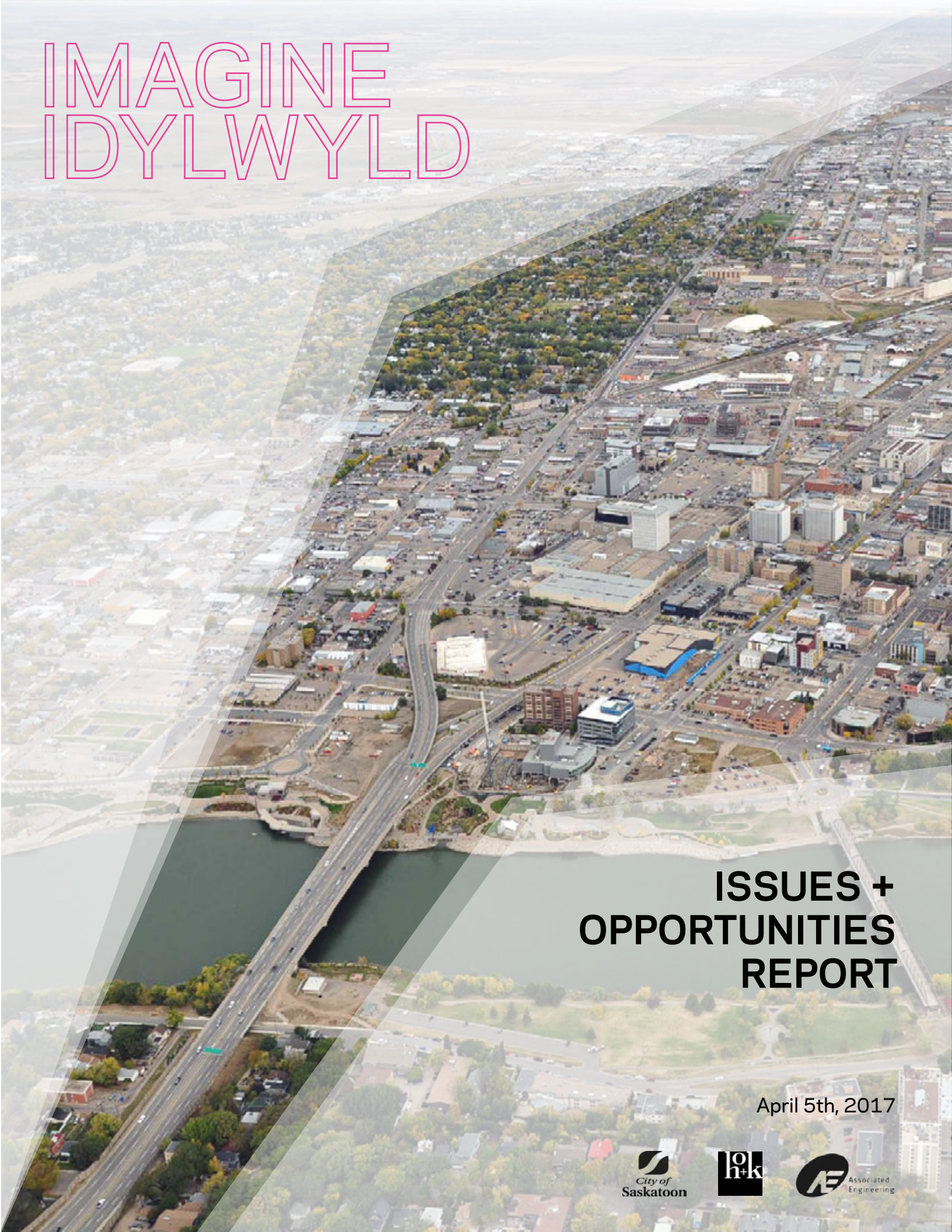
IMAGINE IDYLWYLD



ISSUES + OPPORTUNITIES REPORT

April 5th, 2017

City of Saskatoon

HOK

Associated Engineering

TABLE OF CONTENTS

TABLE OF CONTENTS

01

EXECUTIVE SUMMARY

IMAGINE IDYLWYLD

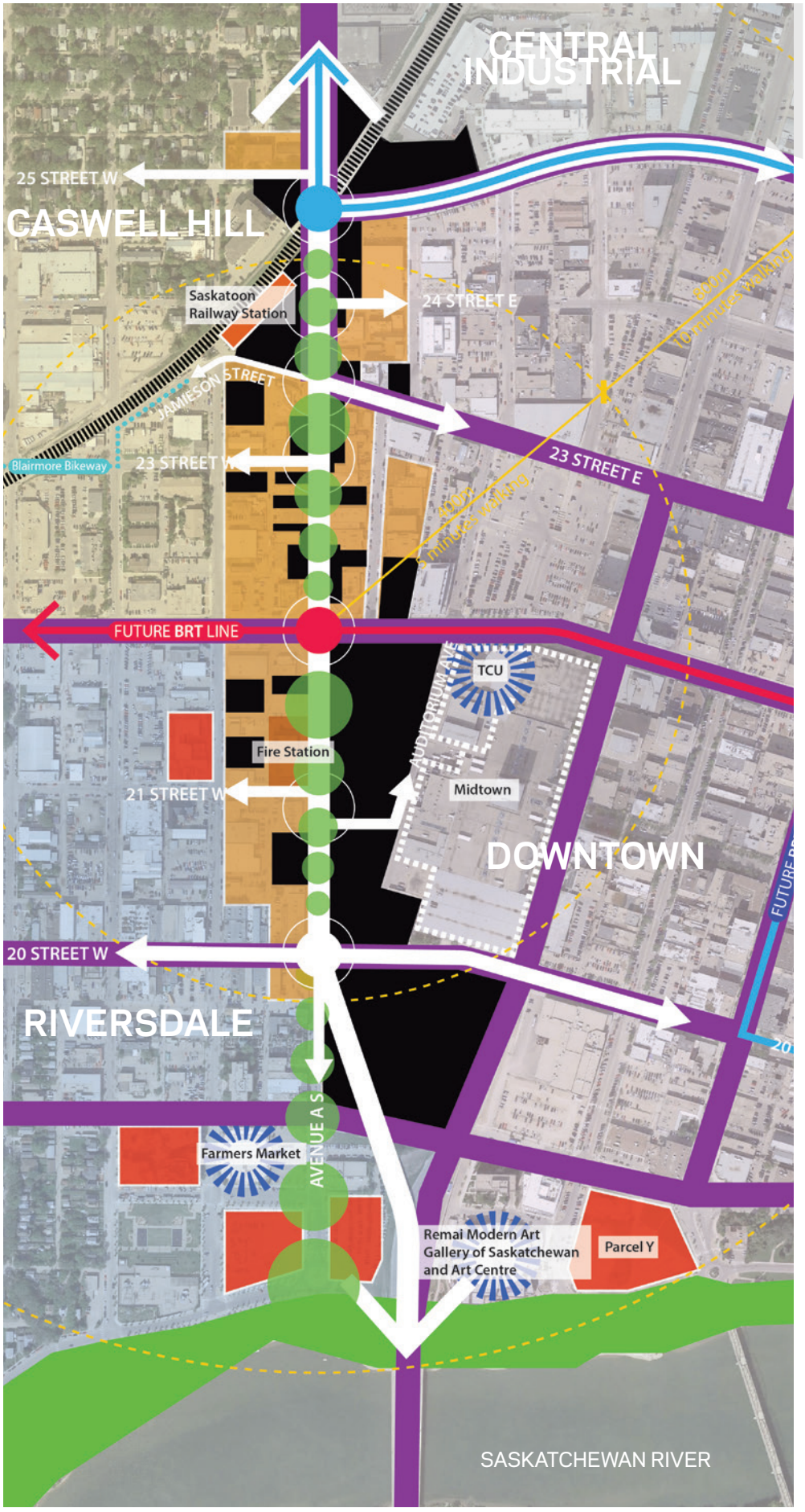
City of Saskatoon

hok

Associated Engineering

LEGEND

- Mid- to Long- Term Redevelopment Opportunities
- Fire Hall Redevelopment
- Infill Opportunities
- New Developments
- River Landing
- Transit Route
- Future Blue Line BRT
- Future Red Line BRT
- Gateway / TOD Node Opportunity
- Green Space and Character Opportunity
- Intersection Improvements
- Neighbourhood Connection Improvements
- Community Node



SWOT Analysis

"IDYLWYLD DRIVE IS A SIGNATURE GATEWAY INTO THE CITY CENTRE; A MODERN GRAND AVENUE THAT CONNECTS PEOPLE AND PLACES IN A COMPACT, MIXED USE URBAN ENVIRONMENT THAT SUPPORTS DAILY LIFE IN SASKATOON." *- IMAGINE IDYLWYLD VISION STATEMENT*

EXECUTIVE SUMMARY

PROJECT PURPOSE

Imagine Idylwyld is a twelve month City of Saskatoon planning and design initiative for Idylwyld Drive. The purpose of the project is to develop a new vision and conceptual plan to improve the function, safety, connectivity and quality of the roadway and public realm along Idylwyld Drive, between 20th Street and 25th Street East.

The *Imagine Idylwyld* project will examine existing and future transportation patterns, current and future zoning and land uses, and existing and proposed built forms to gain an understanding of Idylwyld Drive's role as a major urban arterial roadway - now and in the future.

PURPOSE OF THIS REPORT

This report will inform and build the foundation of the design process in the stage to follow by documenting existing conditions along Idylwyld Drive corridor, identifying key issues and opportunities observed in the technical analysis as well as establishing a guiding and evaluative framework out of the Public and Stakeholder participation and feedback.

Forming the qualitative background, the engagement feedback is presented in the form of a series of "What We Heard" statements. These statements are to be considered and tested during the design of concept alternatives for the corridor and used as an evaluative tool to measure the success of alternatives in future phases of work.

PROJECT TIMELINE

This report marks the completion of Phase 02 of *Imagine Idylwyld*.

CONTENTS AND RESULTS

Introduction

Idylwyld Drive serves as a key north-south travel corridor through Saskatoon and connection to the City Centre. The study area was established based on site analysis and by mapping the extent of feedback and comments received during engagement events to encompass "Areas of Impact".

Idylwyld Drive has been recently affected by the opening of Circle Drive South and the extension of 25th Street East. Changed traffic conditions along with the City's new policies to guide the growth and development of the city to 500,000 people, are driving the need to revisit the vision and character of the corridor.

Project Framework

Standards of Care have been established as a framework to guide and inform engagement throughout the project:

1. Idylwyld will be designed as an urban street.
2. Idylwyld will remain an arterial street.
3. All modes of travel will be considered and accommodated.
4. All types of people will be considered and accommodated.
5. Land use and transportation planning are integrated.
6. Existing businesses and driveways will be accommodated.
7. Saskatoon is a winter city.
8. The most up-to-date engineering design standards, guidelines, and best practices will be used.

PHASE 01	PHASE 02		PHASE 03	PHASE 04
Background Review	Corridor Assessment	WE ARE HERE	Development of Alternatives	Concept Streetscape Design
6 weeks	12 weeks		18 weeks	20 weeks

EXECUTIVE SUMMARY

GUIDING THE DESIGN

Imagine Idylwyld is composed of several integrated parts and processes that will guide the design and inform the outcome for the *Imagine Idylwyld* study area.

Vision

Leading the design is the project vision, (see page 7) which was established though extensive community input. The draft vision was formed with a steering committee visioning session, and refined to the final vision through feedback obtained through a stakeholder workshop and an online community survey. The vision takes into account the three major scope areas of *Imagine Idylwyld*:

- **TRANSPORTATION + CONNECTIVITY:** the movement of users through the study area, connecting people with their destinations using their mode of choice.
- **LAND USE + BUILT FORM:** the types of destinations and locations of buildings within the study area and how they integrate with and are supported by the transportation network.
- **PUBLIC REALM + URBAN DESIGN:** the application of a design that creates a gateway condition and unifies the corridor, enhancing the quality of the street and nearby open spaces.

Corridor Priorities

The vision is supported by five corridor priorities that will guide the specific outcomes of *Imagine Idylwyld*. These priorities were created with the community and reflect the desired outcomes for the project.

Efficient + Predictable

Idylwyld Drive will be a street that provides the most efficient and predictable means of travel for all users.

Safe + Accessible

Idylwyld Drive will be a street that is safe and comfortable for users of all abilities 24 hours a day, 365 days a year.

Walkable + Human Scale

Idylwyld Drive will be a street that is comfortable to walk along and across in an interesting and engaging urban environment.

Connected + Cultural

Idylwyld Drive will be a street that not only connects people with their destinations but with our cultural, built and natural heritage.

Livable + Sustainable

Idylwyld Drive will be a street that enhances daily life by balancing environmental, social, cultural, and economic considerations.

Public and Stakeholder Engagement

Meaningful Public and Stakeholder engagement is an integral component of *Imagine Idylwyld*. The Engagement Strategy for the project built on the extensive efforts of the background documentation compiled over recent years that established clear stakeholders, issues and the challenges facing the study area. The engagement process for *Imagine Idylwyld* is purposefully designed to ensure the outcomes for the project are informed by the community. To date, public input has been received through a Stakeholder Workshop and a city-wide online interactive survey. The results of these engagement events have not only been used to formulate the vision and the corridor priorities for *Imagine Idylwyld*, but have also been used to establish the extents of the study area and identify the community's understanding of the challenges and opportunities facing Idylwyld Drive.

In this report, Public and Stakeholder responses have been consolidated into "What We Heard" statements. They have been categorized into the three major scope areas of *Imagine Idylwyld*;

- Transportation + Connectivity
- Land Use + Built Form
- Public Realm + Urban Design

Statements are then further itemized by corridor priorities to ensure that the work being done for each scope area is still driven by the priorities and vision of the corridor. These statements will also become an evaluative tool which future design work can be measured against.

Opportunities

This report also identifies a series of preliminary opportunities to be explored to address the community's "What we Heard" Statements throughout the corridor. These opportunities address a wide range of transportation, land use, and public realm issues and will help to guide the Project Team in creating concept alternatives for site-specific issues in the next phase of the project.

The following paragraphs summarize the issues and opportunities for each of the three major scope areas for *Imagine Idylwyld*. Additional details on the issues and corresponding opportunities can be found in Sections 4, 5 and 6 of this document.

Transportation + Connectivity

Idylwyld Drive is, and will continue to be an urban arterial street. The intent of *Imagine Idylwyld* is to realize improvements in function, safety, connectivity and quality of the corridor. Issues and opportunities identified include:

Traffic Flow, Lane Alignment and Continuity

Traffic efficiency is tied to traffic signal timing, lane usage imbalance and driver behaviour. Lane constraints at the

22nd Street intersection result in longer wait times than recommended (130 second cycle vs. 60-90 seconds recommended). The lack of lane continuity and presence of shared left turns also encourages frequent lane changes, resulting in lane use imbalance reducing capacity. Lane continuity, improved turning and consistent lane width will be design criteria.

Intersections and Access Points

Idylwyld Drive has a high density of intersections, with two instances where signalized intersections are less than half the Transportation Association of Canada recommended spacing of 200 m. There is particular opportunity for traffic flow improvement to 24th Street to remove the traffic signal or restrict movements. Driveways create an additional source of safety risk and delay. Current driveway configuration involves sloping the sidewalks which can make walking difficult in icy conditions. Long term access opportunities may include other means, such as rear-lane access.

Connections among Neighbourhoods, Walking and Cycling

Although Idylwyld Drive is currently perceived as a barrier, it has the potential to connect neighbourhoods. There are significant opportunities to improve pedestrian conditions including rationalizing accessible routes, providing a buffer between driving lanes and sidewalk, providing a consistent sidewalk width and clear travel path appropriate for a major urban street, removal of sidewalk interruptions, reconfiguring intersections to improve pedestrian safety and reducing crossing distances.

Idylwyld Drive currently does not have dedicated infrastructure for cyclists and alternative routes are located conveniently nearby. Provision of designated bike crossings and ensuring that traffic signals can be actuated by cyclists are opportunities to improve connections among neighbouring communities.

Use of Space

Most of the space on Idylwyld Drive is used for driving. Three factors affect how much space is used for cars: number of lanes, lane width, and lane placement. The current arrangement is inefficient and does not follow modern best practice for urban streets. There is opportunity through reduced lane widths and reconfigured turning lanes to improve traffic flow while re-purposing space for pedestrian and non-motor vehicle traffic.

Snow and Winter

The wide street can become covered in snow or slush, obscuring lane markings and exacerbating lane alignment issues. For pedestrians, an icy driveway becomes a slippery slope toward traffic. The waits for walk lights become uncomfortable, or in the most extreme days, unbearable and intolerable. When it's windy, the open spaces and lack of trees provide little shelter for anyone waiting. On milder days, snow becomes a messy brown slush that splashes passers-by, most notably inescapable at the pinch points where the narrow sidewalk just fits between a driving lane and a building, entirely within the splash zone. There are no boulevards or other areas for on site snow storage, so snow must be trucked away. What does remain, melts and drains unfiltered into the river, adding salt, oil, and other pollutants to the water.

To address this, there is opportunity to align the lanes to work intuitively even when covered by snow, remove or reconstruct and level abandoned driveways, provide a buffer between the driving lanes and sidewalks to minimize splash exposure and provide boulevards for on-site snow storage. Vegetation and other shelter opportunities, especially where pedestrians wait for red lights.

Land Use and Built Form

The urban morphology of Idylwyld Drive is generally defined by the legacy of the CN Railyard, with conditions differing between the east and west neighbourhoods. Generally, the study area is defined by low density single-use developments, and large expanses of surface parking lots. The corridor's current configuration conflicts with the emergence of urban renewal trends of adjacent neighbourhoods and districts.

The following opportunities are to be further explored as ways to address these land use and built form issues:

- Establish a gateway condition with a feature installation at the 20th Street intersection, including streetscape design and potential intensification on the north-west corner lot
- Explore mixed use infill development with structured parking on existing surface parking lots at 20th Street
- Review access to Avenue A from Idylwyld Drive
- Consider a greenway condition connection to the character of the River and River Landing
- Replace excess parking with pocket parks or squares, fronted by retail or new infill development
- Improve, redevelop, or relocate Fire Station No. 1
- Integrate transit access/amenities near future Bus Rapid Transit stations
- Create open spaces in close proximity to planned transit facilities
- Create pedestrian-oriented, mixed-use and transit-supportive gateways at 22nd and 25th Street
- Create consistent setback conditions
- Create consistent, pedestrian-oriented street frontage with an active urban edge that allows for small and random punctuations along the street edge at grade

- Provide safe and shorter travel distances at crossings that are barrier free and meet accessibility standards
- Explore unifying blocks 8 and 9 for more regular development parcels
- Frame views of heritage buildings and landmarks

Public Realm and Urban Design
There is a notable lack of public spaces along the Idylwyld Drive corridor and the general condition of pedestrian routes is best summed up as hostile and of poor physical condition.

To realize the vision of a vibrant urban environment there are numerous opportunities for improvementl; these include:

- Introduce a consistent urban edge
- Encourage walking by increasing sidewalk widths
- Add streetscape elements such as trees, plantings, and where appropriate, seating adjacent to intersections to enhance the character and quality and improve separation of vehicles and pedestrians
- Establish design guidelines for interim and future conditions.
- Design for four seasons by considering integrated storm water solutions within the streetscape and winter and snow operability
- Create a planted corridor that frames the right of way with a general planting consistency while providing shade and reducing wind velocity within the public realm.
- Create a planting scheme defined by hardy, city-tolerant species suited to the four seasons:
    - Street Trees (high canopy, provides shade)
    - Low shrubs (typically less than 1 metre which do not inhibit views and visual access)
    - Indigenous Prairie plant stock for the creation of smaller nodes of open space, or parkette conditions, that act as differentiating elements and that help to reinforce the quality of spaces
- Create open spaces near planned transit facilities
- Create staging areas for public art and civic elements
- Incorporate land art, topographical features or low walls to develop character and help buffer the public realm from traffic noise, pollution, and water and salt spray from passing vehicles

Climate Considerations
The Site Analysis of the study area also encompassed the environment effects of the region. These influences will also be considered in the development of the physical design evolution that is a fundamental design criteria HOK considers a baseline. As energy consumption effects operational costs over the life of a building and the surrounding context, passive design measures and sustainable design guidelines that maximize the positive design strategies while reducing the negative effects will help in the affordability of housing and long term impact on resources.

Summary
As the Site Analysis portion of the Corridor study concludes, many clear objectives have emerged that point to a very encouraging development of the options for the corridor and the public realm. The feedback from the Stakeholder and Public Engagement sessions demonstrates the willingness of Saskatoon to claim their downtown core as a place of growth and celebration of their unique identity. The ideas and strategies that were proposed can effectively be integrated with the traffic analysis that indicates a streamlining of lanes to make way for a more robust public realm that looks for solutions that create a safer interface with pedestrian flow while framing and connecting districts and communities that have been separated by rail and highway since the inception of the City.

02

INTRODUCTION

IMAGINE
IDYLWYLD

City of Saskatoon

h+k

Associated Engineering

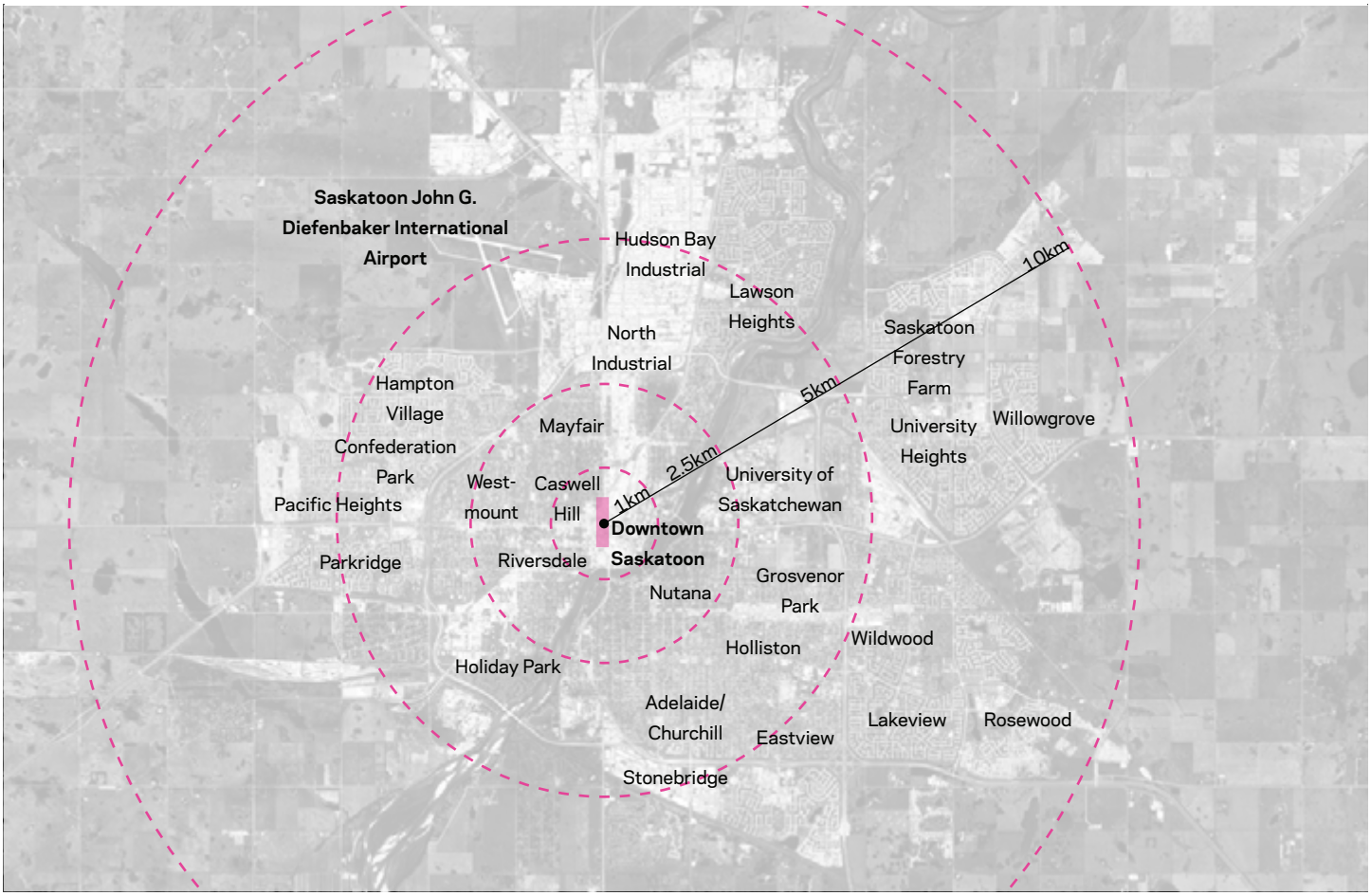


Figure 2.1: The Site in the City Context

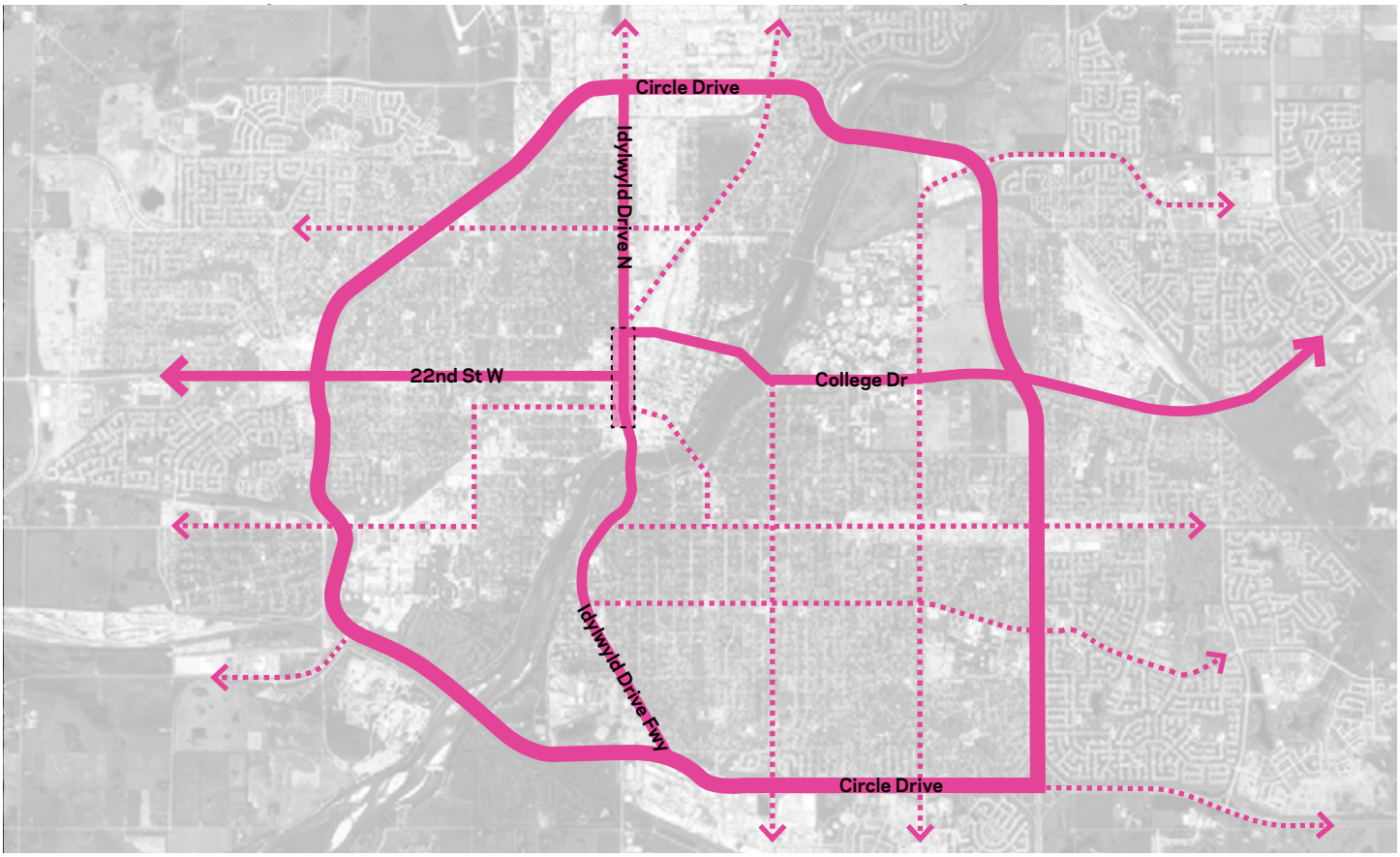


Figure 2.2: The Site in the City-Wide Circulation Context

INTRODUCTION

Imagine Idylwyld is a twelve month City of Saskatoon planning and design initiative for Idylwyld Drive. The purpose of the project is to develop a new vision and conceptual plan to improve the function, safety, connectivity and quality of the roadway and public realm along Idylwyld Drive, between 20th Street and 25th Street East.

Idylwyld Drive is, and will continue to be, a major north-south arterial corridor in Saskatoon and a key gateway into the City Centre for motorized vehicles. However, its current configuration poses a challenging environment for pedestrians to navigate, dividing surrounding neighbourhoods and districts. Improvements to Idylwyld Drive will help link the neighbourhoods and the business districts, making it easier for people to get around the City Centre and help define the street as a gateway by cultivating a sense of arrival.

PROJECT BACKGROUND AND CONTEXT

Idylwyld Drive serves as a key north-south travel corridor through Saskatoon and connection to the City Centre. Further, it connects with 22nd Street and 25th Street East, both east-west major arterial roadways. The project area represents a dynamic zone bordered by four neighbourhoods: Riversdale and Caswell Hill to the west, and Downtown and Central Industrial to the east.

The area also includes the Riversdale Business Improvement District (BID) and Downtown Saskatoon BID.

In the last four years, Idylwyld Drive has been affected by two major infrastructure projects:

The opening of Circle Drive South significantly changed traffic volumes, composition, and patterns. Idylwyld Drive experienced decreased traffic volumes as drivers moved their trips from 22nd Street and Senator Sid Buckwold Bridge to Circle Drive South. Specifically, the intersection of 22nd Street and Idylwyld Drive underwent decreases in the proportion of northbound left turns and eastbound right turns. Moreover, the City removed Idylwyld Drive and 22nd Street from its Truck Routes, dramatically decreasing the number of heavy trucks with trailers using Idylwyld Drive.

The extension of 25th Street East, between 1st Avenue and Idylwyld Drive, also contributed to traffic pattern changes. Previously, traffic to and from the University Bridge dispersed through the Downtown to connect with Idylwyld Drive. Now, that same east-west traffic is concentrated at the intersection of 25th Street East and Idylwyld Drive.

These changed traffic conditions above, along with the City's new policies to guide the growth and development of the city to 500,000 people, are driving the need to revisit the vision and character of the corridor. The *Imagine Idylwyld* project will examine existing and future transportation movement patterns, current and future zoning and land uses, and existing and proposed built forms to gain an understanding of Idylwyld Drive's role as a major urban arterial roadway - now and in the future.

PROJECT TIMELINE

PHASE 01	PHASE 02		PHASE 03	PHASE 04
Background Review	Corridor Assessment	WE ARE HERE	Development of Alternatives	Concept Streetscape Design
6 weeks	12 weeks		18 weeks	20 weeks

LEGEND

- Study Area
- Area of Impact
- Block

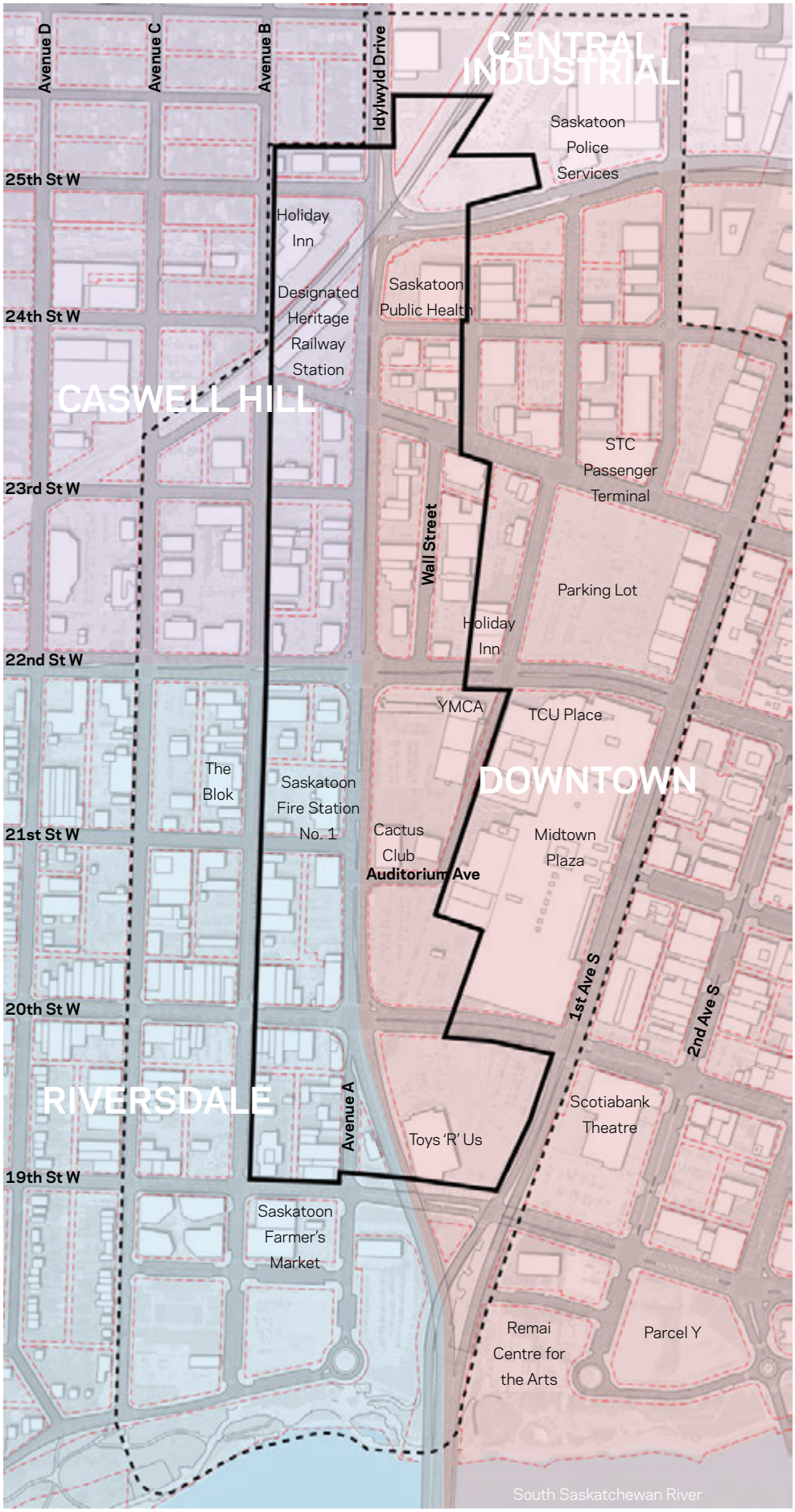


Figure 2.3: Imagine Idylwyld Study Area and Area of Impact

Figure 2.4: Idylwyld Drive - An Auto-Oriented Corridor

STUDY AREA

The "Study Area" for *Imagine Idylwyld* was determined and refined with the feedback from a series of engagement efforts with the Steering Committee, Stakeholders, and the Public. Generally, the boundary includes a one block perimeter surrounding Idylwyld Drive between 20th Street and 25th Street. Additional areas beyond the one block perimeter, including Wall Street and the Toys "R" Us block, were included to ensure that future designs can make provisions for access and servicing, and that suitable lands are available for 'gateway' areas into the City Centre as defined by the City Centre Plan Study.

The "Area of Impact" includes lands and developments that might affect *Imagine Idylwyld* - or vice versa. This area was established based on the site analysis in this report and by mapping the extent of feedback and comments received during engagement events. Policies established throughout the *Imagine Idylwyld* project may make policy recommendations throughout this area.

Idylwyld Drive is a major connector between 4 core neighbourhoods of Saskatoon: Downtown, Riversdale, Caswell Hill, and Central Industrial. As a key north-south corridor Idylwyld Drive is also an integral connection point to the City Centre and the Saskatchewan River. However, due to the legacy of the former railway and shunting yards which formed a north-south barrier between the Downtown Core to the East and expanding City to the West, there continues to be a lack of connectivity between these neighbourhoods today. In effect, the study area is a distinct dividing line through the centre of the city.

The closing of the original railway station and construction of the Idylwyld Drive freeway in the 1960s made way for modern developments including Midtown Plaza and TCU Place. However with the removal of the railway station, the new Idylwyld Drive no longer served the market function of the former Avenue A. Today the urban fabric of the study area is dominated by transit oriented businesses .

A large contributor to its perception as a dividing line is the fact that Idylwyld Drive is an auto-oriented corridor, as defined and characterized in the City of Saskatoon's Growth Plan. This condition is illustrated, in its context, in Figure 2.4. It is defined by low density and modestly scaled single-use developments, large expanses of surface parking lots, auto-oriented road and site design, no transit facilities or services, a 6 lane roadway with wide pedestrian crossings, narrow sidewalks and no cycling facilities.

The corridor's current configuration is increasingly in conflict with the growing urban context in which it is located, creating numerous safety issues for vehicles, cyclists and pedestrians.

Figure 2.5: Integrated design solutions

INTRODUCTION

STANDARDS OF CARE

The Project Team established the following Standards of Care for *Imagine Idylwyld* to clearly communicate the project scope to stakeholders and the public, as well as establish a framework to help guide the project:

Idylwyld will be designed as an urban street.

Vehicular grade separations will not be considered. The street will be designed to be safe and to encourage driving speeds around a speed limit of 50 km/h. A well-designed and engaging landscape / streetscape will help to achieve this.

Idylwyld will remain an arterial street.

It will be designed for the safe and efficient movement of large volumes of cars and trucks as a key link in the City's motor vehicle transportation network.

All modes of travel will be considered and accommodated.

This includes Walking, Cycling, Driving, Transit, and Freight.

All types of people will be considered and accommodated.

This includes children, able-bodied adults, seniors, wheelchair users, visually impaired, hearing impaired.

Land use and transportation planning are integrated.

The street design will be compatible with the intended land use, not the other way around. The intended land use will be determined through this study process.

Existing businesses and driveways will be accommodated.

There is no intent to force anyone out – over the long term the access to adjacent properties may evolve along with the land use.

Saskatoon is a winter city.

Winter weather and snow management will be considered in the street design.

The most up-to-date engineering design standards, guidelines, and best practices will be used.

Modern guidelines allow a great deal of context-sensitive approaches. Idylwyld is not a suitable context for pioneering street design elements never before used or researched for use in Canada.

OUT OF SCOPE ITEMS

The following projects are running parallel to the Imagine Idylwyld process. These are projects that, while not a part of the *Imagine Idylwyld* scope, will be influential in its outcomes:

- Second phase of Idylwyld Drive Redevelopment : 25th Street and North
- Improvement, Redevelopment or Relocation of Fire Station No. 1
- Downtown Arena
- Railway Working Group

DEVELOPMENT TIMELINE

1. CN PEDESTRIAN BRIDGE

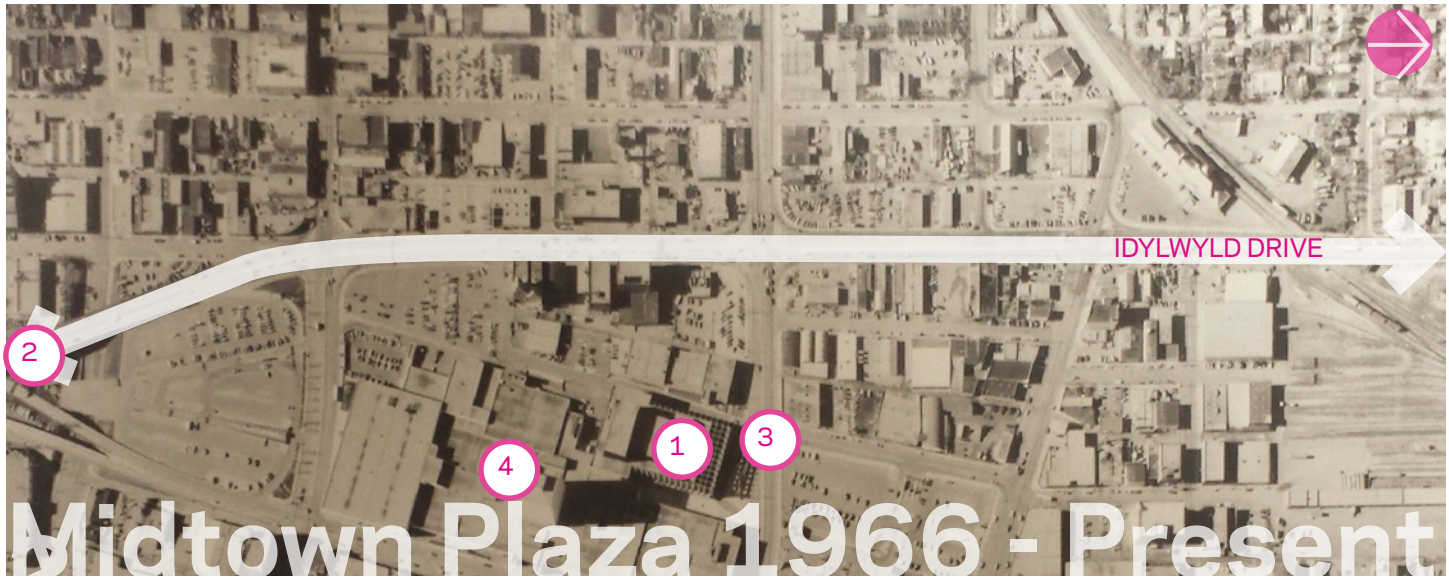
2. FAIRBANKS-MORSE WAREHOUSE

3. MARKET SQUARE

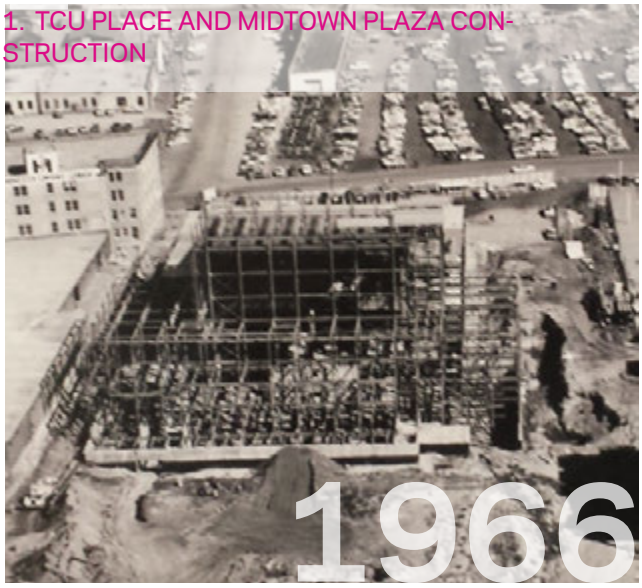
4. 20th STREET

5. AVENUE A STOREFRONTS

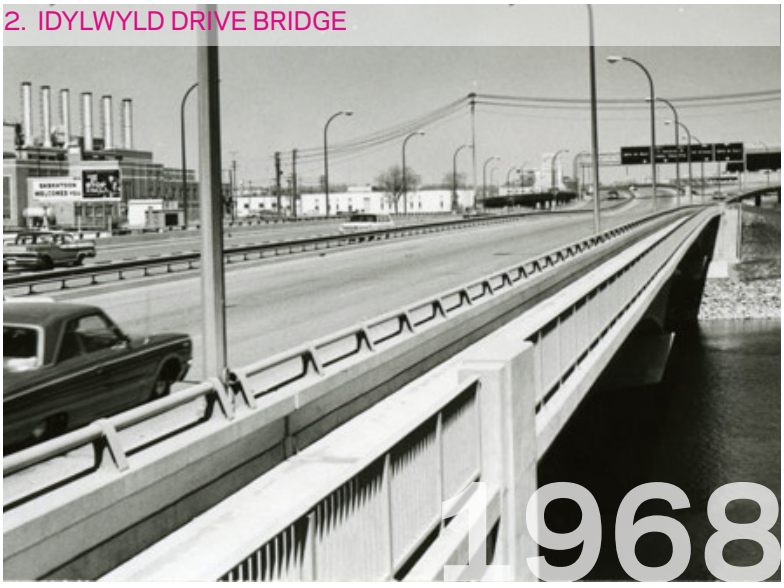
Photo credit for all images: Local History Room - Saskatoon Public Library
Figure 2.6: Development Era I - Hub City



1. TCU PLACE AND MIDTOWN PLAZA CONSTRUCTION



2. IDYLWYLD DRIVE BRIDGE



3. CENTENNIAL AUDITORIUM/ TCU PLACE

4. MIDTOWN PLAZA

Photo credit for all images: Local History Room - Saskatoon Public Library
Figure 2.7: Development Era II - Post-War Revitalization

1. MARKET SQUARE

2. RIVER LANDING

3. THE BLOK

4. PARCEL Y

Photo credits: 1. Tourism Saskatchewan, 2. Colliers Canada, 3. KSA Group Architecture , 4. Jason Lowe Visuals

Figure 2.8: Development Era III

DEVELOPMENT TIMELINE

The City of Saskatoon, including the *Imagine Idylwyld* study area, has seen three major periods of growth and development which have significantly defined our city.

Hub City: 1890-1914

The catalyst for the growth of the City of Saskatoon was the development of the railway in 1890, crossing the river where the Senator Sid Buckwold Bridge is today on its way from Regina to Prince Albert. The decision was made to build the railway station, not in the original Temperance Colony settlement where Nutana is now, but across the river in what is now Downtown, on First Avenue at 20th Street. As a result, this area quickly eclipsed the original settlement in both size and importance, incorporating as the Village of Saskatoon in 1901, then as a town on July 1, 1903. By 1905, there were three separate settlements here: the Town of Saskatoon, the Village of Nutana, and the newly-incorporated Village of Riversdale, west of the tracks. In 1906 they amalgamated to become the City of Saskatoon.

The building of new railway lines through Saskatoon in the years that followed, and the City's immense growth in population – from 2,500 in 1905 to an estimated 28,000 by 1913 – gained Saskatoon the nickname "the Hub City", and helped make it the economic heart of a vast rural hinterland. As the city grew, so did the downtown railway yards until they formed a nearly-impenetrable barrier between First Avenue and Avenue A, all the way from the river to 23rd Street, effectively blocking access between the downtown core and the rapidly growing west-side. Construction of an underpass beneath the tracks at 19th Street, and a footbridge over top of them at 20th Street, did little to ameliorate the situation, the legacy of which remains even today.

Nevertheless, the *Imagine Idylwyld* study area was a thriving commercial, warehouse and industrial district, including establishments like the Cockshut Plow Co. and the S.A. Early Feed and Seed Co. - with its grain elevators a west-side landmark for decades. On the Riversdale side of what became Idylwyld Drive, then Avenue A – like 20th Street itself – was primarily made up of small shops and businesses, most of which were family-run and reflected the area's ethnic diversity. The old City Market, built in 1911 on Market Square, north of 21st Street where Fire Hall No. 1 now stands, was Saskatoon's first farmers market. On 20th Street, King Edward Hotel and Theatre was one of several substantial Riversdale hotels. Farther north, was the Canadian Pacific Railway station – still standing at Idylwyld Drive and 23rd Street – and Cairns field, Saskatoon's first professional baseball stadium, which was built in 1914 on the east side of Avenue A just south of 26th Street.

Post-War Growth and Recovery: 1950 – 1970

By 1950, Saskatoon had survived two World Wars and the Great Depression. The next 20 years however, would see changes that would leave a lasting mark on the *Imagine Idylwyld* study area. The population exploded, almost doubling from 1951-1961 and the city began sprawling outwards, adding new neighbourhoods and overflowing historical city limits. The number of motor vehicles on the roads tripled during the same time, which meant that the downtown railway yards were no longer just a barrier to people crossing from east to west, but a major cause of congestion all over the city. This was exacerbated by the fact that the only way to get from one side of Saskatoon to the other was by passing through the heart of Downtown.

The proposed solution was twofold: move the railway yards and build a freeway that would allow east-west traffic to skirt the downtown altogether. On November 14, 1964, the last train crossed the CNR Bridge and soon after that, construction began on the Idylwyld Freeway and bridge connecting Highway 11 to Avenue A, which – except for a small piece south of 20th Street – was widened and re-named Idylwyld Drive.

The Idylwyld freeway officially opened on October 26, 1966. Meanwhile, 20th and 22nd Streets had been extended through to link Downtown with Riversdale, and where the railway yards had been, a grand shopping plaza and Saskatoon's long-awaited civic auditorium (the present-day TCU Place) were being built.

Sask-a-Boom: 2005 and beyond:

Prices of natural resources and commodities such as oil, potash, gold, diamonds, coal, uranium and agriculture increased significantly in the opening years of the 21st century, making Saskatchewan an important economic driver for Canada, and Saskatoon the engine that drove the provincial economy. Saskatoon was the fastest growing city in Canada in the late 2000's, including a substantial physical expansion that has necessitated a number of large infrastructure projects, notably the completion of the Circle Drive bypass, among others. Nevertheless, the overall pattern of growth and development in recent years has largely been defined by a return to mixed-use, human scaled spaces.

