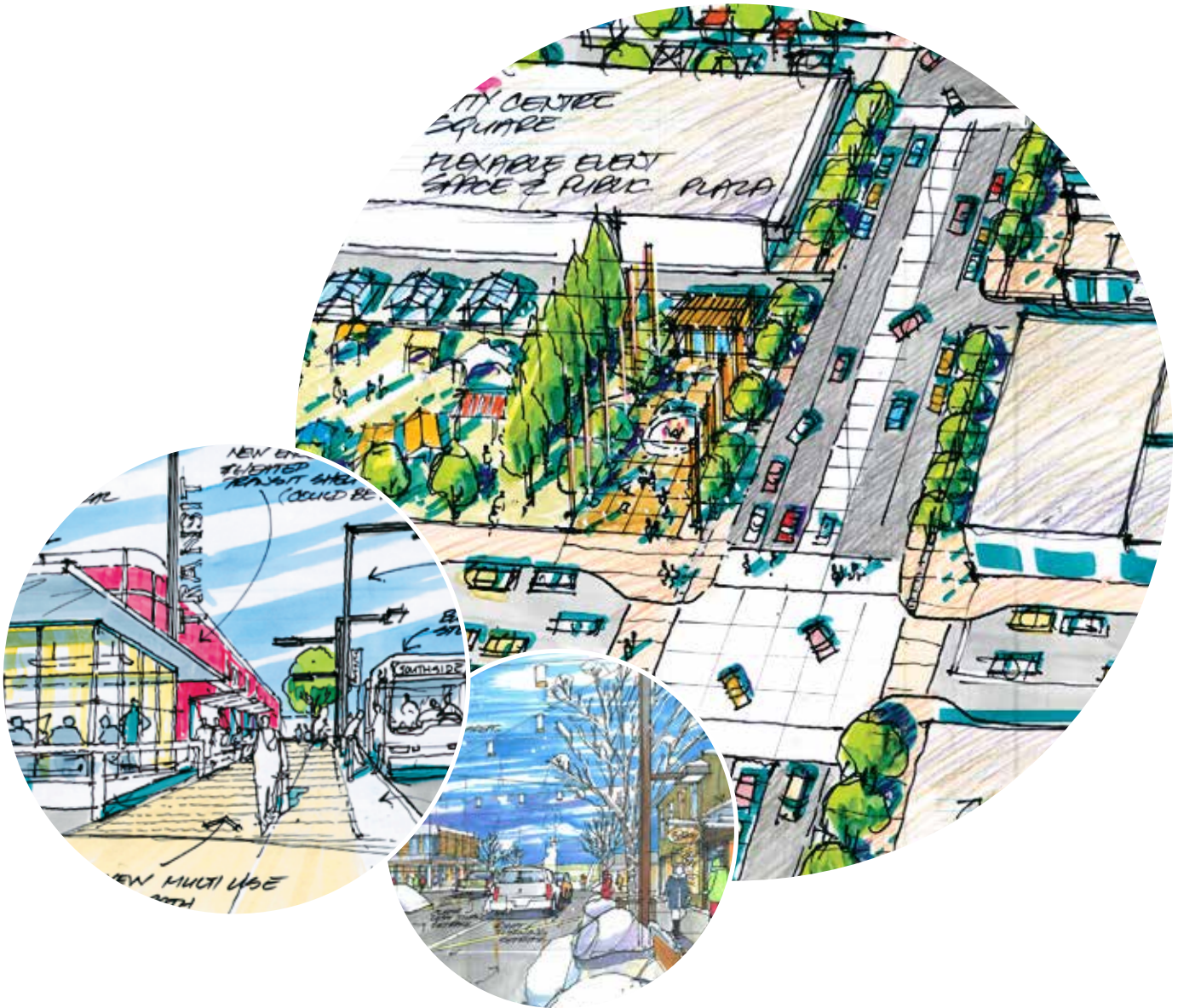


CITY OF FORT ST. JOHN

100 STREET CORRIDOR PLAN

SEPTEMBER 27, 2019



prepared for the City of Fort St. John by:



in collaboration with:



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EXECUTIVE SUMMARY

The City of Fort St John is planning for the replacement of 100 Street. Recognizing a project of this magnitude only happens once in a century, the City first invested in a planning and public consultation process, which involved a 5-day charrette with a design team of urban designers, planners, civil and transportation engineers, and economic development specialists. Their role was to help the City determine the best design for all the different people who use 100 Street.

The Plan begins to fundamentally re-imagine 100 Street as a “place for people” by making room for public space. The Plan balances widening user needs with requirements for infrastructure upgrades, optimized parking and maintained traffic flow, recognizing its function as a key transportation corridor.

VISION *"A STREET FOR EVERYONE... IN THE HEART OF A THRIVING DOWNTOWN"*

PRINCIPLES

- *Access for all ages and all abilities, on foot and on wheels*
- *Comfortable, safe and enjoyable spaces for social connection*
- *Adequate parking and access to support downtown businesses*
- *Movement of goods, services and emergency vehicles*
- *Flexibility of special events and seasonal celebrations*
- *Enhanced community identity and civic pride*
- *Design adapted to Fort St. John's climate*
- *Support for local businesses and downtown economic revitalization*

A guide to this document:

- The following pages show the **“Plan on a Page”**, followed by proposed cross-sections for two different stretches of the corridor.
- To understand the lens through which this project was viewed, the **Introduction** (p. 4) provides a thoughtful description of the context for the re-design of 100 Street: looking at the City of Fort St. John’s climate and culture, the people 100 Street serves and best practices in street design.
- **The Plan for 100 Street** (p. 44) breaks the study area - 100 Street between 96 and 105 Avenues- into ‘precincts’, providing guidelines for street design and recommendations for the buildings that frame them. This is preceded by General Guidelines that apply to the whole study area.
- Finally, the **Implementation** section (p. 82) gives an outline of what’s ahead, from detailed design to construction, and recommendations for getting there.

PLAN ON A PAGE

GREENWAY CROSS-SECTION

(see next page)

TYPICAL CROSS-SECTION

(see next page)



RECREATIONAL PRECINCT

The destination Recreational Precinct anchors the south side of the 100 Street corridor with the soon to be constructed Festival Plaza to the southeast.

SOUTH GATEWAY

The South Gateway signals entry into the Greenway Precinct when traveling northbound – the start of the journey up to the heart of downtown. The intersection includes dedicated left and right turn lanes to encourage northbound drivers not traveling Downtown to use alternate routes

transitional south

core

GREENWAY PRECINCT

The Greenway Precinct links the Recreational Precinct and the downtown with its eastern 'greenway' - a widened sidewalk with staggered double row of trees.

transitional north

THE HEART

The heart of Fort St. John lies at its point of origin – 100 Street at 100 Avenue. It is defined by a well-utilized Open Space to the northwest, the North Peace Cultural Center to the southwest, Whole Wheat and Honey Café to the northeast

core

HIGH STREET PRECINCT

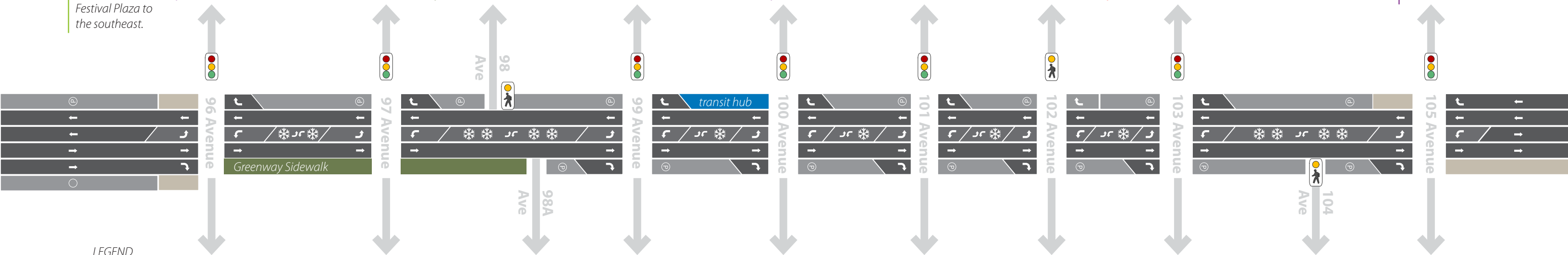
The well-defined edges of small storefronts between 101 and 102 Avenues characterize the High Street Precinct

transitional north

NORTH GATEWAY

This gateway announces arrival into Downtown and the start of the High Street Precinct. Intersection design diverts through-traffic as is done in the South Gateway

CIVIC PRECINCT

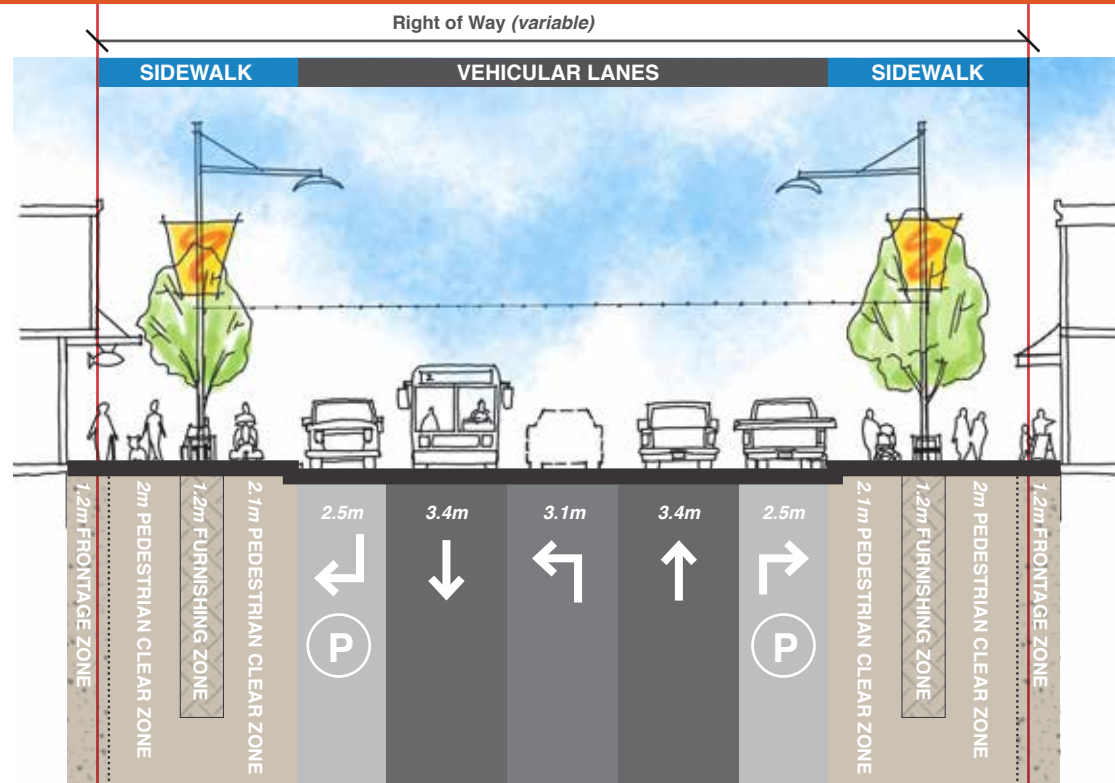


LEGEND

- Ⓟ parking
- ↩ left-hand turning
- ↔ direction of travel
- ↪ right-hand turning
- ↔ two-way turning (summer)
- ❄ snow storage (winter)

PROPOSED CROSS-SECTIONS

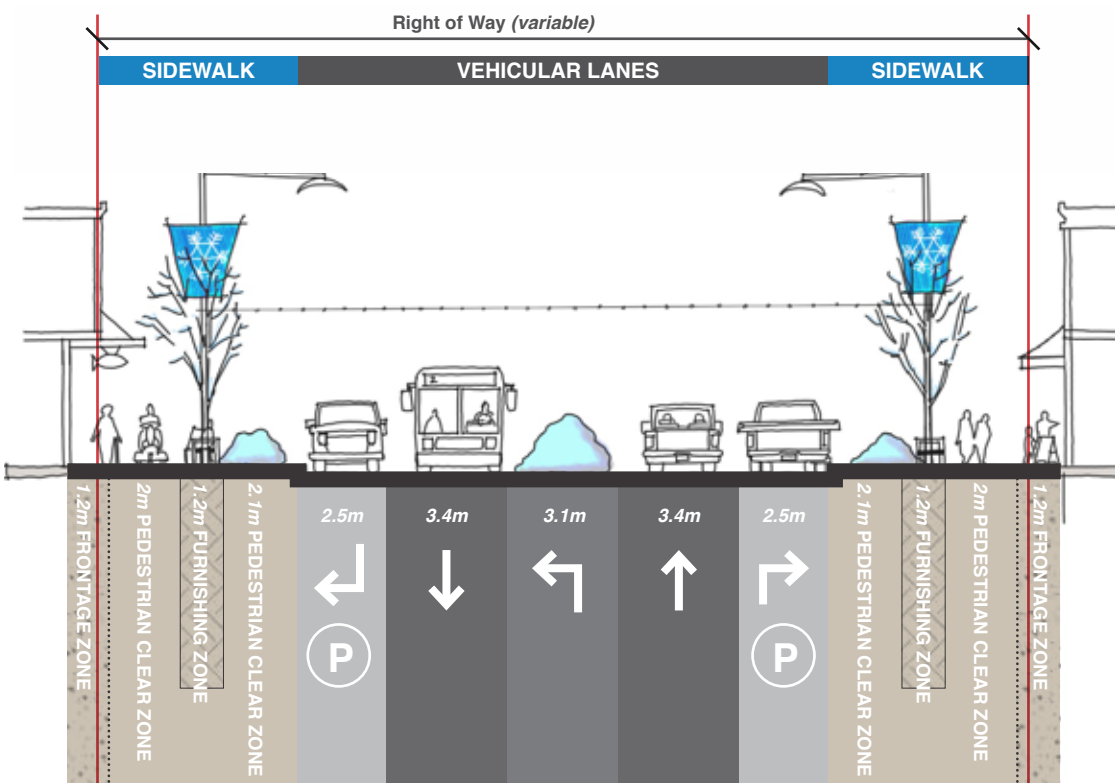
TYPICAL CROSS-SECTION



SUMMER CONDITION

Lane width dimensions (parking, travel and turn lanes) were based on the Transportation Association of Canada Geometric Design Guide for Canadian Roads. Establishing turning lanes allows for more efficient use of space, which can be dedicated to expanding the pedestrian realm. This supports Downtown businesses who rely on foot traffic (see Retail Vitality and Impact Mitigation Review, Appendix Fd.).

Dividing the sidewalk into two pedestrian clear zones allows people to negotiate space more easily - mobility scooters and people getting out of parked cars on one side, leisure strollers and window shoppers on the other.

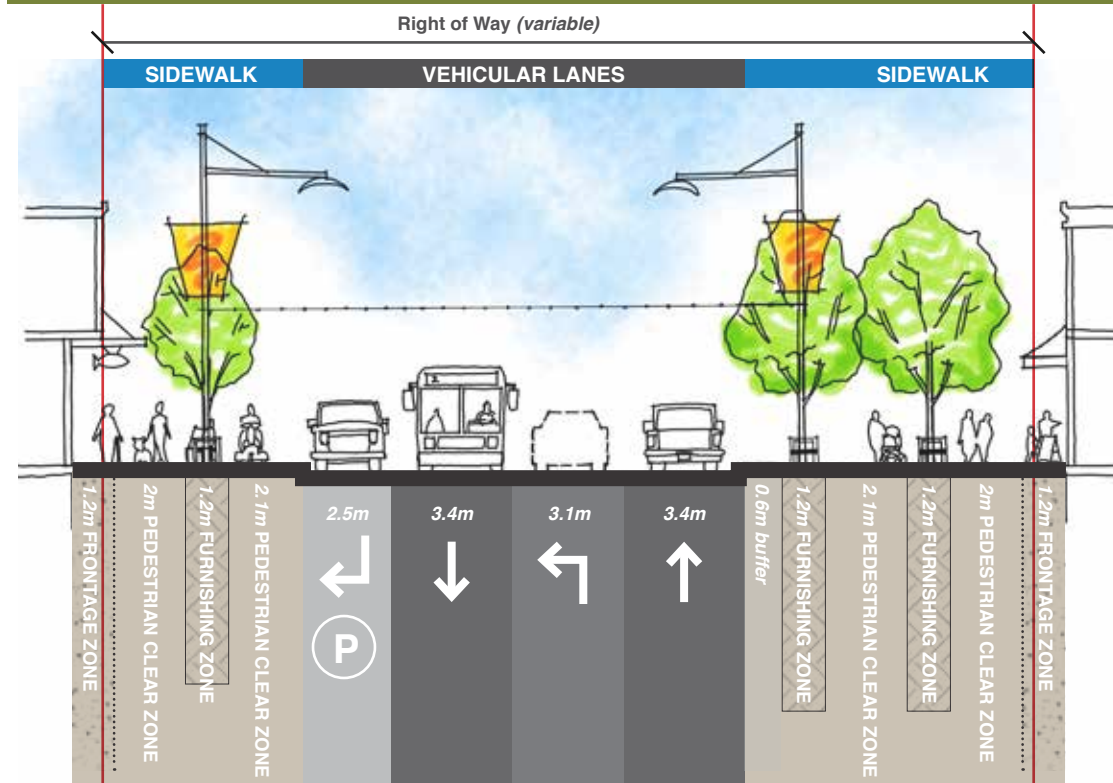


WINTER CONDITION

In the winter, the centre turning lane can be used for snow storage. On sidewalks, one of the widened sidewalk and pedestrian clear zones allow special snow equipment to be used to plough, instead of City staff manually shovelling the snow as they currently do today due to the narrow sidewalk width.

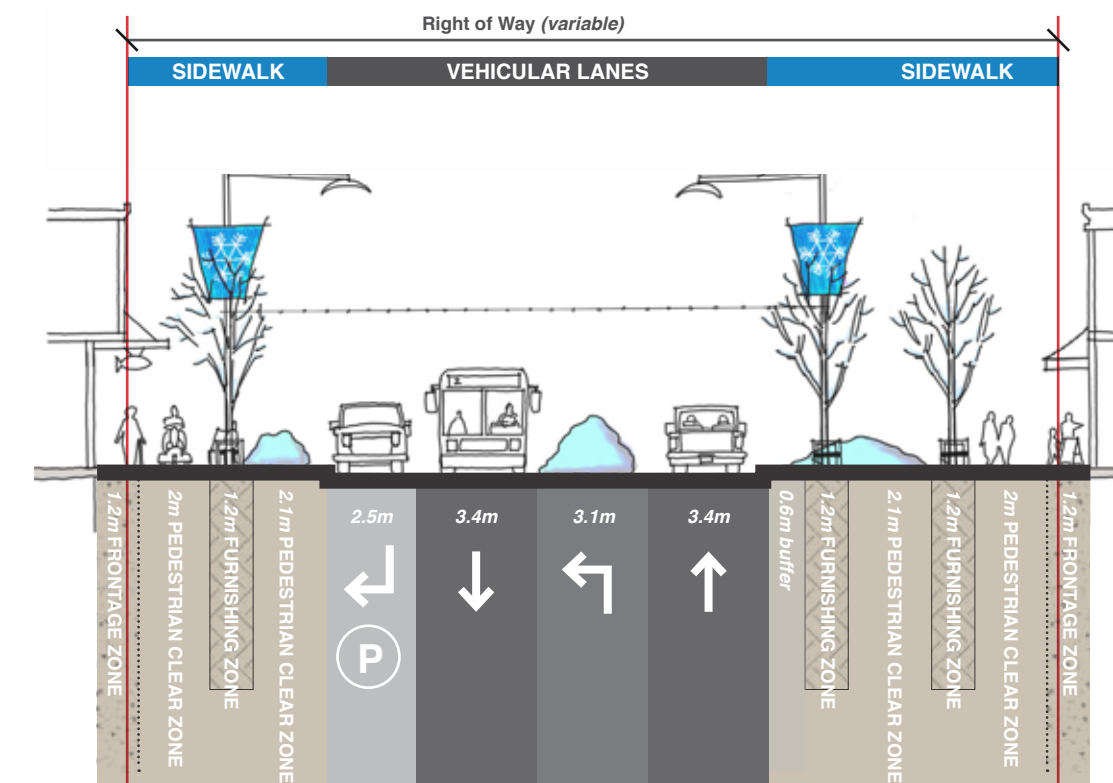
Setting the furnishing zone back from the curb also protects trees from damage by large vehicles (such as snow clearing equipment).

GREENWAY CROSS-SECTION



SUMMER CONDITION

For a few blocks where parking is vastly underutilized, an altered cross-section is proposed where the eastern parking lane is dedicated to the pedestrian realm, and the sidewalk widened further. This allows for a 'greenway' - a widened sidewalk with staggered double row of trees - to be established.



WINTER CONDITION

In the winter, the greenway cross-section functions similarly to the typical cross-section by storing snow in the centre turn lane and sidewalk areas closest to the curbs.

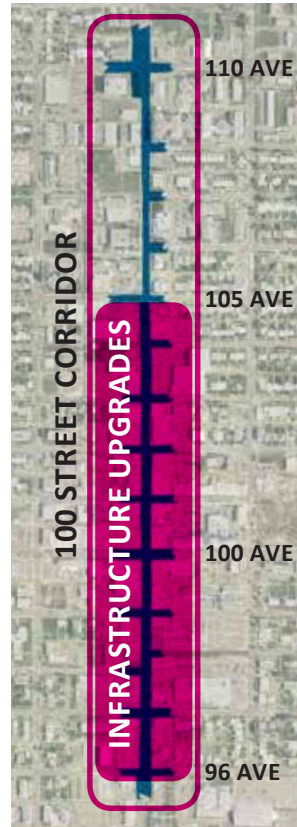
INTRODUCTION

1 | PROJECT ORIGINS

1.1 | A BIG OPPORTUNITY... LET'S DO IT RIGHT!

The City of Fort St. John is undertaking extensive multi-year infrastructure upgrades of its water, sewer and storm pipes under the streets of its Downtown - starting in 2020. Following the Downtown Action Plan's directive to "coordinate streetscape enhancements with infrastructure upgrades", the City is taking this opportunity to redesign and rebuild the surface of the street. The redesign prioritized economic development and downtown revitalization, while acknowledging that 100 Street must continue to operate as a major transportation corridor within the city.

Recognizing a project of this magnitude only happens once in a century, the City established a planning and public consultation process to determine the best design for all the different people who use 100 Street – this means businesses, shoppers, drivers (and delivery vehicles), pedestrians, cyclists, visitors, and more.



PROJECT AREA: THE 100 STREET CORRIDOR

The overall project will extend from 96 Avenue to 110 Avenue (with major reconstruction occurring between 96 Avenue and 105 Avenue). Construction will be managed in multiple phases, beginning at the southern end in 2020 and progressing northwards as determined by engineering requirements.

PROJECT TIMELINE

Over the course of the project's first phase - Consultation - the public and stakeholders shared their ideas and concerns with project staff and the design team through open houses, workshops, lectures, walking tours, and an online survey, leading up to a 5-day collaborative Design Charrette.

Businesses and property owners along 100 Street were also contacted individually to invite them into the process, with ongoing efforts to support them through construction and beyond.



1.2 | INFRASTRUCTURE UPGRADES

Redevelopment of 100 Street is first and foremost an effort to replace and upgrade the city's aging infrastructure. Construction of downtown Fort St. John's deep utilities date back to its origins as a city, and are in urgent need of repair.

UPGRADING OUR CITY'S INFRASTRUCTURE: WATER, SEWER AND STORM



Water

The majority of water infrastructure in the downtown was installed in the 1940s to 1950s.

Water infrastructure will be replaced with larger and better constructed pipes, providing greater service to the city, including:

- Larger watermains to allow for greater fire protection, infill and densification within the downtown.
- New hydrants, which will be installed and located within the furnishing zone of the new boulevard.
- New water services to private properties.



Sewer

Most of the sanitary sewer infrastructure in the downtown was installed in the 1940s to 1950s.

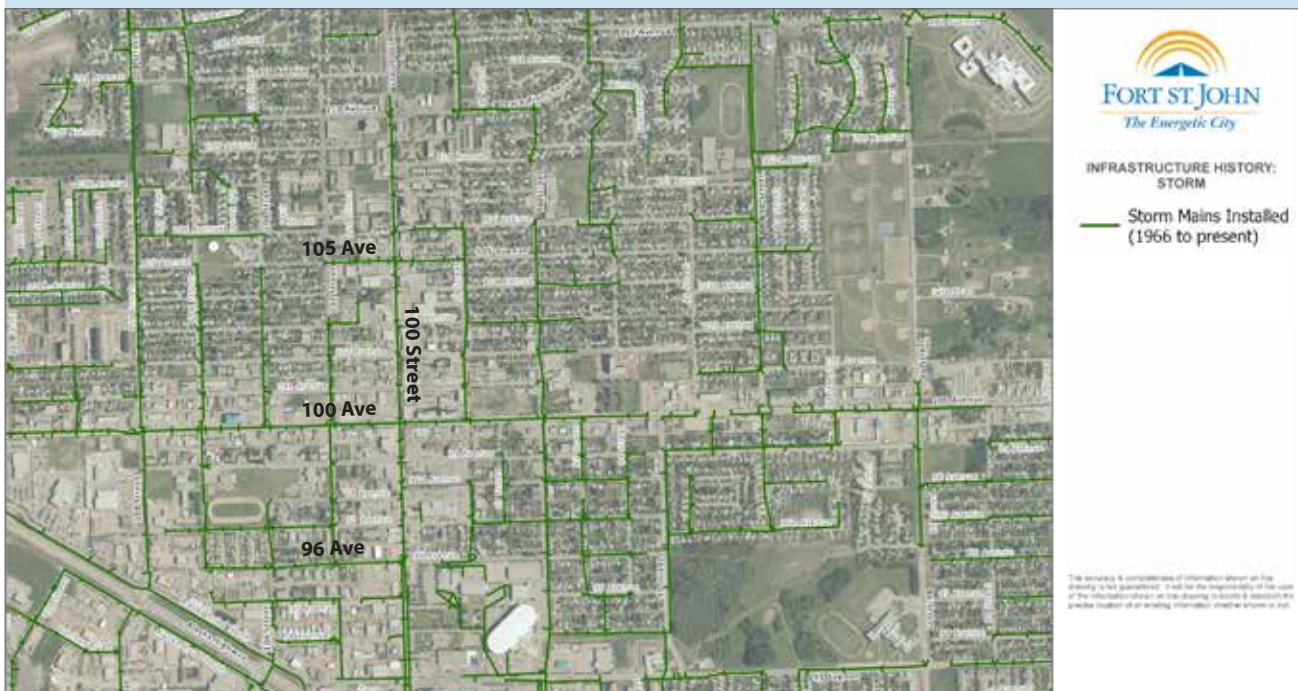
Sanitary sewer will be replaced with larger and better constructed pipes providing greater service, including:

- Larger pipes to accommodate flows associated with planned downtown infill and densification
- New sanitary services to private properties.
- New pipes to reduce storm water inflow and infiltration



Storm

Although not as old as the city's water and sanitary infrastructure, the storm sewer system will also be replaced and designed to consider changing climate and increased intensity and frequency of rain events. Starting at 96 Avenue and working uphill will allow the storm sewer to be constructed deeper, reducing problems associated with freeze-thaw cycles.



2 | PLANNING CONTEXT

2.1 | A ROBUST POLICY FRAMEWORK

Fort St. John has a number of policy documents that give clear direction and recommendations for the re-design of 100 Street. The plan for 100 Street strives to align with these community objectives.

OFFICIAL COMMUNITY PLAN (OCP)



The OCP establishes the community's vision for the future and provides a framework to guide growth and decisions about the use and management of land resources.

“Fort St. John will be a flourishing community where nature lives, businesses prosper, families are

active and diversity is celebrated.”

TRANSPORTATION MASTER PLAN (TMP)

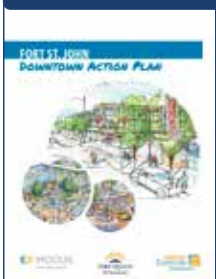


The TMP is a long-term plan to guide the development of transportation infrastructure to support other goals and objectives of the City related to health, environment, economy, and social sustainability.

“The City of Fort St. John will provide an efficient multi-modal

transportation network that enhances our quality of life by supporting environmental, economic, and social sustainability to make our community vibrant, safe, and accessible”

DOWNTOWN ACTION PLAN



The Downtown Action Plan guides planning, development, and infrastructure decisions, and sets catalyst projects, public investments and policies to transform Downtown Fort St. John

“By 2040 Fort St. John will be a compact, mixed

use, pedestrian and transit-oriented urban place that is the social, economic and cultural heart of the community and where there are opportunities for downtown living.”

