



**Main Streets Program:**

# **1 Avenue N.E. Streetscape Master Plan**

**March 2020**

# Acknowledgements

**Owner:**

Urban Strategy Implementation

**Prepared By:**



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<https://engage.calgary.ca/1Ave>

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# 1.0 Introduction



# 1.1 Main Streets Program

## What is A Main Street?

A Main Street is the cultural, social and economic focal point of a community. As the heart of the community, a Main Street is vibrant by design – they allow for a wider variety of uses and mixed housing options, to support the higher density of development necessary to support that variety of uses.

## The Main Streets Program

The Main Streets Program is one of the ways that the City of Calgary is working to make our city “a great place to make a living, and a great place to make a life.”

Our program shares The City’s common purpose of “making life better every day” by implementing a comprehensive process to transform our main streets into places where people want to live, work and play.

## Main Streets Vision

Main Streets are places where citizens come together. They allow us to travel less and live more by providing the things we need right in our own communities.

## Core Principles

Main Streets are resilient, adaptable, and attractive places that:

- Celebrate the character of the community;
- Encourage diversity of businesses, buildings and residents;
- Create a vibrant destination, and;
- Improve public health.

## Main Street Program Approach

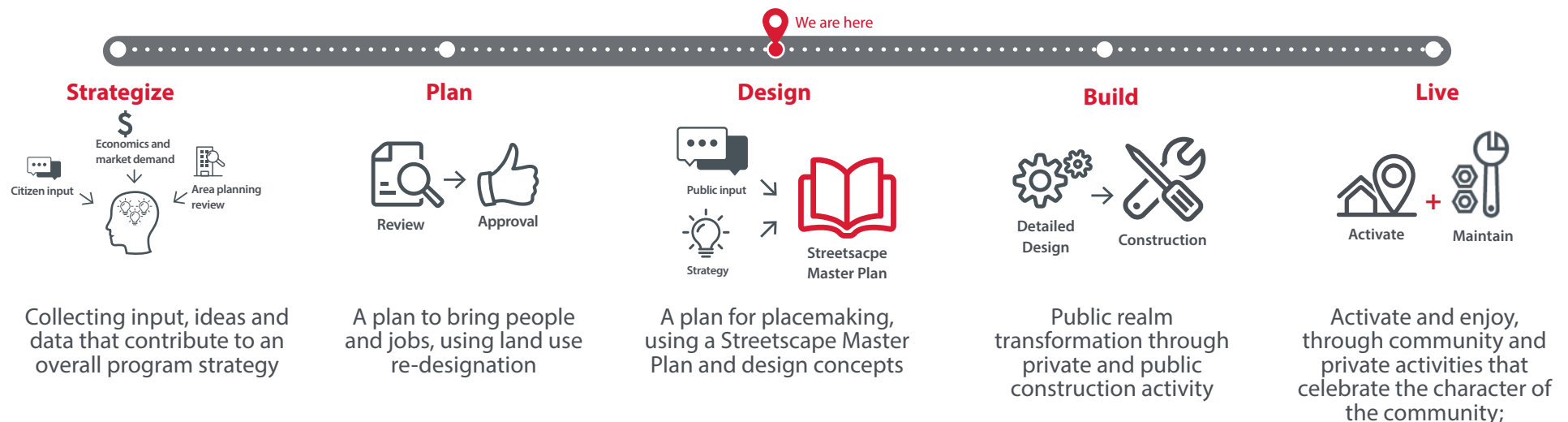


Figure 1. Main Streets Program Approach

# 1.2 Project Introduction + Background

## Streetscape Master Plan Purpose + Use

The purpose of the Streetscape Master Plan for 1 Avenue N.E. and the related segments of Edmonton Trail and 4 Street N.E. is to develop a strategic guide for facilitating positive changes to the corridor through the design and mobility function of the streetscape.

A Streetscape Master Plan provides a design outline for a safe, comfortable, high quality street and sidewalk environment. The design is intended to make the corridor a place that people want to live, work and play. It represents a community-driven effort, linking the priorities of the community residents, business owners, and The City's urban design and transportation policies and priorities.

## Neighbourhood Context

1 Avenue N.E. services the neighbourhoods of Bridgeland - Riverside, Crescent Heights and Renfrew. Neighbourhood development has shaped the connection to Calgary's downtown via Reconciliation Bridge, one of the city's earliest bridges across the Elbow River at the base of 4 Avenue N.E., and also by the old Calgary General Hospital built in 1910 that helped to make the corridor a destination for local goods and services. The former hospital was demolished in 1998, when it was redeveloped with mixed-use transit-oriented development. This resulted in intensifying the community, and reinforcing 1 Avenue N.E. as a Main Street. Additional infill redevelopment along Edmonton Trail and throughout established residential areas has also contributed to other housing types in the area.

The diverse retail and residential offerings along 1 Avenue N.E. has attracted new residents and has contributed to a diverse demographic of people, including young families, business professionals and a large population of seniors. With most neighbourhood residents finding their daily needs served within the project boundary; the Plan Area has defined itself as an attractive Main Street for live, work, and play.

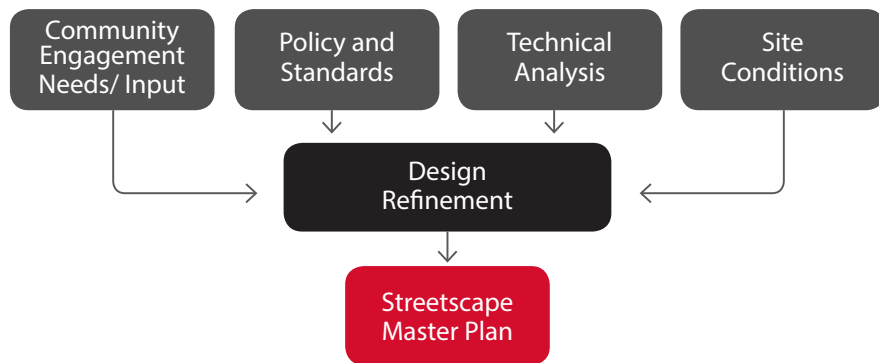
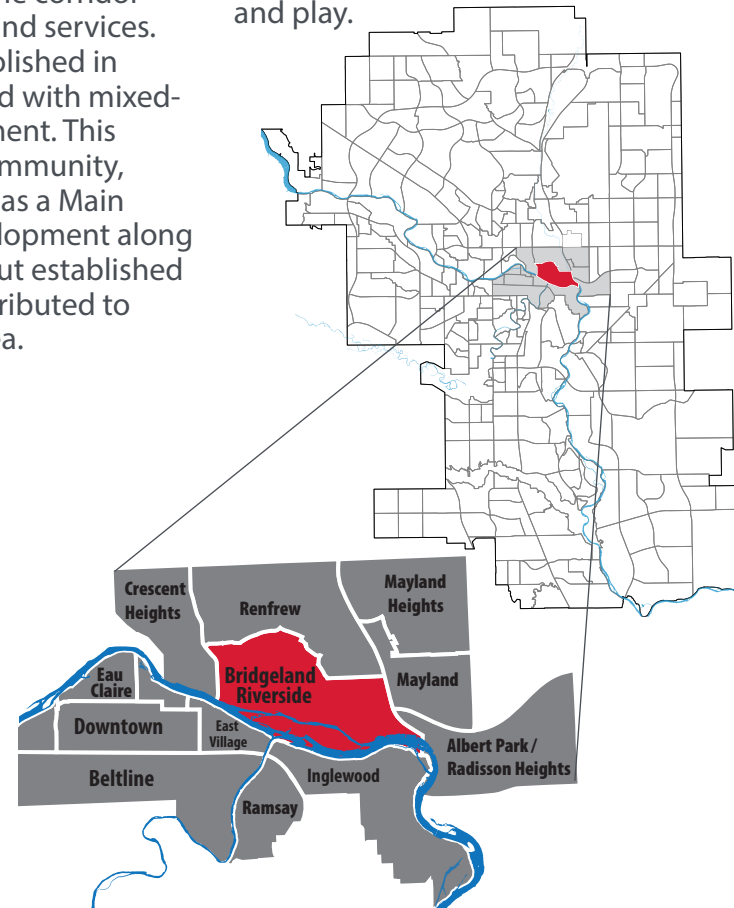


Figure 2. Inputs to the Streetscape Master Plan Design Process



Map 1. Neighbourhood Context

## Plan Area

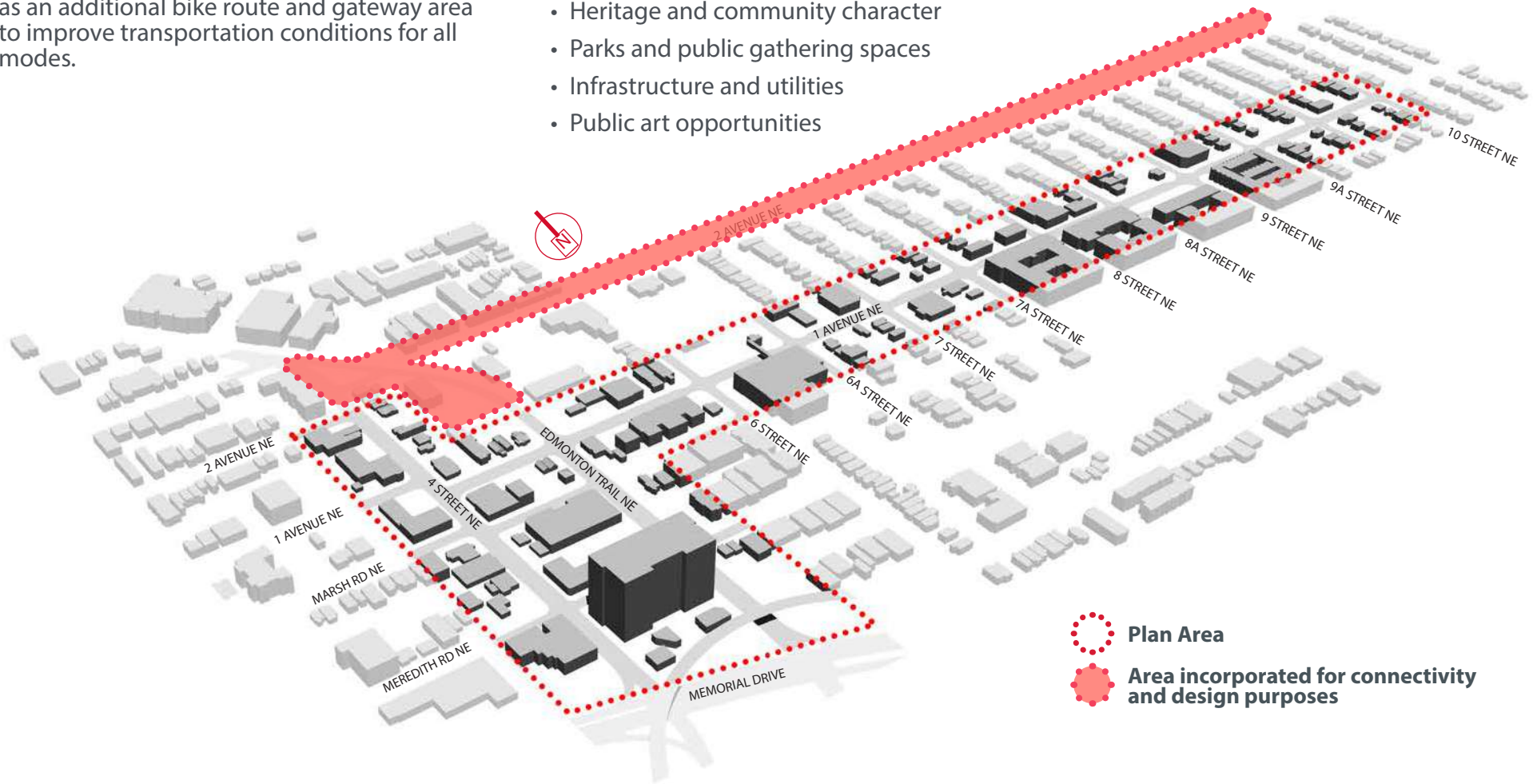
The Streetscape Master Plan focuses on 1 Avenue N.E. between 4 Street N.E. and 11 Street N.E. and incorporates segments of Edmonton Trail, 4 Street N.E. from 2 Avenue N.E. south to Memorial Drive.

To create an integrated Main Street with better connections to surrounding areas, the Plan also takes 2 Avenue N.E. and sections of Edmonton Trail north of the study area into consideration as an additional bike route and gateway area to improve transportation conditions for all modes.

## Design Considerations

The Streetscape Master Plan addresses elements that make a street a high-functioning and inviting environment, including:

- Urban design and placemaking
- Pedestrian realm improvements
- Roadway improvements, including transit, cycling, traffic safety, and parking
- Heritage and community character
- Parks and public gathering spaces
- Infrastructure and utilities
- Public art opportunities



Map 2. Plan Area

# 2.0 Policy + Process





## 2.1 Related Plans + Parallel Projects

The redesign of the 1 Avenue N.E. project area is shaped by various City of Calgary policies that provide a technical framework and clear direction for the Master Plan. City policies will continue to be reviewed throughout the upcoming detailed design process to align and effectively support the implementation of the Master Plan's vision and principles. Other policies, such as Area Structure Plans for Bridgeland-Riverside and surrounding areas, provide clarity on the City direction for the community surrounding the Plan Area.

Concurrent with the Streetscape Master Plan, several projects that interface with the Plan Area are being undertaken. Ongoing efforts were made to ensure coordination with these initiatives.

The following key City policies and parallel projects were considered and directly guided the development of the Master Plan.

### Municipal Development Plan

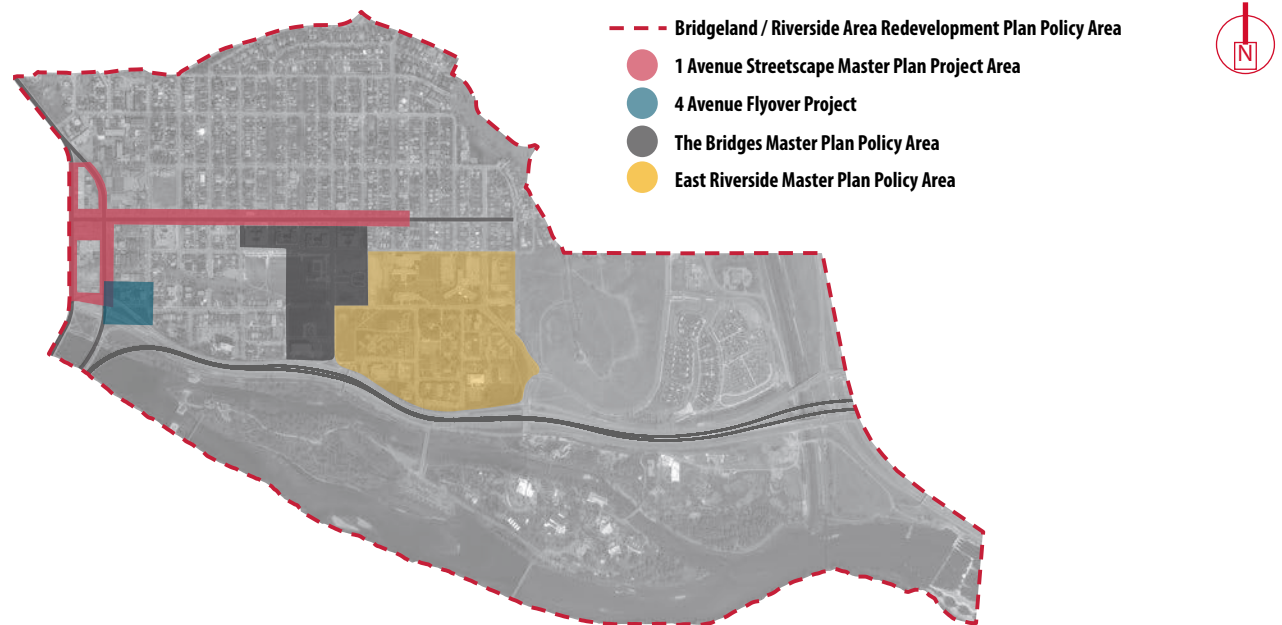
The City's Statutory Municipal Development Plan (MDP) aims to increase and diversify activities along Main Streets, such as local opportunities for employment and retail / services to fulfill daily needs.

The MDP directs Main Streets to be "walkable destinations and local gathering places for adjacent communities" and sets policy that Main Streets provide safe pedestrian connections to transit, services, and recreation. The MDP also aims to increase both residential and employment opportunities along Main Streets.

### Bridgeland-Riverside ARP

The Statutory Bridgeland-Riverside ARP recognizes Bridgeland-Riverside as a vibrant urban neighbourhood, characterized by diversity and history. The ARP identifies 1 Avenue N.E. as the commercial and social hub of the community, making it a key contributor to the area's vibrancy.

The community fosters good urban design principles through a desire for strong public amenities and transportation options across many modes. The ARP direction and policies support community cohesiveness, achieved through a strong sense of place and mix of residents. The ARP encourages day and nighttime activities along 1 Avenue N.E.



Map 3. Related Plans and Parallel Projects

## The Bridges Master Plan (Non-Statutory)

Following the demolition of the Calgary General Hospital in 1998, The Bridges Master Plan, a multi-phase mixed-use transit-oriented development, was conceived for the 30-acre site from 1 Avenue N.E. to Memorial Drive.

As the landowner, The City initiated a site-by-site redevelopment process that started with the build-out of four mixed-use buildings on the south blocks of 1 Avenue N.E. between 7A Street N.E. and 9A Street N.E.. General Avenue Plaza, a new civic space on 1 Avenue N.E., was also created in this process.

The award-winning design created a high-quality urban neighbourhood that builds on the site's history and adopted cues from the community and environment. Nearing completion, most of the parcels identified for redevelopment in this Master Plan are completed with only a few remaining.

## East Riverside Master Plan (Non-Statutory)

The East Riverside Master Plan proposes improved pedestrian access between 1 Avenue N.E. and the C-Train station, improving north-south connections for those accessing 1 Avenue N.E. from Riverside or the C-Train station. It enables increased density in the area through mid-rise residential development, which provides more critical mass to take advantage of the improved public realm and support businesses in the area.

The East Riverside Master Plan suggests the possibility of an extension of 11 Street N.E. from 1 Avenue N.E. south toward Memorial Drive, which will increase neighbourhood connectivity with a north-south corridor. It also recognizes the need for improved cycling infrastructure, travelling both east-west through the neighbourhood as well as north-south to provide better connections to the C-Train and Regional Pathway Network.

### In addition to the key policies, the following additional City documents have been reviewed pertaining to the Plan Area:

- Calgary Transportation Plan
- Complete Streets Policy + Guidelines
- Public Art Master Plan
- City of Calgary Traffic Calming Policy
- Pathway and Bikeway Plan
- Pedestrian Strategy
- Cycling Strategy
- Pathway and Bikeway Map
- Design Guidelines for Subdivision Servicing
- Streetlighting Guide

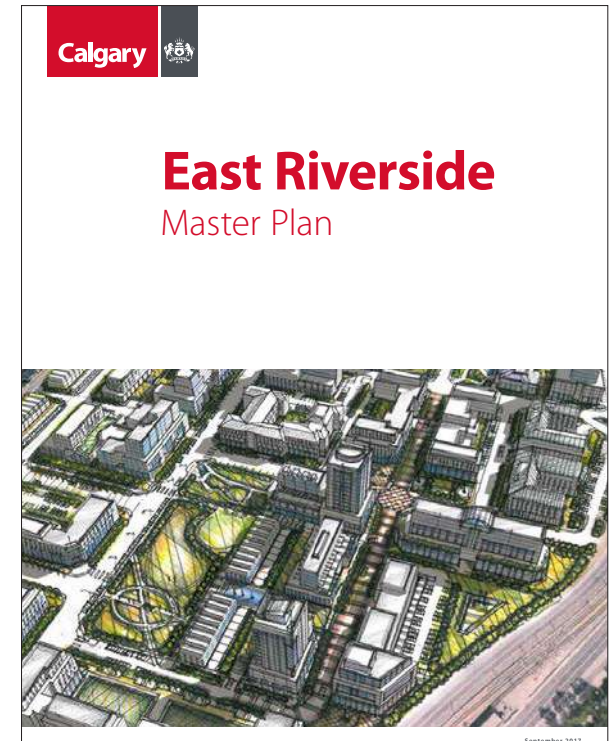


Figure 3. East Riverside Master Plan

## 4 Avenue Flyover Project

The 4 Avenue Flyover Project is a community-driven initiative that seeks to enhance and program an underused community space below the 4 Avenue Flyover.

Landscape Architecture students from the University of Calgary worked with Grade 6 students from Bridgeland's Langevin School in a youth-led design process. They used feedback from residents and stakeholders to develop design concepts for how this space could be reimaged. A review panel including The City and Community Association will provide technical input and ensure the design is both safe and inclusive.

## Edmonton Trail Greenway

The concept for the Edmonton Trail Greenway draws inspiration from the transitional landscape from the river's edge at the base of the district (Memorial Drive) up to the natural escarpment of Bridgeland-Riverside at 2nd Avenue. The resulting flexible organic forms throughout the streetscape are intended to allow for ease of integration with the Flyover Park as design progresses, along with future development as the corridor evolves.

Please refer to Section 6.1 for further detailed information on the Greenway and Gateway District design plans.



