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## North Logan Active Transportation Plan

Lloyd Sutton  
*Utah State University*

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# North Logan Active Transportation Plan

2022



# Acknowledgements

## **North Logan City:**

Spencer Burt, *Community Development Director*

Alan Luce, *City Administrator*

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## **Cache Highline Water Association**

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## **Cache MPO**

Bicycle Pedestrian Advisory Committee (BPAC)

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# Introduction



## *North Logan*

North Logan is a community of around 10,000 residents located in the middle of Utah's Cache Valley. The city has a unique zoning layout. Nearly all commercially zoned areas are located on the city's western boundary along the state-owned Main Street, also a busy five-lane highway. This separates most of the city's residential areas from the primary economic hub and creates a dangerous environment for pedestrians. North Logan is facing both commercial and residential development pressure and is proactively interested in providing a plan that can meaningfully address these pressures. Additionally, North Logan is bordered by a mountain range and National Forest

to the east which provides trail access and recreational areas. North Logan is bordered closely on the south by Logan City, a community of 50,000 that is home to Utah State University, and by smaller Hyde Park and Smithfield on the north.

While this project will address many local needs, it is also significant on a regional level. Active transportation plans are primarily developed in larger urban areas. Currently in Utah, only one comparably sized, small city has adopted an active transportation plan. However, the well-researched benefits of active transportation are not exclusive to higher density environments. The successful

completion of this project will help determine if existing Active Transportation Plan standards can effectively be applied to smaller Utah and Intermountain West cities. In addition, this work will provide a precedent to encourage Active Transportation Planning in small communities.

## What Is Active Transportation?

Active transportation is traditionally considered any self-propelled, human-powered mode of transportation, such as walking or bicycling<sup>(4)</sup>. In recent years, the definition of active transportation is evolving to also include small, motor-assisted vehicles that rely partially on human-power, for instance e-bikes and e-scooters<sup>(9,13)</sup>. Although public transportation is not generally considered a form of active transportation, research indicates that individuals are more likely to engage in some form of active transport at the beginning or end of their public transit use<sup>(3, 6, 16)</sup>. Almost one in four adults in the US report that they do not engage in physical

activity outside their jobs<sup>(17)</sup>. A study completed in 2017 found that nearly 45% of Utahns get less than the recommended 150 minutes per week of physical activity<sup>(18)</sup>. Research well establishes that those who participate in active transportation are more likely to meet recommendations for physical activity<sup>(2, 3, 7, 8, 14, 15)</sup>. Other benefits of active transportation include reduced reliance on automotive transport, reduced air pollution<sup>(8)</sup>, increased safety for all road users<sup>(8, 11)</sup>, and addressing transportation equity issues<sup>(8, 10, 11)</sup>.



# Benefits

## Economic Benefits:

The economic benefits of active transportation range from more livable, desirable communities, more consumer spending, addition of jobs, increase in property values, and increase in tourism. While not all of the benefits of active transport and trails can easily be quantified, there have been a large amount of studies that demonstrate their economic value. Close proximity to trails shows an increase of real estate property values<sup>(1)</sup>. Various other studies complement this claim. When trails increase property values, those properties generate more property tax revenues

for local governments. A Utah-specific study found that the annual economic impact of the Murdock Canal trail in Utah County is estimated at 3.6 million dollars. This is primarily due to savings from increased work productivity, averted healthcare expenditures, household spending on goods, and trail operation and maintenance<sup>(18)</sup>. This same trail system generated an estimated 234 jobs during construction. Additionally, bicyclists who visited Dead Horse Point trail in Moab were responsible for \$19 million annually in economic impact with \$11 million generated from overnight trips alone<sup>(18)</sup>.

## Health Benefits:

The health benefits of trail use and the subsequent increase in physical activity are widely accepted. Many studies support the idea that places with infrastructure such as trails make it more likely for individuals to meet daily physical activity recommendations<sup>(2, 3, 7, 8, 14, 15)</sup>. A study completed in 2017 found that nearly 45% of Utahns get less than the recommended 150 minutes per week of physical activity. These individuals could save \$3.07 in annual healthcare costs for every mile they walk or \$0.75 for every mile they bike<sup>(18)</sup>. The CDC states that more walkable communities result in increased physical activity and that people are more likely to walk when they feel protected from traffic, crime, and hazards<sup>(4)</sup>. Trails provide a place where people can engage in healthy, physical activity.

## Environmental:

According to the Rails to Trails Conservancy, greenways and trails help preserve important natural landscapes, provide needed links between fragmented habitats and offer tremendous opportunities for protecting plant and animal species<sup>(5)</sup>. Active transportation allows people to get out and interact with the environment, providing experiences with nature that wouldn't otherwise



happen in an automobile or transit. Greenways, which can typically be used for trail routes, provide a corridor for wildlife, act as a buffer between urbanized areas, preserve vegetation and tree canopy in developed areas, and filter water run-off before entering streams or rivers. Good trail systems can provide alternatives to automotive transport through communities, thus reducing environmental concerns from air pollution and consumption of non-renewable resources.

#### **Recreation:**

Trails are a public resource and provide a place for people to exercise, connect socially, travel to work and school, escape to nature, see both new or familiar places, and much more. When there are convenient, easily accessible places to walk, people are more likely to use them<sup>(15)</sup>. Active transportation systems can provide excellent places to recreate, experience nature, and provide a connection to cultural and historic resources. It is important to have a broad range of different facilities located in the immediate community and to implement connections to recreation areas. This allows opportunities for all types of trail user groups.





## Stakeholders

The following groups were consulted regarding the development of this plan:

- North Logan City
- North Logan City Council
- North Logan Planning Commission
- Cache County
- Utah State University
- Utah Department of Transportation
- Cache Metropolitan Planning Organization
- Cache County Bicycle and Pedestrian Advisory Committee
- BikeUtah
- Cache Highline Water Association
- Cache Valley Transit District



## Process

The methods for completing the Active Transportation Plan for North Logan, UT, will follow the Active Transportation Plan Standards that have been compiled to create a more comprehensive network of active transportation facilities in Utah. The following standards are from Active Transportation Plan Standards. (<https://www.bikeutah.org/atplans>) with some modifications. Although the process appears to follow a linear progression through each step, various steps are repeated as needed throughout the entire planning process. Additionally, stakeholder groups and public involvement is critical during all phases of the planning process in an iterative manner.

### Partner Engagement

- Include at least one of the following public officials: Mayor, City Manager, Planning Commissioner, City Council Member
- Include staff from the following municipal departments: Planning, Engineering, Public Works/Streets, Parks
- Identify, engage, and empower “champions,” those community members or staff who can and are willing to expend time, energy, and political will in order to implement the pieces of the plan
- UDOT region representative
- MPO, RPO, or AOG representative

## Public Engagement

At least two distinct methods of engagement and data collection must be utilized during all phases of the process in order to gather input from diverse community members. Potential methods include:

- Open houses or charrettes
- Online survey
- Opportunities to comment on plans or maps online or in-person
- Intercept surveys
- Pop-up meetings and attending existing events
- Walk and bicycle audit
- Stakeholder interviews or events at major work sites

### Set the Vision, Goals, & Objectives

### Existing or Current Conditions

- Existing on and off-street bicycling and walking network and facility types
- Identification of network barriers and gaps
- Demographics
- Crash and safety data
- Integration with local and regional plans, including other Active Transportation Plans
- Connections to transit and community destinations (e.g., parks, schools)
- Recommended: Existing counts (if available)
- Recommended: Geological, hydraulic, or other physical characteristics and constraints

## Recommendations

Projects: Crucial recommendations should encourage active transportation use, regardless of age or ability, by design. Each recommended facility must include (at least):

- Route and facility type identification
- GIS schema consistent with state and regional standards
- Recommended projects connected to regionally-significant existing or planned routes

Programs: Education, encouragement, evaluation, enforcement, and equity programs support the effectiveness of infrastructure project

- Programming associated with existing

- and recommended facilities
- Local context-specific Safe Routes to School programming
- Maintenance plan (i.e., snow removal, restriping, weed removal)
- Recommended: Wayfinding plan compliant with national and local standards

Policies: Policies, departmental procedures, design standards and guidelines that promote active transportation usage and safety should be recommended

- Walking and bicycling friendly design standards and land use policies
- Recommended: Complete Streets Policy or Ordinance

## Deliverables

Active Transportation Plan with the following sections:

1. Vision, Goals, Objectives
2. Existing Conditions Analysis
3. Recommendations (including conceptual designs)

While the deliverables follow the Utah Active Transportation Plan Standards except for the "Implementation Strategy" and "Performance Measures" sections, it is intended that North Logan will take this plan to further develop their own implementation strategy. Suggestions for measuring performance will be included in the recommendations section of the ATP, similar to reviewed precedents.



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# Vision & Objectives

## *Vision*

***Support North Logan's growing demand for safe and connected options for bicycling and walking.***



## *Project Objectives*

North Logan seeks an Active Transportation Plan which prioritizes east/west connections to link its residents to the economic center of the city and popular recreation areas. The scope of this project is to work with North Logan in gathering public input, evaluating existing conditions, and providing recommendations and conceptual designs for active transportation infrastructure. North Logan is facing both commercial and residential development pressure and is proactively interested in providing a plan that can meaningfully address these pressures. Cache County, Utah has developed an Active Transportation Plan that includes North Logan as it relates

to the broader, county community. This plan primarily addresses north/south connections to neighboring communities and does not explicitly address many North Logan-specific concerns. It is intended that the Active Transportation Plan for North Logan will complement the existing Cache County plan but further develop the plan to address local concerns. North Logan also has an existing but outdated trails master plan that they would like referenced. The final deliverable will be an Active Transportation Plan that the city can use to guide future active transportation improvements. In addition, this project will support the city's economic development plan and boost regional connectivity.

## Goals

- Prioritize an east/west connection that links residential, commercial, and recreation areas.
- Address regional connectivity by tying into existing and planned projects from neighboring communities (i.e., Logan ATP, Cache County ATP)
- Support the city's economic development plan
- iv. Proactively prepare for future development pressure
- Facilitate safe, accessible routes to North Logan's existing and planned community assets.

## Expected Outcomes

- Improve transportation options for North Logan residents
- Support existing demand using North Logan specific data
- Facilitate high demand in bicycling and walking with adequate infrastructure
- Promote both regional connectivity and local connectivity between residential and commercial areas
- Promote city's economic development plan
- Have plan in place to facilitate future funding endeavors
- Table of high profile/high need projects supported by data to facilitate funding requests.



## Introduction

Public involvement for the Active Transportation Plan involved various stakeholder meetings, public presentations at city council meetings, participation in a city council and planning commission workshop, collaborating with the County to have volunteers participate in a walk and bicycle audit, and an online public survey.

### Public Participation Summary

<b>&gt;35</b>
Stakeholder Meetings
<b>6</b>
Public Presentations
<b>19</b>
Walk/Bike Audit Volunteer Hours
<b>1</b>
Public Survey
<b>245</b>
Survey Responses
<b>181</b>
Individual Comments

# TAKE THE SURVEY



## Stakeholder Meetings

The various stakeholder groups listed on pg. 5 were consulted throughout the duration of the active transportation plan. In addition to planning coordination and plan updates, the following topics were discussed during stakeholder meetings:

- Available data and data needs
- Needs areas and high priority projects
- Sharing of equipment and resources
- Public survey coordination
- Volunteer coordination
- Data collection strategy
- Data presentation and analysis
- Canal corridors
- Existing conditions
- Coordinating presentations

## City Council/Planning Commission Updates

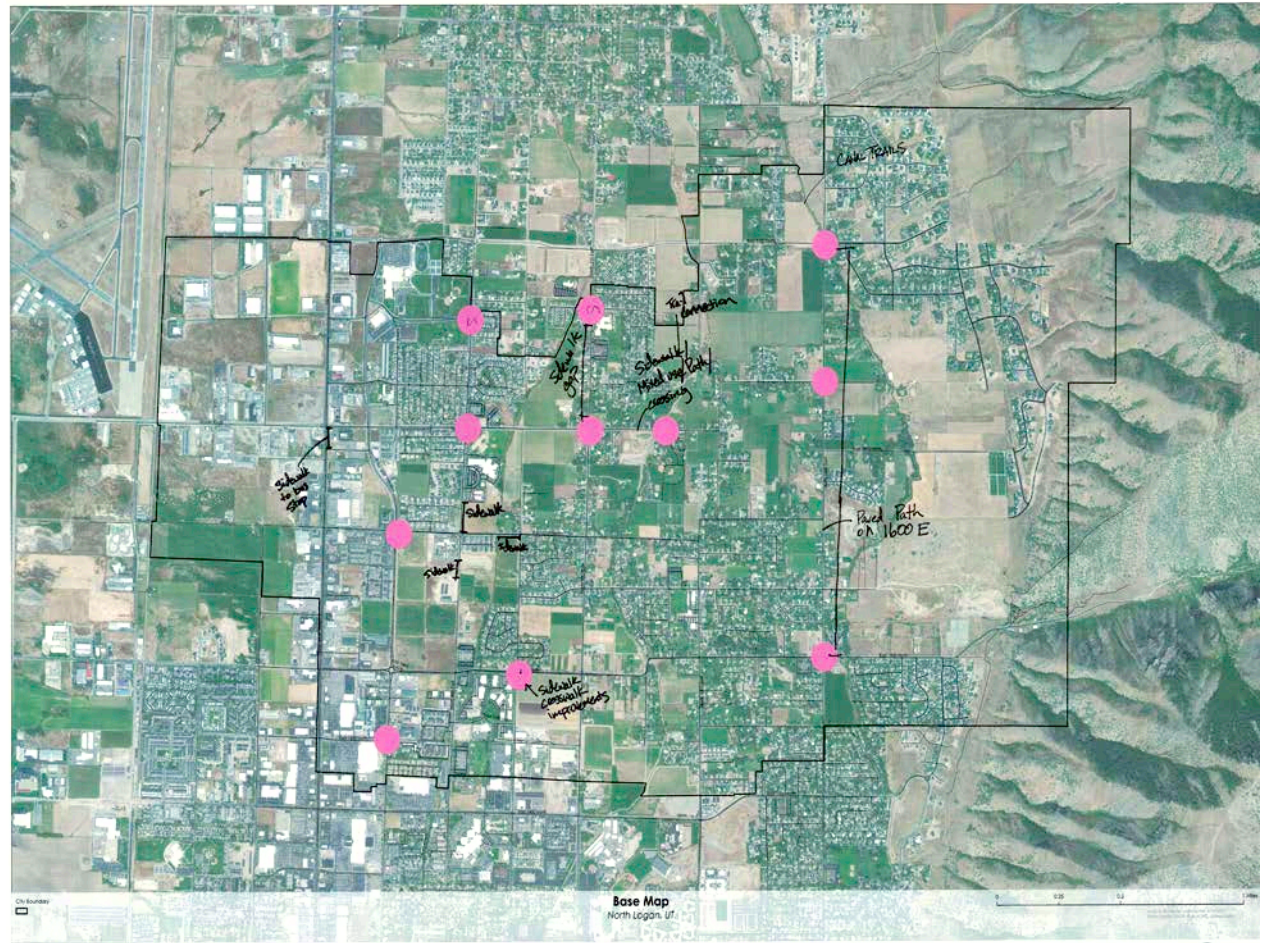
Presentations and updates were given at the following public meetings:

- September 2, 2020 (City Council)
  - February 3, 2021 (City Council)
  - August 18, 2021 (City Council)
  - February 16, 2022 (City Council)
  - March 10, 2022 (Planning Commission)
- Agenda and minutes can be found at [northlogancity.org](http://northlogancity.org)

## City Council/Planning Commission Workshop

The North Logan City Council and Planning Commission held a workshop on May 20, 2021 where the Active Transportation Plan was on the agenda. During this workshop, updates were given regarding the planning progress which included presenting existing data, maps, and preliminary survey results. During the workshop, the Planning Commission and City Council discussed project needs and wants, and high priority areas for the city. In preparation for the walk/bicycle audit, they identified intersections throughout the city that would benefit from knowing how many people were walking and bicycling through.

The following map was used during the workshop. Council members were asked to ID high priority projects (written on map) and intersections that would benefit from counting in the audit (pink dots).



### High Priority Projects:

- Sidewalk gap infill to bus stop on Main/2500 N
- Sidewalk gap infill on 400 E
- Sidewalk gap on 2200 N/600 E
- Sidewalk/crosswalk improvements at 1800 N/600 E intersection
- Sidewalk gap on 800 E leading to North Park Elementary
- Sidewalk/Mixed use path and crossings providing access to Elk Ridge Park
- Trail connection from Elk Ridge park to 3100 N
- Paved path on 1600 E

- Canal trails

### Intersections for Data Collection:

- 200 E/ 1600 N
- 200 E/ 2200 N
- 600 E/ 1800 N
- 400 E/ 2500 N
- 400 E/ 2850 N
- 800 E/ 2500 N
- 800 E/ 2900 N
- Elk Ridge Park
- 1600 E/ 1900 N
- 1600 E/ 2700 N
- 1600 E/ 3100 N

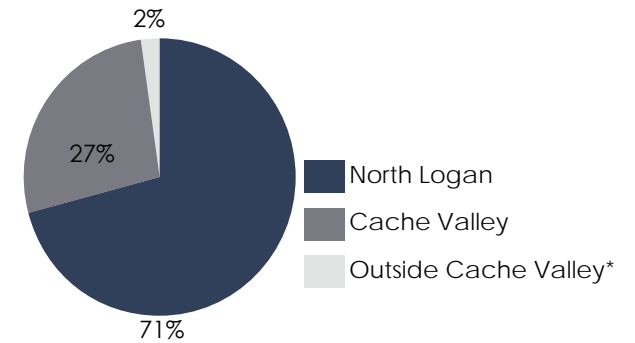


# Public Survey

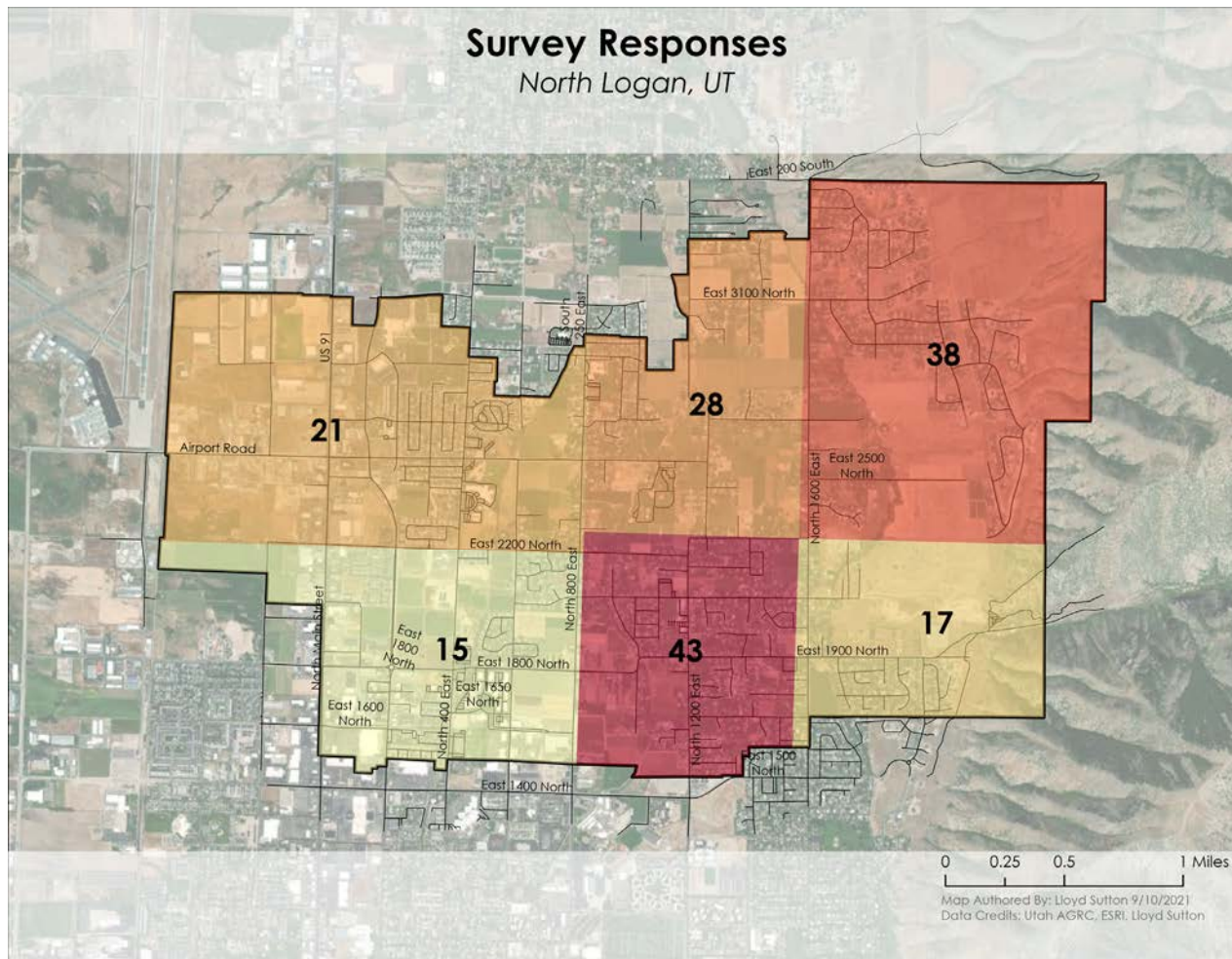
The public survey was distributed through the North Logan city newsletter and social media pages. Multiple partner organizations also distributed the survey via social media and various messaging groups. The survey was live from March through August of 2021, participants were invited to share their email address to enter a drawing for a free entry to the RSL facility

in North Logan. Demographic information was collected at the end of the survey and closely resembles the demographic make-up of North Logan. Survey participants who selected that they lived in North Logan were presented a map where they could highlight the region of North Logan in which they lived.

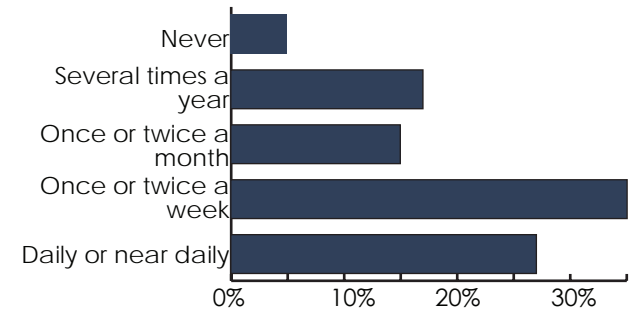
## I Currently Live In:



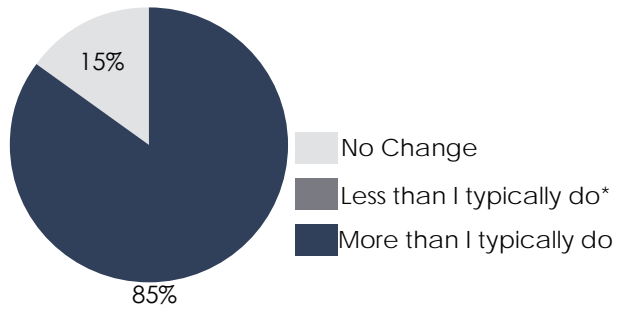
\*Survey would conclude after a respondent selected the "Outside Cache Valley" option.



