



PEDESTRIAN & BICYCLE PLAN

April 2023

EXECUTIVE SUMMARY

Prepared by:



Prepared by:

FEHR & PEERS

CHAPTER 0.

EXECUTIVE SUMMARY

The Grand Junction Pedestrian & Bicycle Plan (PBP) is the city's first ever pedestrian and bicycle plan and provides a long-term vision for the future pedestrian and bicycle networks in Grand Junction. The vision, goals, and key elements of the PBP are based on best practice, national research, analysis, and input received through an extensive community engagement process that included over 2,000 touch points with community members. Ultimately, this PBP identifies strategies and prioritized investments that the city will gradually implement over time to make Grand Junction a more comfortable and welcoming place for people walking, rolling, and biking.



What's Included in this Plan?

This PBP includes the following key elements that will be used by the city to guide implementation:

- **Existing Conditions & Community Engagement Key Findings** – Based on the findings of the *Existing Conditions and Needs Assessment* report which is provided in Appendix A.
- **Vision, Goals, and Objectives** – Based on priorities identified by the community.
- **Bicycle Network Plan** – Includes a map illustrating the long-term vision for the future bicycle network, planned bicycle facility types, and infrastructure design guidance.
- **Pedestrian Network Plan** – Includes sidewalk and pedestrian crossing policy and design guidance to build out the pedestrian network.
- **Program & Policy Recommendations** – To support active transportation use and infrastructure implementation.
- **Implementation & Prioritization** – To guide systematic implementation of the long-term vision.

95% of survey respondents said they would like to be able to walk and bike more in Grand Junction.

Community Participation

The vision, goals, and recommendations included in the PBP reflect the input received through a broad and inclusive public engagement process. This included specifically seeking input through focus groups, intercept events, and a citizen Steering Committee from those most impacted by pedestrian and bicycle infrastructure, including students (college and K-12), people experiencing homelessness, disabled persons, seniors, and the Spanish speaking community among others. In all, over 2,000 touch points were made with the community through this process including over 660 survey responses, and over 1,000 comments on the interactive webmap as shown in **Figure 1**.

What We Heard from the Community

- **Improve Traffic Safety** – especially so kids can walk and bike more safely.
- **Improve Active Transportation Infrastructure** – more sidewalks, wider sidewalks, more bike trails, wider bike lanes, and more separation from traffic on busier streets.
- **Address Missing Connections** – gaps in the network make it difficult to get around by walking/rolling and biking.
- **Connect Key Destinations** – downtown, Riverfront Trail, CMU, Mesa Mall, schools, businesses and services on North Avenue and Patterson Road.
- **Provide Connections Across Barriers** – better crossings of the railroad tracks, rivers, US 50 and major arterial streets..
- **Connect to Riverfront Trail** – this is an important existing east-west route for people walking and biking.
- **Unmet Demand** – many people would like to be able to walk and bike more, but are not comfortable due to inadequate infrastructure and missing connections.



FIGURE 1 (LEFT):
SUMMARY OF
COMMUNITY
PARTICIPATION

FIGURE 2 (BELOW):
SURVEY RESPONSES
ON CHALLENGES
WALKING AND
ROLLING

The biggest challenge(s) associated with walking/rolling in Grand Junction is/are... (select all that apply)

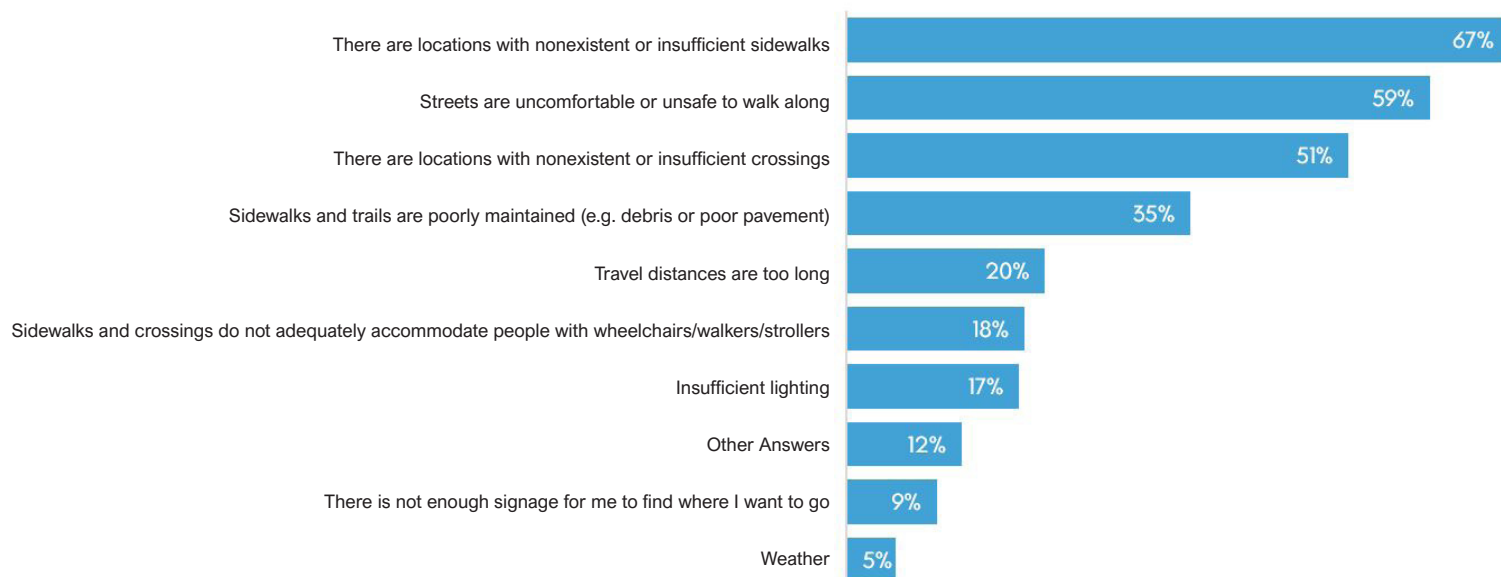




FIGURE 3: OUTREACH EVENTS

VISION

Grand Junction is a city where people of all ages and abilities can safely and conveniently walk, roll, and bike on a connected network of well-maintained facilities for transportation or recreation.

