

PLAN PURPOSE

Develop a master plan to guide the development of on and off-street facility recommendations, design standards and policies, and prioritized implementation recommendations for the trails and bikeways system in Garland.

WHAT

- Identify trail and bikeway needs.
- Provide guidance for continued development of the trail and bikeway system.
- Guide future expenditures for design and construction of trails and bikeways.

WHY

- Safe and accessible trails and bikeways are vital quality of life amenities.
- A comprehensive non-motorized transportation system that connects to key destinations enhances overall connectivity within the City.
- Lots of development has occurred since the trails and bikeways system in Garland was last assessed comprehensively.

GARLAND'S TRAILS & BIKEWAYS MASTER PLAN WILL BE USED TO:

DEVELOP

A network of pathways, trails, and bicycle routes that provide key community connections.

CONNECT

The City of Garland's bicycle and trail networks to those of adjacent communities.

DESIGN

Standards to promote the quality and uniformity of the City's bicycle and trail facilities.

PRIORITIZE

Important infrastructure development for bicyclists and pedestrians.

CREATE

A transportation system that promotes a wide variety of mobility choices.

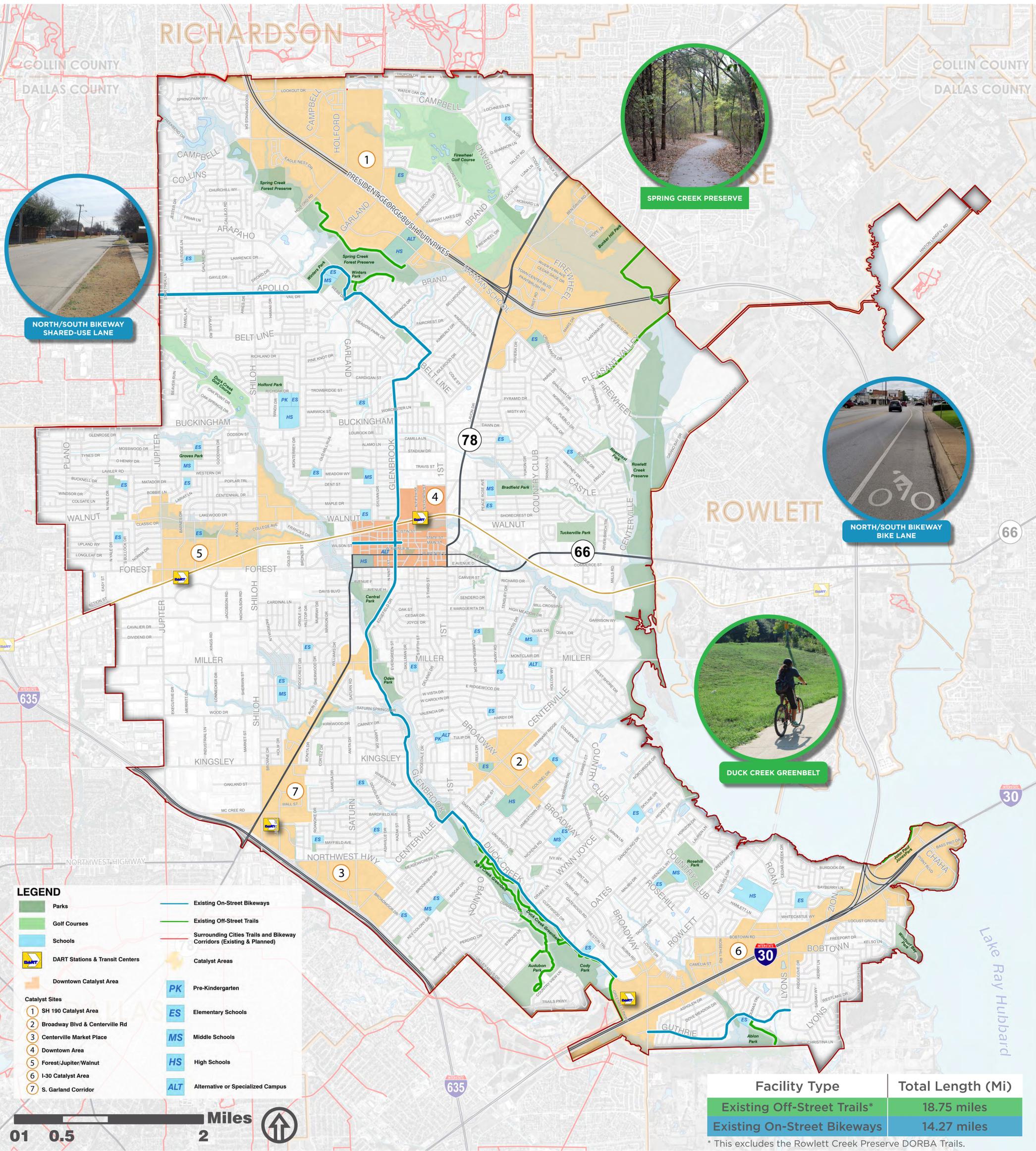
TRAILS AND BIKEWAYS MASTER PLAN PROCESS



PURPOSE & BACKGROUND

GARLAND TRAILS AND BIKEWAYS MASTER PLAN

SEPTEMBER 2020
GARLAND, TEXAS



LEGEND

- Parks
- Golf Courses
- Schools
- DART Stations & Transit Centers
- Downtown Catalyst Area
- Catalyst Sites**
 - SH 190 Catalyst Area
 - Broadway Blvd & Centerville Rd
 - Centerville Market Place
 - Downtown Area
