CITY OF TAYLORSVILLE UTAH

avenue CONSULTANTS

TAYLORSVILLE

Active Communities Plan

APRIL 2023

ACKNOWLEDGEMENTS

The Taylorsville Active Communities Plan Team would like to acknowledge the contribution of individuals and groups who enriched the planning process and helped guide this document.

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02 Design Standards (cont.)

ACTIVE TRANSPORTATION PLAN

The City of Taylorsville wishes to better incorporate bicycle and pedestrian mobility into its transportation and recreational planning and development processes. Taylorsville residents have repeatedly expressed a desire to increase pedestrian and bicycle mobility within the City by developing active transportation improvements and pedestrian-oriented places.

Active Transportation (AT) is the transport of people or goods, through non-motorized means, based around human physical activity such as biking and walking. AT infrastructure includes a myriad of facilities such as bike lanes, trails and sidewalks.

To increase the bikeability and walkability within the city, Taylorsville in partnership with the Wasatch Front Regional Council via the Transportation and Land Use Connection Technical Assistance Fund, started the **Taylorsville Active Communities Plan.**

This current study establishes a comprehensive AT Master Plan that formalizes locations, types, and standards for AT routes incorporating various regional plans and local connectivity objectives. The plan also focuses on establishing local AT connections throughout the city.

study goals

01 Formalize locations and types of Active Transportation routes incorporating previous plans and analysis of existing conditions including safety, equity, origins & destinations, upcoming developments, transit and safe routes to school

02 Improve bike and pedestrian recommendations via local connections

03 Establish standards for the design of Active Transportation facilities based on national and local guidelines

1.1 PLANNING PROCESS

Revise Past Plans

Consider previous studies' recomendations as not to duplicate efforts

Identify Origins & Destinations

Understand where people are going to and from in Taylorsville

Analyze Active Transportation Datasets

Dive deep into pedestrian and bicyclist usage of the City's transportation network

In order to develop a comprehensive Active Transportation Plan for Taylorsville, the City went through the following steps:

Revisit the Backbone Network

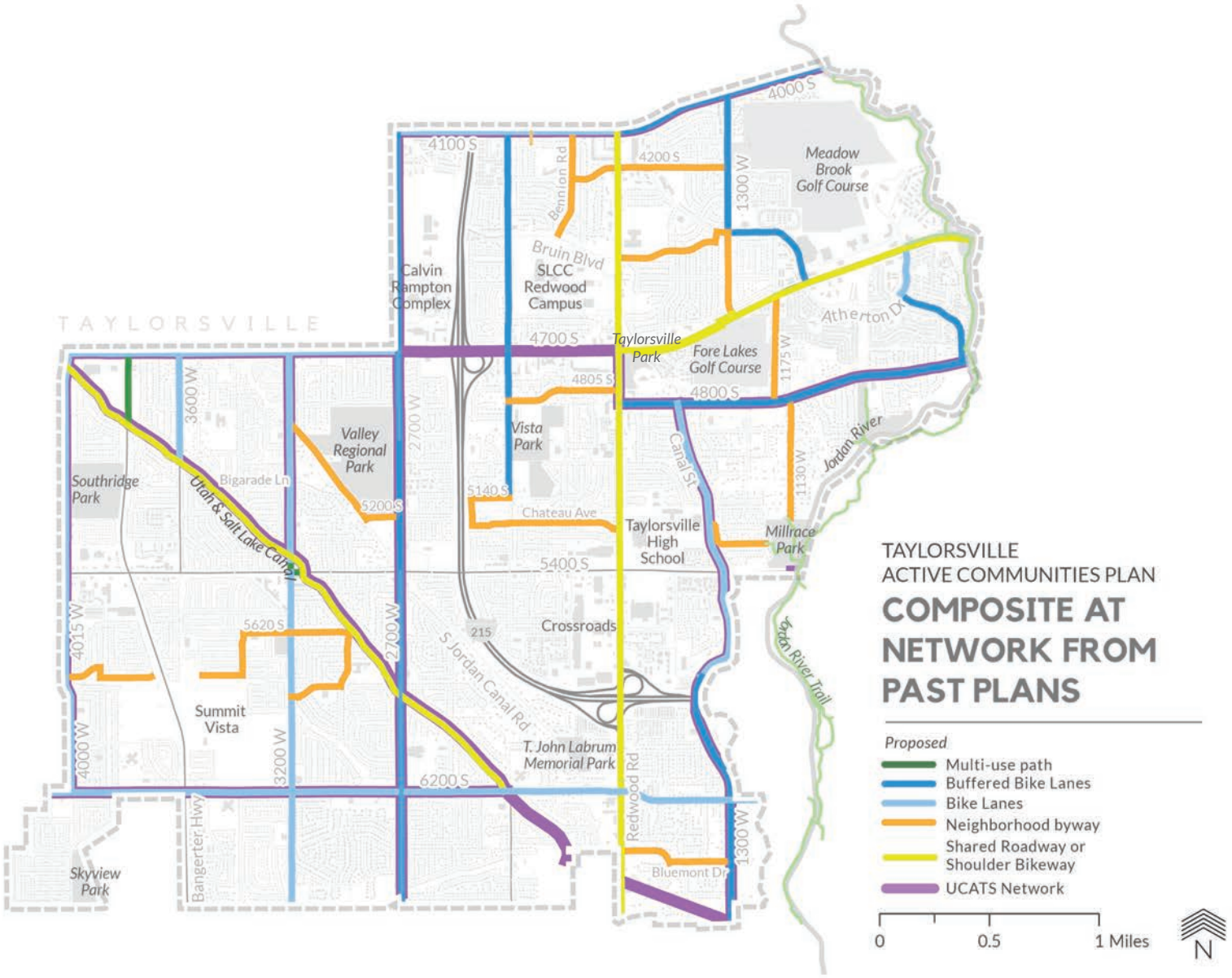
Incorporate the regional network created by the Mid-Valley Active Transportation Plan

Plan Equitably

Identify underserved neighborhoods and carless households

Consider Transit & Safe Routes to School

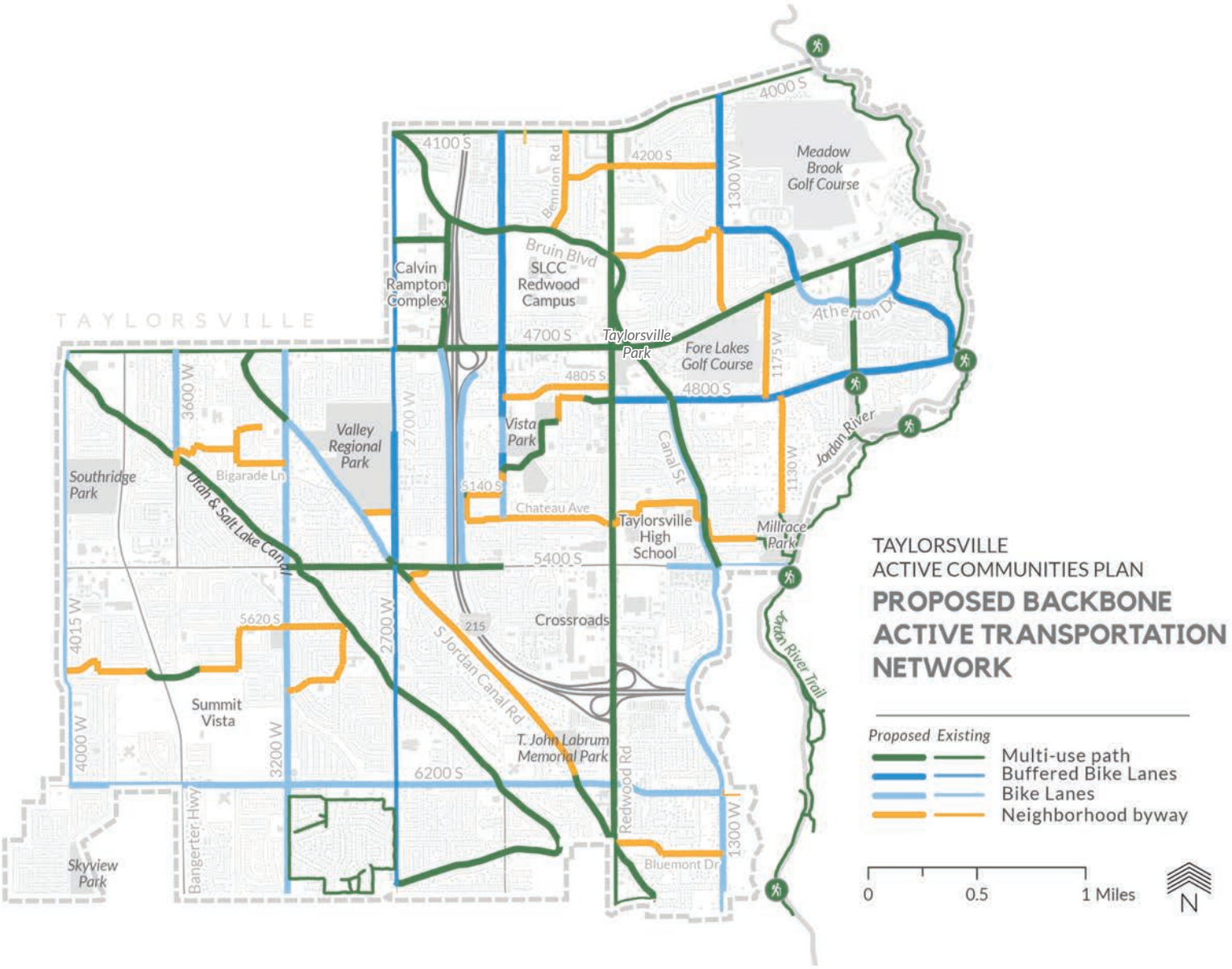
Analyze how the AT network connects to schools and transit stations



REVISE PAST PLANS

The current plan revised all past plans that included active transportation components for Taylorsville. This step was crucial to ensure the City isn't duplicating efforts and continues to build upon previous analyses. The plans include:

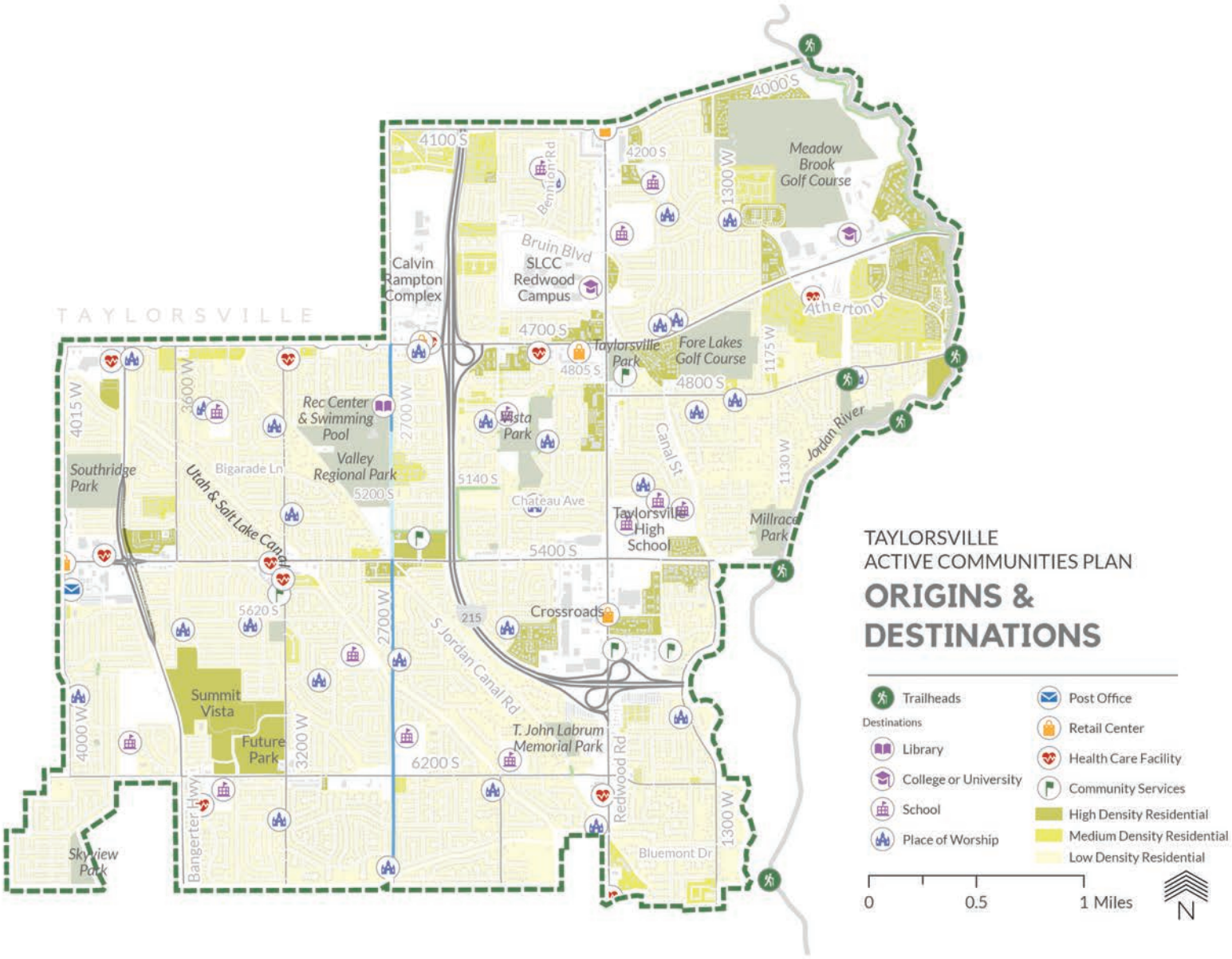
- Salt Lake County 2017 Active Transportation Implementation Plan (ATIP)
- Salt Lake County Westside Bicycle Connectivity Study
- Wasatch Front Regional Council (WFRC) 2019 Regional Transportation Plan
- Utah's Unified Transportation Plan, UDOT
- Utah Collaborative Active Transportation Study (UCATS)



REVISIT THE BACKBONE NETWORK

The proposed backbone active transportation network was identified in 2021 by the Mid-Valley Active Transportation Plan. This plan brought 6 cities together (Taylorsville, Midvale, Holladay, Millcreek, Cottonwood Heights, and Murray) to plan for regional-level biking and walking facilities.

The current plan used the recommendations made by the Mid-Valley Active Transportation Plan as basis to develop an AT network, and further refined those to better fit into the context of Taylorsville. As a result, some connections proposed on the Mid-Valley Active Transportation Plan are not reflected in the final recommendations of this plan, while others have been added.

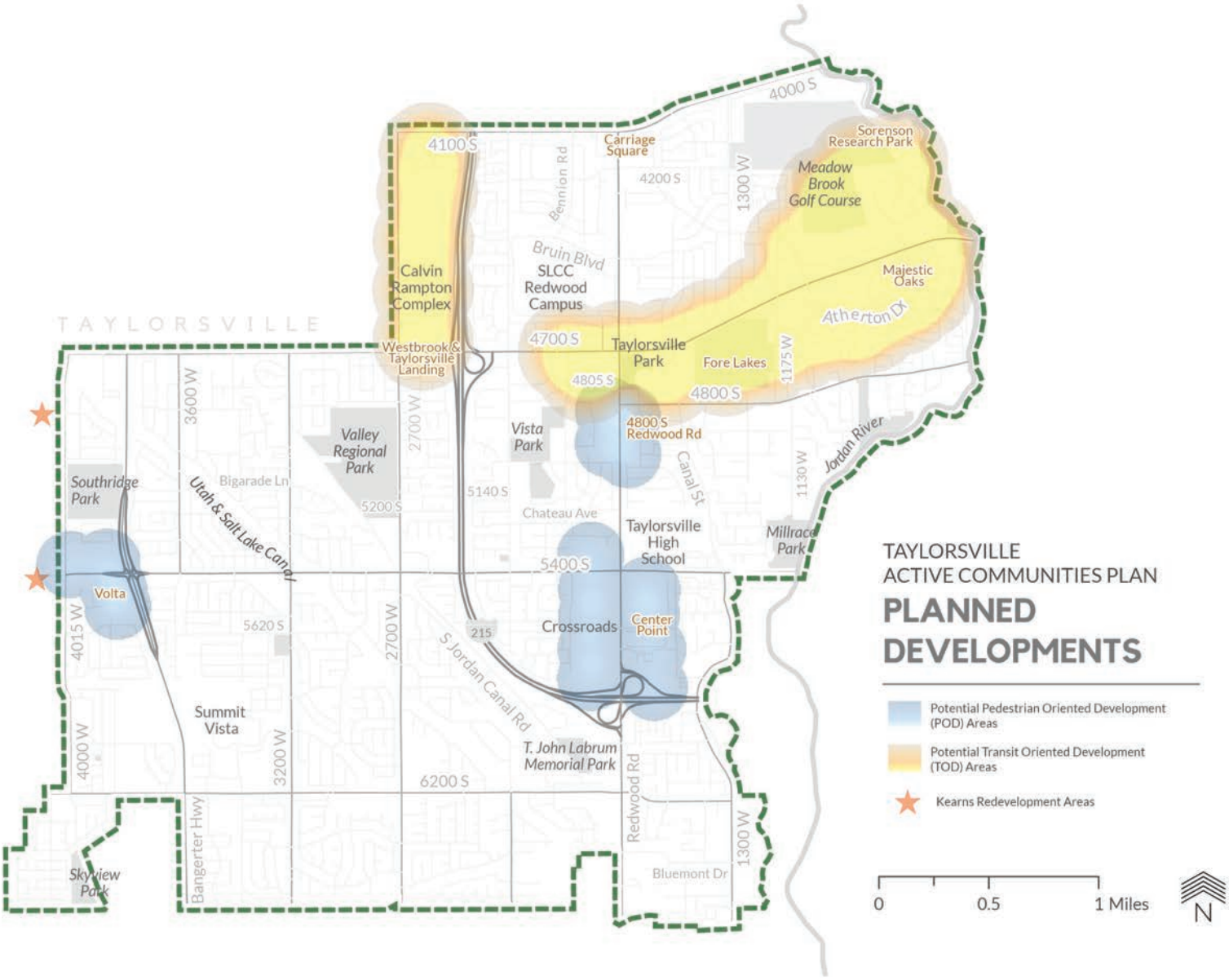


IDENTIFY ORIGINS & DESTINATIONS

With the help of key stakeholders, we mapped the most prominent destinations in Taylorsville, including:

- Trailheads
- Libraries
- Colleges and schools
- Places of worship
- Post offices
- Retail centers
- Health care and community services facilities
- Residential neighborhoods

This helped us understand where people are coming to and from in Taylorsville. Ultimately, the goal is to connect these origins and destinations with biking and walking facilities.

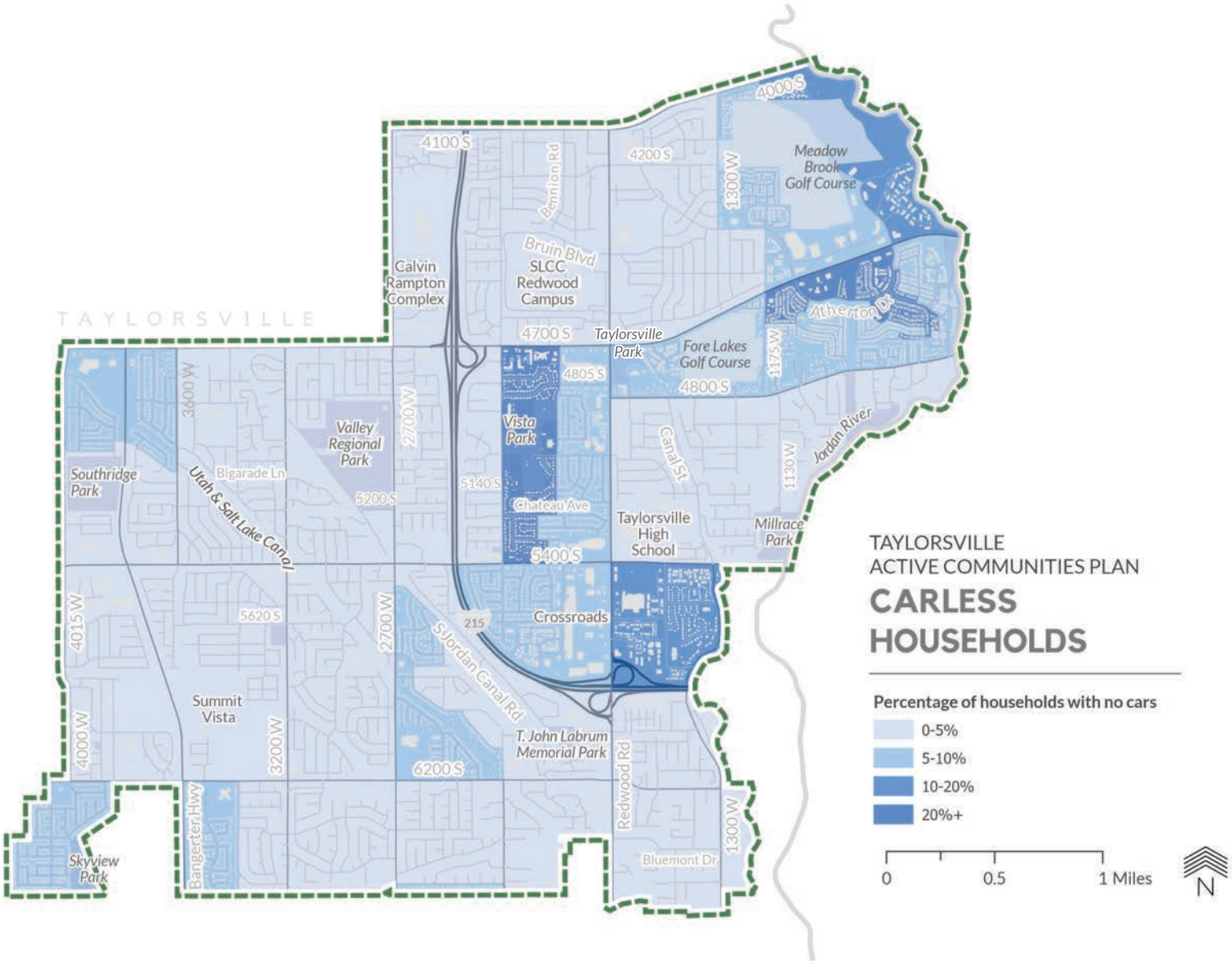


IDENTIFY ORIGINS & DESTINATIONS

Planned Developments

A number of areas in Taylorsville are set to develop or redevelop in the upcoming years. These will be pedestrian and/or transit-oriented areas, where the pedestrian experience is valued and reflected in the design. The current plan aims to integrate these areas onto the larger AT network for Taylorsville.

