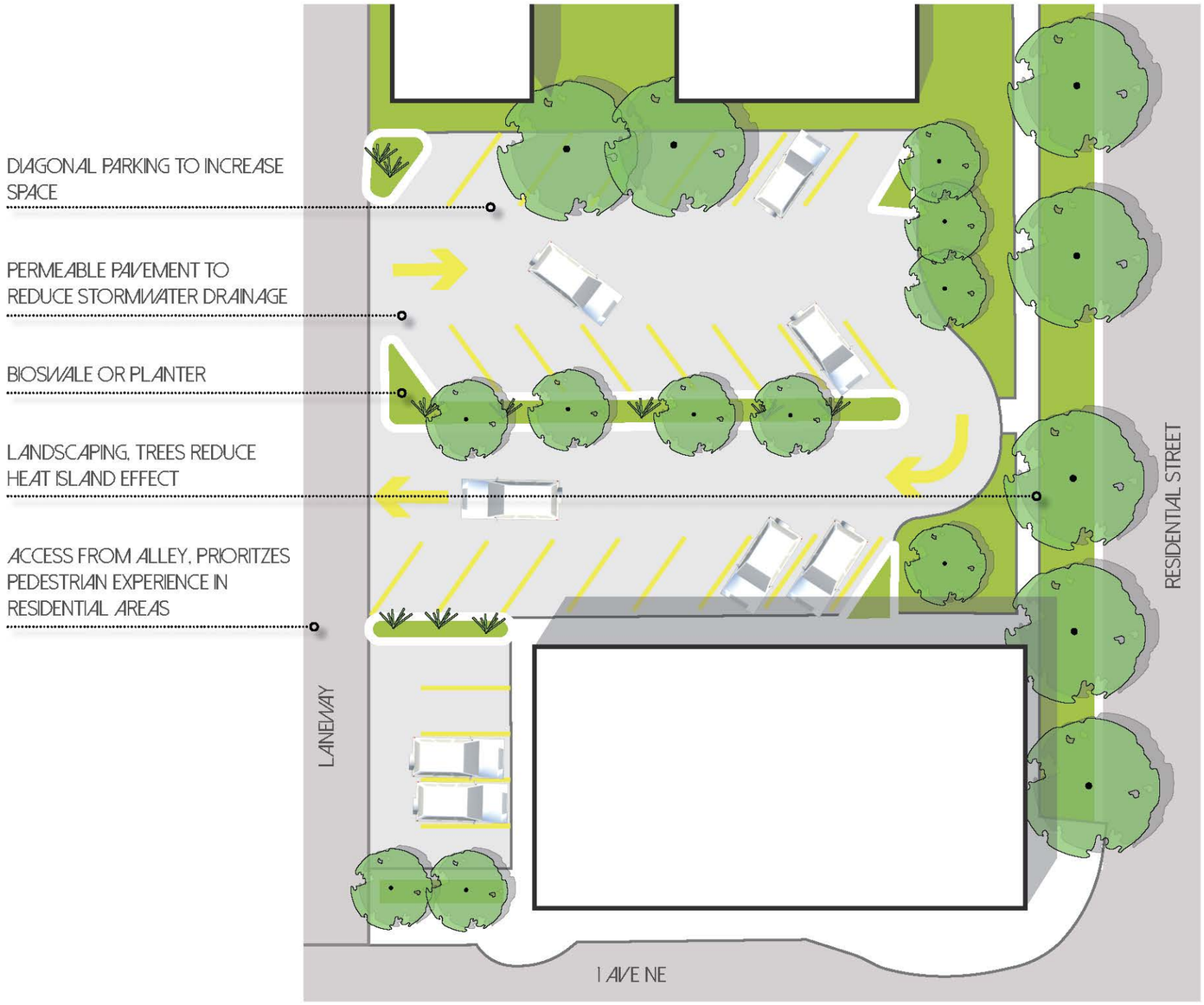
Increasing development along the 1st ave NE corridor will lead to additional parking needs. The mainstreet would benefit from a dedicated parking lot. Ideally this would occur as underground parking in a new development along the corridor. It should be considered a community priority to encourage and incentivize developers to include a public lot in new developments. Potentially this could be incentivized using a density bonusing format.

