THE CITY OF GREAT FALLS DOWNTOWN ACCESS, CIRCULATION, AND STREETSCAPE PLAN

Great Falls, Montana

April 2013

This document captures the process and outcomes of the master planning effort by Design Workshop undertaken from August 2012 through March 2013. The document was prepared for the City of Great Falls to outline a Plan for strategic improvements to improve the access and circulation within historic Downtown Great Falls as well as design a streetscape plan.

This report was funded in part through a grant from the Federal Highway Administration, U.S. Department of Transportation. The views and opinions expressed herein do not necessarily state or reflect those of the U. S. Department of Transportation.

Contents

Acknowledgements

The City of Great Falls would like to thank all of the residents and stakeholders for their participation in the creation of this plan.

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War Shield Development

Great Falls College of Technology

Great Falls Fire Department

Great Falls Police Department

First English Lutheran Church

Davidson Companies

University of Great Falls

Nelson Architects

Great Falls Development Authority

Children's Museum

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EXECUTIVE SUMMARY

Executive Summary

Recommended road configuration for 1st and 2nd Avenue S. and 5th and 6th Streets

In October 2011, The Great Falls City Commission adopted the Great Falls Downtown Master Plan, which focuses on ways to bring people and activity to Downtown Great Falls and strengthen the historic core as the community's center for commerce, finance, entertainment and culture. In 2012, Design Workshop, in collaboration with a team of sub-consultants, was hired by the City of Great Falls to prepare The Downtown Access, Circulation and Streetscape Plan. This plan builds directly off of the groundwork and goals, established in the Downtown Master Plan, for livability, character, accessibility and vitality, in the specific context of downtown streets.

The Process

The planning process was conducted for a 32 block area in the downtown core and divided into five phases including Project Start up, Public Outreach and Opinion Gathering, Alternative Design, Preferred Design Concept, and Final Downtown Access, Circulation and Streetscape Recommendations.

In order to ensure recommendations that are fair and ready to move forward, a robust public outreach process was utilized including full coordination with a project steering committee, numerous meetings with stakeholders, a public charrette including keypad polling and a mapping exercise, and an online survey.

Analysis and Recommendations:

One-way Conversion

Building on an analysis of existing conditions, a circulation and connectivity analysis was conducted for 6 street conversion scenarios. One of the project tasks was to assess whether some, or all, of the one-way streets in downtown should be converted to two-way operation. Because of the limited benefits of conversion as well as the high costs associated with it, no changes in the current one-way operations are recommended. The conversion scenarios were each reviewed with the project steering committee. Their feedback, as well as a myriad of factors including cost, were considered in order to select a preferred concept which maintains one-way traffic flow with the elimination of one vehicle lane to accommodate on-street bicycle facilities to encourage and enable bikes to access the downtown core.

Parking

An analysis was completed to review the existing zoning code, the pros and cons of privatizing parking in the form of a public-private partnership, and strategies for improving visitor and employee parking. The findings of the parking study resulted in recommendations for capital investments including regular maintenance to the parking garages and replacing cash-only meters with newer electronic meters. Additionally, replacing some of the parking meter zones outside of the downtown core with time limited zones without restrictions to allow for greater flexibility should be considered.

Streetscape

Streetscape elements were studied to include potential modifications and upgrades to the downtown streets. Modifications ranging from striping to custom made signage were considered and prioritized based on the different characteristics found within downtown streets. A discussion and photo simulation on implementation considers the phasing of improvements to achieve the desired results over time.

Moving Forward

At the outset of the project design metrics were established and outlined so that as changes are implemented, specific targets can be measured and modeled in terms of Economics, Environment, Community, and Aesthetics.

Great Falls is experiencing the challenges that have occurred in many cities where business locating on the periphery have drained some of the activity form the downtown core. Nevertheless, the features of a walkable and connected downtown environment that exhibit the area's rich history and character are a timeless asset, unique to the downtown core. With new investments like the relocation of Pacific Steel's corporate offices, there is heightened potential to enliven the area with more pedestrians and more round the clock activity.

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Project Introduction & Existing Conditions

"Not only does the quality and character of Downtown's built environment enhance the value of the area, it also serves as a catalyst to retaining existing and attracting new residents and businesses. Additionally, this environment is a welcoming place for community members and guests to shop, relax and recreate."

- Great Falls Downtown Master Plan

Project Introduction

The goal of the Downtown Access, Circulation and Streetscape Plan (the Plan) is to make recommendations, outline the process and provide cost estimates for implementing key objectives of the 2011 Downtown Master Plan including:

- Improving pedestrian connectivity and safety Downtown.
- Analyzing the potential for converting one-way streets to two-way streets.
- Developing a comprehensive downtown bicycle network to connect into a city-wide system.
- Optimizing downtown parking for all users.
- Defining key gateways and recommendations for downtown wayfinding.
- Expanding and enhancing the existing downtown streetscape.

Underlying each of these objectives is the intention to create a safe, attractive, efficient, and welcoming downtown street environment.

In 2012 Design Workshop, Inc., in collaboration with a team of sub-consultants, was hired by the City of Great Falls to study the access and circulation in Downtown Great Falls with special attention to the possibility of converting existing one-way streets (5th and 6th Street and 1st Avenue S. and 2nd Avenue S.) to two-way streets. Additionally, the team was tasked with providing recommendations for parking management (and planning) and streetscape improvements to the downtown right-of-ways. This document captures the processes and outcomes of those design and planning efforts. The objective of this work is to provide the City of Great Falls with a comprehensive plan for creating vibrant downtown streets by enhancing pedestrian safety, facilitating bike access to the downtown core, maintaining traffic flow, and improving the appearance and functionality of downtown streets to encourage future investment, better serve the community, and foster interactions that benefit downtown businesses.

Project Background

In October 2011, The Great Falls City Commission adopted the Great Falls Downtown Master Plan, which focuses on ways to bring people and activity to Downtown Great Falls and strengthen the Downtown core's role as the community's center for commerce, finance, entertainment and culture. The Downtown Master Plan focuses on four key elements – Livability, Character, Accessibility, and Vitality, and provides a blueprint for future growth and development in Downtown Great Falls.

Livability - Livability refers to the enrichment of the physical, social, and personal wellbeing of downtown residents, employees, and guests. A livable downtown is welcoming to people of all ages and incomes and provides a friendly and safe environment that encourages social interaction.

Character - Character refers to the preservation and enhancement of the unique history and heritage of Downtown. A downtown with character has the physical elements that create a unique sense of place that distinguishes this area from other parts of the city.

Accessibility - Accessibility refers to the ability of residents, employees, and guests to reach multiple destinations, by multiple modes of transportation, from multiple locations throughout Great Falls in a safe and efficient manner.

Vitality - Vitality refers to Downtown's role as the center of commerce, culture, and community events both year-round and throughout the day and night. A downtown with

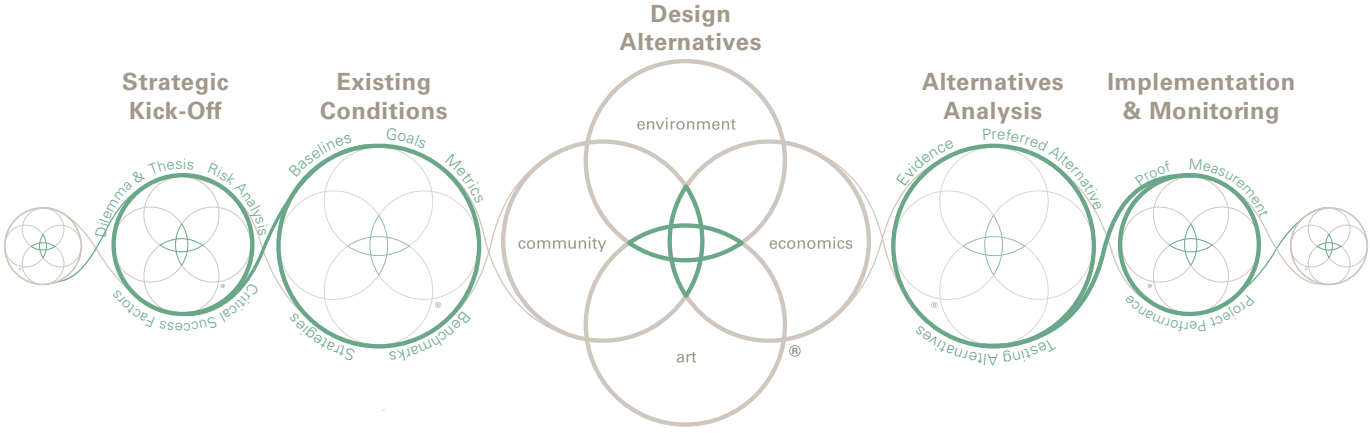
vitality has thriving offices, businesses, and restaurants, and is alive with people and activity.

The Downtown Master Plan was led by the City of Great Falls Planning and Community Development Department and informed by working groups, a steering committee, and a robust community participation process. The Downtown Access, Circulation, and Streetscape Plan builds directly off of the groundwork and goals outlined in the Downtown Master Plan. The elements of Livability, Character, Accessibility and Vitality are reviewed in the specific context of downtown streets. [1]

The Planning Process

The project was divided into five phases of work including:

1. **Project Start-up:** The project start-up phase included a kick off meeting with the City of Great Falls and a Steering Committee, representing different interests and groups within Great Falls, where a vision and goals were outlined to guide research, analysis, and recommendations for the Downtown Access, Circulation and Streetscape Plan.
2. **Public Outreach and Opinion Gathering:** A robust public involvement process facilitated an understanding of the community's values and priority issues for the streetscape and circulation plan. Stakeholder focus groups, parking survey, public charrette, and one-on-one interviews were conducted to ensure that a wide sample of the community weighed in on the progression of the project. Additionally, the steering committee was consulted regularly throughout the process and at key project milestones.
3. **Alternative Design:** This phase included a parking study, existing transportation conditions study, development of streetscape alternatives, and a conversion impact study which evaluated traffic and circulation impacts of one-way street conversion scenarios. Six alternative conversion designs were developed and analyzed for their viability and impacts to the downtown environment.
4. **Preferred Design Concept:** With input from the steering committee and the public outreach process, the six street design and conversion options were narrowed down to two recommended alternatives, which were further developed and from which a final direction and recommendation has emerged.
5. **Final Downtown Access, Circulation and Streetscape Recommendations:** This phase involved a cost estimate for the final two recommended alternatives with recommendations for phasing and implementation.



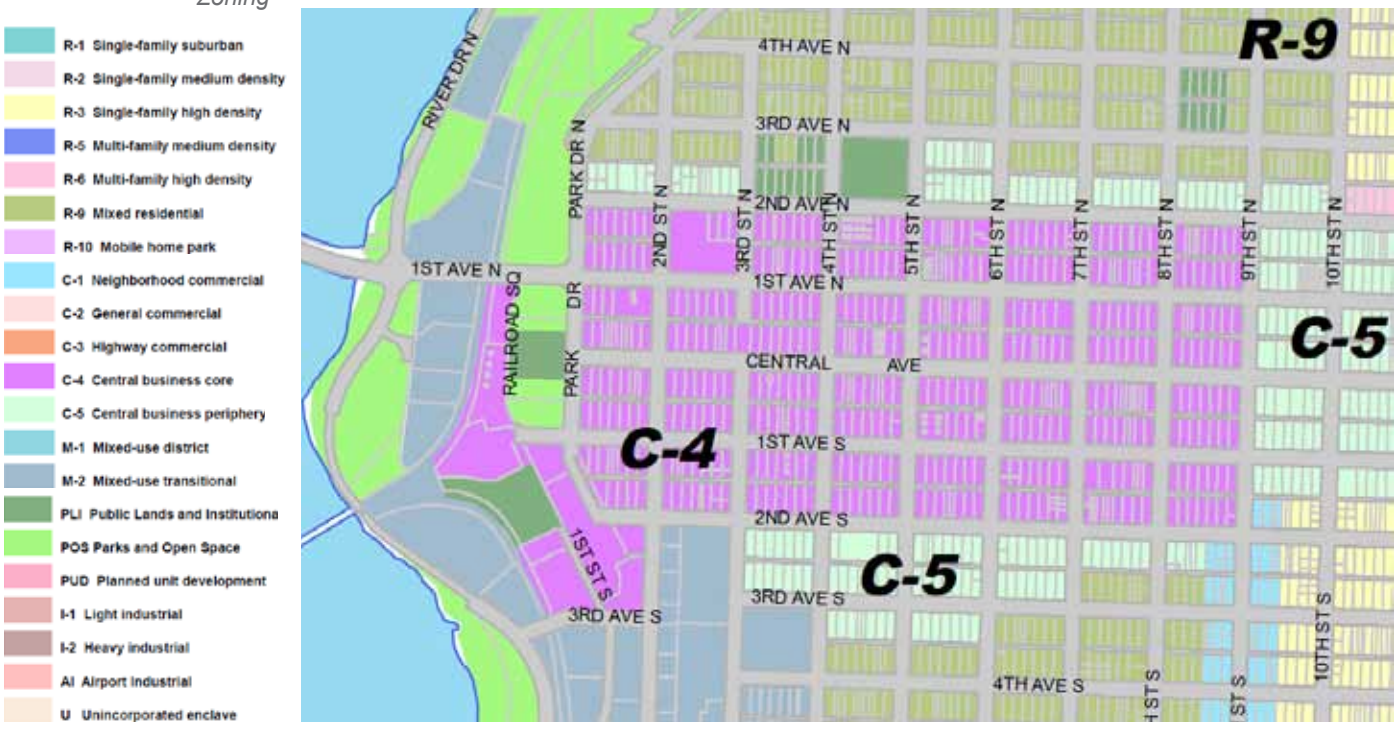
Study Area & Context

The study area encompasses most of the central business district in Great Falls bounded by Park Drive on the west and 9th Street on the east and 2nd Avenue N. and 2nd Avenue S. as shown in Figure 1. The study includes Central Avenue and the parallel business arterial streets of 1st Avenue and 2nd Avenue S., as well as the north-south collectors and arterials from Park Drive to 9th Street. The study does not make specific recommendations for 1st Avenue N. or 2nd Avenue N. as these streets are important collectors under Montana Department of Transportation's (MDT) jurisdiction.

Figure 1: *Downtown Great Falls Study Area*

The central downtown area is in proximity to important community wide assets such as Gibson Park and the River's Edge Trail, although connecting to these amenities from Downtown on foot or bike is challenging. Downtown is in proximity to the Malmstrom Air Force Base, about four miles to the east, and to the University of Great Falls and Montana State University Campuses, about two miles to the south-east and other destinations served by transit. The Great Falls Transit District's main transfer center is located Downtown.

Figure 2: *Great Falls Zoning*



Zoning and Land Use

The entire study area is zoned "C-4" and referred to as the "Central Business Core" under the City's Land Development Code (Figure 2). The Downtown includes a mix of single-story and low-rise (2-4 story) commercial structures with a few larger mid-rise (5-10 story) buildings. Most buildings are occupied by retail and professional services such as banks and offices along with some government services, light industrial, and a few hotel/motels, as well as restaurants and cafes. Housing options are limited in the Downtown, although there are two large retirement facilities. The zoning designation identifies this area as intended to "accommodate and create a high level of business and social activity from morning through the nighttime hours," however there are a large amount of ground floor uses within the core area that do not all contribute to the active street environment that the City seeks to encourage. An analysis of ground floor uses indicates the following percentages of uses: (See Figure 3)

Restaurant/Cafe - 6%
Retail - 20%
Entertainment/Recreation - 8%
Service - 6%
Office - 12%
Banking/Financial Services - 11%
Hotel/Motel - 1%
Social Service - 3%
Government/Institutional - 4%
Church - 4%
Residential - 12%
Auto Service/Sales - 8%
Parking Garage - 1%
Vacant - 8%

Figure 3: *Ground Floor Land Use Types*

Market Forces:

As has occurred in many cities, businesses locating on the periphery, such as those along 10th Avenue S., have drained some of the activity from the downtown core over time. Downtown's role as the business and retail center has been impacted by the construction of shopping centers and the migration of retail formats from department stores, to big box establishments, to the internet. Nevertheless, the features of a walkable and connected downtown environment that exhibit the area's rich history and character is an asset unique to the downtown core. With new investments like the relocation of Pacific Steel's corporate offices within the downtown core, there is heightened potential to enliven the area with more pedestrians and more round the clock activity.

Although not addressed directly in this report, it is important that complementary business development strategies are undertaken to increase business activity and investment in downtown properties around the proposed improvements and throughout the district. Efforts such as the City's pre-development process are providing an avenue to encourage investment in the Downtown. The streetscape and circulation strategies are intended to compliment and encourage renewed interest and investments in the Downtown core.

Demographics & Business Context

The population of Great Falls has been stable over time with a population of 58,950 with little significant growth expected. As of 2010, the 32 block study area is home to 708 residents within 427 households. The existing residential units in the downtown core have waiting lists for rentals indicating that there is demand for more residential uses downtown. Opportunities for residential living are growing and encouraged by the City with upper floors of buildings available for conversion to residential uses. There are a total of 490 businesses within the study area, with 4,692 employees. The general breakdown of business types in the downtown study area include 16 percent retail, 27 percent finance, insurance, or real estate; 30 percent services; 9 percent government and 18 percent other types of businesses. (ESRI Community Analyst).

Central Avenue, Great Falls

Legacy Design

Design Workshop's Legacy Design process emphasizes a deliberate approach to sustainable design solutions that is comprehensive of four Legacy categories: environment, community, art and economics. All aspects of the design process and foundational thinking for a project are captured in this document. *Issues* associated with the project and our client's *Critical Success Factors* are defined at the outset. The design team and client define a project *Vision*, a problem statement called a *Dilemma* and a design solution called a *Thesis*. These steps are intended to build a strong foundational story for the project that aligns the design team and client to the same *Principles* and *Legacy Goals*. DW Legacy Design® metrics are employed to ensure that the project is accountable to comprehensive *Legacy Goals* set at the beginning of the process.

Dilemma and Thesis

Dilemma:

A dilemma is a storytelling device that describes a project's predicament. It sums up the major challenges that must be reconciled to achieve a Legacy outcome. Beginning with a discussion of the project's context, it answers the question: "What is standing in the way of a project's potential for success?" A dilemma renders vivid the complexities of the project and the need for a comprehensive solution.

Downtown Great Falls, like downtowns in many cities throughout the United States, has faced its share of challenges over time. Growing dependence on the automobile along with inexpensive and abundant land has led to businesses relocating outside the central core, taking their customers with them. Downtown is amenity rich, yet it lacks the critical mass and diversity of uses needed to sustain a thriving environment. The City of Great Falls, especially in its downtown core, is at a pivotal juncture where opportunities for renewal and revitalization have the potential to be realized. Great Falls has the opportunity to generate renewed interest and investments in Downtown by leveraging public investments to accommodate all travel modes, limiting the negative impacts of vehicular travel, and improving the aesthetic appeal of the downtown environment.

Thesis:

A thesis is an assertion about the project outcome that will be tested and resolved through the team's planning and design investigations. It is a proposed solution to the central problem or question stated in the dilemma. Collectively articulating the big idea of the project aligns the team to a common goal or story.

A thorough citizen involvement process was undertaken to exchange information with the community about the benefits of street improvements in Great Falls and garner support from stakeholder groups. The character of the downtown streets vary; therefore, the solutions throughout the downtown core differ. By understanding the community's vision, we can identify clear steps and build momentum for ongoing improvements and implementation.

Narrative Principles:

Narrative Principles are universal truths that are commonly understood and believed. The articulation of narrative principles in each Legacy Design category is central to a rigorous, comprehensive, discovery-oriented design process. The exercise lays a common foundation for the project team with assumptions against which the thesis can be tested.

Environment

a. Streets are, by far, the largest percentage of open space in cities and have important impact on peoples' daily lives.

b. Access to open space provides an opportunity for both people-to-people and people-to-environment experiences.

c. Well-designed streets have the ability to play an important role in reducing a city's environmental impact.

d. Great Streets provide an attractive and refreshing setting by working with natural systems.

e. Green Streets incorporate environmentally sensitive design standards and green development techniques, including generous provision of street trees and other plantings, and the application of modern storm water management practices.

Economics

a. Connected pedestrian and bicycle networks not only add high-value recreation and transportation alternatives to communities, they also increase overall quality of life and property values.

b. Well-designed streets help create a framework that allows and encourages redevelopment and private investment.

c. Great Streets facilitate the interaction of people and the promotion of commerce. They serve as destinations, not just transportation channels. They are good commercial addresses and provide location value to businesses that power the local economy.

Community

a. Integrating public waterfront access will bring value to the entire city.

b. Great Streets play a critical role in the establishment of vibrant neighborhoods.

c. Well-designed streets encourage pedestrian activity and create possibilities for community interaction.

d. Great Streets facilitate placemaking. Great Streets incorporate within them places that are memorable and interesting. These may include plazas, pocket parks, attractive intersections and corners, or simply wide sidewalks fostering an active street life.

e. Great Streets allow people to walk comfortably and safely. The pedestrian environment on, along and near the street is well designed and well-furnished to encourage community interaction. The relationship between the street and its adjacent buildings is organic, conducive to walking and inviting to people.

Art

a. Rigorous detailing and material selection strengthens the identity and longevity of places.

b. Streetscapes provide an ideal platform to incorporate public art that highlights and celebrates the tradition of the Great Falls as a community of the arts.

c. Beautifully designed streets add an important artistic element to cities.

Vision

Downtown is the heart and center of Great Falls. Like the Missouri River, it is dynamic, fluid, attractive, and welcoming, connecting the City's heritage to its future. The River's Edge Trail, historic neighborhoods, and parks and open space support and enhance a unique mix of local shops, restaurants, entertainment and special events that make Downtown the place to be – day and night (Great Falls Downtown Master Plan). Three big ideas for Downtown's vision, as articulated in the Downtown Master Plan, which can be impacted by the recommendations that follow in this Plan include:

1. Connected Downtown

A transportation and circulation system that provides users with a variety of modes and a diversity in choices is fundamental to the future success of Downtown and will enhance Downtown's value as a place to live, work, shop and recreate. Quality infrastructure for walking, biking, driving and transit provides choice in terms of the safest, healthiest, most-efficient and less-expensive route to reach Downtown's various amenities and destinations.

2. Flourishing Downtown

A flourishing Downtown is a key indicator of the overall economic health of Great Falls and plays a primary role in shaping the general perception of the City. By strengthening the existing business community and providing incentives for new investment, Downtown has the potential to evolve into a thriving place that enhances the image of the City and the region. Additionally, Downtown has great potential to capitalize on the presence of Malmstrom Air Force Base by providing services to airmen living on and off of the base and better serve students from the University of Great Falls, the Great Falls College, MSU Campuses. Downtown offers a different retail environment than the mall, big box, and neighborhood retail centers found elsewhere in the City and it should be targeted, celebrated, and built upon as a unique shopping and dining environment that can attract a larger segment of the local residents, employees, and students.

3. Downtown Aesthetics

Great Falls has a strong historic base and the clear center of this base is Downtown. Downtown's buildings, streetscapes, parks and the Missouri River play a primary role in articulating the rich culture and heritage of the City and are a source of pride for the community. The unique aesthetics of Downtown are an asset that should be preserved, enhanced and celebrated to propel Downtown toward a vibrant and sustainable future.

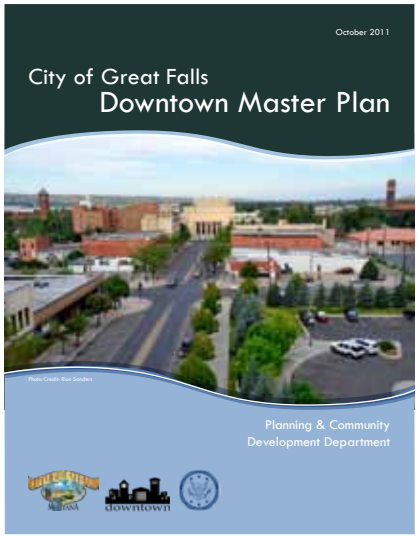
Critical Success Factors

Critical Success Factors are the features or results that must be accomplished in order for the project to be considered a success. These were developed through numerous meetings with the steering committee, stakeholder groups and members of the community.

1. Develop a plan that conforms to any existing or pending local, state, and federal regulations.
2. Complete a Downtown Parking study that assesses the inventory, availability, utilization and management of existing public and private parking facilities.
3. Complete a Downtown Streetscape and Roadway Characteristics plan that creates a comprehensive, unified plan for the form, function and aesthetics of public rights-of-way downtown.
4. Complete a One-way to Two-way Conversion study that evaluates the conversion of one-way streets within and leading to the downtown area to two-way travel.
5. Create a plan that prepares the project for implementation including prioritization, phasing and conceptual costs estimates of the improvements.

Previous Plans and Studies:

Existing studies and available information were reviewed for relevancy to the Plan.



Great Falls Downtown Master Plan (2011)

The Downtown Master Plan completed in October of 2011 provides a strategically focused vision and strategies to guide the growth and development of Downtown Great Falls. The plan seeks to build on the assets of Downtown and reinvigorate the area into a more active, vibrant, accessible and livable area that welcomes residents and visitors. The objectives of the Downtown Master Plan that are further developed in the Downtown Access, Circulation, and Streetscape Plan include:

- Improve pedestrian connectivity and safety downtown
- Develop a comprehensive downtown bicycle network to connect into a city wide system and to connect to River's Edge Trail through signage and routes.
- Reduce or eliminate downtown one-ways
- Improve connectivity for pedestrian and bicycles to the Missouri River, River's Edge Trail and Gibson Park.
- Develop a comprehensive downtown wayfinding system (The Downtown Plan offers examples of wayfinding and gateway signage for downtown)
- Optimize parking for all stakeholders
- Improve public realm to provide a safe, attractive and welcoming environment

Long Range Transportation Plan:

The policies underlying the Long Range Transportation Plan developed in 2009 were developed to guide decision making that is directly relevant to the current effort, the plan asserts that the transportation system should meet present and future needs safely and efficiently. Existing facilities should be maintained, deficiencies should be remedied, and new transportation facilities should be adequate to serve growth.

The Long Range plan also identifies support for transportation choices, supporting public transit as an essential service, as well as support for on-street bicycle lanes to connect neighborhoods.

A number of the long range policies come into play including:

1. Arterials and Collector Streets should provide for the needs of pedestrians, bicyclists, and transit vehicles within or adjacent to the public right-of-way. Alternative designs incorporating bicycle, pedestrian, and transit facilities should be included into these standards so that they are not over-looked when roadways are constructed or improved.
2. Maintain and expand the City's tree planting program and other beautification efforts. Local government should continue and expand their efforts to plant trees and other landscaping along the community's major streets and entries. These efforts will benefit both the motorists and others using the transportation system, as well as nearby residents, by improving the community's appearance and softening the noise impact and air quality problems associated with major streets and highways. The City, County and State should design and construct roads and other transportation facilities with aesthetic features and landscaping consistent with nearby uses.

Great Falls Growth Policy: A Greater Great Falls – Plan on It!

The Great Falls Growth Policy outlines the importance of the current study and the emphasis the downtown core should place on walkability and bikeability. The policy outlines a vision for the Central Business District shifting from the existing retail center to a more mixed-use area where circulation and parking will be important issues. Growing residential opportunities will generate increased street activity and more walking and biking trips will become feasible and practical. There is a significant need to improve the access, safety, function, and aesthetics of the downtown core for exiting and future patrons, residents and employees.

The Streetscapes on Central Avenue (Above) and 1st Avenue S. between 3rd & 4th Street (Below) have been enhanced in recent years.

The Transportation Vision detailed in the document outlines that "Our community should grow in compact patterns that facilitate pedestrian, bicycle, and transit travel. Walking should be a practical, safe, and enjoyable means of travel throughout all neighborhoods and shopping areas. Bicycling should become a more viable transportation choice for all residents and visitors in Great Falls" While vehicles will likely remain the dominant transportation mode, there is a need to ensure that all modes of travel are accommodated Downtown in an efficient and welcoming manner. [2]

River Drive South Trail Study

NCI Engineering completed a preliminary study on establishing a permanent trail segment between Broadwater Bay and 1st Avenue N. providing a proposed trail alignment along the riverfront that parallels Downtown rather than the existing River's Edge Trail which winds through parking lots and has several road and railroad crossings.

Recent Public Investments in Downtown

1. Central Avenue from Park Drive to 7th Street was improved in 1993 and again in 2005 to include bulb-outs, street trees, pedestrian lighting, and alternating angled parking every two blocks.
2. A portion of the block at the north-west corner of 4th Street and 1st Avenue S. surrounding the parking garage has been redeveloped with improved streetscape, pedestrian lighting, planters, and banners.
3. Pacific Steel, is moving operations from elsewhere in Great Falls to the periphery of the study area where they have added easement locations for the River's Edge Trail to follow along the eastern and northern edges of their property providing a connection to the riverfront from the Downtown.
4. The streetscape on the north east corner of 1st Avenue S. and 5th Street was upgraded in 2009 through a public / private partnership which integrated the sidewalk and amenities into the building and installed streetlights matching those on Central Avenue.

The Public Process

A comprehensive, transparent, and well-conceived public outreach effort was essential to the overall success of the Plan with input and collaboration from a range of stakeholders. The design team worked throughout the planning process to collaborate with City staff and a broad range of participants to create a consensus for the recommendations that are ready to move forward with implementation.

Steering Committee

The City worked with the design team to organize a Steering Committee comprised of key stakeholders who represent interest groups and associated constituents and offered their input to guide the study and the planning and design process. Steering Committee input was used to help define the project's critical success factors, identify needs, and refine streetscape and conversion alternatives and priorities beginning with a strategic kick-off meeting at the outset of the project and continuing throughout the planning process.

Stakeholder Meetings

During September and November team members held small group interviews with a number of downtown stakeholders including business and property owners, representatives from Malmstrom Air Force Base, Great Falls Transit District, Montana Department of Transportation, the Great Falls BID, Downtown Great Falls Association, educational institutions, local organizations and non-profit organizations, churches, the Historic Preservation Committee, and neighborhood councils. During these meetings, the team worked to gather input on the concerns and challenges as well as the ideas and opportunities for downtown's streets. A total of 19 interviews were held on September 20th and 21st and November 5th and 6th.

Break out groups participate in the interactive map activity where they provided feedback to guide the planning process.

Public Charrette

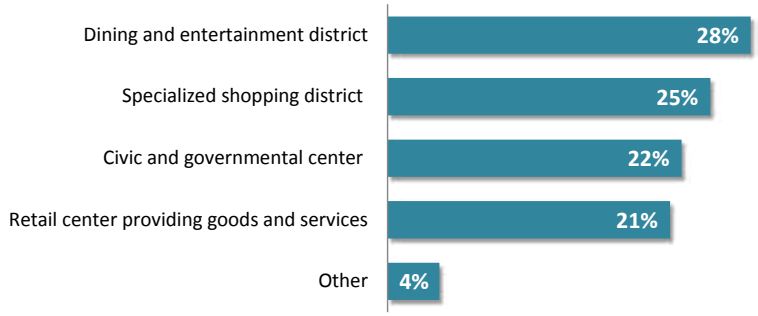
The design team held a public charrette to gather input, share ideas, address concerns, and present options to the general public and interested citizens. The meeting was held in the evening of November 6th, 2012 with 47 attendees. Meeting participants had the opportunity to review exhibits highlighting the process, the project development and the existing conditions. A presentation to introduce project objectives was followed by an instant feedback keypad polling survey where meeting attendees were able to weigh in on key elements of the project. After the presentation participants divided into small groups for a mapping activity where site specific input was gathered relating to conversion preferences, parking needs, signage and wayfinding locations, streetscape improvement priorities, and bicycle accommodations. The questions from the public meeting were offered online through the City of Great Falls website where an additional 21 community members contributed their feedback. The complete keypad, online survey results and mapping exercise exhibits are included in Appendix 1.

The feedback from the charrette and online survey included responses from a cross section of the community including shoppers and diners, downtown employees, as well as some business and property owners. Some highlights from the finding include:

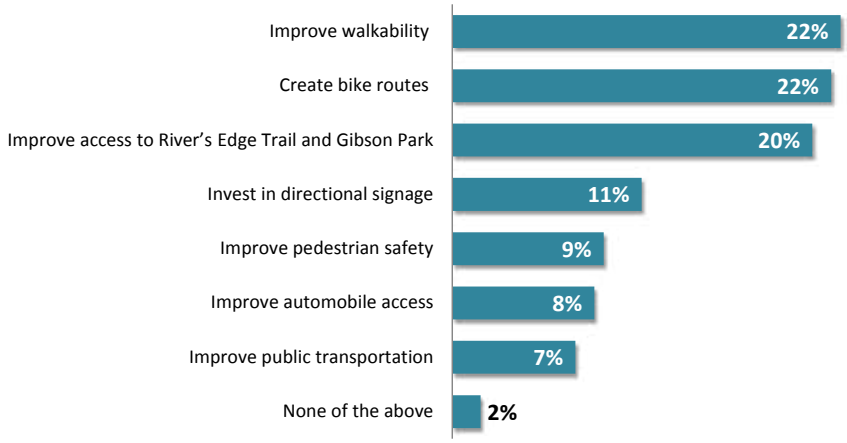
- The most popular response for participants' vision for Downtown was to develop the area as a dining and entertainment district with economic growth as the primary interest in improving Downtown Great Falls.
- Almost thirty percent of participants give the Downtown's appearance a rating of "poor" or "very poor".
- Improving walkability, creating bike routes, and improving access to the River's Edge Trail and Gibson Park emerged as the top three opportunities the participants were interested in when asked to rank their priorities in regard to circulation and connectivity.
- Respondents were divided almost equally between the choice to convert 1st Avenue S. and 2nd Avenue S. and 5th and 6th Streets to two-ways or keep them as one-ways.
- Parking availability was not perceived to be a problem; however people were willing to explore different options for free parking.
- There was strong support for more restaurants, entertainment venues, and retail land uses Downtown.
- The top three amenities people were interested in seeing Downtown, in order of preference, were outdoor dining space, public art, and bike racks. There was support for outdoor dining throughout the downtown core as opposed to focused on Central Avenue or the immediate cross streets.
- Gateway signage at key locations was the greatest need for signage identified by the public and general support was given for developing a unique branding strategy for Downtown.
- The public's top three improvements to prioritize spending were 1) Improving the streetscape, 2) Improving connections to the Missouri riverfront, and 3) Providing bike lanes.

Below is a sampling of the responses collected in the public meetings and online survey, the complete results can be found in Appendix 1.

