2019-2050 Planned Regional Bicycle Network

- Total
- Protection Level 3/4 (more comfortable)
- Protection Level 1/2 (less comfortable)

Miles

- Phase 1
- Phase 2
- Phase 3
- All Phases
Disclaimer language developed with UDOT:

The identified solution for certain active transportation facilities cannot be implemented with paint or resurfacing until a complete redesign or reconstruction of the facility occurs, and/or additional right-of-way can be acquired. During project development, solutions for the facility based on current context will be identified.
2019 Active Transportation Legislative Bills/Appropriations

SB 139 Motor Assisted Transportation Amendments

SB 72 Transportation Governance

SB 34 Affordable Housing Amendments

Appropriation: Technical Planning Assistance

Appropriation: Youth BEST and Governor’s 1,000 Miles Campaign

HB 208 Safe Routes to School

HB 161 Utah Yield, aka “Idaho Stop”

HB 13 Distracted Driver Amendments
Draft Active Transportation Goals - 2019

1. **Regional Plan**: update shared Regional Bicycle Routes Plan/Map

2. **Local Plans**: cities and counties adopt Local Active Transportation Plans *(that align with Regional Priority Plan/Map)*

3. **Build**: fund and construct priority projects through
   - shared awareness of and advocacy for funding opportunities, and
   - partnering across agencies

4. **Educate**: increase support for AT through
   - effective engagement and outreach with a special focus on health related benefits of AT both for individuals and society

5. **Coordinate**: collaborate on technical issues of
   - shared mobility device regulation, and
   - data collection, e.g. bicycle/pedestrian counts
Tooele County Active Transportation Implementation Plan

WFRC | February, 2019
Overview

• Background and Goals
• Public outreach
• Plan overview
• Recommended code changes
• Questions/discussion
Background

Tooele County
General Plan Update 2016

Adopted June 21, 2016

TOWNSHIP + RANGE community planning
Background
Background
Background

Principle 3. Create a safe and comprehensive trails network that connects regional and local destinations, serves non-motorised and motorised users, and improves transportation and recreation.

Options:

1. Create active transportation areas through the core of the valley.
   - The area is one of the largest and most immediate active transportation priority areas.
   - Existing trails provide a consistent, well-connected system.
   - Add new trails to improve access and connectivity.
   - Develop a comprehensive trail network.
   - Increase connectivity through new trails.
   - Enhanced connectivity through multiple trail opportunities.
   - Trails can improve accessibility to recreation areas.

2. Create a non-motorized trail network along the valley core.
   - Existing trails provide a consistent, well-connected system.
   - Add new trails to improve access and connectivity.
   - Develop a comprehensive trail network.
   - Increase connectivity through new trails.
   - Enhanced connectivity through multiple trail opportunities.
   - Trails can improve accessibility to recreation areas.

The planning process strongly reflects input for several trails programs, including existing trails, new trails, and regional trails. This process will ensure that the transportation plan is comprehensive and well-designed to support recreation and transportation needs.
Background
Background
Background
Background
Background
Background

Figure 1: Overview of Tooele Valley Pathway Recommended Alignment

Figure 2: Typical Unsignalized Major Street Crossing

Roadway crossings

Exchanges of roadways and the traffic flow often constitute critical design challenges for the Tooele Valley Pathway. These crossings must be designed and built to provide safety for both the trail user and the traffic on the roadway. Key elements of crossing safety include:

- Visibility
- Advance warning
- Safe places to wait to cross, and
- Safe means of movement and evasive maneuvers for transitions between the path and the road.

In addition, the pathway’s roadways crossings are potential entry points into the trail and are opportunities to highlight the pathway signage and other branding.

Unsignalized crossings of major streets

Most major roadways (collector, local, or arterial) crossings along the preferred alignment are not controlled by traffic signals. In fact, most are not controlled by any type of traffic control. At these road crossings, the crossing traffic will stop, yield, give way, and/or back up.