GOALS

The five goals identified to move the city towards its vision are: equitable, safe, connected, multimodal community, and quality. Each goal is further defined in this section.

Equitable

Design and operate the communities' streets and right-of-way to reasonably enable convenient access and travel for people walking and biking of all ages, abilities, and income levels and prioritize improvements that benefit vulnerable users and underserved areas.

Safe

Improve perceived and real safety by reducing the level of traffic stress (LTS) and reducing bicycle and pedestrian involved crashes. Invest and implement countermeasures at and along segments of the Active Transportation High Injury Network where there are known safety challenges.

Connected

Provide convenient access to Community Attractions and reduce the need for out of direction travel. Increase the number of direct and low-stress connections to key destinations within the city.

Multimodal Community

Facilitate a pleasant experience that creates a sense of place, that increases separation of pedestrians/rollers/bicyclists from vehicular travel lanes and makes travel without a vehicle a viable option for more people.

Quality

Invest in high-quality facilities that minimize the level of traffic stress experienced by travelers using the corridor and are well-maintained.

Equitable

OBJECTIVES

- E1:** Design crossings with ADA accessible pedestrian ramps, detectable surfaces, and other universal design features.
- E2:** Prioritize locations for sidewalk gap completion or rehabilitation according to the strategy outlined in the Prioritized Pedestrian Network section.
- E3:** Prioritize bike project locations according to the tiers established in the Prioritized Bicycle Network Map.

Safe

OBJECTIVES

- S1:** Conduct a signalization feasibility study as a first step to determine what improvements are needed at signalized crossings.
- S2:** When upgrading bike facilities on a corridor, incorporate suggested intersection treatments to reduce stress of bicycle crossings, and ensure continuity of high-comfort facilities.
- S3:** When upgrading pedestrian facilities on a corridor, incorporate suggested intersection treatments to reduce stress of crossings, and ensure continuity of high-comfort facilities.
- S4:** Conduct a lighting needs assessment for each active transportation corridor as a first step in identifying lighting needs for safety improvements.
- S5:** Bolster the existing Safe Routes to School program by incorporating new elements of the six Es.
- S6:** Work with local driving schools to expand the curriculum on laws governing interactions with people walking, rolling, and biking.
- S7:** Partner with law enforcement to increase enforcement of speeding and reckless driving in areas with high pedestrian volumes and/or safety issues and consider automated enforcement. Consider expanding the police bike patrol unit.
- S8:** Improve the North Avenue access management policy in alignment with national best practices and consider expanding to all the Active Transportation “High Injury Network” Corridors.
- S9:** Join the statewide program – Moving Towards Zero Deaths – as a first step in solidifying a citywide commitment to supporting multimodal travel through ensuring all trips in the community are as safe as possible.

Connected

OBJECTIVES

- C1:** Complete bike facilities on the Active Transportation Corridors as shown in the Future Bicycle Network Map.
- C2:** Strengthen enforcement and compliance of the existing construction zones policy that requires developers/construction companies to provide pedestrian pathways and bicycle facilities during construction.
- C3:** Require new developments to provide or set aside space for pedestrian and bicycle connections within the local street network of new developments and to adjacent streets in situations where there is a lack of connectivity in the roadway network.
- C4:** Connectivity can be defined by a “connectivity index,” the ratio of pedestrian and bicycle connections to blocks (or intersections). Consider reducing the maximum distance between pedestrian and bicycle connections to be less than the existing maximum block length for vehicular access of 1200 linear feet.

Multimodal Community

OBJECTIVES

- M1:** Prioritize installation of bike and micromobility parking and secure storage in key destinations downtown, outside of city properties, and near major transit hubs, parks, schools, employment centers, and shopping areas.
- M2:** Encourage new and existing developments to provide secure bike parking and amenities through requirements and incentives.
- M3:** When upgrading bicycle and/or pedestrian facilities on a corridor, design high-quality landscaped or hardscaped buffers with street furniture and pedestrian amenities.
- M4:** Grand Junction’s streets shall be designed as public amenities and include aesthetic elements such as street trees, landscaping, pedestrian lighting, street furniture, and wayfinding signage wherever possible.
- M5:** When upgrading bicycle and/or pedestrian facilities on a corridor, concurrently plan for the upgrade of lighting in the project area.
- M6:** Initiate a comprehensive wayfinding and signage study to create a consistent strategy for connecting people walking, biking, and driving to downtown and other key destinations.
- M7:** As the city continues to build out bike facilities and new trails over time, incorporate additional signs with the same wayfinding standards at decision points.
- M8:** Improve signage on the Riverfront Trail.
- M9:** Close the gaps on first-and-last mile connections through the deployment of shared micromobility devices (e-scooters, e-bikes, etc.) and utilize geofencing and parking corrals to accommodate device parking in high-traffic areas.

Multimodal Community

OBJECTIVES CONTINUED

M10: Develop a community-wide incentive program and work with large employers to implement a Guaranteed Ride Home program to encourage and support bike commuters. Incentives can include e-bike rebates, bike-themed events such as bike rodeos and Bike to Work Day, shwag such as bike lights and helmets, and gift certificates for those who bike to City events. Guaranteed Ride Home provides commuters who did not drive to work with alternative means home in case of an emergency.

M11: Establish a more positive culture around walking and biking in Grand Junction by creating staff position(s) to assist in public education, promoting the Bicycle Friendly Business program, and/or hosting an LCI seminar.

M12: Explore incentives-based Transportation Demand Management (TDM) measures, into which major developments could opt, to provide support for walking and biking. These could include constructing Active Transportation Corridors, bike facilities, showers, car share, or other support for bike commuters.