As a short term solution until a permanent lot is built, this study proposes that the Community Association collaborates with land owners of vacant lots along the 1st ave corridor to provide temporary at grade parking. Land owners along this corridor are encouraged to lease their land to the parking authority or other parking management companies.

PARKING LOT GUIDELINES

At grade parking lots can contribute to increased storm water run-off and the heat island effect. Following the parking lot guidelines on the right can minimize these negative impacts while prioritizing an enjoyable streetscape.

PARKING LOT DESIGN GUIDELINES



BUSINESS REVITALIZATION ZONE

In order to develop 1st Ave NE as a vibrant mainstreet this study proposes that businesses work together to create a Business Revitalization Zone (BRZ). BRZs are intended to "*create, promote and maintain a unique, attractive, vibrant and prosperous business area that is appreciated and supported by local residents and visitors from throughout the city and beyond*". This zone would enable businesses to address the opportunities and issues that were brought forward by local business owners during public engagement.

OPPORTUNITIES

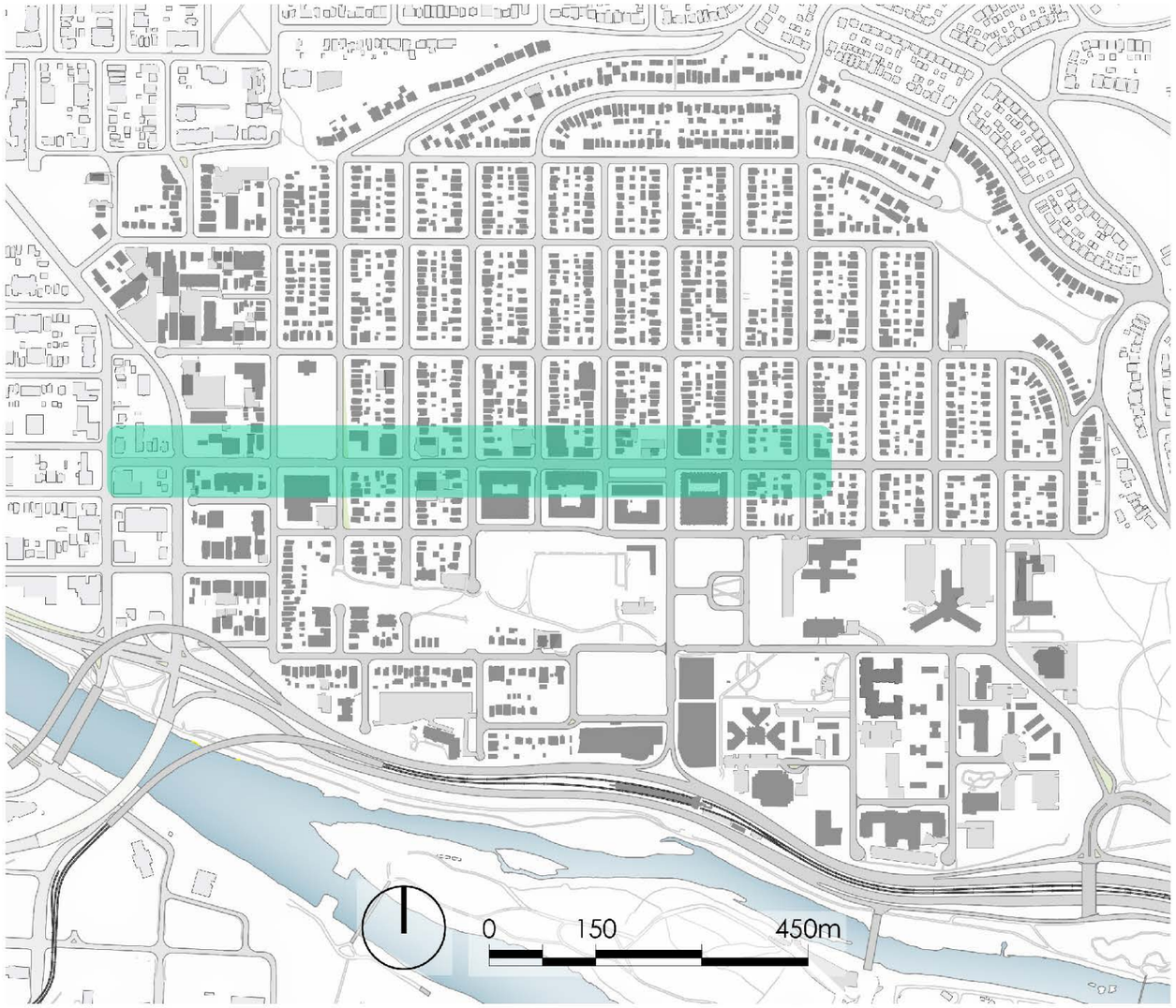
- Build "Bridgeland Brand" with signs, flags etc.
- Support urban design upgrades to 1st ave: *seating, landscaping, lighting, bike parking etc*
- Promote Bridgeland as a destination to visitors
- Develop a website that includes: *business listings, events, sidewalk sales, local attractions, cultural activities, amenities map etc.*

