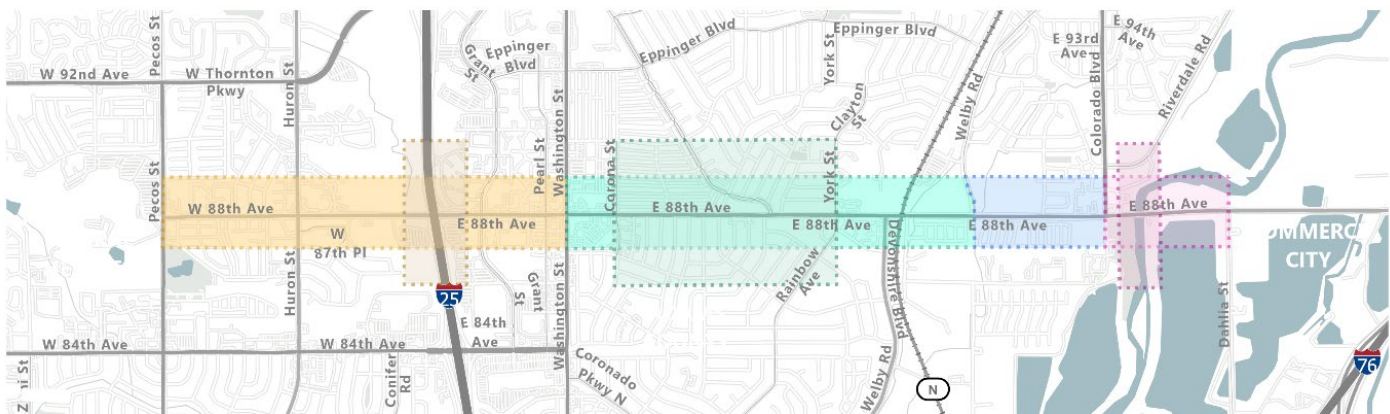


# Introduction

The City of Thornton conducted this corridor study to identify safety and multimodal capital improvements on 88th Avenue between Pecos Street and Dahlia Street. 88th Avenue connects recreational, educational, institutional, health, transit, employment, and residential areas. The study evaluated infrastructure to improve transportation-related safety and reliability for all users, including bicyclists and pedestrians, as identified in Thornton's Transportation and Mobility Master Plan (TMMP). The corridor study also determines if the existing road configuration (vehicle lanes, sidewalks, bicycle lanes) can be modified to improve multimodal travel or if the proposed improvements will require additional right-of-way.

The recommendations in this study resulted from a planning process that identified desired improvements based on identified issues. Each step in the process included engagement with community members along the corridor and agency leadership from adjacent jurisdictions, Colorado Department of Transportation (CDOT), and Regional Transportation District (RTD). The 4-mile corridor was approached in four general segments for the evaluation with breakpoints at Pecos Street, Washington Street, Welby Road, Colorado Boulevard, and Dahlia Street as shown in **Figure 1**.

Figure 1. 88<sup>th</sup> Corridor Study Area and Overall Segmentation



## Existing Mobility

The infrastructure along 88th Avenue consists of a four lane roadway with a center turn lane, multiple transit services and hubs, and bike lane and sidewalk conditions that vary throughout the corridor. The west end of the corridor has more connected multimodal networks, with bike lanes along the road and a combination of attached sidewalks and detached sidewalks. East of the RTD rail line, some sidewalks and bike lanes are missing. The sidewalks largely degrade east of Devonshire Boulevard with most areas between Devonshire Boulevard and Colorado Boulevard only having sidewalks on one side of the road. Sidewalks are minimally present east of Colorado Boulevard. On street bike lanes are present on the majority of the corridor with a few gaps between Pearl Street and Washington Street and the area east of Colorado Boulevard to Dahlia Street. The bike lane is not well utilized largely due to the narrow usable width between four and six feet and proximity directly adjacent to higher speed traffic without a buffer or vertical barrier. The bike lane connects to trails along the corridor including the Niver Creek Trail and the S. Platte River Trail. Based on 5 years of crash data from 2018 through 2022, nearly 600 crashes were reported on the corridor.

