HIGH LINE CANAL TRAIL UNDERPASS AND YALE AVENUE IMPROVEMENTS

PROJECT BACKGROUND

Yale Avenue is a critical east-west arterial in southeast Denver, crossing through and serving City and County of Denver and Arapahoe County residents. The High Line Canal Trail is a major regional trail facility used for both recreation and commuting that crosses Yale Avenue just west of the E Yale Avenue/S Holly Street intersection without a safe connection. The current High Line Canal alignment requires trail users to cross an undersized bridge sidewalk and at-grade crossing of E Yale Avenue. Yale Avenue near the E Yale Avenue/S Holly Street intersection experiences significant congestion and the traffic signal infrastructure is dated. Improvements are needed to provide safe and convenient travel for all types of travelers.

Since 2014, the City and County of Denver and Arapahoe County have worked to collaboratively study the area to determine the needs for roadway and multimodal improvements. Studies completed in 2014, followed by a preliminary design effort and subsequent study in 2021, determined necessary improvements. In mid-2022, the counties began efforts to complete design and construction of trail, roadway, and sidewalk improvements, including a new underpass for the High Line Canal Trail under Yale Avenue. The reconstructed E Yale Ave/S Holly St intersection will reduce roadway congestion and improve pedestrian crossing safety. Multimodal improvements and enhanced connections will be implemented throughout the project area.

PROJECT INFORMATION

Location: E Yale Ave and S Holly St/S Holly Pl
District: 4
Elevate Denver Funding Amount: $3.7 million
Other Denver and Arapahoe County Funds: $11.7 million
Designer: David Evans and Associates, Inc.
Contractor: TBD

PROJECT BENEFITS

Improved safety and accessibility
Better multimodal infrastructure
ADA improvements
Reduce roadway congestion

Learn more about this project at bit.ly/HLCTandYale or contact Leah Langerman at 720-225-4651 or leah.langerman@deainc.com with questions/comments.

Learn more about the program and projects in your neighborhood at denvergov.org/ElevateDenver.
PROJECT INTRODUCTION

The City and County of Denver and Arapahoe County are partnering to design transportation improvements including a new underpass for the High Line Canal Trail under Yale Avenue, reconstructing the Yale Avenue/Holly Street intersection, and widening the sidewalks along Yale Avenue between Holly Street and Locust Street.

Project Purpose

- **Improve Safety**
- **Add Connections for Pedestrians, Bicyclists, and Vehicles**
- **Reduce Congestion**

Timeline

<table>
<thead>
<tr>
<th>2014</th>
<th>2014</th>
<th>2021</th>
<th>mid-2022</th>
<th>mid-2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denver and Arapahoe County studied necessary roadway and multimodal improvements</td>
<td>Concept design of Yale Corridor Traffic Study - assessed existing conditions and developed various improvement alternatives for the corridor</td>
<td>Study of East Yale Avenue Corridor Study complete - established corridor goals and vision for safety, connections, and multimodal travel</td>
<td>Design and environmental clearance of trail, roadway, and sidewalk improvements begins</td>
<td>Construction begins</td>
</tr>
</tbody>
</table>

Project Schedule

<table>
<thead>
<tr>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td>Fall</td>
<td>Winter</td>
<td>Spring</td>
</tr>
<tr>
<td>Preliminary design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utility design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final design *</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-way acquisitions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extensive utility relocation *</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction begins *</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Final design and construction schedule dependent upon coordination with multiple utilities and their timeframes for relocation of water, internet, cable, gas, and electric utilities.

For more information and to leave a comment through the project web page: [bit.ly/HLCTandYale](http://bit.ly/HLCTandYale)
UNDERPASS IMPROVEMENTS

A new grade-separated crossing of Yale Avenue will be constructed to provide safer access for High Line Canal (HLC) Trail travelers. Improvements will include:

- A grade separated crossing so HLC trail users can continue along the trail without stopping.
- At-grade connection to Yale Avenue.
- Retaining walls and a concrete box culvert to cross under Yale Avenue.