 - Forest/Jupiter/Walnut
 - I-30 Catalyst Area
 - S. Garland Corridor
- Pre-Kindergarten
- Elementary Schools
- Middle Schools
- High Schools
- Alternative or Specialized Campus
- Existing On-Street Bikeways
- Existing Off-Street Trails
- Surrounding Cities Trails and Bikeway Corridors (Existing & Planned)
- Catalyst Areas

Miles

01 0.5 2

Facility Type	Total Length (Mi)
Existing Off-Street Trails*	18.75 miles
Existing On-Street Bikeways	14.27 miles

* This excludes the Rowlett Creek Preserve DORBA Trails.

COMMUNITY INPUT STRATEGY

Public engagement is a crucial part of any planning process. In order to create a well-informed plan vision and subsequent recommendations it is important to consider input of those who use the trail and bikeway system. Various engagement methods were used to seek input including a Citizen Steering Committee, stakeholder meetings, public open houses, online survey, and interactive mapping. This section provides a summary of key input gathered from each of these methods.

PUBLIC OPEN HOUSES

What one word would you use to describe walking and cycling in Garland today?

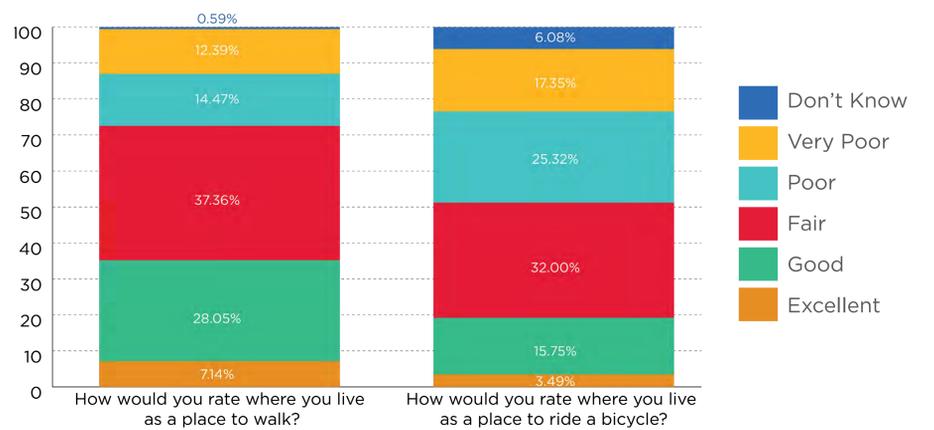
NEEDED
RISKY UNDERREPRESENTED IMPROVEMENTS NEEDED
OUTDATED
RANDOM UNDERSIZED DESPERATELY LACKING
DISCONNECTED
SCARY DANGEROUS INACCESSIBLE

What one word would you use to describe how you envision walking and cycling in Garland in the future?

CONNECTED
CONVENIENT SAFE DEDICATED APPROPRIATE MILEAGE EFFICIENT BIKE LANES
COMFORTABLE
HOPEFUL SPECIAL PLACE

ONLINE SURVEY

Overall, how would you rate where you live as a place to walk and ride a bicycle?



INTERACTIVE MAPPING SITE

Q1 Where do you walk, run, or cycle in Garland today?