The following features should be considered when designing uncontrolled crossings:

1. Visibility
2. Advance warning
3. Safe places to wait to cross, and
4. Evasive maneuvers for transitions between the path and the road.

Figure 2 provides a visual example of a typical proposed unsignalized crossing for major streets.

Figure 1 presents an overview of the Tooele Valley Pathway, which includes a recommended alignment for the pathway and its surrounding area.

Figure 2 illustrates a typical unsignalized major street crossing, showing the potential entry points into the trail and highlighting the importance of visibility, advance warning, safe places to wait to cross, and evasive maneuvers for transitions between the path and the road.

TOWNSHIP + RANGE community planning
Background
Background

GOALS/POLICIES
Background

GOALS/POLICIES

PLANNED NETWORKS
Background

GOALS/POLICIES

PLANNED NETWORKS

DESIGN GUIDELINES/
STANDARDS

TOWNSHIP + RANGE community planning
Background

GOALS/POLICIES

PLANNED NETWORKS

DESIGN GUIDELINES/
STANDARDS

Active Transportation Implementation Plan

TOWNSHIP + RANGE community planning
Plan Outline

• Plan Foundations
  • Active Transportation Goals
  • Community outreach
  • Existing performance assessment

• Vision and Guidance
  • Vision network
  • Facility guidelines

• Action Plan
  • Plan phases
  • Implementation roles
Active Transportation Goals

• Integrate active transportation into new and improved major transportation facilities.
• Build active transportation trunk routes through the valley.
• Connect Tooele Valley active travelers to key destinations.
• Ensure that new developments have connected active transportation infrastructure.
• Enable pedestrians and cyclists to thrive while remaining safe.
• Increase community visibility, awareness, and support of active transportation.
Community Outreach

- Two community Open Houses in September and February, at Stansbury Clubhouse
- Approximately 40 attendees at each
- Positive feedback
Vision and Guidance
Vision and Guidance

• What gets built where?
Vision and Guidance

• Network: Street Types

NOTE: Difference in illustration’s two sides of the street intended to show different design options.
# Vision and Guidance

## Tootoe County Active Transportation Implementation Plan: Active Transportation Facility Design Guidance

<table>
<thead>
<tr>
<th>STREET TYPE</th>
<th>Typical max speed</th>
<th>Shared facilities</th>
<th>Pedestrian-only facilities</th>
<th>Bicycle-only facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Shared Use Path - Major Buffer</td>
<td>Shared Use Path - Standard Buffer</td>
<td>Sidewalk and Raised Bike Lane</td>
</tr>
<tr>
<td>Highway / Freeway</td>
<td>60-80 mph</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Spine - Standard</td>
<td>35-60 mph</td>
<td>Above 35 mph</td>
<td>Above 35 mph</td>
<td></td>
</tr>
<tr>
<td>Community Spine - Center</td>
<td>35 mph</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobility Connector</td>
<td>35 mph</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighborhood Connector</td>
<td>30 mph</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Preservation Connector</td>
<td>30 mph</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Center Connector</td>
<td>30 mph</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial Connector</td>
<td>35 mph</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local - higher density</td>
<td>25 mph</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local - lower density</td>
<td>25 mph</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Vision and Guidance

On-street shared use path with standard buffer

This facility is designed to run alongside streets with lower amounts of slower-moving traffic. The buffer separating it from the roadway is often a swale that drains the roadway and the path, but it could also be a curb and gutter or other drainage facility. Drainage design should be evaluated case-by-case.
Vision and Guidance

Note: Check current MUTCD for any changes to signs and striping configurations.
Vision and Guidance

Where a right turn lane is needed and there is enough room for both a bike lane and a right turn lane, bike lane continues through merging area in dashes with R4-4 Signs.

On crossings of major streets, bike lane can be dashed through the intersection.

Signs and Bike Lane Symbol 65 min. from intersection

Where a right turn lane is not needed, bike lane continues to intersection.

