

Frisco Downtown Complete Streets Plan

Draft • January 2022



Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, concept drawings, cost opinions, and commentary contained herein are based on limited data and information and on existing conditions that are subject to change. Further analysis and engineering design are necessary prior to implementing any of the recommendations contained herein.

Geographic and mapping information presented in this document is for informational purposes only, and is not suitable for legal, engineering, or surveying purposes. Mapping products presented herein are based on information collected at the time of preparation. Toole Design Group, LLC makes no warranties, expressed or implied, concerning the accuracy, completeness, or suitability of the underlying source data used in this analysis, or recommendations and conclusions derived therefrom.

ACKNOWLEDGEMENTS

TOWN OF FRISCO

Don Reimer, *Community Development Director*
Susan Lee, *Senior Planner*
Jeff Goble, *Public Works Director*
Addison Canino, *Assistant Public Works Director*

FRISCO TOWN COUNCIL

Mayor Hunter Mortensen
Jessica Burley, *Mayor Pro Tem*
Rick Ihnken
Dan Fallon
Melissa Sherburne
Andrew Aerenson
Andy Held

FRISCO PLANNING COMMISSION

Kelsey Withrow, *Chair*
Lina Lesmes, *Vice-Chair*
Robert Anton Franken
Patrick Gleason
Donna Skupien
Andy Stabile
Ira Tane

CONSULTANT TEAM

Toole Design
SE Group

THIS PAGE IS INTENTIONALLY LEFT BLANK.

CONTENTS

1. Introduction	4
Why Does Frisco Need a Complete Streets Plan?	4
<i>Mobility: A Guiding Principle</i>	5
Vision	5
Developing the Plan	6
How to Use the Plan	8
2. What We Know: Existing Conditions Analysis	12
What Do the Previous Plans say?	12
Roadway Network	13
Bicycle and Trails Network	14
Pedestrian Network.....	15
Transit Network	16
Vehicle Volumes and Speeds.....	17
Opportunities.....	18
3. Where Are We Going? Design Framework and Street Types.....	22
Complete Streets: Design for All Users	23
Putting Complete Streets Design into Action.....	24
Street Types.....	25
Urban Design Palette	36
4. How We Get There: Implementation	44
The Implementation Path.....	44
Code Updates	45
Connecting the Multimodal Network	47
Projects & Prioritization	48
What's Next for Downtown Frisco?	56
Appendices.....	58

Chapter 01

Introduction



1. Introduction

The Frisco Downtown Complete Streets Plan sets out how Complete Streets in downtown Frisco can serve the needs of all road users regardless of travel mode, and how Frisco's streets can be more inviting, active, and supportive of the Town's economic and social life.

Why Does Frisco Need a Complete Streets Plan?

Over the past 10 years, the Town of Frisco and the surrounding area has grown steadily, placing more demand on the street network in Frisco and transforming its central core area.. Anchored by a lively and walkable Main Street, the streets in and connecting to downtown have redeveloped quickly, placing new demands on the transportation network to provide safe and reliable mobility options for residents, workers, and visitors. More than ever, Frisco is at a moment to rethink and re-envision its streets. There are increasing demands to access Main Street and side street businesses, new market-rate and affordable residential developments housing new residents and visitors, as well as emphasized importance as a regional hub for the many mountain destinations surrounding the town.

Complete Streets are streets that make consideration for providing safe, comfortable, and inviting conditions for all road users regardless of travel mode, and specifically forefront the needs and challenges of vulnerable road users—those who are outside of a motor vehicle such as people walking, bicycling, or waiting for transit. By creating streets that prioritize people using active modes of transportation, the Town can cultivate a street network that more safely and efficiently serves all users.

In 2019, the Town of Frisco adopted its *Community Plan*, a comprehensive plan update that set forward the overarching policy for the Town to grow and evolve in the coming decades. While the *Community Plan* encompasses land use policy, sustainability, economic development, and equity, it also sets out a vision and series of strategies and recommendations for transportation and mobility in Frisco, including **to provide a connected, year-round multimodal transportation network that enables residents and visitors to access destinations without relying on use of automobiles.**

One near-term recommendation from that plan was to develop a Complete Streets Plan for Granite and Galena Streets in downtown Frisco. This *Downtown Complete Streets Plan* aims to deliver on that goal and lays out a vision for a more connected and multimodal downtown core for Frisco, with plentiful transportation options and a street network that encourages walking, bicycling, riding transit, and enjoying the Town's streets as inviting and vibrant places.

Mobility: A Guiding Principle

The 2019 *Community Plan* articulates six guiding principles for the Town's future. The *Community Plan* names "Mobility" as one of those principles, with the following vision for the future of multimodal transportation in Frisco:

Frisco is a small, compact town where schools, parks and trailheads, restaurants, shops, and other businesses are located in close proximity. A well-connected, year-round, multimodal transportation network that encourages active uses must continue to enable residents and visitors to reach destinations without the use of automobiles. Supporting multimodal transportation options, creating off-road connections, and reducing gaps in the walking, biking and transit network will alleviate parking needs and congestion and promote active lifestyles.

Furthermore, the *Community Plan* names three goals related to expanding multimodal streets:

- Provide a safe and efficient multimodal transportation network.
- Promote walking, bicycling, and other alternative modes of travel.
- Continue to expand regional transportation options for Frisco residents and visitors.

This *Downtown Complete Streets Plan* puts that principle and those goals into action and charts a detailed course for transforming Frisco's downtown streets to support connected and active mobility year-round.

Vision

The 2019 *Community Plan* sets out the following vision for the Town of Frisco's future:

A close-knit, welcoming community that cherishes our history, environment, healthy lifestyle, and unique sense of place.

The vision and guiding principles are together a statement of community values, and a roadmap for enshrining those values in infrastructure. The *Downtown Complete Streets Plan* seeks to advance that vision in how the core economic district of the town is planned, managed, and invested in. As such, this Plan sets out the following vision for Frisco's downtown streets:

Frisco's downtown streets are safe for all modes, promote healthy and active living, and support an inclusive and thriving community.

Developing the Plan

Beginning in summer 2021, the Town of Frisco began the process to develop the *Downtown Complete Streets Plan*. The planning effort was led by Community Development Department staff, a consultant team, and a Project Management Team composed of the Town Manager, Town Council and Planning Commission representatives, and staff representing other Town departments including Public Works and Recreation and Culture. This Plan reflects the knowledge, priorities, and values of community participants, the Project Management Team, Town staff, and other stakeholders about how to best transform Frisco's downtown streets to meet the needs of current residents and generations to come.

Existing Conditions

The Plan team conducted a review of relevant plans, policies, and project documents to understand the vision and goals Town staff and residents had already put in place. Additionally, the team assessed existing infrastructure conditions through in-person site visits, conversations with Town staff and stakeholders, obtaining and analyzing traffic counts, and analysis of geospatial data.

The Plan team gathered two sets of new motor vehicle traffic counts during the planning process to better understand existing movements and traffic flows. Because the Town of Frisco has been experimenting with the Main Street Promenade during summer months in 2020 and 2021 (a closure of Main Street to vehicle traffic to make space for outdoor seating, dining, play, and social distancing during the COVID-19 pandemic), as well as ongoing reconstruction of Summit Boulevard, it was crucial to understand how these operational changes have affected movement into and through downtown Frisco. Therefore, the Town obtained new counts in September and again in November 2021, during and after the Main Street Promenade closure, respectively. This data collection and analysis informed infrastructure recommendations.

Finally, the Plan team conducted a review of the Town Code to understand needed regulatory changes for the *Downtown Complete Streets Plan* to be implemented.

Design Charrette

On September 21 – 23, 2021, the project team hosted an intensive design charrette at First & Main in downtown Frisco. Over three days, the team engaged with an estimated 150



Constituents met with the project team to share feedback during the charrette.

community members, local business employees and owners, stakeholders from Town departments, and representatives from Summit County. During this engagement, the team led in-depth conversations about what Frisco's downtown feels like today, what people revere about downtown streets, and what challenges and opportunities they saw for the Plan. The team facilitated this as a design exercise and invited participants to share and iterate on design ideas for Granite Street, Galena Street, the north-south avenues between Madison and 7th, and the alleys behind Main Street.

The team hosted two public meetings during the engagement—one to introduce the Plan on Tuesday, September 21st, and then another to present design charrette results on the evening of Thursday, September 23rd. In between, the team hosted “Open Studio” hours on Tuesday and Wednesday, inviting anyone to drop in, discuss the project with the consultant team, and provide comments on maps and project boards. On Thursday, the project team held a “Closed Studio” work session, synthesizing public comments into a series of design concepts for the four street types that were developed during the charrette with input from all the participants (see Chapter 3 for the final street types included in the Plan's recommendations). These concepts were presented to the public on the evening

How to Use the Plan

The *Downtown Complete Streets Plan* is a plan for the Town to transform its downtown street network (shown in Map 1) for a vibrant and active future. It is a roadmap for Town staff and elected officials to make planning, design, and budgeting decisions on streets in the central core area, and a guide for Town design staff, consultants, and private developers who are improving downtown rights-of-way to deliver streets in alignment with the future for Frisco.

When making changes to either the public right-of-way or abutting parcels in the central core area, project staff and decision makers shall refer to the Street Types in Chapter 3 to understand the future vision for the streets that may be affected by a project, and to ensure any changes or improvements to public right-of-way align with the relevant street type and the vision for a connected and multimodal transportation network.

The Plan is composed of three parts: a description of downtown Frisco as it exists today that informed planning and design decisions (Chapter 2), a design framework and set of street types to guide future development of streets (Chapter 3), and an Implementation Strategy to list and prioritize projects for the future (Chapter 4).

This Plan proposes a diverse mix of projects—some that may be implemented quickly with inexpensive materials and operational changes that are aimed at immediate safety and comfort improvements, and long-term projects that will require more significant planning, design, and capital investment. The near-term projects are meant to be implemented by the Town, while long-term projects may be implemented through a mix of Town and other funding sources, alongside development-driven improvements to the right-of-way. Responsibility and roles are articulated in Chapter 4.

Map 1: The Plan Area Boundaries, Downtown Frisco



Frisco Downtown Complete Streets Plan

Plan Area
 Project Boundary

TOOLE
DESIGN

THIS PAGE IS INTENTIONALLY LEFT BLANK.

Chapter 02

What We Know: Existing Conditions Analysis



2. What We Know: Existing Conditions Analysis

The Frisco *Downtown Complete Streets Plan* development process began with an analysis of the existing conditions, reviewing relevant plans and policies and the existing multimodal transportation network. This chapter summarizes the highlights of the analysis. Appendix A provides the complete Existing Conditions Report.

What Do the Previous Plans say?

The project team reviewed seven previous plans and studies that were relevant to the *Downtown Complete Streets Plan*—the Town of Frisco’s *Community Plan* (2019), the *Trails Master Plan* (2017), a *Parking Inventory and Opportunities* report (2017), an *On-Street Parking Study* (2019), and a *Topographical Survey for Granite Street* (2019), as well as Colorado Department of Transportation’s *Frisco State Highway 9 Traffic Study* (2017) and the Gap Project 90% Construction Documents. Together, these plans describe the Town of Frisco’s vision and goals for its downtown area and regional active trails system, as well as current operating conditions and ongoing projects that will impact downtown mobility and access.

During this review, four major themes of the previous plans emerged:

- 1 Improve quality of life and community prosperity
- 2 Promote walking, biking, and other alternative modes
- 3 Increase safety for all ages and abilities
- 4 Improve access to key destinations

Together, these reflect the vision and principles set out in the Town’s master planning efforts, and its planning and design priorities for Town streets. This Plan was developed with these four themes in mind.

To inform the *Downtown Complete Streets Plan*, this chapter describes the current state of streets in Downtown Frisco and itemizes conditions by travel mode to identify needs and opportunities for street transformations.

Roadway Network

Table 1 provides an overview of the allocation of space, land use/zoning, and pedestrian or bicyclist facilities on the streets within the Plan area.

Table 1: Description of Streets in Downtown Frisco

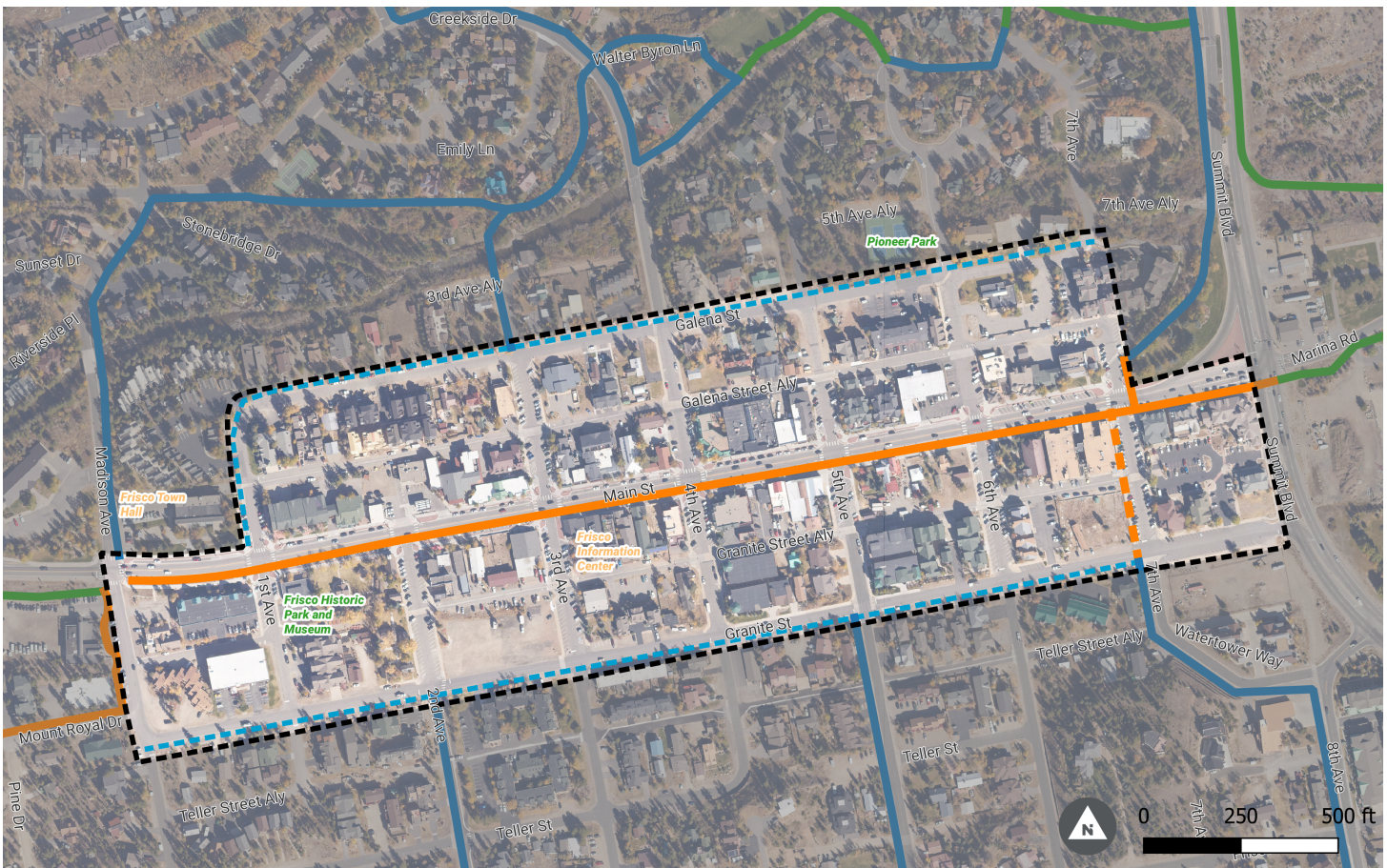
Street	Description
Main Street	Main Street is an east-west corridor with one vehicular lane of traffic in each direction and parking and continuous concrete curb and sidewalks on both sides of the street. It is the only corridor within the Plan area that has pavement markings. Both sides of the street are zoned as Central Core, and the street has the most commercial uses within the Plan area— multiple hotels as well as dining and retail options line the street. The Summit Stage Copper Mountain route and Frisco-Breckenridge route have transit stops on Main Street.
Granite Street	Granite Street is an east-west corridor with one vehicular lane of traffic in each direction and gravel shoulders on vast majority of the street. There are no sidewalks. The north side of the street is zoned as Central Core, while the south side is high density residential. Many parcels on this street do not have defined driveways. The Summit Stage Frisco-Breckenridge route runs on Granite Street between 5th Avenue and 7th Avenue. Granite Street's connection to Summit Boulevard (Highway 9) allows Main Street traffic to detour to it during the Main Street Promenade.
Galena Street	Galena Street is an east-west corridor with one vehicular lane of traffic in each direction. Most of the street is lacking sidewalks. The south side of the street is zoned as Central Core, while the north side is high density residential. The street is primarily residential, and a park with tennis courts (Pioneer Park) is located on its eastern end.
Madison Avenue	Madison Avenue is a north-south corridor with one vehicular lane of traffic in each direction. There are no sidewalks. The street connects to the Frisco Pathways System north of the segment within the Plan area. The east side of Madison Avenue is zoned as Central Core, and the west side is zoned for mixed use. The small segment of Madison Avenue included in the Plan includes a private school, a restaurant, and housing.
North-South Avenues (1st, 2nd, 3rd, 4th, 5th, 6th, and 7th Avenue)	Seven avenues run north-south within the Plan area. They each have one travel lane in each direction and include angled parking within one-two blocks of their intersections with Main Street. Most include continuous sidewalks, with the exception of small segments of 1st Avenue, 5th Avenue, and 6th Avenue. 2nd Avenue, 5th Avenue, and 7th Avenue connect to the Frisco Pathways system to the south of the Plan Area, while 3rd Avenue connects to a Regional Recreation Path to the north. All of the avenues are zoned as Central Core within the Plan area.
Alleys	There are two alleys within the Plan area—Galena Street Alley and Granite Street Alley. Both allow for one vehicular lane of traffic in each direction and lack sidewalks. Galena Street Alley and Granite Street Alley are both entirely zoned as Central Core. The alleys are used for loading/unloading, parking, and trash pick-up.

Bicycle and Trails Network

There are limited trails and paths for walking and biking within the Plan area, which leads to an incomplete network for people on foot or on bike (see Map 2). There are shared bicycle lane markings (sharrows) on Main Street, but participants in the 2017 Trails Master Plan engagement process noted that many bicyclists ride on the sidewalk instead of in the road, and they stated that additional lower-

stress bike facilities were needed nearby. Shared use paths on Madison Avenue, 7th Avenue, and 5th Avenue connect to the Plan area, but do not continue within it. Within the Plan area, the Trails Master Plan includes recommendations for a future bike lane on Galena Street, bike lanes on both sides of the roadway on Granite Street, and multi-use paths on both sides of the roadway on 2nd Avenue.

Map 2: Bicycle and Trails Network, Downtown Frisco



Frisco Downtown
Complete Streets Plan

Pathways and Trails

Existing Facilities

— Frisco Pathways

— Regional Recreational Path

— Shared Roadway

Proposed, existing

— Proposed Facility

— Existing Facility

— Project Boundary



SE GROUP

TOOLE
DESIGN

Pedestrian Network

The compact nature of the Downtown area creates the potential for a walkable environment. However, deficiencies in the existing pedestrian network create challenges for people walking within the Plan area.

Sidewalks

There are limited sidewalks within the Plan area (see Map 3 for a Pedestrian Infrastructure Map)—they exist primarily on Main Street and the north-south avenues. On Granite and Galena Streets, there are gravel areas at the roadway edge where people can walk or bike out of the direct travel path of vehicular traffic. As these gravel areas are not formalized sidewalks, they provide less safety and comfort for bicyclists and pedestrians compared to sidewalks. In addition, the gravel areas do not meet ADA requirements for accessible routes in the public right-of-way, and they are inaccessible in the winter due to snow storage.

Signals and Crossings

There is only one signalized intersection within the Plan area, located at the intersection of Main Street and Summit Boulevard. The majority of the intersections within the Plan area have two-way stop control, and there are limited marked crossing opportunities outside of Main Street, which has high-visibility marked crosswalks at every intersection. This lack of marked crossings can lead to greater risk and potential conflicts between people walking and driving.