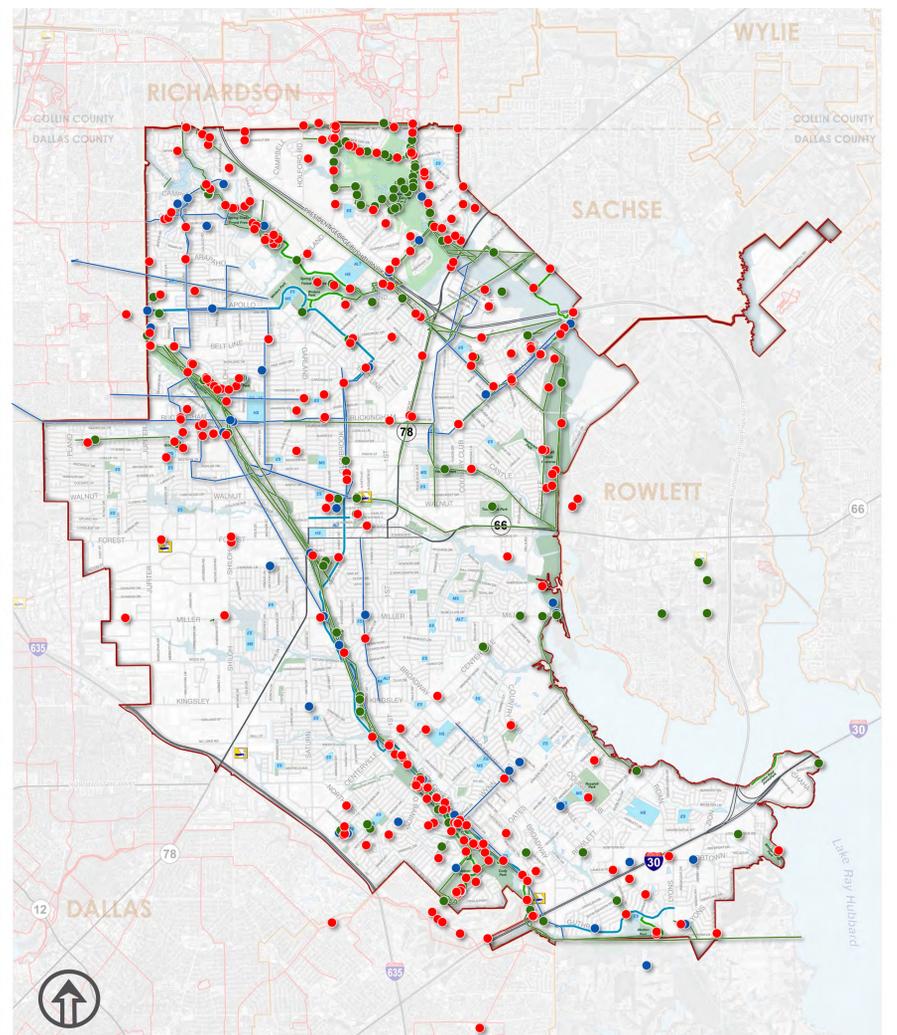
This question was posed to gain insight about areas in Garland that are currently used by residents to walk, run, or cycle. Many respondents recorded existing pedestrian and bicycle facilities such as the Spring Creek Preserve, Duck Creek Greenbelt, the North-South bikeway, and residential sidewalks as places frequented for walking and cycling.

Q2 Where do you think improvements are needed in Garland to improve off-street trails?

A large number of respondents requested improvements to the Duck Creek Greenbelt, specifically enhancements to existing trail widths, trail safety amenities, and overall connectivity within Garland and into trail systems of surrounding cities. Creating connections to key destinations, such as Firewheel Town Center, that are safe, comfortable, and easily accessible was a common theme among respondents. Additionally, respondents were interested in the ability to use trails along the Lake Ray Hubbard shoreline, which would provide connections to several city parks.

Q3 Where do you think improvements are needed in Garland to improve on-street bikeways?

Many responses to this question focused on improvements to the overall safety and accessibility of bikeways throughout the City, particularly in areas that have limited bicycle accommodations. Respondents prioritized improvements relating to the long-distance bikeways for recreational rides and commuting purposes and creating connections to key destinations including schools, employment centers, and park and recreation facilities.



COMMUNITY INPUT STRATEGY

The following goals and objectives were developed as a result of the community visioning input opportunities and by assessing community needs.

1| CONNECTIVITY

Create a connected system of trails and bikeways to provide a viable active transportation mode.

- 1.1 | Establish regional connections to surrounding cities.
- 1.2 | Connect to neighborhoods, schools, parks, job centers, and transit centers.
- 1.3 | Increase trail level of service to create a more accessible network.
- 1.4 | Establish a hierarchy of trail types to serve different users and functions.
- 1.5 | Conduct a sidewalk inventory to locate gaps within the system.

2| SAFETY

Ensure the trails and bikeway system is safe and comfortable for users of all abilities.