## How often do you typically use active transportation (walking and/or bicycling) to get to where you are going?

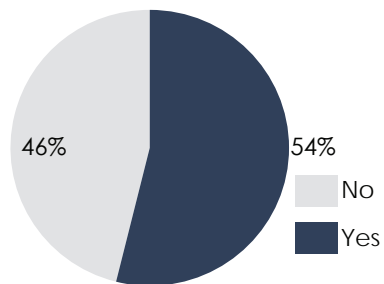


**I would like to use walking and/or bicycling as a mode of transportation:**

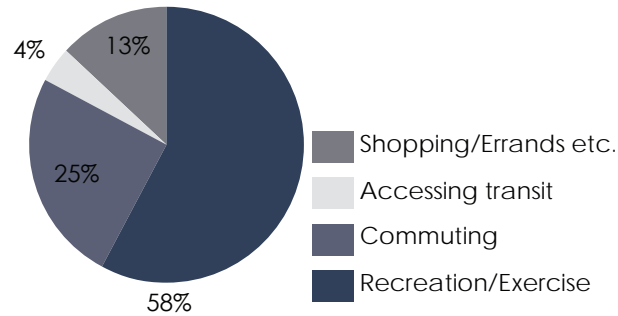


\*"Less than I typically do" was not selected by any survey participants.

**Is there currently a trail or pathway that you use within a 5 minute walk (1/4 mile) of your house?**



**For what purposes do you use active transportation (walking and/or bicycling)?**



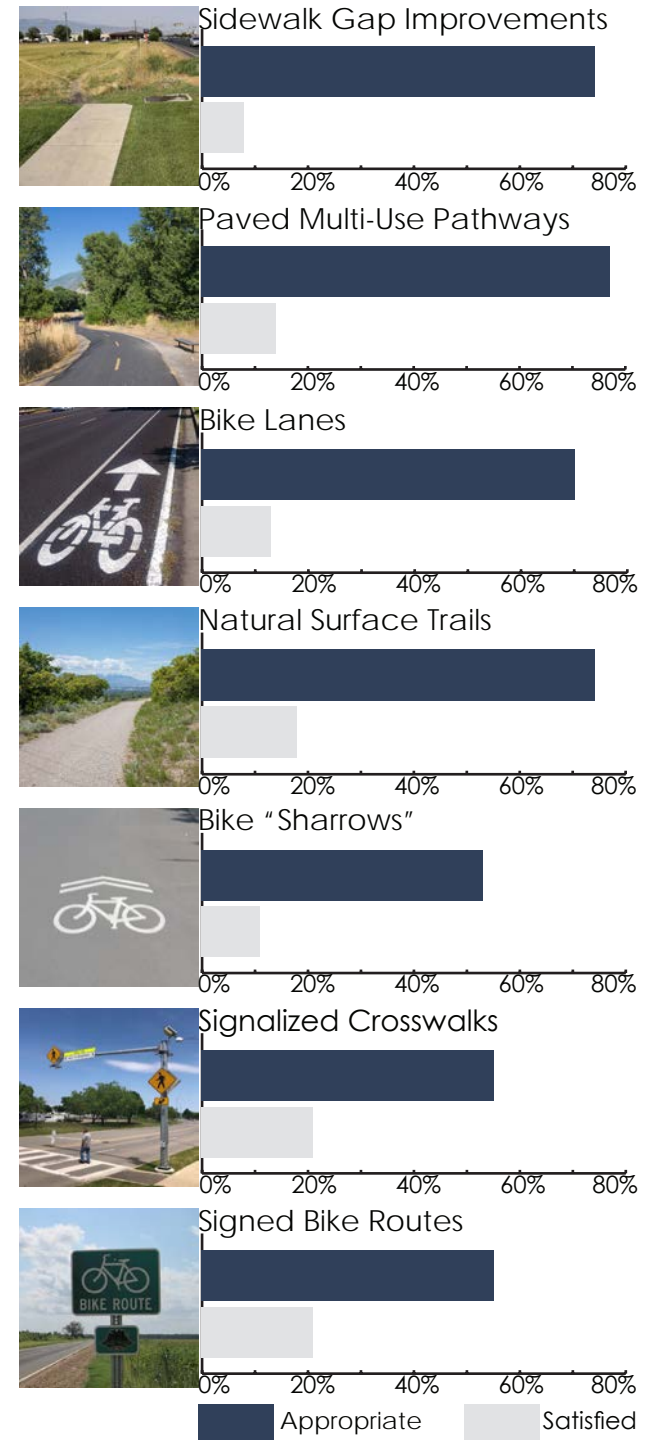
**Infrastructure satisfaction**

Survey participants were asked to rank various types of active transportation infrastructure (with associated photos) on whether they felt the infrastructure was appropriate for North Logan and whether they were satisfied with the existing state of the infrastructure in North Logan. Each photo was given a five point ranking scale.

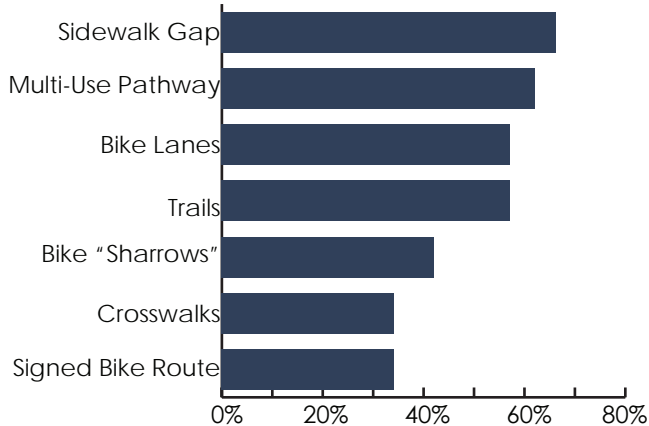
The questions were phrased as follows:

**I feel that the following active transportation infrastructure is appropriate for North Logan:**

**I am currently satisfied with the following infrastructure in North Logan:**



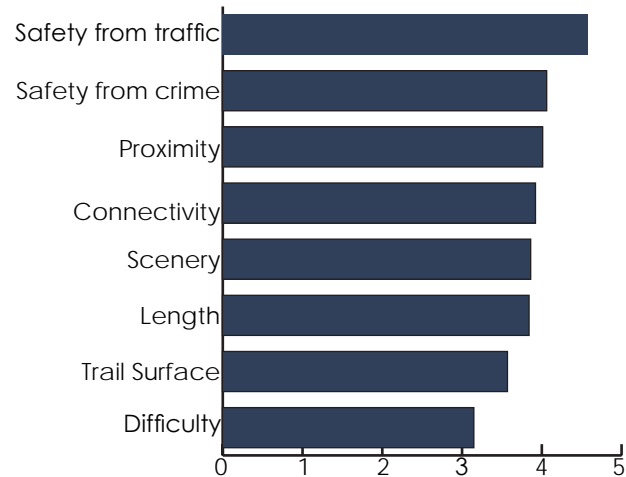
**Difference between level of satisfaction and appropriateness of North Logan infrastructure:**



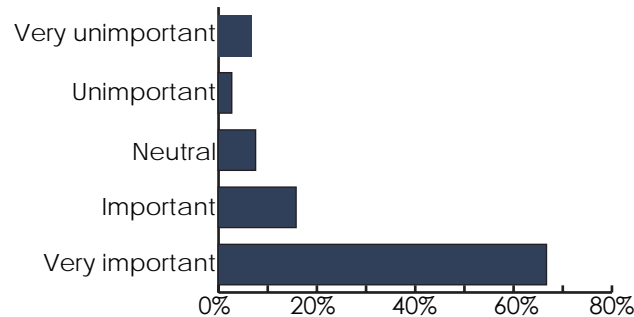
**Please rank the following attributes in level of importance when choosing a trail or pathway to use. (Drag and drop to rank. 1 being most important, 8 being least important):**

1. Safety from traffic
2. Length
3. Proximity from my house
4. Scenery
5. Safety from crime
6. Sidewalk/bike lane connectivity
7. Trail surface
8. Level of difficulty

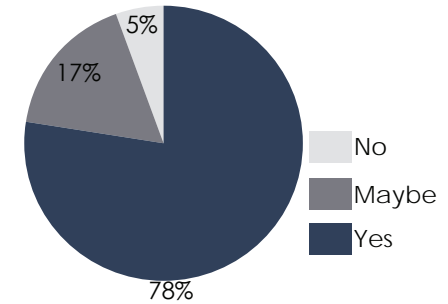
**When choosing a trail or pathway to use, please rate the importance of the following attributes (Scored 1-5, 5 being highest):**



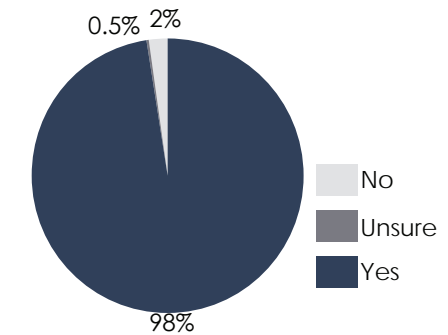
**Considering that some of the canals are currently on private property with no public access, how important would it be for North Logan to approach private property owners about incorporating canal trails into its overall trail network?**



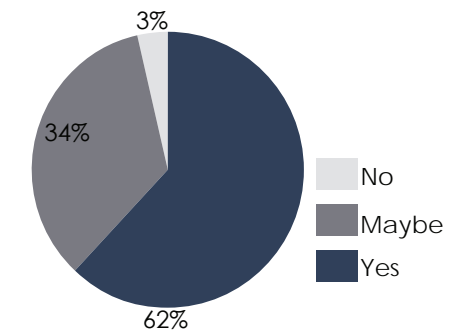
**If canal trails were to be incorporated into the North Logan trail system, would it meaningfully increase your accessibility to places for walking and/or bicycling?**



**I think it is worthwhile for North Logan to make improvements for walking and bicycling:**



**Would you attend a public meeting to discuss active transportation improvements in North Logan?**



## Example Comments Regarding Canal Trails:

(All comments available in Appendix)

*"I have lived here for 20 years and for 19 years have utilized the canal trails for running, walking with my dogs and riding my bicycle until they were blocked off last year. I understand that motorized vehicles can cause damage, however, foot traffic should not cause damage."*

*"I grew up in Hyde Park since 1980. I now live in north Logan. As a child I was able to roam and explore all the canal banks unimpeded. I used to walk the banks, bike the banks, and ice skate the canal in the winter. Once I ice skated the lower canal all the way to 14th north and back from 2nd South in Hyde Park. We would float the canal in inner tubes in the hot summer months. It disturbs me that the canals, which had an unimpeded right of way for over 100 years, could now be closed off to the public."*

*"I appreciate the generous landowners who currently allow me to walk along the canal. I would think the landowners would be eager to let North Logan City maintain the right away in exchange for public access."*

*"I love canal trails! More people on these trails will actually help prevent crime - more eyes!"*

*"The only long trail we have is the Bonneville trail and it is out of the way and*

*not conducive to light recreation. We should have a trail that goes through the valley just like so many communities have. Canal trails are the best way to do this."*

*"I would LOVE to have canal trails. It is a no-brainer to me and such a missed opportunity in our community. I am not versed on the legality, but canals must have an existing right of way, so it seems like any negotiation should happen with the canal company, and that individual property owners can chose to cooperate or not, but the ROW already exists."*

*"The county currently has 95% of the lower canal w claim deed. I am a life long user of these canals and during the pandemic we have used them multiple times a day. Our street has no sidewalks so using the canals is a great option. We have asked our neighbors for permission to walk there. I think they should put a drain pipe in the canals and cover them up so we do not need to be on private property or canal company easement. The city could put up nice fences for the land owners if the like. "*

*"On the middle and upper canals, there a public proscriptive easements by use of the public for many years. These have recently been blocked by new homeowners with warning signs and fencing and threats to call the police. These easements should be recorded as public written records so that owners are aware of these easements."*

*Right now there are frequent confrontations and shouting."*

*"Private Property? Public funds were and are being used on water transpartation plus the labor and good will of the founders of this valley. Access has been there for generations. Now there are gates and locks. A step backwards in my opinion. The owners liability questions have been answered. Sometimes the greater good should be pursued."*

*"I find it very frustrating that we have a network of SAFE travel away from cars for my kids to walk and ride bikes, but it's completely unusable because residents have closed it off. A canal trail should not be private property. I used to run/walk on the canal trails in north Logan when I was young and loved it, but my kids have nowhere to safely ride bikes or go for walks because of where we live. We either need SIDEWALKS along the roads or CANAL TRAILS nearby so my kids can be safely active!!!!"*

*"Continuation of the canal trails would be a wonderful asset to our community. They give our families safe, shaded, natural, quiet areas for recreation that are safe from traffic."*

*"I love walking along the canals. I feel it is a great place to walk with my son and dog that gets us off the street and closer to nature."*

### **Additional Comments:**

(All comments available in Appendix)

*"The biggest drawback for cycling here is the chip seal method used to maintain road surfaces (sort of... it doesn't seem terribly effective). Unfortunately, the time that loose gravel is prevalent, and mounds of gravel are heaped at the sides of the roads, where bikes must travel to avoid cars, seems to extend over many months."*

*"Please add more trails for public use. We desperately need them!!!"*

*"If North Logan builds biking/walking paths and trails, we will use them often. We love walking and biking!!!"*

*"We've been in North Logan 4 years and I feel like this is THE best issue that can be addressed right now in terms of recreation and citizens' wellbeing. Let's get a network of trails put in and maintain them."*

*"Our trails need to be safer from traffic. Dedicated bike lanes are a good start. But total separation from traffic would be best (Barrier or a trail network away from roads)."*

*"Bicycles are useless for transportation if we do not have continuous safe paths. Some streets are okay, but that means nothing if I have to pass through unsafe areas. I can't ride bike to USU because 800 East is barely wide enough for two cars from 1400 N to 1800 N. It is ridiculous. It is also ridiculous that the many of the nicest homes and*

*largest lots do not have sidewalks. All residential property should have sidewalk or path so people do not have to walk in street."*

*"I'm excited for improvements to bike paths and trails around north Logan. I would also suggest some attention goes toward cleanliness of the road. By that I mean a lot of debris, rocks, shards of glass, garbage end up on the side of the road. In a bike lane that I would otherwise be fine sharing with cars, I sometimes feel unsafe because I'm trying to dodge items that might cause a crash or damage my bike. People also leave their garbage cans for pickup in existing bike lanes or shoulders which are a nuisance. I don't know exactly how to address this issue, but it's worth bringing up. Thanks for all you do!"*

*"Please stop the developers from destroying open space. At the very least, make the developers include trails as part of all their ugly and endless subdivisions. INSIST that property owners along the Bonneville Trail maintain public access to the trail. Just like the closed canal trails, the Bonneville will be the next victim!"*

*"Improving the road ways to have a nice shoulder for bicycles to ride on and not be so close to automobile traffic is my big concern. And then maintaining those so that the debris is not in that bike path way which would force us into riding in traffic again."*

*"I think that North Logan has done a great job with expanding our park amenities the last couple of years, but trails and non-*

*motorized transit in the city has gotten a short-shrift. Right now we can get away with it because the city isn't so big that there is a ton of traffic. But as it continues to grow, it will be harder to add trails later and the existing "nice" sidewalk routes will become less and less inviting with increased motorized traffic on the roads."*

*"As a senior, I find riding on busy roads challenging and frankly quite scary. I'm find it sad that this area has few paved trails."*

*"More sidewalks and access to trails would be the thing that would improve the life of my family the most in this community."*

*"Sidewalks to reach parks are so important to me. With little ones it always adds some stress getting to parks and going for walk when there is not a sidewalk to use."*

*"I think sidewalks to and from city parks are very important. Consider that Elk Ridge park has NO unbroken sidewalk connecting it to the surrounding city even though it is very popular, especially around Pumpkin Walk time. Sidewalks or appropriate shoulders should be installed throughout the city, especially areas that are not zoned for agriculture."*

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# Existing Conditions

## *Introduction*

The existing conditions section includes North Logan demographic information, a compilation of existing data sources (various usage types, collisions, etc.), inventory of existing facilities, focused data collection on existing corridors, a review of existing plans, and a review of network gaps and barriers. The existing data source review revealed data gaps which, in conjunction with the public survey and stakeholder meetings, led to additional data collection on the multi-use trails and canal corridors.

The intention of the existing conditions section is to identify high usage or potentially high usage areas, problem

areas, network gaps, create an inventory of existing conditions that can be used for reference over time, and ultimately result in justifying recommendations.



# Demographics



**10,986**  
Total Population



**\$71,351**  
Median Household Income



**13.1%**  
Poverty Rate



**47.2%**  
Bachelor's Degree or Higher



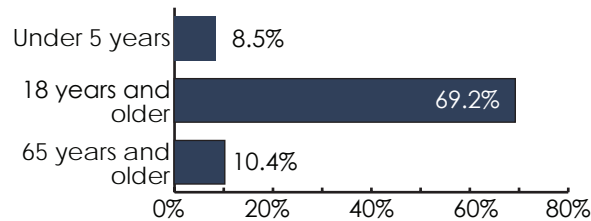
**64.9%**  
Employment Rate



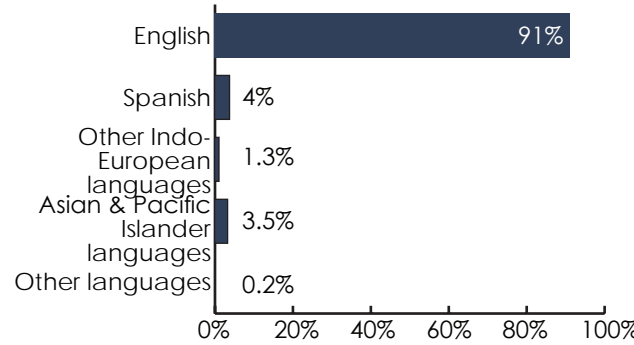
**3,797**  
Housing Units

## Population by age range:

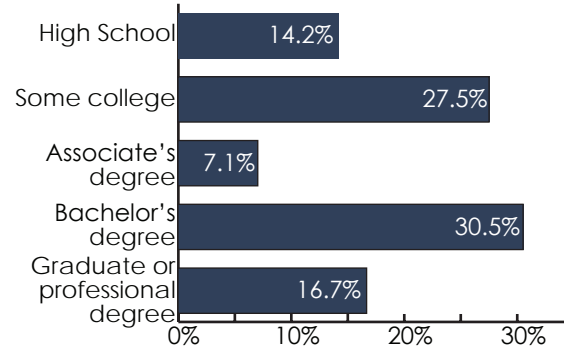
**27**  
Median Age



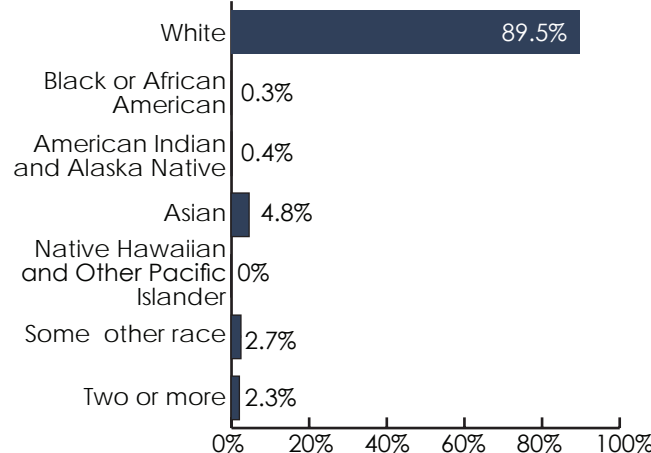
## Types of languages spoken at home: 9.0% Non-English language spoken at home



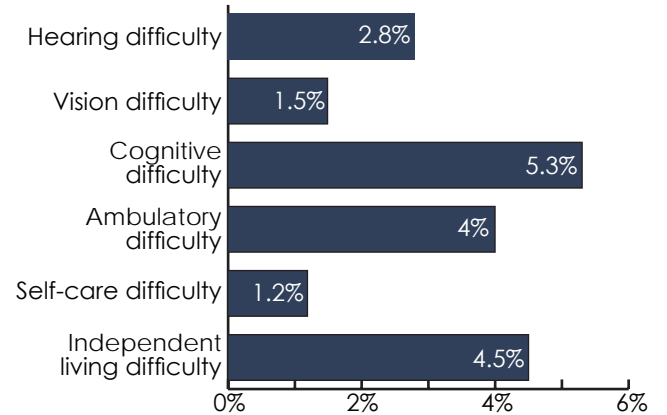
## Education Attainment:



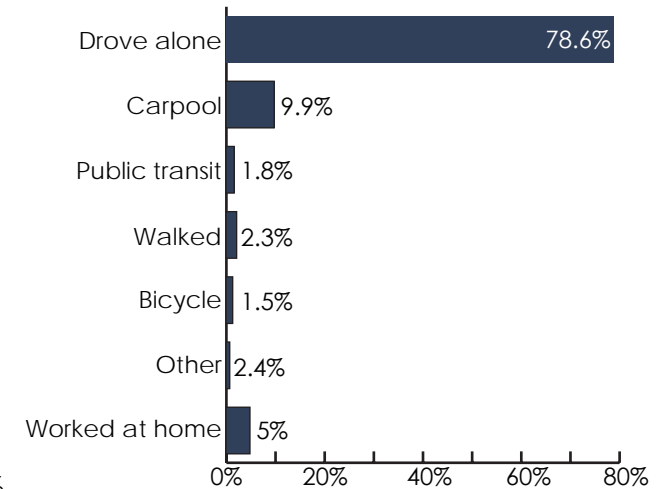
## Population by race:



## Types of disabilities: 9.0% Disabled population



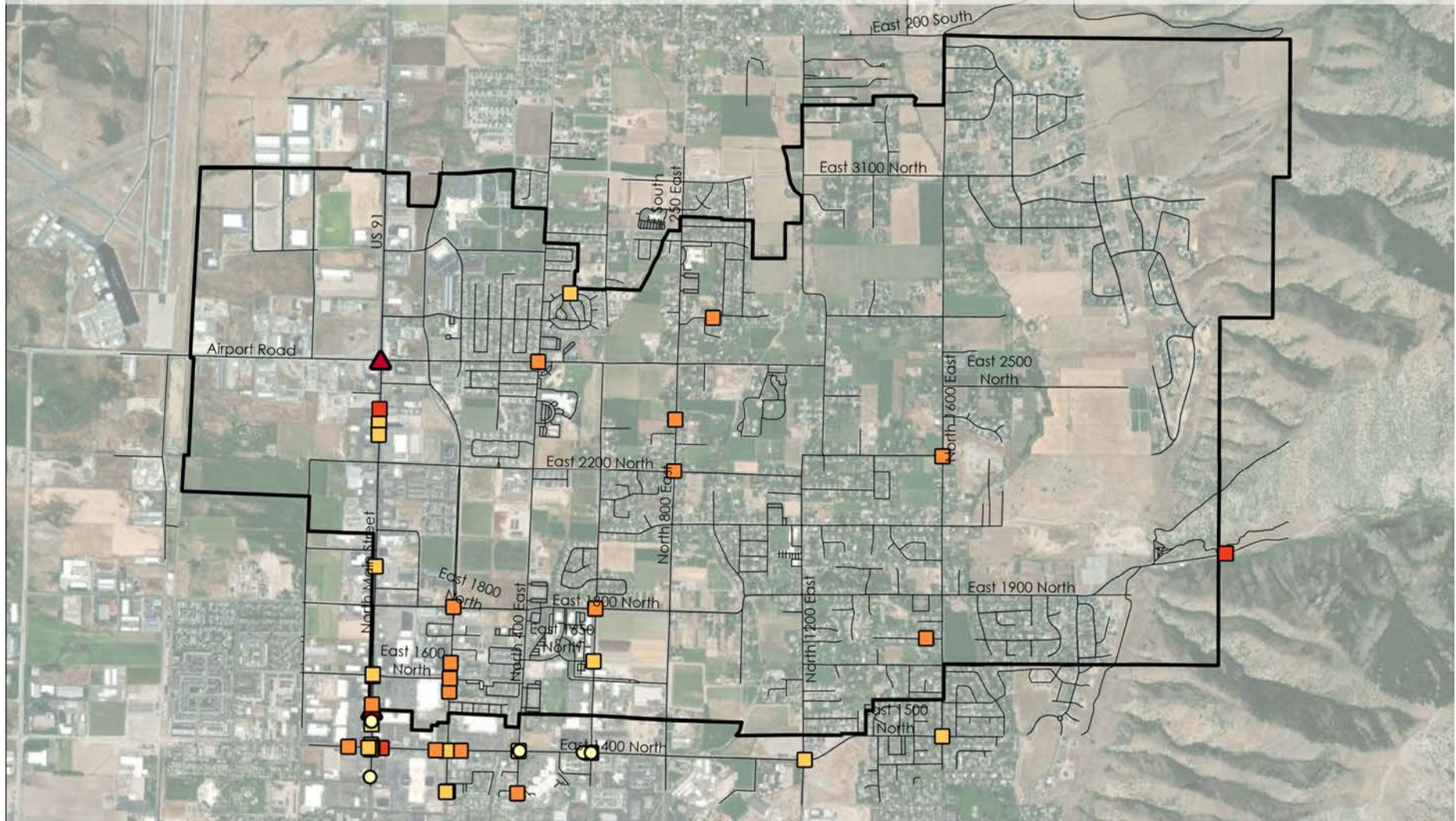
## Means of transportation to work: 15.7 minutes Average commute to work