The following ‘Fundamentals’ and ‘Big Moves’ offered guidance and ideas for the 100 Street Corridor design:

FUNDAMENTALS

2 | **A Multimodal Transportation System**

3 | **High Quality Design for the Winter City**

4 | **Community, Culture & The Arts**

BIG MOVES

1 | **Create Streets for People**

5 | **Make Parking Work**

6 | **Maintain the Core**

10 | **100 Street Greenway**

STRATEGIC PLAN



The Strategic Plan prioritizes community goals and creates accountability to projects and activities.

“Actualize downtown

Fort St. John as a social, vibrant, liveable hub as articulated in the Fort St. John Downtown Action Plan”

(Strategic Goal No. 5)

IMPLEMENT AND MONITOR THE DOWNTOWN ACTION PLAN (STRATEGIC OBJECTIVE)

- Develop a plan to promote civic, cultural & recreation events in downtown core
- Update/develop parking strategy
- Develop a strategy (including prioritizing and marketing) for City owned properties
- Develop a strategy to encourage development of privately-owned vacant lots
- Investigate incentives for development of residential units in downtown
- Implement winter City strategies

2.2 | DOWNTOWN RECOMMENDATIONS & DESIGN GUIDELINES

The character of Fort St. John’s streets and public realm will be transformed over time through incremental redevelopment, including new construction and renovation of existing buildings and streets. These changes are guided by policy recommendations, design guidelines and land use regulations, providing a solid foundation for the design of the 100 Street Corridor.

PUBLIC REALM AND STREETScape MASTER PLAN (PRsMP)

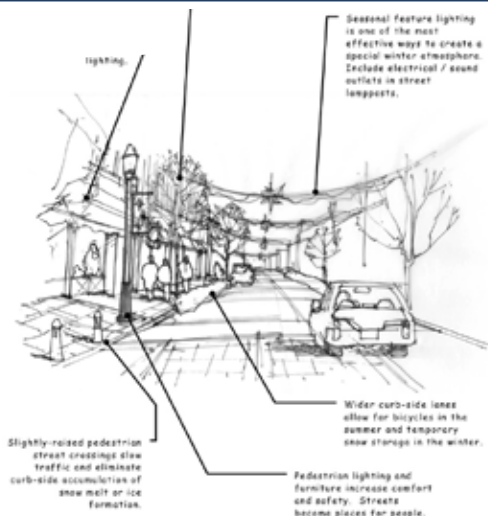
The PRsMP establishes a vision, a framework, specific projects, standards and guidelines for the public realm.

The PRsMP was specifically developed “to coordinate streetscape enhancements with infrastructure upgrades”. It outlines high level cost estimates to guide future phasing, as well as detailed design and construction of important public spaces in the downtown - including 100 Street itself.

PUBLIC REALM AND STREETScape DESIGN PRINCIPLES:

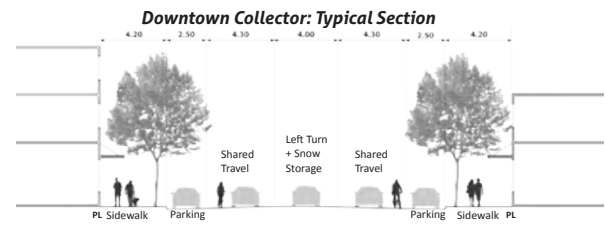
- Create Good Bones
- Design for All Seasons
- Maintenance is Key

WINTER CITY DESIGN GUIDELINES

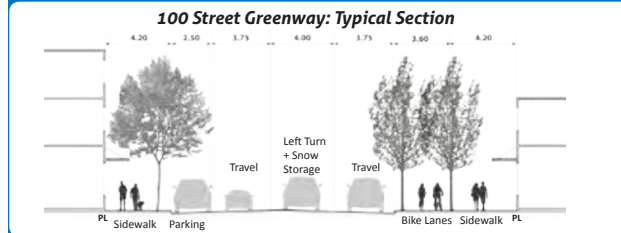


This guide provides climate-sensitive principles (solar access, wind, snow storage) and guidelines for streets, parks, buildings, parking lots and trees, colours, materials and lighting.

Streets guidelines align closely with the direction set in the Downtown Action Plan and its companion documents.



“Reconfigure 100 Street from its current 4 lane configuration to a 3 lane configuration: one travel lane in each direction and alternating left-turn lane/centre median/ snow storage. The new configuration allows for on-street parking with an enhanced sidewalk and shared bike lanes.”



“The 100 Street Greenway offers an enhanced amenity space and a strong pedestrian/bike connection between Centennial Park and the heart of the downtown.”

DOWNTOWN DEVELOPMENT PERMIT AREA (DPA) GUIDELINES

These Downtown guidelines help achieve the vision of the Downtown Action Plan incrementally as development occurs. This is done by establishing standards for neighbourhood form and character in site planning, architecture and landscape design of the private realm.

Strategies apply to the buildings framing 100 Street, including weather protection and adapting to environmental conditions, signage and lighting, safety, security and accessibility.



3 | COMMUNITY PROFILE

3.1 | UNDERSTANDING PEOPLE

As the heart of Downtown, redevelopment of 100 Street should respect, reflect and support the needs of the growing – and diversifying – Fort St. John community as a whole.

This community profile is paraphrased from the Community Development Institute’s 2018 Community Profile; additional insights are explored through the “many faces on 100 Street” user profiles presented in the following pages. They further consider the realities of this community and the many opportunities ahead.

AT A GLANCE: COMMUNITY PROFILE

The **population of Fort St. John is growing** at a rate of 7% every five years (slightly lower than the provincial average of 7.7% every five years) or ~1.4% per year. (See the ‘population pyramid’ below for additional context.)

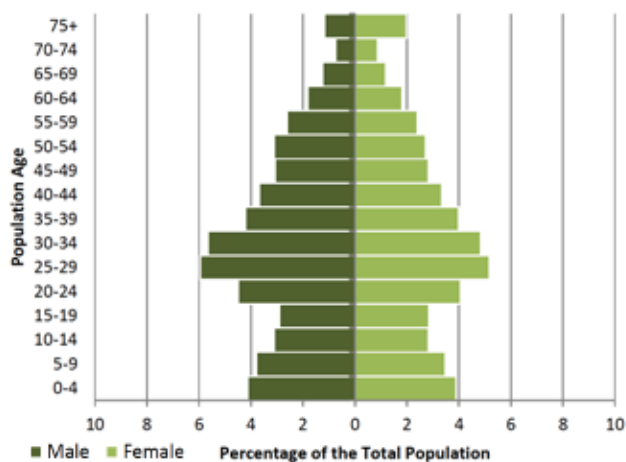
HOUSEHOLDS continue to shift towards smaller household sizes, attributed to fewer kids, an aging population and a growing number of “empty nesters.”

FAMILIES are following the national trend of marginally decreasing overall family size, although Fort St. John has seen a near doubling in the number of couples without children between 2006-2016. The number of lone-parent families also continues to increase, with a disproportionate majority of female-lone-parent households (~75%).

CULTURAL DIVERSITY is increasing at a significant rate, propelled by growth in Aboriginal population (11% of total) and other visible minorities (12% of total) as well as a recent increase in immigration to Fort St. John.

WORKFORCE PARTICIPATION is holding steady at nearly 80% (significantly higher than the provincial average of ~65%). Shifts in employment (by sector) are led by construction, manufacturing and local retail, driven by efforts to diversify the local economy in light of a relatively weak oil and gas sector.

POPULATION PYRAMID (2016)

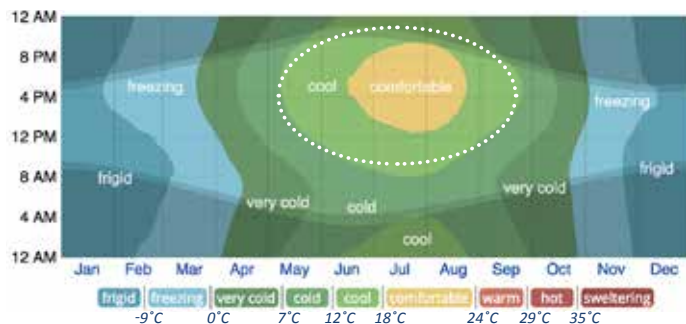


Analysis of Fort St. John’s current population reflects a balanced population across gender. The comparison below reveals a large and growing number of youth (under 20) in the city; and points to an opportunity to retain significant numbers of early- and mid-career professionals and wage earners (represented by 20-39 age groups).

3.2 | UNDERSTANDING PLACE

In light of the dramatic seasonal variability of weather in Fort St. John, redevelopment of 100 Street must carefully consider our changing seasons... and be designed to accommodate with our climate. (climate data/visualization is provided by weatherspark.com)

DESIGNING FOR CLIMATE



The diagram at left illustrates average (hourly) temperature throughout the year, colour-coded for comfort. Nighttime hours are also shaded to highlight daylight hours.

In light of a relatively small window of “comfortable” climatic conditions in Fort St. John (between 18 and 24 degrees Celsius), the diagram above highlights the need to apply a range of design strategies – including Winter City design strategies – to expand opportunities for increasing pedestrian comfort within public realm designs.



rain and snow fall should be considered in exploring a range of climate protection guidelines (e.g. canopies and awnings), stormwater management techniques and street designs that can accommodate seasonal snow storage.

wind is moderately variable throughout the year and measures average speeds between 4-5mph. Given the exposed nature of 100 Street streetscape (as shown above), the experience of wind along the street can be far more uncomfortable for pedestrians. During colder winter months, windbreaks can mediate the harsh effects of wind chill.

dust is of particular concern at the end of the winter season and prior to spring street cleaning: dust and grit is quickly carried on the wind with little in the way of street trees and/or boulevard vegetation to buffer the pedestrian realm.

darkness holds a powerful influence in the winter months, highlighting the opportunity for pedestrian-scaled and/or feature lighting as an element within the 100 Street public realm design.

sun & UV index in the peak of the summer season (July & August) can climb to moderate/high levels (4-6 UV Index), highlighting opportunities for street trees to provide seasonal shade and passive energy conservation.

4 | DESIGN CONSIDERATIONS

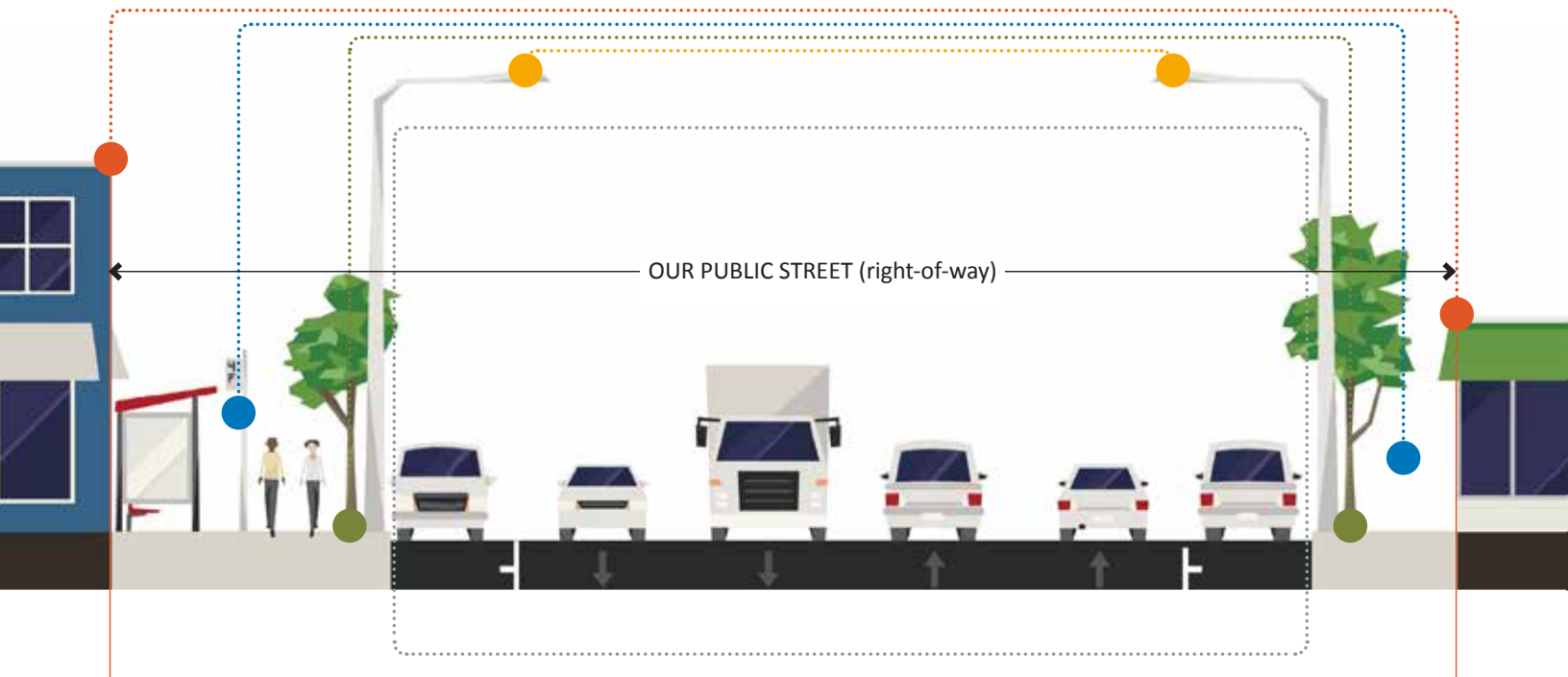
4.1 | A STREET OF MANY PARTS

To frame the design exercise, the different elements of a street were first identified.

STREET 'ZONES' AND ELEMENTS

All streets are comprised of many parts. The quality of each component part contributes to our experience of the street, both positive and negative. Together they define the setting for downtown life.

<p>Building Facades & 'Front Doors'</p> <ul style="list-style-type: none"> • USES: Commercial services, places to shop and visit • NEEDS: access, parking and retail visibility • OPPORTUNITIES: improved areas for retail "spill out" and pedestrian comfort (e.g. safety and weather protection); pedestrian scaled signs 	<p>Trees, Landscape & Boulevards</p> <ul style="list-style-type: none"> • USES: beautification, pedestrian comfort (shade & separation), winter wind abatement • NEEDS: protection from damage and adequate soil volume; short term irrigation to establish • OPPORTUNITIES: urban forest benefits (energy, water and air quality/dust management) 	<p>Pedestrian Facilities</p> <ul style="list-style-type: none"> • USES: pedestrian movement, shelter, rest and transition • NEEDS: access(ibility) including commerce flexibility and mobility devices (strollers, wheelchairs), gathering/resting and wayfinding • OPPORTUNITIES: improved surfacing for accessibility; letdowns aligned with crossing directions 	<p>Lighting & Signage</p> <ul style="list-style-type: none"> • USES: identifies place, comfort and moods, safety and security, compliments winter and night-time economy • NEEDS: traffic and pedestrian safety • OPPORTUNITIES: increased safety; wayfinding and seasonal interest (winter lighting)
<p>Transportation Corridor</p> <ul style="list-style-type: none"> • USES: travel, transport of goods & services, snow storage • NEEDS: traffic movement and safety, access and parking • OPPORTUNITIES: increased safety, improved turning movements, improved snow storage and snow clearing 	<p>Urban Services & Deep Utilities</p> <ul style="list-style-type: none"> • USES: conveyance of water, sanitary sewer and storm sewer; provision of power & telecommunications • NEEDS: separation and access (long-term maintenance) • OPPORTUNITIES: upgrades for projected growth management and development confidence 		

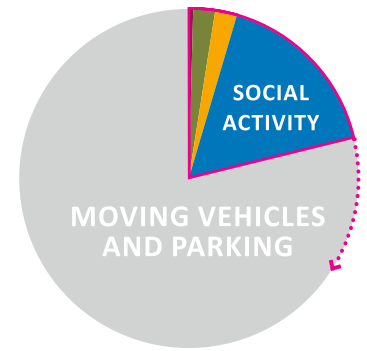


4.2 | WHO USES 100 STREET?

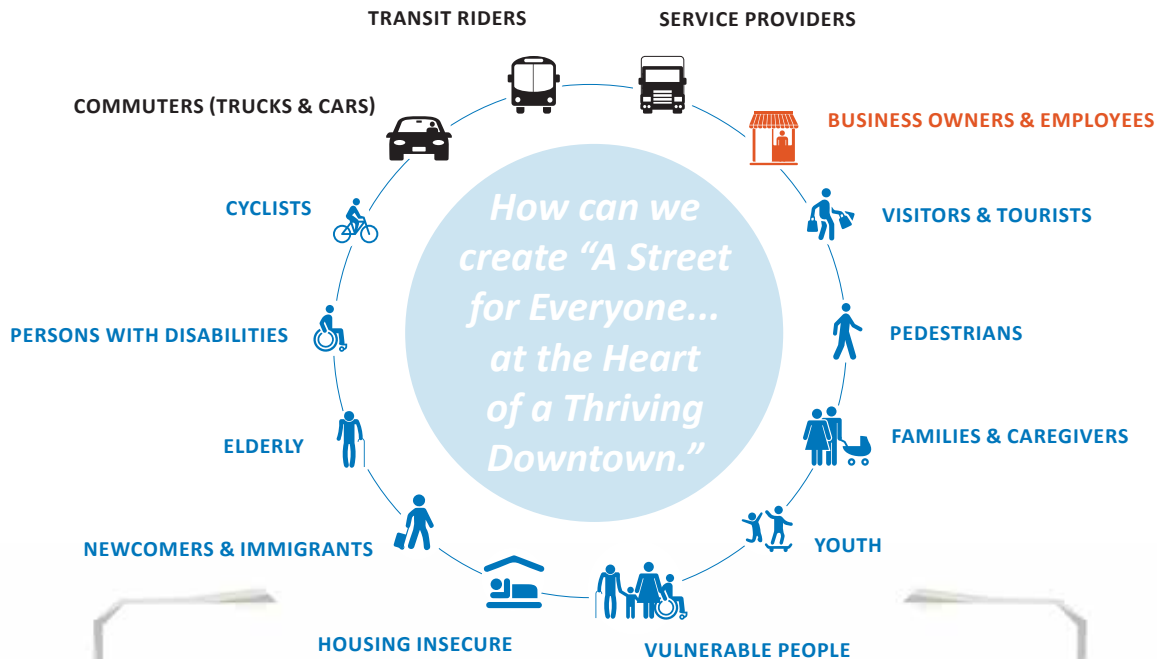
GROWING THE SOCIAL SPACE OF 100 STREET

Much of Fort St. John's streetscape is limited to a length of narrow sidewalk with priority given to vehicle traffic and street parking.

What if we accommodate the functions and uses of 100 Street in a more efficient way? As a result – we prioritize improvements for high quality pedestrian spaces in the heart of downtown. The Plan begins to fundamentally re-imagine streets as they were originally designed in Fort St. John, now providing “places for people” by making room for public space while maintaining the function of 100 Street as a key transportation corridor.



Pause to consider the full range of people who use 100 Street ...and their unique needs:



4.3 | THE MANY FACES ON 100 STREET

A STREET FOR ALL

Beyond the “bricks and mortar” and “curbs and asphalt” that will frame the physical space of 100 Street, here we focus on the people that occupy the street today, the people that will be the end users... and ultimately contribute most to the street’s viability and vitality.



BUSINESS OWNERS

CONSIDER | How might small business owners be affected by the upgrades to 100 Street? How will various businesses be affected differently? What benefits will they realize after construction?

DID YOU KNOW?

- Businesses on 100 Street contribute approximately \$69 million to Fort St. John’s economy.¹

IMAGINE | *I run a small shop on the west side of 100 Street, but I lease the building. I’ve got a good long-term deal with the owner, so it works for me. Most of my customers arrive by car and park on the street or in a nearby lot... but I’d love to think there could be more foot traffic in here. I’m concerned with disruption during construction: we’re already feeling serious competition with online retailers and home delivery. I’m excited about a downtown where people hang out and do more shopping... but concerned I might not make it until then.*

The Plan considers the physical interface of buildings and the street... and ways that street design can better support downtown businesses, including traffic engineering, parking design and service access.

1. Retail Vitality and Impact Mitigation Review (Appendix F.d)



COMMUTERS (TRUCKS & CARS)

CONSIDER | How can 100 Street optimally function as a collector street within the city’s network, accommodate commuters and through-traffic while not compromising the needs of other users?

DID YOU KNOW?

- 100 Street sees some of the highest traffic volumes in the city²
- Apart from the highway, the highest number of collisions in the city happen at 100 Street & 100 Avenue²
- The top speed registered along 100 Street in the summer of 2019 was 99km/hour

IMAGINE | *Everybody I know drives a truck... and drives everywhere... to do anything really. I wonder what traffic will be like when they shut the street down for construction... and hope it won’t last long. I commute to work and it’s pretty easy through town these days. I definitely don’t look forward to any traffic jams that might make the commute longer... it’s hard enough getting out of bed in the mornings.*

2. City of Fort St. John Transportation Master Plan

4.3 | THE MANY FACES ON 100 STREET cont.

Key considerations - reconciling the size of the largest vehicles that navigate the city's Downtown Streets (buses, freight trucks) with its smallest - pedestrians, recognizing that in most cases, all those arriving downtown, whether by truck, car or bus, also become a pedestrian as they walk between shops, banks, restaurants and deliveries.



SERVICE PROVIDERS

CONSIDER | How can street design make the movement of goods and services safer and more efficient? What are the needs of truck operators during construction?

IMAGINE | *I deliver the dairy products to most shops and restaurants in Fort St. John, including the ones along 100 Street. I used to deliver in downtown Vancouver and it's way easier now that I'm up north. I mostly pull up along those empty lots the shops use for parking. I hope construction doesn't last too long, it'll be trickier getting around it.*



TRANSIT RIDERS

CONSIDER | How can a newly designed 100 Street contribute to more frequent and comfortable public transit system, linking downtown places and services to the larger community? Is there a correlation between transit design and ridership?

DID YOU KNOW?

- 1% of Fort St. John residents take the bus to work.³

IMAGINE | *I ride the bus to work. Most people have cars but my husband uses ours for work. I really don't mind the bus so much in the summer but winter is a different story when it's minus 20 and I don't know if it's running on time. It's freezing! And the bus stops I use most frequently don't have shelter. Some days I get a ride in but I can't rely on that.*

3. Statistics Canada. 2017. Census Profile. 2016 Census.

4.3 | THE MANY FACES ON 100 STREET cont.

Beyond the generalized idea of “pedestrians,” we must also consider a range of pedestrian needs related to moving to and through the Downtown, as well as basic services, safety, and the ‘legibility’ that allows people to navigate streets intuitively.



PEDESTRIANS

CONSIDER | For every “able-bodied” pedestrian considered in street designs, how many people fall outside that general category? How can we ensure streets are generally more “pedestrian-friendly” while we expand the definition – and design requirements – to include everyone not traveling in a motor vehicle?

DID YOU KNOW?

- 14% of 100 Street corridor residents walk to work (as compared to only 7% of Fort St. John residents)³
- 80% of residents commute within their census subdivisions of residence in both the city as a whole and along the 100 Street corridors. Along the 100 Street corridor, walking across census subdivision takes ~5 to 15 minutes.³

IMAGINE | *100 Street is where I run most of my errands. I also spend a lot of time at the corner coffee shop doing homework. I am a student, so a car - and insurance - are a stretch for my budget right now. Other than catching a ride, I pretty much walk everywhere. I once saw a guy almost get hit crossing 100 Street, so I am pretty careful now. I look both ways and all that, even when I've got the crosswalk light.*



YOUTH

CONSIDER | How can street design specifically consider the experience of young people in the city? Beyond basic needs as similar to other groups (e.g. safety) how can improvements contribute to access to transit, alternative modes (e.g. cycling) and places to meet peers and socialize?

DID YOU KNOW?

- 23% of 100 Street corridor residents are under 19 years old, (as compared to 27% of city residents). That represents 625 children and young adults.³

IMAGINE | *I ride my bike or skateboard on 100 Street in the summer on my way down to the mall. Sometimes my friends and I will hang out in the area while we decide what to do, or until someone's mom can pick us up. I get looks for riding on the sidewalk – sometimes get yelled at - but my mom won't let me go out on my own otherwise.*

3. Statistics Canada. 2017. Census Profile. 2016 Census. “100 Street corridor residents” refers to data collected for Dissemination areas 59550206, 59550205, 59550190, 59550188, 59550189, 59550186

4.3 | THE MANY FACES ON 100 STREET cont.

Moving beyond the consideration for movement, a Downtown's main street is also the stage for a fulsome range of active pedestrian uses and enhancements including "spillouts" space for retail, and opportunities for all ages and abilities.



VISITORS & TOURISTS

CONSIDER | How can street improvements help visitors to Fort St. John feel welcomed and invited to spend more time downtown? How can 100 Street play an active role in tourism development?

DID YOU KNOW?

- More than 300,000 road-trippers travel the Alaska Highway between May to September: located at what's known as "Mile 47", Fort St. John's downtown businesses could better capture that economic activity.

IMAGINE | *My family and I make a few trips every year – mostly passing through Fort St. John on our way South. We always stop for lunch on and sometimes grab sandwiches for a picnic at the River. We don't usually spend much time on 100 Street, except for driving through...*



PARENTS & CAREGIVERS

CONSIDER | Have you ever crossed the street with a defiant toddler? Or desperately needed a place to stop and rest – or nurse – while caring for young children? How can the design of public spaces support parents (and/or caregivers) and the needs of the youngest and most vulnerable?

DID YOU KNOW?

- 55% of couples in Fort St. John have children³
- 43% of couples living on the 100 Street corridor have children (240 couples)³
- There are 143 lone-family parent households living on the 100 Street corridor³

IMAGINE | *"Having three children under 10 years old is a full-time job and then some! On any given weekday, you will find me at the pool, the library, and of course dropping off and picking up the oldest one all over town. Then soccer and maybe Dairy Queen on the weekends. I'm looking forward to Festival Plaza... and would love to imagine 100 Street as a place to spend time as a family too. I have to say: the stroller is no fun in the springtime with all the gravel on the sidewalks!"*

3. Statistics Canada. 2017. Census Profile. 2016 Census. "100 Street corridor residents" refers to data collected for Dissemination areas 59550206, 59550205, 59550190, 59550188, 59550189, 59550186

4.3 | THE MANY FACES ON 100 STREET cont.

We further expand our user needs inventory to explore more vulnerable populations and consider specific design opportunities to enhance the safety, comfort and enjoyment of 100 Street for all.



SENIORS

CONSIDER | How can street design help address the needs of an aging population? How can improvements empower and enable older residents to move about the community with greater ease of mobility and opportunity to promote social well-being?

DID YOU KNOW?

- Between 1986 and 2016, the number of people aged 65 years and over in Fort St. John increased 119%⁴
- Nearly 10% of 100 Street corridor residents are aged 65 years and better. The 2016 census noted 5 of them as men of 95 years and over!
- 7% of Fort St. John residents are aged 65 years and over. The 2016 census noted 5 of them as women of 100 years and over!

IMAGINE | *I'm getting on in my years... and my husband passed four years ago now. I have a great community of friends in town but I don't see them as often as I'd like. I still enjoy bingo nights at the seniors' centre... and in the past, we'd walk down to the Tim Horton's to meet friends for coffee. But that's about it. 100 Street doesn't make for a nice walk. In the summer it's hot and dusty – no shade – and the trucks speed by. In the winter, well... I don't try. Would love to see more comfortable places for people to walk and visit... but it's a highway, right?*

4. 2018, Fort St. John Community Profile, Community Development Institute

VULNERABLE PEOPLE

CONSIDER | How can our street designs reflect a sensitivity and care for people who might feel vulnerable or unsafe in public places? How can we help everyone feel safer, especially when streets are less populated and when it is dark?

DID YOU KNOW? The Fort St. John Women's Resource Centre completed a three-year, community driven initiative to reduce violence against women and girls in Fort St. John, resulting in the Peace Project Community Plan (2016).

IMAGINE | *My shift at work ends at 1 am on weekends. Some nights I borrow my roommate's car. Other nights, she picks me up after her shift is over. Sometimes I don't feel safe waiting outside too long and I'd walk until she can pick me up, but that often doesn't feel much safer.*

HOUSING INSECURE

CONSIDER | How can the design of 100 Street serve as a more humane space for people who struggle with homelessness? How can we actively support this vulnerable community, acknowledging many may spend more time outside - shelters closing during the day and as they access social services and supports downtown?

DID YOU KNOW? According to the BC Homeless Count, there are 61 homeless people in Fort St John. Of these, 66% are sheltered and the remainder (34%) do not have any provisional shelter options.

IMAGINE | *A typical day for me includes lunch and showering at the Salvation Army. I also like to walk over to the Friendship Center a couple times a week and go to the Drop-In at the Women's Centre for coffee. A few of us meet and go together. I like to hang out at the Cultural Centre too and see people going about their lives. I like being around people, it's my lifeline really. I worry about all of the construction... where will we meet? Will we still be able to get to around to all our usual spots?*

4.3 | THE MANY FACES ON 100 STREET cont.