- 2.1 | Address areas of concern for cyclists and pedestrians, particularly intersections.
- 2.2 | Improve user comfort throughout the trail and bikeway system.
- 2.3 | Implement Crime Prevention Through Environmental Design (CPTED) strategies to ensure a safe environment for trail and bikeway users.
- 2.4 | Address areas identified as critical connections and key barriers.
- 2.5 | Consider users of all abilities when designing trails and bikeways.

3| AWARENESS

Improve education and awareness of trail and bikeway system users.

- 3.1 | Initiate a bicycle safety awareness campaign that educates cyclists and motorists.
- 3.2 | Implement experimental projects to test feasibility and public perception of bikeway facilities before making them permanent.
- 3.3 | Create a trail counter program to determine heavily used trail and bikeway segments.
- 3.4 | Implement wayfinding signage throughout the trail and bikeway network.
- 3.5 | Implement trailheads and trail amenities at key points along the system.
- 3.6 | Utilize existing and future advocacy groups to spread awareness.

4| COORDINATION

Improve coordination amongst city departments and with outside agencies to achieve a connected trail and bikeway system.

- 4.1 | Establish and maintain partnerships for trails and bikeways with surrounding cities, the county, TxDOT, NTTA, NCTCOG, and utility providers.
- 4.2 | Update the thoroughfare plan to address bicycle and pedestrian accommodations.
- 4.3 | Update development standards to require trails of a specified width to be implemented in new developments.
- 4.4 | Explore innovative solutions to implement trails and bikeways.
- 4.5 | Incorporate bicycle and pedestrian accommodations as roadways are reconstructed.

5| SUSTAINABILITY

Design, construct, and maintain trails and bikeways in a sustainable manner.

- 5.1 | Update design and maintenance standards to ensure quality trails are provided and maintained.
- 5.2 | Establish a routine maintenance schedule to update on-street bicycle markings.
- 5.3 | Develop trails that are context-sensitive to the natural environment.
- 5.4 | Develop a program for mitigating litter along trails.

6| FUNDING

Pursue traditional and non-traditional sources of funding for trails and bikeway development.

- 6.1 | Apply for grant funding where feasible.
- 6.2 | Increase funding for active transportation through partnerships.
- 6.3 | Seek sponsorships from corporations or non-profits.
- 6.4 | Continue major capital initiatives for trail and bikeway development projects.

The draft master plan recommends various off-street trails, on-street bikeways, and pedestrian facilities as part of the overall recommended network.

Off-street trail facilities are shown in **green**, on-street bikeway facilities are shown in **blue**, and pedestrian facilities are shown in **orange**.

SPINE TRAILS



Spine trails are located in off-street corridors and provide a high level of comfort for a variety of user groups due to the width and distance from motor vehicle traffic. Many of these trail corridors are on the Regional Veloweb, which is a regional network of multi-use trails. Spine trails are defined by a minimum pavement width of 12' and provide significant interjurisdictional connections that supports regional connectivity throughout the DFW Metroplex.

SIDEPATHS



Sidepaths are multi-use trails located adjacent to roadways with an appropriate buffer. These trails are intended to connect key destinations by providing a facility wide enough for bicycle and pedestrian use without conflict (at least 10' in width). The location of sidepaths along roadways requires safety considerations for crossing driveways and intersections.

SHARED-USE LANES



Shared-use lanes are located within a street where a travel lane is designated to serve both cyclists and motor vehicles through the use of pavement markings and/or signage. When located along residential streets, on-street bike route signage provides sufficient informational signage. For facilities along collectors and minor thoroughfares, the use of shared-use pavement markings and accompanying signage is recommended to clearly identify the presence of bicyclists within the travel lane. Typically, this type of bicycle facility occurs along roadways with speeds 35 mph or slower and with relatively low traffic volumes.

BIKE LANES



Bike lanes demarcate a portion of a roadway for the exclusive use of cyclists separated from the motor vehicle traffic. Bike lanes can be implemented as standard or separated; the former has a 3' minimum buffer between the bike lane and vehicular lane as recommended by NACTO, and a standard bike lane has a 6" painted stripe separating the bike lane from the travel lane. Both standard and separated bike lanes are designated by a lane stripe, pavement markings, and signage. Along some roadways a road diet may be necessary to accommodate a bike lane.