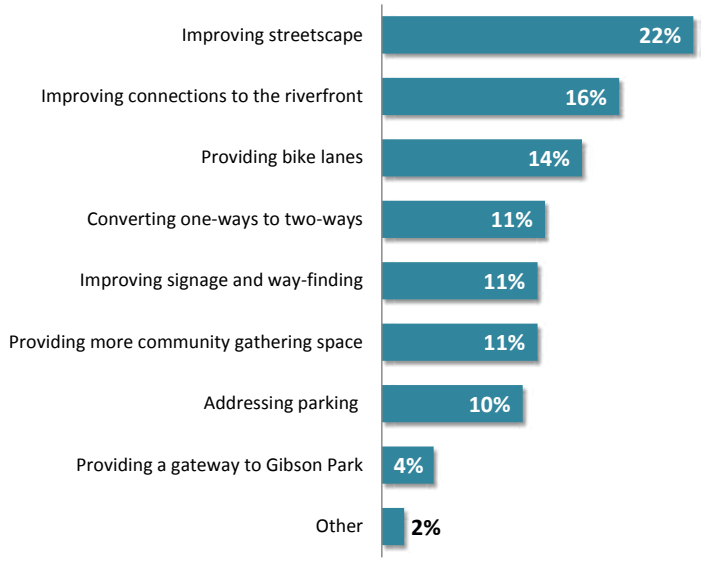
The participants' vision for Downtown is:



Top three ways to improve circulation and connectivity Downtown:



The participants' priorities for spending on downtown improvements include:



Existing Conditions:

Transportation

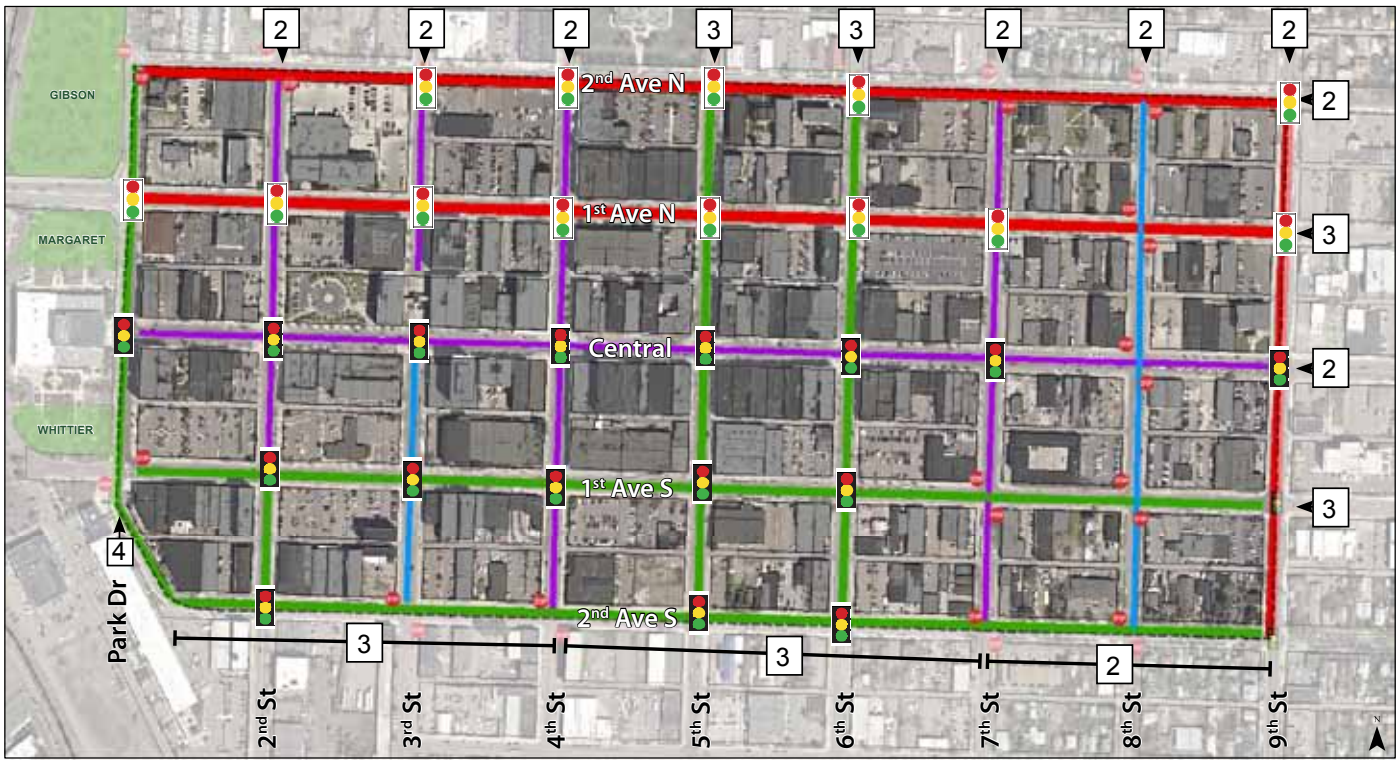
The Downtown Great Falls roadway system consists of a grid of streets with only a single "break" (3rd Street N. between Central Avenue and 1st Avenue N.). As shown in Figure 4, these roadways are in differing functional classifications, as follows:

- The 1st Avenue N. / 2nd Avenue N. one-way pair and 9th Street are principal arterials. As such, their key function is to carry traffic relatively long distances. Providing access to adjacent properties is a secondary function.
- Minor arterials consist of the 1st Avenue S. / 2nd Avenue S. one-way pair, Park Drive south of 1st Avenue N., and the 5th Street/6th Street one-way pair (south of 2nd Avenue N. only). This classification is less important to the city-wide street network than are the principal arterials, balancing the role of accommodating through traffic relatively long distances with local property access.
- Central Avenue and portions of 2nd Street, 3rd Street, 4th Street and 7th Street are classified as collectors, serving shorter local trips and accommodating movements between local properties and the arterial network.
- The remaining street (8th Street) is a local street, primarily providing property access.

The 1st Avenue N. / 2nd Avenue N. one-way pair between 6th Street and Park Drive, along with the 5th Street / 6th Street pair between 2nd Avenue N. and 10th Avenue S., are designated as part of the I-15 business route.

Figure 4 also presents the existing traffic controls. As shown, there is a dense network of 31 traffic signals in the downtown area, 18 of which are under City jurisdiction and 13 of which are under Montana Department of Transportation (MDT) jurisdiction. Most of the

Figure 4: *Road Classification and Traffic Controls*



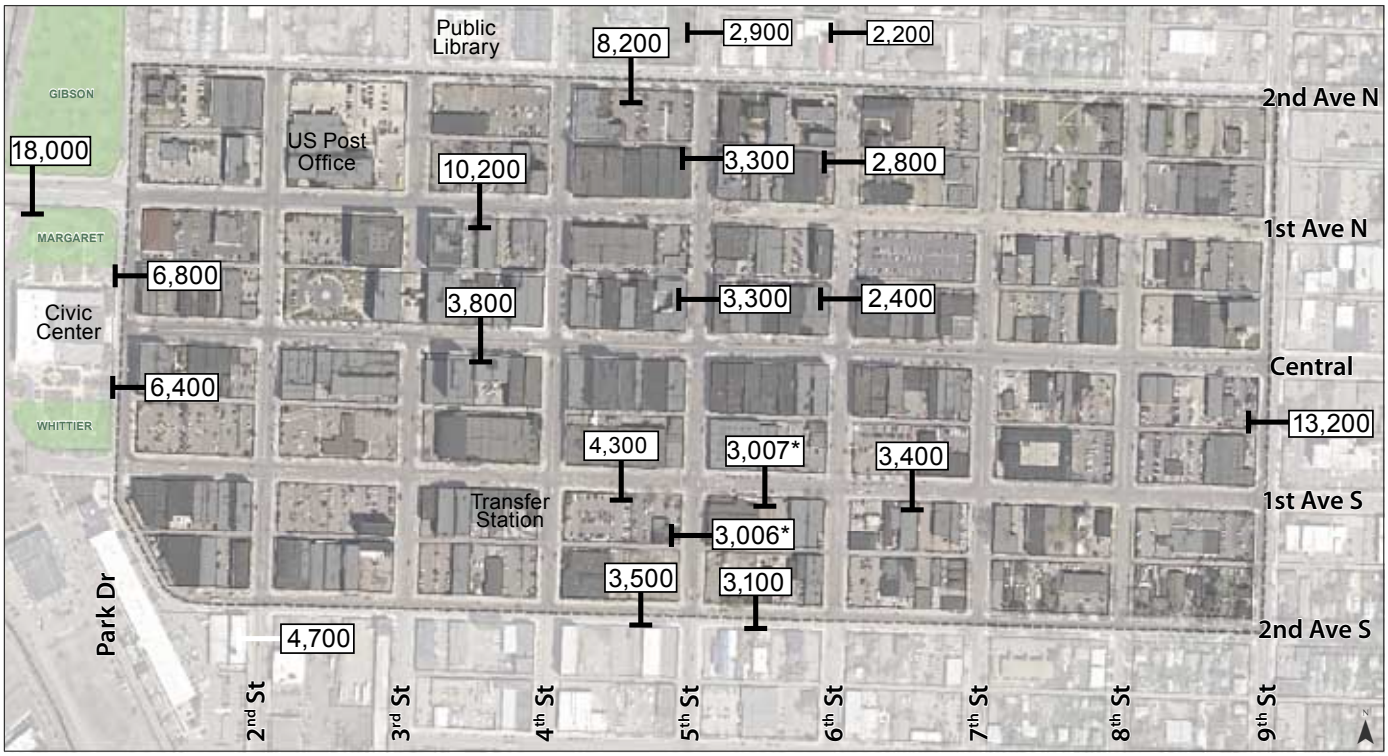
downtown traffic signals go to an all-way red flashing operation between 9:00 PM and 7:00 AM (seven days a week), with the exceptions largely along 1st Avenue N. and 9th Street. All other intersections are two-way stop sign controlled, with the stop signs facing the legs that are not one-way streets.

Existing Traffic Volumes

Figure 5 presents a summary of the available Average Daily Traffic (ADT) volumes for weekday conditions. For locations with multiple counts, the most recent count is shown. As indicated, the greatest traffic volume within the downtown area is 1st Avenue N. at the east end of the bridge over the Missouri River, with 18,000 vehicles per day (total of both directions). This is followed by 13,200 ADT on 9th Street just south of Central Avenue. Within the downtown grid, the greatest volumes are on the 1st Avenue N. / 2nd Avenue N. one-way pair, with 10,200 ADT in the eastbound direction and 8,200 in the westbound direction. Volumes on the other east-west one-way pair are substantially lower, with 4,300 ADT westbound on 1st Avenue S. and 3,500 eastbound on 2nd Avenue S. The north-south one-way pair of 5th Street/6th Street also carries relatively low traffic volumes of 3,300 southbound and 2,800 northbound ADT in the downtown study area, with lower volumes to the north.

Available recent intersection turning movement counts at key study intersections are presented in Appendix 3: Great Falls Downtown Existing Transportation Conditions. In general, traffic volumes are highest in the PM peak hour. Considering all traffic through the study intersections in the downtown area, noon-hour traffic volumes are three percent less than PM peak-hour volumes, while AM peak-hour volumes are a full 26 percent lower than PM peak-hour volumes.

Figure 5: *Average Week Day Traffic Volumes*



Source: Montana Department of Transportation, City of Great Falls

MDT forecasts of traffic volumes in Downtown Great Falls indicate a modest level of future traffic growth (assuming no change in roadways). Comparing the total traffic traveling east-west in the study area crossing a line between 4th Street and 5th Street, the 2015 and 2025 TransCAD daily traffic forecasts for all east-west streets from 6th Avenue N. to 5th Avenue S. indicates a growth of approximately 6.2 percent over the 10 year period.

Existing Vehicle Classifications

Classification counts conducted on 1st Avenue S. between 6th and 7th Streets indicate the following vehicle types:

VEHICLE TYPES	
Autos, pickup trucks, motorcycles, vans	85 percent
Buses and Single-Unit Trucks	13 percent
Semi Trucks	2 percent

Existing Level of Service

Traffic conditions are measured by the "Level of Service" (LOS). This scale ranges from LOS A (free flow conditions with little delay) to LOS F (stop-and-go traffic with long delays). For signalized intersections, LOS is a function of the delay per vehicle, as follows:

LEVEL OF SERVICE - VEHICLE	
LOS	DELAY TIME
LOS A	≤ 10 seconds
LOS B	10 to 20 seconds
LOS C	20 to 35 seconds
LOS D	35 to 55 seconds
LOS E	55 to 80 seconds
LOS F	80 seconds

LOS for key intersections in the downtown study area was evaluated, using the Synchro/Simtraffic software package. As shown in APPENDIX 3: Great Falls Downtown Existing Transportation Conditions, LOS was found to have a relatively good LOS, with LOS A or B conditions at all intersections in all peak hours.

Existing Traffic Speeds

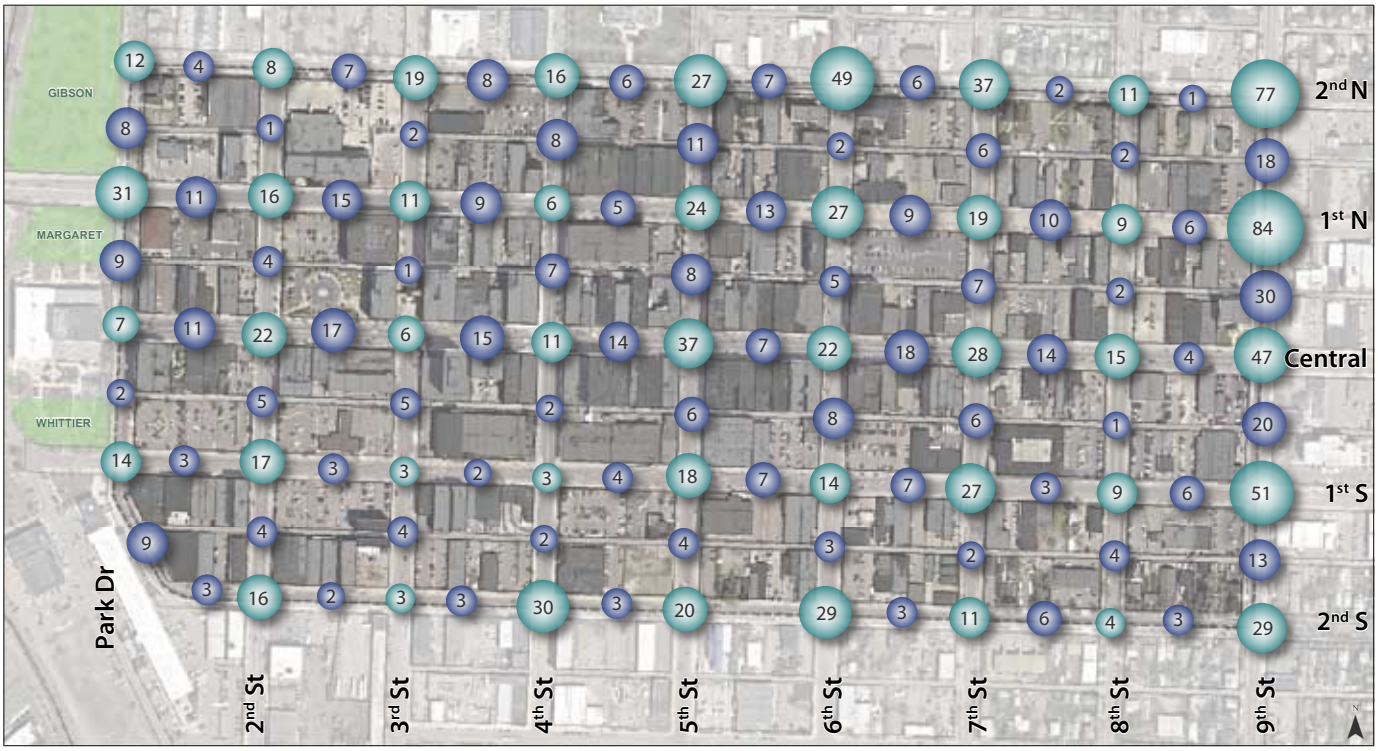
Median (or "average") speeds are 21.2 mph on 5th Street N., and 26.2 mph on 2nd Avenue S. traffic engineers focus in particular on the "85th percentile speed" – the speed faster than which only 15 percent of drivers are travelling. This 85th percentile speed is 25.5 mph on 5th Street N., and 30.0 mph on 2nd Avenue S. This is despite the fact that the posted speed limits are 30 mph on the former roadway, and 25 mph on the latter. Despite the speed limits, the higher observed speeds at the 2nd Avenue S. location are not surprising, given that it is near the end of a three block long segment with no signals and has a relatively low level of adjacent development.

Existing Traffic Crash Data

A review of crash data in the downtown study area over a ten-year period (2002-2011) indicates that 2,450 crashes were recorded within the project area (Figure 6). Of these, 1,421 (58%) crashes were intersection-related. The 9th Street corridor had the greatest number of crashes within the study area. However, 9th Street also has the highest, two-way traffic volume (12,500 vehicles/day in 2011). Thirty four (34) non-intersection crashes were recorded on Central Avenue that involved an improper backing operation (Central Avenue is the only location with angled parking in the study area). Within the study area, 572 (23%) of the crashes resulted in injuries, with one crash resulting in a fatality. The fatality occurred on 2nd Avenue N. between 2nd and 3rd Street N.

Pedestrians were involved in 27 (1%) of the recorded crashes. Five of these pedestrian crashes occurred at the general location of 9th Street N., between 1st and 2nd Avenue N., with no identifiable trends. This was the only consistent pedestrian crash location from the ten-years of data.

Figure 6: *Crash Locations (2002 - 2011)*



Pedestrians

The study area has an admirably complete sidewalk system: all streets in the area have sidewalks along both sides of each roadway. In particular, Central Avenue between Park Drive and 7th Street provides enhanced sidewalks and pedestrian amenities, including "bulb-outs" at the intersections. Marked crosswalks are generally provided on all approaches to the signalized intersections. In addition to pedestrian activity along Central Avenue, there is a large amount of existing pedestrian activity along 4th Street where employees walk to and from the parking garages. To accommodate these pedestrians, there is a mid-block crosswalk along 4th Street between Central Avenue and 1st Avenue N. The highest pedestrian activity is seen along Central Avenue. A relatively high level of pedestrian activity is also seen along 1st Avenue S. Overall downtown pedestrian activity is highest in the Noon hour, followed by the PM peak-hour.

There are two prevalent methodologies for pedestrian (and bicycle) LOS: the methodology presented in the Highway Capacity Manual ("HCM"), and that presented in Transportation Research Record 1538: Bicycle and pedestrian Level-Of-Service performance Measures and Standards for Congestion Management Systems ("TRB"). The HCM method is a detailed engineering analysis procedure that focuses on pedestrian conditions at signalized intersections, and is relatively insensitive to streetscape conditions. The TRB method, on the other hand, is a points-based approach that gives greater consideration to streetscape factors such as sidewalk width, barriers between moving cars and pedestrians, and

Table 1: *Pedestrian Level of Service*

EXISTING PEDESTRIAN LEVEL OF SERVICE ON DOWNTOWN GREAT FALLS STREETS										
Category	**Maximum Possible Points**	**2nd Avenue N.**	**1st Avenue N.**	**Central Avenue**	**1st Ave S.**	**2nd Ave S.**	**9th Street**	**6th Street**	**5th Street**	**Park Drive**
Facility	10	8	9	9	9	8.5	8.5	9	8.5	8
Conflicts	4	2.5	2.5	2	2.5	2.5	1.3	2.5	2.5	2.5
Amenities	2	1.2	0.5	0.9	0.4	0.5	0.7	0.7	0.7	0.7
Motor Vehicle LOS	2	2	2	2	2	2	2	2	2	2
Maintenance	2	1	1	1	0.5	0	1	0.5	0.5	1
TDM/Multi-modal	1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total Points	21	14.9	15.2	15.1	14.6	13.7	13.7	14.9	14.4	14.4
LOS		**B**	**B**	**B**	**B**	**C**	**C**	**B**	**C**	**B**

Table 2: *Bicycle Level of Service*

EXISTING BICYCLE LEVEL OF SERVICE ON DOWNTOWN GREAT FALLS STREETS										
Category	**Maximum Possible Points**	**2nd Avenue N.**	**1st Avenue N.**	**Central Avenue**	**1st Avenue S.**	**2nd Avenue S.**	**Park Drive**	**5th Street**	**6th Street**	**9th Street**
Facility	10	1	0	0	0	0	2	0	0	3
Conflicts	4	1.5	1.5	1.5	1.5	1.5	2.7	1.5	1.5	2
Speed Differential	2	2	2	2	2	2	2	2	2	2
Motor Vehicle LOS	2	2	2	2	2	2	2	2	2	2
Maintenance	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
TDM/Multi-modal	1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total Points	21	8.2	7.2	7.2	7.2	7.2	10.4	7.2	7.2	10.7
LOS		**D**	**D**	**D**	**D**	**D**	**D**	**D**	**D**	**D**

presence of street trees. Given the goals and scope of the project, the TRB methodology is a more appropriate tool. The maximum potential points under this methodology is 21.

Table 1 presents the existing pedestrian LOS for key roadways in the downtown study area. As shown, LOS ranges from the upper portion of the LOS C range (11 to 14 points) to the lower portion of the LOS B range (14 to 17 points). Factors that tend to reduce pedestrian LOS are the many driveways and cross-streets, as well as the limited street trees and other streetscape amenities.

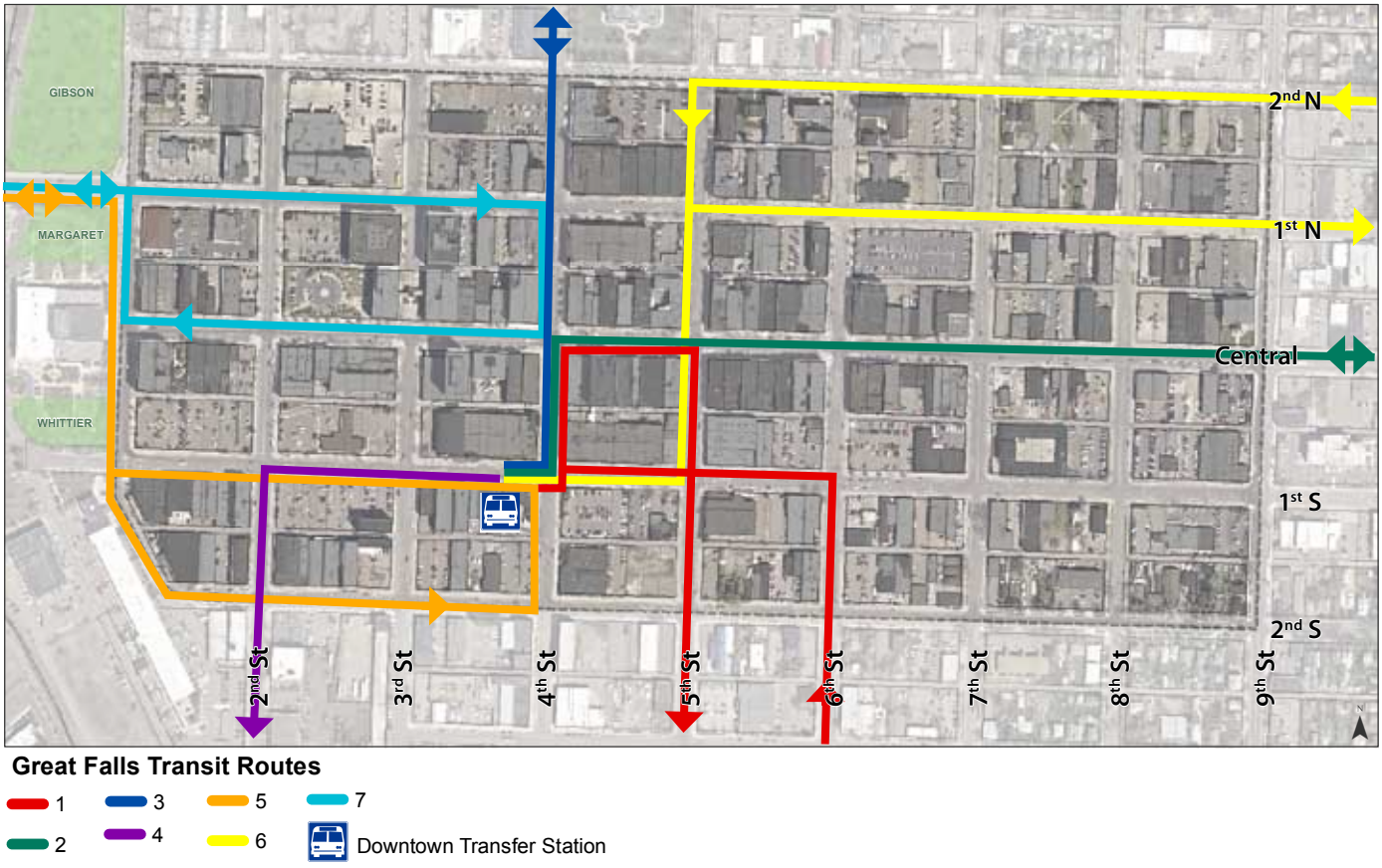
Bicycles

The River's Edge Trail lies just to the west of the downtown study area and provides a great recreation and transportation option for all types of cyclists, however, within the downtown core there are no designated bicycle facilities. Bicycle parking opportunities are also very limited. Table 2 presents the results of a bicycle LOS analysis, using the TRB methodology. The bicycle LOS is D (7 to 11 points) on all roadways, reflecting the lack of dedicated facilities, the limited travel lane width, and the presence of on street parking. In general, bicycling conditions are moderately acceptable for cyclists who are comfortable sharing roadway space with motor vehicle traffic; however, potential user groups (children, elderly, etc.) who are less comfortable cycling in mixed traffic have limited options to access the downtown core by bike.

Transit

For a City of its size, public transit services in Downtown Great Falls are admirable. Great Falls Transit District (GFT) operates seven fixed routes, in addition to paratransit service for the elderly or disabled. As shown in Figure 7, all routes connect to the Downtown Transfer

Figure 7: *Great Falls Transit Routes (Downtown)*



Center on the southwest corner of 1st Avenue S. / 4th Street S. Six routes (Routes 1 through 7) operate every half hour, while Route 7 operates hourly. In total, 126 bus movements into the Center and 126 movements out of the Center occur each weekday. As also shown in Figure 7, bus routes use many of the streets in the downtown area, with two or more on 4th Street, 1st Avenue S. and 2nd Avenue S., and Central Avenue. Other than at key transfer locations, GFT does not have established bus stops. Instead, drivers will stop at any street intersection they determine to be a safe location.

In addition, the Downtown Transfer Center serves regional destinations with two round-trips per day on the Rimrock Trailsways route to and from Helena, along with two trips per day operated by the North Central Montana Transit route connecting Great Falls with Havre and Fort Belknap.

Downtown's Relationship to Community Assets:

Malmstrom Air Force Base

Malmstrom Air Force Base (AFB) is located approximately four miles east of Downtown Great Falls and has a population of about 3,500 uniformed airmen and contributes about 8,000 total residents to the overall population of the area. Based on a discussion with representatives of the AFB, Downtown Great Falls can play a much more prominent role in catering to the needs of the AFB community by providing services such as housing, entertainment and dining. A common misconception is that the average airman does not earn enough money to contribute to a local economy; however in actuality they have a relatively high disposable income and contribute significantly to the larger Great Falls economy. Building on the strengths of Downtown's urban environment can fulfill a missing niche and contribute to improving quality of life for airmen on and off base, while at the same time capturing a significant market share that will be reinvested in the local economy. Building a more vibrant Downtown has the potential to strengthen Malmstrom's place within the community. While a bus line currently serves the AFB, adding transportation options and improving existing ones could make it easier for airmen to venture Downtown and contribute to the downtown economy.

Local Universities

The University of Great Falls and the Great Falls College, MSU are two important educational institutions in Great Falls. Based on discussions with representatives of the Great Falls College and student feedback, there is a lack of connection between students and Downtown Great Falls. Comments showed that students do not really use downtown yet would like to see a vibrant retail district where they can dine and shop. Students represent an important demographic because, in addition to their own purchasing power, they tend to influence their parents' buying decisions and represent the future adults of the community. The opportunity exists to reach out to students, including efforts such as creative media savvy targeting and marketing which will increase the demand for goods and services offered Downtown.

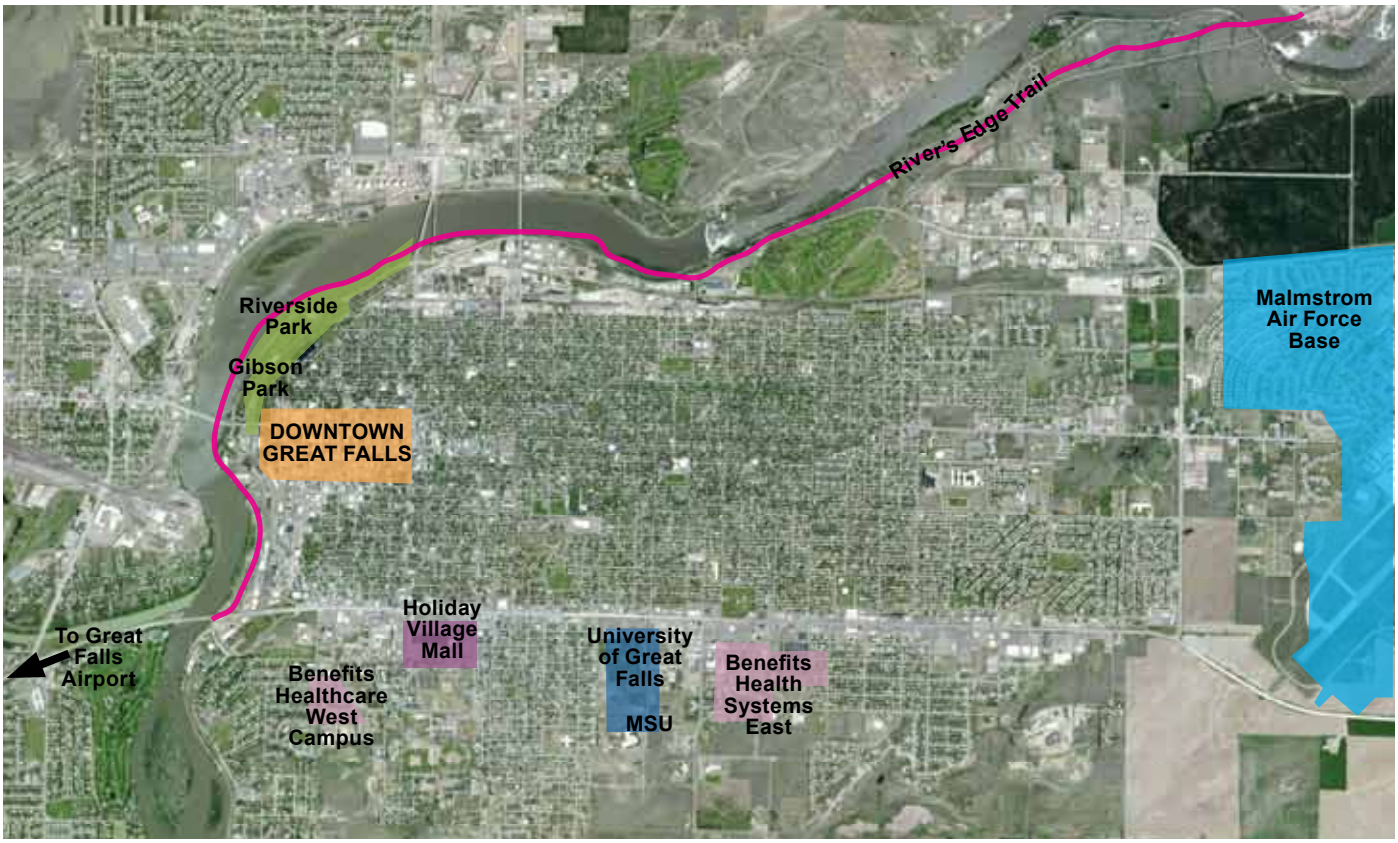
Gibson Park

Named after Paris Gibson, the founder of Great Falls, Gibson Park is located between Downtown and the Missouri River and is known as the jewel of the Great Falls park system because it offers a wide variety of amenities. While Gibson Park serves as one of the gateways to the river, the park lacks sufficient connections and accessibility to the downtown core. The opportunity exists to better connect Downtown to this tremendous amenity and the river.

The Missouri River and River's Edge Trail

The Great Falls River's Edge Trail is an important community asset with over 45 miles of paved, dirt and gravel trails. It is the result of a cooperative partnership effort by the City of Great Falls, Cascade County, Montana Fish, Wildlife & Parks, the Montana Department of Transportation, electric utility PPL Montana, the volunteer trail advocacy group Recreational Trails, Inc. and a supportive community. Connections are currently limited and involve meandering access to Downtown. The opportunity exists to better integrate the River's Edge Trail with Downtown by improving connections, an integrated urban bicycle network and the potential for a gateway marker. Another level of difficulty is the multiple layers of impediments that separate Downtown from the Missouri River. The active railroad line and viaduct act as major barriers to access. Additionally, the historic warehouses and train depot, fenced off community pool area, and multiple layers of surface parking lots impede direct access from the downtown core to the River. The other direct connection from Gibson Park to the trail is limited by the crossing at Park Drive and 1st Avenue N. where traffic volumes limit crossing opportunities.

Figure 8: *Community Assets*



3

CIRCULATION AND CONNECTIVITY ANALYSIS

Circulation in Comparable Cities

City staffers representing a few comparable Rocky Mountain cities including Rapid City, Missoula, Casper, and Cheyenne were interviewed about their experience with circulation in their downtown areas. They outlined the positives and negatives relating to one-way to two-way conversions, the addition of bicycle accommodations or other pedestrian amenities, and reduction in the number of travel lanes and parallel or angled parking decisions. The four cities are, like Great Falls, moving towards providing more bike lanes and other pedestrian amenities. None of the cities had a comparable scenario of potential one-way to two-way conversion and, generally, did not feel the need to change the travel patterns. Each of the cities currently has angled parking in the downtown area. (The team contacted six cities with four of them responding with details included in Appendix 6: Comparable Cities Study.)

One-way / Two-Way Conversion

Three of the cities considered one-way to two-way conversions, with only Missoula implementing this change and only at a single, problematic intersection. The choice to maintain the one-ways included the high cost of conversion, lack of known safety benefits or improvements and driver adjustment. Missoula noted that driver adjustments were needed but reduced after a learning period at the single location where they made the change. The daily traffic on the Missoula downtown streets range from 6,000 to 13,000, which is significantly greater than any Great Falls street being considered.

Reduction in Travel Lanes

Three of the cities have considered reducing the number of travel lanes; however, unlike the potential reductions in Great Falls, the comparable cities were looking at removing turn lanes rather than through lanes on their one-way streets. Rapid City, with high traffic volumes on the streets they were considering, noted that traffic congestion is expected to increase with reduction or removal of turning lanes. In the wake of a pedestrian fatality on a five-lane state highway through Missoula, the City reduced some travel lanes to calm traffic and accommodate non-motorized lanes/features. Missoula downtown businesses noted that the lane reduction increased congestion and negatively impacted their downtown business. Casper investigated removing turning lanes and adding turn lane restrictions to allow for angle parking but did not implement any reductions.

Bicycle and Pedestrian Accommodations

The four cities offered varying treatments for bicycle and non-motorized accommodations. Rapid City utilized advanced pedestrian phasing at two locations to accommodate pedestrian crossings. Although safety improvements were the desired goal, Rapid City recognized that the pedestrian crash frequency is so low that no improvement can be confirmed. Missoula's Complete Streets initiative has led a city-wide direction to provide bicycle lanes on all principle streets. This college town has a high proportion of non-motorized travel, especially in the downtown area due to campus proximity. Missoula's recent cycle-track installation has had some visibility issues with vehicles making unprotected left turns. Bulb outs and mid-block crossings have been recommended for Casper's downtown area, but have not yet been installed. Cheyenne has completed a Bike Plan that recommends installation of shared lanes (bike and vehicle) on some of their streets with less than 3,000 vehicles per day and speeds of 25 miles per hour or less. The Cheyenne Bike Plan will fund some of these treatments, but it was noted that parking will need to be removed for some bike lanes.

Changes in Parking Strategies

All four cities currently have angled parking in their downtowns. Rapid City notes that the downtown currently has angle parking and slow speeds; resulting in non-severe maneuvering conflicts when de-parking. Missoula also has downtown angle parking with some back-in parking. The back-in parking has met with driver avoidance and driver unfamiliarity issues although a safety benefit is (theoretically) recognized. Casper noted that some vehicle types like long trucks contribute to angle parking conflicts due to their length and blocking of sight distance for other vehicles.

Circulation and Connectivity Analysis

A detailed study of the existing and forecasted traffic volumes in Downtown Great Falls demonstrated that there is flexibility within the existing right-of-way to adjust or reduce vehicle travel lanes to accommodate other travel modes or add streetscape enhancements without significantly impacting vehicle level of service. Reductions to the number of lanes can change the overall feel of the Downtown as well as serve additional transportation needs. The feedback from the public and the steering committee emphasized that accommodating bikes and pedestrian travel within the downtown core is important. The existing roadway sections for the two one-way couplets, 5th and 6th Street and 1st and 2nd Avenue S., each have the same right-of-way configuration of sidewalks, parallel parking on both sides, and three one-way drive lanes. The existing section from curb to curb is 50 feet in width for each of the four streets. There are a few exceptions to this general configuration, namely where the road drops to two lanes on 2nd Avenue S. at 7th Street. This consistent configuration allowed the team to develop six conversion scenarios that could apply to each of the streets, with the ability to mix and match some of the scenarios.

Level of Service

Level of Service (LOS) is a term used to indicate the quality of service provided by a facility under a certain set of operating conditions including speed, travel time, traffic interruptions, freedom to maneuver, safety, travel comfort and convenience, and operating costs. Six Vehicular LOS levels, represented by letters A through F, indicate the average delay experienced by drivers travelling through an intersection. A represents the best operating conditions and F the worst and C as an average and acceptable rating. From a utilitarian perspective, the Downtown Great Falls functions well today.

Modification / Conversion Concepts for 1st Avenue S. and 2nd Avenue S. and 5th and 6th Streets:

The team explored six concepts for converting the one-way couplets of 5th and 6th Streets and 1st and 2nd Avenue S. to two-ways or re-configuring the roadway to accommodate more on street parking or bicycle facilities.

The modification concepts include:

1. Maintain One-way Traffic with Single Side Angled Parking
2. Maintain One-way Traffic with Separated Bidirectional Cycle Track
3. Two-way Conversion, Two Lanes with Bike Lanes in Both Directions
4. Two-way Conversion with Middle Turn Lane
5. Maintain One-way Traffic with Bike Lane
6. Maintain One-way Traffic with Right Side Back in Angled Parking + Shared Bicycle Lane or “Sharrows”

Each of the options follows the same set of assumptions:

- Moving the principal alignment of curbs has not been considered due to the high costs involved with moving utility lines. If moving the curbs becomes an option in the future, adding more sidewalk and pedestrian zone space would be a priority. The ideal sidewalk width for the downtown streets, especially those spurring off of Central Avenue, would be 16 to 18 feet.

- An 11 foot drive lane is sufficient to meet vehicle needs at the speeds and volumes of the downtown core.
- Eight feet is considered adequate to accommodate parallel parking needs and where possible the extra space from parallel parking should be dedicated to other needs of the roadway.
- Final designs would need to be tailored to accommodate the individual conditions of each block.