Acknowledging the exceptional challenges facing more vulnerable populations, there is a collective responsibility for our public spaces, including our streets, to demonstrate empathy through design.



PERSONS WITH DISABILITIES

CONSIDER | How do we acknowledge and account for “disabilities” to include diverse, visible and non-visible physical, intellectual, sensory impairments and chronic conditions – in the way we design our streets? How can we reflect this care as we invest in the revitalization of downtown?

DID YOU KNOW?

- The Fort St. John Association for Community Living provided service to 69 individuals and their families in the 2017-2018 year.

IMAGINE | *I wrecked my truck last winter and have been slowly rehabbing over the last year. The time I spent in a wheelchair has been really eye-opening for me. Parking is never as convenient as you think... and that's not even considering the distance between where you park and where you want to go - the front door. Once I got there, I couldn't get into a lot of places, including my workplace. I found the whole experience to be very isolating. I'd love to think that an upgraded 100 Street could be a more forgiving place for people to get out and be social.*



NEWCOMERS & IMMIGRANTS

CONSIDER | How can street design help newcomers to our community? How can spaces and places along 100 Street contribute to a wider sense of welcoming and community?

DID YOU KNOW?

- There has been a recent increase in immigration to Fort St. John, contributing to the diversification of the population. Between 2011 and 2016, immigration increased by 122.1%. As a result, immigrants constitute 11% of the population, the highest proportion since 1986.

IMAGINE | *“I arrived a few months ago with my family to Fort St. John – moved to Canada for the opportunity and to be with my brother – he has a job in a hotel. The SUCCESS program is really helpful to me. And people are very nice to me but I don't know many people. My English is not so good, but I hope to make it better. It would be nice if there were more places to go with activities and ways to meet people and practice speaking.”*

4.4 | EXPLORING “GREAT STREETS”

EXAMPLES FROM BC AND ALBERTA


The elements of a “Great Street” listed below and the examples at right helped inspire ideas and shape the qualities of the redesign of 100 Street Corridor design.


The Plan recommends specific ideas and opportunities to improve 100 Street as a “Great Street” with a focus on the implementation of specific elements.


THE ELEMENTS OF A GREAT STREET

Great Streets create community, facilitate interaction and encourage participation in the life of the city. Simply put, the redesign of 100 Street as a “Great Street” should provide and improve:


A place to move, to stroll.


 **Key destinations** are located along 100 Street (e.g. parks, cultural institutions, good restaurants); making it the setting for activities that bring people together.


 **Accessibility** for people of all ages and abilities ensures people can get to, and move along 100 Street.

 **Multiple functions** – beyond what’s typically associated with a street (e.g. curbs, asphalt and vehicle traffic) – provides additional options for interpretation and activity (e.g. signage, seasonal festivals, pop-up parks).


Physically comfortable and safe.


 **Buffers** between pedestrians and traffic (e.g. curbs, street trees, parked cars) increase comfort and safety for pedestrians.


 **Protection** against the elements (e.g. rain coverage, solar access and shade, wind breaks) ensure comfort during changing seasons.

 **Transparency** and clear transitions to interior (commercial/retail) activities helps to animate the street. Indoor activity (oriented toward the street) can also provide “eyes on the street” as a positive form of passive surveillance (e.g. coffee shop seating opening to the sidewalk).


Well-defined and enjoyable places.


 **Definition and sequence of space(s)** are established by the street’s physical elements and edges (e.g. building walls, tree canopy, etc.). Consistency and variation of these vertical and horizontal elements significantly shape scale and quality of streets.

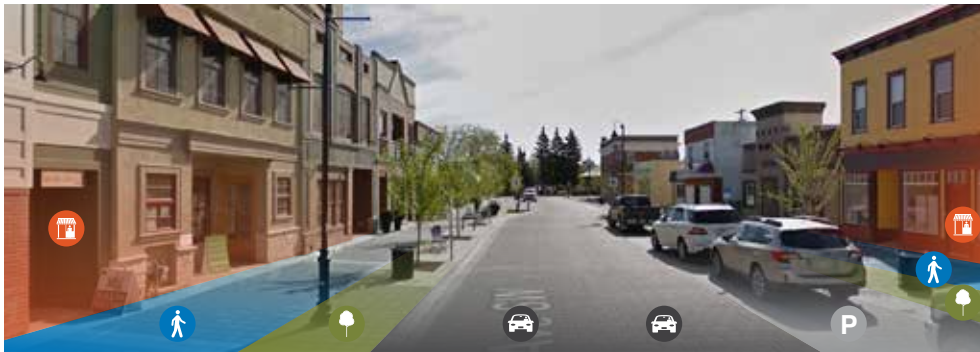
 **Street ends** help orient and situate people in a place and/or region and can be punctuated with significant buildings and/or defining views.

 **Qualities that engage the eyes** (e.g. decorative building facades, paving patterns) create complexity and coherence, light and shadow and encourage the interest and movement of people along the street.

Well-built and easily-maintained public amenity.

 **Quality of construction and design** (e.g. robust street furniture that withstands climatic conditions) reflects significant investment in the downtown streetscape while complimenting adjacent programs, form & character.

 **Maintenance** includes both infrastructure repairs (e.g. sidewalk repairs), building upgrades (e.g. facade improvements), as well as community initiatives, (e.g. community street clean-up) and is key to long-term stewardship, shared ownership and civic pride in downtown.



Shop fronts frame the pedestrian path; street lights, furniture, trees buffer the street

High River, AB



an enjoyable patio and retail "spill out" space take advantage of afternoon sun

Penticton, BC



a pedestrian-friendly "main street" is well-organized and well defined

Wetaskiwin, AB



custom street lights and furniture create visual interest and reflect a unique identity

Kelowna, BC



Great Street designs respond to distinct fronting conditions and opportunities

Grand Prairie, AB

4.5 | 100 STREET ENGAGEMENT SNAPSHOT

From April to mid-June 2019, feedback from stakeholders and the public was collected to frame and guide the development of options for the re-design of 100 Street. At right is a summary of the feedback collected.



150+
people attended
the Open House
(May 7)



371
people completed
the online survey
(May 9-21)



15
stakeholder
workshops

- City Staff (3)
- Council (3)
- 100 Street Action Team (6)
- 'Doors on 100 Street' property and business owners and operators (1)
- Public Works and Grounds (1)
- Youth (1)



22
public events and
promotions

- Open Houses (3)
- Online survey (1)
- Info displays (7)
- Tents at public events (3)
- Design Charrette Pin-ups (2)
- Web ads (3)
- Online newsletters (2)
- Event poster (1)



200+
people estimated to have
attended during
the Design Charrette
(June 11 - 15)

'DOORS ON 100 STREET'

- **MITIGATE CONSTRUCTION IMPACTS**
communicate early and often; appoint a City Staff person to maintain ongoing communication; provide parking solutions during construction; plan for debris management; and ensure uninterrupted service and pedestrian access to businesses.
- **A MORE WALKABLE STREET** *accessible, safe, comfortable and engaging environments for pedestrians: better and wider sidewalks, room for patio "spill-outs."; safe pedestrian crossings; lighting/visibility for both vehicles and pedestrians; banners for visual interest; street trees (properly established and maintained); improvements to vacant lots (e.g. parklets, parking); accessible entrances.*
- **INVEST IN DOWNTOWN ECONOMIC DEVELOPMENT** – *incentivize development and improvement of private property.*
- **COMMUNITY GATHERING PLACE**
a comfortable place for people
- **PARKING AND TRAFFIC IMPROVEMENTS**
such as alternatives to metered parking and paved lanes.
- **REDESIGN THE TRANSIT HUB** – *bus shelter and accommodate buses as demand for transit grows.*

PUBLIC WORKS & GROUNDS

- **MAKE SNOW CLEARING SIMPLE**
with minimal obstructions (e.g. bollards) and sufficient space for snow storage which could be achieved through flexible seasonal use (e.g. pedestrian boulevard or bike path in summer, snow storage in winter).
- **LANDSCAPING AND TREES THAT THRIVE**
through proper selection of plant species, installation and regular maintenance, particularly during crucial 3-5 year establishment window.

100 STREET ACTION TEAM

- **A BEAUTIFUL, PLEASANT AND LIVELY STREET IN THE SUMMER** *a pleasant walk along the street on wide and accessible sidewalks, street trees and vegetation; places to sit and rest, or eat lunch outside; patios to drink beer on; a moment to slow down and enjoy a stretch of beautiful drive. Visible activity through storefront windows and people in the performers, vendors and food trucks. Places to go after evening events like a plaza with a fountain.*

YOUTH WORKSHOPS

- **PROGRAM & RECREATION** *Paintball and stand up comedy at the 100 St. @100 Ave. square; climbing / bouldering wall; community entertainment area; places that promote interaction; outdoor swimming pool (in the summer); jump park; free-to-use sports facilities; more options than bowling and shopping; accommodate buskers on sidewalks (audio system); refurbish the piano at 100 St. and 101 Ave.*
- **ART & INTERPRETATION** *art and installations that promotes diversity, history and local talent; public attractions and unique landmarks that will make FSJ stand out and promote tourism; elementary school chalk displays; more colour; colourful sidewalks; pride sidewalk; sculptures / art installations; more outdoor art; banners; water fountain; murals; lights*
- **GREENSPACE AND GREENERY** *Parks for families; trees; plants; flowers; community gardens; planted boulevard separating cars and pedestrians (and will prevent snow splash in winter, less dust in summer)*
- **SUSTAINABLE** *a plan and design that is climate & environmentally friendly; green spaces that promote environmental sustainability; waste management and reduction; recycling (e.g. rewarded by receiving free wifi from receptacles); energy smart buildings; solar powered street lights*
- **BUSINESSES AND INDOOR PLACES TO HANG OUT** *diverse cultural food places; cafes and lounge spots; more local cafes and restaurants; local bookstores; local vendors and street vendors*
- **BUS SHELTERS** *better bus stop shelters - bigger, with seating, light, heated, more open and ventilated*
- **BASIC STREET IMPROVEMENTS** *Better sidewalks; well marked crosswalks*

OPEN HOUSE & ONLINE SURVEY

- **PRIORITIZE PEDESTRIANS (172)** *traffic calming measures; additional crosswalks to improve safety for people on foot; more lighting and outdoor seating (benches, patios, etc.); The most common topic addressed in this category was to **improve accessible sidewalks (73)** - more level and wider for people with mobility challenges.*
- **IMPROVE GREENSPACE & ADD MORE GREENERY (144)** *more inviting public greenspaces and plazas for families and individuals to enjoy; improve greenspace on the corner of 100th St. and 100th Ave.; additional landscaping (e.g.. trees, flowers)*
- **ADDITIONAL PARKING (84)** *additional and free parking, including parking in empty lots, new parkades and along the street - associated with the ability to access amenities and local shops and restaurants.*
- **INCENTIVIZE BUSINESS & ATTRACTIONS (80)** *fewer empty storefronts and more occupied businesses, shops and restaurants to support a thriving downtown; provide tax incentives to business owners and enable new amenities to attract more people to the area.*
- **DEVELOP EMPTY LOTS (73)** *concern with the number of vacant lots along 100th St.; interest in activating lots permanently or temporarily - turn lots into more greenspace or more parking in the short-term.*



Images from the public Open House held May 7 at the NPCC

- **A FUNCTIONAL, SHELTERED AND PROGRAMMED STREET IN THE WINTER** *space to store snow and strategy for clearing it; unobstructed sidewalks with good lighting for people without cars (joggers, dog walkers, students, kids, immigrants), parking cleared of snow close to destinations for those with cars, convenient HandyDART stops for those with mobility challenges. Sheltered and heated places at regular intervals. Indigenous public art and murals, lights in trees and winter programming.*

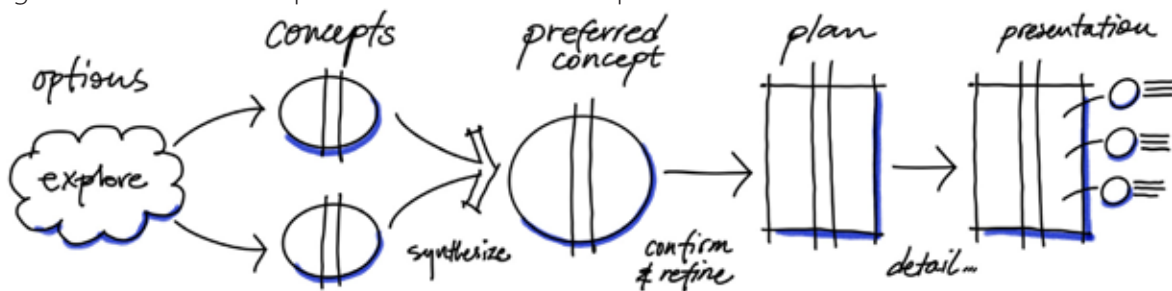
4.6 | 100 STREET DESIGN CHARRETTE

The City of Fort St. John held a 5-day charrette to co-create a design for the 100 Street Corridor.

Why a charrette? Why use this method?

WHY A CHARRETTE? DESIGN CHARRETTE ARE:	
<p>CREATIVE Charrettes use creative tools and techniques, including facilitated brainstorming, concept drawing and illustration to develop, test and refine ideas.</p> <p>REFLECTIVE Charrettes include critical feedback loops and “mid-course corrections” with key stakeholders to receive input, challenge assumptions and confirm directions.</p> <p>MULTI-DISCIPLINARY Charrettes bring together relevant professions to inform the planning, design and decision-making process.</p>	<p>COLLABORATIVE Charrettes work closely with community and key stakeholders to understand community history, needs, values, and priorities.</p> <p>INTENSIVE Charrettes conclude within a limited time frame to increase efficiency in decision-making and avoid “analysis paralysis”.</p> <p>SOLUTIONS-ORIENTED Charrettes aim to deliver clear community-supported and technically-feasible design options for review and revision.</p>

The **Design Team** consisted of designers, planners, civil and transportation engineers, and economic development specialists who, over the course of five days, came up with the best option of 100 Street through iteration based on public and stakeholder input.



Day 1 (June 11) Confirm Aspirations	Day 2 (June 12) Explore Options	Day 3 (June 13) Preferred Concept	Day 4 (June 14) Refining a Plan	Day 5 (June 15) Finalizing the Plan
<ul style="list-style-type: none"> workshop with key stakeholders working session: confirm vision and explore options Public Lecture (aspirations) & Open House 	<ul style="list-style-type: none"> break-out discussions with key stakeholders: Alternative Concepts key stakeholder concepts review / alternative concepts development Public Event – Alternative Concepts pin-up 	<ul style="list-style-type: none"> Team meeting: concept synthesis / working session Key stakeholder Preferred Concept review / development & annotation Public Event – Preferred Concept pin-up 	<ul style="list-style-type: none"> Team meeting: Plan synthesis / working session Working session: Plan development & annotation Key stakeholder pin-up 	<ul style="list-style-type: none"> Team meeting: Plan production / working session Working session: Plan production & presentation Public Presentation – Final Plan Pin-up

VISION & PRINCIPLES

"A STREET FOR EVERYONE..."



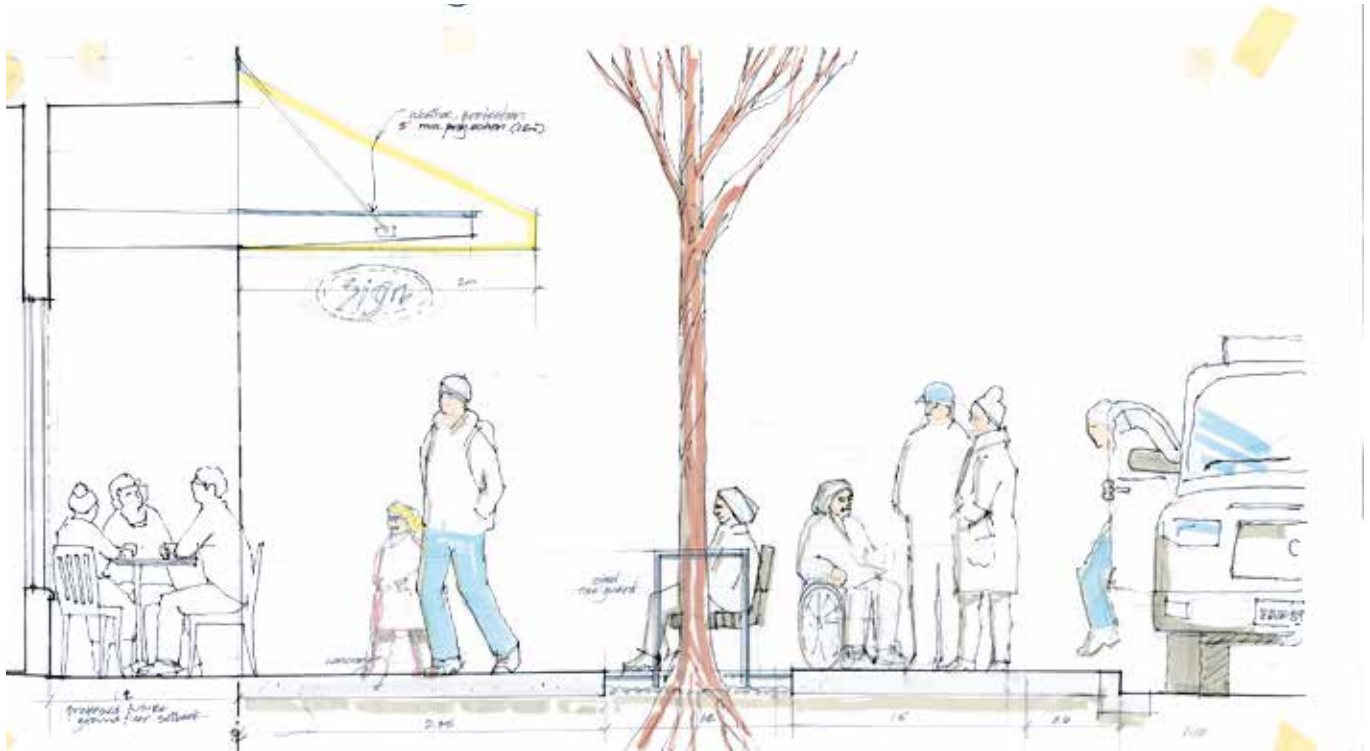
IN THE HEART OF A THRIVING DOWNTOWN "



PRINCIPLE #1

ACCESS FOR ALL AGES AND ABILITIES, ON FOOT AND ON WHEELS

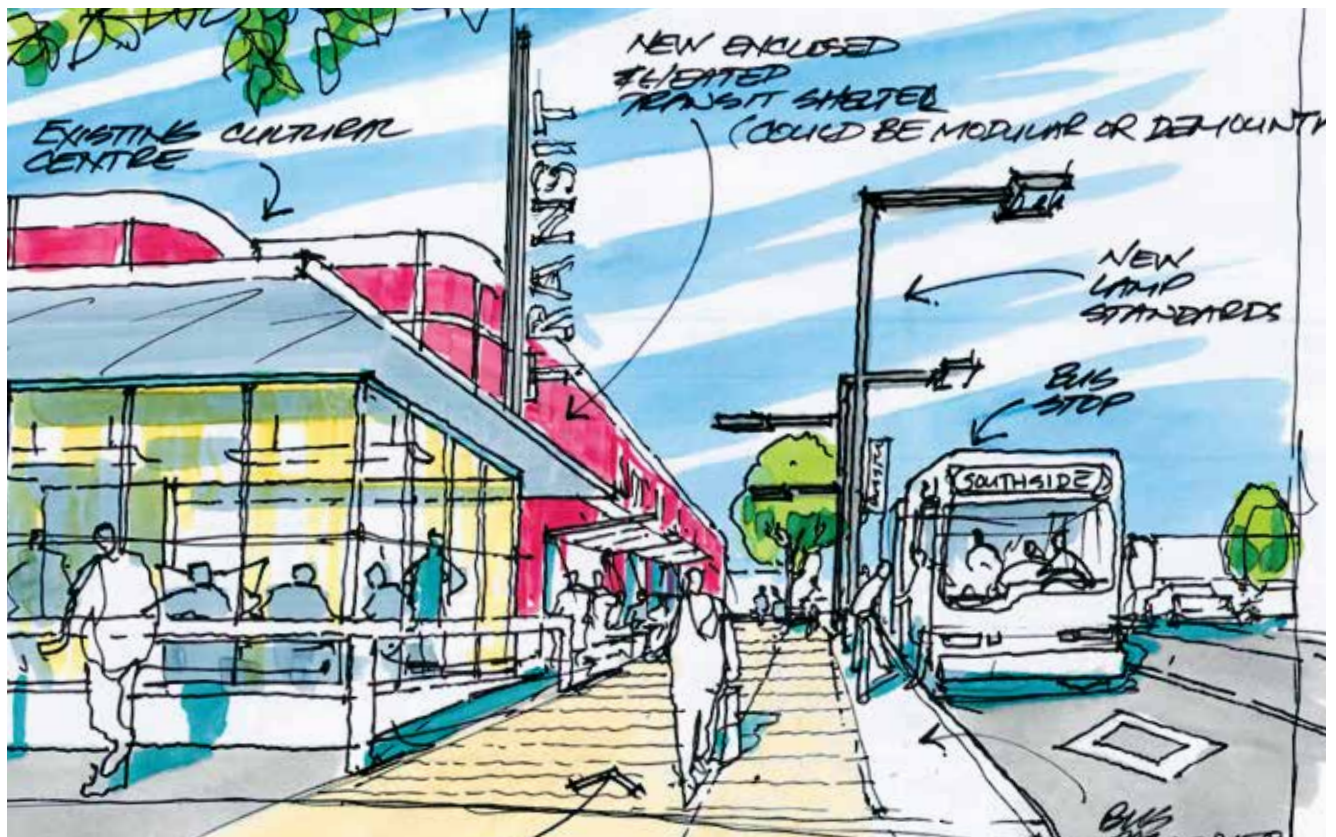
100 Street, as any street, has its challenges. With grades in stretches that make accessibility difficult (see Appendix C.d. Slopes Map), 100 Street's design must make room to negotiate these realities so that **100 Street can be a place where all people move, rest and play freely.**



PRINCIPLE #2

COMFORTABLE, SAFE AND ENJOYABLE SPACES FOR SOCIAL CONNECTION

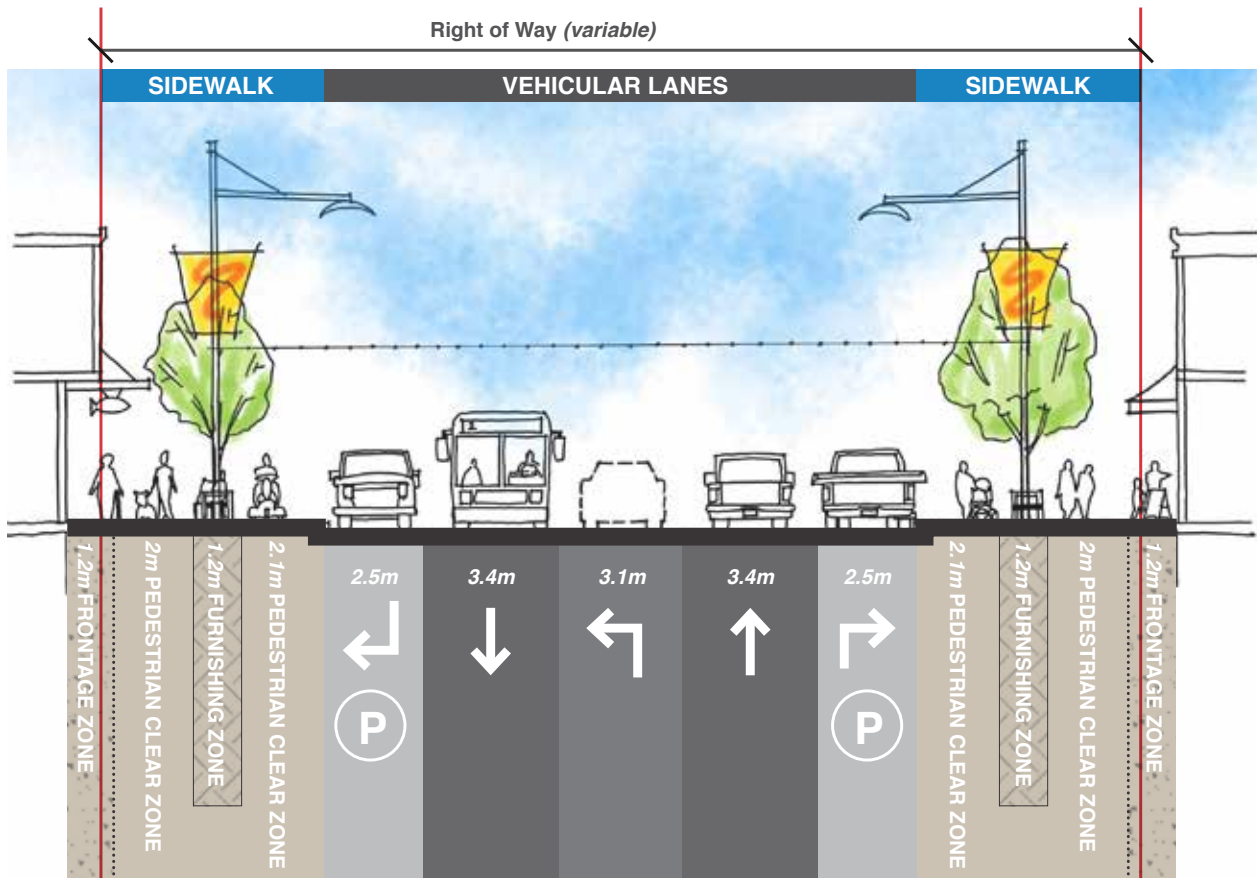
As part of the Engagement for the 100 Street Charrette, a group of stakeholders were asked to consider their experience of 100 Street as related to three criteria – protection, comfort and enjoyment – and it was made apparent that there is much improvement to be made (see Appendix C.h. Placemaking Scorecard). As such, **100 Street will be designed as a place for people to feel safe and comfortable in a pleasant environment.**



PRINCIPLE #3

ADEQUATE PARKING AND ACCESS TO SUPPORT DOWNTOWN BUSINESS

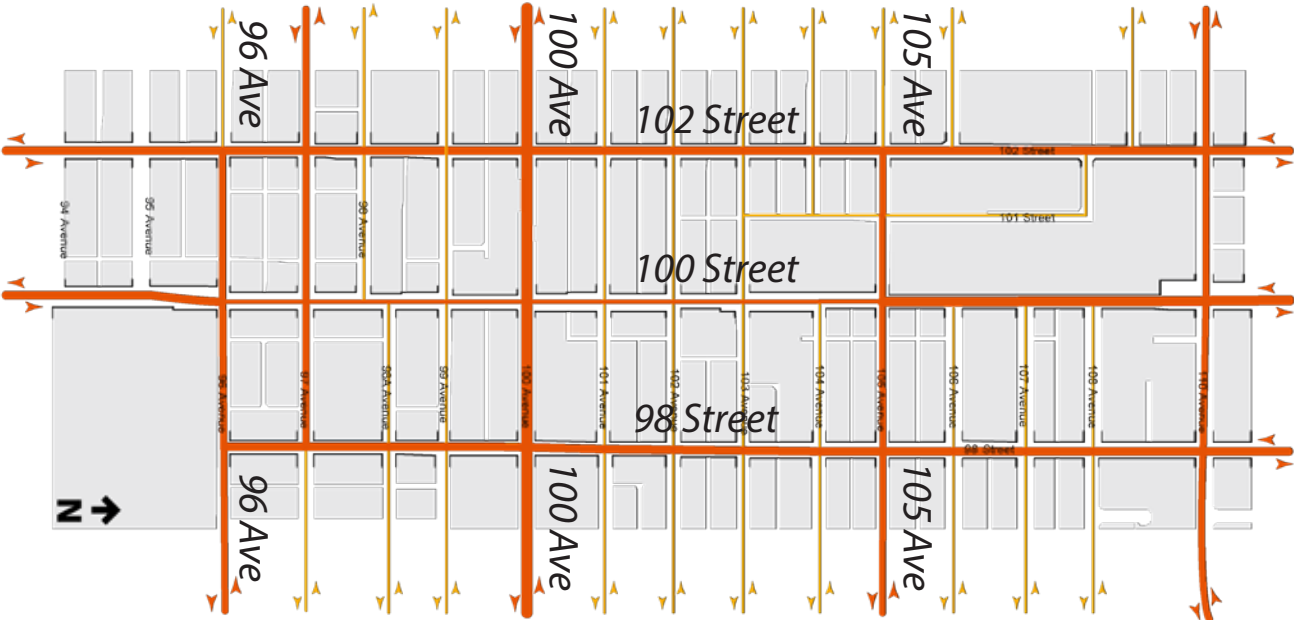
An On-Street Parking Study for 100 Street (Appendix F.a) determined that, based on a study of 2-block segments, the current parking occupancy maximum does not exceed 64%, and in some places maximums do not exceed 20%. **100 Street will continue to provide adequate parking to support downtown businesses in the present and future. Where on-street parking is vastly underutilized, the Street will support these businesses in more effective ways** (see Greenway cross-section p.3).