Map 3: Pedestrian Infrastructure Network, Downtown Frisco



Frisco Downtown
Complete Streets Plan

Pedestrian Infrastructure

- Gravel
- Lawn/Grass
- Paved Sidewalk
- Project Boundary



SE GROUP

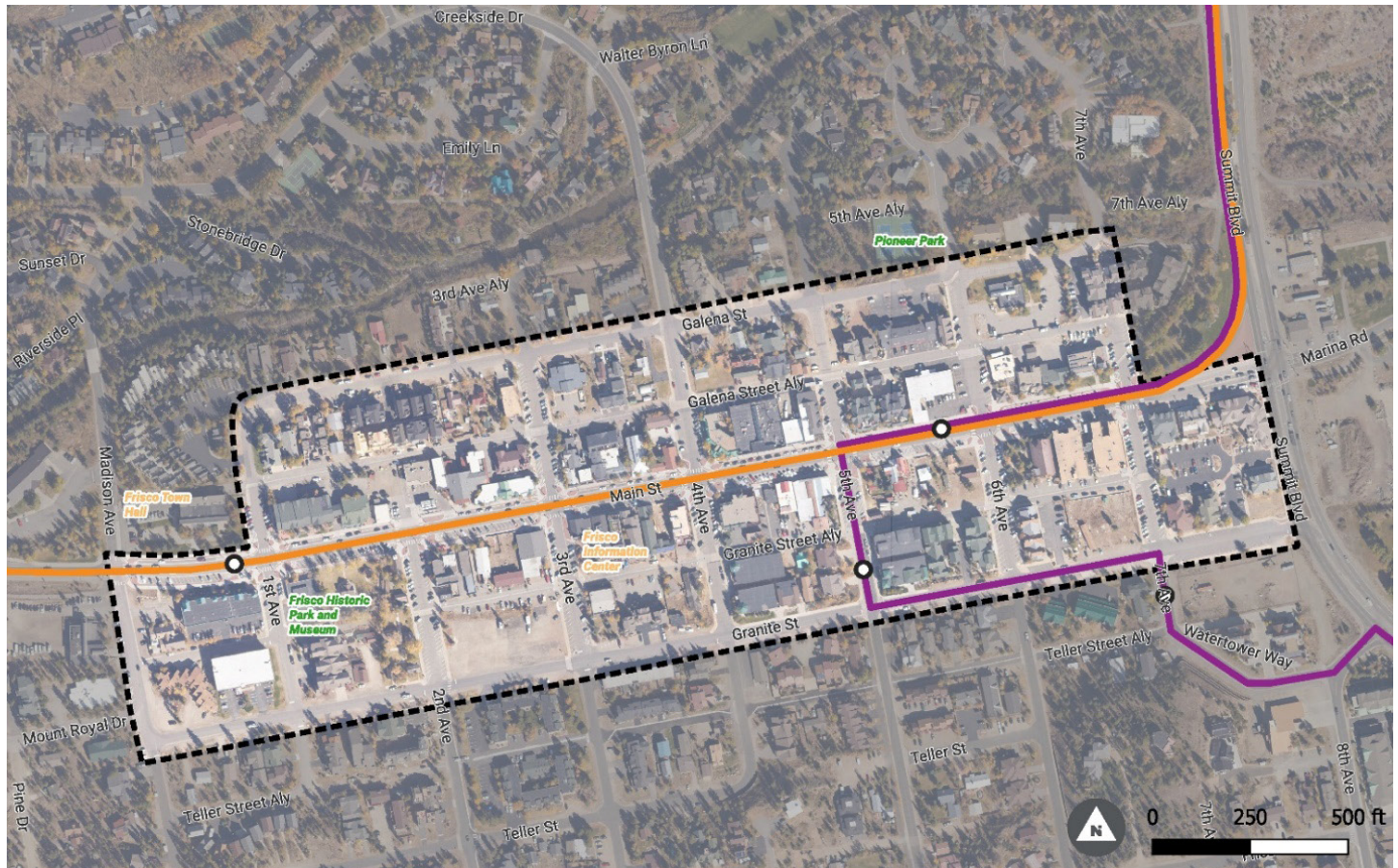
TOOLE
DESIGN

Transit Network

Two Summit Stage routes intersect with the Plan area—the Copper Mountain route and the Frisco-Breckenridge route. During the winter season, headways are 30 minutes on both

lines, while in the summer headways range from 30 minutes to one hour. See Map 4 for a map of the transit routes within the plan area.

Map 4: Transit Network, Downtown Frisco



Frisco Downtown
Complete Streets Plan

- Bus Stop
- Summit Stage - Copper Mountain Route
- Summit Stage - Frisco-Breckenridge Route
- ▭ Project Boundary



SE GROUP

TOOLE
DESIGN

Vehicle Volumes and Speeds

24-hour traffic counts for motor vehicles were collected at five (5) locations within the plan area from September 1 - September 7, 2021 (including the Labor Day holiday weekend) and November 3 - November 9, 2021:

- Main Street west of Madison Avenue
- Main Street east of 6th Avenue
- Granite Street west of 4th Avenue
- Galena Street east of 3rd Avenue
- 4th Avenue south of Galena Street

During the September counts (Table 2), the Main Street Promenade was open and vehicular traffic was prohibited on Main Street from 2nd Avenue to 5th Avenue. 85th percentile speeds at nearly all locations remained at or under 25 miles per hour (the posted speed). Main Street east of 6th Avenue

had noticeably lower speeds than the other studied corridors, while Main Street west of Madison Avenue saw the highest speeds. While all corridors had relatively low volumes, Main Street east of 6th Avenue had the highest numbers of vehicular traffic, reaching peaks of 675 hourly vehicles on average on weekdays and 679 vehicles on weekends.

During the November counts (Table 3), Main Street was open to vehicular traffic. Traffic speeds generally increased at most locations as seasonal volumes fell. Following the closure of the Main Street Promenade, which re-opened Main Street to vehicle traffic, volumes on Granite Street fell significantly (52-64 percent), while volumes on Main Street dropped slightly (1-20 percent). Traffic speeds on Granite increased in both directions, with 85th percentile speeds over the posted speed of 25 miles per hour.

**Table 2: Average Daily Traffic and Speed, Sept. 2021
(During Main Street Promenade)**

Roadway	Location	Average Daily Traffic		85 th Percentile Speed (mph)	
		Weekday	Weekend	Eastbound	Westbound
Main Street	West of Madison Avenue	4653	4095	24	25
	East of 6 th Avenue	7702	7678	12	12
Granite Street	West of 4 th Avenue	2962	2371	24	27
Galena Street	East of 3 rd Avenue	469	434	24	23
4 th Avenue	South of Galena Street	903	723	19	22

**Table 3: Average Daily Traffic and Speed, Nov. 2021
(Post-Main Street Promenade)**

Roadway	Location	Average Daily Traffic		85 th Percentile Speed (mph)	
		Weekday	Weekend	Eastbound	Westbound
Main Street	West of Madison Avenue	4,621	3,719	30	29
	East of 6 th Avenue	6,147	5,290	24	23
Granite Street	West of 4 th Avenue	1,414	864	30	34
Galena Street	East of 3 rd Avenue	238	184	23	23
4 th Avenue	South of Galena Street	776	602	22	24

Opportunities

The Town's existing streetscape within the Plan area has multiple opportunities for improved connectivity, both within the Plan area and by providing better connections to nearby destinations and other pathways and trails.

- **Downtown as a trailhead:** While there are limited trails and pathways within the Plan area, there is an opportunity to improve these connections to the trails and pathways just outside the Plan area and highlight Frisco's downtown core as a starting point or trailhead for the wider trail system within Frisco.
- **Leveraging new development:** Upcoming development within the Plan area provides opportunities to create standards for streetscape pedestrian and bicyclist improvements to support improved connectivity.
- **Improving the sidewalk network:** Sidewalks are inconsistent throughout the Plan area. Although a current constraint, existing sidewalk gaps provide an opportunity to consider the width, material, and quality of sidewalks. Sidewalks may also include improved comfort for people walking through curb extensions, pedestrian-level lighting, seating, and other pedestrian-oriented amenities.
- **Clarifying modal priority and creating a more predictable walking and biking environment:** Existing sidewalk gaps, limited bike facilities, and the current informal uses of gravel areas on the roadway edge contribute to an unclear modal priority. Inconsistent traffic control on corridors like Granite Street and undefined driveways can contribute to this unpredictability, which creates greater risk and conflicts between people walking/biking and people driving. Creating clear infrastructure for people walking and biking can prioritize safety and comfort of the most vulnerable road users.
- **Incorporating snow removal:** All changes to the streetscape must consider the challenges of snow removal during the winter season. Removing snow and ice should be a priority for the entire public right-of-way, not just areas where vehicles travel.



In-street patios create places for people to gather.

THIS PAGE IS INTENTIONALLY LEFT BLANK.

Chapter 03

Where Are We Going? Design Framework and Street Types



3. Where Are We Going? Design Framework and Street Types

To transform Frisco's downtown streets into safer and more vibrant places that promote healthy and active living, and support an inclusive and thriving community, this Plan sets out a Complete Streets framework to apply to downtown streets.

This chapter provides an overarching design framework for the downtown street network. The chapter details a planning and design approach to guide decision-making for right-of-way projects; describes street types with design criteria

and facility types; and provides a palette of urban design elements to unify the identity of downtown streets and making walking, bicycling, riding transit, and driving around downtown Frisco a comfortable and memorable experience.



Bicycle parking and street activation features.

Complete Streets: Design for All Users

Complete Streets aim to create a safe and comfortable environment for everyone, no matter how they choose to travel, by prioritizing the needs of the most vulnerable street users. People walking and bicycling experience stress from increased motor vehicle speed and volume, which informs their decisions whether to walk or bicycle, and which streets they are willing to walk or bicycle on. Additionally, when conflicts and crashes do happen, people outside of vehicles have less physical protection, and thus are more likely to be injured or killed.

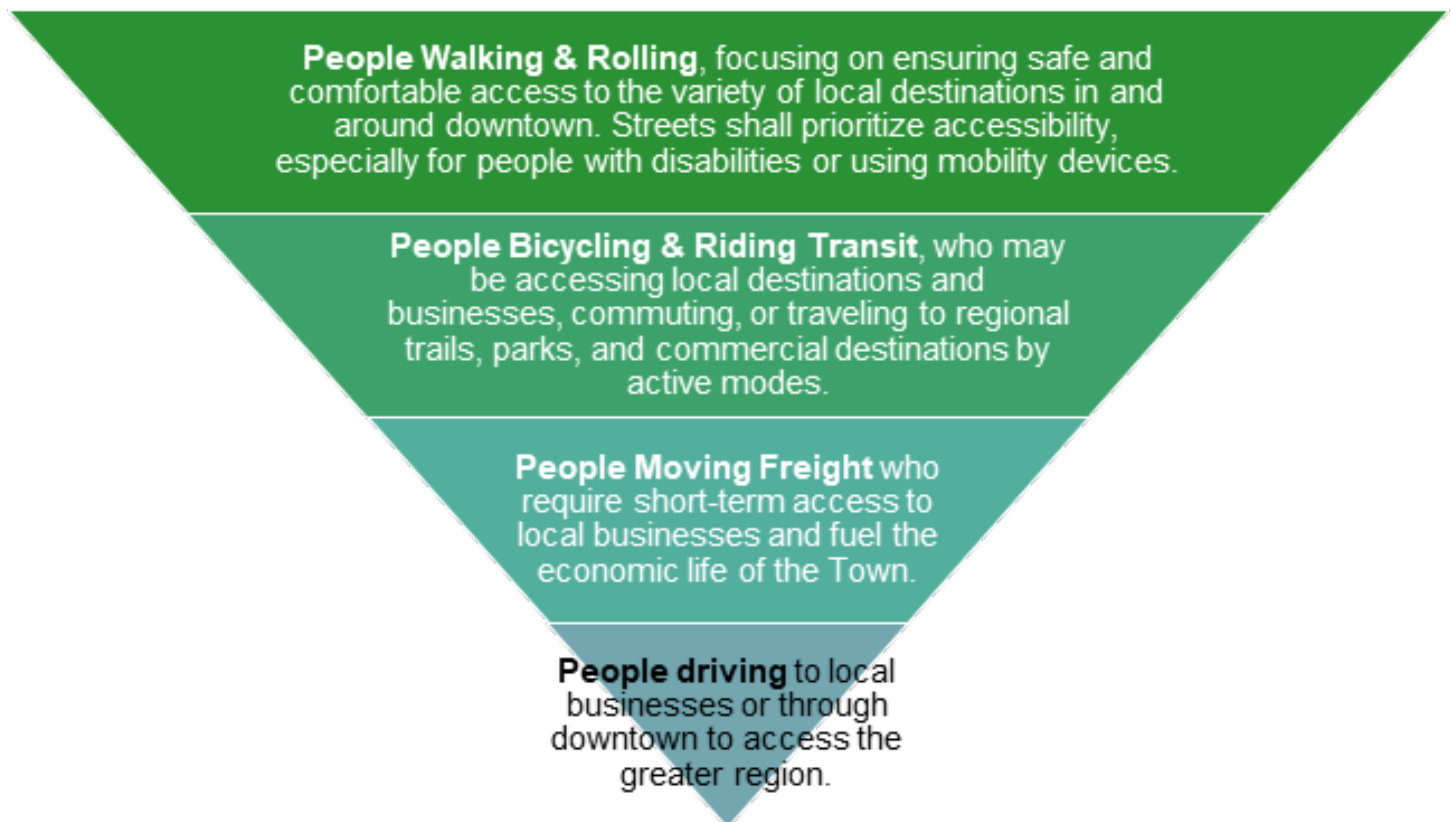
To better consider and meet the needs of active users, a Complete Streets decision-making framework replaces designing for vehicle capacity with an “outside-in” approach to street design and facility selection. Starting at the roadway

edge and working toward the center of the cross-section, the framework prioritizes design facilities that accommodate people walking and rolling first, then people bicycling and riding transit, then people accessing destinations at the curb, and finally people in motor vehicles.

As such, this Plan establishes a modal hierarchy for downtown streets. **When approaching a planning or design effort, designers and decision-makers shall use this hierarchy to determine which facilities are needed, and whose needs to prioritize first.**

When determining modal hierarchy on a street- or project-specific basis, decision-makers can also refer to the Multimodal Network on page 38 for further guidance on which travel modes and people to prioritize.

Figure 2: Modal Hierarchy for Frisco Complete Streets



Putting Complete Streets Design into Action

Translating the goal of Complete Streets into designs that accommodate active users requires using people-centric design methods. Planners and designers approaching streets in the Plan area should use design controls, such as design speed and design vehicle, that emphasize safety and comfort for all, beginning at the top of modal hierarchy.

Design Speed

The design speed of a road—the base assumption of the prevailing traffic speed on a roadway based on physical design factors—is one of the most important elements of Complete Streets design. Especially in contexts with dense destinations and pedestrian and bicycle activity, managing vehicle speed—and reducing high-end speeds that increase safety risks—is critical to cultivating inviting and active streets. Currently, design speeds in the Town of Frisco are set by street classification.

When setting posted speed limits in the downtown area, engineers should use the Target Speed method of speed limit-setting, which sets speed limits based on mitigating safety risk rather than other methods like the 85th percentile speed, which is designed to set the speed limit based on prevailing high-speed drivers. In contexts like downtown Frisco, designers should set a target speed for a roadway, or a desired top speed for vehicles. Design speed and posted speed are then matched to target speed.

In the downtown Plan area, **20 MPH** is the desired maximum target speed, design speed, and posted speed, as it has been demonstrated to be a speed at which fatality and severe injury risk is drastically reduced for pedestrians and bicyclists.¹



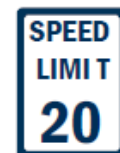
Frisco Pathway connection on 5th Avenue.

Design Vehicle and Control Vehicle

Designers typically select a design vehicle and control vehicle to inform geometric design. The design vehicle is the largest frequent user of the street, while the control vehicle is the largest infrequent user. Intersections may be designed to accommodate regular travel by the design vehicle, while control vehicles may use multiple lanes, wide-swept paths, or mountable curbs for maneuvers.

Within the Plan area, designers should use the SU-30 (or a Single-Unit Truck that is 30 feet in length) as the design vehicle for streets, and the Town's typical fire truck as the control vehicle. By using the SU-30 as the base design vehicle, intersections and corner radii can be made smaller, which can help to calm traffic speeds, shorten pedestrian crossing distances, and improve multimodal mobility.²

Figure 3: Target Speed, Design Speed, and Posted Speed



TARGET SPEED = DESIGN SPEED = POSTED SPEED

¹ NACTO City Limits: Setting Safe Speed Limits on Urban Streets (2020). <https://nacto.org/safespeeds/>

² NACTO Urban Street Design Guide, Island Press: 2013. <https://nacto.org/publication/urban-street-design-guide/design-controls/design-vehicle/>

Street Types

The Plan designates five street types, or classifications to apply to streets in the downtown area. These street types provide guidance on the base cross-section, which facilities shall be included and their dimensions, and discussion of modal priorities and context. During implementation of these cross-sections, the designers may need to decide on some modifications to the cross-sections to accommodate existing condition on the ground. In such a situation, designers should make decisions based on the modal hierarchy shown in Figure 1. In addition, the minimum dimension shown in the cross-section should be followed in constrained conditions only.

The existing Town Code identifies the following street type definitions that exist in the downtown area (§ 155-3):

- **Alleys**, or minor public thoroughfares designated for service purposes rather than through travel.
- **Arterials**, or roads designed for major movement of traffic.
- **Collector Streets**, or thoroughfares which carry traffic from local streets to major streets.
- **Local Commercial Streets**, or thoroughfares providing access to abutting commercial destinations.
- **Local Residential Streets**, or thoroughfares providing access to abutting residential destinations.

This plan expands upon these existing definitions with five new street types that apply specifically to downtown streets:

- **Main Street**
- **Downtown Collector Street**
- **Downtown Local Residential Street**
- **Downtown Local Commercial Street**
- **Downtown Alley**

When a street is modified or improved in the downtown area, planners, designers, and engineers shall refer to the appropriate street type to inform decisions about right-of-way.

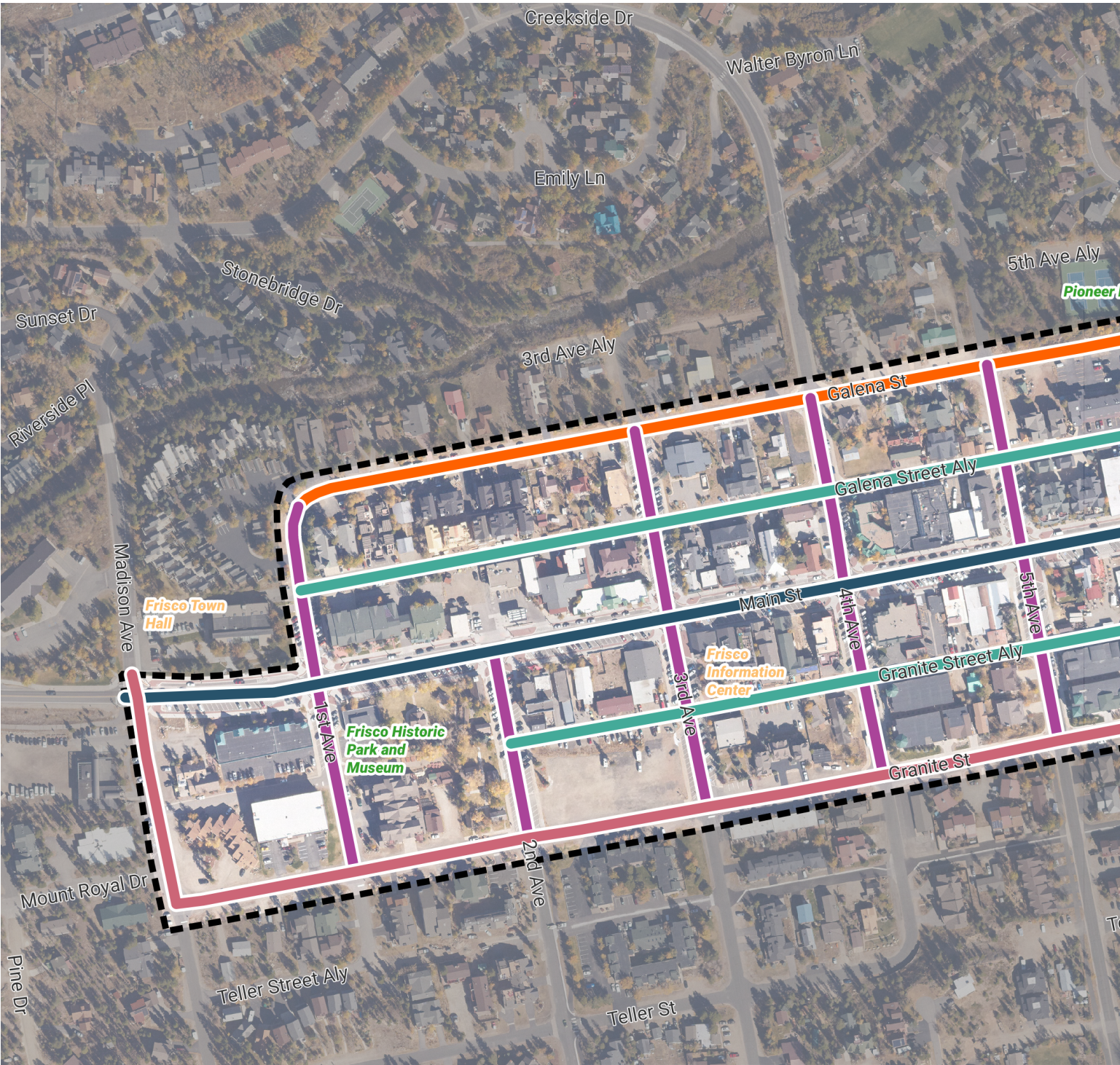


Curb extensions and signage enhance pedestrian crossings.



People bicycling on Main Street.