Conversion Scenarios Analysis:

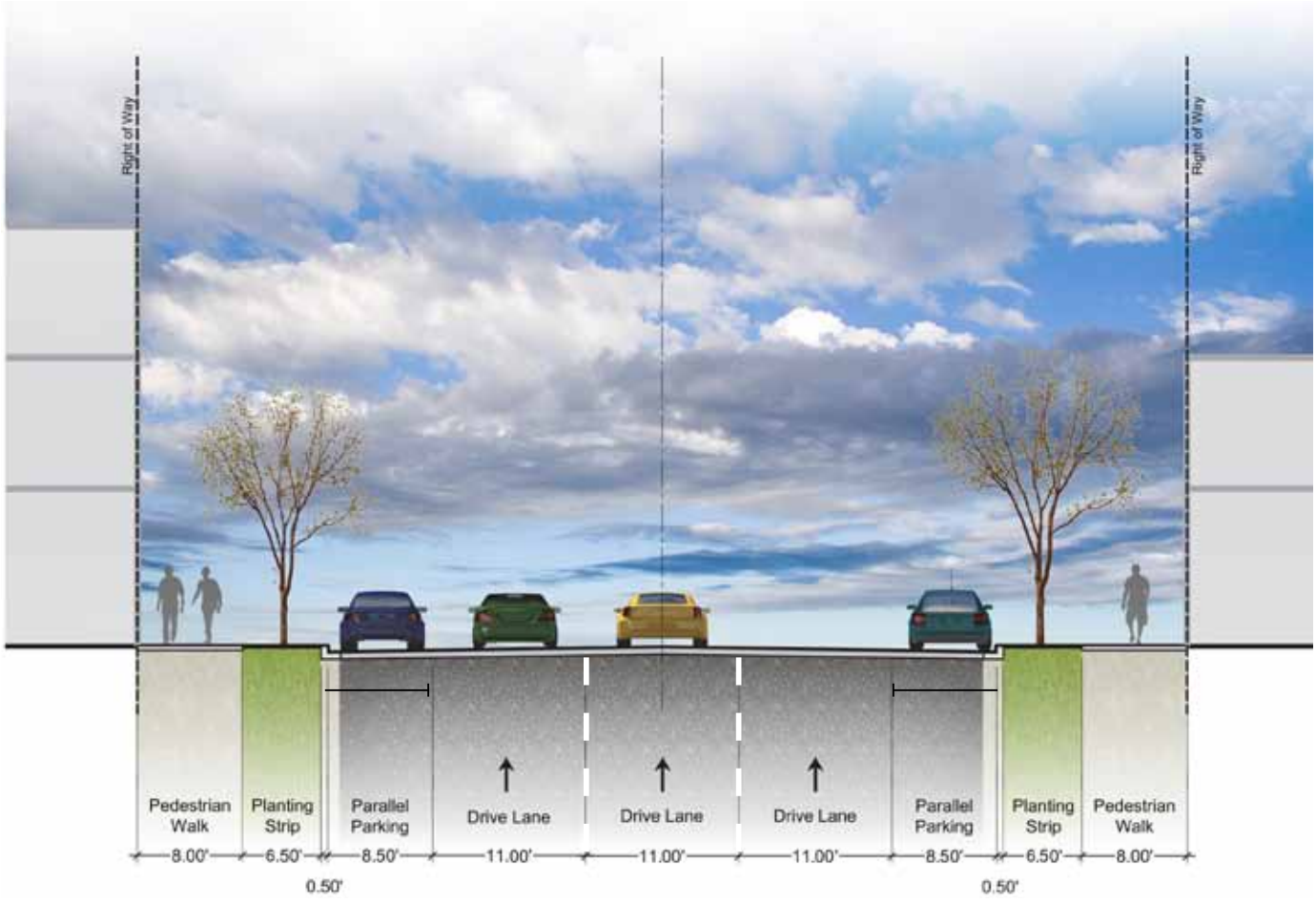
With lane reductions and/or conversion some shifts in traffic patterns and volumes are expected to varying degrees. To understand these shifts the Roadway Conversion Scenarios Traffic Analysis (Appendix 4) ran the MDT's TransCAD traffic model based off future roadway and land uses for 2025 which forecast 4.6 percent growth in traffic volume. The following four alternatives were run in the model that align with the conversion options one through six above:

- Conversion of east-west routes, 1st Avenue S. and 2nd Avenue S., from one-way to two-way, from Park Drive S. to 15th Street S.
- Conversion of north-south routes, 5th Street and 6th Street, from one-way to two-way, from 10th Avenue S. to Park Drive.
- Conversion of both 1st Avenue S. and 2nd Avenue S. from one-way to two-way from Park Drive to 15th Street, as well as 5th Street and 6th Street from one-way to two-way from 10th Avenue S. to Park Drive.
- No conversion of one-way streets, but reduction in through travel lanes from three to two lanes on 5th/6th Streets and 1st/2nd Avenues S. on the following segments:
  a. 1st Avenue S. between Park Drive S. and 10th Street S.
  b. 2nd Avenue S. between Park Drive S. and 7th Street S.
  c. 5th Street (North and South) between 2nd Avenue N. and 6th Avenue S.
  d. 6th Street (North and South) between 2nd Avenue N. and 5th Avenue S.

Existing Conditions:

The existing roadway sections for the two one-way couplets, 5th and 6th Street and 1st and 2nd Avenue S., each have the same right-of-way configuration of sidewalks, parallel parking on both sides, and three one-way drive lanes. The existing section from curb to curb is 50 feet in width for the four streets. There are a few exceptions to this general configuration, namely where the road drops to two lanes on 2nd Avenue S. at 7th Street.

EXISTING CONDITIONS
Maintain One-way Traffic

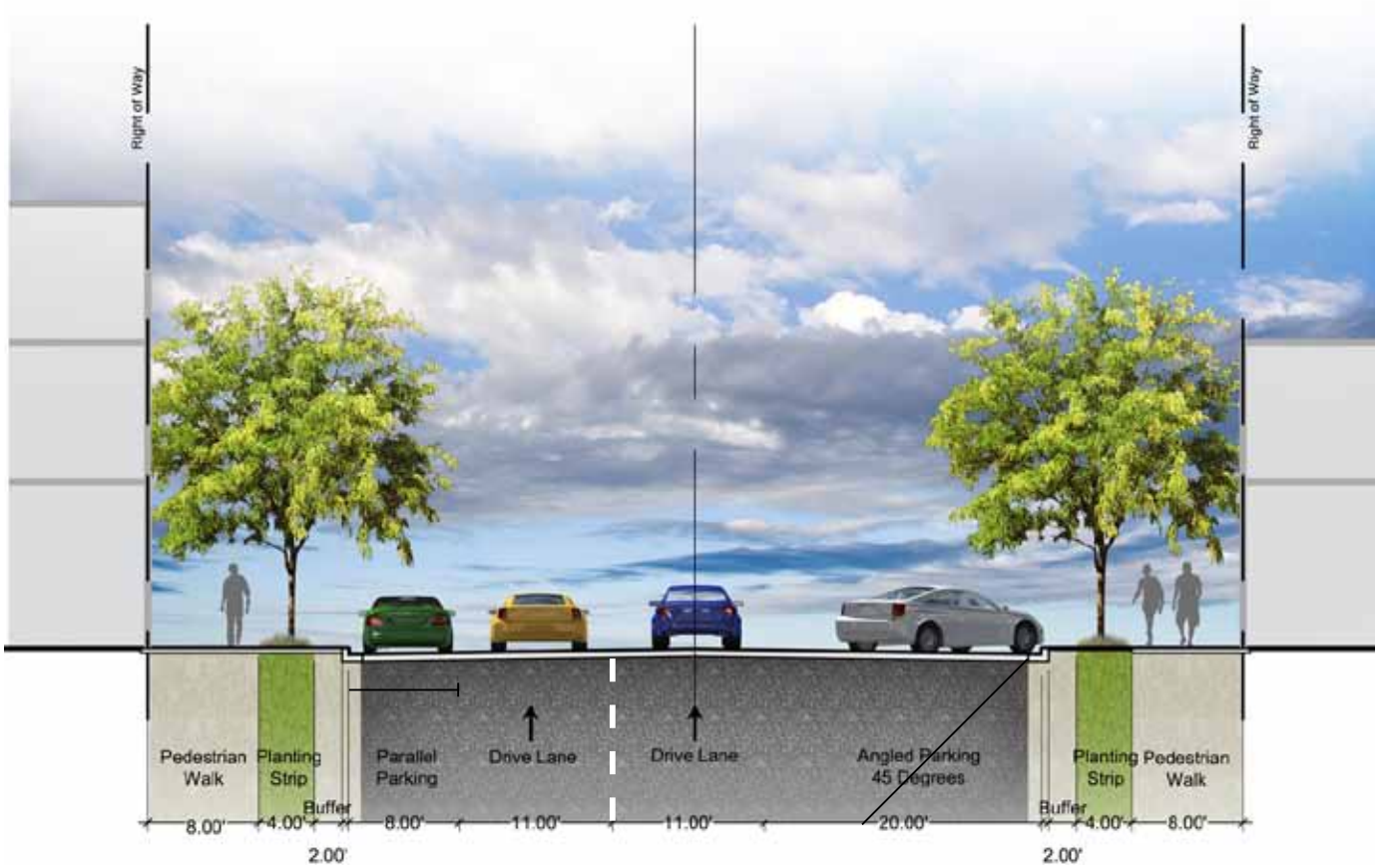


Street Configuration Options:

The following six options were presented to the project steering committee. Three options, Option 3 and two variations of Option 5, were chosen for more in depth analysis and cost estimates before arriving at the final recommendation.

OPTION 1

Maintain One-way Traffic + Single Side Angled Parking



Option 1 maintains the one-way direction of each street while adding angled parking to one side (shown here on the right) by eliminating one of the drive lanes.

The traffic study shows that one drive lane can be eliminated with little traffic effects or adverse impacts to travel times: no significant changes to overall downtown traffic volumes; a slightly reduced Level of Service (LOS) with two intersections at LOS C in at least one peak hour, though no delay would be greater than 24 seconds and LOS C is acceptable.

Benefits:

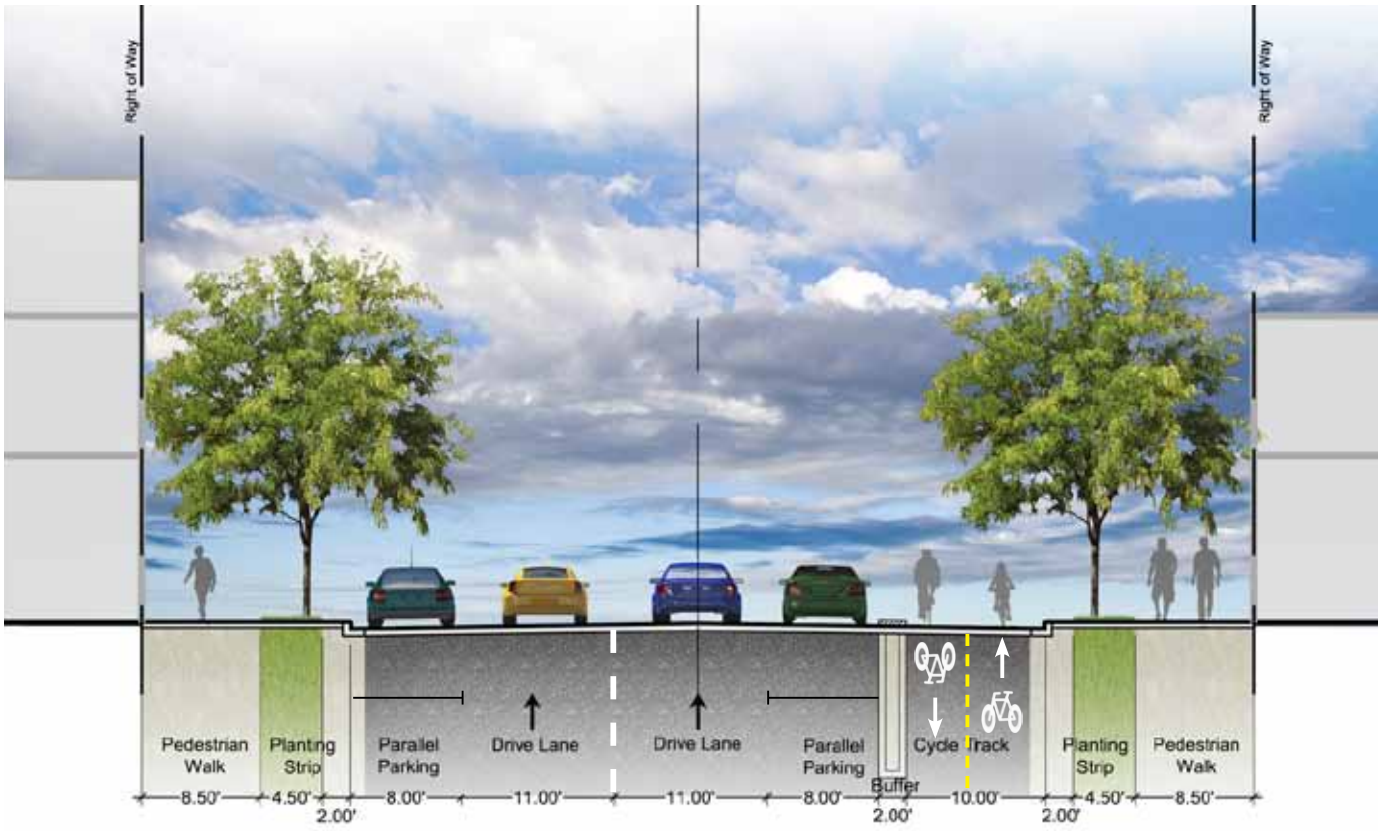
- Adds more parking (although additional parking has not been shown as a need).
- Slows traffic

Challenges:

- No accommodations for bicyclists with angled parking being potentially more dangerous for on-street biking.
- Snow removal can be more difficult with angled parking.
- Angled parking may increase vehicle conflicts and adds a traffic hazard, due to backing maneuvers into the travel lane (based upon records from Central Avenue). There is no demonstrated need for more parking to incur the potential drawbacks.
- Though there is an overall increase in on-street parking, this option may be perceived as unequal to property owners with one side of the road having additional parking while the other side remains the same.
- One-way streets make it more difficult to get from one place to another, often necessitating circuitous routes to get to a specific destination.

OPTION 2

Maintain One-way Traffic + Separated Bidirectional Cycle Track



Option 2 maintains the one-way direction of each street as well as a parallel parking lane on both sides of the roadway. This option adds a two-way cycle track separated by a median buffer on the right side of the street. The cycle track was proposed as an option for 1st Avenue S. only, as it accommodates cyclists traveling in both directions. According to MDT/City Transportation, shared lane markings are currently under consideration on 9th Street to accommodate north-south bike travel.

The traffic study shows that one drive lane can be eliminated with little traffic effects or adverse impacts to travel times: no significant changes to overall downtown traffic volumes; a slightly reduced Level of Service (LOS) with two intersections at LOS C in at least one peak hour, though no delay would be greater than 24 seconds and LOS C is acceptable.

Benefits:

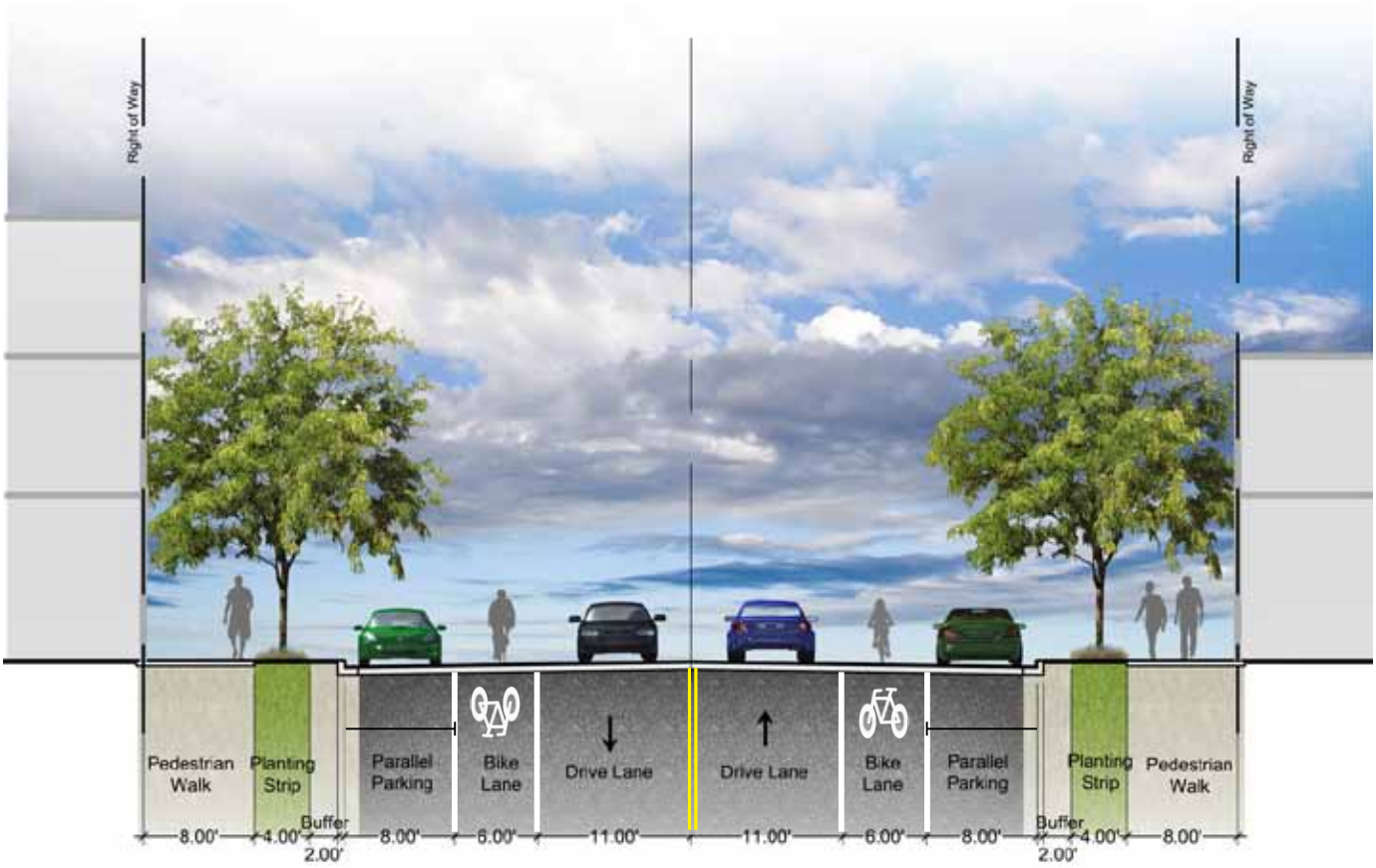
- Provides a separated two-way cycle track which welcomes general cyclists of all ages, whereas on-street facilities are often inadequate for inexperienced cyclists.
- Cycle track could be utilized for snow storage in winter months.

Challenges:

- If the cycle track is to be maintained during winter months, snow removal can be an issue as well as additional maintenance costs.
- Drivers and cyclist would need to adjust to the contra-flow travel of the bike lane, which can be dangerous at intersections.
- If the cycle track has a curb (physical buffer) from the parallel parking, drainage issues would need to be addressed which would increase the project cost.
- Location of parking meters would need to be considered.
- On 1st Ave S., the cycle track concept will need to continue or transition beyond 9th Street and west of Park Drive S. (outside downtown area). This would need to be addressed in separate bicycle connection discussions.
- One-way streets make it more difficult to get from one place to another, often necessitating circuitous routes to get to a specific destination.

OPTION 3

Two-way Conversion, Two Lanes + Bike Lanes in Both Directions (Section View)



Option 3 creates a two-way street, with parallel parking maintained on both sides, and the elimination of one drive lane to add bike lanes in both directions of travel.

The traffic study shows different shifts in traffic volumes for converting only 1st and 2nd Avenue S. to two-way, only converting 5th and 6th Streets to two-way, and for converting both couplets to two-way operation. If both couplets were converted to two-way, volumes on 2nd Avenue S. and 5th Street would increase, volumes on Central Avenue would decrease by about 1,500 vehicles per day, and volumes on 1st Avenue S. and 6th Street would decrease. Converting 1st Avenue S. and 2nd Avenue S. to two-way operation would result in a modest increase in overall traffic in downtown, with east-west traffic increasing by four to seven percent and north-south traffic increasing by one percent. Converting 5th Street and 6th Street to two-way operation would not significantly change overall traffic volumes in downtown. The LOS remains at A or B at all intersections under each conversion scenario. More specific discussion on the impacts of each scenario is detailed in Appendix 4: Roadway Conversion Scenarios Traffic Analysis.

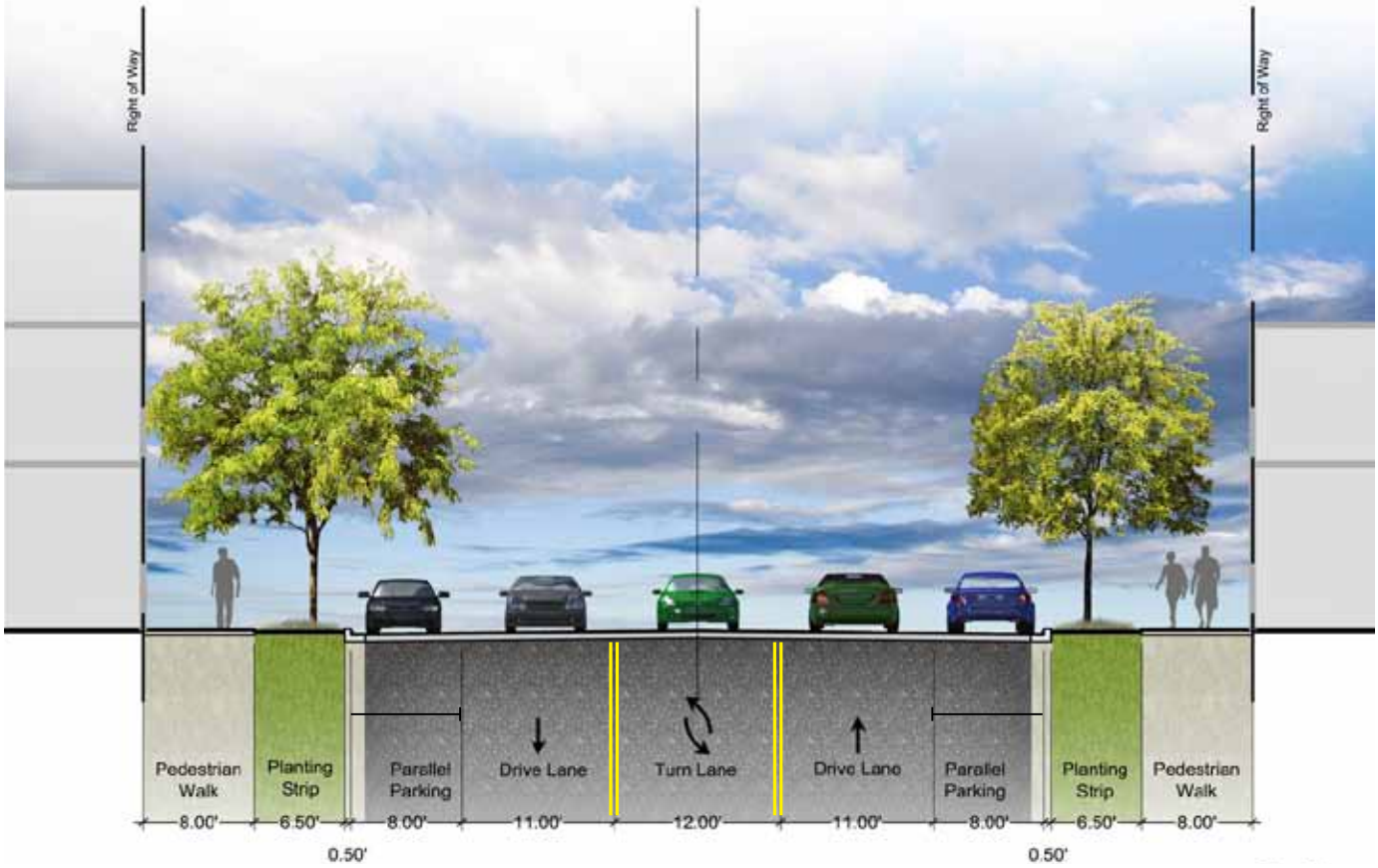
Benefits:

- Integrates cyclists with on-street facilities. Bicycle lanes or sharrows may be consistently applied outside of the study area where lanes narrow.
- Slows traffic and creates a comfortable framework for a retail street.

Challenges:

- Though the LOS would remain acceptable without a center turn lane, left turns would create delays for other vehicles continuing through.
- Traffic signals would need to be redone or potentially removed to accommodate two-way traffic.
- Traffic signal replacement / intersection work will likely trigger the requirement to reconstruct curb returns and ramps to meet current ADA guidelines, thereby adding significant costs.

OPTION 4
Two-way Conversion + Middle Turn Lane



Option 4 creates a two-way street, with parallel parking maintained on both sides, and a center turn lane. The traffic study shows different shifts in traffic volumes for converting only 1st Avenue S. and 2nd Avenue S. to two-way, only 5th and 6th Streets to two-way, and for converting both couplets to two-way operation. If both couplets were converted to two-way, volumes on 2nd Avenue S. and 5th Street would increase, volumes on Central Avenue would decrease by about 1,500 vehicles per day, and volumes on 1st Avenue S. and 6th Street would decrease. Converting 1st Avenue S. and 2nd Avenue S. to two-way operation would result in a modest increase in overall traffic in downtown, with east-west traffic increasing by four to seven percent and north-south traffic increasing by one percent. Converting 5th Street and 6th Street to two-way operation would not significantly change overall traffic volumes in downtown. The LOS remains at A or B at all intersections under each conversion scenario. More specific discussion on the impacts of each scenario is detailed in Appendix 4, Roadway Conversion Scenarios Traffic Analysis.

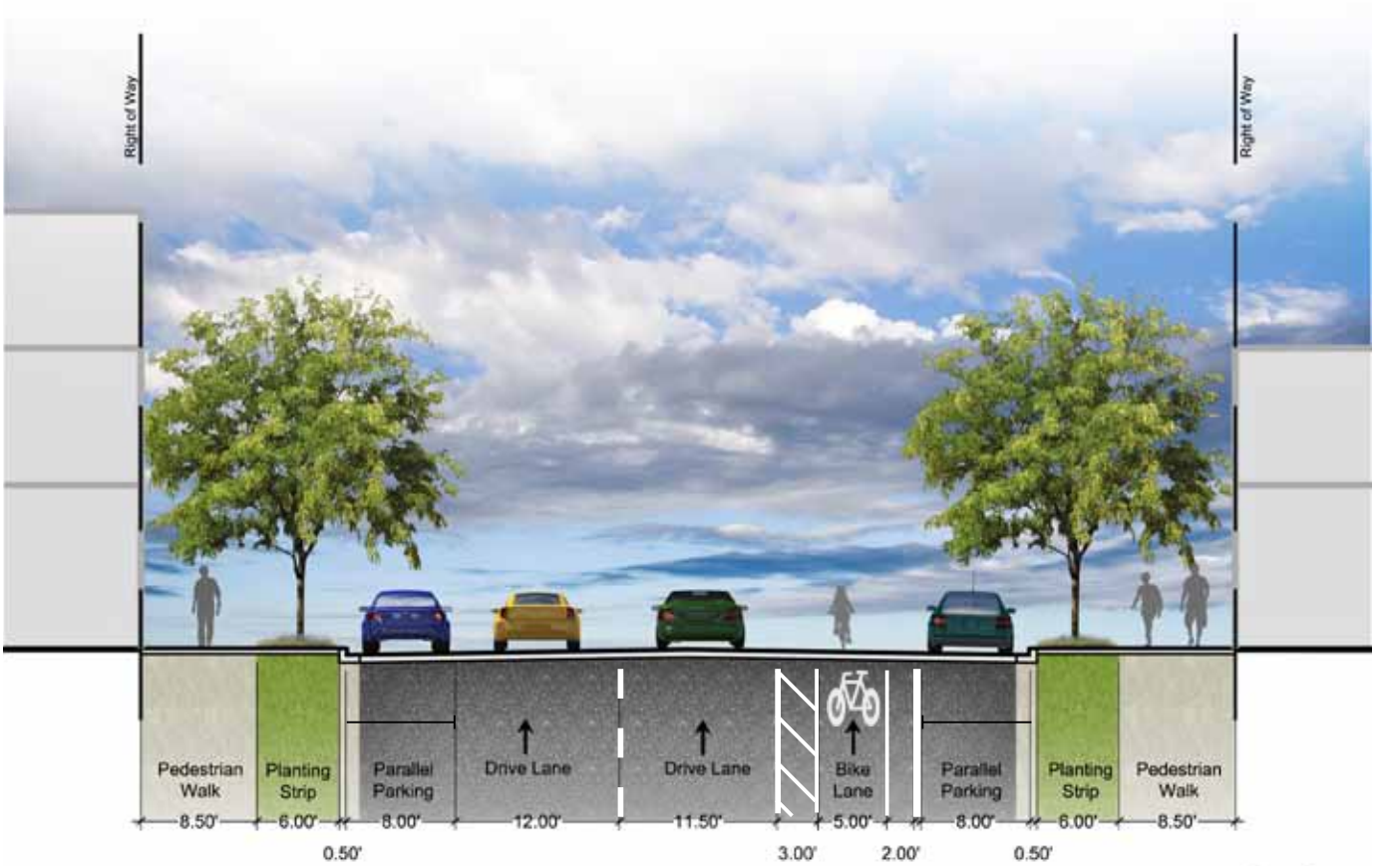
Benefits:

- The center turn lane reduces delays caused by turning vehicles.

Challenges:

- No bike facilities are proposed in this option. A shared lane marking or signage could be used to designate a bicycle route, but this is the least desirable bike accommodation, as it is most suitable for experienced cyclists who are comfortable riding with vehicles.
- Traffic signals would need to be redone or potentially removed to accommodate two-way traffic.
- Traffic Signal replacement will likely trigger the requirement to reconstruct curb returns to meet current ADA guidelines.

OPTION 5
Maintain One-way Traffic + Bike Lane



Option 5 maintains the one-way road configuration and parallel parking on both sides, but adds a right side, one direction bike lane with sufficient space to accommodate painted buffers from vehicle traffic and car doors. This concept is gaining acceptance in various downtowns to accommodate bicycle travel, while maintaining vehicular features.

The traffic study shows that one drive lane can be eliminated with little traffic impacts: no significant changes to overall downtown traffic volumes; a slightly reduced Level of Service (LOS) with two intersections at LOS C in at least one peak hour, though no delay would be greater than 24 seconds and LOS C is considered acceptable.

Benefits:

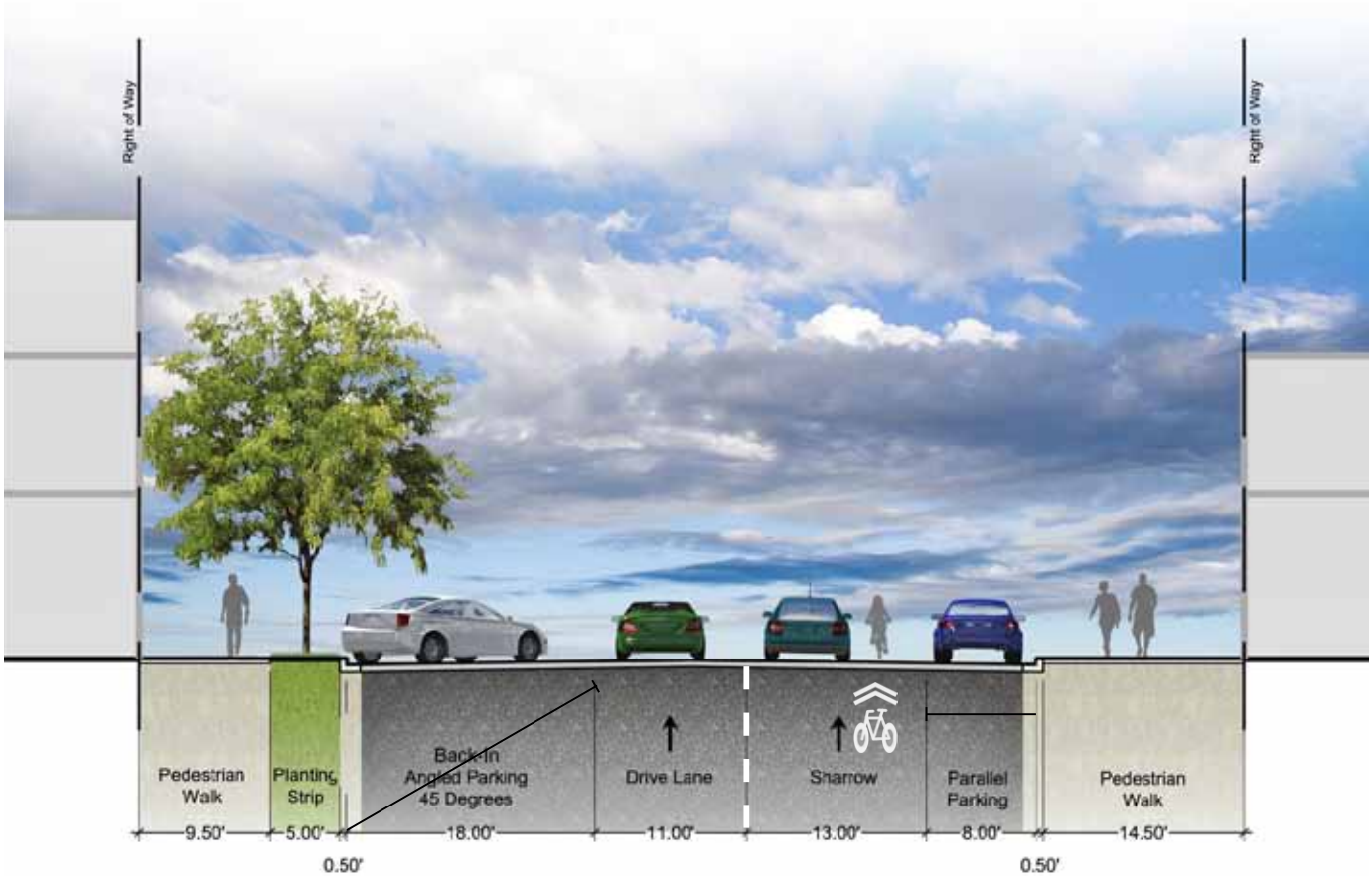
- Provides a generous bike lane with striped recovery zone for added cyclist buffer area.
- Could be implemented quickly without intersection signal changes or improvements, maintenance costs would not be significantly more than with the existing configuration.

Challenges:

- One-way streets make it more difficult to get from one place to another, often necessitating circuitous routes to get to a specific destination.
- Would require adjustment from drivers who are not accustomed to having bike lanes downtown.

OPTION 6

Maintain One-way Traffic + Right Side Back in Angled Parking + Shared Bicycle Lane



Option 6 maintains the one-way road configuration, with either back-in angled parking or regular head in angled parking, and a shared lane marking to accommodate cyclists.

The traffic study shows that one drive lane can be eliminated with little traffic impacts: no significant changes to overall downtown traffic volumes; a slightly reduced Level of Service (LOS) with two intersections at LOS C in at least one peak hour, though no delay would be greater than 24 seconds and LOS C is considered acceptable.

Benefits:

- Back in angled parking provides more parking (although additional parking has not been shown as a needed).
- Shared Lanes provide some level of bicycle accommodation to alert drivers to the presence of cyclists and direct cyclists to the preferred biking routes and correct direction of travel.

Challenges:

- Though this option provides a shared lane option for cyclists, this is not the preferred solution for accommodating cyclists.
- Back in angled parking has mixed results and would be new to Great Falls requiring educating drivers and community members.
- Angled parking may increase vehicle conflicts, due to backing maneuvers into parking spaces.
- Back-in parking would require more empty space at the back-of-curb to accommodate pick-ups, which are a common vehicle found Downtown.

Back-in Angled Parking

"Back-In" angled parking (as opposed to the more common "Head-In" angled parking) consists of angling the parking so that a driver pulls past the space and then backs into the space. Exiting the space is then a simple check for oncoming traffic followed by driving forward. This design has long been in place in many communities, including Washington, DC; Salt Lake City, Utah; Vancouver, Washington; and Tucson, Arizona, and is becoming increasingly common across the nation.

The advantages of back-in angled parking, as compared with head-in angled parking, include:

- The exiting maneuver from a back-in angled space is easier than exiting from a head-in angled space and when exiting the space, the driver has a much better view of oncoming traffic and bicyclists.
- Cyclists can see the presence of the driver in the car, providing a better indication that the car may soon exit the space.
- Loading/unloading the back hatch of a vehicle occurs while standing on the sidewalk, rather than near a moving travel lane. This is particularly important for persons unloading dogs.
- Children getting out of the side door of cars are less likely to dart into traffic, as the angled car door against the adjacent vehicle encourages them to exit towards the curb.

Entering a back-in angled parking space is more difficult than entering a head-in angled space, but is easier than entering a parallel space. Overall, safety is improved over head-in parking. A study of a conversion from head-in to back-in angled parking in Pottstown, Pennsylvania revealed a 25 percent reduction in the total number of accidents, and a 43 percent reduction in the number of accidents involving injuries.