PRINCIPLE #4

MOVEMENT OF GOODS, SERVICES, AND EMERGENCY VEHICLES

100 Street will provide a good level of service to vehicles traveling to the Downtown via 100 Street after construction. Key upgrades will also allow for optimal use of Fort St. John’s many alternative routes, a flexibility afforded by its gridded street network .

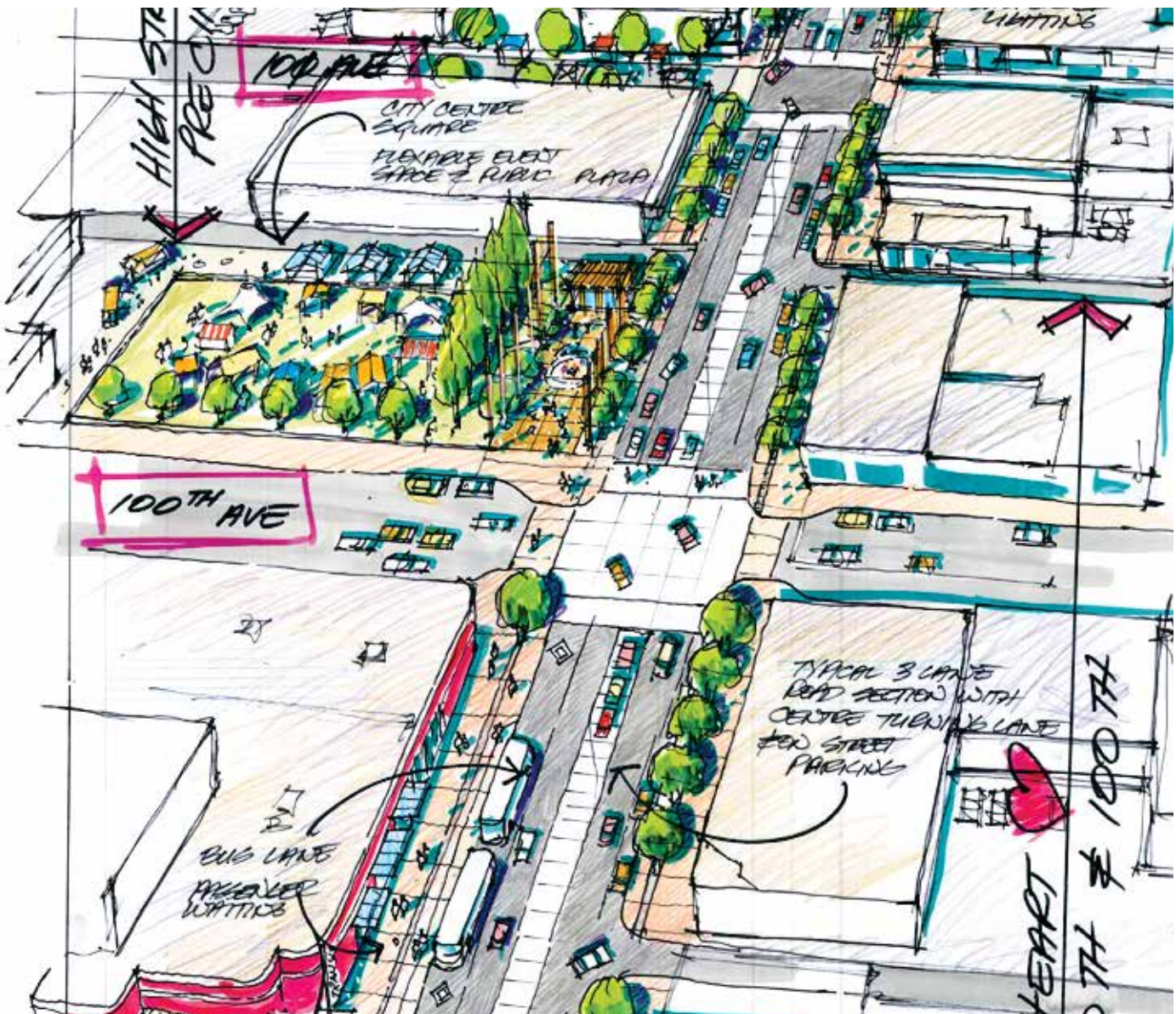


Mobility options for vehicles in Downtown Fort St. John gridded streets

PRINCIPLE #5

FLEXIBILITY FOR SPECIAL EVENTS AND SEASONAL CELEBRATIONS

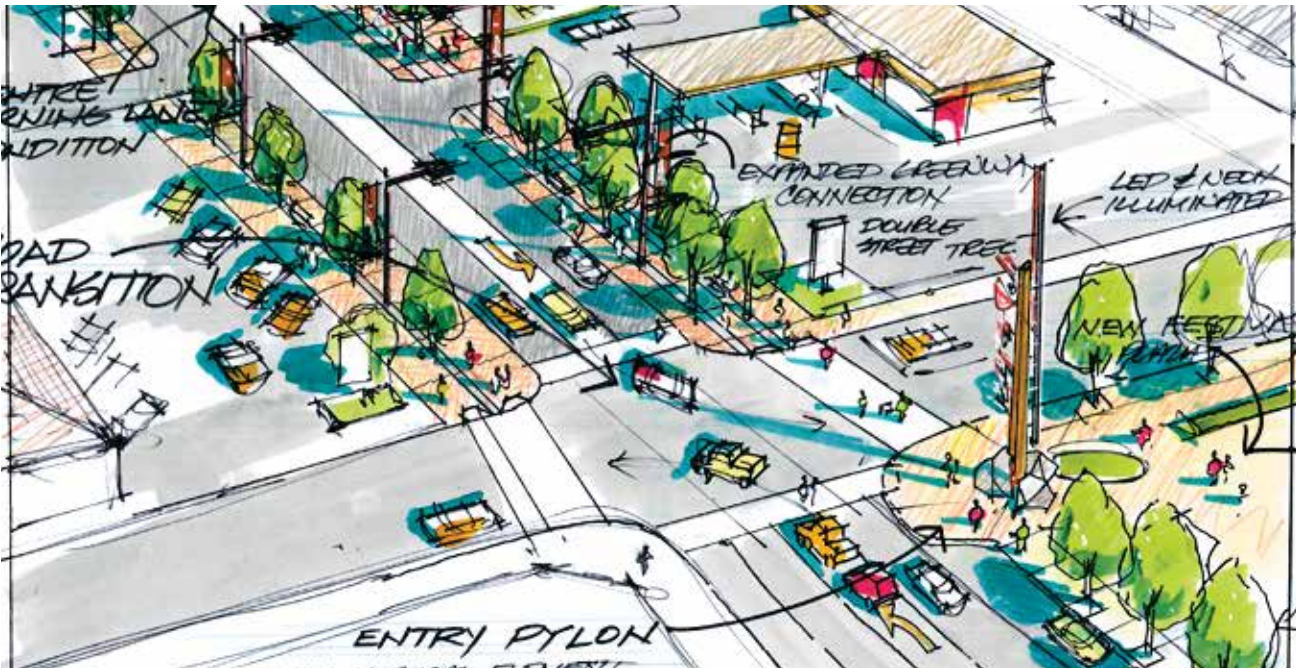
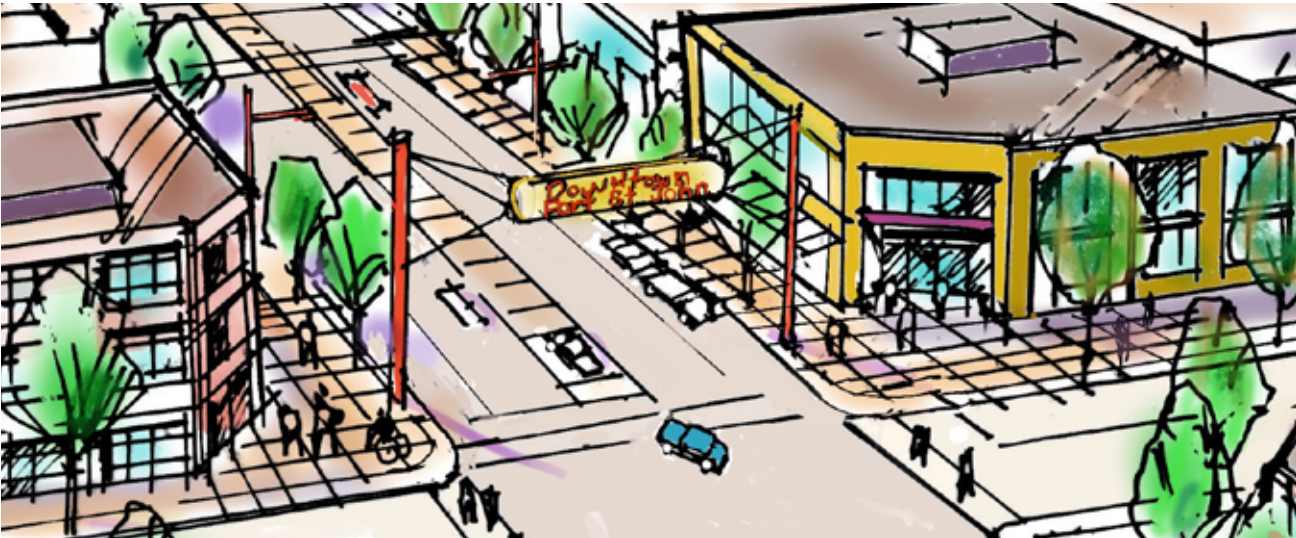
Special events are already a big part of Fort St. John's cultural scene and seasonal celebrations, such as Block Party and the World Fair. **100 Street's design will continue to be venue for the city's residents and visitors to host large events. The street will enhance and better serve them through temporary closures, lighting, provision of electricity and the support of creative initiatives.**



PRINCIPLE #6

ENHANCED COMMUNITY IDENTITY AND CIVIC PRIDE

Fort St. John’s citizens exhibit immense pride and a strong sense of place, which can be used to inspire design interventions along 100 Street: the Peace River and silted bluff landscape; the traditional lands of the Dane-zaa; the rich agricultural landscape; the rigour and vitality of its “energetic” citizens and energy industry that sustains them. **As the heart of the city, 100 Street will exhibit the richness and complexity of Fort St. John’s multi-faceted identity, through gateway design lighting, public art and temporary installations inspired by place.**



PRINCIPLE #7

DESIGN ADAPTED TO FORT ST. JOHN'S CLIMATE

Fort St. John is a proud winter city. Like many of its Canadian compatriots, this city celebrates the winter by gathering en-mass for events like High on Ice. Building on this philosophy and momentum, **100 Street's design will celebrate winter in ways big and small: in its selection of plants and materials, lighting, bus shelters and creating environments that will allow people to be outside, in the street when it's cold.**



PRINCIPLE #8

SUPPORT FOR LOCAL BUSINESSES AND DOWNTOWN REVITALIZATION

To support and encourage businesses to co-create a street that is attractive to customers and will help them prosper, the City completed a Retail Vitality and Impact Mitigation Review (Appendix F.d.) as well as a Downtown Business Mitigation Strategy. Using these case studies and recommendations as precedents, **100 Street's design will support businesses and downtown revitalization by building a public realm that attracts and retains people, including widened sidewalks, places to sit and enjoy the sun when it shines, greenery and lighting at night.**



A PLAN FOR 100 STREET

5 | GENERAL GUIDELINES

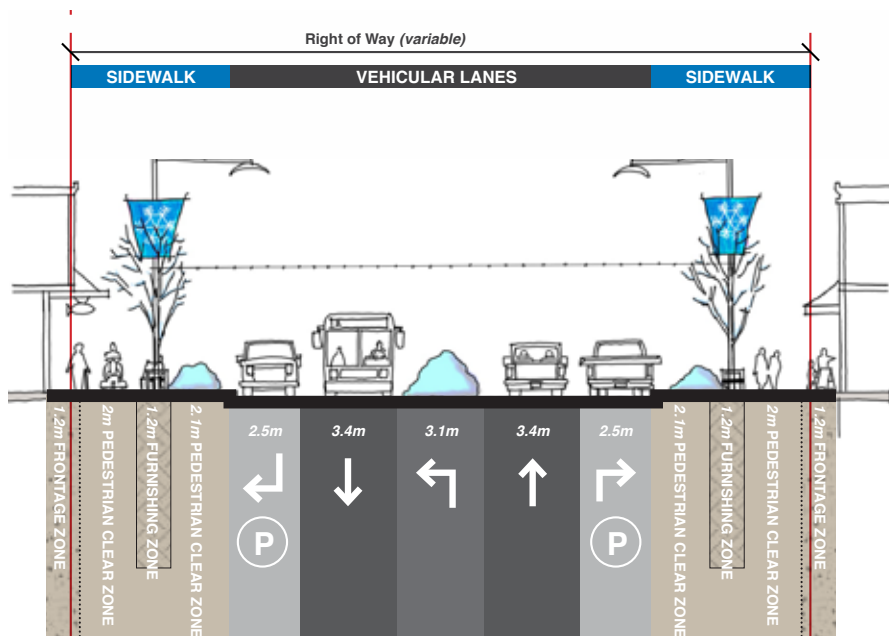
The **General Guidelines** apply to the full 100 Street Corridor area - from 96 to 105 Avenue. They include Guidelines pertaining to:

- Winter City Design and Operations
- Accessibility
- Downtown Character
- Lighting Design
- Elements of the Furnishing Zone
- Street Furniture
- Landscaping and Trees
- Surface Design and Materials

5.1 | WINTER CITY DESIGN AND OPERATIONS

In alignment with the principle of a *“design adapted to Fort St. John’s climate”*, the following will be prioritized in the detailed design of 100 Street, in the selection of streetscape elements and eventual street operations and maintenance:

- 5.1.1. **Accommodate special operational needs** including snow clearing, snow storage and other seasonal demands (see figures below).
- 5.1.2. **Improve winter transportation and mobility** by selecting durable surface materials.
- 5.1.3. **Design for safety and comfort in winter** - block wind and optimize sun angles and choose street furniture that is comfortable to sit on in cold conditions.
- 5.1.4. **Use colour and light** to create visual interest and enliven spaces during periods of reduced sunlight.
- 5.1.5. **Improve options for outdoor play in winter** including support for a 4-season patio culture.
- 5.1.6. **Utilize native and/or similarly hardy plant materials within landscape designs.** Consider plant selections for seasonal / winter interest, such as persistent berries, branching / bark texture, and coloured stems.



Standard 100 Street Cross Section

Road: Centre Turning Lane provides temporary snow storage

Sidewalk: All obstructions to snow clearing equipment are aligned within the furnishing zone, leaving clear paths for maintenance equipment

Example of instructions for sidewalk clearing in furnishing zone



5.2 | ACCESSIBILITY

It's important to account for challenges presented to persons with disabilities on a daily basis. If a street is designed with accessibility for all in mind, it can become a community space. The detailed design and operation of 100 Street will incorporate the following guidelines:

MINIMIZE BARRIERS AND HAZARDS

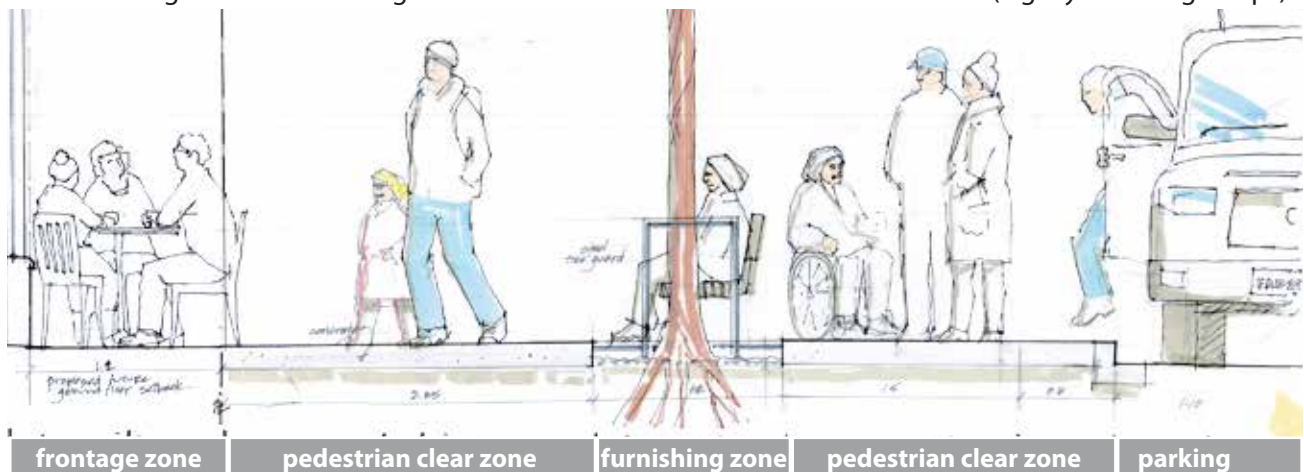
- 5.2.1. **Maintain obstacle-free pedestrian through-zones.**
- 5.2.2. **Use the furnishing zone** to place objects that may cause obstruction (e.g. sandwich boards).
- 5.2.3. **Place larger objects such as tables and chairs in outdoor patios** (e.g. temporarily converted parking spaces) to avoid obstruction of pedestrian clear zones.

MINIMIZE BURDEN

- 5.2.4. **Set cross-slopes at no more than 2%.**
- 5.2.5. **Build curb letdowns in line with crossing directions**, with tactile walking surface indicators.
- 5.2.6. **In areas with steeper grades, include level platforms** at regular intervals, if possible.
- 5.2.7. **Select paving materials that provide smooth, continuous surfaces** and are low maintenance.
- 5.2.8. **Remove driveways from 100 Street** wherever possible to minimize grade change challenges and conflicts between sidewalk and road users.
- 5.2.9. **Consider restricting vehicular lane access** from, and exit onto, 100 Street to minimize conflicts between sidewalk and road users.
- 5.2.10. **Locate accessible parking spots along avenues** adjacent to 100 Street to allow for greater buffer space and lower vehicle volumes.

MAXIMIZE OPPORTUNITY

- 5.2.11. **Locate HandyDART stops so as to ensure accessibility** to major public, institutional, and commercial destinations. Consider locating stops along Avenues with lower vehicle volumes.
- 5.2.12. **Make sidewalks level with building entrances.** In cases where this is not possible, use the frontage zone to resolve grade differences and make entrances accessible (e.g. by installing ramps).

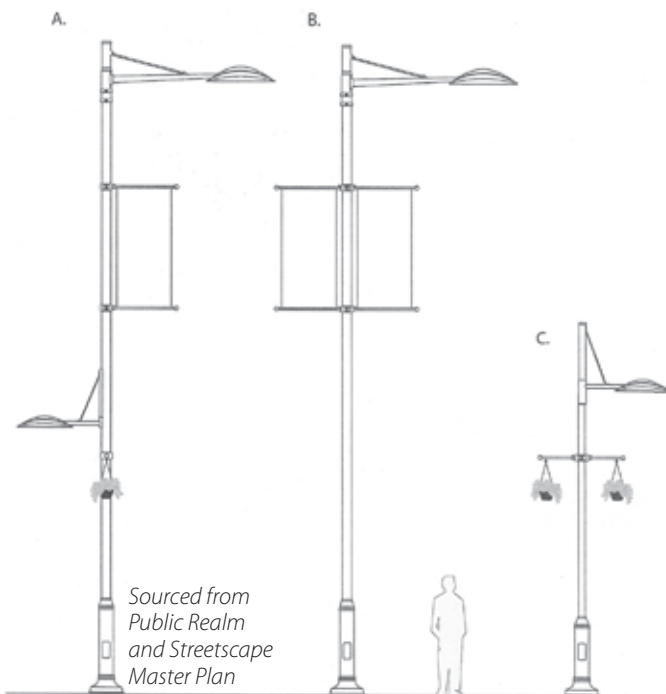


5.3 | DOWNTOWN CHARACTER

- 5.3.1. Downtown as distinct** | Develop a downtown 'brand' that will help determine the look and feel of its various elements (furnishings, light standards, signage) or of its temporary installations (planters, banners, lighting projections and decorations). This will also contribute to the development of gateway signage.
- 5.3.2. Consider a finer-grained character distinction by precinct or Street** within the Downtown, in order to emphasize each as a destination (e.g. Arts, Music, Recreation).

5.4 | LIGHTING DESIGN

- 5.4.1. Develop a lighting plan** that emphasizes 100 Street and Downtown's character and identity.
- 5.4.2. Install pedestrian scaled lighting in addition to roadway lighting.** Ensure their spans allow them to be placed in the furnishing zone. Ensure that pedestrian scaled lighting illuminates both pedestrian clear zones located on either side of the furnishing zone.
- 5.4.3. Ensure streetlight standards are multifunctional,** including support for banners, catenary lighting, hanging baskets, and their irrigation systems, as well as electrical services for temporary performances, vending or additional lighting needs.
- 5.4.4. Select energy efficient light standards** (e.g. solar-powered).
- 5.4.5. Roadway and Traffic Signal lighting standards should complement pedestrian-scaled lighting,** e.g. through similar forms or colours.
- 5.4.6. Project lighting onto crosswalks at night.** This will support visibility and safety, particularly in winter. This should be used as an opportunity to beautify and celebrate the Downtown.



5.5 | ELEMENTS OF THE FURNISHING ZONE

- 5.5.1. Incorporate clear areas** at regular intervals in furnishing zones sufficiently wide for wheelchairs and strollers, particularly in areas with steeper grades - where they should be level. These clear zones may also be used by businesses for their sandwich boards.
- 5.5.2. Multi-functional** | select and integrate multi-functional design wherever possible (lighting standards, benches, tree grates and protection, wayfinding signage, bicycle parking, etc.)
- 5.5.3. Provide weather protection and integrate wind breaks** in areas intended for sitting or social connection (e.g. street furniture, bus stops) while maintaining visual transparency for safety.
- 5.5.4. Aesthetic** | Select or design site furnishings that provide a unique community identity, with aesthetic qualities that render these elements 'timeless' and can be recognized as part of the same 'family' of objects while considering capital, operational and life-cycle costs.

MAINTENANCE

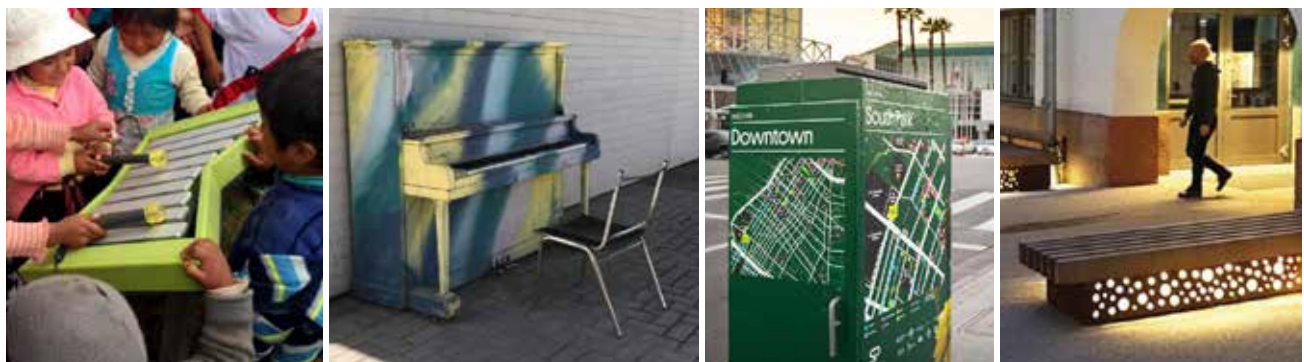
- 5.5.5. High quality materials** | select street furnishings and hardscape materials of high quality and durable materials to reflect a sense of permanence and to minimize long-term maintenance in the face of snow removal, salt and grit spray.

WAYFINDING AND INTERPRETATION

- 5.5.6. Street names and signs** | transportation street identification signs within the downtown area should break from the City's standard white-on-green lettering, for instance, to a white-on-black lettering.
- 5.5.7. Integrate wayfinding** in creative ways, such as utility box wraps.
- 5.5.8. Retain and update historical interpretive signage** by (re)placing it in the furnishing zone and partnering with First Nations to recount a fulsome picture of Fort St. John's (and the area's history).

OTHER / SPECIAL CONSIDERATIONS

- 5.5.9. Incorporate playful and interactive elements** for people of all ages (and sizes), such as musical instruments, furniture of different sizes, etc.
- 5.5.10. Design sidewalks at intersections to accommodate** small scale entertainment and performance (e.g. busking) by providing electrical outlets and areas clear of pedestrian movement.
- 5.5.11. Remove parking meters** and transition to more efficient parking system that minimizes physical elements and maintenance demand (e.g. parking app, centralized kiosks located in furnishing zones).



5.6 | STREET FURNITURE

- 5.6.1. Alternate between individual benches and facing or grouped benches** that allow for socializing.
- 5.6.2. Place individual benches perpendicular to the street** in the furnishing zone.
- 5.6.3. Select benches with surface materials that have low heat (/cold)-transfer rates.** Wood surfaces insulates much better than metallic surfaces.
- 5.6.4. Select naturally coloured materials such as weathering or galvanized steel** - visually interesting yet low maintenance.



5.7 | STREET TREES & LANDSCAPE

A clear direction from the the engagement phase was the need to introduce more vegetation and greenery in the downtown and on 100 Street, and the need for these to be properly established.

MAINTENANCE

Recommendations from Future Climate Tree Suitability and Best Management Practices Study (Appendix F.b.)

- 5.7.1. Where feasible, use greywater recycling to irrigate** vegetated landscapes and street trees.
- 5.7.2. Incorporate landscape irrigation** (trees and hanging baskets) within the street design.
- 5.7.3. Control invasive plant and pest species** that will become more competitive in a changed climate.



- 5.7.4. **Establish young tree watering programs** of 3 to 5 years.
- 5.7.5. **Integrate passive or active irrigation** (non-potable water) into urban landscapes to aid tree establishment and increase the range of species that can continue to be planted (i.e., enable species with lower drought tolerance to be planted).
- 5.7.6. **Consider alternatives to salt for ice control on sidewalks** that are gentle on vegetation. If using salt to manage sidewalks, then irrigation should be installed to ensure salt can be washed through the soil in the spring – irrigation lines would need to be drained in the fall.
- 5.7.7. **Structurally prune young trees** if needed at time of planting and then at 3, 6, 9 and 15 years.

TREE GRATES AND GUARDS

- 5.7.8. **Select tree grates that protect tree roots from damage**, allow water to infiltrate to soil below, and with grooves that are not too large (to avoid wheeled devices from getting caught).
- 5.7.9. Select multifunctional tree grate designs that are multi-functional (e.g. bike rack, seating).