While some of these areas do not have current redevelopment plans, the overall tendency is that more and more pedestrian-oriented developments will take place in Taylorsville over the next years.

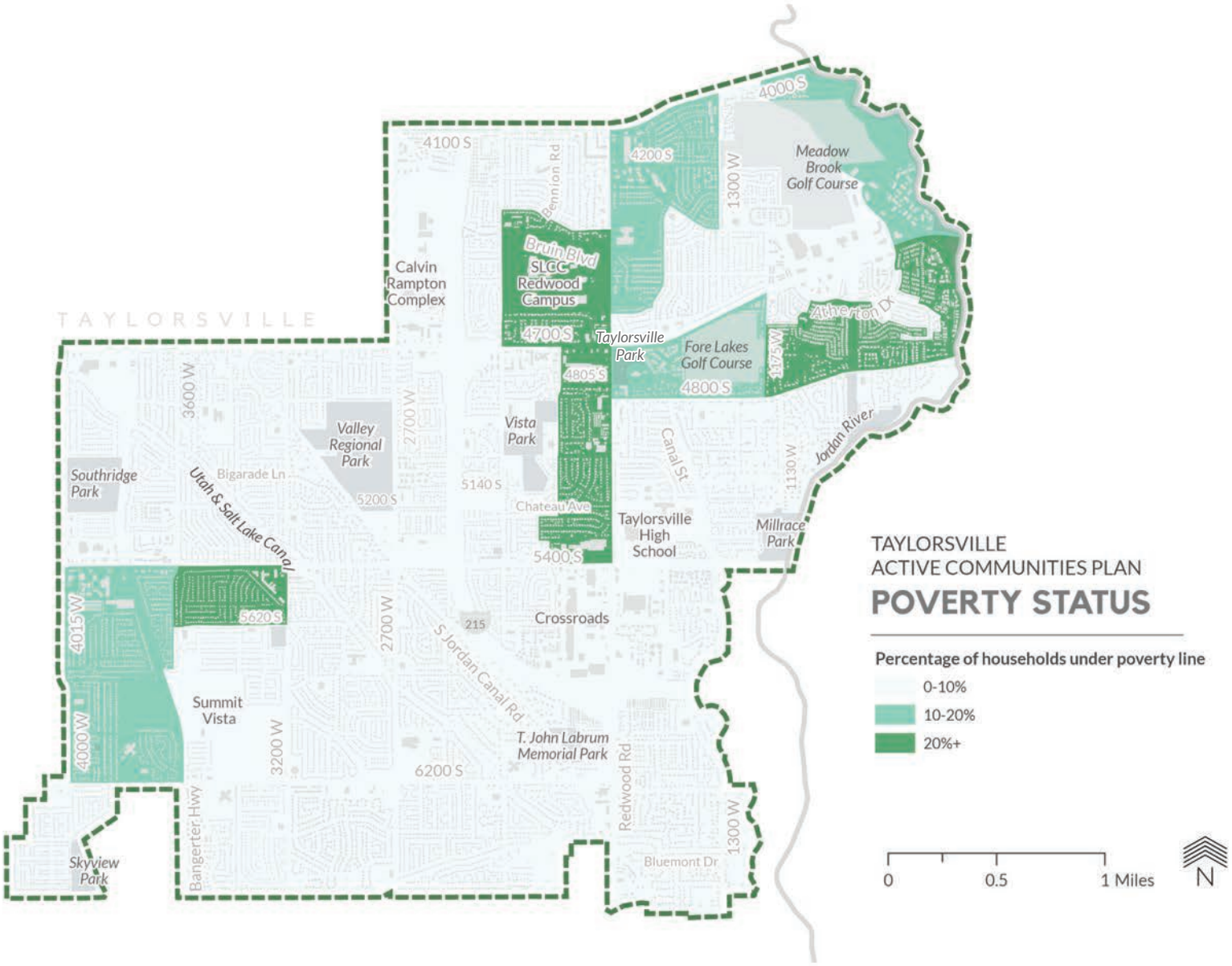


PLAN EQUITABLY

Carless Households

Using 2019 American Community Survey (ACS) data at a block group level, we analyzed the percentage of households that lack access to cars in Taylorsville.

This information helped understand where are the communities that need enhanced access to biking and walking facilities since they are more likely dependent on these modes to get around.



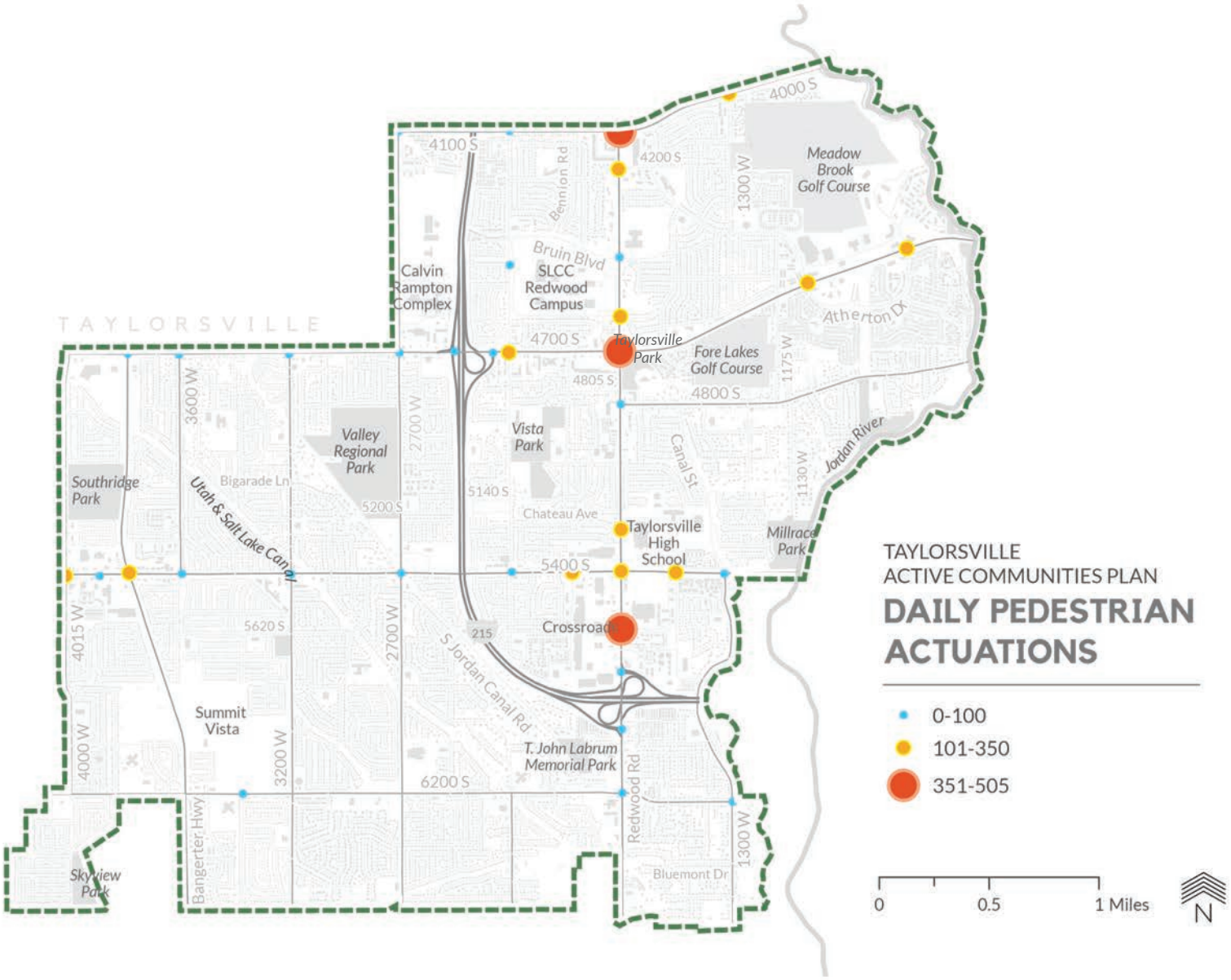
PLAN EQUITABLY

Economic Status

The poverty level status in the ACS is determined based on the income level of a household relative to the poverty threshold set by the federal government. The poverty threshold is the minimum income level needed to meet basic needs, such as food, shelter, and clothing, and is adjusted annually for inflation.

The ACS uses the poverty guidelines established by the Department of Health and Human Services to determine poverty level status. These guidelines are based on family size and income. For example, in 2019, the poverty threshold for a family of four was set at an annual income of $25,750.

Areas with an increased percentage of households below the poverty level are highlighted in darker green colors. Residents of these areas are more likely to depend on transit, walking, and biking, even if they own a car. Analyzing this metric helped us understand which areas are in greater need of active transportation connectivity.



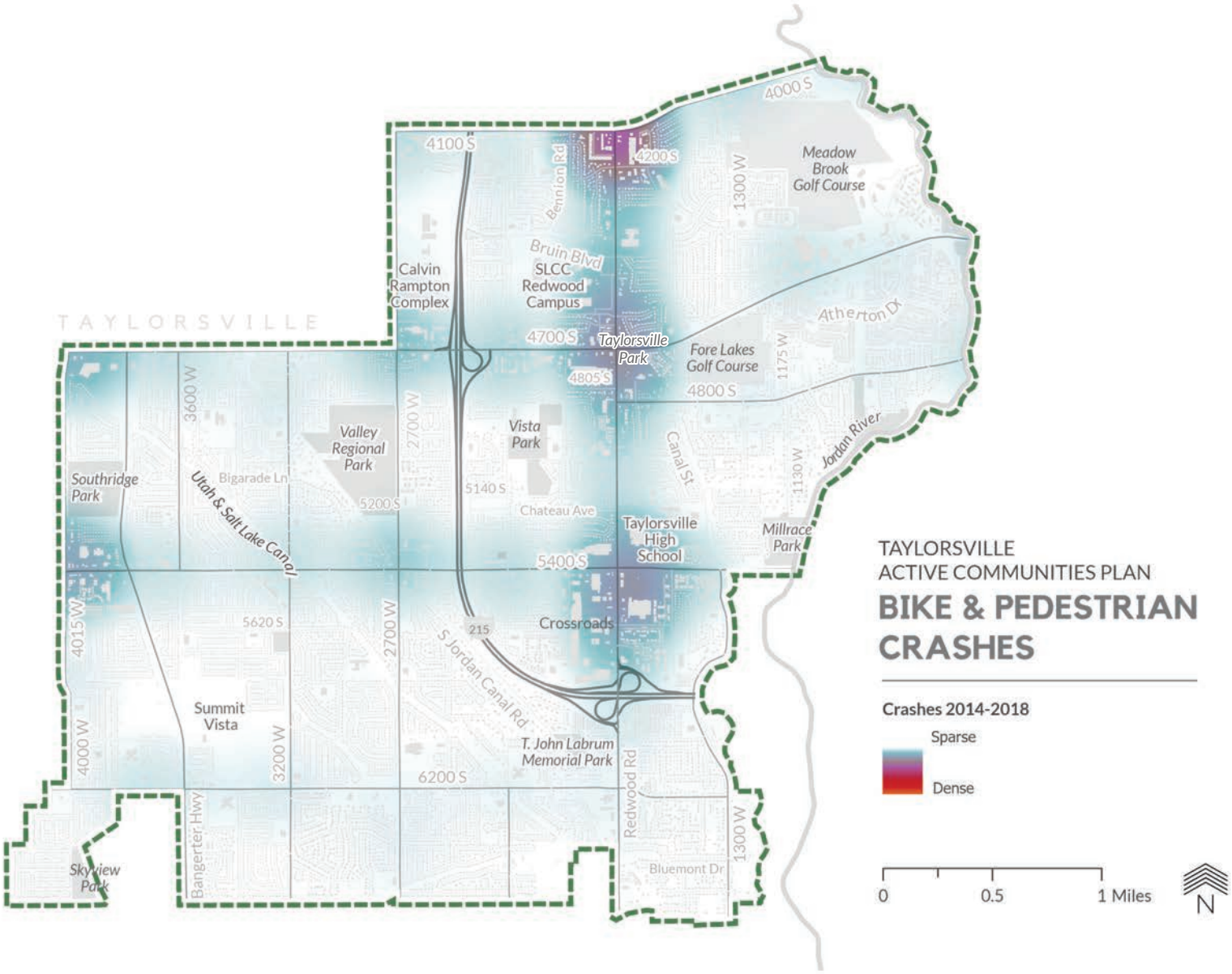
ANALYZE ACTIVE TRANSPORTATION DATASETS

Pedestrian Actuation

Pedestrian actuation is the act of pressing the crossing button at a signalized intersection. Areas that have high actuation rates are more heavily trafficked by pedestrians and are good candidates for crossing improvements.

Most pedestrian actuations in Taylorsville occur on Redwood Rd on the following intersections:

- 4100 South
- 4700 South
- 5600 South
- 5400 South



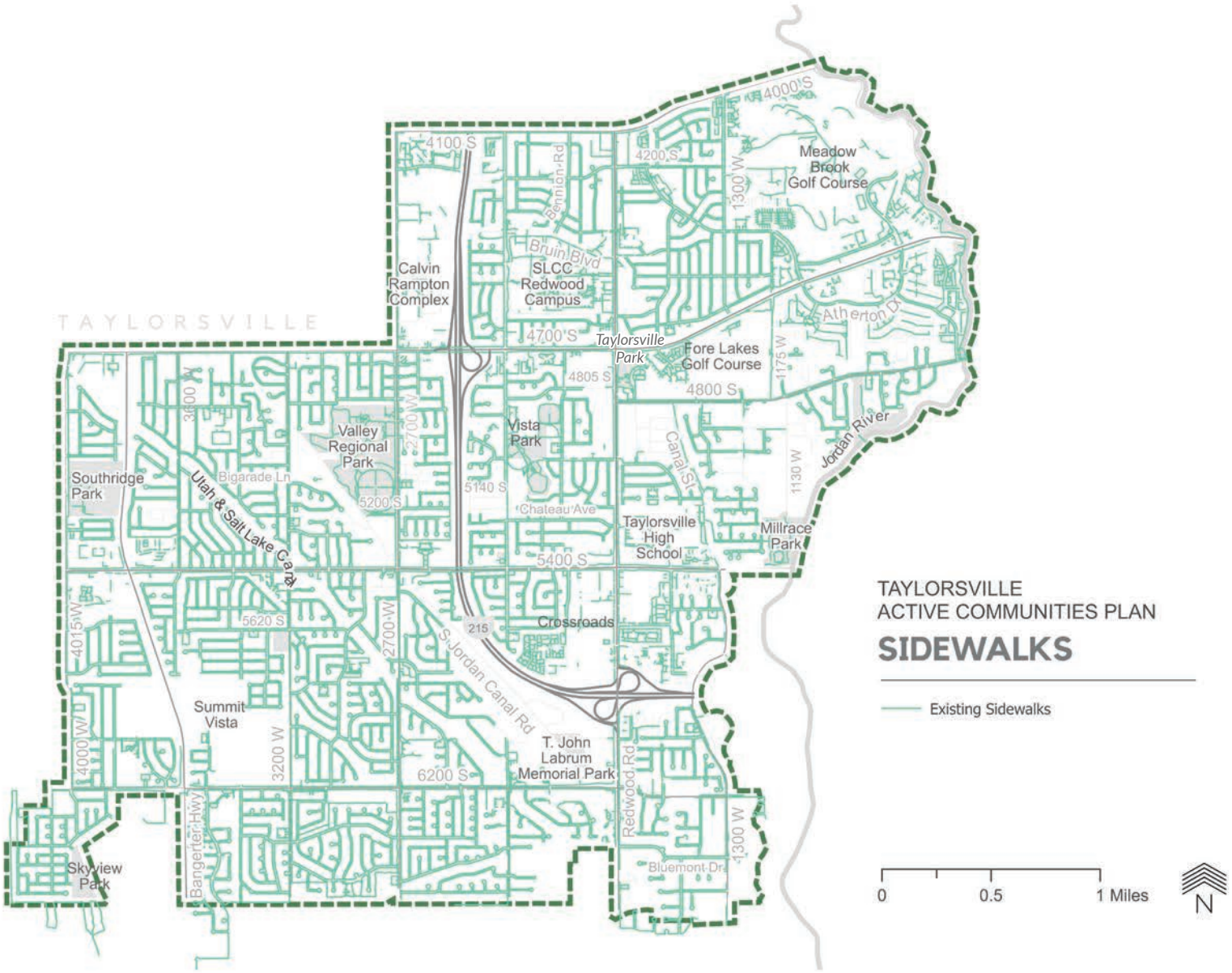
ANALYZE ACTIVE TRANSPORTATION DATASETS

Bicycle & Pedestrian Crashes

We analyzed the crash data for bicyclists and pedestrians in a 4-year timespan. Most crashes occur along Redwood Road near the commercial nodes at 4100 South, 4700 South, and 5400 South.

This dataset helps us understand areas that are in greater need of safe crossing improvements and active transportation facilities.

Although low in reported crashes, several areas in Taylorsville (specially west of I-215) are dangerous for pedestrians and bicyclists due to the lack of infrastructure.

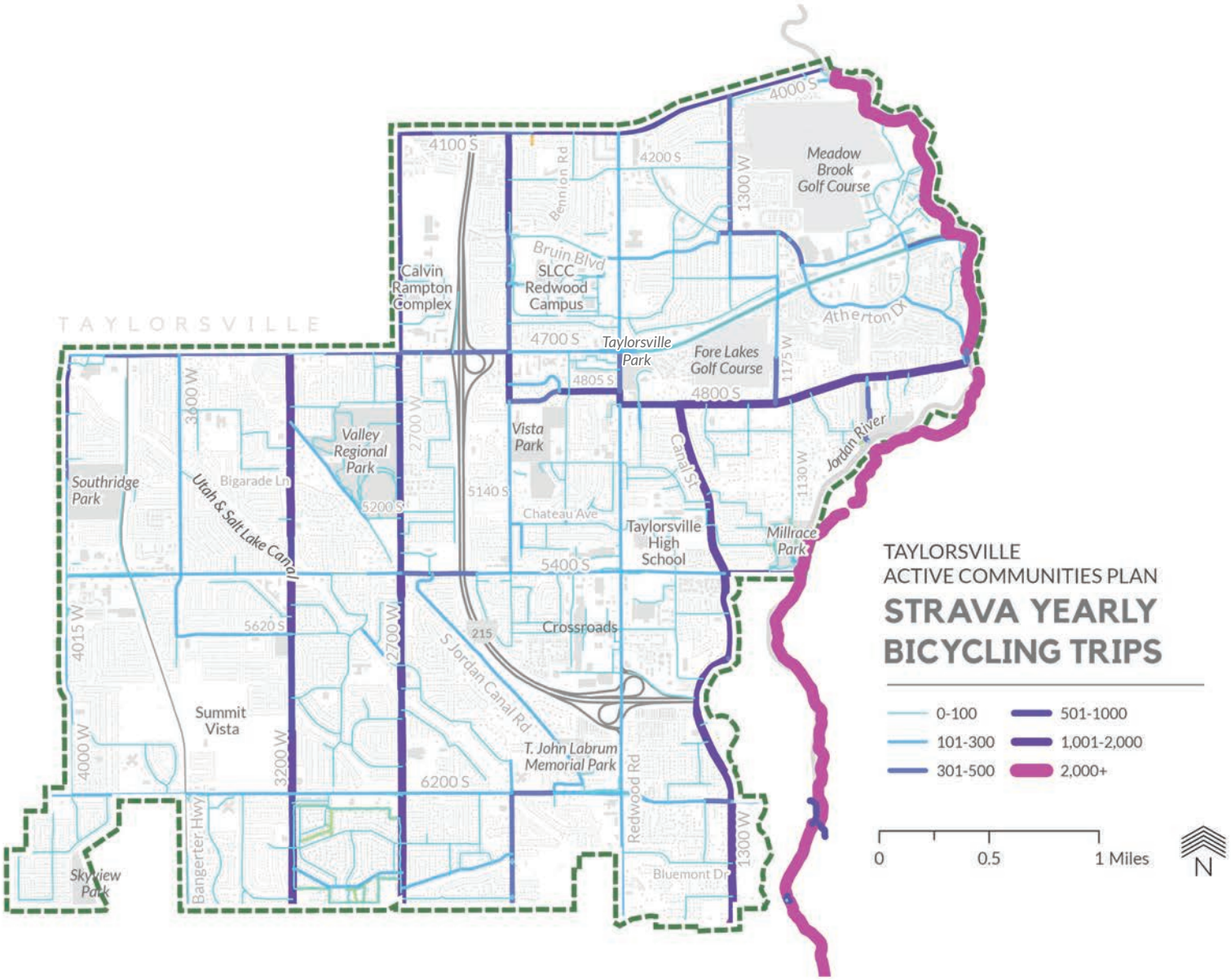


ANALYZE ACTIVE TRANSPORTATION DATASETS

Sidewalks

Differently from most active transportation plans, this one includes pedestrian-only facilities such as sidewalks.

Taylorsville currently has most of its street network lined with sidewalks which is great news for pedestrians! However, some gaps do exist, and lack of connectivity between facilities impose barriers to walking.

