128th Avenue
I-25 to York Street

Huron Street
84th Avenue to 88th Avenue

Pecos Street
Milky Way to 92nd Avenue/
Thornton Parkway

Thornton Protected Bike Facility Study Executive Summary

MAY 2025

Purpose and Background

The Thornton Protected Bike Facility Study (the Study) advances the City's goal of creating a safer, more comfortable, and better-connected transportation system for people of all ages and abilities. Guided by Thornton's Complete Streets policy and the 2022 Transportation and Mobility Master Plan (TMMP), the Study focuses on three priority corridors identified in the TMMP for near-term improvements:

- 128th Avenue (I-25 to York Street)
- Huron Street (84th Avenue to 88th Avenue)
- Pecos Street (Milky Way to Thornton Parkway)

The Study includes these corridors because they serve key destinations—schools, parks, transit hubs, and neighborhoods—and because they currently lack dedicated infrastructure for safe and comfortable travel by bike. High traffic volumes and speeds, large intersections, and a lack of protected space for bicyclists make these streets feel high-stress for walking and bicycling.

The Study identifies recommended bikeway concept designs tailored to each corridor's physical context and transportation needs. Each recommendation reflects a careful balance between user safety, multimodal access, and operational feasibility. Together, these projects lay the groundwork for future design and construction, and they represent a critical step toward building a more inclusive, resilient, and connected transportation network in Thornton.

Study Process Overview

Concept Design Development

The Study began in early 2024 with a focused effort to create viable concept designs for each corridor. For each corridor, the Study generated three concept design options reflecting a range of investments and design approaches. Some emphasized lower-cost and quick-build implementation through signage and striping; others proposed long-term improvements such as curb reconstruction and new traffic signals.

The concept design options reflect observed travel behaviors, corridor-specific land use patterns, and planning best practices. Each concept design option aimed to improve safety, comfort, and access for people walking, biking, and taking transit, while also considering motor vehicle operations and construction feasibility.

Community and Stakeholder Collaboration

A collaborative process guided the evolution of the concept design options. The Study engaged a Stakeholder Working Group (SWG), including representatives from the City of Thornton, City of Federal Heights, City of Westminster, Regional Transportation District (RTD), Denver Regional Council of Governments (DRCOG), and Colorado Department of Transportation (CDOT). The SWG met at key milestones to discuss recommendations and tradeoffs for the study corridors.

In parallel, the Study invited public input at three stages: initial visioning, concept design option development, and recommended concept design development. Community feedback directly influenced the development of the concept design options .

Phase 1: Existing Conditions
January to March 2024

- Existing conditions review
- Traffic data collection
- Field audits

Phase 2: Alternatives Analysis
April to July 2024

- Concept alternatives
- Qualitative analysis
- Traffic analysis

Phase 3: Recommended Concept
August 2024 to February 2025

- Recommended concepts
- Implementation planning
- Study document

Stakeholder Working Group meetings | **Stakeholder interviews** | **Pop-up events** | **Open houses** | **Community questionnaires** | **Online engagement**

128th Avenue

Safety and mobility

The two-way bikeway connects directly to residential neighborhoods and schools while reducing the need to cross 128th Ave multiple times.

Public input

Community members expressed strong support for protected facilities and wider paths on both sides of the street.

Feasibility

Although the recommended concept design requires reconstruction of the roadway and carries a higher cost, it provides a high-comfort bikeway that safely and comfortably accommodates both local and regional trips by bike.

128th Avenue connects residential neighborhoods, schools, and the Eastlake & 124th Station. While it sees over 20,000 vehicles per day, the corridor currently lacks dedicated bike lanes and features narrow, attached sidewalks on the north side, creating uncomfortable and unsafe conditions for people walking or biking. The sidewalk on the south side, while wider and separated from travel lanes with a landscaped buffer, accommodates both pedestrians and bicyclists due to the absence of dedicated bicycle facilities. High vehicle speeds and limited crossing opportunities further constrain access to key destinations.

Recommended Concept Design

The recommended concept design for 128th Avenue features a two-way, sidewalk-level protected bikeway on the north side of the street (also known as a cycletrack), paired with a wide pedestrian sidewalk on the south side. A hardscaped center median with designated turn lanes improves overall corridor safety and reduces conflicts at intersections and driveways. **The full conceptual design can be viewed on page 31 of the study.**

Considering the intersection at Washington Street

At the intersection of 128th Avenue and Washington Street, the Study identified competing demands for space and signal timing. The recommended design improves bicycle comfort through the intersection, but future traffic growth may require further solutions, such as grade separation or advanced signal technology to maintain multimodal efficiency.