**Figure 4.** Preliminary 4th Avenue Flyover Project Renderings

# 2.2 Main Streets Program Engagement Process - Planning Phase

## Informing the Project Engagement

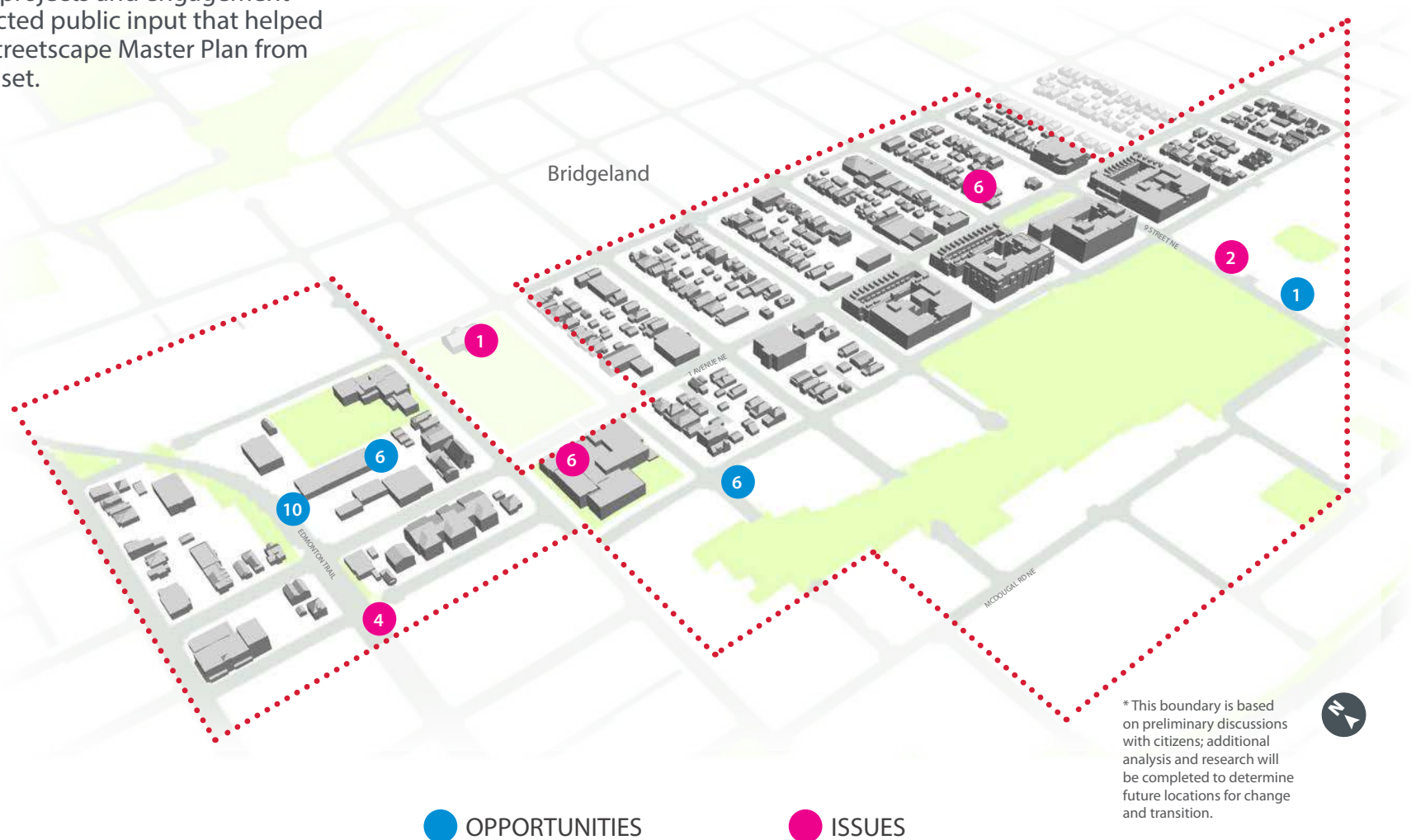
The City's Main Streets Program conducted City-wide engagement during the planning phase of the project prior to engaging the consultant team for the 1 Avenue N.E. Streetscape Master Plan.

Several related projects and engagement programs collected public input that helped to inform the Streetscape Master Plan from the project's onset.

Between November 2014 and May 2015, a comprehensive engagement process compiled input from communities across Calgary about the opportunities, issues and outcomes for each main street identified in the program, including 1 Avenue N.E.

The feedback provided through initial Main Streets program engagement informed the Streetscape Master Plan and guided the project's engagement topics.

Refer to Figure 5.



**Figure 5.** Main Streets Program 1 Avenue N.E. Engagement Summary Plan + Comments

These comments were compiled from the Main Streets public engagement activities which took place from November 2014 through May 2015. The top issues, opportunities and outcomes were ranked in order of consensus and ratings from citizens. The dotted line on the map indicates the potential area to be considered for change as described by citizens (for example, potential areas for mixed use development). This input will be analyzed to inform the planning strategy for each main street.

## ● OUTCOMES

### 1. Community gathering

More private business and public spaces to allow neighbours to gather and socialize. Local pubs and restaurants, better use of community hall and creating a main street where people would want to spend an entire day.



### 2. Small town feel

Create a scale, intensity level and design of buildings along 1 Avenue that make a sense of community and provide potential for a range of local commercial business, services, with opportunity for live/work, more multi residential units and an art centre. Maintain local schools.



### 3. High quality street feel

Safe and shared street for bikes, pedestrians and cars. More trees along 1 Avenue.



## ● OPPORTUNITIES

1. Connect 1 Ave to bike path on Bow River and to Zoo/Science Centre.
2. Places to sit outside and eat food.
3. Increase walkability to nearby areas.
4. Unique and local businesses.
5. Use of area for festivals/events.
6. Think about green space deficit and how all the spaces can better interact with each other and be functional for whole community.
7. Historically one of the oldest communities in Calgary.
8. Grocery store needed in neighbourhood.
9. Increase trees and landscaping.
10. Gateway/Community identification.
11. Improve pedestrian and cycling connections between Crescent Heights, Renfrew, Tom Campbell Hill, River Pathways and East Village/ Downtown.
12. Artistic character.

## ● ISSUES

1. Loss of green space due to redevelopment of school grounds.
2. Dark and feels unsafe walking to train.
3. More traffic calming measures for pedestrian safety.
4. Intersection Memorial and Edmonton Tr; not a pedestrian or cycling friendly corner. This needs a better solution for physical safety.
5. Maintain original buildings.
6. 4-way stop on 1 Ave/9 Street.
7. Create more of a High Street feel along 1 Ave.
8. Affordability for everyone.
9. Reduced speed limit through residential streets 40 km/hr.
10. Snow removal on pedestrian path ways.
11. Seating and benching with garbage cans.
12. Aging streetscape and infrastructure i.e. wood utility poles.

Figure 5. Cont'd

# 2.3 Streetscape Master Planning Engagement Process

## The Process

The Streetscape Master Planning process took place in three phases: Discover, Explore and Reveal. Each project phase used different information sources to continuously refine the design outcomes.

Community resident and business owner priorities are a significant driver for the Streetscape Master Plan. In addition to direction from the City's urban design and transportation policies and priorities, opportunities for engagement were included at each phase to better understand the community's values and desires for their neighbourhood Main Street.

Please refer to the appendix, section 9.2, for additional details on the input we heard. For full project engagement reports please visit [engage.calgary.ca/1AVE](http://engage.calgary.ca/1AVE)



Figure 6. Project Engagement Phases

## Phase 1: Discover

The Discover Phase of the project involved a background review, site analysis and public engagement in Winter 2018. Stakeholders and community members helped identify what the future of the Plan Area could look and feel like by providing input about their views, plans, concerns, and expectations. Community input, along with City policies and a technical review of the Plan Area's existing conditions was used to define a project vision and design principles that directed the development of the preliminary design concept.



Phase 1 collected input about preferences

## Design Element Priority Hierarchy

- Trees and vegetation
- Enhanced pedestrian crossings
- Sidewalks and enhanced lighting
- Character features
- Seating and benches



Phase 1 pinpointed issues by plan area

## Project Design Principles

A set of design principles under three categories were developed using participant input to drive the overall Master Plan and design concept:

### Character + Identity

- Breathe
- Be Bridgeland

### Mobility + Function

- Connect
- Protect

### Social + Economic

- Pause
- Thrive



Phase 1 gathered a wide array of stakeholders

## Phase 2: Explore

In the Explore Phase, preliminary design options were presented to the public for review and input. The feedback from the community was considered prior to design resolution of the Streetscape Master Plan.

Feedback collected in the Explore Phase, along with technical analysis refinements to the streetscape design options, was used to develop a recommended strategy for corridor enhancements with a focus on mobility and function.

### Explore Phase Engagement Themes

- Identity and character can be infused into streetscape elements like public art, heritage and cultural features, and interpretive signage
- Human-scale design enhances comfort and safety of all through pedestrian-focused lighting, crossings, and traffic calming
- Cycling routes need to be addressed including considerations for increased safety, and connection points
- Trees and natural elements are strongly supported
- Connections for all forms of mobility options including walking, biking and transit are vital to attract people to the neighbourhood's commercial corridor
- Flexible spaces like patios, pop-up parks and seating areas are an opportunity to animate the street and business
- Both car and bike parking are essential to support access to commercial businesses and local institutions



Phase 2 collected ideas about strategies



Phase 2 open house



Phase 2 collected input about preferences

## Phase 3: Reveal

The Reveal Phase was the final opportunity to review the Streetscape Master Plan. In the spring of 2019, the final concept design was presented to the public, including the short and long term strategies that will be carried forward into detail design and implementation of the Master Plan. Final thoughts and questions were collected and the concept was assessed against Main Streets Program objectives.

### Reveal Phase Plan Outcomes

- Enhanced connections for people who walk and bike across Edmonton Trail and 4 Street N.E.
- Scaled back the General Avenue Plaza design to preserve regular parking and manage cost considerations
- Coordinated with adjacent projects like the 4 Avenue Flyover Park and possible future developments
- Incorporated design concept for the Edmonton Trail gateway greenway
- Identified opportunities and potential locations for cultural and heritage storytelling to be developed through detailed design
- Reviewed 2 Avenue N.E. as a slow street to provide an all ages and abilities bikeway through the existing road network
- Added landscape design features and pedestrian safety elements through the Memorial Drive Gateway



Phase 3 open house

# 3.0 Context + Understanding



Aerial Photograph of Bridgeland-Riverside, Circa 1961, Showing 1 Avenue N.E. Corridor + Former General Hospital in Lower Left Corner



# 3.1 Character + Identity

## History of the Area

For over a century, 1 Avenue N.E. has been the commercial corridor for the community of Bridgeland-Riverside. Sections of 4 Street N.E. and Edmonton Trail have been a crucial connection into downtown Calgary.

Established below the escarpment on the north side of the Bow River, the area known as Bridgeland-Riverside is traditional territory of the Blackfoot people and is on Treaty 7 territory like all of Calgary.

4 Street N.E. was once part of the Old North Trail, an ancient north-south migration trail for first peoples which became known as Edmonton Trail after Fort Calgary was established in 1875. It was an important commercial route for the hay and fur trades, with stagecoach service after 1883.

## An Important Link

Reconciliation Bridge, formerly known as Langevin Bridge, was first built in 1890. A new bridge, which replaced the original structure to enable streetcar service along 4 Street N.E. from downtown to Tuxedo, was completed in 1910 and still stands today. This important connection made way for settlement and development across the river from the old boundaries of Calgary.

Annexed into Calgary in 1910, the area of Bridgeland-Riverside has an eclectic past serving as a settling point for waves of European migrants over many decades including Russian, German, Italian, Polish and Ukrainian people.

## Calgary's General Hospital

1 Avenue N.E. and the connection to downtown was reinforced when the third iteration of Calgary's General Hospital was built just south of 1 Avenue N.E. in 1910. The hospital established a long legacy within Calgary, making Bridgeland-Riverside a centre for healthcare in the City for decades. Historically, residential and commercial development along 1 Avenue N.E. was tied to the health care industry.



View of Bridgeland area and Calgary General Hospital



Calgary General Hospital with the Plan Area in the background

## Historic Streetcar Routes

In 1911, the Calgary Municipal Railway began operating two streetcar routes in the Plan Area. One along 1 Avenue N.E. to 9 Street N.E. where it looped and connected back to Edmonton Trail. A second route connected downtown Calgary north to Crescent Heights before Centre Street Bridge was completed.

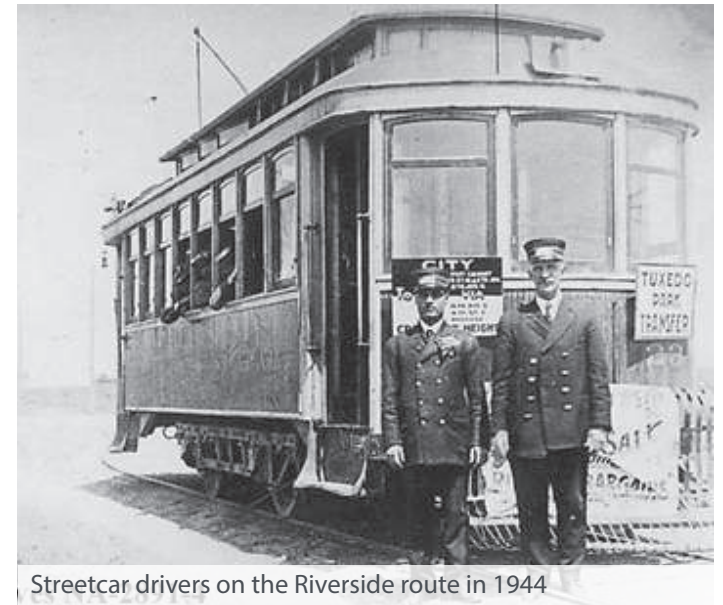
The streetcar system shaped the streetscape along 1 Avenue N.E. and 4 Street N.E. The result was an increase in traffic and ease of movement through the corridor. The streetcar system reinforced the corridor as an important retail and commercial hub in Calgary. Overhead cables were prominently featured along the streetcar routes, helping to power the system.



Crescent Heights streetcar traveled along 4 Street N.E. circa 1910



The Crescent Heights streetcar traveled along 4 Street N.E. circa 1912



Streetcar drivers on the Riverside route in 1944



### Evolving As a Corridor

With development in Bridgeland-Riverside being driven by the close proximity to the Langevin (Reconciliation) Bridge and the nearby General Hospital, 1 Avenue N.E. and the segments of 4 Street N.E. became an established commercial corridor and community hub with grocers, pharmacies, florists and professional offices and many other local businesses contributing to the economic development of the nearby neighbourhoods.



View looking east towards 1 Avenue N.E. in 1925 with the Calgary General Hospital visible in the background

## Cultural and Historic Landmarks in the Plan Area



### Gallelli Block

212 4 St N.E.

**1912 • Edwardian • Mixed Use**

*Gallelli Block was one of many buildings that helped make 4 Street N.E. a commercial corridor. The narrow, very deep block is a distinctive example of the Edwardian Commercial Style and is one of few remaining examples in the community.*



### Poffenroth (de Waal) Block

608 Meredith Rd N.E.

**1910 • Edwardian • Mixed Use**

*Built shortly after Bridgeland- Riverside became part of Calgary, the Poffenroth Block has served as both residential and commercial uses in the area ever since.*



### Immanuel Church

43 4 St N.E.

**1909 • Religious**

*Built by a German Lutheran congregation, the building once hosted a church school and has been occupied as a place of worship.*



### Reliance Block

15 4 St N.E.

**1909 - 1912 • Edwardian • Mixed Use**

*Built in four stages, the Reliance Block is one of the oldest commercial buildings in the area and helped to define an early retail street wall along 4 Street N.E. Over the years, tenants have included the Dominion Bank, a popular community dance hall called 'Wiggins Hall', Slingsby department store and Bud's Furniture Warehouse.*



### Morasch Block

642 1 Ave N.E.

**1911 • Edwardian • Mixed Use**

*A well-designed example of Edwardian Commercial style, the Morasch Block has served as a residential and commercial mixed-use building for over a century.*



6

### Calgary Buddhist Temple

658 1 Ave N.E.

1912 • Contemporary • Religious

*This original building and former Catholic church has been a Buddhist temple since 1981. It underwent a major renovation in 2015.*



9

### Shuler's Grocery

1104 1 Ave N.E.

1912 • Edwardian • Mixed Use

*This building has served the community as an independent corner grocery store for over a century and is the last commercial use building in the eastern portion of the Plan Area before land uses transition to residential.*



7

### Langevin School 107 6a St. N.E.

Original building 1910/ Rebuild 1968 • Mid-Century • Institutional Use

*Formerly named Riverside School, the original building on the Langevin School site was constructed in 1910. Known as the "Grand Old Sandstone Lady" the building perished in a 1966 fire. The current school building was completed in 1968 and continues to host students in kindergarten through grade nine.*



### Cannibale Block

815 1 Ave N.E.

1912 • Edwardian • Mixed Use

*This early commercial-residential building was constructed by an Italian-born carpenter named Corradetti. The building still bares the original C. Annibale signband.*



10

### General Plaza

1 Ave N.E. between 8a St and 9 St N.E.

2012 • Contemporary • Public Space

*In the master plan redevelopment of 'The Bridges,' a new central plaza space was conceived and built into the 1 Avenue N.E. streetscape between 8a and 9 Streets adding a new cultural and flexible space for people.*



8



10

## 3.2 Mobility + Function

Mobility in the Plan Area is constricted by the Bow River Valley's topography with steep slopes and bluffs to the north, east and west and the Bow River to the south.

A summary of the connections to the area transportation network is provided in the following subsections.

### Vehicular

Vehicular Modes are forms of movement that include motorized vehicles such as: cars, light and heavy duty transport trucks and motorcycles. Vehicular connections are illustrated on **Map 4**.

**North:** Due to the steep bluffs and residential land development, connections to the north are limited to:

- Edmonton Trail N.E. (Arterial Street / Urban Boulevard, Urban Corridor)
- 4A Street N.E. (Local Road)
- 5 Street N.E. (Local Road)
- Bridge Crescent N.E. (Local Road)
- 10 Street N.E. (Collector Road)
- Abbot Avenue N.E. (Local Road)

**South:** Memorial Drive provides an east-west corridor for vehicular traffic, but full access into the Plan Area is limited to Edmonton Trail / 4 Street N.E. and 12 Street N.E. Westbound right-in/right-out access is provided at 9 Street N.E.

Memorial Drive provides a connection to the greater transportation network, it is also a barrier to north-south mobility. Vehicular traffic can only cross Memorial Drive at Edmonton

Trail / 4 Street N.E. and 12 Street N.E. Edmonton Trail and 4 Street N.E. are key connectors into downtown via Reconciliation Bridge and serve both local and inter-regional trips.

**East:** Due to the steep bluffs, access to the east is limited to Abbott Avenue N.E. and Thompson Avenue N.E.

**West:** 4 Avenue N.E., 1 Avenue N.E., and Meredith Road provide connections from the Plan Area to Edmonton Trail / 4 Street N.E.

### Active Modes

Active modes are forms of movement that promote health and wellness through physical activity. Primary active modes include walking and cycling and secondary modes can include jogging, skateboarding, kick scooter and roller blades. Active Mode connections are illustrated on **Map 5**.

**North:** Sidewalks are provided on all roadways mentioned above, but the grades are steep. There are also pedestrian stairs at 6 Street N.E. and pathways in Tyndale Park. Bridge Crescent N.E. and 10 Street N.E. are designated shared lane bikeways.

**South:** Memorial Drive has non-continuous sidewalks along the north side and a fully continuous pathway along the south. Access to the pathway is limited as Memorial Drive can only be crossed at 4 Street N.E., Edmonton Trail, 12 Street N.E. and the bridge at the Bridgeland LRT Station. Access south across the Bow River is accommodated at 4 Street N.E., Edmonton Trail, Zoo Road and the St. Patrick's pedestrian bridge.

**East:** In addition to Abbott Avenue N.E. and Thompson Avenue N.E., there are pathways within Tyndale Park and Tom Campbell's Hill Park that provide connections to the east.

**West:** In addition to 4 Avenue N.E., 1 Avenue N.E., and Meredith Road, active modes can also connect to Edmonton Trail at 2 Avenue N.E., Marsh Road, and McDougal Road. An upgraded cycle track along Edmonton Trail was completed in 2017 and connects downtown into Bridgeland / Riverside north to 2 Avenue N.E. and ultimately the regional pathway network.

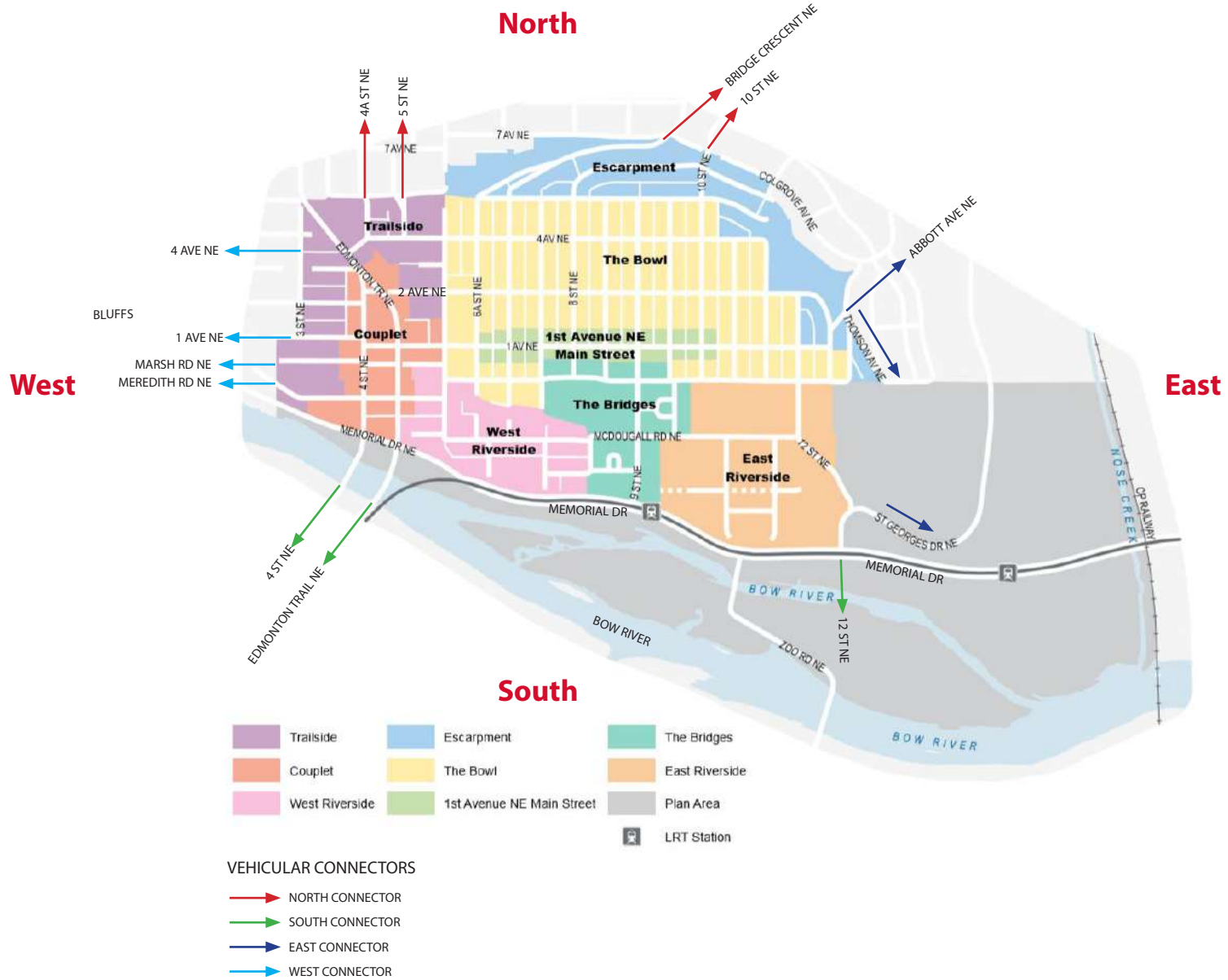
### Transit

Transit includes Light Rail (C-Train) and buses as the primary modes. Transit connections are illustrated on **Map 6**.

The Plan Area is serviced primarily by the Blue Line C-Train system, with a single station appropriately named the Bridgeland-Memorial Station, with its connection via 9 Street N.E. at Memorial Drive.

Calgary Transit bus routes within the Plan Area currently include:

- Route 90 (Bridgeland/University of Calgary) is the primary route through Bridgeland, providing access to the downtown core. It is routed along 1 Avenue N.E. between Edmonton Trail and 12 Street N.E. (with its turnaround loop near the Bridgeland C-Train Station).
- Routes 4/5 and 69 also run along Edmonton Trail, providing connections to the north.



**Map 4.** Vehicular Connections

## Internal Transportation Network

### Vehicular

Within the Plan Area, 1 Avenue N.E. serves as the east-west transportation spine. It is the only east-west corridor that provides a continuous connection between 4 Street N.E. and 12 Street N.E., which as discussed above, are the two key access roads into the community. There are also many businesses, schools, community spaces and places of worship located along 1 Avenue N.E., which attract both local and inter-regional trips.