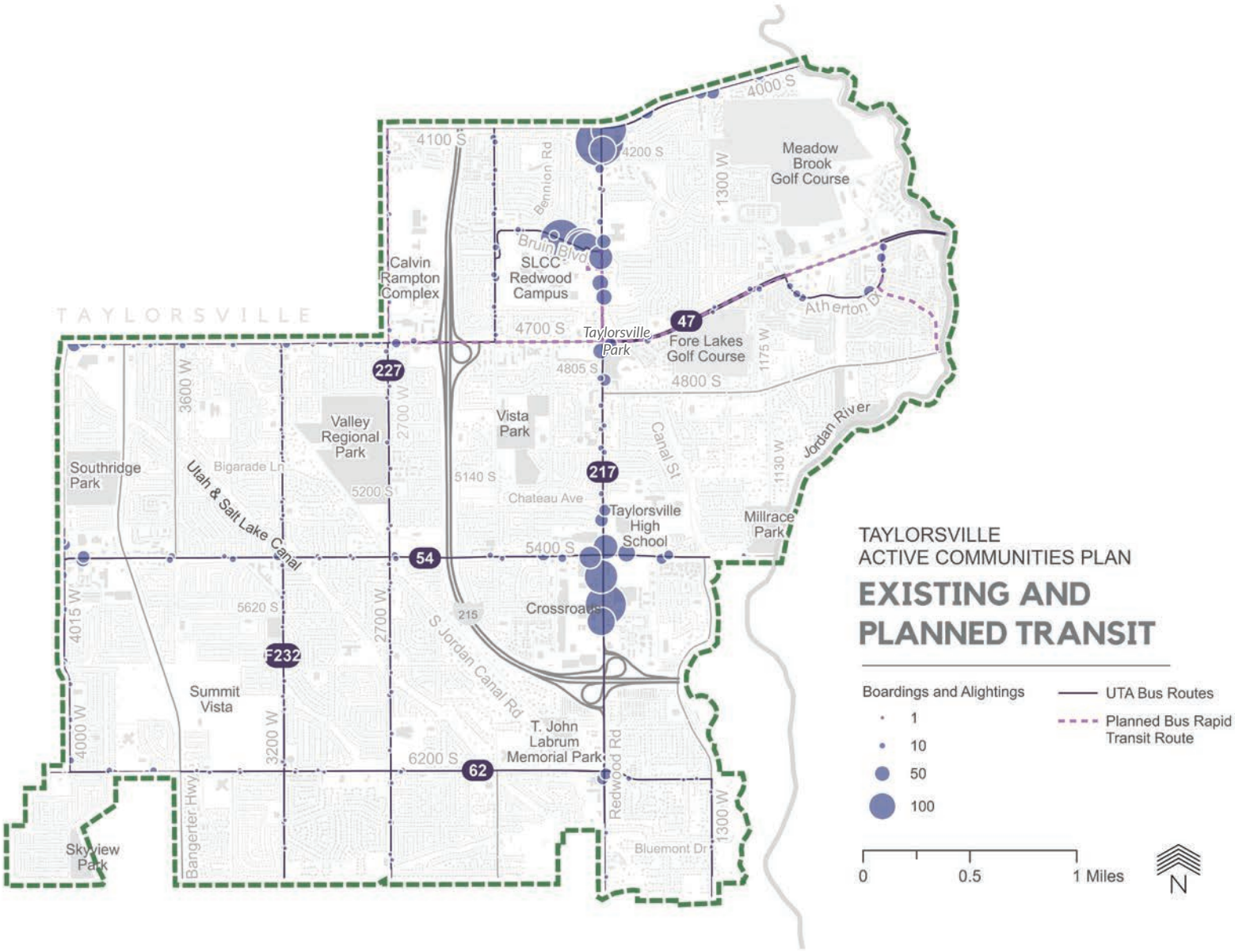


ANALYZE ACTIVE TRANSPORTATION DATASETS

STRAVA Bicycling Trips

STRAVA is a mobile application that lets users record their bicycling rides. Users of this application are usually more comfortable with biking in urban conditions, so it does not represent all bicycling trips taken in Taylorsville.

However, this dataset lets us analyze where rides are currently taking place, to some degree, which aids in planning for the local active transportation connections.



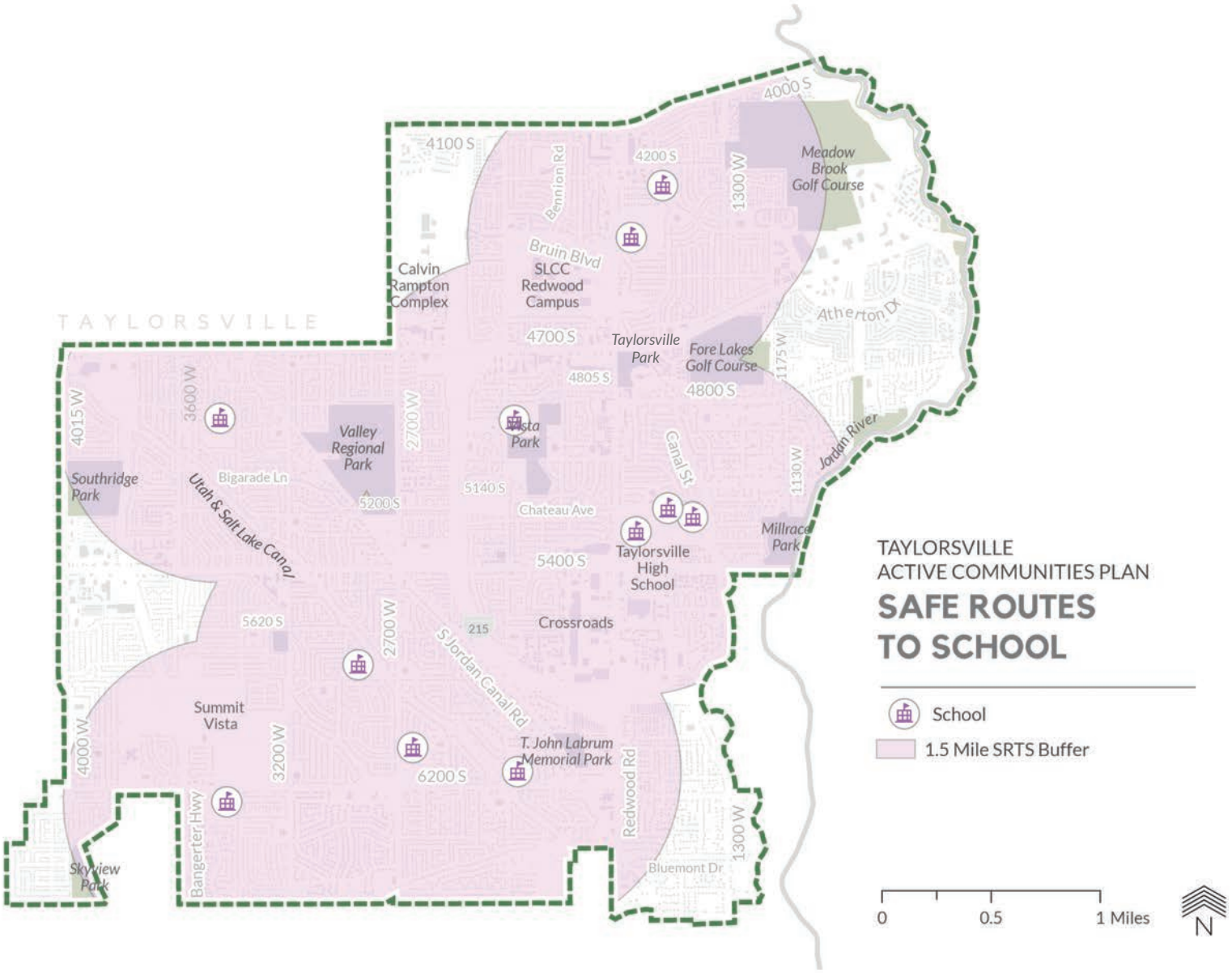
CONSIDER TRANSIT & SAFE ROUTES TO SCHOOL

Transit

Taylorsville has 6 bus routes serving its population:

- 47
- 227
- 217
- 54
- F232
- 62

Route 217 runs along Redwood Rd from from West Jordan to Salt Lake City and is the most utilized bus route in the state. Number of boardings and alightings are high near Crossroads, the SLCC Redwood Campus and near Carriage Square on 4100 S. This signifies areas of opportunity for increased bike/ped enhacements and connections.



CONSIDER TRANSIT & SAFE ROUTES TO SCHOOL

Safe Routes to School

The Utah Department of Transportation (UDOT) has implemented a Safe Route to School (SRTS) program to improve safety in areas surrounding schools. The main goal of the SRTS Program is to assist and encourage students living within 1.5-2 miles to safely walk or bike to school.

This plan evaluated AT infrastructure within 2 miles of every school in Taylorsville, and compared it to existing SRTS maps available through UDOT. The final AT recommendations ensure residential neighborhoods are connected to schools via different facilities, such as neighborhood byways and intersection improvements.

1.2 PUBLIC INVOLVEMENT

As part of this plan, a multi-step public involvement effort was implemented. It included:

01 Project Website

02 Project Outreach

03 Public Survey

04 Public Meeting

Project Website

A project website was developed early in the process to help inform stakeholders and the public about the study (www.activetaylorsville.com). The website was continuously updated throughout the development of this plan with schedule updates, project maps, access to the community survey, and notice for the public meetings.

Project website developed for the Taylorsville Active Communities Plan.

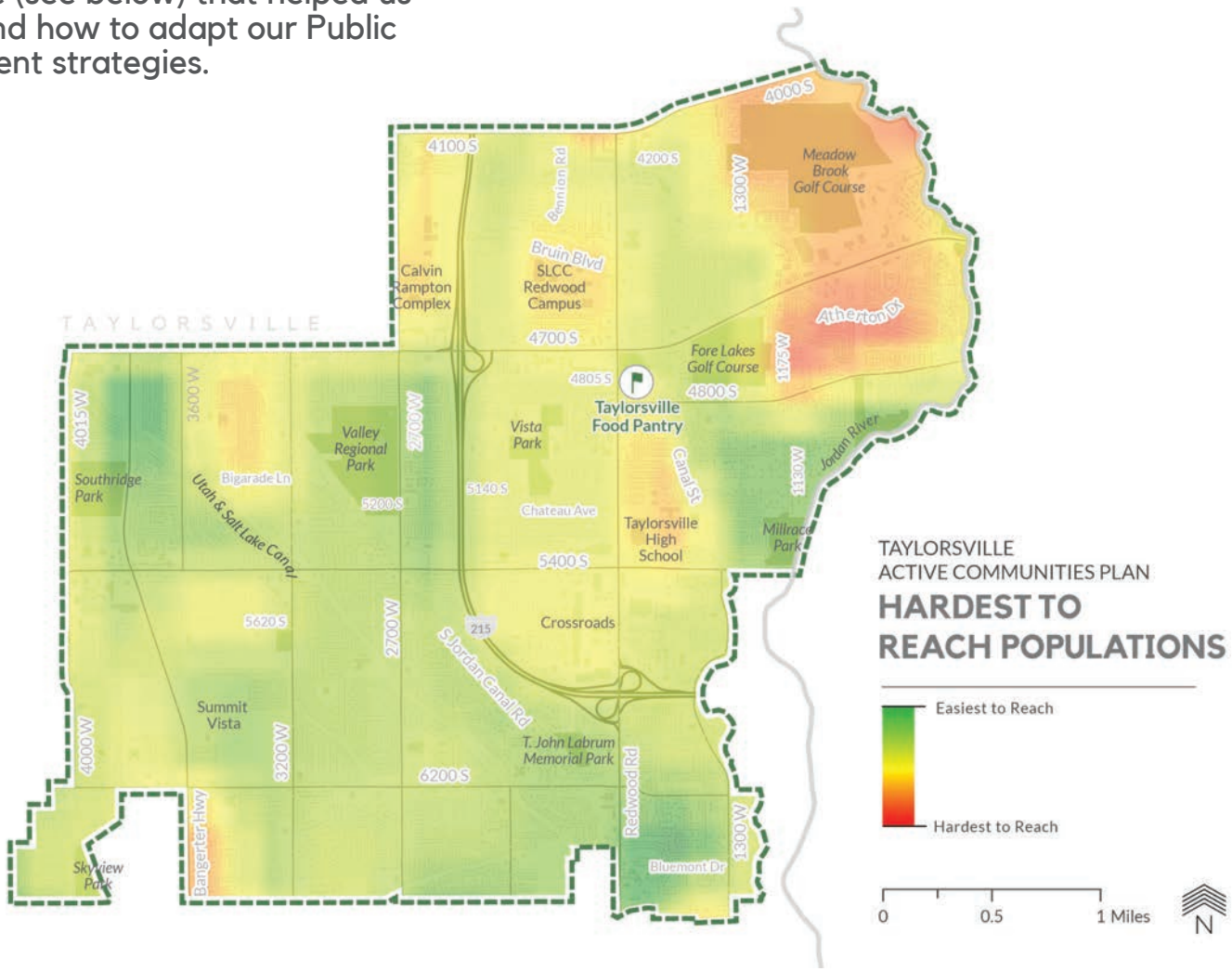
Project Outreach

In order to acquire representative feedback from Taylorsville residents, it was important to advertise the project, website and survey via various methods. The current plan placed special importance on ensuring underserved populations in Taylorsville, especially those without cars, heard and provide feedback about the project. For this reason, several demographic datasets were analyzed in order to pinpoint where the hardest populations to reach are located in Taylorsville. These Included:

- Carless households
- English as second language
- No access to the internet
- Low Income

These datasets were merged into a composite (see below) that helped us understand how to adapt our Public Involvement strategies.

Project team member attaches flyers to meals that were delivered via the Meals on Wheels program offered via the Taylorsville Food Pantry.



PUBLIC SURVEY

results

125
survey respondents

90%+
use cars for most activities

about
40%
find it difficult to walk or bike in Taylorsville

Connectivity is the
#1
reason people avoid biking or walking Taylorsville

95%
believe destinations are too far from their origin

70%+
would like to see more physically separated facilities

***Top 4** amenities respondents would like to see in Taylorsville*

- *Lighting*
- *Walkways connecting to retail center*
- *Shade and Landscaping*
- *Trash Cans & Dog Waste Stations*

Public Meeting

On September 7th, 2022 the project team hosted an in-person Public Open House at the Centennial Plaza Pavilion in Taylorsville.

Residents participated in the meeting by providing feedback on large city maps that contained the AT recommendations. Several residents suggested further improvements next to their homes or workplaces which were recorded and further incorporated into this plan.

Hard copies of the draft report were also made available to the attendees to understand the design guidelines, in addition to the map of proposed facilities.

This successful meeting helped shape the recommendations of the current plan.

Taylorsville residents and members of City Council participated in the Public Meeting for the Taylorsville Active Communities Plan by providing feedback and learning more about the project.

1.3 FINAL RECOMMENDATIONS

Building onto previous plans, as well as existing conditions information, the current plan recommends a robust AT network for Taylorsville. This network provides not only regional connectivity but also locally-focused solutions to integrate Taylorsville residents to various destinations throughout the city.

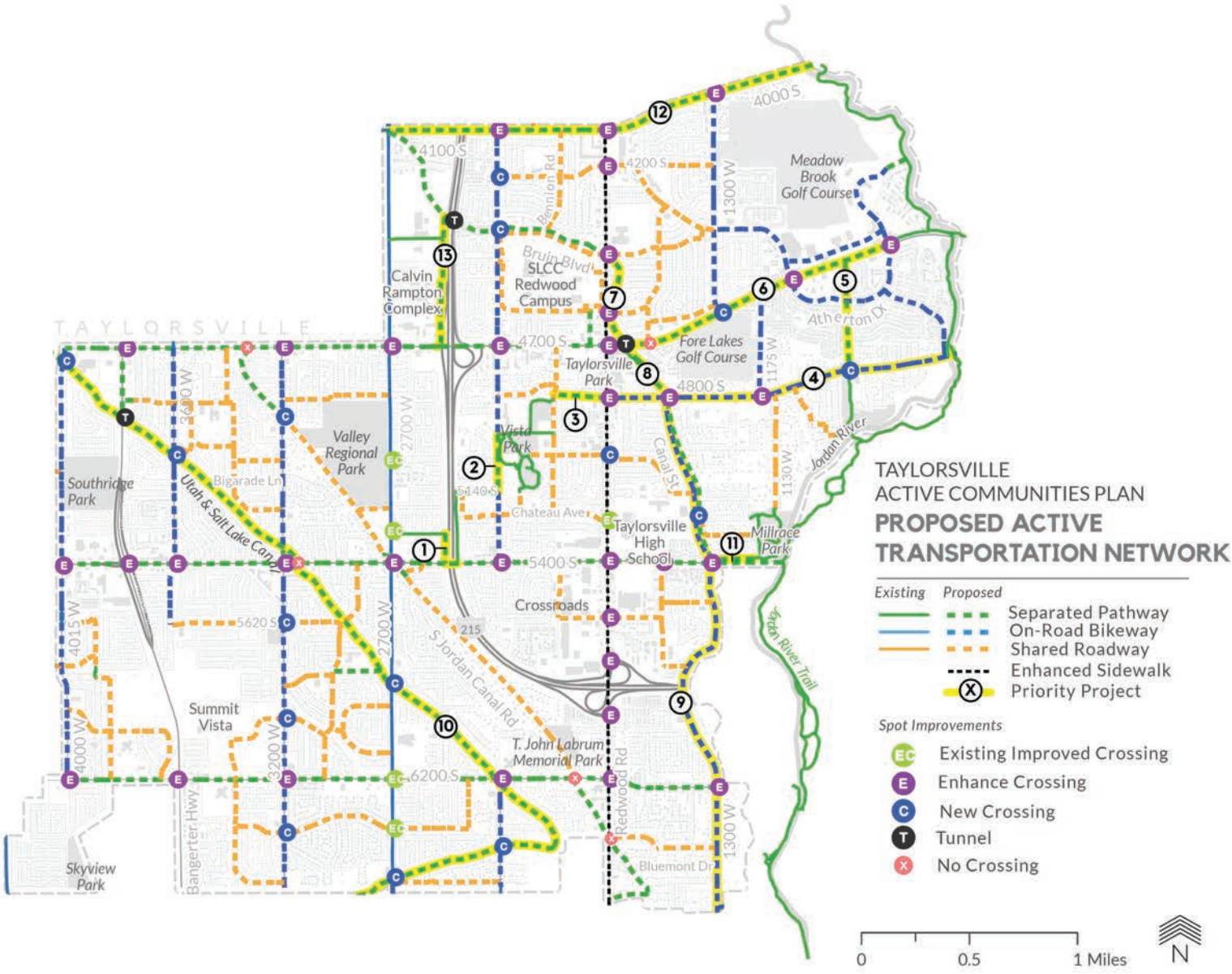
For the definition of the different AT facilities refer to Chapter 2.

The **Taylorsville Active Communities Plan** recommends:

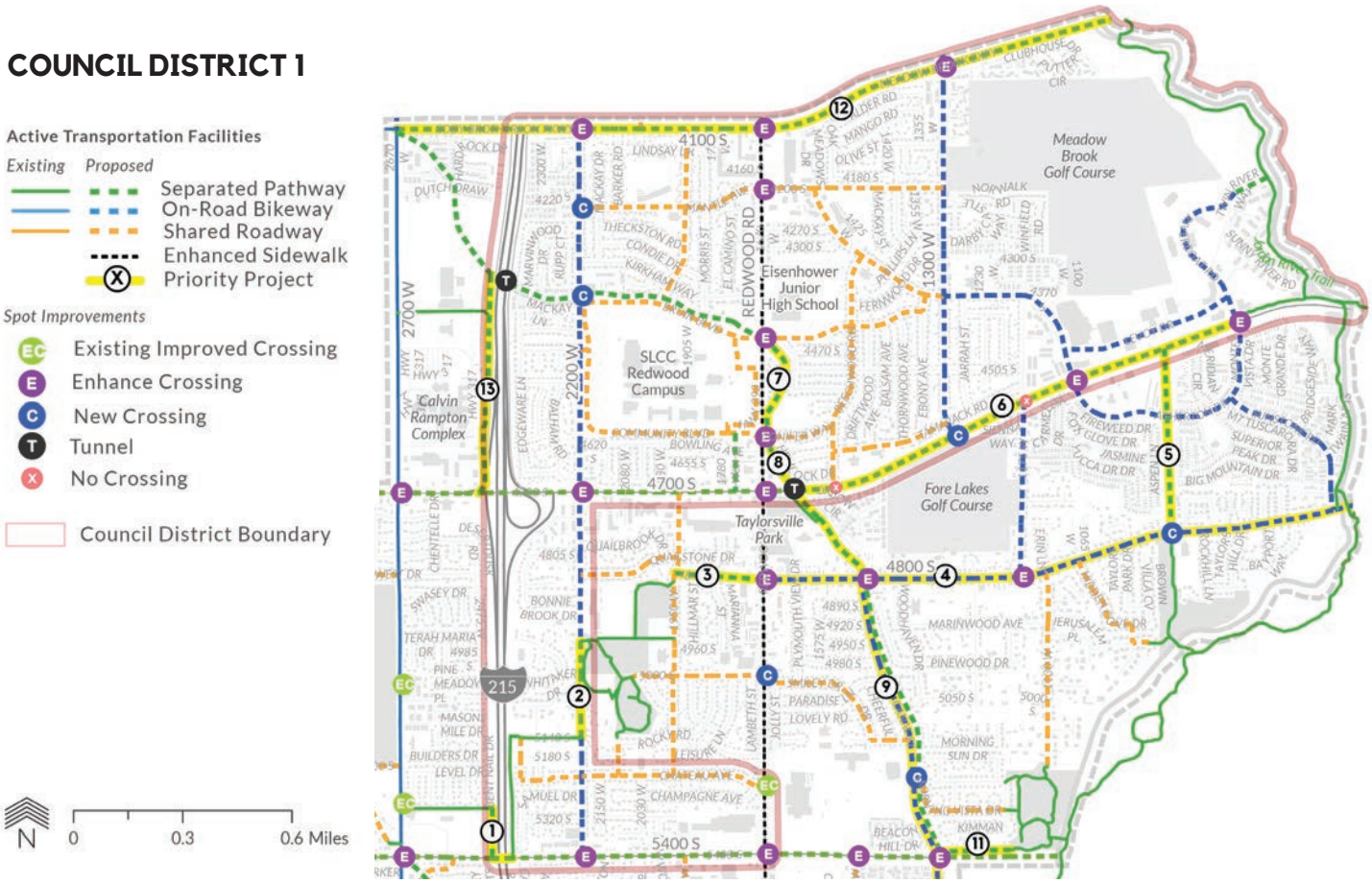
25 *miles* of Shared Roadways

19 *miles* of On-Road Bikeways

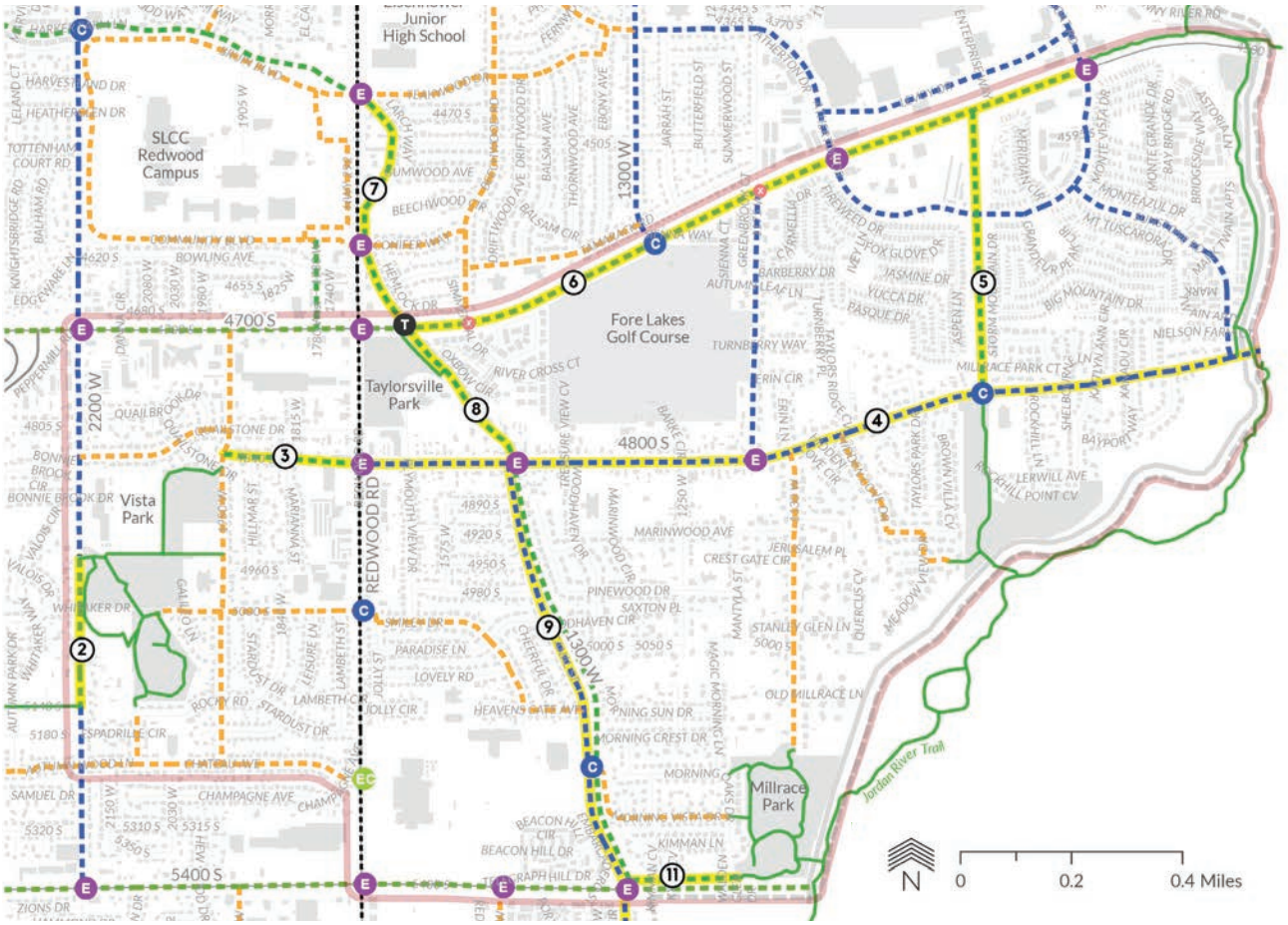
25 *miles* of Separated Pathways



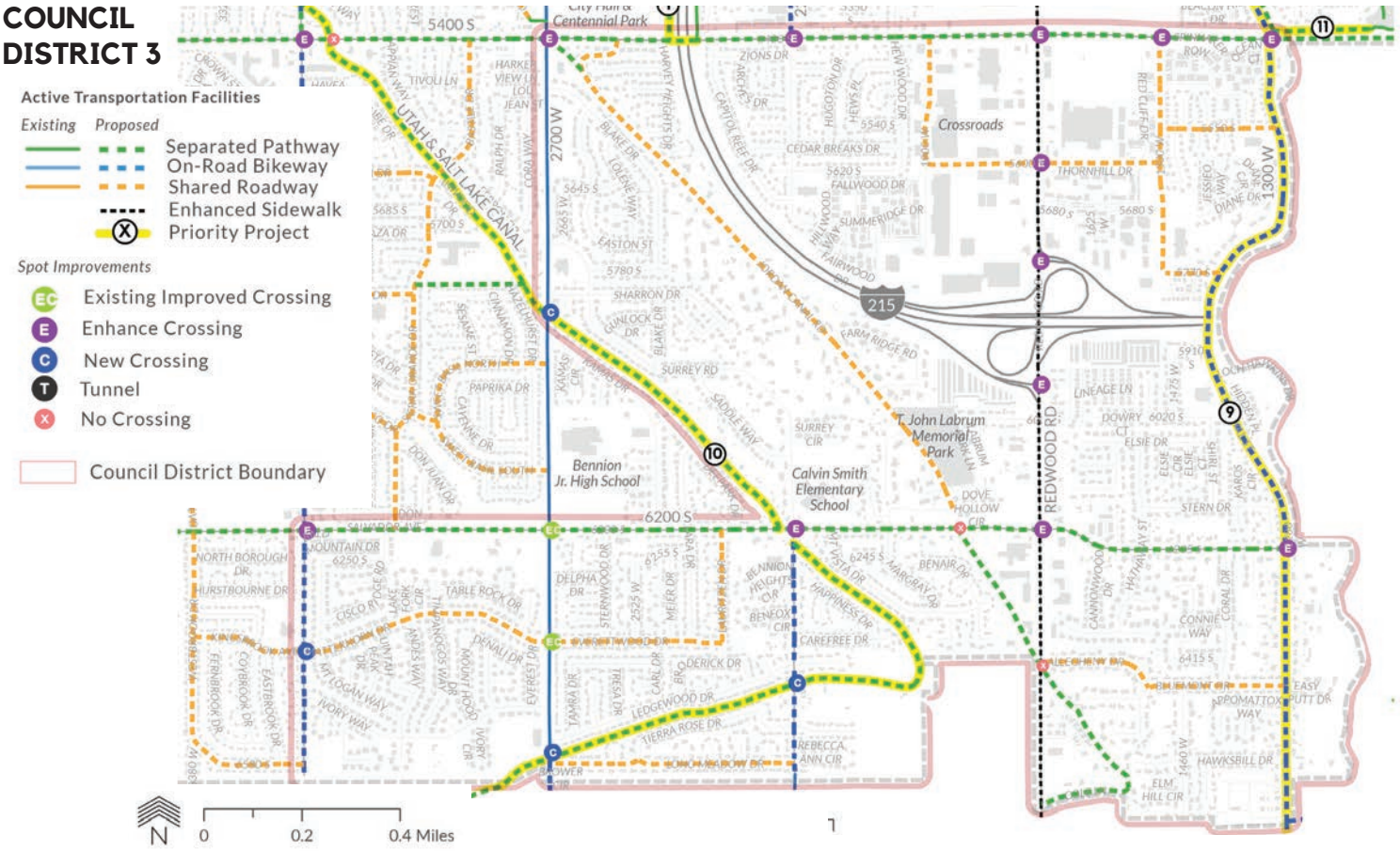
COUNCIL DISTRICT 1



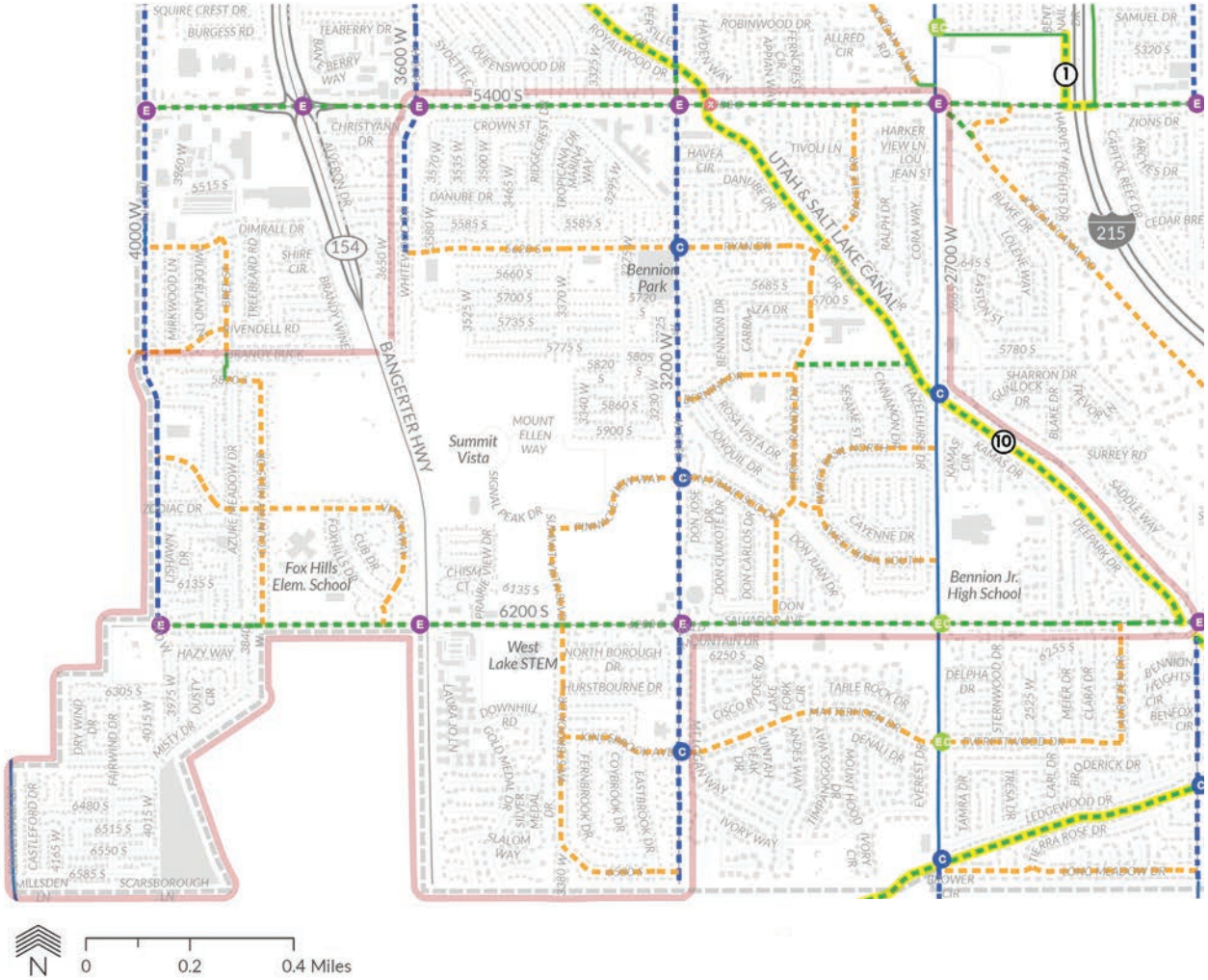
COUNCIL DISTRICT 2



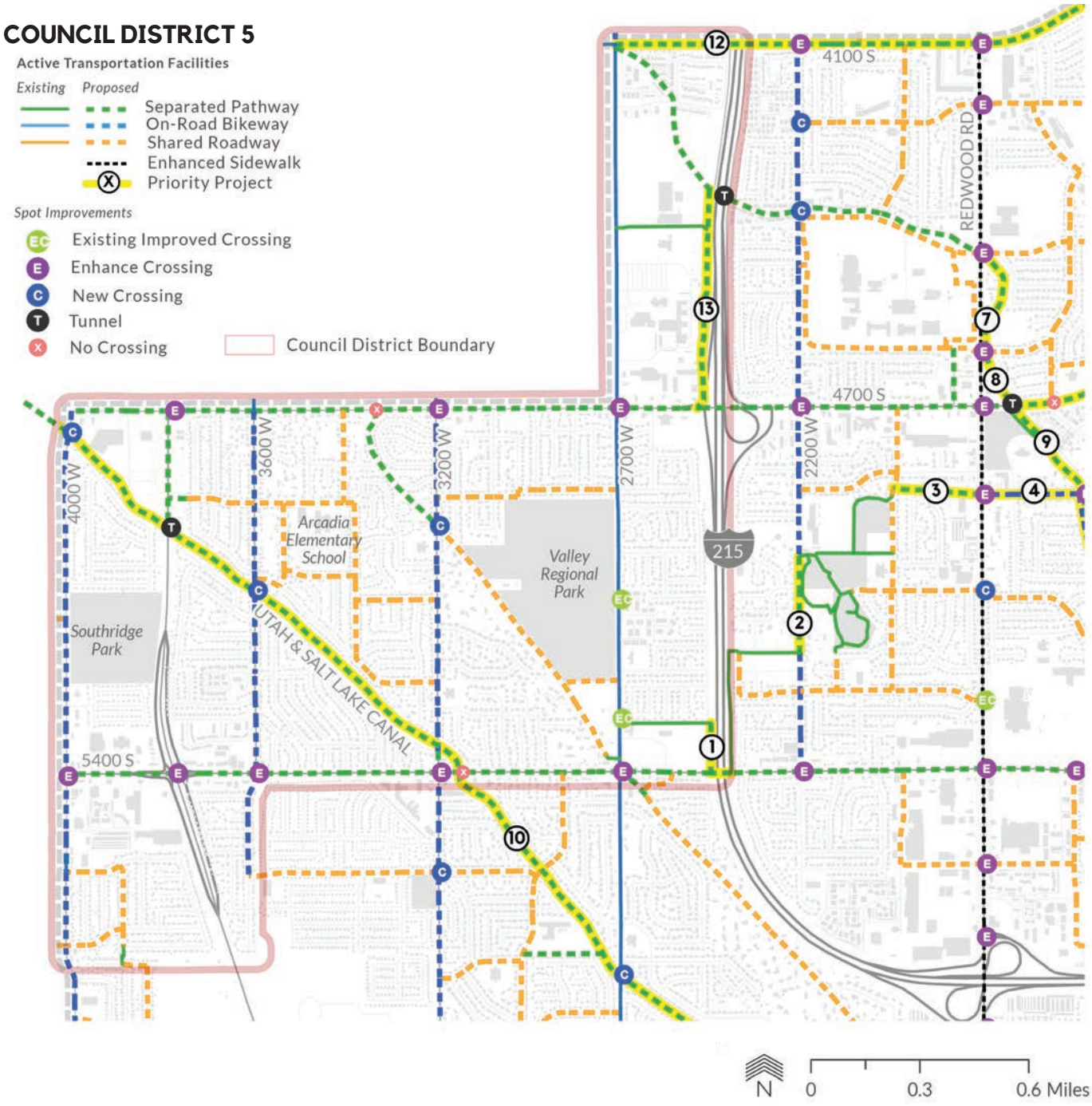
COUNCIL DISTRICT 3



COUNCIL DISTRICT 4



COUNCIL DISTRICT 5



Priority Projects

Taylorsville City identified 13 priority projects that will guide the development of AT facilities moving forward. These projects are either currently under the planning, engineering or construction phase, or are considered critical connections to expand the AT network in Taylorsville.

It is suggested that during roadway repavement process that the City verifies on this plan any proposed facilities such as on-road bikeways and shared roadways for installation regardless of prioritization. Striping of new bicycle facilities is more cost-effective when made in conjunction with repavement projects.

PROJECT NUMBER	FACILITY TYPE	LOCATION	LENGTH (MI)
1	Separated Pathway	• **2460 W:** 5275 S to 5400 S • **5400 S**: 2460 W to East of I-215	0.14
2	Separated Pathway	• **2200 W:** Vista Park North Entrance to 5140 S	0.27
3	Separated Pathway	• **4840 S:** 1950 W to Redwood Rd	0.24
4	On-road Bikeway	• **4800 S: Redwood Rd to** Jordan River Pkwy (approx. 655 W)	1.58
5	Separated Pathway	• **Powerline Corridor (approx. 900 W):** 4700 S to 4800 S	0.51
6	Separated Pathway	• **4700 S:** N Jordan Canal (approx. 1665 W) to Atherton Dr	1.31
7	Separated Pathway	• **N Jordan Canal:** 4400 S to 4700 S	0.52
8	Separated Pathway	• **N Jordan Canal:** 4700 S to 4800 S	0.30
9	On-road Bikeway	• **1300 W:** 4800 S to 6470 S	4.53
10	Separated Pathway	• **Utah & Salt Lake Canal:** 4700 S (approx 4000 W) to 6620 S	4.10
11	Separated Pathway	• **5400 S (North side):** 1300 W to Millrace Park Entrance (approx. 1200 W)	0.33
12	Separated Pathway	• **4100 S:** 2700 W to Jordan River Trail (approx 3895 S)	2.18
13	Separated Pathway	• **I-215 Frontage Rd (approx. 2400 W):** Jordan Canal (approx. 4350 S) to 4700 S	0.75

2 DESIGN STANDARDS

The **Taylorsville Active Communities Plan** aims not only to provide recommendations on *where* AT facilities should be located, but also *how* they should be constructed.

This section details best practices for building different types of AT facilities. Guidelines are based on several national and local standards including:

- National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide
- Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices (MUTCD)
- UDOT Bikeway Schema
- Taylorsville City Code
- Taylorsville City Signage Master Plan

Standards Outline

2.1
Active Transportation Facility Standards

Section 1.2 Final Recommendations, details the location of different AT facility type categories throughout Taylorsville. The Final Recommendations map was designed to be general in nature, in order to provide Taylorsville City flexibility to place the best suitable facility in each specific location.

It is important to note that the current plan recommends that the *highest comfort facility in each category be implemented whenever possible.*

High comfort facilities might take further considerations such as parking elimination, reduction of travel lane sizes and implementation of amenities, such as landscaping.

The following facilities are included in this section:

Shared Roadways

1. Signed Shared Roadway
2. Marked Shared Roadway

On-Road Bikeways

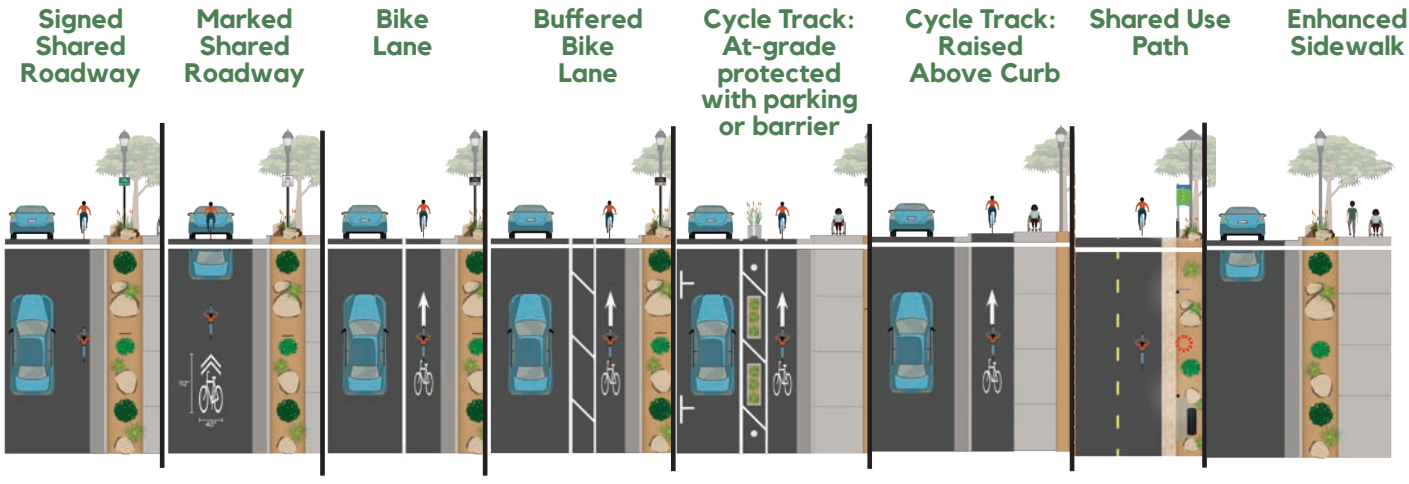
3. Bike Lane
4. Buffered Bike Lane
5. Cycle Track: At-grade, protected with parking or barrier