ISSUES TO ADDRESS WITH CITY

- Parking relaxations for businesses within a 5 min walkshed of the LRT*
- Support year round patios and seasonal parklets
- Fast-track city applications for new businesses

see p 42 for a walkshed analysis of the LRT station

PROPOSED BUSINESS REVITALIZATION ZONE



EAST RIVERSIDE DEVELOPMENT

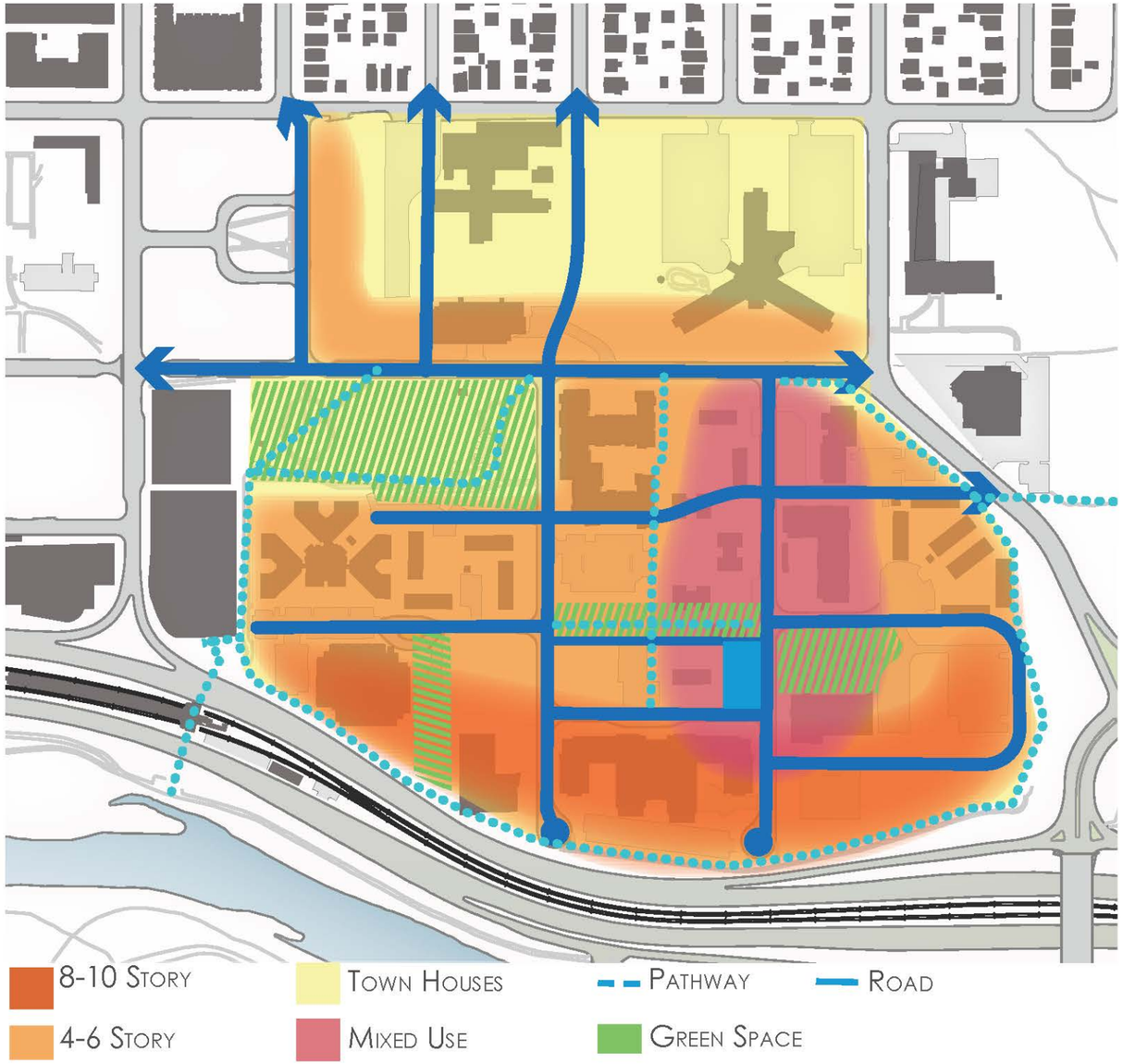
MASTER PLAN

East Riverside is a low density area with primarily institutional uses including medical care facilities and assisted living homes. This area has developed in a disjointed manner leaving large gaps in the urban fabric and a poorly connected street network. The area has lots of potential for development and land owners have expressed an interest in creating a master plan. This study proposes that the Community Association encourages all landowners in this area to work together in order to create a comprehensive Master Plan.

The outline plan on the right provides a basic framework for development with proposals for an improved road network as well as suggestions for general land use, density, housing type, and green spaces.