Implementing back-in angled parking is not recommended at this time for Downtown Great Falls due to mixed reviews from other communities, the fact that more parking is not an existing need, and because introducing a new form of parking, implemented within a limited area, has the potential to add confusion.

Back in Angled Parking - Photo Credit: Richard Drdul

4

CONCEPTUAL COST ESTIMATES

Conceptual Cost Estimates

The consultant team, with input from the steering committee, reviewed the six options presented in the previous section and chose to develop cost estimates for Option 3 and two variations of Option 5. This section summarizes conceptual cost estimates for the three options, which show the breadth of changes that are possible varying from a minor re-striping project and maintaining exiting traffic patterns to the full conversion of one-ways to two-ways and more extensive streetscape improvements which would be the highest price of all six options. The costs were developed assuming numerous blocks would be modified, resulting in more cost-effective construction (cost-of-scale savings for contractor). For instance, installation of one block of streetscape and trees will be less expensive than improving a 50 foot frontage, in seven separate locations. Costs are based upon 2012 construction costs from a variety of state and local transportation projects.

Option 3:

Convert to two-way flow on 1st and 2nd Avenues S. with two, single-direction bike lanes on either 1st or 2nd Avenue (one street only). Assume all signals will have total replacement for two-way configuration, consistent with current ADA requirements. The cost to apply this treatment on a per block (with one intersection) is estimated at $222,600. The cost to apply this treatment on 1st and 2nd Avenues S. between Park Drive and 9th Street is estimated at $1,972,800.

Since the two-way conversion option will affect all traffic signals on the one-way corridor, it is recommended to replace the existing signals in their entirety with current technology and to meet accessibility requirements. The controller systems would be updated to allow use of radar, video or type of detection and updated communication features could be used. The signals would be updated to meet current visibility and also accessibility features (pedestrian audible and tactile features). Additionally, the signal would be replaced with current bulbs with lower energy usage.

Assumptions:

- Significant design efforts are required to match curb transitions with existing surfaces and replace all signals. Detailed survey, utility locations and design for construction plans are conservatively estimated at an additional 10 percent of construction.
- Each traffic signal will be replaced entirely, with a four-way configuration for mast arm signals. Provide current ADA requirements as well as audible and tactile needs as recommended by the Federal Highway Administration / PROWAG guidelines, adopted by MDT in 2010 and required for federal and state funding. The reuse of current signals could be considered for cost savings but is not recommended due to dated technology and materials. No removal of any signalized intersection was assumed, but could be considered.
- Signing will need to be replaced (to remove one-way signing).
- The planting strip assumes that a six-foot width of the existing sidewalk is removed along both sides of the street and replaced with trees, streetscape appurtenances and alternate surfacing material. The portion of the sidewalk adjoining the building is assumed to remain (to match existing doorways, etc.). It appears more cost effective to replace the entire block length, rather than short intervals. This requires resetting of existing poles, parking meters and other features. Streetscape appurtenances may include benches, trash bins, bike racks or other amenities.

- A single bike parking plaza is assumed in each block which requires rebuilding sidewalks and curbs.
- Intersections are re-built to provide ADA-compatible curb bulb-outs on all four corners. The curb bulb-outs will impact nearby driveway approaches, assumed at five per block which includes side streets.
- All striping is removed by coordination with the City on regular chip-sealing projects so no pavement marking removal costs are included.
- Bike lane striping is assumed with solid stripes only, a less expensive treatment that the larger buffered areas in other concepts. Bike lane symbols are included as epoxy words / symbols.
- Striping is replaced with epoxy, an expensive treatment with a 3-7 year life. Less expensive paint markings need more frequent replacement. The City could opt for thermoplastic markings which are an expensive installation but have increased longevity of between five and 15 years if care is taken to preserve the markings during resurfacing operations.
- Crosswalks are replaced with international (ladder) style crosswalks to increase visibility. Cost reductions would occur if international crosswalk was only applied at selected (signalized and critical) intersections.

OPTION 3 COST ESTIMATE:				
Item Description	**Quantity**	**Unit**	**Unit Price - Dollars**	**Amount - Dollars**
Striping (two-way)	15	BLOCK	$4,160	$62,400
Striping (one-way)		BLOCK	$4,006	$0
Striping (Intersection Upgrade)	17	INTERSECTION	$3,617	$61,500
Signing (Remove, Reset & Replace)	15	BLOCK	$5,640	$84,600
Upgrade Signal (ADA)	10	EACH	$55,000	$550,000
Intersection Upgrade (curb bulb-outs, ADA ramps)	17	INTERSECTION	$21,564	$366,600
Raised Sidewalk Crossing		BLOCK	$44,800	$0
Curb & Gutter Removal	15	BLOCK	$1,650	$24,750
New Curb & Gutter	15	BLOCK	$3,563	$53,450
New Sidewalk	15	BLOCK	$9,000	$135,000
Sidewalk Removal	15	BLOCK	$2,250	$33,750
Remove & Relocate Storm Drain Inlets, Fire Hydrant	17	INTERSECTION	$12,233	$208,000
6’ Tree/Strip (Remove walk)	15	BLOCK	$1,466	$22,000
Bike Parking Plaza	1	BLOCK	$8,960	$8,950
Resets (Park Meter, Light Poles)	15	BLOCK	$2,200	$33,000
Total Base Cost			**$185,509**	**$1,644,000**
10% Survey/Design			$18,551	$164,400
10% Contingency			$18,551	$164,400
Total Cost			**$222,611**	**$1,972,800**

Option 5

Retain one-way flow but remove one travel lane and re-stripe space for on-street bike lane. Reconstruction is limited to striping and signing with no physical construction included. The cost to apply this treatment on a per block basis (with one intersection) is estimated at $5,500. The cost to apply this treatment on 1st and 2nd Avenues S. between Park Drive and 9th Street is estimated at $90,500.

Assumptions:

- No changes to the curbing, signals or parking are included. Minimal design efforts are expected and the construction could be easily bid and administered.
- All striping is obliterated by coordination with the City on regular chip-sealing projects so no pavement marking removal costs are included.
- Bike lane striping is extensive, to maximize protection of this space for non-motorized travel. Bike lane markings may be obscured by snow during a small proportion of the year, however, this has not been found to create undue safety problems or user conflicts in other communities. Signs at the beginning of each block showing the roadway configuration may be feasible to help raise awareness about the road configuration and the dedicated bike lane, however this would add additional clutter to on-street signage and is not included in this estimate. Bike lane symbols are included as epoxy words/symbols.
- Striping is replaced with epoxy, an expensive treatment with a 3-7 year life. Less expensive paint markings have a short life span and need frequent replacement. The City could opt for thermoplastic markings which are an expensive installation but have increased longevity.
- Crosswalks are replaced with international (ladder) style crosswalks to increase visibility. Cost reductions would occur if international crosswalk was only applied at selected (signalized and critical) intersections.
- Two new signs are assumed per block for bike lane information. Costs include sign panels only, as signs can be mounted on existing luminaires or poles.

OPTION 5 COST ESTIMATES				
Item Description	**Quantity**	**Unit**	**Unit Price - Dollars**	**Amount - Dollars**
Striping (One-way)	15	BLOCK	$1,000	$15,000
Striping (Intersection Upgrade)	17	INTERSECTION	$3,600	$61,250
Signing (New Panel)	15	BLOCK	$400	$6,000
Total Base Cost			**$5,000**	**$82,250**
10% Contingency			$500	$8,225
Total Cost			**$5,500**	**$90,475**

Option 5A

Retain one-way flow but remove one travel lane to re-stripe for on-street bike lane AND provide curb bulb-outs in addition to modifying the existing 14' sidewalk to allow for a planting/streetscape strip. The cost to apply this treatment on a per block basis (with one intersection) is estimated at $138,600. The cost to apply this treatment on 1st and 2nd Avenues S. between Park Drive and 9th Street is estimated at $1,198,500.

Assumptions:

- Significant design efforts are required to match curb transitions with existing surfaces. Detailed survey, utility locations and design for construction plans. Design costs conservatively estimated at an additional 10% of construction would be required but are not included in the costs below.
- The planting strip assumes that a six-foot width of the existing sidewalk is removed along both sides of the street and replaced with trees, streetscape appurtenances and alternate surfacing material. The portion of the sidewalk adjoining the building is assumed to remain (to match existing doorways, etc.). Based on previous experience, it is more cost effective to replace the entire block length, rather than short intervals. This requires resetting of existing poles, parking meters and other features. Streetscape appurtenances may include benches, trash bins, bike racks or other amenities.
- Intersections are re-built to provide ADA-compatible curb bulb-outs on all four corners. The curb bulb-outs will impact nearby driveway approaches, assumed at 5 per block which includes side streets.
- All striping is removed by coordination with the City on regular chip-sealing projects so no pavement marking removal costs are included.
- Bike lane striping is extensive, to maximize protection of this space for non-motorized travel. Bike lane markings may be obscured by snow during a small proportion of the year, however, this has not been found to create undue safety problems or user conflicts in other communities. Signs at the beginning of each block showing the roadway configuration may be feasible to help raise awareness about the road configuration and the dedicated bike lane, however this would add additional clutter to on-street signage and is not included in this estimate. Bike lane symbols are included as epoxy words/symbols.
- Striping is replaced with epoxy, an expensive treatment with a 3-7 year life. Less expensive paint markings have a short life and need frequent replacement. The City could opt for thermoplastic markings which are an expensive installation but have increased longevity.
- Crosswalks are replaced with international (ladder) style crosswalks to increase visibility. Cost reductions would occur if international crosswalk was only applied at selected (signalized and critical) intersections.
- Signal removals were estimated for this option, with 12 assumed to be removed throughout the project. Prior to any signal removal, additional study and data collection would be required.

OPTION 5A COST ESTIMATES				
Item Description	**Quantity**	**Unit**	**Unit Price - Dollars**	**Amount - Dollars**
Striping (One-way)	15	BLOCK	$4,006	$60,100
Striping (Intersection Upgrade)	17	INTERSECTION	$3,617	$61,500
Signing (Remove & Replace)	15	BLOCK	$2,820	$42,300
Remove Signal	12	EACH	$1,800	$21,600
Add Signal		EACH	$9,085	$0
Intersection Upgrade (curb bulb-outs, ADA ramps)	17	INTERSECTION	$21,564	$366,600
Raised Sidewalk Crossing		BLOCK	$44,800	$0
Curb & Gutter Removal	15	BLOCK	$1,650	$24,750
New Curb & Gutter	15	BLOCK	$3,563	$53,450
New Sidewalk	15	BLOCK	$9,000	$135,000
Sidewalk Removal	15	BLOCK	$2,250	$33,750
Remove & Relocate Storm Drain Inlets, Fire Hydrant	17	INTERSECTION	$12,233	$207,950
6' Tree/Strip (Remove walk)	15	BLOCK	$4,856	$72,840
Resets (Park Meter, Light Poles)	15	BLOCK	$650	$9,750
Total Base Cost			**$126,055**	**$1,089,600**
10% Contingency			$12,600	$108,960
10% Survey/Design			$12,600	**$108,960**
Total Cost			**$138,660**	**$1,307,500**

Sidewalk Priority at Curb Cuts and Alleys:

The cost to provide a "priority sidewalk" or raised sidewalk across an alley or driveway approach is discussed elsewhere in this report. This cost could range considerably, based upon the location and adjoining drainage and utilities (likely at an alley). The general cost for each application could be as high as $9,000 if drainage (curb and storm inlets) are impacted and could increase more if utility vaults or lines are impacted.

5

PARKING ANALYSIS AND FINDINGS

Parking Analysis and Findings

Zoning Code Review

The team reviewed the City of Great Falls Land Development Code (Title 17), as it relates to parking required for businesses within the downtown study area. In general, the language incorporated into the code that allows for flexible reductions in the parking requirements for downtown businesses works well for Downtown Great Falls (See section 17.36.2.050 - Parking requirement in the central business core (C-4) and central business periphery (C-5) zoning districts).

As is typical for many downtowns, established businesses within the Great Falls Downtown Core have limited ability to build additional parking spaces on-site. Instead, these businesses rely on publicly available street parking, private lease lots, public lots and two City owned and one private garages to meet their parking needs. If the City were to require additional parking spaces for all new infill development and redevelopment in the downtown, many sites would be unable to comply without removing existing commercial buildings to create more surface parking. This would detract from the development density that makes a downtown unique from more suburban areas.

The greatest challenge with reduced minimum parking standards is that the City then needs to periodically review the public parking system to ensure that capacity remains to support visitors, residents and employees. Based on the supply and demand analysis, the study area as a whole has sufficient parking capacity to support additional growth. As shown in Table 3, the existing occupancies reflect an effective parking surplus of roughly 1,000 spaces downtown.

Table 3: *Downtown and Downtown Adjacent Zones*

DOWNTOWN AND DOWNTOWN ADJACENT ZONES				
TYPE	AVAILABLE SPACES	EFFECTIVE SUPPLY (1)	PEAK HOUR DEMAND	REMAINING CAPACITY
Parking Meters	1,065	905	272	633
Public Lots	316	284	116	168
Public Garages	807	726	461	265
Totals:	**2,188**	**1,915**	**849**	**1,066**

1. The Effective Supply reflects the recommended number of usable spaces in the system after factoring in the cushion of spaces needed to allow from proper vehicular circulation. A 15% effective supply adjustment is assumed for on-street spaces with a 10% adjustments used for lots and garages.
**Source: Walker Parking Consultants, 2013*

Since individual blocks may be more or less busy than the downtown as a whole, it makes sense to allow the Director of Planning and Community Development to grant parking reductions on a case by case basis, while accounting for the potential impact on the overall parking system.

Using a blended demand ratio of 3.0 parking spaces per 1,000 square feet, a downtown parking surplus of 1,000 spaces should be able to support approximately 330,000 square feet of new development, redevelopment, and/or re-tenanting of vacant buildings. Redevelopment efforts should be evaluated based on both their location and typical parking surpluses available on the adjacent blocks. Additional discussion of this analysis is provided in Appendix 5: Parking Study, beginning on page 8.

Parking Requirements Outside of the CBD

For areas outside of the Central Business District (CBD) the City's existing code standards are generally in line with industry recommendations. In a few instances, some modifications are recommended to more closely match the recommendations published by institutions such as the Urban Land Institute (ULI), and International Parking Association (IPA).[6]

For reference, Table 4 provides published standards set by ULI for a number of common land uses.

Table 4: *Recommended Minimum Parking Standards for Stand-Alone Non-Downtown Development Sites*

RECOMMENDED MINIMUM PARKING STANDARDS FOR STAND-ALONE NON-DOWNTOWN DEVELOPMENT SITES					
Land Use	**Recommended Ratio**		**Unit**	**Source**	**Comments:**
	Weekday	**Weekend**			
Community Shopping Center (<400 ksf)	3.60	4.00	/ksf GLA*	1	
Regional Shopping Center (400k to 600k)			/ksf GLA	1	Sliding Scale between 400 and 600k
Super Regional Shopping Center (>600k)	4.00	4.50	/ksf GLA	1	
Convenience Retail	6.10	5.00	/ksf GLA	2	
Fine/Casual Dining	18.00	20.00	/ksf GLA	2	ITE Quality + Hi Turnover w/bar
Family Restaurant	10.50	15.00	/ksf GLA	2	ITE Hi Turnover without bar
Fast Food/QSR	15.00	14.00	/ksf GLA	2	Peak hour is noon
Performing Arts Theater	0.37	0.40	/seat	2	
Health Club	7.00	5.75	/ksf GLA	4,3,2	
Hotel-Business	1.25	1.08	/room	2,5	
Hotel-Leisure	1.15	1.18	/room	2	
Residential Shared, Rental	1.65	1.65	/unit	2,3	
Residential Shared, Owned	1.85	1.85	/unit	2,3	
Office <25,000sq ft	3.80	0.38	/ksf GFA**	2	
Office 25k to 100k sq ft			/ksf GFA	2	Sliding scale between 25k and 100k
Office = 100k	3.40	0.35	/ksf GFA	2	
Office 100k to 500k sq ft			/ksf GFA	2	Sliding scale between 100k and 500k
Office >500,000 sq ft	2.80	0.28	/ksf GFA	2	
Data Processing Centers	6.00	0.61	/ksf GFA	2,4	
Medical/Dental Office	4.50	4.50	/ksf GFA	2	

**GLA: Gross Leasable Area*
***GFA: Grose Floor Area*

Sources:

1. Parking Requirements for Shopping Centers, Second Edition. Washington DC: ULI-The Urban Land Institute, 1999
2. Parking Generation, Third Edition. Washington DC: Institute of Transportation Engineers, 2004
3. Data collected by ULI Team Members
4. John W. Dorsett, "Parking Requirements for Health Clubs" The Parking Professional April 2004
5. Gerald Salzman, "Hotel Parking: How Much Is Enough?" Urban Land, January 1988.
Source: Walker Parking Consultants, 2013

Privatization Analysis

Public-Private Partnerships (PPP), have been a hot topic in urban planning over the last few years. Technically, the term PPP refers to any partnership between a municipal, state, or federal government, and a private-sector entity, usually to create a new funding or mechanism for a capital project. In a PPP, the private entity typically assumes financial, technical and operational risk in the provision of a public service or project.

Within the parking industry, the most publicized PPP agreements include the monetization of parking assets.

For example, Ohio State recently completed a public-private agreement with a group of investors. The University signed a concession agreement to give up control over some 36,000+ surface and garage spaces for a 50-year period in exchange for an up-front payment of $483 Million. The campus parking system is now run by a private operator (LAZ Parking) with the net operating revenues returned to the private entity instead of the University.

A PPP agreement can be a useful tool in some instances. However there are also some inherent risks and negatives associated with these agreements. The largest negative (as seen with the City of Chicago) is the potential for public backlash as a private operator may decide to make operational changes such as increasing parking rates or changing long-standing policy about who parks where and other preferential policy issues.

The following is a brief summary of the potential pros and cons of a PPP:

Pros:

- Ability to tap into third party source of financing and execute a capital project that otherwise may not be possible
- Acquisition of expertise (i.e., development, construction, financing, public relations, operations, etc.) that is not available in house
- Shift of business risk to the private sector
- Upside potential to be gained through revenue enhancements, operational efficiencies, and improved customer experiences*
- Off-loading of a responsibility which may allow for focusing on other priorities

Cons:

- Loss of owner control
- Potentially higher cost of capital
- Risk of public criticism
- Political risk
- Substantial time and resource commitment to close on a PPP
- Possibility of increased customer frustration and/or decrease in service

*If not managed properly through appropriate agreements to protect the City and ensure that the new operator meets certain performance standards there can be operational inefficiences and customer frustration as experienced in Chicago. Revenue enhancements are typically easier to achieve under a PPP because the private owner/operator usually has more leverage to modify rates in response to market factors in order to maximize revenues. Many Cities cannot achieve this same level of financial efficiency because rate increase can be politically sensitive and may be subject to approval by the City Council and therefore are increased more infrequently.

For the City of Great Falls, a PPP may be a viable option to consider if the City is interested in a concession agreement giving up operational control over existing parking assets. Another option would be to use the PPP structure to generate up-front capital for garage repairs or a technology upgrade. It's important to keep in mind that any private entity investing in a public parking system will want a reasonable return on investment and therefore may be more inclined to raise parking rates and/or cut services in order to improve their bottom line. Also, if the downtown parking system is running at a net deficit (or close to a deficit after factoring in necessary garage repairs), it may be viewed as a high-risk operation by the private entity and therefore not generate as much interest in up-front payments to the City. It is more likely that a private entity would be willing to take on the cost of garage repairs and system upgrades but may ask the City to pay into a fund to cover the potential risk of operational losses over the term of the agreement.

Strategies for Improving Visitor and Employee Parking

A full analysis of the downtown parking system is provided separately in Appendix 5: Parking Study.

Based on this analysis, the following are the primary recommendations in order to improve the functionality and efficiency of the system for downtown customers and employees. Most of these recommendations require an investment of capital and must be weighed carefully against other potential options.

Downtown Parking Recommendations:

1. Continue to fund regular maintenance for the two public parking garages along with necessary repair projects to extend the usable life of these assets and ensure safety for garage customers.
2. Replace some of the parking meter zones within the downtown with time limited zones or no restrictions to allow for greater flexibility for employee parking. The core area (as outlined in Appendix 5) is the most critical zone to maintain metered parking. Areas beyond this zone should be evaluated on a case-by-case basis and may warrant removal of meters.
3. Replace cash-only meters with newer electronic meters that accept credit card payment. (Increase meter fees slightly as necessary to cover credit card transaction costs).
4. Re-evaluate and increase parking garage maximum rates to be in line with peer Cities (see Appendix 5 for this analysis).
5. Increase maximum parking fines so that parking citations are more expensive than the cost of a permit space. Also, consider adopting graduated fines for repeat parking offenders with more lenient "warnings" for downtown visitors on their first or second violations.

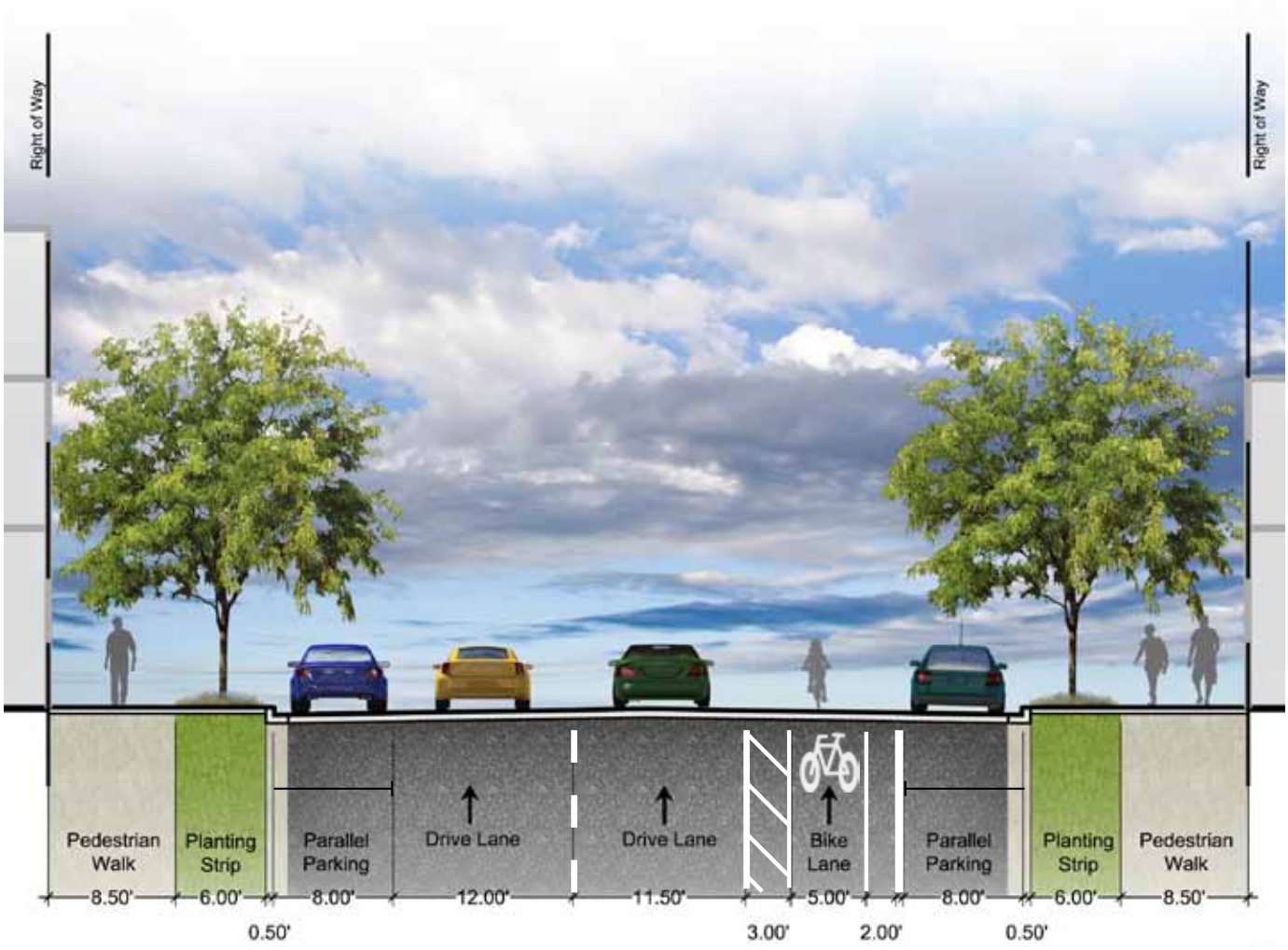
6

CIRCULATION AND CONNECTIVITY PLAN

The Preferred Circulation and Connectivity Concept for Downtown

Preferred Concept

The team recommends Option 5, to maintain one-way traffic flow with reduction of one vehicle lane to accommodate on-street bicycle facilities, as the preferred street configuration for 1st and 2nd Avenues S. and 5th and 6th Streets in Downtown Great Falls. The team evaluated the traffic engineering impacts of one-way to two-way conversion and reducing vehicle lanes on all modes of travel as well as the impact to the downtown core as a whole which did not justify street conversion, but did support reducing vehicle lanes. The study of past traffic crashes found no correctable locations or trends and none that would be impacted (positively or negatively) by the proposed change. The public feedback and input from the steering committee were considered in addition to the significant cost implications involved in conversion. The following is a discussion of the myriad of factors that were taken into consideration before arriving on at the preferred configuration:



One-Way Streets

As part of this study, the conversion of 1st Avenue S., 2nd Avenue S., 5th Street and 6th Street from one-way to two-way operations was evaluated. There are many factors to consider when assessing whether some or all of the one-way streets in Downtown should be converted to two-way operation:

Impact on Traffic Volumes

The conversion of 1st Avenue S. and 2nd Avenue S. (as discussed in Appendix 4: Great Falls Downtown Scenario Traffic Impacts) would shift traffic off of 1st Avenue S. and Central Avenue to 2nd Avenue S. In addition, the conversion of 5th Street and 6th Street would shift traffic from 6th Street to 5th Street. While these shifts can be accommodated with regards to the capacity of the roadways, the loss of traffic passing commercial properties could be considered a negative impact on economic viability.

Traffic Speeds

Traffic speeds on one-way streets tend to be several miles per hour higher than on two-way streets with similar roadway width and configuration. However, available traffic speed data for the study area does not indicate a significant speeding issue.

Out-of-Direction Travel

One-way streets require out-of-direction travel, as motorists circle the block to enter and exit specific driveways.

Traffic Safety

Absent any other change, conversion from one-way to two-way operation tends to increase accident rates. Various studies conducted in recent years have yielded increases in total accident rates ranging from 25 percent to 38 percent, though the severity of accidents tends to be reduced along with the average operating speed. On the other hand, provision of a Two-Way Left Turn Lane (TWLTL) tends to reduce accident rates by approximately 25 percent, while the provision of a raised landscaped median tends to reduce accident rates by 20 percent. Reconfiguration of existing three-lane one-way street to a two-lane street with a TWLTL would be expected to result in a 5 to 10 percent increase in overall accidents.

Pedestrian Safety

With one-way streets, pedestrians (not crossing at a signalized intersection) need to wait for gaps in traffic coming from one direction only. While the reduction in traffic speeds provides a modest benefit, the additional vehicle paths under two-way operation would result in a net degradation in pedestrian safety.

Bicycle Safety

While downtown streets provide little space for cyclists (largely 12-foot travel lanes with no shoulders), the presence of multiple travel lanes in one direction combined with the modest traffic levels allows considerate motorists to shift over when passing cyclists. Particularly on two-lane street segments, motorists would tend to travel closer to cyclists under two-way operation than under one-way operation. Though reduced travel speeds would be a benefit, overall bicycle safety would be degraded by conversion to two-way streets as there would be insufficient space for a buffered bike lane which is possible with the one-way configuration.

Need for Intersection and Driveway Redesign

Conversion to two-way operation would require some reconfigurations. Examples include the Park Drive/1st Avenue S. intersection, and the 2nd Street /2nd Avenue S.

intersection. The exit lane from the old Sears parking garage onto 1st Avenue S. is benefitted from the availability of multiple travel lanes (allowing a driver on 1st Avenue S. to shift lanes to avoid conflicts with a vehicle exiting the garage ramp); this would require re-evaluation.

Change in Level of Service

By generating additional conflicting turning movements, conversion to two-way streets can potentially impact LOS. Detailed study of intersection LOS under two-way operation, as presented in Appendix 4: Great Falls Downtown Scenario Traffic Impacts, indicates little change in overall LOS with conversion with all study intersections remaining at LOS A or B.

Cost of Traffic Control Modifications

Barring removal of traffic signals (as discussed in the Signalization Section), retrofitting or replacing traffic signals to provide the necessary signal heads for two-way operation could be on the order of $50,000 for each signal modification. Signal modifications may trigger the need to meet accessibility requirements which would increase the construction costs at each intersection. This could add up to roughly $1,000,000 for modifications to 20 signals including the intersections at 10th Avenue S. and 5th and 6th Streets. The intersection at 10th Avenue S. and 6th Street would not warrant a signal under any scenario; however, any changes to the 10th Avenue S. and 5th Street signal would require a detailed analysis due to the complexity of the intersection and impacts on traffic progression along 10th Avenue S. In addition, other Stop and traffic control signs would need to be modified.

Impact on Transit Operations

The current traffic control plan in downtown is beneficial to the Great Falls Transit services. Conversion to two-way traffic would increase delays entering and exiting the transfer center on 1st Avenue S.

Impact on Emergency Response

Conversion to two-way operation would slightly improve response times (such as from Fire Station #1) by eliminating the need for out-of-direction travel.

Overall, conversion of one-way streets to two-way operation would have some slight positive benefits, but overall negative impacts on the downtown area circulation. In particular, the traffic safety implications, shifting traffic volumes away from commercial properties and the significant costs of conversion are of concern. Based on this, no changes in current one-way operations are included in this plan.

Number of Travel Lanes

The existing 3-lane sections of 1st Avenue S., 2nd Avenue S., 5th Street and 6th Street in the downtown area provides traffic capacity far in excess of that needed to adequately accommodate existing and forecast traffic volumes. Comparing future volumes based on the Montana Department of Transportation model against the theoretical capacity of these roadways, volumes in 2025 will use only 10 to 15 percent of the capacity.

The traffic analysis conducted based on the reduction of three to two-lanes with one-way traffic operation, as presented in Appendix 4, indicates that good (LOS A, B or C) traffic conditions will be maintained at peak hours. This Plan calls for conversion of these roadway segments from three travel lanes to two travel lanes with a striped one-way bicycle lane.

Signalization

This planning study included an evaluation of the traffic signals at eight signalized intersections. Of those evaluated, only the signals along 9th Street and 10th Avenue S. were found to meet one or more signal warrants (signals along 1st Avenue N. and 2nd Avenue N. were not evaluated). Using the available count data, a limited traffic signal warrant analysis was conducted. A total of nine "warrants" (individual analyses that justify the need for a traffic signal) have been developed by the American Association of State Highway and Transportation Officials. Of these, four warrants (those based on traffic and pedestrians volumes, and which are typically those found to trigger the need for a signal) were analyzed. Based on the available data, it appears that none of the 15 existing signals west of 9th Street along Central Avenue, 1st Avenue S. and 2nd Avenue S. meet signal warrants.

There are several negative implications of providing signals at locations where they are not needed:

- Traffic safety is degraded. A Federal Highway Administration study indicates that removing unwarranted signals typically results in a 24 percent decrease in all crashes, a 53 percent decrease in injury crashes, a 24 percent decrease in right-angle crashes, and a 29 percent decrease in rear-end crashes. The low accident rates and modest traffic volumes and speeds in Downtown Great Falls indicate that the reduction in accidents may be more modest than the impact experienced in other locations; however, elimination of unwarranted signals would still yield a reduction in accidents.
- Replacement of signals with stops signs on the lower-volume approaches would not only eliminate delays on the major roadway, but would also reduce delays on the side streets. As discussed in Appendix 4, an analysis of LOS assuming two-way Stop sign controls indicates that at most intersections the delay on the worst side-street-movement would be less than the average delay on all movements with a signal. This indicates that the wait for an adequate gap in traffic on the major street given stop sign control is generally less than the average wait for a green indication given signalized control.
- Replacement of traffic signals could also generate a substantial long-term cost savings to the City. Signals typically cost between $2,000 and $4,000 per year for maintenance and power. Replacing the aging traffic signals could also be avoided, yielding long-term savings.

Based upon these findings, it is recommended that a detailed engineering study be conducted regarding potential removal of traffic signals on Central Avenue, 1st Avenue S. and 2nd Avenue S. This study would require additional traffic counts over a longer period of the day, that were not available for this current study. The provision of all-way versus two-way Stop sign controls should also be considered in this detailed study to address traffic flow, vehicle speeds, and pedestrian safety. A four way stop sign controlled intersection can be just as safe for pedestrians as signalized intersections within a downtown area. The recommended study would also consider specific issues (pedestrian crossing conditions, impact on access to the Great Falls Transit Downtown Transfer Center, impacts on transit routes, etc.) beyond the warrant analysis. If unwarranted signals can be removed without generating other significant impacts, their removal is recommended.

Nighttime Flash Operation

At present, the traffic signals east of Park Drive and west of 8th Street operate on flashing indications between 9 PM and 7 AM. This avoids additional overall total delays that would be generated by normal operation during periods of very low volumes. It also has

the benefit of reducing travel speeds and aiding pedestrian crossing during the hours of darkness. Though flashing operation may give some a "small town" perception of downtown, it is the right answer for these streets from a traffic circulation perspective.

Transit

This plan does not include specific improvements of transit stops or services. None of the plan elements will significantly impact transit operations. In particular, the bike lane along 1st Avenue S. will be on the opposite side of the street from the Transfer Center, and will not impact ingress or egress of buses.

Pedestrians

This plan includes the following elements to enhance pedestrian conditions:

- Enhance intersections at Park Drive / 1st Avenue N., Park Drive / 1st Avenue S. and Park Drive / 4th Avenue N.
- Enhance crosswalk striping: convert to international, ladder style crosswalks, particularly along 9th Street. Off-setting the bars on the side of wheel paths can help prolong the life of the crosswalk for reduced maintenance over time as striping wears off with winter road maintenance. Durability of crosswalk markings can also be greatly improved by using thermoplastic materials recessed into the pavement.

Bicycles

A key element of this plan is to provide one-way bicycle lanes on:

- 1st Avenue S. – 10th Street S. to Park Drive
- 2nd Avenue S. – Park Drive to 6th Street S.
- 5th Street – 2nd Avenue N. to 6th Avenue S.
- 6th Street – 5th Avenue S. to 2nd Avenue N.

Beyond these segments within Downtown, provision of dedicated bicycling facilities would require elimination of on-street parking or reduction to a single travel lane – this would require additional study beyond the geographic scope of the Downtown Plan. At a minimum, however, designation of bike routes with signage or shared lane markings to make connections to existing bicycle facilities is recommended. A detailed site design should also be conducted to identify means of connecting the 1st Avenue S. / 2nd Avenue S. bike lanes across Park Drive and the rail tracks to the River's Edge Trail.

While the Study Team acknowledges that these one-way bicycle lanes do not currently provide seamless connections to the overall Great Falls area bicycling network, they will provide a convenient grid of dedicated bicycling space for trips within the downtown area. They can also be seen as initial steps to expand dedicated facilities on existing city streets to enhance connections over time.