M13: Revise the parking minimum standards for different land uses to better align with the community's goals; reducing development costs associated with excessive parking to allow for innovations, flexibility, and greater affordability.

Quality

OBJECTIVES

Q1: Install high-comfort bike facilities on the Active Transportation Corridors as recommended in the Future Bicycle Network Map and according to the design guidance in the Bicycle Facility Types section.

Q2: Install high-comfort sidewalks and trails according to the design guidance in the Pedestrian Facility Types section.

Q3: Develop a set of maintenance standards and a maintenance plan to prioritize upkeep of the active transportation network.

Q4: Utilize existing and pursue new funding sources support construction and maintenance of the expanded system.

Q5: Consider expanding the SRTS program by diversifying funding sources to include CDOT funding in addition to dedicated CDBG funding.

Q6: Continue the current policy where planned Active Transportation Corridors that run through or adjacent to a site be constructed as part of the development.

Q7: Explore and pursue funding opportunities to support continual capital construction and maintenance of the projects listed in this plan.

Q8: To the greatest extent practicable given budget constraints include pedestrian and bicycle facilities in all street projects and phases, including new construction, reconstruction, resurfacing, and maintenance.

Q9: Approach every transportation project and program as an opportunity to improve streets and the transportation network for all users, and work in coordination with other departments, agencies and jurisdictions.

Q10: Implement bicycle and pedestrian improvement projects by integrating with other city standard procedures.

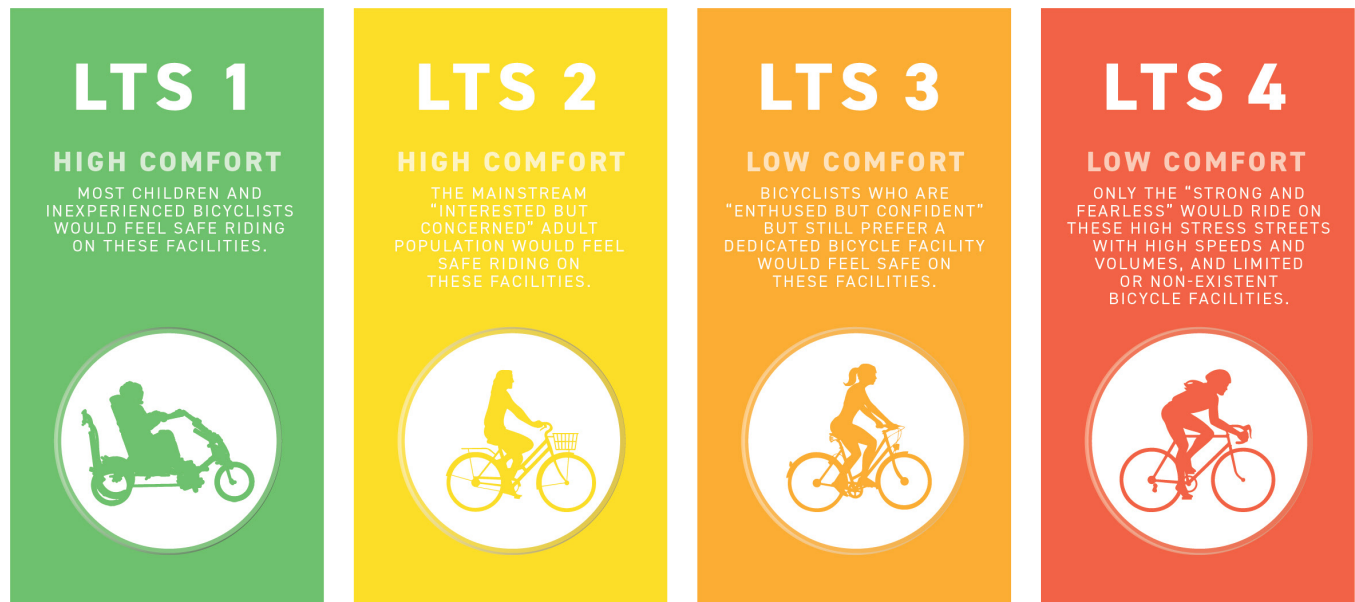
A Low Stress Pedestrian & Bicycle Network Plan

Based on input from the community, Steering Committee, and city staff, this plan sets forth a goal that all streets in Grand Junction will be designed to be low-stress, high-comfort for pedestrians, and all Active Transportation Corridors will be designed to be low-stress, high-comfort for bicyclists. Low-stress facilities are defined as those that score an LTS 1 or LTS 2 on the LTS 1-4 rating system as shown in **Figure 4**, meaning they cater to all ages and abilities. Future pedestrian and bicycle facilities in Grand Junction will cater to the most cautious design user, ranging from children, older adults, and people with mobility challenges to the most “strong and fearless” bicyclists and pedestrians.

Bicycle Network Plan

Bicycle facility types recommended in the Future Bicycle Network map in **Figure 6** are those needed to achieve an LTS 1 or 2 on Active Transportation Corridors based on the roadway speed, number of lanes, and traffic volumes. **Figure 5** highlights the six bicycle facility types that are included in the Bicycle Network Plan.

FIGURE 4: BICYCLE LEVEL OF TRAFFIC STRESS (LTS) MEASURES





BICYCLE FACILITY GUIDE

NOTE: Recommendations shown are the minimum facilities needed to create a high-comfort environment for biking, given street characteristics. Facilities with greater separation and protection than the minimum option are desirable and sometimes warranted.