Map 5: Street Classifications, Downtown Frisco



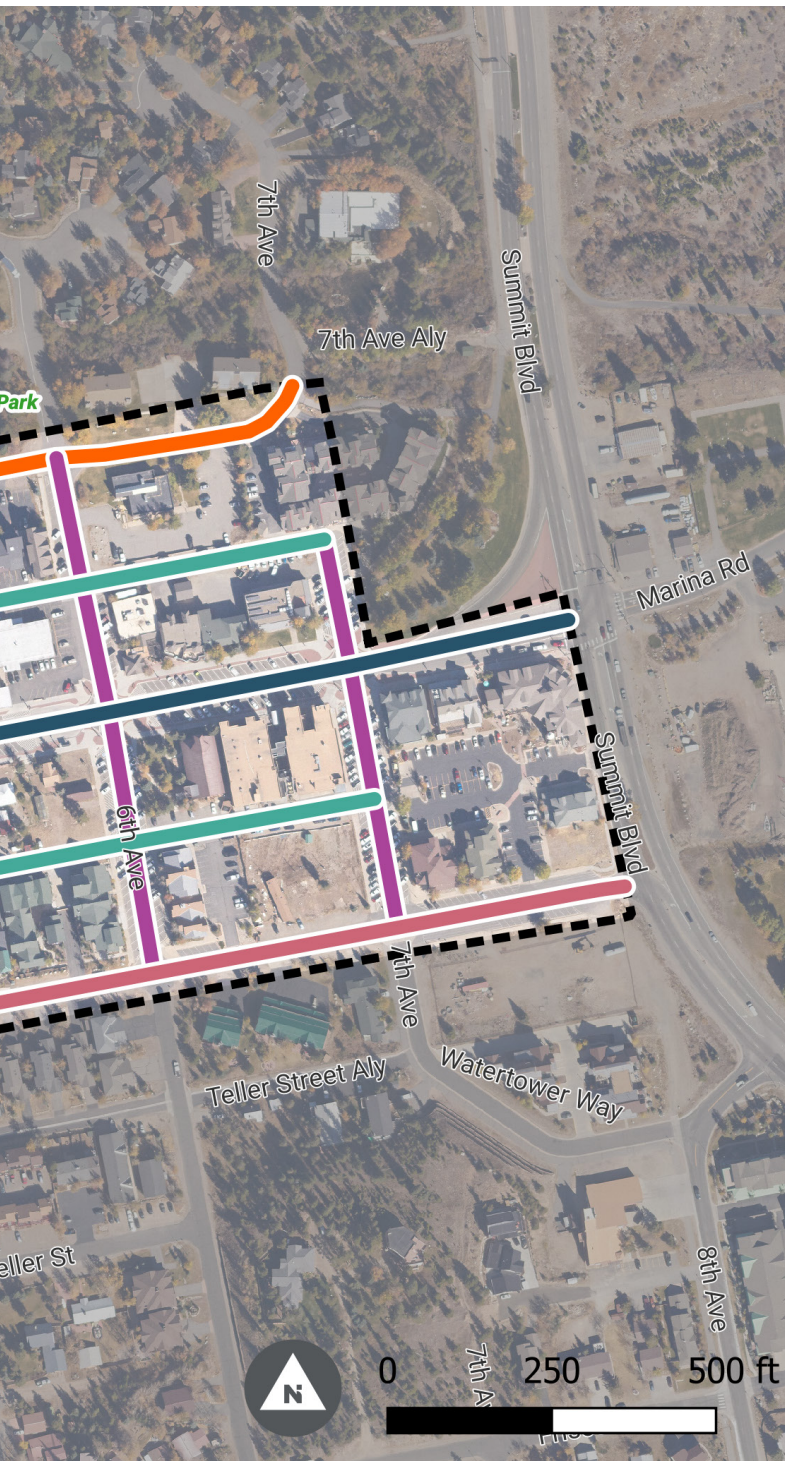
Frisco Downtown
Complete Streets Plan

Street Typologies

- Main Street
- Downtown Collector Street
- Downtown Local Residential Street

Plan

-



Main Street

The Main Street type is applied only to Main Street within the Plan Area, that is, between Madison Avenue and Summit Boulevard. Its function is to serve as a marquee destination for the Town, with dense commercial, retail, and recreational amenities, as well as a flexible public space. Main Street currently meets the Town's Complete Streets goals and serves as an anchor for additional street types within the Plan area. This Plan does not propose any major changes to existing conditions on Main Street, though some spot or intersection improvements may emerge as they relate to other Complete Streets projects. For instance, intersections may be reconfigured where the Frisco Pathway crosses Main Street to enhance safe and comfortable walking and bicycling conditions. In order to improve safety for bicyclists on Main Street, the Town may choose to pilot back-in angled parking on Main Street. Back-in angled parking improves visibility of bicyclists on the road as vehicles exit the parking spot. In addition, it directs drivers and passengers to the sidewalk as they exit their vehicles, thus enhancing pedestrian safety.

Downtown Local Commercial Street
Downtown Alley

n Area

Project Boundary

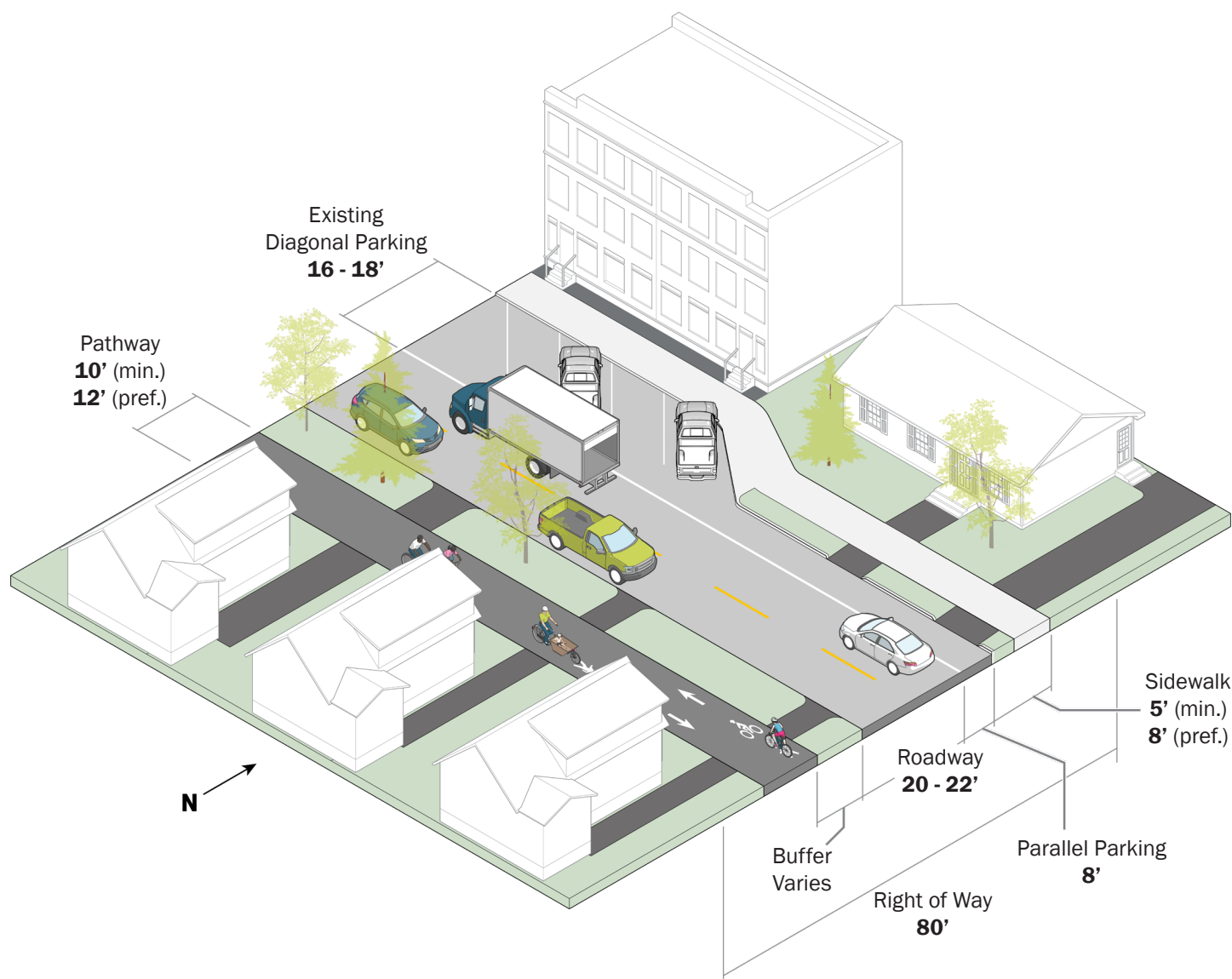


SE GROUP

TOOLE
DESIGN

Downtown Collector Street

Downtown Collector Streets provide linkages between local streets and arterials. Because vehicle traffic speed and volume may be higher than on local streets, these streets should prioritize separation between motor vehicles and people bicycling and walking to emphasize their comfort and safety. Within the Plan area, this type applies to Granite Street.



Key Design Elements:

- **Sidewalk** on the side closer to Main Street (minimum 5-feet wide, preferred 8 feet).
- **Shared-Use Path** opposite Main Street (minimum 10-feet wide, preferred 12 feet). The path may be used by both bicyclists and pedestrians. However, if the volume of bicyclists and pedestrians are anticipated to be high, designers should consider separating bicycle and pedestrian use on the facility. Designers may use FHWA's

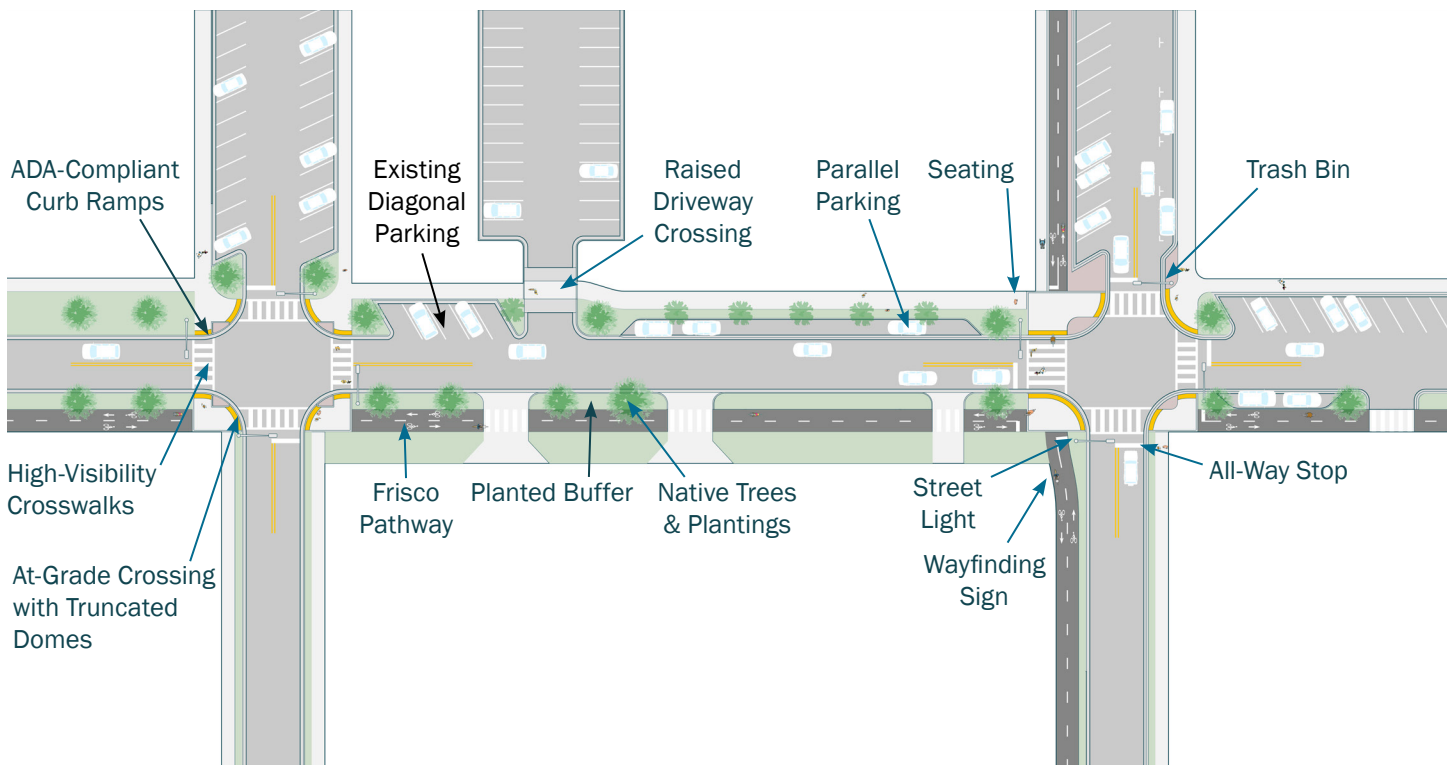
Shared-Use Path Level-of-Service Calculator to determine when to separate the uses.

- Flexible **Amenity Zone** buffer between Roadway and Pedestrian / Bicycle Paths, which may be used for landscaping, curb access, furniture, etc.
- On-Street Parking may be optionally provided.
- **Vehicle Travel Lanes** (maximum 11-feet wide, minimum 10 feet).

Design Parameters and Operational Characteristics

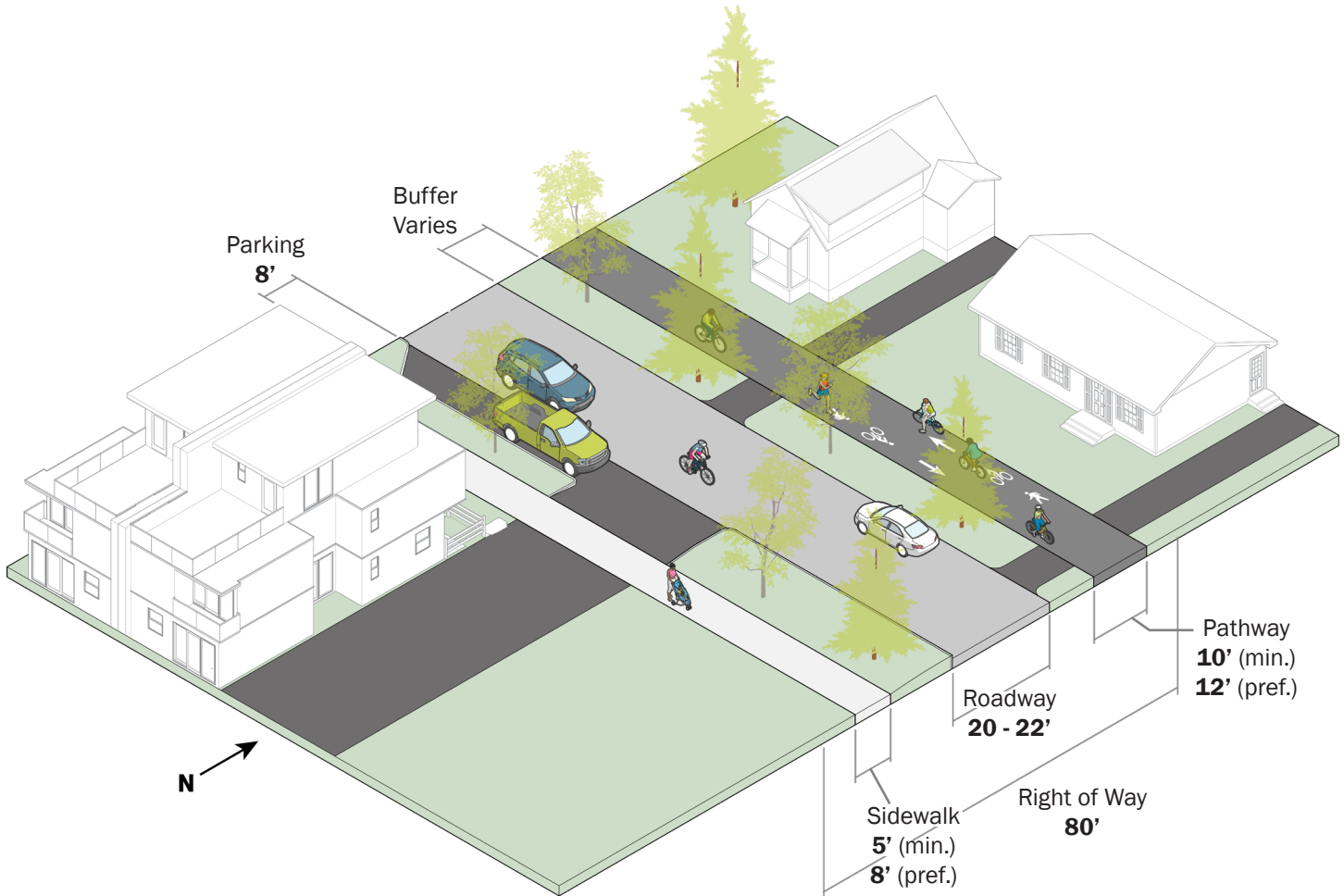
Design Speed	20-25 mph
Daily Traffic Volume	1,000-3,000 vehicles
Driveway Frequency	Low
On-Street Parking	Short-term (less than 2 hrs) and Long-term (2+ hours)
Freight Loading And Unloading	Via alley

Downtown Collector Street – Typical Block



Downtown Local Residential Street

Downtown Local Residential Streets balance safe and comfortable through-movement for people walking and bicycling with local residential access for deliveries and motor vehicles, local residential streets primarily provide access to abutting residential properties. Vehicle traffic speed and volume is low. Within the Plan area, these streets should maximize space for active transportation and include comfortable facilities for walking and biking. This type applies to Galena Street.



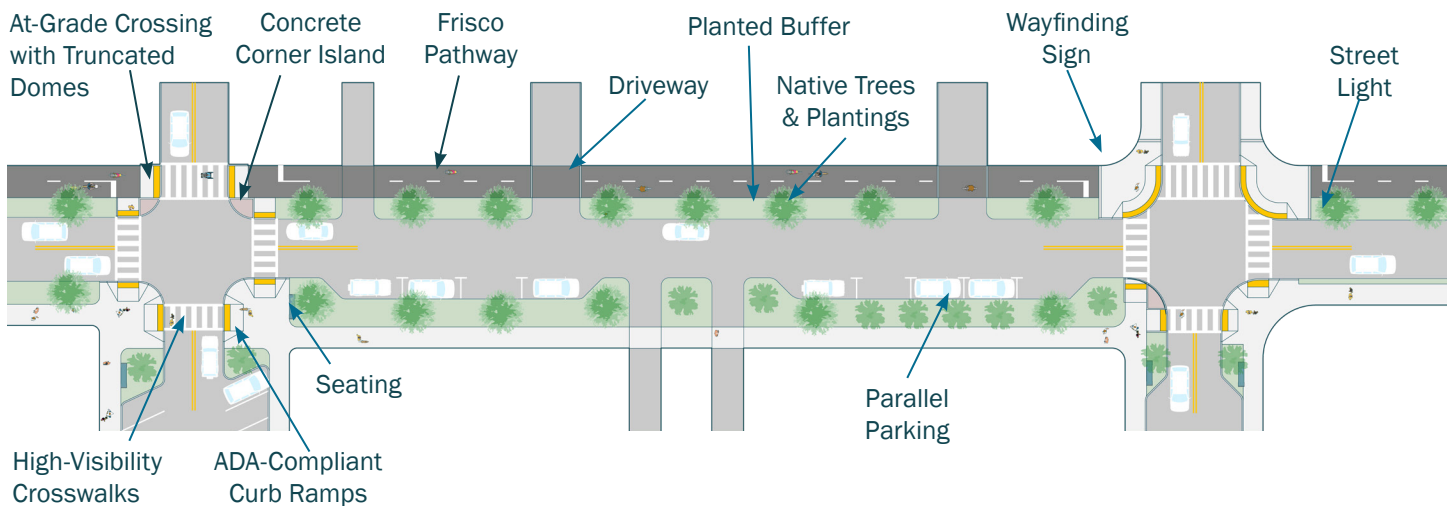
Key Design Elements:

- **Sidewalk** on the side closer to Main Street (minimum 5-feet wide, preferred 8 feet).
- **Shared-Use Path** opposite Main Street (minimum 10-feet wide, preferred 12 feet).
 - Sidewalk and Path are raised slightly above grade of adjacent buffer to allow water to flow off. If attached to the roadway or parking, the pathway or sidewalk should be raised and separated by a curb.
- **Landscaped Buffer** between Roadway and Pedestrian / Bicycle Paths.
- **On-Street Parking** may be optionally provided.
- **Vehicle Travelway** is bidirectional with no marked centerline (maximum 22-feet wide, preferred 20 feet).

Design Parameters and Operational Characteristics

Design Speed	15-20 mph
Daily Traffic Volume	< 2,000 vehicles
Driveway Frequency	High
On-Street Parking	Long-term (2 hrs or longer)
Freight Loading And Unloading	Via alley

Downtown Local Residential Street – Typical Block

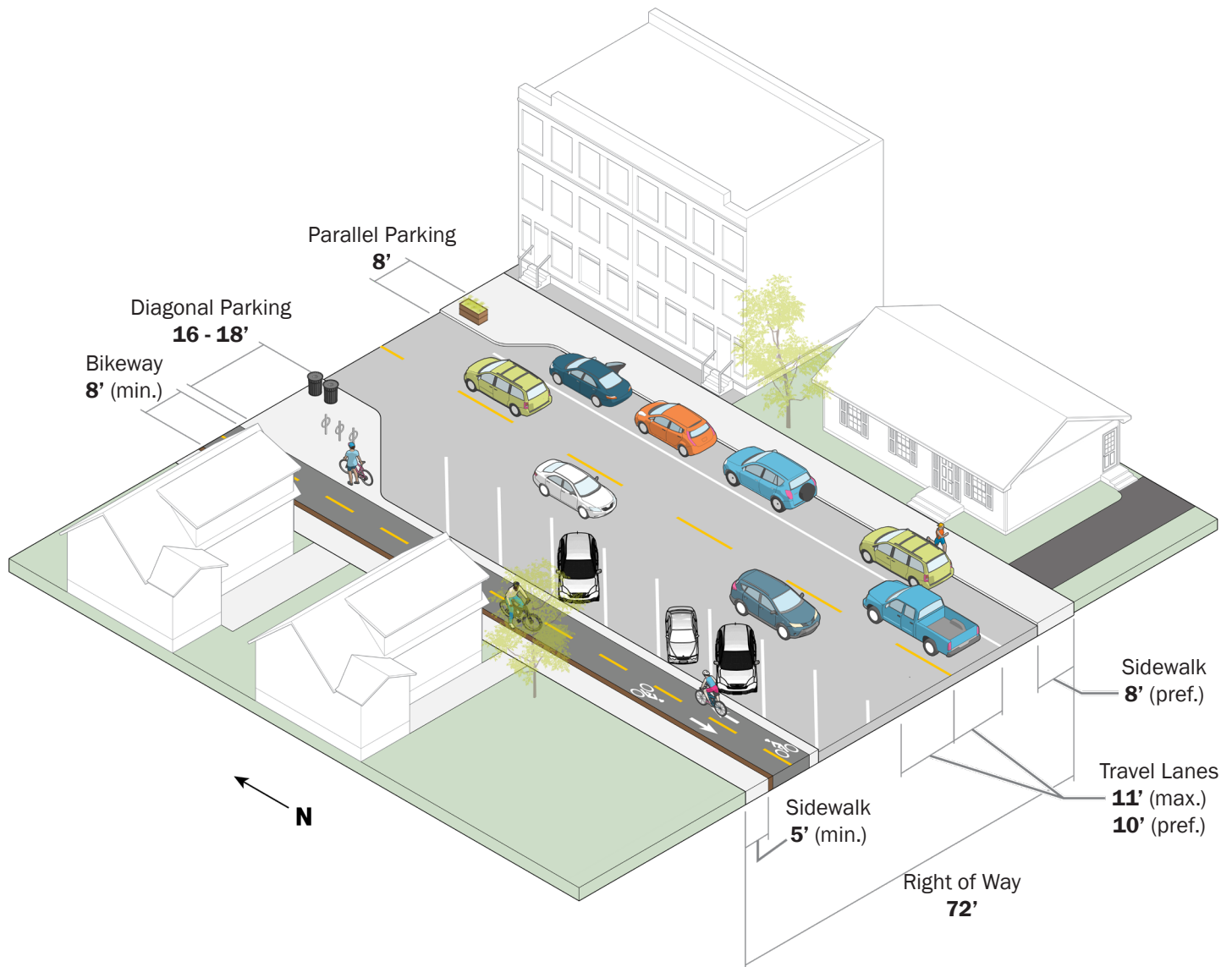


Downtown Local Commercial Street

Frisco Pathway Overlay

Within the Plan area, Local Commercial Streets continue to prioritize access to abutting commercial destinations. Due to the density of uses and traffic demands, Downtown Local Commercial Streets should include safe and comfortable facilities for walking, as well as curb access for freight and passenger vehicles (e.g., parking or loading space). Local Commercial Streets within the Plan area include all north-south avenues.