# Auto/Ped & Auto/Bike Collisions (2010-19)

North Logan, UT



### Collisions

- No injury/PDO
- Possible injury
- Suspected Minor Injury
- Suspected Serious Injury
- ▲ Fatal

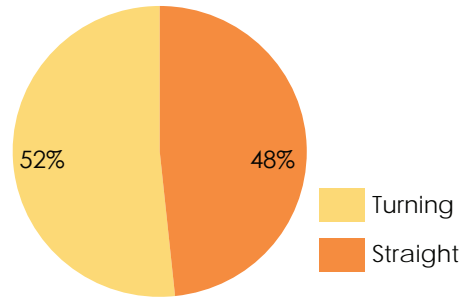
0 0.25 0.5 1 Miles

Map Authored By: Lloyd Sutton 4/18/2021  
Data Credits: UDOT, Utah AGRC, ESRI

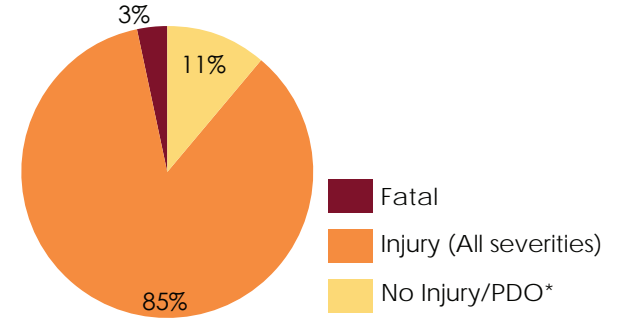
# 62

Collisions involving a pedestrian or bicyclist reported to police within 1/4 mile of North Logan City Limits from 2010-19

Direction of travel

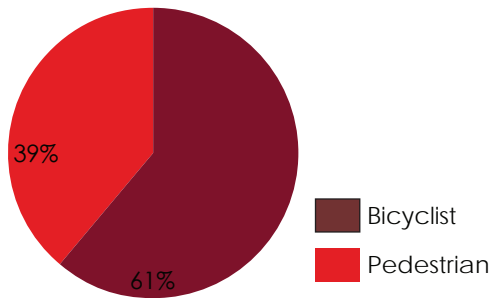


Crash Severity

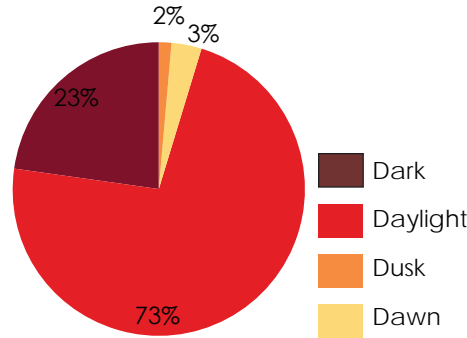


\*PDO = Property damage only

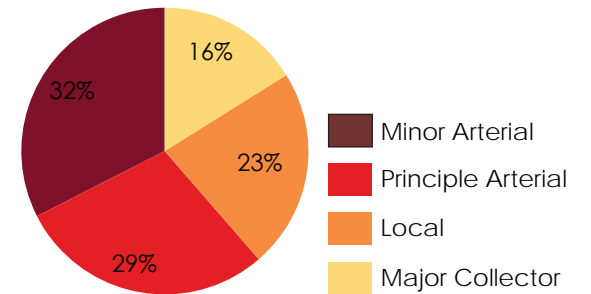
Collisions by travel mode



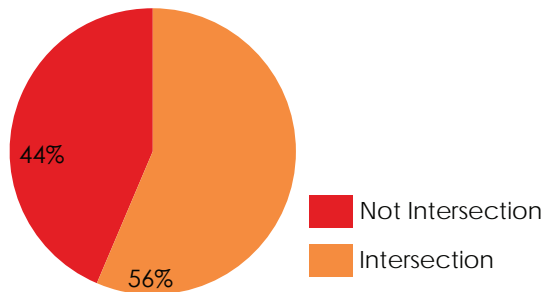
Light conditions at time of collision



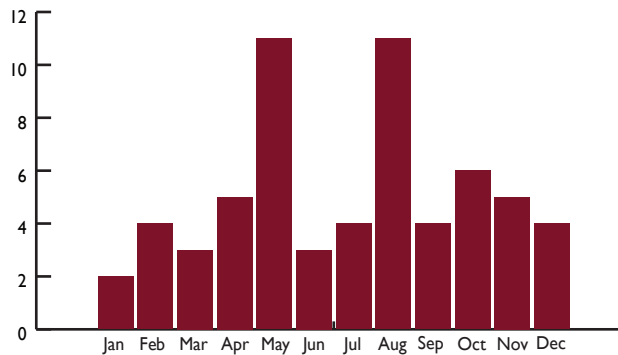
Collisions by road classification



Collisions in intersections



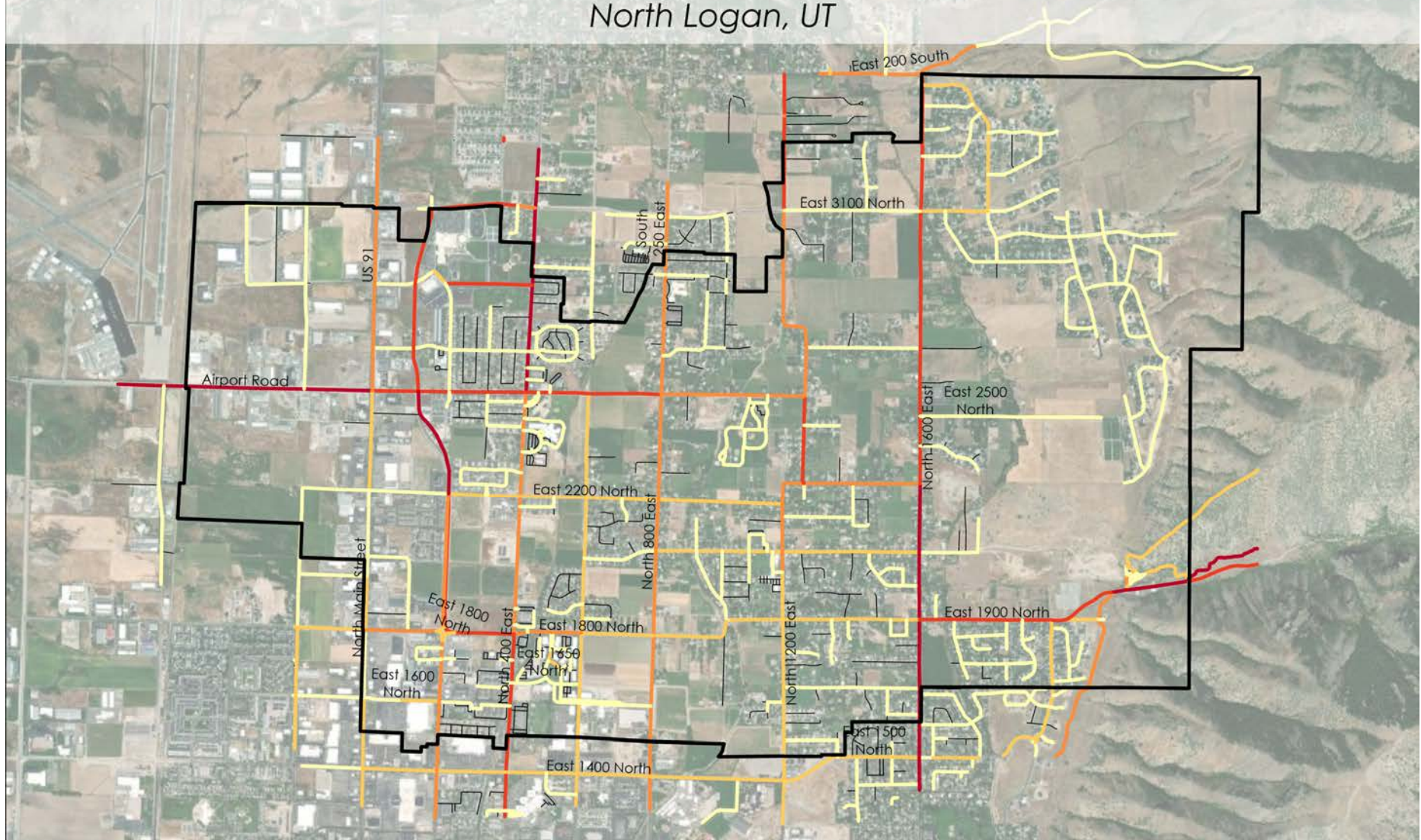
Collisions by month



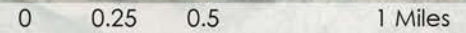
Note: 1 additional collision resulting in a fatality occurred between 2019 and document publishing in 2022 near the Main St. and 2500 N intersection.

# Strava Metro Cycling Volume (2019)

North Logan, UT



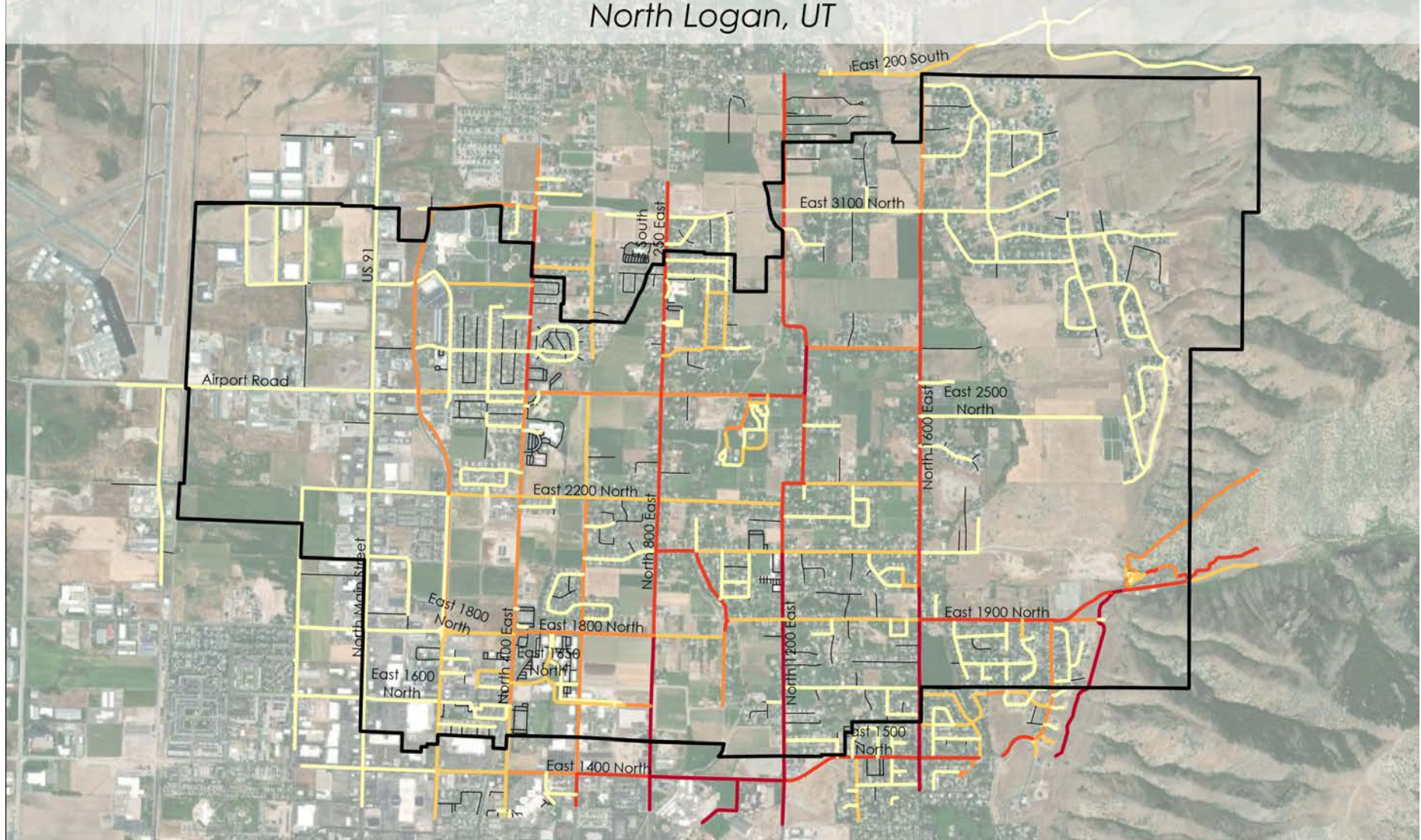
Note: Strava data uses only data from self-recorded activities in the Strava phone app, which requires use of a smart phone or GPS device. As Strava data only includes self-recorded data, most widely used for recreation activities, data only represents a subset of the overall population. Use in conjunction with additional data sets is recommended for a community-wide view on infrastructure usage.



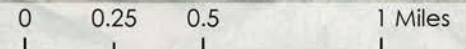
Map Authored By: Lloyd Sutton 4/18/2021  
Data Credits: Strava Metro, Utah AGRC, ESRI

# Strava Metro Pedestrian Volume (2019)

North Logan, UT



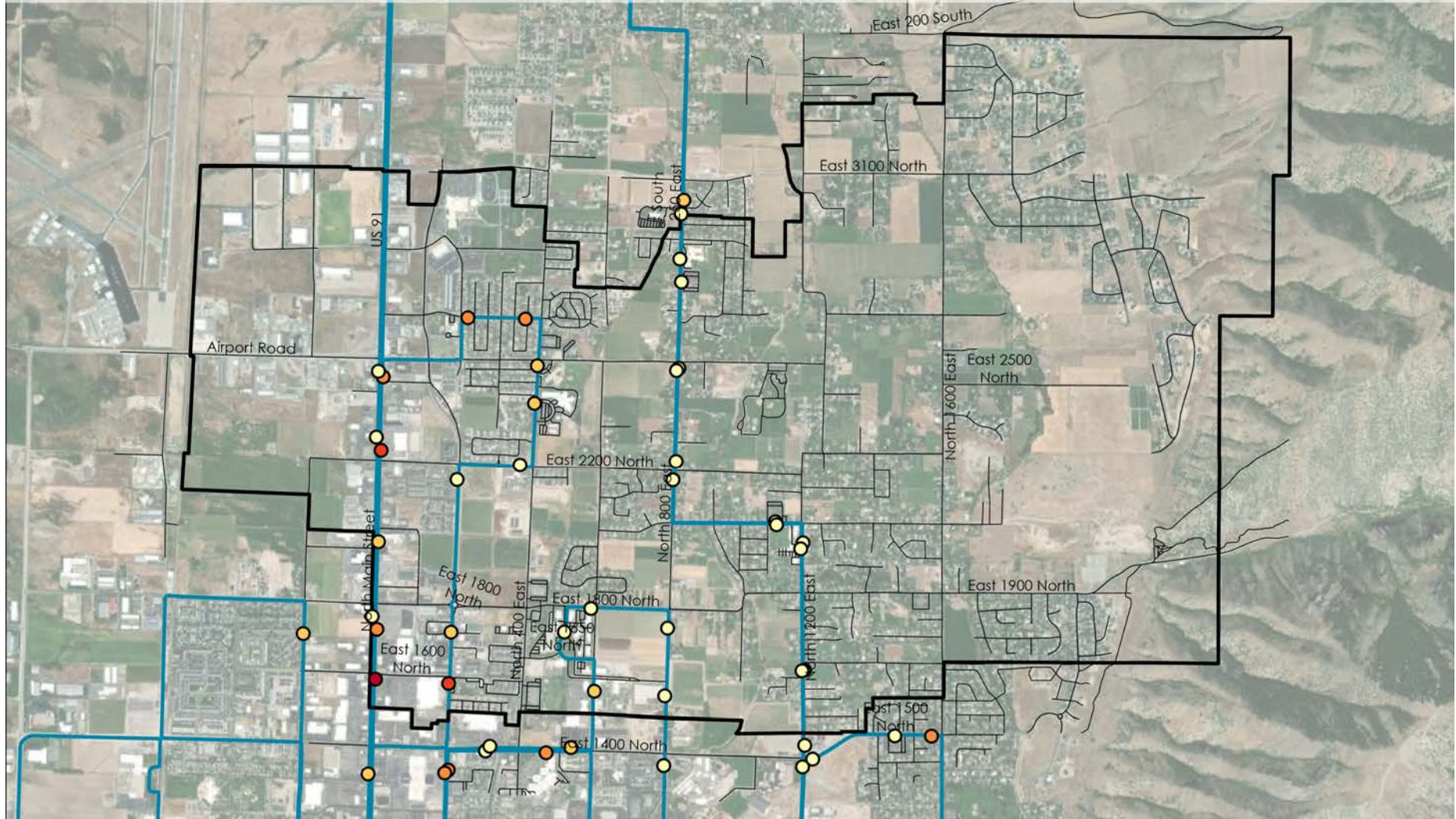
Note: Strava data uses only data from self-recorded activities in the Strava phone app, which requires use of a smart phone or GPS device. As Strava data only includes self-recorded data, most widely used for recreation activities, data only represents a subset of the overall population. Use in conjunction with additional data sets is recommended for a community-wide view on infrastructure usage.



Map Authored By: Lloyd Sutton 4/18/2021  
Data Credits: Strava Metro, Utah AGRC, ESRI

# Public Transit Ridership Volume (2017)

North Logan, UT



Ridership Volume (Average Boarding/Alighting per 30min Route)

- ≤0.3
- ≤0.9
- ≤1.5
- ≤3.5
- ≤22.4

City Boundary      Bus Route

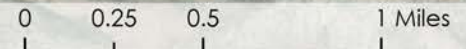
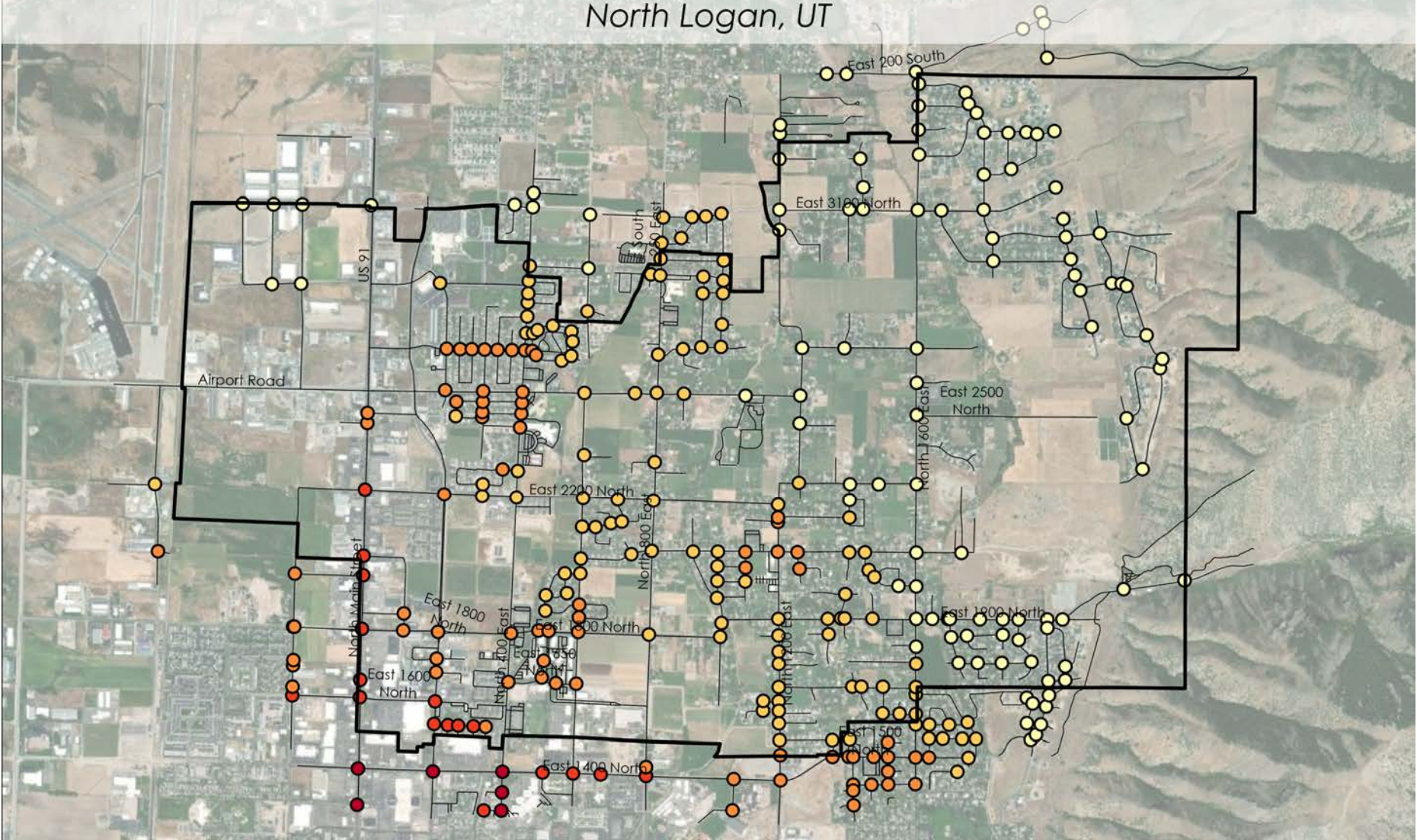


0    0.25    0.5    1 Miles

Map Authored By: Lloyd Sutton 4/18/2021  
Data Credits: Cache Valley Transit District, Utah  
AGRC, ESRI

# Predicted Pedestrian Volume at Intersections

North Logan, UT



Map Authored By: Lloyd Sutton 4/18/2021  
Data Credits: Patrick A. Singleton, Keunhyun Park,  
Doo Hong Lee, Utah AGRC, Strava Metro, ESRI



## Data Scoring Method

This map was created to evaluate multiple data sets at once and to give an overview of high usage or high risk areas in North Logan. The map served the purpose of informing areas that needed additional data collection, and also to identify where there might be data gaps due to changes in infrastructure (such as the newly completed 3100 N. multi-use trail). Using the available data, this helped to inform future data collection and observations during the study.

Each of the previous data sets\* were broken into 5 classes\*\* and given a score between 1-5 (excluding collision data). Collision data was scored according to individual collision occurrences within each boundary area ranging from 1-14. A hexagonal grid was created with a .25 mi buffer around North Logan city boundaries.

The values from each scored data set were assigned to the hexagon WWWthat they fell within 10 meters of and summed with the other scored data sets. The summed scores were assigned values of 1-5 with 1 being lowest priority and 5 being highest.

\*Transit data was adjusted to have half the weight of other data sets due to preliminary survey data showing low priority of transit with active transportation in North Logan.