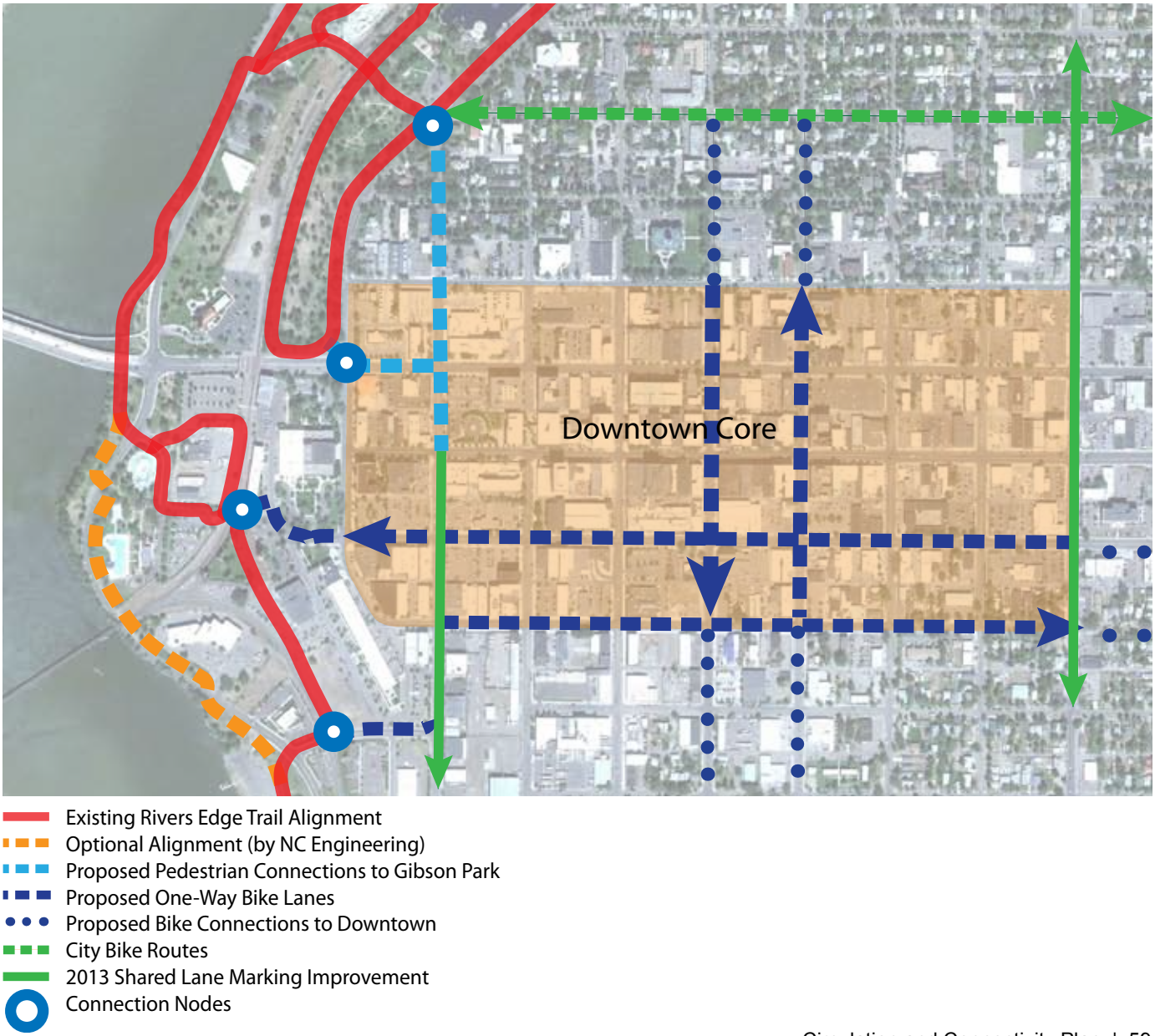
Finally, bicycle parking in the Downtown and especially along Central Avenue should be expanded to include the LEED ND recommendations of one bike parking space per 5,000 square feet of retail space or one space per retail business; secure visitor bicycle parking spaces for multi-unit residential at a rate of one bicycle space for every 10 units (any redevelopment or new residential developments should encourage secure indoor parking for tenants according to LEED standards); additional racks for other, non-retail spaces should have at least one bicycle space for every 10,000 square feet of commercial non-retail space.

Connections to River's Edge Trail

Proposed trail improvements include a more continuous trail through the downtown section, see Figure 9. The study outlines improvements at 1st Avenue N. and Park Drive, a bike network that connects to the trail at 1st Avenue S. and improvements at 4th Avenue N. and Park Drive. The plan focuses on three connection points:

1. Improving the connection at Park and 1st Avenue N. including an opportunity for a gateway marker both to Downtown and to the park
2. 1st Avenue S. is an ideal place for pedestrians/bicyclists to connect from the downtown core to the river. However, this route would have challenges including: crossing the rail line and minimizing potential conflicts with the police station
3. Improvements to the intersection at 4th Avenue N. and Park Drive which offers one of the better locations to enter the park and the riverfront via the Park's main entrance.

Figure 9: *Existing and Proposed Non-Motorized Routes*



Key Intersection Improvements

Beyond minor striping modifications needed to reduce the travel lanes as discussed above, this plan includes the following intersection modification suggestions contingent on a full intersection traffic analysis:

Park Drive / 1st Avenue N.

The intersection of 1st Avenue N. and Park Drive was identified in the public process as a key gateway to Downtown and provides important access to destinations including Gibson Park. Improving the signage and wayfinding at this intersection as well as enhancing the pedestrian and bike connections and safety is recommended. The current configuration of this intersection is a significant barrier between Downtown and the park/river corridor to the west. As shown in Figure 10, this intersection should be improved by eliminating the northbound right turn lane (which serves less than one car per minute), providing bulb-outs, and providing enhanced, ladder style crosswalks 10 feet in width to be more visible to vehicles; with advanced yield and stop lines to provide better sight distance around the crosswalks and reduce the level of threat that pedestrians feel from waiting motorists. This also has the benefit of providing five new parking spaces adjacent to the Chamber of Commerce. LOS C would continue to be provided, even with the reduction in the travel lane. These changes will reduce the perceptual width of the roadway as a driver comes across the bridge and into Downtown.

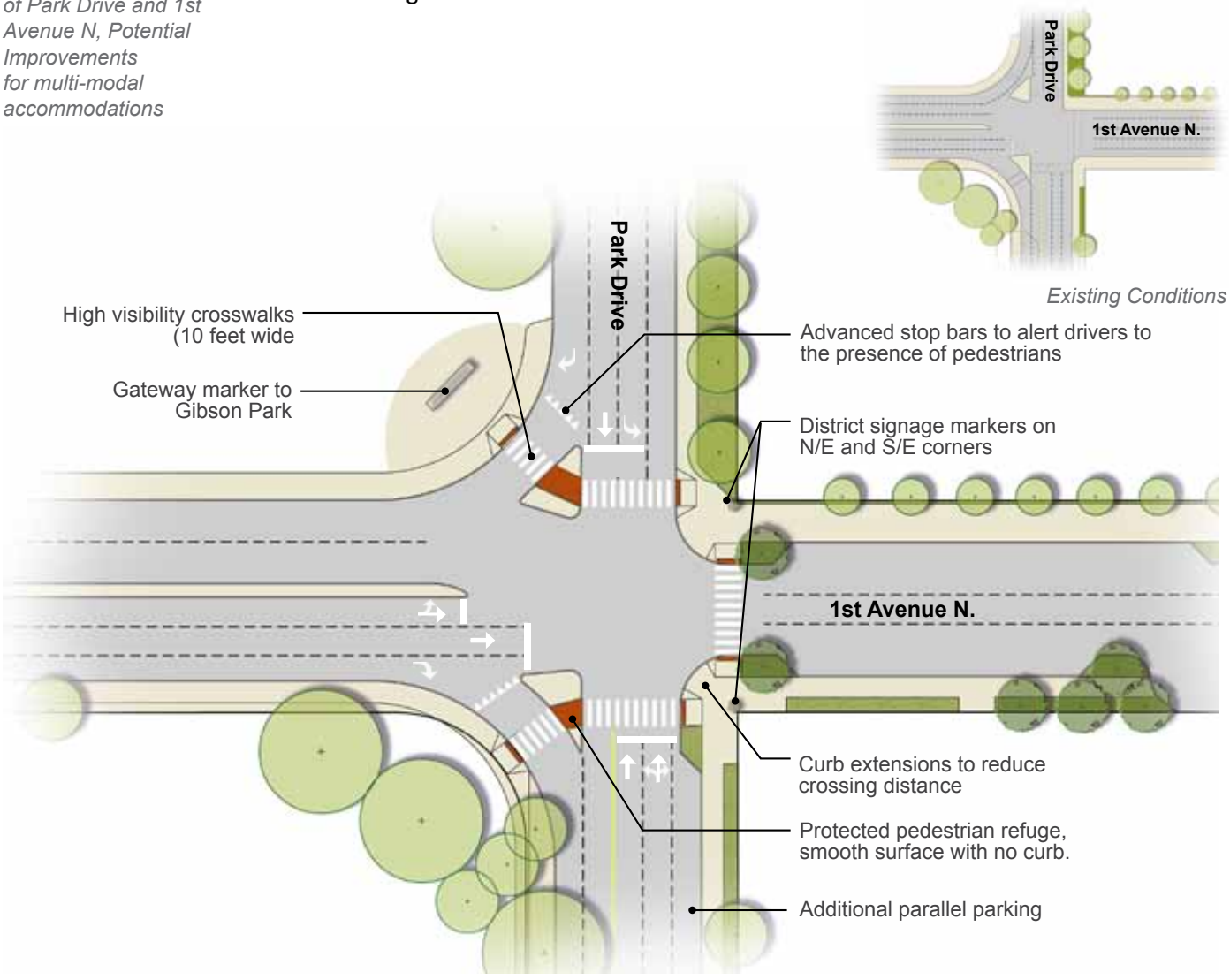


Figure 10: *Intersection of Park Drive and 1st Avenue N, Potential Improvements for multi-modal accommodations*

Park Drive / 1st Avenue S.

This intersection currently creates a barrier between Downtown to the east and the River's Edge Trail, the Civic Center and Mansfield Convention Center, office buildings, and the Electric City Waterpark to the west. Providing bulb-outs on the north east and north west corners can significantly reduce pedestrian crossing distances while allowing the bike lane to continue in the west-bound direction towards the River, as shown in Figure 11. The existing separate eastbound left and eastbound right turn lanes could even be combined into a single approach lane, which would still provide adequate LOS and allow space for a third bulb-out on the south west corner.

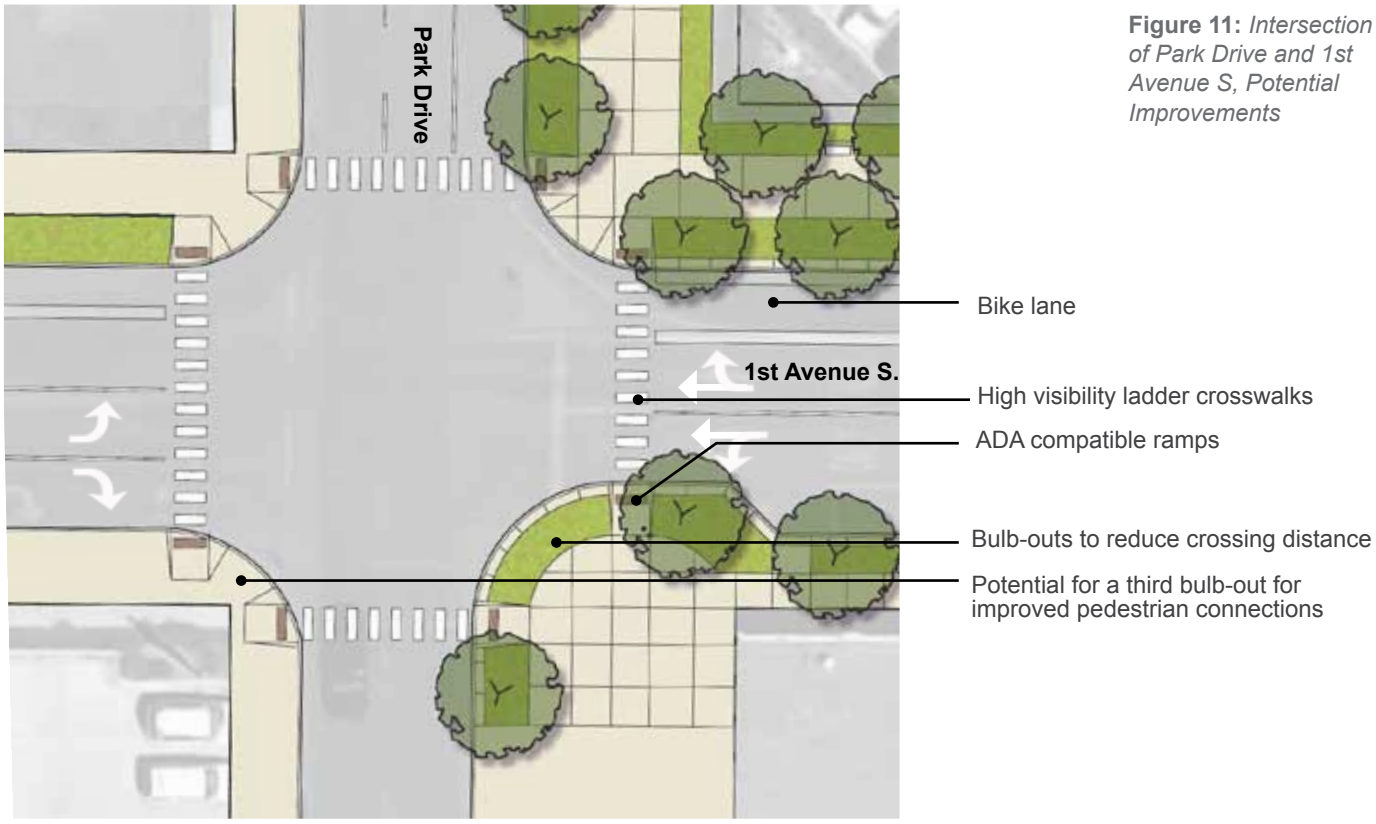


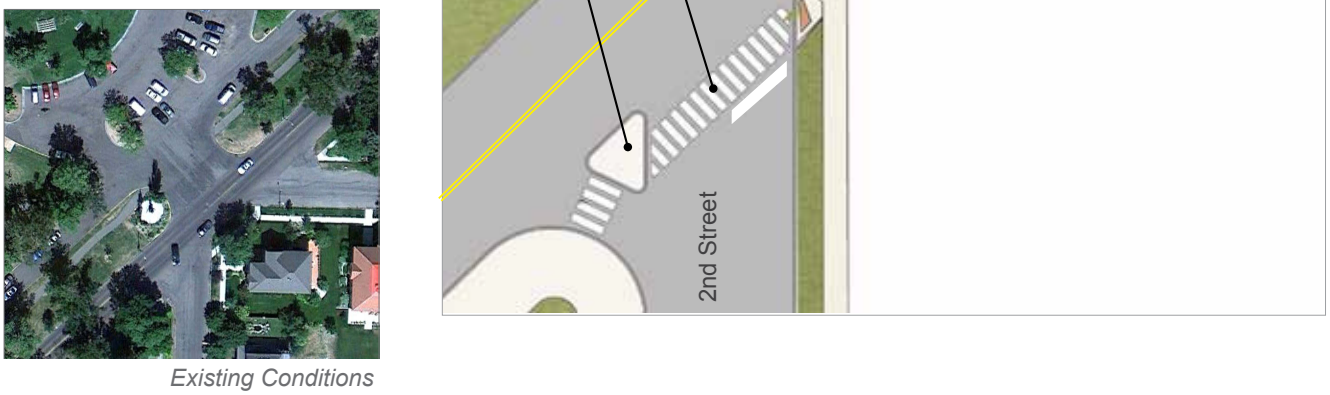
Figure 11: *Intersection of Park Drive and 1st Avenue S, Potential Improvements*

Existing Conditions

Park Drive / 4th Avenue N. / 2nd Street N./ Gibson Park Access

At present, the 70-foot-wide access into Gibson Park opposite both 4th Avenue N. and 2nd Street N. results in exiting drivers lining up at odd angles and high traffic speeds entering the park. Pedestrian crossing conditions are also poor. Reducing the Gibson Park access to approximately 30 feet in width and providing islands in the sharp corners between Park Drive and 2nd Street N. as well as between Park Drive and 4th Avenue N. would improve traffic safety in the park and shorten pedestrian crossing distances, as shown in Figure 12.

Figure 12: *Gateway to Gibson Park - Intersection of Park Drive and 4th Avenue N.*



Existing Conditions

An additional potential intersection modification, that is recommended in the Transportation Plan, which was considered but not included in the final plan, is the provision of a roundabout at the complicated junction of Park Drive N., 6th Street N., 8th Avenue N. and several driveways. It would be physically possible to construct a standard single-lane roundabout (110' outside diameter) centered roughly on the existing triangle formed by 8th Avenue N., Park Drive and 6th Street (to the north). At 6th Street to the south there would form a T intersection with 8th Avenue N. roughly 60 feet to the east of this roundabout, opposite private driveways to the north. The access drive to the maintenance facility to the west would need to be relocated approximately 50 feet north of its current location to T with 6th Street to the north of the roundabout.

7

STREETSCAPE CONCEPT

Streetscape Design Concepts:

The streetscape design concepts exhibit strategies to achieve the goals outlined at the beginning of the planning process and the recommendations resulting from the parking and traffic studies including:

- Maintaining one-way traffic on 1st and 2nd Avenue South and 5th and 6th Street;
- Improving pedestrian connectivity and safety;
- Developing a comprehensive downtown bicycle network to connect into a city-wide system;
- Optimize downtown parking for all stakeholders; and
- Enhancing the existing downtown streetscape.

The streetscape concept is intended to create a safe, attractive, efficient and welcoming downtown street environment for all modes of travel and types of visits. The character of Downtown should be consistent throughout the business core and the strategies presented can be expanded to be implemented throughout. Beyond this planning study, each street needs to be addressed on a block by block basis for streetscape enhancements at the implementation level.

Streetscape Classifications:

The recommended approach to streetscape enhancements is to prioritize those which build on and encourage the activity currently concentrated along Central Avenue. Each type of streetscape classification should implement a phased approach to the recommended streetscape improvements over time. Improvements to the downtown core should be prioritized according to these classifications to accelerate renewed investments and capitalize on Downtown's existing strengths.

Priority 1. Primary Retail Side Streets:

One block north and south of Central Avenue on Park Drive, 2nd, 3rd, 4th, 5th, 6th, 7th, and 8th Streets

The side streets spurring from Central Avenue have the locational advantage to build off the momentum and success already occurring on Great Falls' primary downtown street. The first block north and south of Central on each of these streets offer the potential to incorporate streetscape design strategies to encourage increased activity in the downtown core that can radiate progress to the east and west streets over time. A conceptual plan for these primary retail side streets is included in the following section.

Priority 2. East Central Downtown:

Central Avenue from 7th to 9th

These two blocks should build off of the momentum and existing aesthetic of Central Avenue by continuing the same streetscape design to create a unified feel for this critical downtown corridor.

Priority 3. Multi-Modal East-West Connections:

1st Avenue S. and 2nd Avenue S.

These streets are identified in this plan as multi-modal, east-west connections that should accommodate non-motorized transportation options including biking and walking in addition to vehicles.

Priority 4. Primary Multi-Modal North-South Streets:

5th Street and 6th Street

The intent of these streets is to facilitate traffic and non-motorized transportation such as bicyclists and pedestrians to access the downtown core. These streets could be designed to welcome all modes of travel and act as gateway streets to Central Avenue with enhanced streetscape amenities such as public art, street trees, and a unique planting strategy.

Priority 5. Retail Support Streets:

Blocks between 1st and 2nd Avenue N. and 1st and 2nd Avenue S. on Park Drive, 2nd, 3rd, 4th, 5th, 6th, 7th, and 8th Streets.

With the primary focus on building off the activity of Central Avenue the retail support streets represent a longer term development opportunity that should come after improvement to other downtown streets.

Priority 6. Main Improved Retail Corridor:

The Main Retail Corridor of Central Avenue, from Park Drive to 7th Street

This section of road is Downtown's greatest asset and has already been significantly improved to accommodate pedestrian traffic and an enhanced streetscape. Seasonal strategies, such as allowing for businesses to transform on-street parking spaces into outdoor seating and public spaces or "parklets" in front of restaurants or cafes, should be considered. Parklets may help to encourage and increase street activity in warmer months with the flexibility to return to parking during cooler months.

Priority 7. East-West Traffic Corridors:

1st and 2nd Avenue N.

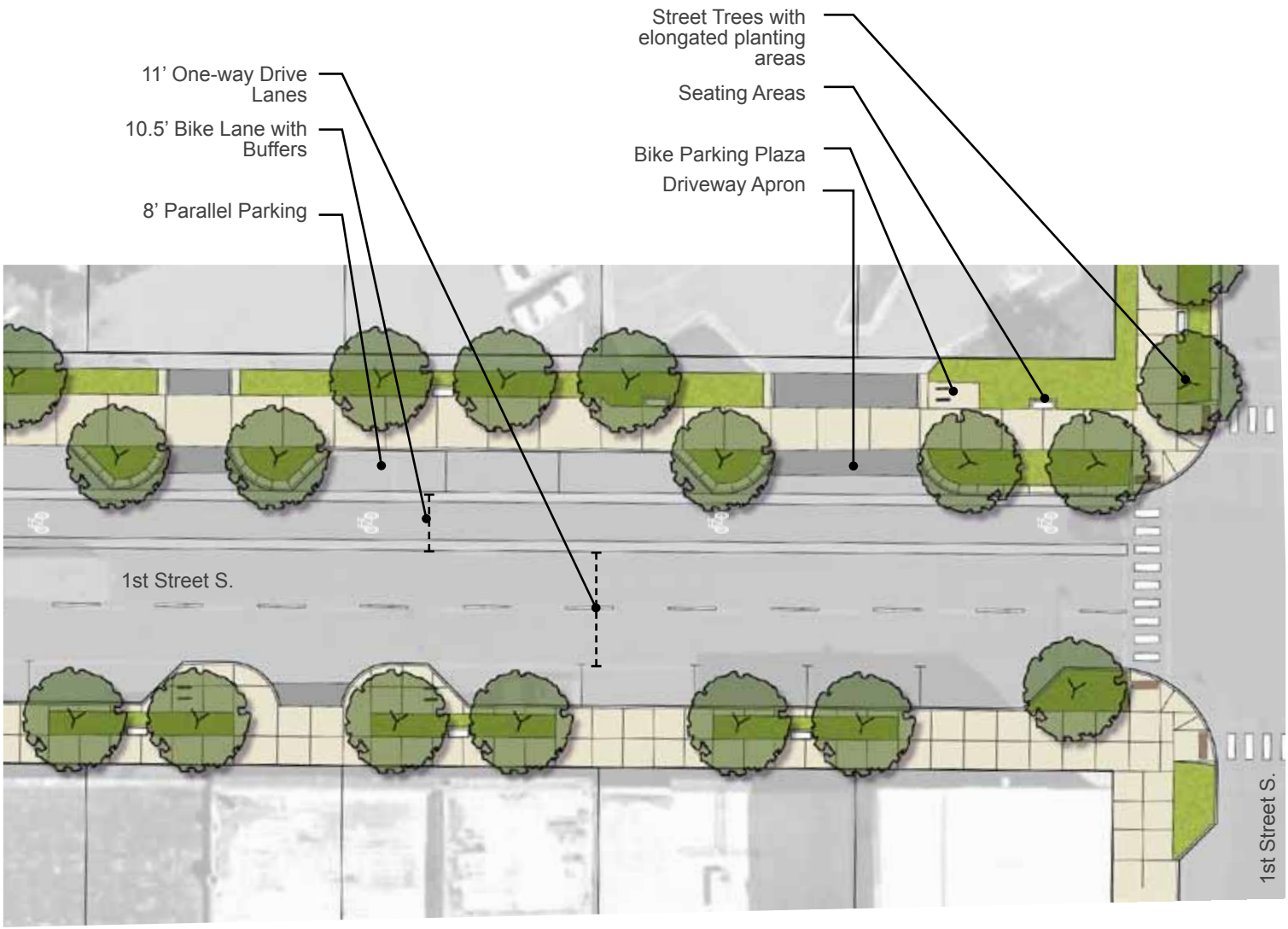
As these corridors are under Montana Department of Transportation's jurisdiction, specific recommendations for these streets are not included in this plan. However, the general streetscape elements detailed above should be applied on these streets wherever possible and appropriate to create a consistent feel throughout the downtown core.

Figure 13: *Streetscape Classifications*

Multi-Modal East-West Connections:

Figure 14 shows the streetscape improvements and roadway configuration of the multi-modal east west connection streets within the study area which include 5th Street, 6th Street, 1st Avenue S., and 2nd Avenue S. The roadway striping described in Option 5A can be undertaken as a first step in transforming the downtown streetscape with the additional structural elements added in the future.

Figure 14: *Conceptual Streetscape design and street configuration for 1st Avenue S., 2nd Avenue S., and 5th and 6th Streets*


Street Trees with elongated planting areas
11' One-way Drive Lanes
Seating Areas
10.5' Bike Lane with Buffers
Bike Parking Plaza
Driveway Apron
8' Parallel Parking
1st Street S.
1st Street S.

Primary Retail Side Streets:

Figure 15 through 19 demonstrate the streetscape concept for the primary retail side streets that are identified on Figure 13. However these concepts can be applied consistently throughout the Downtown over time and should be expanded to include the retail support streets. As redevelopment opportunities or other utility or street improvements occur in the Downtown, efforts should be made to incorporate the streetscape improvements identified.

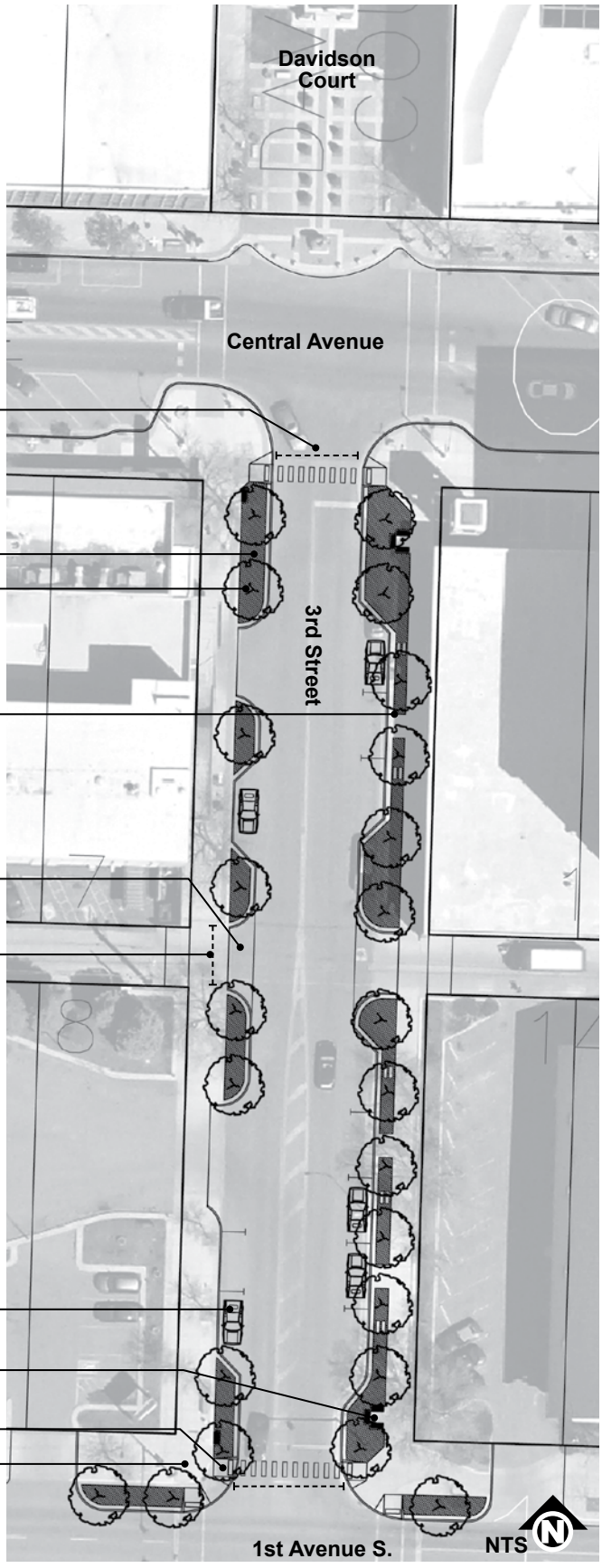
Figure 15: *Conceptual Streetscape Improvements on 2nd Street*

Additional Considerations:

Bike Parking

Parklets for on-street dining

Figure 16: *Conceptual Streetscape Improvements on 3rd Street*

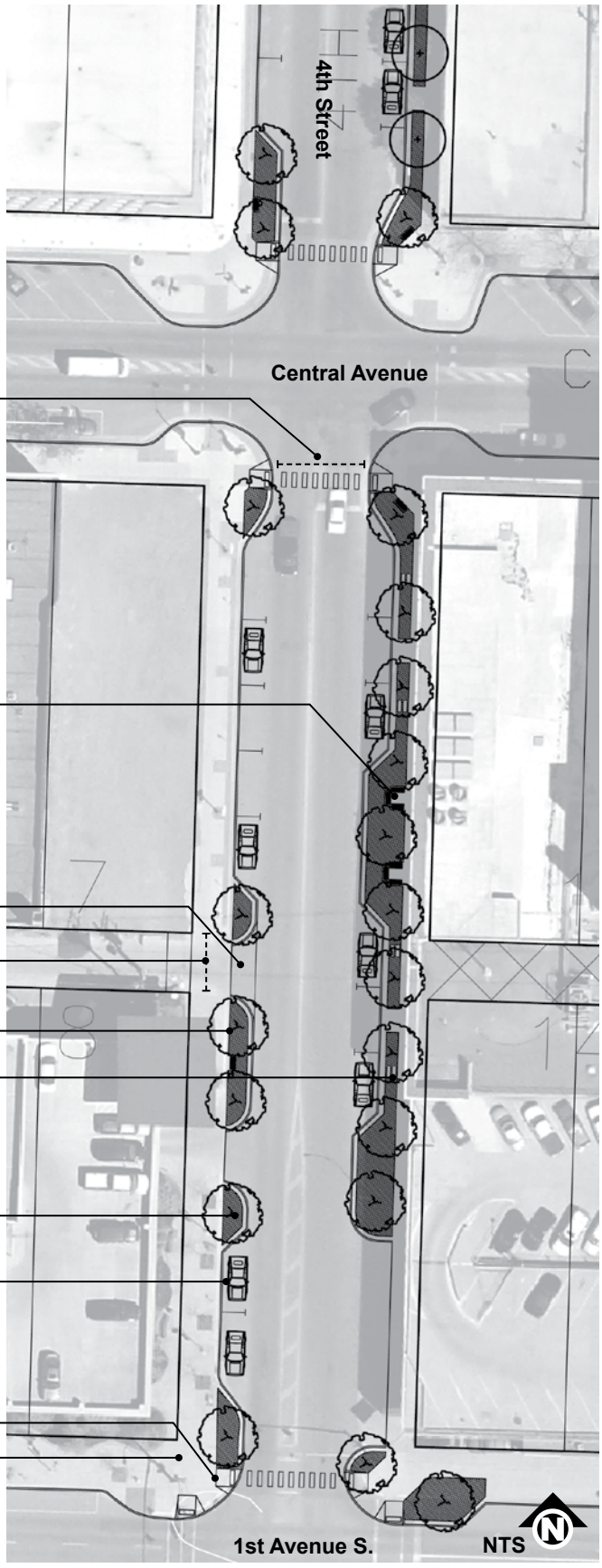


Additional Considerations:

Bike Parking

Parklets for on-street dining

Figure 17: *Conceptual Streetscape Improvements on 4th Street*



High Visibility Crosswalks

Seating Area

Alley Apron

Continuous Sidewalk at Alley (Graded approach for mid block access)

Expanded Planting Areas / Rain Gardens

Stepping Stones

Street Trees

Parallel Parking Maintained

ADA Compatible Ramps

Bulb-Outs to reduce crossing distance and add planting

Additional Considerations:

Bike Parking

Parklets for on-street dining

Figure 18: *Conceptual Streetscape Improvements on 7th Street*

Additional Considerations:

Bike Parking

Parklets for on-street dining

Figure 19: *Conceptual Streetscape Improvements on 8th Street*

Additional Considerations:

Bike Parking

Parklets for on-street dining

Streetscape Design Elements

ADA Compliance and Accommodation:

Accommodation for people with disabilities and an aging population should be a consideration in all improvements to the downtown streetscape. All improvements should meet or exceed the requirements outlined in the Americans with Disabilities Act. Maintaining adequate sidewalk clear zones within the Downtown area of six to eight feet (10 feet where there is no buffer between the walk moving traffic) and ensuring that this zone is free of obstructions and adequately maintained is essential. Curb returns (and ramps) will likely need to be rebuilt to provide the appropriate ramp grades for PROWAG or ADA requirements as well as tactile, truncated dome detectable warning strips.

Sidewalks:

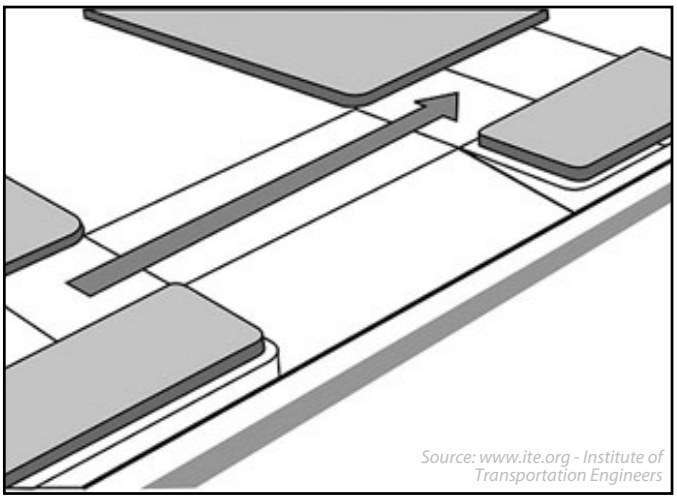
Wide, welcoming sidewalks help foster outdoor dining and greater levels of outdoor activity, that in general help support vibrant commercial corridors. Most of Downtown Great Falls has sidewalks that average between 14 and 16 feet which should be maintained and enhanced. While relocating curbs is not considered in this plan as it is generally cost prohibitive, widening sidewalks on the side streets off of Central Avenue to up to 20 feet to accommodate outdoor dining and other pedestrian amenities should be considered when other improvements are made that justify the added expense of moving curb lines, such as major infrastructure/utility repairs.

As money becomes available the City should work with property owners to repair or replace segments of existing sidewalks that are buckled or include significant areas of pavement deterioration, broken or deteriorated curbs, and drainage deficiencies.

Sidewalk Priority at Driveway Crossings:

Designing the sidewalks to prioritize pedestrian safety is key to these streetscape recommendations. Typical driveways or mid-block access points are currently designed like intersections with the sidewalk ending at the edge, with curb ramps for the pedestrian which prioritizes the motorist. In the recommended streetscape design, the priority is given to the pedestrian by eliminating the grade change and creating a continuous sidewalk which allows for easier travel and also slows cars. The driveway apron (with a maximum

ADA crossings ensure that everyone, regardless of their ability, can safely navigate the urban environment.



Sidewalk Priority at driveways and alleys can enhance the pedestrian feel and safety of Downtown.

of a two percent slope) accommodates the change in elevation for the car to access the driveway. Giving pedestrians priority with this strategy would have the greatest impact at locations such as the parking garages, curb cuts, and alleys.

High Visibility Crosswalks:

A high visibility crosswalk is a style of crosswalk marking that is more visible to pedestrians and motorists. The common two parallel lines indicating a marked crosswalk are less visible to motorists than the ladder style markings. This traffic control and pedestrian safety measure should be used at both signalized crossings as well as intersections with stop signs. The high visibility crosswalks should be utilized throughout Downtown to demonstrate to motorists and pedestrians alike that Downtown is a pedestrian zone. To reduce maintenance cost over time it is best to align the striping outside of the wheel path to prolong the life of the paint. Though initial costs are higher than paint, Long term striping (in lieu of paint) material should be considered as an option as it is less slippery and more visible when wet and requires less maintenance over time.

Curb Extensions or Bulb Outs:

A typical intersection can allow motorists to travel faster than those retrofitted with curb extensions and often hides a pedestrian behind parked cars, reducing visibility for both the motorist and the pedestrian. Curb extensions can reduce vehicle/pedestrian conflicts by reducing the crossing distance and thus the amount of time a pedestrian is exposed to traffic, reducing vehicle speed, and improving visibility for drivers and pedestrians. A typical curb extension reduces the crossing distance by six feet per side and provides additional space for plantings or rain gardens to enhance the pedestrian realm.

This streetscape enhancement has been implemented on Central Avenue from Park Drive to 7th Street. The practice should be extended to any intersection where there is on-street parking, but might be avoided in locations where high volumes of truck traffic are expected because of the turning radii required.

Expanded Planting Areas, Street Trees, and Rain Gardens:

The expanded planting areas, both linear sidewalk buffer plantings and the intersection plantings in extended curb areas offer greater opportunity for plants to thrive, enhance the pedestrian realm, and buffer the pedestrian from parking and traffic.

High Visibility Crosswalks are the most visible to vehicles.

Bulb outs shorten the distance for pedestrians to cross the street.

The use of native plants that are noninvasive and appropriate for site conditions and climate will improve the landscape performance and reduce resource use and maintenance costs over time.

Parking Buffer:

The prevalence of surface parking lots in the downtown core detracts from the visual appeal of walking around Downtown and discourages shoppers from walking to multiple retail destinations. Where surface lots are necessary in the downtown core their visual appearance can be improved by buffering them with planting areas, trellises or rain gardens.

Street Trees:

Street trees can provide economic, environmental, physical, and financial benefits to a community. Urban street trees reduce pollutants in stormwater runoff and in the air, mitigate stormwater runoff, sequester carbon, raise property values, and reduce energy costs. A single Hackberry tree with a 6 inch caliper provides overall benefits equaling about $60 every year. Based on the recommended program of trees for Downtown Great Falls, averaging eight trees per block face, street trees alone could provide $61,500 in annual benefits. (http://treebenefits.com/calculator/)

The Downtown Great Falls Study area has an existing tree canopy coverage of six percent. This measure means that the typical shaded area of street trees covers six percent of the total land area Downtown. National research recommends commercial downtowns have a canopy of at least 15 percent, indicating Great Falls has an opportunity to increase the number tree plantings and the health of existing trees to encourage growth over time. With the exception of Central Avenue up to 7th Street and a few other pockets downtown, the downtown streetscape is in need of more tree plantings.