The majority of the Bridgeland road network is a grid pattern. Given the continuity of 1 Avenue N.E. and its central position within the community, it is a primary connection providing access to thirteen cross-streets within the Plan Area. Most of the other roadways within the Plan Area serve as local access with 9 Street N.E., 10 Street N.E. and 4 Avenue N.E. being the other important collector roads in the area.

On-street parallel parking is available along 1 Avenue N.E. and adjacent neighbouring streets. Some on-site parking is provided for the commercial developments, but in general is very limited.

### Pedestrian

1 Avenue N.E. is the main pedestrian corridor within Bridgeland. It provides vital connections into the community from Edmonton Trail and 12 Street N.E. The corridor itself is pleasant with wide or separated sidewalks, on-street parking and access to street-level commercial developments.

9 Street N.E. has developed into a high-quality and essential pedestrian connection providing access to the Bridgeland LRT Station, including a pedestrian overpass of Memorial Drive.

Within the neighbourhood, the grid pattern, with sidewalks typically provided on both sides of the street, provides good connectivity throughout the community.

### Bicycle

1 Avenue N.E. is designated as a signed bikeway with shared lanes between 3 Street N.E. and 12A Street N.E. and is marked with designated bike signage and painted road markings (sharrows).

Important cycling connections across and along the corridor include:

- 2 Avenue N.E. is a designated bikeway with shared lanes between Edmonton Trail and 6A Street N.E.
- 9 Street N.E. and 12 Street N.E. which provide important links across the Bow River to St. George's Island, Inglewood and East Village. Neither road is designated as a bikeway.
- 6A Street N.E. / Bridge Crescent is a designated bikeway with shared lanes between 1 Avenue N.E. and 8 Avenue N.E.
- 10 Street N.E. is a designated bikeway with shared lanes between Centre Avenue N.E. and 8 Avenue N.E.







**Map 5.** Active Mode Connections

## Traffic Characteristics

Vehicle Speeds along the 1 Ave corridor were observed to be typically lower than the posted 50km per hour limit as shown on Table 1. This tendency which will be further enhanced by the addition of the proposed traffic calming bulbs at the intersections resulting in increased pedestrian crossing safety and comfort.

Reduced speed through the area will also benefit the public realm through shared cycling safety and enhance the overall quality of experience within the outdoor patios and walkways through noise reduction.

Date	Location	Direction	Posted Speed	Average Speed	85 <sup>th</sup> Percentile Speed
November 2009	East of 6 Street N.E.	Eastbound	30 km/h*	33 km/h	40 km/h
			50 km/h	46 km/h	55 km/h
April 2006	West of 8 Street N.E.	Eastbound	50 km/h	39 km/h	48 km/h
April 2004	West of 10 Street N.E.	Eastbound	50 km/h	39 km/h	47 km/h

\* When playground zone was operational

**Table 1.** Vehicle Speeds

### Traffic Volumes

Traffic volumes within the Plan Area are summarized in **Map 11** for some of the key nodes. The turning movement volumes were obtained from The City of Calgary. The dates for each count are noted as they were not all conducted during the same year.

### Bicycle Volumes

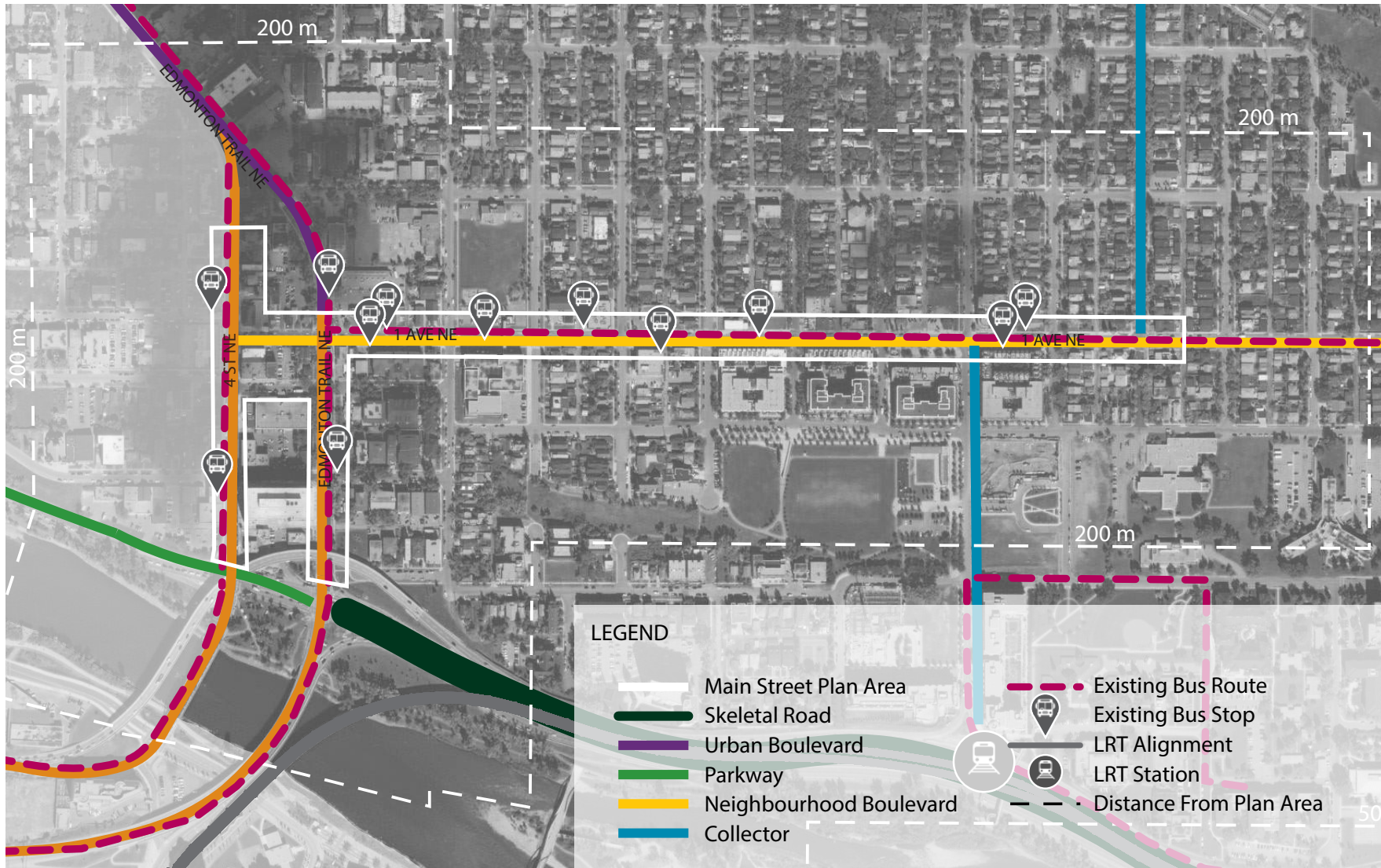
Bicycle volumes within the Plan Area were obtained from The City of Calgary and are summarized in **Map 11**. Bicycle volumes are highest at the 4 Street N.E. / Edmonton Trail and Memorial Drive intersections, which is expected given the on-street bicycle facilities, pathways and connections into the downtown core that intersect at this location.

### Vehicle Speeds

The City of Calgary has conducted several vehicle speed surveys along 1 Avenue N.E.

A summary of some of the key findings along 1 Avenue N.E. are provided in **Table 1**.

## Vehicular Circulation in the Plan Area



**Map 6.** Transit + Vehicular Circulation Context Map



## 3.3 Social + Economic

1 Avenue N.E. is the economic and cultural driver for Bridgeland-Riverside and surrounding area. The streetscape reinforces the corridor as the hub for the area in terms of culture and the local economy.

### Social

Bridgeland-Riverside has a local population of 6,529 people, and has seen a population increase of about 24% between 2011 and 2018, largely as a result of residential densification and transit oriented development south of 1 Avenue N.E.

Compared with Calgary as a whole, Bridgeland-Riverside has a lower than average amount of younger populations (below age 20) and a higher than average senior population (above 65). Nearly 70% of homes in the community are two-person households, indicating that there are a significant amount of couples without children.

### Economy

The 1 Avenue N.E. corridor is mainly comprised of small, locally owned businesses at ground level. The design of the streetscape responds to and reinforces the pedestrian scale established by buildings along the corridor.

The success of the street relies on its ability to attract diverse local businesses, making it a vibrant place where people work and do business throughout the day.

### Land Use

1 Avenue N.E. is the only significant commercial area within Bridgeland. To the north is low-rise residential, characterized by smaller lots with some residential infill developments. To the south of 1 Avenue N.E. there is a mix of mid-rise residential developments, which shift to high density residential for lots near Memorial Drive and the Bridgeland-Memorial C-Train station.

Bridgeland also has a history of healthcare facilities. The Carewest facility operates in the neighbourhood located in Riverside, south of the Plan Area and in close proximity to the Bridgeland-Memorial C-Train stop.

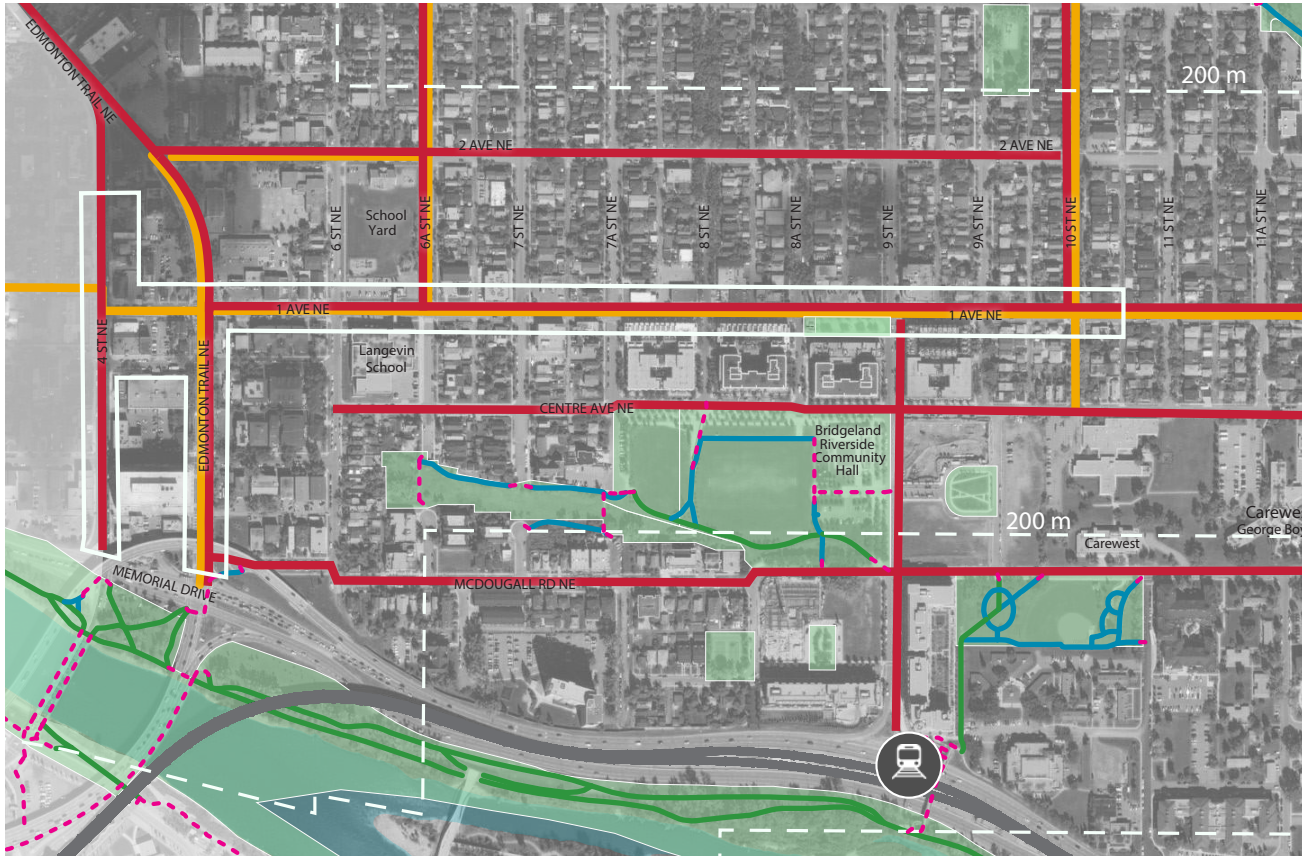
Being a residential community, there are also three schools as well as park spaces sprinkled throughout the neighbourhood, most notably Murdoch Park, Tom Campbell Hill, and Tyndale Park. Murdoch Park, the large central neighbourhood park provides spaces for socialization within the neighbourhood. The other two parks offer great views of The City, but are better characterized as natural parks along escarpments, which are located along the periphery of the neighbourhood. This emphasizes the importance of developing 1 Avenue N.E. as a space for socialization.

### Community Transformation

In recent years, Bridgeland-Riverside has transformed into a desirable inner city neighbourhood to live and visit, as evidenced by new mixed-use developments as well as several new restaurants and shops along 1 Avenue N.E.

Intensification has occurred through several new condominium and townhouse developments to the south of 1 Avenue N.E., most notably through The Bridges redevelopment project and Murdoch Park on the old General Hospital site. Further development is planned to continue realizing The Bridges concept, and the recently conceived East Riverside Master Plan.

## Social + Economic Context in the Plan Area



**6,529**

people live in Bridgeland-Riverside (2018)

**24%**

Population increase between 2011 and 2018

**92**

Business Licences (2018)

**3,933**

Dwelling units (2018)

**Map 7.** Social + Economic Context



General Plaza along with local parks provide social space



Local businesses draw locals and visitors along 1 Avenue N.E.



A local grocer has anchored the east end for over 100 years

# 4.0 Site Analysis



# 4.1 Site Walkthrough + Mapping

A thorough walkthrough analysis of 1 Avenue N.E. was conducted to better understand the priorities unique to this streetscape. The following analysis map illustrates key areas + priorities identified during the walkthrough which helped to establish the goals and objectives of the Master Plan.

**Figure 7.** Site Walkthrough Plan + Findings

## Metropolitan Couplet

- A1** Metropolitan Couplet zone linking future development along 4th Street and existing transit corridor (Edmonton Trail):
  - Propose streetscape and public realm 'kit of parts' for future development to follow
- A2** 4th Street used frequently by pedestrians; opportunity to improve intersections + continue character defining features along N-S corridor
- A3** Edmonton Trail predominantly transit+cyclist usage; less pedestrian activity; smaller scale interventions required to improve boulevards (sod remediation/ new planting, trees, enhancements to bus stop waiting areas, etc.)
- A4** The re-purposing of heritage building with a new distillery increased foot traffic + connection to character corridor; wayfinding opportunity at Edmonton Trail for connection to distillery

## Gateway

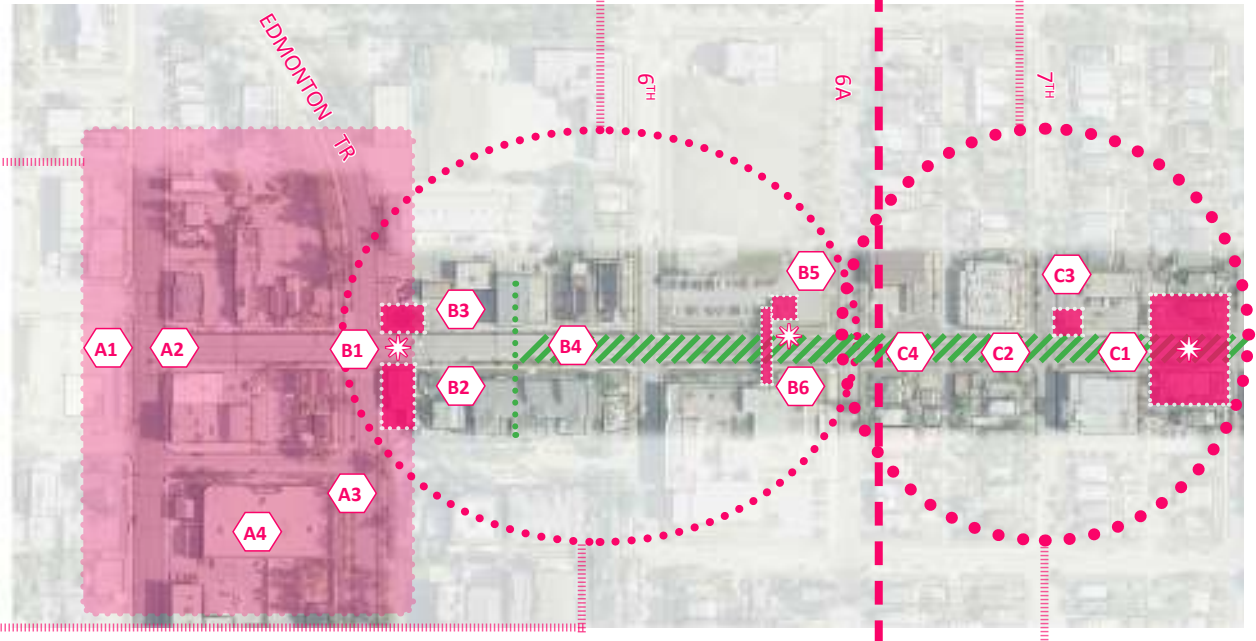
- B1** Character district gateway: creative storefront facelift; opportunity to follow precedent set by beltline urban murals project; Opportunity to create park-ette space in vacant corner landscape w/ public art, seating, wayfinding, community billboard, etc.
- B2** Eyesore parking lot to be improved with low-impact interventions (ie. painting, pedestrian-scale lighting, etc.)
- B3** Bus stop waiting area + boulevard landscaping to be improved
- B4** Overhead utilities likely to remain due to cost and extent of work required; utility limitation presents opportunity for creative, low-impact interventions in this zone: Replace concrete tree wells w/ proposed 1 Avenue N.E. covers; improve boulevards by replacing sod w/ decorative paving or softscape solution w/ planting/ grasses
- B5** Position bridge as transitional gateway marker towards priority rehabilitation zones; feature node where grade changes; expand upon creative initiative to use bridge as canvas for murals; improve lighting of bridge - low-impact, atmospheric intervention improving safety and signifying element at night-time
- B6** Potential to remove underused parking lay-by's + extend public realm beneath bridge including tree planting on south and northeast sides

REFERENCE:  
KEY LANDMARKS  
BY ZONE

PROPOSED EXTENSION TO  
30KM/H ZONE

**1 AVE DISTRICT GATEWAY**  
Opportunity to transform gateway node through local artist involvement + celebrate bridge arch as thematic entryway feature; improve neglected storefront, create park-ette at gas station corner, improve connection to bridge

**LOCAL CHARACTER SHOPS**  
Opportunity to celebrate thriving local businesses in high-traffic pedestrian area + continue language of form from priority zone 1; stitch together multi-faceted fabric of residential, institutional, commercial and shops + services



## Mixed-Use Transition

- C1** Bury overhead lines + continue standard improvements from priority zone; celebrate character businesses + provide improvements to social gathering/ circulation spaces
- C2** Opportunity for two scales of residential transition improvements:
  - (A) replace sodded medians w/ decorative paving, new light fixtures, trees in wells, etc.
  - (B) blend to current softscape solution w/ sod remediation/ new planting (trees, groundcovers, etc.)
- C3** Opportunity to create parklet space in vacant corner landscape w/ public art, seating, wayfinding, community billboard, etc.
- C4** Bus stop waiting areas + boulevard landscaping to be improved: one existing public tree located along entire length of zone

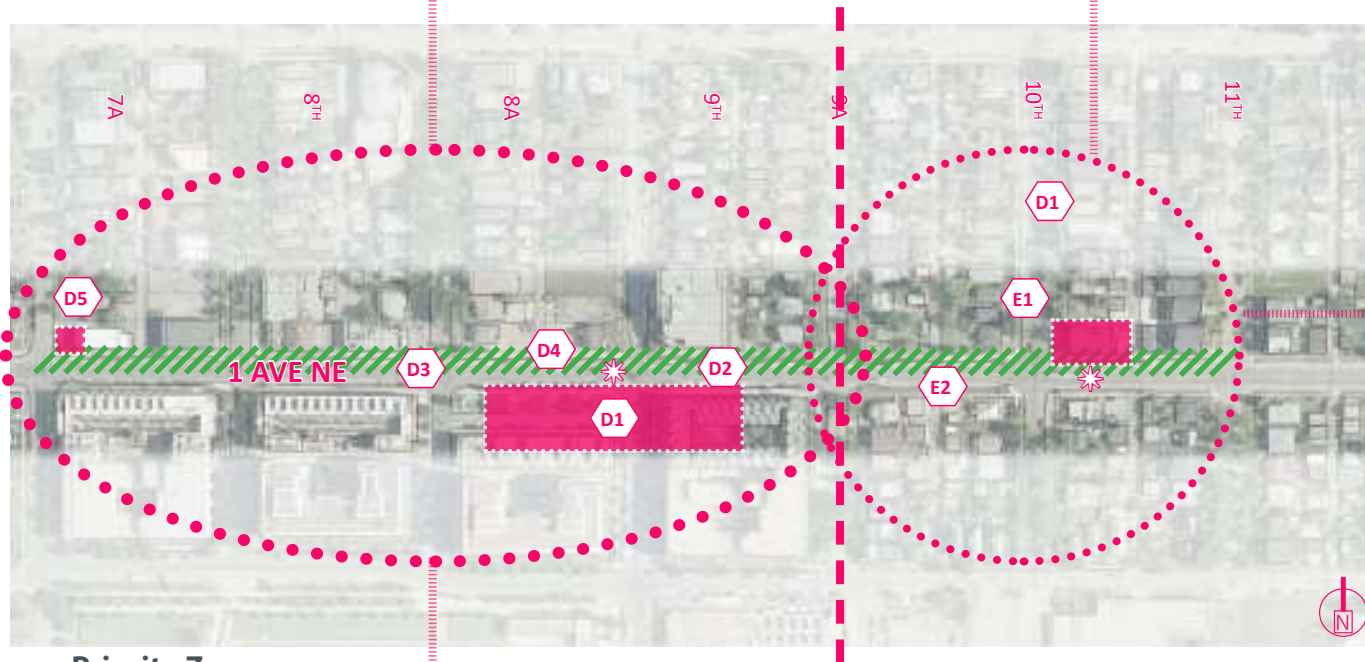


### BRIDGES / PIAZZA

Opportunity to re-envision the general plaza space as a community district hub; language of creative interventions to originate in plaza core + radiate outward to transition zones

### BRIDGELAND MARKET

Community landmark; Opportunity to connect heritage of neighbourhood through corridor



### Residential Transition

**E1** Connectivity and visibility to Bridgeland Market to be encouraged; urban streetscape improvements along north side of 1st Ave to interface with market, positioning building as key corridor node from residential area

**E2** Continue burial of overhead utilities to end of transition zone; opportunity for two scales of residential transition improvements:

(A) replace sodded medians w/ decorative paving, new light fixtures, trees in wells, etc.

(B) blend to current softscape solution w/ sod remediation/ new planting (trees, groundcovers, etc.)