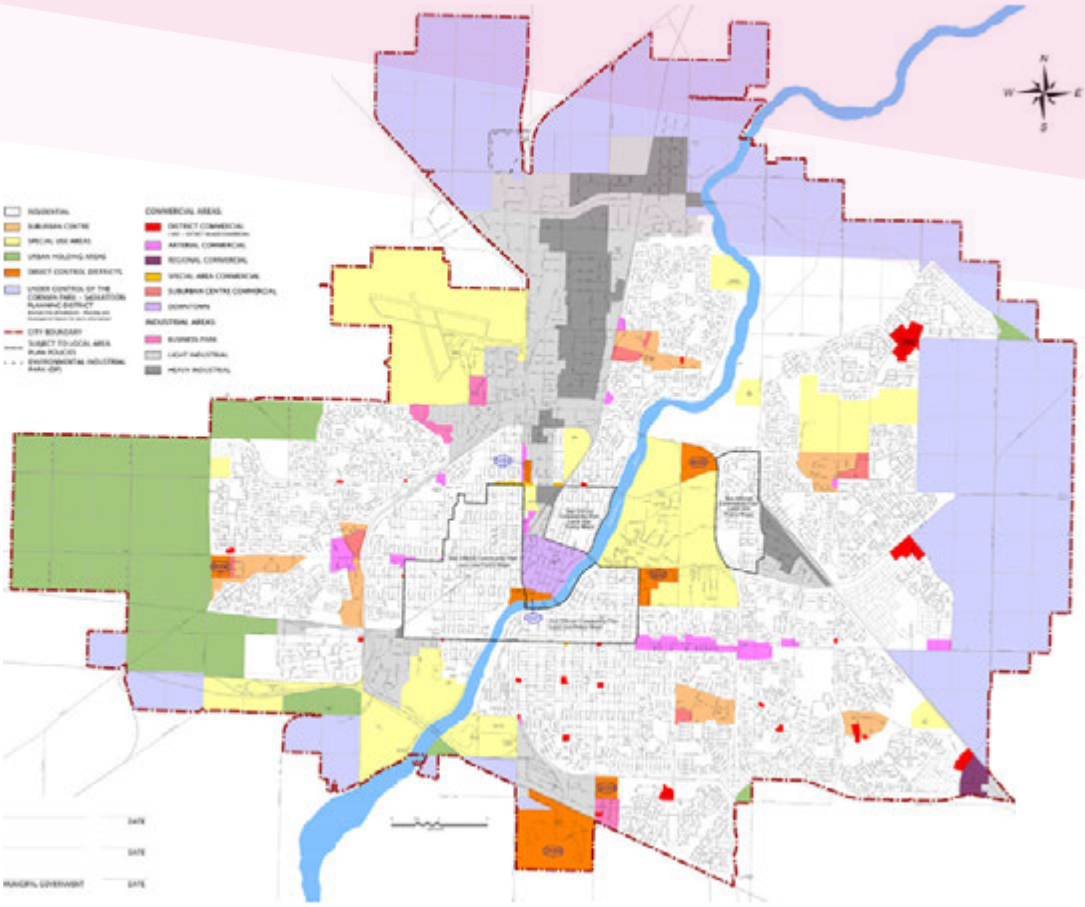


Figure 2.9: City-Wide Land Use Strategy, City of Saskatoon Official Community Plan, 2014

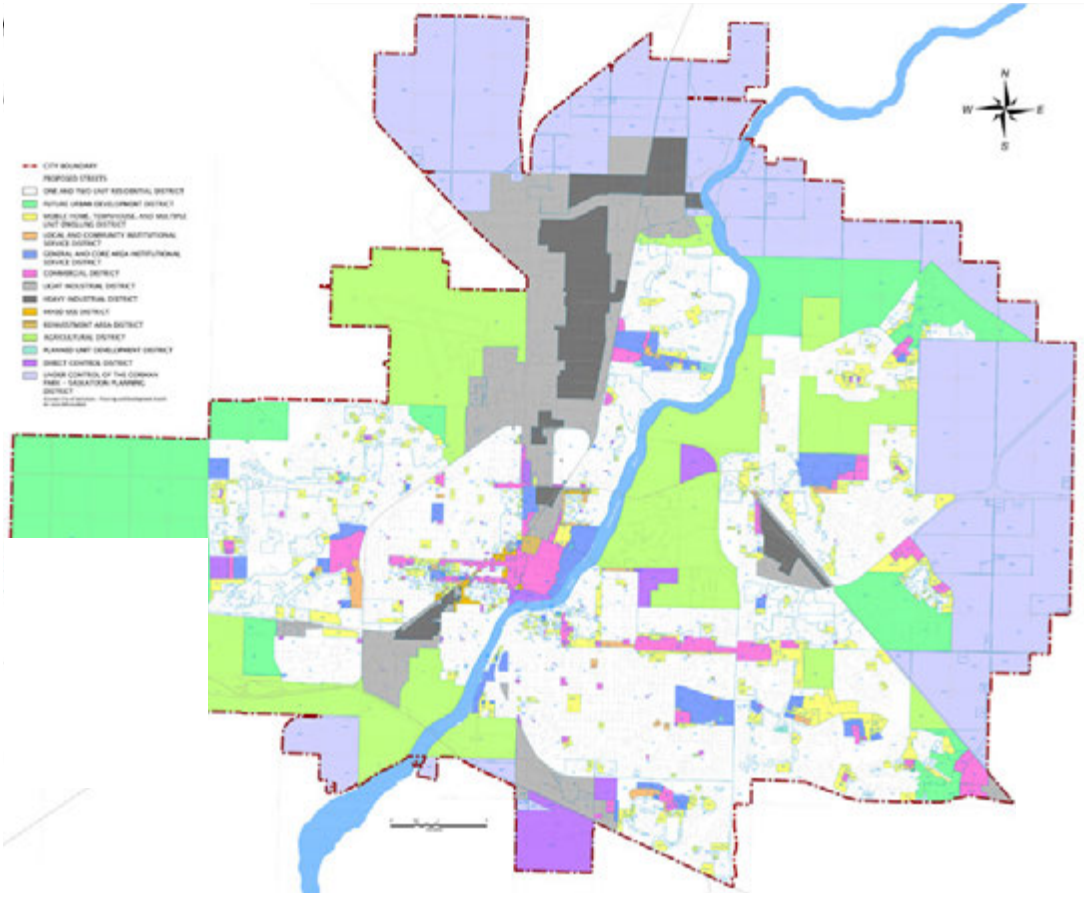


Figure 2.10: City-Wide Zoning Strategy, City of Saskatoon Zoning Bylaw No. 8770

INTRODUCTION

POLICY CONTEXT

There are many Provincial and City policies that will contribute to the reshaping of the Idylwyld Drive corridor. This section provides a high level overview of the key policy documents, planning initiatives and development projects which will influence the corridor, or to which *Imagine Idylwyld* will respond.

The Planning and Development Act, 2007

The purpose of The Planning and Development Act, 2007 is to:

- Provide a community planning framework that promotes economic growth, environmental sustainability, social and cultural development, and sustainable communities;
- Provide the legislative authority to create and implement the Statements of Provincial Interest;
- Strengthen communities by providing municipalities with clear, consistent and effective tools for community planning;
- Foster cooperation and partnerships among municipalities, governments, First Nations and Métis communities, entrepreneurs and all citizens so that they can invest in and build communities;
- Respond to requests from municipalities for more local autonomy and authority, streamlined planning processes, and clearer and more flexible ways to administer planning bylaws; and
- Ensure that the public has meaningful input before planning decisions are made, and that decision-makers are accountable.

City of Saskatoon Strategic Plan, 2013

As a result of the feedback from, and vision established by, Saskatoon Speaks, the City of Saskatoon Strategic Plan sets specific objectives for the City to 2024.

These strategic goals include:

- Continuous Improvement;
- Asset and Financial Sustainability;
- Quality of Life;
- Environmental Leadership;
- Sustainable Growth;
- Moving Around; and
- Economic Diversity and Prosperity.

The purpose of the Strategic Goals is to emphasize the areas that the community and City Council have identified to realize the vision and accomplish the mission over the next ten years. Each goal has strategies and drivers for short and long-term execution and indicators for evaluation. *Imagine Idylwyld* will seek to implement these goals throughout the project and corridor wherever possible.

City of Saskatoon Official Community Plan Bylaw No. 8769, 2014

The City of Saskatoon Official Community Plan (OCP) provides the policy framework to define, direct and evaluate development in the City of Saskatoon to a population of 500,000. The plan ensures that development takes place in an orderly and rational manner, balancing the environmental, social and economic needs of the community. All other plans related to land use and development are secondary to the OCP and must be consistent with it.

Strategic directions of the plan include:

- Managing growth by directing it to the urban area where services already exist or where they can be provided efficiently; and
- Directing growth in the urban area to areas where it can be accommodated in compact mixed-use development, and served with quality transit, walking and cycling facilities.

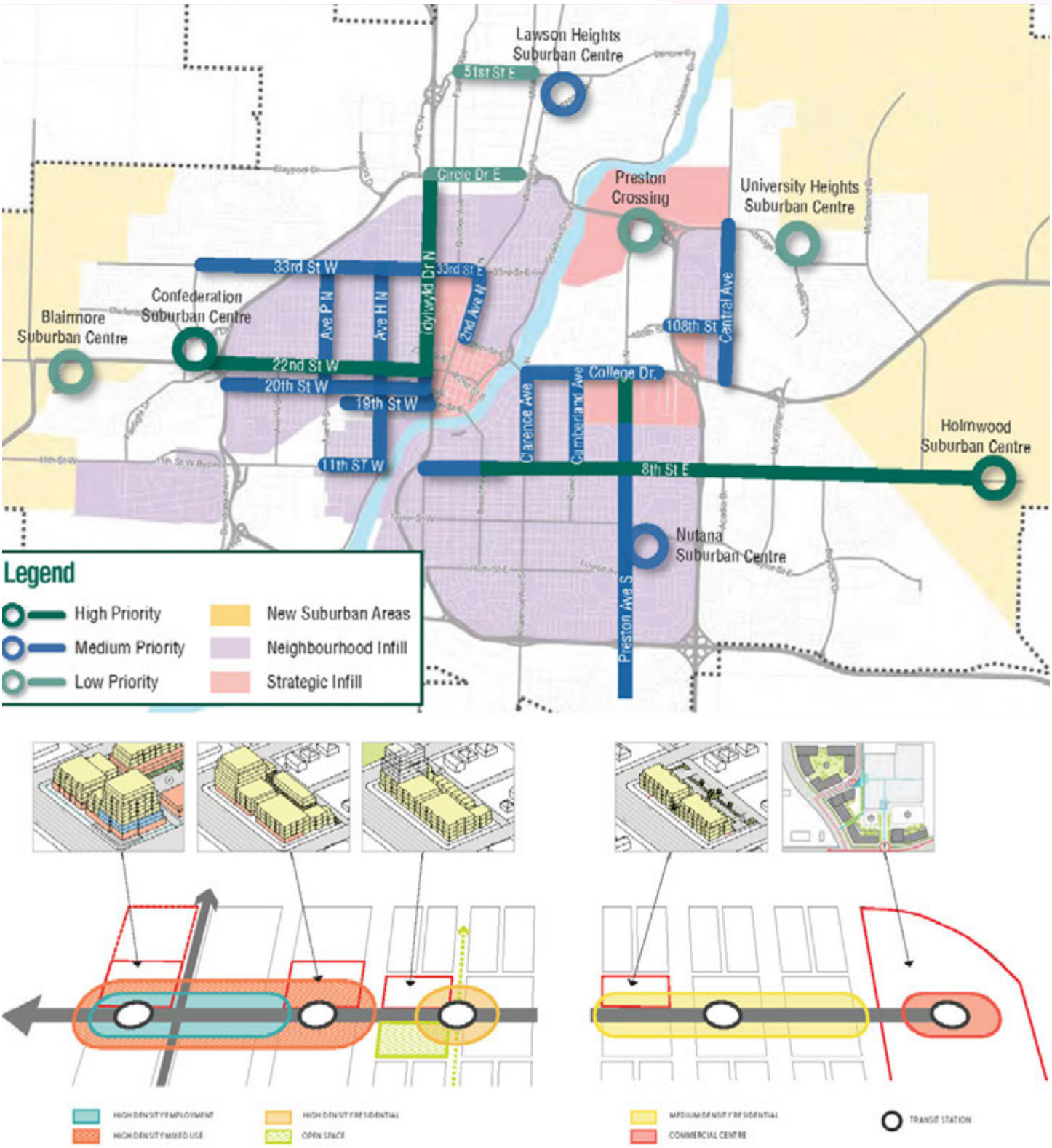


Figure 2.11: Corridor Redevelopment Strategy - City of Saskatoon Growth Plan, 2016

INTRODUCTION

Zoning Bylaw No. 8770 of the City of Saskatoon
The purpose of City's Zoning Bylaw is to regulate development in the City of Saskatoon to provide for the health, safety, and general welfare of the inhabitants of the municipality, in accordance with the provisions of the OCP.

The study area and area of impact of the *Imagine Idylwyld* project accommodates several different zoning districts and categories covering uses such as commercial, industrial, institutional, residential and mixed use areas.

City of Saskatoon Growth Plan
The City of Saskatoon's Growth Plan to Half a Million is about making choices to proactively manage the changes associated with growth, creating a city that is vibrant and attractive to future generations. A vibrant Saskatoon has a diverse mix of housing, commercial, social, cultural, and recreational opportunities that are universally accessible by all modes of transportation, including walking, cycling, transit, and driving. The Growth Plan is made up of several themes that, when pieced together, form a new growth model for Saskatoon:

Corridor Growth
The Growth Plan explores ways to encourage growth and redevelopment near Saskatoon's major corridors, - such as Idylwyld Drive - in order to reduce outward growth pressures, provide more housing options close to employment areas, and enhance transportation choices throughout the city. Residents have expressed a desire for sustainable growth options and a better balance of outward and upward growth. Corridor Growth is essential to transforming low-density, auto-centric land uses into vibrant communities that support attractive transit.

Transit
Public transit is a major focus of the Growth Plan, given the important role it plays in supporting and shaping growth. Residents have expressed a desire for a more accessible, efficient transit system with an attractive customer experience. While people will still use cars, an efficient transit system with rapid transit will help to alleviate and even bypass congestion, ensuring that people can move around the city quickly and easily. Attractive transit will also reinforce opportunities for sustainable growth along major corridors. The Growth Plan includes enhancements to the way existing services are provided, increases to the amount and types of services available, and implementation of rapid transit lines over the next 30 years which will have significant impacts on the Idylwyld Drive corridor.

Employment Areas
The Growth Plan ensures the city has the right amount of employment in the right areas. The *Imagine Idylwyld* study area falls within the 'Core Neighbourhood Area' (CNA), Saskatoon's largest employment area. This employment area includes the Central Business District (CBD) and the neighbourhoods of Pleasant Hill, Caswell Hill, Westmount, King George, Riversdale, City Park, Nutana and Varsity View.

Active Transportation
Through a number of directions and actions for: connectivity, safety, convenience, land use, maintenance and accessibility, the Growth Plan's Active Transportation Plan (ATP), 2016, provides choices for how people move around the city, particularly by walking and cycling. Idylwyld Drive is identified as a "Multi-Modal Corridor", which are major streets that need further review to consider how they will accommodate active transportation given other competing priorities.

Financing Growth
Planning ahead for the costs of growth the City has an opportunity to define a future as a resilient city. Through this plan, the City aims to:

- Better utilize land and infrastructure assets;
- Provide opportunities for the public to use an efficient, convenient transit system;
- Have the types and forms of development where people can travel locally and choose to walk or bike;

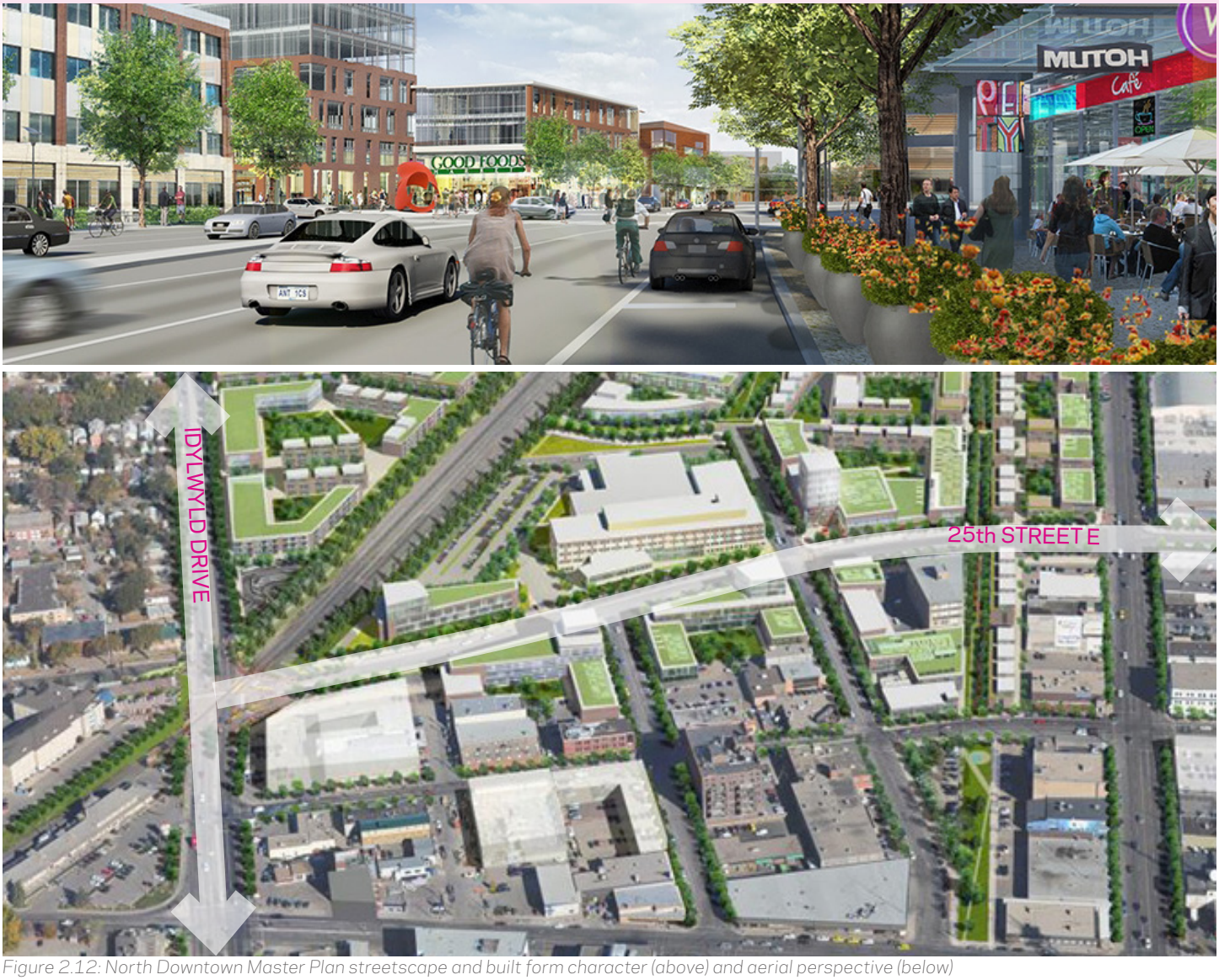


Figure 2.12: North Downtown Master Plan streetscape and built form character (above) and aerial perspective (below)

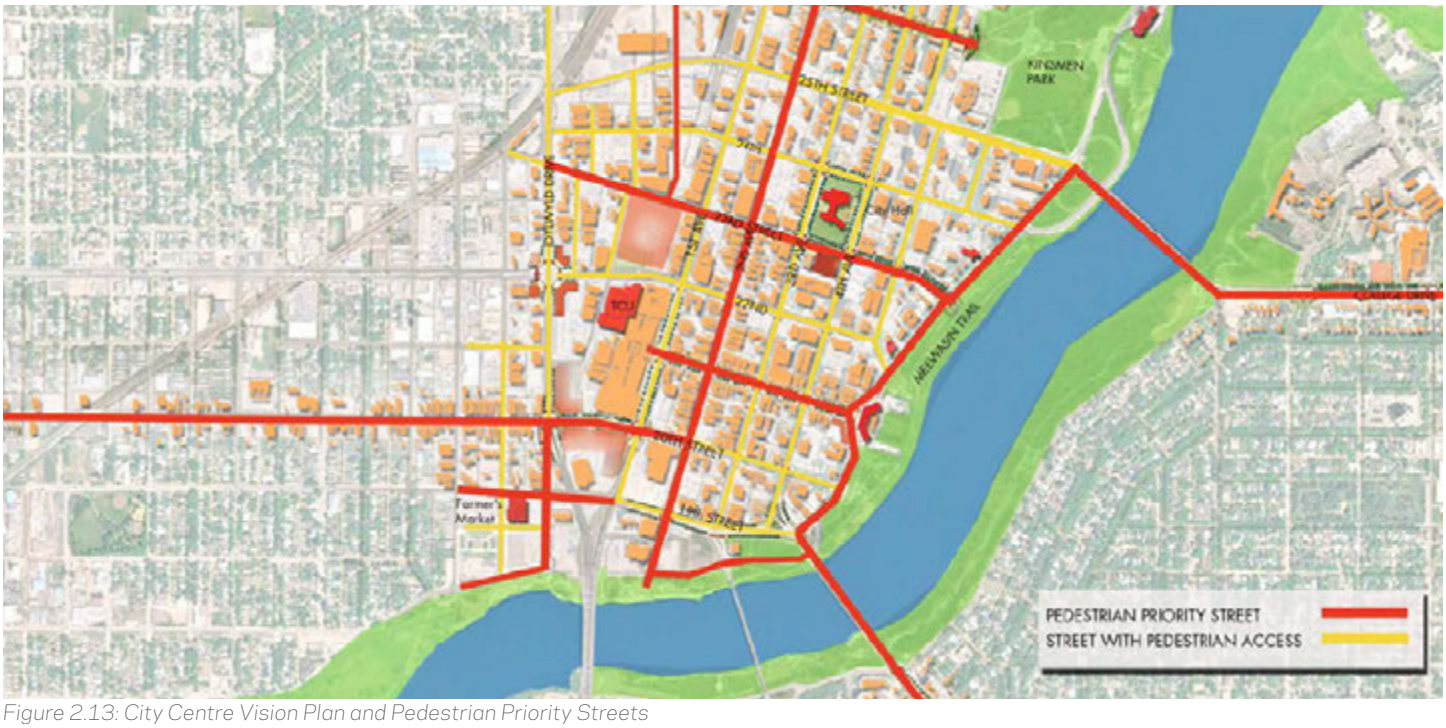


Figure 2.13: City Centre Vision Plan and Pedestrian Priority Streets

- Provide a range of housing types to meet the needs of all people;
- Provide jobs close to homes;
- Provide health care and community facilities required to support families and other community needs;
- Protect the natural environment;
- Be more affordable to run in the long-term.

City Centre Plan, 2013
These plans are focused on the redevelopment and revitalization of Saskatoon's core areas, with a strong focus on encouraging more people to live and work in the City Centre area. The City Centre Plan, adopted by City Council in the fall of 2013, is a comprehensive plan for the downtown and the major corridors leading into the core. The plan is focused on improving the City Centre by creating market demand for residential, office and business uses so that the City Centre continues to be the cultural and entertainment hub for the region with employment, corporate offices, and store-front retail.

North Downtown Master Plan
When approved, the North Downtown Master Plan will create a vision for an integrated community which is compact, diverse and walkable on an underutilized site directly north of Saskatoon's City Centre. This plan also sets a framework for urban conditions at the corner of Idylwyld Drive and 25th Street East that will have an impact on the design of *Imagine Idylwyld*.

Downtown Parking Strategy, 2016
The Downtown Parking Strategy assesses existing parking supply, demand and utilization and identifies options for a series of growth scenarios. The Midtown and Warehouse districts fall within the *Imagine Idylwyld* study area and area of impact and provide an existing parking supply of 3,949 surface parking spots. The Downtown Parking Strategy suggests that future parking demand for *Imagine Idylwyld* will need to address a deficit of approximately 700 parking spots in addition to meeting the parking requirements for any new development, as per zoning requirements. The 700 spot deficit is based on TCU Place's inability to self-sufficiently provide parking.

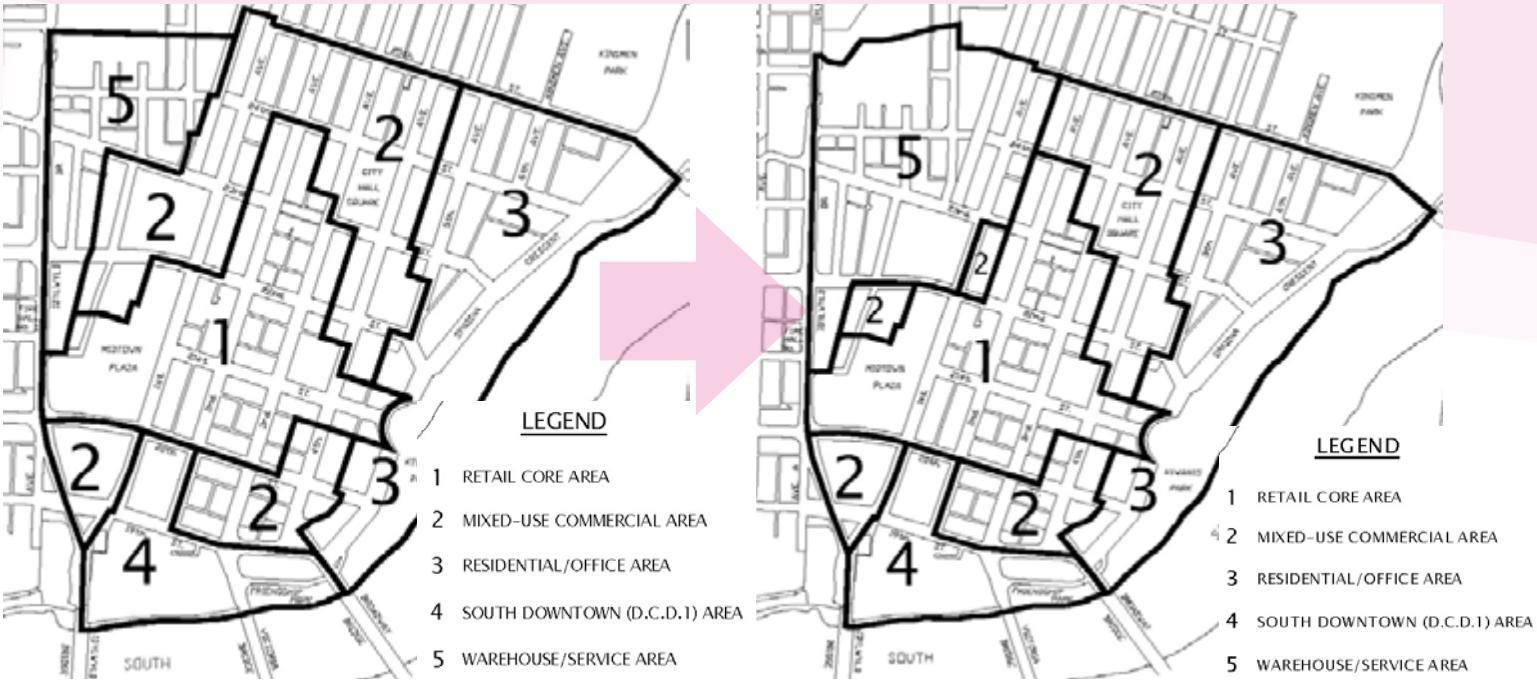


Figure 2.14: Figure 2.8: Downtown Land Use Changes Adopted through the Warehouse District LAP process

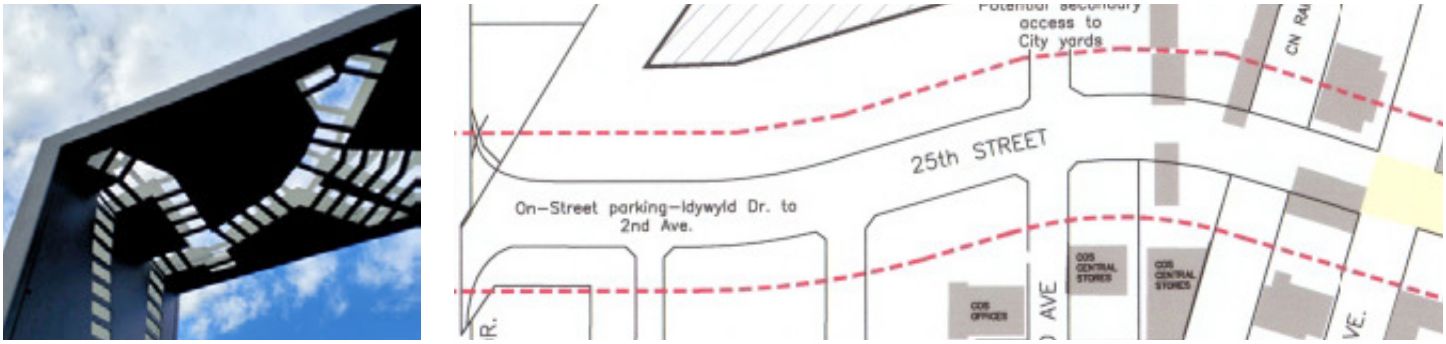


Figure 2.15: 25th Street Realignment and Streetscape Improvements

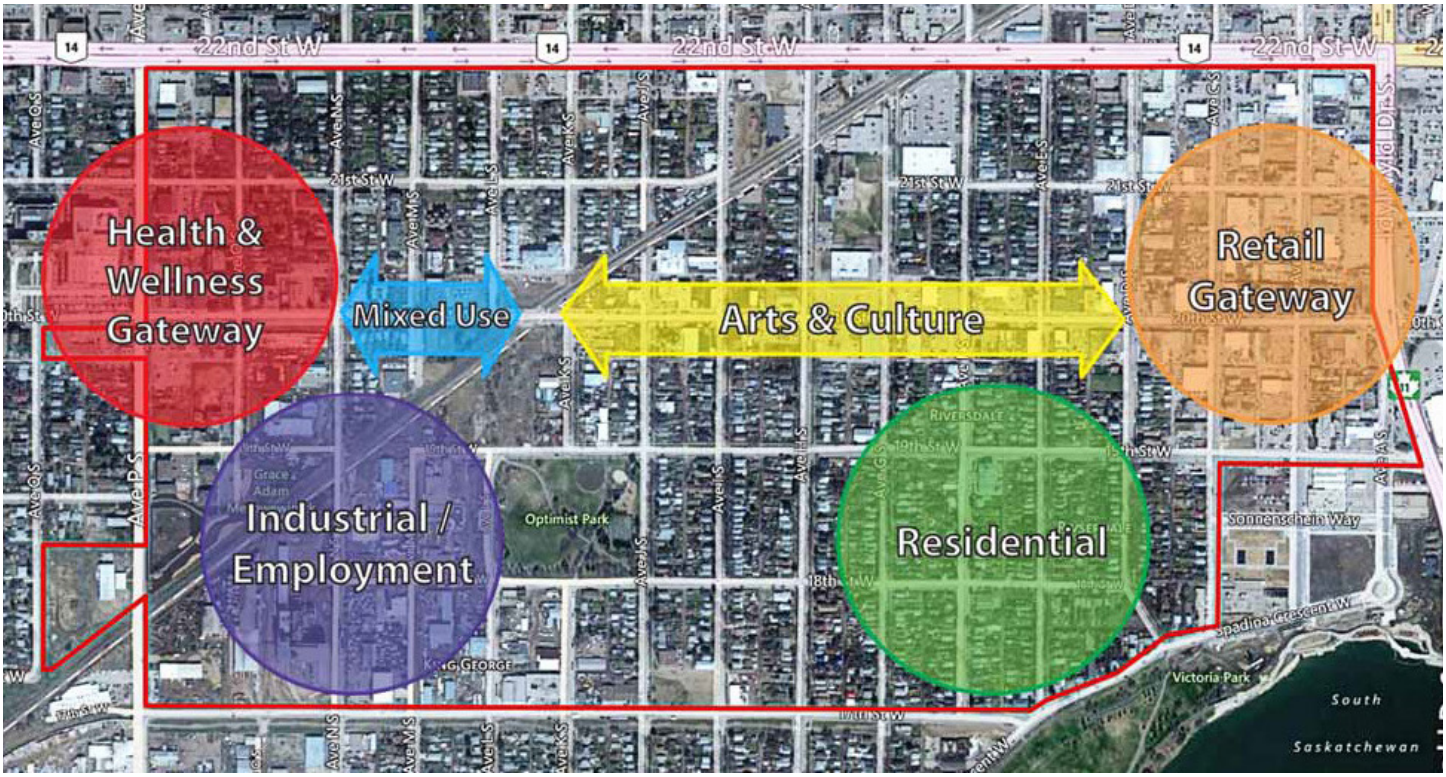


Figure 2.16: Riversdale Business Improvement District Focus Areas

INTRODUCTION

Local Area Plans
Local Area Planning is a community-based approach to developing comprehensive neighbourhood plans. It enables residents, business owners, property owners, community groups and other stakeholders direct input into determining the future of their community. A Local Area Plan (LAP) sets out objectives and policies that guide the growth and development of a neighbourhood or selected area. The scope of a LAP depends on the issues and opportunities identified by the stakeholders involved.

Riversdale LAP, 2008
Riversdale is one of Saskatoon's original communities. Located near the heart of Saskatoon, the neighbourhood plays a very important role in providing housing, employment, and services to a diverse range of citizens. The neighbourhood has been experiencing unique pressures, such as land use conflicts, new development pressures, housing deterioration, socio-economic challenges, safety issues, traffic and circulation concerns, and perceptions issues.

Riversdale Business Development Revitalization Plan, 2013
The Riversdale Business Improvement District (RBID), in association with the City of Saskatoon prepared a plan to revitalize the district to improve neighbourhood health and safety, retain and attract businesses and organizations, renew the public image of the district, and develop an action plan. The action plan uses a multi-pronged approach; addressing surplus lands, creating community champions, addressing public perception through marketing campaigns, programming activities, addressing policy inadequacies, and providing improved development incentives. Spatial considerations of this plan are illustrated in Figure 2.16.

Caswell Hill LAP, 2001
The Caswell Hill LAP aims to create a vital, diverse residential community containing a strong group of businesses, community schools, churches, parks, and services. The LAP proposed several key recommendations to address land use conflicts between industrial/residential areas and with existing conditions and heritage preservation. It also recommends that the Municipal Transit Facility site be considered for redevelopment upon relocation. Several traffic calming initiatives to mitigate potential impacts by the 25th Street extension were also proposed.

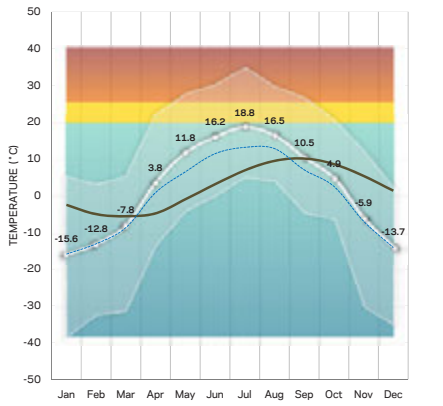
Warehouse District LAP, 2002
The Warehouse District LAP creates a framework to create a "teeming urban environment reinventing itself in the shell of its historic industrial character, the Warehouse District offers diverse alternatives of livability and enterprise unique to the center of the city. The District will be nurtured from a forgotten urban core to a vibrant people place that supports arts and culture, in harmony with a variety of mixed uses".

The vision statement was supported by a series of recommendations which have significantly changed this area of the Downtown. In addition to the 25th Street realignment and extension, OCP and Zoning amendments were made to facilitate Downtown land use changes and create an RA-Reinvestment Area District. This change fractured a large mixed use commercial land use zones, leaving only small pockets to buffer other major land use zones. Also proposed were the use of public lands to create a residential and/or multi-use catalyst development. The plan also created several design recommendations such as design guidelines and special streetscape consideration at the corner of Idylwyld Drive and 25th Street as a gateway - which has recently been completed. The LAP also proposes that historic character lighting standards be applied throughout the District, which a portion of Idylwyld Drive falls within. This could potential be in conflict with a modern vision for *Imagine Idylwyld*.

2 CLIMATE AND PLACE

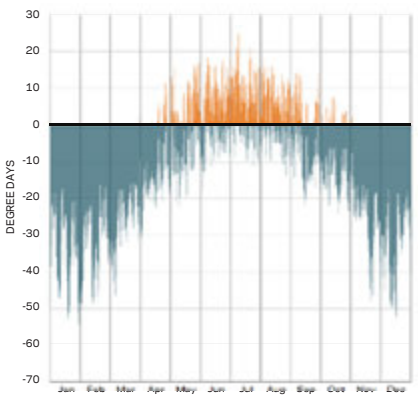
ASHRAE Classification	ASHRAE Climate Zone 7	Very Cold 5000 < HDD18ºC <= 7000
KOPPEN Equivalent	Dfb	Characterized by cold winters and warm summers. Exhibit little humidity.

Dry Bulb Temperature



Legend	°C
	Above Comfort
	Comfort Range
	Below Comfort
	Durinal shift
	Average Dry Bulb Temperature
	Ground Temperature
	Average Wet Bulb Temperature

Degree Days

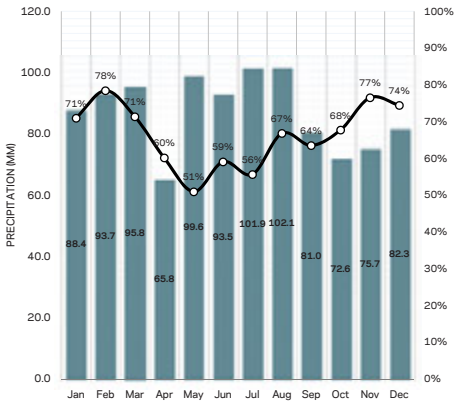


Legend	
	Cooling Degree Days above 10 °C (CDD10°C)
	Heating Degree Days below 18 °C (HDD18°C)

CDD 10°C **924**

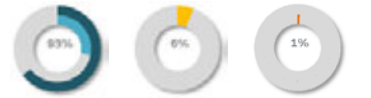
HDD 18°C **5934**

Precipitation and Relative Humidity

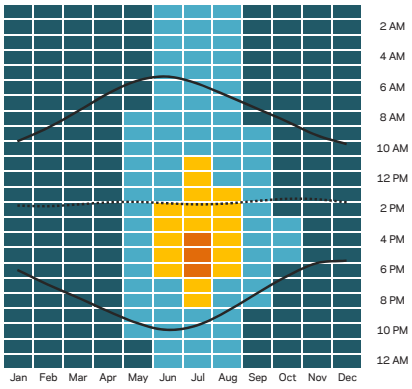


Legend	MM %
	Precipitation — Annual rainfall: 1052.4 MM
	Relative humidity

Dry Bulb Temperature

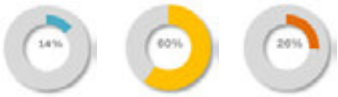


Below Comfort / Cool | Indoor comfort | Warm / Above Comfort

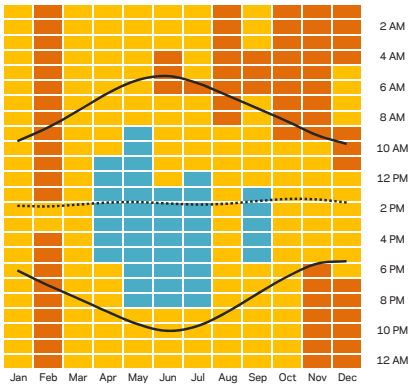


Legend	°C
< 10	Below Comfort
10 20	Cool
20 24	Indoor comfort
24 29	Warm
> 29	Above Comfort

Humidity



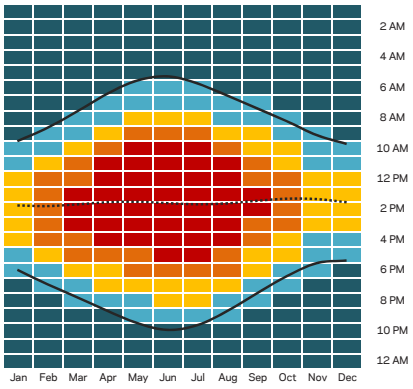
Below Comfort / Dry | Ideal | Humid/Above Comfort



Legend	%
< 20	Below Comfort
20 50	Dry
50 75	Ideal
75 90	Humid
> 90	Above Comfort

Horizontal Solar Radiation

Low | Medium | High



Legend	w/m2
Night	Low
0 175	low
158 316	Medium
316 472	High
> 472	High

Figure 2.17: Climate and Place Analysis - Part 1

INTRODUCTION

CLIMATE AND ENVIRONMENTAL ANALYSIS

A climate analysis was executed for the City of Saskatoon to understand local environmental conditions and their potential impacts on the design of the environment and built form in the concept master plan. The below analysis is based on historical weather data and averages. Climate change is increasingly affecting prairie cities and creating atypical conditions - from heavy rains and flooding in wet seasons to increased risk of wildfires in dry seasons. *Imagine Idylwyld* should seek to mitigate these risks wherever possible.

Saskatoon's climate is characterized by cold winters and warm summers with little humidity. This type of climate presents design challenges to address changing seasonal conditions to satisfy factors such as: user comfort including shade and shelter from inclement weather and winds, snow and slush and stormwater management, road conditions and driver safety, hardiness of landscape planting in urban conditions and robustness of streetscape materials where exposure to seasonal changes can speed wear and deterioration. As a consequence, solutions must be thoroughly tested to minimise compromise. A careful analysis of the length and relative severity of seasons is required to find a balanced design.

Temperature, Humidity and Precipitation

Saskatoon gathers on average 347.2mm of rain and snowfall per year. The driest months are early spring and late fall, while June and August tend to be the wettest.

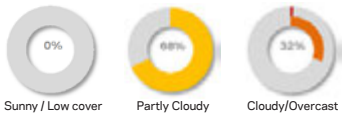
Solar Analysis

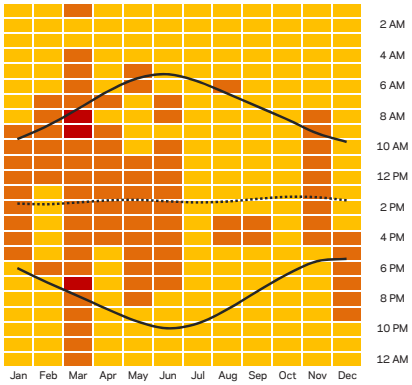
The horizontal solar radiation chart in Figure 2.17 depicts the duration and intensity of sunlight throughout the year. This shows that during the summer months, June and July, medium to high solar radiation occurs between 8AM and 8PM, while in the winter months, November to January, medium solar radiation occurs only between 12PM and 3PM. A break down of periods of low, medium and high radiation reveals that sunlight in Saskatoon is indirect for ±65% of the year, somewhat direct for ±12% of the year, and direct for ±23% of the year.

Solar analysis should be a key design criteria while developing massing for the master plan, with particular consideration to solar access (exposure of building facades as well as public spaces to sunlight without obstruction from neighbouring buildings, trees, etc) and executing shadow analyses due to the long summer days in contrast to the shorter winter days with low sun angles.

2 CLIMATE AND PLACE

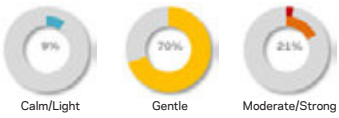
Total Sky Cover

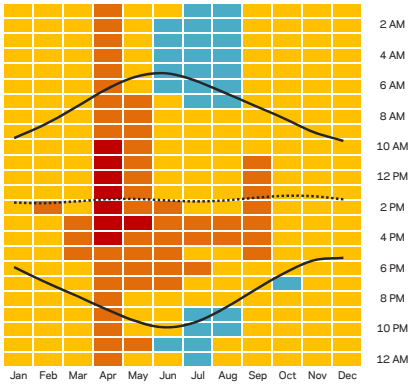




Legend	%
< 10	Sunny
10 30	Low cover
30 60	Partly cloudy
60 75	Cloudy
> 75	Overcast

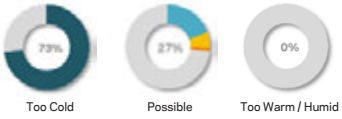
Wind Speed

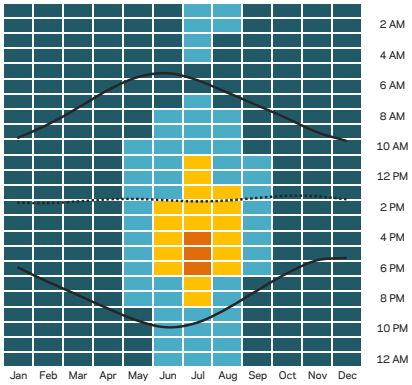




Legend	m/s
< 1.6	Calm
1.6 3.4	Light
3.4 5.5	Gentle
5.5 8.0	Moderate
> 8.0	Strong

Natural Ventilation Potential



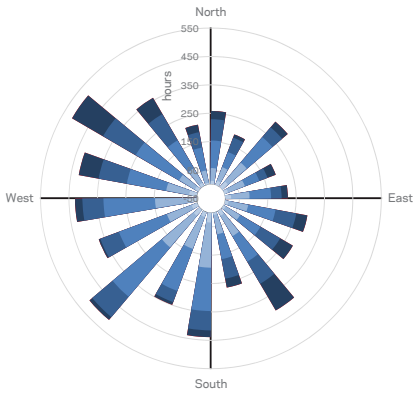


Legend		
Not likely	Too Cold	(Tdb<13°C)
Possible	With Internal Gains	(13°C < Tdb<20°C)
Possible	Ideal	(20°C <Tdb< 24°C) 20% <Rh<80% Twb<18°C)
Possible	With Air Movement	(20 °C<Tdb< 29°C 20% <Rh<90% Twb<23°C)
Not likely	Too Warm or Humid	(Tdb<29°C or Rh>90%)

Under-Heated Wind Rose

Wind temperature below: **13 °C**

Annual under-heated time: ± **69%** (6026 out of 8760 hours)

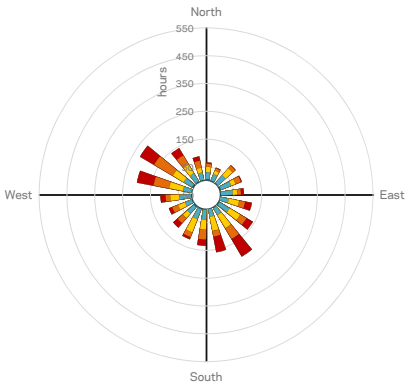


Legend	m/s
< 1.6	Calm
1.6 3.4	Light
3.4 5.5	Gentle
5.5 8.0	Moderate
> 8.0	Strong

Natural-Ventilation (NV) Potential Wind Rose

Wind temperature between **13-29 °C**

Annual NV potential time: ± **25%** (2232 out of 8760 hours)

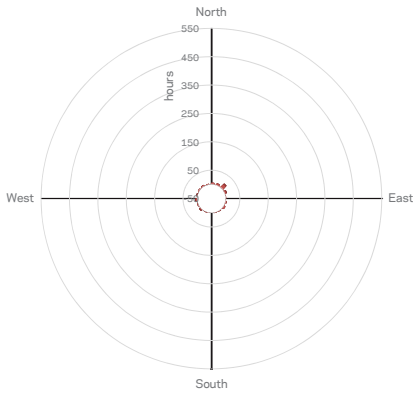


Legend	m/s
< 1.6	Calm
1.6 3.4	Light
3.4 5.5	Gentle
5.5 8.0	Moderate
> 8.0	Strong

Over-Heated Wind Rose

Wind temperature Above: **29 °C**

Annual over-heated time: ± **1%** (103 out of 8760 hours)



Legend	m/s
< 1.6	Calm
1.6 3.4	Light
3.4 5.5	Gentle
5.5 8.0	Moderate
> 8.0	Strong

Figure 2.18: Climate and Place Analysis - Part 2

INTRODUCTION

Wind Analysis

The series of wind rose charts in Figure 2.18 depict the temperature, direction, strength, and frequency of wind conditions along Idylwyld Drive. Figure 2.18 illustrates that a wind temperature below 13°C occurs for ±69% of the year, a wind temperature between 13°C and 29°C occurs for ±25% of the year, and a wind temperature above 29°C occurs for only ±1% of the year. The charts also indicate that cooler winds are predominantly westerly, while warmer winds are often north-easterly or south-westerly. Saskatoon generally experiences gentle wind speeds throughout the year, typically between 3.4-5.5m/s. Moderate to stronger winds over 5.5m/s may occur in the springtime months of April and May

This wind analysis will impact the redevelopment concept by indicating orientation of built form and vegetation that would prevent wind tunnel conditions along the corridor.

Optimal Conditions

Optimal climatic conditions for *Imagine Idylwyld* are recommended based on regional climate and geographic location. Built form and landscaping should be massed and oriented appropriately to reduce the potential for wind tunnels and to avoid the creation of large shadows between the hours of 9:00AM and 3:00PM at all times of the year. Open spaces, sidewalks, and other pubic realm features should be designed and located to allow for maximum solar access during the winter, while receiving appropriate filtered shading during the summer. Impacts of solar access on street plantings should also be considered and optimized to ensure the health and growth of vegetation on site.

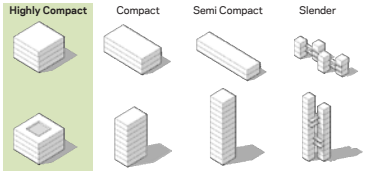
Green building and landscape design principles should be considered to reduce energy loads and waste creation by designing in harmony with the regional climate. Initiatives that take advantage of solar access, storm water, and prevailing winds for natural daylighting and passive ventilation are strongly recommended to increase energy efficiency and reduce negative environmental impacts of development.

3 LOAD REDUCTION (Massing & Programming Considerations)

Massing

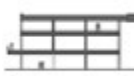
Ideal massing options try to find the right balance between exterior surface area that fits the climate zone and daylight requirements.

Highly Compact Geometry



Aspect ratio of roughly 1 to 1.5 (height:width).
Limited surface to volume ratio minimizes conductive losses while still allowing daylight & solar heat gain for colder climates.

Earth sheltering: Not feasible

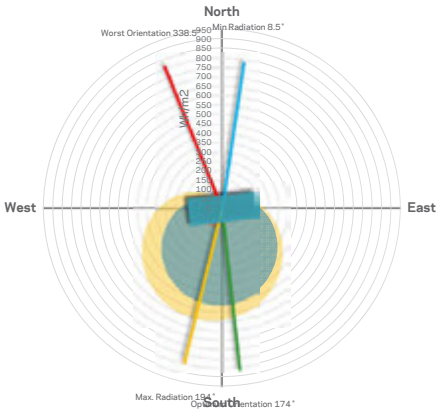


Limited or No benefit to in exposure of the external envelope with a thermally significant volume of soil or substrate.

Orientation

The optimum orientation provides maximum winter solar collection as well as maximum summer solar protection.