To encourage optimal street tree growth, the following best practices, as detailed in the book “Up By Roots, Healthy Soils and Trees in the Built Environment” by James Urban, should be considered when additional street trees are planted:

Example of rain garden bulb-outs in which grade changes are designed to encourage water to flow into the rain garden where it is temporarily stored and allowed to infiltrate into the groundwater

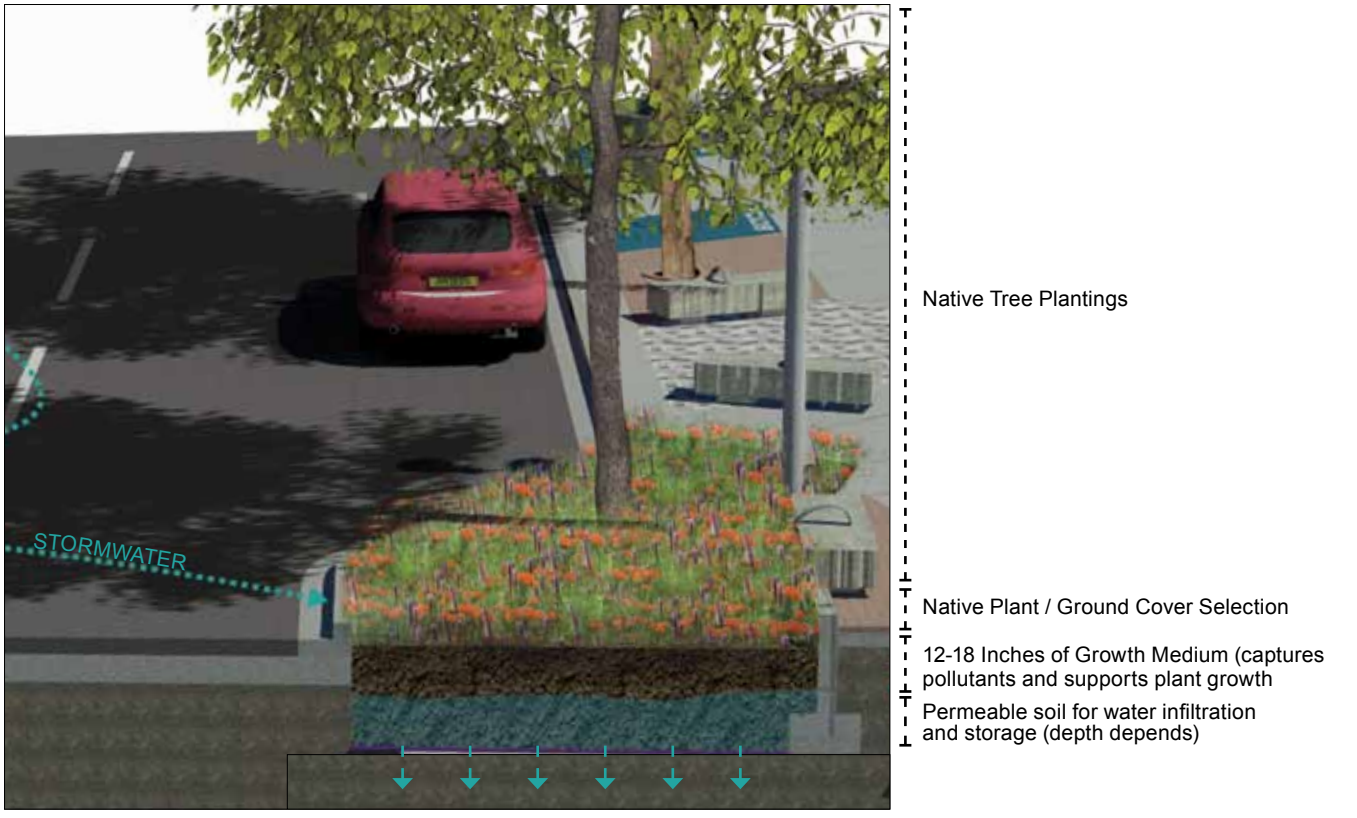
- Plant trees 26-40 feet apart.
- Provide each tree with a minimum of 100 square foot sidewalk opening to provide oxygen and nutrient availability.
- Provide each tree with a minimum of 1,000 cubic feet of planting soil.

Rain Gardens:

Rain gardens are a low-impact development approach that can play a very important role in accomplishing stormwater capture and providing on-site treatment of runoff. The rain garden concept will reduce the stormwater runoff from impervious surfaces, both by slowing the runoff and allowing for sediment and pollution to be filtered through infiltration before reaching the City storm drain system. This could potentially reduce the City's runoff treatment to meet the standards of the Small Municipal Separate Storm Sewer System (MS4) requirements. Under the MS4 permit, Great Falls is required to develop, implement, and enforce a Storm Water Management Program (SWMP) to reduce pollutant discharge from the urban sewer system in order to protect water quality, and to satisfy water quality requirements of the Montana Water Quality Act. (www.mdt.mt.gov/pubinvolve/stormwater/permits.html)

The captured runoff water has the opportunity to infiltrate through the soil where pollutants are removed through a variety of mechanisms like adsorption, plant uptake, microbial activity and filtration. Water that is not absorbed by rain garden plants will be held in the system temporarily and then slowly returned to the storm drain system. Rain gardens can be implemented as new curb extensions are added or in linear rain tree planting areas. Because this plan represents a long term vision for the downtown, the completion of all recommended curb extensions and rain gardens may encompass 20 to 30 years or more.

There is opportunity for the City to implement a number of passive rain gardens as a pilot program to evaluate effectiveness and desirability. Passive rain gardens use curb cuts and grade change to guide stormwater in and out of water capture areas. Rain Gardens with infrastructure include additional catch basins for water over flow.



Stormwater Infiltrates into Ground Water

Rain Garden Plant Selection:

Rain Gardens planted with native and noninvasive species that are adapted to the natural conditions and able to handle extremes of wet and dry as well as exposure to pollutants are recommended. Some suggested plant materials include:

Trees:
Hackberry and Bur Oak (Both included on the City of Great Falls Street Tree List)

Grasses, Wildflowers, and Ground Covers:
Great Basin Wildrye
Rocky Mountain Iris
Conflowers
Native Sedge
Kinnikinnick

Coneflower

Hackberry Tree

Wildrye

Rocky Mountain Iris

Rain gardens with native plantings help improve the water quality of stomwater by allowing for more capture and infiltration.

Bicycle lanes in a downtown setting with parallel parking

Shared lane marking or sharrows are a way to make drivers aware of the presence of cyclists when there may not be sufficient space for a dedicated bike lane

Standard surface mounted racks are a preferred option that accommodates secure bike storage.

Bike Accommodations:

Encouraging bicycling Downtown can generate a multitude of benefits for Great Falls including a healthier community, greater patronage of local businesses, less pollution and congestion, as well as greater community pride. Bicycling for utilitarian trips is an economic means of transportation for many. Accommodating bicycles on the roadway network downtown and providing amenities such as secure bike parking are key elements to meet the needs of all modes of travel.

The east-west streets 1st Avenue S. and 2nd Avenue S. were identified by the public and recommended in the traffic study to accommodate bicyclists. Bike facilities are currently under consideration for 9th Street and 2nd Street; however, the addition of bike lanes to 5th and 6th Streets offers cyclists the opportunity to connect directly to the downtown core and Central Avenue businesses.

Bike Lanes:

The bike lane allows for bikes to travel in the same direction as traffic in an adjacent designated lane marked by painted lines, the bike symbol, and signage. There is no physical barrier separating the bike lane from motorized traffic. The bike lanes must be a minimum of five feet wide when placed adjacent to parallel parking as is the case on downtown streets. Parallel parking striping should be kept at eight feet and vehicle travel lanes at 11 feet with the additional space allotted to the bicycle lane or a painted buffer. (NACTO.org)

Bike Parking:

People are often reluctant to ride bicycles to run errands, visit downtown shops or commute to work if there is inadequate or unsecured bike parking available. Providing sufficient bike parking, whether required in the development process or as retrofits to the existing streetscape, is an important element of this plan. When fully implemented, a minimum of one bike parking space should be provided for each business in a convenient place within the same block. The standard Inverted U-Rack or variations thereof of surface mounted racks are recommended for the ability to provide two points of contact for the bike to be secured, ease of use and flexibly and ability to accommodate two bike parking spaces.

Lighting:

Improved lighting can enhance the overall look and feel of the downtown streets. At the public meeting, 50 percent of the participants believed additional street lighting was needed Downtown. Lighting can also help to prevent crime, improve safety and contribute to an overall sense of place and pride in Downtown Great Falls. Lighting throughout the downtown core can be upgraded to add an additional visual que defining the downtown core. The streetscape and lighting on Central Avenue should remain unique to signify the heart of the downtown core; however, similar pedestrian scale fixtures that support the general aesthetic of the

historic core should be installed on the streets throughout the study area. These might be a simplified, single globe fixture similar to the four globe fixtures to demonstrate hierarchy approaching Central Avenue. Both street lighting and pedestrian lighting can up upgraded with new energy efficient technologies.

Site furnishings

Trash receptacles should be placed on each street corner and mid-block at high traffic pedestrian areas. The existing receptacles should be upgraded to better fit the aesthetic of the improvements along Central Avenue and should include recycling options. Benches should be available on each block to provide opportunities for people to rest and enjoy Downtown. Where space allows, these seating areas should be designed to foster social interactions in their placement facing each other or facing areas of interest. Benches should be prioritized at locations along the existing bus routes.

Outdoor Dining

Parklets:

A parklet is a small public gathering space created by re-purposing a few on-street parking spaces into alternate uses such as mini parks or dining areas. Parklets re-purpose two to three parking stalls along a block into an area with seating and landscaping where pedestrians can relax, drink a cup of coffee, catch up with friends and enjoy the city around them. The average cost of a parklet is around $15,000 to $20,000. In some cities, business owners usually pay for the permit and construction of each parklet, however the parklet remains a public space. As an investment, business owners have found that parklets help to improve their block and attract more foot traffic to their shops.

Flex Zones:

Some parking spaces can be designed as Flex Zones with special paving materials to differentiate them from the drive lanes and to allow for either angled parking or outdoor dining. Business owners can apply for a permit to have their outdoor dining space occur in this public zone and the City can decide what the maximum number of spaces that can be used for dining would be to ensure a balance is achieved with the on-street parking.

Material Finish Quality:

There are varying levels of finish quality and material choices for streetscape enhancements with examples on the following pages. The City should strive to achieve the highest level of material quality as is feasible with their budget as higher quality materials have increased durability and longevity in addition to aesthetic appeal.

Pedestrian scale lighting is important to enhance safety and comfort

Example of a Flex Zone used for outdoor dining (Above) and as parallel parking (Below) in Mountain View, CA

Levels of Material Finish Quality

SITE FURNISHINGS

GOOD

Standard U-Racks, Benches and Receptacles

BETTER

Upgraded Furnishings

BEST

Custom or Fabricated Furnishings

SIGNAGE and WAYFINDING

Directories with Signage and Wayfinding

Street Signs, Pageantry and Digital Graphics

District Identity Elements

SITE LIGHTING

GREEN INFRASTRUCTURE

GOOD



LED Street Lighting with Lighting Highlights in Selected Areas


Rain Gardens

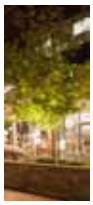
BETTER


Energy-efficient LED luminaire with contemporary feel


Permeable Pavers in Sidewalks

BEST






Catenary Lighting System with Lighting Highlights in Selected Areas


Permeable Pavers in Parking Bays or Roadway and Reclaimed Water for Irrigation System

SIDEWALK PAVING

CROSSWALKS

GOOD

Standard Concrete

Standard Striped Crosswalk

BETTER

Concrete with Stone Accents

Concrete with Paver Accents

High Visibility Striped Crosswalk

BEST

Stone Paving

Brick Paving

Pavers

Colored Concrete Crosswalks

TREES

GOOD

3" Caliper with 500 cubic foot Planting Area

BETTER

4" Caliper with 1000 cubic foot Planting Area

BEST

Suspended Paving Planting Areas

PLANTING AREAS

Clustered Planter Pots (Photo: Landscape Forms)

Integrated Planting Areas

Integrated Planting Areas with Curbs or Decorative Metal Railing (Photo: Landscape Forms)

Gateways

From large scale elements that span roadways to more pedestrian scaled district markers. The most successful gateway markings effectively announce arrival and reflect a sense of place. They are also an opportunity to promote community assets and promote a sense of civic pride and downtown character.

Digital Wayfinding:

Developments in technology have transformed the mainstream process of navigation. Digital wayfinding is an excellent means of enhancing the physical environment and informing the public about the unique characteristics and destinations located within cities and their specific districts. Smart phones allow users to interface simultaneously with the digital and physical worlds through the use of mobile wayfinding applications, websites and Google Earth. Local venues, businesses and events can all advertise on the map site, creating a platform to generate buzz about the place. Links to the maps can be placed in advertisements, press-releases or as QR codes integrated into the site signs or features. Utilizing the integrated digital maps enhances ease of use, project awareness, and educational opportunities while providing the potential for increased pedestrian traffic, web traffic, active community participation and revenue growth.

Signage and Wayfinding:

The following specifications and recommendations will help guide the future design and implementation of a Comprehensive Gateway and Wayfinding project for Downtown Great Falls.

Wayfinding encompasses all of the ways in which people orient themselves in unfamiliar or new surroundings and "find their way" from place to place. Programs generally consist of signs, symbols, colors, messages and images. People find their way around a complex or unknown environment by a process known as cognitive mapping — creating a mental image of a place which improves over time. The wayfinding program should be intuitive, easy to grasp quickly and able to cross cultural and language barriers. The outcome of a successful wayfinding sign program enables visitors to easily determine their own experiences by empowering them to make their way through the area with comfort and clarity and without confusion. The best wayfinding programs provide a combination of manufactured, electronic and human elements to create a guided experience for visitors as well as residents. Statistics show that people make their opinions of places in as little as 15 seconds, so a negative first impression can be difficult to repair.

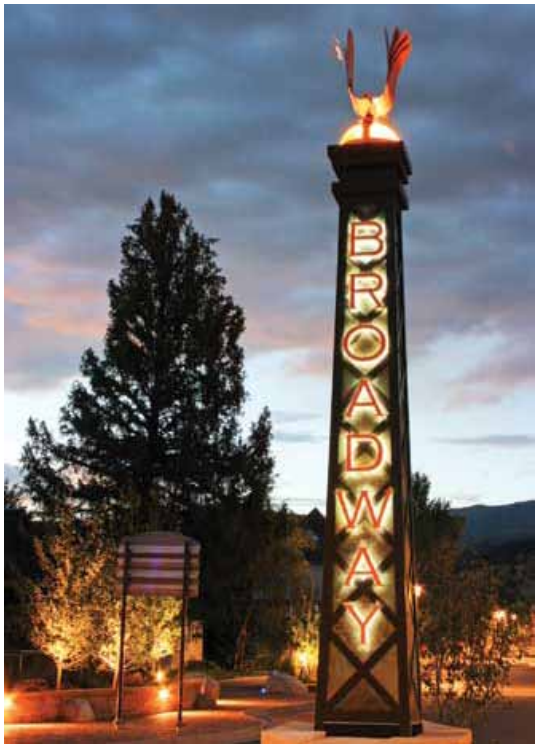
Wayfinding can be part of the backbone of the community's identity. The visual representation of that identity is the thread of continuity from gateways to corridors to commercial centers to neighborhoods. A successfully designed sign program is not only functional and memorable; it also extends a welcoming gesture to visitors and residents. It reflects the community's values that they care for everyone's comfort and experience.

City and Historic Downtown District Branding:

The brand and tagline in Figure 20 can inspire the form, color and design of the Gateway and Wayfinding. Extending the brand to the built environment will help create a cohesive and consistent system that visitors and residents will recognize.

Figure 20: *Brand and Tag line for the City of Great Falls*

Example of gateway marking element on an underpass



Examples of Gateway Markings

District Gateways:

Community Gateways come in many varied forms such as vehicular bridges, overpasses, portals, public art sculptures, traditional monument signs and pedestrian-scaled district markers. They provide a strong sense of arrival and should reflect the inherent character of the place. Gateways can extend the community branding and messaging to be an integral part of a wayfinding system. They are most successful when integrated into the environment and landscape. Correct scale, placement and lighting are important for optimal impact, visibility and legibility.

Feedback from the public indicated that the intersection of 1st Avenue N. and Park Drive should be emphasized as a primary gateway to Downtown. After traveling through the underpass on 1st Avenue N. approaching Downtown, a driver should feel that they are approaching a unique area within the larger city. This can be achieved through gateway markings, district signage, and aesthetic enhancements. An overhead gateway sign might be an option for the underpass of the railroad crossing over 2nd Avenue N. addressing vehicles in the east bound lane.

Additional gateway locations along 9th Street at Central Avenue and minor gateways or district wayfinding at 2nd Avenue N. and 2nd Avenue S. should be considered. Gateway and directional signage along 9th Street provides an significant opportunity to direct vehicles Downtown, with over 13,000 vehicles per day and primary access to and from 10th Avenue S.

Recommendations:

- At exits off of Interstate 15, add standardized Department of Transportation “Supplemental Guide Signs” or “Cultural District Signs” allowed by the 2009 MUTCD (Manual on Uniform Traffic Control Devices).
- For the Historic Downtown a District Marker can have a historic look and feel, whether a larger two posted Welcome sign or a single-posted sign that requires less area and can be more cost effective.
- Consider reflective vinyl sign faces which are less expensive than lighting.
- Consider engaging local artists to be an integral part of the Gateway design as part of a Call for Entries.
- Collaborate with Montana Department of Transportation (MDT) for review and approval of all sign designs proposed on State Highways or in areas under their jurisdiction.

District Wayfinding:

Wayfinding signs in a given area of town, or applied to an entire city; provide a system that helps guide visitors and residents to key destinations, including parks, government centers, the River's Edge Trail, Gibson Park and other attractions.

Wayfinding signs do not advertise specific businesses unless a part of the program includes a business focused directory or smart phone application. They don't add clutter to the streets—they reduce clutter and consolidate information. The signs are not just for the visitor; instead they identify areas of interest to locals and visitors alike.

Objectives for Identity, Gateway and Wayfinding:

- Create a consistent and controlled design vision communicated through unified and distinctive graphic identity, gateway and wayfinding elements for Downtown.
- Provide a stronger sense of arrival into the Downtown Historic District.
- Facilitate circulation and educate visitors about the destinations, amenities and commercial offerings within the Downtown.
- Create a system that can be extendible to other areas of the City with a different color and materials palette.
- The design can reflect a balance of historic character and civic refinement.
- The signs should be distinctive, and at the same time harmonious with the context and existing signs.
- Signs will be made of high quality, durable and practical materials.

Guidelines for "Community Wayfinding"signs:

- Specify a decorative post and base similar to existing light fixtures Downtown
- Sign faces to be reflective per MUTCD requirements
- Maximum of four (4) messages per sign
- Letter height: 4", upper and lower case
- Messages to be brief
- Abbreviation of messages is acceptable (example: Street=St)
- Do not include individual business names or logos
- Avoid identifying schools
- Use MUTCD approved typeface (note: An historic typeface may be considered, but must be approved by the regional MDT representative)
- Use MUTCD approved arrow design
- Use colors from the updated brand
- Utilize the Great Falls "skyline" graphic to reinforce the brand
- Back face of sign can be the brand tagline

Examples of District Identity Signage

Examples of Public Parking Wayfinding and Identification

Recommendations:

- Write and issue a Request for Proposal (RFP) for a Comprehensive Wayfinding Program Master Plan, Design Development, Documentation and Implementation Plan
- Determine funding strategies to budget the implementation of the program over time
- Utilize and follow the approved 2009 MUTCD guidelines for "Community Wayfinding" for vehicular thoroughfares that are under the jurisdiction of MDT

Identity, Gateway and Wayfinding Next Steps:

- Establish a focused Stakeholder group to help guide the Identity and Wayfinding Design
- Write and issue an Request for Proposal (RFP) for a Comprehensive Wayfinding Program Master Plan, Design Development, Documentation and Implementation Plan
- Determine funding strategies to budget the implementation of the program over time

Examples of Wayfinding Signage

Conceptual Signage Program:

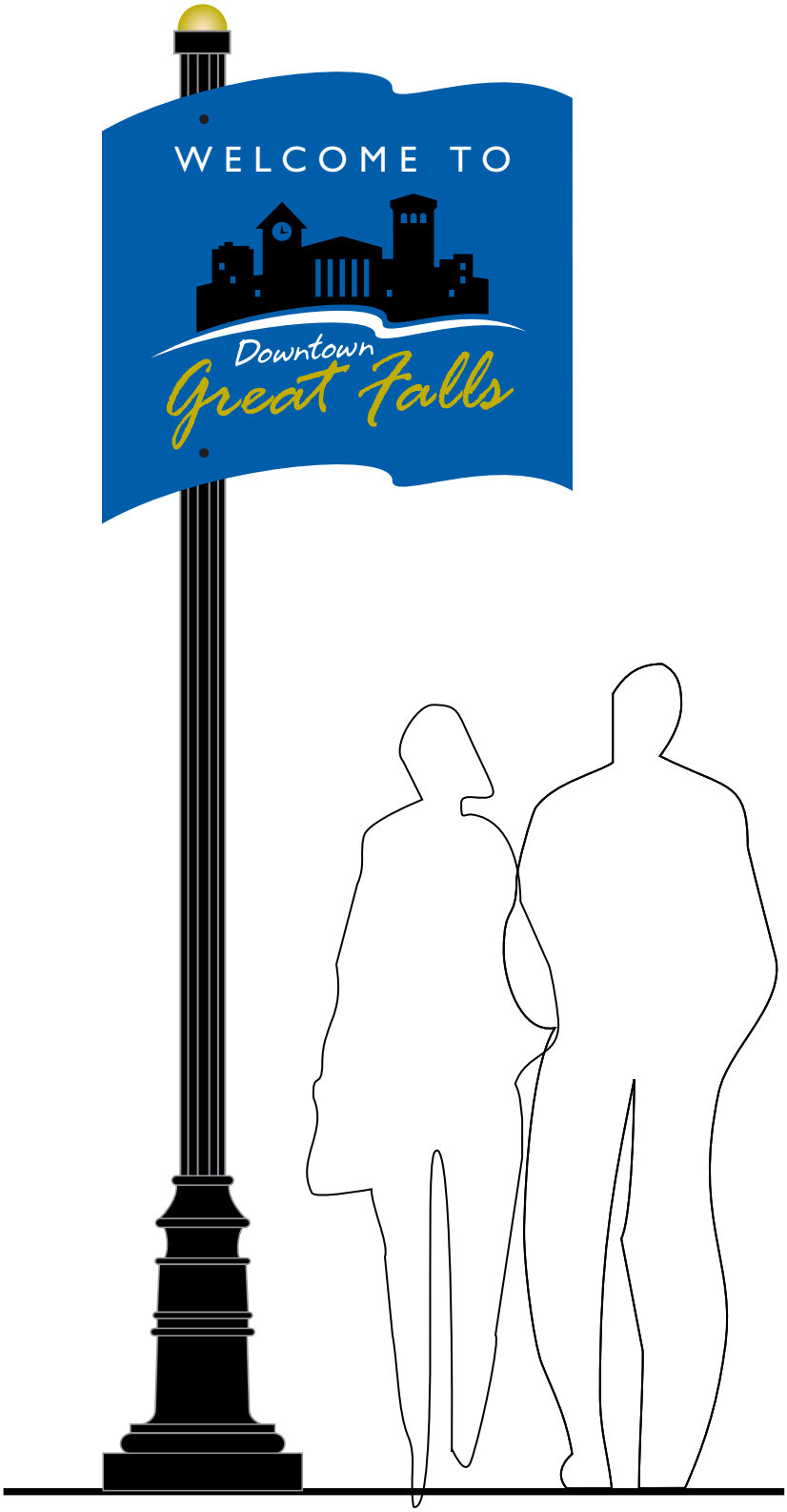
The new Downtown Great Falls brand and tagline can be extended throughout a new wayfinding system utilizing the new color palette and distinctive shapes. While the brand has a more contemporary look and feel, the “carrier” and format for gateways and wayfinding can be more historic to be in harmony with the Historic Downtown District.

An Historic District Welcome Sign can define the boundaries of the District. A Highway standard Cultural District sign can be negotiated with MDT and placed at the appropriate exit(s) off of Interstate 15. Where more area is available, a larger double-posted sign can announce the entrance into Downtown at 1st Street. If area is limited, a single-posted District Marker is more appropriate.

For the District Marker and Wayfinding, an historic post that is similar to the existing street lighting is used to carry the message panels. The message panel is a form taken from the “swoosh” element in the logo. The wayfinding options shown are functional for both cars and people, reducing the amount of signs and the cost of two separate programs.

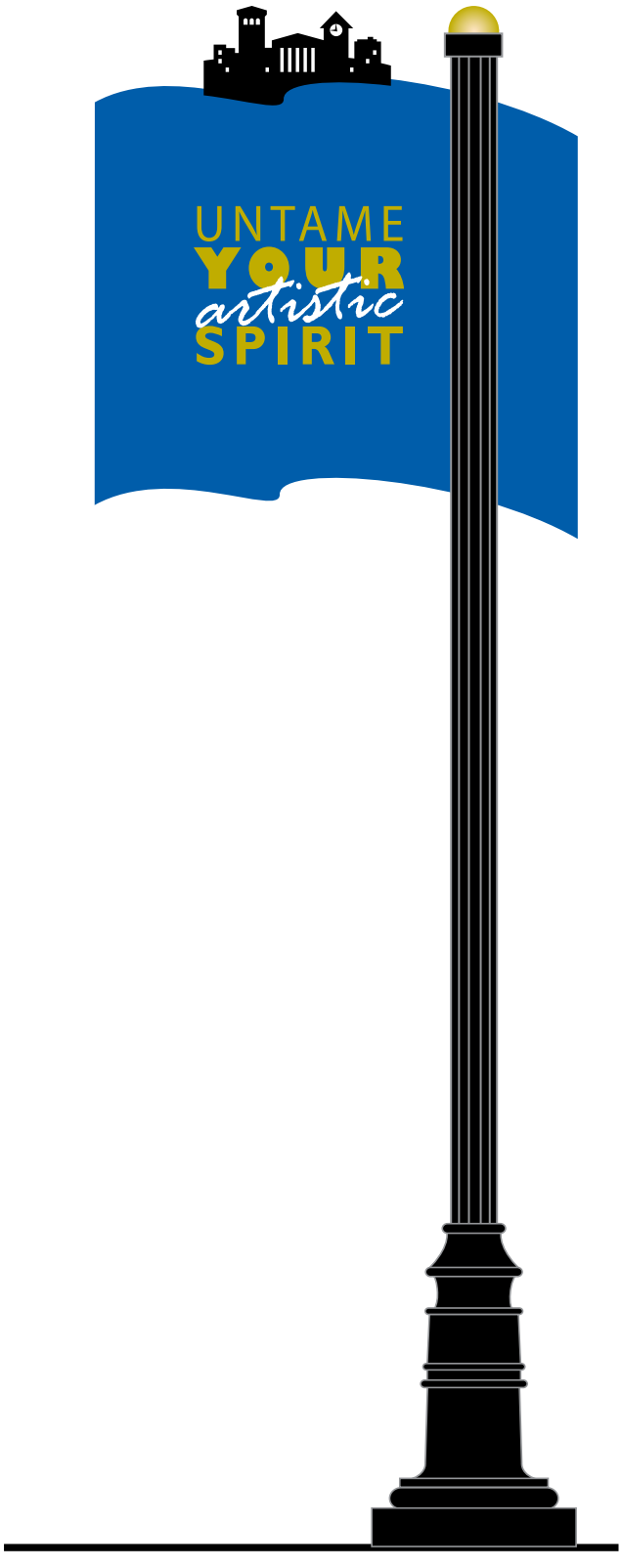
HIGHWAY CULTURAL DISTRICT SIGN
Not to Scale

HISTORIC DISTRICT MARKER-Option 1
Scale: 3/4″=1′-0″

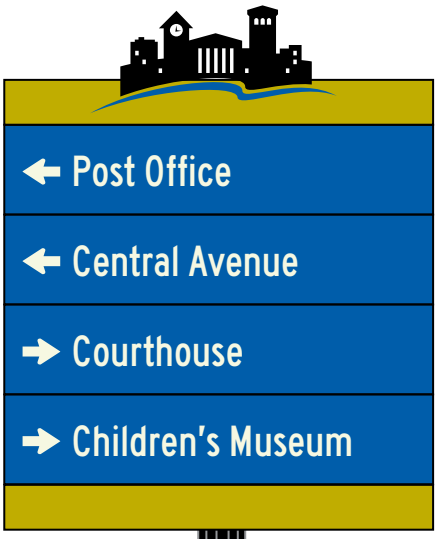


HISTORIC DISTRICT MARKER-Option 2
Scale: 3/4″=1′-0″

HISTORIC DISTRICT WAYFINDING-Option 1
Typeface: Clarendon Condensed
Scale: 3/4″=1′-0″



HISTORIC DISTRICT WAYFINDING-Option 1
(back face)
Scale: 3/4″=1′-0″

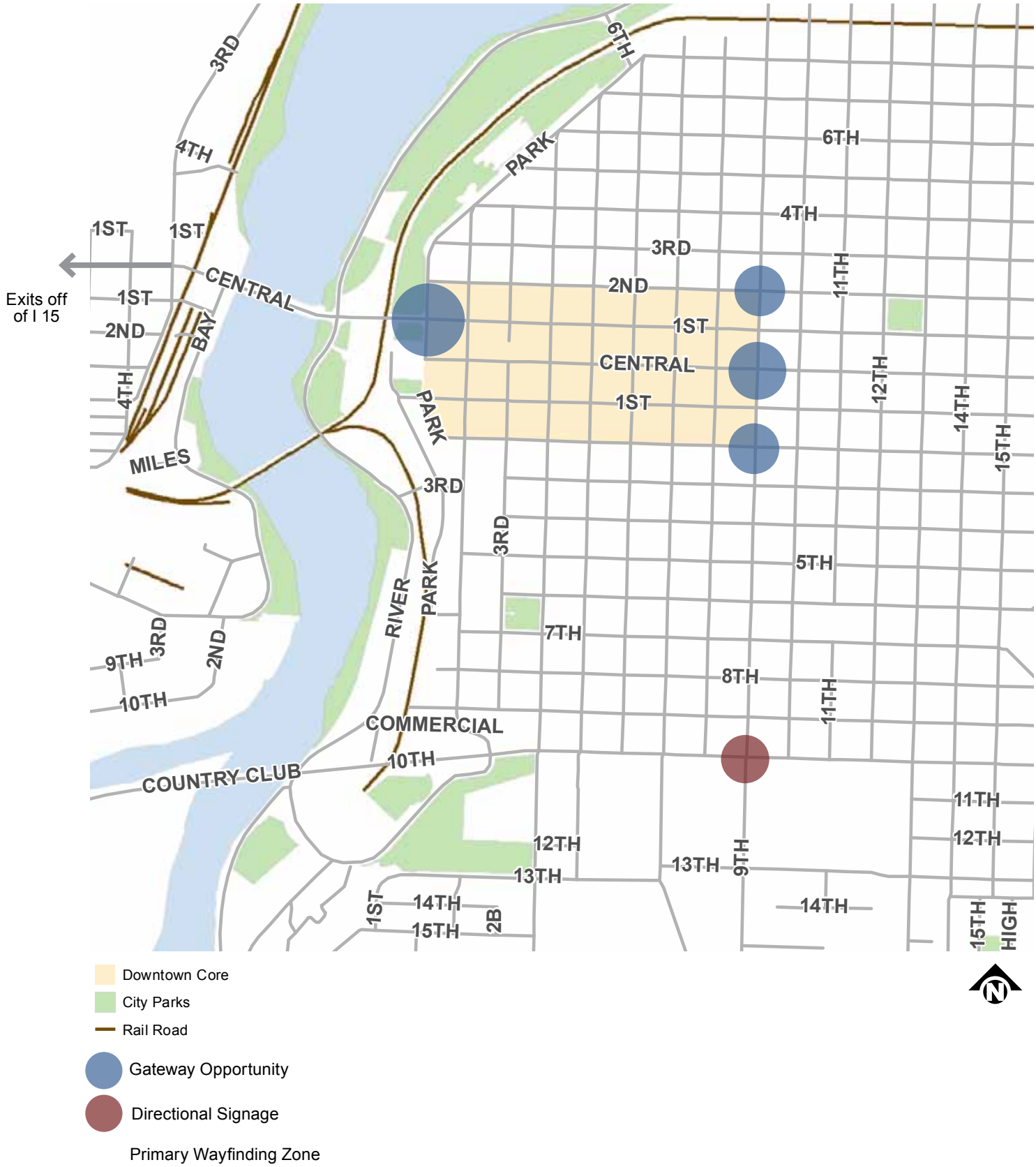


HISTORIC DISTRICT WAYFINDING-Option 2
(back face)
Scale: 3/4″=1′-0″

NEW LOGO FOR DOWNTOWN

HISTORIC DISTRICT WAYFINDING-Option 2
Typeface: Clearview Highway
Scale: 3/4″=1′-0″

Figure 21: *Potential gateway and directional signage locations*



8

IMPLEMENTATION

Phasing of Preferred Design Concept:

The City should prioritize improvements that establish a proper framework for thriving streets and safety for all users. For example, bulb-outs, pedestrian preference at curb cuts and street trees can establish important safety, scale, and comfort elements with long lasting impacts and provide the structure for an active and welcoming downtown core. Better paving materials or site furnishings can be added in the future. A proper framework will allow incremental improvements that can make a dramatic impact in the function and safety of the streets which can be phased in over time. There are a number of enhancements that can be implemented without significant design and constructions costs. The following is a recommended approach to phasing in improvements as funding becomes available.

Existing Conditions

Phase 1: Street trees, bike lanes and intersection striping

Phase one improvements involve relatively inexpensive re-striping to accommodate buffered bike lanes and improved, high visibility crosswalks at intersections. Street trees, although typically a higher cost improvement are included in Phase 1 because of the significant impact they can have in improving the comfort and appeal of downtown streets where insufficient tree canopy is common. Additionally, street trees take time to develop and therefore should be planted early on to allow more time for the trees to reach full growth.

Additionally, the City should prioritize fixing and maintaining any sidewalks, intersections, or sections of the roadway that are in disrepair or pose safety hazards.

Phase 1: *Bike lane, intersection striping and street trees,*

Phase 2: Signage and wayfinding, pedestrian street lights and street furniture

The second phase of improvements should include signage, wayfinding, and lighting elements to reinforce the historic retail district and provide information about community events and programming. Not only do these improvements help develop the character of the downtown core, they also foster social interaction, encourage walking and biking, and provide improved safety at night.

Phase 2: *Signage and wayfinding, pedestrian street lights*

Phase 3: Extended bulb-outs, pedestrian priority at alleys and driveways.

Phase 3 involves the more extensive structural improvements detailed in the conceptual streetscape plan. Adding bulb-outs at intersections should be tied with major street improvements such as utility or resurfacing projects because of their relatively high cost in comparison to other changes that can be implemented. Bulb-outs are high cost improvement because in addition to changing curb lines they trigger updating intersections to meet the most recent ADA or PROWAG requirements which can add significant cost.

Phase 3: *Extended bulb-outs to accommodate additional uses, pedestrian priority at alleyways*

Proposed Streetscape Improvements:


Bulb Out with Rain Garden Planting Area
Street Trees
Parallel Parking
Planting Areas to Buffer Parking Lots
Sidewalk Priority at Driveways and Alleys

Funding Strategies

Over the long term, it is important to continue the ongoing efforts to strengthen Downtown Great Falls' identity in the regional market. Enhancements to downtown circulation and streetscape contribute to the livability and viability of an active downtown environment for community members and visitors. A pragmatic funding and implementation strategy is essential and will require a combination of multiple sources and dedication of individuals including, but not limited to the following:

1. General Fund - Funds can be accumulated from the municipal general fund over four to six years to accumulate matching funds for grant opportunities that align with the strategies outlined in this plan.
2. Expanded responsibilities and regular maintenance funds from the Great Falls Public Works Department for continued maintenance of improvements.
3. State and Federal Grant Opportunities (see Table 5: Potential Grant Sources) the City's General Funds can be used as matching funds for a number of State and Federal grant programs that support initiatives for infrastructure improvements aimed at healthier environments, public health, quality of life, traffic calming, and historic or downtown revitalization.
4. Existing Business Improvement District and Real Property Tax Increment Financing (TIF) funds.
5. CTEP Funds: The Community Transportation Enhancement Program is a state program funding transportation related projects designed to "strengthen the cultural, aesthetic, and environmental aspects of Montana's intermodal transportation system" A variety of non-traditional projects are funded through the CTEP program. These funds are distributed to local governments based on population figures.
6. Voluntary contributions of time, money and labor can play a role in generating community support and momentum behind downtown enhancements as well as demonstration projects.

The City should continue to promote redevelopment projects undertaken by the private sector through available redevelopment incentive programs such as revolving loan funds, historic tax credits, brownfields remediation funds, feasibility studies and other similar programs and funding sources.