Additionally, for Downtown Local Commercial Streets on the Frisco Pathway Network (e.g., 3rd Avenue, 5th Avenue, and 7th Avenue), designers should also include high-comfort bicycle facilities. On streets without Frisco Pathway, the space may be used for a wider sidewalk or additional amenities like landscape buffer, benches, art installations, etc.



Key Design Elements:

- **Sidewalks** on both sides of the street (minimum 5-feet wide, preferred 8 feet).
- **Bidirectional Raised Bikeway** on one side (minimum 8 feet).
- **Parking / Curb Access Lanes** are provided on one or both sides.
- **Vehicle Travel Lanes** (maximum 11-feet wide, minimum 10 feet)

Time-Limited Parking:

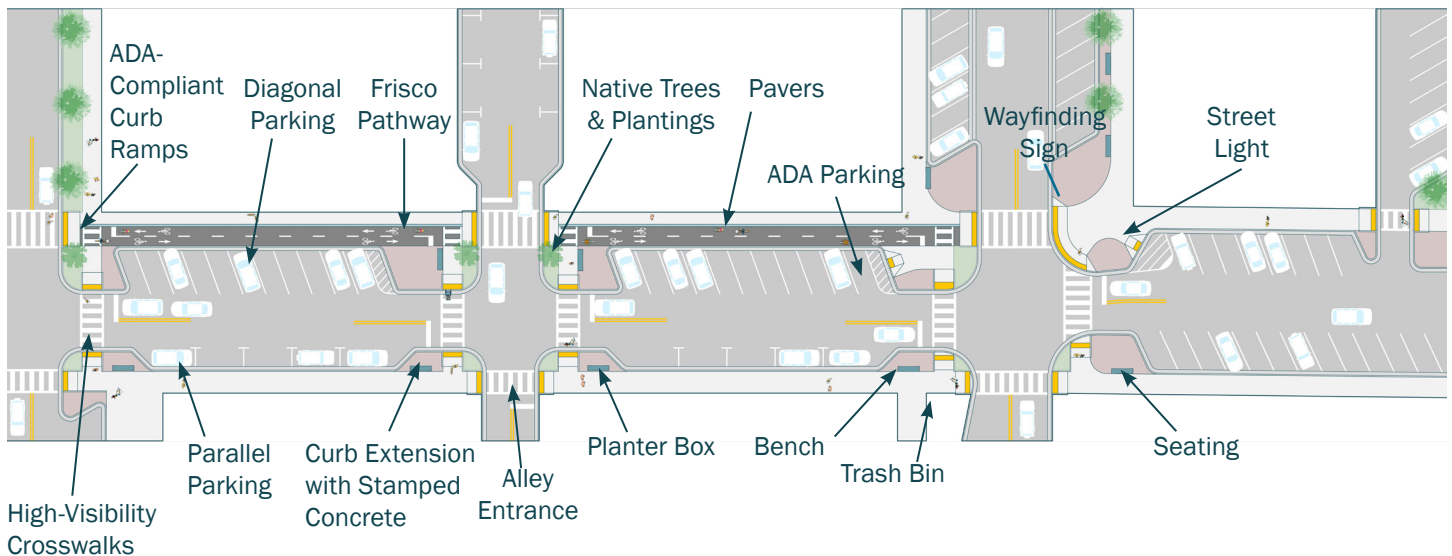
In a vibrant downtown area, many users are often competing for the same parking spaces. Short-term parking can optimize the turnover of spaces to serve more patrons more frequently, and it has also been found to reduce the number of people driving alone to central business districts. Long-term parking away from Main Street and the north-south avenues allows for employees and residents to park their vehicles.

(J. Richard Kuzmyak et al, "Chapter 18 – Parking Management and Supply", *TCRP Report 95: Traveler Response to Transportation System Changes*, Transportation Research Board, 2003).

Design Parameters and Operational Characteristics

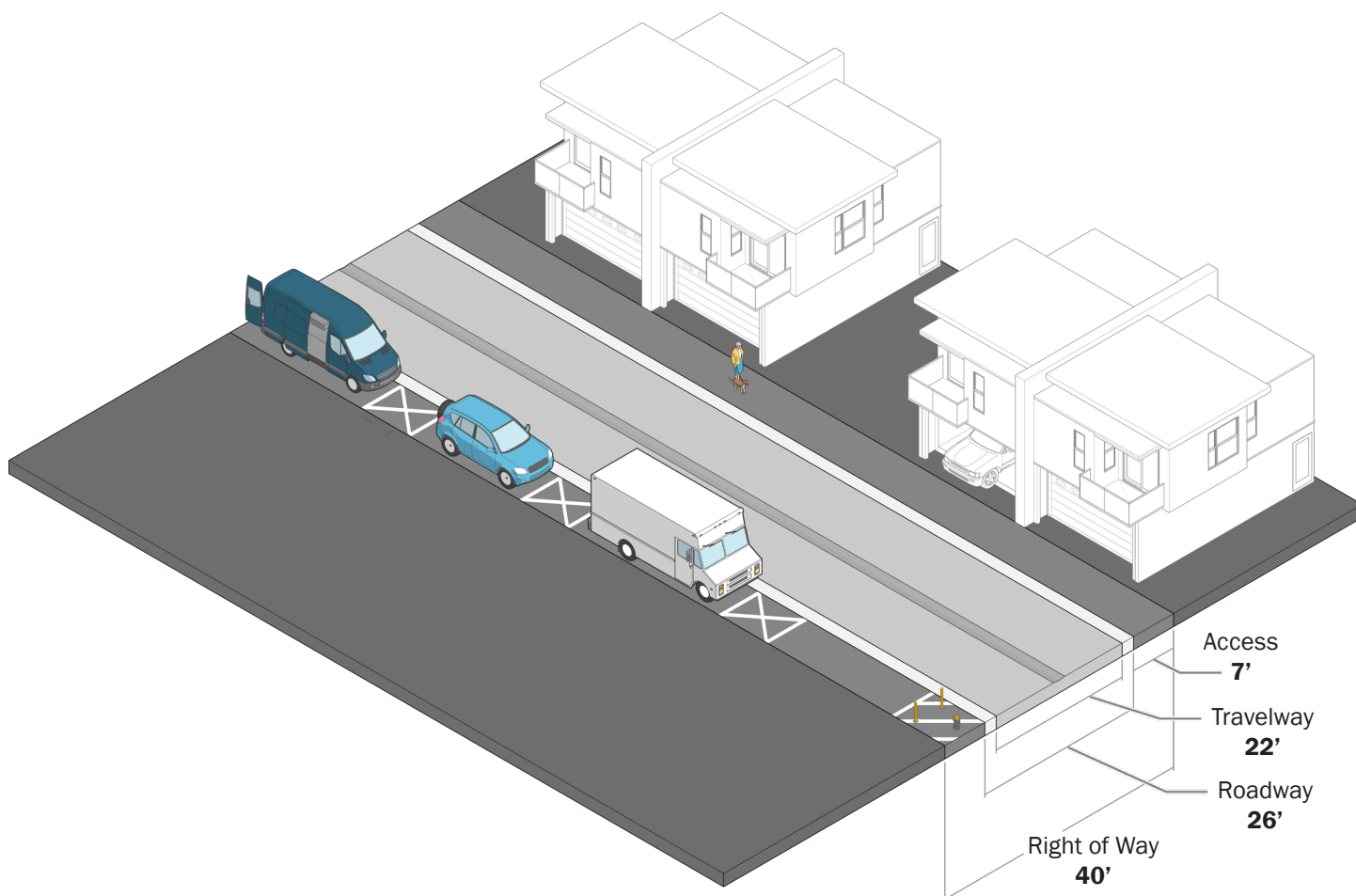
Design Speed	15-20 mph
Daily Traffic Volume	1,000-3,000 vehicles
Driveway Frequency	Low
On-Street Parking	Short-term (less than 2 hrs)
Freight Loading And Unloading	Via alley

Downtown Local Commercial Street – Typical Block



Downtown Alleys

Alleys are streets that provide for deliveries, parking lot or garage access, and back-of-house services to properties with primary access on another adjacent street. Additionally, alleys downtown are key emergency response routes; passenger and commercial vehicles should not use alleys for through-travel, but emergency vehicles require clear access. Alleys within the Plan area are formalized through markings and material change to more efficiently organize parking, loading, and deliveries. Intersection treatments prioritize visibility and low-speed interactions to ensure that crossings remain safe and discourage continuous travel. Within the plan area, this type applies to Granite Alley and Galena Alley.



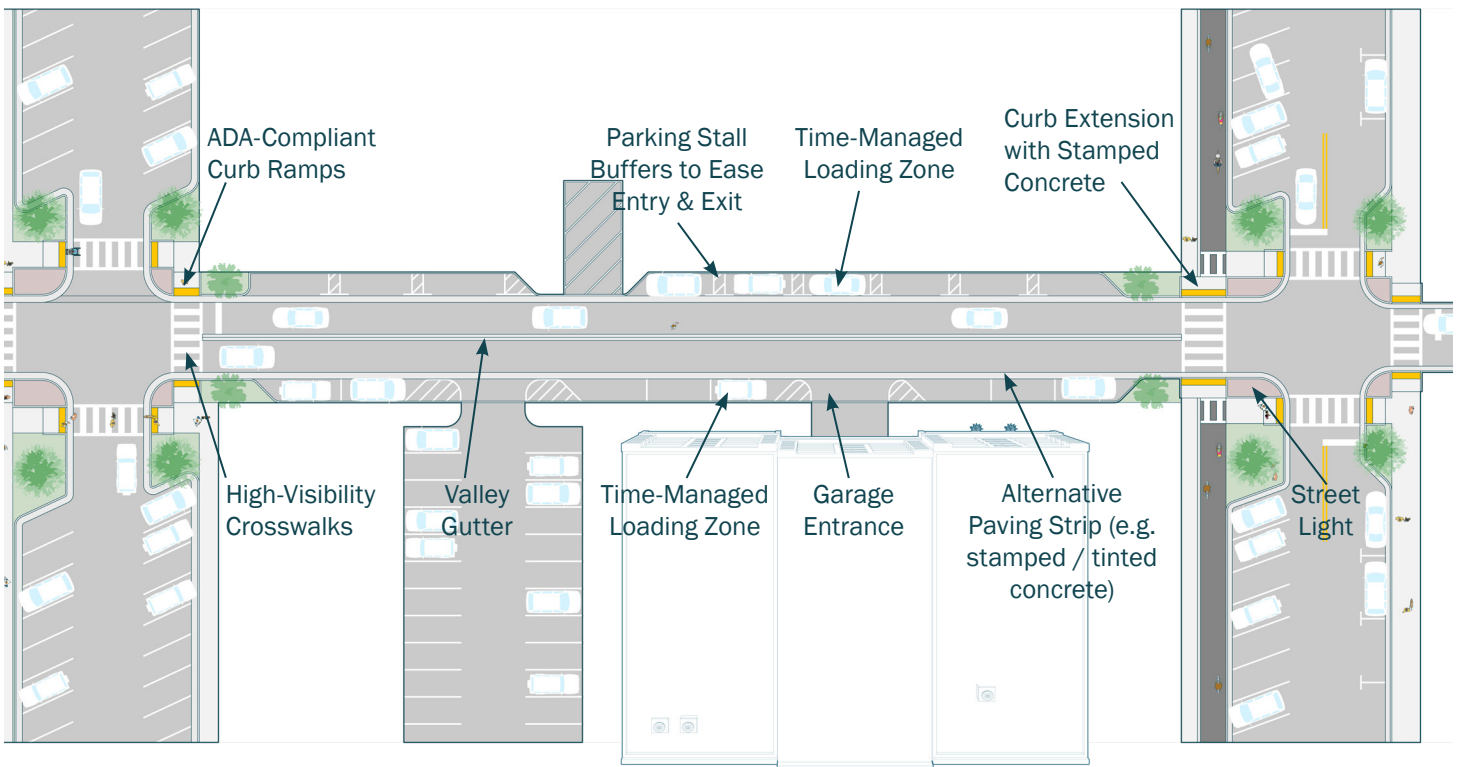
Key Design Elements:

- **Parking / Curb Access Lanes** are provided to access destinations.
- Frequent Driveways and Garage Entrances are accommodated.
- **Shared Bidirectional Travelway** without Marked Centerline (maximum 22-feet wide, with 26-feet clear width including buffers).

Design Parameters and Operational Characteristics

Design Speed	10-15 mph
Daily Traffic Volume	< 1,000 vehicles
Driveway Frequency	High
On-Street Parking	Short-term & Loading (30 minutes or less)
Freight Loading And Unloading	Managed Zones

Downtown Alley – Typical Block



Urban Design Palette

In addition to Complete Streets infrastructure improvements in the roadway, streetscape elements like lighting, landscaping, and street furniture can improve comfort and walkability throughout the Plan area. The following section contains recommendations for an urban design palette that creates a consistent look and feel throughout Frisco's downtown.

Lighting



Product: Lightpost

Size: approx. 20 feet

Notes: Design/construction completed in-house

Benches



Preferred Option

Product: Bench

Name: 143-60TX

Manufacturer: Dumor

Color: Black

Finish: Wood Grain Recycled Plastic

Size: 6 feet

Options: With Armrest

Notes: To match existing seating, Surface mounting



Product: Bench

Name: CAN1872T, Canyon Thermory Gabion Bench

Manufacturer: Anova

Color: Black

Finish: Thermory Hardwood

Size: 6 feet

Notes: Surface mounting



Product: Bench

Name: CR2780T, Coronado Thermory 6 feet Contour Bench

Manufacturer: Anova

Color: Black

Finish: Thermory Planks

Size: 6 feet

Notes: Surface mounting



Product: Bench

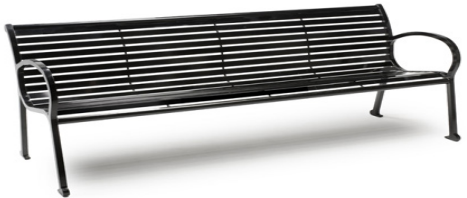
Name: Scarborough

Manufacturer: Landscape Forms

Color: Black

Size: 6 feet

Notes: Surface mounting, backed



Product: Lounge Seating

Name: PLK60T, Plank Adirondack Chair

Manufacturer: Anova

Color: Black polyethylene

Finish: Thermory Planks

Notes: Freestanding



Trash Bins



Product: Waste Bin

Name: Receptacle 102-32

Manufacturer: Dumor

Color: Black

Size: 32 gallon

Notes: Steel, 3 cover options, side opening emptying, split recycling liner available

Bicycle Parking



Product: Bike Rack

Name: Hoop Rack

Manufacturer: Dero

Color: Black

Notes: Surface or in-ground mounting, optional lean bar



Product: Bike Rack

Name: Tandem Powder Coated Bike Rack

Manufacturer: Anova

Color: Black

Notes: Surface mounting

Planter Boxes



Product: Planter

Size: 18"x71"x22"

Notes: Design/construction completed in-house

Trees

- Engelmann Spruce (*Picea engelmannii*)
- Bristlecone Pine (*Pinus aristata*)
- Douglas Fir (*Pseudotsuga menziesii*)
- Blue Spruce (*Picea pungens*)
- Cottonwood (*Populus deltoides*)
- Aspen (*Populus tremuloides*)

Shrubs

- Tall Western Sage (*Artemisia tridentata* 'vasyana')
- Bog Birch (*Betula glandulosa*)
- Common Juniper (*Juniperus communis*)
- Twinberry Honeysuckle (*Lonicera involucrata*)
- Shrubby Cinquefoil (*Potentilla fruticosa*)
- Alpine Currant (*Ribes aureum*)
- Woods Rose (*Rosa woodsii*)
- Native Raspberry (*Rubus idaeus*)
- Yellow Mountain Willow (*Salix monticola*)
- Wolfs Willow (*Salix wolfii*)
- Redberried Elder (*Sambucus pubens*)
- Silver Buffaloberry (*Shepherdia Canadensis*)
- Serviceberry (*Amelanchier alnifolia*)
- Siberian Peashrub (*Caragana arborescens*)
- Peking Cotoneaster (*Cotoneaster acutifolia*)
- Buffalo Juniper (*Juniperus sabina*)
- Mugo Pine (*Pinus mugo*)
- Chokecherry (*Prunus virginiana*)
- Antelope Brush (*Purshia tridentata*)
- Arctic Willow (*Salix arctica*)
- False Spirea (*Sorbaria sorbifolia*)
- Common Lilac (*Syringa vulgaris*)

Grasses/Wildflowers

- Mountain Bromegrass
- Sheep Fescue
- Slender Wheatgrass
- Streambank Wheatgrass
- Tetraploid Annual Ryegrass
- Western Wheatgrass
- Canby Bluegrass
- Blue Wildrye

THIS PAGE IS INTENTIONALLY LEFT BLANK.

Chapter 04

How We Get There: Implementation





4. How We Get There: Implementation

The Implementation Path

To translate the vision for downtown Complete Streets into a transformed street network, this chapter describes regulatory changes, the types of projects, a prioritization process, and a prioritized list of projects to mark a measurable

and substantial shift toward a complete, inclusive, and comfortable downtown transportation system. The implementation plan provides direction for the Town to focus its resources and pursue funding opportunities systematically.



Street activation features bring people and new activities to downtown Frisco.

Code Updates

To put this Plan into action, sections of the Town Code should be updated to enable flexibility in street design and operations. This Plan recommends changes to three sections of the Town Code: Chapter 155 (Streets), the *Minimum Street Design and Access Criteria* in Chapter 155, and Chapter 180 (Unified Development Standards).

Below are the recommended changes to the Town Code.

Chapter 155: Streets

Section	Proposed Change
§ 155-3. Definitions	Amend with new definition: “Downtown Street: Street Types from the final <i>Downtown Complete Streets Plan</i> shall apply to the Central Core District as defined in the 2019 <i>Community Plan</i> .”

Minimum Street Design and Access Criteria (Chapter 155: Streets and Public Ways)

Section	Proposed Change
I.A: Introduction	Designers shall refer to the final <i>Downtown Complete Streets Plan</i> when designing any streets in the Central Core zoning district.
I.B: Street Classifications	Create and include a map of Town-wide street classifications.
I.D: Design Speed	Update design speed guidance for street types (Table 1 in the Town’s Guidelines). Design speed for local streets may be reduced to 20 mph. In addition, the note for the table may be updated to state that design speed and posted speed should be the same.
	Minimum curb or edge of asphalt radius (Table 2 in the Town’s Guidelines) for downtown street classifications shall reflect recommended design vehicles (page 24).
	Note in Table 3: For streets in Central Core zoning district, the design criteria (including Minimum Dedicated ROW and Minimum Paved Width) from the <i>Downtown Complete Streets Plan</i> shall apply (see Chapter 3 for cross-section dimensions).
III: Cross Section Elements. B.2. Widths	Street widths in Center Core zoning district shall meet the dimensions shown in cross-sections shown in the <i>Downtown Complete Streets Plan</i> (see Chapter 3).
IV: Other Elements of Design	D. Driveways: Add new driveway requirements (recommended maximum width of 24’) for multifamily dwellings.
	D. Driveways: Add new driveway requirements creating a hierarchy for access for properties abutting two rights of way; driveways are preferred to access alleys or unimproved right of way first, then streets without crossing a pathway, then pathway streets or Main Street only if no alternative exists (with approval by the Public Works Director).
	D. Driveways: Add new requirement that the Town should work to remedy existing non-conforming curb-cuts, and right of way encroachments that negatively impact safe walking routes for pedestrians.
	E. Pedestrian/Bicycle Facilities: Design and layout of pedestrian and bicycle facilities in the Central Core zoning district shall comply with the cross-section and plan view layout of the <i>Downtown Complete Streets Plan</i> .