Separated Pathways

6. Cycle Track: Raised Above Curb
7. Enhanced Sidewalks
8. Shared Use Path

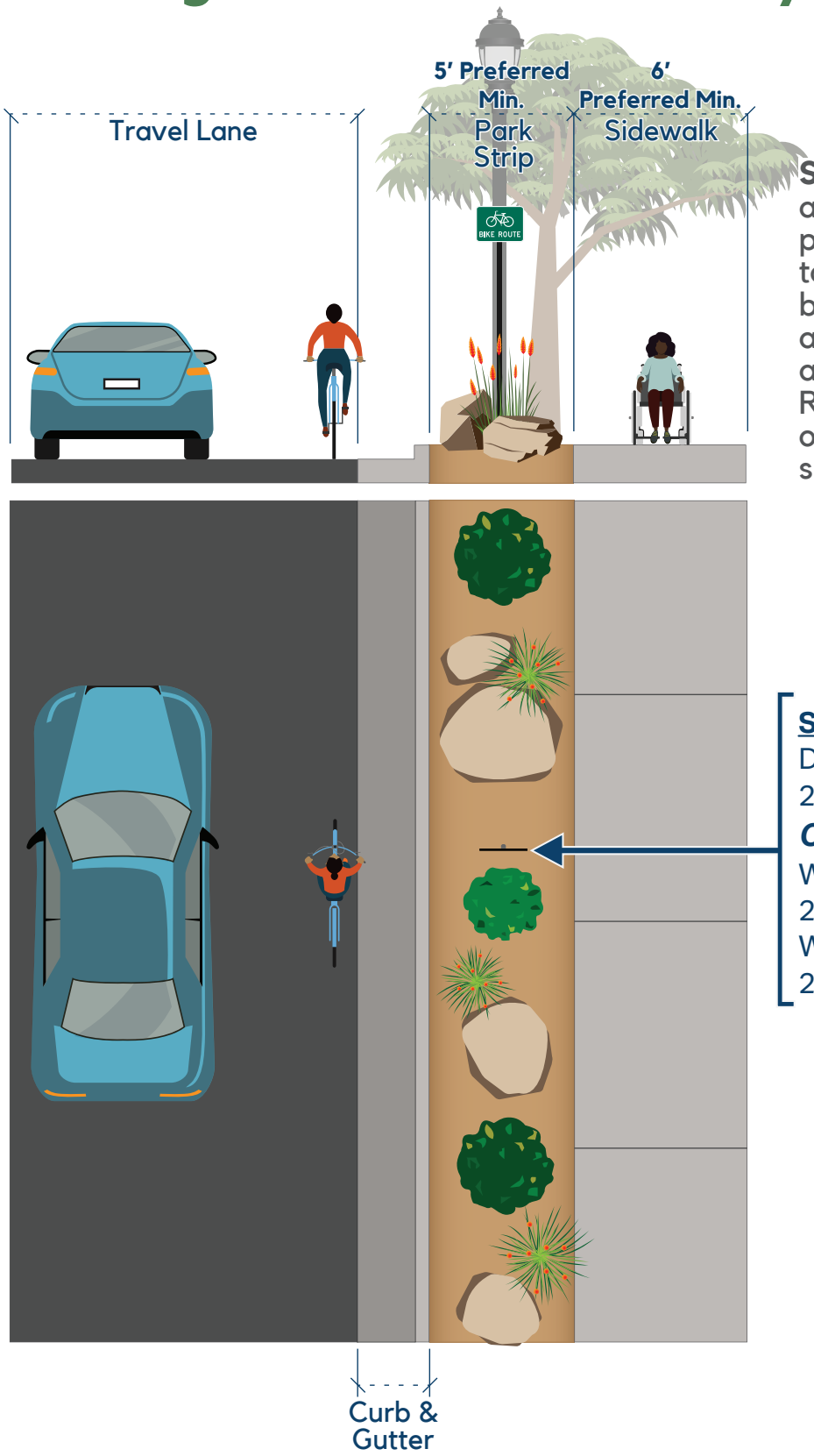
Local Connections

9. Enhanced Development Walkway
10. Neighborhood Connector



Shared Roadways | On-Road Bikeways | Separated Pathways

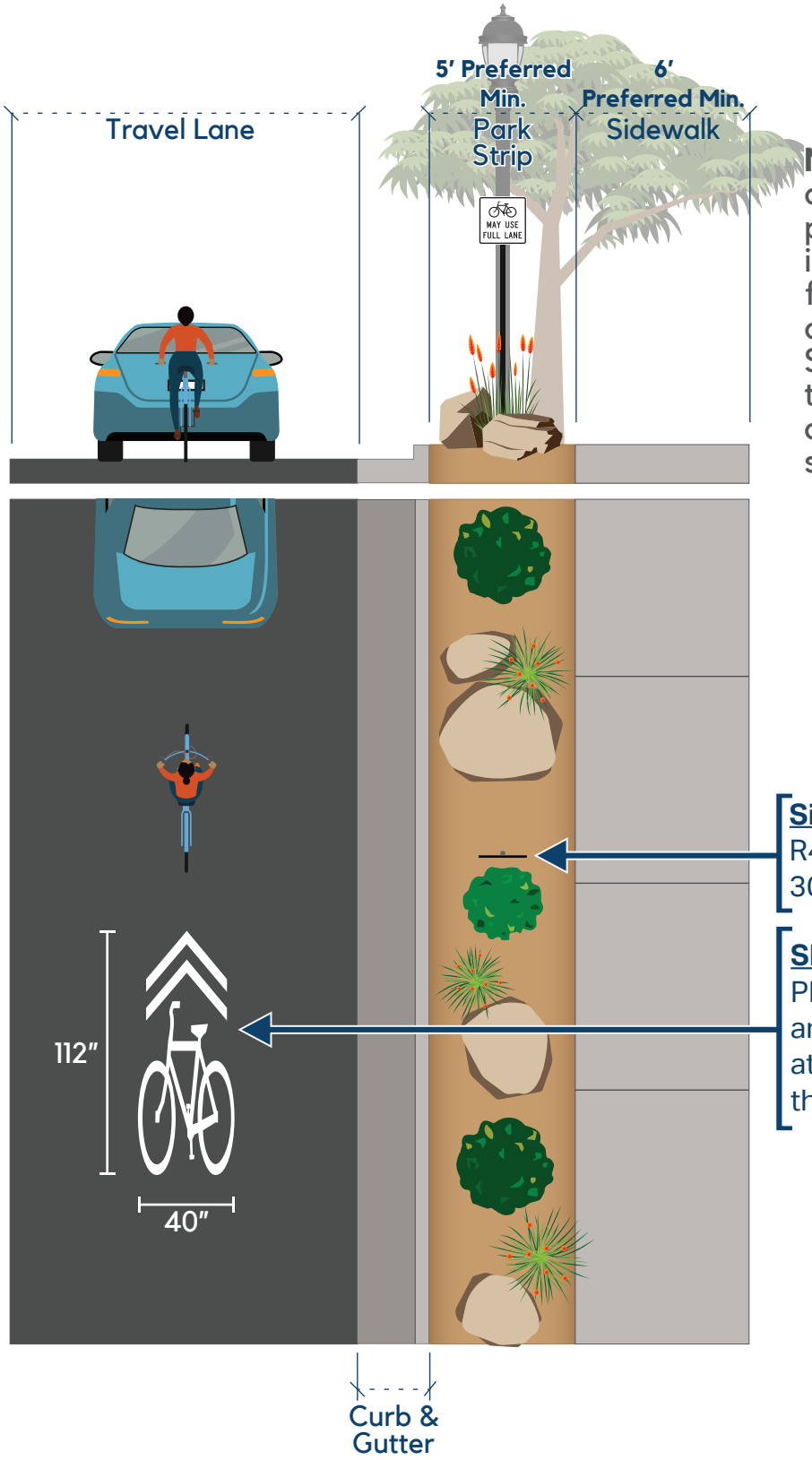
2.1.1 Signed Shared Roadway



Signed Shared Roadways are characterized by the presence of signage related to possible presence of bikes on the road. There are no pavement markings associated to Signed Shared Roadways, and they should only be used on local, low-speeds streets.

Signage
D11-1
24"x18"
OR
W11-1
24"x24" &
WS16-1aP
24"X18"

2.1.2 Marked Shared Roadway

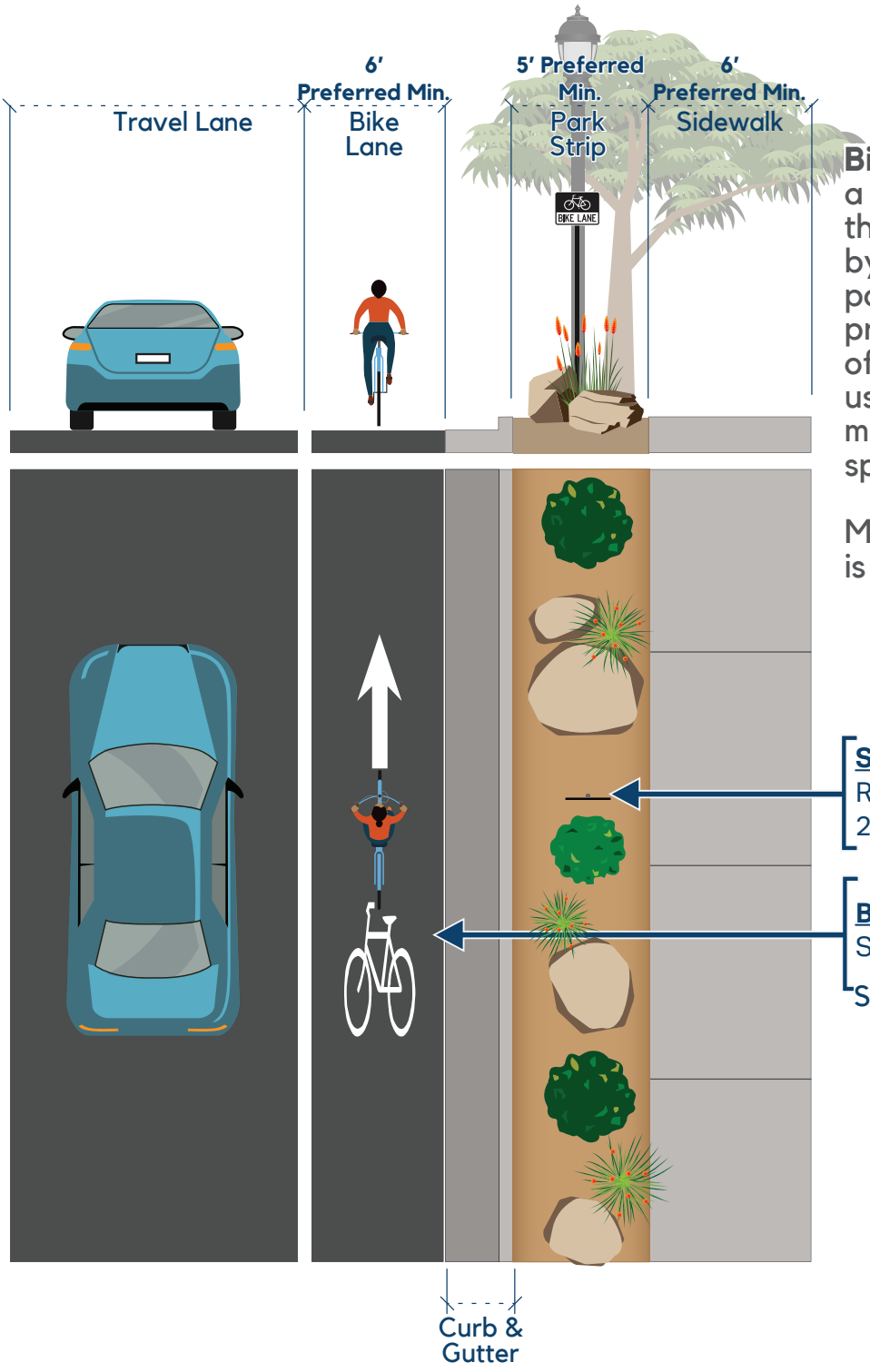


Marked Shared Roadways are characterized by the presence of signage that indicates bikes may use the full lane. Pavement markings are present on Marked Shared Roadways in addition to signage. They should only be used on streets with speeds of 35 mph or less.

Signage
R4-11
30" x 30"

Shared Lane Marking
Place immediately after an intersection and space at intervals no greater than 250' thereafter

2.1.3 Bike Lane



Bike Lane is defined as a portion of the roadway that has been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists. These can be used on streets with higher motor vehicle usage and speeds.

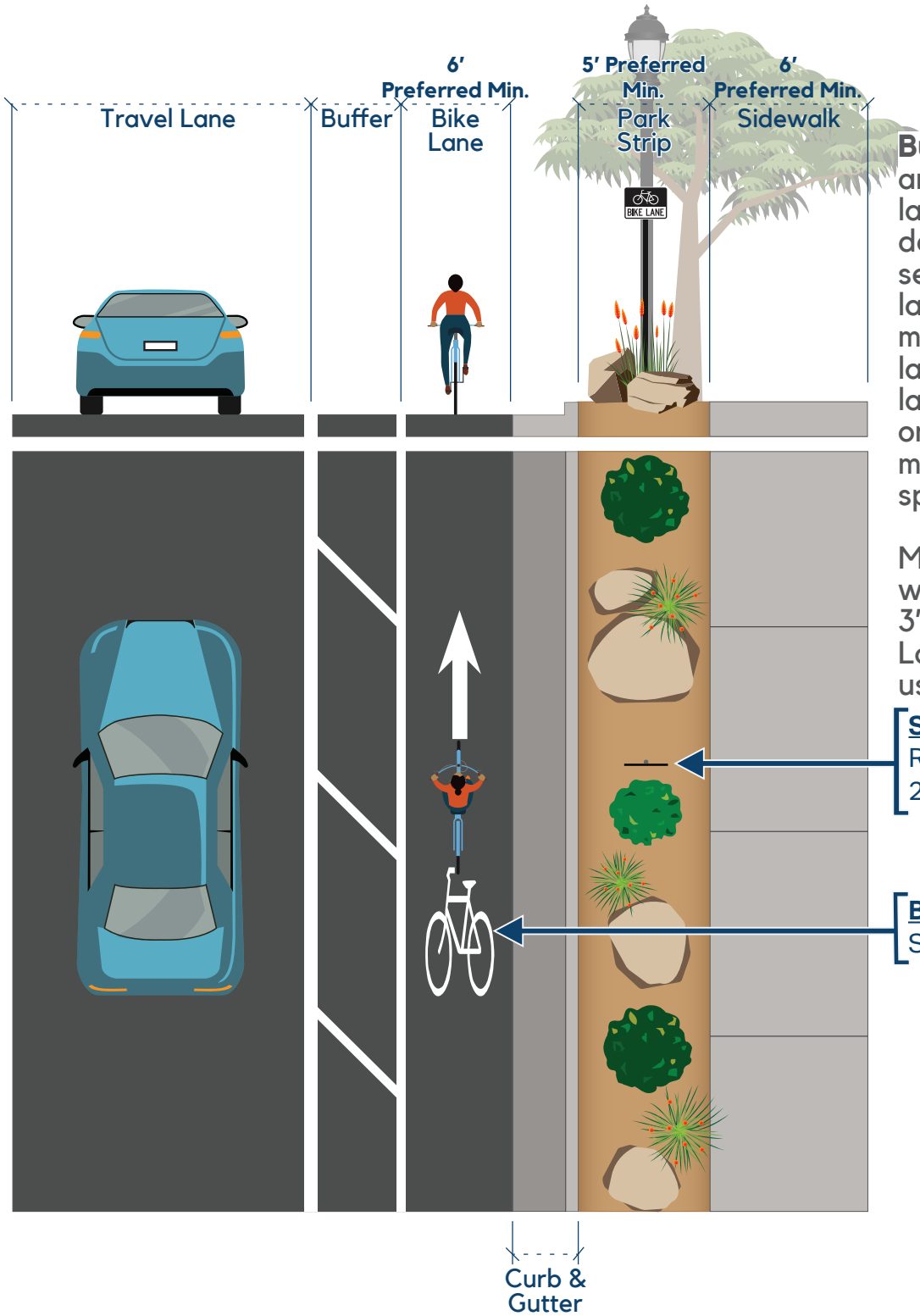
Minimum Bike Lane width is 5′.

Signage
R3-17
24″ x18″

Bike Lane Marking
See Section 2.2.1

See Section 2.2.1

2.1.4 Buffered Bike Lane



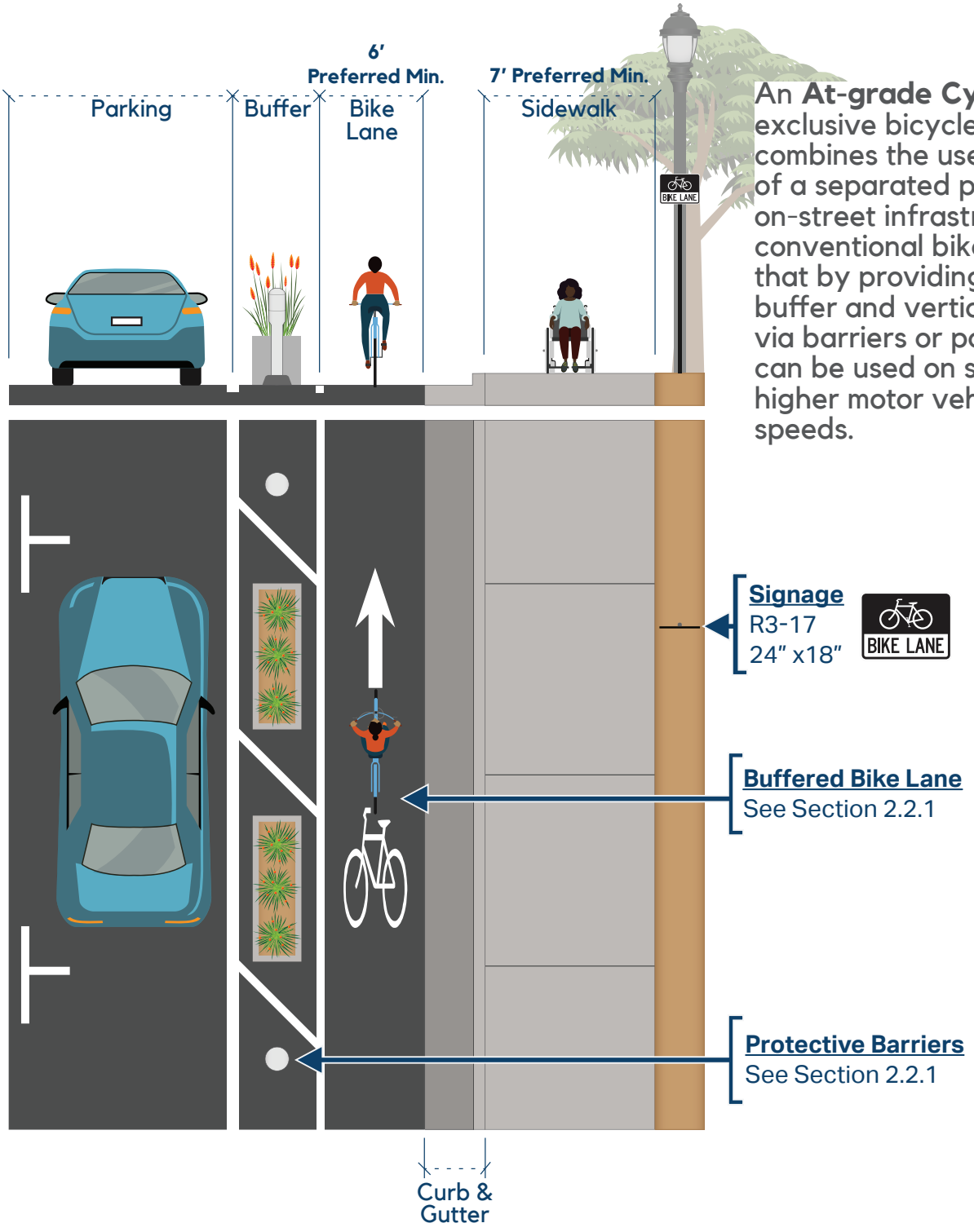
Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane. These can be used on streets with higher motor vehicle usage and speeds.

Minimum Bike Lane width is 4′ when using a 3′ buffer. Minimum Bike Lane width is 5′ when using a 2′ buffer.

Signage
R3-17
24″ x18″

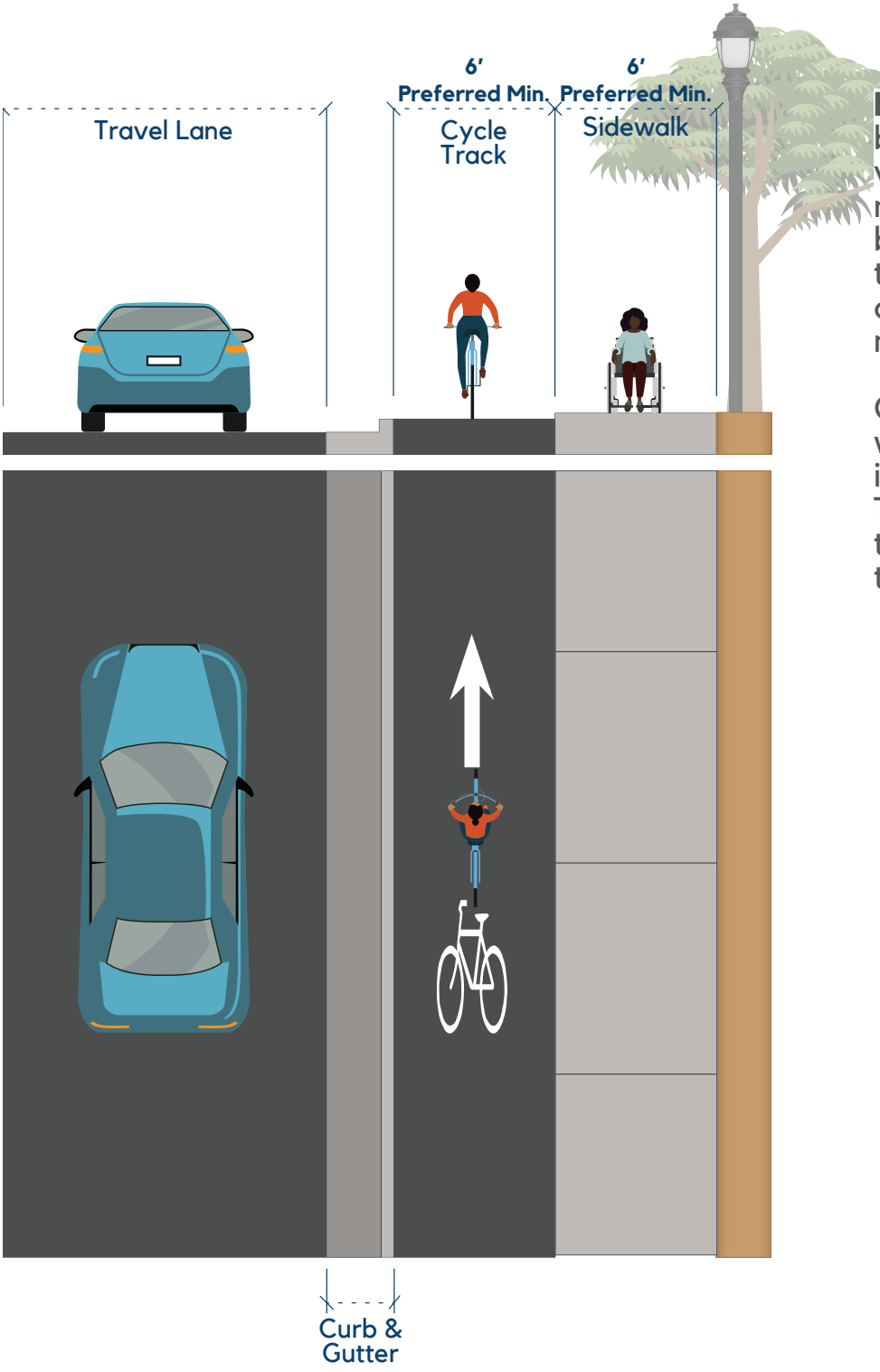
Buffered Bike Lane
See Section 2.2.1

2.1.5 Cycle Track: At-grade, Protected with Parking or Barrier



An **At-grade Cycle Track** is an exclusive bicycle facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane. It does that by providing a painted buffer and vertical protection via barriers or parking. These can be used on streets with higher motor vehicle usage and speeds.