Huron Street

Safety and mobility

Raised bike lanes, wider sidewalks, and intersection and crossing upgrades significantly improve the experience for people walking and biking along and across Huron Street.

Public input

Community members generally supported protected bike facilities but expressed concern about reducing capacity for motor vehicles.

Feasibility

Though it requires reconstruction of the roadway and new signal infrastructure, the recommended concept design greatly improves safety and comfort for all travelers and all modes.

Huron Street serves a mix of residential neighborhoods and community destinations, including multiple schools and parks. It sees moderate daily traffic but experiences sharp spikes during school arrival and dismissal, particularly near the Pinnacle Charter School campus. The corridor's narrow sidewalks and narrow, street-level bike lanes offer little separation from traffic, preventing more people from walking and bicycling. Transit service is infrequent, making walking and bicycling the most viable non-driving option for many users.

Recommended Concept Design

The recommended concept design reconstructs the corridor to include raised, one-way protected bike lanes on both sides of the street, wider sidewalks, and a hardscaped median with turn lanes at key intersections. The recommended concept design retains four travel lanes to support existing traffic operations, particularly during school-related peaks. **The full conceptual design can be viewed on page 48 of the study.**

Considering School Traffic

The corridor's limited right-of-way required trade-offs between space for vehicles and space for walking and bicycling. The recommended concept design preserves motor vehicle traffic flow, especially for Pinnacle School drop-off and pick-up, while providing high-comfort sidewalks and bike lanes for people walking and bicycling.

Pecos Street

Safety and mobility

Raised bike lanes, wider sidewalks, and intersection and crossing upgrades improve safety and comfort for all travelers.

Public input

Community members supported separating modes, improving corridor aesthetics, and maintaining vehicle access where needed.

Feasibility

Though the recommended concept design requires reconstruction of the roadway and right-of-way acquisition, it meets operational needs while enhancing the corridor's ability to accommodate more walking, bicycling, and transit trips.

Pecos Street connects residential neighborhoods to parks, schools, and Water World. Today, it lacks dedicated bike infrastructure and features narrow, attached sidewalks that impact pedestrian comfort and safety. Despite serving a socioeconomically diverse community with a high number of transit-dependent households, existing conditions make bicycling and walking difficult and uninviting.

Recommended Concept Design

The recommended concept design varies along the corridor to reflect various travel demands. It introduces raised bike lanes and wider sidewalks for the entire length while adapting the roadway's cross-section to balance multimodal needs with motor vehicle capacity. South of Milky Way, the design retains four vehicle lanes to accommodate high seasonal volumes near Water World. Between Milky Way and 90th Avenue, one northbound travel lane is reallocated to provide more space for landscaped buffers and active transportation facilities. North of 90th Avenue, the corridor is further reconfigured to one travel lane in each direction.

Across all segments, the recommended concept design includes a striped median, in-lane bus stops, and new trees and buffers to improve comfort, shade, and overall corridor aesthetics. **The full conceptual design can be viewed on page 64 of the study.**

Considering Seasonal Traffic

Water World generates significant traffic volumes during the summer. Retaining four travel lanes south of Milky Way and three travel lanes between Milky Way and 90th Avenue optimizes traffic operations for ingress and egress.

Elsewhere, the recommended concept design reallocates space for permanent bike and pedestrian infrastructure where year-round traffic volumes are lower. This context-sensitive approach allows the City of Thornton and its partners to support both seasonal vehicle demand and everyday multimodal travel without compromising safety or access.

Implementation

The Study's recommendations sought to be both visionary and practical. Each of the three recommended concept designs allow for phased implementation, allowing the City to make immediate safety improvements while planning for long-term infrastructure upgrades. The Study outlines short-, mid-, and long-term actions, with clear opportunities to test and refine design elements before full buildout.

Short-Term

The City of Thornton can implement quick-build treatments like signage, striping, flex posts, and crossing enhancements. These interventions can improve visibility and safety while building community familiarity with these design treatments.

Mid-Term

The City can restripe roadways and add buffer space or barriers where feasible—especially on corridors slated for resurfacing. Quick-build curb extensions, refuge islands, or raised crossings can be piloted to test effectiveness.

Long-Term

Long-term improvements include full reconstruction of curbs, installation of raised and separated bike and pedestrian facilities, signal upgrades, and trees and landscaping. These phases will likely require external funding, which the Study helps position the City to pursue by providing concept designs and opinions of probable construction costs.

Funding and Maintenance

The Study identifies potential funding sources, including regional, state, and federal grant programs, to cover long-term implementation costs. Additionally, the Study outlines operations and maintenance considerations, including snow removal, sweeping, and landscaping—ensuring these investments remain safe and functional long after construction.