# Community Involvement

The 88th Avenue Corridor Study was informed by multiple rounds of community engagement using a variety of formats. Input gathered from the community significantly enhanced and impacted the understanding of the current conditions and selection of final alternatives and recommendations. Public input was solicited during two main phases of the project, and institutional and organizational stakeholders were also engaged throughout the project through stakeholder committee meetings.

Stakeholder meetings were held four times with a group of key City of Thornton and organizational stakeholders including DRCOG, RTD, City of Federal Heights, Adams County, and Commerce City.



## Alternatives and Recommendations

Five transportation improvement alternatives were identified to meet the goals of the project, and this included technical analysis and community feedback obtained throughout the process. The alternatives represent a variety of potential roadway and sidewalk configurations that can be implemented throughout the 88<sup>th</sup> Avenue corridor and were evaluated by a set of quantitative and qualitative criteria that were developed in conjunction with the stakeholder group and public feedback. There is not a single cross section that is recommended for the full corridor based on the differences found throughout, but the recommendations included a scoring of criteria to best meet the project goals with lower cost short term improvements and longer term ultimate improvements.

Recommendations consist of phased improvements to help identify and advance funding opportunities to design and construct an improved roadway that meets transportation needs. Recommendations are classified as short-term (<5 years), medium-term (5–10 years), or long-term (10+ years).

### Short-Term Recommendations (< 5 years)

The vehicular capacity analysis determined that a road diet on the area between Pecos Street and Pearl Street will operate acceptably with reduced vehicle through lanes which allows additional space within the public right-of-way to be reallocated to multimodal improvements. This can be achieved in the short term with a combination of lower cost improvements including signing, striping, and quick build materials for a protected bicycle lane listed in **Table 1**.

**Table 1. Short Term Recommendations (<5 years)**

Category and Location	Recommendation	Cost
<b>Road Diet:</b> Pecos Street to Washington Street	Maintain below the curb road width, reduce through vehicle lanes from 4 to 2 and add protected bike lanes using pavement markings and quick build materials (no roadway reconstruction). Road lane reduction tapers between Grant Street and Pearl Street and does not include lane reductions between Grant Street and Washington Street due to capacity constraints at that intersection.	\$1.1M
<b>Traffic Flow Optimization:</b> Pecos Street to Washington Street	Signal Retiming in conjunction with road diet	low
<b>Evaluate Signalized Left Turn Operations:</b> Pecos Street, Huron Street, Grant Street, Pearl Street, and Corona Street	Evaluate adjusting left turn operations as identified in Vision Zero Plan when implementing road diet	low
<b>Leading Pedestrian Interval:</b> Colorado Boulevard	Consider implementing Leading Pedestrian Interval (LPI) to improve pedestrian and bicycle safety at the intersection.	low
<b>Prohibit Right Turn on Red:</b> Grant Street, Washington Street, Rainbow Ave/York St, and Welby, and Colorado Boulevard	Prohibit Right Turn on Red (will have some impact on intersection delay)	low
<b>Pedestrian Accessibility Improvements:</b> Washington Street	At grade crossing improvements at the intersection in conjunction with Thornton Shopping Center redevelopment	varies
<b>Evaluate protected right turn signal:</b> Colorado Boulevard	Evaluate a protected WB right turn with no right on red onto Colorado Boulevard to allow for a pedestrian/bicycle phase for users crossing on the north side of 88 <sup>th</sup> Avenue. Add a double right turn to increase capacity. Analysis shows it degrades LOS but may still be considered with increased pedestrian and bicycle activity.	low
<b>Bus Stop Consolidation:</b> Santa Fe Drive and Fox Drive	In conjunction with road diet, remove underutilized and closely spaced bus stops at Santa Fe Drive (EB only stop) and Fox Drive (EB and WB)	low
<b>Trail Connection:</b> Niver Creek Trail	Coordinate with CDOT I-25 project to connect 88 <sup>th</sup> Avenue to Niver Creek Trail on north and south sides of 88 <sup>th</sup> Avenue at Conifer Road	low
<b>Wayfinding Signage:</b> Trail Junctions and at regular intervals on 88 <sup>th</sup> Avenue	Destination based wayfinding to Niver Creek Trail, S. Platte River Trail.	Low



Short term improvements include a road diet applied between Pecos Street and Washington Street

## Medium-Term Recommendations (5-10 years)

Medium-term recommendations are intended to take place in the next 5 to 10 years. Some of the improvements such as sidewalk widening in some locations could be implemented as a medium term improvement if the ultimate long term roadway reconstruction is determined to be too far off in the future. In these cases, if a sidewalk was constructed it may need to be rebuilt with the ultimate long term roadway reconstruction if it happens.