EAST RIVERSIDE

PROPOSED BUILD OUT



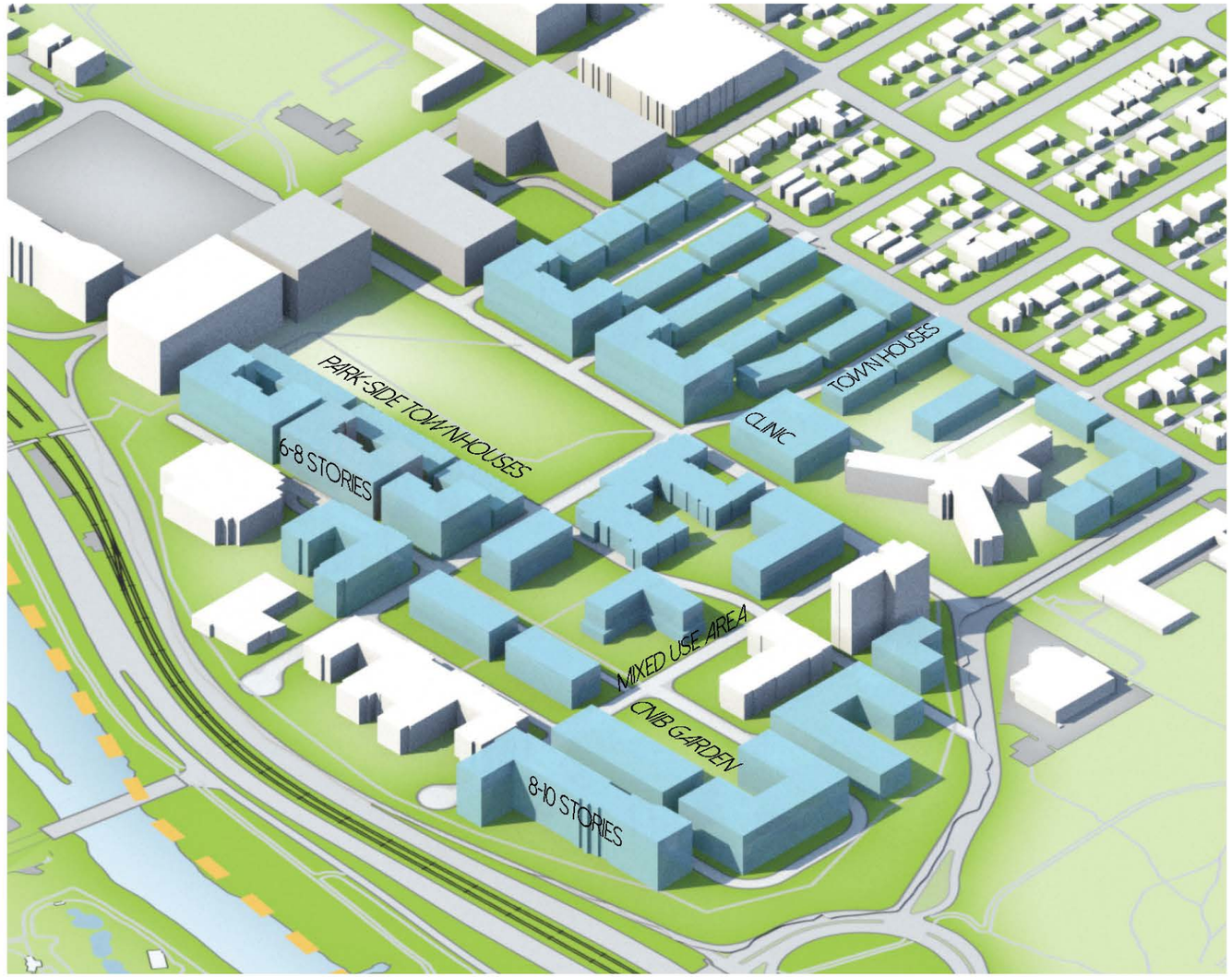
FUTURE DEVELOPMENT

The proposed build out East Riverside uses a compact mid-rise building form similar to that seen throughout Riverside. Buildings that are currently in use can continue to serve the existing residents while empty gaps are filled in. New development is situated towards the street to create a continuous residential street feel.
The development of East Riverside aims to integrate a mixture of residents, to achieve this housing forms could include assisted living, seniors care, affordable housing, and family housing. Medical offices and commercial uses such as a small cafe can be accomodated on lower levels of buildings in the mixed use area, the "hub" of the community. In addition the outline plan proposes a new clinic along McDougall Drive.

UNIVERSAL DESIGN

East Riverside has a high population of residents with mobility issues. Future development should strongly consider the recommendations within the City of Calgary's Universal Design Handbook.