BIKE BOULEVARD

May include sharrow markings & bike route signage, traffic calming elements like curb extensions, mini roundabouts, traffic diverters

Recommended on streets with:

Low speeds (25 mph or lower), low traffic volumes (1,000 cars per day or fewer), few travel lanes (up to two), parallel routes to major arterials



BIKE LANE

Painted stripe, usually 6' or wider

Recommended on streets with:

Few travel lanes and/or low speeds (two lanes up to 35 mph or three to four lanes up to 25 mph)



BUFFERED BIKE LANE

Painted stripe, usually 5' or wider with 1.5' or wider buffer

Recommended on streets with:

Three to four travel lanes and speeds of 30 or 35 mph



PROTECTED BIKE LANE

Bike lane 5' or wider, protected by 3' or wider buffer such as flex posts, planters, rigid bollards, parking strip, or concrete barriers

Recommended on streets with:

High speeds (40 mph or greater), many travel lanes (more than four)



RAISED CYCLE TRACK

Bike lane 6.5' or wider, elevated from street level to curb height or mid-curb height, separated from sidewalk and roadway

Recommended on streets with:

High speeds (40 mph or greater), many travel lanes (more than four)



TRAIL

Multi-use path 10' feet or wider, separated from the roadway by a high-quality buffer

Recommended on streets with:

High speeds (40 mph or greater), many travel lanes (more than four)

FIGURE 5: BICYCLE FACILITY GUIDE

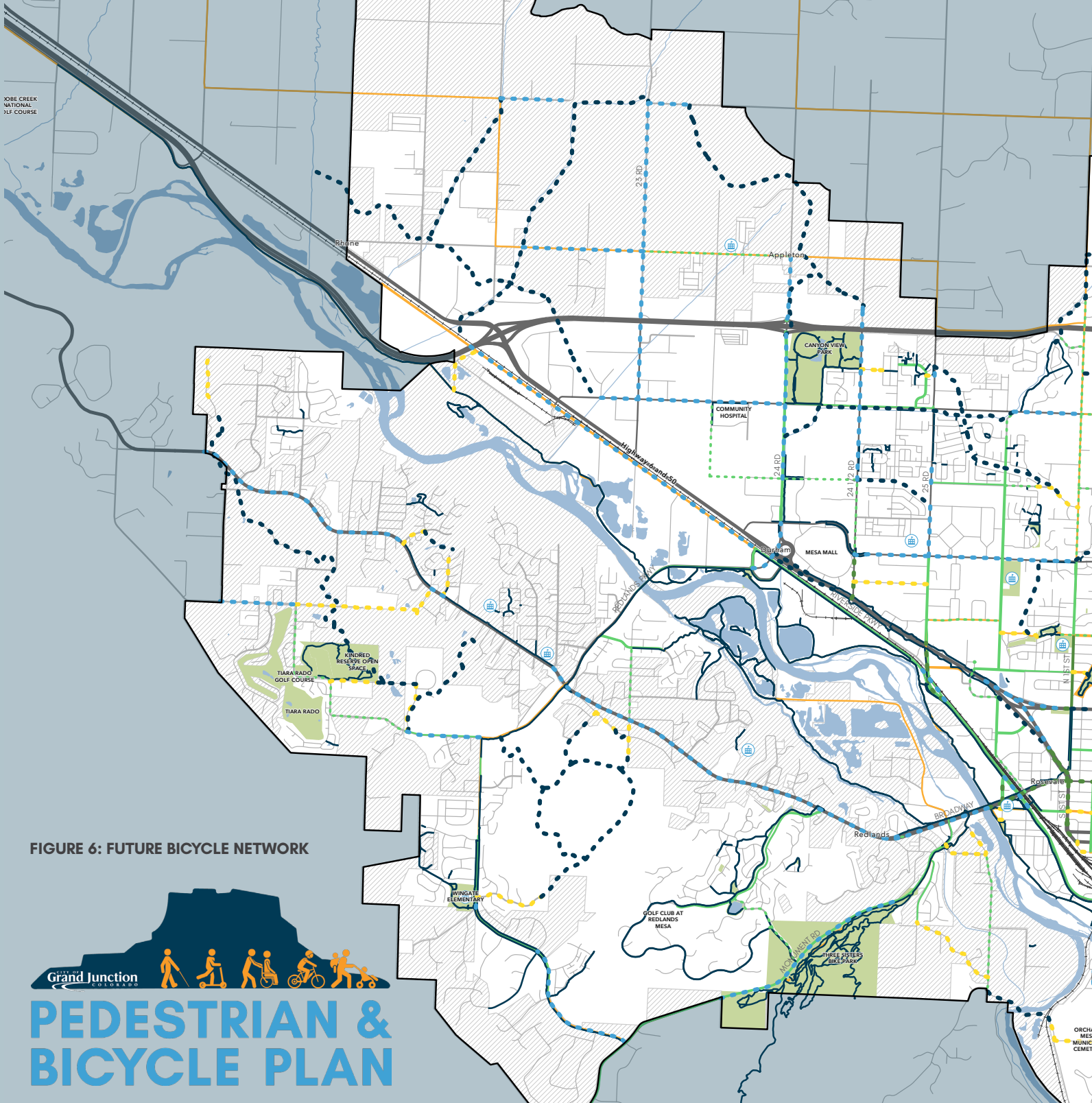


FIGURE 6: FUTURE BICYCLE NETWORK



LEGEND

- Unincorporated Mesa County
- Urban Development Boundary
- Parks
- Railroads
- Schools