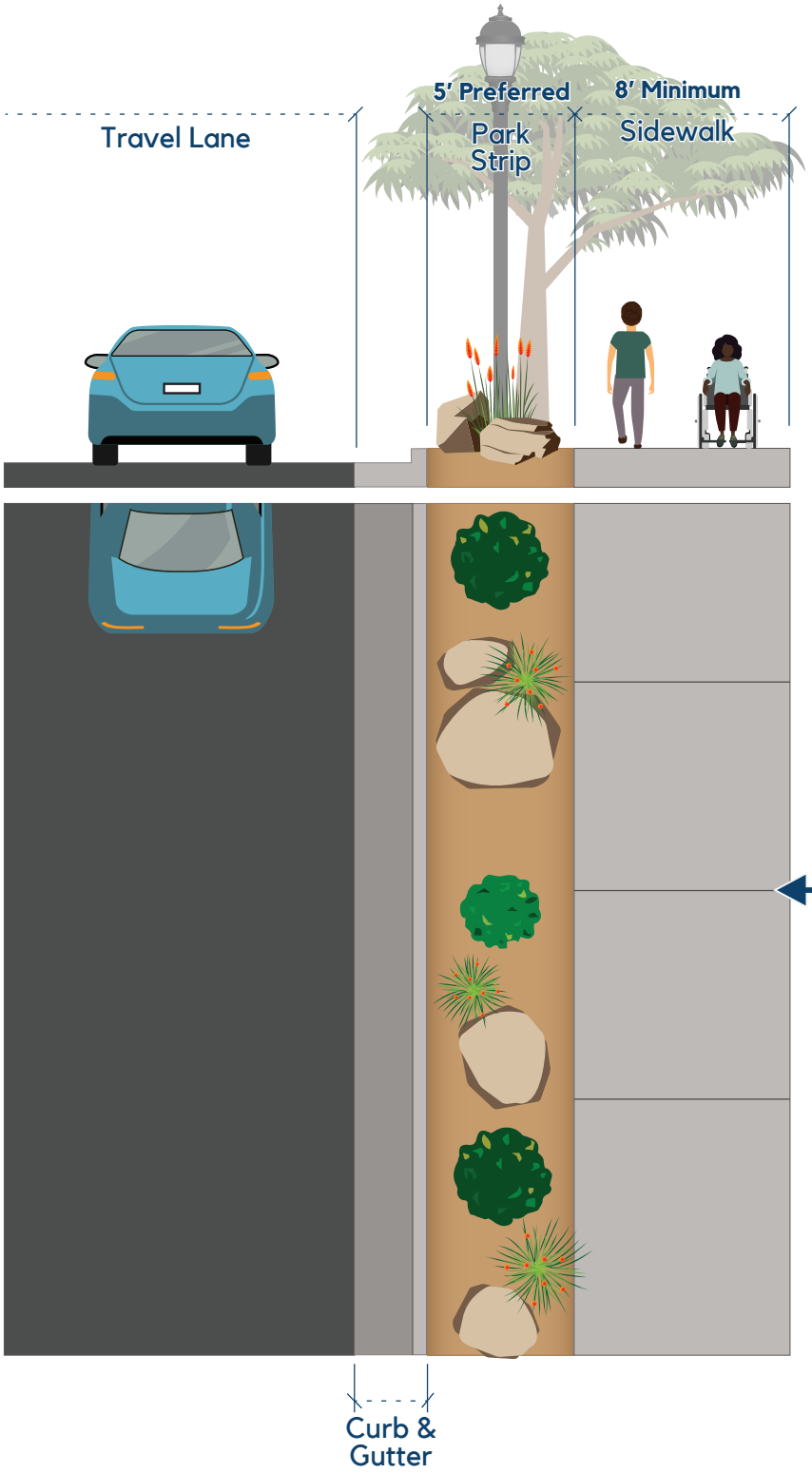
2.1.6 Cycle Track: Raised Above Curb



Raised Cycle Tracks are bicycle facilities that are vertically separated from motor vehicle traffic by being above curb next to the sidewalk. This is a high-comfort facility suitable for most roads.

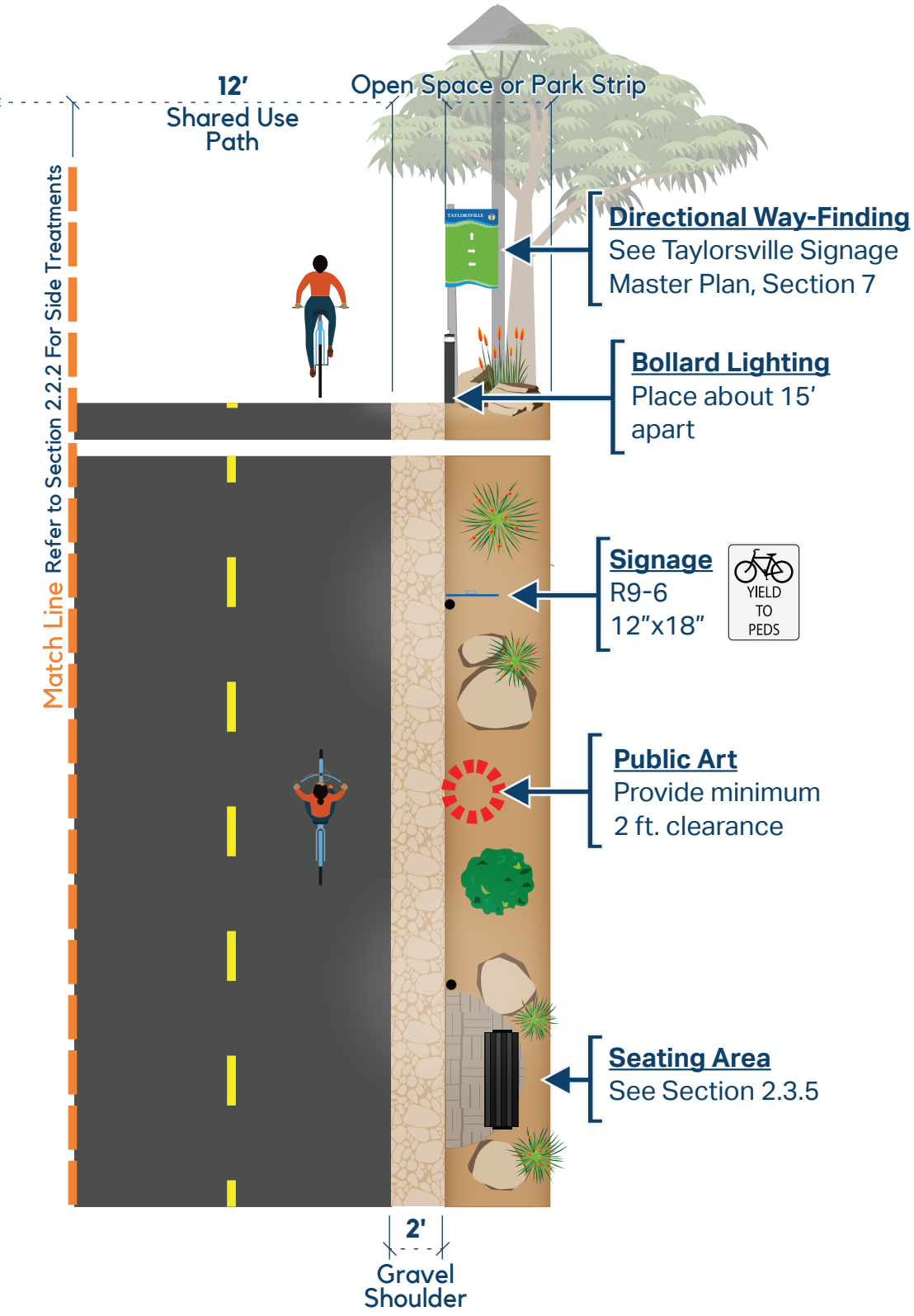
Cycle Track minimum is 4' when a mountable curb is installed between Cycle Track and Sidewalk. Or when the Cycle Track is flush with the Sidewalk grade.

2.1.7 Enhanced Sidewalk



Enhanced Sidewalks allow for a comfortable walking experience near high-speed busy roads like Redwood Road. The minimum required width of an enhanced sidewalk is 8', to allow pedestrians to walk side by side. Preferably, the sidewalk would be separated from traffic by a 5' park strip. Utility poles need to be placed outside of the 8'-minimum required sidewalk width, either on the park strip or additional right-of-way adjacent to the sidewalk.

2.1.8 Shared Use Path



Shared Use Paths support both biking and walking. They are located outside of the road right-of-way and often provide the highest level of comfort for bicyclists and pedestrians. These are usually employed along canals, rivers and railroads.

Shared Use Path width may vary from 10' to 14' depending on volume and type of users.

Shared Use Path may be narrowed to 8' for distances less than 100' to avoid obstructions.

2.1.9 Enhanced Development Walkway

Enhanced Development Walkways serve to connect businesses that are offset from street, by parking or other design element, to the sidewalk grid.

These walkways are the developer's responsibility in order to improve pedestrian and bicyclist safety to these developments.

DESIGN GUIDELINES

- **Width:** 6' min.
- **Surface:** Concrete or asphalt
- **Separation:** Provide separation from traffic with landscaping and/or raised facility.
- **Accessibility:** Curb cuts and high-visibility crossings.
- **Notes:** Bicyclists expected to walk their bikes.

Source: Google Earth

(Top) Enhanced Development Walkway at Smith's Grocery Store on 800 S & 900 E, Salt Lake City
(Bottom) Enhanced Development Walkway at Crossroads, Taylorsville

Source: Google StreetView

2.1.10 Neighborhood Connector

Neighborhood Connectors are small AT facilities used to improve connectivity within neighborhoods. They are mostly located between houses. Due to private property concerns, these connectors are mostly built during redevelopment or when the city owns small portions of right-of-way between homes.

Neighborhood Connectors are more flexible when it comes to design, and can fit within a wide range of scenarios.


Source: Google StreetView


Source: blu line designs

DESIGN GUIDELINES

- **Width:** 4' min.
- **Surface:** Concrete or asphalt
- **Notes:** Bicyclists expected to walk their bikes; fencing optional.

(Top Right) Neighborhood Connector on Woodhaven Circle, Taylorsville (Source: Google Earth).
(Middle Right) Example of ideal Neighborhood Connector with placemaking features and landscaping.
(Bottom) Example of a continuous neighborhood connector in White City, UT.


Source: Avenue Consultants

2.2
Roadway Elements

This section includes design guidelines for roadway items that increase comfort and safety for pedestrians and cyclists. Some items include more detail on how to design facilities listed on Section 2.1. Others, relate to intersection or crossing treatments that are called out on Section 1.3 as "enhance crossing" or "new crossing."

In this section, you will find details for:

- Buffer Striping and Protection
- Sign Placement
- Floating Curb
- Curb Extension
- Raised Midblock Refuge
- Canal Trail Crossings at Intersections

Source: Paul Krueger / Wikimedia Commons

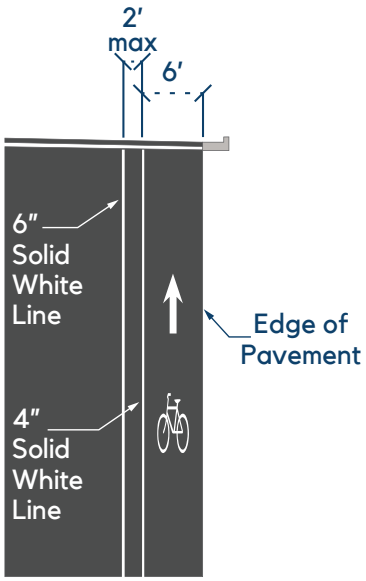
(Top Right) At-grade cycle track with planters.
(Bottom Right) Example of floating curb
(Bottom Left) Example of curb extension.

Source: ACHD Idaho

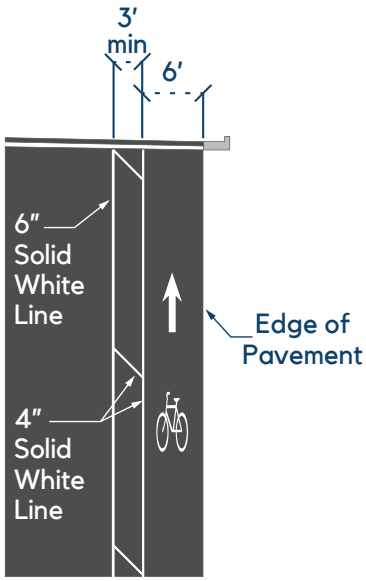
Source: Dongho Chang

2.2.1 Buffer Striping & Protection

2.2.1.2 BIKE LANE



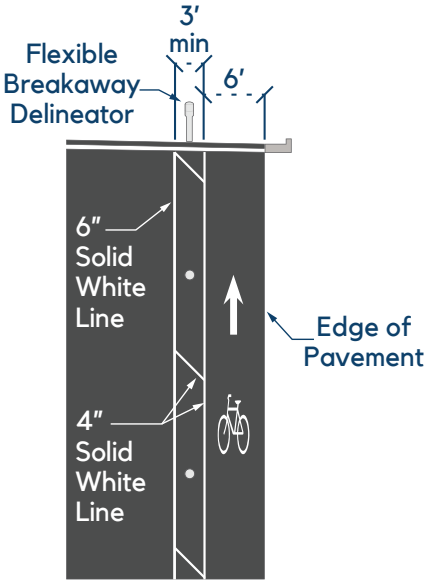
2.2.1.3 BUFFERED BIKE LANE

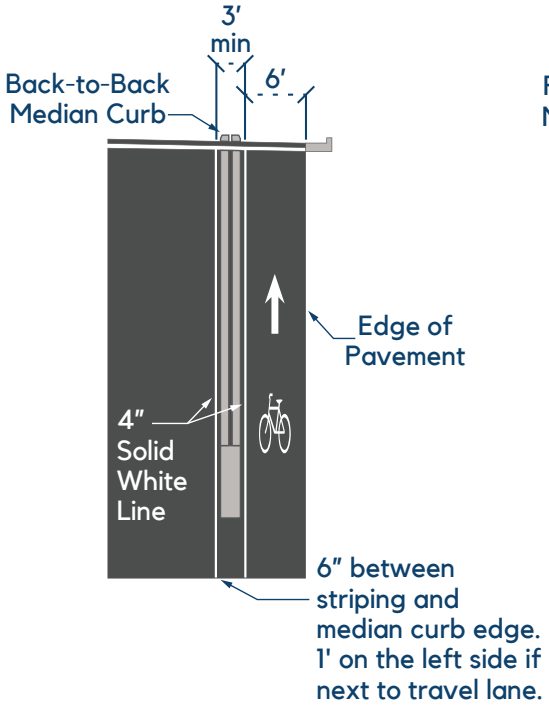


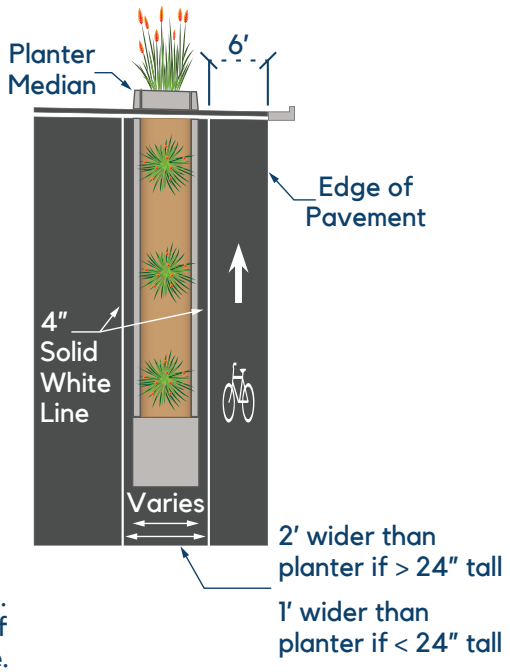
Refer to sections 2.1.4, 2.1.5 and 2.1.6.

These treatments relate to bike lanes, buffered bike lanes and at-grade cycle tracks.

2.2.1.4 AT-GRADE CYCLE TRACK



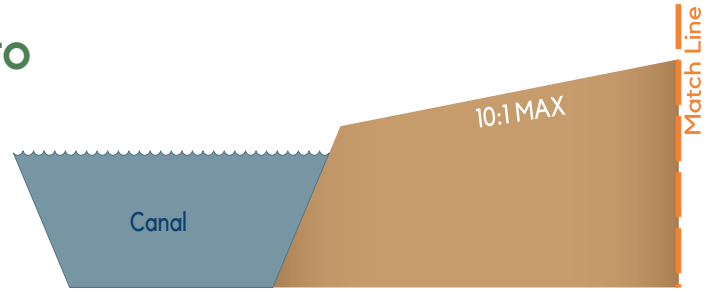




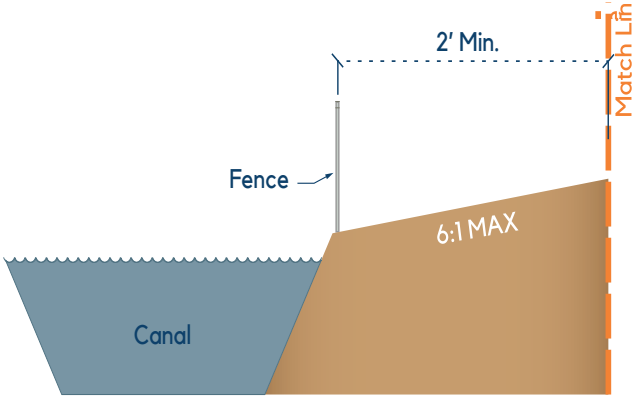
2.2.2 Shared Use Path Side Treatments

Refer to section 2.1.8 for connection to Shared Use Paths.