TREE PLANTING DETAILS

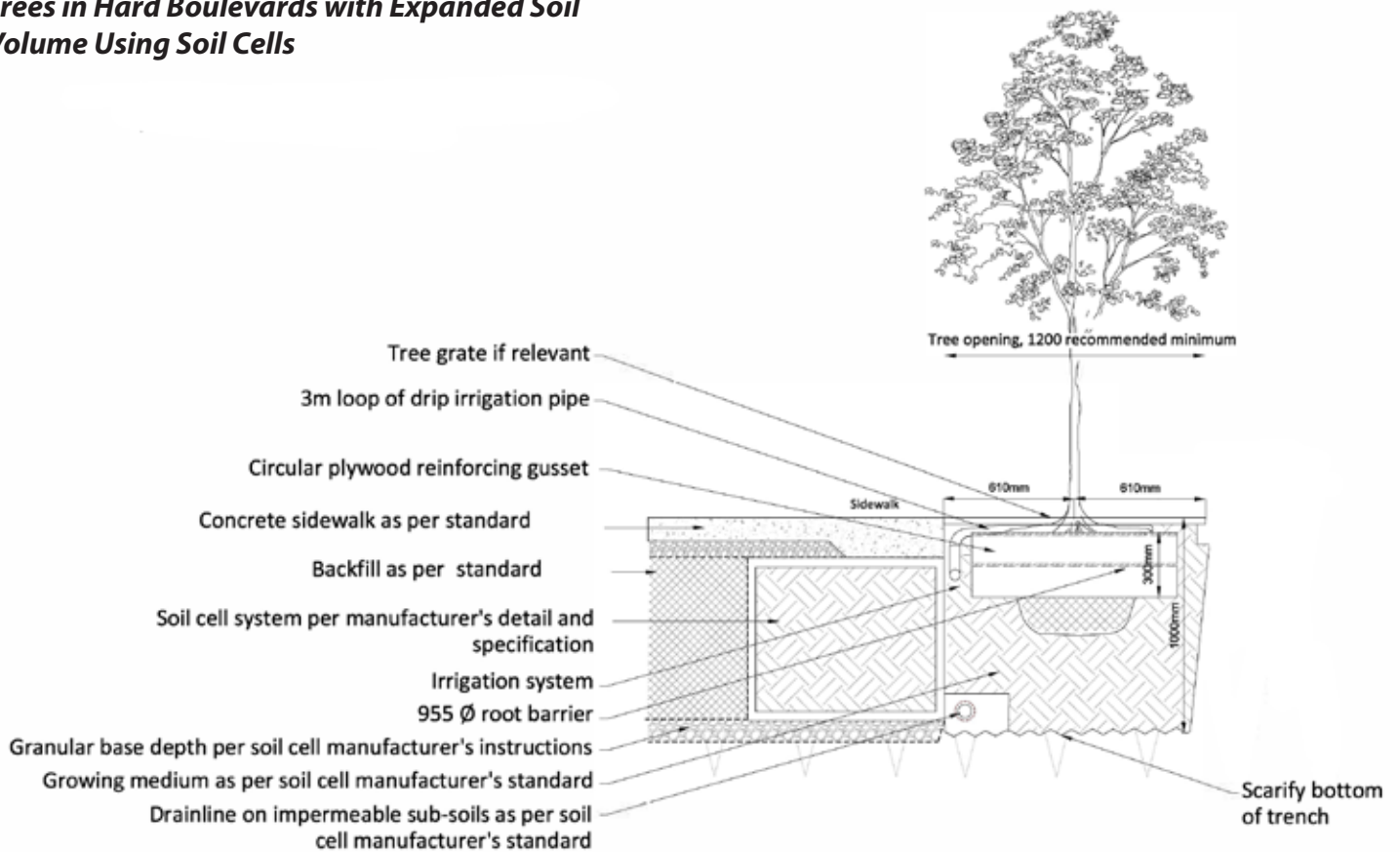
- 5.7.10. **Use the tree selection list** in Appendix F.b. when selecting trees for 100 Street.
- 5.7.11. **Locate trees so as not to impact other important street services and functions**, such as light coverage, bus stops, underground services, etc.
- 5.7.12. **Provide soil volume to support the size of tree desired** to achieve streetscape design outcomes:

Tree size definitions	Spacing	Soil volume (m ³)*
Up to 3m (<i>very small tree canopy spread</i>)	3m	not less than 4
Up to 6m (<i>small tree canopy spread</i>)	6m	5 to 14
Up to 10m (<i>medium tree canopy spread</i>)	8m	15 to 30
Greater than 10m (<i>large tree canopy spread</i>)	10m	>30

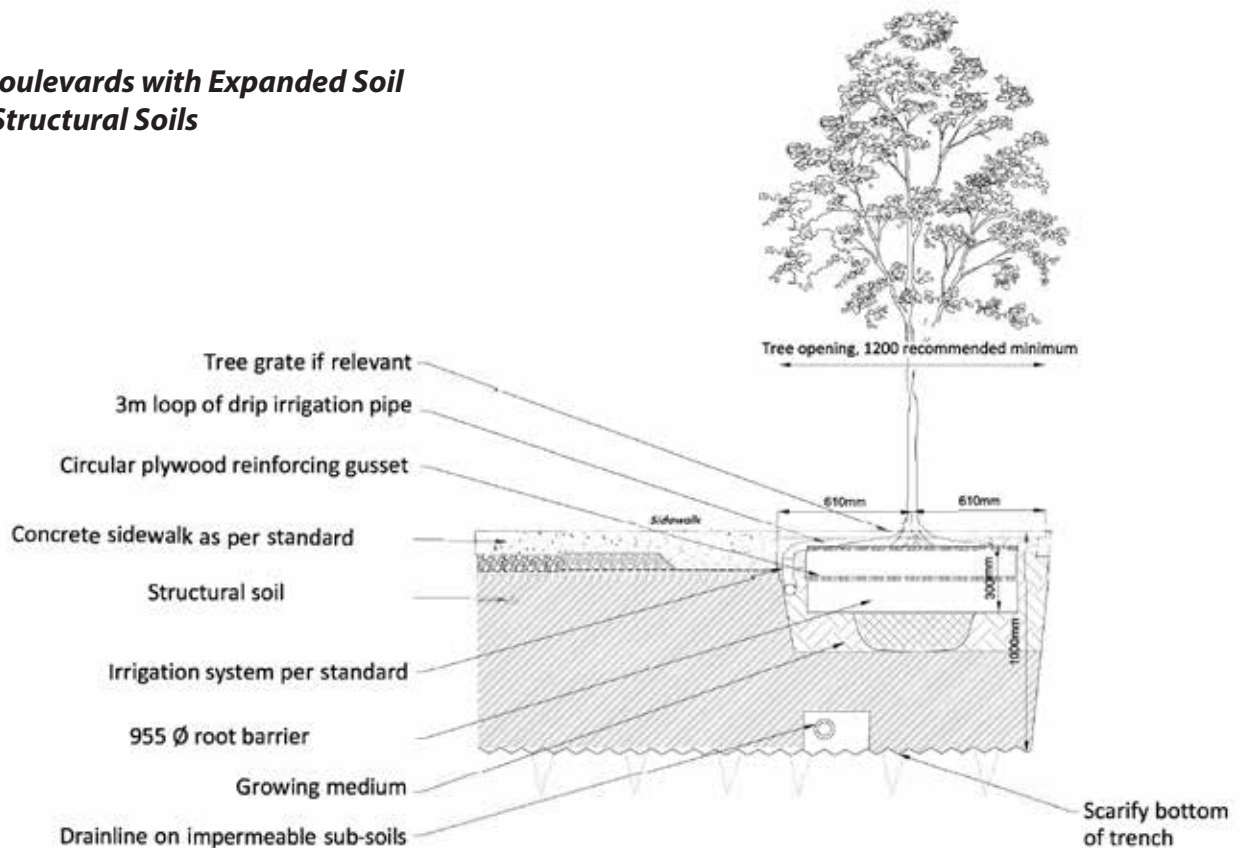
*Structural soil provides 20% actual soil, soil cells provide 92% actual soil

- 5.7.13. **Establish a minimum tree pit opening of 1.2m;**
- 5.7.14. **Provide a minimum of 400 mm depth of topsoil** when planting over scarified subsoils or structural soil. If expanding soil volume with slabs or soil cells. A depth of 1,000 mm is preferred to maximize soil volume;
- 5.7.15. **Build root bridges to adjacent soil volume** with structural soil or suspended slab whenever possible. Where bridging is not possible, use solutions to expand soil volume, such as suspended slabs or soil cell trenches between tree pits to create pure soil volume, or structural soil under sidewalks (see p. 53 & 54).
- 5.7.16. **Connect soil volumes between trees via trenches or continuous structural soils** under the sidewalk and boulevard.

Trees in Hard Boulevards with Expanded Soil Volume Using Soil Cells

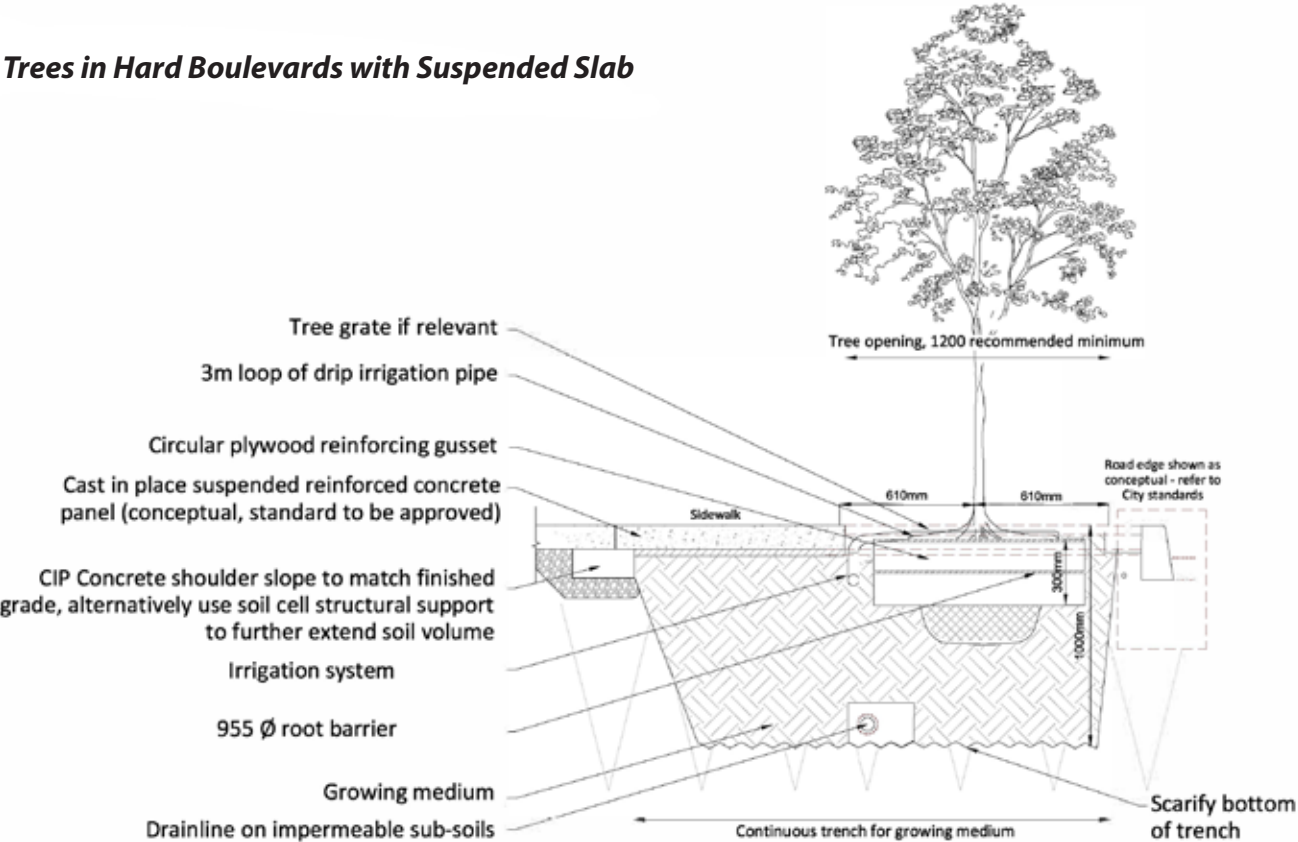


Trees in Hard Boulevards with Expanded Soil Volume Using Structural Soils



All recommendations pertaining to street trees were sourced from the Future Climate Tree Suitability and Best Management Practices Study (Diamond Head Consulting)

Trees in Hard Boulevards with Suspended Slab



5.8 | SURFACE DESIGN AND MATERIALS

INTERSECTIONS

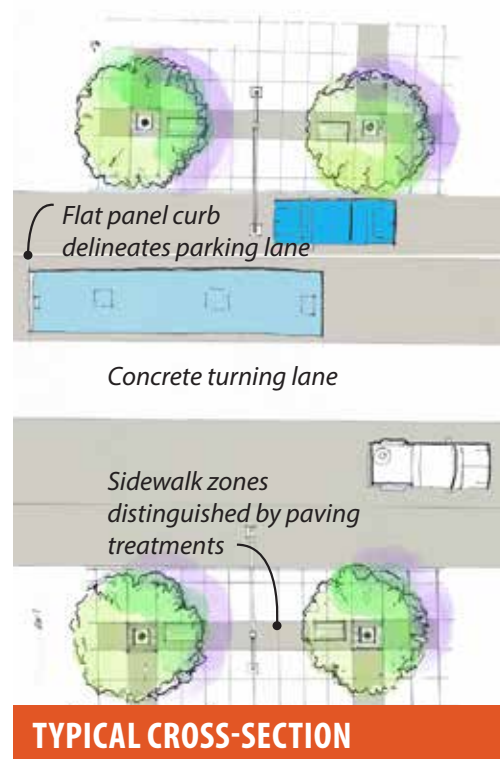
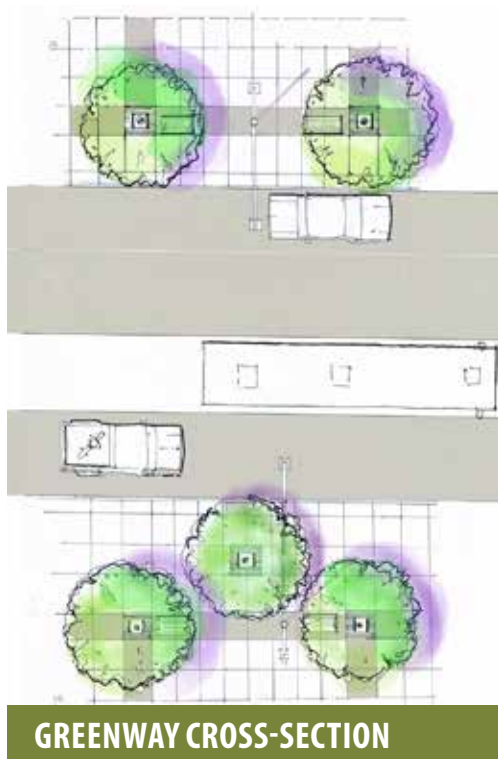
5.8.1. Intersections may be marked by using the following methods:

- a Stamped Asphalt** | This crosswalk is distinguished by both colour and texture. Stamped asphalt (e.g. DuraTherm) is more durable than paint. It is available in a variety of colours and patterns, and can be custom designed.
- b Painted Crosswalks** | This conventional material can add character and a distinct identity to the downtown through design.
- c Poured In Place Concrete** | The poured in place concrete sidewalk continues through the crosswalk to distinguish the pedestrian zone from travel lanes .



SIDEWALKS & CENTRE TURNING LANE

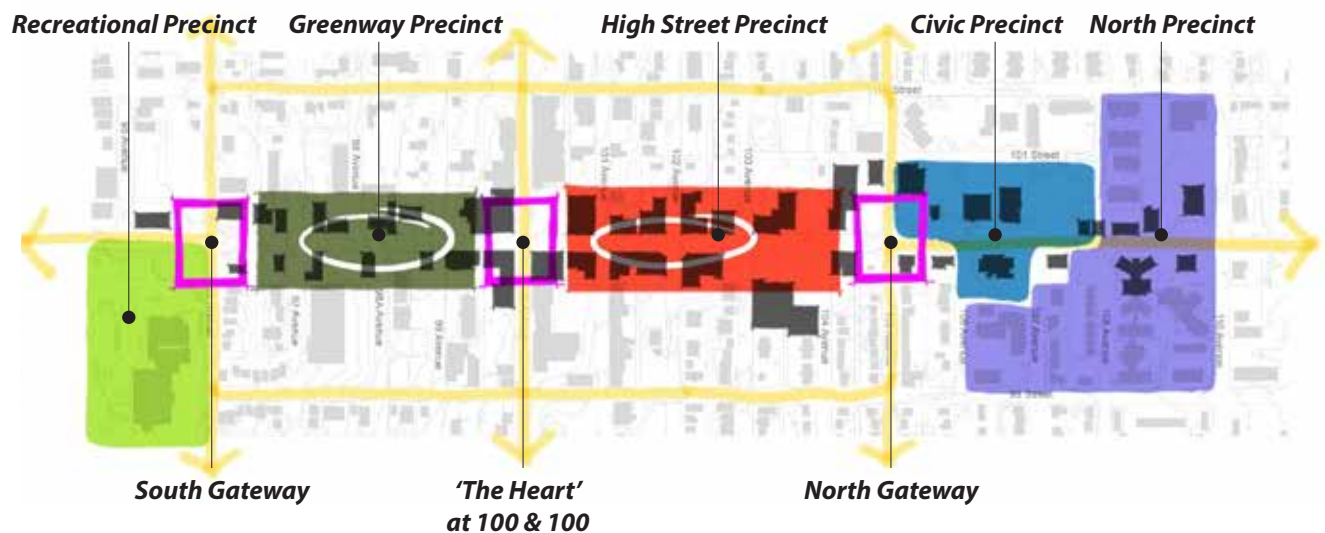
- 5.8.2. Paving materials should be chosen based on their aesthetic quality, as well as for their ease of maintenance / durability to suit Fort St. John's winter temperatures.
- 5.8.3. **The centre turning lane** should be concrete to distinguish it from the asphalt through-lanes and to break up the expanse of asphalt between sidewalks.
- 5.8.4. **Crosswalks** should also be concrete with a scored grid pattern.
- 5.8.5. **Parking lanes** will be lined with flat panel curbs to demarcate them from the travel lane.
- 5.8.6. **Different sidewalk zones** will vary in textured or coloured treatment to distinguish them from one another.
- 5.8.7. **Bricks and pavers will not be used** due to maintenance demand from weathering.



6 | PRECINCT & GATEWAY GUIDELINES

The ***Precinct & Gateway Guidelines*** identifies distinct segments of the street (“Precincts”) and important intersections (“Gateways”) in order to make specialized observations and design recommendations.

These precincts and gateways are as follows:



6.1 | RECREATIONAL PRECINCT

Just outside of the reconstruction zone, the destination 'Recreational Precinct' anchors the south side of the 100 Street corridor. Situated at the base of a 6-8% slope, it is characterized to the east by large public open spaces and recreational facilities set back at a distance. Festival Plaza is located at the southeastern corner of 96 Avenue and 100 Street, with a meandering walkway and a small building whose generous overhang offers covered outdoor space. To the west, small pedestrian-oriented retail spaces are set adjacent vacant lots. These lots present a significant development opportunity to complete the Recreational Precinct.

ADJACENCIES AND OPPORTUNITIES

- A Development Opportunity** - vacant lots for sale at the southwest corner present a significant opportunity to complete the Recreational Precinct. Consider purchasing and developing a masterplan for these lots, detailing how the proposal relates to the recreational precinct, the adjacent pedestrian-oriented retail, as well as its role in anchoring the southeastern corner of the 100 Street corridor.



6.2 | SOUTH GATEWAY

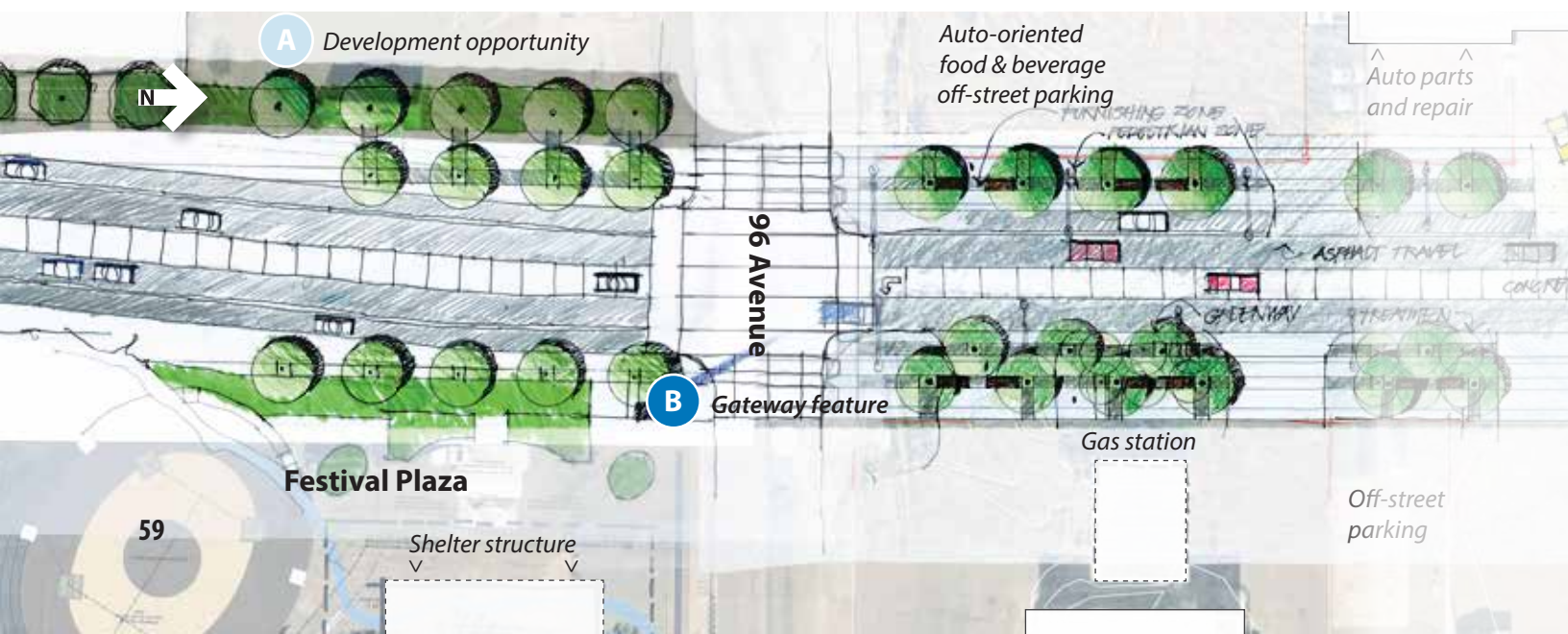
The South Gateway signals entry into the Greenway Precinct when traveling northbound – the start of the journey up to the heart of Downtown. Southbound, it signals the landing to the Recreational Precinct and Festival Plaza. Dedicated left and right turn lanes at the intersection encourage northbound drivers that are not traveling to Downtown destinations to use alternate routes.

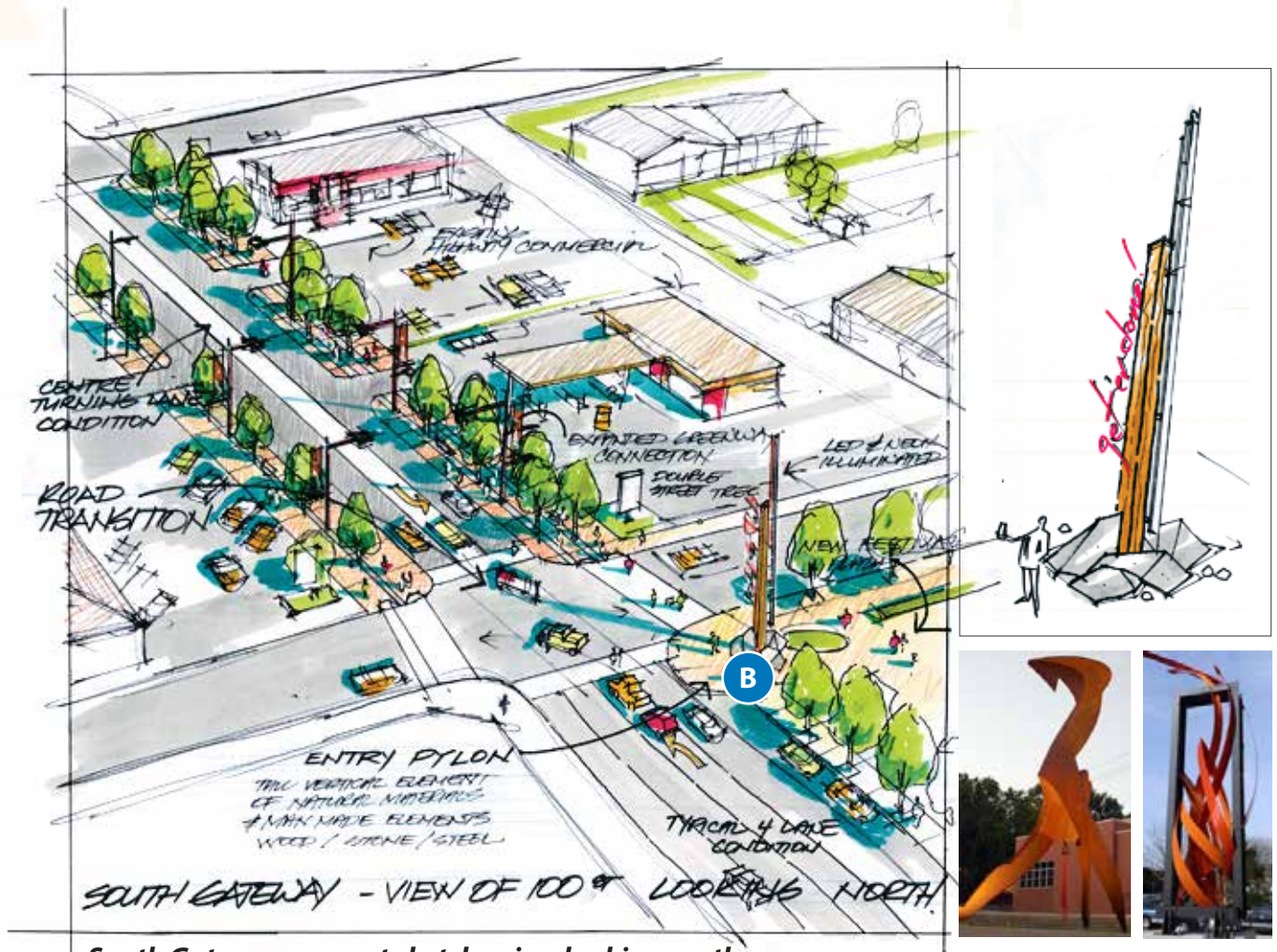
GUIDELINES

- 6.2.1. Introduce a gateway feature at the southeastern corner of the 100 Street and 96 Avenue intersection (B at Festival Plaza) to mark the threshold into Downtown Fort St. John.
- 6.2.2. Include and integrate wayfinding with intersection elements (gateway, utility boxes, at bench clusters) showing the way to destinations in the Main Street and Recreational Precincts.
- 6.2.3. Configure intersection vehicular lanes at 100 Street and 96 Avenue to divert through traffic per the diagram below. The northbound curbside lane transitions to a right turn only to transition to the three-lane cross-section. Install overhead lane use signage northbound on 100 Street before 96 Avenue to clearly indicate the right turn lane to traffic during winter conditions.



South Gateway laning transition diagram





South Gateway concept sketch - view looking north



6.3 | GREENWAY PRECINCT (SOUTH)

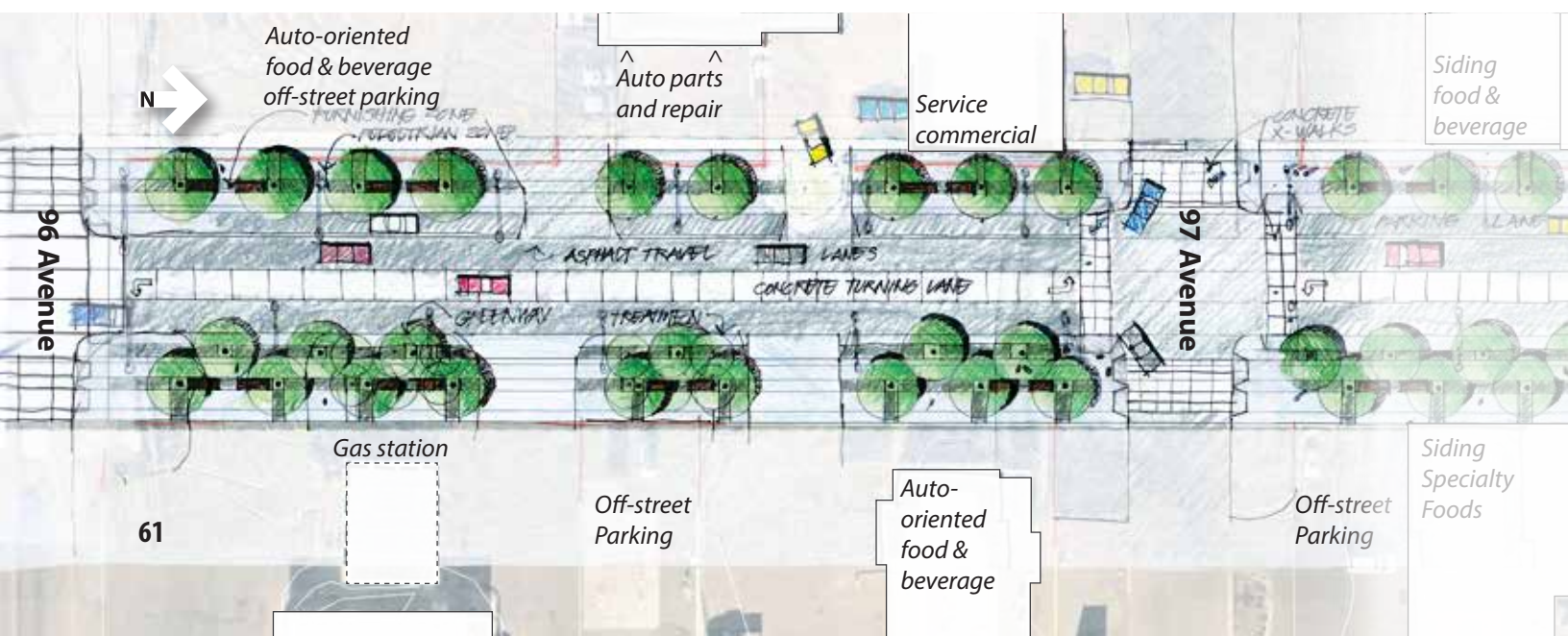
The Greenway Precinct links the Recreational Precinct and Downtown with its eastern greenway - a widened sidewalk with staggered double row of trees. This cross-section extends from 96 to 98A Avenue.