\*\*Using the Jenks natural breaks method

## Data Set Score Values

Strava Metro Cycling Volume 2019  
Score: Value (Yearly Activity)

1. <195
2. <560
3. <1015
4. <1620
5. <2720

Estimated Pedestrian Volume at Intersections  
Score: Value (Average Daily)

1. <15
2. <33
3. <65
4. <126
5. <238

Strava Metro Pedestrian Volume 2019  
Score: Value (Yearly Activity)

1. <145
2. <360
3. <655
4. <1110
5. <2885

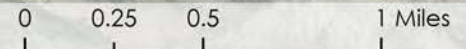
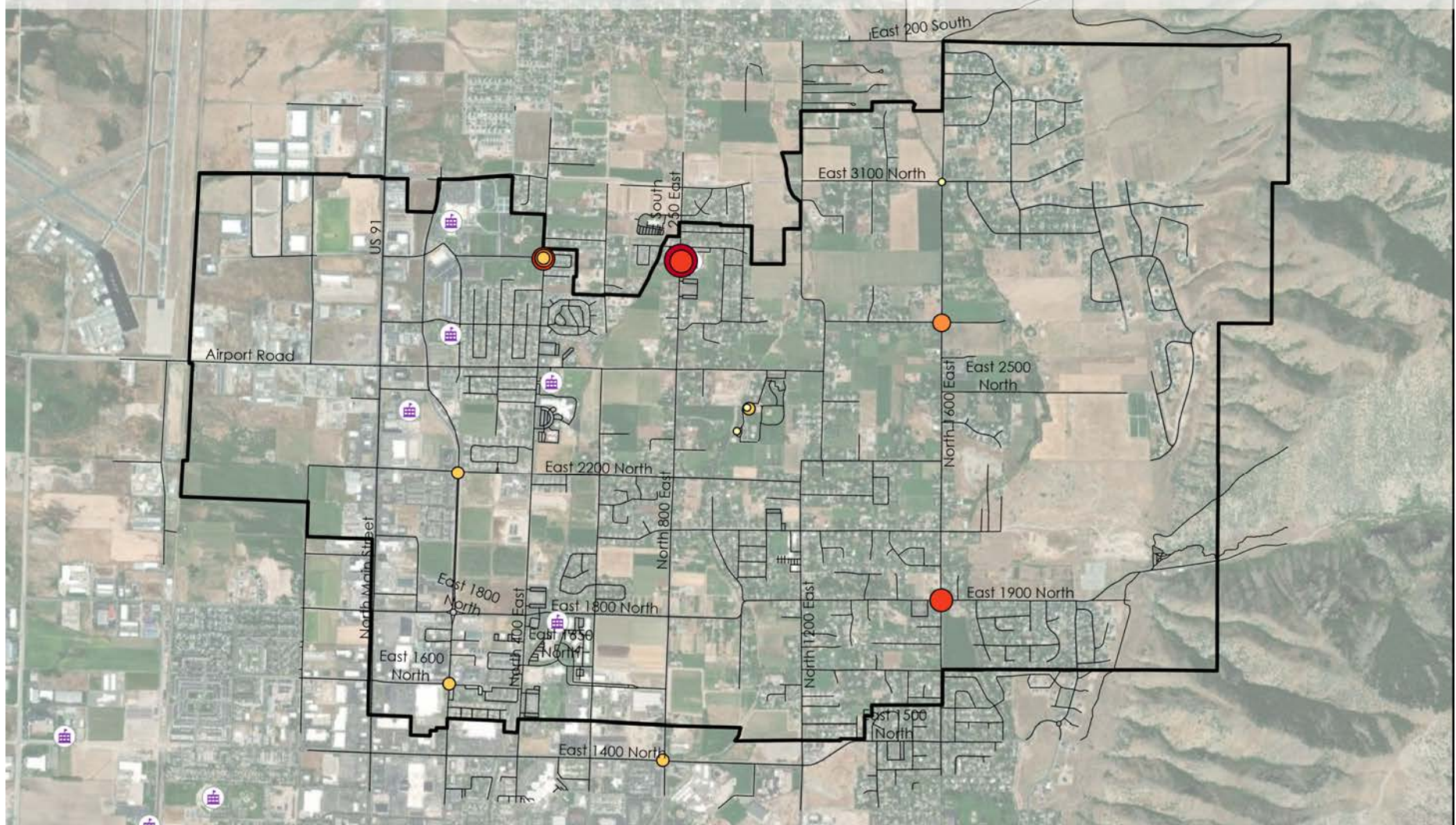
Public Transit Ridership Volume (2017)  
Score: Value (Average passenger/30min route)

1. <0.3
2. <0.9
3. <1.5
4. <3.5
5. >3.5



# National Bicycle & Pedestrian Documentation Project

North Logan, UT



Map Authored By: Lloyd Sutton 8/17/2021  
Data Credits: Cache County, Strava Metro, Utah AGRC, ESRI

Each year, Cache County participates in the National Bicycle and Pedestrian Documentation Project. The county identifies intersections to have volunteers count pedestrian and bicycle traffic during peak hours. Peak hours are typically considered 7AM-9AM and 4PM-6PM. However, adjustments to peak hours at school crossings were made to accommodate the start and end of school days.

In coordination with North Logan's Active Transportation Planning efforts, the county included the following intersections in Spring of 2021:

- 200 E & 2200 N
- 200 E & 1600 N
- 400 E & 2850 N (Green Canyon High School)
- 800 E & 2900 N (North Park Elementary School)
- Elk Ridge Park Canal Trail
- 1600 E & 1900 N
- 1600 E & 2700 N
- 1600 E & 3100 N

**VOLUNTEERS NEEDED**

**NATIONAL BIKE & PEDESTRIAN DOCUMENTATION PROJECT**

**MONDAY, MAY 24TH - FRIDAY, MAY 28TH**

**VARIOUS INTERSECTIONS IN LOGAN AND NORTH LOGAN**

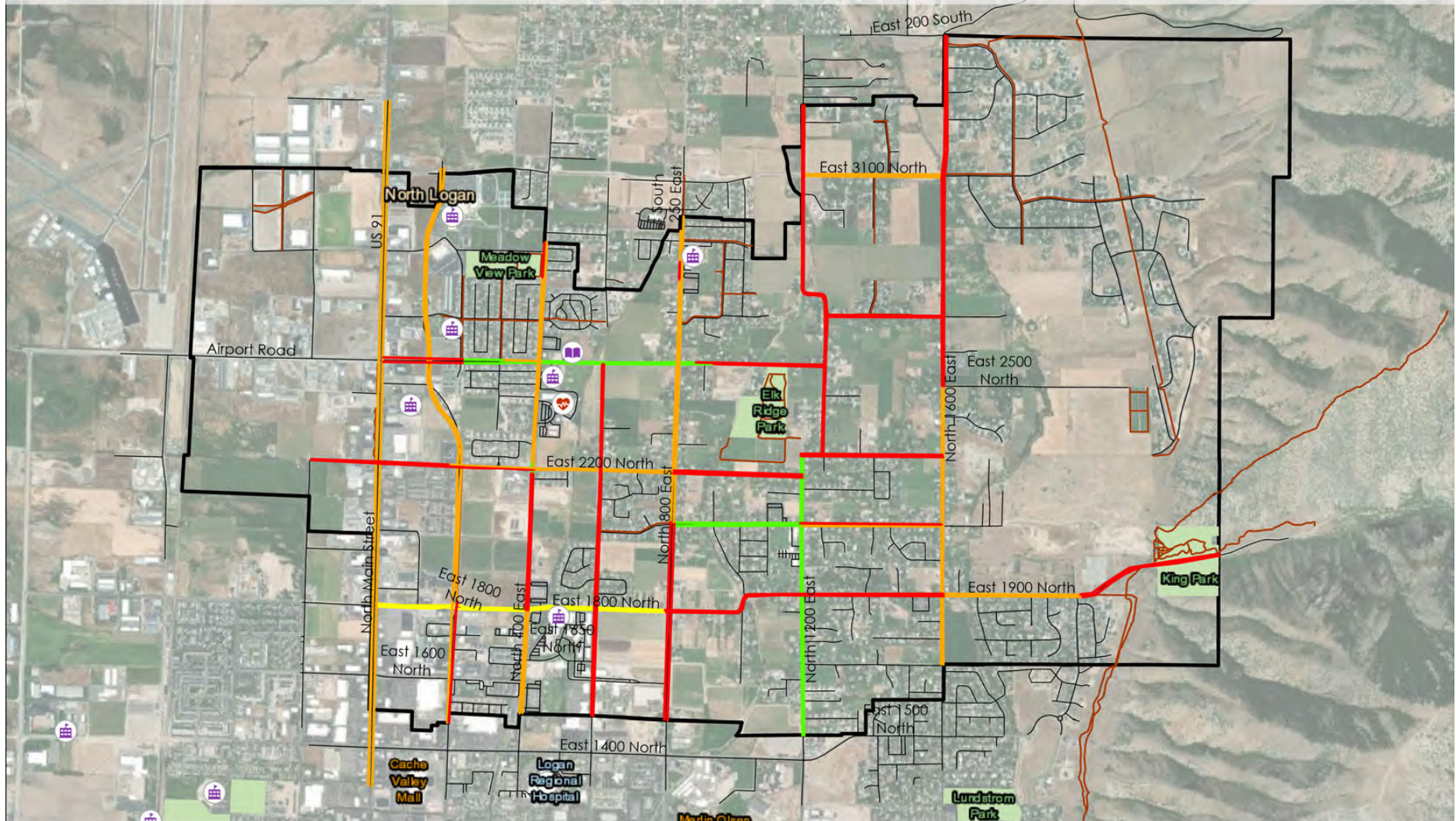
**SPEND 1 HOUR COUNTING BIKES AND PEDESTRIANS TO HELP US BUILD BETTER SIDEWALKS, BIKE LANES, AND MORE.**

**SIGN UP ONLINE**  
[WWW.TRAILS.CACHECOUNTY.ORG](http://WWW.TRAILS.CACHECOUNTY.ORG)

Cache County  
— 1857 —

# Existing On-Street Bicycling Infrastructure

## North Logan, UT



- Painted Bike Lane
- Signed Shoulder Bikeway
- Painted Shoulder
- No Shoulder and/or Lane Marking
- North Logan Boundary
- Hospital
- School
- Library
- Trail

0 0.25 0.5 1 Miles

Map Authored By: Lloyd Sutton 7/23/2021  
 Data Credits: Strava Metro, Utah AGRC, ESRI

## East/West Bicycle Network



**1800 N./1900 N. from Main to Green Canyon**

A signed shoulder bikeway exists from Main to 800 E. There is a painted shoulder at least 3 ft., yet no in-lane markings. Paint is faded. The shoulder is filled with debris making travel on shoulder undesirable. On the 1900 N. segment leading from 1600 E. to Green Canyon, there is a painted shoulder on the south side of the road, less than 3 ft. in short sections when crossing canal. A painted shoulder also exists on the north side of the road segment but is less than 3 ft. wide. A multi-use path exists on the north side of the roadway until the canal.



**2100 N.**

A bike lane on both sides of roadways from 800 E. to 1200 E.

## Bicycle Network

The existing on-street bicycling infrastructure in North Logan consists of painted bike lanes, signed bike routes, and one signed shoulder bikeway. Painted shoulders of at least 3 ft. are also considered in the map of existing infrastructure although typically these are not classified as bicycling infrastructure without specific signage. Other types of cycling infrastructure, currently non-existent in North Logan, are marked shared roadways (commonly referred to as “sharrows”), buffered bike lanes, and various forms of cycle tracks.



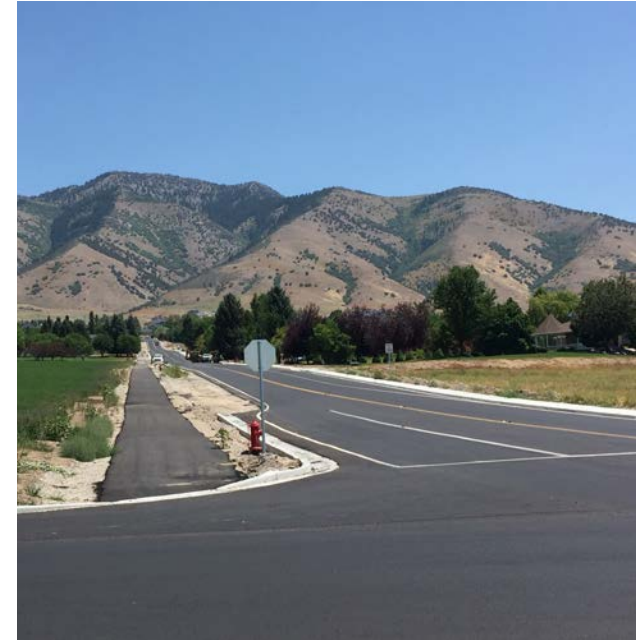
### 2200 N./2300 N.

Primarily a shared roadway with bike route signage on the 2200 N. portion. Lower traffic, little to no shoulder except where painted shoulder exists from 200 E. to 800 E. And no bike lane markings.



### 2500 N.

A designated bike lane exists from 200 E. to 870 E. In-lane markings are somewhat faded. There is no bike lane signage. Small, disconnected segment on the north side of the roadway between 300 E. and 400E.



### 3100 N.

The North Logan section begins at 1200 E. and continues to 1600 E. New multi-use path on the north side of road mostly connects through Hyde Park to 200 E./Wolfpack Way multi-use trail, however there are no signed crossings, and some crossed intersections do not have stops. The entire road section has recently been completed, a painted shoulder was just installed immediately prior to site visit, however shoulder is not at least 3 ft. wide along the entire roadway.

## North/South Network



**Main Street**

A high traffic, five lane highway maintained by UDOT. The painted shoulder is frequently used by turning vehicles. It is designated as a shared roadway with no signage or painted roadway markings. It is the main location of commercial services but a less desirable travel route for non-motorized users due to traffic and lack of perceived safety. Only 4 signalized crossings which creates difficulty in crossing safely.



**200 E.**

A painted shoulder and multi-use path north of 1800 N. The section south of 1800 N. has little to no shoulder on east side of roadway. This section near Wal-Mart sees heavy traffic. All major crossings have roundabouts with the exception of 2500 N. North of 1800 N. has a good road surface, wide shoulder, and is easily traversable by bicycle.



**400 E.**

A painted shoulder on entire roadway except between 1800 N. and 2200 N. A newer roundabout at 2200 N. has a short bike lane segment with shared lane markings within roundabout.



**600 E.**

A lesser used country road. No painted lanes. 2200 N. to 2500 N. is closed to through traffic during school start and end.



**800 E.**

A painted shoulder exists except for minor gaps north of 2100 N. South of 2100 N. is inconsistent between no shoulder, 1 ft. shoulder, and 3 ft.+ shoulder. There's primarily little to no shoulder in this segment.



**1200 E.**

A signed bike lane/bike route in the road shoulder exists from 2300 N. to 1500 N. Lane markings are present but faded. 1200 E. will soon be continued from its current end near 2300 N. and continue through to 3100 N., which will make this a complete throughway from USU to Hyde Park.



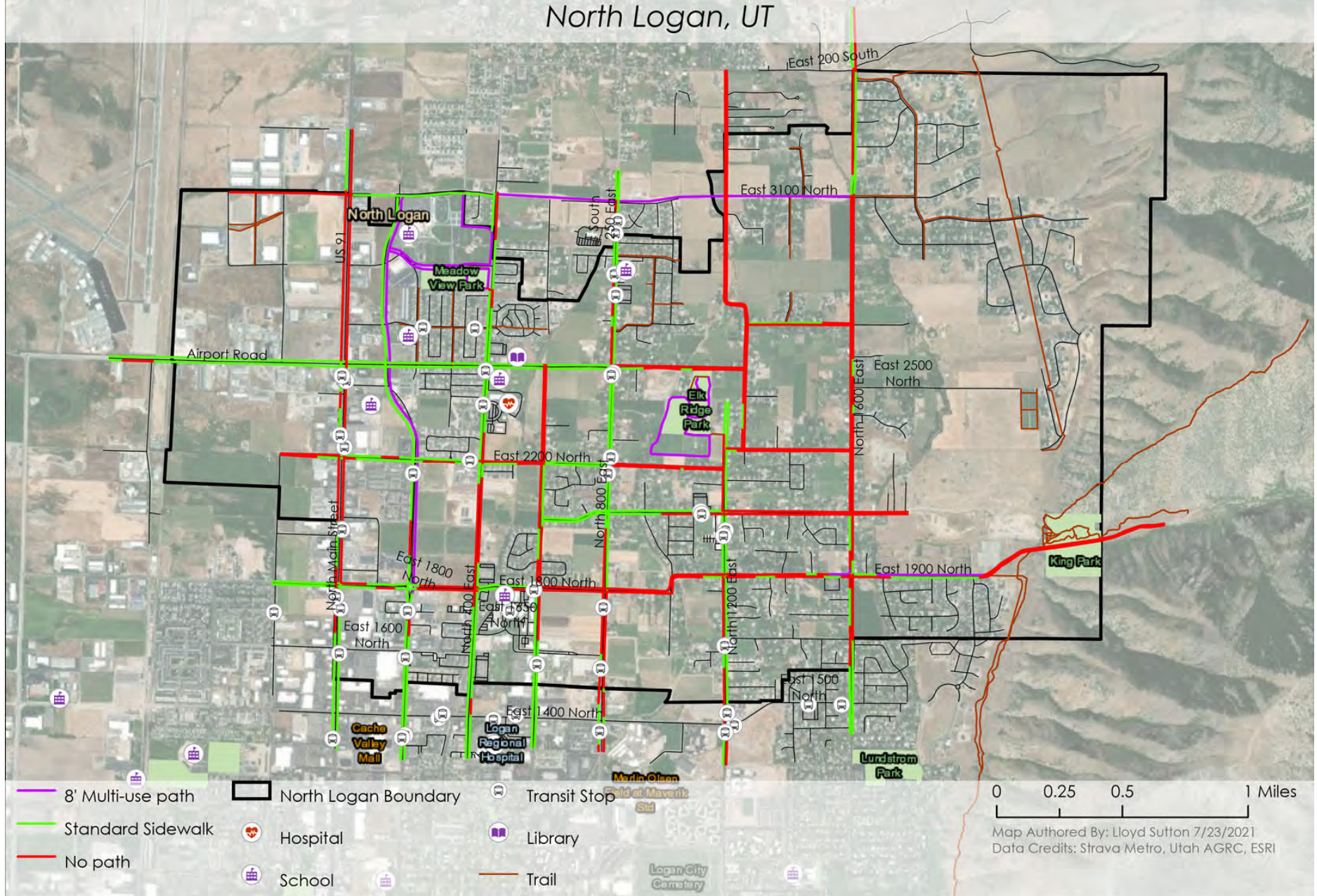
**1600 E.**

A painted shoulder south of 2500 N. exists. North of 2500 N. was recently chip and sealed with no striping at time of inventory (6/21/2021).



# Existing Sidewalk Infrastructure

## North Logan, UT

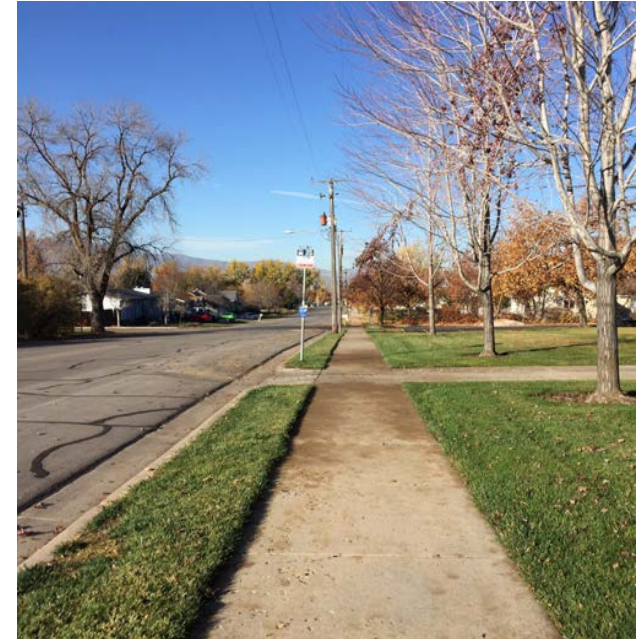


## East/West Ped. Network



1800 N./1900 N.

Primarily missing except for sporadic parcels that have sidewalks. A multi-use path exists east of 1600 E. to Green Canyon but is primarily detached from any network. The multi-use trail currently ends at a canal.



2100 N.

The west half of roadway has sidewalk connectivity on at least one side of roadway through primarily residential area.

## Pedestrian Network

The existing pedestrian network is primarily the presence of sidewalks vs. no sidewalks. Multi-use trails, used by both pedestrians and bicyclists, are also presented in this map.



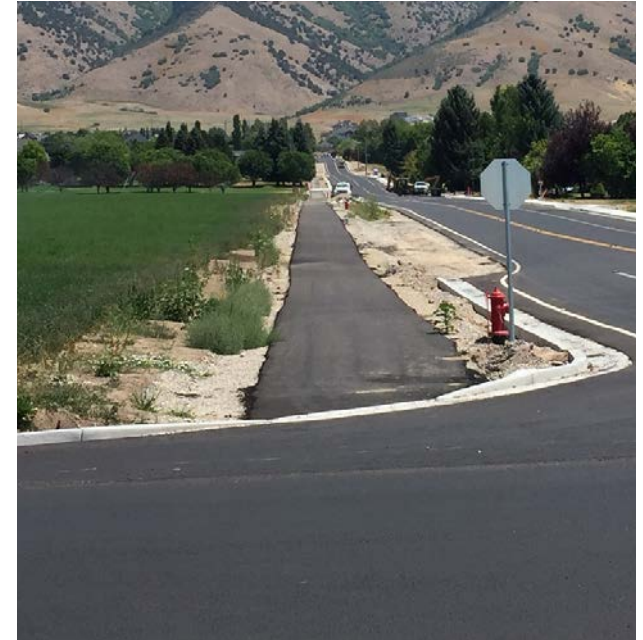
**2200 N./2300 N.**

The west half of this roadway has sporadic sidewalk gaps. The east side is mostly nonexistent but has relatively lower traffic and is rural.



**2500 N.**

Complete except for a stretch servicing Elk Ridge Park. The north side of 2500 N., from 800 E. to 1250 E., is missing sidewalks through all lots, although one section is currently under development with a requirement of adding sidewalks. The south section of the sidewalk gap on the west side of Elk Ridge is on a city-owned lot, with the gap on the east passing through one residential lot and agricultural land. The section between 600 E. and 800 E. is currently planned to be developed, with the developer putting in a section of multi-use trail on the south side of the road. A roundabout will be added to the intersection at 800 E.



**3100 N.**

Complete between Main and 1600 E. Mostly a multi-use path, with a standard sidewalk near Green Canyon High School.

## North/South Ped. Network



**Main Street**

It is mostly without sidewalks except in several newer developments and on the south side near Wal-Mart. Five transit stops on the east side of roadway and four on the west, only three of which are accessible via sidewalk. Walking options are limited to traversing through parking lots, along grass park strip, or on a busy roadway shoulder. In the 2 mile stretch within North Logan boundaries, there are only four signalized intersections with crosswalks to cross five lanes of traffic, all of which are south of Airport Rd. During the inventory section of this plan, it was common to see pedestrians (including wheelchair users) and bicyclists travelling in the busy roadway as a consequence of having no other travel options.



**200 E./Wolfpack Way**

Sidewalks are complete along entire roadway with the exception of several parcels; however, accommodations for travel exists on opposite side of roadway in all scenarios. Multi-use path exists from 1800 N. to 3100 N. Crosswalks are present at intersections. No yield signage or wayfinding.



**400 E.**

A large sidewalk gap through agricultural area between 1800 N. and 2200 N. exists. Remainder of roadway has accessibility on at least one side of roadway.