### Priority Zone

- D1** General Plaza:
  - Utilize bones of current plaza space + expand usage area by capturing storefront laneway as plaza extension
  - Preserve healthy trees + provide more vegetation; set planting palette for rest of corridor
  - Incorporate unique lighting elements to define the space and provide opportunity for night-time events, markets, etc. (ie. Atmospheric catenary lights across space)
  - Incorporate wayfinding + community gathering features such as poster facilities + information board

**D2** Intersection bulb-out pilot proving to be successful for pedestrians; propose incorporating standard bulb design at each intersection along priority corridor; opportunity to signalize 9th w/ existing unused posts

**D3** Engage business owners to explore improvements up to building frontages throughout; explore opportunities for openings and compressions along promenade - ie., Allowing for curbside parkettes, patios, pop-up seating nodes and community feature elements to extend into public zone creating pockets of unique interactive space (1 Avenue N.E. character)

**D4** Overhead utilities to be buried throughout this zone, allowing greater improvement scope

Propose standard 'kit of parts':

- decorative paving
- tree wells/ grates
- site furnishings
- cohesive pedestrian/ traffic lighting
- improve bike storage quantity, orientation + standard furnishing type

Potential to:

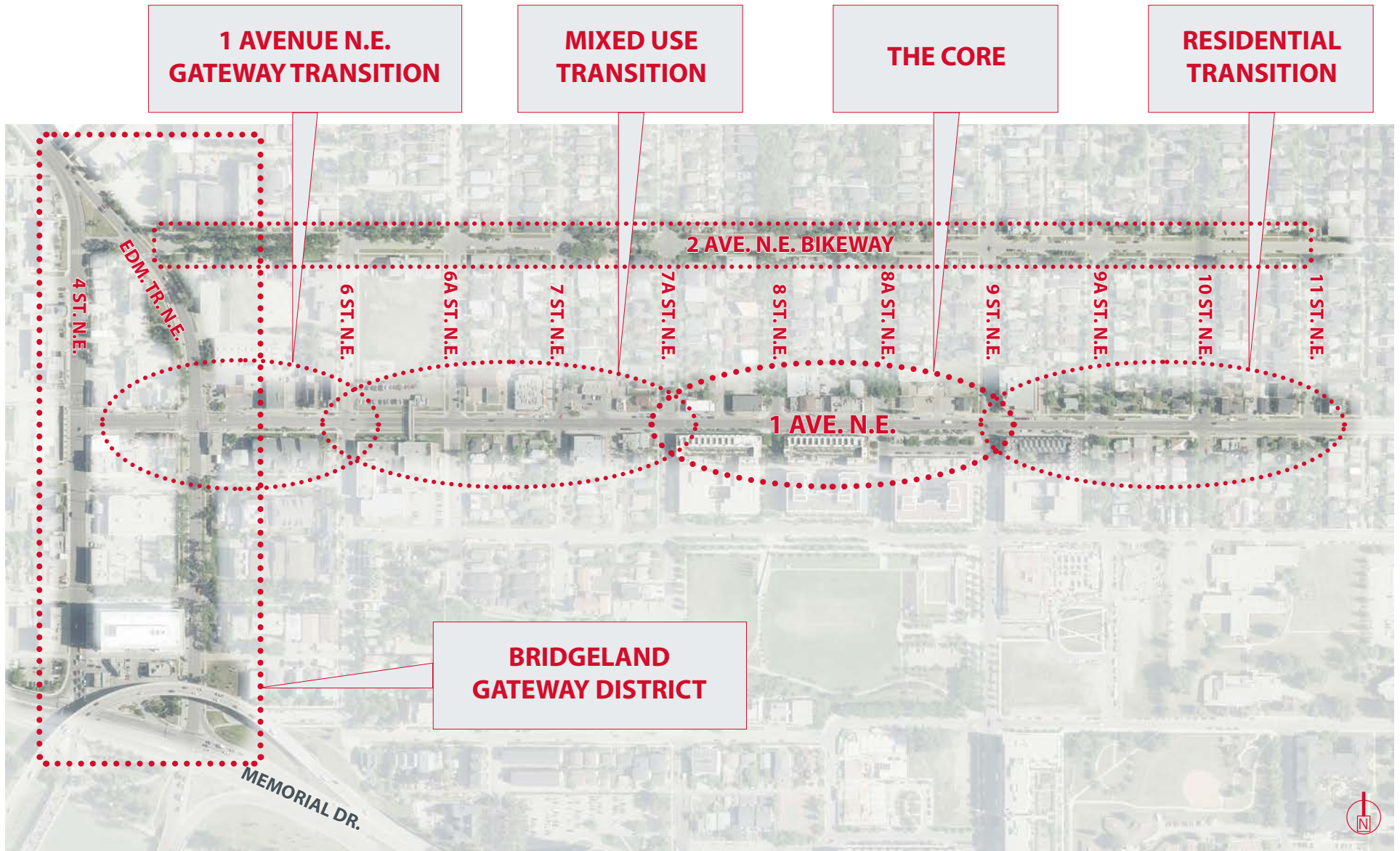
(A) widen N/S sidewalks by 0.8M each, or

(B) widen north boulevard by 1.6M to achieve greater patio zone for current and future businesses; capitalize on excellent sun exposure

**D5** Open space at corner of existing presentation centre (approved DP for restaurant + outdoor cafe) presents opportunity for patio/ public parklet space

## 4.2 Master Plan Zones

Based on public engagement input and what was learned through the site condition analysis of the 1 Avenue N.E. area, the following five character zones have been established to characterize different sections of the Plan Area:



**Map 8.** Master Plan Zones

## Gateway District

The Gateway District is the primary entrance associated to the overall Bridgeland-Riverside Community. This area includes the award-winning conceptual plan for the 4th Avenue Flyover Public Space and presents a variety of potential opportunities for further streetscape revitalization:

- Highest density development area provides opportunity for grand gestures including feature lighting and pageantry (banners/changeable art installations) if managed by a Business Improvement Association (BIA)
- Enlarged walkways could include openings for street tree and understory planting as sustainable features to aid in stormwater management and enhance the comfort and experience for pedestrians providing a curb side buffer from the high volume vehicular traffic in the area
- District will have specific streetscape kit of parts including paving materials / patterns, lighting, site furnishings and planting strategy that are complementary to, but not the same as 1 Avenue N.E., in order to recognize and further promote the diverse character of Bridgeland
- Recognize heritage significance of 4th St. and natural qualities of the escarpment
- The existing flyover structure presents opportunities for public art / wayfinding elements that would signify the entry to Bridgeland-Riverside and cue pedestrians to key neighbourhood places of interest

## 1 Avenue N.E. Gateway Transition

The Gateway Transition zone is the primary entrance to the 1 Avenue N.E. Main Street and beginning of the 1 Avenue N.E. streetscape character. Key gestures identified as priorities in this area include:

- Opportunity for community to build on mural precedent established on Radius Building within this zone (#Becubed) to celebrate Bridgeland through local thematic content and colour on existing blank walls
- Opportunity for landscape feature on corner of Edmonton Trail and 1 Avenue N.E. near Petro-Can to celebrate the introduction to the community

## Mixed Use Transition

The Mixed Use Transition zone includes Langevin School and St. John Lutheran Church as important stable community assets that provide diversity to the area and include recognizable urban landmarks through the Church Bell Tower and pedestrian overpass. Key findings in this area were:

- Opportunity to enhance the pedestrian overpass in collaboration with students to celebrate Bridgeland youth and add vibrancy to 1 Avenue N.E.
- Area includes the Bow River escarpment that could provide an interpretive educational opportunity to enhance the pedestrian experience
- Parking could be removed from the north side of the Langevin school block and be enhanced as a linear parklet to include seating opportunities

## The Core

The Core zone includes the Bridges Development and General Plaza and provides the Streetscape character to be utilized for the 1 Avenue N.E. Main Street Streetscape Master Plan. Through public engagement and analysis of 1 Avenue N.E., The Core zone was noted to be a high-priority area for design consideration given the following key findings:

- Recognized as the central hub for enhancement to capitalize on the existing development, well established as a primary regional and local destination
- General Plaza provides an opportunity for modest enhancement to create a true community amenity and gathering space that can seamlessly transform from a comfortable daily public plaza with diverse seating opportunities to a small event space for celebrations and programmed activities

## Residential Transition

The Residential Transition zone is a “quieter” zone that benefits primarily from the introduction of the 1 Avenue N.E. Streetscape character to enrich the pedestrian stroll experience within a predominantly residential precinct. Design actions and considerations for this zone include:

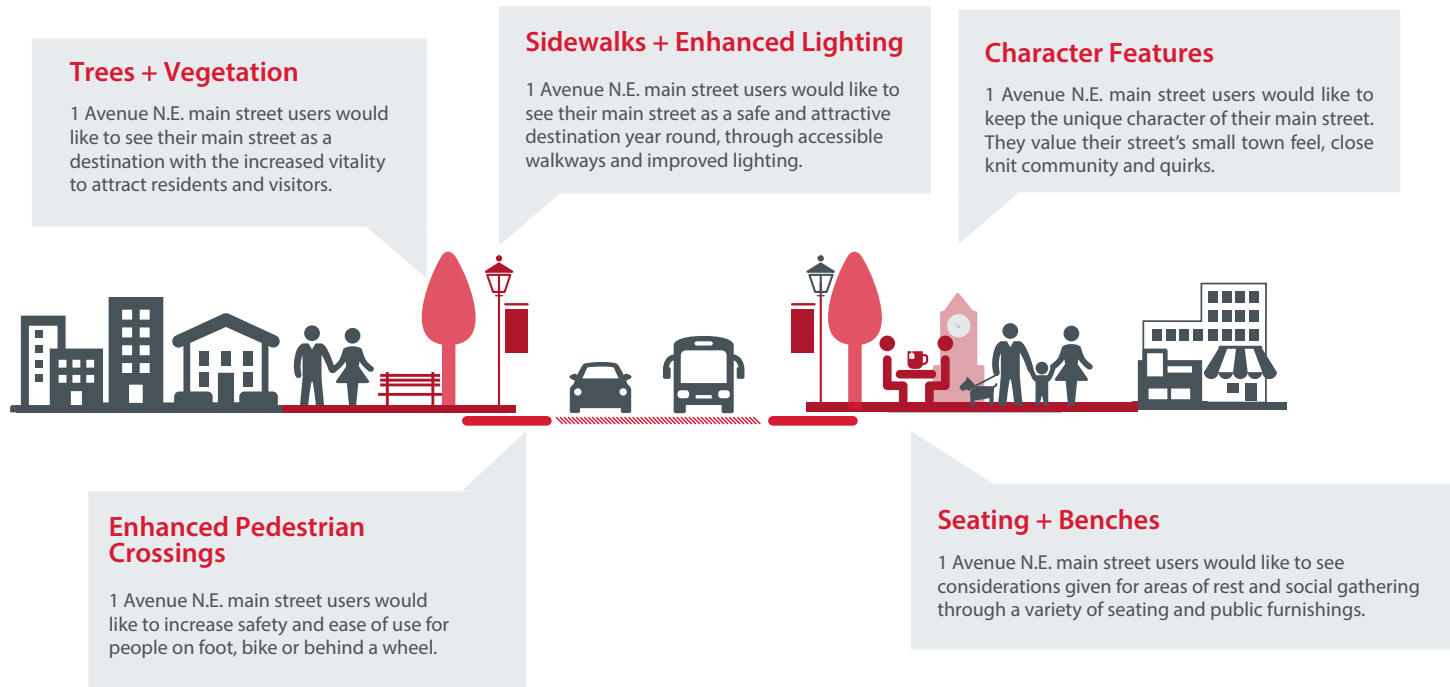
- Blending of 1 Avenue N.E. Streetscape character into established residential street feel
- Area includes the Bridgeland Market as a key community landmark and destination

# 5.0 Master Plan Vision + Principles



# 5.1 Plan Vision + Principles

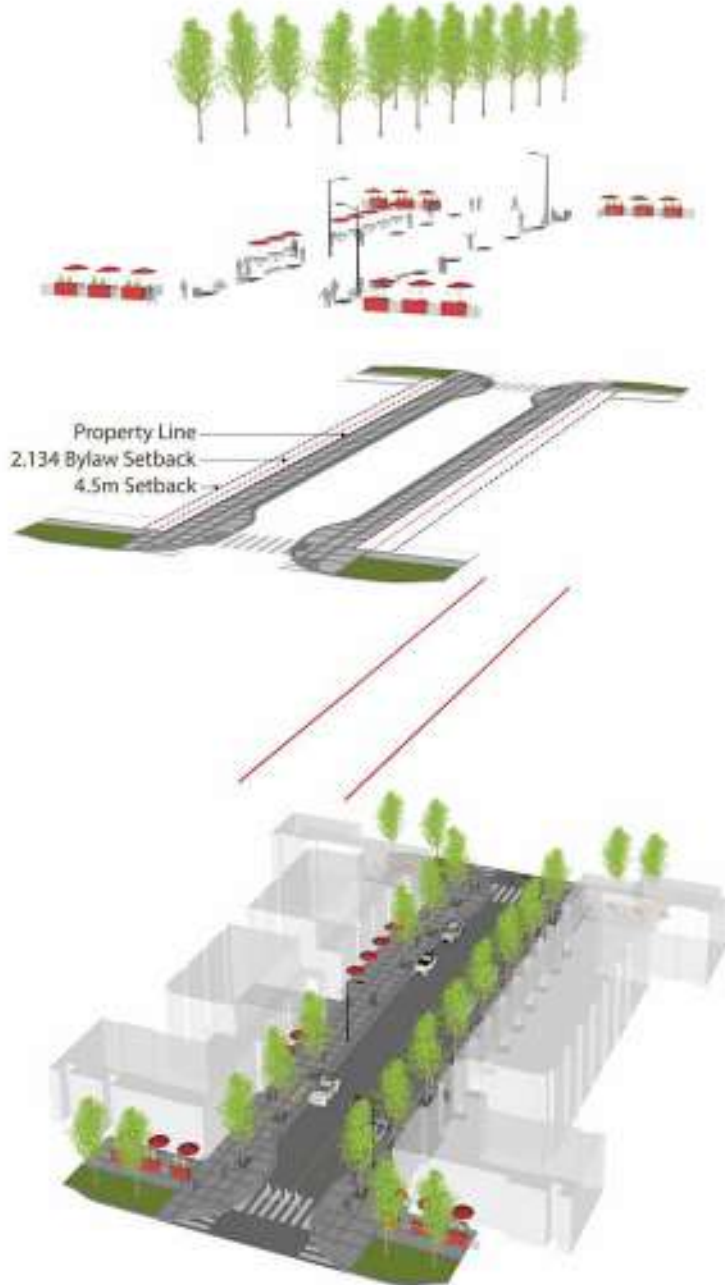
The design concept was prepared based on feedback received through community engagement in the Discovery Phase which included an in-person open house and online engagement. The following represent the project vision that was developed from Discovery Phase engagement using the preferred streetscape elements. The vision was tested during Explore Phase engagement to confirm with the public and stakeholders that it represents the vision for the Streetscape Master Plan.



Mobility + Function		Social + Economic		Character + Identity	
<b>Connect:</b> create mobility ease for all by enhancing pedestrian crossings and improved sidewalk and feature lighting	<b>Protect:</b> offer traffic calming and appropriate bike infrastructure to reduce conflicts	<b>Pause:</b> give people spaces to rest and socialize through seating and benches	<b>Thrive:</b> support business and attract innovation by developing a more inviting public realm	<b>Breathe:</b> add more trees and vegetation to give shade, comfort and character	<b>Be Bridgeland:</b> invest in unique character features that say Bridgeland

**Figure 8.** Project Vision and Design Principles

## 5.2 Streetscape DNA



### Breathe

- Add more trees to provide shade, comfort + character as well as reduce urban heat island effect
- Replace existing Bridges tree grates and add new flush tree grates throughout for tree health, improved mobility + increased usable walkway

### Pause

- Provide site furnishings including benches, bicycle racks + waste / recycling containers in the public realm for increased liveability
- Allow for patio seating, benches + planters in frontage (setback) to create vibrancy through enhanced streetscape activation
- Upgrade existing street light luminaires + add new poles + luminaires throughout for unified streetscape character and enhanced safety

### Protect

- Increase north public realm by 1.2m to provide a wider sunny side walkway that includes street trees without utilizing setback zone
- Add traffic calming curb bulbs to increase safety for shared bike lane through speed reduction
- Intersection curb bulbs for traffic calming, seating + shortened crossing distances

### Connect

- Unify public realm with the continuation of Bridges paving pattern throughout to create consistent high quality streetscape character
- Create ease of mobility for all users through consistent walkway paving materials and enhanced painted roadway crossings at all intersections

### Coordinate

- Burial of overhead utility lines to allow for street trees, enhanced overall character and to reduce walkway obstructions. If overhead lines cannot be buried in entirety, a phased approach would be investigated based on priority areas
- Cohesive design with future 4th Ave flyover park and developments

### Be Bridgeland-Riverside

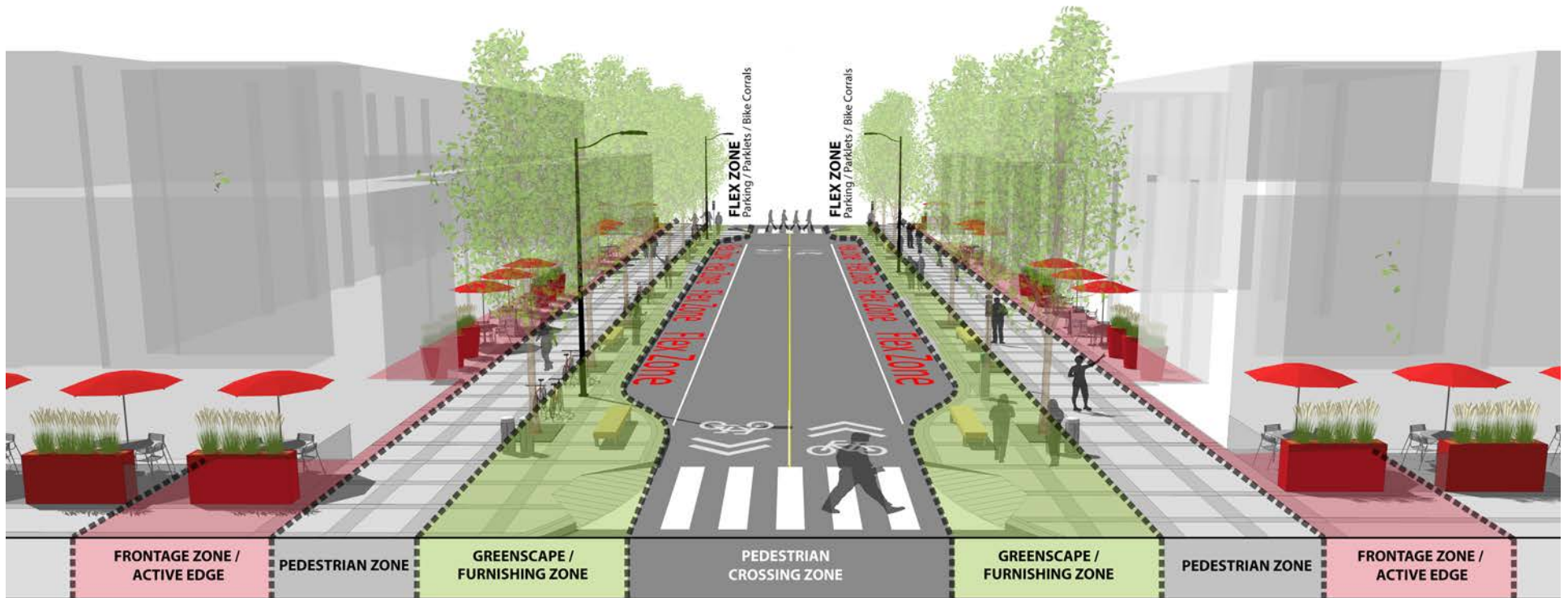
- Promote opportunities for Community Association + businesses to create parklets, add planter pots and provide art installations in setback zones, sideyards, existing private lands and within the public realm
- Tell story of Bridgeland through heritage resources

### Thrive

- Support business, attract innovation and stimulate private investment + development through the implementation of an inviting and enhanced public realm
- Wider sidewalks and trees on north side of street to promote development and private investment

**Figure 9.** Streetscape DNA

## 5.3 Streetscape Zones



### Frontage/ Active Edge Zone

- Provides areas for outdoor patios and seating opportunities to activate the street
- Provides vibrancy and encourages social interaction
- Allows for diverse and varied street experience through individual expressions related to private businesses including outdoor cafes, retail product displays, art work and temporary exhibitions that help define a unique Bridgeland-Riverside

### Greenscape/ Furnishing + Flex Zone

- Clutter zone includes street furniture, street signage, recycling and waste containers, park plus pedestals and street lights
- Includes street trees as buffer from the street, to enhance overall character and aid in stormwater reduction
- Includes curb bump outs for traffic calming and enhanced pedestrian waiting space
- Offers space for curbside patio spaces + parklets

### Pedestrian Zone:

- Provides clear unobstructed path of travel
- Consistent, safe, accessible walkway for all ages and abilities on both sides of the street
- Concrete material with simple texture for simplicity of snow clearing and ease of movement for all ages and abilities

Figure 10. Streetscape Zones

# 5.4 Cycling Strategy

## Enhancing the Bike Routes

1 Avenue N.E. will continue to be a shared street for all modes. To provide a bikeway for all ages and abilities, 2 Avenue N.E. is being proposed as a slow street. A slow street lowers motor vehicle speeds and maintains low volume. Enhancing existing connections to the cycle track network along Edmonton Trail will extend the regional network into designated bikeway routes through Bridgeland-Riverside and Crescent Heights.

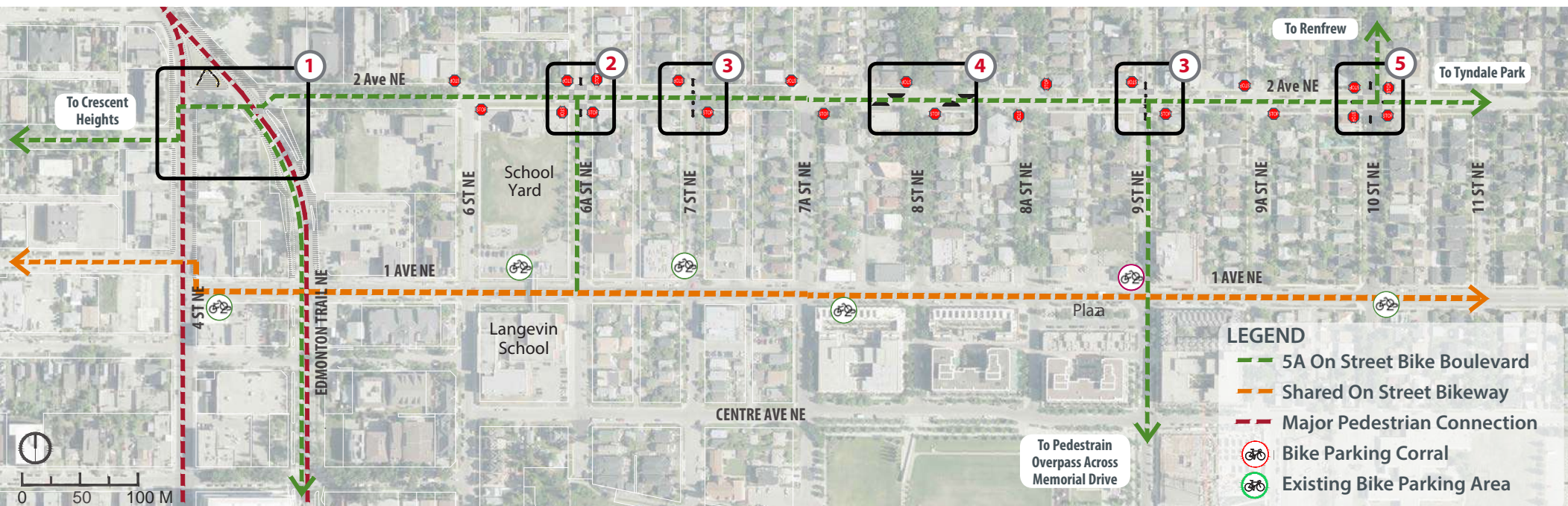
## Designing for All Ages and Abilities (AAA)

The goal of the 2 Avenue N.E. proposed bikeway is to make cycling comfortable across the entire roadway for all users. This is done through traffic calming along the street and prioritizing bicycles at intersections. Directional markings and wayfinding signage provide riders with easy to understanding routing. Enhanced crossings that prioritize people who are walking or cycling, particularly across 2 Avenue N.E. at Edmonton Trail and 4 Street N.E. help to make 2 Avenue N.E. a comfortable bicycle route for all users.