GUIDELINES

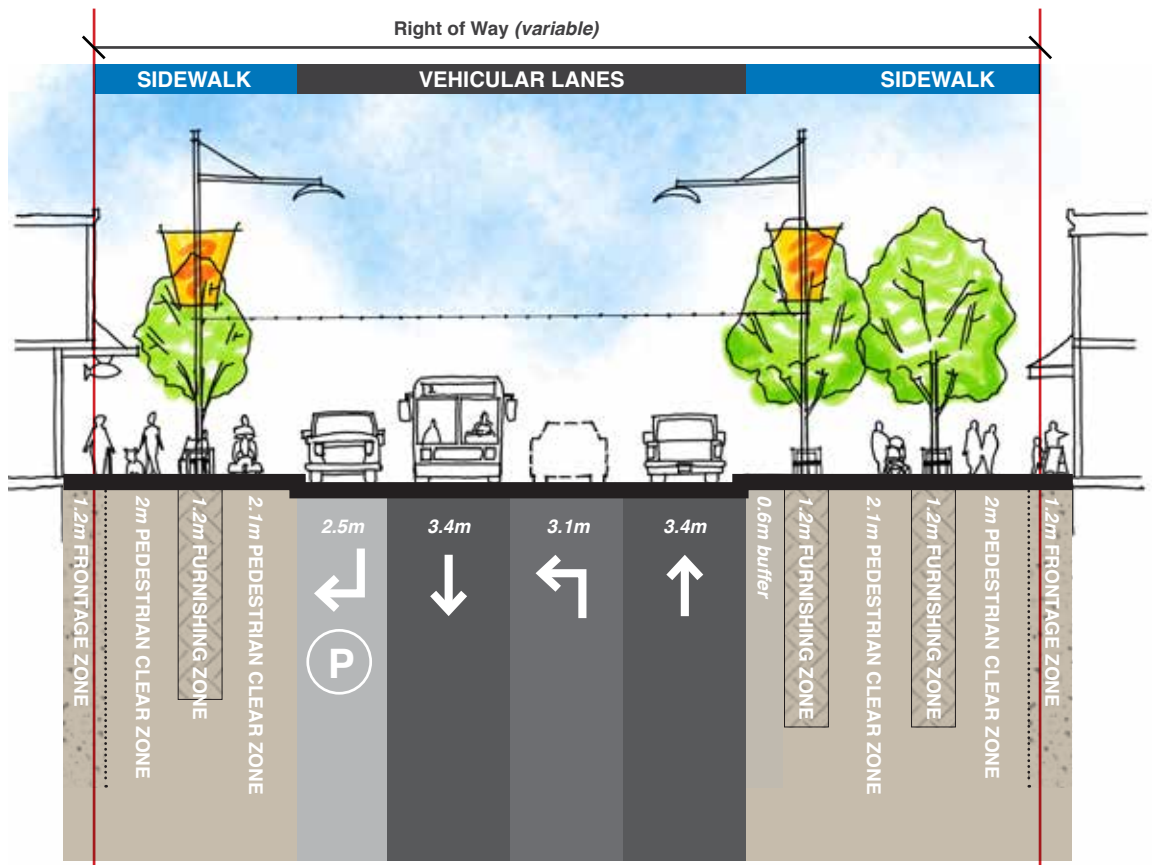
- 6.3.1. Include a signalized intersection at 100 Street and 97 Avenue.
- 6.3.2. Pursue opportunities for "breaks" along stretches of 96 to 100 Avenue due to steeper grades through increased seating opportunities, clear leveled zones for wheelchairs in furnishing zone, and parking accessed via avenues and lanes rather than 100 Street.

ADJACENCIES AND OPPORTUNITIES

Transition to Pedestrian Orientation: As it stands, the sites adjacent 100 Street between 96 and 97 Avenue consist primarily of auto-oriented commercial buildings and uses (e.g. Shell gas station, All-West Glass, KFC). As the city's Downtown grows and adjacent sites are redeveloped, these sites should aim to transition to become pedestrian oriented, with street fronting buildings and parking in back accessed from lanes. In the short term, review parking circulation towards a reduction in driveways and mid-block sidewalk cuts along 100 Street to improve accessibility and reduce pedestrian-vehicular conflict.



summer



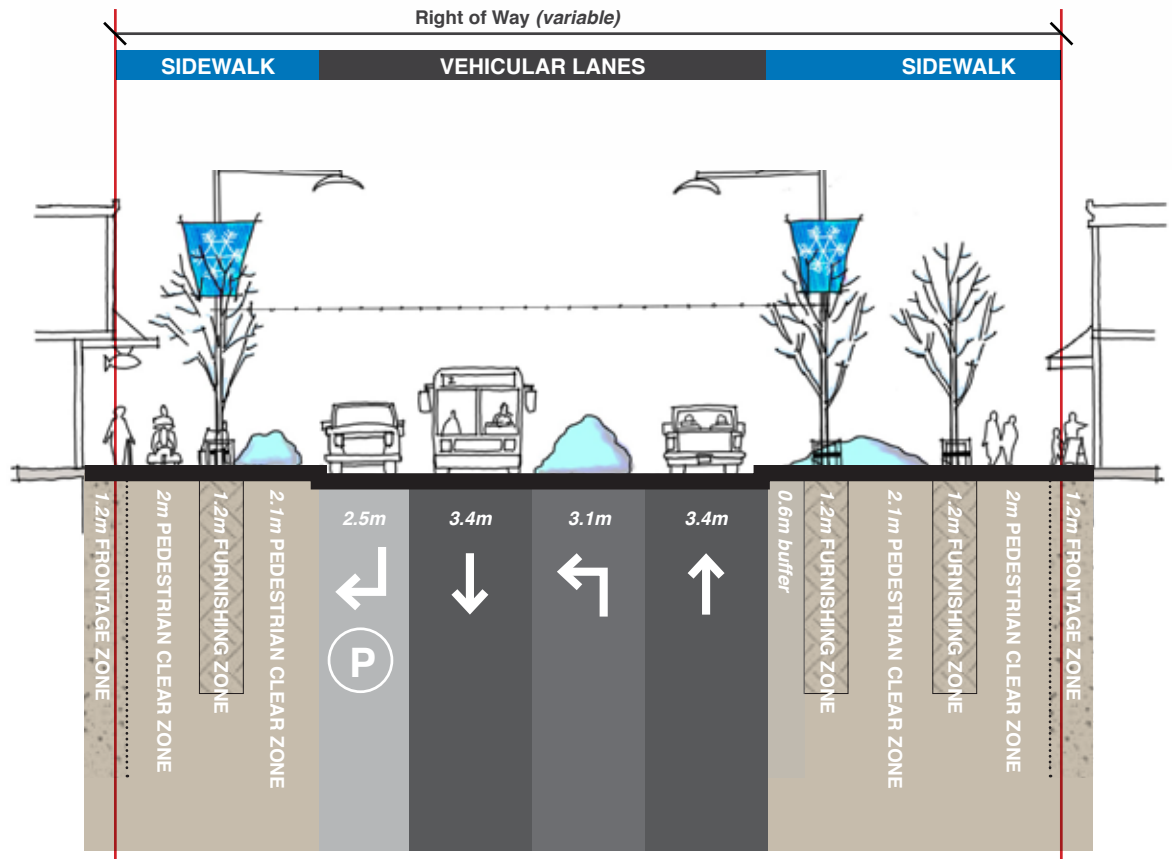
Greenway Cross-Section

extends from 96 Avenue to 98A Avenue

For a few blocks where on-street parking is vastly underutilized, an altered cross-section is proposed. In the greenway cross-section, the eastern parking lane is replaced by an expanded pedestrian realm, including a wider sidewalk and staggered double row of trees.



winter



Snow Storage in the Greenway Cross-Section

In the winter, the greenway cross-section stores snow in the centre turn lane and sidewalks areas closest to the curbs.



6.5 | GREENWAY PRECINCT (NORTH)

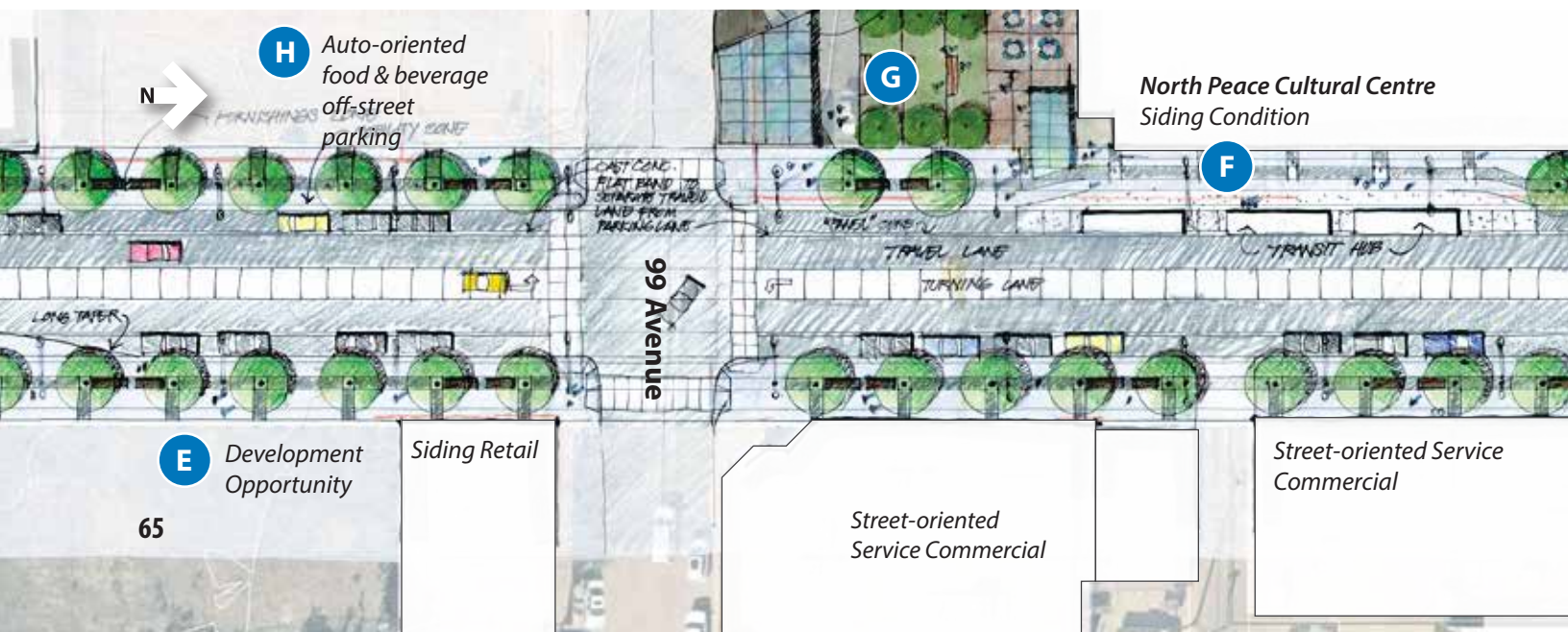
The portion of the greenway between 98A and 100 Avenue transitions the Greenway cross-section to the 'Typical' cross-section (see p.73), and proposed a transit hub physically integrated with the North Peace Cultural Centre.

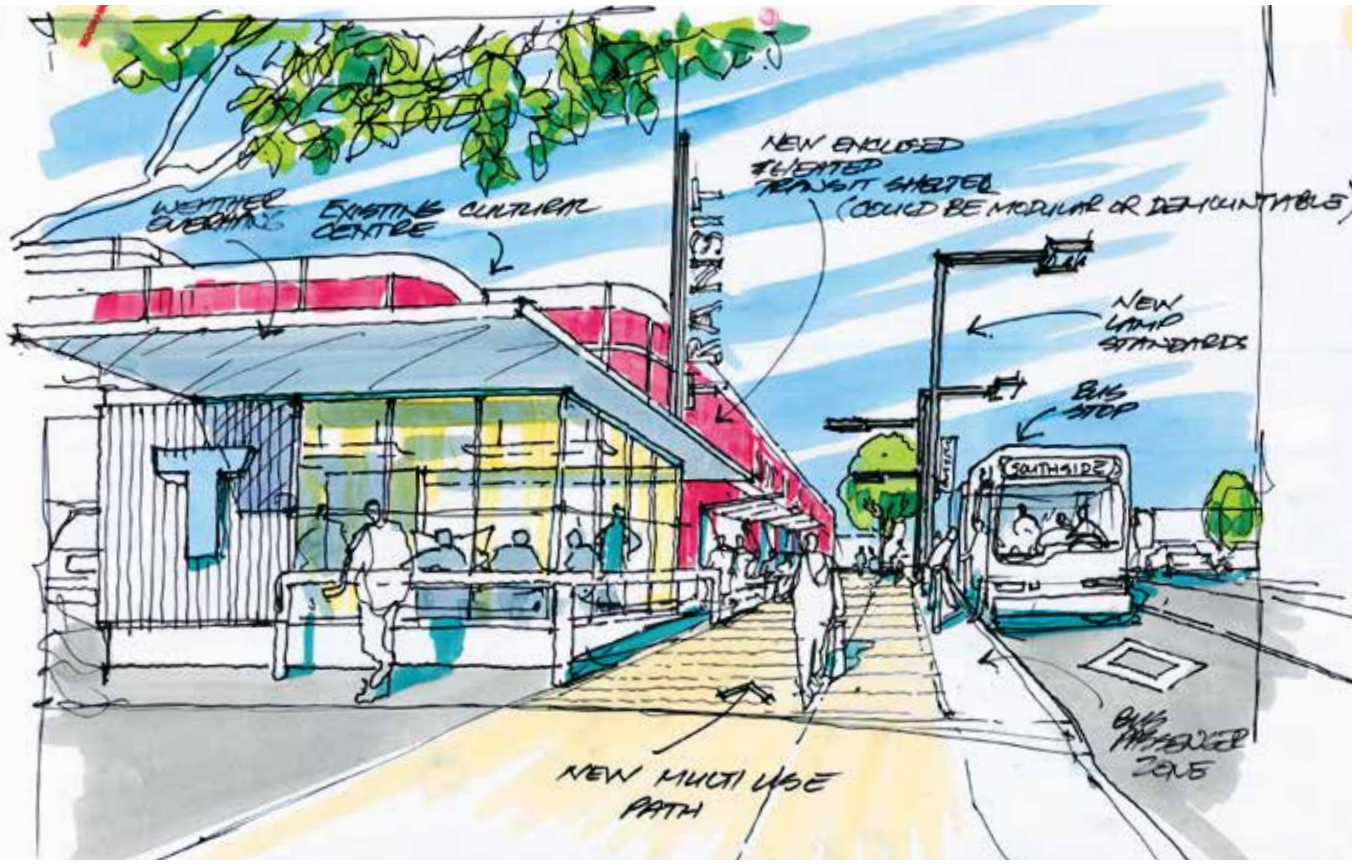
GUIDELINES

6.5.1. Include a signalized intersection at 99 Avenue.

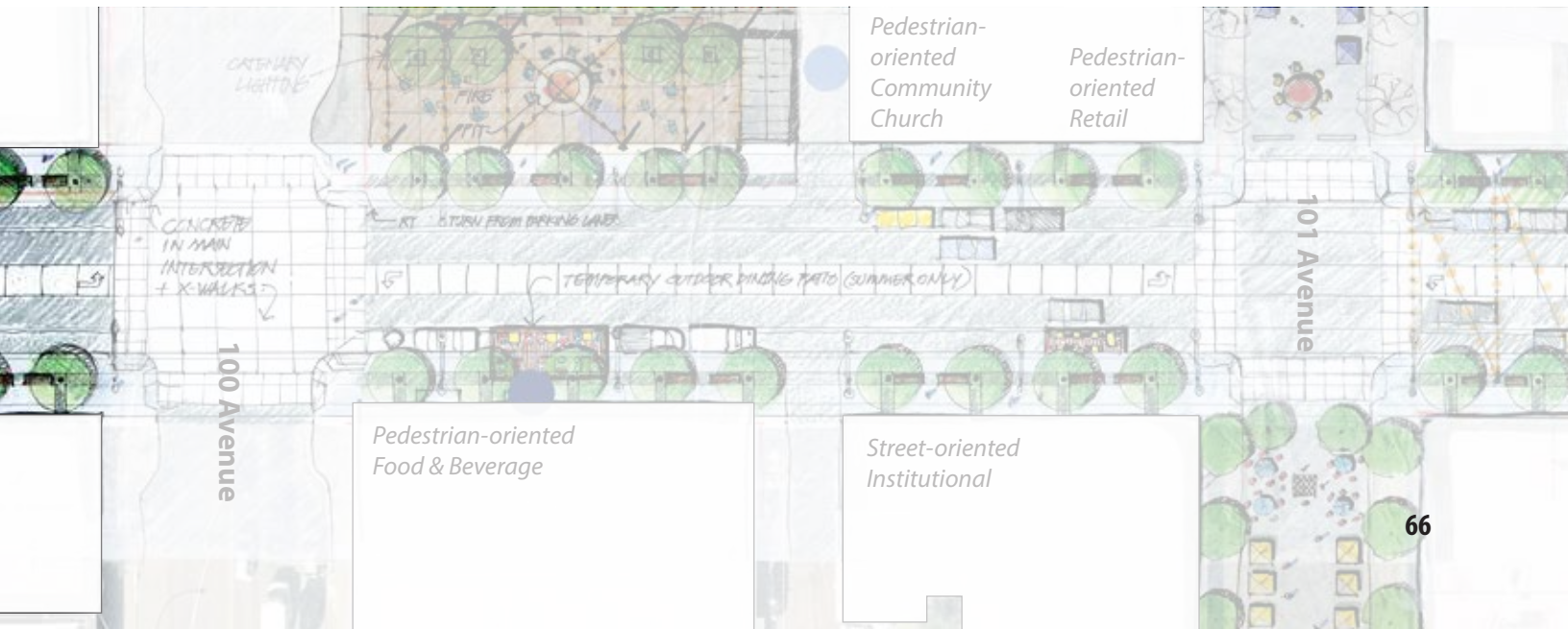
ADJACENCIES AND OPPORTUNITIES

- F** **Enhance the transit hub's waiting area** by integrating it with the North Peace Cultural Centre (NPCC) building to take advantage of the building's heating.
- G** **Encourage North Peace Cultural Centre to renovate** and activate its southern edge.
- H** **Transition to Pedestrian Orientation:** There is an opportunity to redevelop the lot on the south side of 99 Avenue, across from the NPCC site, to a pedestrian-oriented built form that responds to NPCC plaza renovations.





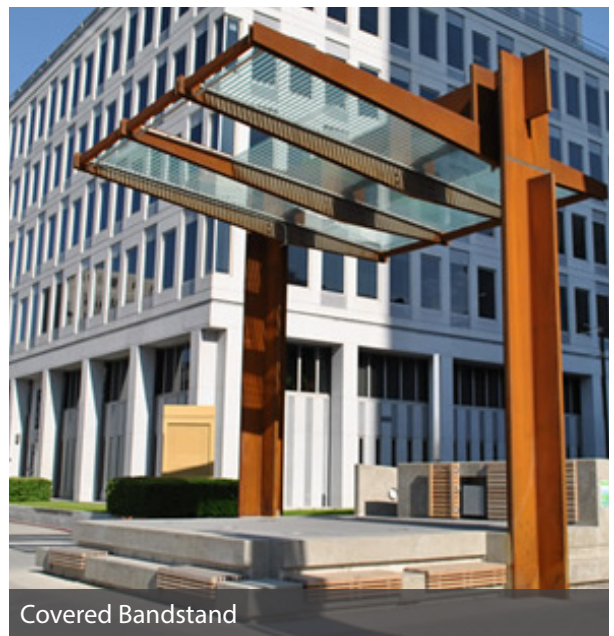
Greenway Precinct (Short-Term Transit Hub Concept)



6.6 | GREENWAY PRECINCT (NPCC SOUTH PLAZA & BUS EXCHANGE CONCEPT)



*Excerpt from the Public Realm and Streetscape Master Plan
NPCC South Plaza and Bus Exchange (short-term transit hub) Option 2*



LEGEND

-  Bench
-  Bike Rack
-  Ped./Roadway Light
-  Pedestrian Light
-  Garbage Receptacle
-  Tree Grate
-  Street Tree
-  Bollard



SCALE 1:200
When printed at 11"x17"

6.7 | THE HEART AT 100 & 100

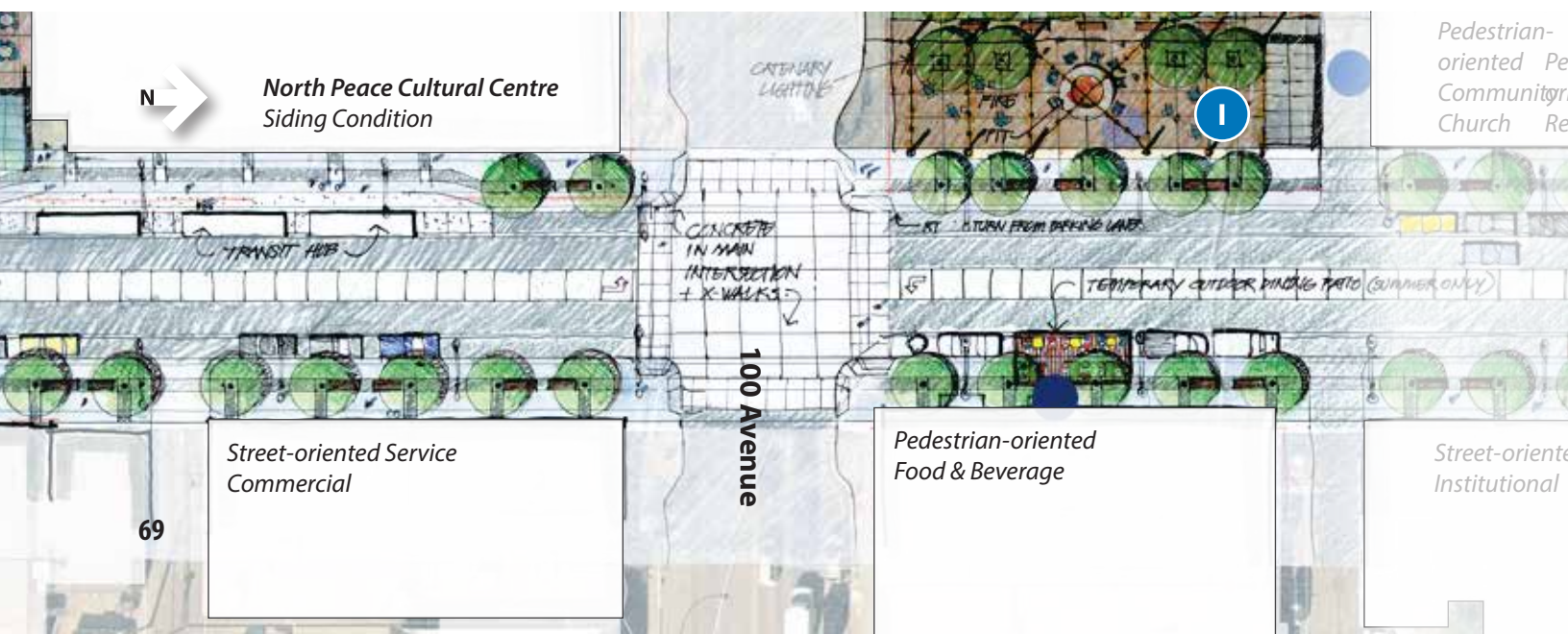
The heart of Fort St. John lies at its point of origin – 100 Street at 100 Avenue. It is defined by a well-utilized Open Space to the northwest, the North Peace Cultural Centre to the southwest, Whole Wheat and Honey Café to the northeast (an important informal, indoor gathering place for the community) and good 1.5-storey building presence to the southeast (currently occupied by the CIBC bank). It sits at a high point, with views south to the Peace River and the top of the slope that cues the start of the greenway precinct.

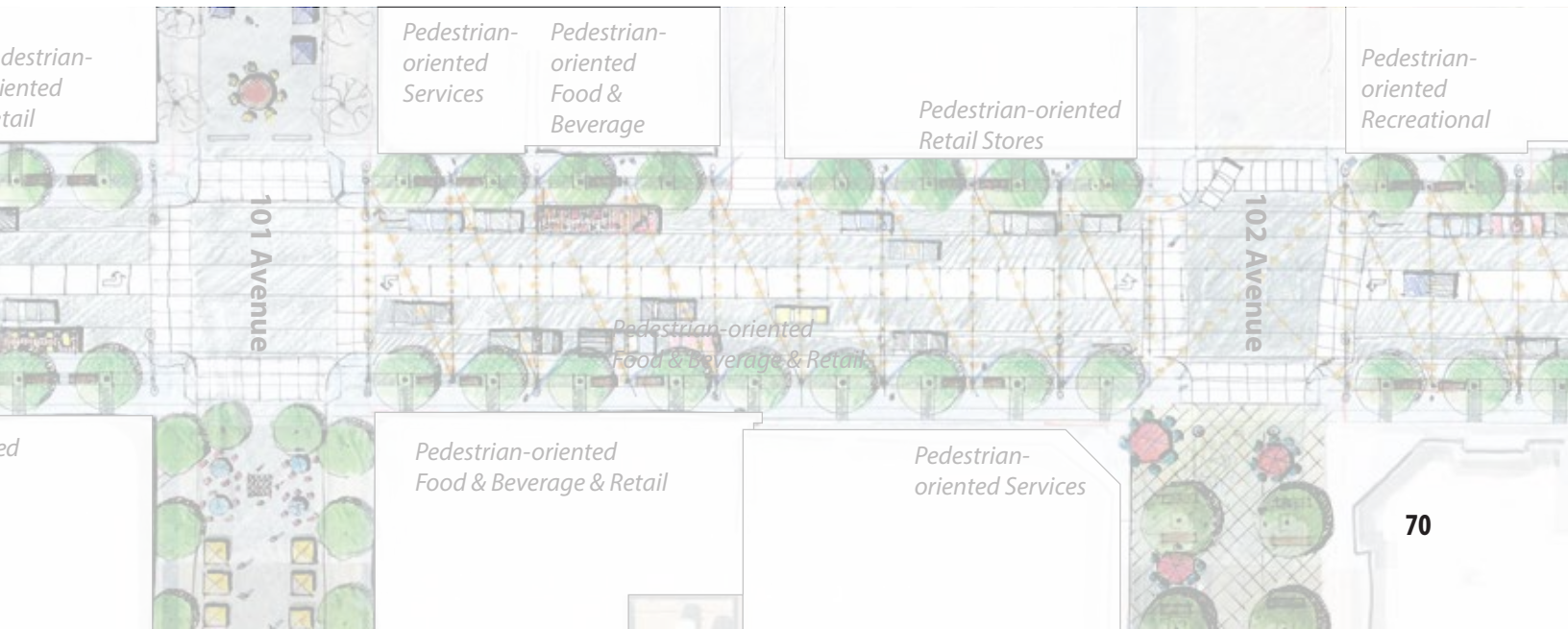
GUIDELINES

6.7.1. Differentiate intersection through concrete treatment through full intersection and crosswalks.

ADJACENCIES AND OPPORTUNITIES

- I City Centre Square Design:** A linear plaza with a firepit, catenary lighting and movable furniture is proposed, to be maintained even as future development occurs on the remainder of the site. In the meantime, a multi-use green, children's play area, space for food trucks and kiosks, and a caretaker building are proposed.