Optimum Orientation: 174 °



Legend	Wh/m2
Radiation during underheated period	
Total Radiation	
Radiation during overheated period	
Overal Mass sample	
Best orientation	
Worst Orientation	
Maximum Radiation	
Minimum Radiation	

Program

Temperatures are below the comfort range
1- Avoid orientation of any long dimensional facades in the direction of cold winds
2- Passive solar heating during the winter to decrease heating loads

Buffer Zone (Cold Wind)

Place low-occupancy and / or high internal gain zones near exterior surfaces exposed to prevailing cold winds to minimize heating load and avoid thermal discomfort. (e.g. corridor, utility, core, labs, gyms, kitchens, etc.)

Vestibules

Vestibules at building entrances reduce air infiltration which result in reduction of heating and ventilation loads in very cold climates .

Solar Oriented Interior Zones

Maximize the placement of high occupancy space near exterior walls exposed to the maximum radiation angle to allow for passive space heating.

Self-Shading & Solar Exposure

Excessively cold temperatures
1- Minimum amount of self-shading (maximize exposure) suggested
2- Minimize openings

Enclosed Central Atrium

A central atrium allows for natural daylight to inner zones without increasing conductive losses through the envelope.

External Shading

Passive solar heating is available and needed most of year, use Internal shades rather than external shades to encourage internal heat gain
Consider external shades only for very large scale glare issues.
Consider internal shading devices for all medium and low scale glare issues

South Façade

Narrow horizontal shades for sun facing exposures provide enough shade in summer while allowing solar heat to enter the building during the winter (limited shading).

East and west façade

Consider external vertical fins for eastern and western exposures (partial shading).

Lightshelf

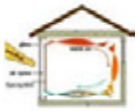
Consider light shelves to increase daylight penetraton.

Internal Shading

Radiation intensity during operational hourse (8Am- 6Pm)

Low 25%	Medium 21%	Intensive 54%

Blind Curtain System



Open top internal shades may effectively block glare and daylight. Conduction, convection and radiation will usually convey a large portion of the heat to the interior of the space.

Horizontal louvers

Consider internal shading devices to control glare while taking the advantage of solar heat gain.

Solarium

Consider a solarium or atrium on sun facing exposures to collect solar heat and act as a thermal buffer between interior and exterior space.

Figure 2.19: Massing and programming considerations

INTRODUCTION

Climate-Related Design Considerations
The results of the climate analysis for *Imagine Idylwyld* yielded several design considerations that should be explored in conjunction with the master plan.

These design considerations are depicted in Figures 2.19 and 2.20, and address:

- Massing and building geometry;
- Building and open space orientation;
- Self-shading and solar exposure;
- External shading;
- Internal shading;
- Material selection;
- Insulation and solar absorption;
- Optimal opening and glazing conditions; and
- Window-to-wall ratios.

These climate-related design considerations should be referred to and applied during design and implementation of Imagine Idylwyld, and are summarized below.

Massing
Massing should find a balance between daylighting requirements and exterior surface area.

Surface to volume ratio of buildings should be limited to minimize energy losses while allowing daylight and solar heat gain in Saskatoon's colder climate.

Orientation
Buildings and open spaces should be oriented to allow for maximum solar access in the winter as well as appropriate protection from harsh sunlight in the summer.

Longer building facades should not be oriented in the direction of cold winds.

Passive solar heating should be used in the winter months to reduce energy loads.

Self-Shading and Solar Exposure
Buildings should produce a minimum amount of self-shading to allow for maximum solar exposure in Saskatoon's colder climate.

Internal and External Shading
Internal shading should be used instead of external shading to allow for internal heat gain from passive solar heating.

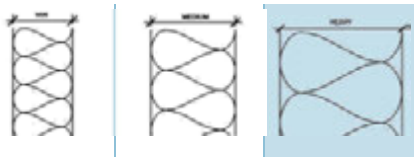
External shading should only be used for large scale glare issues.

4 INTEGRATED SOLUTIONS

Material Considerations

Strive for the levels recommended below, but verify feasibility with whole-building payback analysis that includes insulative effects on building systems.

Insulation Level: Heavy

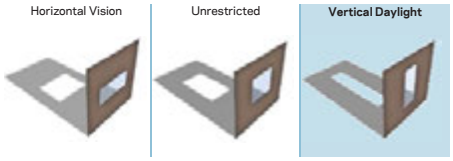


High Conductive losses are expected due to cold temperatures Heavily insulated envelopes may prove to have a short payback period (energy modeling is required for verification).

Opening & Glazing Considerations

The recommendations below aim to optimize daylight infiltration while avoiding unwanted glare and solar heat gain.

Glazing aspect ratio: Vertical Daylight

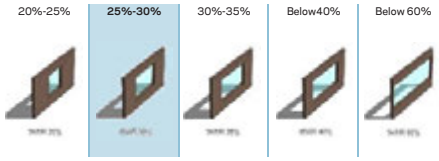


Consider a constant area for glazing. Vertical daylight glazing is recommended to promote the penetration of solar heat and light to the space more than horizontal vision glazing.

Window to Wall Ratio

The amount of glazing can have a large effect on building energy use depending on which climate zone and which building typology you are designing.

Overall WWR 25%-30%



Due to the large ΔT of outdoor and indoor temperature, huge conductive losses are expected. However, to maintain the minimum requirement for natural daylight, keep WWR around 25% - 30%

Solar Absorptive Envelope

Consider dark colors for the exterior surfaces to maximize solar heat absorption.

Glazing properties

ASHRAE 90.1-2010 minimum requirment for U-factor is 0.4 and for SHGC is 0.45. Exceeding the code minimum U-Factor (efficient double or triple glazing) may have an acceptable payback (to be verified by an energy model)

Specific WWR

Percentage of WWR on the best orientation (174°) can be as high as 30%-40%. ;However, limit the WWR on the worst orientation (338.5° to north) and the direction of cold wind (300°) to around 10%-20%

Figure 2.20: Integrated design solutions

INTRODUCTION

Material Considerations

Dark colours should be used for exterior surfaces to maximize solar heat absorption in Saskatoon's colder climate.

Opening and Closing Considerations

Vertical daylight glazing is recommended instead of horizontal vision glazing to promote the penetration of solar heat and light to a space.

Window to Wall Ratio

Based on Saskatoon's climate, a window to wall ratio (WWR) of 25-30% is recommended.

Window to wall ratios should be increased to 30-40% on facades with optimal orientation, and should be reduced to 10-20% on facades with the worst orientation and facing the direction of colder winds.

03

ENGAGEMENT + CORRIDOR VISION

IMAGINE IDYLWYLD

City of Saskatoon

Associated Engineering

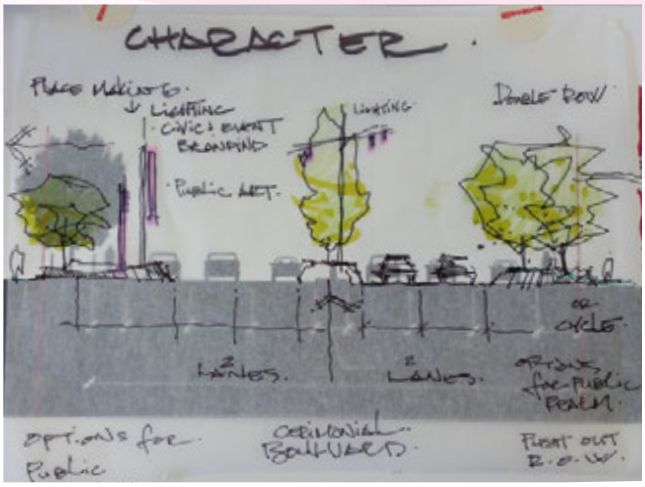
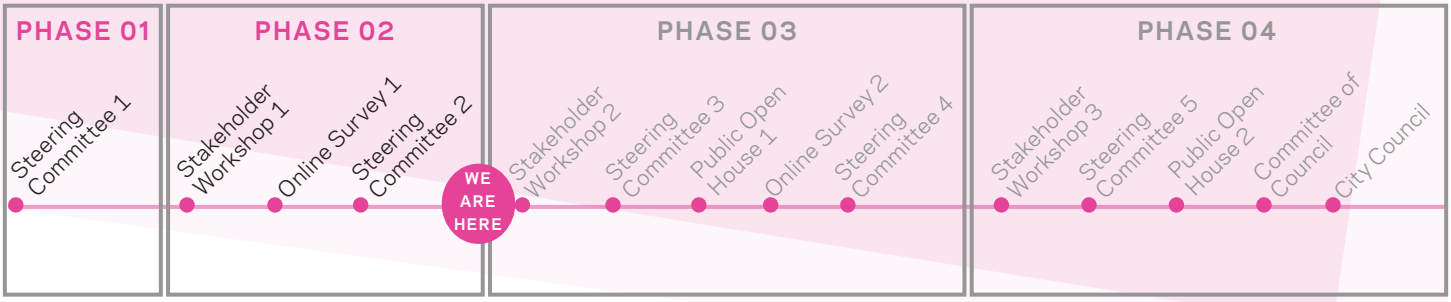


Figure 3.1: Steering Committee and Stakeholder Engagement Events



ENGAGEMENT

ENGAGEMENT STRATEGY

Public and Stakeholder engagement is an integral component of *Imagine Idylwyld;* ensuring that the community guides the vision for redevelopment.

Based on attendance and response rates of initiatives to-date, the engagement efforts for *Imagine Idylwyld* have been some of the most successful that the City of Saskatoon has carried out.

The Engagement Process

The engagement process for *Imagine Idylwyld* brings diverse interest groups together in dialogue about complex, and sometimes sensitive issues. Groups to be engaged include the *Imagine Idylwyld* Steering Committee - made up of City Staff and Key Stakeholders with invested interests along the corridor; Public and Private Stakeholders; and as many community members from the general public as possible.

The process is designed to provide a series of workshops for smaller groups complemented by a broader multi-media outreach to effectively address a number of issues in a focused way.

Engagement initiatives throughout the *Imagine Idylwyld* project will strive to:

- Inform decision-makers;
- Educate the public;
- Inspire the potential for innovation and creativity;
- Build trust;
- Incorporate public values into decisions;
- Improve the quality of decisions;
- Incorporate public knowledge into decisions;
- Resolve conflicts;
- Build consensus; and
- Improve transparency of decisions.

Imagine Idylwyld engagement activities strive to ensure:

Accessibility

The project's multifaceted approach enables people to engage in the process with ease and comfort by combining high tech (web site and survey) and high touch strategies (workshops and briefings).

Community Fit

The project's design will reflect the outcomes of the engagement activities; respecting and responding to Saskatoon's unique interests, capacities and culture.

Clear and Transparent Process

Effective engagement requires understanding of the sequence of activities and decision-making criteria and process. This includes identifying decision-makers and timing so that participants understand how their input contributes to final design and product.

Understanding, Ownership and Buy-in

By taking the time to ensure participants understand the factors, trends, and precedents underlying design decisions, as well as how their input will shape plans, the project will be developed with broad support and commitments for action.

A "No Surprises" Ethic

Imagine Idylwyld's engagement strategy communicates with audiences early and frequently. It's important to maintain open channels of communication, even with those least supportive of the effort, and to stay focused on finding "win-win" solutions.

Engagement Beyond the Usual Suspects

Provide multiple, meaningful opportunities for engagement via both high-touch and high-tech strategies to reach individuals and groups commonly underrepresented through traditional engagement exercises.

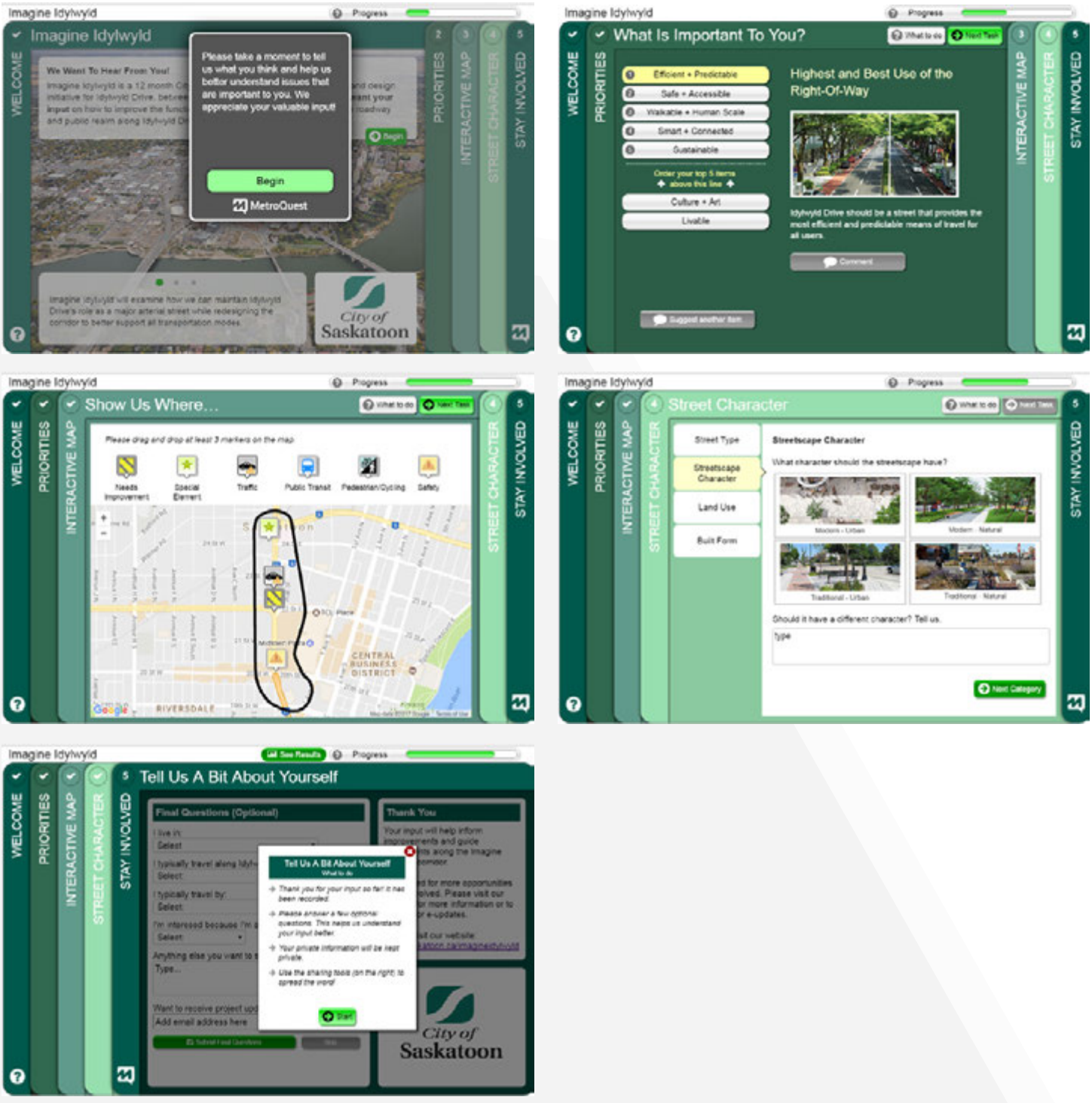


FIGURE 3.3: ONLINE SURVEY SCREENS

ENGAGEMENT

ENGAGEMENT SUMMARY

Engagement Events To-Date

The following section briefly outlines the outcomes of each engagement event held to-date.

Steering Committee Meeting #1 - Sept 29, 2016

A kick-off visioning session with the Steering Committee occurred on September 29, 2016 to identify site issues and opportunities, a preliminary vision and draft priorities. These were to be developed and refined with input from stakeholders and the public over the subsequent engagement events.

Stakeholder Workshop #1 - Nov 15, 2016

This event introduced and educated stakeholders about the project, its goals and timelines, presented preliminary corridor assessment findings and a case study analysis. Interactive panels were used to gain insights from stakeholders about key issues and opportunities along the corridor as well as to rank and comment on the draft priorities established by the Steering Committee.

52 stakeholders attended the event, offering representation from a wide-range of organizations; non-profits, community and business groups, elected officials, City institutions and departments, developers and individual land owners. Detailed materials from the workshop can be found in the Appendix.

Interactive Online Survey #1 - Nov 15 - Dec 8, 2016

An interactive online survey was used to educate the public about the project as well as to provide the community with an opportunity to rank and comment on the priorities of the corridor and establish a desired character. This was one of the City's most successful online outreach campaigns, and helped the team gain insights from the community about day-to-day usability of the corridor and other issues.

The survey saw 4,764 individual visits with 2,830 completions. Response rates were generally consistent across city neighbourhoods between 1-3% of total responses per neighbourhood. Noticeable spikes included Caswell Hill (8%), Nutana (7%) and City Park (5%). 6,641 comments were received and reviewed by the team, which are included in the appendix. 35% of respondents identified as commuters while 25% were nearby residents. 82% of respondents primarily travel the corridor by personal vehicle, with 12% walking or cycling along the corridor. Approximately ⅓ of all respondents travel the corridor more than 10 times each week.

Steering Committee Meeting #2 - January 19, 2017

A report-back meeting with Steering Committee to present draft corridor assessment and engagement findings.

Moving the Findings Forward

The following pages summarize the results of the engagement efforts described into 3 guiding elements for the design of concept alternatives for *Imagine Idylwyld*:

Vision Statement

The vision statement reflects the community's goals for the corridor and will guide all design work moving forward.

Corridor Priorities

Feedback from engagement identified and prioritized the most important issues to be addressed through *Imagine Idylwyld*. The ranked priorities for the corridor will assist in guiding the design team and assist in decision-making where any competing interests arise between priorities.

"What We Heard" Statements

Stakeholder and public input has been consolidated into statements of what we heard from the community. These statements have been categorized by corresponding Corridor Principles. While these statements will be used to help inform decisions, not all statements are compatible with each other, and some may be contradictory to the desired outcomes of the project. These statements will be used as one part of an evaluative framework, to be used in tandem with technical analysis. Wherever possible, balanced solutions to competing interests will be pursued.

Figure 3.4: Envisioned Streetscape Character, Use and Built Form

"IDYLWYLD DRIVE IS A SIGNATURE GATEWAY INTO THE CITY CENTRE; A MODERN GRAND AVENUE THAT CONNECTS PEOPLE AND PLACES IN A COMPACT, MIXED USE URBAN ENVIRONMENT THAT SUPPORTS DAILY LIFE IN SASKATOON." *- IMAGINE IDYLWYLD VISION STATEMENT*

ENGAGEMENT

A COMMUNITY VISION FOR THE FUTURE

Streetscape, Land Use, and Built Form Character

Feedback gained through the online survey and stakeholder workshop corroborated a clear and unified vision for the character and use of the corridor:

Street Type

80% of respondents wished to see a Grand Avenue or Main Street with wide, spacious sidewalks, rather than a Boulevard condition with space given to treed or planted medians.

Streetscape Character

75% of respondents desire a modern streetscape design for Idylwyld Drive. Of that 75%, 64% wanted a naturalized modern character with dense tree plantings and vegetation. The remaining 36% envisioned a modern urban street.

Land Use Character

79% of respondents envision Idylwyld Drive as a mixed use corridor. Comments received related to land use character identified retail, commercial office, hospitality and some residential as potential suitable uses to mix.

Built Form Type

This question resulted in the widest split in responses. 53% of respondents envisioned a mid-rise urban condition with buildings between 6-8 storeys. 40% of respondents preferred a low-rise urban condition of 3-4 storeys.

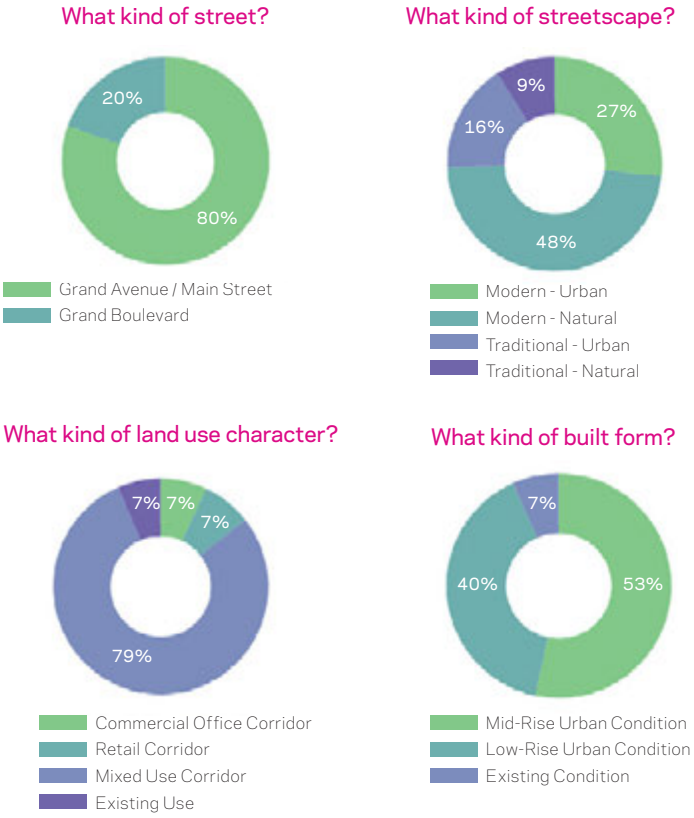


Figure 3.5: Streetscape Character Vision

IDYLWYLD DRIVE WILL BE...

EFFICIENT + PREDICTABLE

Idylwyld Drive will be a street that provides the most efficient and predictable means of travel for all users.

SAFE + ACCESSIBLE

Idylwyld Drive will be a street that is safe and comfortable for users of all abilities 24 hours a day, 365 days a year.

WALKABLE + HUMAN SCALE

Idylwyld Drive will be a street that is comfortable to walk along and across in an interesting and engaging urban environment.

CONNECTED + CULTURAL

Idylwyld Drive will be a street that not only connects people with their destinations but with our cultural, built and natural heritage.

LIVABLE + SUSTAINABLE

Idylwyld Drive will be a street that enhances daily life by balancing environmental, social, cultural, and economic considerations.

FIGURE 3.6: CORRIDOR PRIORITIES

ENGAGEMENT

CORRIDOR PRIORITIES

Development and Evolution of Corridor Priorities

Steering Committee Meeting #1: Visioning

Steering Committee identified seven preliminary priorities for the corridor during a Visioning Workshop at the beginning of the project, intended to ensure that the corridor would become:

Efficient + Predictable

Idylwyld Drive should be a street that provides the most efficient and predictable means of travel for all users.

Safe + Accessible

Idylwyld Drive should be a street that is safe and comfortable 24 hours a day, 365 days a year for users of all abilities.

Walkable + Human Scale

Idylwyld Drive should be a street that is interesting and comfortable to walk along and across.

Smart + Connected

Idylwyld Drive should introduce new technologies into the design of the corridor (i.e. traffic sensors, smart street lighting and signals, integrated smart device applications, public wifi points, etc.) to provide informed and efficient mobility.

Sustainable

Idylwyld Drive should be a street that uses sustainable infrastructure to showcase the City's leadership in sustainable development.

Livable

Idylwyld Drive should be a street that makes daily life in the City Centre more livable by increasing access to places to live, learn, work and play.

Cultural + Artistic

Idylwyld Drive should be a street that celebrates our community culture and showcases our civic pride with its beauty, public art, and overall quality.

Stakeholder and Public Engagement Feedback

The preliminary priorities were presented to stakeholders and the wider public for comment. Stakeholders were asked to rank their top 3 priorities, while the public was asked to rank 5. Overall, there was a strong symmetry between stakeholder and public rankings among the top 3 priorities, while priorities 4-7 were almost mirrored lists. The table below compares the ranking feedback.

	Online Public Survey	Stakeholder Workshop
1	Efficient + Predictable	Walkable + Human Scale
2	Safe + Accessible	Efficient + Predictable
3	Walkable + Human Scale	Safe + Accessible
4	Smart + Connected	Livable
5	Sustainable	Cultural + Artistic
6	Livable	Sustainable
7	Cultural + Artistic	Smart + Connected

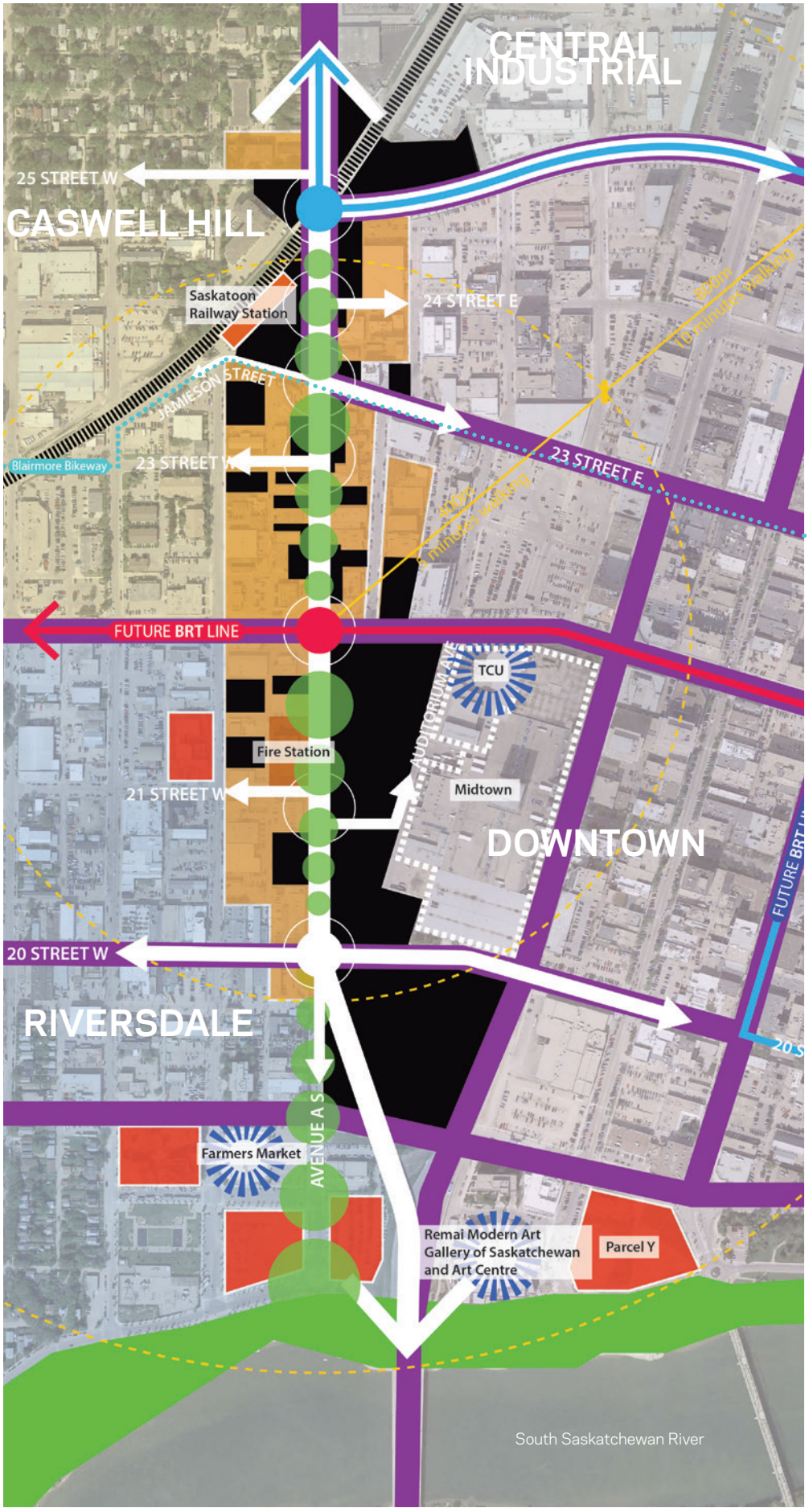
A number of comments from both stakeholders and the public identified that the intent of some priorities was not clear enough, and that most of the priorities were interdependent or, sometimes, interchangeable. For example, "Livable" could be taken to mean "Walkable + Human Scale", and "Cultural + Artistic" could be served through the "Sustainable" priority - if defined through a social sustainability lens. Generally, comments outlined the possibility for consolidating some of the priorities for additional clarity and focus. Full results are included in the Appendix.

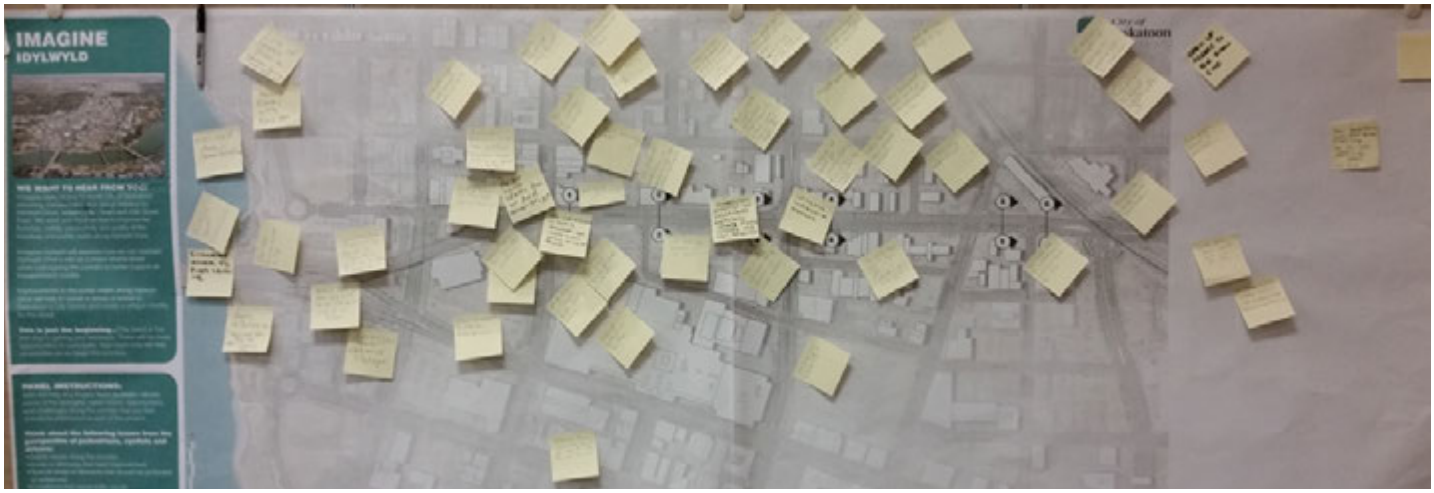
Steering Committee Meeting #2: Priority Consolidation

The Project Team presented these results and public and stakeholder feedback to Steering Committee. The Committee discussed incorporating the feedback in possible consolidations and edits to the corridor priorities - arriving at the final corridor priorities presented in Figure 3.6.

LEGEND

- Mid- to Long- Term Redevelopment Opportunities
- Fire Hall Redevelopment
- Infill Opportunities
- New Developments
- River Landing
- Transit Route
- Future Blue Line BRT
- Future Red Line BRT
- Gateway / TOD Node Opportunity
- Green Space and Character Opportunity
- Intersection Improvements
- Neighbourhood Connection Improvements
- Community Node





ENGAGEMENT

ISSUES & OPPORTUNITIES

Engagement efforts for *Imagine Idylwyld* have been very successful with high attendance at stakeholder workshop events and high online survey response rates - with over 2,800 completions and over 6,000 comments. Figure 3.6 illustrates high level Issues and Opportunities identified along the corridor by the public, stakeholders and Project Team. These findings are supplemented by "What We Heard" Statements established from thousands of public and stakeholder comments.

To ensure that the community voice guides the design of *Imagine Idylwyld* throughout duration of the project, the Project Team collected and categorized all of the comments received within the Area of Impact, as well as a small buffer area, into the three primary scope areas of the project:

- Transportation + Connectivity
- Land Use + Built Form
- Urban Design + Public Realm

These categorized comments were then reviewed and distilled into a series of succinct lists of "what we heard" statements which summarize key corridor issues and opportunities that were identified by the community to be addressed and tested by the Project Team in the design of the corridor. The statements are further categorized using the established corridor priorities to ensure that all design work contributes to building the community's vision for Idylwyld Drive.

Marker Type	Times dropped	Percent
Needs Improvement	1474	25.39%
Special Element	517	8.90%
Traffic	1464	25.22%
Public Transit	287	4.94%
PedestrianCycling	1062	18.29%
Safety	1002	17.26%
Total	5806	

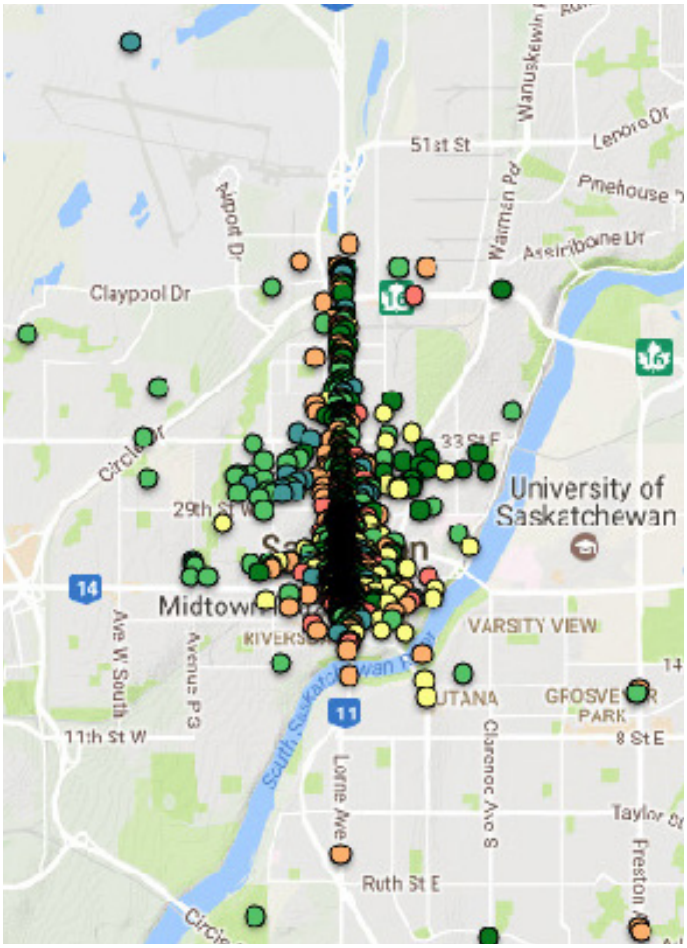


Figure 3.9: Online Survey and Workshop Results for Streetscape Character

WHAT WE HEARD

TRANSPORTATION + CONNECTIVITY

Efficient + Predictable

1. Improve lane alignment and continuity through the corridor.
2. Improve traffic flow for people driving cars and trucks.
3. Reduce the number of lanes on Idylwyld Drive if possible and free up space for pedestrians and active transportation.
4. Improve or remove the southbound left turn lane onto Auditorium Avenue.
5. Add left turn lanes, arrows, or restrict left turns in rush hour.
6. Allow people driving cars westbound on 20th Street to turn left onto the bridge.
7. Improve access to Avenue A.
8. Close some intersections to cars and trucks.
9. Open 21st Street West as a full intersection for cars.

Safe + Accessible

10. Remove the railway crossing (out of project scope).
11. Improve safety for all users at intersections.
12. Install grade separations.
13. Encourage people driving cars and trucks to keep below the speed limit.
14. Make it easier for people with disabilities to cross Idylwyld Drive to get to Midtown Plaza.
15. Remove, relocate or improve access to the Fire Hall.

Walkable + Human Scale

16. Make walking along Idylwyld more appealing and safer.
17. Make it easier to cross Idylwyld on foot, including reducing waiting time at the signals.
18. Make it safer to cross Idylwyld by bicycle.
19. Make it easier (or possible) to bicycle along Idylwyld.

Connected + Cultural

20. Improve the connection between 20th Street West / Riversdale and Midtown Plaza / TCU Place / YMCA / Warehouse District for people walking.
21. Encourage 24th Street as a pedestrian thoroughfare.
22. Ensure good access to future BRT stations and other transit stops.
23. Create a connection between the Idylwyld Bridge and River Landing to the rest of Idylwyld for people cycling.
24. Create a connection between Caswell Hill (25th Street West) and downtown for people cycling.
25. Improve the connection between 20th Street West / Riversdale and Midtown Plaza / TCU Place / YMCA / Warehouse District for people cycling.
26. Improve the connection between the 23rd Street East cycle tracks and the Blairmore Bikeway.
27. Consider truck access into the Midtown Plaza and the TCU Place in future planning.

Livable + Sustainable

28. Consider snow removal and possible off site snow storage sites as part of the design criteria.

WHAT WE HEARD

LAND USE + BUILT FORM

Efficient + Predictable

29. Redevelop surface parking lots with higher and better uses.
30. Create a "gateway" to Downtown and Riversdale at 20th Street and Idylwyld Drive by redeveloping the Toys "R" Us block.
31. Create a "gateway" development on the empty land on the north east corner of 25th Street E and Idylwyld Drive
32. Create a "node" or "gateway" development at the intersection of Idylwyld Drive and 22nd Street.
33. Relocate and/or redevelop the Fire Hall.
34. Redevelop the Karttrak Go-Karts site.

Safe + Accessible

35. Make the area safer with an "eyes on the street" approach to neighbourhood land use planning.
36. Redevelop North Woods Inn and North Gate Motel (out of project scope).

Walkable + Human Scale

37. Animate the street and public realm with active ground floor uses.
38. Provide community anchors such as grocery stores, libraries, recreation and community centres etc.
39. Create new parks and open spaces.
40. Make the downtown a place for Saskatonians to easily travel, live, work and play by creating a mixed-use corridor.

Connected + Cultural

41. Create a transit-supportive land use strategy that focuses density, mixed land uses and activities at transit nodes along the corridor.
42. Make sure land uses transition and connect the Idylwyld Drive corridor to the activities and culture of Downtown and 20th Street.

Livable + Sustainable

43. Create a land use and zoning policy framework that appropriately addresses and protects heritage districts, buildings, spaces and/or other heritage elements.
44. Create a socially equitable corridor by addressing housing affordability within the land use and zoning policy framework.
45. Ensure the indigenous community has its voice heard throughout the land use planning process.

WHAT WE HEARD

URBAN DESIGN + PUBLIC REALM

Efficient + Predictable

1. Create a consistent urban character and identity for buildings along the corridor.
2. Establish a consistent set-back condition.
3. Improve signage and wayfinding strategies throughout the corridor and to surrounding attractions.

Safe + Accessible

4. Make all crossings along Idylwyld Drive intuitive to navigate, safe and engaging for all users.
5. Improve urban safety through creative pedestrian lighting, "eyes on the street" neighbourhood design, and other CPTED measures.

Walkable + Human Scale

6. Put pedestrians first by encouraging walking along Idylwyld Drive with wide, protected sidewalks and a vegetated buffer between walkway and roadway.
7. Ensure that the design of built form is transit-supportive; with compact, walkable urban blocks and mixed-use mid-rise buildings that create a consistent frontage along the street and frame public open spaces.

Connected + Cultural

8. Ensure street design is transit-supportive, providing modern infrastructure, comfortable furnishings and amenities for transit users.
9. Integrate structured or underground parking facilities within new development.
10. 20th Street, 22nd Street and 25th Street are all "gateways" to River Landing, Riversdale, and Downtown and should create welcoming, beautiful and iconic arrival conditions.

Livable + Sustainable

11. Create a "green" street character with diverse street tree plantings and vegetation.
12. Creatively integrate heritage and the history of Saskatoon into the design of the streetscape.
13. Integrate sustainable design best practices into the design of streetscapes and built form.
14. Create a sophisticated "gateway" into Riversdale.
15. Creatively incorporate local and indigenous art and culture into the design of the streetscape.
16. Incentivize corridor improvements to help phasing and implementation.

04

TRANSPORTATION + CONNECTIVITY

IMAGINE IDYLWYLD

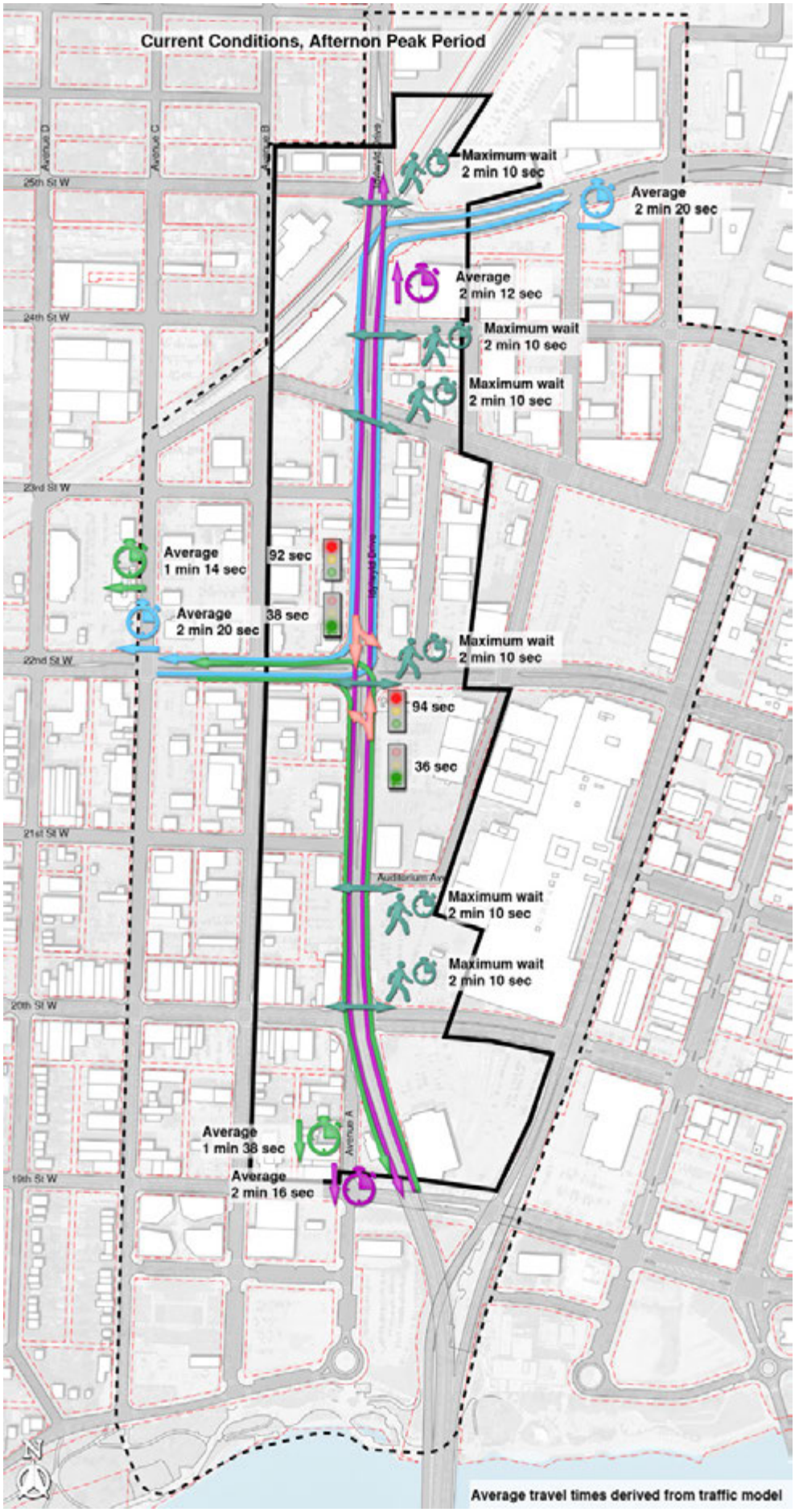
City of Saskatoon

HOK

Associated Engineering

LEGEND

- Red+Amber Time per Cycle
- Green Time per Cycle
- Average Travel Time, Selected Routes Thorough Study Area
- Maximum Wait for Walk Light
- Study Area
- Area of Impact



TRANSPORTATION + CONNECTIVITY

TRAFFIC FLOW FOR DRIVERS

Idylwyld Drive is perceived as a congested corridor in Saskatoon. Movement through this corridor is largely impacted by traffic signal timing, lane usage imbalance, and driver behaviour.

To move traffic efficiently on a major corridor requires intricate traffic signal coordination. Traffic signal coordination is only possible if each intersection has the same cycle time, which is the time it takes for the signal pattern to repeat itself. The individual intersection that needs the longest cycle time determines the cycle time for every intersection in the corridor. For the *Imagine Idylwyld* study area, 22nd Street requires the longest cycle time. At 22nd Street, traffic signal timing is constrained by the lane configuration: because left turns and through traffic share the same lane, the arrow needs to stay on throughout the phase. Northbound and southbound cannot have green at the same time, known as "split phasing". To accommodate the split phasing, a 130-second cycle time is used in the afternoon peak period at 22nd Street, and therefore at every intersection in the study area. Split phasing poses a challenge for coordinating the traffic signals and causes longer cycle times and longer waits, but it is necessary because of the shared left-and-through lanes.

Modern best practice for urban areas is to have cycle times of 60 to 90 seconds. Further information on best practices and standards is found in the Technical Appendix. Additional analysis in subsequent phases of the project will determine if signal timing within the best practice range is achievable and what other implications might be.

The average travel time through the roughly one kilometre study corridor in the afternoon peak period was found to be just over two minutes in a traffic simulation. Test drives confirmed that the simulation results were reasonable, but also that actual travel time can vary significantly from the average. With many lanes but only one lane that carries through the study area unimpeded, some drivers make many lane changes to avoid queues, while others select the one continuous lane, even if it will take longer. In a test drive during the afternoon peak period, the trip from 25th Street to the bridge took over twice as long when the driver stayed in the same lane compared to changing lanes to choose the shortest queues at each red light. That is, one lane is overused, and the others are underused. Assertive driving is rewarded, and more cautious driving is penalized.

OPPORTUNITIES

Reconfigure the 22nd Street intersection to allow more efficient traffic signal timing throughout the corridor

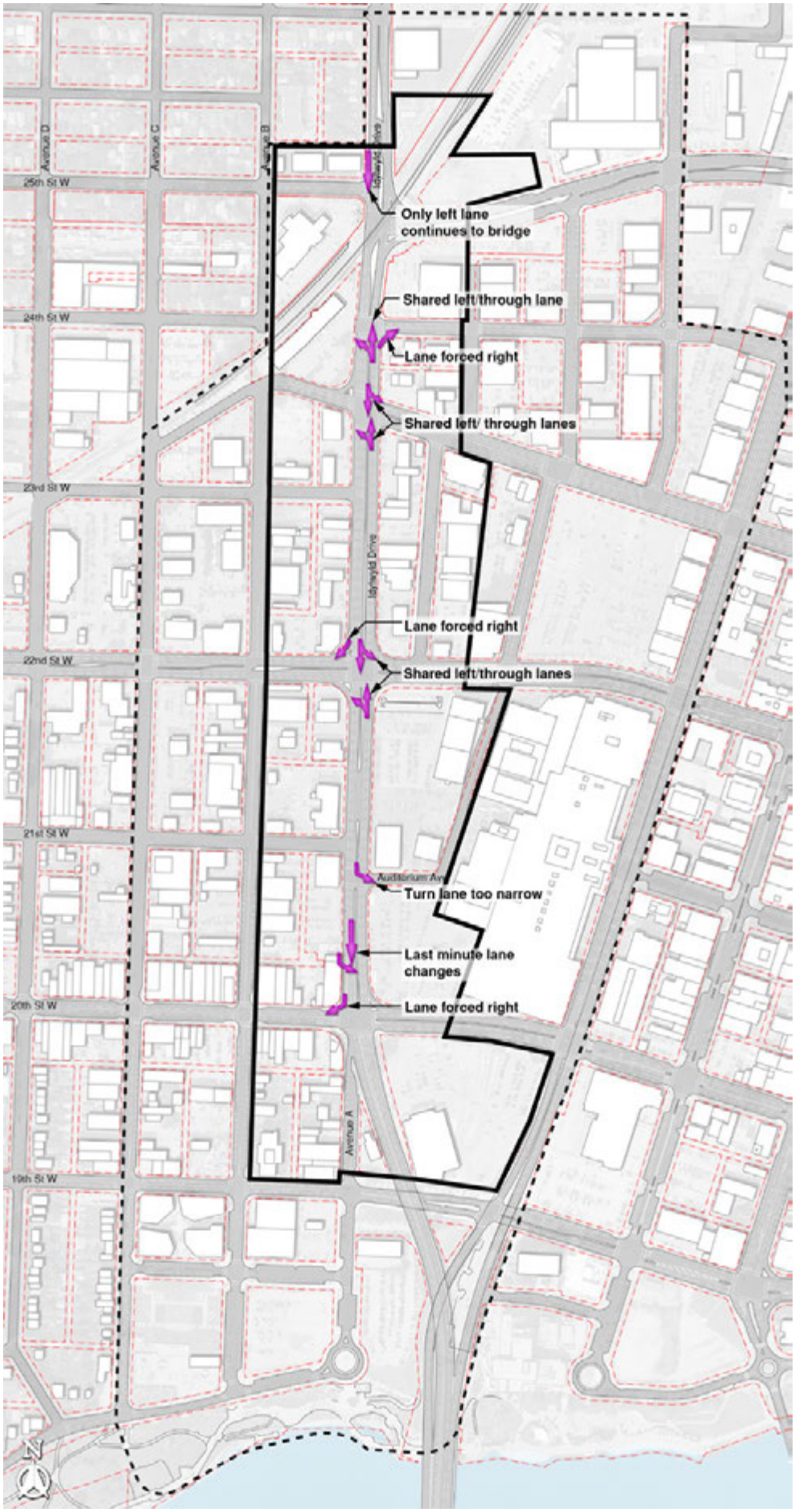
Ensure both lanes entering the study area continue through to the end of the study area

LEGEND

Lane Alignment / Continuity Issue

Study Area

Area of Impact



TRANSPORTATION + CONNECTIVITY

LANE ALIGNMENT AND CONTINUITY

The Idylwyld Drive study area is known for inconsistent lane alignment and continuity. Lanes are added and dropped at intersections. Left and through traffic share lanes and turn arrows are inconsistent. It is difficult for drivers to travel through the corridor without making lane changes. Lane widths also vary from block to block.