PROPOSED BUILD OUT

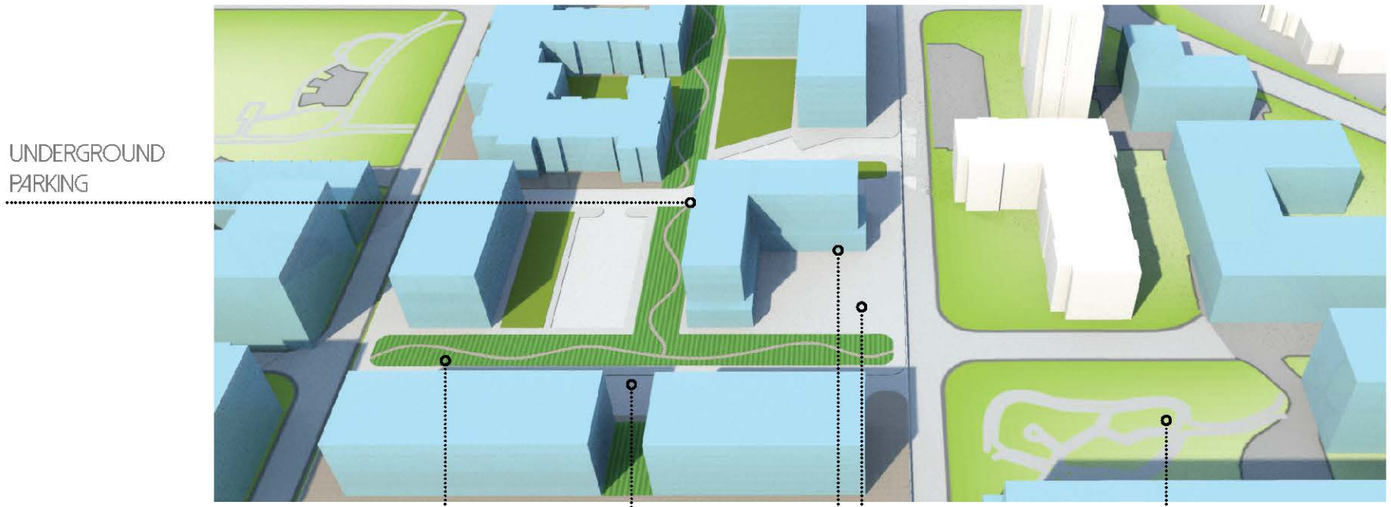


NEW BUILDING EXISTING BUILDING

THE HUB

The Hub of East Riverside is located in the area designated for mixed use. It includes buildings with medical offices and food options on the lower levels. These centrally located land uses would allow residents to visit the doctor then grab a coffee with friends, or for office employees to grab lunch. This area is designed with a linear park and paved plaza which accomodates outdoor seating.

EAST RIVERSIDE HUB PROPOSAL



HUB CONCEPT

FUTURE DEVELOPMENT OF BRIDGELAND

The map on the right is a summary of the major proposed zoning changes in Bridgeland. These zoning changes will set the foundation for development and proactively manage growth and infill.

FUTURE POPULATION

The future population is predicted based on the floor area of the maximum build out allowed on the lots with proposed zoning changes. Average unit sizes and persons per household type provide a baseline for this calculation.

At maximum build out (which could take upwards of 20 years), these proposals could lead to a potential population increase of between approximately 5400-8,600 new residents. New residents can support the businesses along commercial corridors and an increase in population can lead to an increase in amenities as it is more attractive for the City of Calgary to provide new services and improvements when they benefit a larger number of people.

ZONE	NEW RESIDENTS	NEW UNITS
R-CG	200-400	100-160
M-C2	1,000-1,800	600-1,200
DC 6-8 STORIES	200-400	200-250
C-COR 1	*COMMERCIAL USES*	
EAST RIVERSIDE	4,000-6,000	1,800-2,600
TOTAL	5,400-8,600	2,700-4,210

PROPOSED LAND USE BYLAW CHANGES

POTENTIAL BUILD OUT

These massing models demonstrate how Bridgeland can develop if built out to the maximum allowed by the proposed zoning changes. By strategically focusing development and growth the neighbourhood can maintain its character while accomodating new residents and businesses. This urban village has the potential to become a model neighbourhood for the City of Calgary.

CURRENT BUILT FORM

POTENTIAL BUILD OUT

APPENDIX