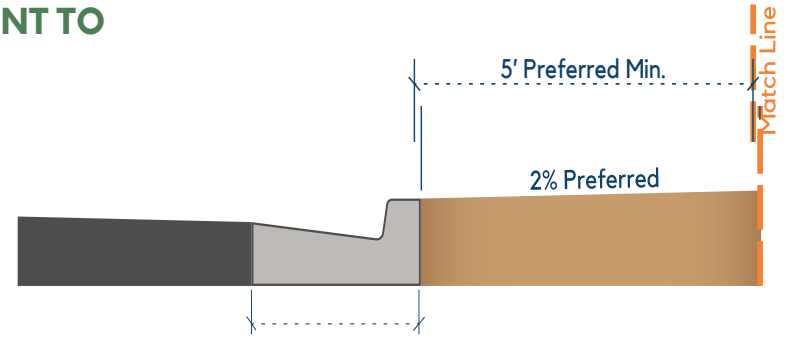
2.2.2.2 ADJACENT TO CANAL, NO FENCE



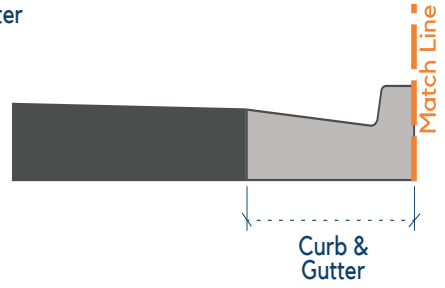
2.2.2.3 ADJACENT TO CANAL WITH FENCE



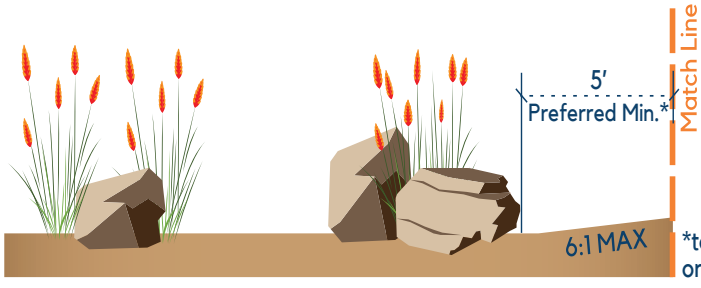
2.2.2.3 ADJACENT TO PARK STRIP



2.2.2.4 ADJACENT TO ROAD

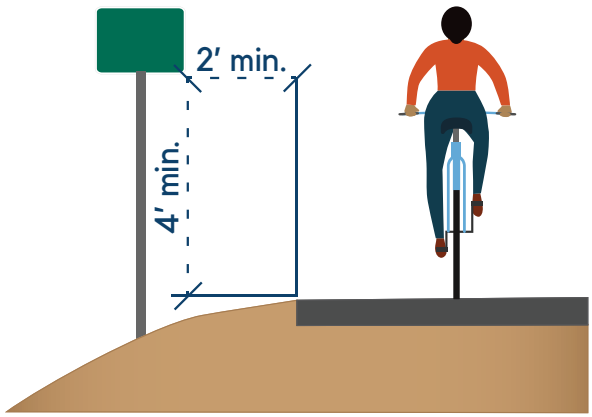


2.2.2.4 ADJACENT TO OPEN SPACE



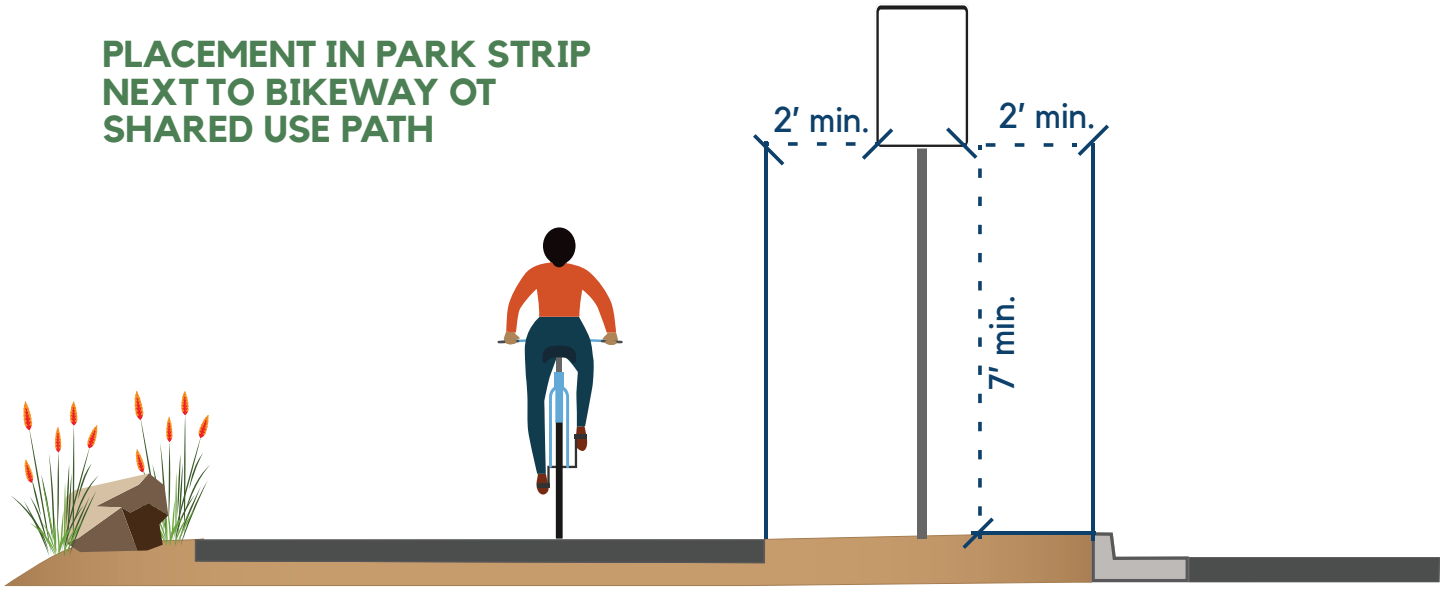
2.2.3 Sign Placement

PLACEMENT NEXT TO SHARED USE PATH OR BIKEWAY

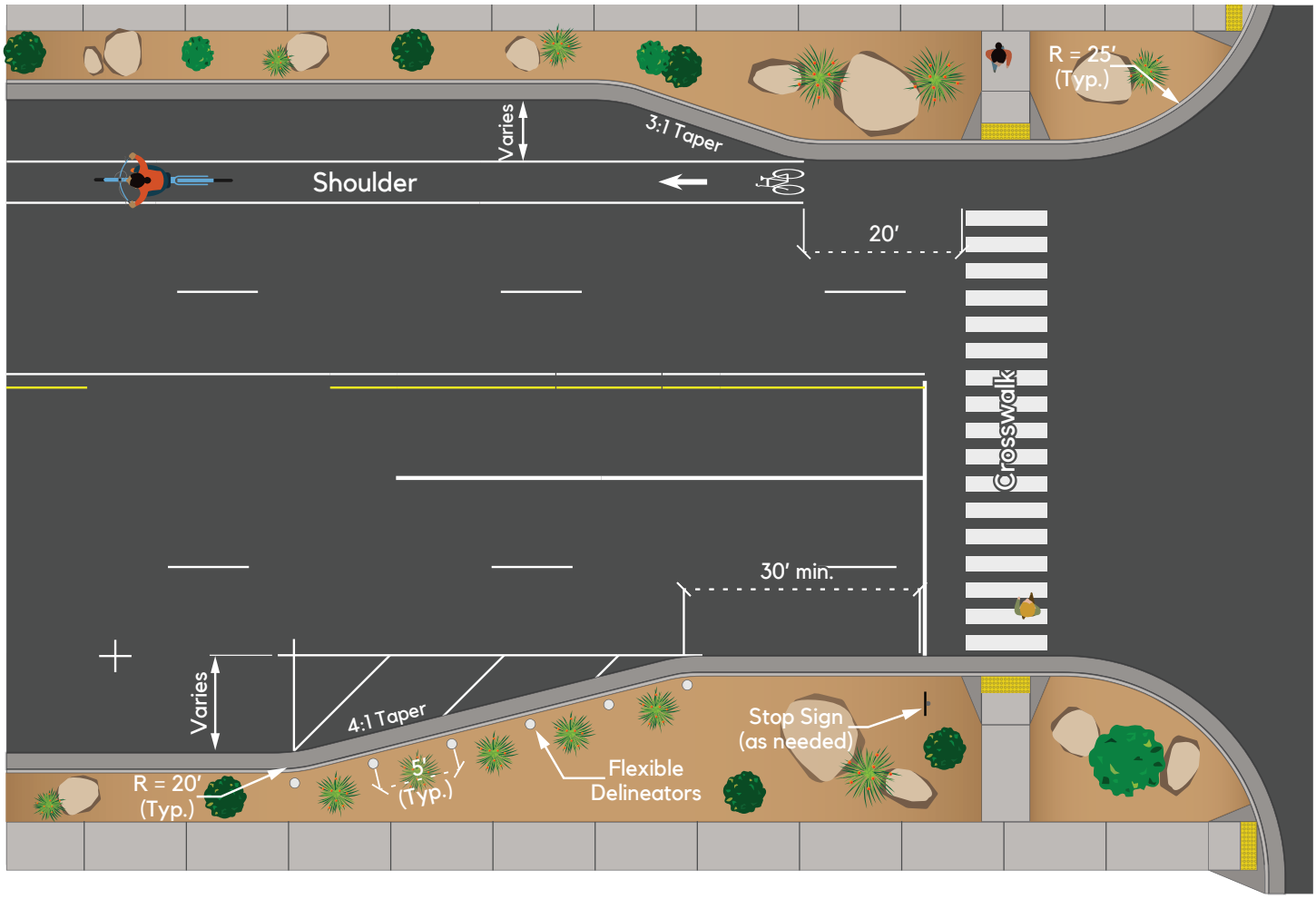


Place signs along bikeways and shared use paths (SUP) according to these details. If the sign being installed is providing information to people driving and walking/ biking, the sign shall be installed at 7′ minimum height. If the sign is providing information to people walking and biking only, it is preferred to be installed at a 4′ minimum height to be within the sight path of these users. If the park strip is not large enough to be able to install the sign to remain 2′ from the curb face and 2′ from the edge of the SUP or bikeway, then it should be located behind the bikeway/SUP at least 2′ from the edge.

PLACEMENT IN PARK STRIP NEXT TO BIKEWAY OT SHARED USE PATH



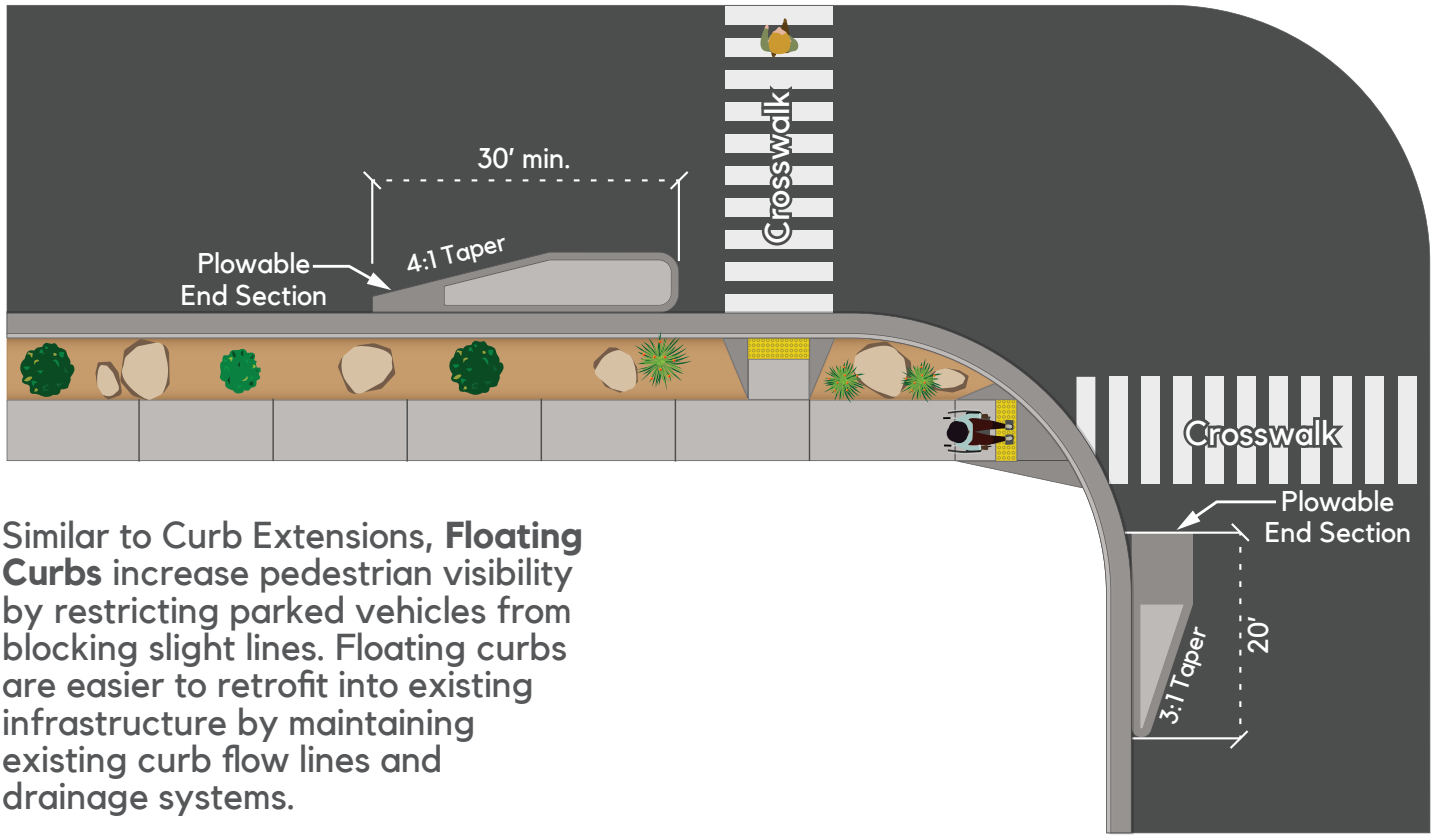
2.2.4 Curb Extension



Curb extensions visually and physically narrow the roadway, creating safer and shorter crossings for pedestrians while increasing the available space for street furniture, benches, plantings, and street trees. They may be implemented on downtown, neighborhood, and residential streets, large and small.

These are options in locations shown as "Enhance Crossing" or "New Crossing" on Section 1.3.

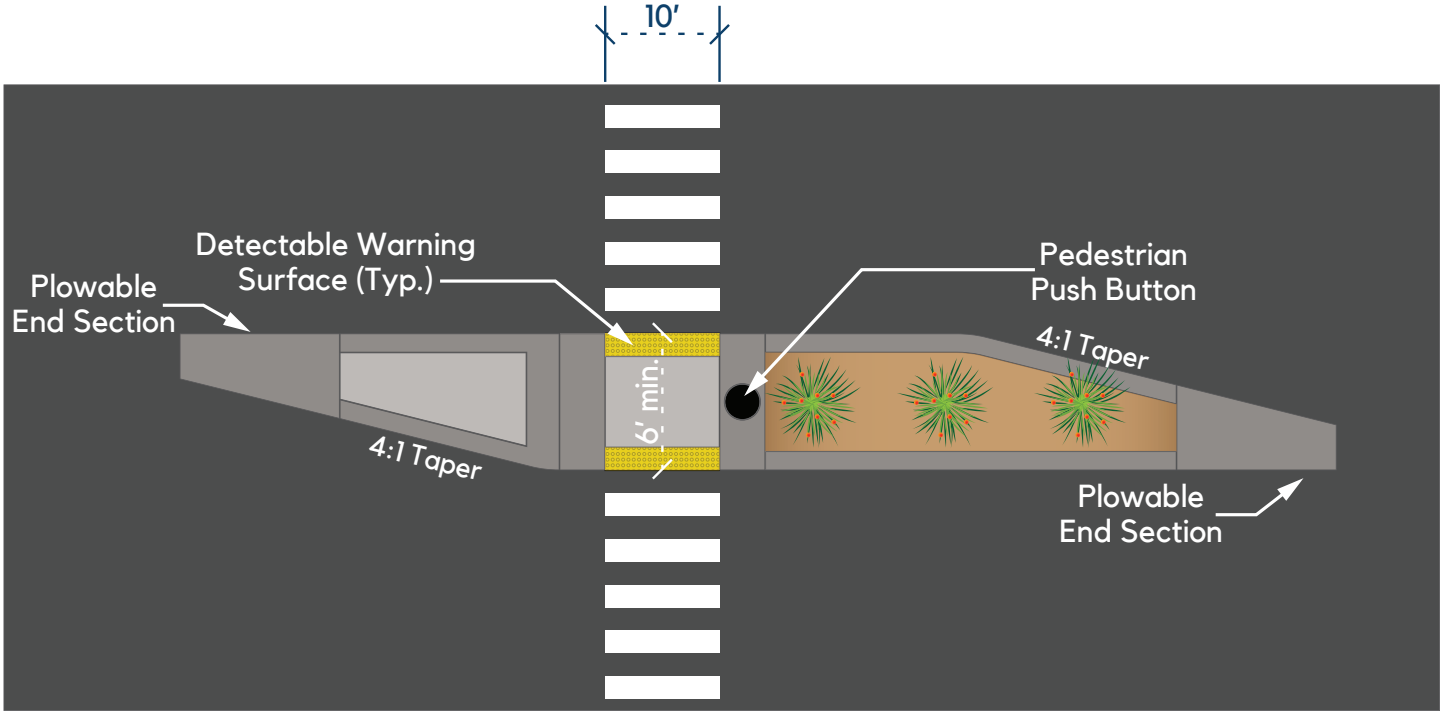
2.2.5 Floating Curb



Similar to Curb Extensions, **Floating Curbs** increase pedestrian visibility by restricting parked vehicles from blocking slight lines. Floating curbs are easier to retrofit into existing infrastructure by maintaining existing curb flow lines and drainage systems.

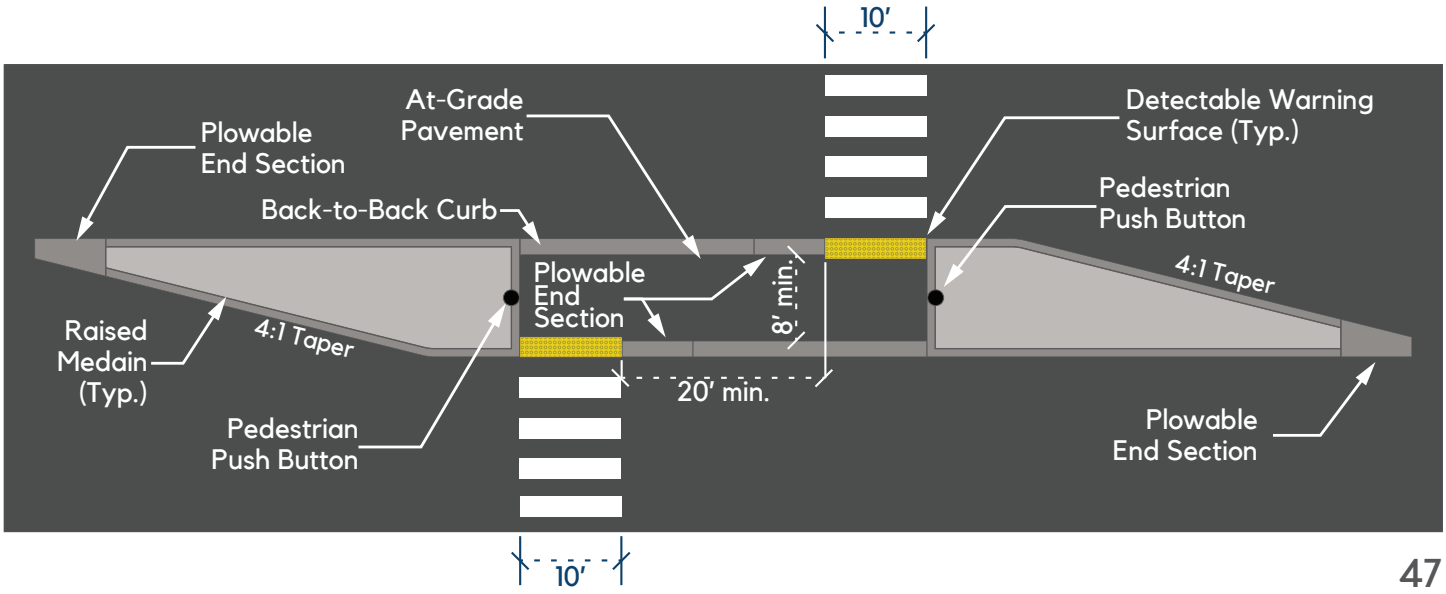
These are options in locations shown as "Enhance Crossing" or "New Crossing" on Section 1.3.

2.2.6 Midblock Refuge

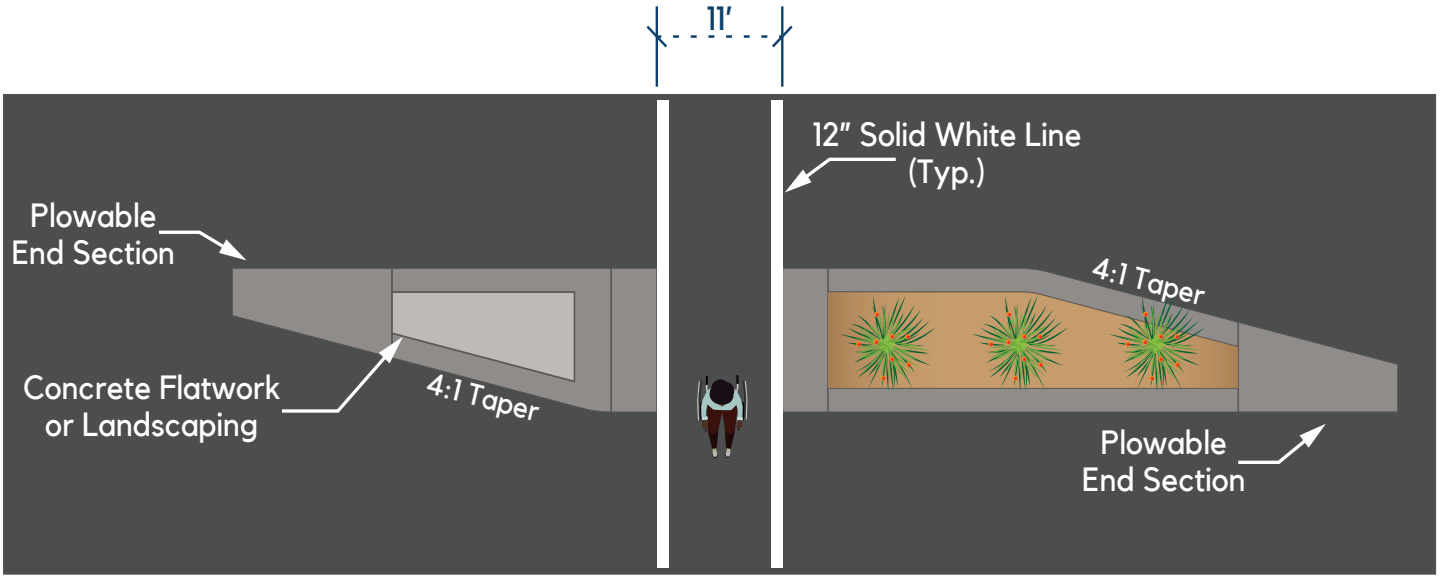


Midblock Refuges are designed to break up long crossings into two stages. They should be at least 6' wide to allow 2' minimum between the detectable warning surfaces. These should only be installed at signalized crossings (RRFB and HAWK - see Section 2.3.1) with a pedestrian push button located in the refuge for anyone unable to make the crossing in one phase.

Midblock refuges can also make use of staggered crosswalks (bottom) which guide pedestrians and bicyclists to face oncoming traffic one crossing at a time. This type of crosswalk is ideal for mid-block areas with low to medium pedestrian volumes and medium vehicular volumes.
A midblock refuge is an option in locations shown as "New Crossing" or "Enhance Crossings" on Section 1.3.



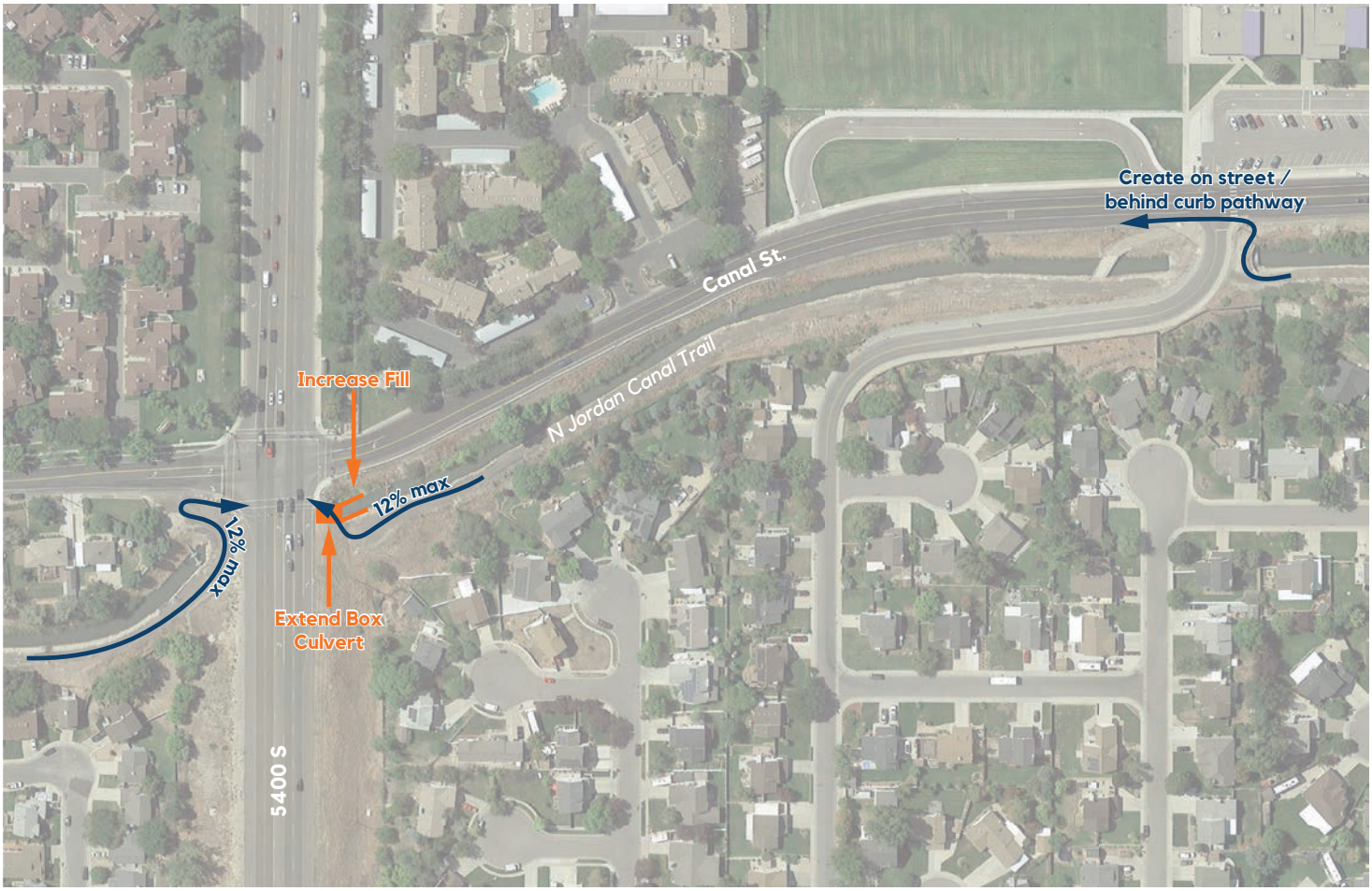
2.2.7 Protected Midblock Crossing



Protected Midblock Crossings are designed to provide traffic calming and emphasis of the midblock crossing. It creates space to install additional signs to notify drivers of the crossing. Detectable warning surfaces should not be installed if the intent is for the crossing to be completed in one phase or if at a signalized crossing that is not at least 6' wide.

This is an options in locations shown as "New Crossing" or "Enhance Crossings" on Section 1.3.

2.2.8 Canal Trail Crossings at Intersections



Canal Street and 5400 South, Taylorsville

Taylorsville City has a number of canals that run diagonal to the City's street network, creating challenges at major street crossings. The preferred solution is to create an undercrossing in-line with the trail alignment. When this is not possible, creating the shortest out of direction travel is preferred to use an existing signalized intersection for crossing. Some canal crossings are vertically very different from the signalized crossing and there isn't enough space at the major roadway to bring the trail to grade at the intersection. In these cases, creating connections from the trail to an adjacent roadway, further from the intersection may need to be evaluated.