Where a right turn lane is needed and there is NOT enough room for both a bike lane and a right turn lane, create shared right turn lane with right turn arrow and "sharrow" symbol.
Action Plan
Action Plan

• Phase 1: 1-3 years
Action Plan

• Phase 2: 4-10 years
Action Plan

• Phase 3: 11 – 20 years
Ordinance changes

• Plan adoption also included changes to the Tooele County code
  • Active transportation requirements for new developments
  • Street connectivity requirements for new developments
## Ordinance changes

### Context-based standards for connectivity metrics

<table>
<thead>
<tr>
<th>TYPOLOGY</th>
<th>Relative level of connection</th>
<th>Network density</th>
<th>Ability to connect to destinations</th>
<th>Quality for all users (walkability)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regional typology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Region</td>
<td>2</td>
<td>1</td>
<td>100 percent</td>
<td>100 percent</td>
</tr>
<tr>
<td><strong>Community typologies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban community</td>
<td>2</td>
<td>7</td>
<td>100 percent</td>
<td>100 percent</td>
</tr>
<tr>
<td>Suburban community</td>
<td>1.8</td>
<td>5</td>
<td>100 percent</td>
<td>100 percent</td>
</tr>
<tr>
<td>Rural community</td>
<td>1.6</td>
<td>3</td>
<td>100 percent</td>
<td>100 percent</td>
</tr>
<tr>
<td><strong>Neighborhood / district typologies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential neighborhood urban</td>
<td>1.7</td>
<td>225</td>
<td>100 percent</td>
<td>Maximum 500 feet</td>
</tr>
<tr>
<td>Residential neighborhood suburban</td>
<td>1.5</td>
<td>175</td>
<td>100 percent</td>
<td>Maximum 1000 feet</td>
</tr>
<tr>
<td>Residential neighborhood rural</td>
<td>1.5</td>
<td>50</td>
<td>100 percent</td>
<td>Maximum 1500 feet</td>
</tr>
<tr>
<td>Downtown district</td>
<td>1.7</td>
<td>225</td>
<td>100 percent</td>
<td>Maximum 350 feet</td>
</tr>
<tr>
<td>Campus district</td>
<td>1.5</td>
<td>50</td>
<td>100 percent</td>
<td>Maximum 500 feet</td>
</tr>
<tr>
<td>Industrial district</td>
<td>1.5</td>
<td>50</td>
<td>100 percent</td>
<td>Maximum 1500 feet</td>
</tr>
</tbody>
</table>

*Connectivity indexes for neighborhoods and districts should incorporate surrounding collector/arterial streets along the area boundary, if applicable.*
# Ordinance changes

## UTAH STREET CONNECTIVITY GUIDE

A resource for what street connectivity is, why it is important - and how to increase it in our communities.

**MARCH 2017**

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**CONTEXT-BASED STANDARDS for CONNECTIVITY METRICS**

<table>
<thead>
<tr>
<th>TYPOLOGY</th>
<th>Relative level of connection</th>
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<td><strong>Regional typology</strong></td>
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<td></td>
</tr>
<tr>
<td>Region</td>
<td>2</td>
<td>1</td>
<td>100 percent</td>
<td>100 percent</td>
</tr>
<tr>
<td><strong>Community typologies</strong></td>
<td></td>
<td></td>
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<td>5</td>
<td>100 percent</td>
<td>100 percent</td>
</tr>
<tr>
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<td>1.6</td>
<td>3</td>
<td>100 percent</td>
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</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>1.7</td>
<td>225</td>
<td>100 percent</td>
<td>Maximum 500 feet</td>
</tr>
<tr>
<td>Residential neighborhood suburban</td>
<td>1.5</td>
<td>175</td>
<td>100 percent</td>
<td>Maximum 1000 feet</td>
</tr>
<tr>
<td>Residential neighborhood rural</td>
<td>1.5</td>
<td>50</td>
<td>100 percent</td>
<td>Maximum 1500 feet</td>
</tr>
<tr>
<td>Downtown campus</td>
<td>1.7</td>
<td>225</td>
<td>100 percent</td>
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<td>Campus district</td>
<td>1.5</td>
<td>50</td>
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</table>