Traffic calming increases comfort + safety for cyclists

## Proposed 2 Avenue N.E. Bicycle Boulevard Concept for All Ages + Abilities

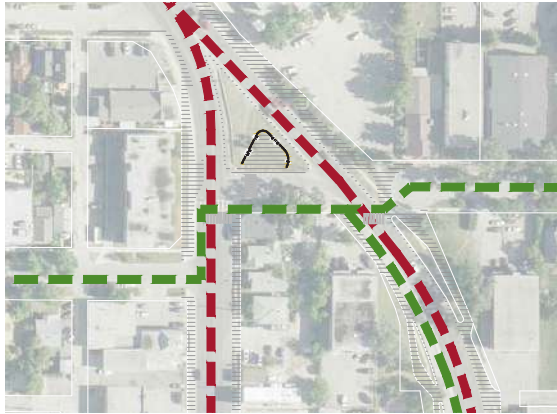


Map 9. 2 Avenue N.E. Bikeway Concept



# Proposed 2 Avenue N.E. Bikeway Concept for All Ages + Abilities

## 1 Edmonton Trail at 2 Avenue N.E. Enhanced Gateway Connection



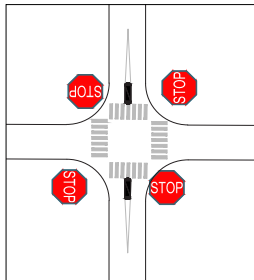
- Improved east-west cycling connection between Bridgeland and Crescent Heights
- See enlargement plan + detailed information on following pages

## Along 1 Avenue N.E. Bike Parking



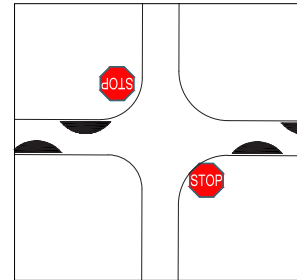
- Added bike parking corral at 9 Street N.E. to tie into General Plaza and bikeway connections south to pathway network
- Detailed design to supplement existing stalls by providing additional bike parking along 1 Avenue N.E. at convenient locations for both local users and corridor visitors

## 2 2 Avenue N.E. at 6A Street N.E. Medians On the North and South Sides



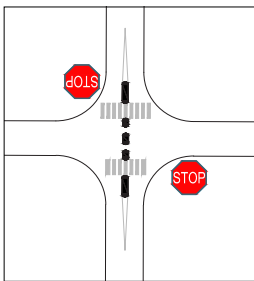
- 4-way stop at intersection
- Medians in north and south intersection
- Medians slow traffic in north and southbound directions

## 4 2 Avenue N.E. at 8 Street N.E. Traffic Calming Bump Outs



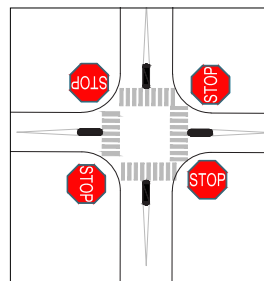
- 2-way stop at north and south intersections
- East-west vehicular speed is slowed
- Traffic volumes may be reduced with the introduction of traffic calming

## 3 2 Avenue N.E. at 7 Street N.E. and at 9 Street N.E. Median with Bicycle Flow Through



- 2-way stop at north and southbound intersections
- Medians in north and south areas of the intersection to slow traffic
- Centre median prevents east and west bound vehicular traffic while encouraging bicycle flow in these directions

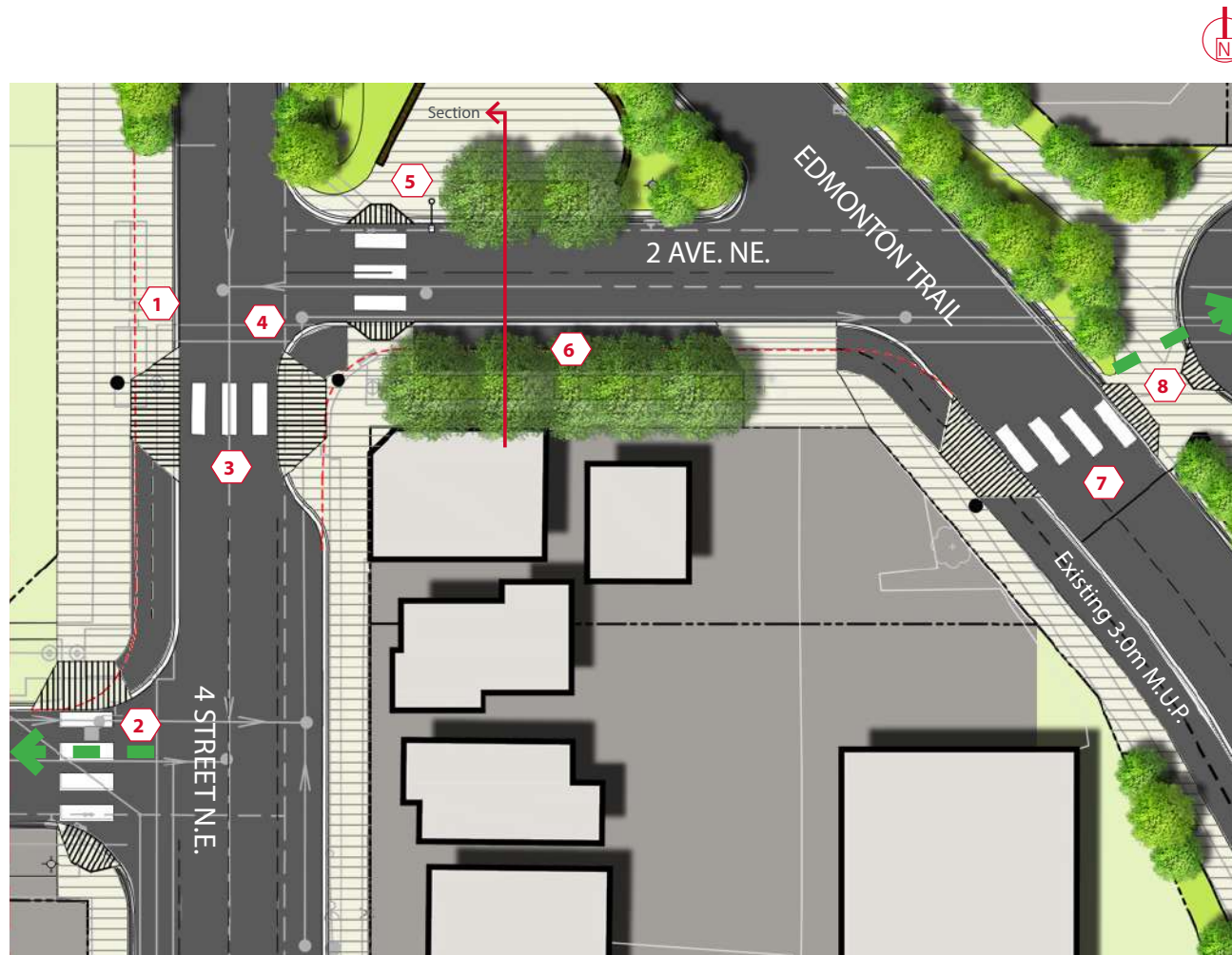
## 5 2 Avenue N.E. at 10 Street N.E. 4-Way Median



- 4-way stop at intersection
- Single medians on all four sides of the intersection
- Medians slow traffic in north and southbound directions

## Edmonton Trail at 2 Avenue N.E.

Enhanced Gateway Connection Enlargement



**Figure 11.** Edmonton Trail at 2 Avenue N.E. Enlargement

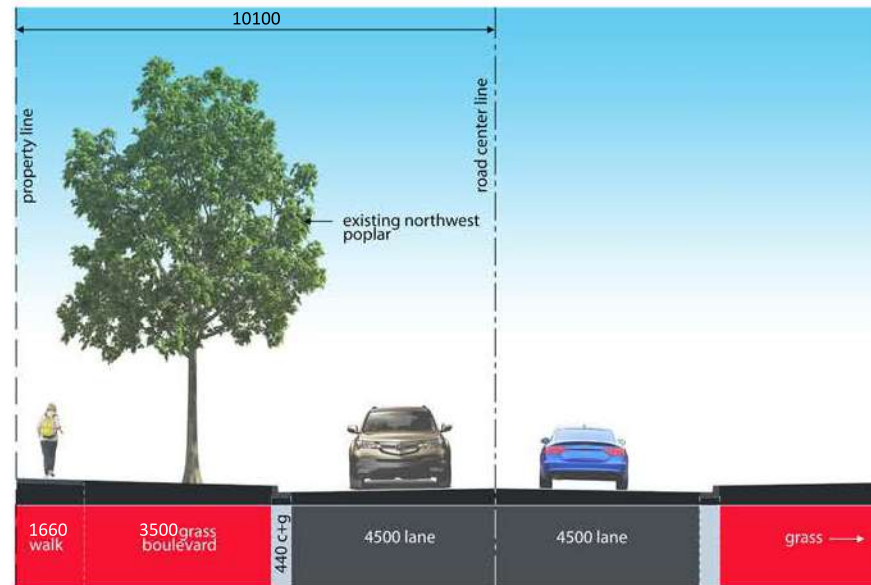
- 1 One southbound lane along 4th Street N.E. to be replaced w/ extended boulevard
- 2 Existing All Ages and Abilities (AAA) Bicycle Boulevard along 2 Avenue N.E. to the west of 4th Street N.E. to connect to elevated 3.0m width multi-use pathway along 4th Street N.E.
- 3 Existing condition of oncoming 2 lanes splitting into 4 at 2 Avenue N.E. crossing location amended to continue as 2 lanes until safe distance is achieved beyond pedestrian + cyclist circulation zone
- 4 Enhanced crossing along 4 Street N.E. w/ curb bulb-out at east corner of 2nd Avenue N.E. to facilitate pedestrian + cyclist movement and better direct southbound traffic; crossing signals to be located on either side
- 5 Improved pedestrian crossing zone from south side of 2 Avenue N.E. to re-developed park/plaza space within Edmonton Trail/4 Street N.E. island - see Gateway District Concept for details
- 6 Curb extension on south side of 2nd Avenue N.E. to allow for elevated 3.0m width multi-use pathway connection
- 7 Enhanced crossing at Edmonton Trail to 2 Avenue N.E. cul-de-sac w/ crossing signals located on either side
- 8 2 Avenue N.E. AAA Bicycle Boulevard connection point at existing cul-de-sac

*Note: existing curbs to be removed/replaced shown as red dashed lines*

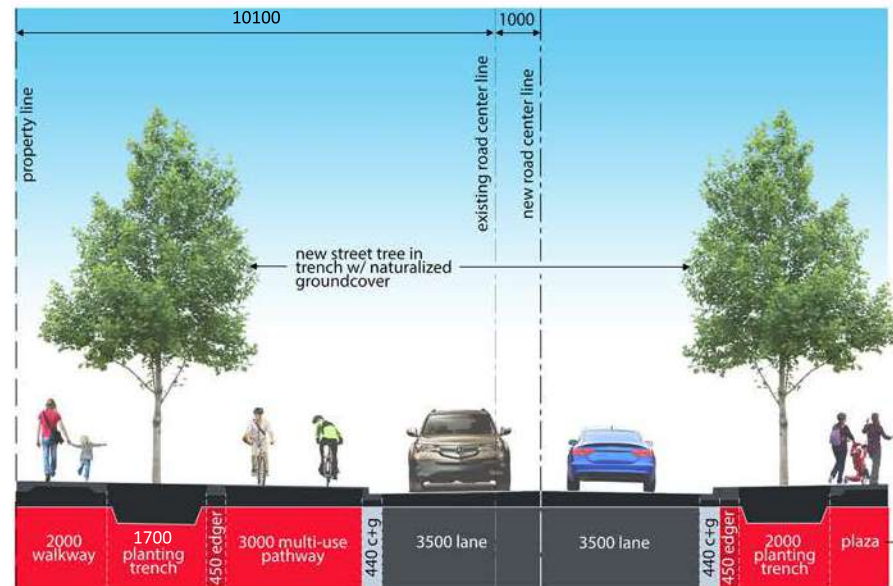
## 2 Avenue N.E. Sections

The proposed re-configuration of the portion of 2nd Avenue N.E. between Edmonton Trail and 4th Street N.E. achieves the following:

- Maintained two-way traffic w/ reduced lane widths from 4.5m to 3.5m + removal of on-street parking; proposed centreline shift north by 1.0m
- South curb extension + incorporation of elevated multi-use pathway (3.0m) and 2.0m public walkway separated by a continuous 1.7m width naturalized planting trench w/ new street trees
- Multi-use pathway establishes missing link between 2nd Avenue N.E. cycle route from east of Edmonton Trail to West of 4th Street N.E.
- Enhancements to traffic island including small plaza space + re-vegetation in keeping with Greenway concept



Existing Condition



Preferred Option

# 6.0 The Plan

## Introduction

The Master Plan incorporates feedback from public and stakeholder engagement, relevant policy reviews, and technical analysis to develop a preferred concept plan.

The plan has been split into three sections as potential phasing options for implementation:

6.1 - Gateway District

6.2 - 1 Avenue N.E.

6.3 - General Plaza + General Avenue

The following sections provide detailed conceptual plan layouts, typical streetscape sections and illustrative renderings for each of the three phasing areas identified above.

Please refer to section 6.4 - Master Plan Design Outcomes for a summary of metrics achieved by the preferred 1 Avenue N.E. Streetscape Master Plan design.





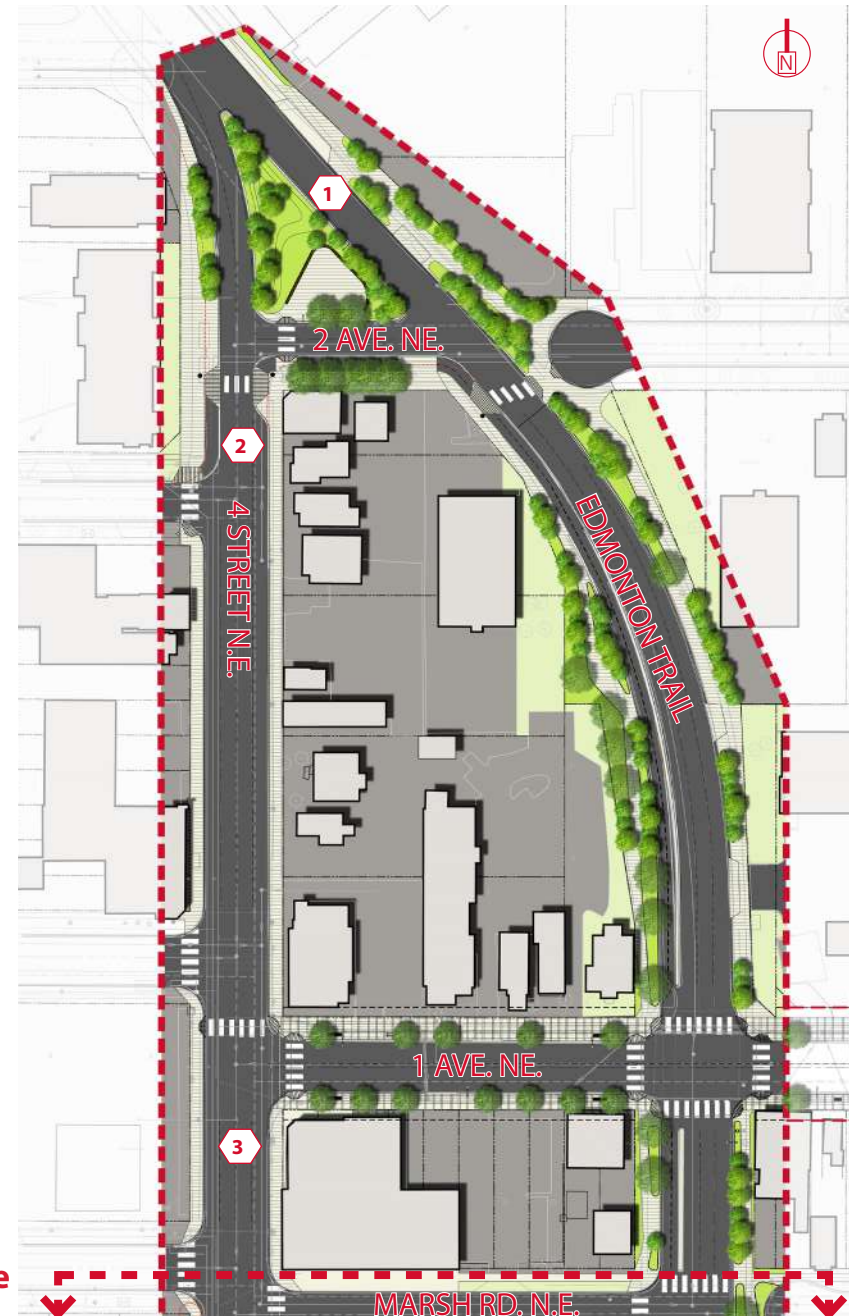
# 6.1 - Gateway District

## Introduction

The Gateway District is comprised of the north-south segments of Edmonton Trail and 4th Street N.E. between 2nd Avenue N.E. and Memorial Drive. Priority areas for this high-circulation corridor include improvements to deteriorating pedestrian public realm elements including paving, furnishings and planting, with a strong focus on establishing a unique and vibrant streetscape that signals the entry to Bridgeland-Riverside.

## 4th Street N.E.

- 1 Proposed rehabilitation of directional island at tip of Gateway District where 4 Street N.E. and Edmonton Trail join; proposed small-scale gathering space along 2nd Avenue N.E. sheltered by landform vegetated with Edmonton Trail Greenway native understory + trembling aspen to discourage shortcutting across Edmonton Trail
- 2 Reduced lanes at 2 Avenue to improve pedestrian + cyclist connectivity across Edmonton Trail
- 3 Gateway District enhancement to be implemented along 4 Street N.E. corridor including paving pattern, furnishings, light standards, and planting recognizing heritage significance