2.3
Additional Items

This section includes additional guidelines for miscellaneous items that might be located on or off the roadway.

These include:

- Midblock Crossing Signage
- Grade Separated Structures
- Traffic Calming
- Bike Parking
- Seating Areas
- Wayfinding
- Tree Planting
- Lighting
- Public Art

(Top Right) Example of seating area.
(Bottom Right) Example of bike rack and pad.
(Bottom Left) Example of pedestrian bridge.

Source: Utah Valley University

2.3.1 Midblock Crossing Signage

Refer to Sections 2.2.6 and 2.2.7.

CROSSWALK SIGNS

Follow the Utah MUTCD for placement of Pedestrian Crossing, Trail Crossing, and School Crosswalk Signs.

Source: The City of New York

RECTANGULAR RAPID FLASHING BEACON (RRFB)

RRFB's can be installed at crosswalks that would benefit from additional warning features.

Source: The St. Pete Catalyst

HIGH-INTENSITY ACTIVATED CROSSWALK BEACON (HAWK)

HAWK's are normally installed on multi lane and higher speed roadways that are difficult to cross at midblock and sidestreet locations.

Source: City of Tualatin

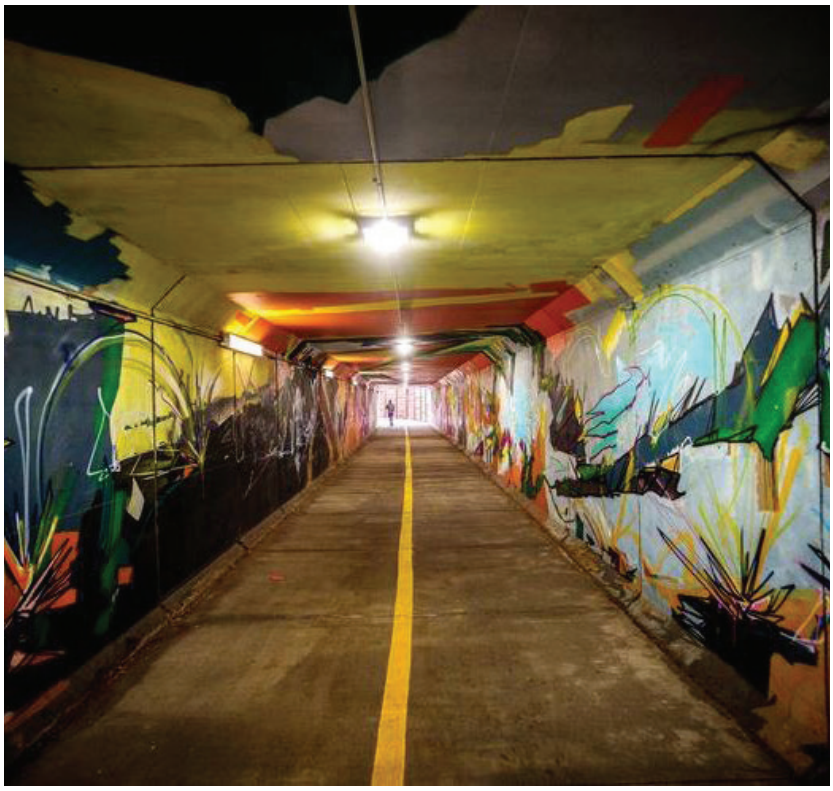
2.3.2 Grade Separated Structure

UNDERCROSSING

Undercrossings provide safe and comfortable crossings for people walking and biking at complicated and dangerous intersections.

Removing pedestrian and bicyclist traffic from the intersection reduces driver delay and conflicts.

Lighting is required in undercrossings to ensure the safety, security, comfort, and usability by bicyclists and pedestrians.



Source: Trent Nelson / The Salt Lake Tribune

PEDESTRIAN BRIDGE

A Pedestrian Bridge is another option for creating a separated crossing for pedestrians and bicyclists at intersections and large roadways. The distance required to raise up to the level of the bridge can be much longer than an undercrossing and may not be as desirable.

Source: Ryan Michalesko/Dallas News

2.3.3 Traffic Calming

RAISED STREET CROSSINGS

Raised Crosswalks are installed across roadways at signalized intersections and midblock crossings where traffic may travel over the raised crosswalk without stopping. Continuous Sidewalks are installed along roadways that have intersecting side streets that are stop controlled. Both are designed in a similar way by keeping the pedestrian pathway at the same level across the roadway as it is prior to the crossing. Raised crosswalks may be designed with a smoother transition due to cars not being required to stop when pedestrians are not present.

Source: New York City DOT

SPEED HUMPS

Speed Humps provide traffic calming on streets without impacting the flowline of the gutter.

Source: National Association of City Transportation Officials

SPEED CUSHIONS

Speed Cushions are similar to speed humps, but can be designed to accommodate the wheel paths of emergency vehicles and buses.

Source: City of Mesa

CHICANES

Chicanes are used to create gentle changes in direction along roadways that are straight to help calm traffic and to create protection for parking on narrow roadways.

Source: PEDSAFE / FHWA

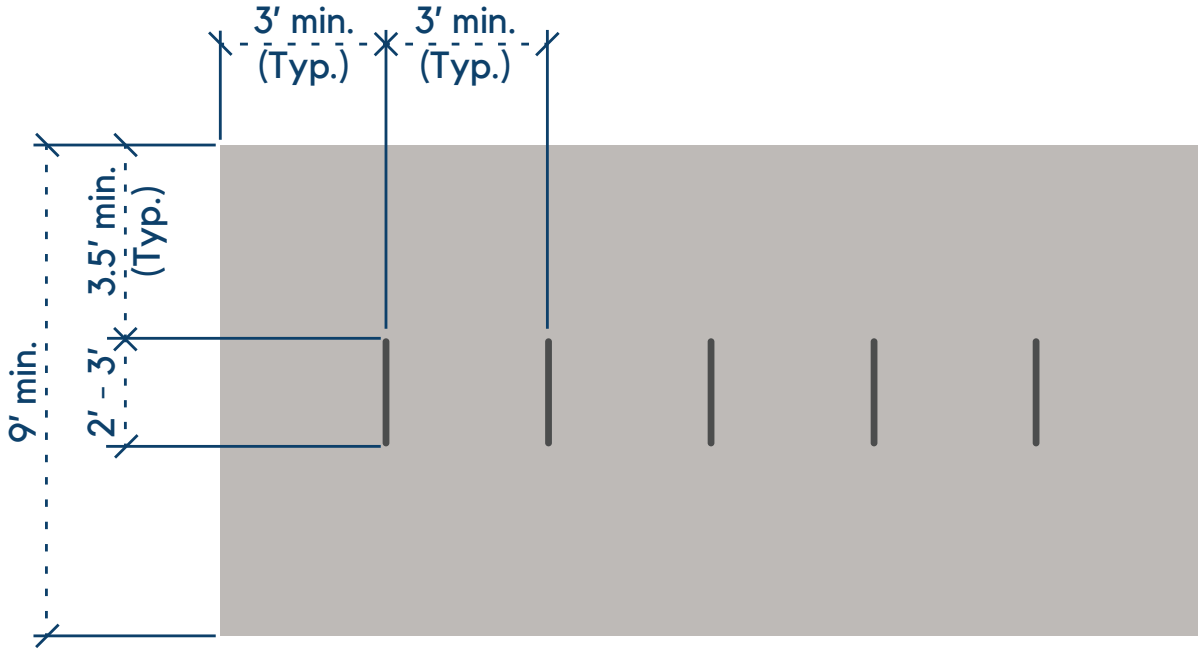
2.3.4 Bike Parking

Bike Parking can be an easily overlooked design feature that is an important part of a good bicycle network. Picking a location to install the bike parking should be large enough to have a firm, stable surface to be able to walk and rest a kickstand on.

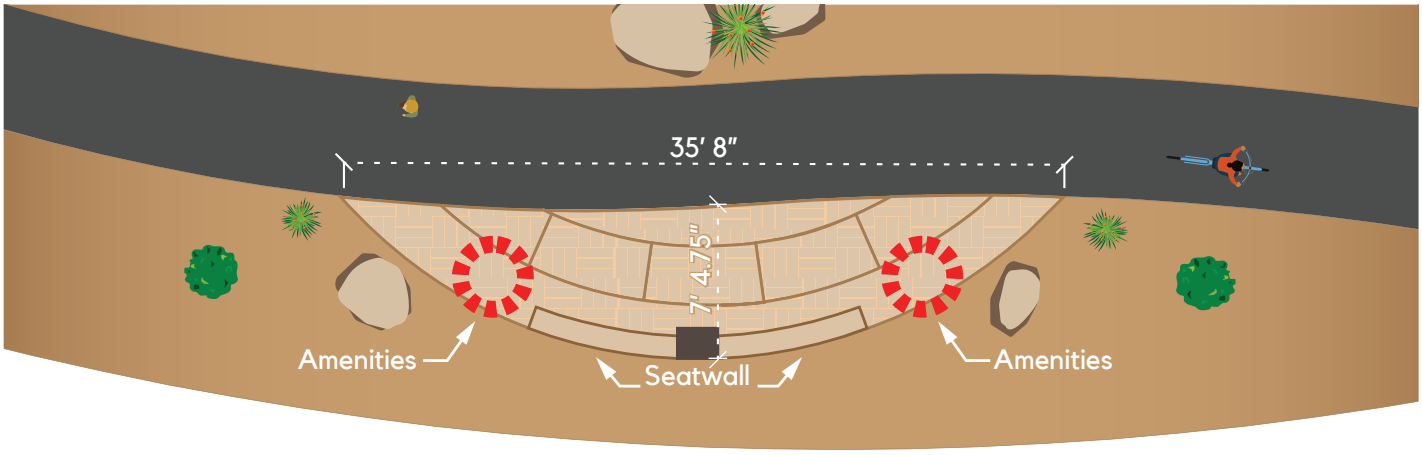
A U-rack (see example on the right) is in an inverted U-shape with two points of ground contact. It is a reliable bike rack and commonly used in urban areas as it can be placed along sidewalks with minimal space. It allows both the front and back wheels of the bike to be secured. These racks should be placed on a pad that allows enough space to move bikes around without interfering with bike and pedestrian circulation or other objects.

Source: Falco

BIKE PARKING PAD



2.3.5 Seating Area



Seating Areas are important amenities along bicycle and pedestrian facilities that make them more accessible for all ages and abilities. Those that can't confortably walk, run or bike long distances benefit from being able to take breaks in this carefully designed facility.

In addition to benches or seating walls, seating areas can include:

- Wayfinding elements like a kiosk
- Fix-it Station
- Water Fountain
- Trash Cans
- Pet Waste Disposal
- Shading (trees or shade structure)
- Bike Parking (See Section 2.3.4)
- Public Art

Ideally, seating areas are evenly spaced along a shared use path or bicycle and pedestrian facility. They can occur every mile, or as often as possible. Locating a seating area near intersections allows it to also serve as a small trailhead.

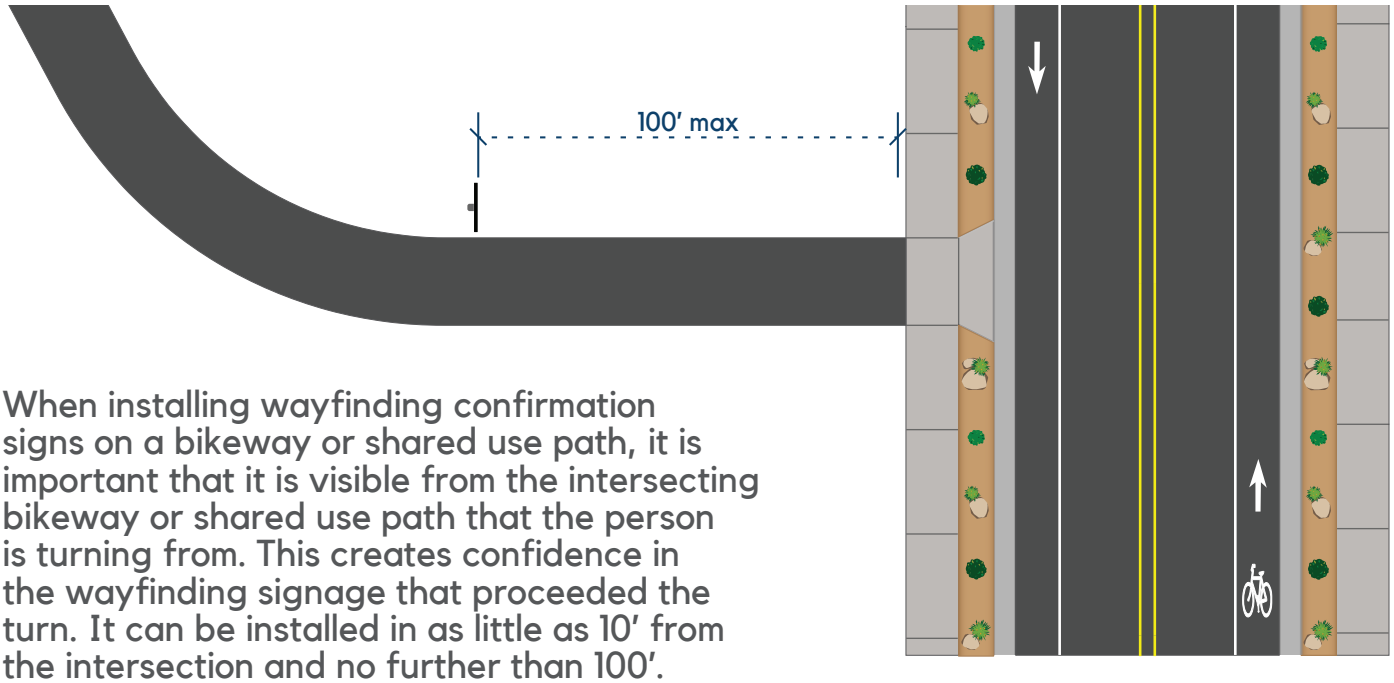
Shade structures may encourage more biking and walking during inclement weather (Source: City of San Diego).

Fix-it station includes all the tools necessary to perform basic bike repairs (Source: Mapatrail.org).

Wayfinding Kiosks provide guidance to trail users. Refer to Taylorsville Signange Master Plan.

2.3.6 Wayfinding

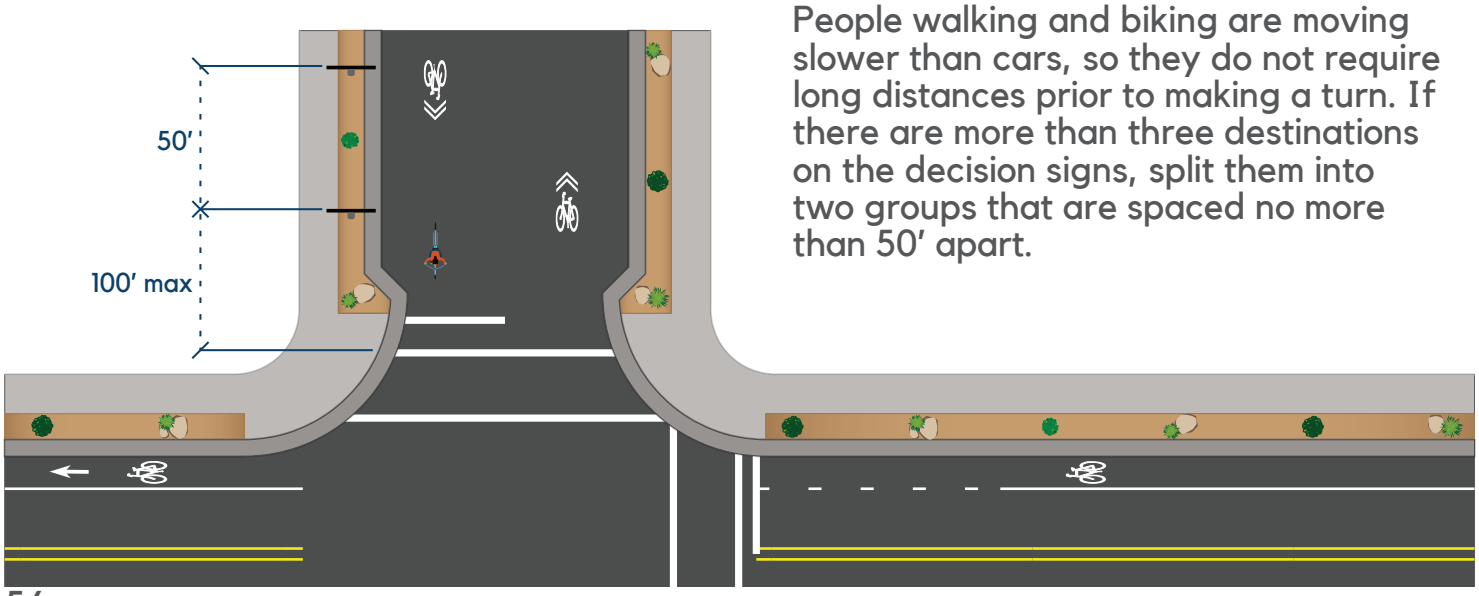
CONFIRMATION SIGN PLACEMENT



When installing wayfinding confirmation signs on a bikeway or shared use path, it is important that it is visible from the intersecting bikeway or shared use path that the person is turning from. This creates confidence in the wayfinding signage that proceeded the turn. It can be installed in as little as 10' from the intersection and no further than 100'.

At trailheads, new spurs, major intersections, and at the entry points along a shared-use path into Taylorsville, the Taylorsville Sign Design Standards should be used to distinguish this section as part of Taylorsville.

DECISION SIGN PLACEMENT



Decision signs should be placed no more than 100' from the intersection. People walking and biking are moving slower than cars, so they do not require long distances prior to making a turn. If there are more than three destinations on the decision signs, split them into two groups that are spaced no more than 50' apart.

2.3.7 Tree Planting

Trees are a vital part of public infrastructure. They enhance the pedestrian and bicyclist experience by providing shade, reducing heat and beautifying the streets. However, trees share space with other public infrastructure requiring thoughtful selection in the right-of-way.

Taylorsville City has published a guide on tree planting on park strips that should be followed before new trees are put in place. It details which trees should and should not be used within city limits.

Some additional guidelines are provided below:

SMALL TREES (UP TO 30')

- Park Strip 5' wide
- Park strip is with or without high voltage transmission lines
- Space for root or canopy growth is limited

MEDIUM TREES (30-60')

- Park strip is 5-8' wide
- Planting site has no overhead high voltage transmission lines
- Intermediate size is compatible with site

LARGE TREES (60-80')

- Park strip is 8' wide or wider
- Planting site has no overhead high voltage transmission lines
- Site will accommodate large tree with maximum size, shade and energy conservation benefits
- Space for root and branch growth will not conflict with site feature

Trees near Redwood Road and 5600 South in Taylorsville (Source: Avenue Consultants).

2.3.8 Lighting

Lighting is an important component of urban design and should be carefully planned throughout Taylorsville. It increases visibility, promotes safety for drivers and pedestrians and discourages theft or violence.

Taylorsville is in the process of developing new community lighting standards, that includes residential streets, collectors and arterials, as well as for separated pathways (shared use paths, sidewalks and cycle tracks).

Generally, Taylorsville City guidelines specify that lighting:

- Should be dark sky compliant (see below), including having a color that blends with the natural environment and does not creep into adjacent areas
- Should not be a style that brings attention to itself (i.e. decorative, etc.)
- Should be pedestrian scale

Light fixtures being considered for Taylorsville in shared use paths with natural surroundings (right) or sidepaths in urbanized areas (left). Source: StressCrete Group.

The Federal Highway Administration (FHWA) has published pedestrian lighting guidelines that specify lighting design considerations at locations with existing or future pedestrian activity.

When planning for effective separated pathway lighting, lights should always be installed:

- In tunnels or at overpasses
- At trailheads & seating areas
- At bridge entrances and exits
- In public gathering places
- Along streets and at crosswalks
- Where paths intersect
- To illuminate signage

Bollards and lamp posts can be used separately or together depending on the goal and specific area. Bollards are used to delineate a pathway for better visibility, enhance landscaped areas and to highlight special areas (i.e. seating areas).

Additionally, the International Dark-Sky Association (IDA) has made available several guidelines to reduce light pollution in cities. The most important points are summarized below.

DARK-SKY LIGHTING GUIDELINES

- **Lamp and Shielding.** It is encouraged that all permanent light fixtures are full cutoff fixtures with the light source fully shielded for all uses and directed downward.
- **Light Type.** Due to their high energy efficiency, long life and spectral characteristics, low pressure sodium (LPS) lamps are the preferred illumination source throughout the city.
- **Light Levels.** Utilize the lowest light level required by city or FHWA guidelines at any given location. Kelvin levels up to 3000 k are preferred.

2.3.9 Public Art

Public art enriches our physical environments, adding vibrancy and character to public spaces. It can be used for a variety of purposes from improving safety and tourism to providing opportunities for artists and connecting residents to their local community. Public art can be installed as fixed/permanent features or as rotating art that is switched out for new art on a regular basis.

Taylorsville should strategically locate public art in a way that complements its AT infrastructure. This will help increase the use of AT facilities and add to the sense of character they bring to the community. Art should be rotated twice a year to activate local artists and engage community members.

"Franz the Bear" a permanent statue of a bear installed in Park City and good example of iconic art (Source: Avenue Consultants).

Temporary guitar sculpture at Centennial Plaza in Taylorsville (Source: City of Taylorsville).

Temporary globe sculpture at Centennial Plaza in Taylorsville (Source: City of Taylorsville).

7 FINAL CONSIDERATIONS

The current document aimed to highlight the need for AT facilities through data analyses, public and stakeholder involvement. As a result, a comprehensive AT network and accompanying design standards were established.

The proposed AT network detailed in the Taylorsville Active Communities Plan connects major destinations, residential areas, schools and undeserved neighborhoods. It enhances both north-south and east-west connectivity, helping integrate the different areas of Taylorsville through a safe and connected network.

As part of this plan, design standards for AT facilities were established, including guidance on wayfinding, signage, lighting, trees and public art.

It highlights the importance of building facilities that are up to national and regional standards, and that focus on safety as well as a sense of place. These elements weave together to form a welcoming and secure environment for all residents and visitors.

This plan is meant to be used in conjunction with other Taylorsville Plans and Guides, these include:

- City of Taylorsville General Plan
- City of Taylorsville Economic Development Plan
- Taylorsville Signage Master Plan
- Taylorsville Street Guide for Trees

As well as new guidelines that might become available for lighting, development and more.

The people of Taylorsville want a safer, more walkable and bikeable community, and this plan is a major step into achieving this reality.