The total number of lanes in the study area varies from four to seven, although only three lanes travel through from one end to the other: one southbound lane and two northbound lanes. One of the northbound lanes is shared with left turns at three intersections, leaving only one lane in each direction that continue through the study area unimpeded. In three (3) separate instances, the right hand lane ends, forcing drivers to turn right. For drivers driving from north to south, including highway through traffic, staying in the right hand lane from 25th Street to the bridge isn't possible: that lane ends at 20th Street. A lot of drivers make a lane change right before that. For those going south to north, the right hand lane ends at 24th Street. Most drivers avoid the right hand lane, although some drivers use it as a passing lane. The current lane continuity situation violates driver expectation and engineering best practices by blurring the distinction between basic lanes and auxiliary lanes. The Technical Appendix expands on best practices for basic lane continuity.

Of the ten left turns from Idylwyld Drive in the study area, only four have dedicated left turn lanes. Seven left turns have protected left turn arrow, three do not. At 22nd Street, the lane configuration forces split phasing, where northbound and southbound drivers cannot have green at the same time, reducing capacity and preventing efficient coordination of the corridor's traffic signals.

Lane widths also change from block to block, ranging from 3.05 m to 3.9 m. The left turn lane to Auditorium Avenue is an exception, which at only 2.0 m wide is narrower than the legal maximum vehicle width of 2.6 m. Other drivers sometimes have difficulty passing when someone is waiting there to turn left. Studies have shown that urban streets with wide lanes have higher travel speeds, and modern standards suggest lane widths in the range of 3 m to 3.3 m here the target speed is 50 km/h, as discussed further in the Technical Appendix.

Poor lane continuity, shared left turns, and the related traffic signal timing issues are the most important causes of unnecessary delay for drivers. Consistent and appropriate lane widths would help reduce confusion and driver workload, help manage travel speeds, and reducing crossing time for people walking.

OPPORTUNITIES

Increase the number of uninterrupted continuous lanes to two in each direction

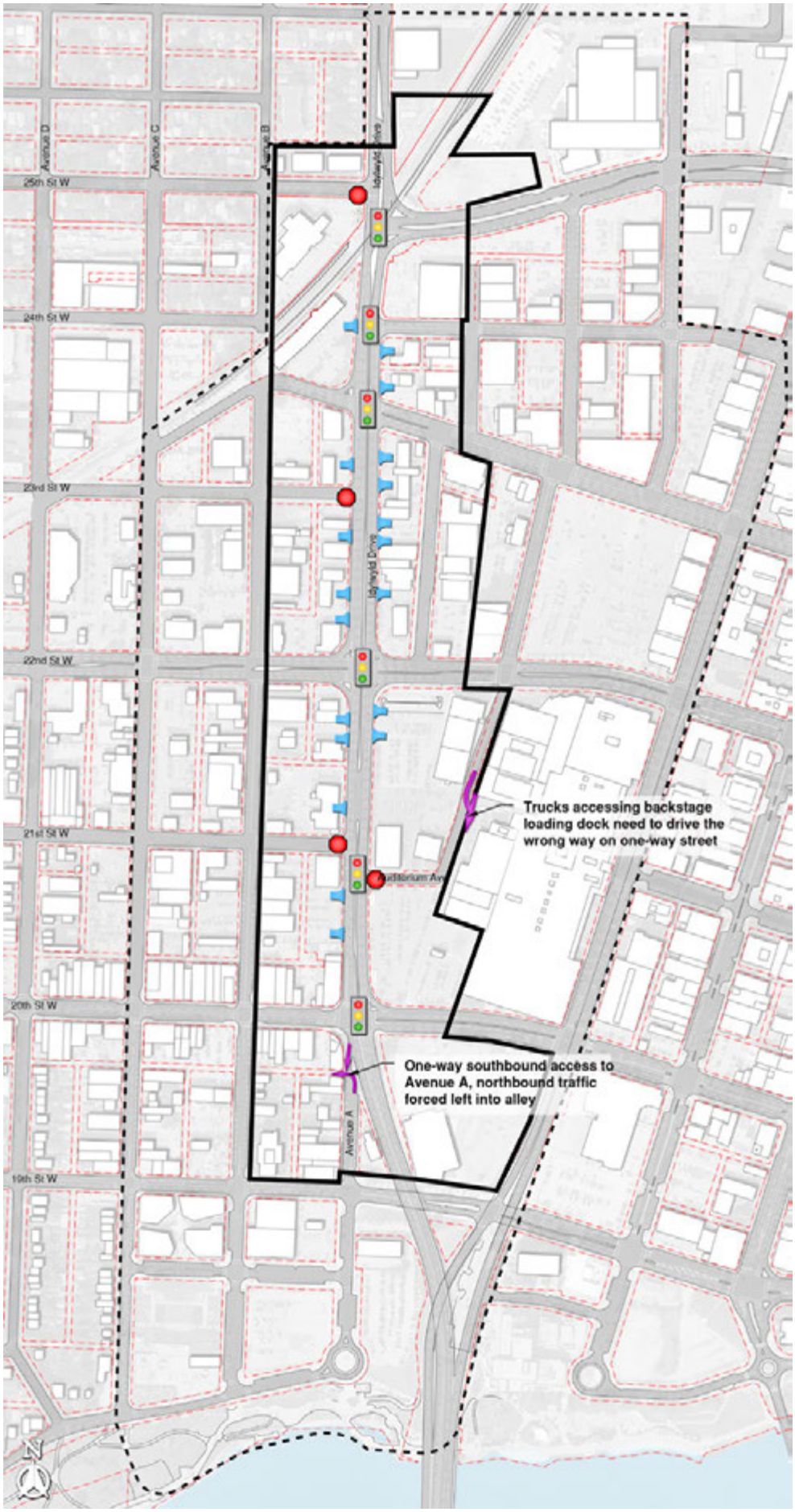
Make lane widths consistent through the corridor

Separate left turns in their own lanes

Avoid lanes that end at intersections, unless they are clearly turning lanes

LEGEND

- Signalized Intersection
- Stop Controlled Intersection
- Private Driveway
- Site-Specific Access Issue
- Study Area
- Area of Impact



INTERSECTIONS AND ACCESS POINTS

Idylwyld Drive is classified as an arterial road by the City of Saskatoon. According to the Transportation Association of Canada, direct access to arterial roads should be controlled, and intersections should be spaced 200 m to 400 m apart.

The Idylwyld Drive study area has a high density of intersections for its length, with nine intersections in 900 m, as well as an off-ramp-style access to Avenue A. Of the nine intersections, six are signalized, including a pedestrian half-signal at Auditorium Avenue that uses a signal for the crosswalk but a stop sign for vehicles. The remaining three intersections are stop-controlled and partially closed, allowing only right turns. All turns are allowed at each signalized intersection, except at 20th Street where the westbound left turn to Idylwyld Freeway is prohibited.

While closely spaced low volume intersections are common in all grid-based cities and are not generally problematic, closely spaced traffic signals are more undesirable since the queues from one intersection can interfere with the other. There are two instances in the study area where signalized intersections are spaced less than 100 m apart: 23rd Street East/Jamieson Street to 24th Street East, and 24th Street East to 25th Street East. Closure of one or more of these streets could resolve the spacing issue, however each of these streets plays an important role in the circulation and connectivity of the study area and its surroundings:

- 23rd Street East and Jamieson Street are links on a bikeway link across the city and are also transit routes.
- 24th Street East, has seen its function as a major link for cars diminish with the opening of 25th Street extension, but it remains an important pedestrian link and acts as the "main street" of the Warehouse District.
- 25th Street East is a major link in the street network, a bridge connection, access to the Police headquarters, and a transit route.

The westbound left turn from 20th Street to Idylwyld Freeway is currently prohibited since the same movement can be accomplished using the 1st Avenue South freeway on-ramp one block to the east. There would be very minimal benefit to permitting this movement, while the consequence would be less efficient traffic signal timing and increased congestion at the intersection, additional space requirements for a left turn lane, additional crossing distance and risk exposure for pedestrians and cyclists, and a risk that drivers would attempt to turn left directly onto Avenue A.

Avenue A is an unusual access type, with only southbound access from Idylwyld Drive. Northbound traffic on Avenue A cannot access Idylwyld Drive and instead must turn left into an alley. There are sight line and lane alignment issues with the current configuration, particularly at the intersection of Avenue A and the alley, as discussed further in the Technical Appendix.

There are also around 19 driveways with access directly onto Idylwyld Drive. Driveways create an additional source of safety risk for drivers and pedestrians and delay for drivers as a vehicle slows to make a turn. The typical current driveway configuration involves sloping the sidewalk down toward the street, which can make walking difficult in icy conditions. Over the long term, access could evolve to other means, such as rear-lane access as land use changes. In the shorter term, driveway configurations can be upgraded to keep the sidewalk level.

An additional site-specific access issue occurs along Auditorium Avenue, which serves as the access to the freight loading docks for Midtown Plaza and TCU Place. For the TCU Place loading dock in particular, trucks must face south to back into the south-facing backstage loading dock. Since Auditorium Avenue is restricted to northbound traffic only, and there is not sufficient space to turn around on site, trucks are forced to drive the wrong way on Auditorium Avenue from 22nd Street to access the loading dock.

OPPORTUNITIES

Consider alternatives for 24th Street including closing the median and removing the traffic signal, or restricting certain movements to minimize the impact of closely spaced signalized intersections on traffic flow

Over the long term, remove driveways on Idylwyld Drive as land usage changes

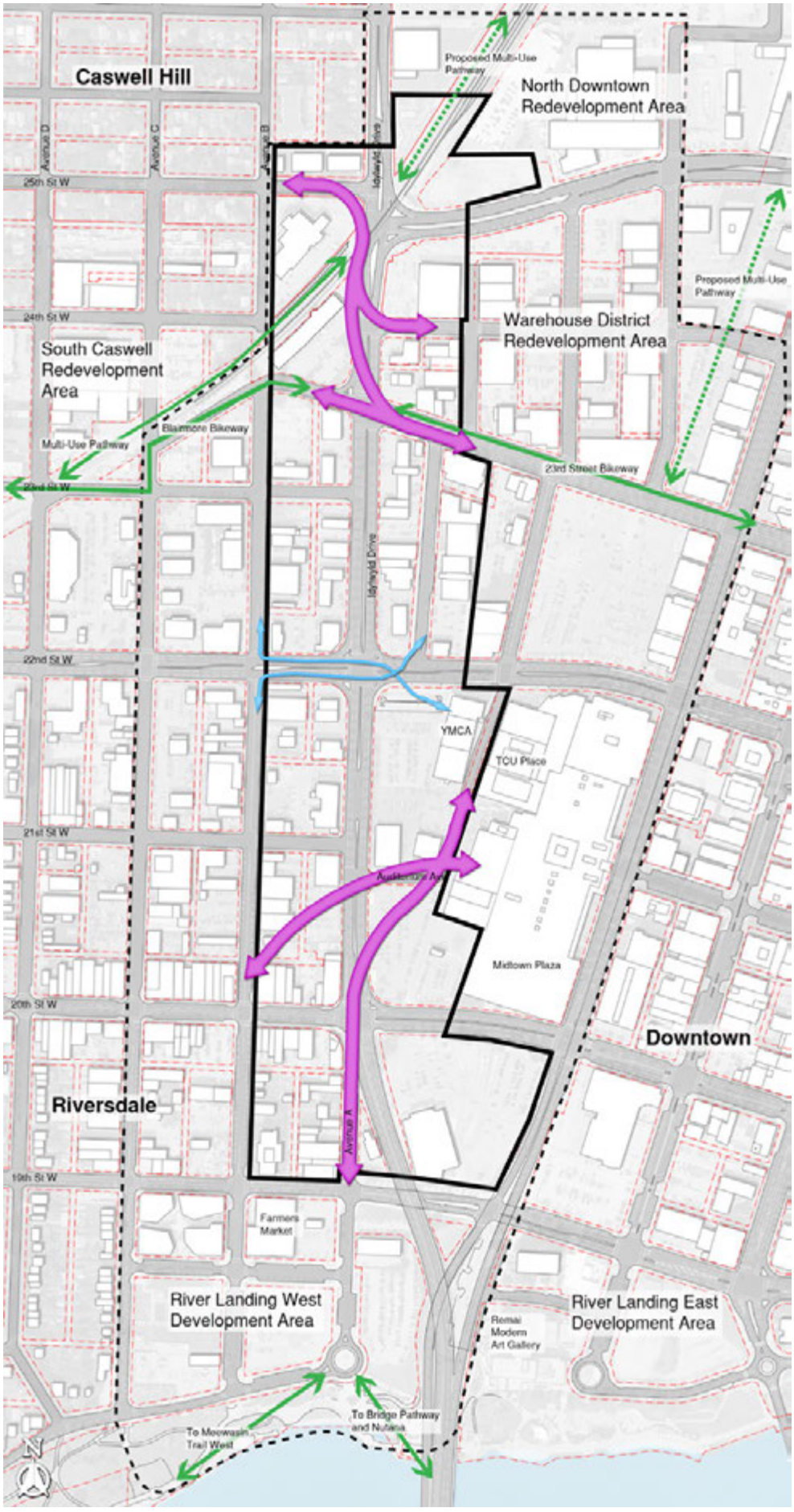
Reconfigure driveways to remove the cross-slope for people walking

Consider closing or reconfiguring the off-ramp to Avenue A - potential closure to vehicular traffic only

Improve freight access to the TCU Place and Midtown Plaza loading docks

LEGEND

- Key Active Transportation Neighbourhood Connection Improvement Opportunity
- Other Active Transportation Connection Improvement Opportunity
- Existing Active Transportation Connection Adjacent to Study Area
- Proposed Active Transportation Connection Adjacent to Study Area
- Study Area
- Area of Impact



TRANSPORTATION + CONNECTIVITY

CONNECTIONS AMONG NEIGHBOURHOODS

According to "Public Spaces, Activity and Urban Form" (City Centre Plan, Phase 1, 2011, p. 22) city centre residents are more than twice as likely to bike or ride transit, and more than four times as likely to walk than the city-wide average. Within the city centre, 57% of residents travel by car, while the city-wide average is 86%. Ensuring safe and accessible connections for people walking and riding bicycles is a key issue, directly affecting nearly half the residents of the surrounding neighbourhoods.

Idylwyld Drive divides the neighbourhoods of Caswell Hill and Riversdale to the west from Downtown to the east, including the Warehouse District. Although Idylwyld Drive is currently perceived as a barrier, it has the potential to become a connector between neighbourhoods and destinations on either side.

Near the middle of the study area, there is a cluster of major destinations on the east side including TCU Place, the YMCA, and Midtown Plaza. Major destinations on the west side include River Landing, the Farmers' Market, and Riversdale's business district toward the south end of the study area. Currently, walking between these destinations can be challenging to navigate and unpleasant, with narrow sidewalks, large areas of asphalt parking, exposure to wind, and long waits at traffic signals. For people riding bicycles, there is no direct, safe route within the study area between these east side and west side destinations.

Toward the north end of the study area, the city's street grid is interrupted by the old CP railway station, which cuts off Avenue B and 24th Street. The connections from 25th Street West to 24th Street East and 23rd Street East are the most direct pedestrian and bicycle links between most of Caswell Hill and the Warehouse District and Downtown. These connections are currently in fair condition for people walking, with sidewalks offset from the street and recent improvements around 25th Street, but this direct connection is not available for people riding bicycles.

In the middle of the study area, both 22nd Street and Idylwyld Drive present barriers. Crossing either or both can be unpleasant on foot, and challenging by bicycle. Wall Street and Avenue B in particular are somewhat isolated by their proximity to Idylwyld Drive and 22nd Street. Wall Street is home to several medical and other service providers, as well as the Indian and Metis Friendship Centre, but it is not possible to get to Wall Street from Riversdale and the southwest of the city by bicycle legally and directly, and similar connectivity challenges exist between the 100-block of Avenue B North and destinations south of 22nd Street east of Idylwyld Drive.

Several redevelopment areas exist adjacent to the study area, with the potential for thousands of new residents and many new businesses. Connectivity improvements for people walking and riding bicycles would provide better links to jobs, shopping, and entertainment in adjacent neighbourhoods.

OPPORTUNITIES

Formalize a pedestrian pathway from Avenue B to Auditorium Avenue via the City-owned parking lot on the 200-block of Idylwyld Drive South

Improve pedestrian conditions on Auditorium Avenue

Enable Auditorium Avenue to be used by bicycles in both directions

Create a bicycle connection between Avenue A and Auditorium Avenue

Create a bicycle connection between 24th Street East and 25th Street West

Maintain a pedestrian connection between 24th Street East and 25th Street West

Consider a bicycle connection between the 100-block Avenue B South and Wall Street

Figure 4.5: Walking Conditions Along Idylwyld Drive

WALKING

Wide intersections, high traffic volume, long wait times, and wide right turns in many places are all sources of discomfort and unease for people walking.

The length of time a pedestrian has to wait to cross the street is especially important in Saskatoon's winter climate. In the study area, the maximum wait time to cross Idylwyld Drive is 125 seconds in the morning and 130 seconds in the afternoon at each signalized intersection. Long wait times can encourage people to cross against the lights (jaywalk) rather than wait. This is often observed around Auditorium Avenue. The recommended best practice for urban intersections is a maximum wait of 60 to 90 seconds.

Crossing time is a concern for some people, especially the most vulnerable and least mobile. Crosswalks in the study area range from 23 to 30 metres long, with the longest at 20th Street. During a site visit, one elderly person was observed stranded on the Idylwyld Drive median at 20th Street, having been unable to complete the crossing in one light cycle. Crossing time is a function of the crossing distance and the assumed walking speed. The current crossing time (pedestrian clearance interval) at this location is 20 seconds, for an assumed walking speed of 1.5 metres per second. Best practice for walking speed is 1.2 metres per second for most urban locations, or 1.0 metres per second where there are many children or seniors.

Several intersections have right turn islands. Drivers turning right need to turn their heads farther than normal to the left, at the risk of neglecting to see a pedestrian crossing in front. Right turn islands are not recommended in modern best practices for urban areas with pedestrians, as discussed further in the Technical Appendix.

The sidewalks along Idylwyld Drive south of 24th Street are narrow, ranging from 1.8 to 2.3 metres, but lampposts, signposts and other obstructions render them effectively much narrower. Best practice for sidewalks on urban streets is a minimum clear path of 2.4 to 3.6 metres. The block of Idylwyld Drive from 24th Street to 25th Street, which was recently reconstructed, has sidewalks 3.3 metres wide.

Most intersections have curb cuts for wheelchair ramps. However, some ramps are not in line with the crosswalk, causing confusion. At 22nd Street, the sidewalk has a curb cut but the island with the pedestrian button does not have a curb cut, so people in wheelchairs would not be able to call for the walk light, and would have to wait somewhere else. This is a hazardous situation.

In some places, poor drainage, narrow sidewalks, and a lack of buffer combine to create an generally uncomfortable situation, including splashing hazards for pedestrians. At one notable spot, just north of 20th Street, mud can often be seen on the side of the building, illustrating the inescapable fate of pedestrians passing on the sidewalk between.

OPPORTUNITIES

Ensure all crosswalks have accessible curb ramps

Provide a buffer between driving lanes and sidewalk

Provide a consistent sidewalk width and clear travel path appropriate for a major urban street

Remove channelization islands

Redesign as urban intersections

Reduce crossing distances

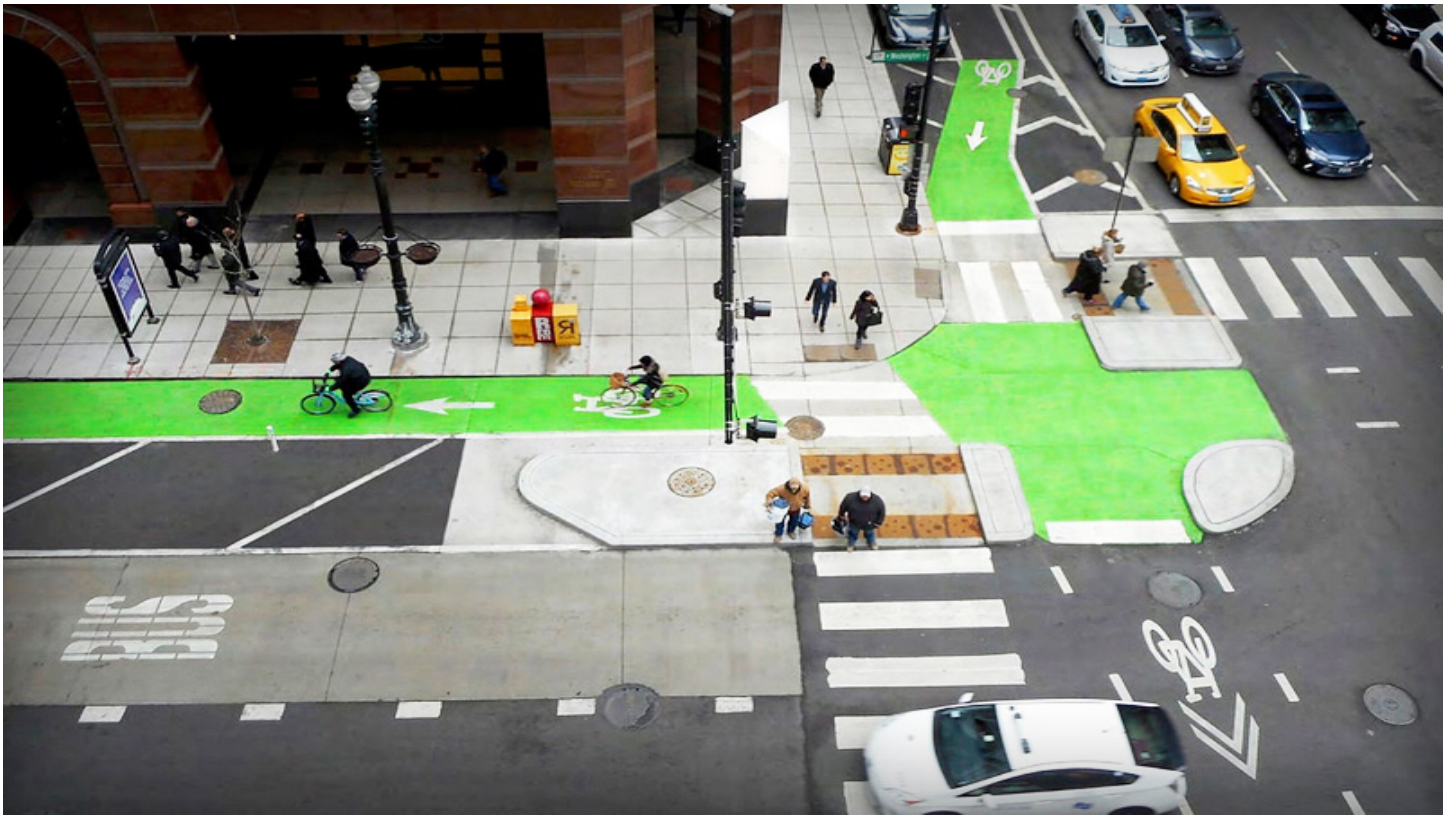


Figure 4.6: Existing Cycle Conditions Around Idylwyld Drive Vs. Typical Protected Intersection

TRANSPORTATION + CONNECTIVITY

CYCLING

Idylwyld Drive does not have dedicated infrastructure for people riding bicycles. Although not prohibited, it is very rare for a person riding a bicycle to choose to ride with traffic on Idylwyld Drive. Cyclists that do use the corridor generally ride illegally on the sidewalk.

A parallel cycling-friendly street is available two blocks to the west at Avenue C, however no nearby parallel route is available to the east, and access to properties on Idylwyld Drive itself is also not available without riding in mixed traffic.

Crossing Idylwyld Drive is challenging. Most intersections are not equipped to detect bicycles, so signals would not turn green if no cars or pedestrians were present, for example at low volume intersections or late at night. No intersections have infrastructure for bicycles, including the designated cycling corridor at 23rd Street, where the protected bike lanes end just ahead of the Idylwyld Drive intersection.

At 20th Street westbound, a painted island is used by some cyclists waiting for the signal, while others wait in the lane with traffic. The inconsistent behaviour causes differing expectations and tension with drivers.

At Auditorium Avenue there is no designated bike crossing. Many people ride within or next to the crosswalk and use the sidewalk on each end, creating a de facto multimodal pathway crossing between Riversdale and Midtown Plaza, despite no pathway existing. On Auditorium Avenue itself, biking southbound from TCU Place is illegal, as it would be for a driver, since it's a one-way street. There is no direct legal connection within the study area from TCU Place and the YMCA to Riversdale. Similarly, there is no direct legal connection within the study area northbound from Avenue A to Idylwyld Drive, except to make the connection illegally on the sidewalk.

OPPORTUNITIES

Provide bicycle access to properties along Idylwyld Drive

Formalize a bicycle connection across Idylwyld Drive at Auditorium Avenue

Ensure traffic signals can be actuated by people riding bikes

Provide connections where none currently exist for people riding bikes

Figure 4.7: Effective Use of Space - Idylwyld Drive Vs. Best Practice Design

TRANSPORTATION + CONNECTIVITY

USE OF SPACE

Most of the space on Idylwyld Drive is used for driving, reflecting its historical role in the city and province's motor vehicle transportation networks. The use of space for each block is a little different; details are provided in the Technical Appendix. As an fairly typical example, the block from 22nd Street to 23rd Street has a right of way around 30 metres wide. Of that, 4.3 m are used for sidewalks, 1.8 m for a median, and 23.9 m for seven traffic lanes.

A core purpose of this study is to make the best use of the space available – including making sure Idylwyld Drive continues to function as a major traffic street.

Three factors affect how much space is used for cars: number of lanes, lane width, and lane placement. The current arrangement is inefficient, and there may be opportunities to improve traffic flow while using less space. The inner lanes are not used to their potential capacity, since left turning traffic interferes with through traffic. Lane widths can be reduced to reflect modern best practice for urban arterials, to the range of 3.0 m to 3.3 m, both to save space and reduce speeding. Left turn lanes, if they aren't shared with through traffic, can face each other instead of being offset, conserving half the space.

Space re-purposed away from motor vehicle traffic could be used for dedicated accommodation from people walking or riding a bicycle, or for landscape and streetscape treatments. Additional technical analysis is required to determine the amount of space needed for motor vehicles. The principles to be used in this analysis are outlined in detail in the Technical Appendix.

OPPORTUNITIES

Use lane widths that are appropriate for urban streets

Create dedicated left turn lanes and orient them head to head

Increase amount of dedicated space for people walking

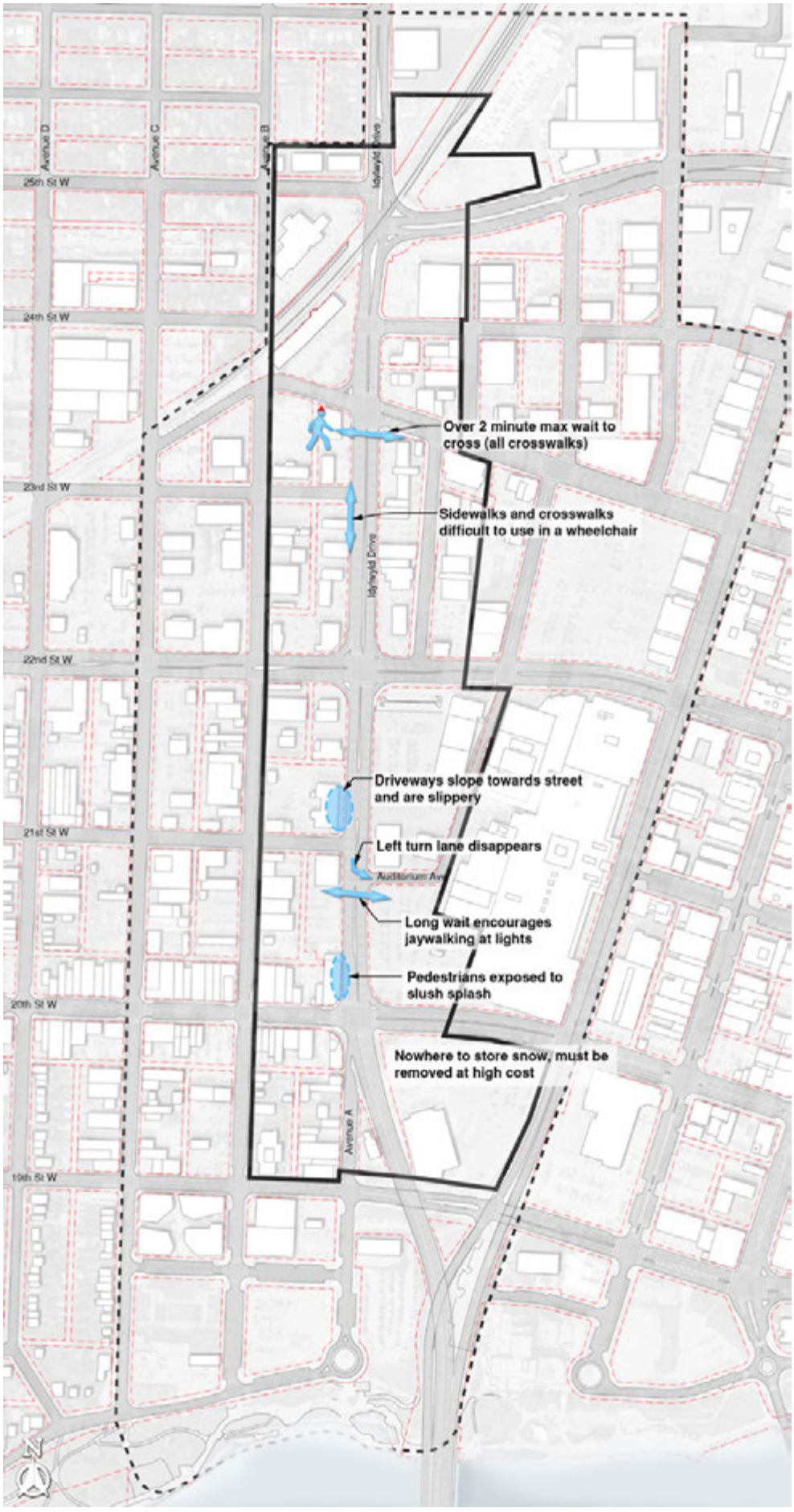
Consider dedicated space for people riding bicycles

LEGEND

Winter Specific Issue

Study Area

Area of Impact



TRANSPORTATION + CONNECTIVITY

SNOW AND WINTER

Like many streets in Saskatoon, Idylwyld Drive changes in the winter.

For drivers, the wide street can become covered in snow or slush, obscuring lane markings and exacerbating the lane alignment issues that are present year-round. The narrow left turn lane at Auditorium Avenue can disappear entirely, leading to additional delays and confusion.

For pedestrians, an icy driveway becomes a slippery slope toward traffic. The waits for walk lights become uncomfortable, or in the most extreme days, unbearable and intolerable. When it's windy, the open spaces and lack of trees provide little shelter for anyone waiting. On milder days, snow becomes a messy brown slush that splashes passers-by, most notably inescapable at the pinch points where the narrow sidewalk just fits between a driving lane and a building, entirely within the splash zone.

There are no boulevards or other areas for on site snow storage, so snow must be trucked away. What does remain, melts and drains unfiltered into the river, adding salt, oil, and other pollutants to the water.

OPPORTUNITIES

Align the lanes to work intuitively even when covered by snow

Reconstruct and level abandoned driveways

Reduce the number of driveways as land redevelops over time

Provide a buffer between the driving lanes and sidewalks to minimize splash exposure

Provide boulevards for on-site snow storage

Provide vegetation and other shelter opportunities, especially where pedestrians wait for red lights

05

LAND USE + BUILT FORM

IMAGINE IDYLWYLD

City of Saskatoon

Associated Engineering

OPPORTUNITIES

Regularize block geometry for improved development efficiency on blocks north of 22nd Street

Improve street network efficiency for walkability and development opportunities north of 23rd Street W

Create consistent building frontage and street access along Idylwyld Drive for a vibrant street wall and walkable built form

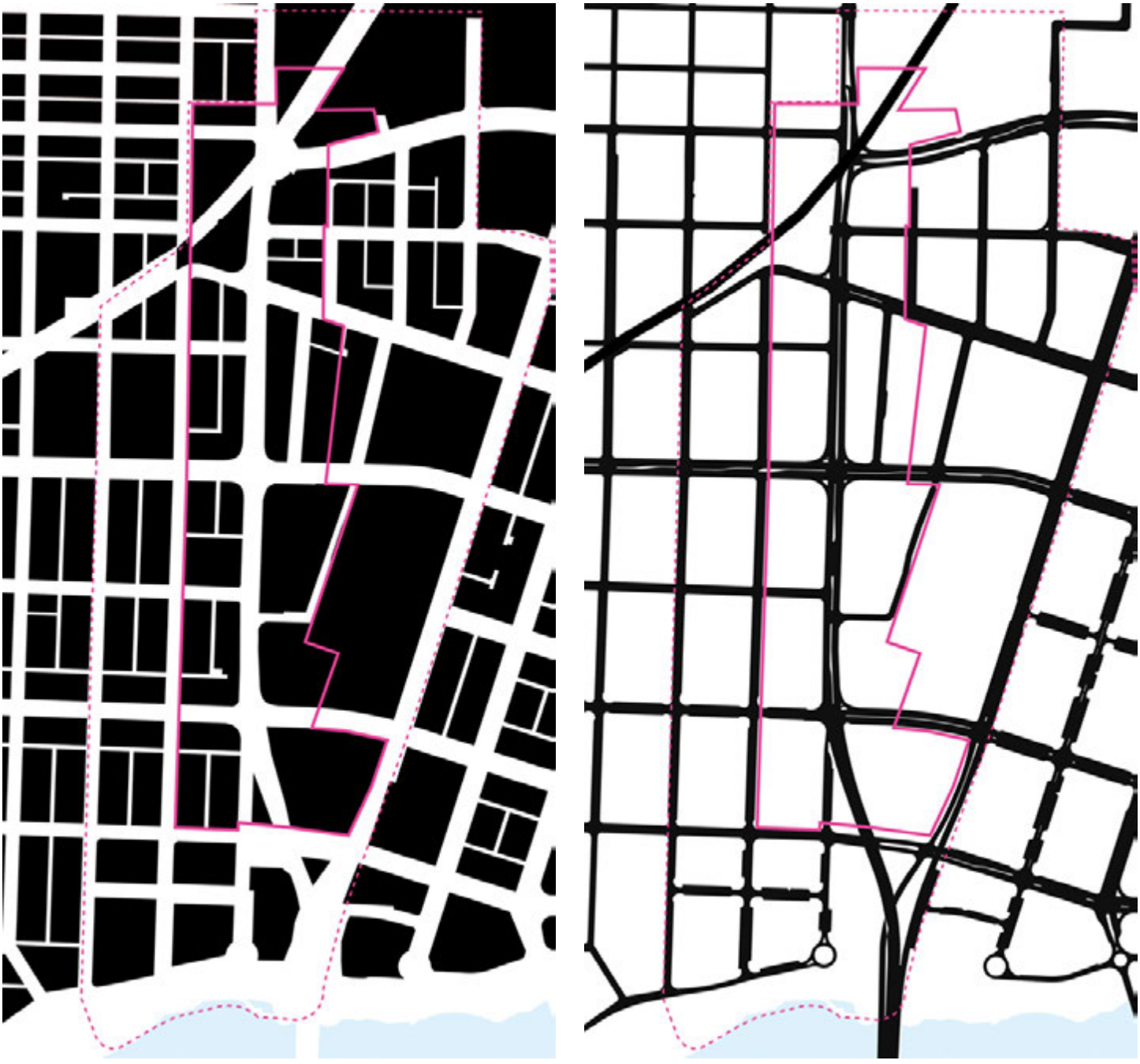


Figure 5.2: Urban Morphology: Streets

Figure 5.3: Urban Morphology: Buildings

LAND USE + BUILT FORM

URBAN MORPHOLOGY

Idylwyld Drive is generally defined by irregular blocks and lots as a result of the legacy of the CN Railyard redevelopment and a change in angular degree of the street grid between Downtown and Riversdale and Caswell Hill. This transition creates two distinct block patterns and conditions on either side of the corridor.

West Side of Idylwyld Drive

Streets and Blocks

Blocks on the west side of Idylwyld Drive between 19th Street and 23rd Street offer a relative consistency, with dimensions of approximately 85 x 155 metres with 6 m mid-block service lanes. North of 23rd Street West, blocks are impacted by the CN Rail Corridor and Jamieson Street, resulting in shorter, diagonally bisected blocks that are less efficient for development.

Buildings

Building footprints are generally inconsistent in size, setback, orientation and coverage, providing no defined street wall or urban edge - with the exception of the first block of 20th Street.

East Side of Idylwyld Drive

Streets and Blocks

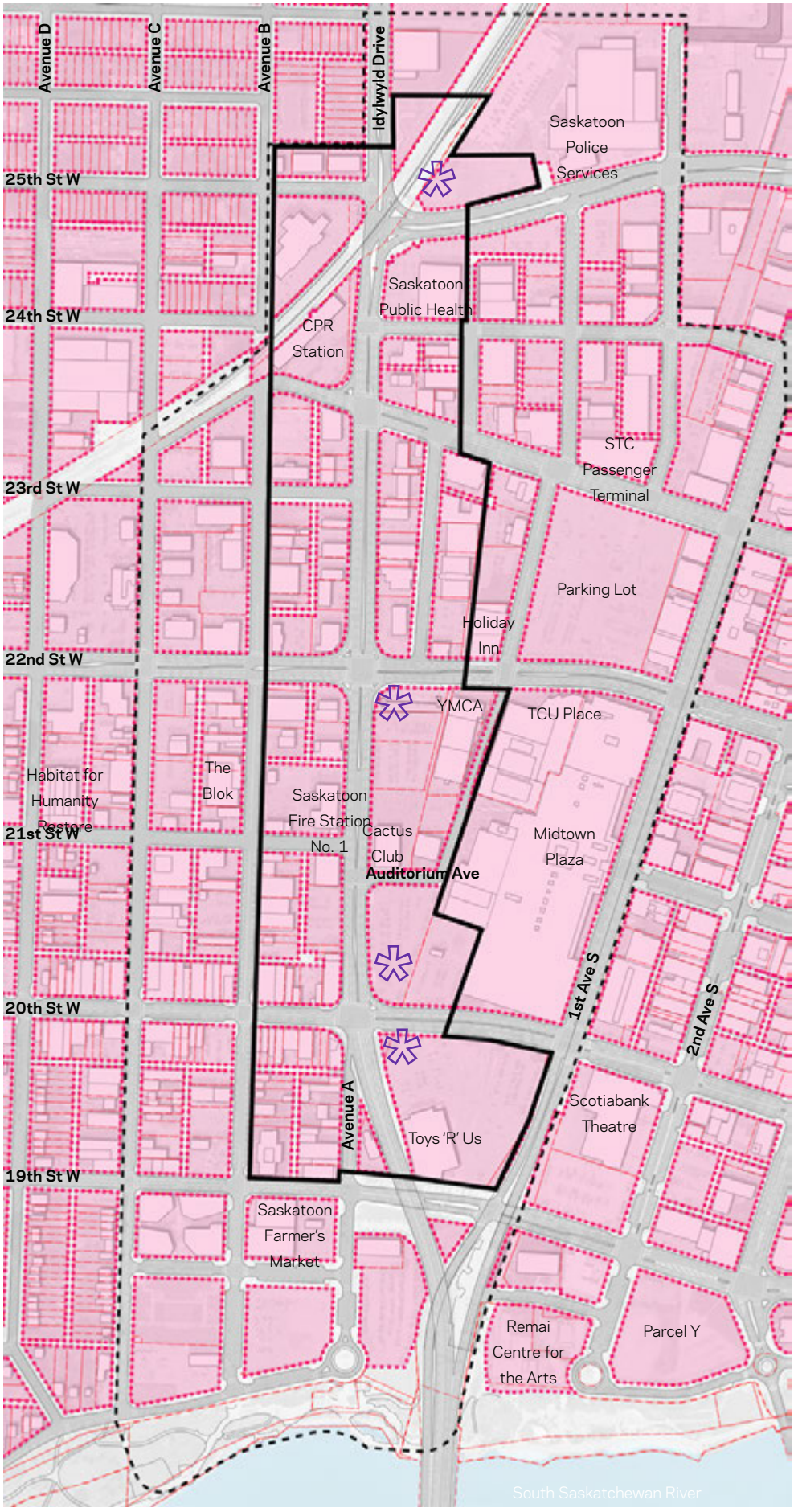
Blocks on the east side of Idylwyld Drive vary widely in size and geometry. Lots south of 22nd Street are large and ideal for infill or redevelopment.

Buildings

Buildings have larger footprints on the west side of the corridor, with minimal building coverage south of 22nd Street. The number of buildings increases north of 22nd Street, though still with larger footprints. This is due, in large part, to the historical legacy of the Warehouse District, though much of this built form fails to create consistent street wall or frontage condition along Idylwyld Drive.

LEGEND

- Lots
- Potential Catalyst Development Site
- Study Area
- Area of Impact



LAND USE + BUILT FORM

PLAN OF SUBDIVISION

Similar to block conditions, Idylwyld Drive is generally defined by irregularly sized lots with depths and widths varying widely across the corridor. Again, conditions are split on either side of the corridor:

West Side of Idylwyld Drive

Lots tend to be similar in scale, approximately 30-40 metre deep with varied widths. Lots are oriented around blocks to create frontage along 2-3 sides of the block, generally prioritizing frontage on to the highest order of road class. Lots are serviced through 6 m mid-block laneways.

Atypical lots occur adjacent to the rail corridor, creating inefficient development lots. The Saskatoon Fire Station No. 1 also has a larger parcel, occupying approximately half of a block.

East Side of Idylwyld Drive

The largest lots along Idylwyld Drive are found within the larger blocks south of 22nd Street East and north of 19th Street East, such as the Toys "R" Us lot which is approximately 140 x 150 metres at its widest points.

Lots are largely serviced through small streets (Wall Street / Auditorium Ave) and parking lots instead of laneways and in some cases create blocks requiring double-frontage, such as between Idylwyld Drive and Wall Street.

The rail corridor also impacts lots on the east side of Idylwyld Drive as well, creating highly inefficient triangulated lots on the north-east corner of the Idylwyld Drive and 25th Street intersection.

OPPORTUNITIES

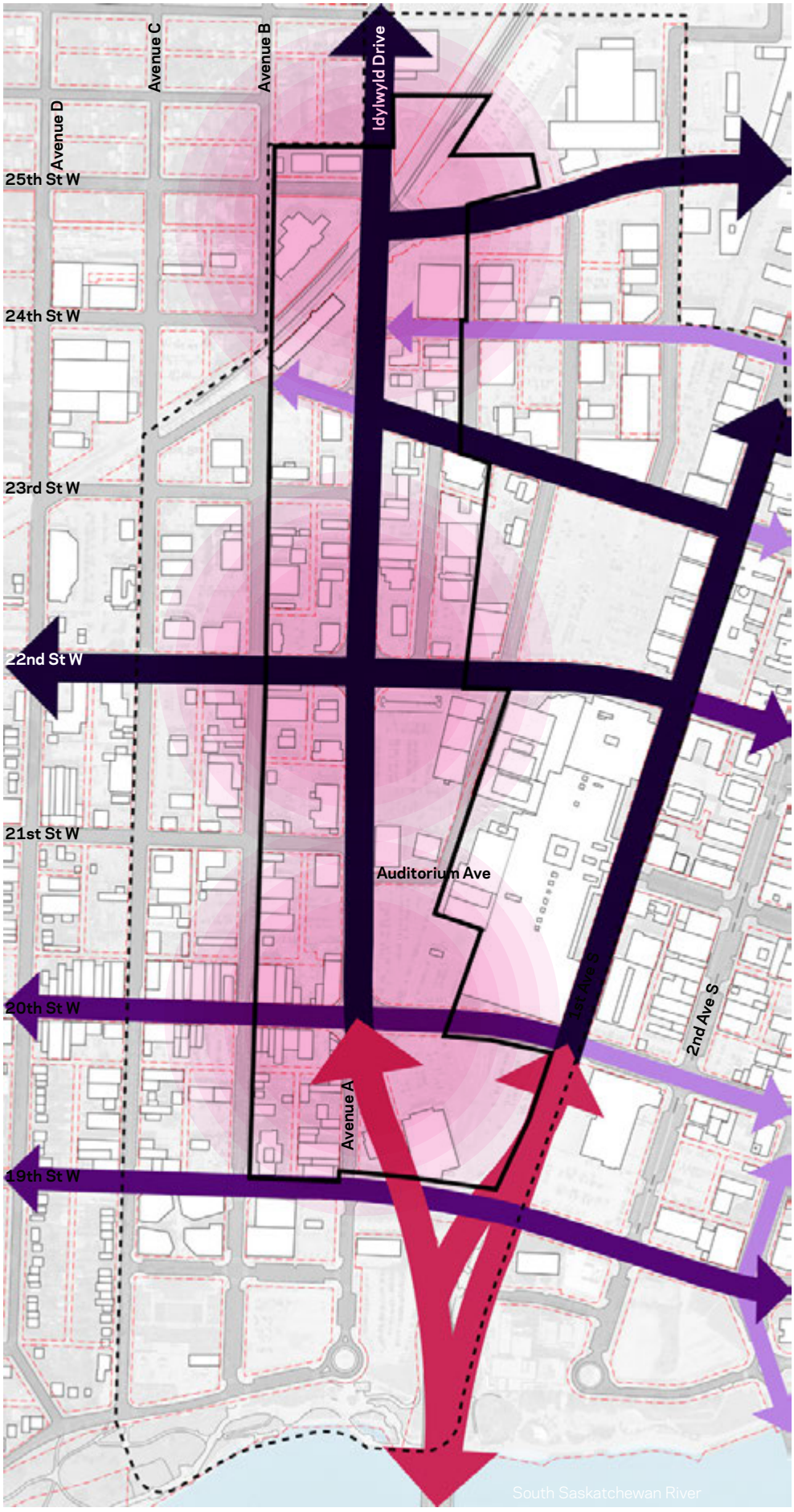
Regularize blocks and lots along the east side of Idylwyld Drive, and on both sides of the corridor north of 22nd Street

Create incentives for infill and/or land assembly for the redevelopment of smaller lots

Use larger, empty lots for catalyst developments at gateway and transit node locations

LEGEND

- Freeway (Controlled Access)
- Major Arterial Road
- Minor Arterial Road
- Collector Road
- Local Road
- Gateway Condition
- Study Area
- Area of Impact



LAND USE + BUILT FORM

STREET HIERARCHY

Idylwyld Drive is a connection point for several different road classes in the city's circulation system.

Major Arterial Roads

Idylwyld Drive has 3 major nodes: 25th Street East is an established gateway into the Warehouse District and City Centre and has undergone recent streetscape improvements to create a safer crossing across the rail corridor and asymmetrical intersection; 22nd Street is a central entryway into the City Centre that is not currently celebrated or designed as an arrival point; Sid Buckwold Bridge at 20th Street provides entry into Riversdale and Downtown.

Minor Arterial Roads

The split between Idylwyld Drive and First Avenue emphasizes the significance of the Toys "R" Us block as a potential site for a signature gateway development with high visibility.

20th Street provides a key connection between Riversdale and the Downtown. Idylwyld Drive divides the user experience between pedestrian-oriented main street to the west, and an auto-oriented road to the east. This intersection experiences high levels of traffic from all modes traveling between these neighbourhoods.

22nd Street's transition from Major to Minor Arterial is not addressed by a change in use or built form, leaving road users with no sense of arrival to the Downtown.

Collector Roads

Jamieson Street, 24th Street East and the local roads create a frequent series of staggered intersections which impacts urban block size and circulation flow.

Local Roads

The transition from busy Idylwyld Drive to quiet Avenue A is jarring and sudden; creating a confusing experience for drivers and a dangerous environment for pedestrians.

OPPORTUNITIES

Create a gateway condition at Idylwyld Drive and 25th Street with buildings addressing and framing the intersection

Create a gateway condition at Idylwyld Drive and 22nd Street with buildings addressing and framing the intersection

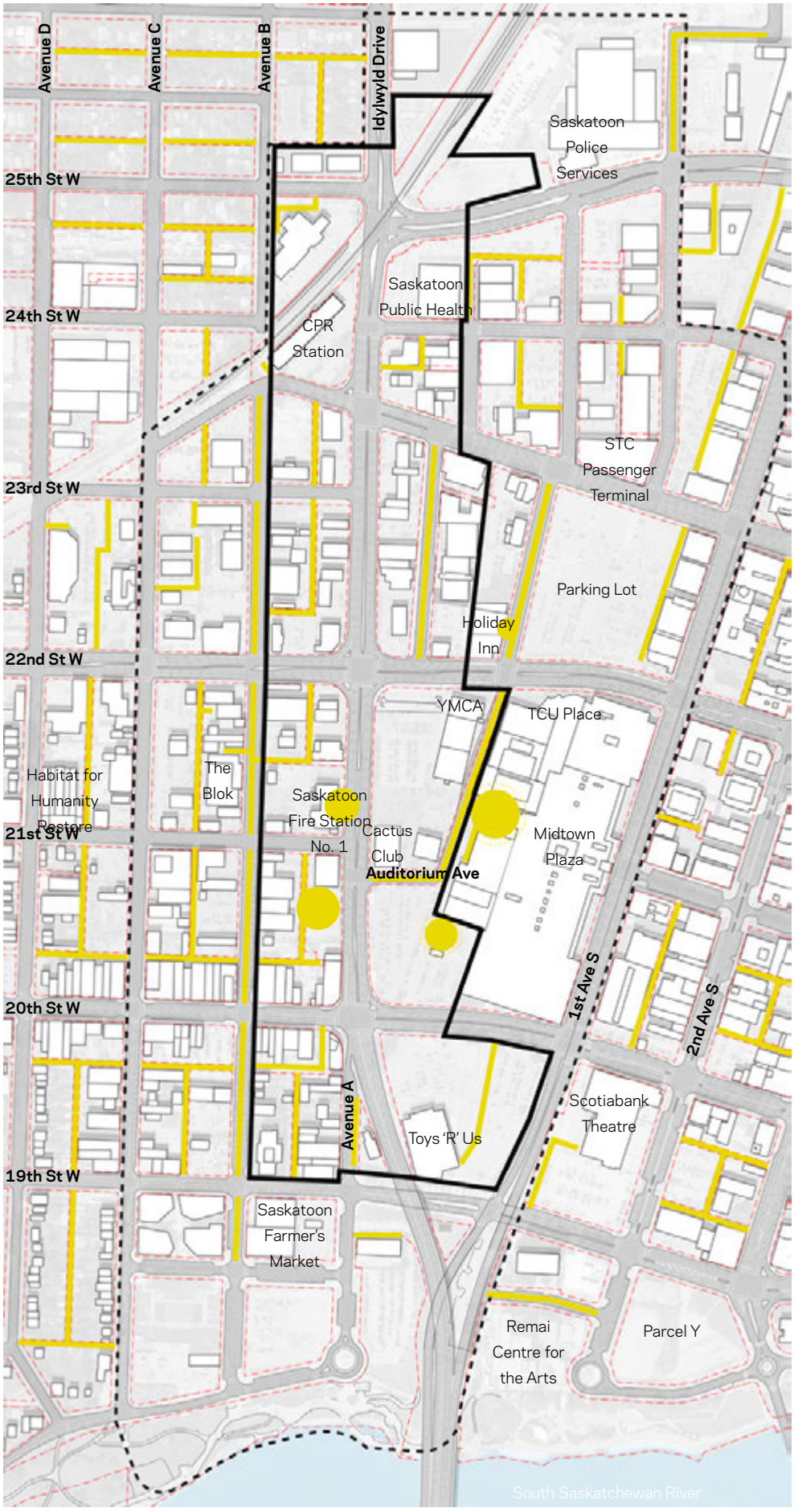
Create a gateway condition at Idylwyld Drive and 20th Street with buildings addressing and framing the intersection, and including a feature installation that clearly denotes the gateway experience

Create appropriate land use and built form transitions where road classes change, such as 23rd Street East and Jamieson Street, and Idylwyld Drive and Avenue A and 1st Avenue

Address intersection frequency north of 22nd Street.