600 E.

Most of the roadway has sidewalks on only one side of the road with a short gap just north of 1800 N. No sidewalks exist north of 2200 N. Between 2200 N. and 2500 N. is closed to through traffic during the start and end of school to provide a walking route to and from Greenville Elementary School.



800 E.

Road has a sidewalk gap south of 1800 N, which includes a transit stop with no sidewalk access. The sidewalk is missing on the west side of the road adjacent to North Park Elementary. This area has a higher volume of children walking and riding bikes on the existing sidewalk to school. One controlled school crossing exists with a crossing guard present at the beginning and end of school.



1200 E.

Sidewalks exist on at least one side of roadway for the entire length of 1200 E.



#### 1600 E.

Very poor sidewalk connectivity and almost completely missing sidewalks for large, higher usage stretches. There is a moderate amount of vehicle traffic. This roadway sees a lot of pedestrian and bicycling activity demonstrated through Strava data, in-person counts, and remote counters set up on roadway sections. The current conditions facilitate limited use on the small shoulder with the majority of active transport occurring in the roadway due to no other facility options.



usage area of 1600 E. and an unpaved canal corridor adjacent to Elk Ridge Park frequently used by pedestrians.

**Trail counter locations:**

- Wolfpack Way (200 E.) and 2500 N.
- 1900 N. and 2000 E. (Green Canyon entrance)
- 3100 N. and 1200 E. (new multi-use trail)
- 1600 N. (no multi-use trail but high usage and demand for off-street network)
- Elk Ridge Park canal corridor

**Counting Method**

Counters were set up at each of the previous locations for one week per location for 5 consecutive weeks in July-August of 2021. The Eco-Counter Mobile MULTI bike and pedestrian counter was used for all locations except for 1600 E., as there was no way to distinguish automotive counts from active transportation counts. A Brinno BCC100 time-lapse camera, capturing still frames at 30 second intervals, was used in conjunction with the Eco-Counter to verify counts and compare path use to adjacent roadway use. On 1600 E., the time-lapse camera was used exclusively and counts were manually collected from still frames over a one week period. All equipment was generously provided on loan through BikeUtah.

*Multi-use Trail Observation*

There are several paved multi-use pathways throughout North Logan. During the course of this study, counters were set up for one week periods at high profile areas of each of the main multi-use pathways. The major multi-use paths all run parallel to the roadway with smaller recreational loops located in Elk Ridge Park and near Green Canyon High School. Counters were set up to gauge usage on the trail itself rather than the parallel roadway. Counters were used specifically on multi-use trails as other data sets were not able to distinguish between the multi-use trail and the parallel roadway usage.

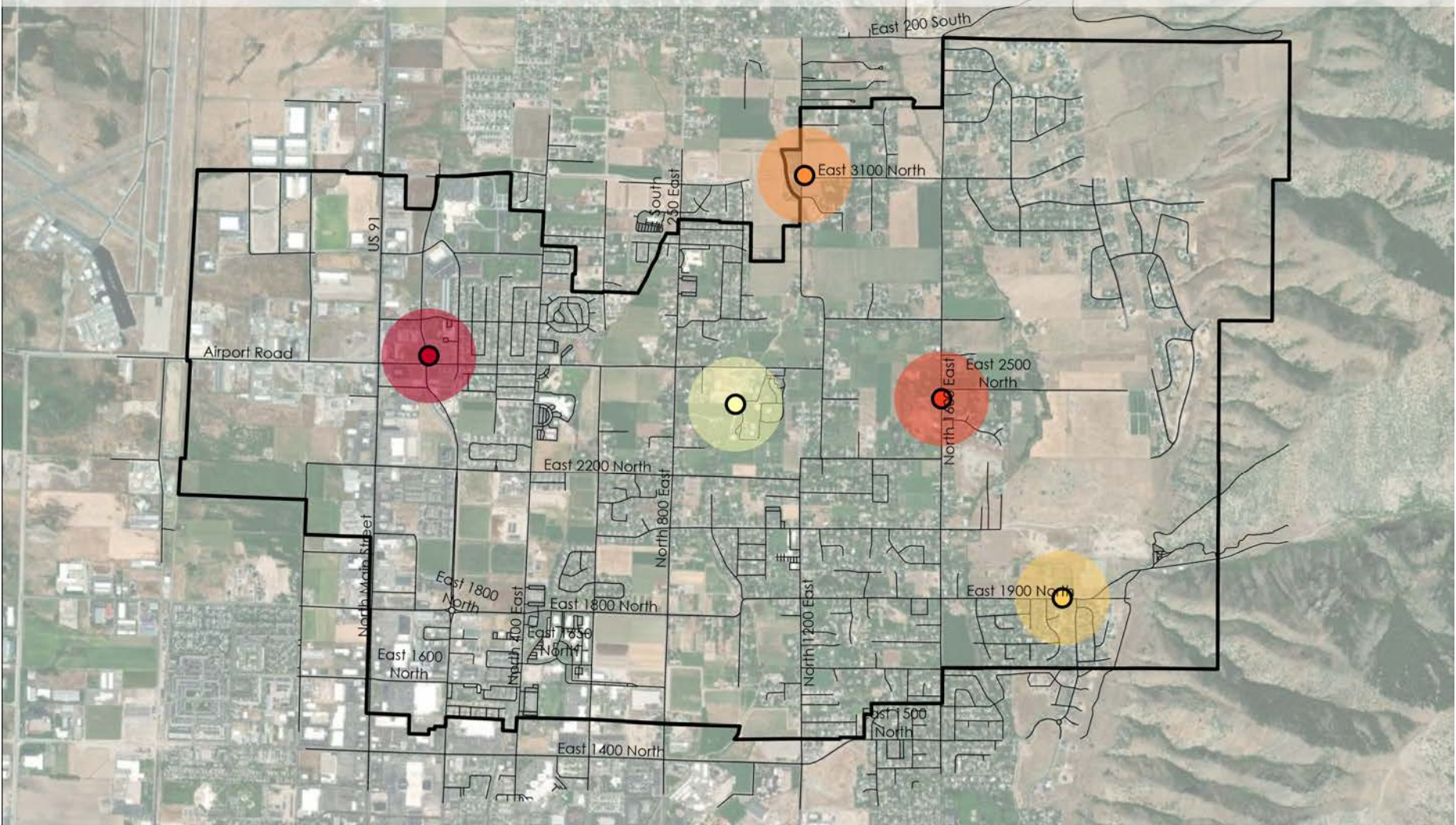
In addition to existing multi-use trails, counters were also set up on a high



# Pedestrian/Bicycle Counters

## July-August 2021

North Logan, UT



Average Daily User

● 53 ● 63 ● 67 ● 73 ● 89

0 0.25 0.5 1 Miles

Map Authored By: Lloyd Sutton 9/14/2021  
Data Credits: Utah AGRC, ESRI, Lloyd Sutton



## Wolfpack Way (200 E.) & 2500 N. Multi-use Trail

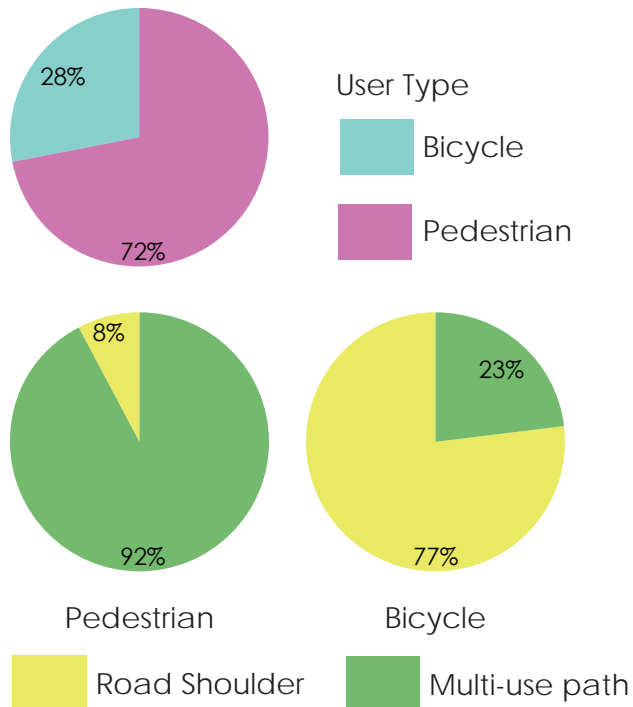
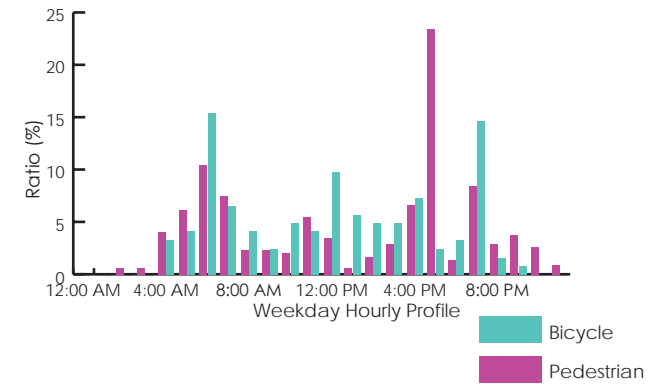
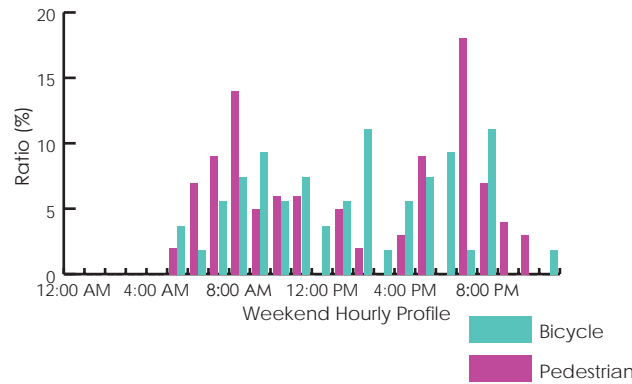
The multi-use trail on Wolfpack Way (200 E.) extends from 1800 N. to 3100 N. It has three major intersections: two roundabouts at 1800 N. and 2200 N. and a recently signalized intersection at 2500 N. The 2500 N. intersection was signalized soon after the data collection for this trail, significantly easing the difficulty in crossing the busy intersection. The concurrent roadway has ample shoulder space, particularly north of 2200 N., allowing many cyclists to ride in the shoulderway. Usage trends seem to have peaks during morning and evening commute times with a smaller peak around noon. Weekend usage is higher in the evenings.

**Weekday Pedestrian**  
Daily Average  
**69**

**Weekday Cyclist**  
Daily Average  
**25**

**Weekend Pedestrian**  
Daily Average  
**50**

**Weekend Cyclist**  
Daily Average  
**27**

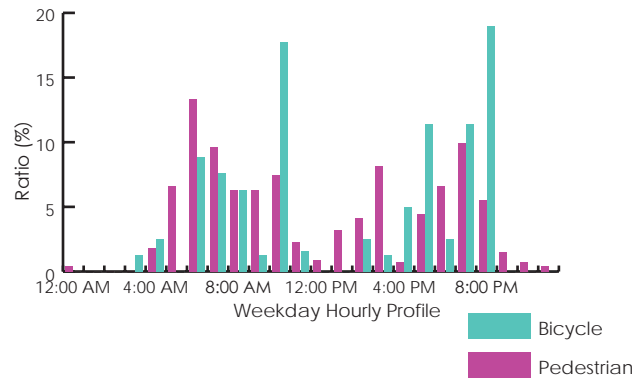


### 3100 N. & 1200 E. Multi-use Trail

The multi-use trail on 3100 N. was completed just prior to data collection in the summer of 2021. It runs from west to east and begins just after Green Canyon High School at 400 E. (100 W. in Hyde Park) and extends to 1600 E. Concurrent roadway shoulders are not as wide as on Wolfpack way. It was interesting to note that during the observation times, all usage was observed primarily on the path with a few exceptions in the roadway, however no usage was observed on the concurrent sidewalk on the south side of the road. Usage follows typical morning/evening peak times. A fair amount of non-motorized traffic was also observed on 1200 E. although not quantified.

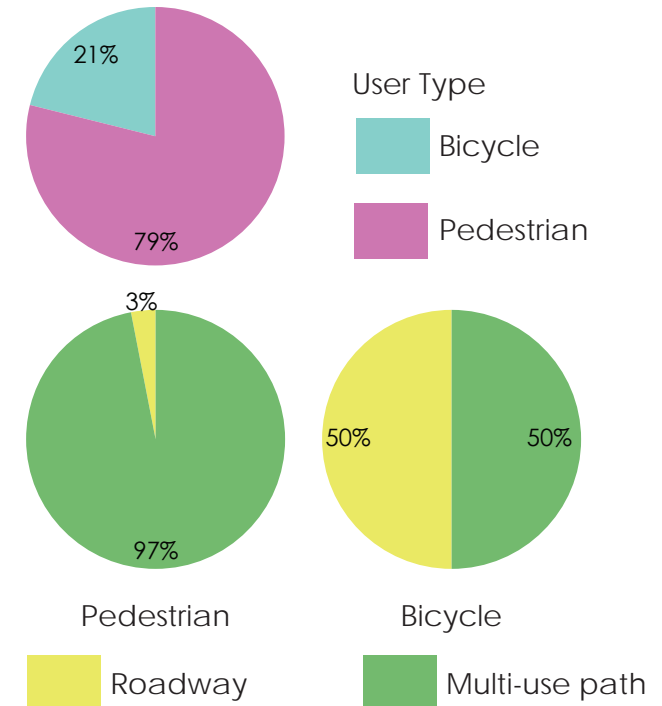
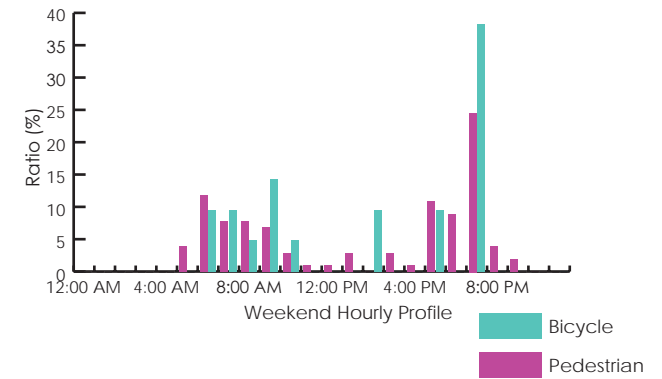
**Weekday Pedestrian**  
Daily Average  
**54**

**Weekday Cyclist**  
Daily Average  
**16**



**Weekend Pedestrian**  
Daily Average  
**51**

**Weekend Cyclist**  
Daily Average  
**11**



## 1900 N. & 2000 E. (To Green Canyon) Multi-use Trail

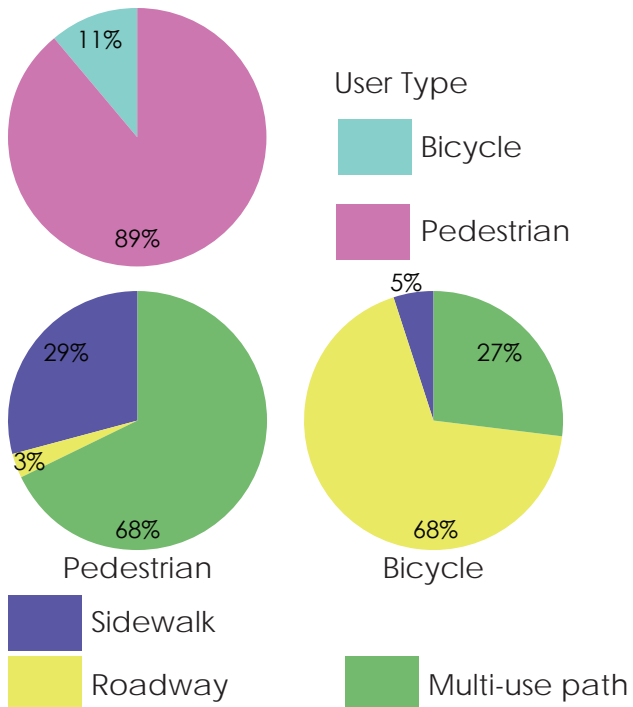
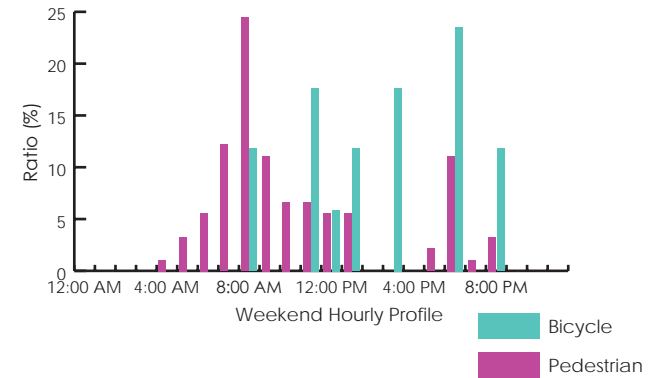
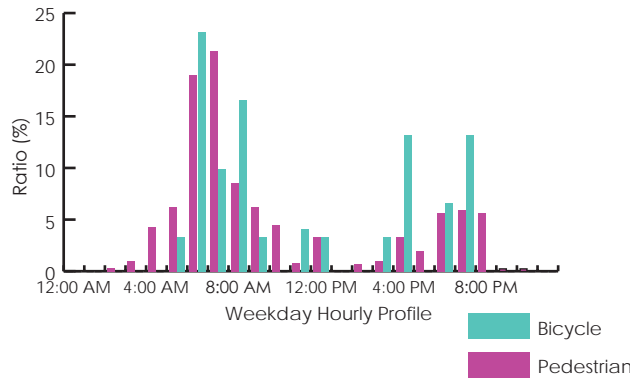
The multi-use trail on 1900 N. is a small section of trail that begins at the canal at roughly 1650 E. and ends at the sub station just before Green Canyon. It is less than half a mile in length and does not directly connect to any other trail system. With the pathway directly adjacent to a low traffic roadway and no clear entry/exit points, much of the bicycle traffic is in the roadway. Usage is heavily oriented towards mornings with many observed dog walkers from the adjacent neighborhoods. While the path is currently a stand-alone path, it provides potential for connecting the Green Canyon recreation area and Bonneville Shoreline Trail to a larger trail network.

**Weekday Pedestrian**  
Daily Average  
**60**

**Weekday Cyclist**  
Daily Average  
**6**

**Weekend Pedestrian**  
Daily Average  
**45**

**Weekend Cyclist**  
Daily Average  
**9**

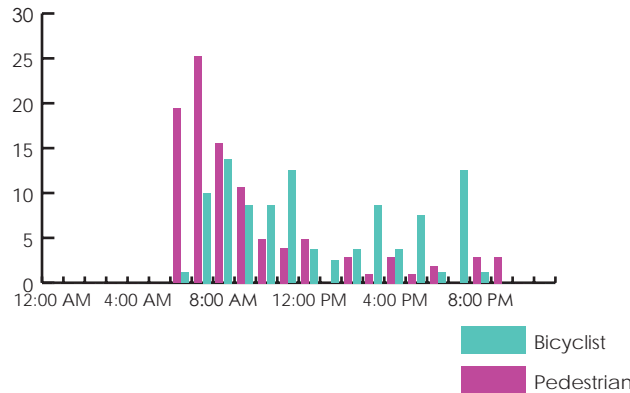


**1600 E .& 2500 N. Roadway - No path, high active transportation usage**

While no trail currently exists on 1600 E., this corridor was identified as a high active transportation usage area through varying data sets, anecdotal evidence, and stakeholder input. Usage was particularly high during mornings and weekends. This corridor also connects two existing multi-use trail segments; the 3100 N. multi-use trail and the 1900 N. multi-use trail. The south end of this road segment continues into Logan through lower traffic neighborhoods and provides connection to USU. 1600 E. has frequently been mentioned as an ideal active transportation/recreational corridor during stakeholder meetings and surveys.

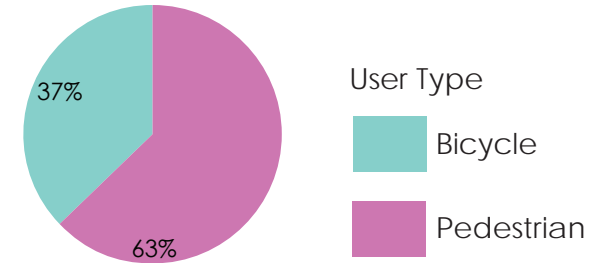
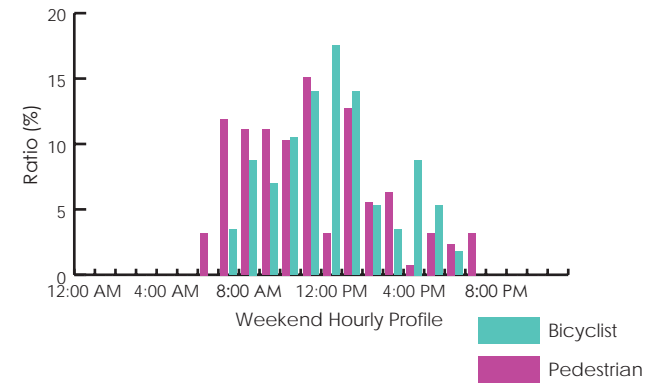
**Weekday Pedestrian**  
Daily Average  
**34**

**Weekday Cyclist**  
Daily Average  
**27**



**Weekend Pedestrian**  
Daily Average  
**63**

**Weekend Cyclist**  
Daily Average  
**29**



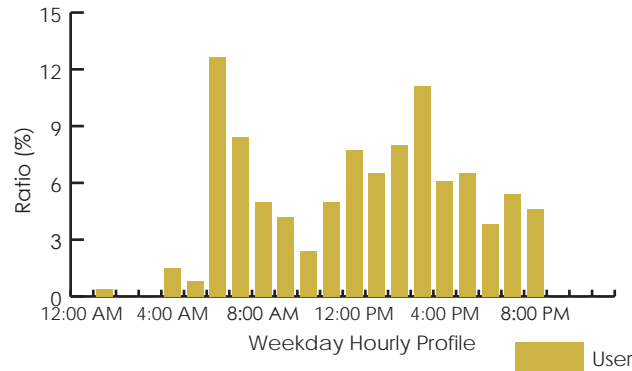
## Elk Ridge Park Canal Corridor - Unpaved path

The small section of canal corridor adjacent to Elk Ridge Park traverses city property and is open for public trail use. The path is not officially advertised as a trail but is commonly used as such. Although gated, as are most of the canal corridors, the gates are left open allowing frequent use. After seeing strong response in the public survey regarding canal corridors as trails, this section of trail was used as a case study to monitor canal trail usage.

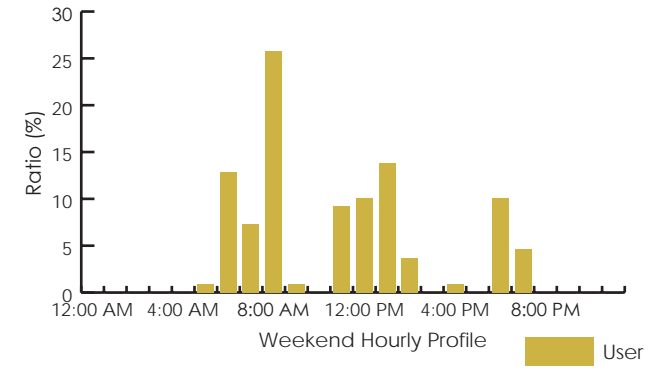
Due to the equipment used for counting, it was unable to distinguish whether trail users were pedestrians or bicyclists. During brief observations, only pedestrian activity was noticed on the unpaved path. Average usage was nearly the same during weekdays as on weekends, however the time of use was more evenly distributed throughout the day during weekdays.

While currently an unofficial trail, trail usage is on par with pedestrian-only usage on other established trails in the city.