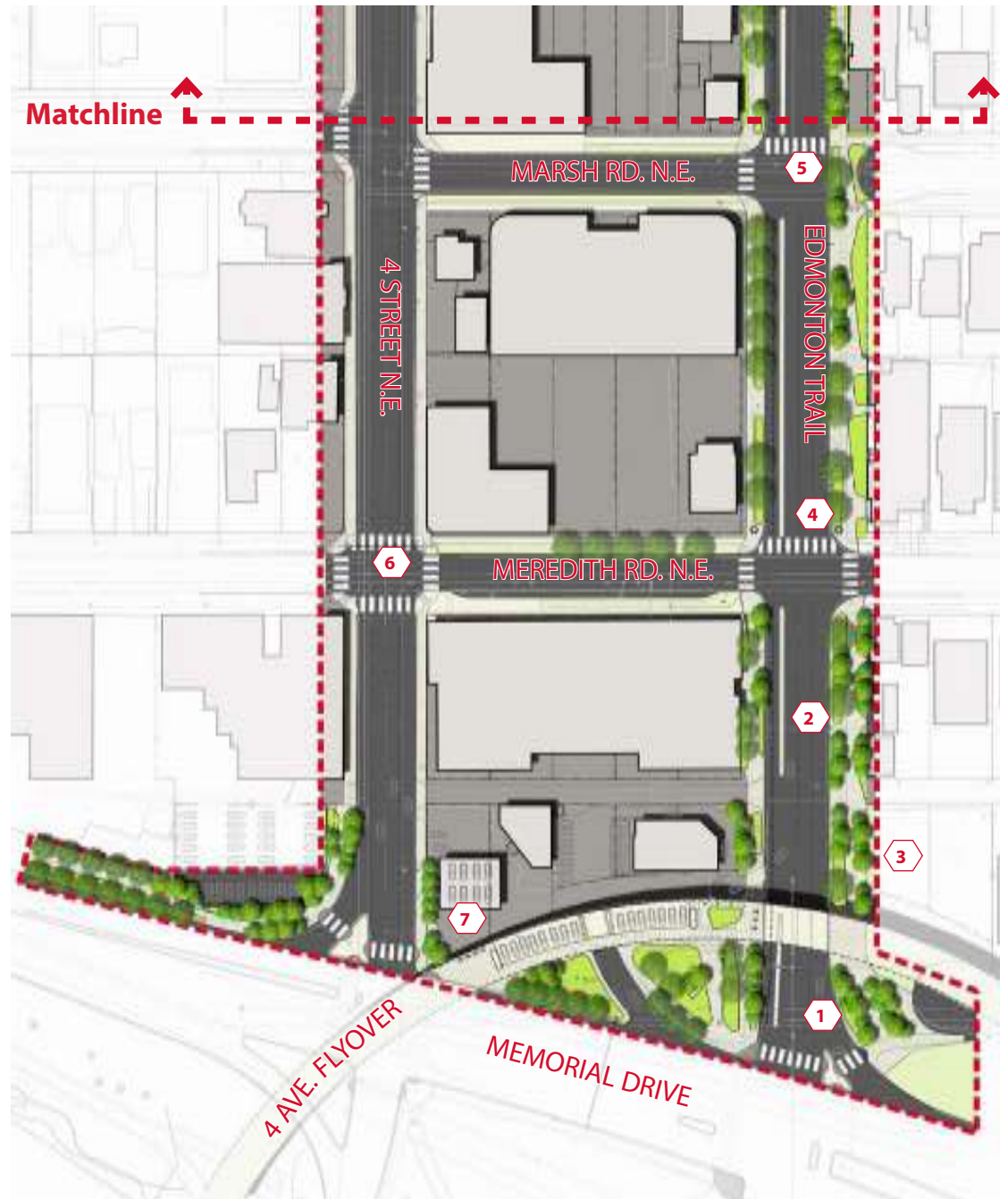


### Edmonton Trail Greenway

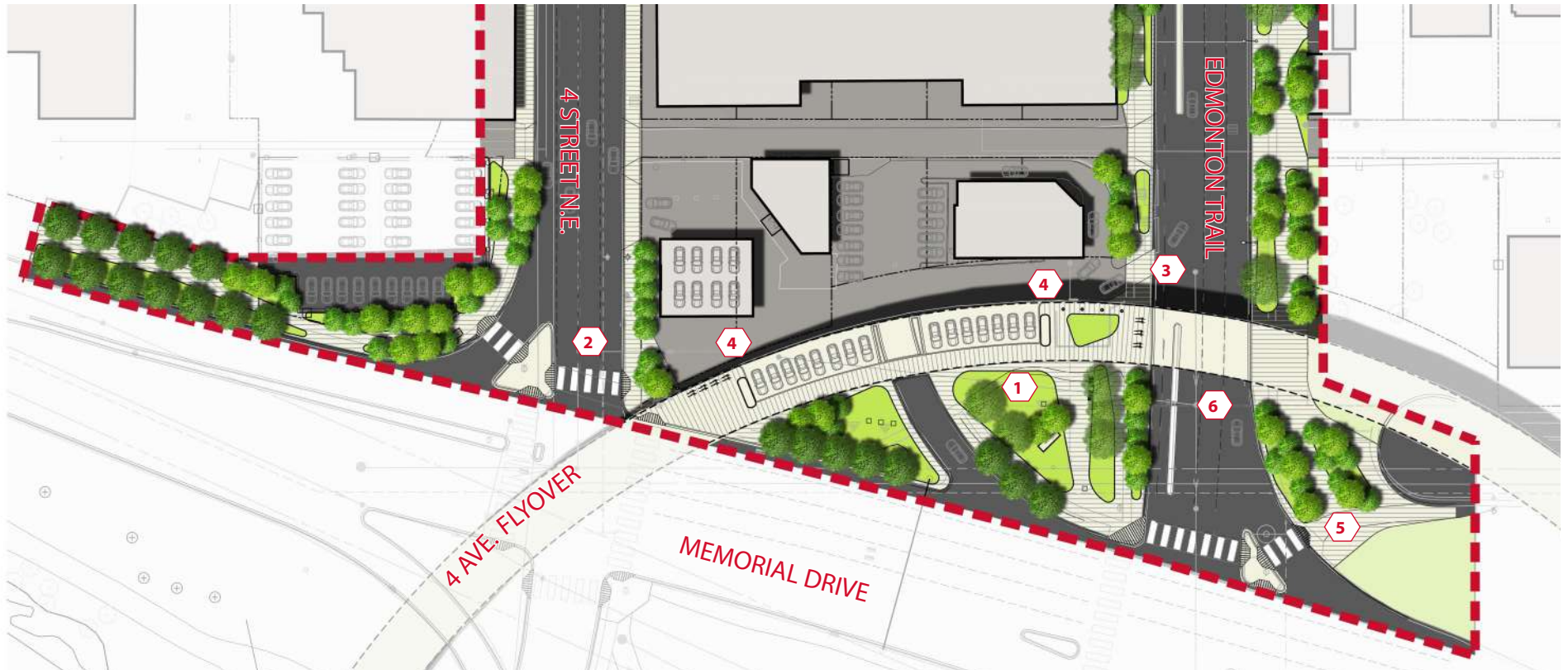
- 1 Stormwater infiltration islands + edge gardens with existing trees and trembling aspen
- 2 Greenway promenade designed to reflect form of river escarpment with a minimum 2.0m width between vegetated islands
- 3 Greenway edge to seamlessly integrate with selected Flyover Public Space Concept
- 4 Enhanced roadway lighting, bus stops + furnishings throughout corridor
- 5 Proposed new crosswalk at Marsh Road N.E.
- 6 Future signalized crossing at Meredith Road N.E. (2019)
- 7 Potential removal of (1) driveway @ gas station



### Precedents



## Memorial Drive + Gateway



**1** Rehabilitated park space beneath 4 Avenue N.E. flyover with improved pedestrian + cyclist circulation, focal entryway spaces + enhanced planting islands

**2** Proposed closure of one gas station driveway access to 4 Street N.E. to allow for safer pedestrian movement + entry space at SW intersection

**3** Proposed left-turn only at Starbucks driveway to Edmonton Trail to improve pedestrian + cycle track safety; main access point from Memorial Drive to remain

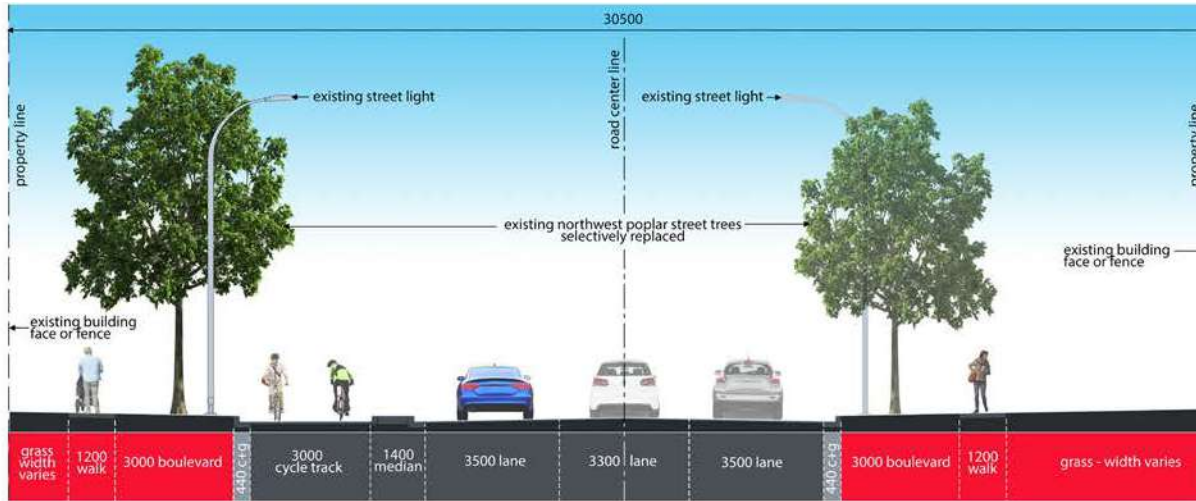
**4** Opportunities to use flyover pillars for public art + wayfinding depicting character + layout of Bridgeland

**5** Introduction of Edmonton Trail Greenway concept through masses of native planting that tie together the community from the river to the upper escarpment of Bridgeland-Riverside

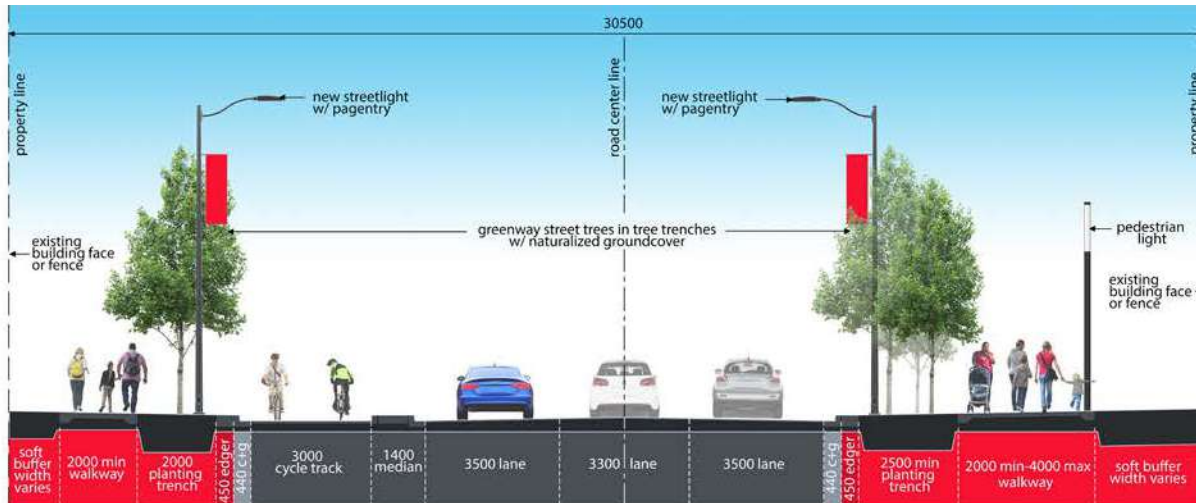
**6** Opportunity for community-led initiatives to celebrate the entryway to the community through pageantry of forms: feature lighting, artistic installations + unique wayfinding elements telling the story of Bridgeland-Riverside



## Edmonton Trail Streetscape Sections



### Existing Condition



### Preferred Option

## Precedents



# 6.1.1 Gateway District Illustrative Rendering

*Before*



- 1 Existing 4th Avenue Flyover w/ parking for gas station + Starbucks beneath
- 2 Poor pedestrian experience w/ little to no vegetation + unsafe crossing location at Memorial Drive access
- 3 Uninviting + unsafe pedestrian interface w/ walkway abutting busy traffic along Memorial Drive

## After



- 1** Opportunity to utilize flyover structure + pillars for public art + wayfinding as creative gateway element to the community of Bridgeland
- 2** Pedestrian promenade brought beneath flyover structure away from Memorial Drive to improve quality + safety of experience; existing parking to remain w/ vegetated buffer from flyover promenade
- 3** Open space between flyover and Memorial Drive to be rehabilitated with planting islands filled w/ native vegetation + trees signifying beginning of Greenway along Edmonton Trail
- 4** Pedestrian-scale light fixtures enhancing safety + quality of space for pedestrians travelling through Gateway in shoulder seasons + at night

## 6.2 - 1 Avenue N.E.

### Introduction

The 1 Avenue N.E. zone examines the east-west streetscape between 4th Street N.E. and 11th Street N.E. Fundamental priorities for 1 Avenue N.E. include:

- Balancing modes of transportation along the street and ensuring safety for pedestrians and cyclists
- Introducing permanent traffic calming measures
- Adding more trees to the corridor
- Improving safety and visibility in all seasons with enhanced and uniform lighting
- Celebrating the unique character of Bridgeland-Riverside through pageantry, streetscape activation and refreshing the central hub of General Plaza





# 6.2.1 Typical Streetscape Cross Sections

## Introduction

A number of key spatial priorities were identified and implemented throughout the streetscape master plan design process including:

- Traffic calming
- Cyclists riding in line with vehicles
- Improved north sidewalk with space for trees
- Space for activation on sunny side
- Overhead power burial under sidewalk
- No encroachment into bylaw setback

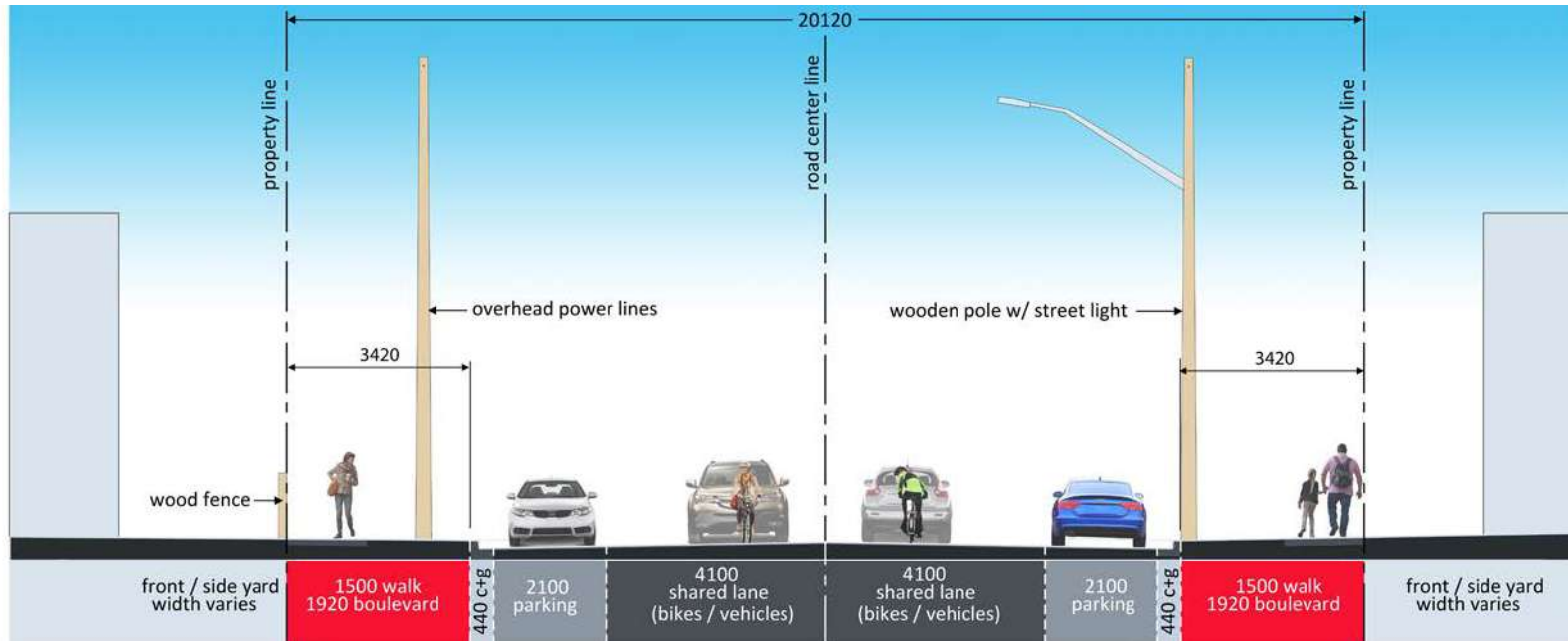
The following summaries and typical sections identify specific improvements to be made to the streetscape, comparing existing conditions with preferred elements and spatial alignments that achieve the objectives of the master plan.

## Existing Condition

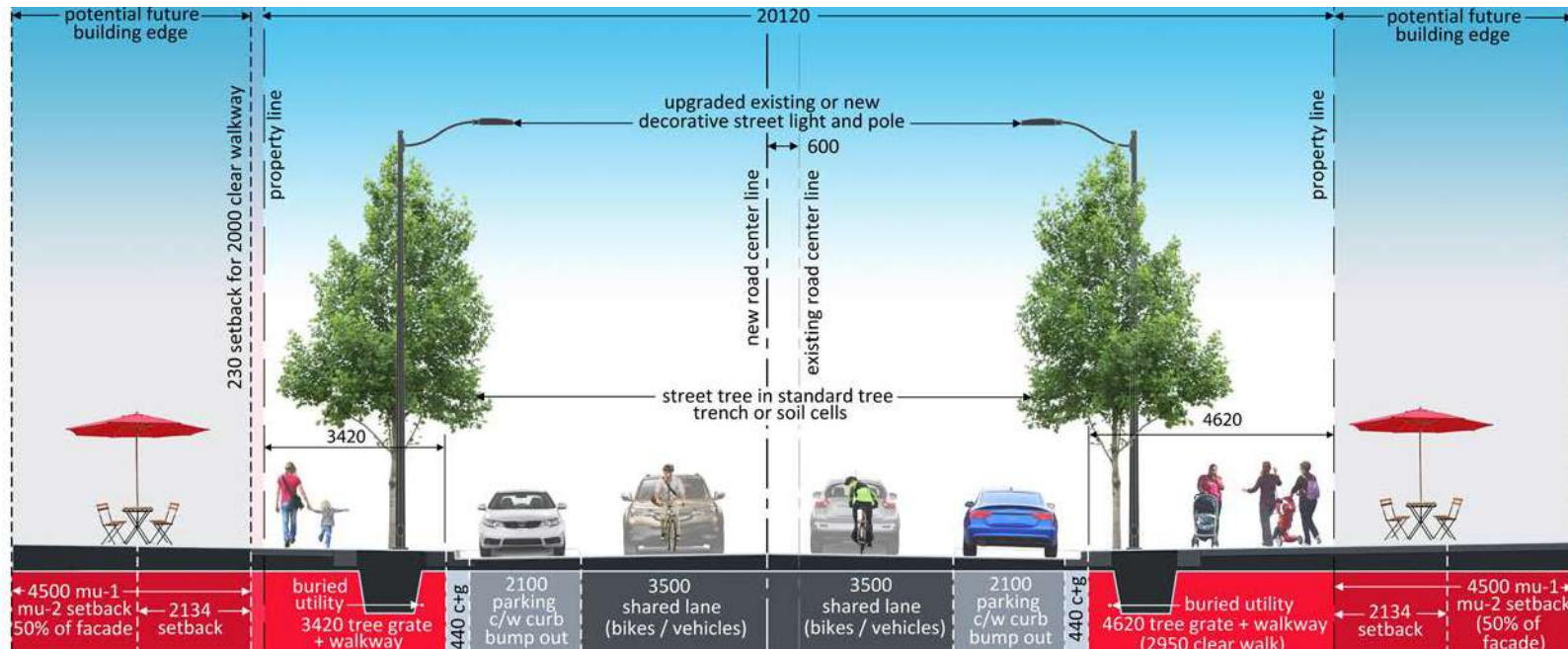
- Overall dimensions vary nominally over length of street
- Existing overhead utilities + unsightly wood poles
- Narrow, inconsistent width walkways
- Wide vehicle lanes (4.1m)
- Variety of boulevard treatments including pavers, grass, weeds, inconsistent furnishings, tree grates and bollards

## Preferred Option (Lane Reduction/ Widen North Sidewalk)

- Introduced traffic calming to increase safety through reducing potential conflicts between modes
- North side public realm increased by 1.2m to provide wider 'sunny side' walkway that includes street trees without utilizing setback
- Driving lanes reduced to 3.5m wide to facilitate wider north walkway + allow for shared vehicle / bike lane to remain with safe bus movement
- Shared bike / vehicle lane remains
- Streetlights + pedestrian lights added to improve safety and enhance character
- Buried overhead lines to allow for street trees on both sides of street
- Centreline of roadway shifts to provide a wider north side public realm amenity

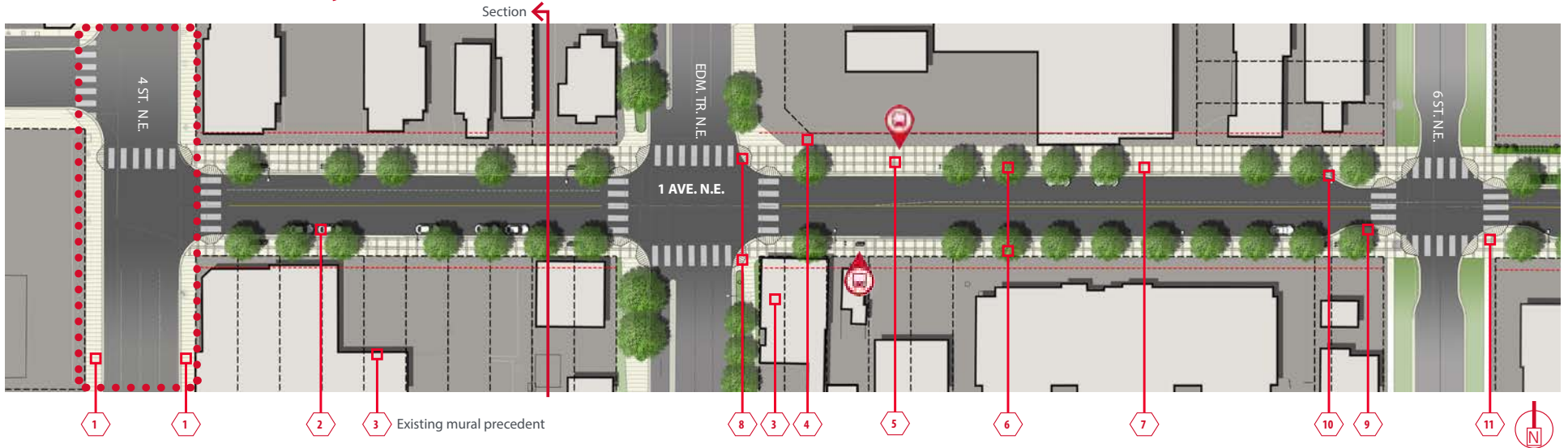


**Existing Condition**



**Preferred Option**

## 6.2.2 Gateway Transition | 4 to 6 Street N.E.



### What We Did

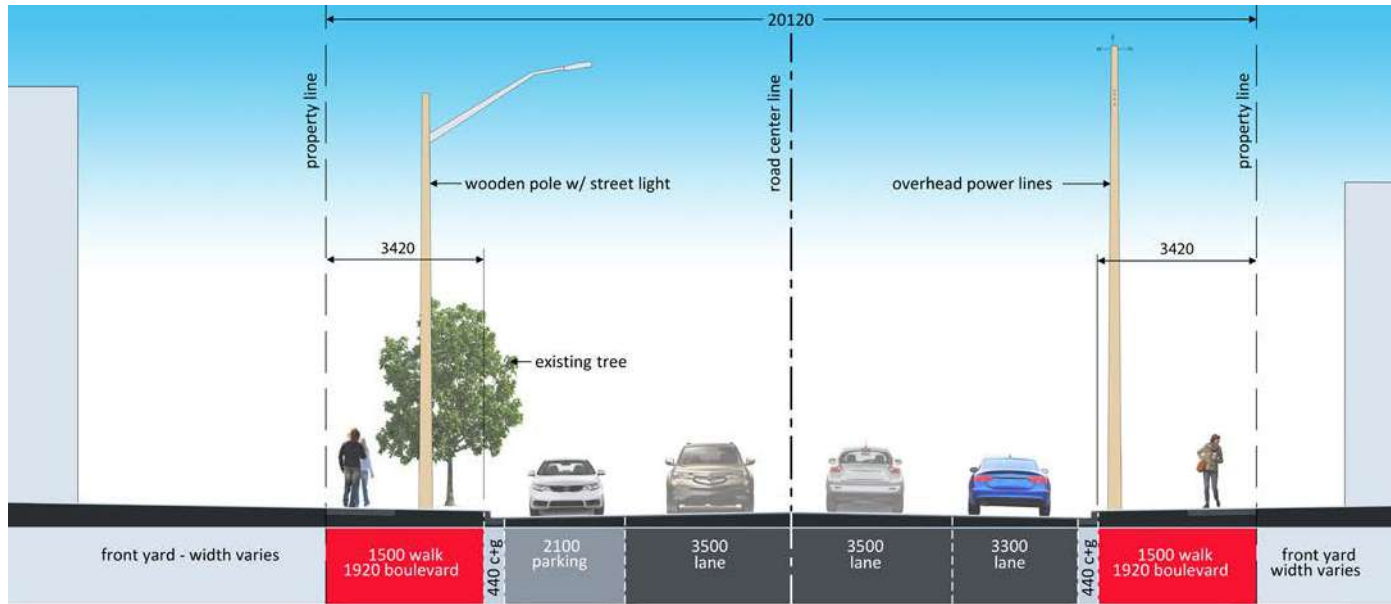
- 1 Gateway enhancement to be implemented along 1 Avenue N.E. corridor including paving pattern, furnishings, light standards, planting, etc.
- 2 Parking remains on south side
- 3 Gateway mural opportunity
- 4 Gateway landscape feature opportunity
- 5 Trees laid out to accommodate existing driveways + utilities
- 6 Typical burial or relocation of overhead utilities to allow for planting of tree canopy along corridor
- 7 North public realm increased by 1.2m to provide wider 'sunny side' walkway that includes street trees without utilizing setback
- 8 No curb bump-outs on 4th St. NE or Edmonton Trail to allow efficient turning movement - 2 existing turning lanes retained at 4 Street N.E.
- 9 Bus stop adjusted to end-of-block location at 6th Street intersection
- 10 Consistent streetlight fixtures along corridor combined with intermittent pedestrian-scale lights to improve safety + walkability of the street during shoulder seasons + at night
- 11 Enhanced pedestrian crossings with curb bulb-outs at intersections where possible