CYCLE TRACK



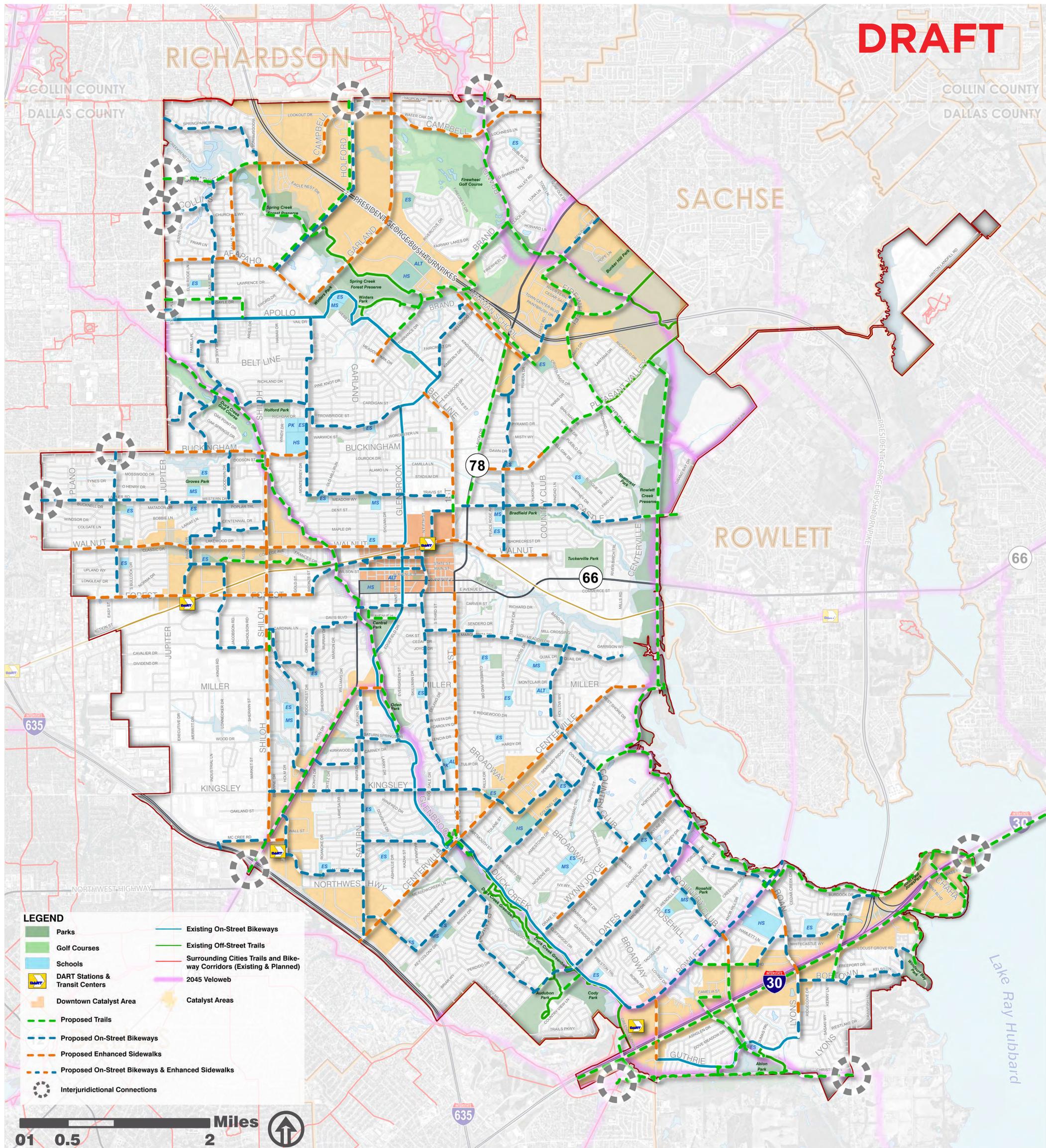
A cycle track is a protected bike lane that provides a high level of comfort for bicycle traffic, especially on streets with higher speeds and volumes where there is high bicycle demand. The key feature of this facility is a physical barrier such as a raised median, planters, bollards, or other barrier between a one-way or two-way bike lane and the vehicular lanes. As these facilities are not shared, the use of colored or textured pavement helps to distinguish the cycle track from pedestrian and motor vehicular facilities.

ENHANCED SIDEWALKS



Sidewalks are an essential part of a comprehensively connected network and enhanced sidewalks provide increased accessibility specifically for pedestrians. Enhanced sidewalks are wider than standard sidewalks in Garland (at least 8' wide) to provide a more comfortable user experience, especially in situations where there is two-way pedestrian traffic. This facility is intended to improve pedestrian access to areas where major sidewalk gaps exist or where sidewalks are in poor condition.

DRAFT



COMBINED RECOMMENDATIONS MAP
GARLAND TRAILS AND BIKEWAYS MASTER PLAN

SEPTEMBER 2020
 GARLAND, TEXAS