*Connectivity index for neighborhoods and districts should incorporate surrounding collector/arterial streets along the area boundary, if applicable.*
## Ordinance changes

<table>
<thead>
<tr>
<th>ZONE</th>
<th>Connectivity index (links per node)</th>
<th>Internal connectivity</th>
<th>External connectivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maximum block length (ft)*</td>
<td>Maximum spacings of connections to collector and arterial level streets (ft)**</td>
<td>Maximum stub street spacing (ft)***</td>
</tr>
<tr>
<td>R-M-30</td>
<td>1.5</td>
<td>400</td>
<td>0</td>
</tr>
<tr>
<td>R-M-15</td>
<td>1.5</td>
<td>400</td>
<td>0</td>
</tr>
<tr>
<td>R-M-7</td>
<td>1.5</td>
<td>400</td>
<td>0</td>
</tr>
<tr>
<td>R-1-8</td>
<td>1.5</td>
<td>400</td>
<td>200</td>
</tr>
<tr>
<td>R-1-10</td>
<td>1.5</td>
<td>400</td>
<td>275</td>
</tr>
<tr>
<td>R-1-12</td>
<td>1.5</td>
<td>400</td>
<td>275</td>
</tr>
<tr>
<td>R-1-21</td>
<td>1.5</td>
<td>750</td>
<td>400</td>
</tr>
<tr>
<td>RR-1</td>
<td>1.5</td>
<td>N/A</td>
<td>400</td>
</tr>
<tr>
<td>RR-5</td>
<td>1.5</td>
<td>N/A</td>
<td>400</td>
</tr>
<tr>
<td>RR-10</td>
<td>1.5</td>
<td>N/A</td>
<td>400</td>
</tr>
</tbody>
</table>

* there can be one exception to the maximum block length per 40 lots, where one block face can be up to double the length.

** Every cul-de-sac must have a pedestrian connection to the other side of the block.

*** Excludes connections to UDOT-managed streets.
Ordinance changes

For subdivisions zoned R-1-21 and denser, sidewalks or other allowed paths are required on every street.

Any cul-de-sacs in the subdivision need to include pedestrian pass-throughs.

EXAMPLE OF PEDESTRIAN CIRCULATION PLAN FOR HIGHER-DENSITY DEVELOPMENTS

- **Required pedestrian facility on major street**
- **Required sidewalk or other path on both sides of street**
- **Pre-existing sidewalk or other path**
- **Required pedestrian cul-de-sac pass-through**
Ordinance changes

- Any cul-de-sacs in the subdivision need to include pedestrian pass-throughs.
- For subdivisions zoned lower than R-1-21, sidewalks or other allowed paths are required on at least one side of every local street.
Ordinance changes

EXAMPLE OF CONNECTIVITY PLAN FOR HIGHER-DENSITY DEVELOPMENTS

Maximum lot size for R-1-10: 10,000 square feet
Exception to maximum block length (One exception per 40 lots)
Existing adjacent subdivision street stubs to connect to
Collector-level street (Connector Street Type)
FUTURE DEVELOPED AREA

Maximum cul-de-sac length: 275 feet
Maximum block length: 400 feet

REQUIRED LINK-NODE RATIO: 1.5
Links: 29
Nodes: 17
Link-Node Ratio: 1.7
Ordinance changes

EXAMPLE OF CONNECTIVITY PLAN FOR LOWER-DENSITY DEVELOPMENTS

Maximum lot size for R-1: 43,560 square feet (one acre)

Collector-level street (Connector Street Type)

Existing adjacent subdivision street

Stubs to connect to

Maximum block length: 750 feet

FUTURE DEVELOPED AREA

REQUIRED LINK-NODE RATIO: 1.5

Links: 18

Nodes: 10

Link-Node Ratio: 1.8
Tooele County Active Transportation Implementation Plan

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