Street Classification

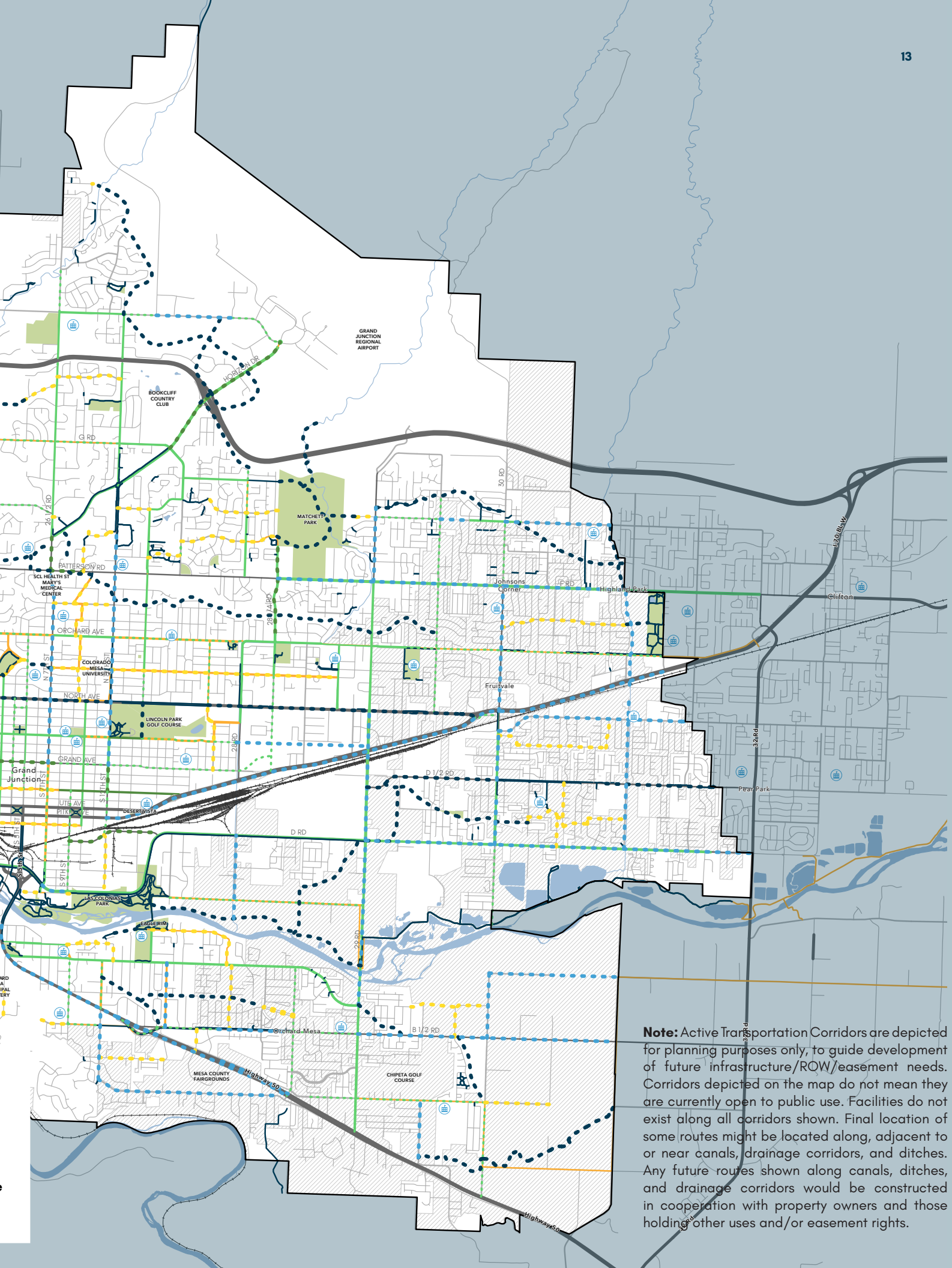
- Local
- Collector
- Arterial
- Highway

Existing Bicycle Facilities

- Signed Bike Route
- Striped Bike Lane
- Buffered Bike Lane
- Trail

Bicycle Facility Recommendation

- Bike Boulevard
- Bike Lane
- Buffered Bike Lane
- Trail, Cycletrack, or Protected Bike Lane
- Trail



Note: Active Transportation Corridors are depicted for planning purposes only, to guide development of future infrastructure/ROW/easement needs. Corridors depicted on the map do not mean they are currently open to public use. Facilities do not exist along all corridors shown. Final location of some routes might be located along, adjacent to or near canals, drainage corridors, and ditches. Any future routes shown along canals, ditches, and drainage corridors would be constructed in cooperation with property owners and those holding other uses and/or easement rights.

Pedestrian Network Plan

The majority of, if not all, streets in the city will be a part of the future pedestrian network. To achieve a low-stress, high level of comfort for pedestrians guidance is provided on the appropriate width of the sidewalk and the buffer (between the sidewalk and the vehicle travel lanes – see **Figure 7**) based on the speed and number of travel lanes on the street as shown in **Table 1**. The buffer zone could include landscaping (such as shade trees) or street furniture (such as streetlamps, benches, and bike racks). Parked cars, bike lanes, or painted shoulders can also be included in the buffer width as they provide separation between vehicles and pedestrians.