### Key Map

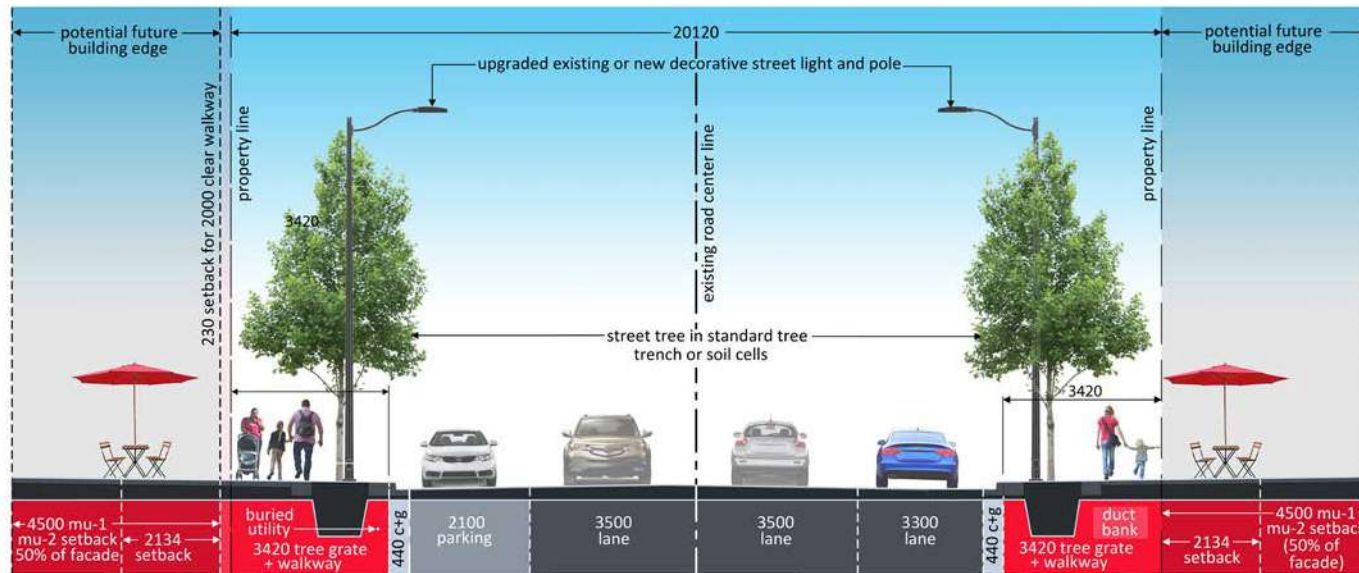




# Gateway Transition Streetscape Sections

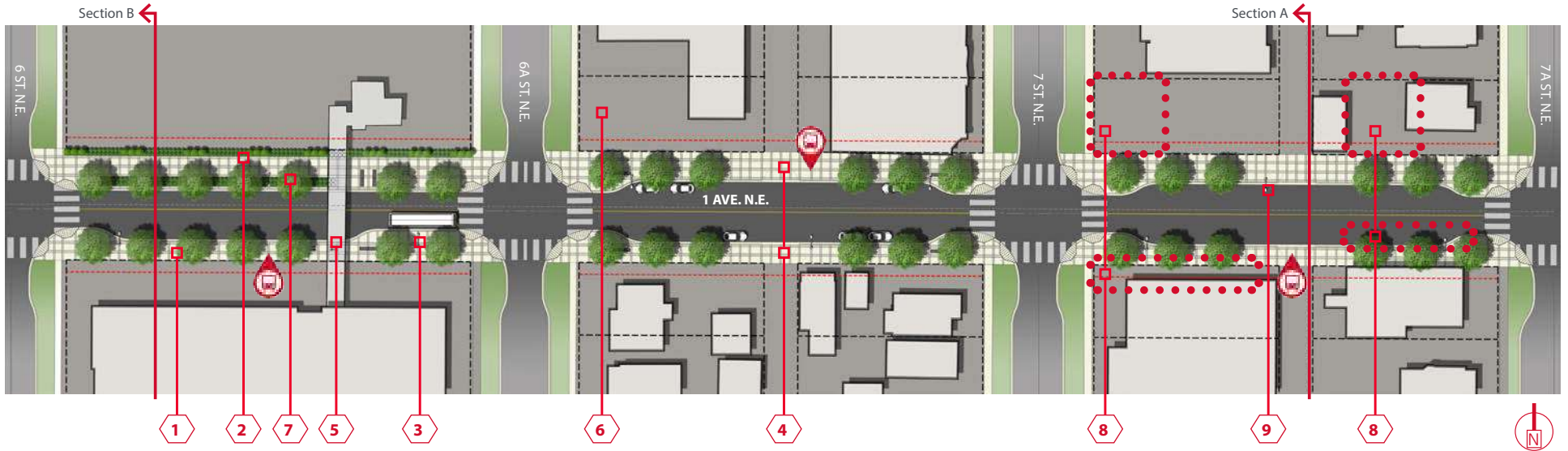


**Existing Condition**



**Preferred Option**

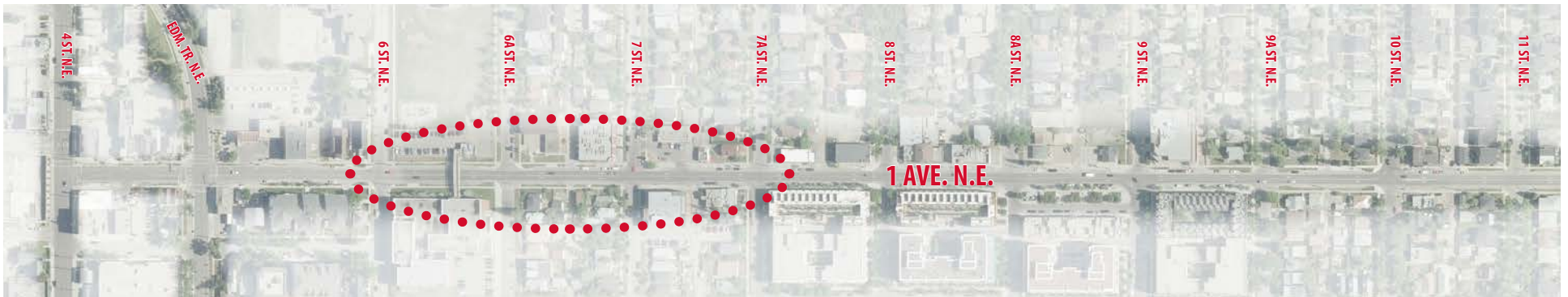
## 6.2.3 Mixed Use Transition Zone | 6 to 7A Street N.E.



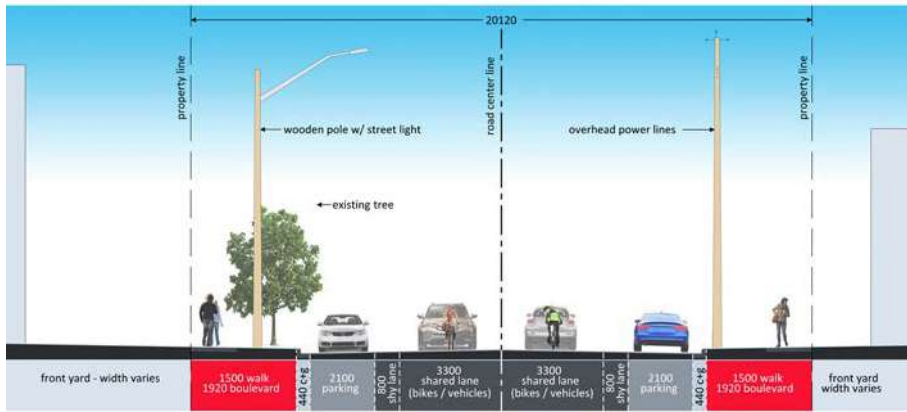
### What We Did

- 1 Student bus drop-off/ pick-up area remains
- 2 Parking removed to allow for additional planting and widen sidewalk to enhance gateway experience + buffer parking lot
- 3 Bus stop location adjusted to improve access
- 4 Trees spaced to accommodate existing laneways + utilities; new sidewalk paving to continue across laneway apron
- 5 Potential collaboration with school / students to enhance pedestrian overpass to celebrate youth
- 6 Bell Tower community landmark
- 7 Create linear parklet with benches + interpretive opportunities; potential to incorporate principles of low-impact design through bioswale planting
- 8 Potential private parklet or patio
- 9 Consistent streetlight fixtures along corridor combined with intermittent pedestrian-scale lights to improve safety + walkability of the street during shoulder seasons + at night

### Key Map

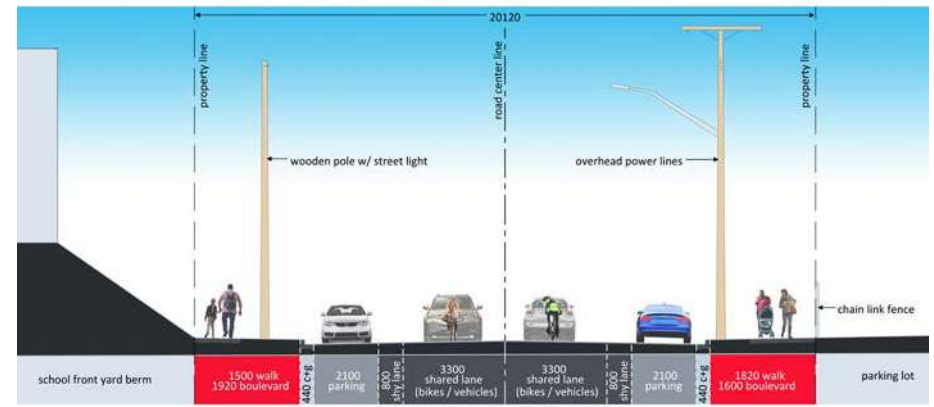


## Mixed Use Transition Streetscape Section - A

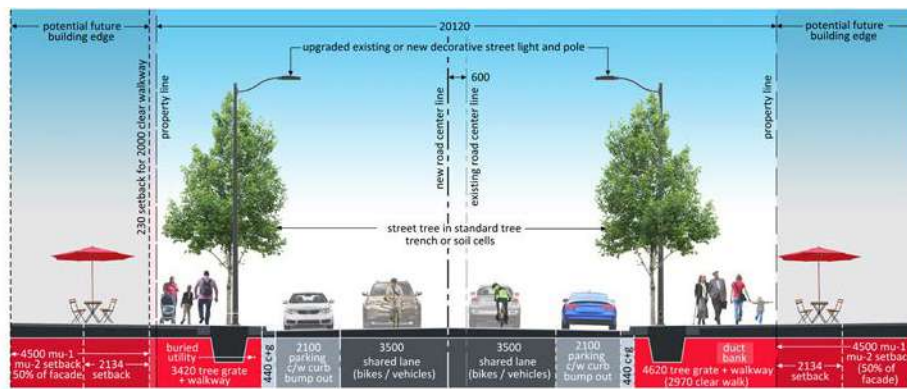


**Existing Condition** (overall dimensions vary nominally over length of street)

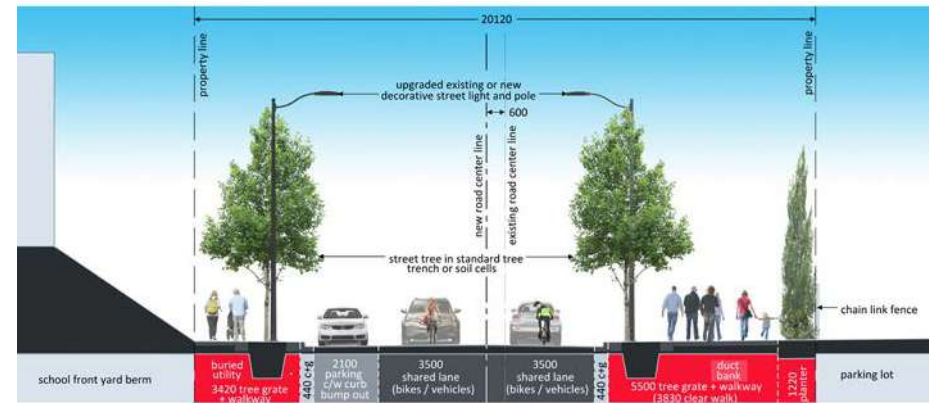
## Mixed Use Transition Streetscape Section at School Crossing - B



**Existing Condition** (overall dimensions vary nominally over length of street)

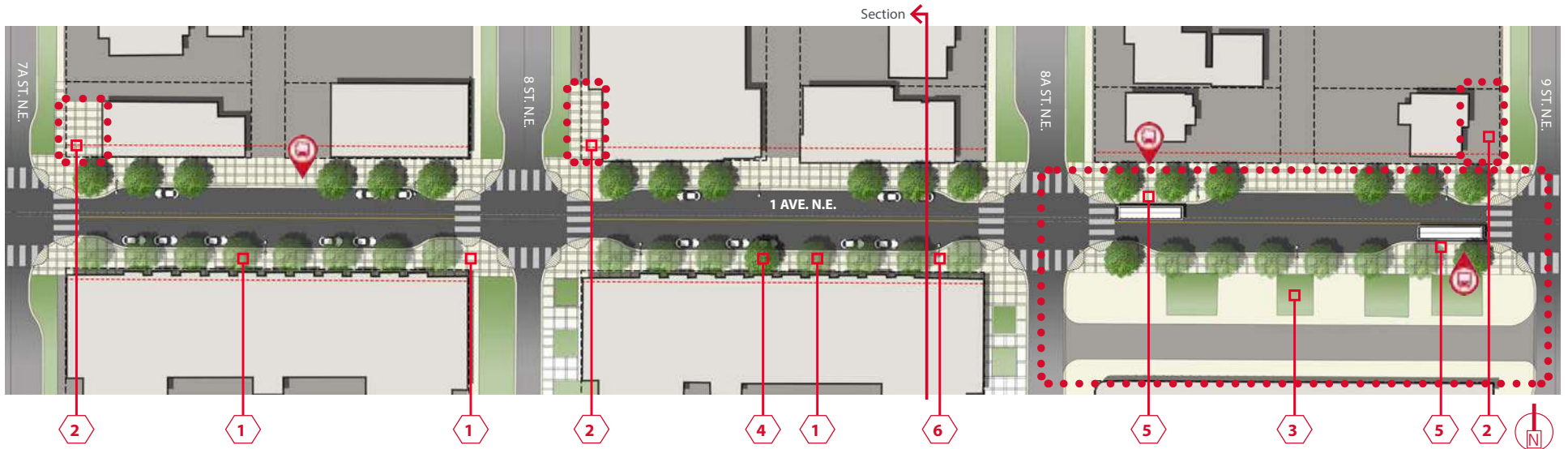


**Preferred Option: Lane Reduction/ Widen North Sidewalk**



**Preferred Option: Lane Reduction/ Widen North Sidewalk**

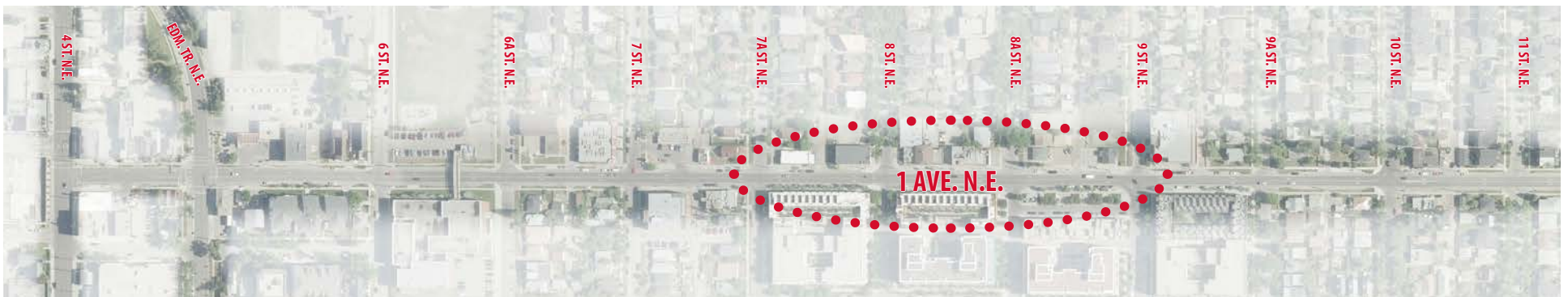
## 6.2.4 The Core | 7A to 9 Street N.E.



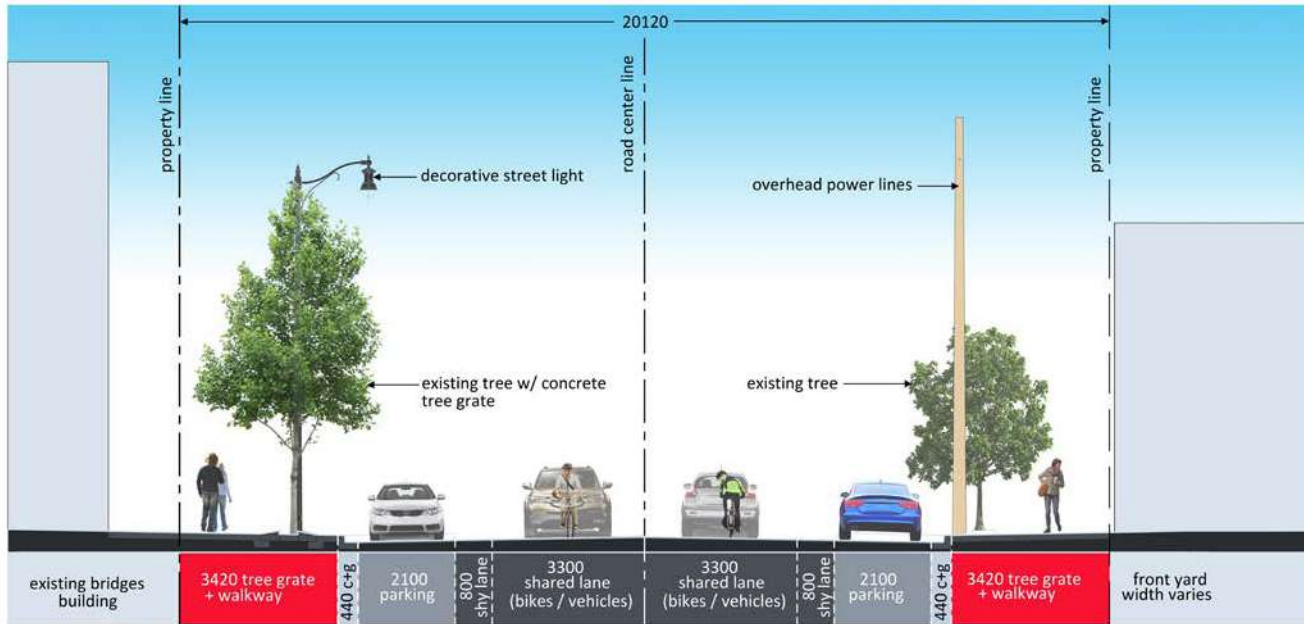
### What We Did

- 1 Preserve / protect existing trees + replace existing tree grates with flush mounted grates to improve tree health, mobility + increase useable walkway
- 2 Potential parklet in private open space
- 3 General Plaza enhancement area
- 4 Replace missing street trees
- 5 Adjusted bus stop zones to improve access and timing with in-lane drop-off + pick-up
- 6 Consistent streetlight fixtures along corridor combined with intermittent pedestrian-scale lights to improve safety + walkability of the street during shoulder seasons + at night
- 7 Typical curb extensions to reduce traffic speed and shorten crossing distance for pedestrian + enhanced directional crosswalks