LEGEND

- Service Route
- Loading Area
- Study Area
- Area of Impact



LAND USE + BUILT FORM

SERVICE CIRCULATION

Service routes on the west side of the corridor are generally provided through 6m laneways and mid-block connections behind buildings. These areas are typically accessed from smaller collector and local roads rather than Idylwyld Drive.

Service routes on the east side of the corridor utilize smaller local roads such as Auditorium Avenue and Wall Street, surface parking lots, and one block with a 6m mid-block laneway in the Warehouse District.

This network of laneways and mid-block connections will be a key opportunity in the redevelopment of Idylwyld Drive into a walkable corridor, allowing the team to minimize the number of vehicular access points and driveways along Idylwyld Drive.

Potential areas of concern or conflict are the Fire Station, and maintaining access to the loading and servicing areas for Midtown Plaza and TCU Place.

Saskatoon Fire Department has indicated that the Fire Station #1 is due for redevelopment and/or potential relocation.

OPPORTUNITIES

As redevelopment occurs, look to reduce the number of driveways and other vehicular access points along Idylwyld Drive to create a more walkable streetscape environment that buffers pedestrians from vehicles

Improve connectivity and walkability between neighbourhoods by utilizing mid-block connections and laneways

Design new mid-block connections and laneways in the redevelopment of larger blocks on the east side of Idylwyld Drive to build on the existing service route network

Reduce interruptions to pedestrian and vehicular movement by improving, redeveloping, or relocating Fire Station #1

Create a servicing and emergency access plan that utilizes mid-block connections.

LEGEND

- Local Transit
- Bus Stop
- Future BRT Line
- Potential Future BRT Stop
- Transit-Supportive Design, and Transit-Oriented Development Opportunities
- Study Area
- Area of Impact

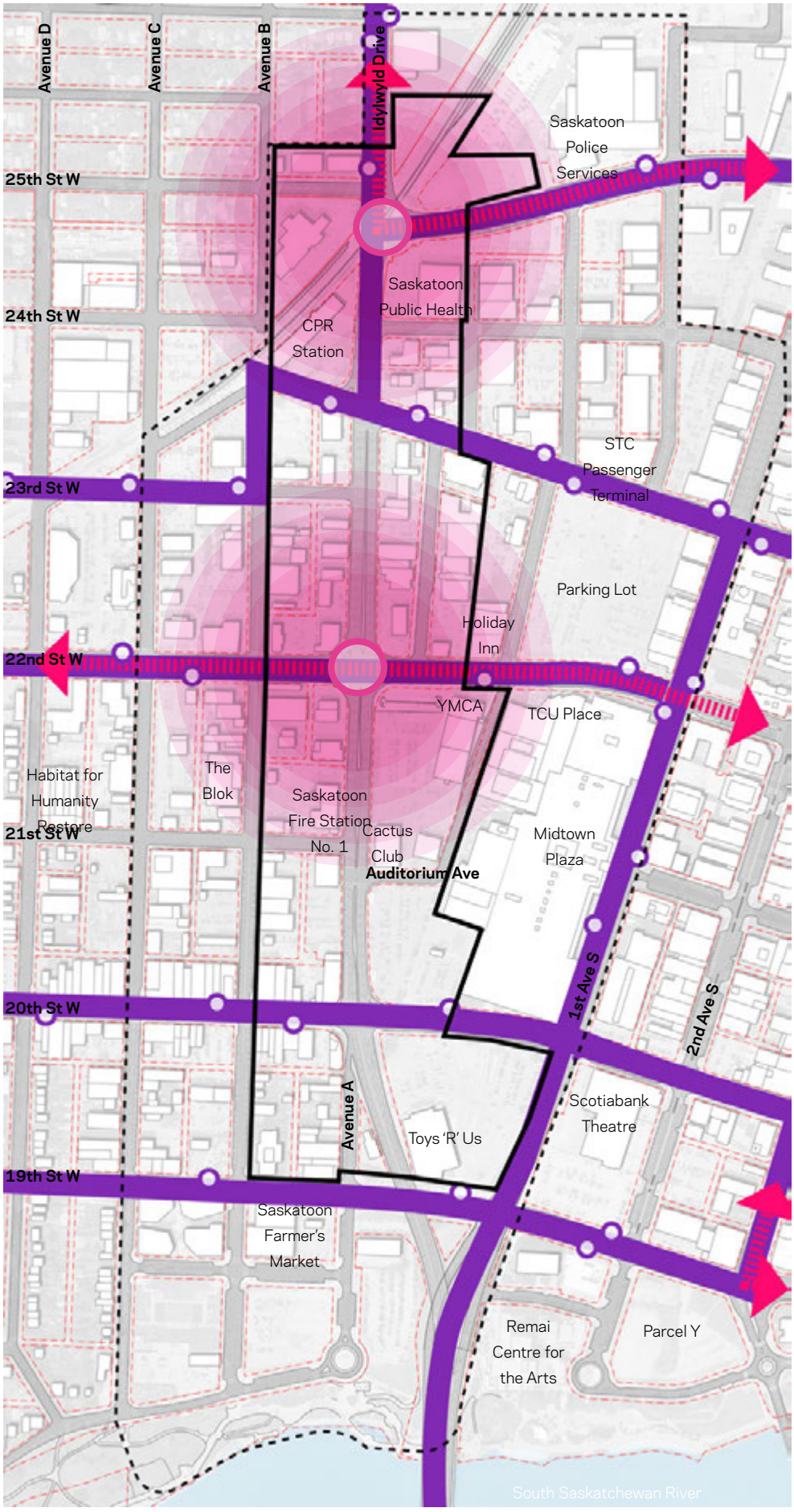


Figure 5.8: Existing Idylwyld Bus Stop at Jamieson Street

LAND USE + BUILT FORM

PUBLIC TRANSIT

Existing System and Planned Transit Improvements

Streets and Avenues within the study area are predominantly auto-oriented, creating a challenging environment for public transit services and transit users.

Planned Red Line and Blue Line Bus Rapid Transit (BRT) stops within the *Imagine Idylwyld* study area will require new land use and zoning strategies surrounding existing stops at 20th Street and 23rd Street intersections and proposed stops at 22nd Street and 25th Street intersections, as well as improved design standards for streetscapes and transit infrastructure.

Land Use + Built Form

With low-density single-use land uses and buildings that are setback behind large surface parking lots, the existing land use framework and built form will not adequately support higher order public transit.

Proposed BRT stop locations should be supported by urban built form and mixed-use gateway conditions at 25th Street and 22nd Street. Creating transit-supportive land uses and built form at these intersections will emphasize them as vibrant and attractive arrival points into Saskatoon's City Centre. Opportunities on vacant adjacent lots to begin framing these intersections with transit supportive uses and buildings will be explored.

Public Realm + Urban Design

Design of existing transit stops within the study area currently only provide a small sign to indicate their location along a narrow sidewalk and offers no buffer between the roadway. There are no furnishings, seating or shelters and inadequate signage and wayfinding.

Street and intersection designs at possible 'transit gateways' should create improved access to transit facilities such as shelters and furnishings, clear signage and wayfinding, and cycling infrastructure.

OPPORTUNITIES

Create transit-supportive land use and urban design strategies at Idylwyld Drive and 25th Street

Create transit-supportive land use and urban design strategies at Idylwyld Drive and 22nd Street

Intensify the corridor with mixed-use buildings, targeting higher densities at transit stops

Create new open spaces in close proximity to transit facilities

Optimize building layout and orientation for transit access

Consider parking design and management strategies that support the transit network

Enhance access to transit through best practice planning and design of transit facilities and infrastructure in streetscapes and intersections

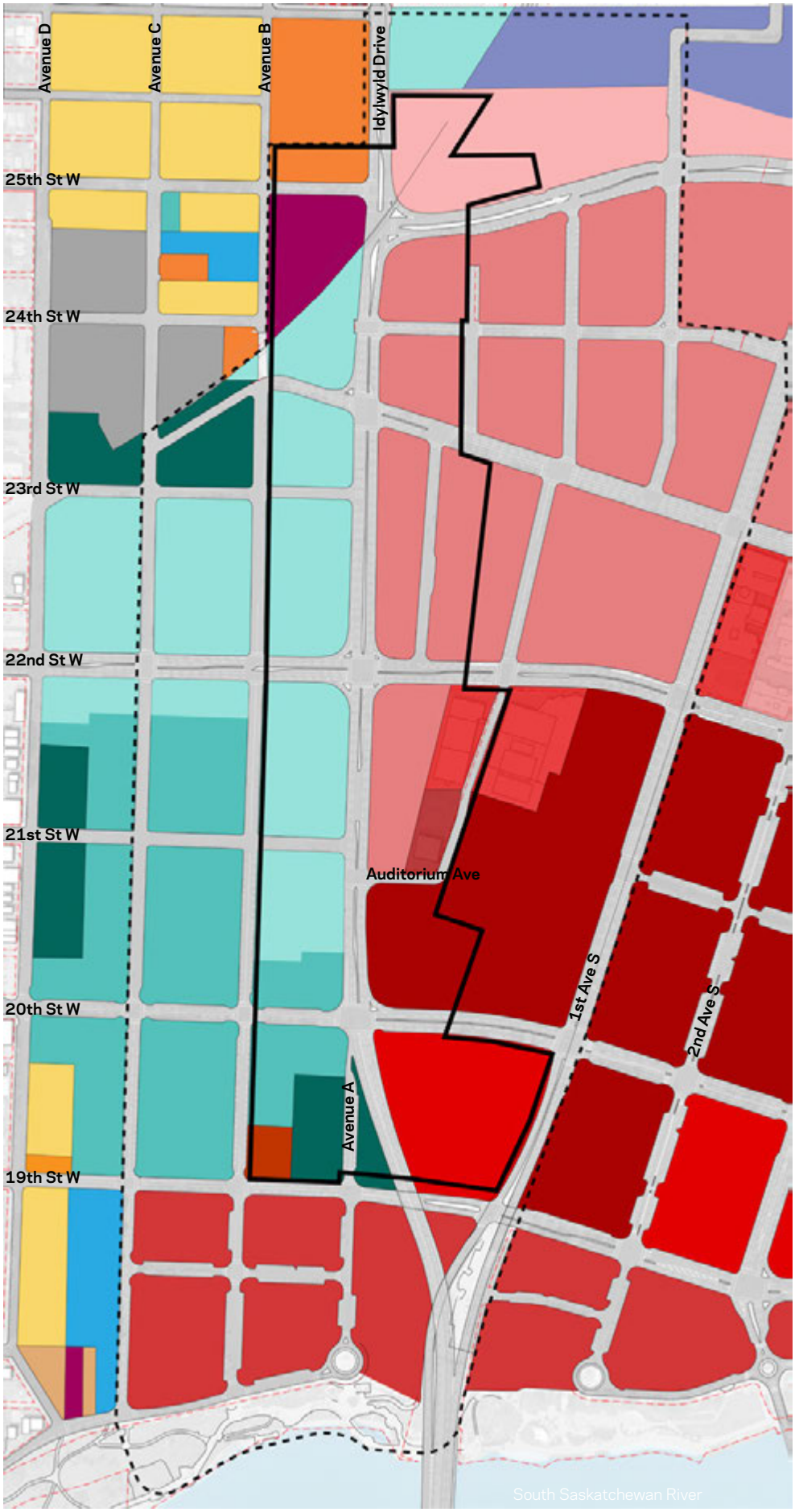
Create signage and wayfinding guidelines

Design for universal access with appropriate street furnishings and wayfinding near transit stops

Integrate appropriate cycling infrastructure

LEGEND

- Retail Core Area
- Mixed Use Commercial
- South Downtown Direct Control Area
- Warehouse/Service Area
- Downtown (As per City-Wide Land Use Map)
- Arterial Commercial
- Special Area Commercial
- Mixed Use
- High Density Residential
- Medium Density Residential
- Low/Medium Density Residential
- Low Density Residential
- Office Institutional
- Public Utility
- Transitional Use
- Light Industrial
- Study Area
- Area of Impact



LAND USE + BUILT FORM

OFFICE COMMUNITY PLAN LAND USES

The *Imagine Idylwyld* study area is predominantly commercial in use and character. Existing land use policies in the OCP appear to reinforce the perception of Idylwyld Drive as a dividing line between east and west; presenting clear distinction between uses on either side. The Downtown land use has 5 different sub-categories edging along the east side of Idylwyld Drive, while the west side is defined by commercial uses for arterial roads and special commercial areas.

Land use recommendations from Local Area Plans for surrounding neighbourhoods and districts have been adopted by council and incorporated into the OCP over time. LAP solutions are naturally inwardly-focused, and have therefore not addressed Idylwyld Drive comprehensively. This appears to have resulted in some fragmentation of Downtown and Commercial land uses along the corridor. The Warehouse District LAP and 25th Street extension redefined much of the Downtown Land Use district. This has resulted in an unclear land use policy area boundary for the lands north of 25th Street East, designated "Downtown" in Figure 5.9. The lands are defined as Downtown in the OCP City-Wide Land Use Plan, but are not considered in the more detailed Downtown Land Use Map. Riversdale implemented a wide-ranging Special Area Commercial designation that buffers the neighbourhood from 22nd Street and Idylwyld Drive. This land use framework creates a development vacuum along much of the Idylwyld Drive corridor by pushing the newer, more vibrant and pedestrian-oriented developments deeper into the surrounding neighbourhoods and away from Idylwyld Drive.

Two successful land use areas may provide an example for *Imagine Idylwyld* to build upon. Although small and isolated, the mixed use block along Avenue A has created a vibrant urban environment. The City's recent implementation of Direct Control Districts also provides an example of how to bridge across Idylwyld Drive with a more contiguous land use strategy.

Detailed definitions and requirements may be found in the OCP.

OPPORTUNITIES

Create a comprehensive and unified land use strategy that ensures a consistent character and identity for the corridor

Create higher levels of density and activity at nodes and gateways

Ensure that the land use strategy addresses affordability and accessibility for commercial and residential areas

Create an interesting and walkable pedestrian environment with active uses at grade

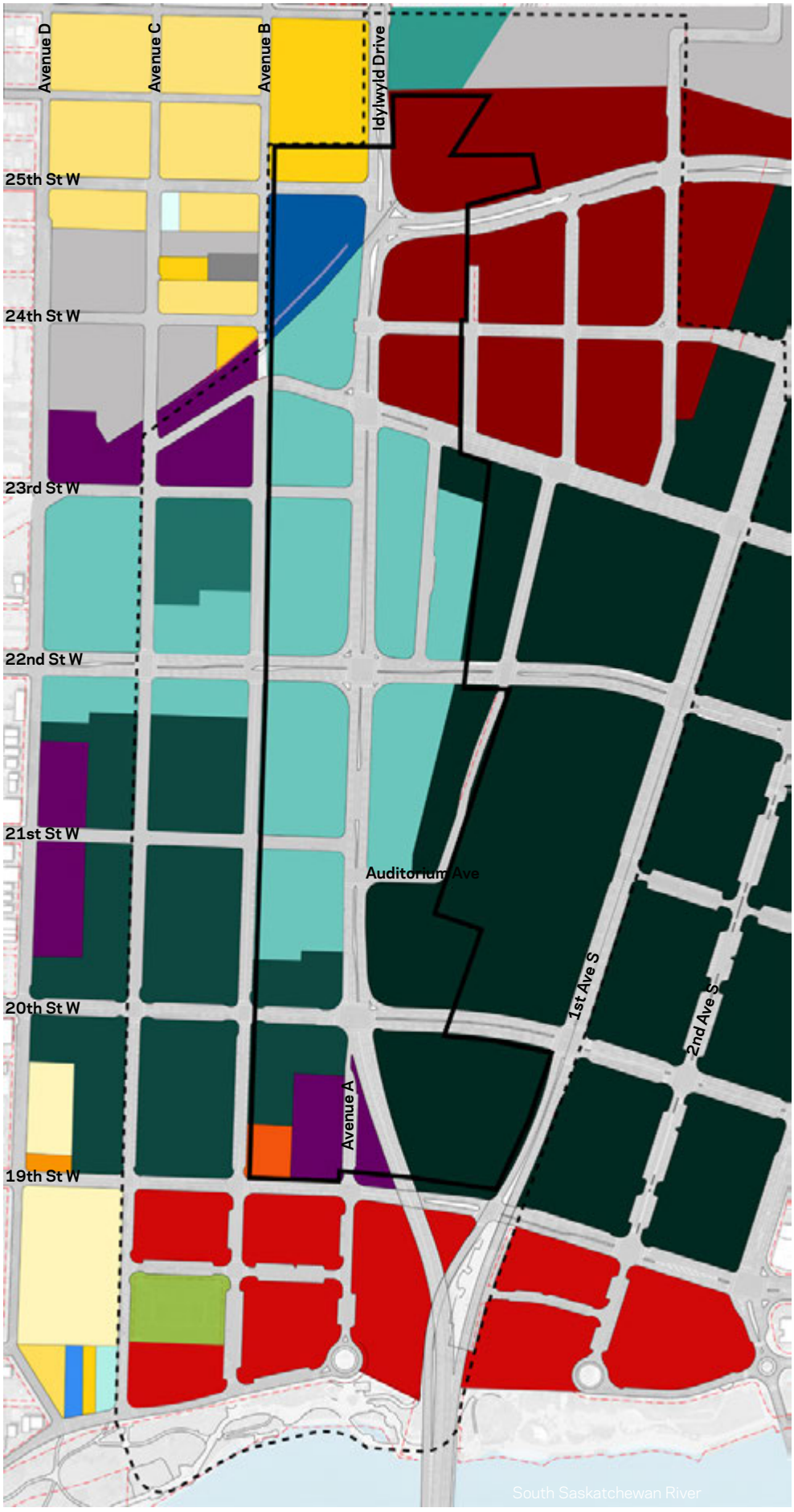
Transition land uses between contextual commercial and residential uses in Riversdale, Caswell Hill, Downtown and Central Industrial

Integrate with City efforts to update the OCP to address the inconsistent land use policy area north of 25th Street East

Address potential changes to each of these land use designations through an Official Community Plan Amendment

LEGEND

- B1 - Neighbourhood Commercial District
- B2 - District Commercial District
- B3 - Medium Density Arterial Commercial District
- B4 - Arterial and Suburban Commercial District
- B5 - Inner-City Commercial Corridor District
- B5C - Riversdale Commercial District
- B6 - Downtown Commercial District
- IL1 - General Light Industrial District
- IH - Heavy Industrial District
- M1 - Local Institutional Service District
- M4 - Core Area Institutional Service District
- MX1 - Mixed Use District 1
- R2 - One and Two Unit Residential District
- R2A - Low Density Residential Infill District
- RM3 - Medium Density Multiple Unit Dwelling District
- RM4 - Medium/High Density Multiple Unit Dwelling District
- RM5 - High Density Multiple Unit Dwelling District
- DCD1 (AC) - Direct Control District 1 (Architectural Control)
- RA1 - Reinvestment District



LAND USE + BUILT FORM

ZONING

Zoning along Idylwyld Drive closely follows the land use patterns described in the previous section. There are 7 zoning categories within the study area, with 19 zoning categories found in the area of impact and surrounding area.

The majority of the corridor is zoned as B3 - Medium Density Arterial Commercial District. However, rather than creating a consistent corridor character and identity, this zoning's wide range of allowable uses, healthy parking provisions, and a lack of stringent design guidelines or development controls has created a built condition with widely varied setbacks, inconsistent building materials and styles, and varying building orientations, frontages, and accesses.

A number of flexible zoning categories are also found in the study area which have limited development controls in an effort to stimulate reinvestment in each of these districts.

These include:

- RA1 - Reinvestment District 1, in the Warehouse District
- MX1 - Mixed Use District 1, along Avenue A; and
- B5C - Riversdale Commercial District, covering the majority of the Riversdale neighbourhood.

Within the area of influence, Direct Control Districts provide a potential model for zoning language throughout the *Imagine Idylwyld* corridor, or potentially for larger or landmark development parcels. These designations provide a much more rigorous set of development controls and standards for built form and massing, landscaping, parking and approvals which clearly communicate the vision of the lands and the expectations of developers.

OPPORTUNITIES

Create a comprehensive and unified zoning strategy that ensures a consistent built form character and identity for the corridor

Create development controls or design guidelines for the corridor to ensure consistent building design standards

Create higher levels of density and activity at nodes and gateways

Ensure that the land use strategy addresses affordability and accessibility for commercial and residential areas

Create an interesting and walkable pedestrian environment with active uses at grade

Transition zoning between commercial and residential uses in Riversdale, Caswell Hill, Downtown and Central Industrial

Address potential changes to each of these zoning designations either through zoning overlays, or re-zoning through a Zoning Bylaw Amendment.

LEGEND

- 3-4m
- 5-6m
- 7m
- 9m
- 12m
- 15m
- 18m
- 21m
- 48m
- Study Area
- Area of Impact

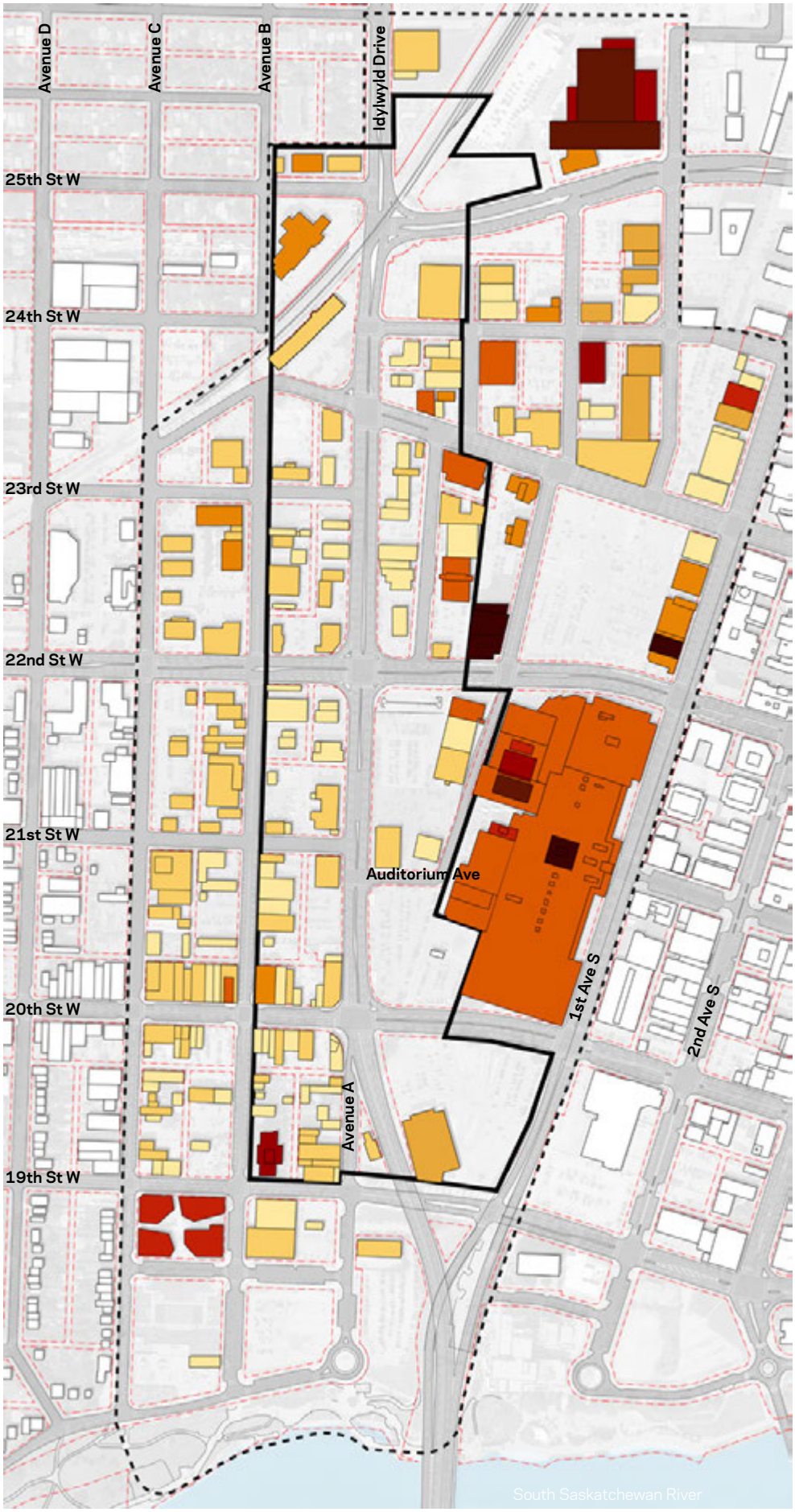


Figure 5.12: Existing Transition of Building Heights

LAND USE + BUILT FORM

BUILDING HEIGHTS

The Idylwyld Drive corridor is defined by its auto-oriented site design which includes low-rise, modestly scaled buildings. The adjacent diagram illustrates that the corridor is largely made up of 1-2 storey buildings with no building higher than 7 m directly along the corridor.

Taller buildings in the eastern half of the area of influence include the Tower at Midtown (11 storeys) the Holiday Inn Downtown Saskatoon (10 storeys) the Rumley Building (6 storeys) and the Police Service Building (4 storeys).

Building heights in the western side of the area of influence are generally low-rise residential or commercial buildings of 1-2 storeys. Old and new mid-rise apartment buildings of 4-6 storeys are located just north of River Landing.

It is suggested that buildings along Idylwyld Drive corridor be designed to not exceed 8 storeys at transit nodes and gateways and 4 storeys through the remainder of the corridor to balance development opportunities and maintain steady demand for development.

OPPORTUNITIES

Create a gradual transition between taller buildings in the City Centre and lower-rise neighbourhood development to the west

Create a transit-supportive density and massing strategy targeting greater densities around rapid transit facilities

Design massing to be human scale, with taller elements incorporating best practices to minimize shadow impacts and wind tunnels in the public realm

Use building massing and design to create a consistent street wall along Idylwyld Drive

Use building massing and design - heights, stepbacks, and forms - to frame intersections and create a sense of arrival at gateways and nodes

LEGEND

1 Designated Heritage Property

1 Holding Bylaw Property

Study Area

Area of Impact

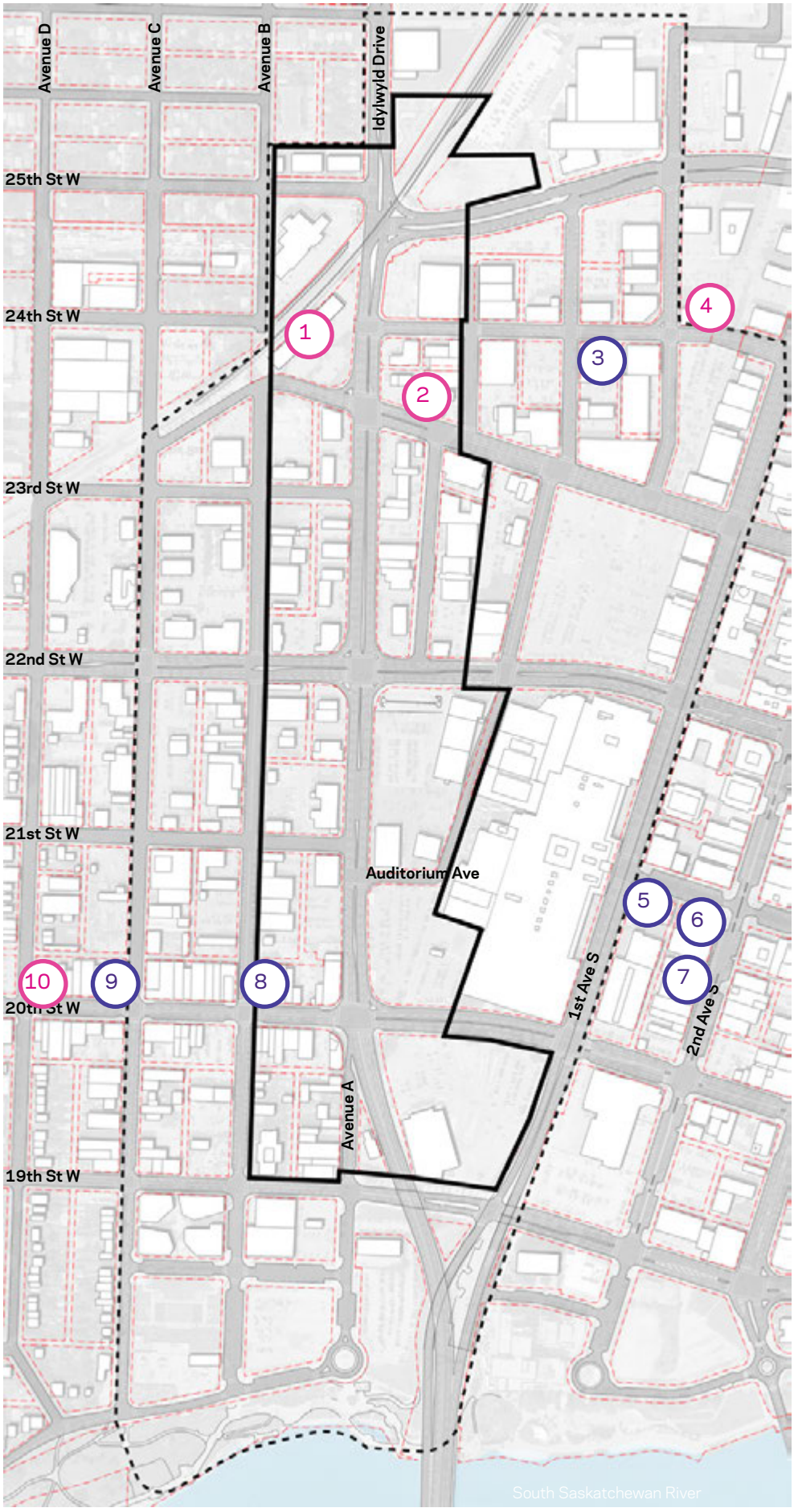


Figure 5.14: Fairbanks-Morse Warehouse and CPR Station

LAND USE + BUILT FORM

HERITAGE ELEMENTS

There are two heritage buildings within the study area, and one holding bylaw property. An additional 2 heritage properties and 4 holding bylaw properties are located in the surrounding area that require consideration through *Imagine Idylwyld*.

No.	Building Name
1	CPR Station
2	Fairbanks Morse Warehouse
3	Rumely Warehouse
4	Arthur Cook Building
5	Canada Building
6	MacMillan Building
7	Royal Bank
8	Adilman's Department Store
9	Roxy Theatre
10	Little Chief Service Station

OPPORTUNITIES

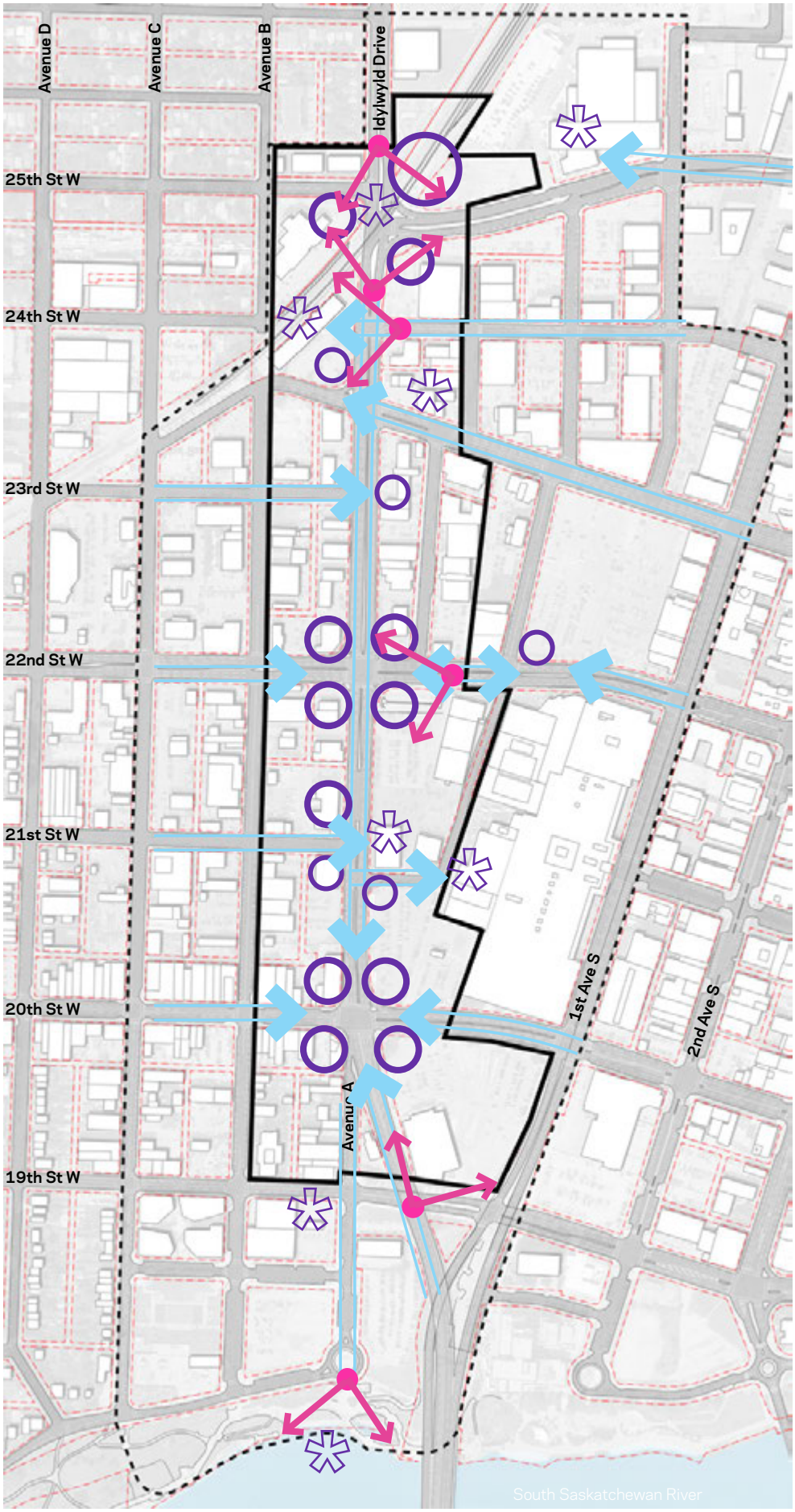
Improve signage and wayfinding to heritage buildings

Improve connectivity between heritage elements

Create or preserve view corridors and viewsheds to heritage buildings

LEGEND

- Landmark Element
- Potential Future Landmark Location
- Vista
- Panoramic View
- Study Area
- Area of Impact



LAND USE + BUILT FORM

VIEWS AND VISTAS

There are limited panoramic views or vistas within the study area to incorporate into design solutions. Vistas are long, linear views through an opening or between buildings. Panoramic views are unbroken views of a wider area.

Generally, vistas are framed by the streets, following Saskatoon's urban grid. Vistas from Idylwyld Drive into Downtown Saskatoon are impeded by the change in the angle of the street grid at 1st Avenue. The only exception to this is along 23rd Street East.

There are opportunities to use the vistas along streets to create a sense of arrival at designated gateways by terminating views with either existing or future landmark developments and/or open spaces.

The CPR station is an ideal existing landmark for view termini. The streetscape and urban design of the corridor should maintain or improve on views to these elements to help establish a sense of place and arrival.

To the south, newer developments with signature massing and design may be needed to begin establishing well-framed gateways.

Prior to the construction of the Idylwyld Bridge, Avenue A would have created a strong view corridor to the Saskatchewan River and River Landing. While this view is now partially obstructed by the landing of Sid Buckwold Bridge, it will be important to create connections to the River through the design of the corridor.

OPPORTUNITIES

Create or enhance views and vistas to heritage buildings and landmarks

Create a strong visual connection to South Saskatchewan River and River Landing

Capitalize on street corridors and use landmark developments and/or open spaces to terminate views and enhance gateway conditions

LEGEND

- On-Street Parking
- Publicly Accessible Garage
- Surface Parking
- Study Area
- Area of Impact

LAND USE + BUILT FORM

PARKING

Throughout the study area and the broader area of influence, there is an abundant supply of parking for the short term with approximately 6,247 parking spaces. This supply comes in 3 forms: on-street parking, surface parking lots, and structured or underground parking garages which are indicated in Figure 5.16.

Over the long-term, the City's recent Parking Strategy for City Centre outlines that the expected development opportunities in Midtown, the Warehouse District, and Riversdale, will require between 835 - 874 new parking spaces in the area. The report recommends that these parking spaces be incorporated into the design of new developments in the form of structured or underground parking garages, allowing infill development and intensification to occur on existing surface parking lots.

OPPORTUNITIES

Provide no on-street parking along Idylwyld Drive to maintain good traffic flow

Utilize off-street parking lots and adjacent streets with on-street parking

Develop on existing surface parking lots, and if able, on top of underground or structured lots

Meet parking demand through structured or underground parking facilities which are integrated with new development

BUILT FORM

BLOCK 1

Block 1 is located in the study area between 19th Street and 20th Street on the west side of Avenue A and is generally characterized as mixed-use block, with commercial and retail uses as well as residential.

Setbacks

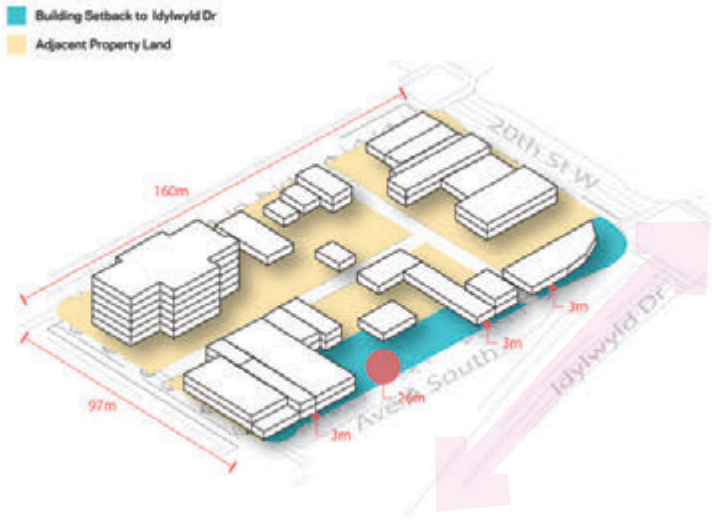
Setbacks are pedestrian friendly at the northeast and south east corners and generally creates strong urban edges on its east and north sides.

Massing

Massing of the block is fairly consistent between 1-2 storeys. A 6 storey residential apartment building is located in the southwest corner lot.

Frontage and Access

The block has significant frontage that is attractive and lively, with good levels of pedestrian access from the street. Frontages have a multitude and variety of uses. Vehicular access to the mid-block laneway system can be found just south of Idylwyld on Avenue A, and on 20th Street (pictured). The block provides some private surface parking between The Banks and Garden Architecture & Design.



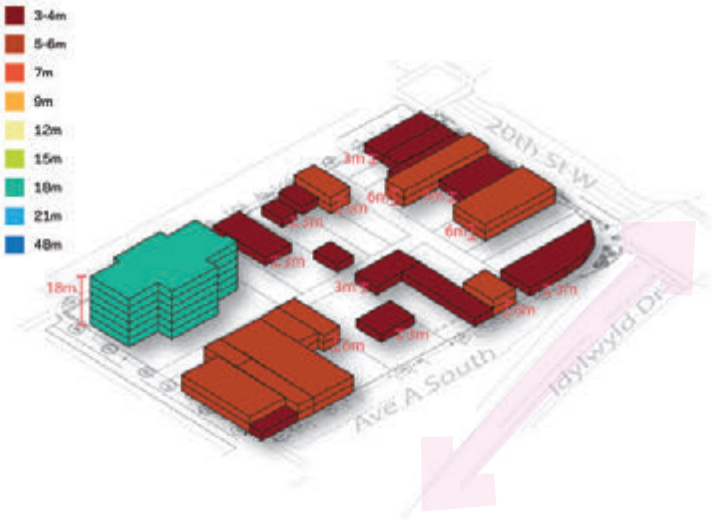
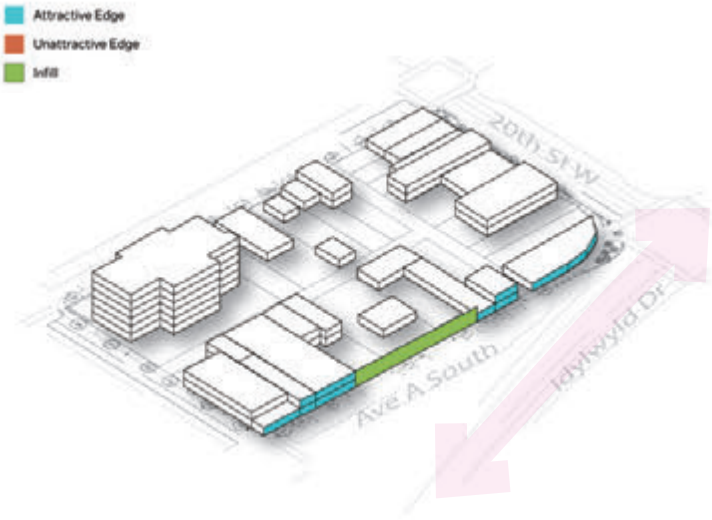


Figure 5.21: Block 1 Building Heights and Massing



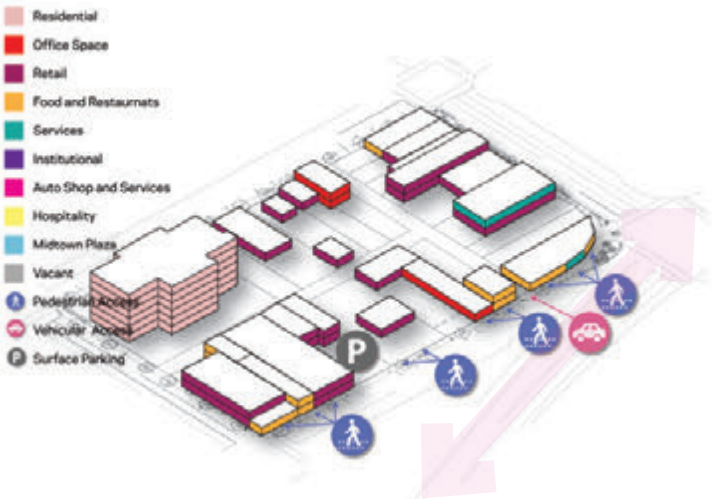


Figure 5.23: Block 1 Frontage and Access Types

OPPORTUNITIES

Identify location along 20th Street for a gateway landmark with a feature installation

Establish a gateway condition at 20th Street through streetscape design or potential intensification on the north-east corner lot

Review access to Avenue A. Explore creating a greenway condition that extends the character and connects the River and River Landing to the City Centre

Figure 5.24: Block 2 Conditions Along Idylwyld Drive

Figure 5.25: Block 2 Conditions Along 20th Street East

BUILT FORM

BLOCK 2

Block 2 is located in the study area between 19th Street East and 20th Street East on the east side of Idylwyld Drive, abutting the landing of Sid Buckwold Bridge. The block is characterized as an auto-oriented big box retail development, with a Toys "R" Us on top of an underground parking garage that is connected to Midtown Plaza.

Setbacks

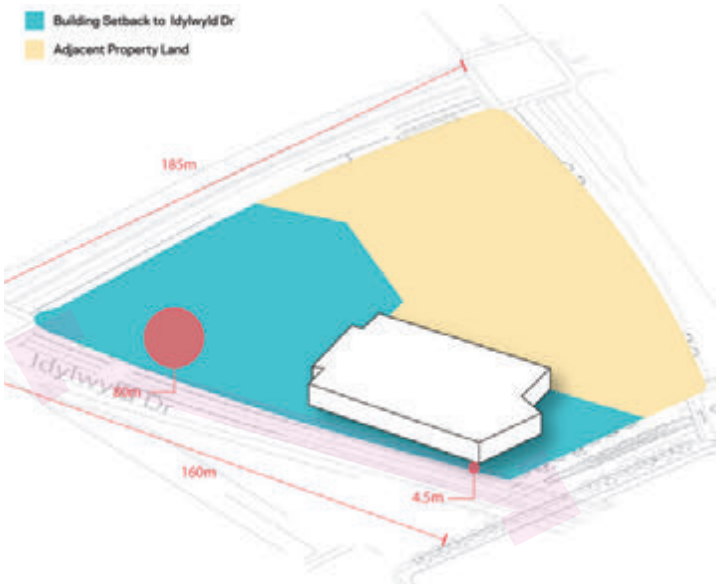
The building is well setback from 20th Street, which it fronts, and is positioned to have high visibility from Idylwyld Drive.

Massing

Massing on the block is low density with a single storey big-box building on a large lot which is mostly dedicated to parking.

Frontage and Access

There is currently limited pedestrian access to the block. Vehicles access is from 20th Street and parking is available on the surface or underground. Frontage of the building is a single unattractive edge along Idylwyld Drive. With its size and location at the gateway to the study area, Downtown and Riversdale, the block is an ideal site for future redevelopment.



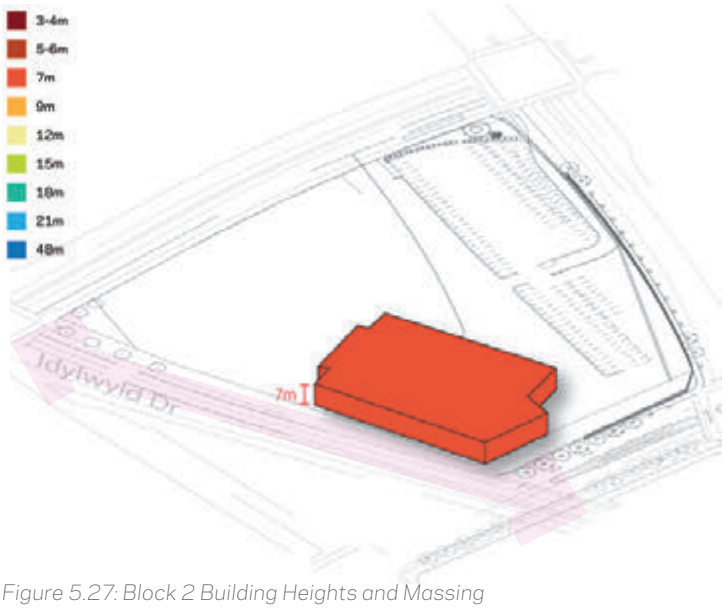
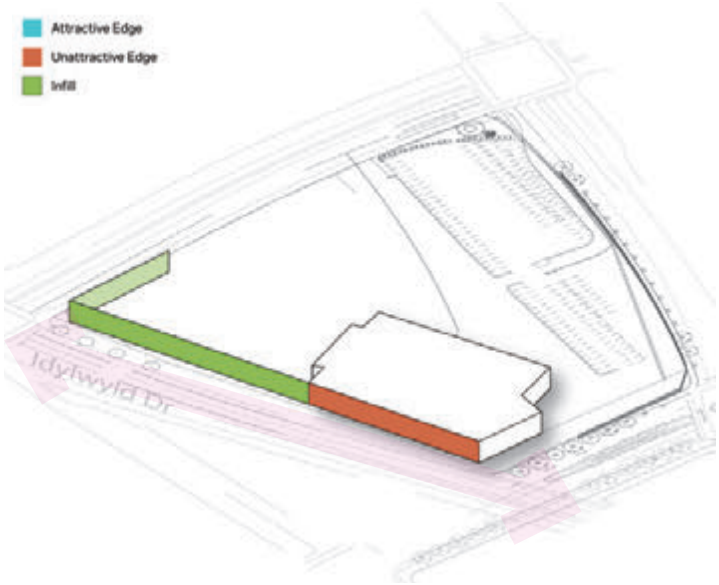


Figure 5.27: Block 2 Building Heights and Massing



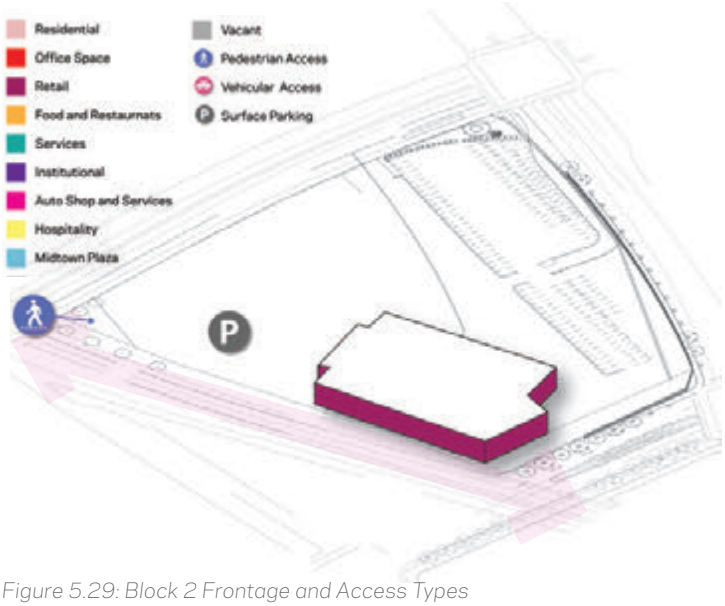


Figure 5.29: Block 2 Frontage and Access Types

OPPORTUNITIES

Establish a gateway condition into the study area at 20th Street which facilitates connection between Downtown and Riversdale

Create a landmark development on this block that creates frontage at the intersection of Idylwyld Drive and 20th Street

Figure 5.30: Block 3 Conditions Along Idylwyld Drive

Figure 5.31: Block 3 Conditions Along Idylwyld Drive

BUILT FORM

BLOCK 3

Block 3 is characterized as a commercial block with a large centrally located surface parking lot. Retail uses front 20th Street, and buildings addressed to Avenue B have oriented their main access to 'front' the rear lane.