**Table 2. Medium-Term Recommendations (5-10 years)**

Category	Location	Recommendation	Cost
<b>Bridge</b>	88 <sup>th</sup> Avenue / I-25 Bridge	Reconstruct Bridge as part of CDOT I-25 project (constructed by CDOT)	Determined as part of CDOT I-25 Project
<b>Sidewalk Widening and Repairs</b>	Varies throughout corridor	If long-term roadway reconstruction is not advanced, replace existing sidewalks with wider 8' sidewalks	Varies
<b>Trail Connection</b>	S. Platte River Trail	Widen / improve ramp access to S. Platte River Trail to provide convenient access from the north side of 88 <sup>th</sup> Avenue.	low

## Long-Term Recommendations (10+ years)

The ultimate long-term improvements identified during the corridor study include higher cost roadway reconstruction projects that will have the largest benefits. A summary of improvements by location on the corridor is shown in Table 3.

**Table 3. Long-Term Recommendations (10+ years)**

Category and Location	Recommendation	Cost
<b>Roadway Reconstruction:</b> Pecos Street to Washington Street (excluding bridge over I-25)	8' sidewalks, 6.5' raised protected bike lanes, 2 through travel lanes, and center turn lane	 <b>\$8.6M</b>
<b>Pecos Street to Washington Street (excluding I-25 bridge)</b>		

Category and Location	Recommendation	Image	Cost
<p><b>Roadway Reconstruction:</b> Washington Street to Welby Road</p>	<p>Between Washington Street and Corona Street, widen road to accommodate improved widened sidewalks and raised protected bicycle lanes (will require usage of space outside of public right-of-way). Between Corona Street and Welby Road, accommodate narrow public right-of-way by shifting curbs inward, expanding sidewalk into a 10'-12' multiuse path, and maintain vehicular configuration with 4 through lanes and a center turn lane</p>	<p><b>Washington Street to Corona Street</b></p> <p><b>Corona Street to Welby Road</b></p>	<p><b>\$8.9M</b></p>
<p><b>Roadway Reconstruction:</b> Welby Road to Thornton Estates</p>	<p>Shift roadway north into open space to accommodate multimodal additions. Section includes 8' sidewalk, raised protected bike lanes, 4 through vehicle lanes, and a center turn lane</p>	<p><b>Welby Road to Thornton Estates</b></p>	<p><b>\$3.2M</b></p>
<p><b>Multimodal Path(s):</b> Thornton Estates to Dahlia Street</p>	<p>Between Thornton Estates and Colorado Boulevard, add a multiuse path on both sides of road to accommodate bicycles and pedestrians in both directions on both sides. South side will cross Colorado Blvd and connect to S. Platte River Trail access. East of Colorado Boulevard, add a north only multiuse path utilizing the existing S. Platte River bridge. Path could continue east of Dahlia Street into Commerce City. South sidewalk not needed due to low pedestrian demand and preference for all users to be on north side (optimizes roadway capacity for Dahlia Street to Colorado Boulevard movements)</p>	<p><b>Thornton Estates to S. Platte River Bridge</b></p> <p><b>S. Platte River Bridge to Dahlia Street</b></p>	<p><b>\$4.7M</b></p>

The City of Thornton is committed to enhancing the 88<sup>th</sup> Avenue corridor by improving accessibility, safety, and overall quality of life for residents and commuters. While some recommendations are lower cost, others will require significant additional resources to implement. The City will explore necessary funding and partnerships to pursue implementation of recommendations to benefit the community surrounding 88<sup>th</sup> Avenue.