FIGURE 7: SIDEWALK ELEMENTS

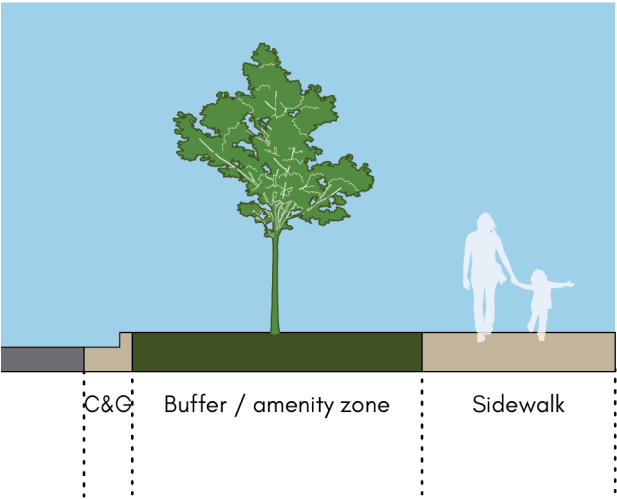


FIGURE 8: PEDESTRIAN LEVEL OF TRAFFIC STRESS

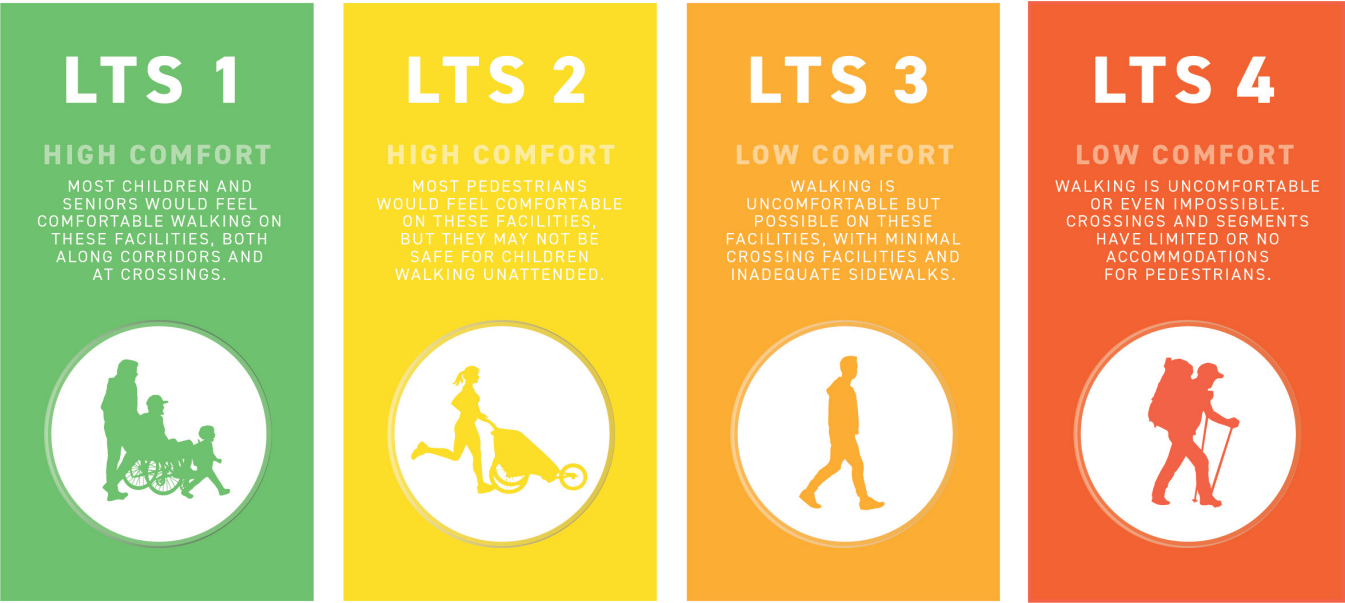


TABLE 1: SIDEWALK FACILITY RECOMMENDATIONS TO ACHIEVE LTS 2 OR BETTER GIVEN STREET CHARACTERISTICS

		LANES	
		3 or fewer	4 or more
Speed	30 mph or less	6 ft sidewalk, 8 ft buffer	8 ft sidewalk, 12 ft buffer
	35 mph or more	8 ft sidewalk, 12 ft buffer	8 ft sidewalk, 12 ft buffer

Prioritizing Projects

Prioritization Factors

The prioritization factors shown in **Table 2** were developed based on input from the public, Steering Committee, and city staff reflecting the community's priorities. These inputs were used to prioritize proposed bicycle and sidewalk projects into three tiers: low, medium, and high priority.

Prioritizing Bicycle & Pedestrian Improvements

Figure 9 illustrates the prioritization of the planned bicycle corridors in Grand Junction based on the criteria in **Table 2**, and **Figure 10** illustrates the prioritization of filling in missing sidewalks in Grand Junction. Generally, sidewalk projects will be prioritized

by first completing missing sidewalks, then retrofitting existing sidewalks. For each tier (starting with high priority missing sidewalks) the priority will be arterial streets, then collector streets, then local streets.

While the city will use this prioritization to allocate fundings specifically for bicycle and pedestrian improvements, it's possible that opportunities will arise to implement low priority and medium priority projects sooner as part of new street construction or reconstructions projects or other opportunities. In these situations, bicycle and pedestrian facilities should be implemented on one these corridors as defined in this Plan.

TABLE 2: PRIORITIZATION FACTORS AND RELATED GOALS

Factor	Equitable	Safe	Connected	Multimodal Community	Quality
Located in low-income neighborhoods	✓				
Provides access for low-income residents	✓				
Provides access across barriers	✓		✓		
Access to bus stops	✓		✓	✓	
Frequent & severe crash locations		✓			
Has low lighting		✓			
Active Transportation Corridors			✓	✓	✓
Access to parks & recreation centers			✓		
Access to libraries & public buildings			✓		
Access to social services	✓		✓		
Access to schools			✓		
Access to childcare facilities			✓		
Access to healthcare facilities			✓		
Access to grocery stores & shopping centers			✓		
Access to trailheads			✓		