Setbacks

Setbacks change drastically along Idylwyld Drive. A 0m setback at the corner of Idylwyld Drive and 20th Street creates confined walkway conditions which then suddenly open to the large setback condition of the parking lot.

Massing

Massing on the block is generally low-scale, between 1-3 storeys.

Frontage and Access

Frontage along Idylwyld Drive is mostly unattractive with blank walls and some infill opportunity at the parking lot. Buildings on the southeast and northeast corners provide some pedestrian street access but have limited windows and openings.

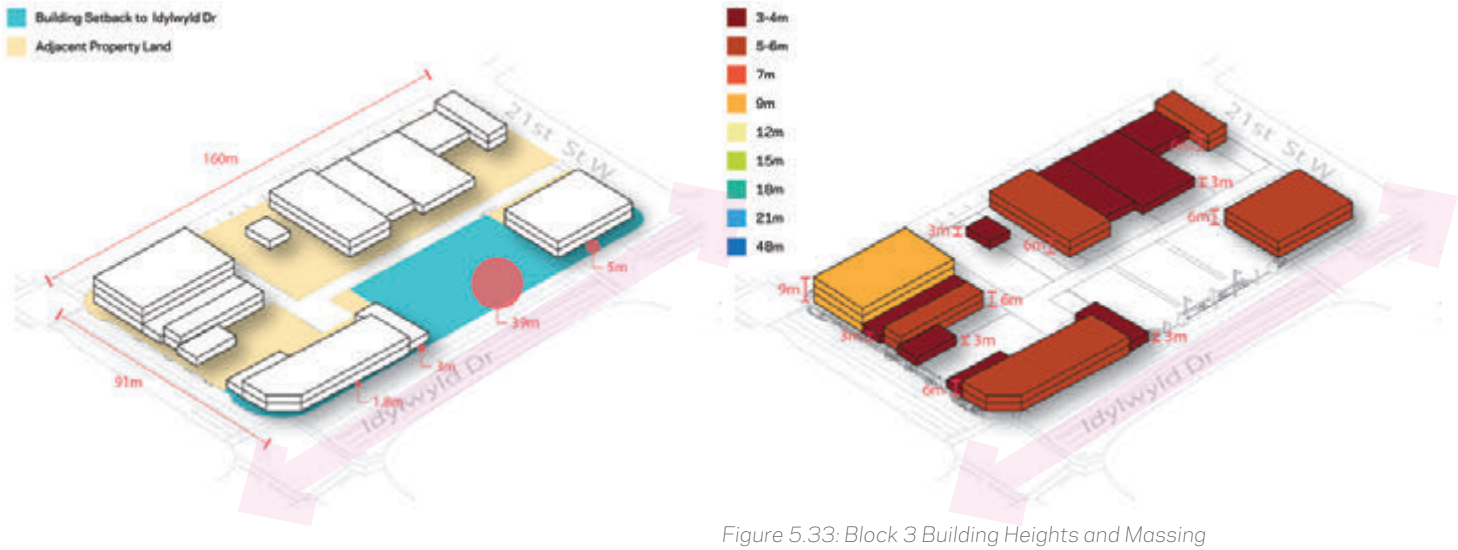


Figure 5.33: Block 3 Building Heights and Massing

Figure 5.35: Block 3 Frontage and Access Types

OPPORTUNITIES

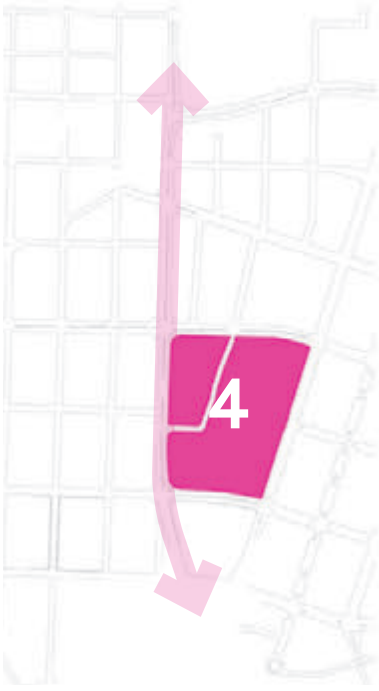
Improve intersection frontages and conditions

Replace the parking with a pocket park or square fronted by retail, or new infill development

Create consistent setback conditions along Idylwyld Drive

Figure 5.36: Block 4 Conditions Along Idylwyld Drive

Figure 5.37: Block 3 Conditions Along Idylwyld Drive



BUILT FORM

Block 4

Block 4 is characterized by Midtown Plaza. This block is home to a range of uses and services including Midtown Plaza shopping and offices, TCU Place, a municipal parking lot, and the YMCA. Larger big box stores and restaurants are beginning to front directly on to Idylwyld Drive, such as the Cactus Club Cafe.

Setbacks

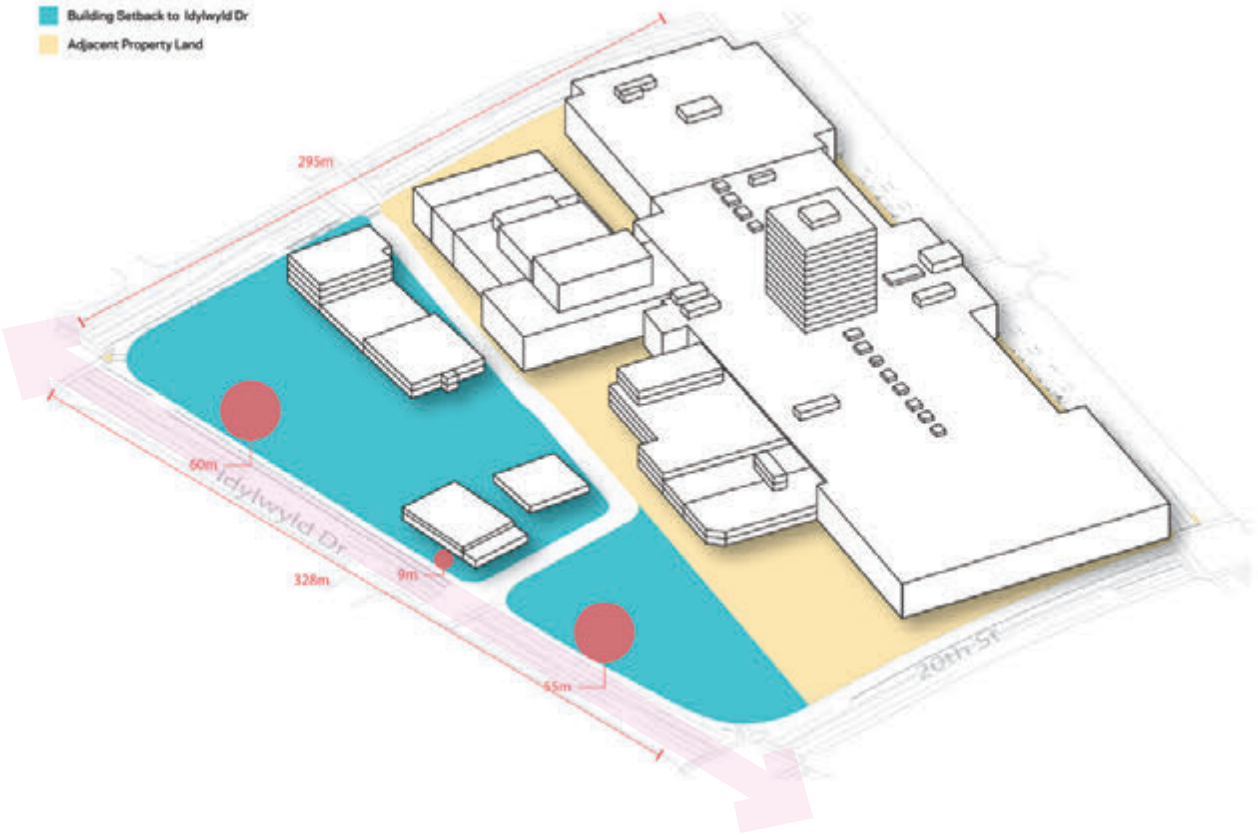
Midtown Plaza's back of house and surface parking lot front on to Idylwyld Drive. The Cactus Club Cafe creates a comfortable and well landscaped setback condition that could set precedent for the remainder of the block.

Massing

Massing on the block is built on top of an underground parking garage. Building heights vary considerably from the Tower at Midtown, to single storey retail buildings along Idylwyld Drive and Auditorium Avenue.

Frontage and Access

Limited pedestrian access from Idylwyld Drive exists as Auditorium Avenue is primarily oriented towards automobiles. Service vehicles and loading for Midtown Plaza are located off of Auditorium Avenue. Except Cactus, existing frontage is unattractive or infill opportunity.



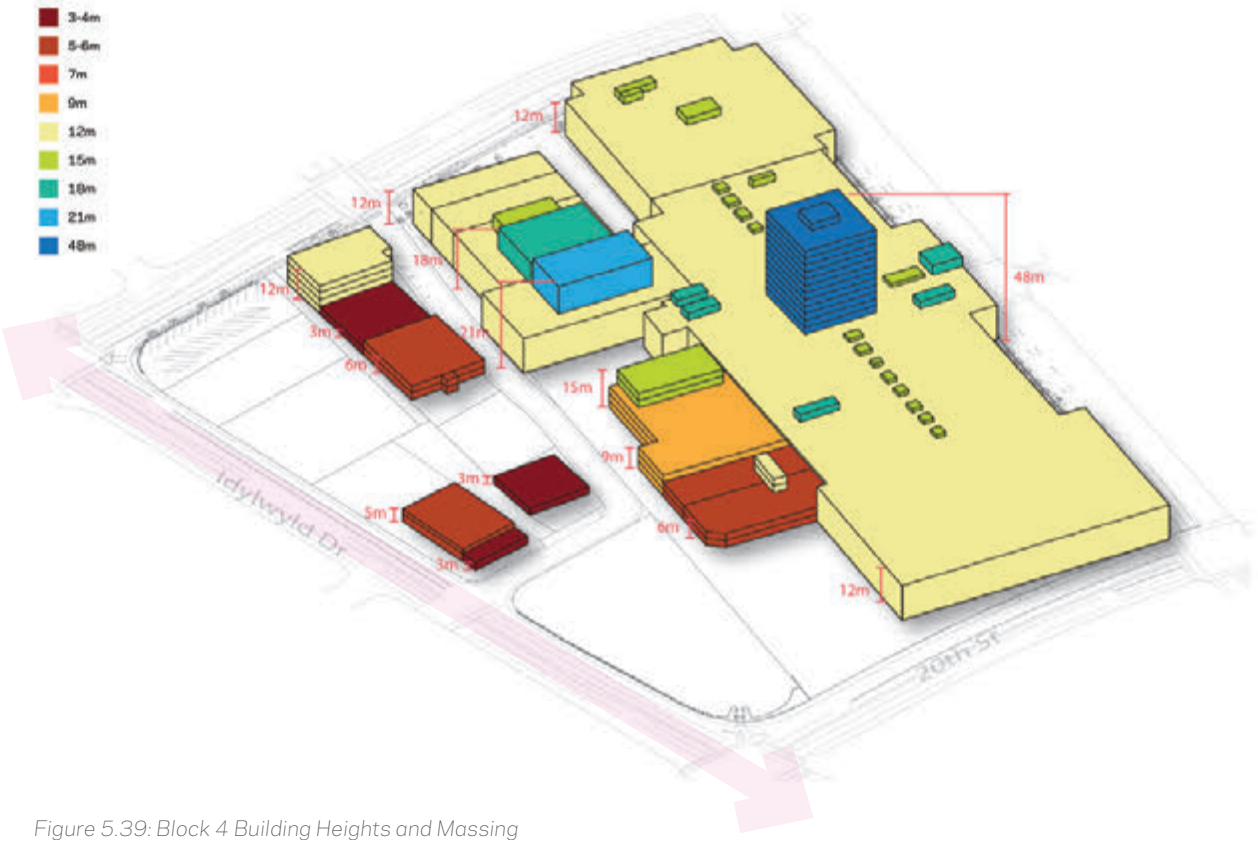
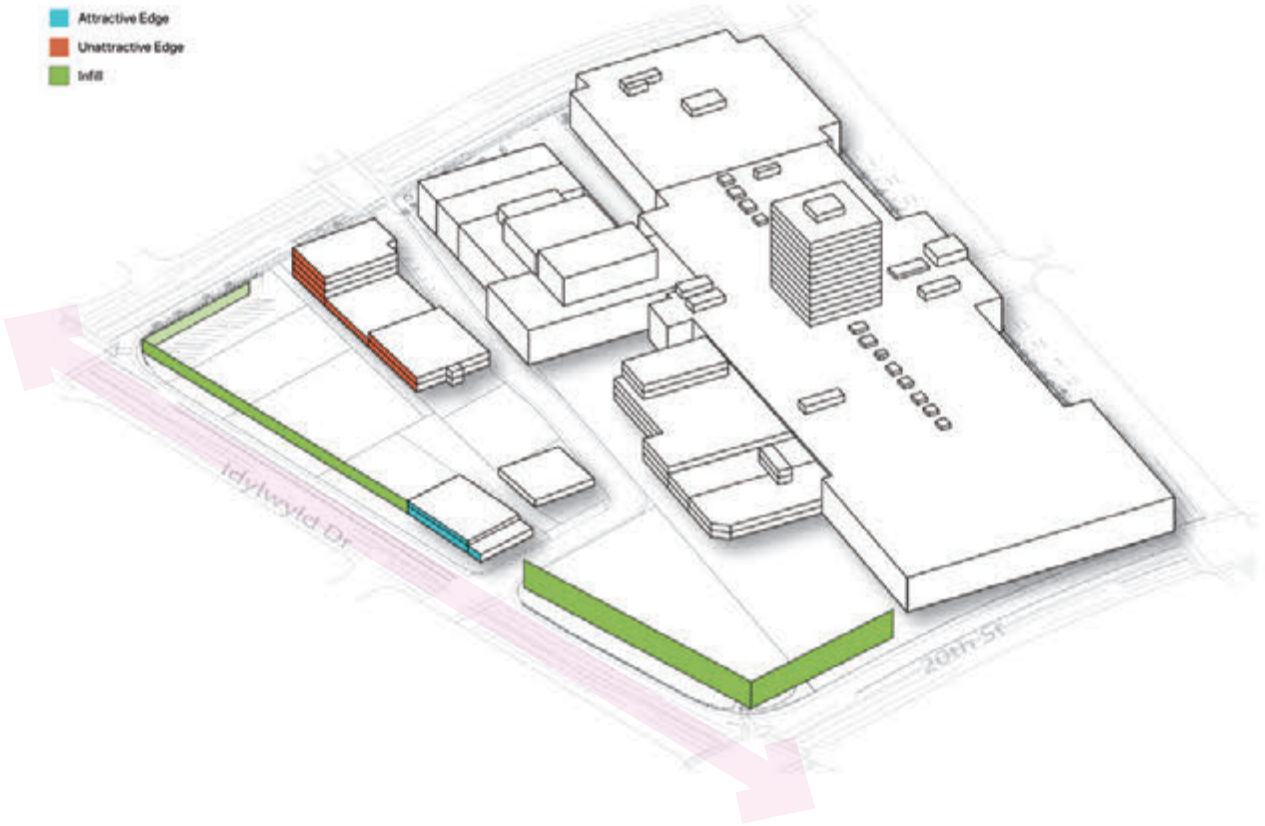


Figure 5.39: Block 4 Building Heights and Massing



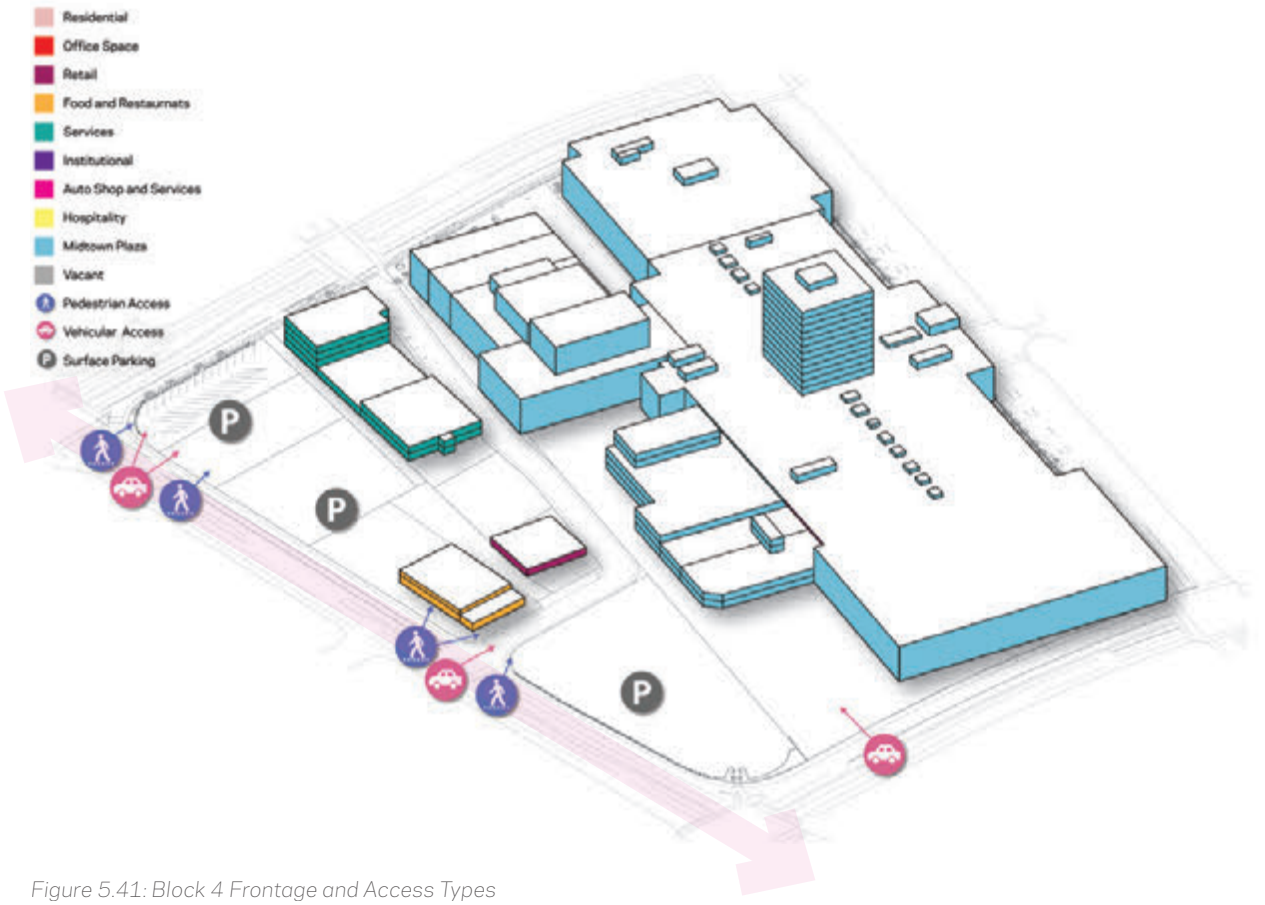


Figure 5.41: Block 4 Frontage and Access Types

OPPORTUNITIES

Create a significant mixed use infill development with structured parking on existing surface parking lots to create and frame a strong gateway condition at Idylwyld Drive and 20th Street

Create consistent and pedestrian oriented street wall and frontage along Idylwyld Drive and 20th Street East

Improve pedestrian facilities and infrastructure along Auditorium Avenue to create a stronger connection between Midtown Plaza and Idylwyld Drive

Integrate transit access/amenities on the Northwest corner of Block 4

Figure 5.42: Block 5 Conditions Along Idylwyld Drive

Figure 5.43: Block 5 Conditions Along Idylwyld Drive

BUILT FORM

BLOCK 5

Block 5 is characterized as a commercial block mostly made up of auto body, leisure shops and Fire Station No. 1. The Fire Station creates many conflicts with pedestrians and vehicles on Idylwyld Drive as fire vehicles respond to emergencies or carry out training exercises.

Setbacks

Setback conditions are inconsistent, though do not create any pinch points along the walkway.

Massing

Massing on the block is made up of 1-2 storey buildings with varying footprint sizes.

Frontage and Access

Frontage is considered unattractive from a pedestrian perspective, with Fire access, a number of vehicle access points and access to parking along the block.

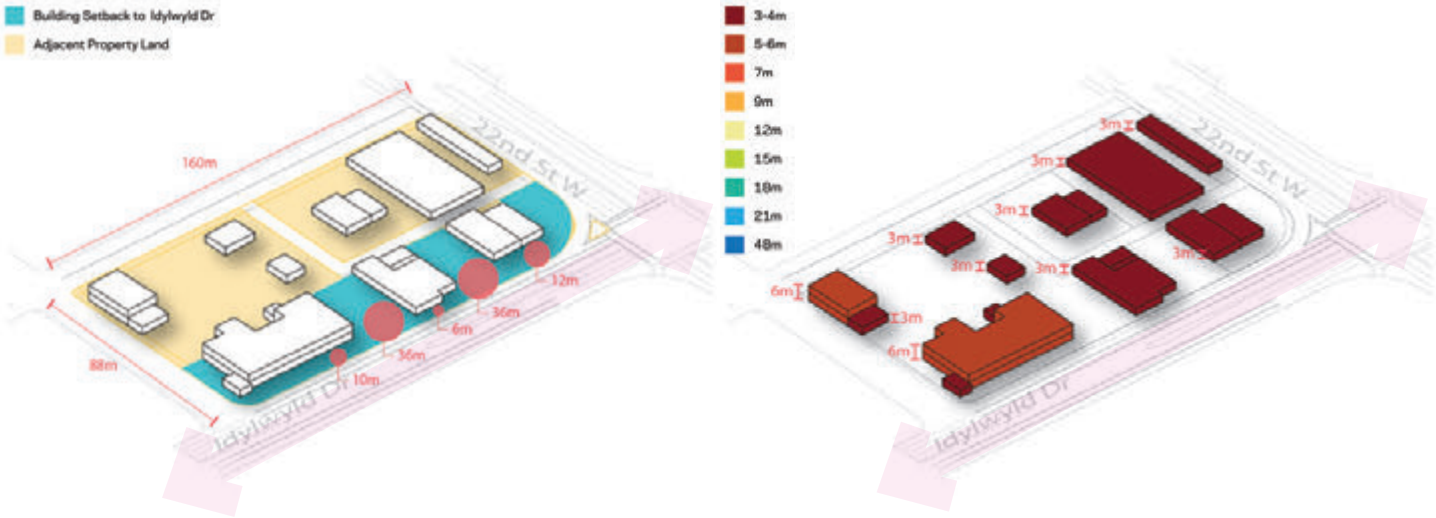


Figure 5.45: Block 5 Building Heights and Massing

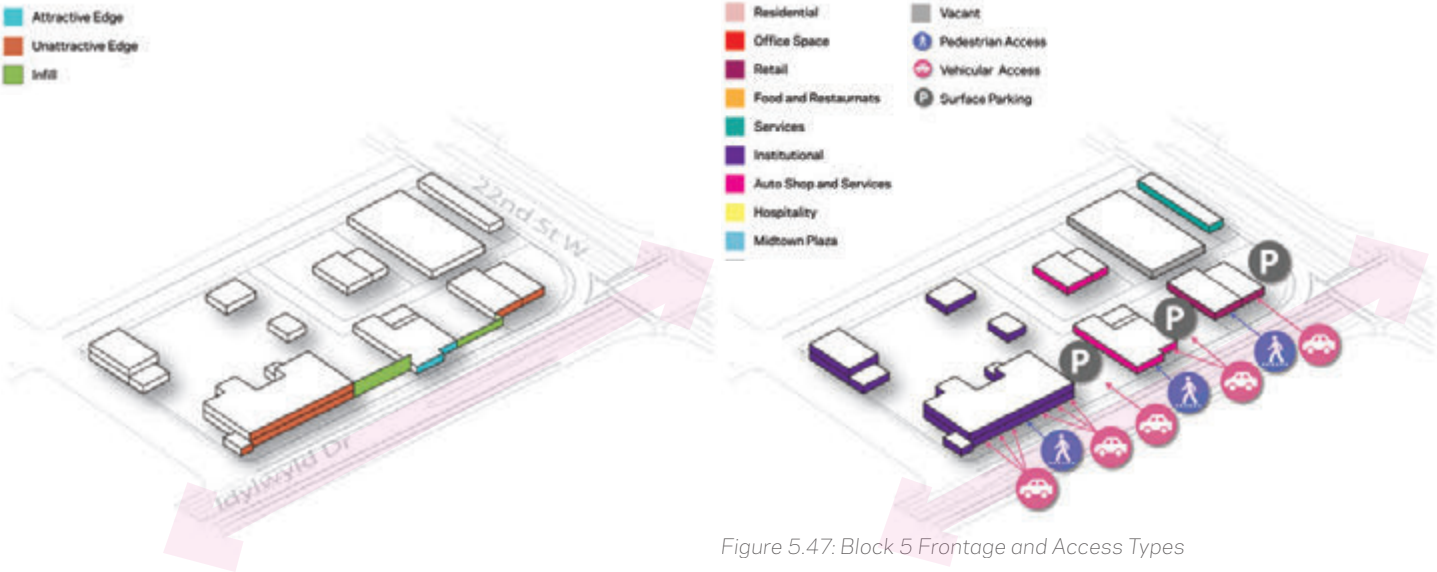


Figure 5.47: Block 5 Frontage and Access Types

OPPORTUNITIES

Improve, redevelop, or relocate Fire Station No. 1

Create a consistent and pedestrian-oriented street wall with an active urban edge at grade

Reduce number of vehicular access points from Idylwyld Drive

Create a pedestrian-oriented, mixed-use and transit-supportive gateway condition at the intersection of Idylwyld Drive and 22nd Street

Figure 5.48: Block 6 Conditions Along Idylwyld Drive

Figure 5.49: Block 6 Conditions Along Idylwyld Drive

BUILT FORM

BLOCK 6

Block 6 is characterized as a commercial block comprised of auto body and tire shops, and some retail uses.

Setbacks

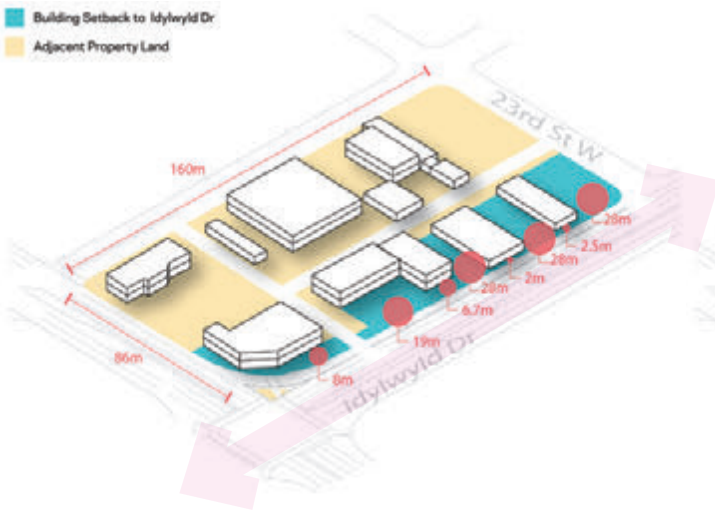
Setbacks again vary widely along the block creating a more pinched walkway towards the north of the block.

Massing

Massing on the block is made up of 1-2 storey buildings of various orientations and footprint sizes.

Frontage and Access

Frontage is considered unattractive from a pedestrian perspective, with fairly significant opportunities for infill or redevelopment along the block.



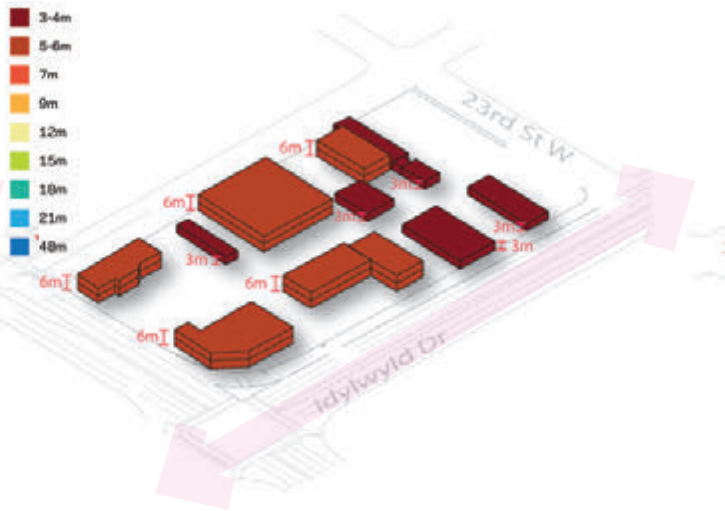
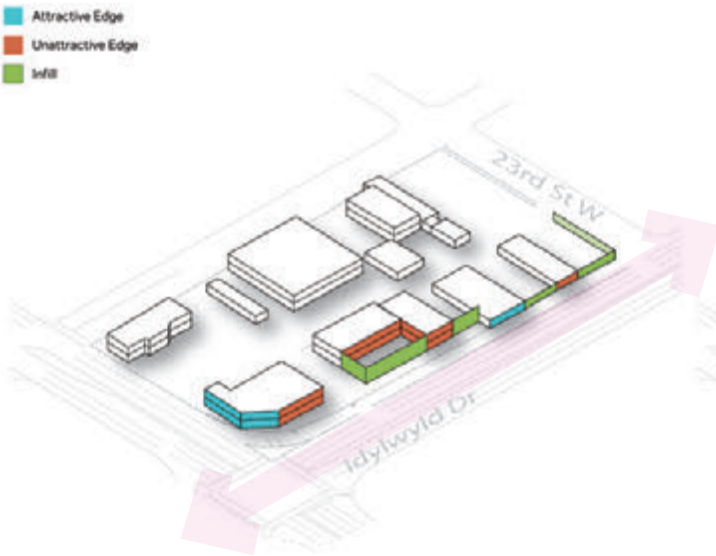


Figure 5.50: Block 6 Building Heights and Massing



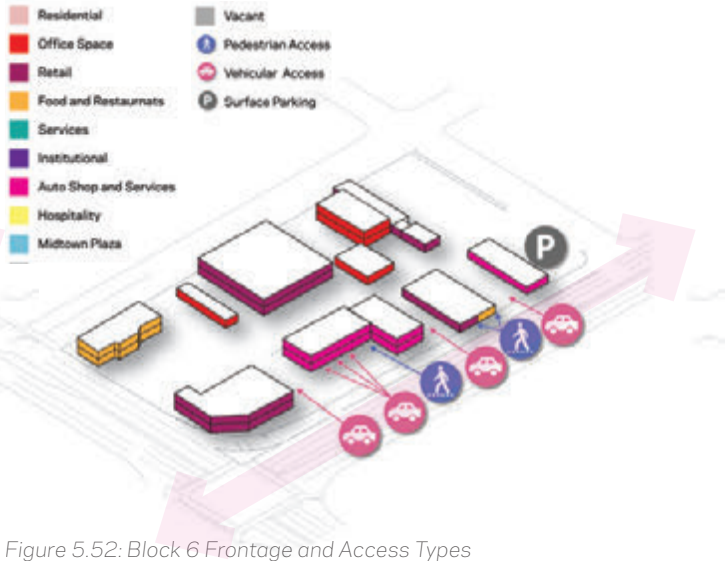


Figure 5.52: Block 6 Frontage and Access Types

OPPORTUNITIES

Create a pedestrian-oriented, mixed-use and transit-supportive gateway condition at the intersection of Idylwyld Drive and 22nd Street

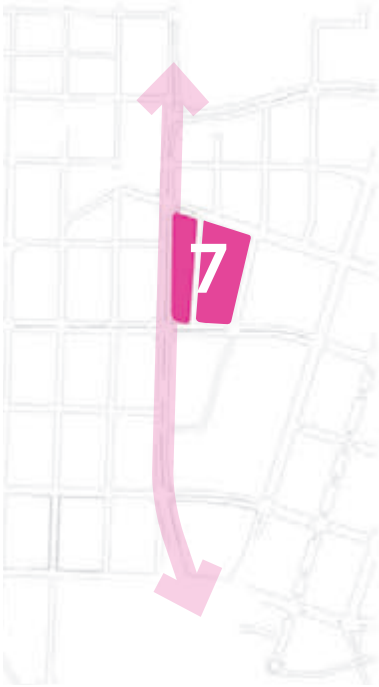
Create a consistent and pedestrian-oriented street wall with an active urban edge at grade

Over time with redevelopment reduce number of vehicular access points from Idylwyld Drive

Create an open space in close proximity to planned transit facilities

Figure 5.53: Block 7 Conditions Along Idylwyld Drive

Figure 5.54: Block 7 Conditions Along Idylwyld Drive



BUILT FORM

BLOCK 7

Block 7 is characterized by two blocks; a single-loaded block fronting Idylwyld Drive, and double-loaded block to the east with frontage on Wall Street. The block is commercial in nature and mostly made up of commercial medical services and offices.

Setbacks

Buildings are generally set well back from Idylwyld Drive and Wall Street on the eastern block.

Massing

Massing on the single-loaded block is made up of 1-2 storey buildings, with the double-loaded block hosting buildings up to 4 storeys. The 10 storey Holiday Inn is also located on this block outside of the study area.

Frontage and Access

Access is provided on both Idylwyld Drive and Wall Street.

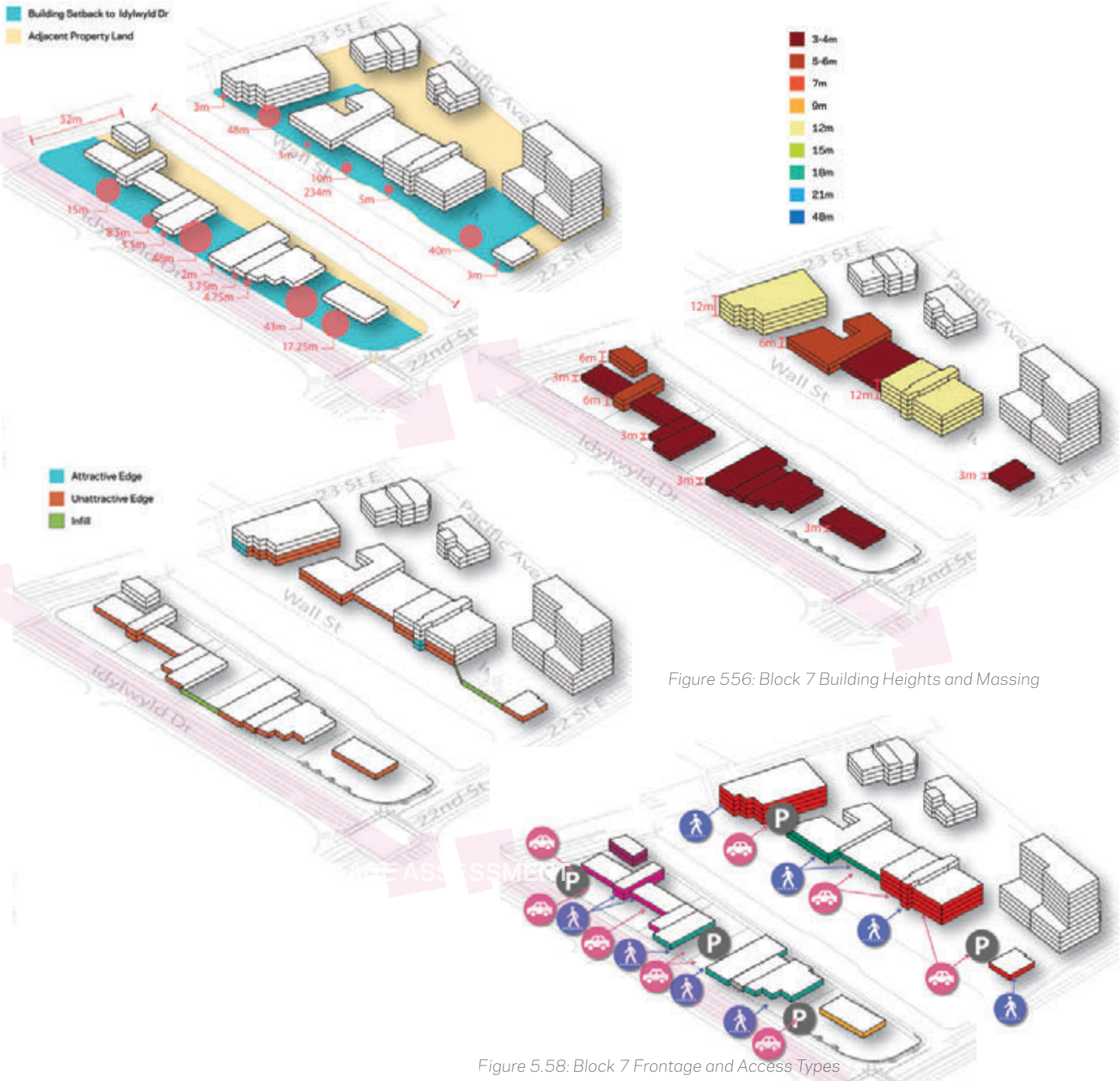


Figure 556: Block 7 Building Heights and Massing

Figure 5.58: Block 7 Frontage and Access Types

OPPORTUNITIES

Create a pedestrian-oriented, mixed-use and transit-supportive gateway condition at the intersection of Idylwyld Drive and 22nd Street

Create a consistent and pedestrian-oriented street wall with an active urban edge at grade

Create an open space in close proximity to planned transit facilities

Figure 5.59: Block 8 Conditions Along Idylwyld Drive

BUILT FORM

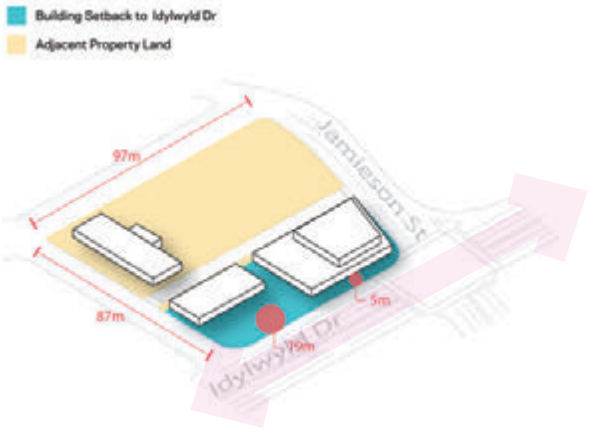
BLOCK 8

Block 8 is characterized as a small commercial block with a themed restaurant and auto body shop. The block is truncated by Jamieson Street and has a large vacant lot behind the restaurant.

Setbacks
Buildings on the block create inconsistent setbacks.

Massing
Massing on the block includes 1 and 2 storey buildings.

Frontage and Access
Access is provided on both Idylwyld Drive, Jamieson and Avenue B.



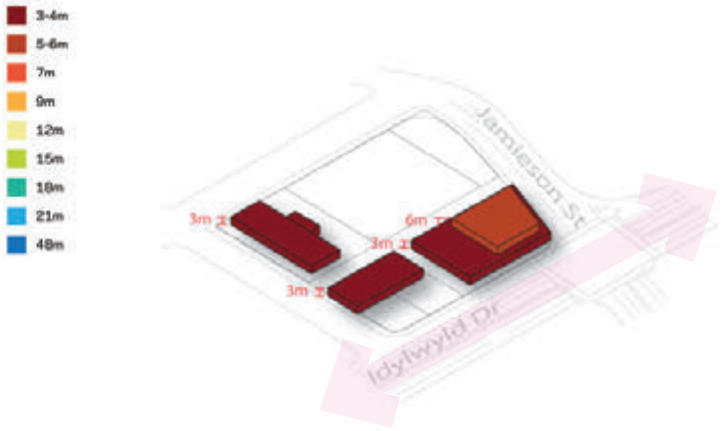


Figure 5.61: Block 8 Building Heights and Massing

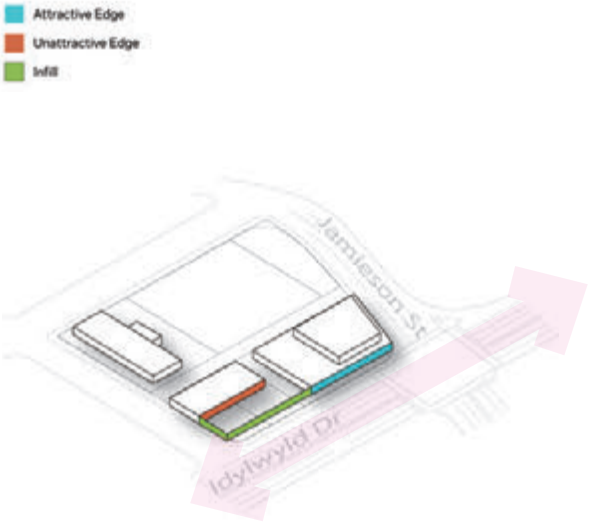


Figure 5.63: Block 8 Frontage and Access Types

OPPORTUNITIES

Explore unifying blocks 8 and 9 for more regular development parcels

Create a consistent and pedestrian-oriented street wall with an active urban edge at grade

Create an open space in close proximity to planned transit facilities

Figure 5.64: Block 9 Conditions Along Idylwyld Drive

Figure 5.65: Block 9 Conditions Along Idylwyld Drive

BUILT FORM

BLOCK 9

Block 9 is characterized by two blocks bisected by the CP rail corridor. The block is characterized by the CPR Station and Holiday Inn Express Hotel.

Setbacks

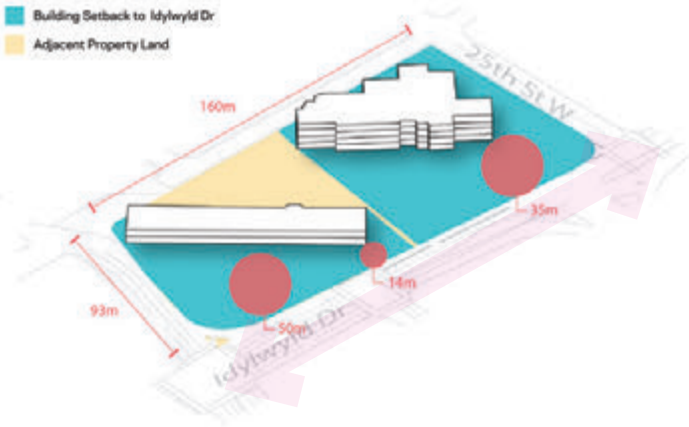
Buildings are generally set well back from Idylwyld Drive.

Massing

The building masses are 2-4 storeys and oriented to align with the rail corridor.

Frontage and Access

Building orientation creates setback access conditions from Idylwyld Drive to the CPR Station. Holiday Inn is accessed from Avenue B and 25th Street West.



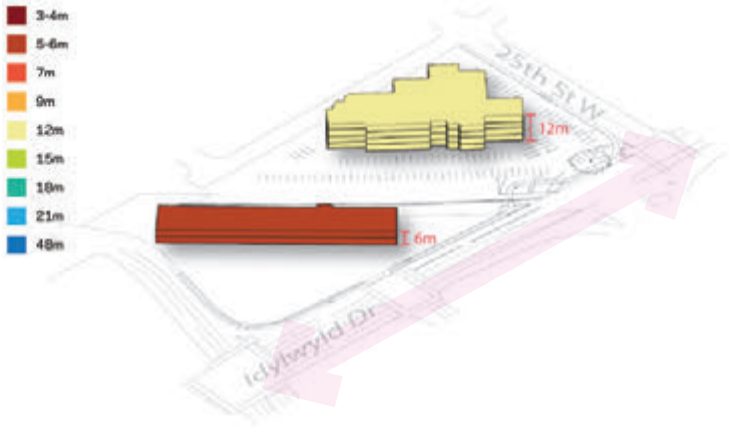
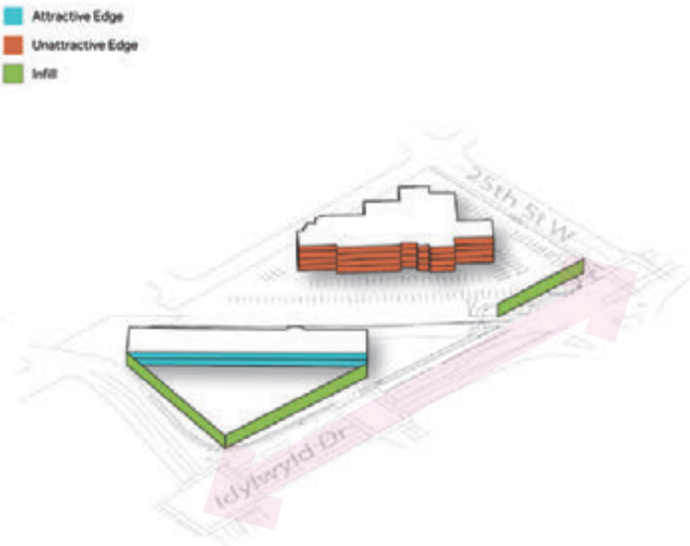


Figure 5.67: Block 9 Building Heights and Massing



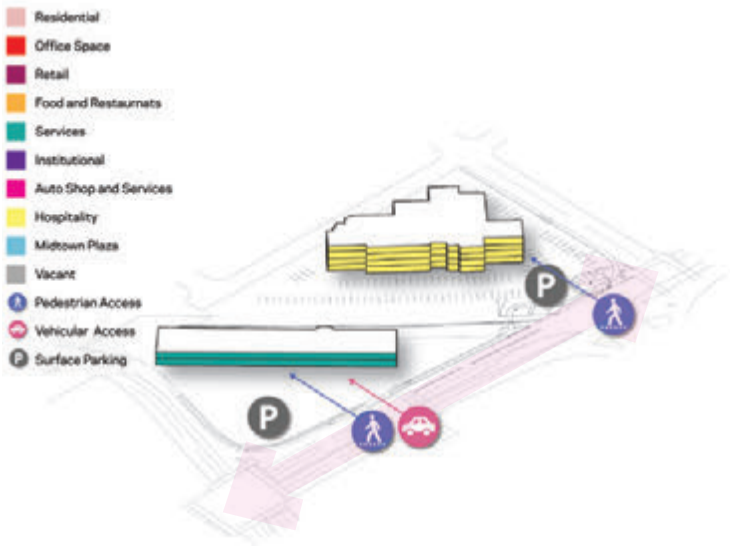


Figure 5.69: Block 9 Frontage and Access Types

OPPORTUNITIES

Create a pedestrian-oriented, mixed-use and transit-supportive gateway condition at the intersection of Idylwyld Drive and 25th Street

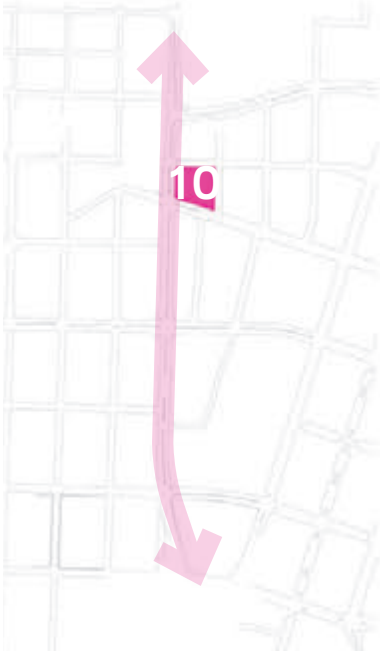
Explore unifying blocks 8 and 9 for more regular development parcels

Create a consistent and pedestrian-oriented street wall with an active urban edge at grade

Create an open space in close proximity to planned transit facilities

Frame views of heritage buildings and elements

Figure 5.70: Block 10 Conditions Along 23rd Street East



BUILT FORM

BLOCK 10

Block 10 is characterized by the Fairbanks-Morse Warehouse and Warehouse District. Buildings along Idylwyld Drive include a tattoo shop and auto body shop.

Setbacks

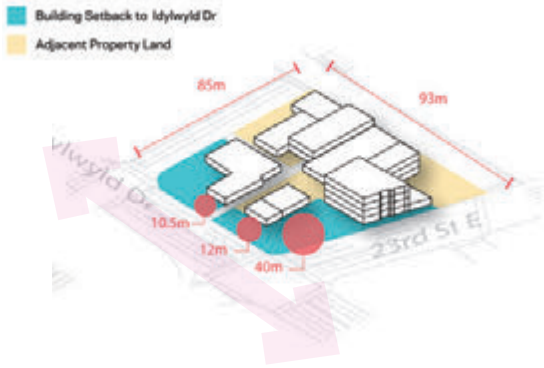
Buildings are generally set well back from Idylwyld Drive.

Massing

Massing on the block is defined by single storey buildings along Idylwyld Drive and 3-4 storey buildings behind in the Warehouse District.

Frontage and Access

Access is provided on both Idylwyld Drive, 23rd Street East and 24th Street East. Pedestrian access from Idylwyld Drive is poor. Frontages are generally unattractive with significant infill and redevelopment opportunity.