1. HLC Trail under Yale Avenue
2. Northbound HLC Trail underpass approach with adjacent at-grade sidewalk
3. HLC Trail north and south of new underpass approach
Improvements along Yale Avenue will focus on reducing roadway congestion and increasing safety for bicyclists and pedestrians. Highlights of the changes include:

- Extending the second westbound through/turn lane on Yale Avenue.
- Adding a through/merge lane for eastbound Yale Avenue traffic just east of Holly Place.
- Widening the sidewalk on both sides of Yale Avenue between Holly Street/Holly Place and S Kearney Street (north side) and S Locust Street (south side).
- Improving curb ramps at side streets and driveways to meet ADA requirements.
- Adding walls in select locations to keep widened sidewalk within the existing right of way.
- Increasing the size of the island on the northwest corner of Holly Street and Yale Avenue and adding a pedestrian island on the southeast corner of Holly Place and Yale Avenue.
- Upgrading the traffic signal at Holly Street/Holly Place.
- Removing the existing pedestrian signal between Jasmine Street and Kearney Street.

1. Yale Avenue Between Holly Street and Jersey Street

2. Yale Avenue Between Jasmine Street and Kearney Street
Removal of the traffic signal at the mid-block crossing on Yale Avenue between Jasmine Street and Kearney Street is proposed.

The crossing was originally installed for the Calvary Apostolic Academy located within the Calvary church building. Over the years, the school programming and operations have changed and the mid-block crossing is now rarely used. Engineers and planners working on the Yale Avenue improvements project studied this crossing, obtained vehicular and pedestrian traffic counts, and confirmed that the mid-block crossing is not warranted based on national or local criteria.

### Why Remove It?
- Very few pedestrians and bicyclists use the mid-block crossing (counts conducted for this project found no use)
- Drivers become accustomed to ignoring the crossing signage and markings, and are used to passing through the signal without stopping, which creates a safety concern
- The existing pole for the mid-block crossing traffic signal conflicts with the proposed wider sidewalk

### How Will Pedestrians Safely Cross Yale Avenue?
- The project will improve crossing safety and visibility at the Yale Avenue/S. Holly Street/S. Holly Place intersection, only 600 feet to the west of the existing mid-block crossing
- Pedestrians and bicyclists will travel along widened Yale Avenue sidewalks to cross at the highly visible, protected signalized intersection of S. Holly Street/S. Holly Place
Enhanced Safety

- Adding a new grade separation for the High Line Canal Trail under Yale Avenue to provide a safe crossing.
- Updating traffic signs to latest safety standards.
- Southbound Holly Street right turn traffic will be controlled by a traffic signal to allow safer intersection crossings for bicyclists and pedestrians.
- Increasing size of island on the northwest corner of Holly St/Yale Ave to provide additional refuge area when waiting to cross Yale Ave or Holly St.
- Adding an island on the southeast corner of Holly Pl/Yale Ave to shorten crossing distances for pedestrians and bicycles and provide a refuge area when waiting to cross Yale Ave or Holly Pl.
- Change traffic signal timing to improve operations and eliminate vehicle conflicts.
- Traffic signal equipment updates:
  - Increasing size of signal head lenses from 8 inches to 12 inches.
  - Installing more visible traffic signal heads.

Improved Connections for Pedestrians and Bicyclists

- Wider sidewalks (from 3 - 4 ft to 8 ft wide) will provide additional comfort and safety.
- All curb ramps at intersections within the project limits will be upgraded to meet Americans with Disabilities Act standards to the extent possible.

Reduced Congestion

- Extension of the westbound Yale Ave through/turn lane will add capacity to improve traffic flow.
- Extension of the eastbound Yale Ave through lane across Holly Pl to add capacity and improve traffic flow.
- Traffic signal phasing and timing changes will reduce the amount of time drivers along Yale Ave and S Holly St wait at the Yale/Holly intersection during peak hours and vehicle queues will become shorter.

Water Quality

- Potential for stormwater treatment upgrades, if required.