Weekday User  
Daily Average  
**52**



Weekend User  
Daily Average  
**54**





## Unpaved Trail Network

### Canal Corridors

Canal trails are not officially a part of North Logan's existing active transportation network. With several exceptions (primarily city-owned parcels adjacent to the canals near Elk Ridge Park or subdivisions developed in the last 5 years), the canal service corridors have, in recent years, been gated and closed to public use. There was strong response in the North Logan Active Transportation Survey to consider working to incorporate these corridors into the city's active transportation network as it provides a north/south network that isn't adjacent to a roadway, creating the perception of a safe place for pedestrians and bicyclists

away from traffic. Additionally, these corridors have previously been open with frequent public use (however, no official trail maintenance of these corridors existed). There has been public response expressing frustration with the closing and gating of these corridors.

There are three primary canal corridors that could serve as trails after establishing easements, ownership, or other cooperation with private land owners.

The lower canal (or Hyde Park Irrigation Canal), the west-most canal in North Logan, does not have a clear, existing maintenance path and is relatively unmaintained compared to the other two corridors. This lower canal corridor would require the most significant alterations to be used as a trail. However, there is much less difficulty in acquiring the necessary approvals to have a designated trail through this corridor.

The middle and upper canals are both maintained by the Cache Highline Water Association and have a defined maintenance path. Because of this maintenance path, the corridors are frequently used as a trail and would make the easiest transition to an official trail network pending coordination with adjacent private property owners.

A UDOT report completed concurrently with this plan studied canal corridors as active transportation routes more in depth. The report provides useful information for legally incorporating canal corridors into active transportation networks. According

to the report, prescriptive easements may provide a reasonable method for officially establishing a trail corridor along the canals. Prescriptive easements for conveyance of irrigation water are very common in Utah because many canals were built prior to the documentation of land ownership. Over time, the land adjacent to the canals started to be developed and it became important to have a more physically and legally defined right-of-way<sup>1</sup>. According to Cache County attorneys, a trail easement can be established if the canal maintenance road has been used for public recreation for 20 consecutive years at any point in time<sup>1</sup>.

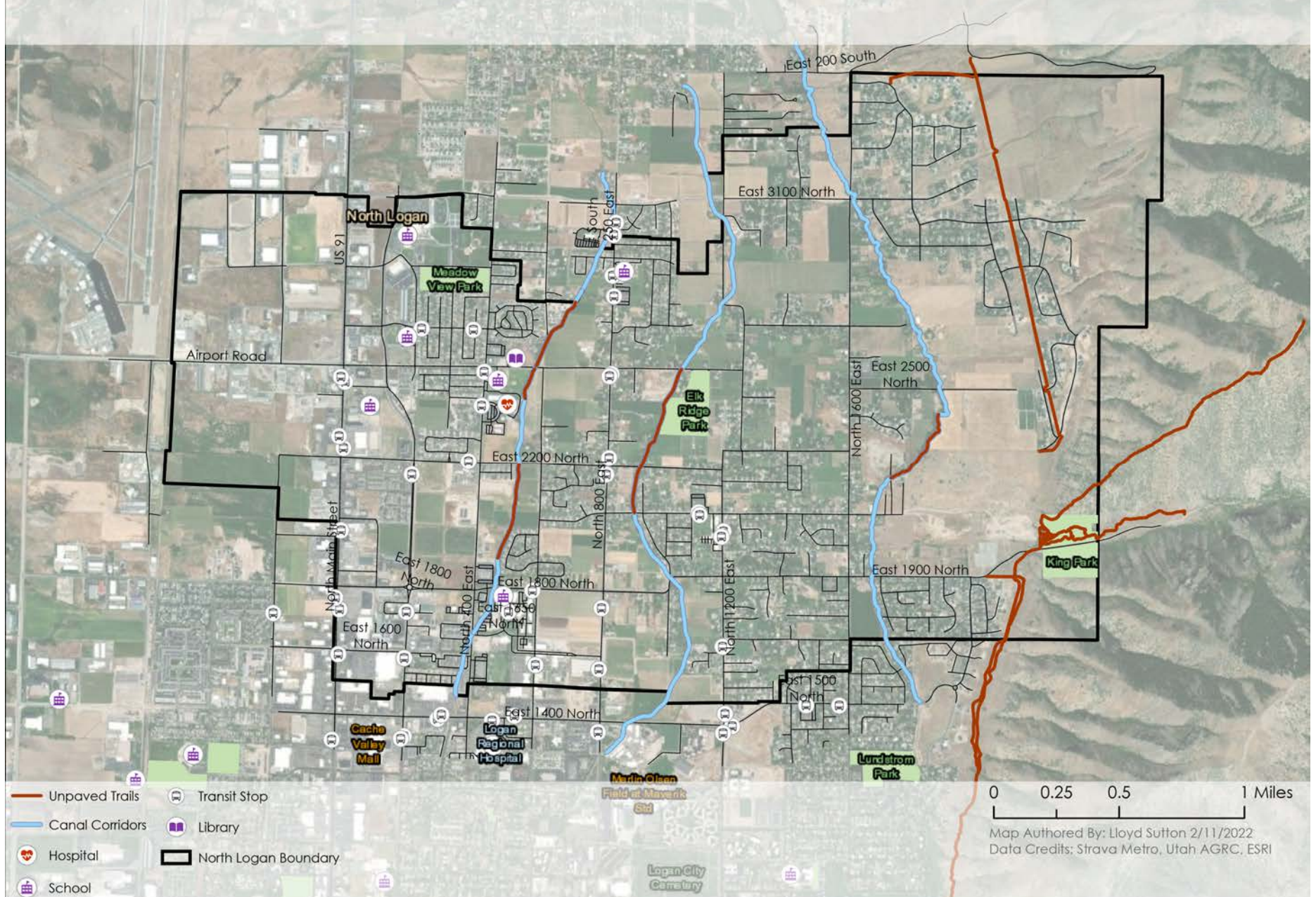
The referenced report provides additional valuable resources regarding canal trails.

1. Crump, M., Singleton, P., Torres-Rua, A., & Pack, A. (2022). *Active transportation facilities in canal corridors*. Utah Department of Transportation.



# Existing Unpaved Trails

North Logan, UT  
Hyde Park





### **Powerline/Centennial Trail**

The Powerline/Centennial Trail follows a utility easement from the south side of North Logan's Memorial Park to Hyde Park's border on the north. A small, unofficial social trail exists crossing private property from the south terminus of the Powerline trail that connects to King Nature Park and the Bonneville Shoreline Trail. The trail surface is similar to that of the BST but often has vegetation encroaching into the pathway.

### **King Nature Park/Green Canyon Trails**

King Nature park is located on the east end of 1900 N. at the mouth of Green Canyon. It is ideally positioned directly connecting or close to all of North Logan's

unpaved trails that are not on a canal corridor. King Nature park also has its own looping trail system and connects to a further trail system in Green Canyon. The trails accessed through the nature park are almost exclusively used for recreation, rather than active transportation. In addition to accessing unpaved trail networks, the King Nature park is nearly connected to the segment of a paved multi-use trail on 1900 N.

While this area may not be a hub for active transportation, there is opportunity for connecting to the overall active transportation network to provide additional travel options and for those using active transport to access recreation.

### **Bonneville Shoreline Trail**

The Bonneville Shoreline Trail (BST) is a statewide trail system that is intended to eventually stretch from the Idaho border to Nephi, with a proposed length of over 280 miles. The only officially designated section of the BST in Cache County is a two mile section that extends from Green Canyon and King Nature Park in North Logan to Logan Canyon on the south. The crushed gravel trail surface makes for an easily traversable surface, although some steeper sections exist. The BST is located on the eastern interface between the Cache National Forest and residential development.





# Existing Plan Review

## North Logan Parks & Trails Master Plan

The North Logan Parks & Trails Master Plan includes maps of existing and future paved paths (sidewalks), gravel trails (pedestrian), multi-use gravel trails, and multi-use paved paths. New developments in the city are required to install the future trails on sections that they develop. While this addresses adding trails in currently undeveloped areas, it does not address areas that have already been developed and are unlikely to change in the foreseeable future. The Active Transportation Plan can supplement this plan in providing recommendations for on-street infrastructure (which is

currently unaddressed) and provide phased recommendations to implement, regardless of new developments.

## North Logan General Plan

The General Plan provides policies supportive of pedestrian and bicycle connectivity throughout the community. This includes the requirement for subdivisions to have pedestrian connections and allowances for such access to future developments.

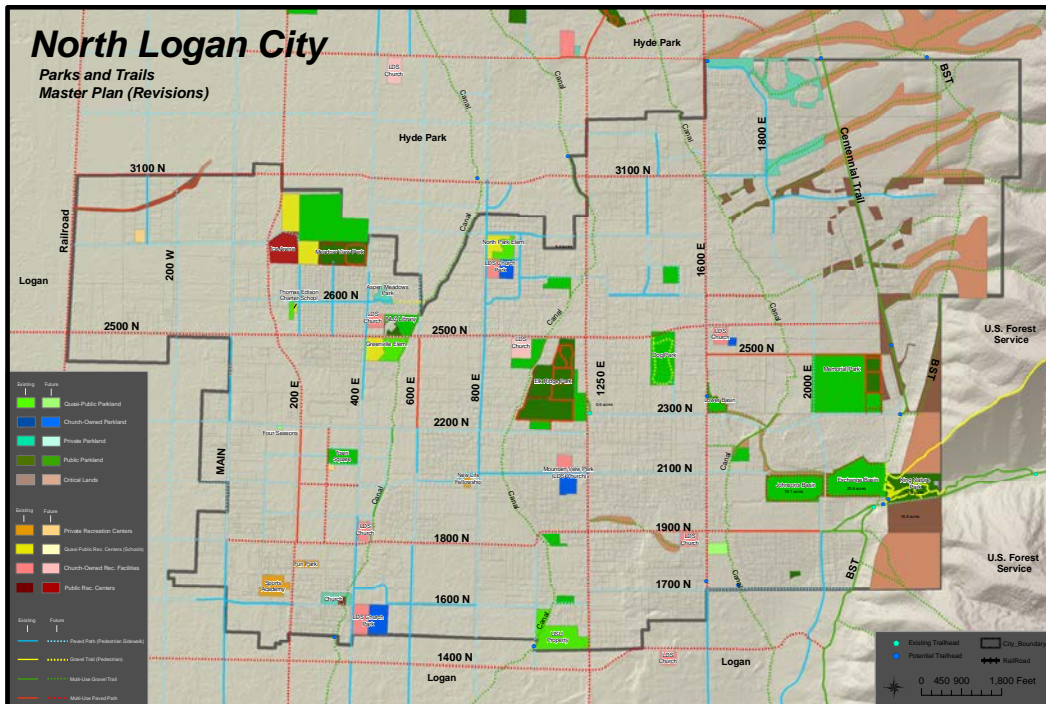
## North Logan Transportation Master Plan

The North Logan Transportation Master Plan provides roadway width and classification type. These road classifications can be referenced when addressing design guidelines and cross sections.

## Cache County Active Transportation Plan

The Cache County ATP includes the following projects in North Logan

- 400 E. "Active transportation street" (essentially any of the various types of bike lanes with the presence of a sidewalk)
- Unpaved pathways on the Twin Ditch and Middle Canals
- 1200 E. active transportation street
- 1600 E. paved pathway
- 1800 N. paved pathway
- 1900 N. shared roadway
- 2500 N. shared roadway from existing bike lane east past Elk Ridge Park
- Singletrack trails on the Bonneville Shoreline North of King Nature Park
- Single track trail from 1600 E. to Green Canyon
- Paved pathway on Airport Road west from the bike lane on 2500 N.
- Active Transportation street on 2200 N. connecting to 400 E.

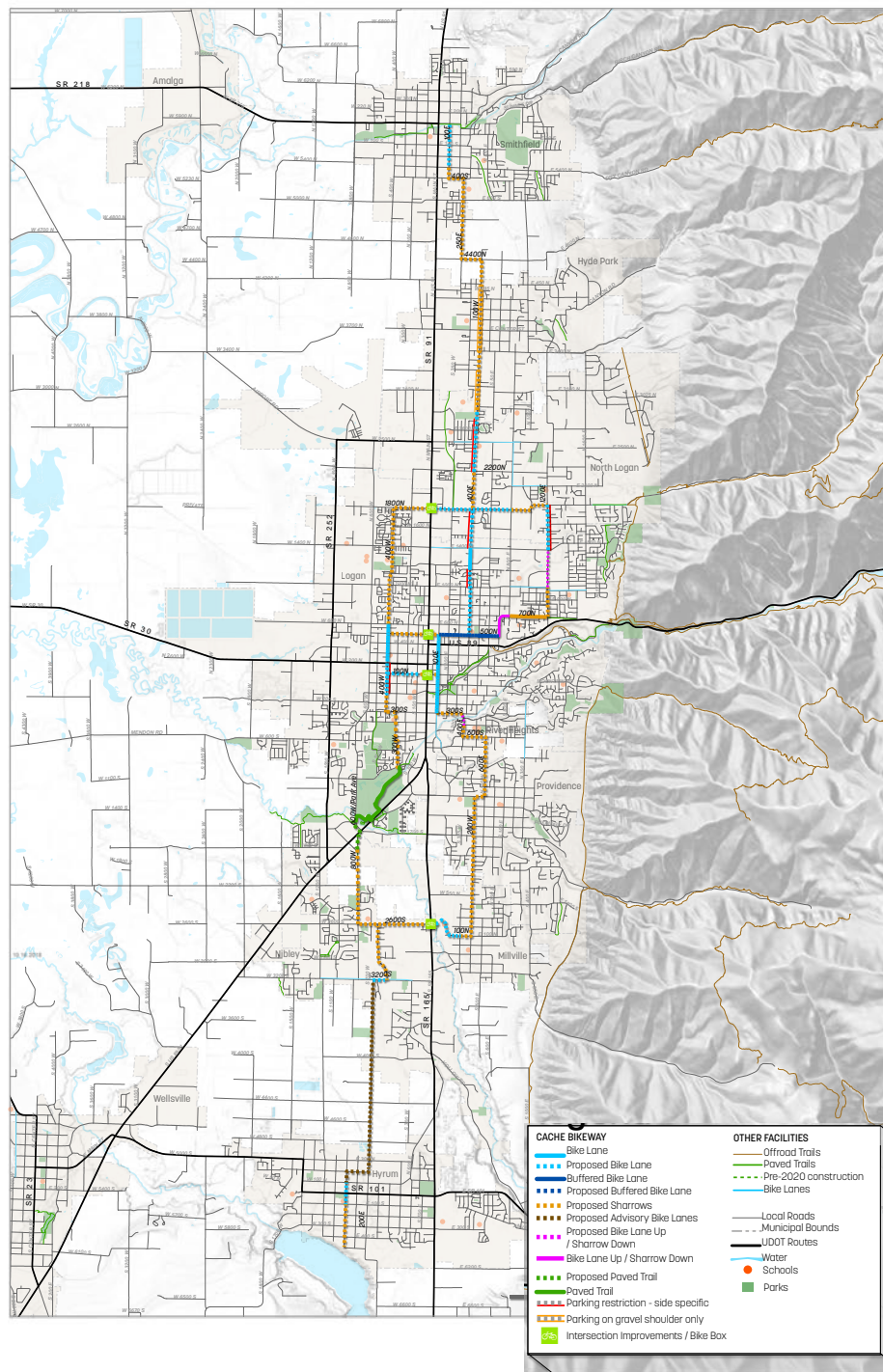


# CACHE COUNTY TRAILS & ACTIVE TRANSPORTATION MASTER PLAN



## Cache Bikeway Striping Plan

The Cache Bikeway emerged from a recommendation in the Cache County Active Transportation Plan. The recommendations relating to North Logan are primarily incorporating a bike lane/shared use lane markings along the north/south 400 E. corridor with parking restrictions in certain areas. A bike lane and shared lane markings are also recommended on 1800 N. with intersection improvements at the Main Street crossing. A bike lane with parking restrictions is also recommended on 1200 E., however a shoulder bike lane now exists but is currently shared with parking.

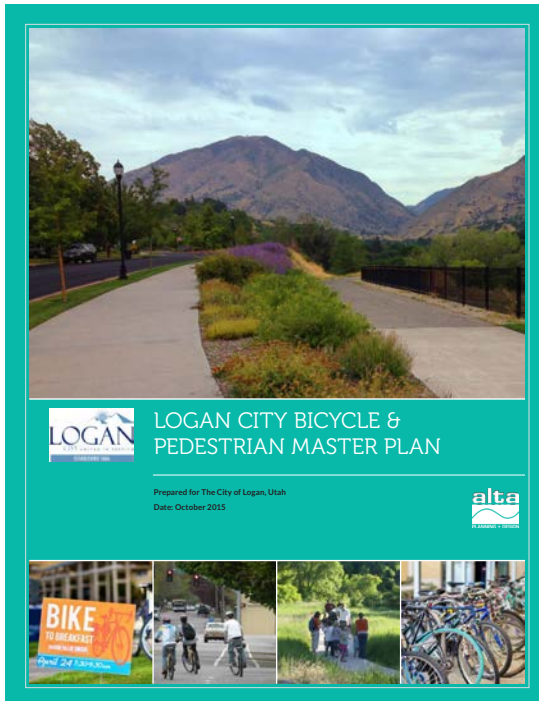


## Logan City Bicycle and Pedestrian Master Plan

The Logan City Bicycle and Pedestrian Master Plan borders North Logan City on the South and recommends several projects that continue to, or across, the North Logan city line.

Projects include:

- 200 E. bike lane,
- 400 E. bike lane,
- 800 E. bike lane,
- 1200 E. bike lane,
- 1600 E. shared roadway,
- Middle Canal shared use path,
- 1800 N. shared roadway
- Airport road shared use path
- 2200 N. shared use path



## CMPO Regional Transportation Plan 2050

The regional transportation plan is the plan that provides the base for the recommended, phased projects in the Utah Unified Transportation Plan. Project recommendations can be viewed under the Utah Unified Transportation Plan section.

### Utah Unified Transportation Plan

The Utah Unified Transportation Plan is a collaboration between the transportation planning agencies across the state of Utah. The Cache Metropolitan Planning Organization (CMPO) contributes to the unified plan for North Logan. This plan helps maintain consistency across transportation goals and planning timelines. This plan also coordinates timing and funding to ensure shared objectives are met across the state of Utah. Active Transportation projects are separated into 4 categories, 3 funded phases, and 1 unfunded but needed classification.

Timelines listed in the plan for the following phases are:

- Phase 1 2020-2030
- Phase 2 2031-2040
- Phase 3 2041-2050

There are several North Logan Active Transportation projects listed in the funded phases of the Unified Transportation Plan.

- 1800 N. Cache Bikeway – Bike lane and

road widening. Phase 1

- 400 E. Cache Bikeway – Widening and resurfacing to include bike lanes. Phase 2
- Middle Canal - Improved Canal Pathway Access. Phase 2
- 1600 E. Trail – Paved trail along edge of pathway. Phase 3
- Bonneville Shoreline, Green to Birch Canyon – New construction of a natural surface hiking, biking, and jogging trail. Phase 3
- Airport Road Pathway – new construction of a paved trail from Main Street west along UDOT owned portion. Phase 3
- The recently completed paved multi-use trail on 3100 N. was included under Phase 1 of the plan

Unfunded projects

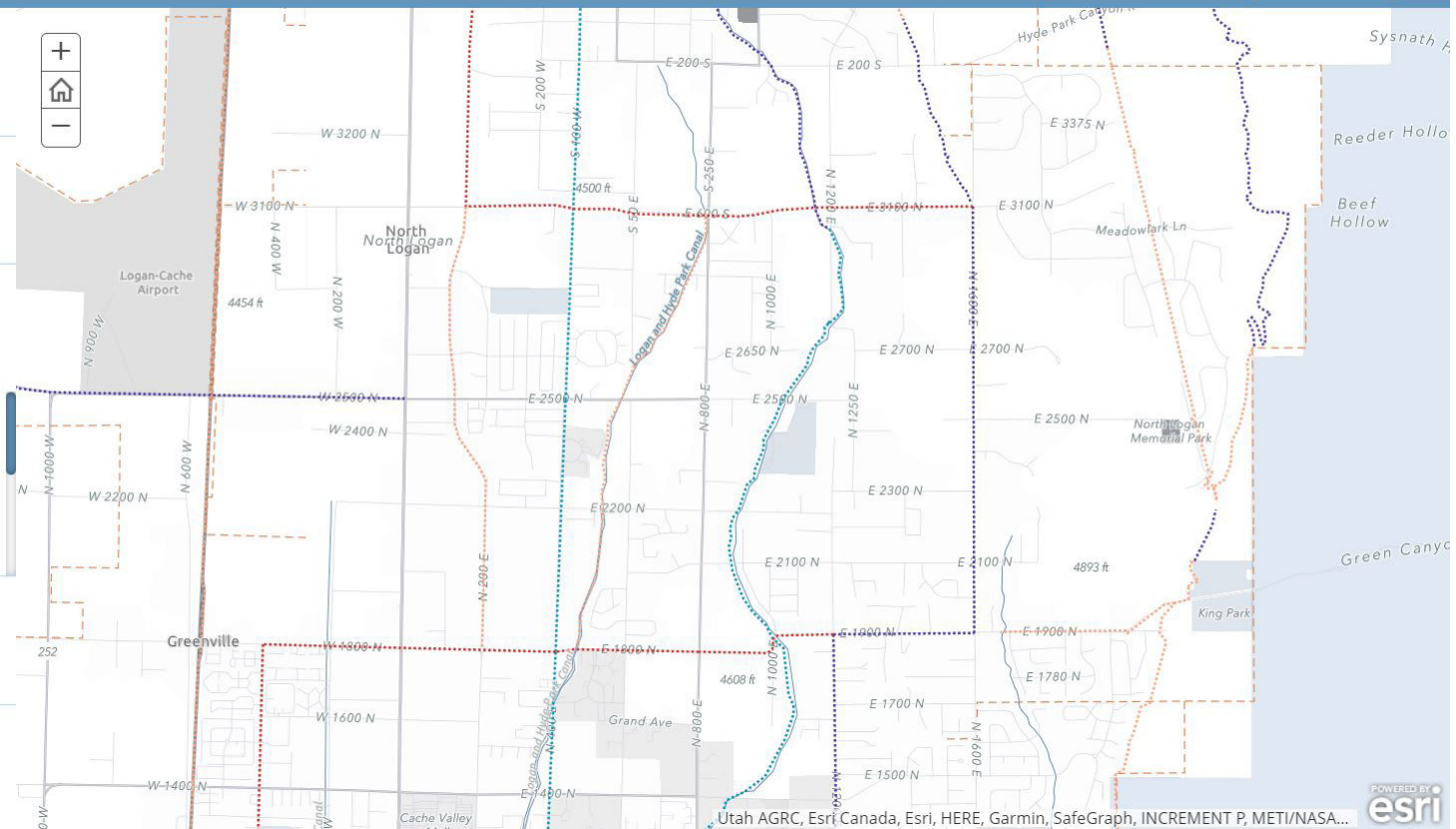
- Twin Ditch Trail – piped canal and public trail access
- 1900 N. access path – paved and gravel pathway connecting to Green Canyon
- Bonneville Shoreline Trail – Construction of BST in Wildercrest section.

Several other completed projects included the Wolfpack Way multi-use trail and other segments of the Bonneville shoreline south of Green Canyon.

- ▶ 1 Highways
- ▶ 2 Transit
- ▶ 3 Active Transportation
- ▶ 4 Corridor Preservation
- ▶ 5 All Projects

**AT Site Projects**

- ▲ Phase 1 (2020-2030)
- ▲ Phase 2 (2031-2040)
- ▲ Phase 3 (2041-2050)
- ▲ Unfunded



## Existing Plan Conclusions

A review of the existing plans provides concurrence in various recommendations throughout the region. Relating to North Logan, most of the neighboring plans will tie into the North Logan plan on the north/south corridors, with exceptions.