Chapter 180: Unified Development Standards

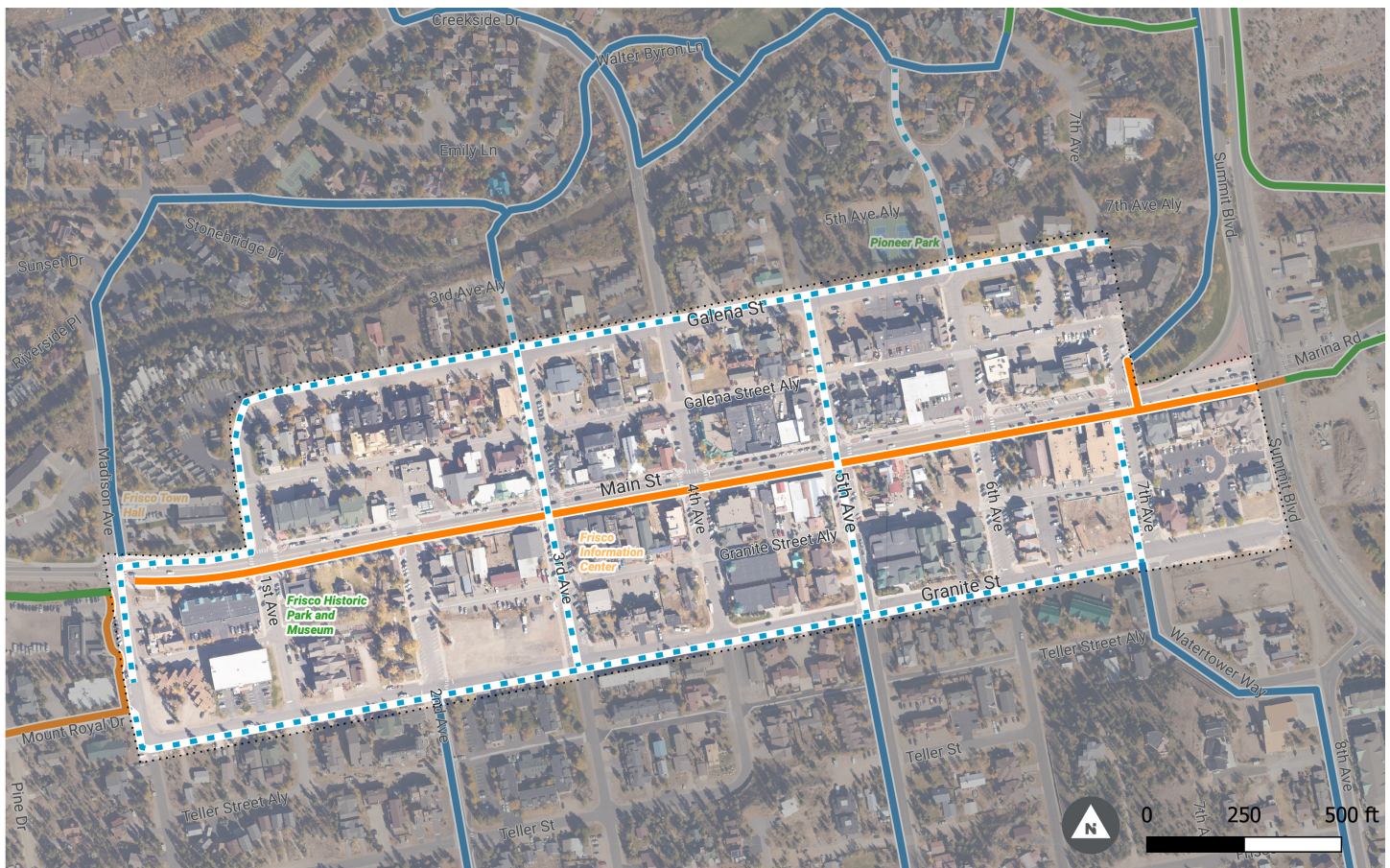
Section	Proposed Change
§ 180-3.11.2 Central Core District Standards	Considering removing allowance of fast-food restaurants to limit driveways and support continuous pedestrian facilities. Explore creating a density floor to promote higher-density development.
§ 180-3.7.1 Residential High Density District Standards	Explore creating a density floor to promote higher-density development.
§ 180-6.11.2 Vehicular Access Requirement	Update code to state the for properties abutting pathways, driveway access should not be provided across the pathway unless no alternative is available; alleys or unimproved rights of way are the preferred access route.
§ 180-6.11.2 Non-Vehicular Access Requirement	Explore providing access to the nearest trail or bicycle facility.
§ 180-6.13.4 Bicycle Parking	Update requirements for enclosed and outdoor bicycle parking to align with final Plan recommendations and best practices (refer to the Association for Pedestrian and Bicycling Professionals' <i>Bicycle Parking Guidelines</i>).
§ 180-6.13.5 Off-Site Parking Allowances	Explore flexibility towards a credit for an off-site parking facility operated by the Town, such as a fee-in-lieu program.
§ 180-6.13.6 Parking Standards and Criteria	Consider adding maximum driveway widths to minimize the length of curb cuts. Recommended maximum paved width is 24'. If street is less than 36' feet, maximum width is 26'.
§ 180-6.14 Landscaping Requirements	Add details regarding expectations for landowner to build and maintain sidewalks within setbacks or within the right-of-way adjacent to property line.
§ 180.6.21.3 Standards for Non-Residential Development	Update bicycle parking and community spaces standards to align with final Plan.
§ 180-6.22 Standards for Residential Development	Encourage or require commercial vehicles to load and unload in alleys in Central Core and Residential High-Density Districts.

Connecting the Multimodal Network

Downtown is the social and economic center of Frisco, a dense commercial and residential center for the Town. Additionally, it is the geographic hub of a rich regional network of pathways, trails, and multimodal routes. Creating comfortable on-street connections for people walking and bicycling through downtown will improve safety, legibility, and efficient access for all users, while enabling downtown Frisco to take its place as the trailhead to the region.

The Multimodal Network is a plan for designating streets as the priority multimodal routes downtown. While people walking and bicycling are permitted and should be routinely accommodated on all streets in downtown Frisco, the streets on the Multimodal Network are expected to be the primary routes for pedestrians and bicyclists and should be given additional consideration to foreground their safety and comfort.

Map 6: Proposed Multimodal Network, Downtown Frisco



Frisco Downtown Complete Streets Plan

- Frisco Pathway
- Regional Recreation Path
- Bicycle Shared Roadway
- Multi-Modal Network
- Multi-Modal Network, Existing
- Downtown Plan Area



SE GROUP

TOOLE
DESIGN

Projects & Prioritization

This plan translates the street types in Chapter 3 into an actionable set of projects that can deliver safer and more comfortable multimodal streets. Thirteen total projects were categorized into two primary buckets: **Quick-Build Projects** that can be implemented immediately, and **Transformative Projects** that can be implemented in the medium or long term. Additionally, this Plan prioritizes all 13 projects according to their respective buckets to ensure that the Town's work aligns with its goals and vision for Complete Streets and an active community.

Quick-Build Projects

Projects delivered using light-weight materials, striping, and operational changes can deliver immediate benefits to the transportation system at a low cost and with flexibility to modify quickly based on user experience. Because these projects can illustrate to users how the street might be different, and can be iterated on with public feedback, they present an opportunity for “quick wins,” demonstrating new opportunities and bringing the community into the street transformation process. These projects can also unlock an opportunity for community stewardship by incorporating

public art into design elements. This plan recommends five Quick-Build Projects that can be implemented using striping, signage, and removable design elements like parking stops, flexible delineators, and paint. Three of the five proposed projects are detailed below.

Granite Street Stop Sign Optimization

During public engagement, community members commonly identified the speed of truck traffic and through-traveling vehicles on Granite Street and the inconsistent pattern of stop signs on Granite Street crossings as primary concerns. The Town should study and reconfigure stop signs along Granite Street between Madison Avenue and 7th Avenue to make operations more intuitive for all users, increase safety at Frisco Pathway crossings, and balance efficient travel with Granite Street's residential access needs. Figure 4 shows possible stop sign re-configuration that proposes all-way stop control at 4th Avenue and 5th Avenue intersections with Main Street and Granite Street, which is aimed at designating the area as the core of downtown. It also shows all-way stop control at the 2nd, 3rd, and 7th Avenue intersections with Granite Street to reduce existing traffic control confusion at the intersections.

Figure 4: Concept design to orthogonalize Granite/Madison created during the design charrette

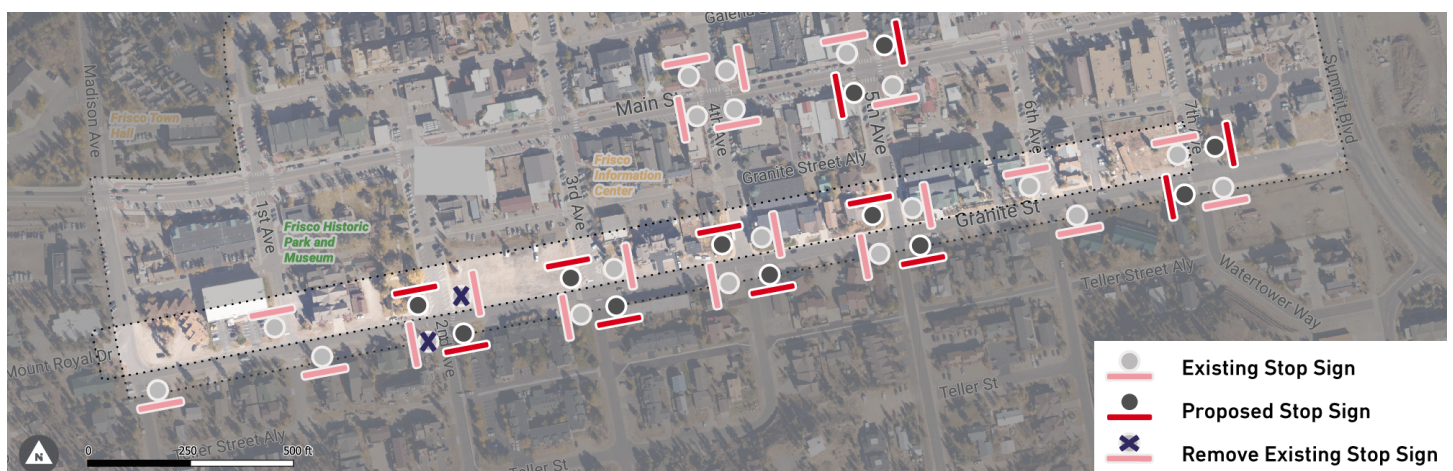


Figure 5: Concept for Stop Sign Optimization on Granite Street developed during the design charrette



Figure 6: Concept design to daylight Granite/2nd created during the design charrette



Granite Street / Madison Avenue Realignment

During public engagement and site observations, the intersection of Granite Street and Madison Avenue was identified as a potential project location for safety improvements. The project is recommended to develop concept and final designs for a “paint-and-post” realignment, or a design change that uses markings and vertical delineators to slow vehicle turns, improve sightlines, and establish clear traffic control measures.

Granite Street / 2nd Avenue Safety Improvements

During public engagement and site observations, the intersection of Granite Street and 2nd Avenue was similarly identified as a potential project location for safety improvements. Another “paint-and-post” realignment, the goal for Granite Street and 2nd Avenue is to improve pedestrian visibility and crossing legibility through daylighting or extending the corners and recessing on-street parking to improve sightlines between all users.

Transformative Projects

Medium- and long-term projects to completely transform Frisco's downtown street network will require more rigorous capital planning, design, and construction. These projects may be implemented through a mix of Town funding, development-driven improvements, and grant funding. The toolbox for implementation generally requires "heavier" infrastructure, such as concrete or subsurface reconstruction. Some projects may be implemented incrementally in phases, where preliminary work is undertaken to enable future investment.

Granite Street Complete Street Reconstruction

Reconstructing Granite Street to match the Downtown Collector Street type will require incremental advancement, stewardship, and likely some opportunism. Transforming the street in phases can push progress while funding is identified and sought out.

- **10 – 30% Design** can begin to complete initial tasks and identify design challenges, such as surveying, grading, and subsurface infrastructure, and establish a base design for the entire corridor, so that as reconstruction opportunities emerge through redevelopment or grants, a design basis is prepared and ready.
- **Granite Street / 7th Avenue Reconstruction** is recommended to transform Granite between 6th and 7th Avenues, and 7th Avenue between Granite and Main Street, in tandem with the expected development project at 619 Granite Street. This project represents a chance to deliver the streetscape framework in Chapter 3 and begin to unify the corridor around a multimodal design vision.

Plans & Studies

The project list also identifies several planning efforts that can enable long-range project opportunities to improve mobility in and to downtown Frisco. These efforts should be completed to refine future project lists and approaches.

- The **Frisco Transit Service Alternatives Study** is an opportunity to assess public transportation gaps and service expansion opportunities into and around downtown Frisco, such as potential circulator services or flex-route shuttles. Public feedback identified a desire for enhanced transit options; a study or plan should identify service alternatives, funding strategies, and contracting or operations planning methods to meet Town goals.
- A **Downtown Parking Policy & Management Study** expands upon this Plan and the Parking Inventory to develop a policy framework for modernizing parking and curb management throughout Central Core area. The study should analyze strategies for improving public parking management including parking fee structures, resident and workforce permitting, and provision for visitors.
- Finally, the Plan identifies two long-range projects that require further study: a **Summit & Main Pedestrian and Bicycle Grade-Separated Crossing** to improve circulation between downtown Frisco and the Marina, and an improved **Tenmile Creek Bridge** at 3rd Avenue.

Prioritizing Projects

To prioritize the project list, projects were scored and ranked based on the Plan's vision: to provide a safe mobility for all modes, promote healthy and active living, and support an inclusive and thriving community. The resulting prioritization operationalizes the Plan's vision, as well as the Mobility goals

from the Town's *Community Plan*, using five overarching criteria (see Table 4). Additionally, the prioritization leverages funding feasibility, public support, Town staff expertise, and alignment with adopted plans.

Table 4: Prioritization Criteria for Ranking Projects

Category	Prioritization Criteria	Description
Funding	Qualifies for Multiple Funding Sources	Does the project align with multiple funding opportunities or goals (e.g., stormwater mitigation, economic revitalization, etc.)?
Public Support	Community Support	Does the project have support from elected officials and the general public, or was it identified as a priority by the public?
	Staff Priority	Has the project been identified by Town staff as a priority?
	Aligns with Adopted Plan	Do previous plans identify a portion or all of the project?
Safety & Comfort	Protection for Vulnerable Users	Does the project provide increased separation between motor vehicles and vulnerable users (i.e., people walking or bicycling) or does it provide a designated space for vulnerable users (e.g., bicycle lane, crosswalk)?
Multimodal Connectivity	Connects to Downtown Multimodal Network	Is the project located along a designated or planned bicycle, walking, or transit route?

These prioritization criteria were used to develop a numbered scoring system, which was then used to rank projects (see Appendix B for complete scoring). The projects were broken out by scale into Quick-Build projects that can be delivered in

the near term (refer to Table 5), and Transformative projects that will be developed and delivered in the medium or long term (see Table 6 & Table 7).

Map 7: Projects in the Downtown Area, Identified by Project ID



Frisco Downtown
Complete Streets Plan

- Quick-Build Projects (Near Term)
- Transformative Project (Medium-Term)
- Transformative Project (Long-Term)
- Downtown Plan Area

- Corridor Project
- Spot Improvement Project



SE GROUP

TOOLE
DESIGN

Table 5: Prioritized Rankings of Quick-Build Projects

Scale	Priority	Project Name	Street	Limits	Description	Cost Estimate
Near-Term (Quick-Build)	1	Granite Street Stop Sign Optimization	Granite Street	Madison Avenue to 7 th Avenue	Modify all-way stop pattern along Granite Street to improve predictability and multimodal safety (see Figure 5).	\$10,000
	2	Granite Street-Madison Avenue Realignment	Granite Street	Madison Avenue	Realign the intersection using interim materials (e.g., markings and flex posts) to orthogonalize the junction of Madison Avenue at Granite Street and create safer conditions for all users.	\$24,000
	3	Granite Street-2 nd Avenue Safety Improvements	Granite Street	2 nd Avenue	Add curb extensions (paint and bollards that can be upgraded to concrete in the future) on NW and NE corners of intersection.	\$17,000
	4	Main Street & Madison Avenue Traffic Circle	Main Street	Madison Avenue	Pilot traffic circle at Main Street & Madison Avenue using interim materials (e.g., markings, curb stops, and flex posts) to assess user safety and intersection efficiency.	\$41,000
	5	Galena Street-4 th Avenue Safety Improvements	Galena Street	4 th Avenue	Consider all-way stop control and high-visibility crosswalks to improve safety and comfort at the intersection.	\$22,000

Table 6: Prioritized Rankings of Medium-Term Projects

Scale	Priority	Project Name	Street	Limits	Description	Cost Estimate
Medium-Term (Study or Prelim. Design)	1	Granite Street, 10 - 30% Design	Granite Street	Madison Avenue to 7 th Avenue	Completing preliminary design of Granite Street to set design vision and better position the Town for funding opportunities and implementation.	\$106,000
	2	Frisco Transit Service Alternatives Study	Downtown Area	.	Study service options for improving transit access in and around downtown, including potential service types and patterns, contracting options, and cost opinions	\$32,000
	3	Downtown Parking Policy & Management Study	Downtown Area		Analyze strategies and policy changes for improving public parking management throughout downtown, including parking fee structures, resident and workforce permitting, parking requirements for developments, esp. work-force housing, and provision for visitors.	\$41,000
	4	Alley Crossings – Typical Design	Granite Alley & Galena Alley	Madison Avenue to 7 th Avenue	Develop a typical design treatment for the alleys as they cross North / South avenues that can be implemented either as paint-and-post or concrete reconstruction.	\$35,000
Medium-Term (Construction)	5	Granite Complete Street Reconstruction	Granite Street & 7 th Avenue	6th Avenue to Highway 9 (Granite Street, and Granite Street to Main Street (7 th Avenue)	Reconstruct Granite Street from 6th Ave to Highway 9 and 7 th Avenue from Granite Street to Main Street according to the 30% design for the corridor. Connect the Frisco Pathway on 7 th Avenue south of Granite into downtown Frisco. Complete in tandem with redevelopment of the 619 Granite Street parcel.	\$2,782,000

Table 7: Prioritized Rankings of Long-Term Projects

Scale	Priority	Project Name	Street	Limits	Description	Cost Estimate
Long-Term (Capital Planning, Design, & Construction)	1	Granite Street Complete Street Reconstruction	Granite Street	Madison Avenue to Highway 9	Complete reconstruction of the entire Granite Street corridor according to existing 30% design plans. Reconstruct 3 rd and 5 th Avenues between Granite and Galena Streets simultaneously to complete downtown Frisco Pathway network.	\$6,567,000
	2	Galena Street Complete Street Reconstruction	Galena Street	1 st Avenue to 7 th Avenue	Complete design plans and reconstruct Galena Street from 1 st to 7 th Avenue in alignment with the Downtown Complete Streets Plan. Street segments adjoining redeveloping parcels may be implemented during property redevelopment.	-
	3	Alley Reconstruction	Granite Alley & Galena Alley	Madison Avenue to 7 th Avenue	Develop a detailed design treatment for the alleys servicing Main Street, and reconstruct opportunistically as funding is available or as parcels redevelop. Upgrade any quick-build or tactical crossing treatments to full build-out conditions.	\$4,282,000
	4	Summit Boulevard & Main Street Pedestrian and Bicycle Overpass Study	Summit Boulevard	Main Street	Conduct a feasibility study to construct a new overpass crossing over Summit Blvd serving people walking and bicycling between Main Street and Marina Drive.	\$39,000
	5	Tenmile Creek Pedestrian and Bicycle Bridge	3 rd Avenue	Tenmile Creek	Enhance bridge crossing of Tenmile Creek at 3 rd Avenue, tying Galena Street to Frisco Pathway on the north side of the waterway.	\$818,000

Opinions of probable cost were developed by identifying major-pay items and establishing approximate quantities to determine a rough order of magnitude cost. Additional pay items have been assigned approximate lump sum prices based on a percentage of the anticipated construction cost. Planning-level cost opinions include a 20% contingency to cover items that are undefined or are typically unknown early in the planning phase of a project. Unit costs are based on 2021 dollars and were assigned based on historical cost data from the Colorado Department of Transportation. Cost opinions do not include easement and right-of-way acquisition; permitting, inspection, or construction management; engineering, surveying, geotechnical investigation, environmental documentation, special site remediation, escalation, or the cost for ongoing maintenance. A cost range has been assigned to certain general categories such as utility relocations; however, these costs can vary widely depending on the exact details and nature of the work. The overall cost opinions are intended to be general and used only for planning purposes. Toole Design Group, LLC makes no guarantees or warranties regarding the cost estimate herein. Construction costs will vary based on the ultimate project scope, actual site conditions and constraints, schedule, and economic conditions at the time of construction.

What's Next for Downtown Frisco?

The *Downtown Complete Streets Plan* sets a clear vision and framework for Town staff, elected officials, community members, stakeholders, and private developers to participate in transforming the Town's core street network into a more vibrant, inclusive, and inviting place for all people, regardless of whether they are walking, bicycling, rolling, riding transit, or driving. As Frisco continues to grow and change, its downtown

streets remain its largest and most valuable public space, enabling the rich social and economic life of the Town. By promoting safe, comfortable, accessible, and active streets, the Town's people, workforce, business community, and visitors can continue to flourish and enjoy all that makes Frisco a unique and exciting place.



Frisco Pathway Sign

THIS PAGE IS INTENTIONALLY LEFT BLANK.



Appendices



- I. Existing Conditions Report
- II. Design Typicals
- III. Prioritization Methodology

FRISCO DOWNTOWN COMPLETE STREETS PLAN: EXISTING CONDITIONS REPORT

October 29, 2021

Background

Frisco has grown from a mining town in the 19th and early 20th century into a vibrant small town of over 3,000 people with rich recreational opportunities for residents and visitors. The Town is within 30 minutes of multiple ski resorts, and is surrounded on three sides by public land, making it an ideal location for a variety of outdoor recreation activities.

The Downtown Complete Streets Plan will create a multimodal, complete streets plan for the downtown core area, accommodating ongoing changes and guiding future improvements. The plan area for the Downtown Complete Streets Plan includes the majority of the downtown area (see Figure 1). It is bound by Madison Avenue to the west, State Highway 9/Summit Boulevard to the east, Galena Street to the north, and Granite Street to the south. The goals of the Plan include further development of conceptual street cross-sections from the 2019 Community Plan and development of policies that will serve as regulatory standards for implementation by private developments and public projects within the plan area.