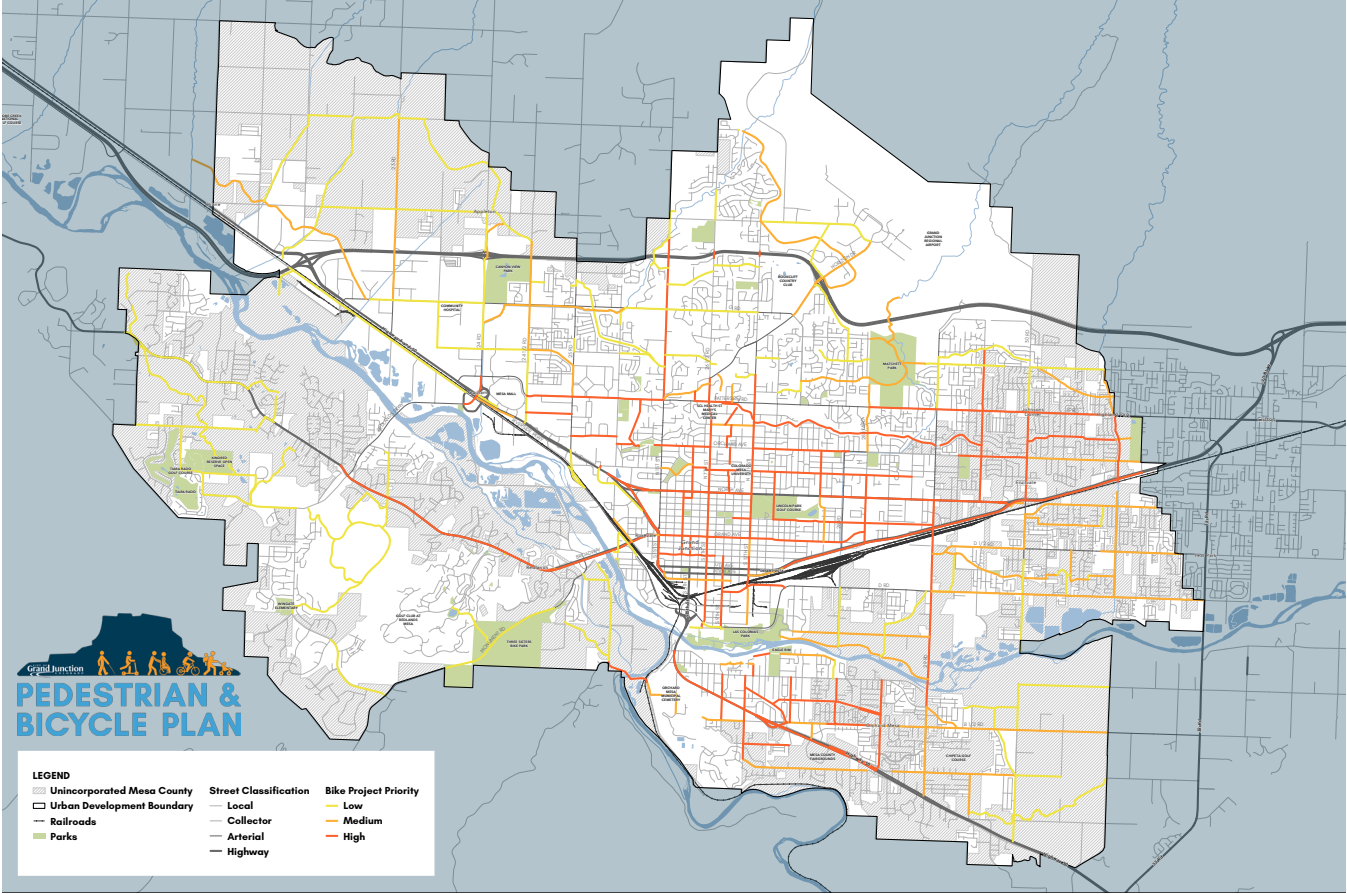


FIGURE 9 (ABOVE): BICYCLE PROJECT PRIORITIZATION

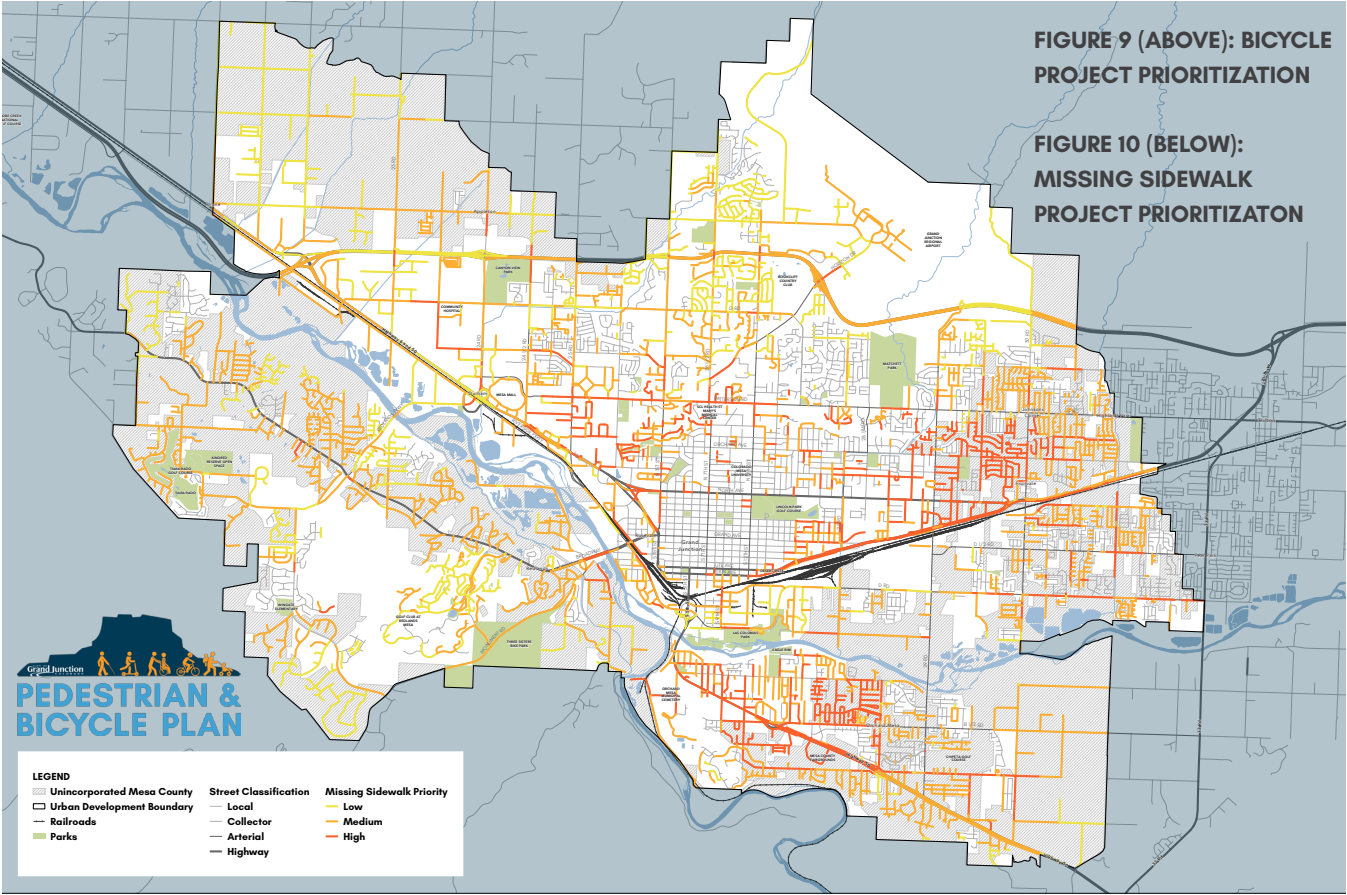


FIGURE 10 (BELOW): MISSING SIDEWALK PROJECT PRIORITIZATION

Programs & Policies

Programs and policies will work in tandem with the build-out of the pedestrian and bicycle networks in Grand Junction to further support people walking, rolling, and biking. Programs to maintain new facilities, provide pedestrian and bicycle amenities, create Safe Routes to School, reduce commute trips, and improve education and awareness will each establish a culture friendly to walking and biking. Policies can be used to guide the private sector in new development or redevelopment projects, as well as city departments as they perform major street construction projects and routine street maintenance. Adopting policy will ensure these projects incorporate the city's goals for the bicycle and pedestrian environment and create a consistent experience for users.

Based on the existing conditions analysis and in collaboration with the Steering Committee, the following set of programs and actionable policies are recommended to support buildout and use of the future bicycle and pedestrian network.

Programs

- **Maintenance**
- **Pedestrian & Bicycle Amenities**
 - Bicycle Storage & Parking
 - Street Furniture
 - Pedestrian-Scale Lighting
 - Wayfinding & Signage
 - Bike/Scooter Share
- **Safe Routes to School (SRTS)**
- **Community-wide Incentive Program**
- **Education & Awareness**

Policies

- **Access Management**
- **Vision Zero**
- **Construction Zones**
- **Implementing or Funding Bicycle Facilities**
- **Building a Connected Network**
- **Applying Transportation Demand Management (TDM)**
- **Parking Policy**

Funding Opportunities

The city will explore and pursue funding opportunities to support continual capital construction and maintenance of the projects listed in this plan. Many of the projects in this plan could be funded by grants. In most cases, external funding sources require local matching funds. Funding sources will continue to change between 2023 and 2050, but several key grant and funding streams available as of early 2023 are provided.

Federal

- **Federal Highway Safety Improvement Program (HSIP)**
- **USDOT Rebuilding American Infrastructure with Sustainability and Equity (RAISE) (formerly BUILD and TIGER)**
- **FTA (Federal Transit Administration) §5307 Urbanized Area Formula Program**
- **Infrastructure for Rebuilding America (INFRA)**

State

- **CDOT Funding Advancements for Surface Transportation and Economic Recovery Act (FASTER)**
- **Safe Routes to School (SRTS)**
- **Great Outdoors Colorado (GOCO)**
- **Regional Priorities Program (RPP)**
- **Highway Users Tax Fund (HUTF)**
- **Revitalizing Main Streets**

Regional

- **Metropolitan Planning**
- **Multimodal Options Fund (MMOF)**

Local

- **Dedicated Sales Tax**
- **Grand Junction's Downtown Partnership (DP)**
- **The Horizon Drive District (HDD)**
- **Public-private partnerships**

PERFORMANCE MEASURES