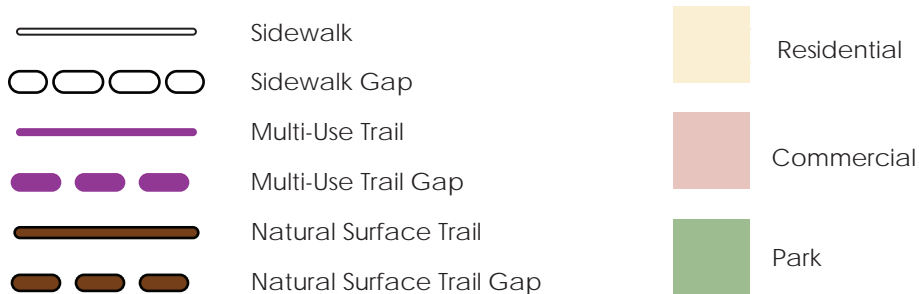
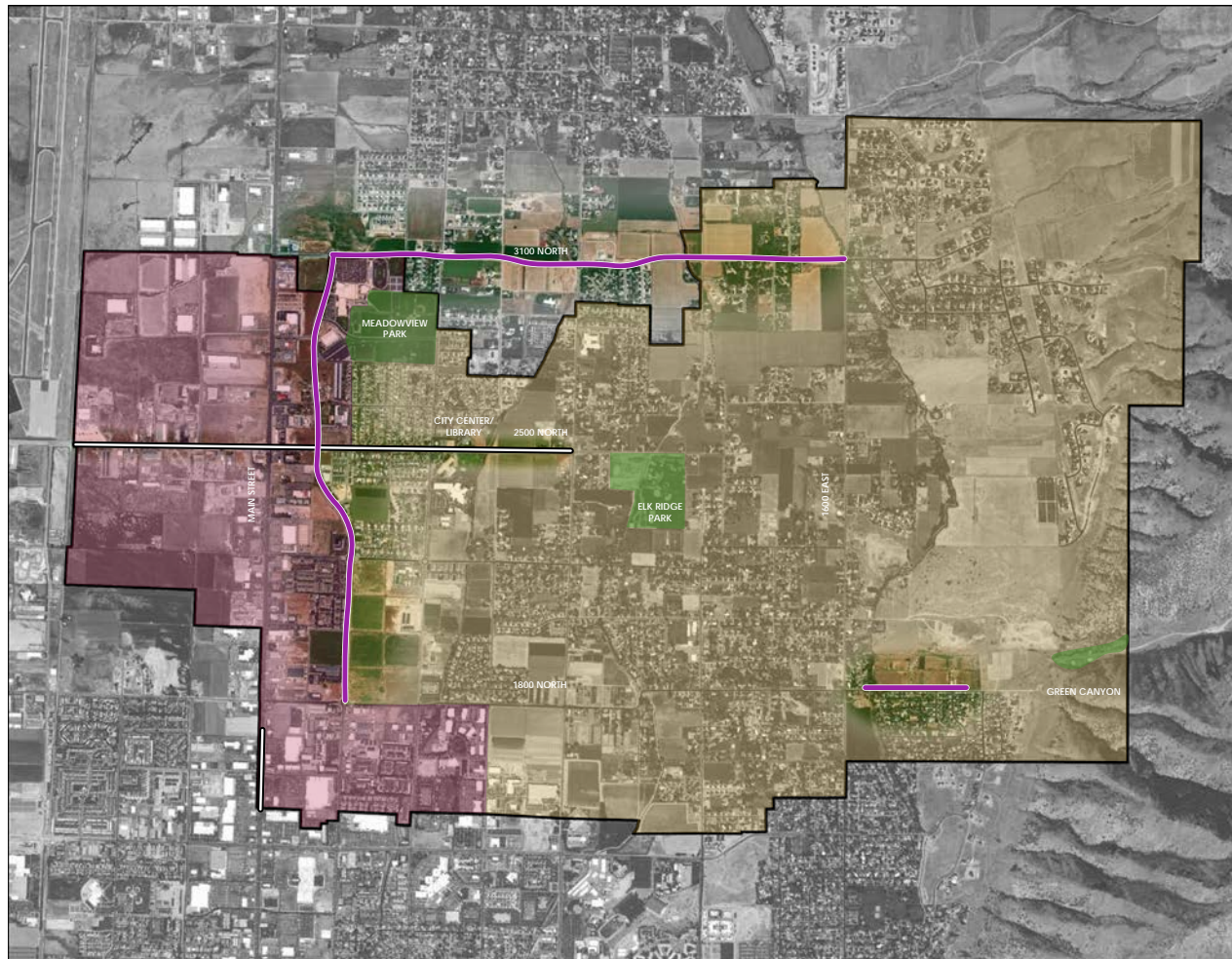
**Takeaways:**

Most of the neighboring planned connections are either via the canal corridors or Cache Bikeway.

The North Logan Parks and Trails Master Plan has existing plans that guide future development through requiring developers to put in planned trail sections. These should remain in future plans.

The most important new recommendations will be recommendations that may not necessarily connect to regional or neighboring plans.

# Gaps & Opportunities



## Existing Conditions (Off Street)

North Logan's existing network has few complete, uninterrupted routes. Sidewalk connectivity is especially sparse with the longest continuous sidewalk route located on 2500 N., terminating just before Elk Ridge Park.

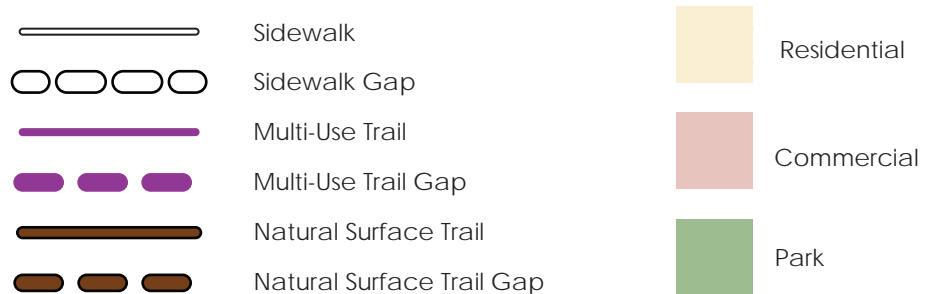
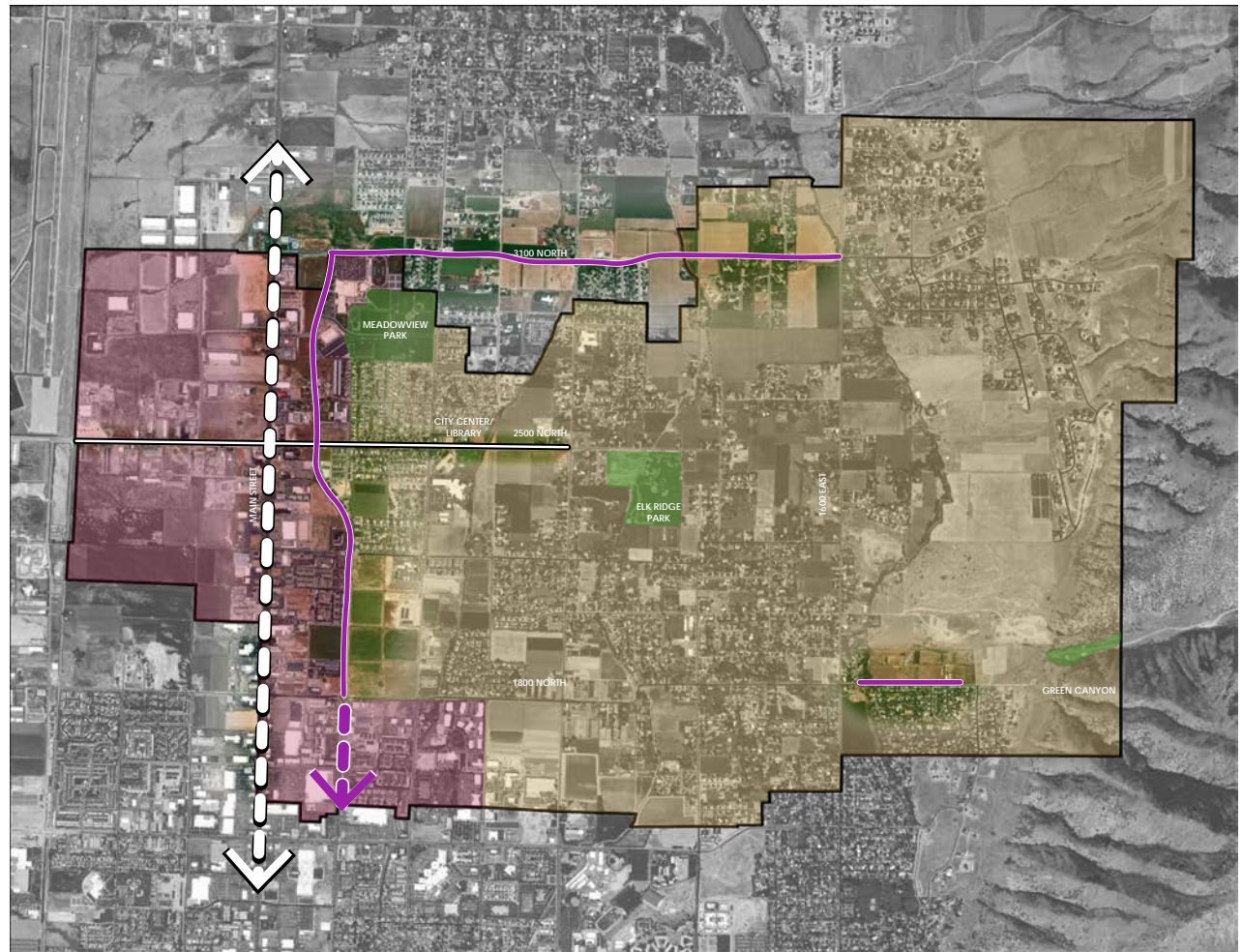
North Logan has, in recent years, added several sections of multi-use trails on Wolfpack Way, 3100 N., and a small segment on 1900 N. toward Green Canyon.

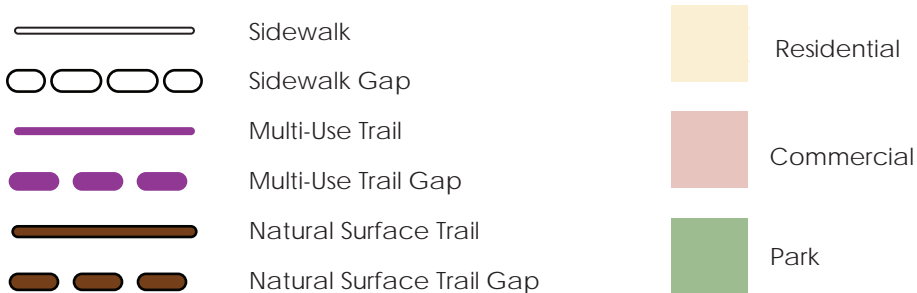
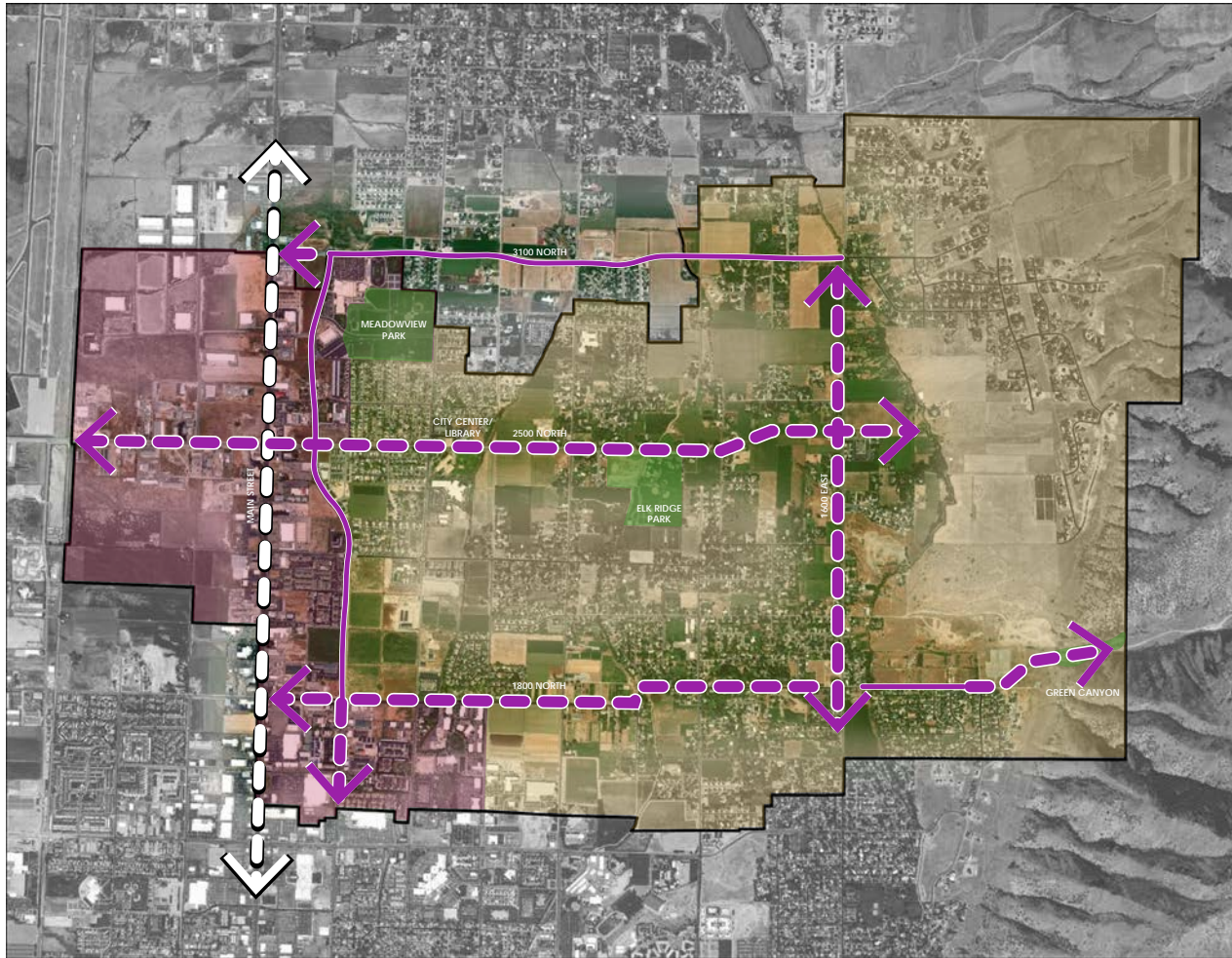
Main Street has some small sidewalk sections, but the only continuous sidewalk path ends on the southern corner of city boundaries.

### Main Street Gap and Alternative

The largest network gap in the most heavily trafficked part of North Logan is the lack of sidewalk connectivity on Main Street. This prevents connections to a majority of the commercial areas along the Main Street corridor and existing bus stops. The existing Wolfpack Way multi-use trail provides a reasonable alternate north-south route, but is not ideal for accessing most of the amenities along Main Street.

The Wolfpack Way multi-use trail currently begins at 1800 N. and terminates at 3100 N. Neighboring Hyde Park is planning to continue Wolfpack Way north from 3100 N. at some point in the future. Future connections to the north could provide additional regional north/south connectivity. Continuing the multi-use trail south to the Logan boundary would alleviate smaller network gaps on the east side of Wal-Mart.





### Multi-Use Trail Box

The existing multi-use trails form two sides of a box enclosing North Logan. Continuing this network with the expansion of multi-use trails on 1600 E. and 1800 N. would alleviate heavily used network gaps. Completing these two trails would provide road-separated trail access on all sides of North Logan. Completion of the 1900 N. trail would connect the entire network to Green Canyon and recreation opportunities.

The addition of a secondary multi-use trail on 2500 N. (with priority on sections without current infrastructure) would bisect the multi-use trail box providing important access to Elk Ridge Park, elementary schools, the North Logan Library, and planned City Office buildings. Additionally, the trail could be continued along Airport Road to increase regional access and tie in neighboring plans.

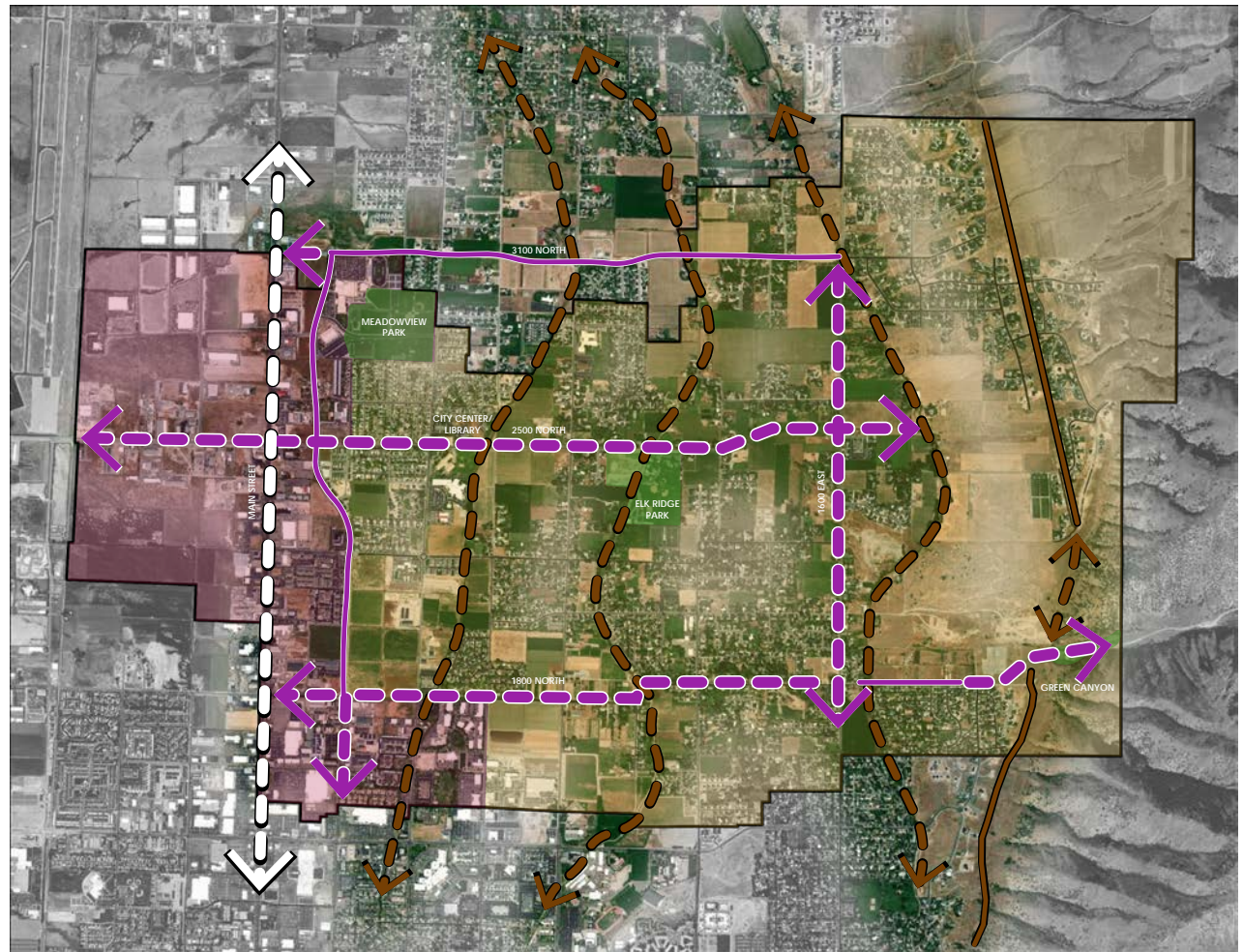
Continuing the existing multi-use trails to Main Street could provide secondary access to the main commercial core.










## Unpaved Trail Network

In addition to completing the multi-use trail box around the city, an unpaved trail network could heavily supplement non-motorized trail access to nearly all residents in North Logan.

The three canal corridors have the opportunity to create a safe, non-roadway adjacent path that accesses residences, schools, recreation, and businesses.

A small gap through private property currently exists between the Bonneville Shoreline Trail and the Powerline Trail. Working with private property owners to connect through this gap would complete a regionally important recreation corridor. The incorporation of both paved and unpaved paths have the potential to cover North Logan in a grid of accessible, active transportation options. This network would provide almost the entire city with a safe place to walk or bicycle within 1/4 mile of their residence.



	Sidewalk		Residential
	Sidewalk Gap		Commercial
	Multi-Use Trail		Park
	Multi-Use Trail Gap		
	Natural Surface Trail		
	Natural Surface Trail Gap		



# Existing Conditions

## Conclusion

### Collisions

The most noticeable pattern of collisions involving pedestrians or bicyclists is the concentration of collisions on the Main Street corridor. Additionally, all fatalities occurred on Main Street. This illustrates an issue when high vehicular and high non-motorized traffic coincide. While Main Street is missing infrastructure, especially sidewalks, as much non-motorized traffic as possible should be accommodated separately from the Main Street corridor to enhance safety.

### Transit Use

Transit usage is currently low in North Logan, with the exception of the areas on Main Street and surrounding the Wal-Mart intersections. It is also noticeable that the majority of transit usage occurs where there is also existing sidewalk infrastructure and less in areas where there is a bus stop and no sidewalk connection. This emphasizes the need to ensure connectivity with bus stops in order to better accommodate transit usage.

### Sidewalk Connectivity

Other than the 200 E./Wolfpack Way Corridor, there is not a north/south or east/west corridor that is completely connected via sidewalk. Fixing sidewalk gaps was commonly referenced in the public survey as an important need for North Logan.

Additionally, with widespread sidewalk gaps throughout North Logan, future development cannot be relied upon to solve the sidewalk connectivity issue. Infill in previously developed areas will be necessary. Multi-use trails also pose a solution to completing sidewalk gaps as many people will use the multi-use trail in place of a sidewalk. The addition of a reliable and connected multi-use trail could alleviate many sidewalk connectivity issues.

### On-street Bicycle Network

The existing on-street bicycle network is comprised of signage and on street markings. There is not always a correlation between signed routes and painted infrastructure. Survey results indicate signed routes are of low importance and more focus should be on actual painted infrastructure such as bike lanes. Much of the painted bike infrastructure can be accomplished during routine maintenance, such as road resurfacing or striping. A majority of routes in North Logan can be accommodated by following the recommendations given in the Cache County Active Transportation Plan and Cache Bikeway plans.

### Multi-Use Trail Network

One of the biggest takeaways from the existing conditions analysis is that the multi-use trails in North Logan are both desired and used by residents and visitors. There is a need to provide connections with the existing routes in the city. Multi-use trails provide a route that is removed from traffic

and can accommodate a wide range of comfort levels and abilities. Access to multi-use trails can be done with the addition of several segments, especially on 1800/1900 N. and 1600 E. The addition of these routes, in conjunction with an already planned path on 2500 N., can essentially encircle North Logan in a multi-use trail route that provides access to most of the city residents. This would provide a meaningful community benefit in providing safe, accessible places for North Logan residents to walk and bicycle.

### Current Usage

Current active transportation usage follows the trend of increased usage closer to the southwest corner of city boundaries. Additional recreational usage is documented along the 1600 E. corridor and close to city amenities like Green Canyon and Elk Ridge Park.

### Equity

Equitable planning ensures that all users and potential users are considered fairly and impartially. While most survey respondents indicated they use active transportation for recreation, actual observations indicate that the higher usage areas follow the peak commuting times and higher density/lower income areas. This indicates the need to accommodate those who use bicycling and walking as a means to get to work, sometimes out of necessity, and provide access to necessary community amenities like workplaces, shopping, and transit. Planning for active transportation with equity in mind will

provide infrastructure that increases safety and access for all residents.