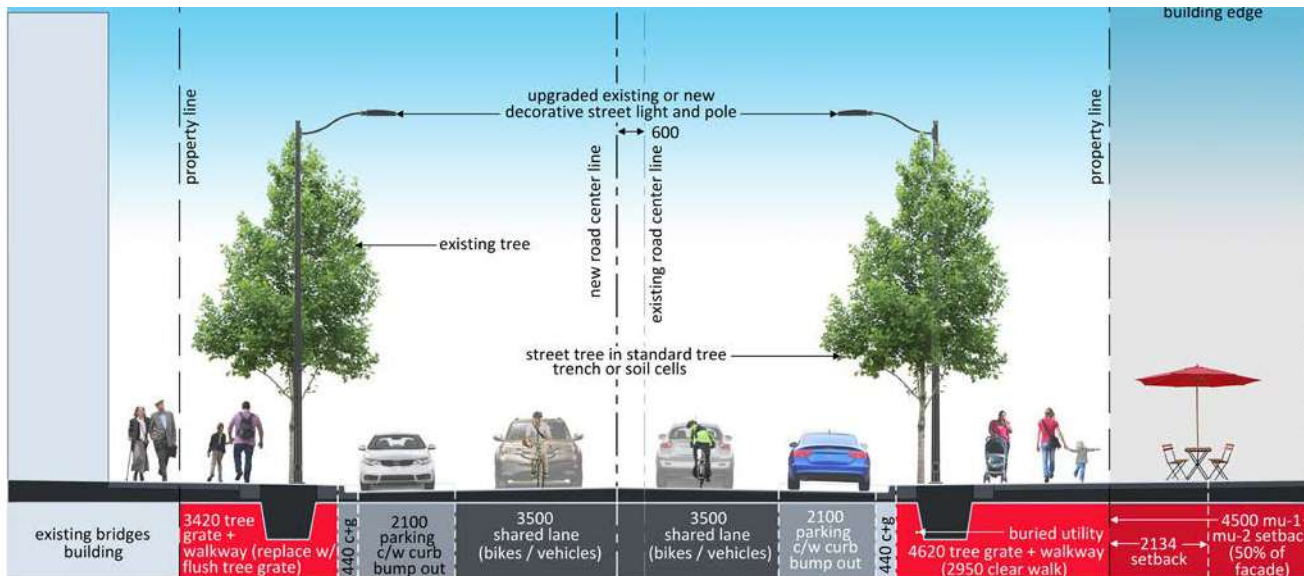
### Key Map



# The Core Streetscape Sections

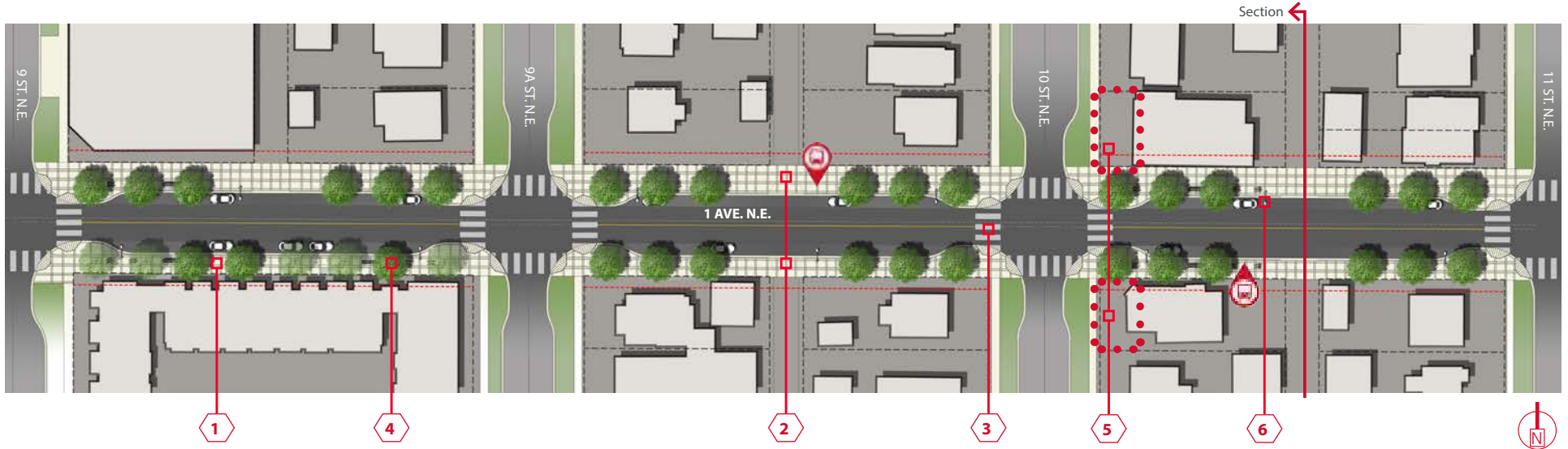


**Existing Condition** (overall dimensions vary nominally over length of street)



**Preferred Option: Lane Reduction/ Widen North Sidewalk**

## 6.2.5 Residential Transition Zone | 9 to 11 Street N.E.



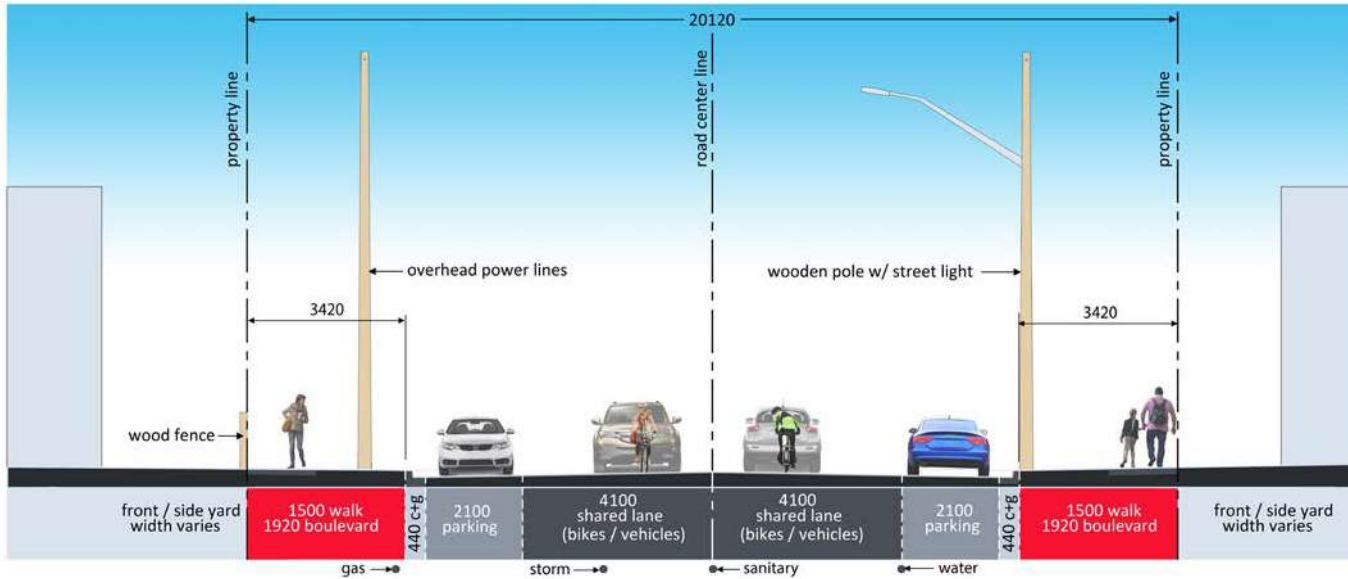
### What We Did

- 1** Replace existing tree grates with flush mounted grates to improve tree health, mobility + increase useable walkway
- 2** Trees spaced to accommodate existing laneways + utilities; new sidewalk paving to continue across laneway apron
- 3** Typical shortened pedestrian crossing (curb bulb/ painted crossing)
- 4** Replace missing street trees
- 5** Existing patio area
- 6** Consistent streetlight fixtures along corridor combined with intermittent pedestrian-scale lights to improve safety + walkability of the street during shoulder seasons + at night

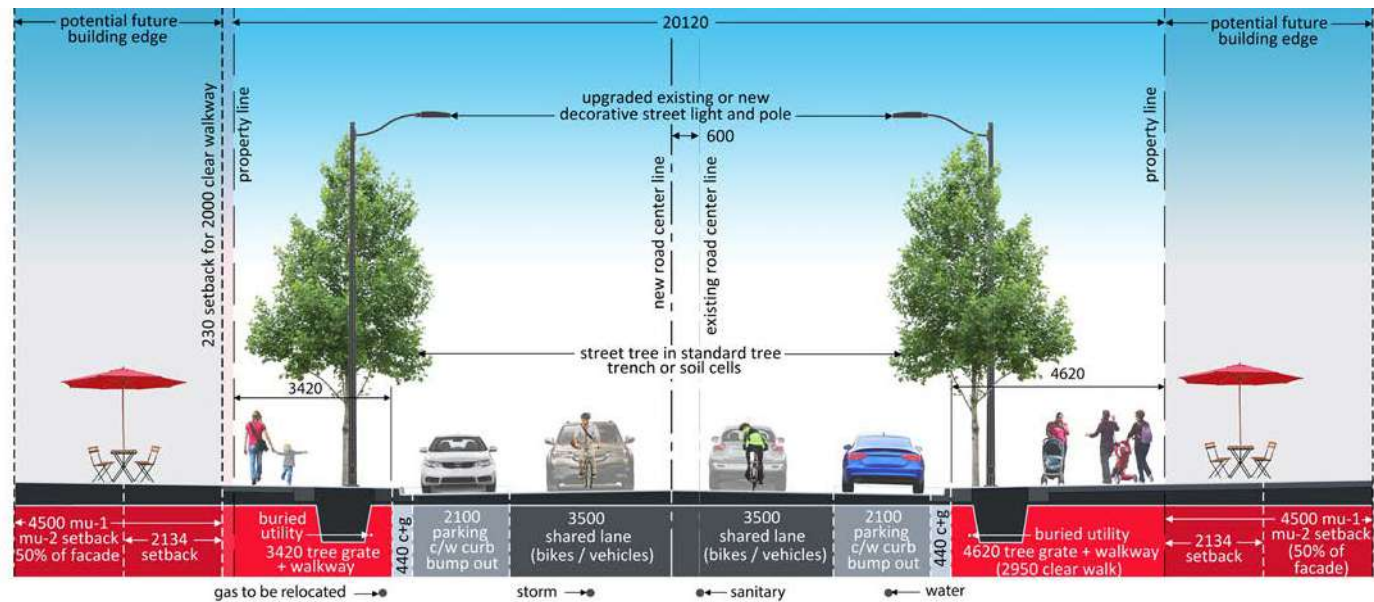
### Key Map



## Residential Transition Streetscape Sections



### Existing Condition (overall dimensions vary nominally over length of street)



### Preferred Option: Lane Reduction/ Widen North Sidewalk

## 6.2.6 The Core Illustrative Rendering

*Before*



**1** Curb bulb pilot at intersections demarkated with painted polka dots and temporary bollards

**3** North side of street devoid of street trees for the majority of corridor due to overhead power lines

**2** Inconsistent streetlight fixtures along corridor



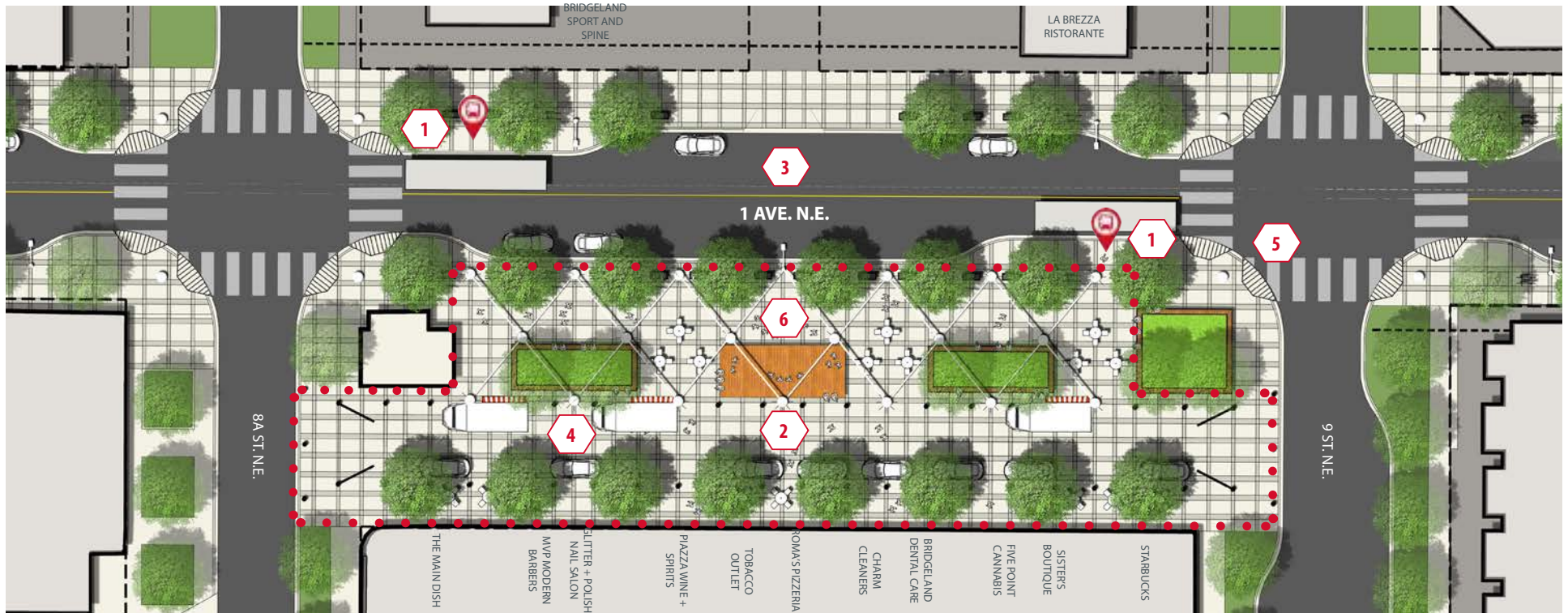
After



- 1 Complete curb bulbs + painted crossings to shorten pedestrian crossing distance + calm traffic
- 2 Pedestrian crossing signals enhanced with rapid flashing beacons
- 3 North public realm increased by 1.2m to provide wider 'sunny side' walkway that includes street trees without utilizing setback

- 4 Overhead lines buried to allow for planting of tree canopy along corridor
- 5 Combination of consistent street light fixtures + pedestrian scale lights to enhance safety and quality of experience for pedestrians at night and during shoulder seasons

## 6.3 - General Plaza + General Avenue



### Introduction

General Plaza is a well-loved space in the heart of the community used year-round for small, informal gatherings to larger special events. Through the engagement process, key objectives were identified to help realize a concept plan that would enable the space to retain its existing charm while increasing its capacity for social events.

General Avenue, an existing roadway bisecting the shops and plaza space, was identified as a critical component to be retained and re-imagined as a flexible space which could be used for parking when needed or closed off for special events to expand the functional space of the plaza.

The following plan, summaries and precedent imagery illustrate the design intent for General Plaza with a framework of improvements that help to achieve the community's desires for the space.

### What We Heard

#### Create a People Place

- Provide enhanced community gathering space
- Allow patios to spill out into the Plaza
- Create a programmable event space
- Limit vehicles for events but maintain parking on General Ave.
- Introduce feature lighting

## Precedent Imagery

### What We Did

- 1 Proposed transit platforms re-located from middle to ends of blocks at 8A Street and 9 Street N.E. w/ extended curbs + waiting zones
- 2 General Ave. raised to plaza grade + enhanced with consistent paving pattern + vehicle gates at ends for temporary large-scale event street closures
- 3 1 Ave. N.E. typical streetscape enhancement including walkway paving, street trees + lighting
- 4 Parking + loading to remain on General Avenue with space for circulation + event parking on plaza side (food trucks, market tents, etc.)
- 5 Bulb-out extension to improve visibility from 9th Street traffic
- 6 Plaza Improvements:
  - Reduce planter sizes + make more consistent
  - Provide additional open space for circulation + social programming including enhanced central gathering
  - Retain existing trees where possible
  - Suspended lighting above central plaza space at pedestrian scale height
  - Increase open areas for spillout seating

**Area of Increased Open Space  
for Programming, Events +  
Passive Enjoyment**



## 6.3.1 General Plaza + General Avenue Illustrative Rendering

*Before*



- 1 Plaza + shops divided by General Avenue
- 2 Narrow public realm frontage against General Ave. shops

- 3 Existing plaza space with pockets of vegetation, trees + a small-scale wooden stage feature

## After



- 1 General Ave. raised to plaza grade + enhanced w/ consistent paving pattern + vehicle gates at ends for temporary large-scale event street closures
- 2 Parking + loading to remain on General Ave. with space for circulation + event parking on plaza side (food trucks, market tents)
- 3 Widened public realm frontage against shops to provide space for additional patio seating + tree canopy on both sides of General Avenue
- 4 Majority of existing vegetation + trees to remain in plaza with greater central open space for social gathering + event programming
- 5 Pedestrian-scale light fixtures + overhead feature lighting enhancing year-round flexibility and safety of the plaza space as well as providing opportunities for night-time events

# 6.4 - Master Plan Design Outcomes

## Metrics

The preferred Streetscape Master Plan for 1 Avenue N.E. achieves the following:



**Table 2.** Project Design Metrics

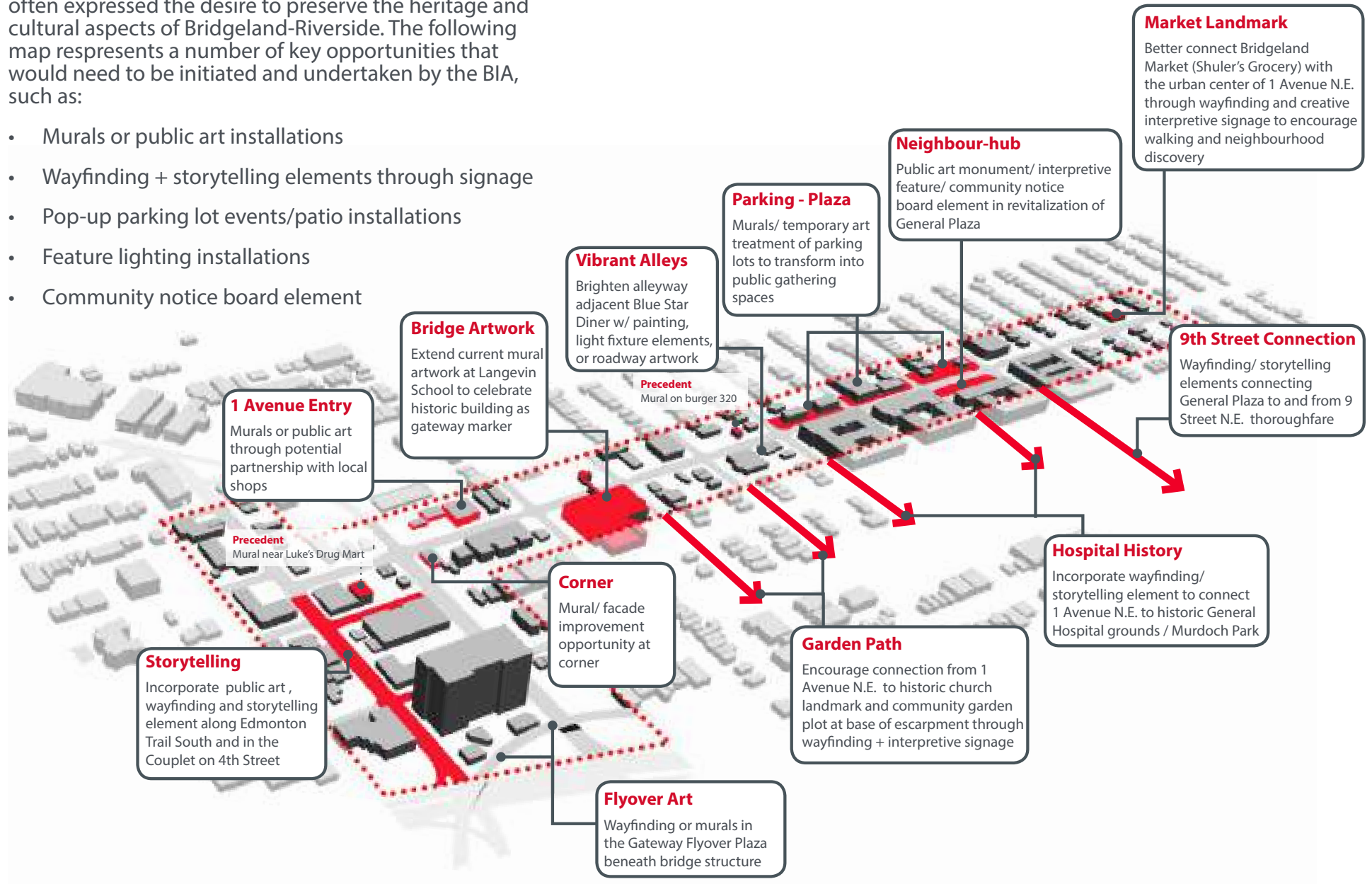
# 7.0 Cultural Elements



# 7.1 Community + Business Led Opportunities

Throughout the engagement process, the community often expressed the desire to preserve the heritage and cultural aspects of Bridgeland-Riverside. The following map represents a number of key opportunities that would need to be initiated and undertaken by the BIA, such as:

- Murals or public art installations
- Wayfinding + storytelling elements through signage
- Pop-up parking lot events/patio installations
- Feature lighting installations
- Community notice board element

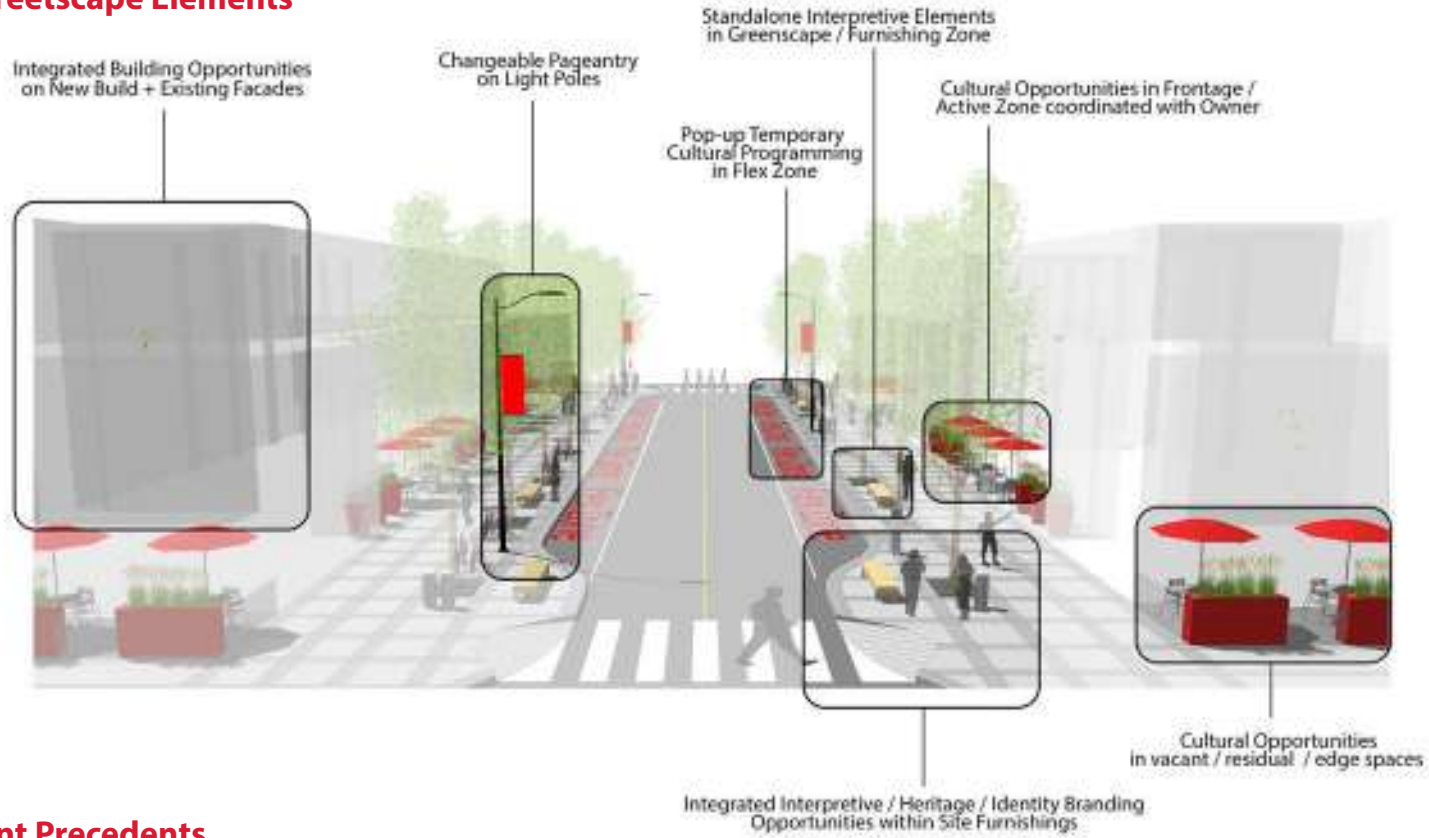


**Map 10.** Culture + Heritage Recognition Opportunities



# 7.2 Feature Opportunities

## Highlighted Streetscape Elements



## Cultural Element Precedents



Community-led Artworks



Seasonal Pop-up Spaces by Local Shops



Signage Integrated w/ Street



Community Storytelling Embedded in Signage, Furnishings + Tree Grates



## Wayfinding Precedents

Unique Neighbourhood Identifiers



District Mapping



Signage Encouraging Exploration



Experiential Wayfinding



Sensory Mapping

## Flyover Pillars Artist Concept

Heritage Recognition, Lighting + Public Art



Existing flyover pillars



Example of cultural/ wayfinding opportunity

### Patio Activation + Pop-Up Parklets

Opportunity for current + future businesses to extend patio spaces + activate parking stalls as pop-up parklet spaces



### Public Art

Opportunities for BIA + community-led initiatives to implement murals + public art throughout corridor that speak to character of Bridgeland-Riverside



### Streetscape Activation

Opportunity to design + implement unique kit of parts including planting types, furnishings + storefront integration



