

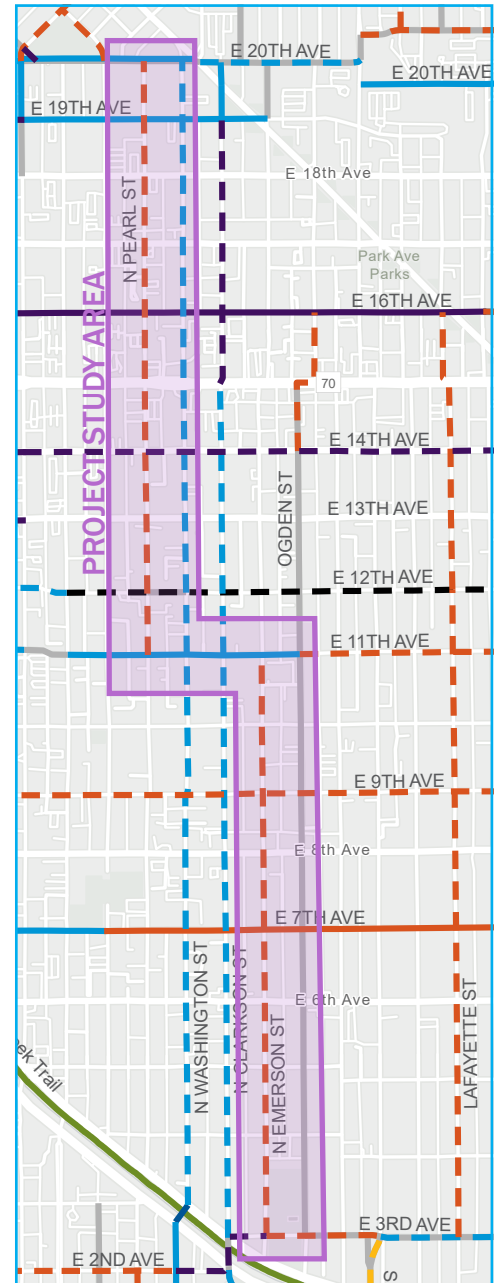
N PEARL ST, E 11TH AVE, AND N EMERSON ST FROM 20TH AVE TO 3RD AVE

PROJECT OVERVIEW

Denver Moves: Bicycles and Blue Print Denver recommended bicycle facilities on N Washington St/N Clarkson St from E 20th Ave to E 3rd Ave. However, early technical analysis and feedback from the public indicated a preference for a north/south bikeway alignment along N Pearl St/E 11th Ave/E Emerson St. After an extensive two-year analysis of conditions along the corridor, DOTI designed a neighborhood bikeway on N Pearl St from E 20th Ave to E 11th Ave and a neighborhood bikeway on N Emerson St from E 11th Ave to E 3rd Ave. These neighborhood bikeways are connected by an existing bike lane on 11th Street between N Pearl St and N Emerson St.

Design changes on N Pearl St, E 11th Ave, and N Emerson St include curb extensions, rectangular rapid flashing beacons (RRFBs), advanced bike stop bars, median refuge islands, and neighborhood traffic circles, all of which intend to address speeding and intersection visibility concerns identified by the community.

FIGURE 32: N PEARL ST, E 11TH AVE, AND N EMERSON ST CONTEXT MAP



PROJECT BENEFITS

CONNECTS DESTINATIONS

Alamo Placita Park, Whole Foods, Denver Community Church

LINKS BIKEWAYS/TRAILS

Cherry Creek Trail

FILLS GAP IN NETWORK

Provides a north/south connection in the Capital Hill Neighborhood

CONNECTS EXISTING/PROPOSED BIKEWAYS

E 20th Ave, E 19th Ave, E 16th Ave, E 11th Ave, E 7th Ave, and E 3rd Ave

LOWER STRESS CROSSINGS

Existing signals on N Pearl St (E Colfax Ave, E 14th Ave, and E 13th Ave) and E 11th Ave (N Washington St and N Clarkson St)

QUALITY CONNECTION

Travels through neighborhood; Less traffic than N Washington St or Logan St

Recommended Facility	Existing Facility
Buffered Bike Lane	Bike Lane
Bike Lane	Protected Bike Lane
Neighborhood Bikeway	Buffered Bike Lane
Needs Further Study	Trail
Protected Bike Lane	Shared Use Sidewalk
Shared Use Path	Neighborhood Bikeway
Trail	Shared Roadway

N PEARL ST, E 11TH AVE, AND N EMERSON ST FROM 20TH AVE TO 3RD AVE

ANALYSIS SUMMARY

Denver Moves: Bicycles and BluePrint Denver recommended bicycle facilities on N Washington St/N Clarkson St. However, early technical analysis indicated that extensive parking removal would be needed to install this couplet. Public feedback collected through network verification surveys echoed the preference for N Pearl St and N Emerson St due to the extensive on-street parking removal required on the original alignment. After extensive analysis along the corridor, alignment was updated to N Pearl St from 20th Ave to 11th Ave and N Emerson St from 11th Ave to 3rd Ave. The project takes advantage of an existing bike lane on 11th Ave to connect the two N-S segments of bikeways, and it connects directly to the E 3rd Ave bikeway.

Analysis along the corridor revealed low vehicular volumes but speeds slightly higher than recommended for installation of a neighborhood bikeway. There was a history of vehicle crashes along the corridor with the majority occurring at 17th Ave, Colfax Ave, and 13th Ave. There was also a history of bicycle crashes at 16th Ave and pedestrian crashes at Colfax Ave. These conditions were addressed in design to make the corridor safer for all modes of travel.