Next Steps:

1. Complete a signal warrant analysis for intersections within the downtown study area
2. Develop schematic design documentation to leverage grant funding for construction
3. Develop policy / code changes to allow for flex zones and parklets in the downtown core
4. Building upon this document and pervious studies pretaining to the River's Edge Trail and connections with Downtown, schematic design documentation should be developed to solicit funding.
5. Establish funding and organizational framework for maintenance of publicly owned improvements such as streetscape, wayfinding signage and landscaping.

Table 5: *Potential Grant Sources*

POTENTIAL GRANT SOURCES:			
FUNDING NAME	**AGENCY**	**SUMMARY**	**SOURCE**
Montana Main Street Program	Community Development Division of the Montana Department of Commerce	Offers technical assistance and awards grant funding to communities actively working on downtown revitalization, economic development, and historic preservation.	http://mtmainstreet.mt.gov/default.mcpx
Community Transportation Enhancement Program	Montana Department of Transportation	The Community Transportation Enhancement Program provides funds to be used for enhancement projects including pedestrian and bike trails, scenic easements, historic and archaeological sites, historic highway programs, and landscaping and community beautification projects.	www.mdt.mt.gov/business/ctep
Culture and Aesthetics Grant Program	Montana Arts Council, Montana Cultural Trust	Semi-annual grants for cultural and aesthetic projects including: operations, capital, special projects, and endowment development categories for historic preservation activities.	http://www.art.mt.gov/about/about_culturalgrants.asp
Preserve America Grant Program	National Park Service	Matching grants for wayfinding programs, interpretive signage, public art and many other project types have been provided to communities designated as "Preserve America Communities" for projects aimed at preserving the country's cultural and natural heritage assets and supporting economic vitality.	http://www.nps.gov/history/hps/hpg/preserveamerica/index.htm
TIGER Grants	U.S. DOT	Invest in communities to make them more livable and sustainable. Project must be multi-modal, or otherwise challenging to fund.	http://www.dot.gov/tiger
Transportation Enhancement (TE) Activities	FHWA administered by State	Federally Funded, community based projects that expand travel choices and enhance the transportation experience, including, streetscape, bike and pedestrian improvements.	http://www.enhancements.org
Section 402 Grants	NHTSA/FHWA	Funds apportioned to states, who then distribute to projects, often overlooked, but can be used for pedestrian and bicycle safety, and speed control projects.	http://www.advocacyadvance.org/docs/section_402.pdf
Transportation, Community, and System Preservation Program (TCSP)	FHWA	Discretionary Grant for projects seeking to improve efficiency of transportation, reduce environmental impacts,and identify strategies to encourage economic development in communities.	http://www.fhwa.dot.gov/tcsp/
2013 National Urban and Community Forestry Grant	USDA-Forest Service	Encourages community connections between urban forests and community benefits, outreach programs, planning, and planting of trees by individuals or property owners.	www.grants.gov

Air Quality Grants	EPA	Competitive grant funding for projects and programs relating to air quality, transportation, climate change, indoor air and other related topics.	http://www.epa.gov/air/grants_funding.html
Targeted Watersheds Grant Program	EPA	Grants for water pollution prevention and wetlands protection, and tribal grants.	http://water.epa.gov/grants_funding/twg/initiative_index.cfm
National Urban and Community Forestry Advisory Council (NUCFAC) grants	U.S. Forest Service	Grants change each year; overall goal to address urban and community forestry.	http://www.fs.fed.us/ucf/nucfac.html
Community Transformation Grants (CTG)	CDC	Funding for projects that address the health of communities through increasing the availability of healthy foods and beverages, improving access to safe places for physical activity, and reducing tobacco use and encouraging smoke-free environments.	http://www.cdc.gov/communitytransformation/
Bikes Belong	Bikes Belong Coalition	Provides grants to municipalities and grassroots organizations to support biking projects. Aims to "connect existing facilities or create new opportunities; leverage federal, state, and private funds; influence policy; and generate economic activity." Eligible projects include bike paths, trails, routes, and bike lanes.	http://www.bikesbelong.org/grants/
Robert Wood Johnson Foundation and Active Living by Design	RWJF	Fund community health initiatives including some funding for built-projects such as bike trails.	http://www.rwjf.org/en/grants.html

9

DW LEGACY DESIGN® METRICS

DW Legacy Design® Metrics

Metrics are a discovery-oriented tool to shape a collective point of view about a project's aspirations. They help to develop more thorough design solutions by setting goals, integrating strategies from the four DW Legacy Design® circles and measuring outcomes. Metrics help develop an understanding for how DW Legacy Design® will positively impact the project.

At the outset of the design process the team established goals and metrics to guide design efforts and ensure that the final product optimizes benefits for the economic, environmental, community and aesthetics within Downtown Great Falls. The recommendations resulting from the study and the streetscape design seek to transform downtown streets into a vibrant and walkable corridor that supports a retail community, encourages renewed private investment and supports downtown as a destination for the surrounding community. Each of the metrics oriented goals encompasses specific targets which can be measured and modeled throughout the design and implementation process.

Economic

The circulation and streetscape enhancements should encourage local economic growth and investment in the downtown. The Plan seeks to strengthen the physical environment within the Downtown Core with a design that welcomes pedestrian activity and creates a comfortable environment for shoppers and business activity. With increased retail sales, the property values for the downtown area will increase and encourage new investments. The potential increase in property values will benefit the City's revenue stream through growth in property taxes. Evidence of positive impact of streetscape enhancements:

1. A study completed in Philadelphia found that improved streetscapes (including tree plantings, container plantings, parking lot screens, etc.) in commercial corridors can increase surrounding home values by 28% relative to similar homes in comparable areas without streetscape enhancements. [9]
2. A case study of retail businesses saw an increase in profits after the implementation of more pedestrian-friendly streets.
3. Walkability - Pedestrian-oriented streets are capitalized into office, retail, residential, and industrial property values. The greater the walkability of a street, the higher the property value. [5]
4. Increased tree canopy within the corridor can lower the energy costs related to the heating and cooling of adjacent buildings [2]

Measuring Economic Progress:

Rate of Return:

The City should leverage the streetscape enhancements including street trees and safety improvements to reach higher rates or return on the downtown of a minimum of 1% for downtown properties on improved streets as compared to properties located on non-improved streets.

Vacancy Rates:

Vacancy rates are currently about 11% for ground floor commercial properties. 8-10% vacancy is typical for urban retail environments. Vacancy rates should strive to align with the 8-10% range or better as improvements to the downtown are implemented and investment occurs.

Commercial Property Values:
Large street trees with a 10 inch caliper planted in front of a small commercial property provide approximately $40 to $100 annual increase in property value and total annual benefits of $50 to $125 in energy savings, stormwater and air quality improvements.

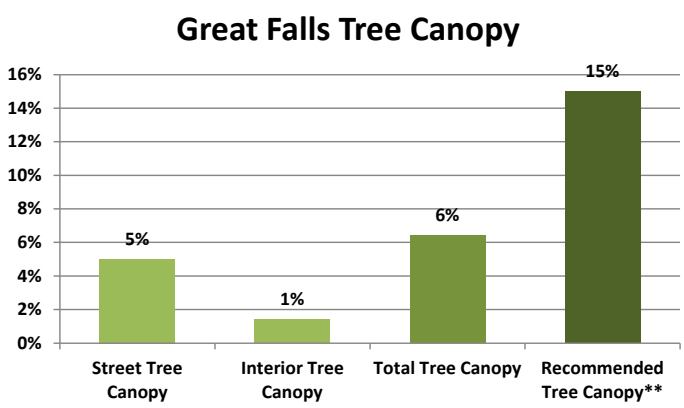
Environment

In addition to affecting local and regional ecosystems, the environmental quality of a site can enhance user experience and have significant energy and monetary implications. Currently, the average block in the downtown core contains over 98% impervious surfaces, unhealthy trees, and insufficient stormwater practices. The recommended design addresses stormwater issues to create a healthier environment for plant life and water quality. Native plants and increased tree canopy will improve air quality, stormwater management, and reduce energy costs.

Given the proximity of the Missouri River to Downtown Great Falls, limiting the amount of non-point stormwater run-off from the impervious surfaces of the downtown area that flow directly into the river is an important environmental goal. Rain gardens and expanded tree pits allow for rain water to infiltrate into the ground water rather running directly into the river. By directing stormwater into planting areas, it becomes a resource instead of a waste product. The downtown area will be able to effectively cleanse, diffuse and absorb water, feeding the plants within the Downtown and improving overall water quality. In addition to the on-site benefits of this design, the resultant reduction in stormwater runoff volume will protect and enhance regional aquatic systems.

Measuring Environmental Progress:

Street Trees:
The existing Downtown Core tree canopy is 6% with a recommended minimum canopy of 15% in downtown environments according to the Davy Resource Group. By planting an average of eight trees per block face throughout the study area Downtown Great falls will reach a 9% increase in street tree canopy. This added canopy will provide savings with regard to energy, improved air quality, and stormwater interception as well as increased property values and downtown aesthetics. The shade will enhance the comfort



of pedestrians and cyclists as well as lower the heat island effect by shading surfaces from the summer sun.

Impervious Surfaces:
Stormwater Management can be improved by minimizing the amount of impervious surface within the right-of-way. The proposed rain gardens and extended tree pits would decrease the amount of impervious surface within the right-of-way by 11% (from 98 percent impervious to 87 percent impervious) on the average block, allowing for greater stormwater capture and infiltration. By locating impervious area away from the area immediately adjacent to building and employing best construction practices, the potential negative impacts to building impacts can be avoided.

Native Plant Use:
While a specific planting plan is not detailed in this Plan, the use of native plants that are noninvasive and appropriate for site conditions and climate will improve landscape performance and reduce resource use in the Downtown. [3]

Recycling:
LEED ND recommends providing recycling receptacles a minimum of every 800 feet apart or every two blocks in commercial areas. Great Falls already has some bins installed along Central Avenue where there is the most concentrated activity and should consider expanding to other streets as necessary to accommodate the need with renewed investment over time. The bins should also be updated to better fit the renovated streetscape and maintained consistently. A total of four bins are recommended, with one bin every other block paired with the trash receptacle. With no current public recycling program in place initiating one will require working with public works to develop a strategy for the Downtown area.

Community

The streetscape enhancements seek to create more spaces for spontaneous community interactions with enhanced pedestrian areas, seating areas designed to foster conversations, and outdoor dining opportunities to activate the streets. The plan also focuses on safety for walking and biking as well as traffic calming through reduced travel lanes and intersection enhancements to generate increased outdoor activity. Evidence of community benefits include:

1. Community Health: Expanded sidewalks and bike lanes increase the opportunities for outdoor activity within the downtown. Activities like walking, jogging, and bike riding can improve human health. [3]
2. Crosswalk Distance: Shorter crosswalk distances correspond with pedestrian safety as people have less time in which they are exposed to traffic. [4]
3. Providing bike facilities such as bike parking and lanes in urban areas has led to increased commercial activity and vitality and provides important infrastructure for multi-modal trips linking to the city wide transit system.

Measuring Community Progress:

Crosswalk Distance:

With new traffic lane widths and corner bulb-outs, the crosswalk distances in the recommended design are decreased from an average of 50 feet to 38 feet, creating a safer and more pedestrian-friendly downtown. Bulb-outs are already being utilized along Central Avenue where there is the most pedestrian traffic with five of the eight intersections improved with bulb-outs. The priority areas for additional bulb-outs include the completing the additional three intersections along Central Avenue, intersections surrounding the Transit Center, 1st Avenue N. and Park, and 1st Avenue S. and Park adding six bulb-outs to the downtown core at a minimum.

Outdoor Dining:

The proposed design strategies allow for extended bulb-outs or curb extensions at corners and/or at alleys which provide space for restaurants to offer customers outdoor dining options. This amenity is recommended specifically for the side streets stemming off of Central Avenue where there is currently the most opportunity to build off existing activity and other appropriate places. Currently there are only 3 establishments with outdoor dining (JJs, Charlie's Coffee House and Tacos Del Sol), however these eating establishments simply utilize the sidewalk and don't currently have permits or formal approval. With the proposed improvements a number of businesses could have the option to introduce or expand outdoor dining.

Bike Facilities Routes:

Downtown does not currently have bicycle lanes or accommodations. The proposed plan recommends dedicated bicycle lanes on 5th Street and 6th Street and 1st Avenue S. and 2nd Avenue S. With these improvements, the Downtown Street grid would have bicycle facilities on 31 percent of its streets.

Bike Facilities / Racks:

In the downtown core the team counted a total of only seven bicycle racks. By LEED ND standards a minimum of one bicycle parking space should be provided for every 5,000 square feet of retail space. For the downtown study area this would equal a minimum of 82 spaces or 41 racks (serving the existing 413,000 square feet of retail space) just to accommodate retail uses, additional racks are recommended for other commercial uses and residential units. The standard U Racks or variations thereof are recommended for the ease of use and bike security, allowing for two contact points between the bike and the rack for ease of locking and stability.

Parking Utilization:

The existing parking count includes 1065 metered, on-street spaces. On typical weekday conditions the highest usage at 12:00 pm totaled 26%. Parking within the core area (the block between Central and 1st Avenue N. from Park Drive to 6th Street) reached only 42 percent occupancy. The ideal utilization rate in a downtown that is experiencing full retail/ office usage is 85 percent to 90 percent (Walker Parking). As downtown activity increases and becomes more of a destination, parking utilization should seek to hit the 85% mark in the long term.

Streetscape Amenities:

The city has an adequate number of trash bins available within most of the downtown, though there are a few blocks on the retail support streets (the north and south streets between 1st and 2nd Avenue S. and 1st and 2nd Avenue N.) and on the blocks between 7th Street and 9th Street where more bins are needed to reach the requirement of one trash bin per intersection. Pedestrian scale lighting is recommended as a part of the streetscape design to enhance the appeal and the perception of safety downtown in the evening hours.

Aesthetics:

The streetscape design can create a comfortable setting that encourages people to visit Downtown and spend more time at local restaurants and shops. The goal of the streetscape design is to announce arrival into the downtown core by the treatment of the streetscape and the design details. When a visitor or resident passes into the historic heart of Downtown Great Falls, the street design will indicate that they have entered into this zone. This will be achieved through the enhancements to the physical environment and design details that are scaled to the pedestrian or cyclist as well as the automobile. The proposed gateway monumentation and signage will beckon to passing vehicles to venture downtown.

Measuring Aesthetic Progress:

Signage:

The plan recommends designing a unified signage and wayfinding system that guides people to key destinations as well as creates a unified brand for Downtown.

Gardens:

Rain gardens provide an aesthetic quality that will beautify the streets and improve the visual quality of the corridor.

Public Perception:

When polled during the public charrette and the online survey about their impression of the existing appearance of Downtown Great Falls only 43 percent of the participants rated downtown's appearance as "good" with almost 30 percent rating it "poor" or "very poor". After the streetscape plan is executed the public perception of downtown's appearance should strive to have 75 percent positive rating with answers of "very good" or "good".

References

1. City of Great Falls Downtown Master Plan, October 2011, Planning and Community Development Department
2. Great Falls Growth Policy, 1999
3. Sustainable Sites Initiative. Guidelines and Performance Benchmarks. Sustainable Sites Initiative, 2009.
4. Office of Planning, Environment & Realty. Designing Sidewalks and Trails for Access: Best Practices Design Guide. May 7, 2012. http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalk2/sidewalks208.cfm (accessed December 5, 2012).
5. Pivo, Gary, and Jeffrey D. Fisher. Effects of Walkability on Property Values and Investment Returns. Working Paper, Responsible Property Investing Center and Benecki Center for Real Estate Studies, Boston College
6. http://www.parking.org/shop-ipi/trade-publications.aspx). (IPI's Parking 101 series for example has one publication dedicated to recommend zoning standards for parking and another related to dimensions and design)
7. http://www.cmap.illinois.gov/policy-updates/-/blogs/public-private-partnerships-part-1%3A-an-introduction
8. http://construction.about.com/od/Government/a/Public-Private-Partnership-Pros-And-Cons.htm
9. Wachter, Susan and Gillen, Kevin. Public Investment Strategies: How They Matter for Neighborhoods in Philadelphia.

APPENDIX

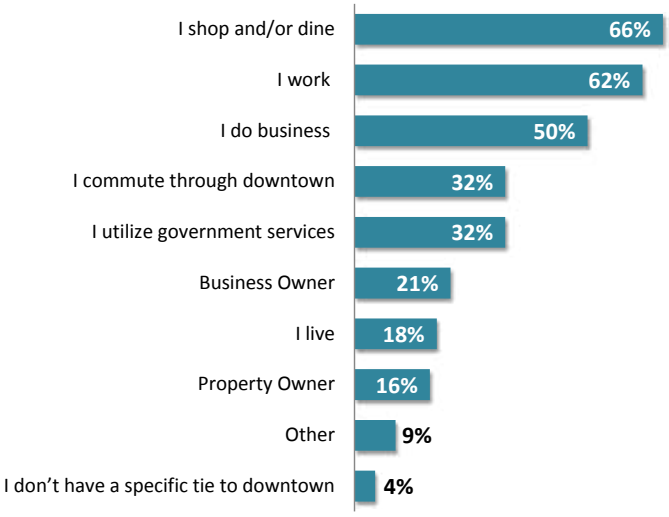
Appendix 1: Polling Results and Online Input

The design team held a public charrette to gather input, share ideas, address concerns, and present options to the general public and citizens interested in the project. The meeting was held in the evening of November 6th, 2012 with 47 attendees. At the meeting participants had the opportunity to review exhibits highlighting the process, the project development and the existing conditions. A presentation to introduce project objectives was followed by an instant feedback keypad polling survey where meeting attendees weighed in on key elements of the project. After the formal presentation participants divided into small groups for a mapping activity where site specific input was gathered relating to conversion preferences, parking needs, signage and wayfinding locations, streetscape improvement priorities, and bicycle accommodations.

The questions from the public meeting were offered online through the City of Great Falls website from November 6th, 2012 through January, 2013. An additional 21 community members contributed their feedback online.

1. My connection to Downtown Great Falls is:

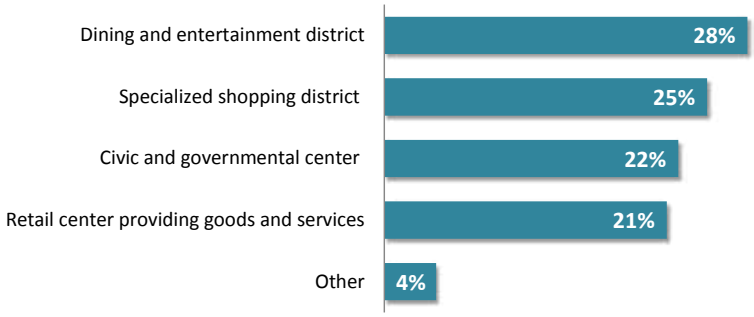
(Choose all that apply)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
I shop and/or dine	60%	28	81%	17	66%	45
I work	57%	27	71%	15	62%	42
I do business	49%	23	52%	11	50%	34
I commute through downtown	34%	16	29%	6	32%	22
I utilize government services	30%	14	38%	8	32%	22
Business Owner	26%	12	10%	2	21%	14
I live	23%	11	5%	1	18%	12
Property Owner	23%	11	0%	0	16%	11
Other	6%	3	10%	3	9%	6
I don't have a specific tie to downtown	4%	2	5%	1	4%	3
Number of Responces		47		21		68

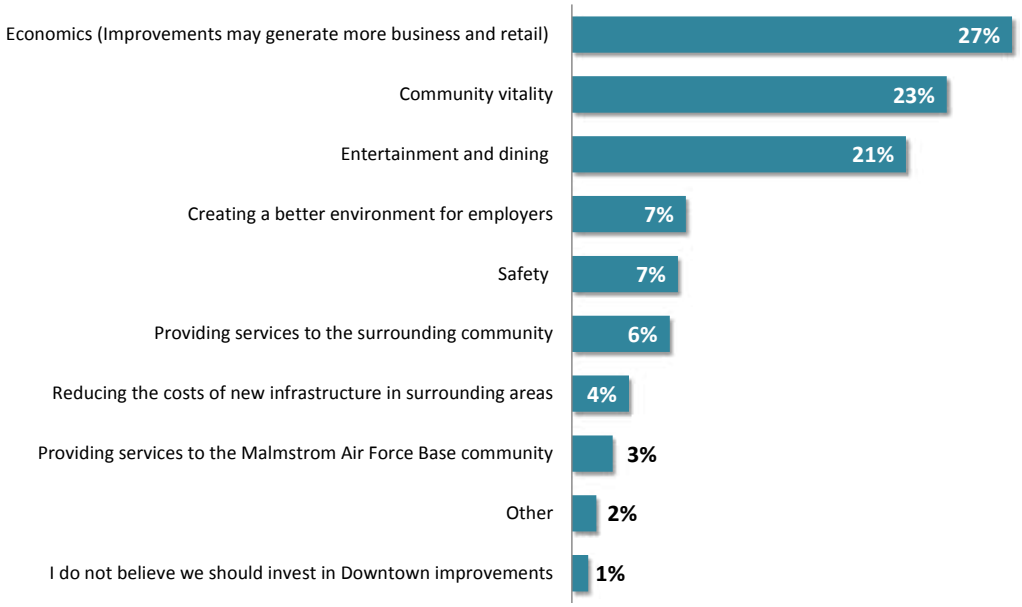
2. My vision for Downtown Great Falls is a:

(Choose all that apply)



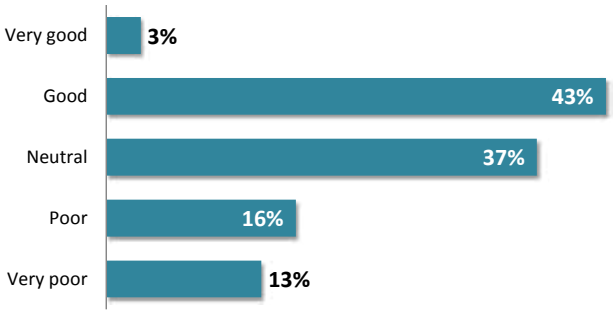
	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Other	4%	7	3%	2	4%	9
Retail center providing goods and services	23%	37	18%	12	21%	49
Civic and governmental center	23%	37	22%	14	22%	51
Specialized shopping district	23%	38	28%	18	25%	56
Dining and entertainment district	27%	44	29%	19	28%	63
Number of Responces	100%	163	100%	65	100%	228

3. I think the most important reasons to improve Downtown Great Falls include: (Choose your top 3)



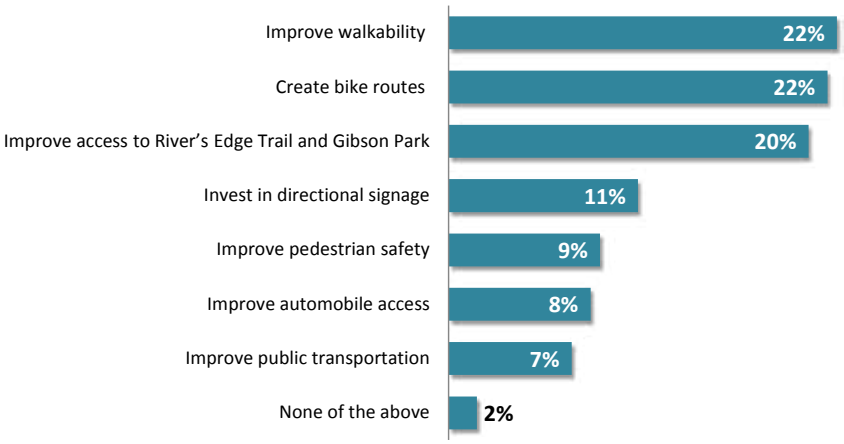
	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Economics (Improvements may generate more business and retail)	28%	37	27%	17	27%	54
Community vitality	22%	30	25%	16	23%	46
Entertainment and dining	21%	28	21%	13	21%	41
Creating a better environment for employers	7%	10	6%	4	7%	14
Safety	4%	6	11%	7	7%	13
Providing services to the surrounding community	7%	9	5%	3	6%	12
Reducing the costs of new infrastructure in surrounding areas	4%	6	2%	1	4%	7
Providing services to the Malmstrom Air Force Base community	3%	4	2%	1	3%	5
Other	1%	2	2%	1	2%	3
I do not believe we should invest in Downtown improvements	1%	2	0%	0	1%	2
Number of Responces	100%	134	100%	63	100%	197

4. How would you rate the overall appearance of Downtown Great Falls? (Choose 1)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Very good	4%	2	0%	0	3%	2
Good	43%	20	45%	9	43%	29
Neutral	34%	16	45%	9	37%	25
Poor	19%	9	10%	2	16%	11
Very poor	4%	9	0%	0	13%	9
Number of Responces	100%	47	100%	20	100%	67

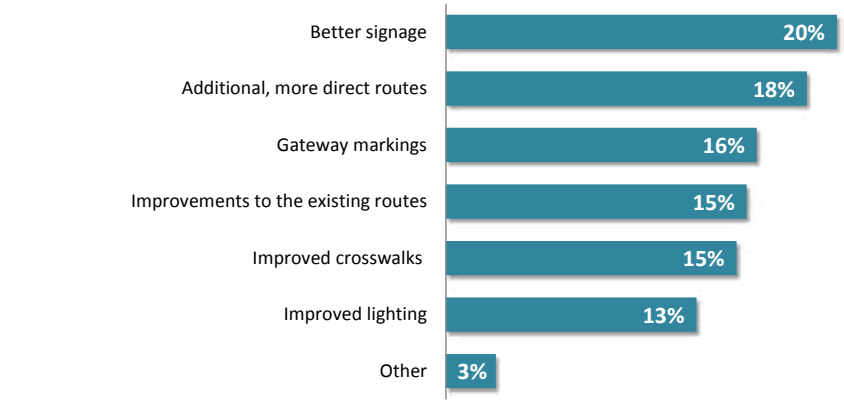
5. Choose the top three opportunities that you think are appropriate to address in regards to circulation and connectivity Downtown: (Choose your top 3)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Improve walkability	22%	28	22%	13	22%	41
Create bike routes	22%	28	20%	12	22%	40
Improve access to River's Edge Trail and Gibson Park	20%	25	22%	13	20%	38
Invest in directional signage	11%	14	10%	6	11%	20
Improve pedestrian safety	7%	9	12%	7	9%	16
Improve automobile access	8%	10	8%	5	8%	15
Improve public transportation	9%	11	3%	2	7%	13
None of the above	1%	1	3%	2	2%	3
Number of Responses	100%	126	100%	60	100%	186

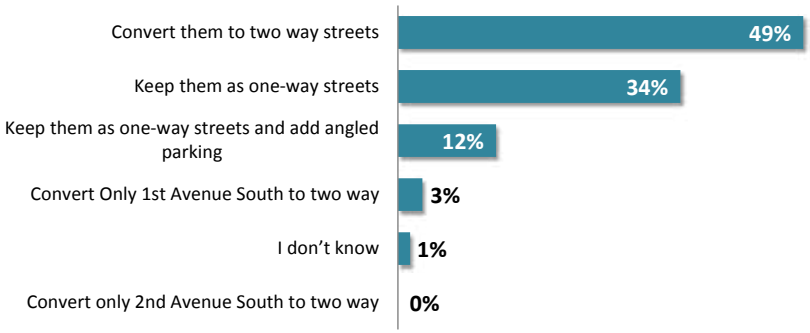
6. The most important improvements that can be made to accessing the riverfront walk are:

(Choose your top 3)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Better signage	22%	30	15%	9	20%	39
Additional, more direct routes	19%	25	18%	11	18%	36
Gateway markings	16%	21	16%	10	16%	31
Improvements to the existing routes	16%	21	15%	9	15%	30
Improved crosswalks	15%	20	15%	9	15%	29
Improved lighting	11%	15	16%	10	13%	25
Other	1%	2	5%	3	3%	5
Number of Responces	100%	134	100%	61	100%	195

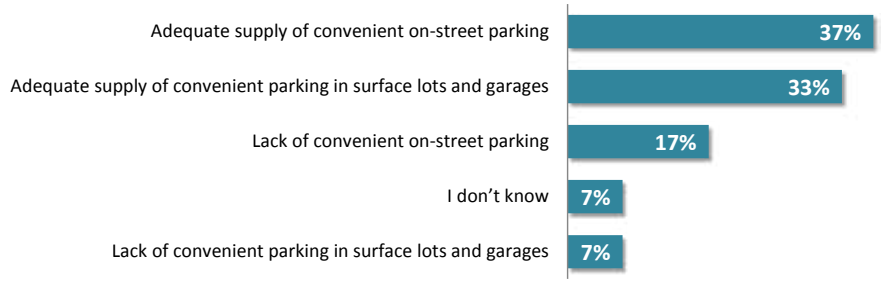
7. Currently 1st Avenue South and 2nd Avenue South are one way streets. Would you prefer to: (Choose 1)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Convert them to two way streets	57%	26	33%	7	49%	33
Keep them as one-way streets	26%	12	52%	11	34%	23
Keep them as one-way streets and add angled parking	15%	7	5%	1	12%	8
Convert Only 1st Avenue South to two way	2%	1	5%	1	3%	2
I don't know	0%	0	5%	1	1%	1
Convert only 2nd Avenue South to two way	0%	0	0%	0	0%	0
Number of Responces	100%	46	100%	21	100%	67

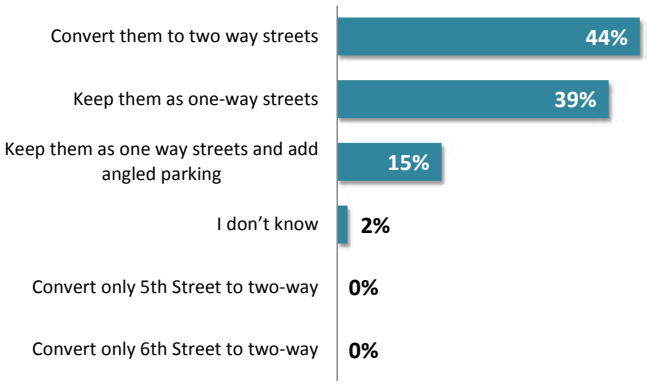
9. The following reflects my views concerning the current supply of parking in Downtown:

(Choose 2)



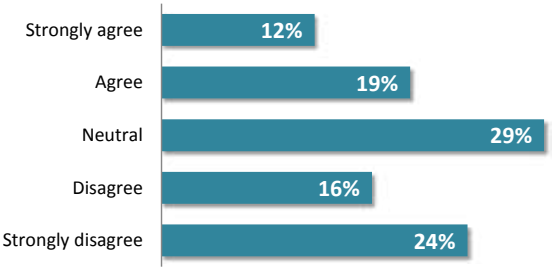
	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Convert them to two way streets	51%	23	29%	6	44%	29
Keep them as one-way streets	31%	14	57%	12	39%	26
Keep them as one way streets and add angled parking	18%	8	10%	2	15%	10
I don't know	0%	0	5%	1	2%	1
Convert only 5th Street to two-way	0%	0	0%	0	0%	0
Convert only 6th Street to two-way	0%	0	0%	0	0%	0
Number of Responces	100%	45	100%	21	100%	66

8. Currently 5th Street and 6th Street are one way streets. Would you prefer to: (Choose 1)



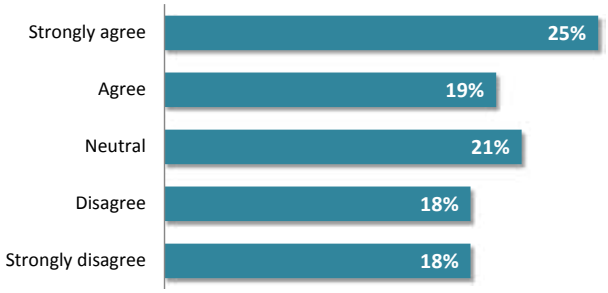
	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Adequate supply of convenient on-street parking	35%	26	41%	13	37%	39
Adequate supply of convenient parking in surface lots and garages	35%	26	28%	9	33%	35
Lack of convenient on-street parking	20%	15	9%	3	17%	18
I don't know	5%	4	9%	3	7%	7
Lack of convenient parking in surface lots and garages	4%	3	13%	4	7%	7
Number of Responces	100%	74	100%	32	100%	106

10. I would be in favor of providing more on street parking by increasing the amount of angled parking. (Choose 1)



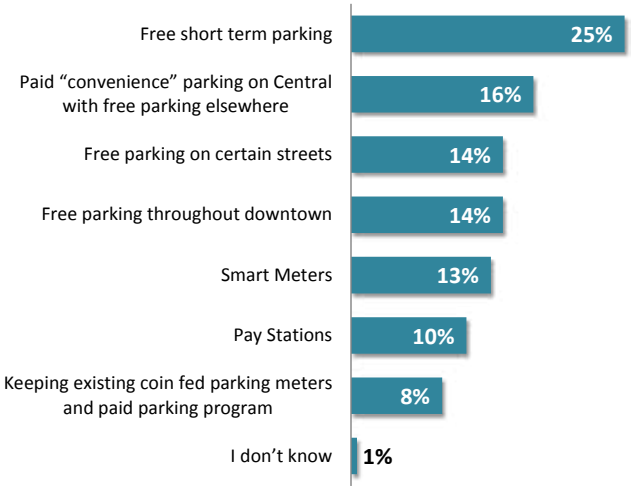
	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Strongly agree	30%	3	24%	5	12%	8
Agree	21%	11	10%	2	19%	13
Neutral	23%	9	52%	11	29%	20
Disagree	19%	10	5%	1	16%	11
Strongly disagree	6%	14	10%	2	24%	16
Number of Responces	100%	47	100%	21	100%	68

11. I would be in favor of considering back-in angled parking in Downtown. (Choose 1)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Strongly agree	28%	13	19%	4	25%	17
Agree	21%	10	14%	3	19%	13
Neutral	23%	11	14%	3	21%	14
Disagree	13%	6	29%	6	18%	12
Strongly disagree	15%	7	24%	5	18%	12
Number of Responces	100%	47	100%	21	100%	68

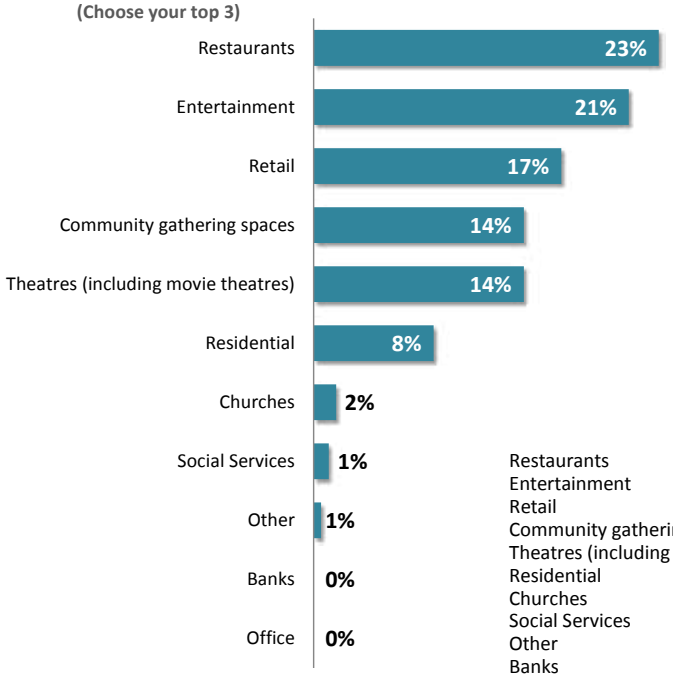
12. I would favor the following parking strategy in the downtown area: (Choose your top 3)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Free short term parking	24%	29	27%	16	25%	45
Paid “convenience” parking on Central with free parking elsewhere	18%	22	13%	8	16%	30
Free parking on certain streets	12%	15	17%	10	14%	25
Free parking throughout downtown	14%	17	13%	8	14%	25
Smart Meters	15%	18	8%	5	13%	23
Pay Stations	11%	14	8%	5	10%	19
Keeping existing coin fed parking meters and paid parking program	7%	8	12%	7	8%	15
I don’t know	0%	0	2%	1	1%	1
Number of Responces	100%	123	100%	60	100%	183

13. I believe that downtown Great Falls could use more of the following land uses:

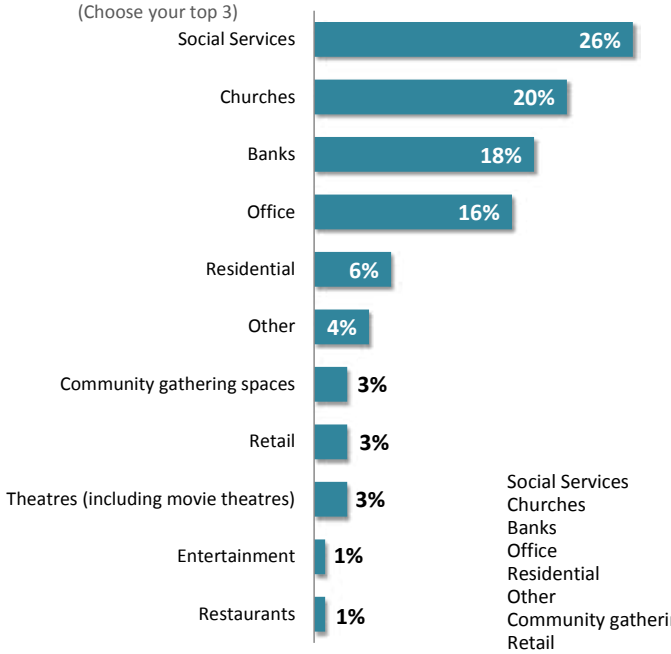
(Choose your top 3)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Restaurants	22%	30	25%	16	23%	46
Entertainment	21%	28	22%	14	21%	42
Retail	16%	21	19%	12	17%	33
Community gathering spaces	16%	21	11%	7	14%	28
Theatres (including movie theatres)	14%	19	14%	9	14%	28
Residential	8%	11	8%	5	8%	16
Churches	2%	3	0%	0	2%	3
Social Services	1%	2	0%	0	1%	2
Other	0%	0	2%	1	1%	1
Banks	0%	0	0%	0	0%	0
Office	0%	0	0%	0	0%	0
Number of Responces	100%	135	100%	64	100%	199