Figure 1. Plan Area

Plan and Policy Review

The Town of Frisco's adopted plans and policies provide direction and support for the development of the Downtown Complete Streets Plan. This section provides a brief review of the plans and policies and highlights segments that pertain to the project. The review included the following documents:

- Frisco Community Plan (2019)
- Frisco Trails Master Plan (2017)
- Town of Frisco Parking Inventory and Opportunities (2017)
- Town of Frisco On-Street Parking Study (2019 Update)
- Topographical Survey for Granite Street (2019)
- Frisco State Highway 9 Traffic Study (2017)
- Gap Project 90% Construction Documents

Future Plan recommendations will be informed by these prior planning efforts and build upon previous work and goal-setting the Town of Frisco has already undertaken. In reviewing these documents, a few key themes emerged:

- 1 Improve quality of life and community prosperity
- 2 Promote walking, biking, and other alternative modes
- 3 Increase safety for all ages and abilities
- 4 Improve access to key destinations

Table 1 summarizes the subject matter that the planning related documents analyzed cover and is followed by a brief description of each plan's content as it relates to complete streets.

Table 1. Themes from Relevant Plans and Policies

	1 Improve quality of life and community prosperity	2 Promote walking, biking, and other alternative modes	3 Increase safety for all ages and abilities	4 Improve access to key destinations
Frisco Community Plan	X	X	X	X
Frisco Trails Master Plan	X	X	X	X
Town of Frisco Parking Inventory and Opportunities	X			X
Town of Frisco On-Street Parking Study	X		X	X
Frisco State Highway 9 Traffic Study	X			X

Frisco Community Plan (2019)

The Community Plan creates a road map for the Town for staff and elected or appointed officials to guide decision-making and policy decisions. The Plan addresses growth and development, community character, transportation, housing, parks and recreation, resource protection, and infrastructure. This review focused on the Mobility section of the plan, which includes multiple goals that support complete streets:

- 4.1: Provide a safe and efficient multimodal transportation system
- 4.2: Promote walking, bicycling and other alternative modes of travel
- 4.3 Continue to expand regional transportation options for Frisco residents and visitors

Goal 4.1 also includes a strategy to adopt complete street design standards that include safe and attractive multimodal transportation options. The Plan calls out specific recommendations for complete streets enhancements and retrofitting on Granite Street (adding a protected two-way bicycle facility) and Galena Street (a shared street with bike lane) – see Figures 1 and 2. **Segments of 1st Avenue, 5th Avenue, and Madison Avenue are highlighted as areas where sidewalk and parking is needed**, and the entire central core of Frisco is considered a Streetscape Improvement Area.

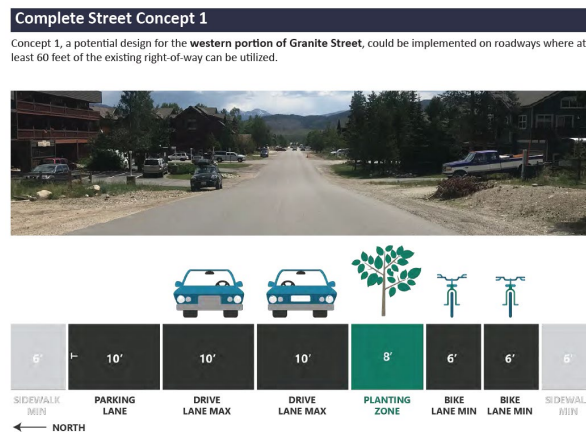


Figure 2. Complete Street Concept for Galena Street

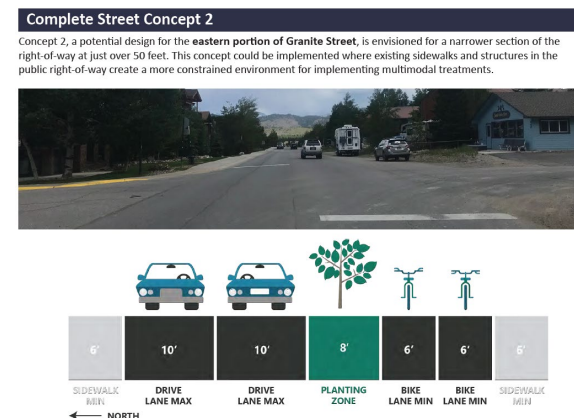


Figure 3. Complete Street Concept for Granite Street

The Plan highlights the wide gravel shoulders on many streets that lead into Frisco's core, but maintains that these shoulders should be maintained in some locations to retain a mountain town character and serve as areas for snow storage, residential parking, and informal pedestrian walkways.

The Plan also builds on the 2019 parking analysis and includes the following recommendations:

- Begin time limit enforcement on Main Street to create more frequent turnover.
- Redirect employee parking to low occupancy areas outside of 6th and 7th Avenues.
- Advertise underutilized parking areas (the parking lot at South 3rd Avenue/Granite Street and the west end of downtown).
- Conduct occupancy and duration studies on a yearly basis to track changes in demand.

Outside of the Mobility section, the Plan includes additional goals that support the philosophy and approach of complete streets:

- 1.4: Reinforce Main Street as the heart of the community, from the lake to the mountains. (Strategies include an attractive gateway along West Main Street and preserving the historic street grid of the Town's core).
- 5.1 Provide high quality, year-round recreational amenities that appeal to both residents and visitors. (Strategies include new trail facilities and strengthen the recreation facilities and amenities available in Frisco).

Frisco Trails Master Plan (2017)

This plan is focused on recreation and transportation in Frisco, recognizing that the trail network throughout and adjacent to Town is essential to enhance quality of life for residents and visitors. The Plan inventories and maps existing and recommended trails, determines locations for maintenance and wayfinding, addresses connectivity for people walking and biking, and includes a list of recommended projects. **In the downtown area, the Plan focuses on creating safer connections for pedestrians and bicyclists through additional sidewalks, bike lanes, and intuitive signage.** These recommendations aim to help people travel safely between the activity centers in Frisco (Main St, the Marina/Peninsula, Basecamp, the Elementary School) and from residential neighborhoods to those activity centers. Main Street is called out as a candidate for complete streets-oriented improvements like traffic calming, and the Plan recommends developing an official Complete Streets Policy to confirm Frisco's commitment to people-first, safer streets.



Figure 4. Existing and proposed facilities within the Downtown Core

Town of Frisco Parking Inventory and Opportunities (2017)

This study took inventory of existing public and private parking in the Downtown area, as well as potential parallel and diagonal parking locations. Additional parking opportunities were identified throughout Downtown (with the majority of spaces located on Galena Street, Galena Alley, Granite Street, and Granite Alley), and potential parking partnerships were recommended with Summit County, St. Anthony's Medical Center at Old Clinic, and the Post Office.

Parking in the Plan area is concentrated on the north-south streets and on Main Street and is limited on Galena and Granite Streets. Despite a lack of legal defined parking spaces on Galena and Granite Streets, many drivers use the wide gravel areas next to the roadway as informal parking areas. Table 2 illustrates the available parking as well as potential parking as determined by the 2017 study.

Table 2. Existing and Potential Parking

Corridor	Existing Public Parking	Existing Private Parking	Potential Parallel Parking	Potential Diagonal Parking
Galena Street	0	0	32	8
Granite Street	26	0	35	68
Main Street	161	0	0	0
N/S avenues	414	0	30	33

Town of Frisco On-Street Parking Study (2019 Update)

This analysis summarized observations from on-street parking occupancy counts conducted on two days in December 2019, with the goal of understanding any changes to parking patterns after a three-hour time limit had been implemented. The study found that overall, the demand for on-street parking in downtown Frisco does not exceed supply. **Analysis showed that occupancy averages were well below the peak efficiency level of 85%**, the distribution of parking vehicles shifted away from areas with three-hour time limits, and that very few vehicles remained parked for longer than the three-hour time limit (only 1 in 5 cars were parked on Main Street for more than 2 hours, and 2 in 5 cars on side streets were parked for more than two hours). Frisco also has significantly lower parking occupancy rates than many of its mountain city peers, including Steamboat Springs, Breckenridge, and Park City.

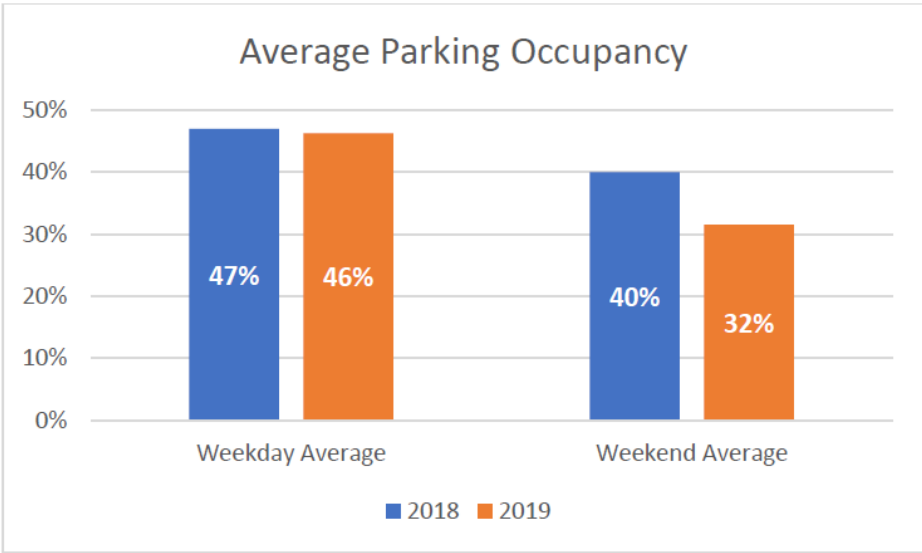


Figure 5. Average Parking Occupancy



Figure 6. Vehicles Parking for More than Three Hours

Frisco State Highway 9 Traffic Study (2017)

This study analyzed State Highway 9 from MP 94.36 (south of Peak One Drive) to MP 96.25 (north of Main Street) and provided geometric, access, and traffic control recommendations for CDOT. Results indicated that in the winter, most intersections operated at acceptable levels of service and had low pedestrian volumes. Summer levels of service were similar, but pedestrian volumes were significantly higher. The study recommended access restrictions (see figure below) as well as removing the southbound right turn “bypass” lane at Main Street, pedestrian grade separation at Peninsula Road, maintaining left turns on 8th Street with signage rather than a median, and adjusting summer signal timing on Main Street to accommodate pedestrian crossings.

SH9 MP	ACCESS#	SIDE	DESCRIPTION	EXISTING ACCESS	2004 ACCESS MANAGEMENT PLAN	2017 ACCESS RECOMMENDATION
94.88	66	East	Recreation Way	Full Move (signal)	Full Movement	Full Movement, as designed by Iron Springs project
94.88	66	West	Peak One Drive	Full Move (signal)	Full Movement	Full Movement, as designed by Iron Springs project
95.23	67	East	Recreation Way	RIRO	RIRO	RIRO, restrict left turns with raised median. Retain RT accel lane. Consider pedestrian/ bicycle treatment.
95.23	67	West	Peak One Blvd	RIRO	RIRO	RIRO, restrict left turns with raised median. Consider pedestrian/ bicycle treatment.
95.45	68	East	Water Dance Drive	Full Move (signal)	Full Movement	Full Movement, retain traffic signal and LT Decel Lane
95.45	68	West	CR 1004	Full Move (signal)	Full Movement	Full Movement, retain traffic signal, LT and RT Decel Lanes
95.57	69	West	Bayview Drive	Full Move	RIRO	RIRO, restrict left turns with raised median
95.92	70	West	8th Avenue	Full Move	Full Move (unsigal) unless 3/4 or RIRO is necessary	3/4 Movement, restrict left turns with regulatory signage. Include LT Decel Lane and RT Decel Lane.
95.92	70	East	Treatment Plant	Full move	Full Move (unsigal) unless 3/4 or RIRO is necessary	Full Movement, no LT Decel Lane is needed
95.97	71	West	Granite Street	3/4- Left Turn In	RIRO	RIRO, restrict left turns with raised median
96.01	72	West	Private D/W	RIRO	Close upon redevelopment	RIRO, restrict left turns with raised median
96.02	73	East	Marina Road	Full Move (signal)	Full Movement	Full Movement, retain traffic signal and LT Decel lane
96.02	73	West	Main Street	Full Move (signal)	Full Movement	Full Movement, retain traffic signal and LT Decel lane. Replace RT bypass lane with non-channelized RT decel lane to facilitate pedestrian/bike activity on the north side of Main Street. Add pedestrian phase across Main Street, but pedestrian crossings of the north intersection leg to remain prohibited.

Figure 7. Access Recommendations

Gap Project 90% Construction Documents

The Gap project on State Highway 9 is currently under construction and is anticipated to be complete by Fall 2021. The project’s goals include congestion mitigation and intersection improvements. Within and adjacent to the Downtown Complete Streets Plan area, improvements include a new median at Granite Street and State Highway 9 intersection, a new roundabout at 8th Avenue and State Highway 9 intersection, and tightened slip lane geometry along with a new crosswalk on the west side of the intersection at Main Street.

Topographical Survey for Granite Street (2019)

This document surveys Granite Street between South Madison Ave and 7th Avenue. Within the seven block street segment, the right of way is consistent at 80 feet wide. Along Granite Street, there are 25 driveways and a large lot between 7th Street and State Highway 9 marked for future condominium development, which is anticipated to be workforce housing. **Today, many parcels on Granite Street are redeveloping and maintaining a coherent cross-section and streetscape is critical to create a standard process for developers to implement infrastructure that supports walking and biking connectivity.**

Town Code

The Plan team reviewed Chapters 155 and 180 of the Town Code and found the following sections that could be potentially updated to align with Complete Streets goals for this Plan as well as Frisco's 2019 Community Plan. For Chapter 155, the Plan team reviewed the design standards and constructions standards that are referenced in the 2019 "Town of Frisco Minimum Street Design and Access Criteria" document.

Chapter 155: Streets and Public Ways (Minimum Street Design and Access Criteria)

- Section I.A: Introduction
 - Recommend referring to the final Downtown Complete Streets Plan for designing any streets in the Central Core zoning district
- Section I.B: Street Classifications
 - Recommend including map of street classifications
- Section I.D: Design Speed
 - Recommend updating design speed guidance for street type (Table 1). Design speed for local street may be reduced to 20 mph. In addition, the note for the table may be updated to state that design speed and posted speed should be the same.

Table 1
Design Speeds

<u>Street Type</u>	<u>Design Speed (MPH)</u> <u>(see note)</u>	<u>Minimum Centerline</u> <u>Radius</u> <u>(in feet)</u>	<u>Minimum Tangent</u> <u>Between Curves</u> <u>(in feet)</u>
LOCAL	25	75	50
COLLECTOR	35	300	150
ARTERIAL	35	300	150

NOTE: Design speed is not necessarily posted speed.

- Recommend reviewing minimum curb or edge of asphalt radius (Table 2) to reflect recommendations in final Plan
- Recommend reviewing minimum dedicated ROW and paved width (Table 3) to reflect recommendations in final Plan
- Section II: Basic Design Parameters
 - Recommend re-evaluating intersection sight distances for intersections along Granite Street
- Section III: Cross Section Elements
 - Recommend including final design cross section from Complete Streets Plan
- Section IV: Other Elements of Design
 - Recommend encouraging alley-loading within the Plan area
 - Recommend aligning pedestrian and bicycle facilities standards with final Plan recommendations, potentially including a new set of standards for the Plan area

Chapter 180: Unified Development Standards

- 180-3.11.2 Central Core District Standards
 - Recommend removing allowance of fast-food restaurants to limit driveways and support continuous pedestrian facilities
 - Recommend exploring density floor to promote higher-density development
- 180-3.7.1 Residential High Density District Standards

- Recommend exploring density floor to promote higher-density development
- 180-6.11.2 Non-Vehicular Access Requirement
 - Recommend exploring providing access to nearest trail or bicycle facility
- 180-6.13.4 Bicycle Parking
 - Recommend updating to align with final Plan recommendations and best practices
- 180-6.13.5 Off-Site Parking Allowances
 - Recommend exploring flexibility towards a credit for an off-site parking facility operated by the Town, such as a fee-in-lieu program
- 180-6.13.6 Parking Standards and Criteria
 - Recommend adding maximum driveway widths to minimize the length of curb cuts
- 180-6.14 Landscaping Requirements
 - Recommend adding details regarding expectations for landowner to build and maintain sidewalks within setbacks or within the right-of-way adjacent to property line.
- 180-6.21.3 Standards for Non-Residential Development
 - Recommend updating bicycle parking and community spaces standards to align with final Plan.
- 180-6.22 Standards for Residential Development
 - Recommend encouraging or requiring commercial vehicles to load and unload in alleys in Central Core and Residential High Density Districts

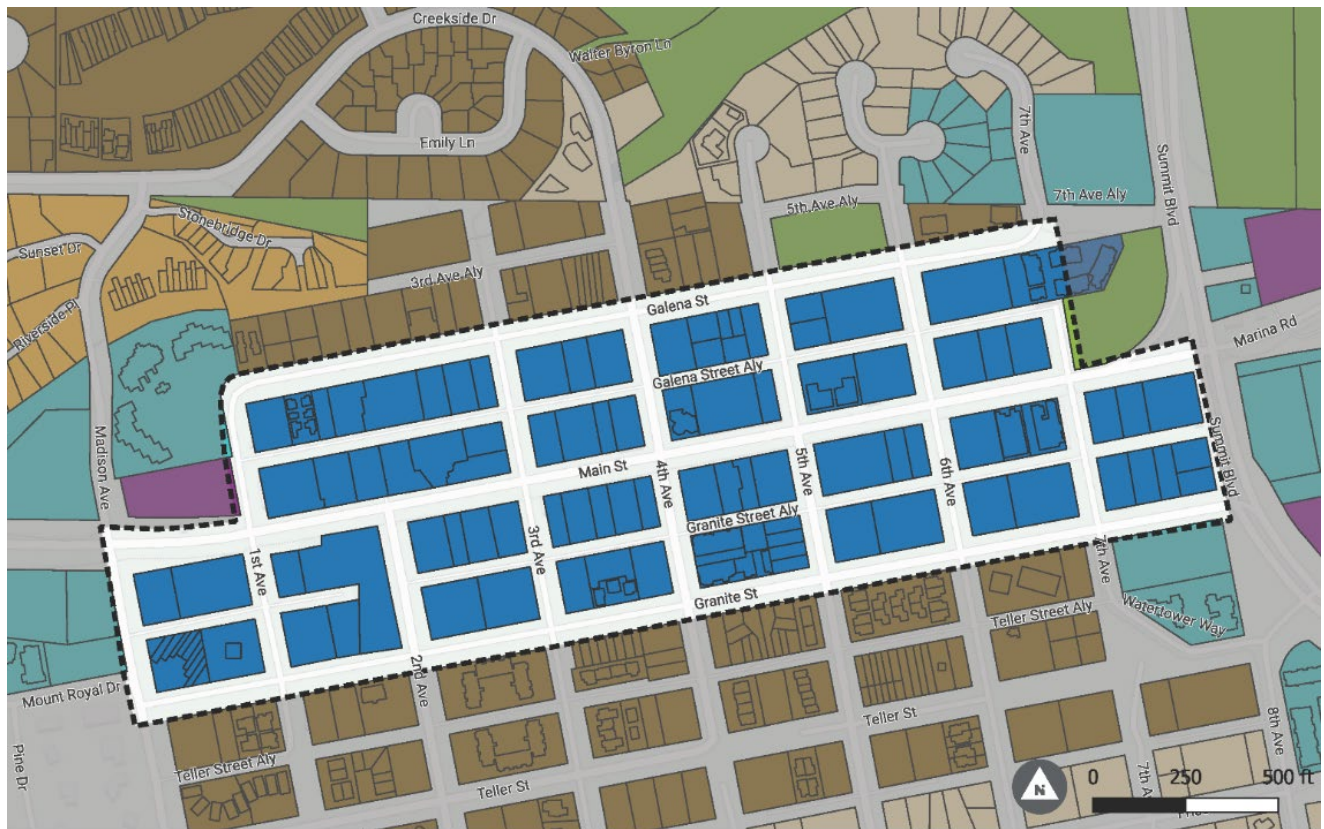
Plan Area Context

Demographics

Frisco has a population of 2,913 according to 2020 Census data Frisco's population skews older than Summit County as a whole – according to five-year American Community Survey estimates (2015-2019), 74% of the Town's population is aged 25-64, with 11% over 65 and 15% under 24. The vast majority of the population (93%) identify as white alone, while 7% identify as white and American Indian or Alaska Native. Of 1,237 occupied housing units, 60% are owner-occupied, while 40% are renter-occupied. The median household income is \$75,256, which is slightly lower than Summit County's median income of \$79,277.

Land Use and Zoning

Land use within the Plan area is mostly mixed-use, and it is entirely zoned as the Central Core District (see Figure 6), while the outer edges of Galena and Granite Streets are zoned as Residential High Density. This district aims to promote the development of Frisco's Main Street commercial district for retail, restaurant, service, commercial, visitor accommodation, recreational, institutional and residential uses, and to enhance the visual character, scale, and vitality of the central core. Multiple hotels, as well as dining and retail options line Main Street, which has the most commercial uses within the Plan area - other streets are primarily residential.



**Frisco Downtown
Complete Streets Plan**

- | | | |
|--|--|---|
| Central Core | Public Facilities | Residential Medium Density |
| Mixed Use | Parks and Recreation | Residential High Density |
| Residential Low Density | Project Boundary | |



Figure 8. Zoning Map of the Plan Area

The Unified Development Code of the Town also provides dimensional standards for Central Core district, which is highlighted in Figure 7. The standard shows a 5-foot setback on Granite Street and Galena Street, as well as their alleys.