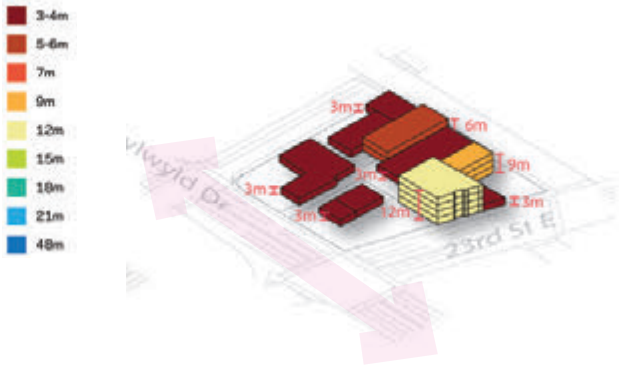


Figure 5.72: Block 10 Building Heights and Massing

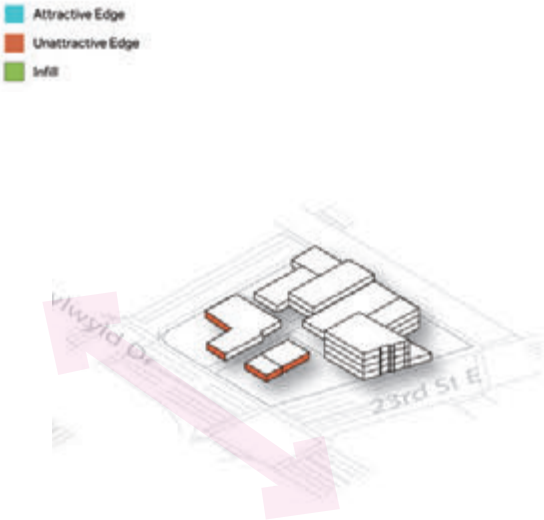


Figure 5.74: Block 10 Frontage and Access Types

OPPORTUNITIES

Improve access for pedestrians and cyclists

Create a consistent and pedestrian-oriented street wall with an active urban edge at grade

Create an open space in close proximity to planned transit facilities

Frame views of heritage buildings and elements

Figure 5.75: Block 11 Conditions Along Idylwyld Drive

BUILT FORM

BLOCK 11

Block 11 is a U shaped block. Idylwyld Drive is fronted by a large commercial office block and parking lot, while the rear of the block is part of the Warehouse District building stock.

Setbacks

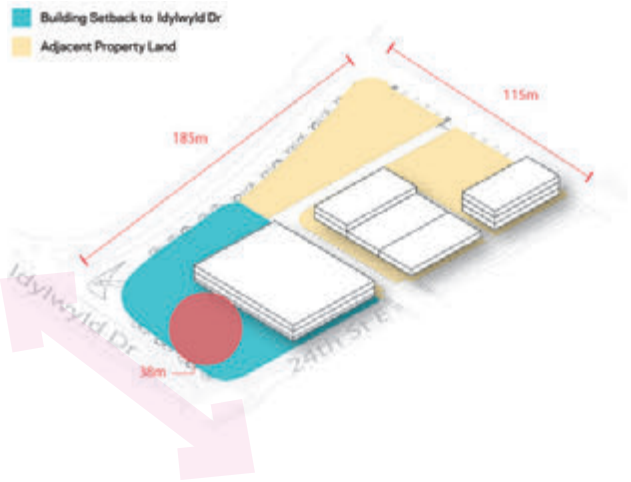
Buildings are generally set well back from Idylwyld Drive with closer setbacks to the street within the Warehouse District on Wall Street.

Massing

The building masses are 2-4 storeys and with the exception of the commercial office block, oriented towards Wall Street.

Frontage and Access

Pedestrian access from Idylwyld Drive is largely non-existent, with vehicular access and a parking lot defining the frontage along Idylwyld Drive.



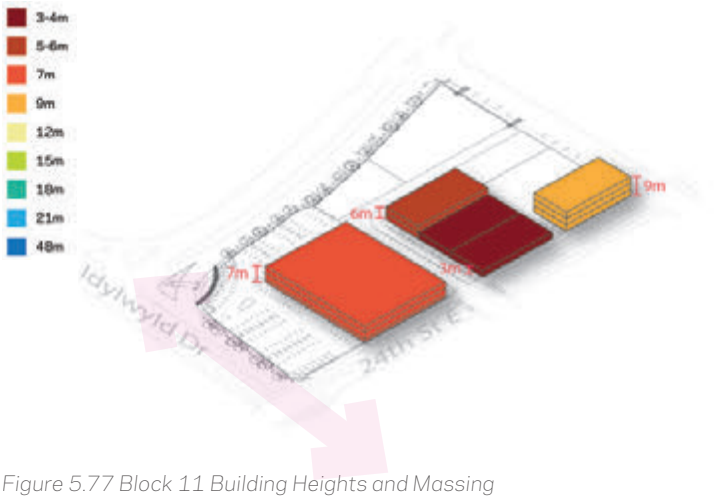
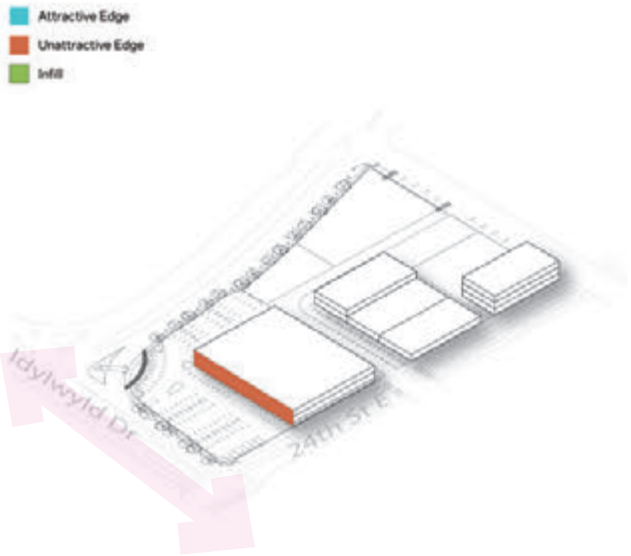


Figure 5.77 Block 11 Building Heights and Massing



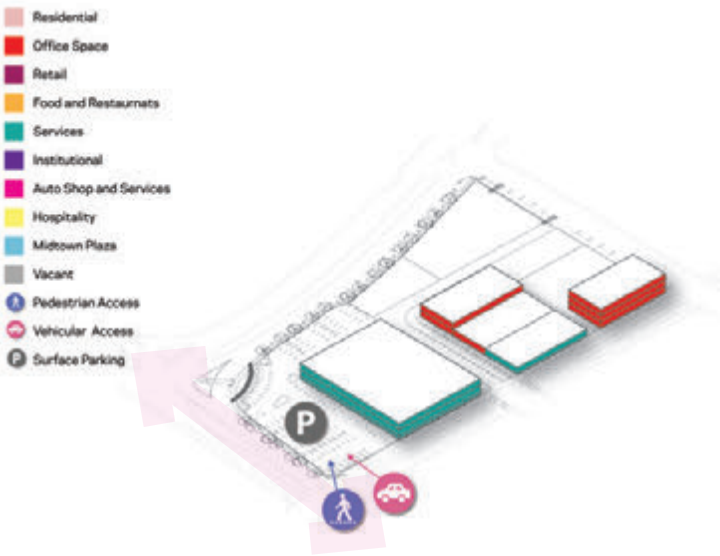


Figure 5.79 Block 11 Frontage and Access Types

OPPORTUNITIES

Create a pedestrian-oriented, mixed-use and transit-supportive gateway condition at the intersection of Idylwyld Drive and 25th Street

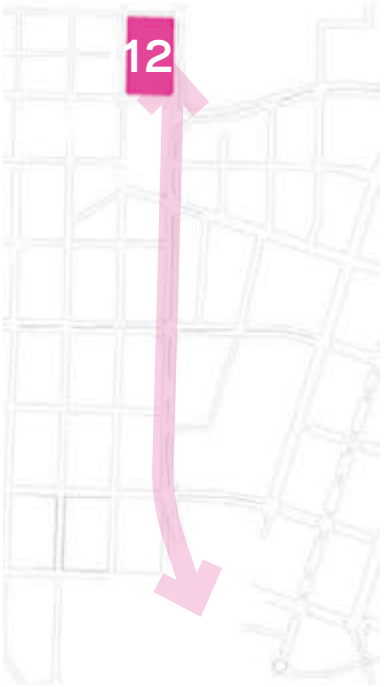
Improve access to the Warehouse District for pedestrians, cyclists and transit users

Create a consistent and pedestrian-oriented street wall with an active urban edge at grade

Create an open space in close proximity to planned transit facilities

Frame views of heritage buildings and elements

Figure 5.80: Block 12 Conditions Along Idylwyld Drive



BUILT FORM

BLOCK 12

Block 12 is characterized a residential and community block made up of single family detached dwellings, a church and 3 storey apartment building.

Setbacks

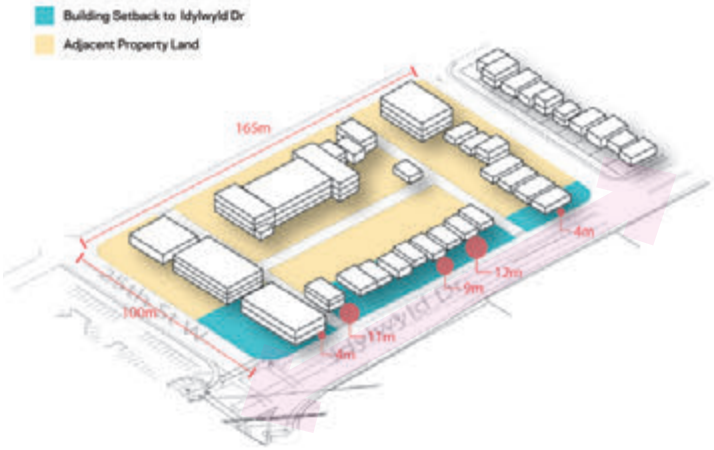
Buildings generally have a consistent setback along Idylwyld Drive and 25th Street West.

Massing

Building masses are between 2-3 storeys.

Frontage and Access

The church currently fronts on to Idylwyld Drive.



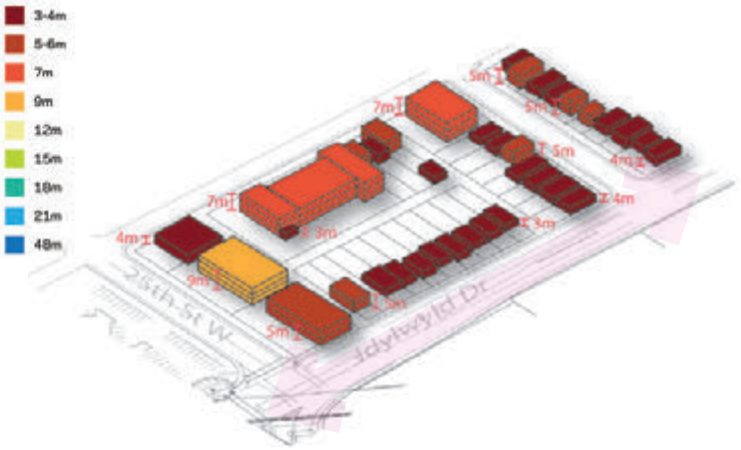
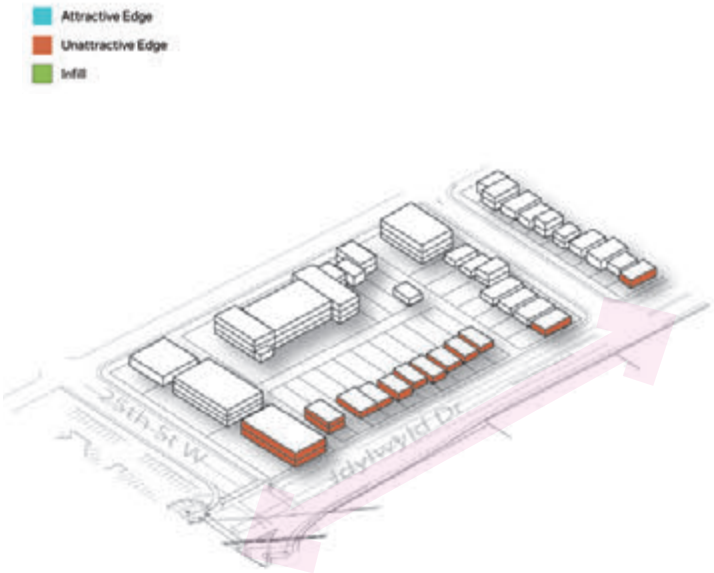


Figure 5.82: Block 12 Building Heights and Massing



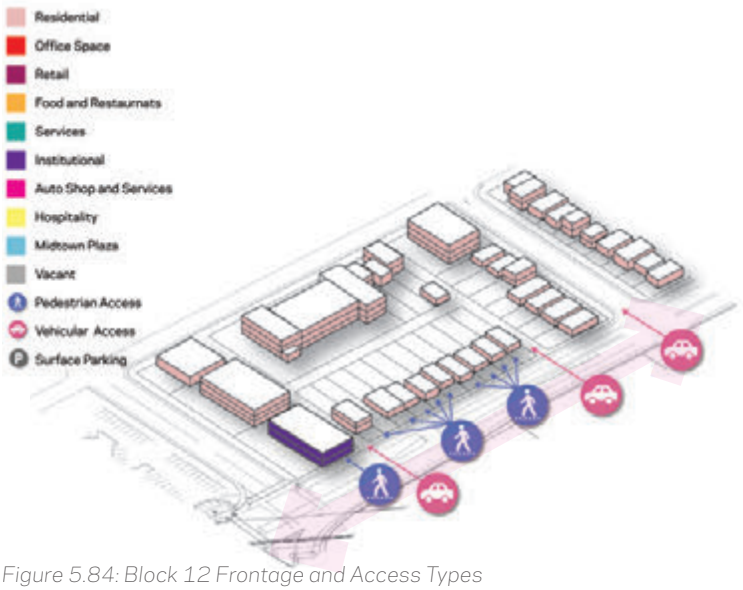


Figure 5.84: Block 12 Frontage and Access Types

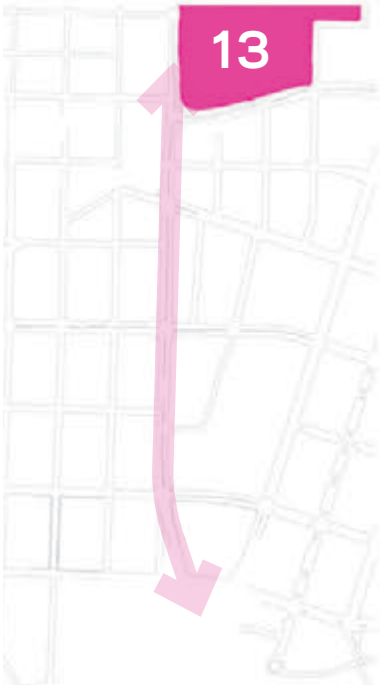
OPPORTUNITIES

Create a pedestrian-oriented, mixed-use and transit-supportive gateway condition at the intersection of Idylwyld Drive and 25th Street

Create a consistent and pedestrian-oriented street wall with an active urban edge at grade

Frame views of heritage buildings and elements

Figure 5.85: Block 13 Conditions Along Idylwyld Drive



BUILT FORM

BLOCK 13

Block 13 is characterized by vacant lot and a go kart racing track bisected diagonally by a rail corridor.

Setbacks

Buildings are generally set well back from Idylwyld Drive with closer setbacks to the street within the Warehouse District on Wall Street.

Massing

The building masses are 2-4 storeys and with the exception of the commercial office block, oriented towards Wall Street.

Frontage and Access

Pedestrian access from Idylwyld is largely non-existent, with vehicular access and parking lot defining the frontage along Idylwyld Drive.

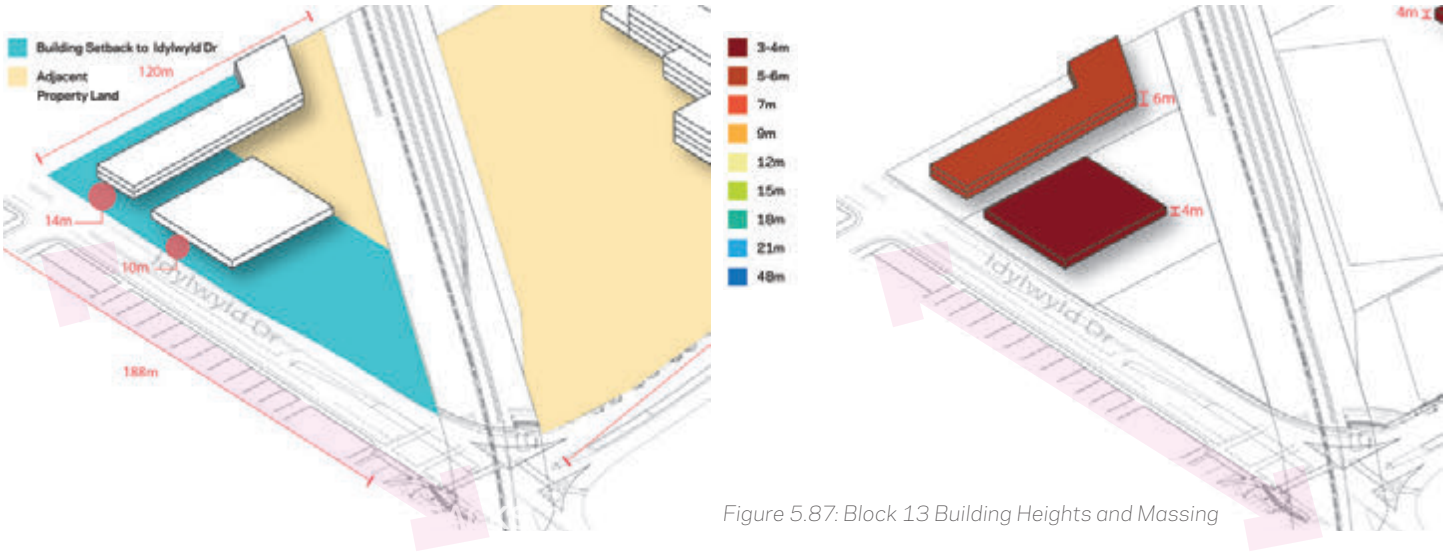


Figure 5.87: Block 13 Building Heights and Massing

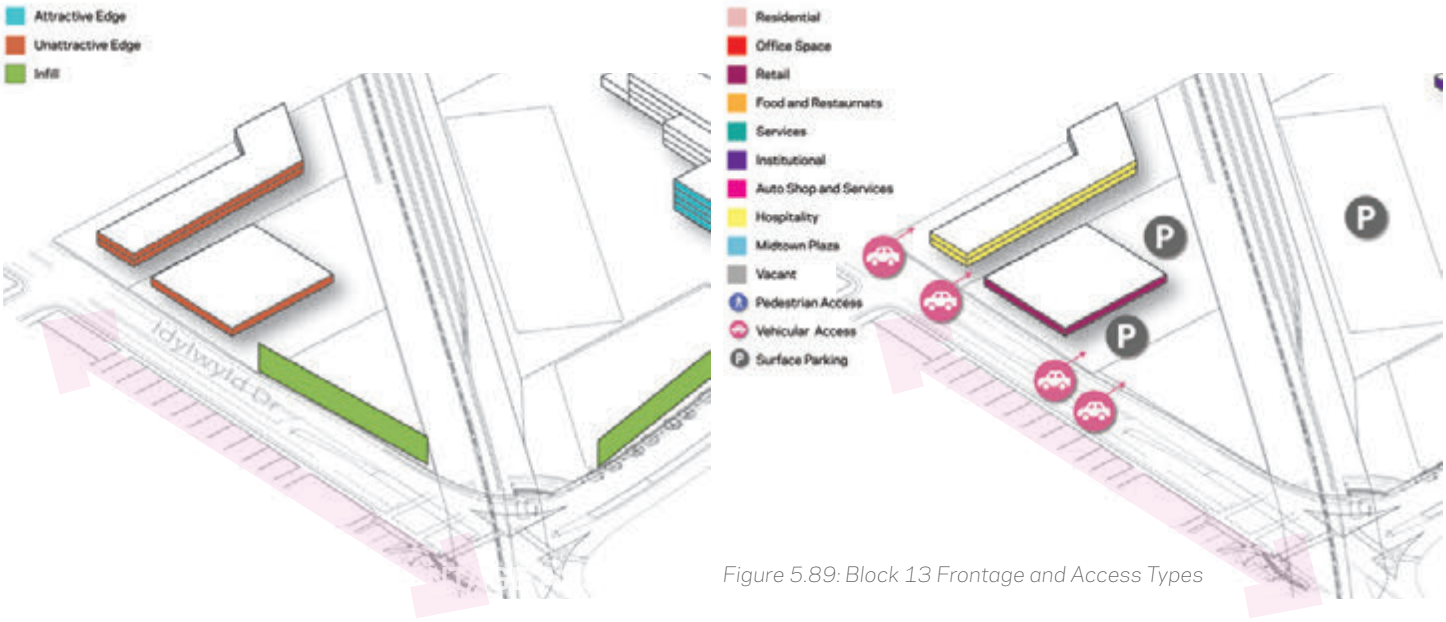


Figure 5.89: Block 13 Frontage and Access Types

OPPORTUNITIES

Create a pedestrian-oriented, mixed-use and transit-supportive gateway condition at the intersection of Idylwyld Drive and 25th Street

Improve access to the Warehouse District for Pedestrians, cyclists and transit users

Create a consistent and pedestrian-oriented street wall with an active urban edge at grade

Create an open space in close proximity to planned transit facilities

Frame views of heritage buildings and elements

SUMMARIZED OPPORTUNITIES

Establish a gateway condition with a feature installation into the study area at 20th Street which facilitates connection between City Centre and Riversdale

Create a landmark development that creates frontage at the intersection of Idylwyld Drive and 20th Street

Establish a gateway condition at 20th Street through streetscape design or potential intensification on the north-west corner lot

Review access to Avenue A. Explore creating a greenway condition that extends the character and connects the River and River Landing to the City Centre.

Replace excess parking with pocket parks or squares, fronted by retail or new infill development

Create a significant mixed use infill development with structured parking on existing surface parking lots to create and frame a strong gateway condition at Idylwyld Drive and 20th Street

Improve, redevelop, or relocate Fire Station No. 1

Integrate transit access/amenities on the Northwest corner of Block 4

Over time with redevelopment reduce number of vehicular access points from Idylwyld Drive

Improve pedestrian facilities and infrastructure along Auditorium Avenue to create a stronger connection between Midtown Plaza and Idylwyld Drive

Create open spaces in close proximity to planned transit facilities

Create a pedestrian-oriented, mixed-use and transit-supportive gateway condition at the intersections of Idylwyld Drive and 22nd Street and Idylwyld Drive and 25th Street

Create consistent setback conditions along Idylwyld Drive

Improve intersection frontages and conditions

Create consistent and pedestrian-oriented street wall and frontage with an active urban edge at grade along Idylwyld Drive

Explore unifying blocks 8 and 9 for more regular development parcels

Frame views of heritage buildings and elements

Improve access for pedestrians and cyclists

Improve access to the Warehouse District for pedestrians, cyclists and transit users

06

PUBLIC REALM + URBAN DESIGN

IMAGINE IDYLWYLD

City of Saskatoon

h+k

Associated Engineering

LEGEND

- Tree
- Median Planting
- Lawn
- Park
- Surface Parking

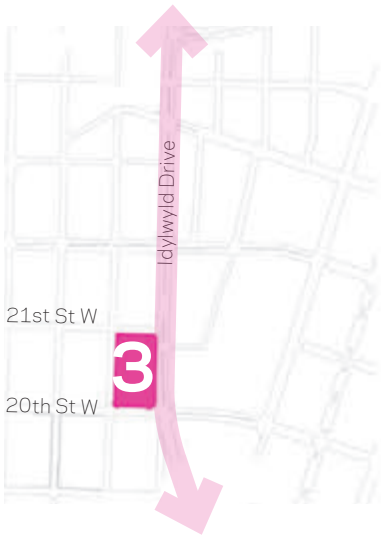
PUBLIC REALM + URBAN DESIGN

OPEN SPACE

Parks and open space, as defined by publicly dedicated lands, are limited to the concentrated parkland along the river corridor, such as River Landing East and Isinger Park. Idylwyld Drive lacks any reprieve for pedestrians and residents as a place of respite between the residential neighbourhoods to the north-west and west and downtown core. Likewise, wayfinding and a sense of where open space is located is lacking along with a visual queue for people passing across or along the corridor.

Plant material is extremely limited with only a few trees planted in raised planters and a small stretch of street trees planted in turf along the edge of the parking lots on the east side south of 22nd Street East . There is no formal arrangement of tree planting or planting zones that currently define Idylwyld Drive.

Given the lack of public spaces along the corridor, one observation was the possibility of developing the public realm in the laneways of Block 3, as well as the abutting parking lot where businesses currently have a prominent back-door address and a "street-like" presence to build a strong sense of place with frequent pedestrian activity.



OPPORTUNITIES

Extend the green character from River Landing to create a dynamic planted corridor that frames the right of way with a general planting consistency while providing shade and reducing wind velocity within the public realm

Create a planting scheme defined by hardy, city-tolerant species suited to the four seasons of Saskatoon:

- Street Trees (high canopy, provides shade),
- Low shrubs (typically less than 1 metre which do not inhibit views and visual access for public safety and security)
- Indigenous Grasses and Perennial Prairie plants

Capitalize on the creation of smaller nodes of open space, or parkette conditions, that act as differentiating elements and that help to reinforce the quality of spaces

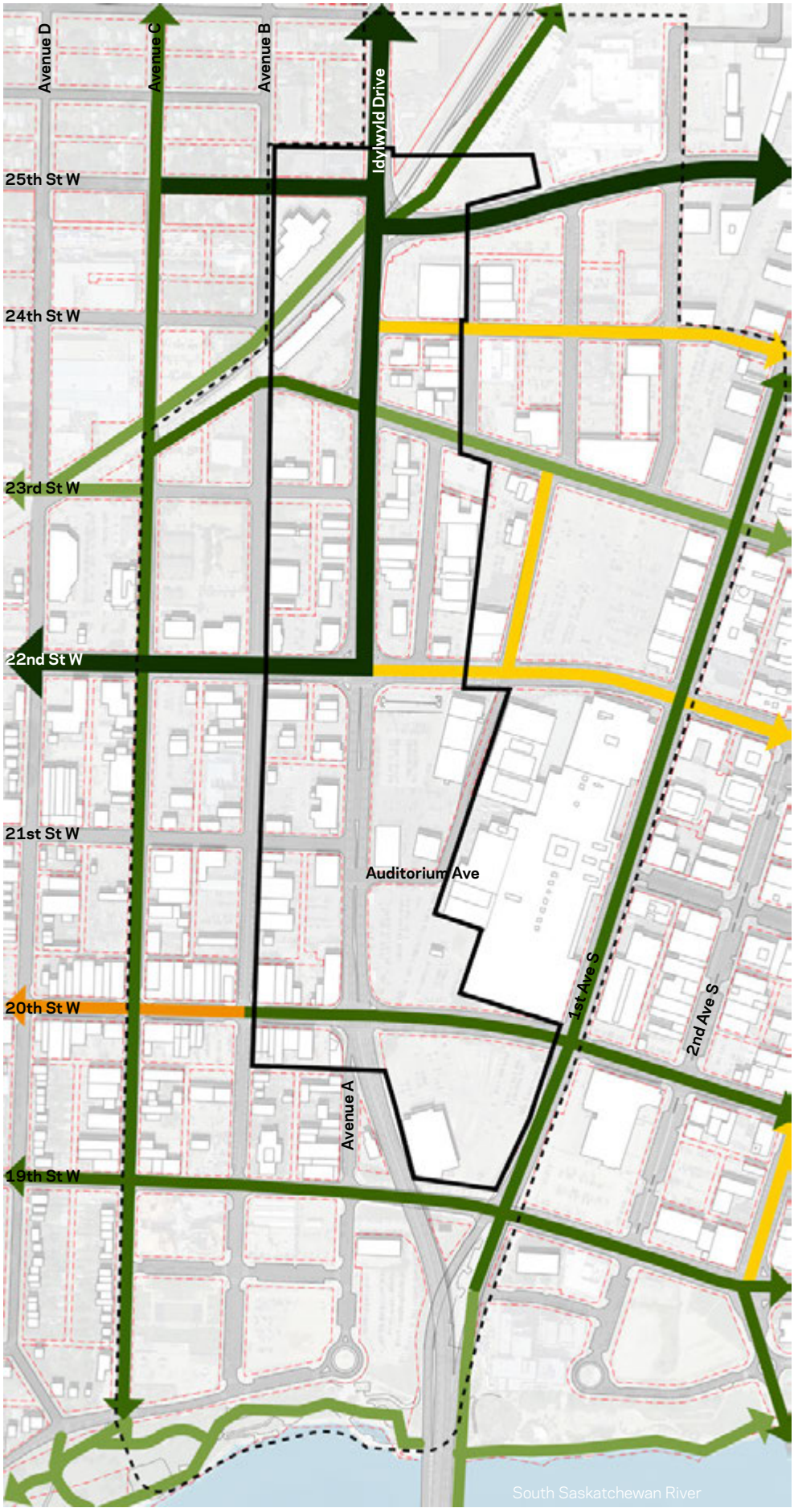
Create larger open spaces near planned rapid transit facilities

Create staging areas for public art and civic elements that may support current events and seasonal displays

Incorporate land art, topographical features or low walls to develop character and help buffer the public realm from traffic noise, pollution, and water and salt spray from passing vehicles

LEGEND

- Multi-Modal Corridor
- Proposed AAA Network
- Existing AAA Network
- Proposed Non-AAA Network
- Existing Non-AAA Network



PUBLIC REALM + URBAN DESIGN

CYCLING INFRASTRUCTURE

Bicycle infrastructure contributes a key role in the development of the form and function of the urban framework. Saskatoon has made great strides to develop a robust and connected bicycle network. Cycling infrastructure offers more commuting options for people living in or near the City Centre.

A multi-modal corridor is identified in the Active Transportation Plan along Idylwyld Drive, from 25th Street East to 22nd Street West, and beyond the study area. During the stakeholder workshop, there were many comments about the connections with a small percentage of support to include bike lane infrastructure along Idylwyld. Options and discussion to allocate cycle infrastructure on surrounding routes such as Avenue B were brought forward.

OPPORTUNITIES

Identify potential improvements to the movement and connection of bicycle corridors, both existing and proposed

Within the designated Multi-Modal Corridor, incorporate cycle connections to the existing and proposed AAA Network within the space between new curb lines and property lines or building faces

Provide suitable forms and levels of bicycle parking to match adjacent building and land uses

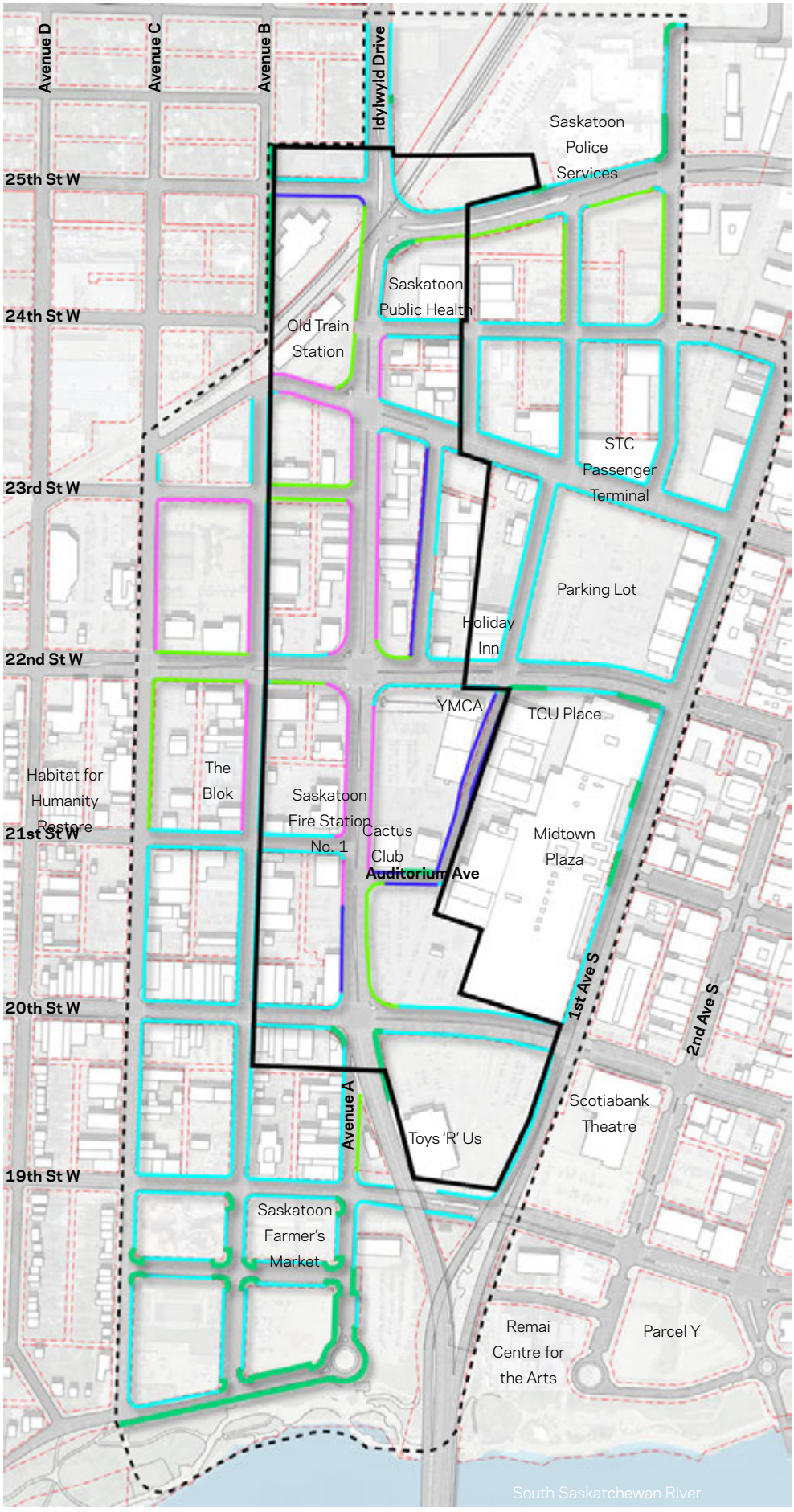
Design bicycle crossings at intersections to minimize exposure and improve cyclist safety

Design bicycle infrastructure improvements to current best practice for winter cities

LEGEND

- Study Area
- Area of Impact
- Sidewalk (Up to 1.5m)
- Sidewalk (1.5m - 2m)
- Sidewalk (2m - 3m)
- Sidewalk (3m - 5m)
- Sidewalk (+5m)

* Sidewalk widths representations do not account for interruptions, such as utilities, street lights, signs and others



PUBLIC REALM + URBAN DESIGN

PEDESTRIAN INFRASTRUCTURE

SIDEWALKS, PATHS + WALKWAYS

The general condition for pedestrian routes along Idylwyld Drive is best summed up as hostile. The physical condition is inconsistent in dimension, age, surface-level consistency, objects and barriers impeding direct flow, materiality and conformity of Accessibility Standards and general aesthetic character. Due to the inconsistent nature of the sidewalks and the proximity to the traffic, pedestrians do not feel a sense of safety. Extended dropped curbs at the sidewalk allow easy access for traffic to enter the pedestrian sidewalk zone while slush and water is often splashed onto the entirety of the sidewalk and onto vulnerable pedestrians. Adjacent site design further adds to the inconsistency and hostility of the pedestrian environment with parking lots and fencing pushed up to the sidewalk edge.

Obstacles also pose a safety issue in the public realm. An inconsistency in street furnishings and utilities often appear to have an uncoordinated layout with utility objects such as fire hydrants or light poles entering into the path of pedestrians and in some cases drive ways. Sidewalks are generally constructed of concrete, however in a few instances are comprised of asphalt and in some cases this has failed giving way to pot holes and aggregate on the surrounding surfaces. In a few instances, buildings are exceptionally close to the sidewalk, creating a formidable wall against the public realm.

OPPORTUNITIES

Develop a connected and cohesive public realm by defining:

- Palette of materials
- Colours scheme
- Street furnishings (benches, bike locks, bollards, light posts/standards, storm grates, litter receptacles)

Ensure all new public realm surfaces and amenity spaces in the public realm is barrier free accessible and conforms to current best practice and local codes

Reduce the number of curb cuts into the sidewalk/ public realm to create a more consistent corridor that is safer for pedestrians

All design options shall take into account the four seasons by considering integrated storm water solutions within the streetscape and winter and snow operability

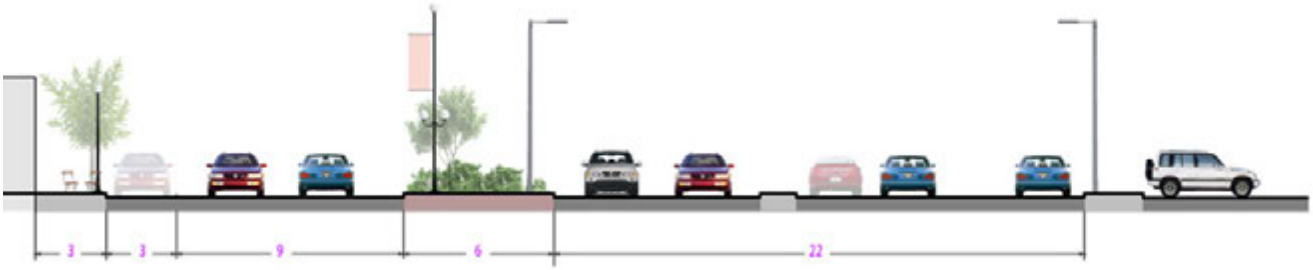


Figure 6.9: Avenue A South Street Section to Idylwyld Drive

PUBLIC REALM + URBAN DESIGN

AVENUE A - IDYLWYLD DRIVE EXIT

The north end of Avenue A is a fork in the road, defined by a one-way access for vehicles traveling southbound.

Vehicles traveling northbound are required to turnaround or use mid-block laneways to exit. However, without clear signage or an intuitive street design, drivers may become confused and attempt to exit from the entryway into oncoming traffic.

The pedestrian realm of Avenue A is unique, human scale and friendly. The street edge is well framed by buildings and active storefronts at grade along the west side of the street. A sense of comfortable enclosure is provided as the Sid Buckwold Bridge rises, and the sight and sound of fast moving vehicles becomes increasingly distant.

OPPORTUNITIES

- Review access to Avenue A. Explore closing vehicular access to Avenue A from Idylwyld Drive, and/or creating an improved intersection design
- Create a clear connection to Saskatoon Farmers' Market and River Landing
- Increase the width of the public realm to create wider sidewalks, furnishing and planting areas
- Introduce street furnishings that support a cohesive corridor character
- Introduce business and street signage guidelines

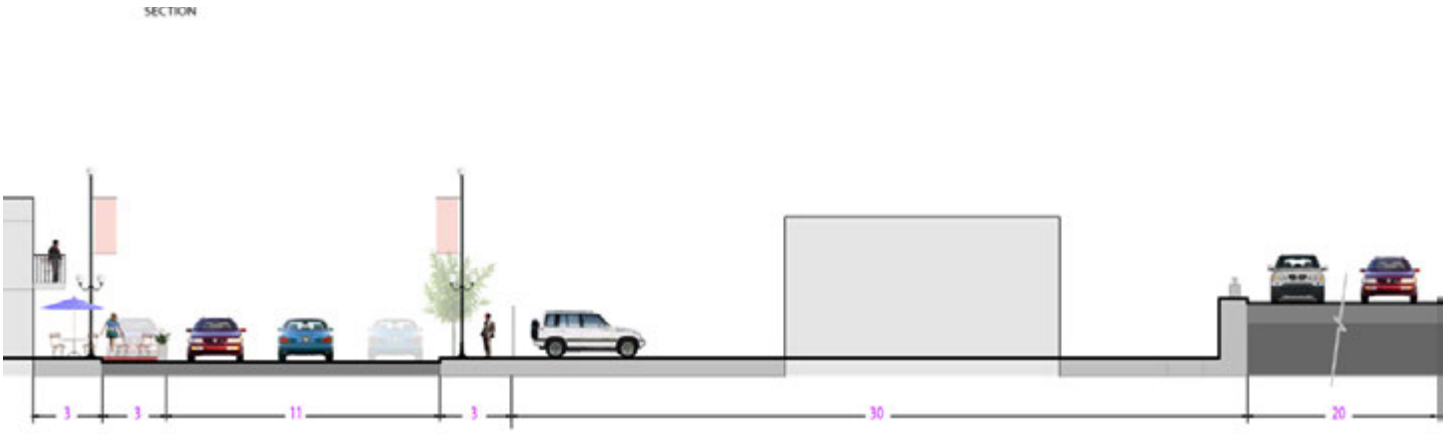


Figure 6.10: Avenue A South Street Section to 19th St West

PUBLIC REALM + URBAN DESIGN

AVENUE A TO 19TH STREET

The south end of Avenue A is defined by an active pedestrian realm, driven mostly by the Saskatoon Farmers' Market to the south, and Drift Sidewalk Cafe animating Avenue A on the north-west corner of Avenue A and 19th Street.

Access and circulation for service vehicles is a challenge for the block. Large trucks loading and unloading heavy materials at Garden Architecture & Design, and Michelangelo Marble & Granite occur frequently. The one-way access at Idylwyld Drive creates service circulation challenges; sometimes requiring large vehicles to attempt to turn around or reverse southwards out of Avenue A, if they've arrived to the block via 19th Street.

Sidewalks are generally quite narrow. However, the street has wide vehicle lanes, and on-street parking which could be designed to be more efficient to provide pedestrians more space at this heavily animated street. A pocket parkette patio seems to be quite successful, indicating more pedestrian space would be valuable and utilized at this location.

OPPORTUNITIES

- Increase the width of the public realm to create wider sidewalks, furnishing and planting areas
- Create a clear connection to Saskatoon Farmers' Market and River Landing
- Introduce street furnishings that support a cohesive corridor character
- Introduce business and street signage guidelines

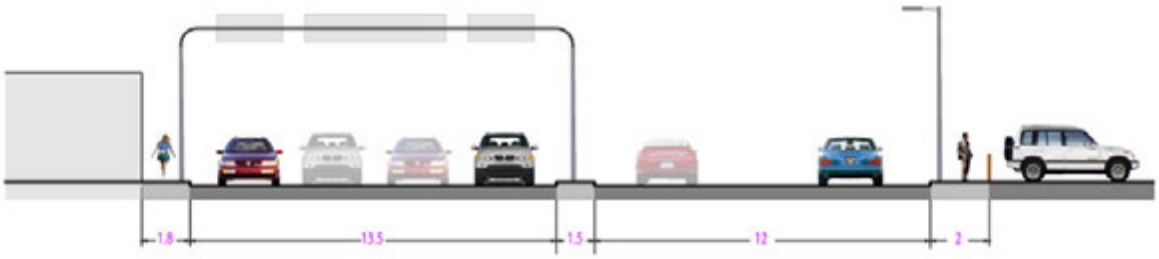


Figure 6.4: 20th Street to Auditorium Avenue Section

PUBLIC REALM + URBAN DESIGN

20TH STREET TO AUDITORIUM AVENUE

This section of the study area is a critical intersection to Riversdale, Downtown and northward through the city. Transitioning from highway conditions on Sid Buckwold Bridge, traffic entering this zone must gradually decrease speed to stop at the traffic light. The intersection presents many challenges as pedestrians, cyclists and motorists navigate their route. These challenges include a total of eight traffic lanes with "pork chop" pedestrian islands separating dedicated turning lanes, creating a long distance for pedestrians to cross in a short period of time.

Highway 11 signage gantry on the west side of the corridor reinforces the highway context of Idylwyld Drive and presents a constraint to developing a cohesive human-scaled urban corridor.

There are also many restrictions within the right of way. To the west, building edges are built up to the property line while light, utility and signage poles further impede comfortable passage of two pedestrians. To the east, the Midtown Park surface parking lot is separated from the sidewalk by a low wooden fence that visually constricts the width of the sidewalk and does not allow for any course of escape for pedestrians, making walking unpleasant with a sense of danger.

OPPORTUNITIES

- Create a gateway condition to Downtown/ Riversdale
- Reduce traffic lanes and crossing distances
- Increase the width of the public realm to create wider sidewalks, furnishing and planting areas
- Introduce street furnishings that support a cohesive corridor character
- Create design guidelines for interim and future conditions
- Introduce business and street signage guidelines

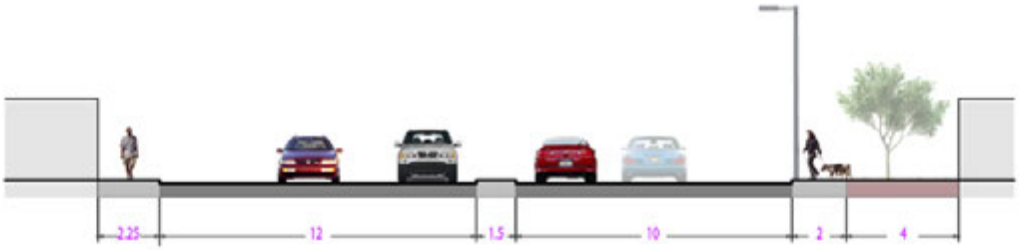


Figure 6.5: Auditorium Avenue to 21st Street Section

PUBLIC REALM + URBAN DESIGN

AUDITORIUM AVENUE TO 21ST STREET

The placement of Cactus Club sits comfortably back from the right of way while holding a strong address on Idylwyld Drive. This right of way setback is landscaped with a restrained use of appropriate plant material that is repeated along the restaurant frontage, creating a favourable condition with regular street trees that continue north to 22nd Street. Auditorium Avenue is a popular route for many pedestrians walking to and from Midtown Plaza that creates the need for a better pedestrian crossing condition at the T intersection where Auditorium meets Idylwyld Drive.

On the west of Idylwyld Drive, the pedestrian realm is constricted with only a 2.5 metre setback before the building defines the street edge. Street lights and other obstacles inhibit pedestrian flow on the sidewalk on both sides of the street.

OPPORTUNITIES

- Increase the width of the public realm to create wider sidewalks, furnishing and planting areas
- Introduce street furnishings that support a cohesive corridor character
- Introduce business and street signage guidelines
- Create consistent street wall edge

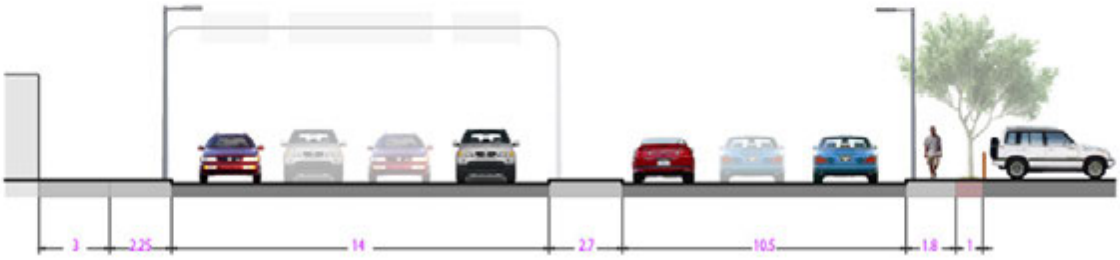


Figure 6.6: 21st Street to 22nd Street Section

PUBLIC REALM + URBAN DESIGN

21ST STREET TO 22ND STREET

A row of Ash trees continue north on the east side of the corridor creating one of only two treed conditions along Idylwyld Drive. The Ash trees sit in a strip of turf that defines the edge of the parking lot, however the row ends the half section before 22nd Street.

The west side is defined by the Fire Hall at the 21st Street intersection. Fire trucks exit onto Idylwyld Drive and the setback combined with the extensive drop curb creates an unfavourable pedestrian realm condition. To the north, the Tire Shop and the Home Leisure business have inconsistent setbacks from the curb edge and are surrounded by asphalt with no planting or street trees.

OPPORTUNITIES

- Increase the width of the public realm to create wider sidewalks, furnishing and planting areas
- Introduce a consistent urban edge on both sides of the corridor
- Improve, redevelop, or relocate Fire Station No. 1 to reduce pedestrian conflict
- Introduce street furnishings that support a cohesive corridor character
- Introduce business and street signage guidelines

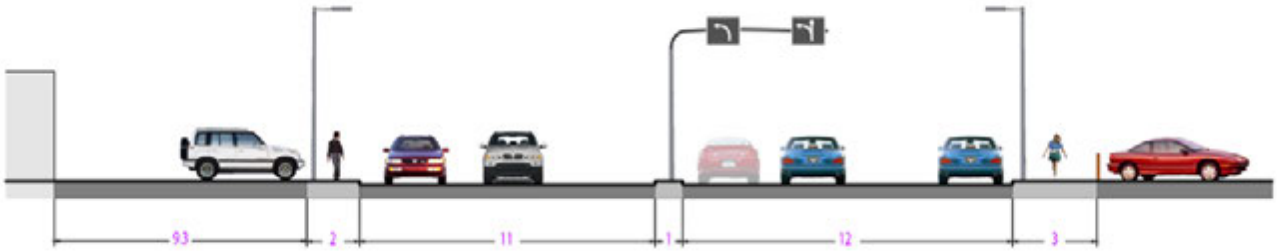


Figure 2.21: Figure 6.7: 22nd Street to 23rd Street Section

PUBLIC REALM + URBAN DESIGN

22ND STREET TO 23RD STREET

This section of the corridor is a collection of businesses in buildings with varying setbacks and streetscape conditions. Sidewalks are inconsistent with different materials. Crosswalks create dangerous conditions with inconsistent drop curbs at the pork chop islands between dedicated turn lanes.

Access to and from properties occurs directly off of Idylwyld Drive and from mid-block laneways. Wall Street provides additional access to the rear of properties on the east side of Idylwyld Drive.