6.8 | HIGH STREET PRECINCT (CORE)

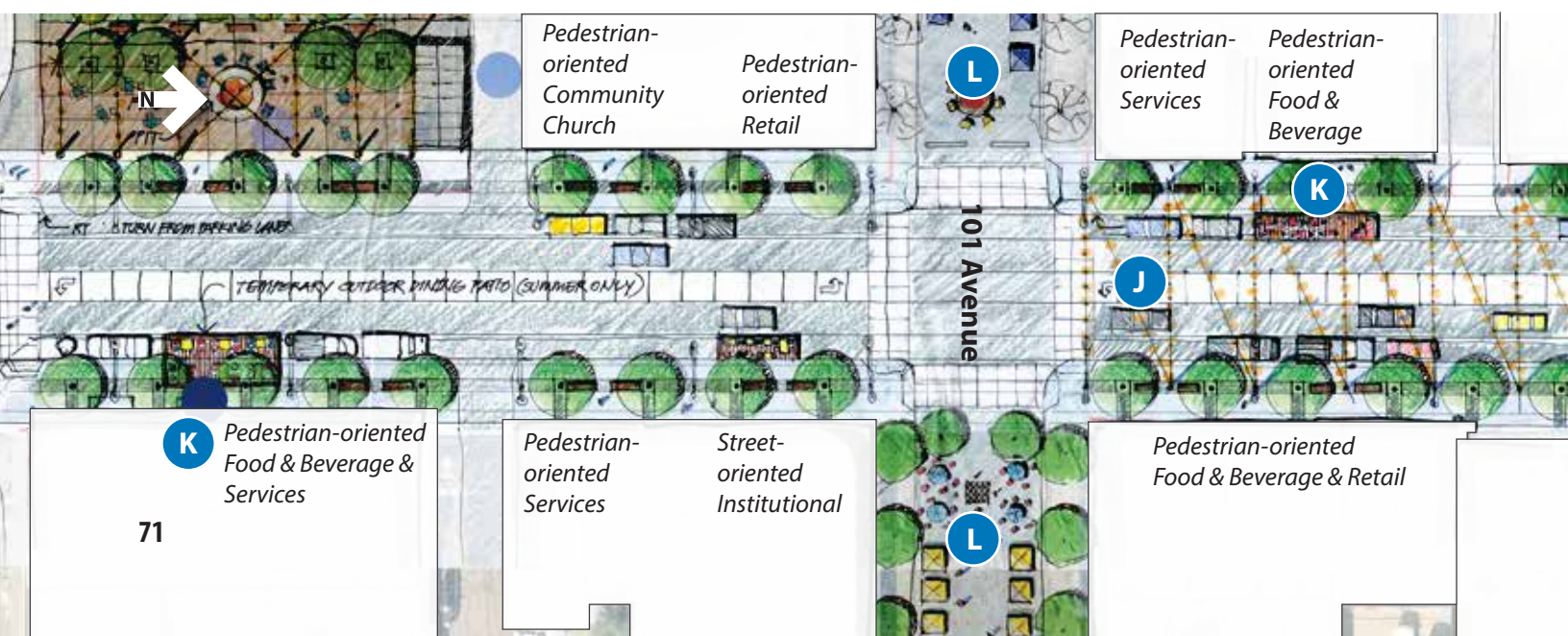
The well-defined edges of small storefronts between 101 and 102 Avenue characterize the High Street Precinct

GUIDELINES

- 6.8.1. Include a pedestrian controlled crosswalk at 102 Avenue intersection.
- 6.8.2. Span 1.5 blocks of High Street Precinct between 101 and alley north of 102 Avenues with catenary lighting (J) to create continuity between City Centre Square plaza and main street.
- 6.8.3. Encourage summer use of parking spaces for café and restaurant patio 'pop-ups' (K)

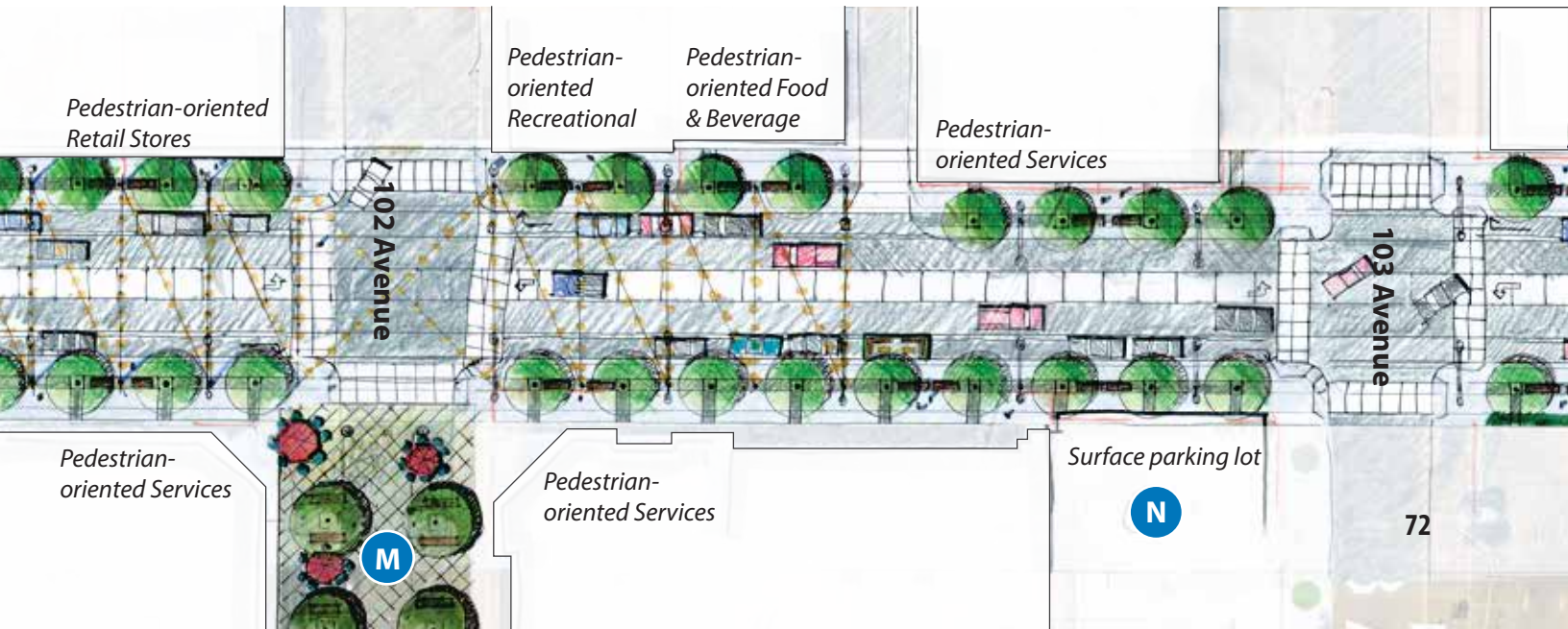
ADJACENCIES AND OPPORTUNITIES

- L** **Temporary Street Closures:** implement half-block street closures at 101 Avenue for events.
- M** **Shared street plaza:** create 1-block shared street plaza on 102 Avenue east of 100 Street. This living street allows all transportation modes (people in vehicles, on foot, on bicycles or scooters, and more) to coexist and negotiate space across the whole street. Vehicles drive slowly to match the speeds of the pedestrians that surround them. *As the first of its kind in Fort St. John, detailed design of this shared street segment will need to consider the city's driving culture and include elements that strongly signal to drivers to slow down, and may provide more explicit direction on where vehicles can be parked.*
- N** **Surface Parking lot:** explore future infill opportunities to better frame the pedestrian experience at the corner of 100 Street and 103 Avenue.





The Shared Street is curbsless, with textured paving, seating and street trees designed to slow traffic to speeds that allow pedestrians, bicycles and vehicles to share the street.



Pedestrian-oriented Retail Stores

Pedestrian-oriented Recreational

Pedestrian-oriented Food & Beverage

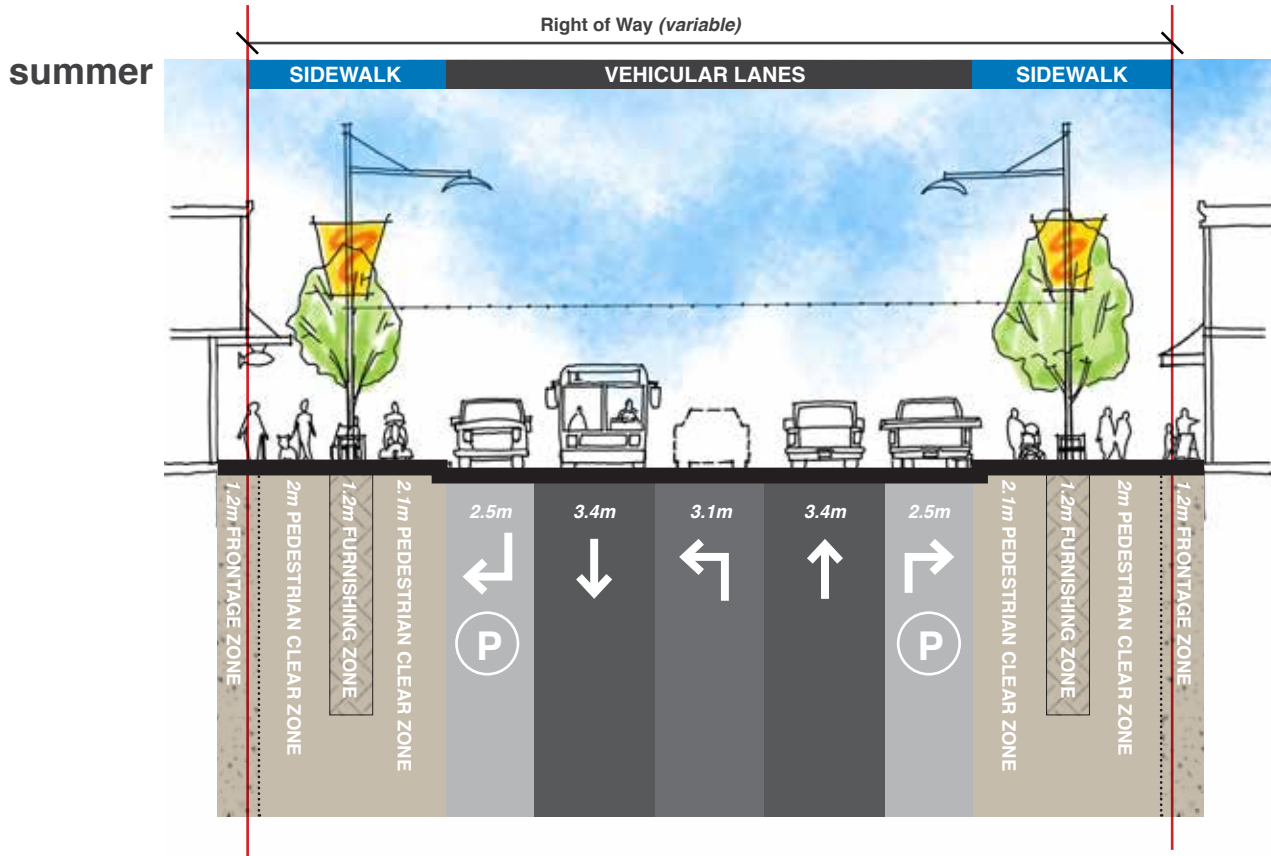
Pedestrian-oriented Services

Pedestrian-oriented Services

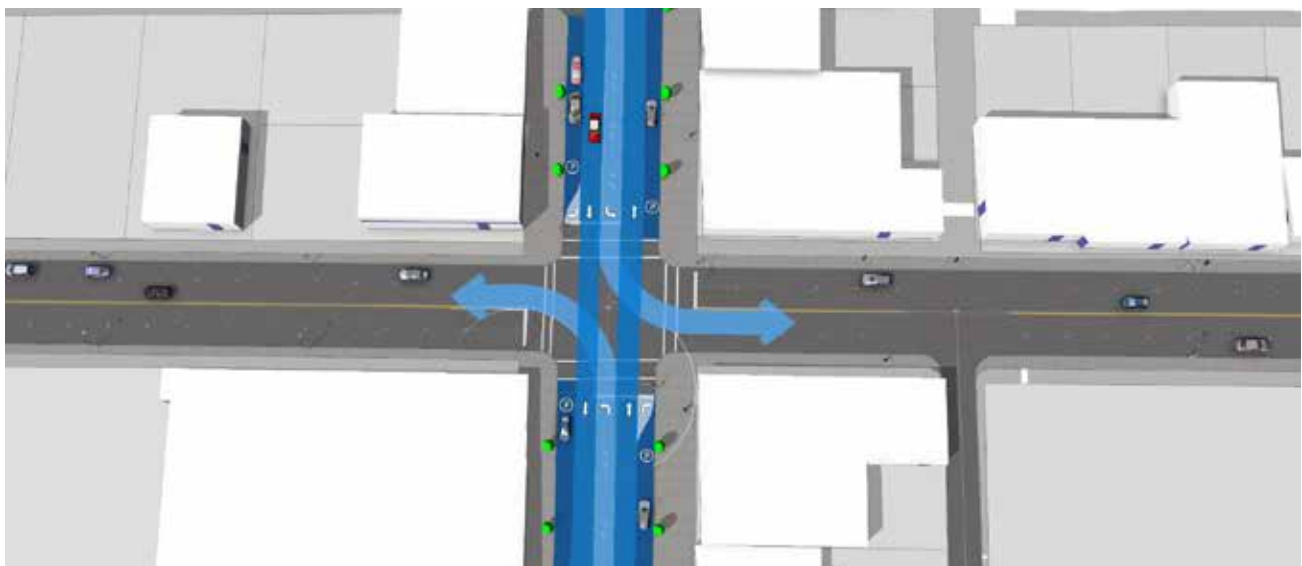
Pedestrian-oriented Services

Surface parking lot

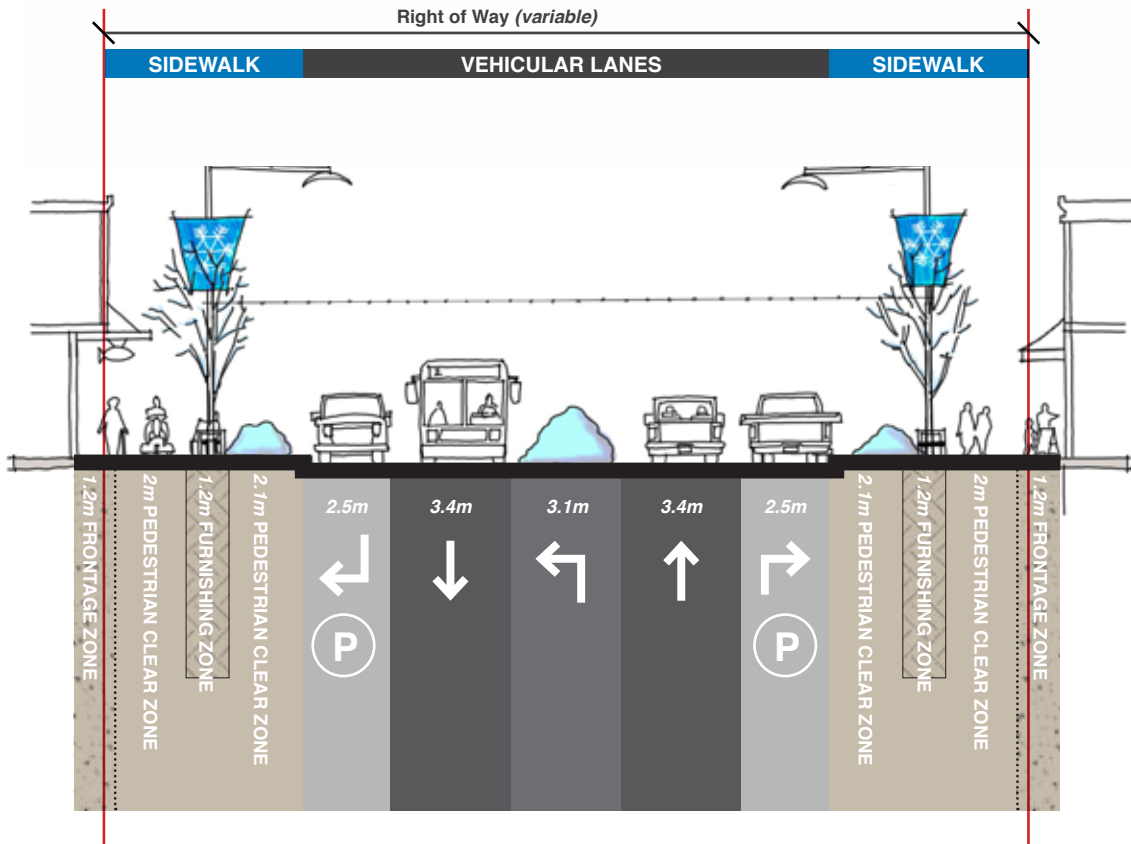
6.9 | HIGH STREET PRECINCT (CORE - DETAIL)



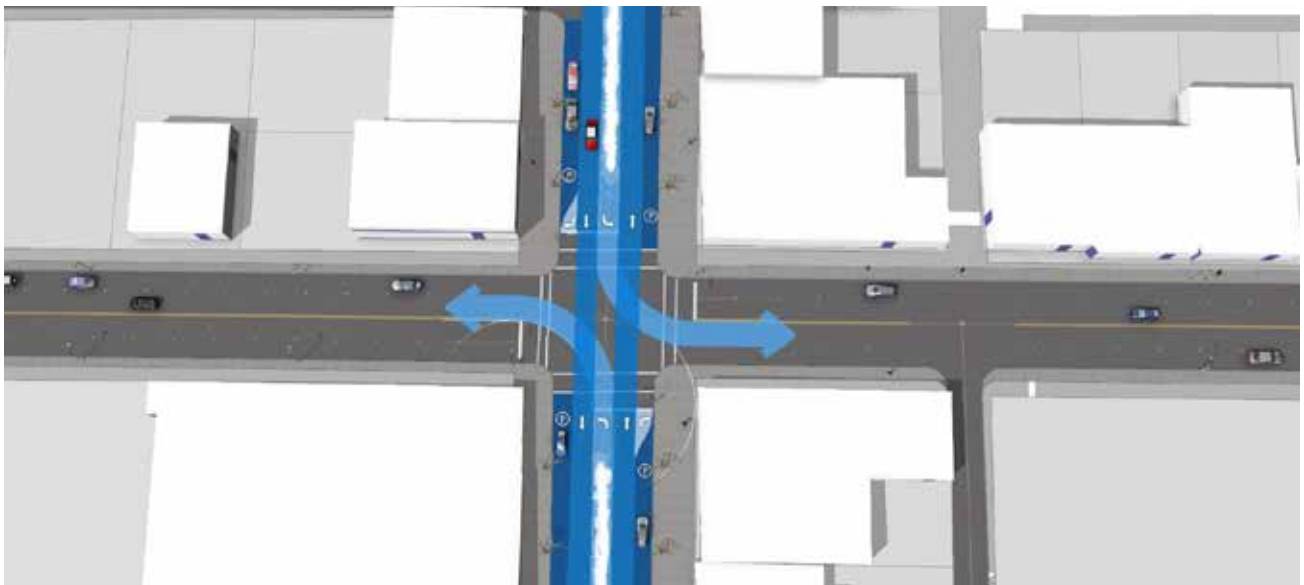
Establishing turning lanes allows for more efficient traffic movement, allowing lane reductions and dedication of additional space to the pedestrian realm. This supports Downtown businesses that rely on foot traffic (see Appendix F.d., Retail Vitality and Impact Mitigation Review). A Furnishing Zone dividing the sidewalk into two pedestrian clear zones allows people to negotiate space more easily - mobility scooters and people getting out of parked cars on one side, leisure stroller and window shoppers on the other.



winter



In the winter, the centre turning lane can be used for snow storage. On sidewalks, one of the widened sidewalk and pedestrian clear zones allow special snow equipment to be used to plough, instead of City staff manually shovelling the snow as they currently do today due to the narrow sidewalk width.



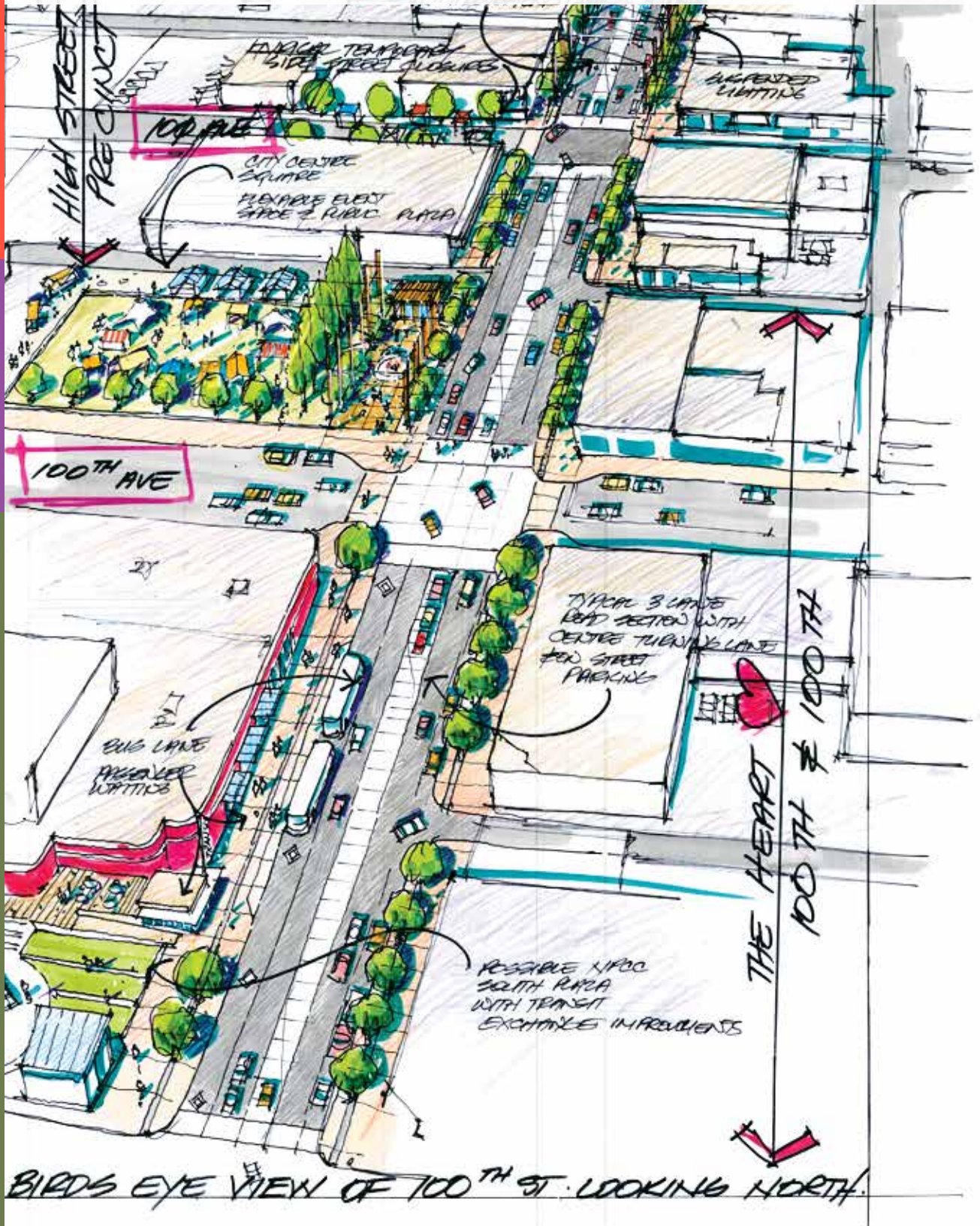
6.7-6.9 | OBLIQUE VIEW OF THE HEART AND ADJACENT PRECINCTS

The heart of downtown at 100 Street and 100 Avenue is rich with destinations - from the City Centre Plaza where the World Fair is held, to the North Peace Cultural Centre's many activities (Library, daycare, gallery, theatre), the bus bay and the unofficial gathering place that is Whole Wheat and Honey - there can be considerable pedestrian and vehicular movement to negotiate. The proposed 'typical' cross-section was conceived to hold all of these needs and more (parking!) - a snapshot of which is shown in this oblique sketch.

HIGH STREET PRECINCT (CORE)

THE HEART

GREENWAY PRECINCT (NORTH)



6.9 | HIGH STREET PRECINCT (NORTH)

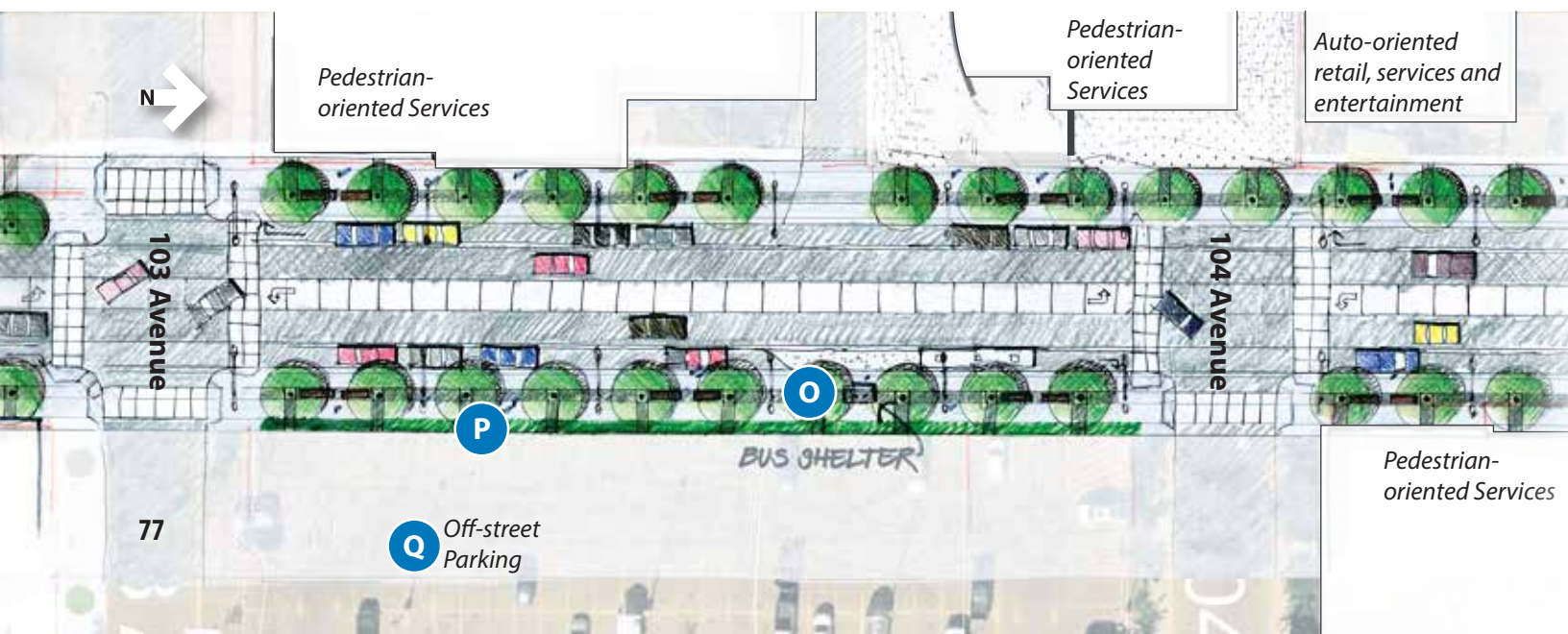
Between 103 and 105 Avenue, adjacent development transitions: The western edge is framed by a mix of pedestrian and auto-oriented buildings; and the eastern edge is defined by extensive surface parking.

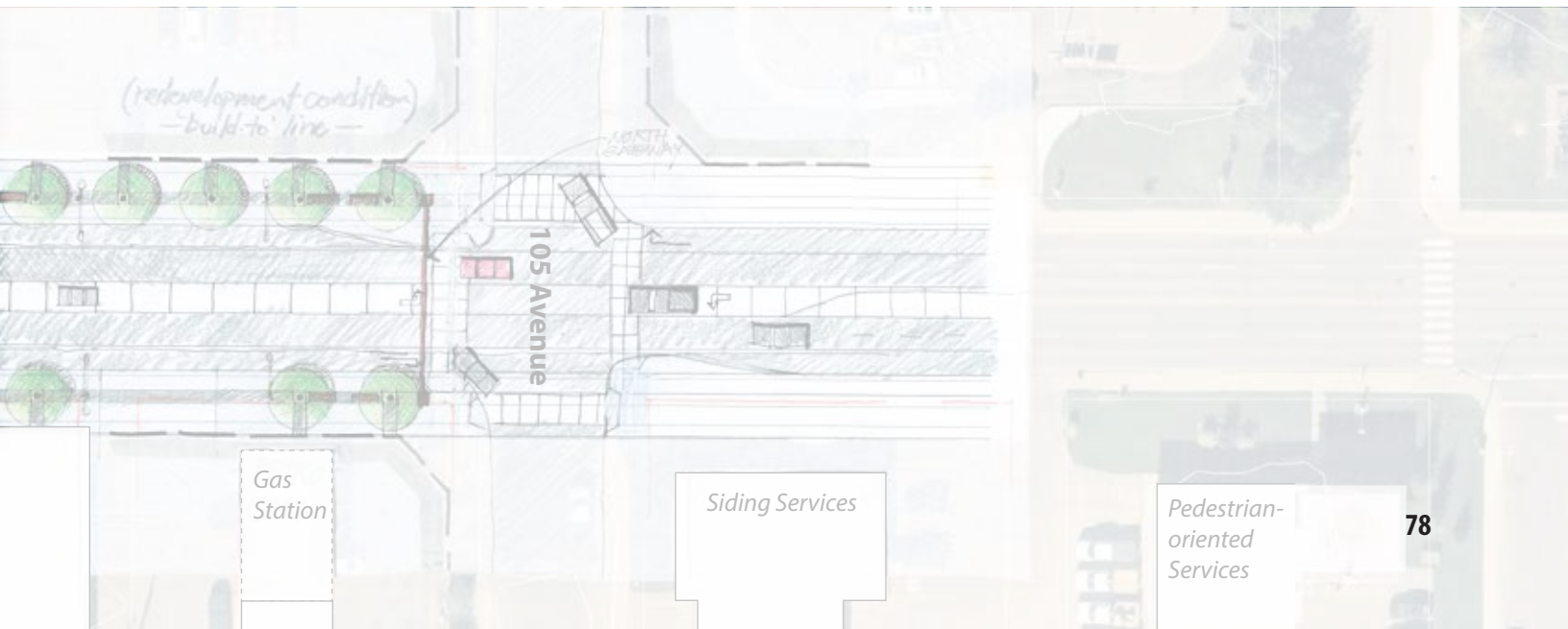
GUIDELINES

- 6.9.1. Include a signalized intersection at 103 Avenue.
- 6.9.2. Upgrade bus stop to a heated and covered bus shelter (O).