PROJECT STANDARDS	
Maximum density	16 du/acre
LOT STANDARDS	
Minimum lot area	3,500 sf
Minimum lot frontage	None
Maximum lot coverage, one or two residential units	70%
Maximum lot coverage, all other uses	None
SETBACKS	
<i>Properties on Main Street</i>	
Minimum front yard setback	3 ft.
Minimum side yard setback	0 ft.
Minimum rear yard setback	0 ft.
<i>Properties located between Granite Street and Granite Street Alley, and Galena Street and Galena Street Alley</i>	
Minimum front yard setback	5 ft.
Minimum side yard setback	5 ft.
Minimum rear yard setback	5 ft.
Minimum setback for alley facing yard	3 ft.
<i>One or Two Residential Units, Including Accessory Units</i>	
Minimum front yard setback	10 ft.
Minimum side yard setback	5 ft.
Minimum rear yard setback	5 ft.
STEPBACKS	
Minimum stepback for the third and above floors of street-facing wall facades (as taken from the floor below, see Figure 3-L.)	10 ft.
BUILDING STANDARDS	
Maximum building height	40 ft. (pitched); 35 ft. (flat)
Maximum building height, first 20 feet in from property line on Galena Street	25 ft. (pitched roof required)

Figure 9. Dimensional Standards for Central Core District

Operational Analysis

Plan Area Observations

The Plan team conducted a walking tour of the Plan area on August 25, 2021, and observed existing conditions on Granite, Main, and Galena Streets, as well as the Granite and Galena Street Alleys, Madison Avenue, and the numbered North/South Avenues. The purpose of the site tour was to document existing site conditions including physical infrastructure, multi-modal traffic patterns and uses, and curbside activity and access. Below is a summary of observations made by street.

Granite Street

- While the ROW on Granite 80-feet wide, development activities frequently encroach on the right of way. Building envelopes in many cases came all the way up to the lot line, but informal parking, stormwater and drainage facilities, and landscaping occur in the public right of way.
- There were regular occurrences of informal vehicle parking on shoulders, specifically parallel parking. In some locations that were more recently developed, sidewalks and on-street parking have been constructed in the right-of-way, and vehicles were parked in marked spaces.
- Experientially, walking on Granite Street is stressful due to the lack and inconsistency of dedicated pedestrian facilities, as well as the proximity to fast-moving vehicle traffic.
- The intersection of Madison and Granite was observed to be particularly stressful, with frequent turning traffic (especially heavy truck traffic). This condition is likely due to the ongoing GAP project on Summit Boulevard, the closure of Main Street for the Promenade, and signage on eastbound I-70 instructing through-traffic to use exit 201 to access Frisco and Breckenridge. As such, there is a significant amount of truck traffic routing southbound on Madison, then eastbound on Granite to move through Frisco to Highway 9. At the Madison-Granite intersection, the team observed that vehicles tended to cut the inside shoulder when turning left onto Granite eastbound, or right onto Madison northbound; the gravel shoulder had noticeable tire tracks verifying this activity.
- Finally, interactions between users approaching stop-controlled intersections were confusing and unclear. People driving were frequently observed to approach all intersections as if they were all-way stop, even as most of the Granite Street crossings have stop signs in only one direction. Additionally, pedestrians were observed to be very tentative, as sightlines around parked vehicles at corners were poor, and it was unclear whether approaching drivers would stop.

Main Street

- The plan team walked Main Street during the Main Street Promenade. Despite observations taking place mid-morning on a weekday, pedestrian activity on the Promenade was substantial, with many users observed walking on the sidewalks and in the roadway, and utilizing businesses and street activation features like parklets, seating, and lawn games.
- Bicycles were observed using the Promenade as well and were mostly observed riding in the roadway during the street closure.

- Pavement and sidewalk quality were in like-new condition, following the recent Step Up Main Street project. Ramps and walking surfaces appeared to be fully accessible and traversable. Promenade features like parklets also appeared to be in very good condition and generally accessible, with minimal lips and cross-slopes.

Galena Street

- The street has a more residential character, with lower façade heights and less density than Main or Granite Streets. There were fewer vehicles parked on street than on neighboring streets.
- Galena Street was observed to be noticeably quieter than each of the other streets observed—there was little vehicle traffic, and vehicles that drove on Galena were observed to move more slowly. There was some walking and bicycling traffic, especially accessing the Frisco Pathway on 4th Avenue and 6th Avenue, as well as the Ten mile Creek Bridge on 3rd Avenue.
- Observed bicycling and pedestrian traffic appeared to be more recreational—people walking, running, biking, pushing strollers, etc.
- Pavement quality was observed to be generally in good condition, with few potholes and light wear.
- Wayfinding signage for Frisco Pathway and nearby destinations was present, but not always consistently placed or spaced.

Granite & Galena Alleys

- The team walked the alleys between Main Street and Granite Street, as well as Main Street and Galena Street. Generally, the team observed dense parking and access activities taking place in both alleys. Both alleys are serving regular deliveries and business access, while Galena Street Alley has a slightly larger share of small surface residential garage entrances. Granite Street Alley serves a few subterranean garage entrances for large residential buildings.
- Both alleys serve large trash containers, which were disorganized and impeded the travelway.
- Where alleys intersect with north/south avenues, sightlines were observed to be poor, with parked vehicles blocking sightlines and creating challenging crossings for people walking and driving.

North/South Avenues

- Finally, the plan team walked several of the north/south avenues, including Madison, 4th, 5th, and 7th Avenues between Granite, Main, and Galena Streets. While sidewalk and driving conditions somewhat varied by street, there were some common characteristics among the avenues.
- As observed on other streets, stop patterns for the avenues are irregular and lead to unpredictable interactions, especially driver-to-driver and driver-to-pedestrian negotiations.
- Parking demand is not evenly distributed throughout the project area—there was concentration of demand from 4th to 6th Avenue, and noticeably more parking vacancy at the far east and west ends of the corridor.

- Sidewalks were generally present, but width and condition were inconsistent by building frontage and location. As with other streets, some development has impeded the public right of way for private parking and use.
- The Frisco Pathway on 5th Avenue has wayfinding signage through the project area, but the path itself seems to drop at both Granite and Galena.

Multimodal Infrastructure and Analysis

Pathways and Trails

The current limited existing trails and paths for walking and biking within the Plan area create an incomplete network for people on foot or on bike (see Figure 8). There are sharrows on Main Street, but many participants in the 2017 Trails Master Plan engagement process noted that many bicyclists ride on the sidewalk instead of in the road, and they stated that additional lower-stress bike facilities were needed nearby. Shared use paths on Madison Avenue, 7th Avenue, and 5th Avenue connect to the Plan area, but do not continue within it. Within the Plan area, the Trails Master Plan includes recommendations for a future bike lane on Galena Street, bike lanes on both sides of the roadway on Granite Street, and multi-use paths on both sides of the roadway on 2nd Avenue.

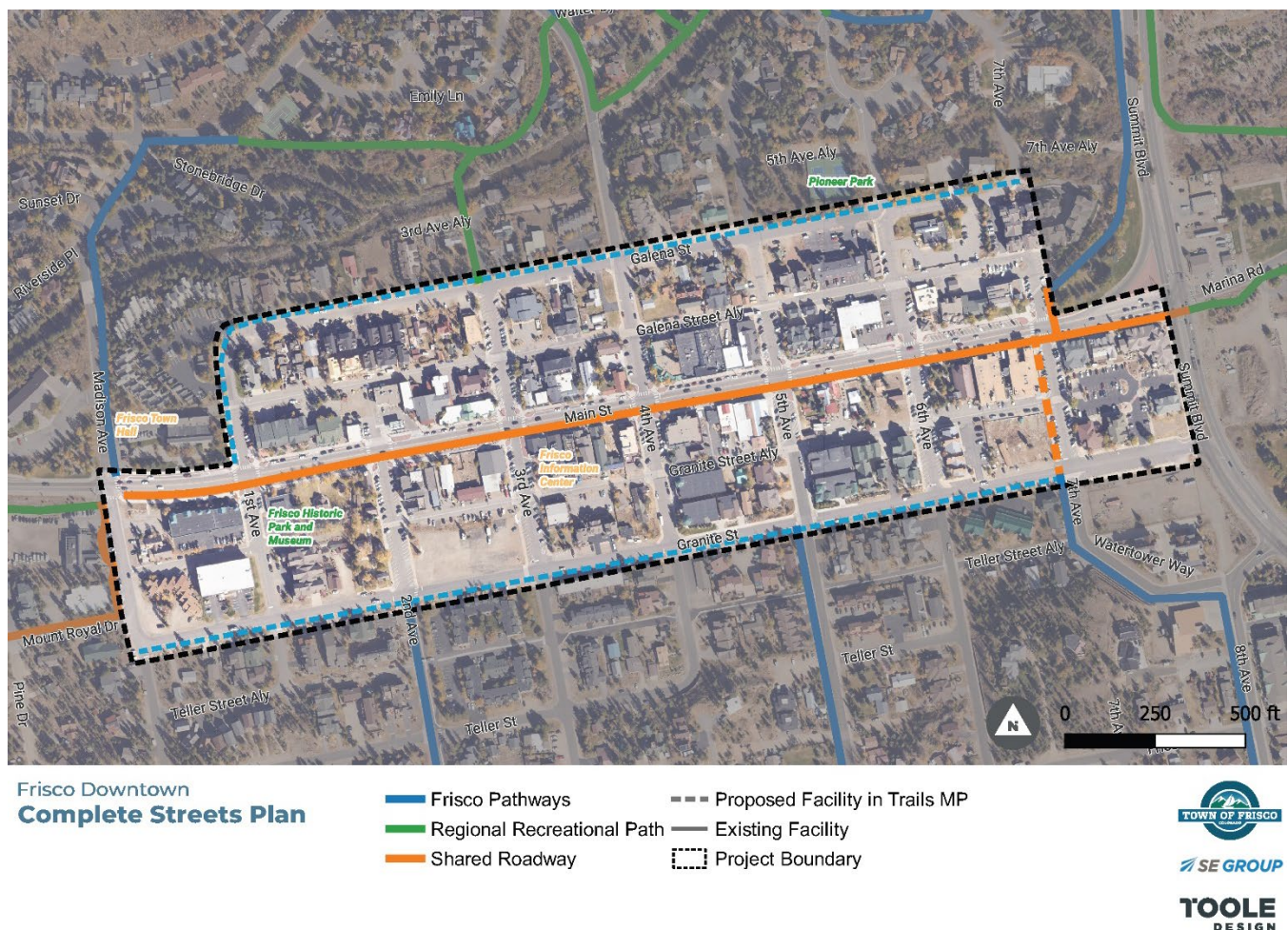


Figure 10 Existing Pathways and Trails

Sidewalks

Frisco has few sidewalks within the Plan area (see Figure 9 for a Pedestrian Infrastructure Map) – they exist primarily on Main Street and the north-south avenues. However, on Granite and Galena Streets there are gravel areas at the roadway edge where people can walk or bike out of the direct travel path of vehicular traffic. As these gravel areas are not formalized sidewalks, they provide less safety and comfort for bicyclists and pedestrians. In addition, the gravel areas do not meet ADA requirement for pedestrian accessible route in public right-of-way.



Frisco Downtown Complete Streets Plan

- Gravel
- Lawn/Grass
- Paved Sidewalk
- Project Boundary



Figure 11 Existing Pedestrian Infrastructure

Transit

Two Summit Stage routes intersect with the Plan area – the Copper Mountain route and the Frisco-Breckenridge route. During the winter season, headways are 30 minutes on both lines, while in the summer headways range from 30 minutes to one hour. See Figure 10 for a map of the transit routes within the plan area.

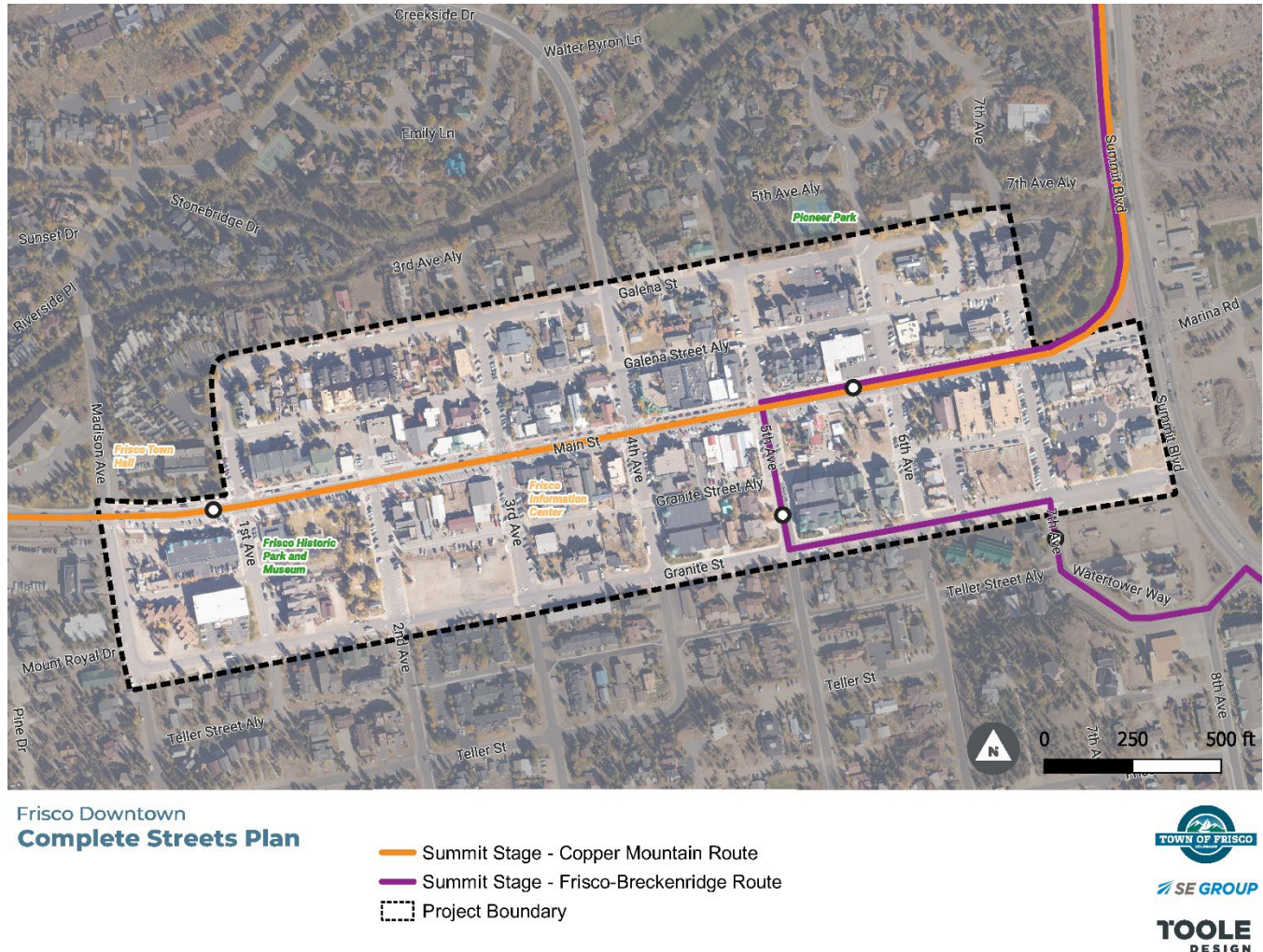


Figure 12 Existing Transit Service

Traffic Counts

Traffic counts were collected at five (5) locations within the plan area from 12AM to 12PM from September 1st, 2021 through September 7th, 2021: Main Street west of Madison Avenue, Main Street east of 6th St, Granite Street west of 4th Avenue, Galena Street east of 3rd Avenue, and 4th Avenue south of Galena Street. Figure 11 shows the locations of the traffic counts. During this time, the Main Street Promenade was open. As such, vehicular traffic was prohibited on Main Street from 2nd Avenue to 5th Avenue.

These counts included the Labor Day weekend holiday and only included motor vehicles. Average hourly volumes and speeds for each location are graphed in Figures 11-20. 85th percentile speeds at all locations remained under 30 miles per hour throughout the duration of the counts period. Main Street east of 6th Street had noticeably lower speeds than the other studied corridors, with 85th percentile speeds never going over 13 miles per hour. In addition, while all corridors had relatively low volumes, Main Street east of 6th Street had the highest numbers of vehicular traffic, reaching peaks of 834 hourly vehicles on average on weekdays and 871 vehicles on weekends. Table 2 shows the average daily traffic volume and 85th percentile speed at the five locations.

Table 2: Existing ADT and Speed during Main Street Promenade

Roadway	Location	Average Daily Traffic		85 th Percentile Speed (mph)	
		Weekday	Weekend	Weekday	Weekend
Main Street	West of Madison Avenue	4,685	4,471	25.61	25.19
	East of 6 th Avenue	9,210	10,218	11.94	12
Granite Street	West of 4 th Avenue	4,510	3,880	25.02	25.41
Galena Street	East of 3 rd Avenue	700	620	20.64	20.43
4 th Street	South of Galena Street	1,030	846	19.41	17.27