Aesthetic Improvements

- Overhead utility lines along Yale Ave west of Holly St within the City and County of Denver will be undergrounded. Overhead utility lines along Yale Ave east of Holly St within Arapahoe County may be undergrounded, depending on project budget.
NEXT STEPS

Additional design and coordination is needed before decisions on some project elements can be made. Progress on those items is noted below, along with outstanding decisions and next steps.

Utility Undergrounding at the Yale/Holly Intersection

- A cost estimate can be developed following preliminary design completion. Utility company coordination and County budget will determine feasibility and confirm length of section of overhead utilities to be undergrounded.

Lighting

- To support improved safety, lighting will be provided around the Yale Ave/S Holly St/S Holly Pl intersection and in the new High Line Canal Trail underpass.

Water Quality Treatment

- Coordination and investigation of options is ongoing. If water quality treatment is needed, type and location of water quality facilities will be defined by Fall 2023.

Right-of-Way Needs

- Preliminary permanent easement and acquisition areas have been identified. However, the exact area needed, including the areas for temporary construction easements, will be confirmed as design is finalized. The right-of-way acquisition process will follow and is expected to be completed by Spring 2025.

Clearances and Permits

- Following design, obtain necessary environmental clearance and required permits for construction.
Determining right-of-way needs for the High Line Canal Trail Underpass and Yale Avenue Improvements is in process. Preliminary permanent easement, acquisition, and temporary easement needs for the project have been identified. However, the exact areas of right-of-way needs will be determined and confirmed over the next few months, as design is finalized. This information will be shared with affected property owners as soon as it is available (expected by end of 2023). City and County of Denver and Arapahoe County will follow the process outlined below (in accordance with the Uniform Act) to address right-of-way needs for the identified improvements.

### Right-of-Way Plan Assembly

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Information gathering</td>
</tr>
<tr>
<td>2</td>
<td>Appraisal</td>
</tr>
<tr>
<td>3</td>
<td>Acquisition</td>
</tr>
<tr>
<td>4</td>
<td>Relocation (not anticipated)</td>
</tr>
</tbody>
</table>

#### Information gathering
- Land survey
- Topography information
- Buildings and signs
- Utilities information

#### Property information of involved parcels
- Right-of-way lines
- Width to be acquired
- Parcel information
- Points of access

#### Potential Types of Right of Way Needs

- **Temporary Easement**: Needed to facilitate construction access and activities
- **Permanent Easement**: Needed for maintenance of permanent project features
- **Utility Easement**: Needed for utility relocations
- **Permanent Acquisition**: Property needed for project improvements

### Ongoing Coordination & Communication with Impacted Property Owners

- Financial and other services related to relocation are provided
Preliminary (30%) Design

- Existing Property Line
- New Lane Striping & Pavement Markings
- New Center Stripe
- New Wall
- Permanent Right-of-Way Acquisition Area
- Permanent Easement Area

LEGEND

- Existing Property Line
- New Lane Striping & Pavement Markings
- New Center Stripe
- New Wall
- Permanent Right-of-Way Acquisition Area
- Permanent Easement Area

SCALE: IN FEET

0' 25' 50' 100' 150'

At-grade sidewalk

Extending the second westbound through/turn lane on Yale Avenue

Widened sidewalks

Upgraded traffic signal

ALTA VISTA CENTER FOR AUTISM

LEXINGTON VILLAGE CONDOS

LEXING VILLAGE CONDOS

CALVARY CHURCH

LEXINGTON VILLAGE

EXISTING BRIDGE OVER HLC

Existing bridge over HLC

Underpass approach

Larger pedestrian islands on NW and SE corners

Adding a through/merge lane

Existing lane widths and striping to remain

Remove existing pedestrian signal

Widened sidewalks

Yale Avenue Between Holly Street and Jersey Street

Yale Avenue between Jasmine Street and Kearney Street

DRAFT PRELIMINARY DESIGN

- Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
- Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade

DRAFT PRELIMINARY DESIGN

• Preliminary design layout on aerial mapping is intended to serve as graphic representation only.
• Potential property impacts are based on preliminary level of design. Actual right-of-way impacts to be determined with further detailed design. Temporary construction easements will be needed in some locations but extents have not yet been determined.

EXISTING GROUND

At-grade