ADJACENCIES AND OPPORTUNITIES

- P Where redevelopment occurs, build to property lines and front on 100 Street, with parking access from lanes, or from avenues where there are no lanes. In the interim, provide direct pedestrian access from retail / commercial entries to bus stops.
- Q In the interim, improve condition along parking edge between 103 and 104 Avenue with vegetated buffer that reflects current City standards. This upgrade may happen at the time of construction contingent on owner interest.



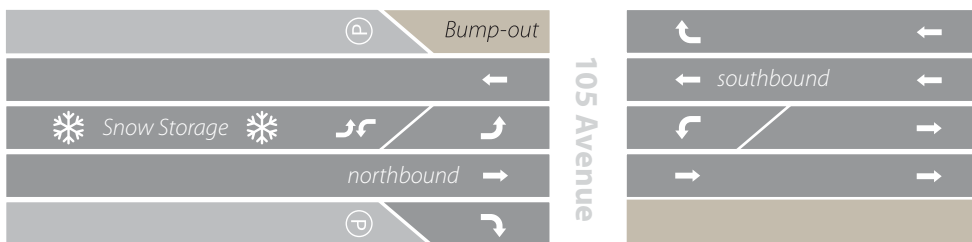


6.10 | NORTH GATEWAY

The Northern Gateway announces arrival into Downtown and the start of the High Street Precinct from the Civic precinct. As in the southern gateway, the intersection encourages southbound drivers not travelling to Downtown to use alternate routes by providing dedicated turning lanes.

GUIDELINES

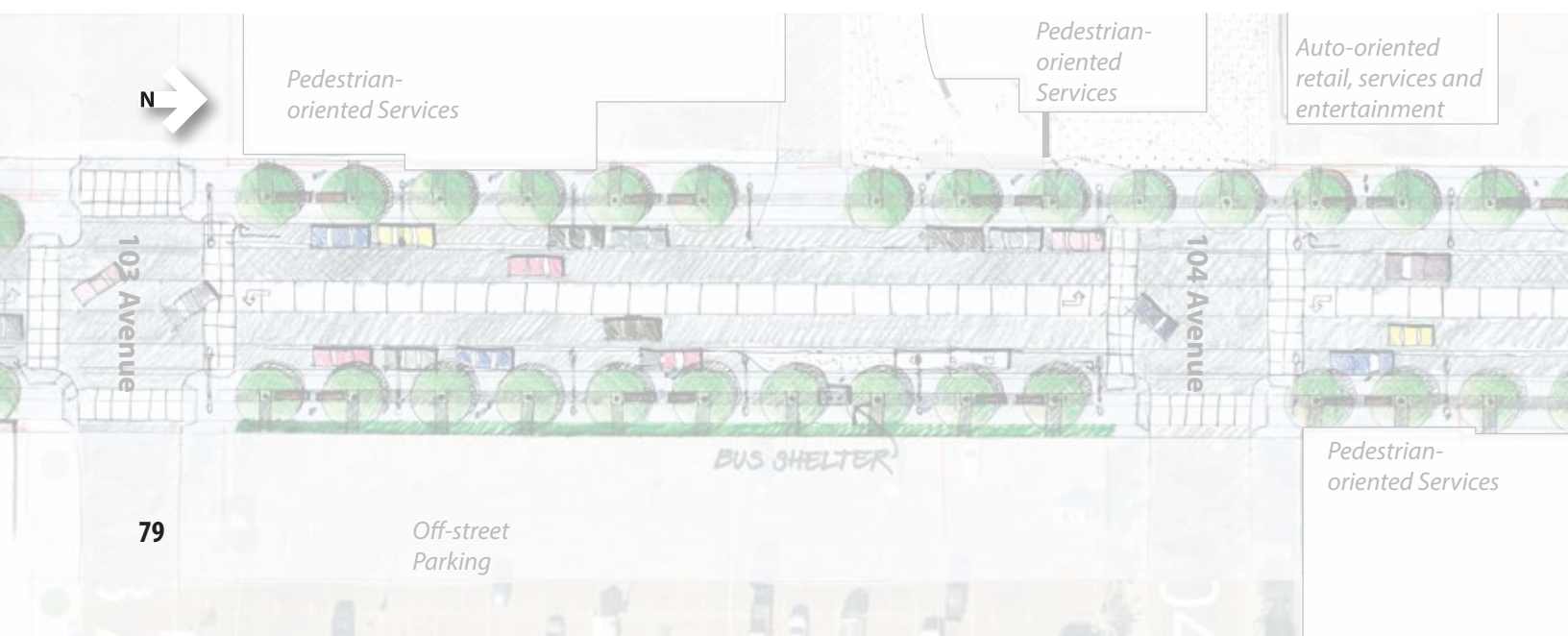
- 6.10.1.** Design overhead gateway element to define entry to Downtown.
- 6.10.2.** Configure intersection at 105 Avenue and 100 Street and transition laning to divert through-traffic, as per diagram below. Install overhead lane use signage northbound on 100 Street before 96th Avenue to clearly indicate the turn lane to traffic during winter conditions.

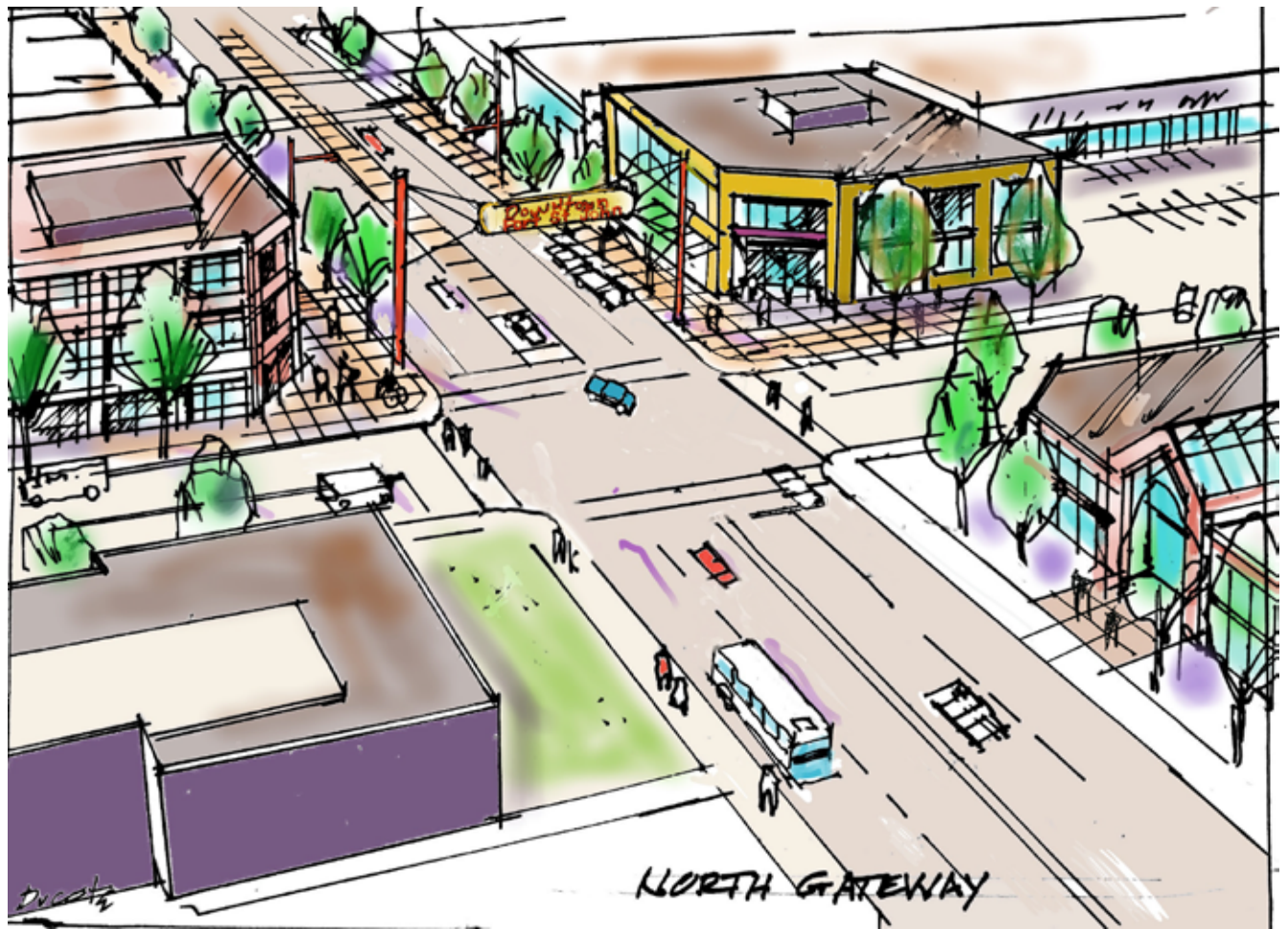


North Intersection Diagram Laning Transition

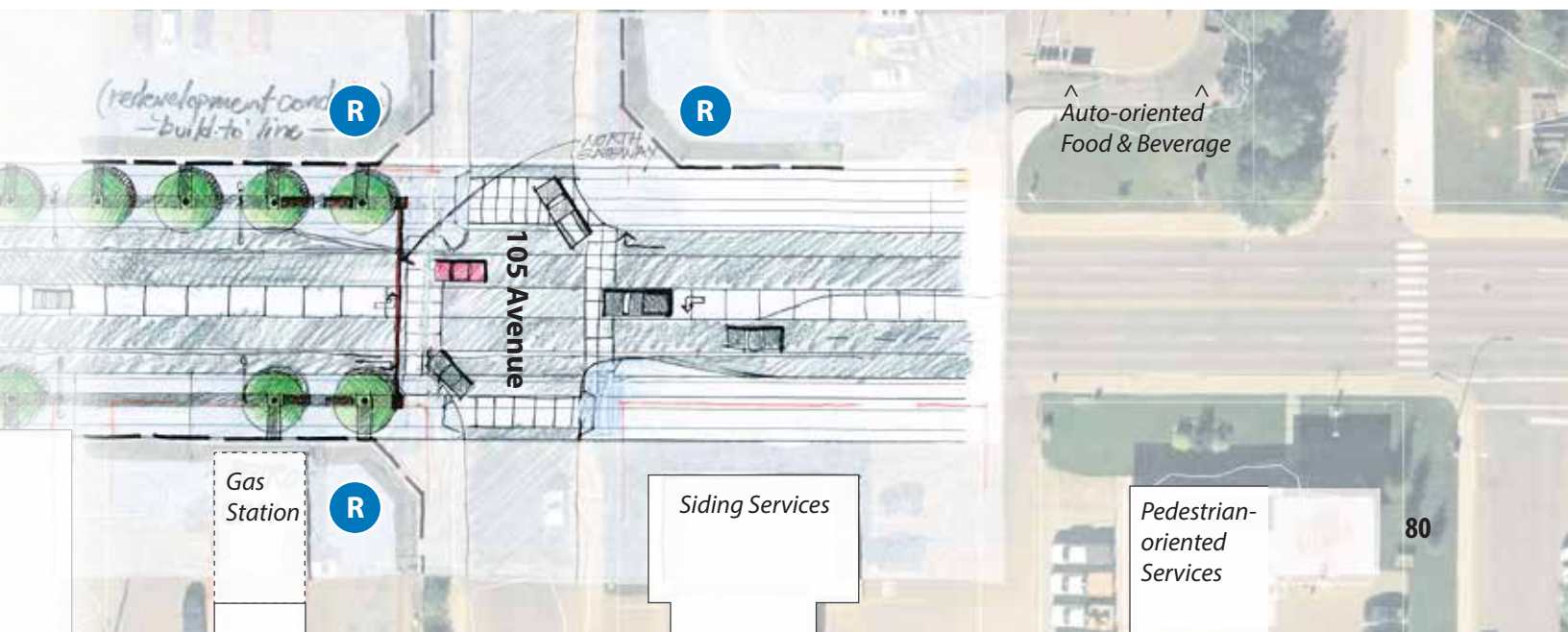
ADJACENCIES AND OPPORTUNITIES

- R** Seek opportunities for redevelopment to build to minimum front setback to better engage and frame the pedestrian realm.





North Gateway reimagined with development built to property lines and overhead gateway element



6.11 | CIVIC PRECINCT

This precinct is characterized by the presence of City Hall, the new RCMP building, BC Provincial Courts and other provincial agencies, as well as Senior's residences and amenities to the north, west, and east.

GUIDELINES

6.11.1. Carry furnishing elements through the Civic Precinct, following guidelines for arrangement of elements and multi-functionality.

ADJACENCIES AND OPPORTUNITIES

Pursue opportunities to expand the pedestrian realm through partnerships, particularly with existing or upcoming redevelopment efforts, such as those of the RCMP. Encourage development that addresses the street.

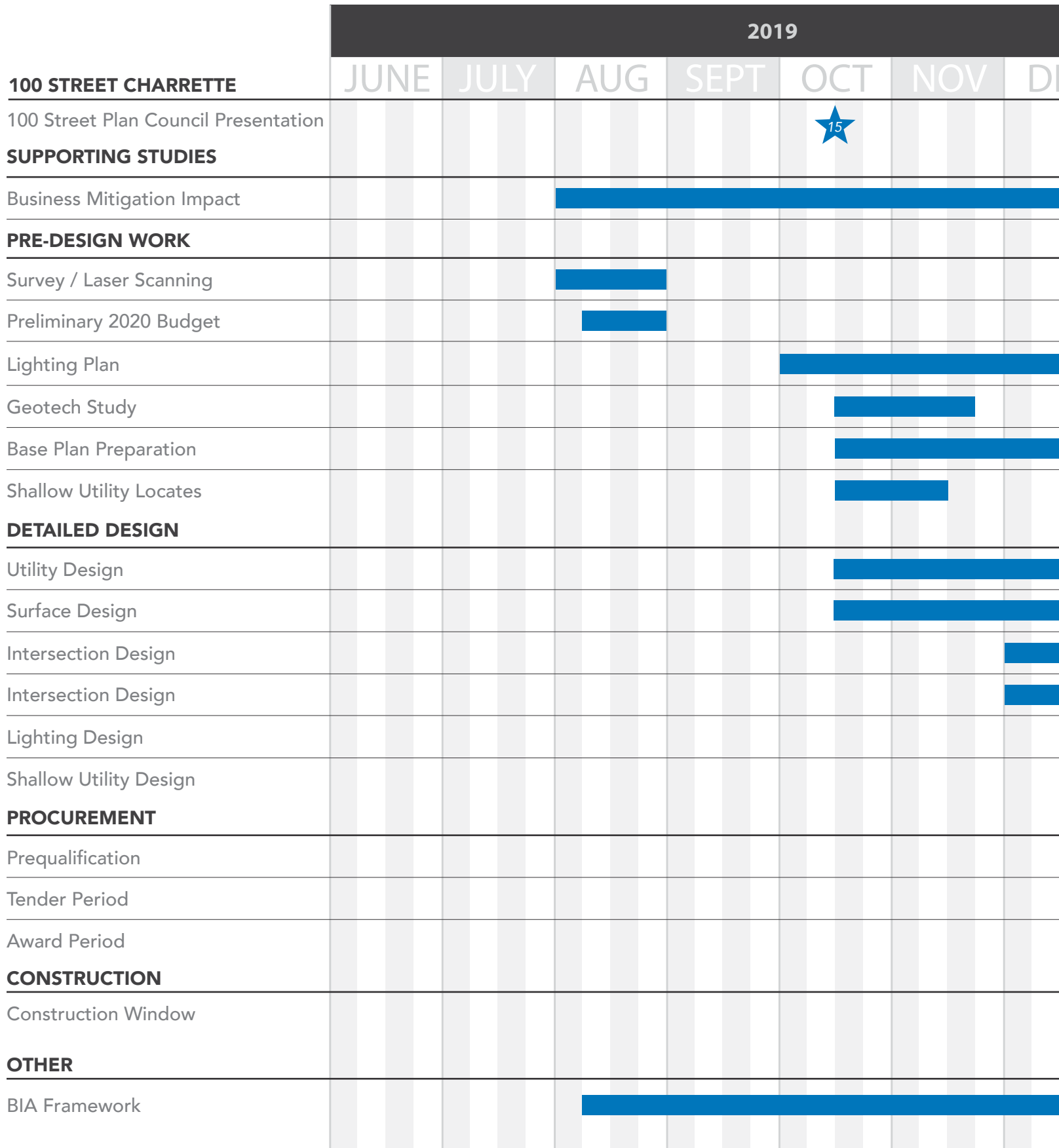
Seek opportunities to enhance the safety and comfort of pedestrian facilities, including consideration for separation of the sidewalk from back-of-curb and installation of street trees.

Explore opportunities to link to the larger city-wide trail network.

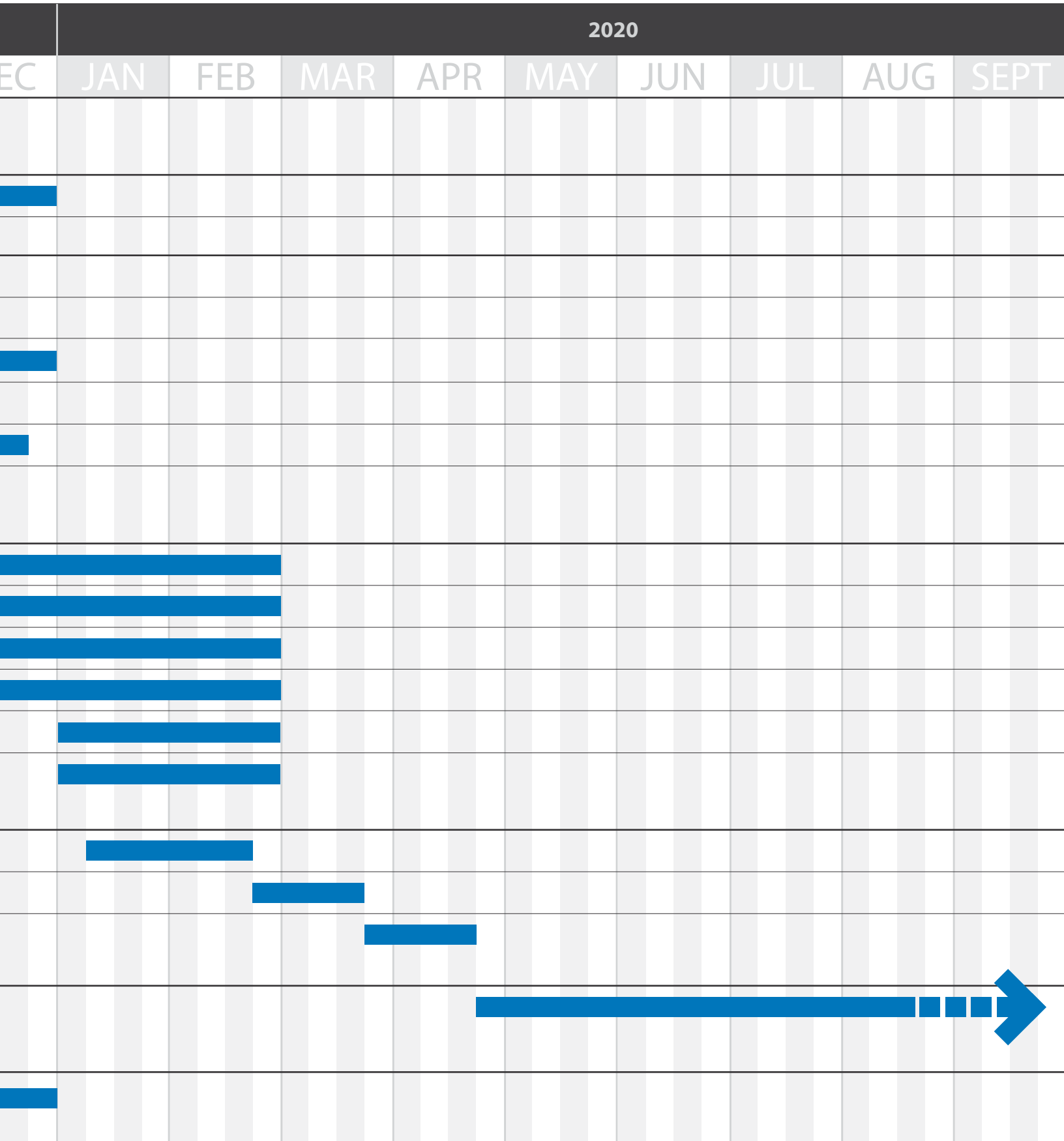


IMPLEMENTATION

7 | PROJECT IMPLEMENTATION TIMELINE



The chart below proposes a timeline for moving into the next phases of the project, from detailed design (and the pre-work required) to procurement and construction.



8 | RECOMMENDATIONS & CONSIDERATIONS

DETAILED DESIGN TEAM

This document provides a framework for detailed design of 100 Street. Detailed design will require a team of professionals with various focus areas. It is therefore recommended that:

- the 100 Street Charrette design team review detailed design and selection of specific standards for street furniture, lighting, and paving materials, to ensure the intent of the conceptual design is carried through detailed design.
- the City complete a Downtown Lighting Masterplan to support detailed design and select lighting standards.
- the detailed design team include an accessibility specialist. In light of future improvements in Downtown, undertaking an accessibility study is recommended. This may include mapping routes to understand level of service and barriers, as well as an Accessibility Strategy for the downtown (improvements, communications, wayfinding / signage).

MANAGING CONSTRUCTION

- **Construction of 100 Street will start at 96 Avenue and proceed north** as dictated by engineering constraints (gravity).
- **Approximately 3-blocks will be reconstructed per year** due to the limited construction window in our northern winter city.
- **Segments of 100 Street will be closed during construction: at this time, the full street width will be excavated and replaced.**
- **Off site transportation improvements will provide and enhance alternative transportation routes.** (You may already have noticed lane upgrades).
- **The city is committed to working closely with stakeholders along 100 Street** to reduce impacts.

APPROXIMATE STAGING OF CONSTRUCTION

- 1 96 to ~98 Ave. (target 2020)
- 2 ~98 to ~100 Ave. (target 2021)
- 3 To be determined north of 100 Ave.



Alternate Routes

- **During construction**, people will be able to use alternate routes to travel in the north-south direction through Fort St. John. Vehicles will likely be redistributed to 96 Street, 98 Street, 102 Street or 108 Street, or can alternatively use the 116 Street / West Bypass.
- **Post construction**, people will be able to continue to travel along 100 Street in Fort St. John using a variety of transportation modes. People who currently use 100 Street as a thoroughfare to pass through the downtown may be more inclined to travel along other streets, such as 98 Street and 102 Street. However, existing traffic capacity will be maintained with traffic calming measures such as reduced lane widths (from current highway standards), and increased signalized intersections. People who are destined for the downtown will likely continue to use 100 Street.
- **Off-site transportation upgrades to support alternate routes** will include upgrading the signalized intersection at 100 Ave / 102 Street with left hand turn slots; adding a signalized intersection with left hand turn slots at 100 Ave/ 98 Street to improve north-south movement to achieve function like 102 Street; and possibly adding a signalized intersection at 96 Street / 96 Ave to improve east-west movements. Transportation upgrades along 100 Street include adding signalized intersections at 97 Avenue, 99 Avenue, and 103 Avenue to improve east-west movements
- **Service and emergency vehicles | Detailed design & engineering will determine intersection configurations that provide sufficient room for maneuvering of large vehicles.** Large vehicles that are not servicing the downtown will be encouraged to use alternate routes and signage will be applied to communicate this.

DOWNTOWN BUSINESS MITIGATION

The City of Fort St. John is committed to supporting Downtown businesses likely to experience impacts of construction, with the following objectives:

- **pre-construction:** businesses have a clear understanding of the construction process and the multiple tools the City is applying to support businesses during construction;
- **during construction:** there are no unreasonable impacts or burdens on existing businesses; and,
- **post-construction:** businesses have an opportunity to thrive in a revitalized urban environment designed with high quality urban design that emphasizes the pedestrian experience. Infrastructure will be new and sized to accommodate modern developments, leading to increased investor confidence knowing there is resilient infrastructure in place.

The City has developed a Downtown Business Mitigation Strategy in parallel with the 100 Street Corridor Plan, ahead of construction (see Appendix F.e.).

RECOMMENDATIONS FOR RETAIL VITALITY AND IMPACT MITIGATION*

Built Environment Recommendations

- **Retail & People-Oriented Built Form** - avoid gaps in active use along the street ; minimize low-activity ground floor uses ; avoid blank walls by wrapping the ground floor primary facade of buildings with retail stores if possible ; frequent crossing points to enable safe and easy crossing.
- **Compelling storefront design** - signage diversity ; weather protection ; business transparency and avoidance of window wall ads ; clean, well-kept storefronts ; accessibility.
- **Public realm that attracts and retains people** - wide sidewalks for pedestrian movements, goods displays, patios and street furniture ; climatically appropriate vegetation (shade, wind abatement, air quality, visual aesthetics) ; do not obstruct sightlines to businesses ; bright, frequent lighting ; gathering spaces (plazas, parklets, programming, pop-up retail) ; seating, public art, bicycle racks ; market street crossings, wayfinding ; strong interface between built environment and public realm (low barriers to entry) ; flexible use of streets and on-street parking to accommodate events, summer patios, food trucks, mobile retail ; temporary programming of empty lots.

Strategic Recommendations

- **Convenience and accessible environments** - access by multiple modes (vehicles, transit, cycling, pedestrians) in balanced manner; parking strategy to keep space in front of stores clear of long-term parkers ; broad merchandising mix in downtown to facilitate one-stop shopping ; grouping complementary tenancies ; collectively shift operating hours to include evenings/weekends ; integrate e-commerce and omni-channel retailing to provide shoppers with more diversity of options.
- **Tracking market dynamics** - understand customer profiles ; track changing spending patterns/habits by age group, and identify how age profile of community is changing ; ensure high levels of local and regional awareness of range of goods and service in the downtown (branding, marketing).
- **Retail mix, hierarchy and positioning** - anchor tenants and category clusters play critical role in drawing visitors ; tenant mix and market positioning strategies should vary by sub-area, leveraging and building upon each area's current and emerging strengths ; deliver high-quality goods and services; remain price competitive ; some business turnover enables shifts to meet changing needs; too much turnover is destabilizing ; be aware of emerging trends, and be nimble to change.
- **Consistent and engaged leadership** - strong partnerships are needed with committed leadership and clear mandates to drive change ; Business Improvement Areas (BIAs) are a legislated method to bring together vested interest groups to promote economic development.

**See Retail Vitality and Impact Mitigation Review (Appendix F.d.)*

APPENDICES

A | 100 Street Charrette Final Presentation

B | Transportation Analysis

- a. 2019 100 Street ICBC collision data summary
- b. 100 Street Charrette concept transportation performance summary

C | Mapping & Analysis (Charrette Design Brief materials)

- a. Figure-ground
- b. Zoning
- c. Pedestrian network
- d. Slopes
- e. Precincts & amenities
- f. Opportunities
- g. Winter walk
- h. Placemaking scorecard

D | Street Design Parameters

E | Special Projects

- a. North Peace Cultural Centre & Bus Exchange
(Downtown Public Realm and Streetscape Master Plan extract)
- b. Plaza Design for Old Fort Hotel Site at 100 Street and 100 Avenue (City Centre Plaza)
(Downtown Public Realm and Streetscape Master Plan extract)
- c. Festival Plaza Design

F | Additional Studies

- a. 100 Street Parking Study (Draft)
- b. Future Climate Tree Suitability and Best Management Practices
- c. 100 Street Ingrid Cloud Wind Simulation Presentation
- d. Retail Vitality and Impact Mitigation Review
- e. Downtown Business Mitigation Strategy