OPPORTUNITIES

- Explore consolidating access or reducing access over the long term from Idylwyld Drive
- Increase the width of the public realm to create wider sidewalks, furnishing and planting areas
- Introduce street furnishings that support a cohesive corridor character
- Introduce business and street signage guidelines

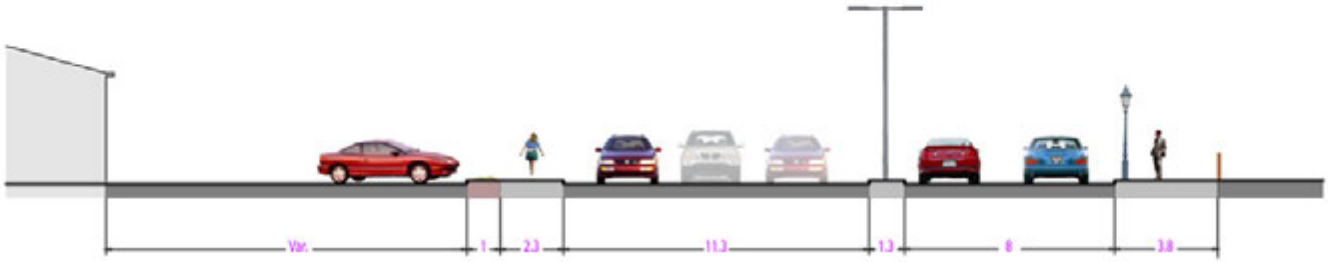


Figure 6.8: 23rd Street to 24th Street Section

PUBLIC REALM + URBAN DESIGN

23RD STREET TO 24TH STREET

This section is largely defined by the Jamieson Street and 23rd Street intersection. With the exception of the landmark restaurant Saskatoon Station Place and one retail store, all business cater to automotive services. The restaurant's presence on the south west corner of the intersection is the only building defining the intersection while parking occupies the other 3 quadrants. The public realm is dominated by vehicular traffic and sidewalks. Inconsistent drop curbs and access points to parking lots creates a hostile condition for pedestrians and barrier free mobility.

Most of streetscape is covered with asphalt and concrete sidewalks and has minimal vegetation or planting. Planting on private property is currently done in a piecemeal, non-integrated manner with small planters in front of businesses.

OPPORTUNITIES

- Increase the width of the public realm to create wider sidewalks, furnishing and planting areas
- Introduce a consistent urban edge on both sides of the corridor
- Introduce street furnishings that support a cohesive corridor character
- Introduce business and street signage guidelines
- Create private property planting guidelines
- Connect to, and enhance, the streetscape theming at the 25th intersection
- Improve the irregular configuration of space at the 23rd intersection

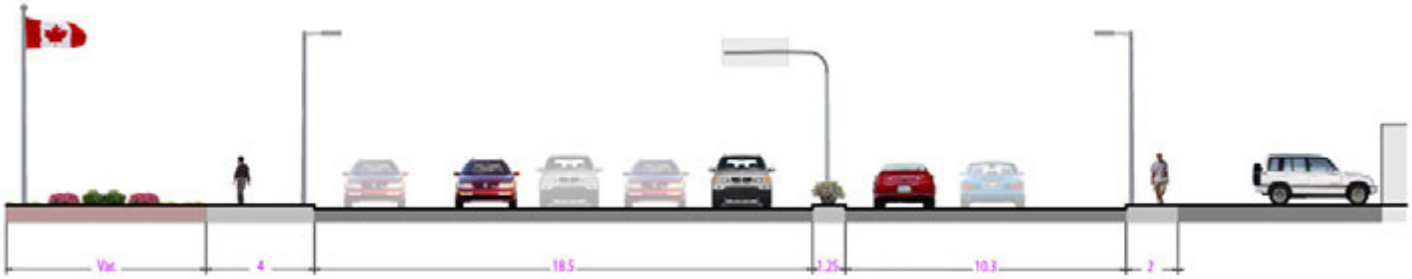


Figure 6.9: 24th Street to 25th Street Section

PUBLIC REALM + URBAN DESIGN

24TH STREET TO 25TH STREET

This area has recently undergone streetscape improvements, developing an aesthetic that relates to the railroad history of Saskatoon while paying homage to the ruggedness of the surrounding landscape and wilderness. Pedestrian crossings have been updated and were under construction at the time of the field investigation.

The intersection at 25th Street is defined by a unique and irregular condition with asymmetrical roadway intersection and a railway line splicing diagonally through the intersection. This condition provides opportunities to create interesting view corridors down the rail line.

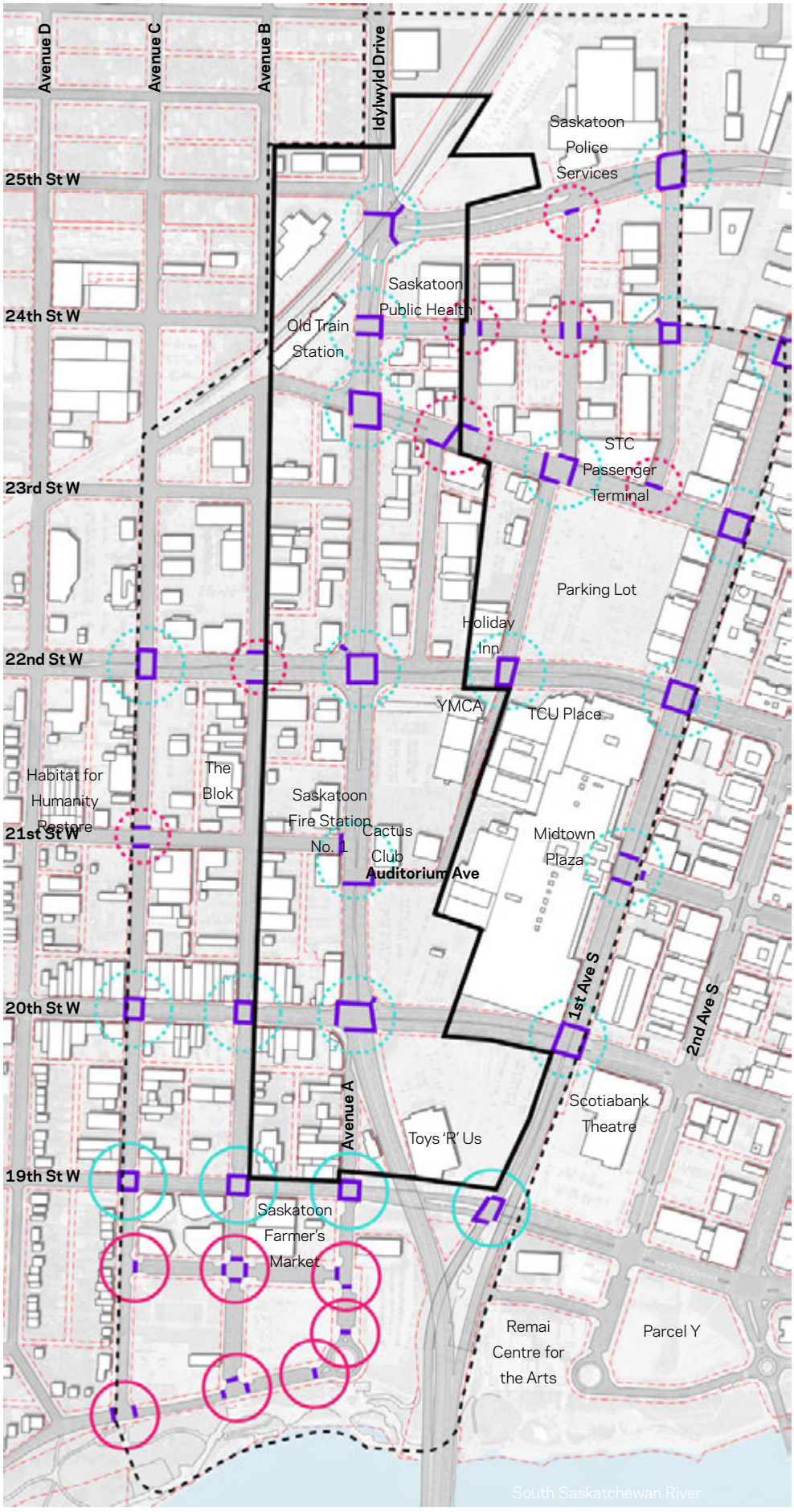
The recent streetscape improvements have replaced the centre island with a new concrete configuration and sidewalks improvements extend in all directions of this street section.

OPPORTUNITIES

- Increase the width of the public realm to create wider sidewalks, furnishing and planting areas
- Introduce a consistent urban edge on both sides of the corridor
- Introduce streets furnishing that support a cohesive corridor character
- Introduce business and street signage guidelines
- Connect to, and enhance, the streetscape theming at the 25th intersection

LEGEND

- Marked Crosswalks with Traffic Signal
- Paver-treated Crosswalk with Traffic Signal
- Marked Crosswalks without Traffic Signal
- Paver-treated Crosswalk without Traffic Signal
- Marked Crosswalks



PUBLIC REALM + URBAN DESIGN

CROSSINGS

The *Imagine Idylwyld* study area include 6 primary crossings, each with unique existing conditions and considerations, which are explored in greater detail in the following section.

Crossings along Idylwyld Drive are generally unkind towards pedestrians and cyclists. The highway-scaled and auto-oriented design of the corridor makes crossing difficult and dangerous for elderly or disabled.

The adjacent diagram describes the general conditions and style of each intersection.

OPPORTUNITIES

Reduce traffic lanes to minimize pedestrian crossing distance and time

Add streetscape elements such as trees, plantings, and where appropriate, seating adjacent to intersections to enhance the character and quality of the public realm while adding separation between vehicles and pedestrians

Reduce intersection widths, pedestrian crossing times, and vehicle speeds by reducing the turning radius at corners and extending curbs further into the intersection

Provide safer crossing conditions for cyclists with new infrastructure, such as corner refuge islands, and markings across the intersection

Ensuring there is adequate pedestrian refuge at the ends of crosswalks to enhance the walking environment

Create enhanced pedestrian crossings, through design and materials, to encourage drivers to yield to pedestrians and cyclists

Create accessible crosswalks with signals and cues for the visually and audibly impaired

Improve signalization, timing, and consider other smart technologies

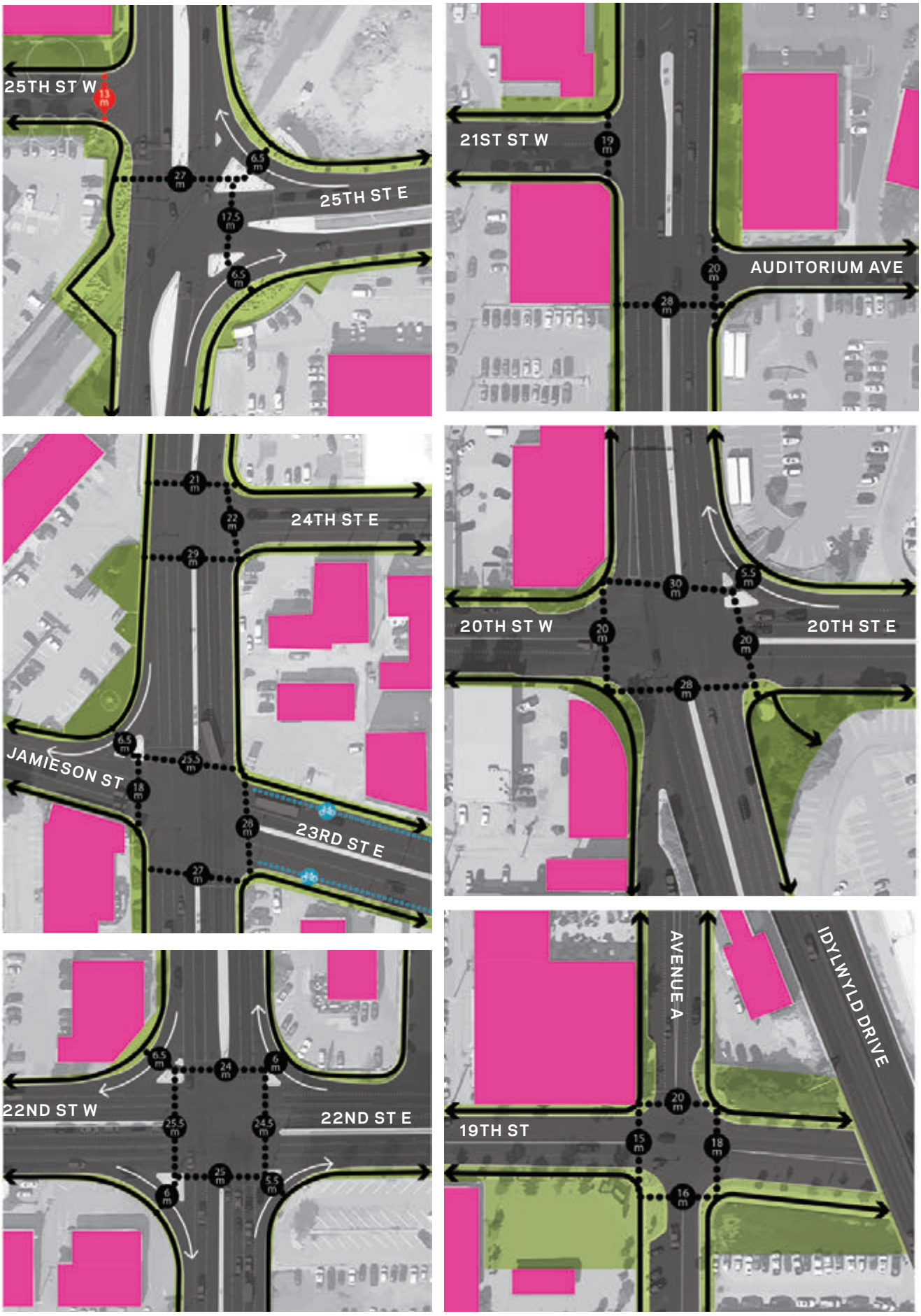


Figure 6.11: Intersection and Crossing Distance Details

PUBLIC REALM + URBAN DESIGN

CROSSING DISTANCES

'Pork chop' pedestrian islands provide priority to right-turning vehicles on the majority of intersections along the corridor. This condition is prevalent at 25th Street, Jamieson Street, 22nd Street, and 20th Street. These conditions encourage cars to speed around corners without stopping. It can be also uncomfortable to navigate and dangerous if on foot or a bicycle. They also add unnecessary distance and time to pedestrian crossings with the longest crossing on the corridor measured at 38 m at 22nd Street W.

There is a lack of streetscape elements, including trees, plantings, and seating as well as pedestrian gathering space at streets corners. While there are some green spaces adjacent to a few intersections, many of them are underutilized and not accessible.

Some of the intersections (such as Idylwyld Drive and Auditorium Avenue) lack proper street markings, are not fully utilized, poorly marked, and pedestrian crossing is forced to south side only.

OPPORTUNITIES

Encourage people to walk by creating a safe and inviting pedestrian realm

Minimize pedestrian crossing distance, time and exposure to potential conflicts

Maximize pedestrian visibility while providing design treatments that slow vehicles

Introduce traffic calming measures to allow drivers more reaction time and decrease severity when collisions do occur

SUMMARIZED OPPORTUNITIES

- Create a gateway condition to Downtown/ Riversdale
- Improve, redevelop, or relocate Fire Station No. 1 to reduce pedestrian conflict
- Introduce a consistent urban edge on both sides of the corridor
- Reduce traffic lanes to minimize pedestrian crossing distance and time, and increase the width of the public realm to create wider sidewalks, furnishing and planting areas
- Add streetscape elements such as trees, plantings, and where appropriate, seating adjacent to intersections to enhance the character and quality of the public realm while adding separation between vehicles and pedestrians
- Create design guidelines for interim and future conditions.
- Develop a connected and cohesive public realm by defining guidelines: palette of materials; colours scheme; street furnishings (benches, bike locks, bollards, light posts/standards, storm grates, litter receptacles); signage
- Ensure all new public realm surfaces and amenity spaces in the public realm is barrier free accessible and conforms to current best practice and local codes
- Reduce the number of curb cuts into the sidewalk/ public realm to create a more consistent corridor that is safer for pedestrians
- All design options shall take into account the four seasons by considering integrated storm water solutions within the streetscape and winter and snow operability
- Reduce intersection widths, pedestrian crossing times, and vehicle speeds by reducing the turning radius at corners and extending curbs further into the intersection
- Ensuring there is adequate pedestrian refuge at the ends of crosswalks to enhance the walking environment
- Create enhanced pedestrian crossings, through design and materials, to encourage drivers to yield to pedestrians and cyclists
- Create accessible crosswalks with signals and cues for the visually and audibly impaired
- Improve signalization, timing, and consider other smart technologies
- Encourage people to walk by creating a safe and inviting pedestrian realm
- Minimize pedestrian crossing distance, time and exposure to potential conflicts
- Maximize pedestrian visibility while providing design treatments that slow vehicles
- Introduce traffic calming measures to allow drivers more reaction time and decrease severity when collisions do occur

CYCLING NETWORK OPPORTUNITIES

- Provide safer crossing conditions for cyclists with new infrastructure, such as corner refuge islands, and markings across the intersection
- Identify any improvements to the movement and connection of bicycle corridors, both existing and proposed
- Within the designated Multi-Modal Corridor, incorporate cycle connections to the existing and proposed AAA Network within the space between new curb lines and property lines or building faces
- Provide suitable forms and levels of bicycle parking to match adjacent building and land uses
- Design bicycle crossings at intersections to minimize exposure and improve cyclist safety, and bicycle infrastructure improvements to current best practice for winter cities

GREEN SPACE OPPORTUNITIES

- Extend the green character from River Landing to create a dynamic planted corridor that frames the right of way with a general planting consistency while providing shade and reducing wind velocity within the public realm.
- Create a planting scheme defined by hardy, city-tolerant species suited to the four seasons of Saskatoon:
  1. Street Trees (high canopy, provides shade)
  2. Low shrubs (typically less than 1 metre which do not inhibit views and visual access for public safety and security
  3. Indigenous Grasses and Perennial Prairie plants
- Capitalize on the creation of smaller nodes of open space, or parkette conditions, that act as differentiating elements and that help to reinforce the quality of spaces
- Create larger open spaces near planned rapid transit facilities
- Create staging areas for public art and civic elements that may support current events and seasonal displays
- Incorporate land art, topographical features or low walls to develop character and help buffer the public realm from traffic noise, pollution, and water and salt spray from passing vehicles

07

CASE STUDIES

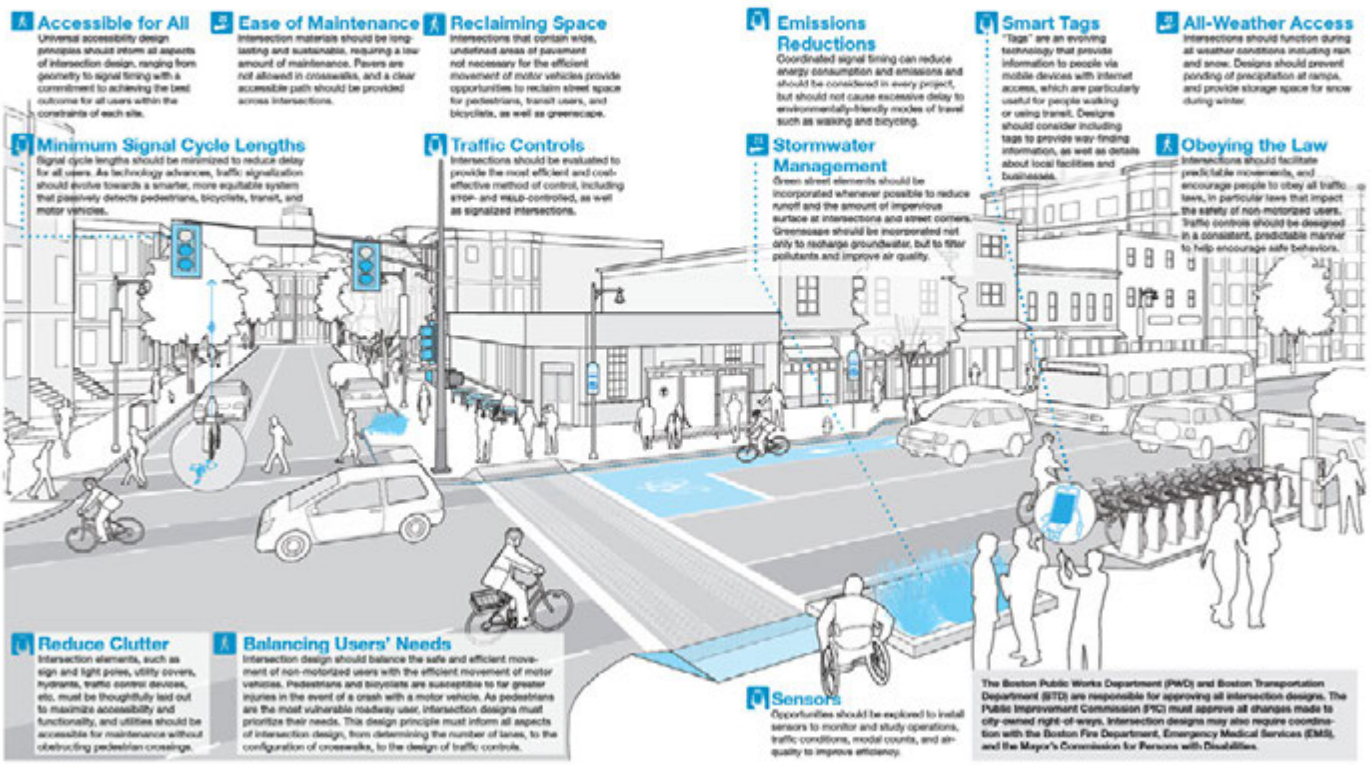
IMAGINE IDYLWYLD

City of Saskatoon

h+k

Associated Engineering

Intersection Design Principles



PLACEMAKING AT INTERSECTIONS

Reclaiming Space at Intersections

Reclaiming space for pedestrians and non-motorized users at intersections can be accomplished with short term and long-term solutions:

Short-term ways to creatively redistribute space at intersections include reclaiming parking spaces for parklets, bicycle share stations, temporary plazas, and mock curb extensions. Space can be redefined with seating areas, planters, and paint.

Long-term options include tightening corner radii, permanent curb extensions, the removal of turn lanes or parking lanes, the closure of slip lanes and incorporating the space into the sidewalk, or the narrowing of travel lanes. Space can be reclaimed for a variety of purposes including improving safety, widening sidewalks, adding bicycle facilities, and providing space for traffic control devices, utilities, greenscape, street furniture, vending, and public art. Space can be reclaimed in the middle of an intersection, extended from corners, or legs of an intersection can be closed to motor vehicle traffic and converted for other purposes such as a pedestrian plaza. Large sculptures can be incorporated to serve as a gateway treatment and landmark. An island or extension can also provide a location for a transit stop.

Some of Boston's intersections are especially broad for historic reasons. The evolution of Boston's transportation network produced streets that intersect at irregular angles, and often large corner radii were built to accommodate streetcar tracks; this additional roadway pavement at intersections can be reclaimed to make the space more comfortable for pedestrians and bicyclists, and to reinforce the sense of place and community identity.

CASE STUDIES

STREETSCAPE DESIGN

BOSTON COMPLETE STREETS GUIDELINES
BOSTON, USA

The Boston Complete Streets approach puts pedestrians, bicyclists and transit users on equal footing with motor-vehicle drivers. This initiative aims to improve the quality of life in Boston by creating streets that are both great public spaces and sustainable transportation networks. It embraces innovation to address climate change and promote healthy living. The objective is to ensure Boston's streets are:

Multimodal
Incorporates pedestrians, people with disabilities, bicyclists, transit users, motor vehicle drivers. Multimodal level of service (LOS) informs roadway design to ensure that streets are shared by all users and not dominated by cars.

Green
Incorporates street trees, rain gardens, bioswales, paving materials and permeable surfaces, with plants and soils collecting rain water to reduce flooding and pollution. Green design elements promote an environmentally sensitive, sustainable use of the public right-of-way.

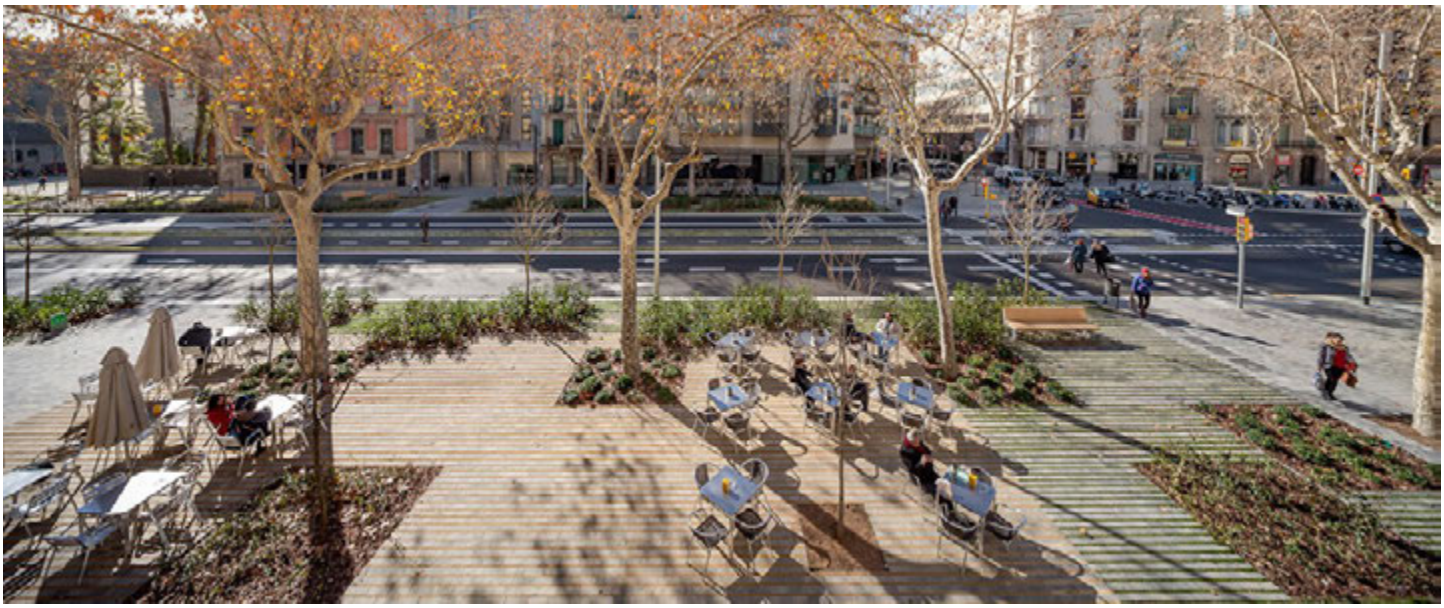
Smart
Incorporate intelligent signals, smart meters, electric vehicle sharing, car and bicycle-sharing, way-finding and social networks for greater system efficiencies and user convenience

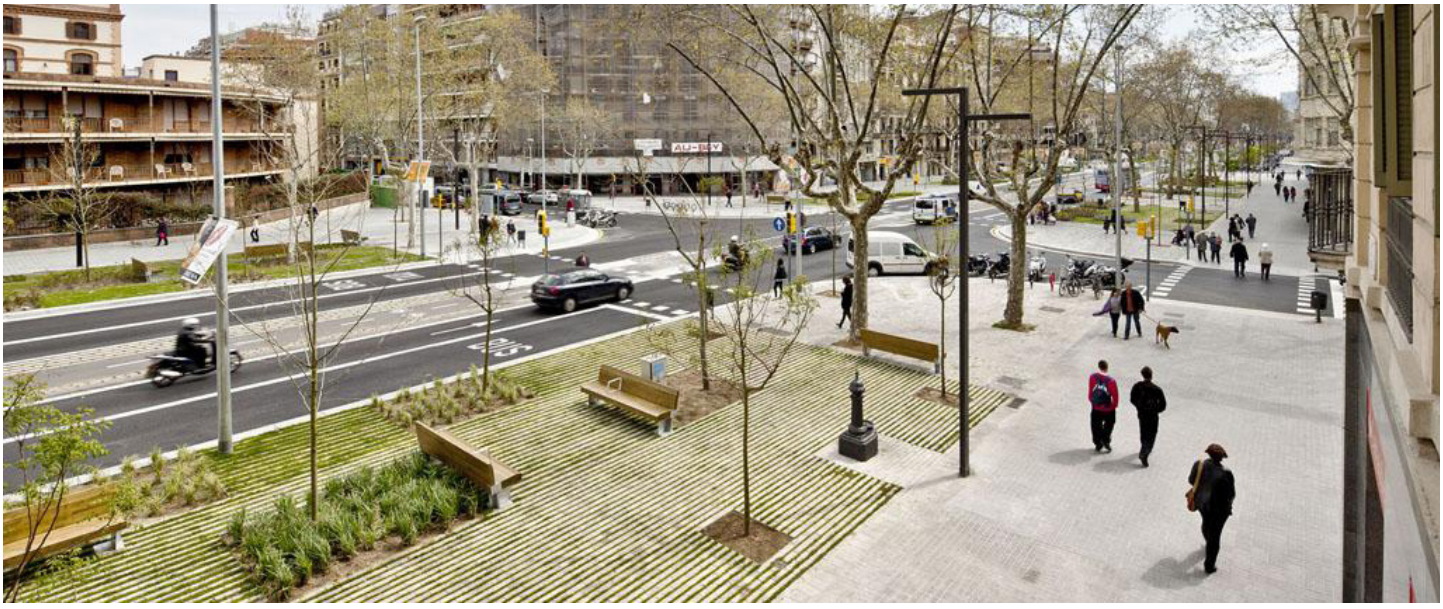
OPPORTUNITIES

Design for pedestrians, people with disabilities, bicyclists, transit users as well as motor vehicle drivers

Combine trees, bioswales, permeable paving with soil infiltration zones to reduce flooding and pollution

Use smart technology for greater system efficiencies and user convenience





CASE STUDIES

LOCALIZED INTERVENTIONS

PASSEIG DE ST JOAN BOULEVARD
BARCELONA, SPAIN

The layout of paseo de St Joan as an important 50m boulevard was first laid down by Ildefons Cerdà in his Ensanche project, approved in 1859.

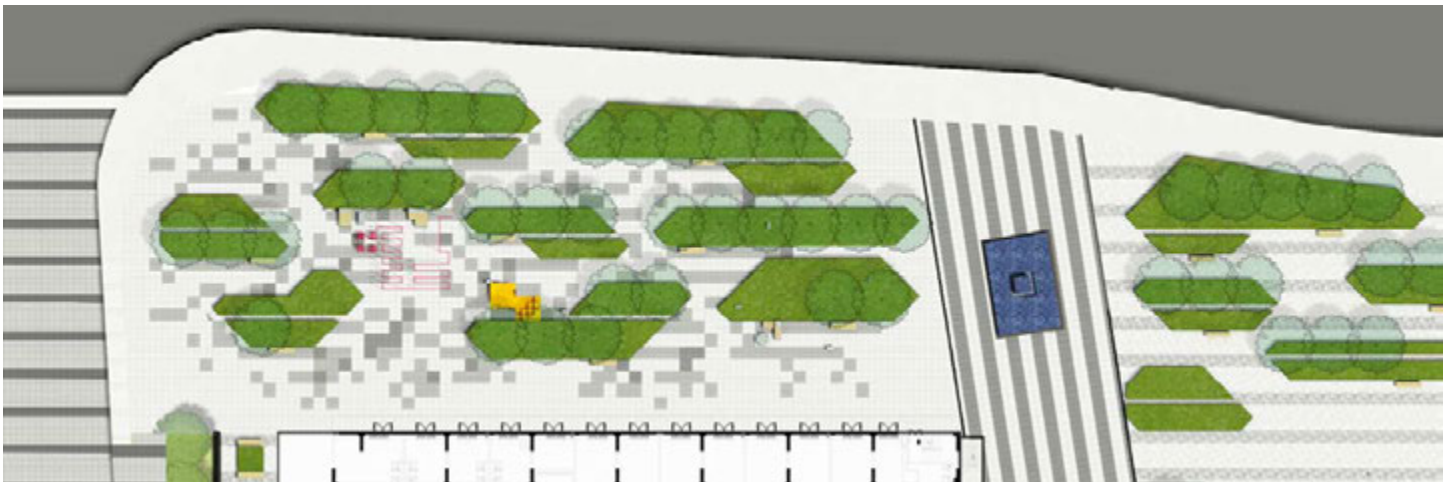
Cerdà's isotropic layout of 20m-wide streets also features various main 50m-boulevards with wide pavements lined with two rows of trees as well as a central roadway. Passeig de Sant Joan is one of these.

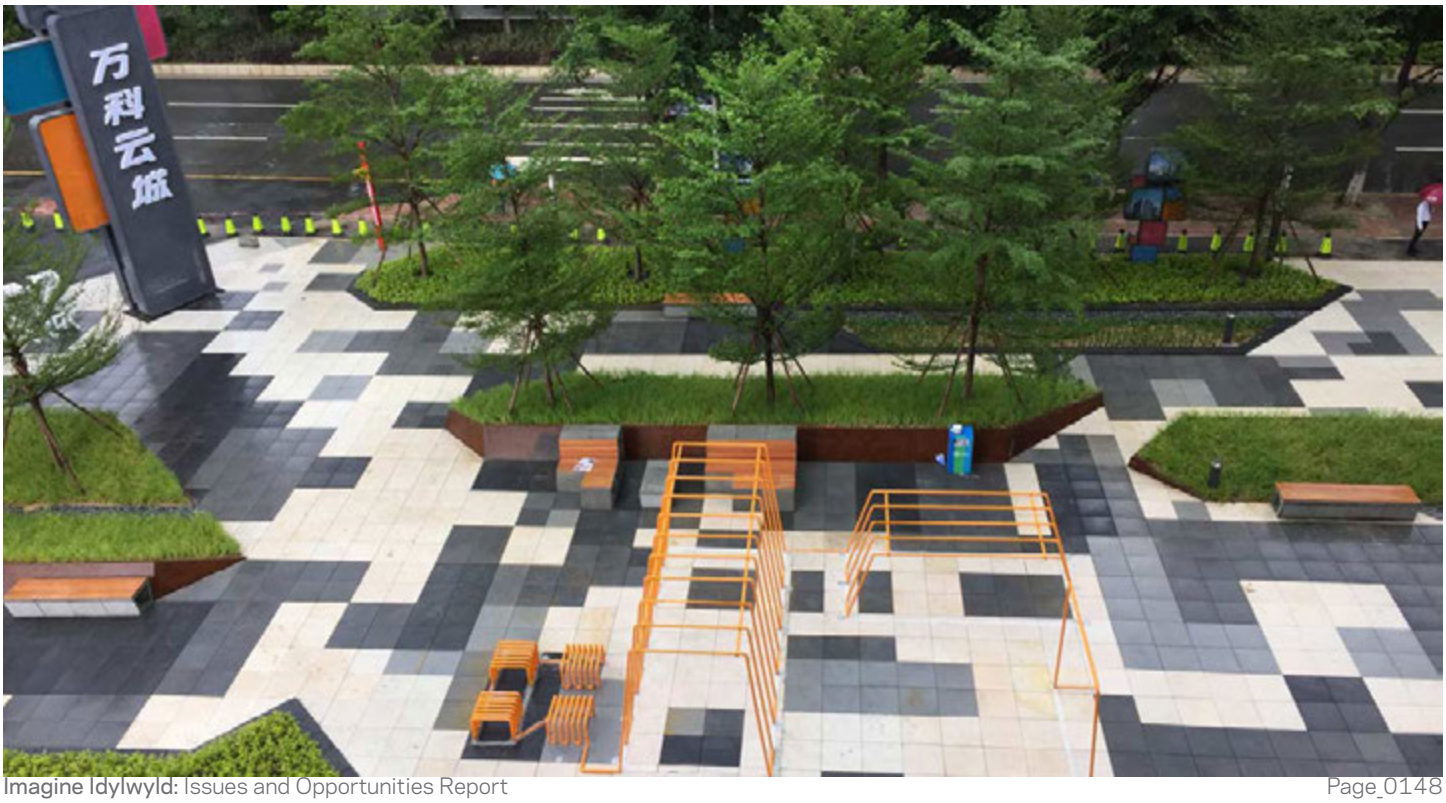
Josep Fontseré's Ciutadella project (winner of the 1872 contest) featured a new central promenade which was to prolong the Salón de St Joan. The Ciutadella fortress was demolished and turned into a public park and this led to the prolongation of paseo de St. Joan thus recovering the vertical axis featured in Fontseré's project.

OPPORTUNITIES

Incorporate parkettes, leisure space, and programmed public space with traditional streetscapes, where ever space allows

Modernize street use while respecting and incorporating historical design intentions




万科云城

CASE STUDIES

VISUAL INTEREST

VANKE CLOUD CITY PHASE 2
GUANGZHOU, CHINA

Located in Guangzhou, Vanke Cloud City Phase 2 is a pioneer mixed use development project in China. It is composed of four residential towers with over 5000 small apartments (8-35 sq.m) surrounded by fashionable commercial frontage.

This project is one of the first small apartment projects in China, aiming to satisfy the young newcomers who work in big cities but cannot afford the high price of real estate.

With small apartments, young people can continue living in first tier cities, enjoying rich career opportunities, modern facilities, comprehensive public services, and access to cutting-edge information, all while still being able to afford a home.

Modular Grid System
The landscape framework is based on a modular grid system. From softscape, to paving, to outdoor furniture and installation, landscape elements are arranged on this system so that they are easy to construct, assemble, and replace.

Interactive Landscape Installation
A series of fun, interactive installations animate the landscape. The Cloud Line is a continuous tubular steel structure, bent into a bar, parallel bars, monkey bars, benches, and other fitness facilities. Cloud Seat is a modular set of interactive spaces made of pre-perforated steel plate. Cloud Seat is lit up at night and produces stunning lighting effects through the perforated plate.

OPPORTUNITIES

Incorporate whimsical design elements which appeal to a wide range of users.

Consider using modular systems of construction to maximize project efficiency and minimize costs

Imaginative lighting strategies can animate and reinforce the street's night time presence

CASE STUDIES

GATEWAY

LONSDALE STREET REDEVELOPMENT
MELBOURNE, AUSTRALIA

Lonsdale Street is the first key project as part of the State Government's Revitalizing Central Dandenong Initiative to bring new energy, activity and amenity to the street. Central Dandenong has a unique cultural richness, a dynamic produce market, performing arts precinct and distinctive retail sector, yet economic decline over many years, took its toll on civic character and public realm. Lonsdale Street was historically a prosperous retail spine but in recent years had developed into a major arterial route dissecting the retail heart and creating a significant physical and psychological barrier to the city.

Connections
Instead of a significant barrier, Lonsdale Street became a key connecting catalyst, fostering clear and legible street connections to each of the City's key public assets.

Street Life
Creating a memorable boulevard, animated along its length and connected to a range of finer grain experiences from active retail edges, pocket parks, to civic plazas.

Knitting into the Urban Morphology
Ensuring Lonsdale Street was structured to build upon the distinctive urban structure of the City , reinforcing existing fine grain patterns.

Protecting Valued Urban Places
Identifying Lonsdale Street and its adjacent precincts as a significant opportunity to curate the ongoing retention of cultural destinations and creating new opportunities for urban places and activity.

Investment and Design Excellence
Creating opportunities for investment and further development via the creation of a rich and enduring public realm experience.

OPPORTUNITIES

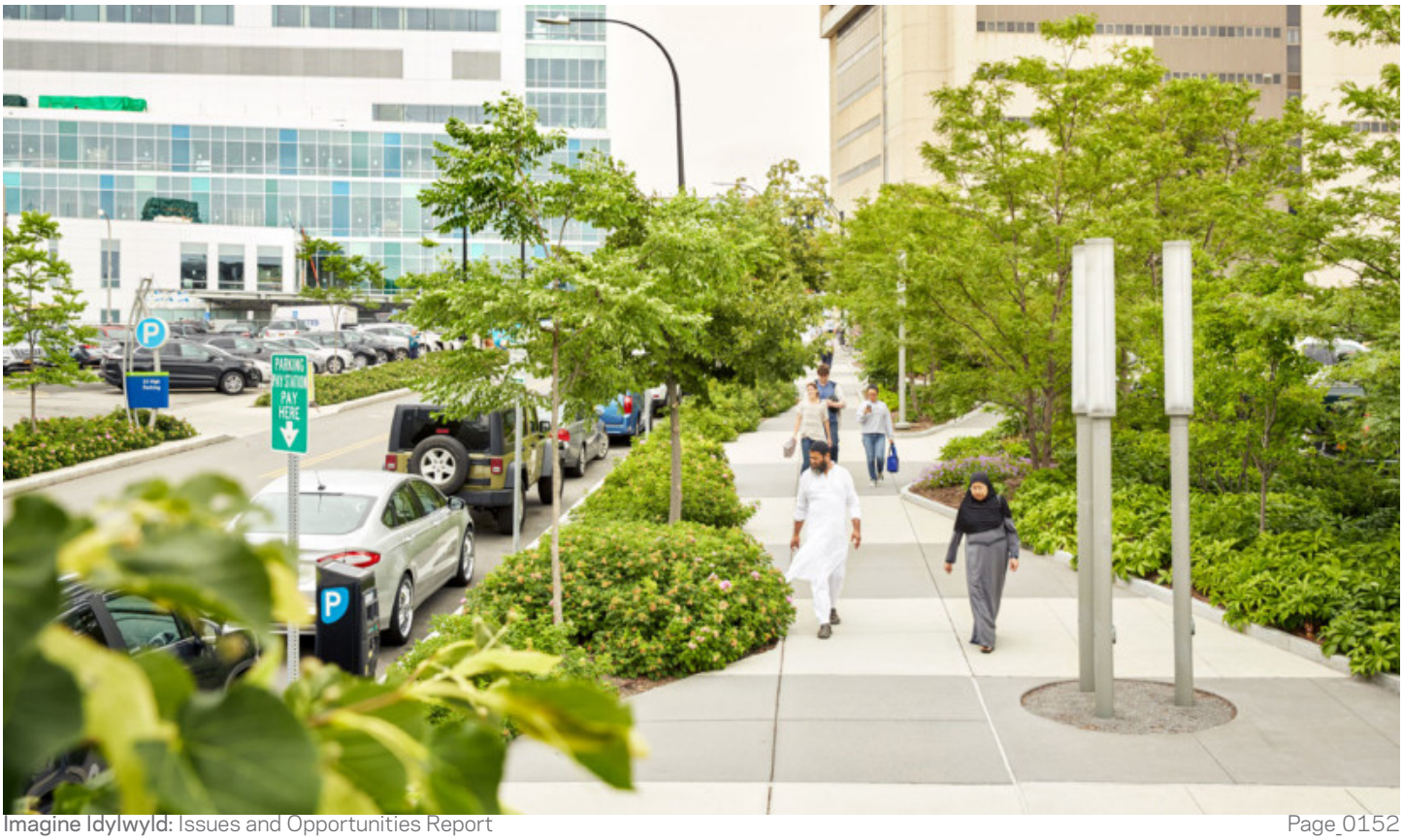
Incorporate technological design elements, such as LED lighting, to create processional and gateway aesthetics and to help create improved safety

Build on the fine grain urban fabric of Saskatoon's urban grid

Build on cultural momentum in Riversdale and Downtown and become a meeting place for ideas and cultures to merge

Imaginative lighting strategies can animate and reinforce the street's night time presence

Repetitive design features can create a strong sense of arrival and formal procession


PARKING
PAY
HERE

CASE STUDIES

STREETSCAPE PERMEABILITY

BUFFALO NIAGARA MEDICAL CAMPUS
BUFFALO, USA

At Buffalo Niagara Medical Center, a monotonous urban environment was ecologically barren and lacking a unique identity. This project worked to re-establish a strong vegetated footprint for the site.

Long angled planting beds maximize additional tree planting area while respecting the root zones of existing large street trees. A tiered system of vegetation increases permeability while cooling the space. The shrub layer, understory tree planting, and canopy tree planting are composed of a mix of native and urban-adapted species with a high tolerance to Buffalo's harsh winters and salting regime.

A new experience emerges within the campus– a once homogeneous edge transforms into a dynamic and ever-changing forested walkway, offering new experiences for students, patients, and visitors who use the path every day.

OPPORTUNITIES

Maximize vegetative footprint wherever possible to enhance microclimate, pedestrian experience and street identity

Respect Tree Root zones and prioritize the health of the Urban Forest

Choose hardy vegetation that is adaptable to urban conditions and has seasonal + spatial interest

CASE STUDIES

STREET CHARACTER

OMOTESANDŌ STREETSCAPE
TOKYO, JAPAN

Omotesandō is a Zelkova tree-lined avenue located in Shibuya and Minato, Tokyo, stretching from the entrance of the Meiji Shrine, to Aoyama-dori where Omotesandō Station can be found.

Omotesandō is known as one of the foremost 'architectural showcase' streets in the world, and is the main vehicle and pedestrian thoroughfare for the shopping district commonly referred to as Harajuku.

It is often times referred to as "Tokyo's Champs-Élysées". Its latest development, Omotesandō Hills, a large shopping mall, opened in 2006. Omotesandō's side streets known as Ura-Harajuku, feature a range of smaller cafes, bars, and restaurants, as well as boutique stores.

OPPORTUNITIES

Understanding the long term impact of a developed tree canopy, incorporate large Shade Trees where ever possible.

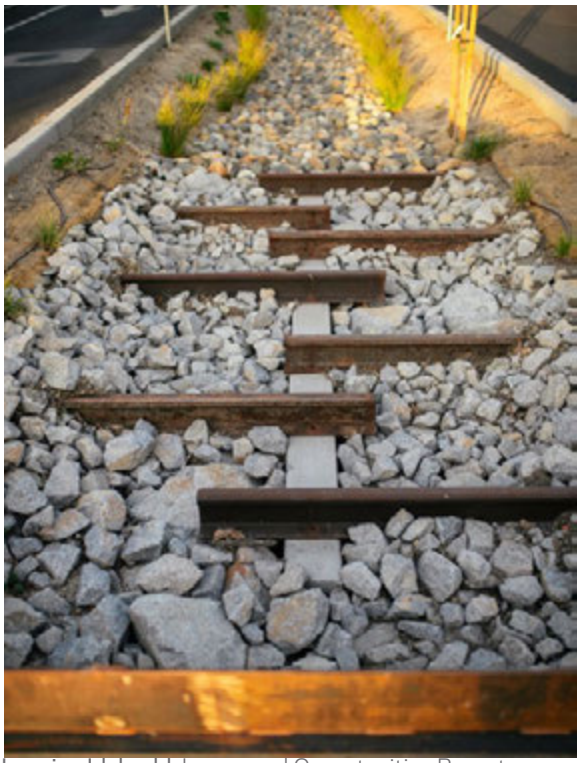
Encourage development of boutiques, cafes and bars to animate street life.

Connect into the finer grain of surrounding urban fabric

Design subtle vehicular access in an urban condition

Designing for winter conditions and snow removal

Connecting to a large shopping centre in an urban context



CASE STUDIES

GREEN INFRASTRUCTURE

21ST ST COMPLETE / GREEN STREET
PASO ROBLES, USA

21st Street is a commercial and residential street in Paso Robles, California. The street, one of four railroad crossings in town, was established decades ago in a natural drainageway.

This project dealt with several issues including the lack of existing stormwater infrastructure. And while children and seniors used the corridor to access services, vehicle speeds were high on this regional street

A concept plan was prepared for five contiguous blocks of 21st Street, between Vine Street and Riverside Avenue, transforming them into a green, complete street that meets several objectives, including:

1. Containing the 10 year storm within the street section
2. Increasing ground-water recharge
3. Improving pedestrian and bicyclist mobility
4. Reducing sediment into the nearby Salinas River

OPPORTUNITIES

Incorporate green infrastructure-- such as pervious pavers, engineered median swale channel, structural soil cells, and drought tolerant native plants.

Use local or recycled materials and consider re-purposing existing site artifacts to reinforce local character and site memory.

Engage with local artists to create streetscape interventions which create sense of community and place

08

NEXT STEPS

IMAGINE
IDYLWYLD

City of Saskatoon

Associated Engineering

NEXT STEPS

PHASE 03: CONCEPT ALTERNATIVES

Following final approval and sign-off of this report from Steering Committee, the Project Team will commence into the development of corridor design alternatives.

This phase of work will begin with a stakeholder workshop focused on technical considerations to help inform the designs, including land planning and impacts on access and neighbouring uses, construction, as well as ongoing maintenance implications.

Using a design component matrix established from the Guiding Statements in this report, as well as feedback from the Steering Committee and Stakeholders, the Project Team will identify potential streetscape improvements.

Streetscape components will encompass typical travel way layouts (intersection build outs, cycle ways, public transit facilities (bus and BRT infrastructure, existing land proposed), etc.), crossings, as well as streetscape standards (pedestrian and cycling amenities, street trees etc.) and recommendations for gateway moments and art.

Specialized interventions will be considered for improved sustainability and opportunities to move from grey to green-blue infrastructure, including landscape-based storm water management controls, ecosystem services, flood mitigation, environmental resiliency, or restoration measures. General guidelines will clarify applicable planning tools, investigation of potential funding sources, and recommendations for implementation strategies based on similar project benchmarking, as well as providing any recommendations for further study.

HOK will develop 3 design alternatives illustrating the implementation of the design vision and principles at a strategic level, with clear site planning of physical interventions. Rationale will be provided for each alternative with illustrative and written supporting information in a non-technical design narrative documenting the decision-making process. Illustrative materials will include plans, diagrams, typical sections, and 1-3 conceptual perspectives.

An accompanying technical package will be prepared for each alternative, setting out the design parameters including intersection and corridor performance using

HCM 2010 MMLOS and SimTrafc; to identify land requirements (if any); and, confirm resolution of issues and opportunities identified by the transportation assessment. The technical package will include conceptual site plans with lane configurations, street geometry, driveway crossings and streetscape components as well as the right-of-way with typical cross-sections.

Concept level drawings will be developed illustrating curblines, lane widths, boulevard/sidewalk widths and intersection geometry. The concept drawings will also identify any proposed access point closures and the introduction of any right-in/right-out access modifications.

Following an engagement period with Steering Committee and the Public, The Project Team will evaluate the Alternatives. A test fit of the corridor alternatives will occur using the evaluation criteria developed alongside the preliminary project vision and refined through the engagement process.

Encompassing beyond Idylwyld Drive, the evaluation will address private and public open spaces, pedestrian and cycling connections, gateways, transportation infrastructure, and the built form. To gather more concentrated feedback on the corridor, HOK will undertake a focused analysis of street character and function using diagrams and photographic documentation.

The comparative evaluation will include high-level consideration of the preliminary cost estimate.

IMAGINE IDYLWYLD

City of Saskatoon

HOK

Associated Engineering