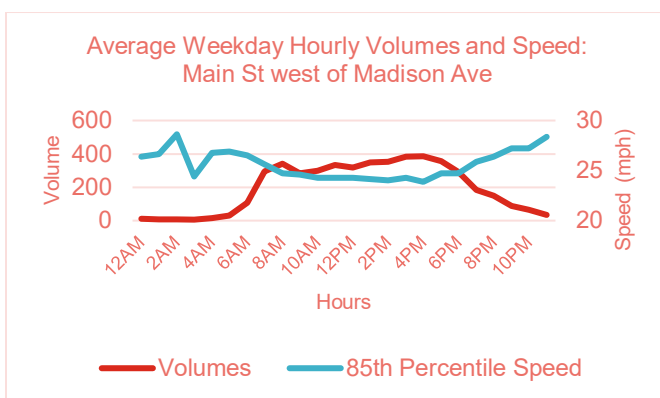


Figure 13

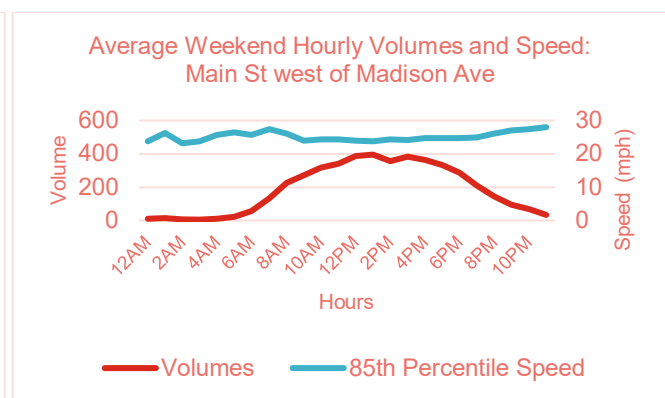


Figure 14

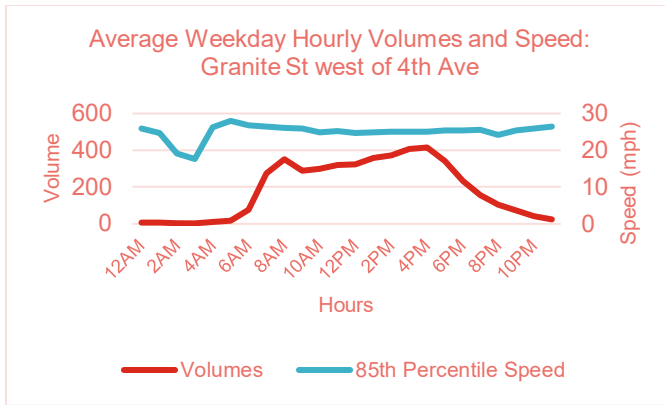


Figure 15

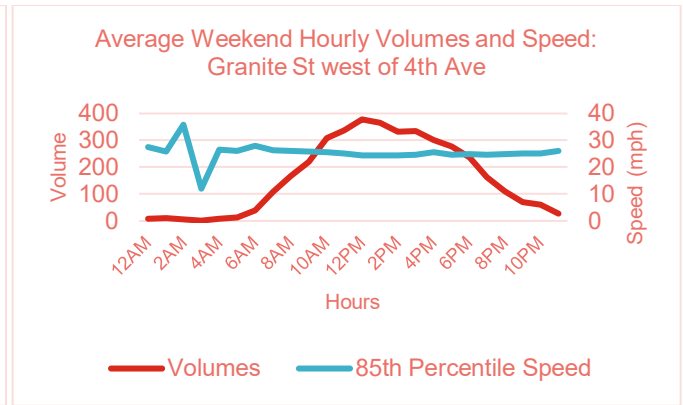


Figure 16

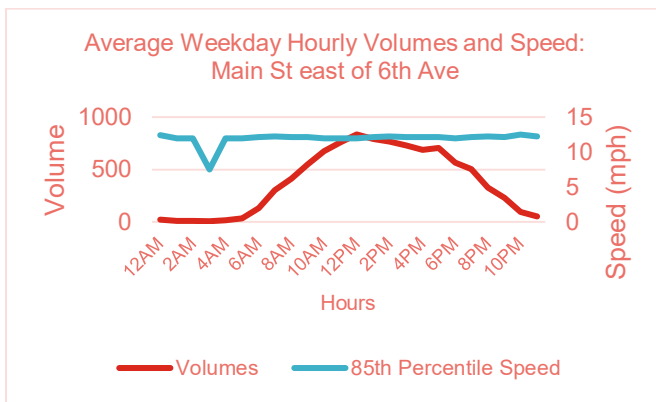


Figure 17

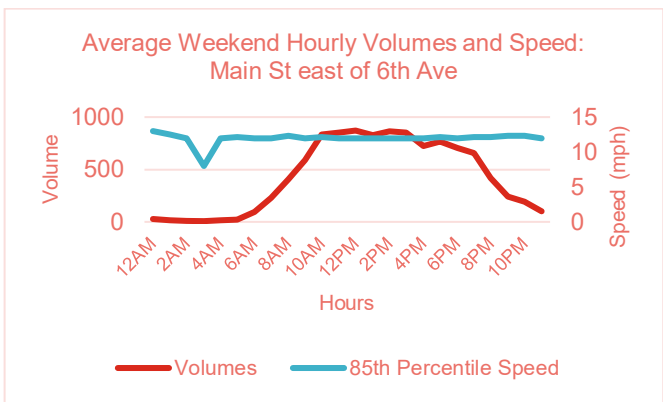


Figure 18

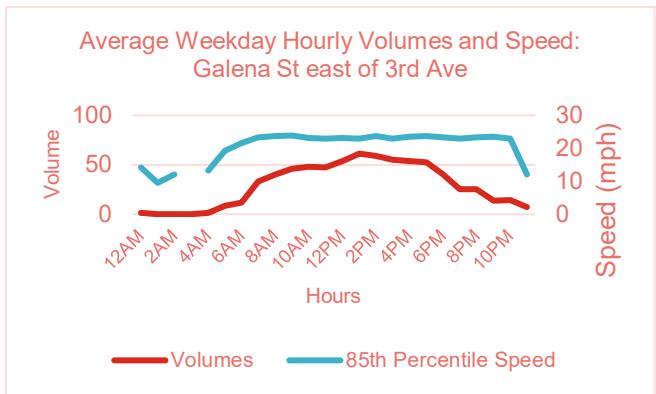


Figure 19

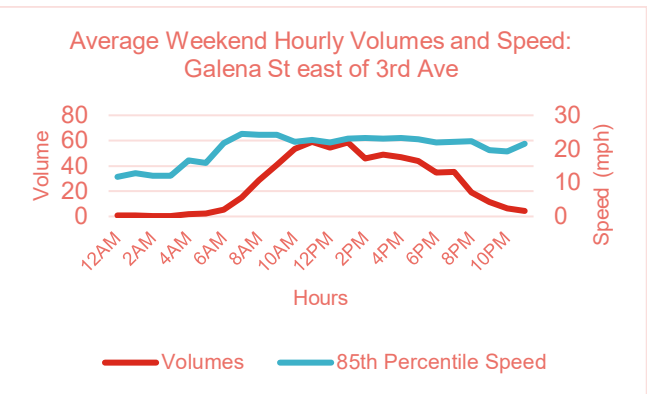


Figure 20

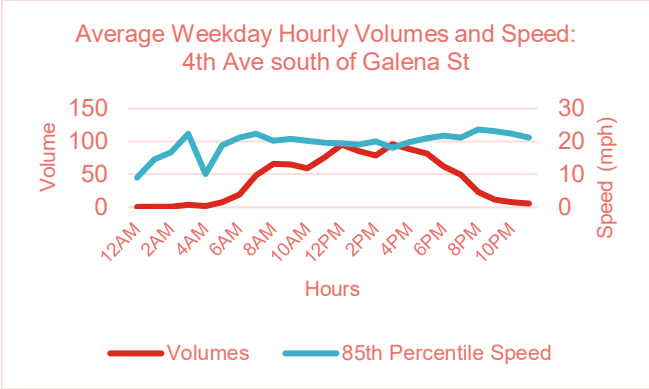


Figure 21

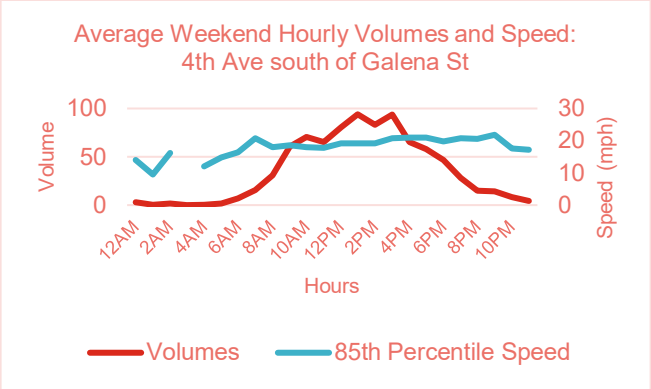


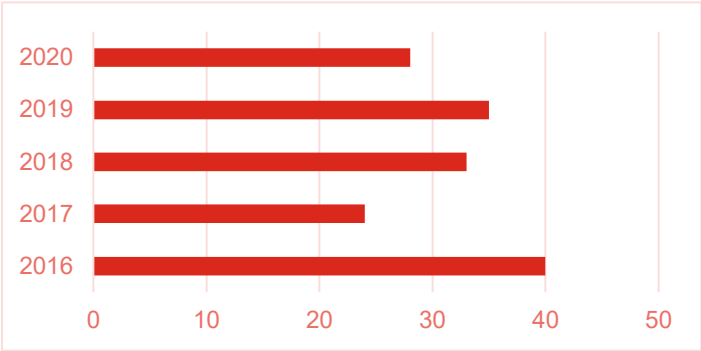
Figure 22

Safety and Connectivity

Collisions

Between 2016 and 2020, there were 160 collisions within the plan area (available data did not include information on collision types and primary collision factors). Over three-quarters (122) of the recorded collisions during this time-period occurred on Main Street. There were no recorded collisions with Galena Street as the primary or secondary street. There were 32 collisions with Granite Street recorded as the primary or secondary street, and 53 collisions on the north-south avenues within the project area.

Table 3: Collision History (2016-2020)



Connectivity Analysis

A pedestrian connectivity analysis on each blockface within the plan area found that 64% of the plan area had sufficient pedestrian infrastructure. Sufficient pedestrian infrastructure was defined as a blockface with a formal continuous sidewalk with no obstructions, while deficient pedestrian infrastructure applied to blockfaces with non-continuous sidewalks or missing sidewalks altogether. See Table 4 for a connectivity analysis breakdown by street.

Table 4: Pedestrian Connectivity Analysis

Street	% Sufficient Pedestrian Infrastructure	% Deficient Pedestrian Infrastructure
Galena Street	0%	100%
Main Street	100%	0%
Granite Street	17%	83%
1st Avenue	50%	50%
2nd Avenue	100%	0%
3rd Avenue	100%	0%
4th Avenue	100%	0%
5th Avenue	75%	25%
6th Avenue	75%	25%
7th Avenue	100%	0%

A bicycle level of traffic stress analysis found that 44% of the streets within the project area had high levels of traffic stress (LTS 3 or 4), and the remaining streets were very low stress (LTS 1). A stress level of LTS 1 was assumed for the north-south avenues where vehicular volumes and speed data were not collected, as 4th Avenue was assumed to be representative of typical traffic and speeds. While Main Street has a stress level of LTS 3 based on measured volumes and speed, its final score was increased to LTS 4 due to the high rate of parking turnover seen in the 2019 Town of Frisco On-Street Parking Study.

Table 5: Bicycle Level of Traffic Stress Analysis

Street	Level of Traffic Stress
Galena Street	LTS 1
Main Street	LTS 4
Granite Street	LTS 3
1 st Avenue*	LTS 1
2 nd Avenue*	LTS 1
3 rd Avenue*	LTS 1
4 th Avenue	LTS 1
5 th Avenue*	LTS 1
6 th Avenue*	LTS 1
7 th Avenue*	LTS 1

*Volumes and speed not collected as part of this report

Opportunities and Constraints

The town's existing streetscape within the plan area has multiple opportunities for improved connectivity, both within the plan area and by providing better connections to nearby destinations and other pathways and trails.

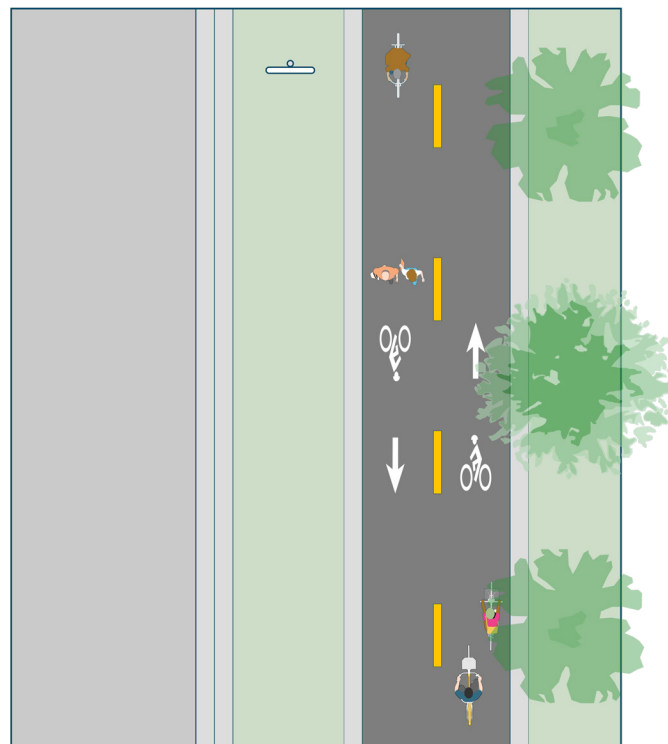
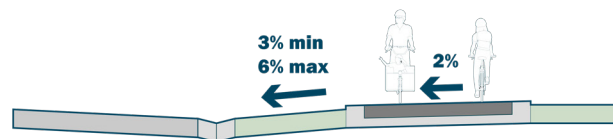
- **Downtown as a trailhead:** While there are limited trails and pathways within the plan area, there is an opportunity to improve these connections and highlight Frisco's downtown core as a starting point or trailhead for the wider trailhead system within Frisco.
- **New development:** Upcoming development within the plan area provide opportunities to create standards for pedestrian and bicyclist improvements to support improved connectivity.
- **Incomplete sidewalk network:** Sidewalks are inconsistent throughout the plan area. Although a current constraint, existing sidewalk gaps provide an opportunity to consider the width, material, and quality of sidewalks. Sidewalks may also include improved comfort for people walking through curb extensions, pedestrian-level lighting, seating, and other pedestrian-oriented amenities.
- **Unclear modal priority and unpredictable walking and biking environment:** Existing sidewalk gaps, limited bike facilities, and the current informal uses of gravel areas on the roadway edge contribute to an unclear modal priority, where road users are not sure where they stand in the modal hierarchy. Inconsistent traffic control on corridors like Granite Street and undefined driveways can contribute to this unpredictability, which can create a riskier environment and promote conflicts between people walking/biking and people driving. Creating clear infrastructure for people walking and biking can center the most vulnerable road uses and prioritize their comfort and safety.
- **Snow removal:** All changes to the streetscape must consider the challenges of snow removal during the winter season. Removing snow and ice should be a priority for the entire public right of way, not just areas where vehicles travel.

Frisco Pathway Design Details - DRAFT

Designers should use the following typical design details as guidance for implementing Frisco Pathway projects.

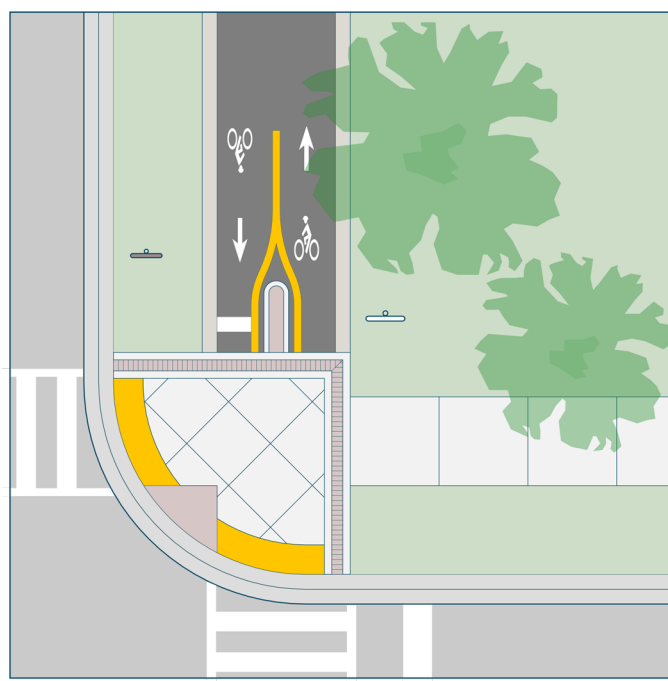
Cross-Section

A 1-foot gravel shoulder on either side of the paved pathway improves stability of the pavement and reduces plant encroachment.



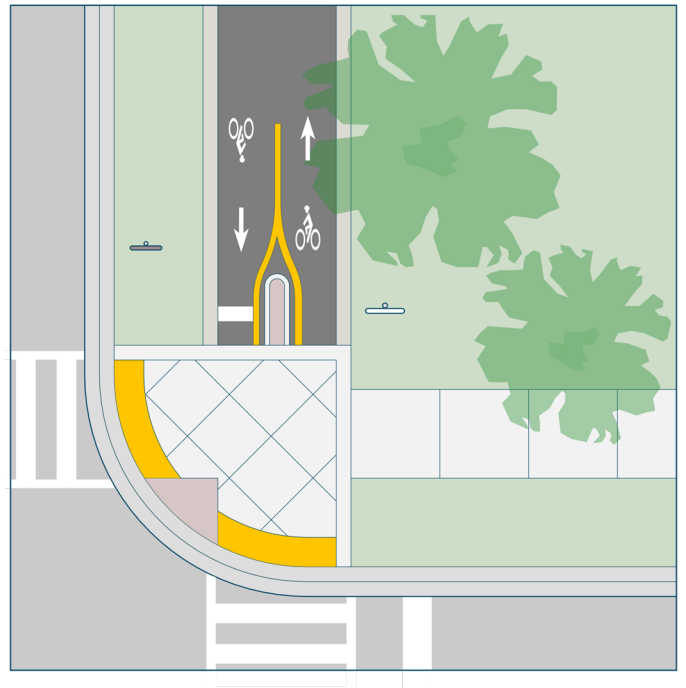
Intersection Option 1

The shoulder may be upgraded to concrete at crossings to enhance durability and reinforce branding of the multimodal path. Brick pavers or stamped concrete may be used to slow traffic at junctions and emphasize urban design features.



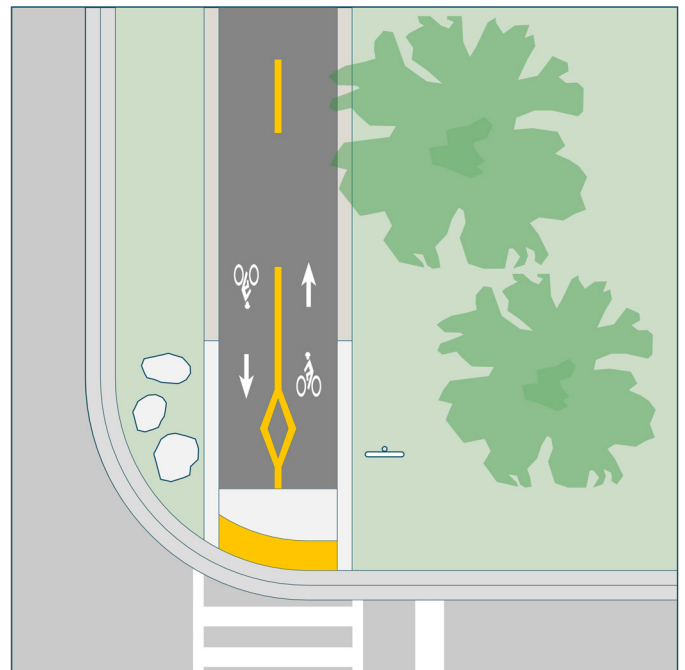
Intersection Option 2

As with Option 1, splitter features reinforce slowing and yielding expectations and conflict points. Wide curb ramps and clear sightlines should be prioritized at busy locations.



Intersection Option 3

Striping can also reinforce intersection approaches at low-volume crossings where multimodal conflicts are less frequent.



Frisco Downtown Complete Streets Plan, Project Prioritization Approach

The prioritization framework for the Frisco Downtown Complete Streets Plan used a methodology to evaluate the various projects' abilities to achieve the Plan's goals with available data.

Criteria Selection

Due to the relatively small geographic area of the projects proposed in the plan, the team was unable to use Geographic Information Systems (GIS) to conduct spatial analysis of prioritization criteria, so measures were chosen based on their alignment with and anticipated impact on the plan's goals. The project team determined that Funding Feasibility, Public Support, Safety and Comfort, and Multimodal Connectivity would be the most important ranking criteria. Table 1 describes the measures, evaluation criteria, and scoring methodology.

Table 1: Prioritization Criteria and Scoring

Category	Prioritization Criteria	Description	Evaluation Criteria	Scoring
Funding	Qualifies for Multiple Funding Sources	Does the project align with multiple funding opportunities or goals (e.g. stormwater mitigation, economic revitalization, etc.)?	Review of Project Goals and	0 sources = 0 1-2 sources = 1 3+ sources = 2
	Community Support	Does the project have support from elected officials and the general public, or was it identified as a priority by the public during engagement?	Design Charrette and Public Feedback Survey	Yes = 1 No = 0
Public Support	Staff Priority	Has the project been identified by Town staff as a priority?	Town Staff	Yes = 1 No = 0
	Aligns with Adopted Plan	Do previous plans identify a portion or all of the project?	Adopted Town Plans reviewed during Existing Conditions phase	Yes = 1 No = 0
Safety and Comfort	Protection for vulnerable users	Does the project provide increased separation between motor vehicles and vulnerable users (i.e., people walking or bicycling) or does it provide a designated space for vulnerable users (e.g., bicycle lane, crosswalk)?	Street Types, Downtown Complete Streets Plan	Yes = 1 No = 0
Multimodal Connectivity	Connects to Downtown Multimodal Network	Is the project located along a designated or planned bicycle, walking, or transit route?	Multimodal Network Map, Downtown Complete Streets Plan	Yes = 1 No = 0

Ranking the Projects

The project team standardized the calculated values for each measure in order to be able to evaluate the criteria with a common scale. Given the differences in scale and timeline, the prioritization process evaluated the list of proposed projects on three different scales: Near-Term, or projects that could be implemented using quick-build materials and methods, Medium-Term, or planning and design work that could position long-term projects, and Long-Term, or transformative investments likely requiring advance capital planning, in-depth public engagement, and greater resources to accomplish. This prioritization list acknowledges that opportunities may arise due to an adjacent project, a new development, or funding opportunity. Therefore, this list is intended to provide a framework for prioritization and does not commit the Town to implementing the projects in the order of the prioritization. The final prioritization lists for each of the three project scales can be found below in Tables 2, 3, and 4.

Table 2: Prioritized Ranking of Quick-Build Projects

Scale	Priority	Project Name	Street	Limits	Description
Near-Term (Quick-Build)	1	Granite Street Stop Sign Optimization	Granite Street	Madison Avenue to 7 th Avenue	Modify all-way stop pattern along Granite Street to improve predictability and multimodal safety (see Figure 5).
	2	Granite Street-Madison Avenue Realignment	Granite Street	Madison Avenue	Realign the intersection using interim materials (e.g., markings and flex posts) to orthogonalize the junction of Madison Avenue at Granite Street and create safer conditions for all users.
	3	Granite Street-2 nd Avenue Safety Improvements	Granite Street	2 nd Avenue	Add curb extensions (paint and bollards that can be upgraded to concrete in the future) on NW and NE corners of intersection.
	4	Main Street & Madison Avenue Traffic Circle	Main Street	Madison Avenue	Pilot traffic circle at Main Street & Madison Avenue using interim materials (e.g., markings, curb stops, and flex posts) to assess user safety and intersection efficiency.
	5	Galena Street-4 th Avenue Safety Improvements	Galena Street	4 th Avenue	Consider all-way stop control and high-visibility crosswalks to improve safety and comfort at the intersection.

Table 3: Prioritized Rankings of Medium-Term Projects

Scale	Priority	Project Name	Street	Limits	Description
Medium-Term (Study or Prelim. Design)	1	Granite Street, 10 - 30% Design	Granite Street	Madison Avenue to 7 th Avenue	Completing preliminary design of Granite Street to set design vision and better position the Town for funding opportunities and implementation.
	2	Frisco Transit Service Alternatives Study	Downtown Area		Study service options for improving transit access in and around downtown, including potential service types and patterns, contracting options, and cost opinions.
	3	Downtown Parking Policy & Management Study	Downtown Area		Analyze strategies and policy changes for improving public parking management throughout downtown, including parking fee structures, resident and workforce permitting, parking requirements for developments, esp. work-force housing, and provision for visitors.
	4	Alley Crossings – Typical Design	Granite Alley & Galena Alley	Madison Avenue to	Develop a typical design treatment for the alleys as they cross North / South avenues that can be implemented either as paint-and-post or concrete reconstruction.
Medium-Term (Construction)	5	Granite Complete Street Reconstruction	Granite Street & 7 th Avenue	6th Avenue to Highway 9 (Granite Street, and Granite Street to Main Street (7 th Avenue)	Reconstruct Granite Street from 6th Ave to Highway 9 and 7 th Avenue from Granite Street to Main Street according to the 30% design for the corridor. Connect the Frisco Pathway on 7 th Avenue south of Granite into downtown Frisco. Complete in tandem with redevelopment of the 619 Granite Street parcel.

Table 4: Prioritized Rankings of Long-Term Projects

Scale	Priority	Project Name	Street	Limits	Description
Long-Term (Capital Planning, Design, & Construction)	1	Granite Street Complete Street Reconstruction	Granite Street	Madison Avenue to Highway 9	Complete reconstruction of the entire Granite Street corridor according to existing 30% design plans. Reconstruct 3rd and 5th Avenues between Granite and Galena Streets simultaneously to complete downtown Frisco Pathway network.
	2	Galena Street Complete Street Reconstruction	Galena Street	1 st Avenue to 7 th Avenue	Complete design plans and reconstruct Galena Street from 1st to 7th Avenue in alignment with the Downtown Complete Streets Plan. Street segments adjoining redeveloping parcels may be implemented during property redevelopment.
	3	Alley Reconstruction	Granite Alley & Galena Alley	Madison Avenue to 7 th Avenue	Develop a detailed design treatment for the alleys servicing Main Street, and reconstruct opportunistically as funding is available or as parcels redevelop. Upgrade any quick-build or tactical crossing treatments to full build-out conditions.
	4	Summit Boulevard & Main Street Pedestrian and Bicycle Overpass	Summit Boulevard	Main Street	Conduct a feasibility study to construct a new overpass crossing over Summit Blvd serving people walking and bicycling between Main Street and Marina Drive.
	5	Tenmile Creek Pedestrian and Bicycle Bridge	3 rd Avenue	Tenmile Creek	Enhance bridge crossing of Tenmile Creek at 3 rd Avenue, tying Galena Street to Frisco Pathway on the north side of the waterway.