14. I believe that downtown Great Falls could use less of the following land uses:

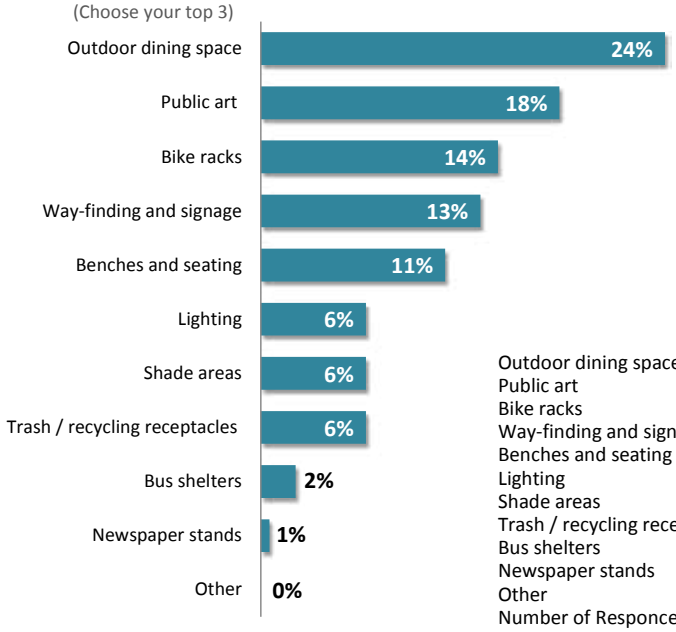
(Choose your top 3)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Social Services	28%	20	21%	9	26%	29
Churches	23%	16	17%	7	20%	23
Banks	18%	13	17%	7	18%	20
Office	14%	10	19%	8	16%	18
Residential	6%	4	7%	3	6%	7
Other	0%	0	12%	5	4%	5
Community gathering spaces	3%	2	2%	1	3%	3
Retail	4%	3	0%	0	3%	3
Theatres (including movie theatres)	3%	2	2%	1	3%	3
Entertainment	0%	0	2%	1	1%	1
Restaurants	1%	1	0%	0	1%	1
Number of Responces	100%	71	100%	42	100%	113

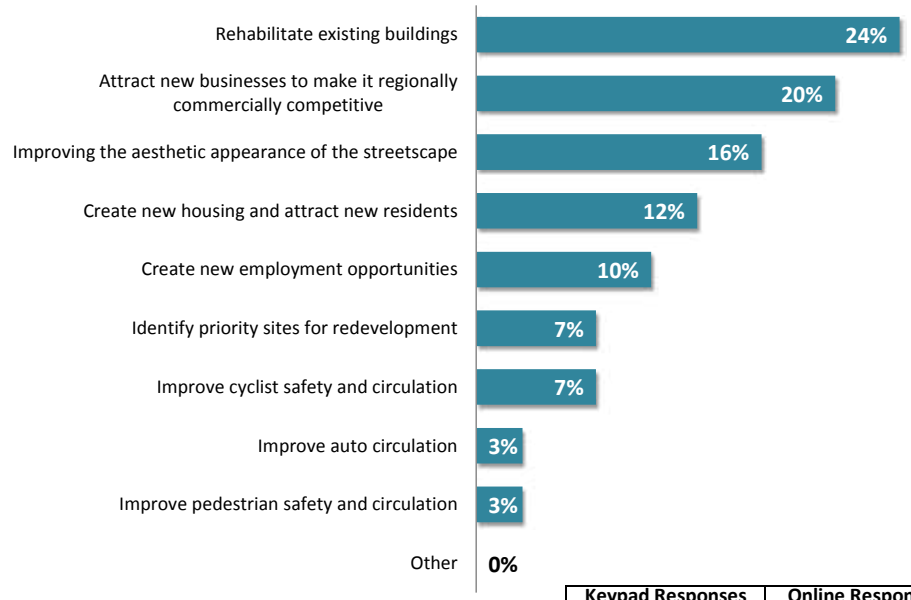
15. I would like to see more of the following amenities in Downtown Great Falls:

(Choose your top 3)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Outdoor dining space	23%	30	26%	16	24%	46
Public art	19%	25	15%	9	18%	34
Bike racks	14%	18	15%	9	14%	27
Way-finding and signage	14%	19	10%	6	13%	25
Benches and seating	8%	11	16%	10	11%	21
Lighting	6%	8	6%	4	6%	12
Shade areas	7%	9	5%	3	6%	12
Trash / recycling receptacles	6%	8	6%	4	6%	12
Bus shelters	3%	4	0%	0	2%	4
Newspaper stands	0%	0	2%	1	1%	1
Other	0%	0	0%	0	0%	0
Number of Responces	100%	132	100%	62	100%	194

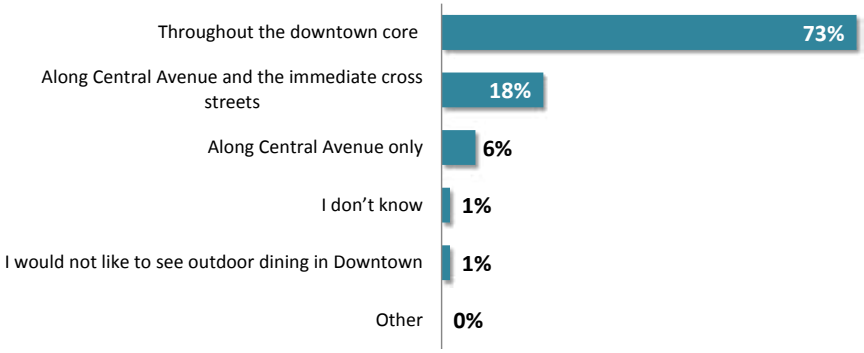
16. Which of the following would have the strongest impact on the success of Downtown Great Falls: (Choose your top 3)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Rehabilitate existing buildings	25%	33	21%	13	24%	46
Attract new businesses to make it regionally commercially competitive	18%	24	24%	15	20%	39
Improving the aesthetic appearance of the streetscape	19%	25	10%	6	16%	31
Create new housing and attract new residents	11%	14	16%	10	12%	24
Create new employment opportunities	8%	11	13%	8	10%	19
Identify priority sites for redevelopment	7%	9	6%	4	7%	13
Improve cyclist safety and circulation	7%	9	6%	4	7%	13
Improve auto circulation	3%	4	2%	1	3%	5
Improve pedestrian safety and circulation	2%	3	3%	2	3%	5
Other	0%	0	0%	0	0%	0
Number of Responces	100%	132	100%	63	100%	195

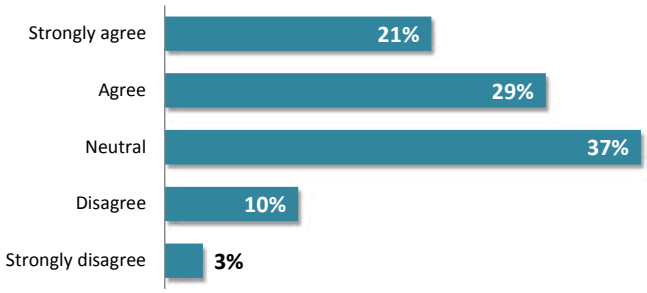
17. I would like to see outdoor dining in downtown:

(Choose 1)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Throughout the downtown core	74%	34	71%	15	73%	49
Along Central Avenue and the immediate cross streets	15%	7	24%	5	18%	12
Along Central Avenue only	7%	3	5%	1	6%	4
I don't know	2%	1	0%	0	1%	1
I would not like to see outdoor dining in Downtown	2%	1	0%	0	1%	1
Other	0%	0	0%	0	0%	0
Number of Responces	100%	46	100%	21	100%	67

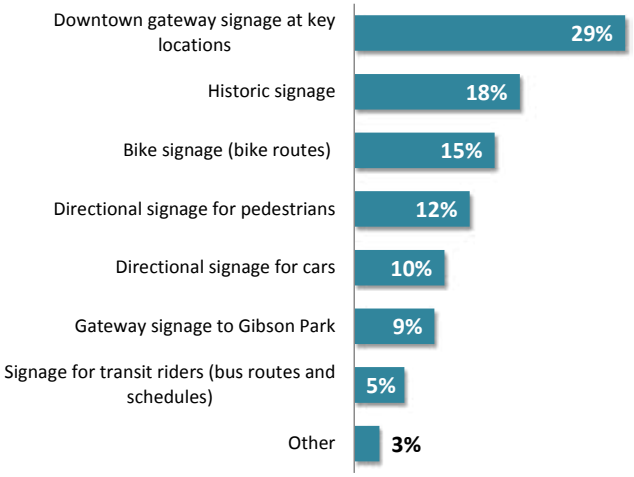
18. The Downtown needs additional street lighting. (Choose 1)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Strongly agree	21%	10	19%	4	21%	14
Agree	36%	17	14%	3	29%	20
Neutral	28%	13	57%	12	37%	25
Disagree	13%	6	5%	1	10%	7
Strongly disagree	2%	1	5%	1	3%	2
Number of Responces	100%	47	100%	21	100%	68

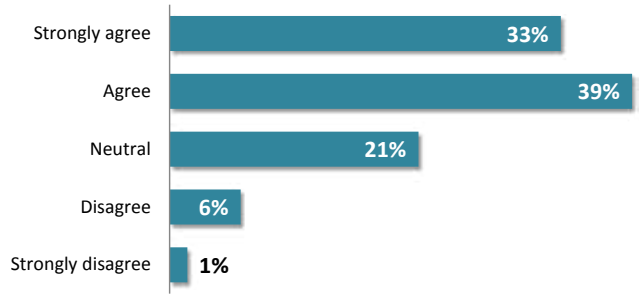
19. What type of signage is most important to improve in Downtown Great Falls?

(Choose your top 3)



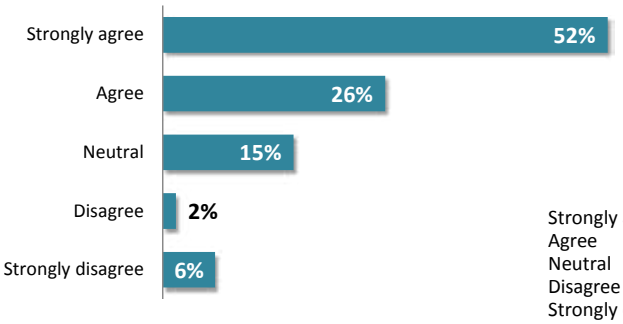
	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Downtown gateway signage at key locations	30%	38	27%	16	29%	54
Historic signage	17%	22	18%	11	18%	33
Bike signage (bike routes)	16%	20	13%	8	15%	28
Directional signage for pedestrians	13%	16	12%	7	12%	23
Directional signage for cars	11%	14	7%	4	10%	18
Gateway signage to Gibson Park	8%	10	10%	6	9%	16
Signage for transit riders (bus routes and schedules)	4%	5	8%	5	5%	10
Other	2%	2	5%	3	3%	5
Number of Responces	100%	127	100%	60	100%	187

20. I am in favor of an enhanced transit connection between Malmstrom Air Force Base and Downtown, to provide easier connections on weekends for restaurant / bar patrons: (Choose 1)



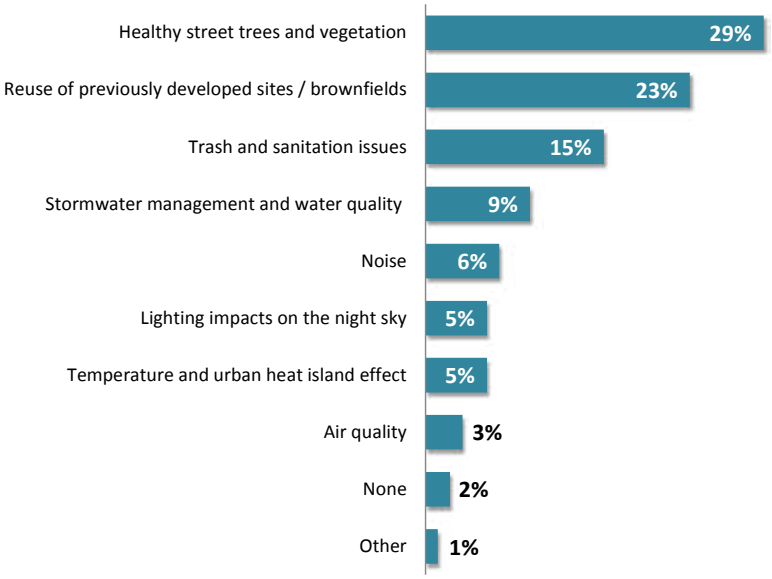
	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Strongly agree	30%	14	38%	8	33%	22
Agree	39%	18	38%	8	39%	26
Neutral	20%	9	24%	5	21%	14
Disagree	9%	4	0%	0	6%	4
Strongly disagree	2%	1	0%	0	1%	1
Number of Responce	100%	46	100%	21	100%	67

21. I would favor developing a unique branding strategy for Downtown. (Choose 1)



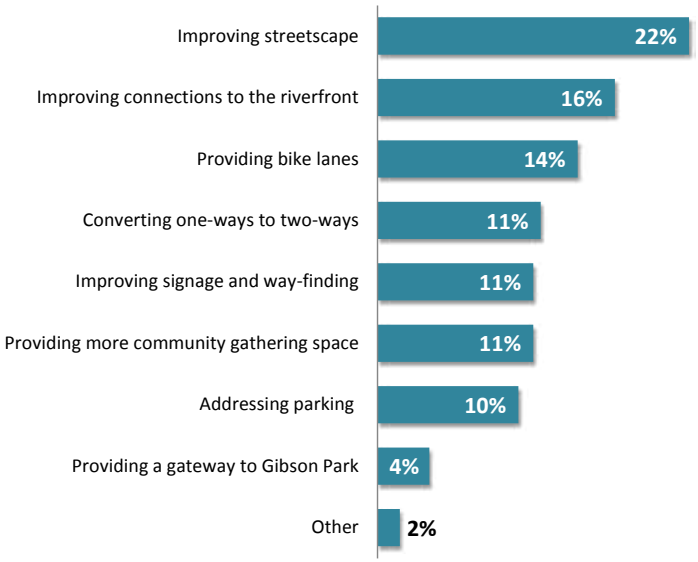
	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Strongly agree	60%	27	33%	7	52%	34
Agree	20%	9	38%	8	26%	17
Neutral	16%	7	14%	3	15%	10
Disagree	2%	1	0%	0	2%	1
Strongly disagree	2%	1	14%	3	6%	4
	100%	45	100%	21	100%	66

22. The most important environmental issues to address in the study area are: (Choose your top 3)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Healthy street trees and vegetation	30%	39	28%	16	29%	55
Reuse of previously developed sites / brownfields	21%	27	28%	16	23%	43
Trash and sanitation issues	12%	16	22%	13	15%	29
Stormwater management and water quality	10%	13	7%	4	9%	17
Noise	7%	9	5%	3	6%	12
Lighting impacts on the night sky	7%	9	2%	1	5%	10
Temperature and urban heat island effect	6%	8	3%	2	5%	10
Air quality	4%	5	2%	1	3%	6
None	2%	2	3%	2	2%	4
Other	2%	2	0%	0	1%	2
Number of Responces	100%	130	100%	58	100%	188

23. If funding was available, where would you prioritize spending? (Choose your top 3)



	Keypad Responses		Online Responses		Combined Percent	
	Percent	Count	Percent	Count	Percent	Count
Improving streetscape	23%	31	19%	11	22%	42
Improving connections to the riverfront	17%	23	16%	9	16%	32
Providing bike lanes	13%	18	16%	9	14%	27
Converting one-ways to two-ways	14%	19	5%	3	11%	22
Improving signage and way-finding	10%	14	12%	7	11%	21
Providing more community gathering space	10%	14	12%	7	11%	21
Addressing parking	9%	13	11%	6	10%	19
Providing a gateway to Gibson Park	2%	3	7%	4	4%	7
Other	1%	2	2%	1	2%	3
Number of Responces	100%	137	100%	57	100%	194

Public Comments:

"Any and all proposed improvements to downtown should be assessed for how well they will help attract commerce, visitors, residents and others downtown in positive competition with 10th Ave South. We need more businesses, more visitors, more fun things to do, more nice places to live downtown, and with all that will come increased congestion. The answer is to plan for success, and make downtown a more pleasant walking experience, so people will not be deterred by having to walk a block or two to reach their destinations."

"Having spent much of my adult life in big cities, my view of circulation and parking in downtown Great Falls is perhaps skewed. I think that if we succeeded in making downtown "the place to be" - then it would necessarily become more congested and it would be harder to find a place to park. But that would be a bad side-effect of an overall GOOD phenomenon -- more people downtown doing more stuff. Successful downtowns are crowded and congested -- it comes with the territory. At present, downtown is exceedingly easy to navigate by automobile, in my opinion. (Unless you are a visitor, in which case I suspect the one-way streets can make it tough.) It is also extremely easy to find a parking place near your destination (compared with most cities I have experienced.)"

"Less parking, community gathering areas, outdoor restaurants, pocket parks, landscaping, rehabilitation of the upper levels of buildings to make into affordable apartments/condos to add to people walking around and using the downtown, more diversity in restaurants, entertainment (to include a theatre, bars geared toward young professionals), bike routes. If the streets are converted back to two-way streets, bike routes need to be part of the budgeted plan! If they're not, one-way streets could have bike routes built in. Please no more parking!"

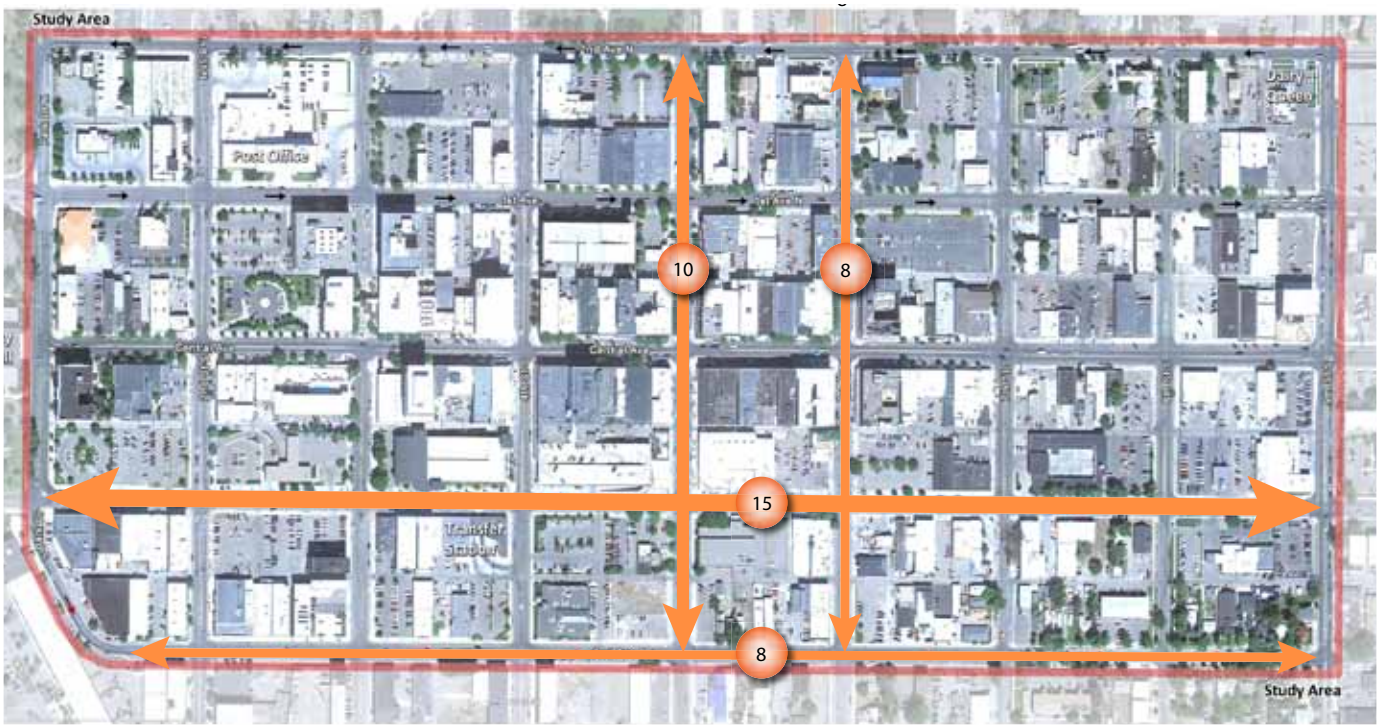
"More downtown stop lights should be switched to flashing red/yellow during non-business hours."

"Make 2nd Street a bike route."

"I think we have a wonderful downtown but outdoor dining on Central would be nice. I love the lighting and it always looks clean to me unless it is right after a parade."

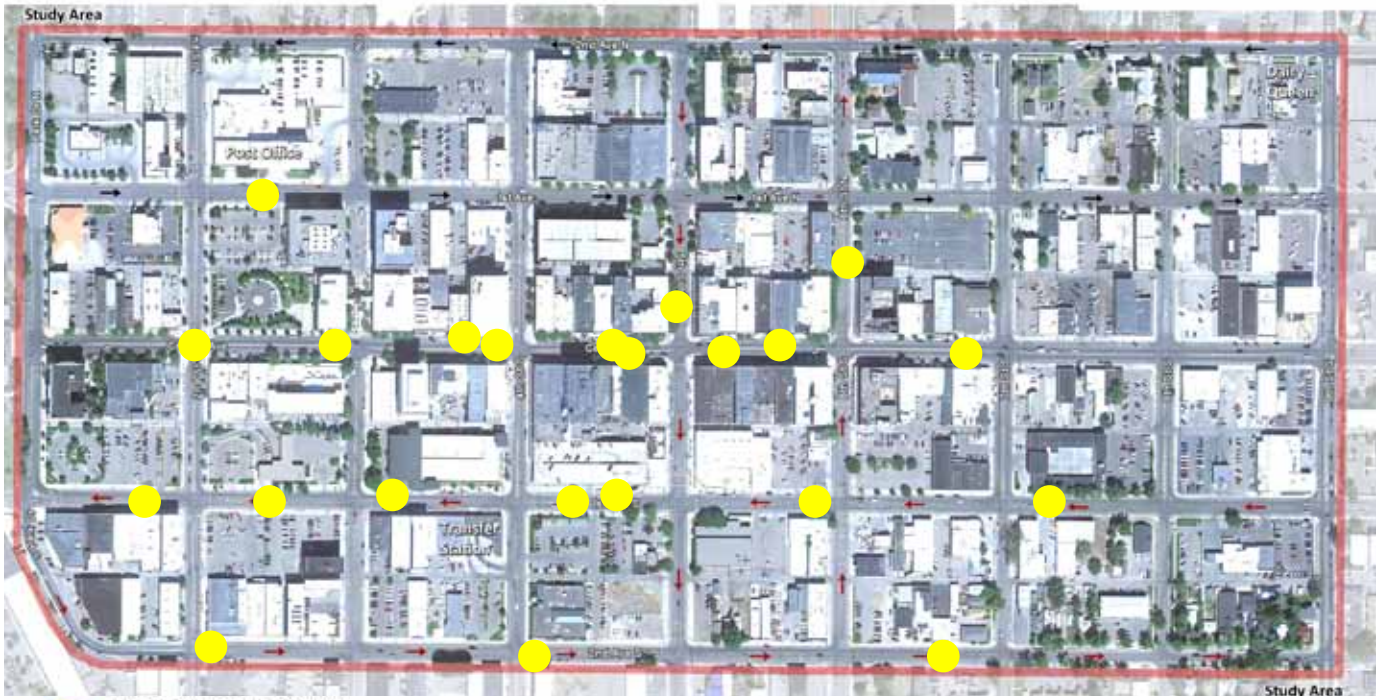
Map Activity Results:

Support for Conversion of One-Ways to Two-Ways



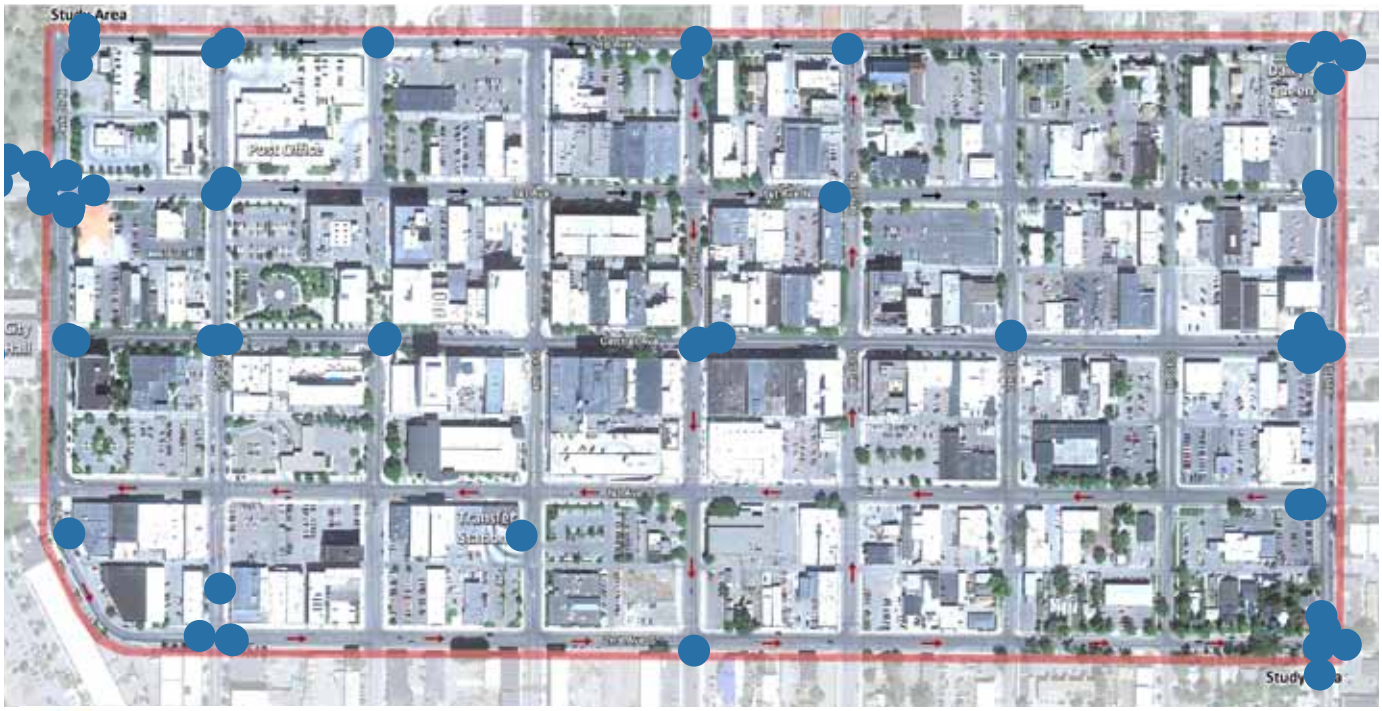
Number of Dots Supporting Conversion

Locations to Increase Parking



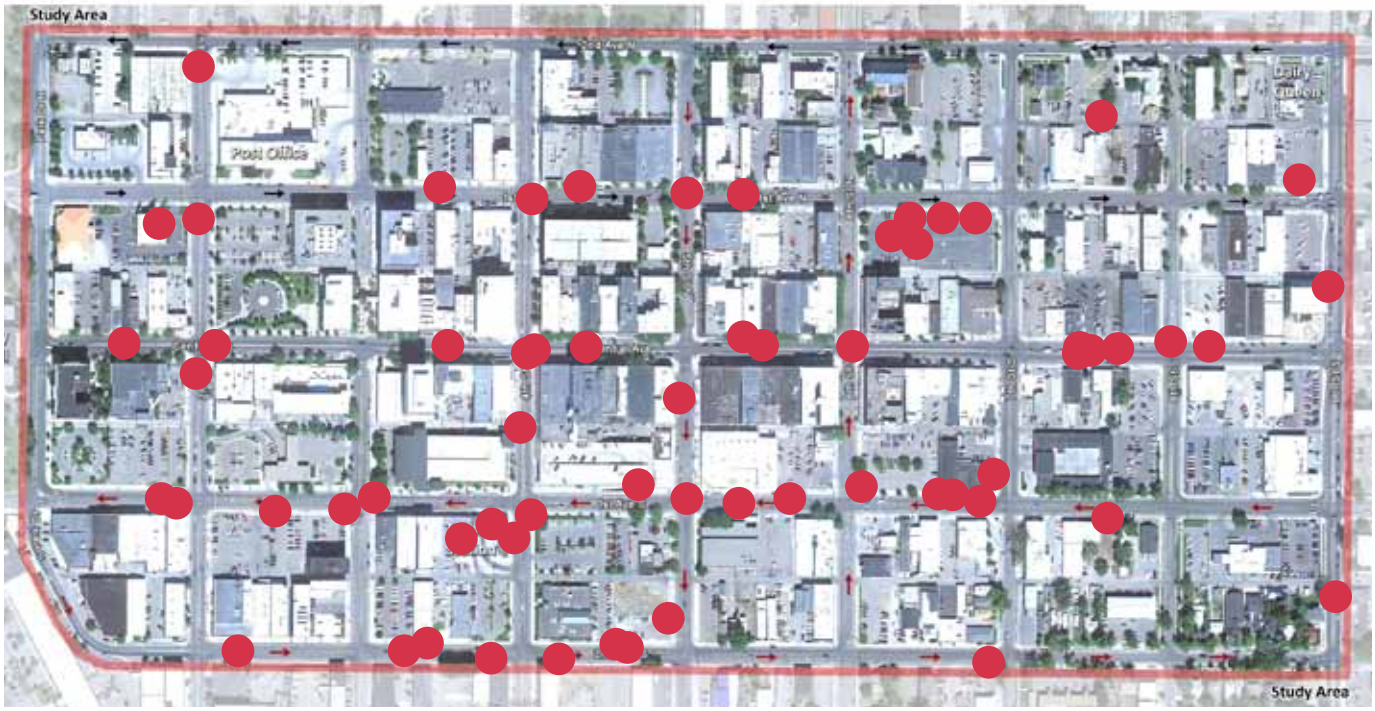
Increase parking

Locations for Signage and Wayfinding Improvements



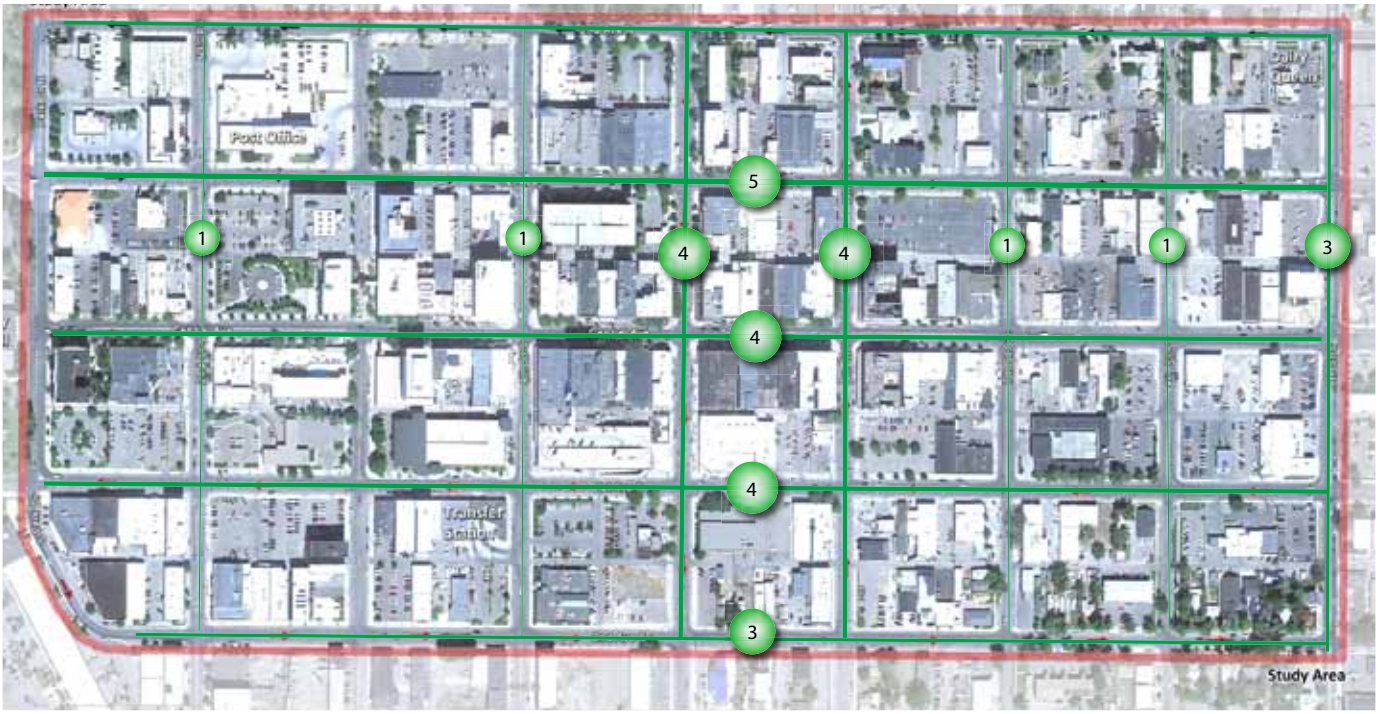
Improve signage and wayfinding

Locations for Streetscape Improvements



Improve the streetscape
(can include additional street trees, benches, lighting, pavement and amenities)

Suggested Locations for Bike Lanes / Cycling Routes



Number of Groups Supporting Bike Lanes/Cycling Routes

Add bicycle lanes / cycling routes
(Draw in route with green pen.)

Overview of September Small Group Meetings:

Staff/Consultant Team Attendance

Wendy Thomas (City of Great Falls)

Michael Tunte (Design Workshop)

Kurt Culbertson (Design workshop)

Lynda Friesz-Martin (Lynda Friesz Public Relations, Inc., Inc.)

Meeting Overview

Meeting participants were asked questions about their views on downtown parking, one-way vs. two-way streets and what their ideal would be for down town Great Falls. Throughout the course of the meetings, there were several re-occurring themes. Those themes are:

Parking:

There is plenty of parking, but there is a perception that it is a problem. Individuals want to park directly in front of the store. Many of those individuals interviewed thought that back-in angled parking was intriguing or a good idea. Some of the individuals we talked mentioned that ticketing is an issue, and often drives customers away.

One-way vs. Two-way

Many of those interviewed felt that two-ways were more business friendly and encouraged commerce. Conversely, other preferred one-ways because they moved traffic. Several said that 1st and 2nd Streets North were arterials.

Downtown Environment

What downtown currently is:

- Uncomfortable and sometimes scary
- It is vacant and closes down at night
- Store hours are inconsistent
- Tenants are primarily third-tier stores
- The is a high of social services located in the downtown

What they want it to be:

- Want a vibrant downtown center with lots of restaurants, a movie theater, night life and cultural amenities
- They want it to be a destination
- Many interviewed suggested a carousel; one suggested a carousel with buffalo
- Many articulated the need for connections to Gibson Park and the River's Edge Trail

Overview of November Small Group Meetings:

Staff/Consultant Team Attendance

Wendy Thomas (City of Great Falls)

Michael Tunte (Design Workshop)

Kurt Culbertson (Design workshop)

Lynda Friesz-Martin (Lynda Friesz Public Relations, Inc., Inc.)

Meeting Overview

Meeting participants were asked questions about their views on downtown parking, one-way vs. two-way streets and what their ideal would be for down town Great Falls. Throughout the course of the meetings, there were several re-occurring themes; these themes mirror the first round of meetings. Additionally, it was mentioned that Great Falls has a very active an and giving community, but the community has "self-esteem" issues. Those themes are:

Parking:

There is plenty of parking, but there is a perception that it is a problem. Individuals want to park directly in front of the store. Many of those individuals interviewed thought that back-in angled parking was intriguing or a good idea. Some of the individuals we talked mentioned that ticketing is an issue, and often drives customers away.

One-way vs. Two-way

Many of those interviewed felt that two-ways were more business friendly and encouraged commerce. Conversely, other preferred one-ways because they moved traffic. Several said that 1st and 2nd Streets North were arterials.

Downtown Environment

What downtown currently is:

- Uncomfortable and sometimes scary
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- Many articulated the need for connections to Gibson Park and the River's Edge Trail