This section outlines specific performance measures to track progress over time toward and provide a quantitative way to ensure that the city moves towards its defined goals.

Tracking performance measures will provide accountability and transparency to the community and provide valuable information to the city as to whether the implementation strategy should be adjusted over time. It is recommended that city staff collect data annually and publish findings through a report, dashboard, and/or via the city website. The performance measures are organized by each goal.

Equitable

Design and operate the communities' streets and right-of-way to reasonably enable convenient access and travel for people walking and biking of all ages, abilities, and income levels and prioritize improvements that benefit vulnerable users and underserved areas.

- **Metric:** Miles of bike lanes and sidewalks installed or upgraded in low-income areas (those below the median household income in Grand Junction).
- **Metric:** Number of crossings implemented or upgraded to achieve ADA compliance.

Safe

Improve perceived and real safety by reducing the level of traffic stress (LTS) and reducing bicycle and pedestrian involved crashes. Invest and implement countermeasures at and along segments of the Active Transportation High Injury Network where there are known safety challenges.

- **Metric:** Number of miles of Active Transportation Corridors that score an LTS 1 or 2.
- **Metric:** Total bicycle and pedestrian crashes.

Connected

Provide convenient access to Community Attractions and reduce the need for out of direction travel. Increase the number of direct and low-stress connections to key destinations within the city.

- **Metric:** Number of key destinations (schools, childcare facilities, healthcare facilities, grocery stores, shopping centers, parks & recreation centers, libraries & public buildings, trailheads, and bus stops) within a quarter mile of a low-stress bike facility.
- **Metric:** Miles of missing sidewalks within a half mile of key destinations (schools, childcare facilities, healthcare facilities, grocery stores, shopping centers, parks & recreation centers, libraries & public buildings, trailheads, and bus stops).

Multimodal Community

Implement infrastructure and programs that make walking and biking accessible to people of all ages and abilities throughout the city, with a focus in areas of highest need, such as serving low-income areas.

- **Metric:** Miles of bike lanes and sidewalks installed or upgraded in low-income areas (those below the median household income in Grand Junction).
 - **Metric:** Number of crossings implemented or upgraded to achieve ADA compliance.
-

Quality

Invest in high-quality facilities that minimize the level of traffic stress experienced by travelers using the corridor and are well-maintained.

- **Metric:** Amount of funding dedicated annually for active transportation improvements that supports facility maintenance and the installation of new capital projects each year.