OUTREACH SUMMARY

DOTI collected feedback for N Pearl St, E 11th Ave, and N Emerson through a series of online surveys, interactive input maps, and public comments. A total of 281 people completed the concept survey for this corridor. The online map tool was open from March to May 2020 and the concept design survey was open from February to April 2021. This feedback helped inform recommendations for improving the way all roadway users travel on and around this corridor.

KEY CONCEPT FEEDBACK

Overall, respondents indicated their top three safety concerns when using N Pearl St/E 11th Ave/N Emerson St were:

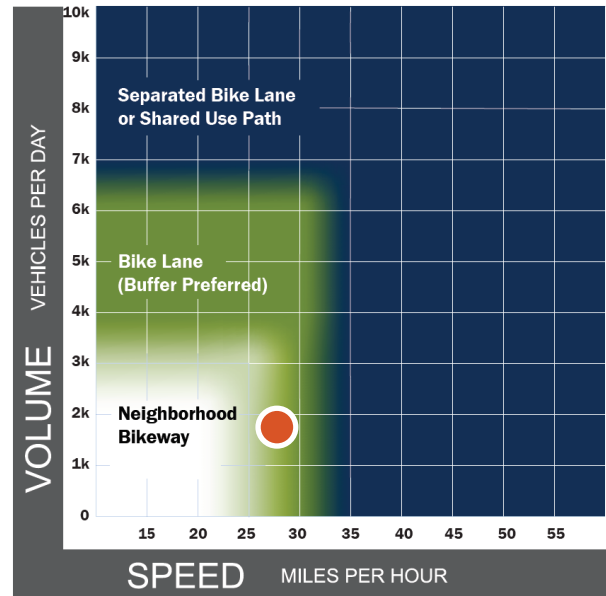
- 1 Feeling safe/comfortable while riding a bicycle along the street
- 2 Crossing busy intersections along the streets
- 3 Vehicle speeding

KEY DRAFT DESIGN FEEDBACK

Proposed designs for Community Transportation Network projects were shared for community input during May 2022, including designs for the N Emerson & N Pearl St bikeway. Community members were asked to react to proposed designs and provide feedback. The N Emerson & N Pearl St design received 65 comments from 12 respondents. Major themes from public feedback on the proposed designs included:

- 1 Concerns about the zig-zag nature of the bikeway at 11th Ave
- 2 Support for enabling safe connections to future nearby facilities
- 3 Concern that motorists will not yield to bicyclists at pinch points

FIGURE 33: N PEARL ST, E 11TH AVE, AND N EMERSON ST BIKEWAY FACILITY SELECTION CHART



ANALYSIS COMPLETED:

- ✓ Crash Analysis
- ✗ Parking Analysis
- ✓ Traffic Counts
- ✓ Cross-Section Options
- ✓ Lane Reduction Analysis
- ✗ Parking Removal Analysis
- ✓ Intersection Analysis
- ✓ Speed Reduction Analysis
- ✗ Diversion Analysis

DELIVERABLES COMPLETED:

- ✓ Existing Conditions Analysis
- ✓ Alternatives Analysis
- ✓ Concept Design
- ✓ Final Design

OUTREACH COMPLETED:

- ✓ Network Verification Survey
- ✓ Concept Survey
- ✓ Draft Design Survey
- ✓ Office Hours
- ✓ 6 Network-Wide Public Meetings (2020 to 2022)
- ✓ 7 Network-Wide Stakeholder Meetings (2020 to 2022)
- ✓ One-on-One Stakeholder Engagement
- ✓ Project-Specific Community Meetings

N PEARL ST, E 11TH AVE, AND N EMERSON ST FROM 20TH AVE TO 3RD AVE

TABLE 12: N PEARL ST, E 11TH AVE, AND N EMERSON PUBLIC FEEDBACK SUMMARY

What We Heard	Incorporated into Project
Speeding Concerns at 17th Ave & Pearl St	The design includes curb extensions and an RRFB to facilitate a safe and comfortable experience for people biking and walking.
Speeding Concerns and Challenges Crossing at Pearl St & 14th Ave and Pearl St & 13th Ave	Bike boxes are included in the design to promote visibility of bicyclists and improve yielding by motorists. Curb extensions are included in the design to shorten crossing distances, slow turning vehicles, and improve visibility for all road users
Speeding Concerns at 11th Ave & Washington St	The design includes curb extensions to shorten crossing distances, slow turning vehicles, and improve visibility for all road users
Speeding Concerns and Challenges Crossing at 11th Ave & Clarkson St	The design includes curb extensions to shorten crossing distances, slow turning vehicles, and improve visibility for all road users
Speeding Concerns and Challenges Crossing at Emerson St & 8th Ave	The design includes curb extensions and an RRFB to facilitate a safe and comfortable experience for people biking and walking.

SUMMARY OF FINAL RECOMMENDATIONS

The final design includes a mixture of elements to slow driver speeds, decrease vehicle volumes, improve visibility for all road users, and facilitate safer crossings for people walking and on bicycles. Specific elements include:

- Bike boxes and green conflict markings at major intersections to increase bicyclist visibility.
- RRFBs at 17th Ave & Pearl St, 18th Ave & Pearl St, 11th Ave & Pearl St, 11th Ave & Emerson St, 8th Ave & Emerson St, and 6th Ave & Emerson St to enhance crossing safety.
- Traffic calming elements such as curb extensions, neighborhood traffic circles, and pedestrian refuge islands to decrease vehicle speeds.

FIGURE 34: N PEARL ST, E 11TH AVE, AND N EMERSON TRAFFIC CALMING MAP

Traffic calming map to be added at a later date.