### **Unpaved Trail Network**

While likely used primarily for recreation, the unpaved trail network can provide connections that are removed from roadway corridors. The unpaved network runs primarily from north to south and can complement active transportation accessibility in this plan.

### **Existing Plans**

Tying into existing plans allows for regional connectivity as well as balancing various plans throughout North Logan. The most important regional plans to connect with are the Cache County Active Transportation Plan and the Cache Bikeway. This includes lane markings for on-street bicycle networks and incorporation of the canal corridors as trails.

# Recommendations

## Introduction

The recommendations were guided by the goals of this plan:

- Prioritize an east/west connection that links residential, commercial, and recreation areas.
- Address regional connectivity by tying into existing and planned projects from neighboring communities (i.e., Logan ATP, Cache County ATP)
- Support the city's economic development plan
- Proactively prepare for future development pressure
- Facilitate safe, accessible routes to North Logan's existing and planned community assets.

The review of existing conditions, stakeholder meetings, and public input drove the proposed recommendations in a way that addresses network gaps, promotes connectivity, and prepares the city for future development. Many streets in North Logan may not require special facilities due to circumstances such as low speed or low volume.

Many of the following recommendations address current needs while additional projects address further growth of the community and provide a plan to guide future development in certain areas.



## Vision

The initial vision of this plan was to “Support North Logan’s growing demand for safe and connected options for bicycling and walking.” The main outcome of these recommendations will be to provide connected and accessible routes for walking and bicycling that accommodate all North Logan residents and accomplish plan goals. Demand has been most noted for multi-use trails and the incorporation of canal corridors into a trail system. One of the most important recommendations will provide planned, multi-use trails encircling the city. These will be complemented with supplemental routes accessing these corridors.



## Recommended Facility Type Guide

Recommended facilities will follow the naming structure used in the Utah Geospatial Resource Center’s (UGRC) Road Centerlines data files. This ensures normalized naming for facility recommendations across the state and helps to accurately compare projects when submitted for funding.

The following tables present the coded values used to identify active transportation infrastructure in the Road Centerline dataset (although not all coded values will be used in these recommendations).

Bike Type Code	Description
1A	Cycle track: at grade, protected with parking
1B	Cycle track: protected with barrier
1C	Cycle track: raised and curb separated
2A	Buffered bike lane
2B	Bike lane
3A	Shoulder bikeway
3B	Marked shared roadway
3C	Signed shared roadway
PP	Parallel bike path, paved
PU	Parallel bike path, unpaved

Ped Type Code
Sidewalk
Multi Use Pathway
Trail Unknown
Trail Paved
Trail Dirt
Restricted

Code	Definition
Onstreet	Facility is completely on street, below curb
Street Adjacent	Facility is adjacent to the street, above curb
Offstreet	Facility is completely off street

The following are photo examples of the codes used in these recommendations.



2A Buffered Bike Lane (1400 N., Logan)  
Credit (Google Maps)



2B Bike Lane (400 E./2200 N.)



3A Shoulder Bikeway (Wolfpack Way)



3B Marked Shared Roadway (400 E./2200 N.)



3C Signed Shared Roadway (2200 N./1200 E.)



PP Parallel Bike Path, Paved (Wolfpack Way)



Sidewalk (2100 N.)



Multi Use Pathway (Wolfpack Way)



Trail Dirt (Powerline Trail)

Successful implementation of bicycle infrastructure removes the element of fear associated with bicycling in an urban environment. Commonly cited in Active Transportation Planning is the concept of Four Types of Bicyclists<sup>1</sup>, first coined by Roger Geller from the Portland Office of Transportation.

#### Four Types of Bicyclists:

Strong & Fearless	<1%
Enthusied & Confident	7%
Interested but Concerned	60%
No Way No How	33%

In order for more people to use bicycling as a mode of transportation, no person should be required to exhibit bravery. This highlights the need for accommodating the variety of bicyclists that exists when planning for different facility types in North Logan. This notion was solidified when collecting data on multi-use trails in North Logan. While some bicyclists prefer and feel comfortable riding in the road shoulder, there are still bicyclists who feel more comfortable riding on the multi-use trail.

This highlights the need for using a varied approach to the recommended facility types in North Logan to create a comfortable and safe bicycling and walking network in North Logan.

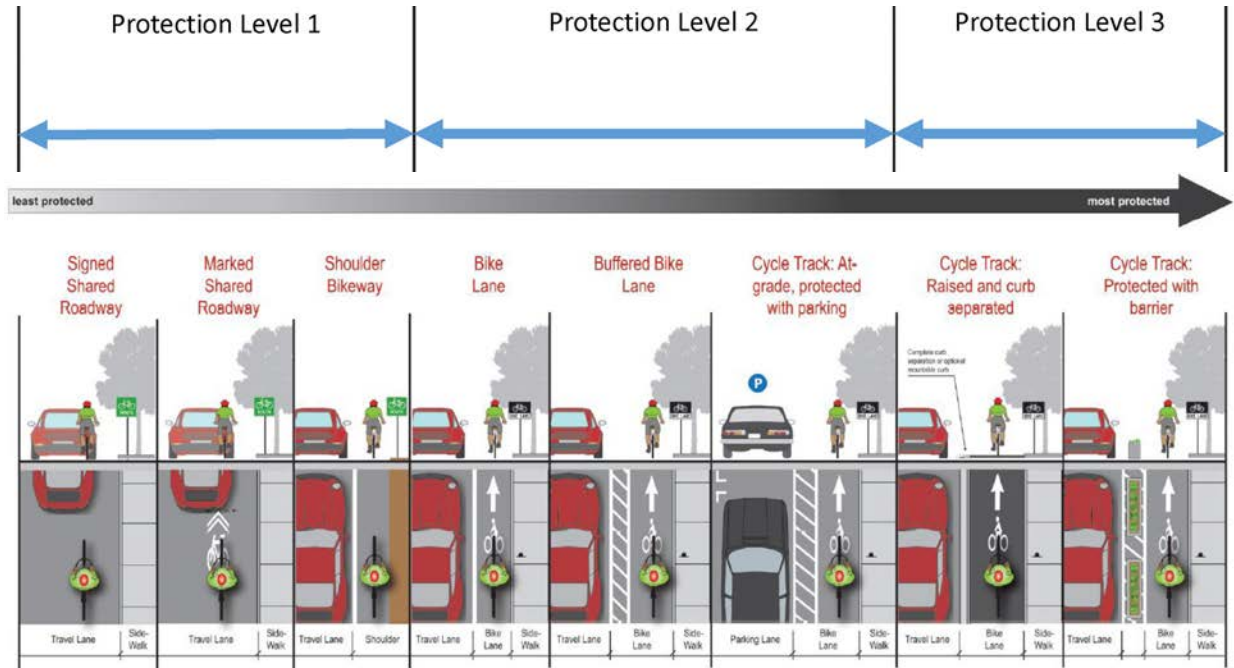


Image Credit UDOT

## Recommendation Priority

The following recommendations were established from needs identified in stakeholder meetings, existing conditions analysis, in person observations, public input, and data collection. After all recommendations were created, each was assigned a priority level from 1-3, with 1 being the highest priority.

### Priority Criteria

#### Priority 1:

- High use network gaps
- Stakeholder/Public input
- No alternate route
- Enhances safety
- Addresses multiple needs
- High community support

#### Priority 2

- Completes smaller/lower use gaps
- Requires additional planning/support
- Alternate routes may exist

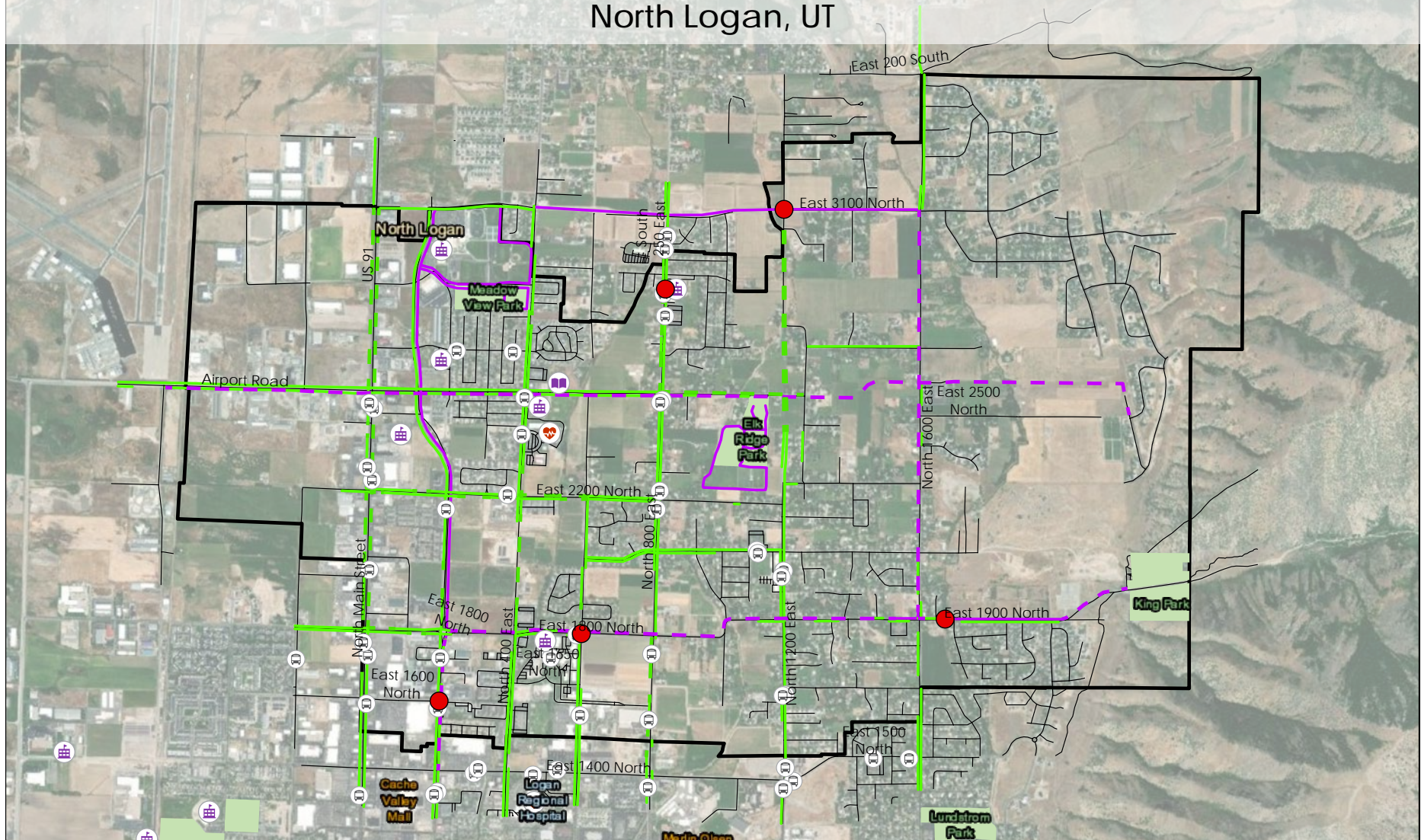
#### Priority 3

- Addresses future development
- Pending additional improvements
- Implementable during routine maintenance (road resurfacing, etc.)

1. Geller, R. (2011, October 19). *Four types of transportation cyclists*. Portland Bureau of Transportation. Retrieved April 4, 2022, from <https://www.portlandoregon.gov/transportation/article/158497>

# Proposed Sidewalk/Multi-Use Path Infrastructure

## North Logan, UT



- Proposed Spot Improvement
- 8' Multi-use path
- - - Proposed 8' Multi-use path
- Standard Sidewalk
- - - Proposed Sidewalk
- North Logan Boundary

0 0.25 0.5 1 Miles

Map Authored By: Lloyd Sutton 5/9/2022  
 Data Credits: Strava Metro, Utah AGRC, ESRI

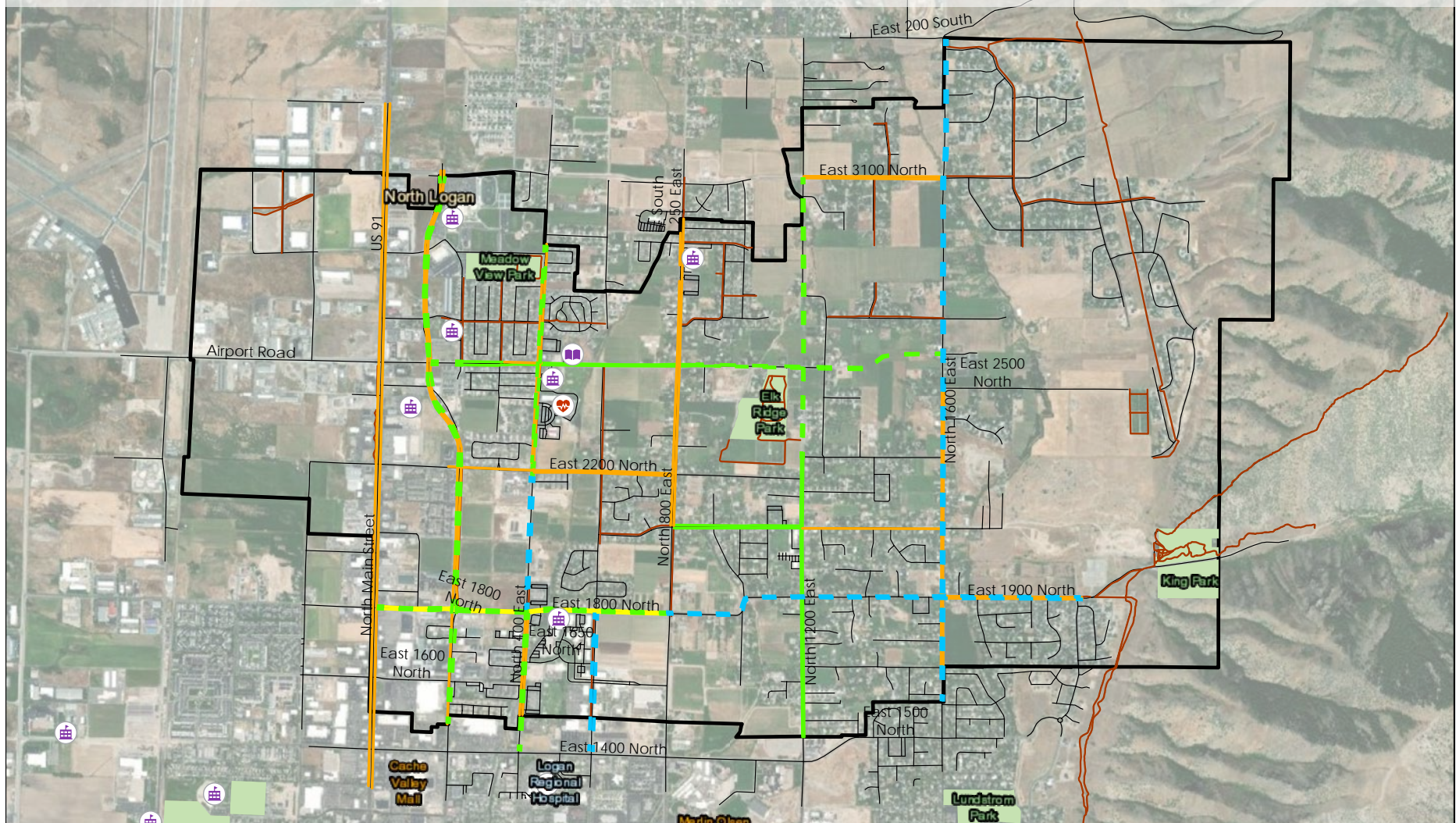
Proposed Sidewalk/Multi Use Path Infrastructure				
ID	Priority	Name	Code	Distance (mi)
54990-1001	1	1600 E Multi Use Path	Multi Use Pathway	1.5
54990-1002	1	1800/1900 N Multi Use Path	Multi Use Pathway	1.7
54990-1003	1	Main Street Sidewalk Infill, 1800 N - 3100 N (E)	Sidewalk	1.5
54990-1004	1	Main Street Sidewalk Infill, 1650 N - 1850 N (W)	Sidewalk	0.3
54990-1005	1	Main Street Sidewalk Infill, 2000 N - 2200 N (W)	Sidewalk	0.3
54990-1006	1	Main Street Sidewalk Infill, S of 2400 N (W)	Sidewalk	0.1
54990-1007	1	Elk Ridge Sidewalk Gap N	Sidewalk	0.5
54990-1008	1	800 E SW Gap to North Park Elementary	Sidewalk	0.3
54990-1009	2	1900 N Multi Use Path Gap	Multi Use Pathway	0.1
54990-1010	2	1900 N/King Nature Park multi use trail connection	Multi Use Pathway	0.3
54990-1011	2	2500 N Multi Use Path	Multi Use Pathway	3.7
54990-1012	2	200 E Multi Use Path (Wolfpack way/commercial connector)	Multi Use Pathway	0.5
54990-1013	3	Main Street SW, 2500 N - 3100 N (W) Require as developed	Sidewalk	0.7
54990-1014	3	400 E Sidewalk Gap	Sidewalk	0.1
54990-1015	3	400 E Sidewalk Gap	Sidewalk	0.3
54990-1016	3	2200 N Sidewalk Gap	Sidewalk	0.3
54990-1017	3	2200 N Sidewalk Gap	Sidewalk	0.1
54990-1018	3	2200 N Sidewalk Gap	Sidewalk	0.1
54990-1019	3	2200 N Sidewalk Gap	Sidewalk	0.1
54990-1020	3	2200 N Sidewalk Gap	Sidewalk	0.0
54990-1021	3	1800 N Sidewalk Gap	Sidewalk	0.1
54990-1022	3	1800 N Sidewalk Gap	Sidewalk	0.1
54990-1023	3	200 E Sidewalk Gap	Sidewalk	0.0
54990-1024	3	200 E Sidewalk Gap	Sidewalk	0.1
54990-1025	3	600 E Sidewalk Gap	Sidewalk	0.1
54990-1026	3	400 E Sidewalk Gap	Sidewalk	0.1
54990-1027	3	800 E Sidewalk Gap	Sidewalk	0.2
54990-1028	3	800 E Sidewalk Gap	Sidewalk	0.1
54990-1029	3	1200 E Sidewalk on road extension (E)	Sidewalk	0.8
54990-1030	3	1200 E Sidewalk on road extension (W)	Sidewalk	0.8

Spot Improvements			
ID	Priority	Name	Description
54990-3001	1	North Park Elementary Traffic Calming	Proposed Spot improvement
54990-3002	3	200 E/1600 N Improved Crossing	Proposed Spot improvement
54990-3003	3	600 E/1800 N Improved Crossing	Proposed Spot improvement
54990-3004	3	1900 N Multi-Use Trail Canal Crossing	Proposed Spot improvement
54990-3005	3	3100 N/1200 E Improved Multi-use Trail Crossing	Proposed Spot improvement



# Proposed On-Street Bicycling Infrastructure

## North Logan, UT



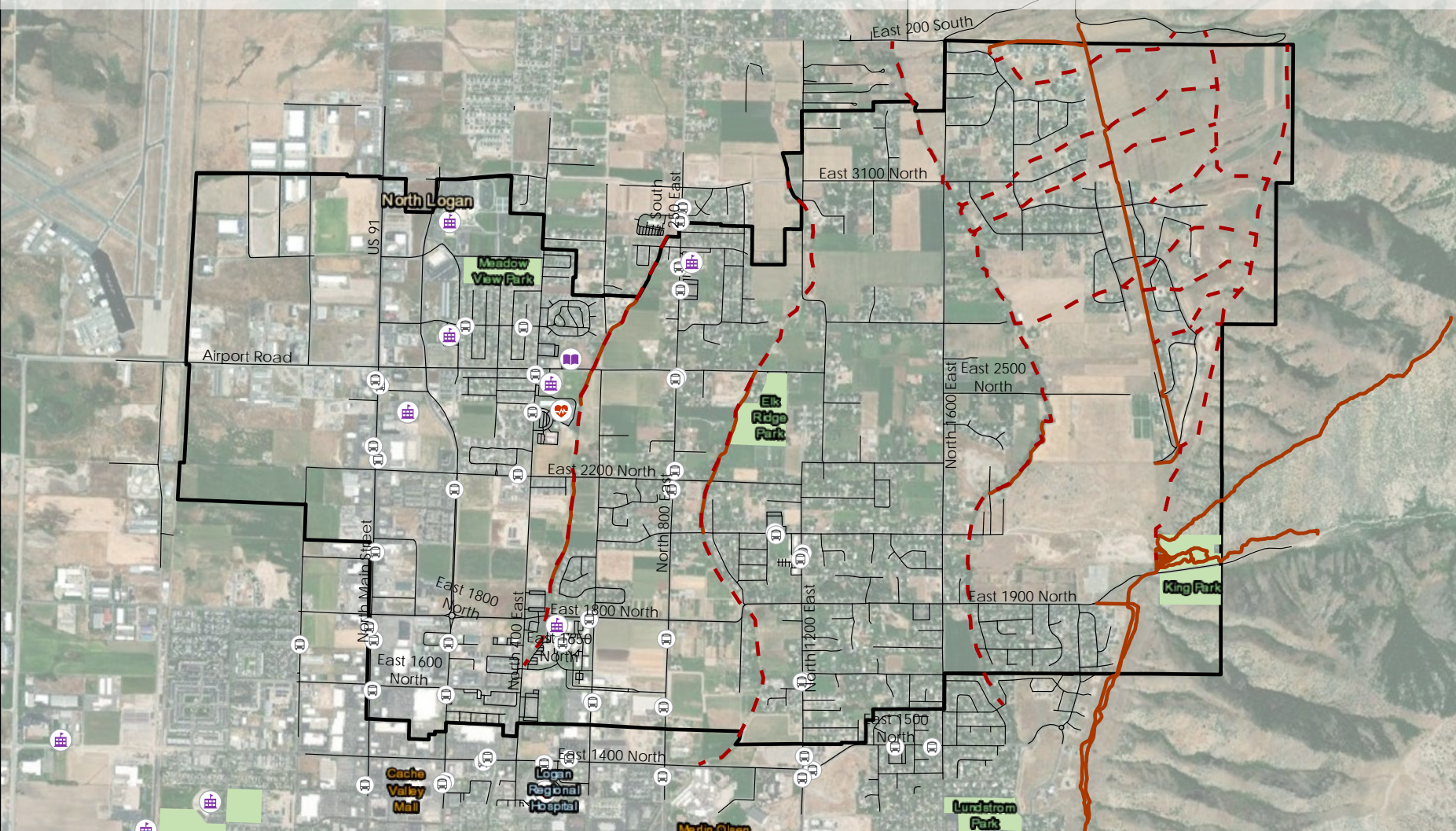
0 0.25 0.5 1 Miles

Map Authored By: Lloyd Sutton 2/25/2022  
Data Credits: Strava Metro, Utah AGRC, ESRI

Proposed Bicycling Infrastructure				
ID	Priority	Name	Code	Distance
54990-2001	1	2500 N Elk Ridge Bike Lane Connection	2B	0.5
54990-2002	2	1800 N Buffered Bike Lane	2A	1.0
54990-2003	2	400 E Cache Bikeway, 1800 N - 2200 N	3B	0.5
54990-2004	2	400 E Cache Bikeway, 1400 N - 1800 N	2B	0.5
54990-2005	2	400 E Cache Bikeway, 2200 N to city line	2B	0.8
54990-2006	2	2500 N Bike Lane Connection to Wolfpack Way	2B	0.1
54990-2007	2	Wolfpack Way Buffered Bike Lane	2A	2.0
54990-2008	2	1600 E Shared Lane Markings	3B	2.4
54990-2009	3	1900 N Shared Lane Markings	3B	1.5
54990-2010	3	600 E Shared lane markings	3B	0.5
54990-2011	3	1200 E Bike lane on road extension	2B	1.0
54990-2012	3	2500 N Bike lane on road extension	2B	0.4

# Proposed Unpaved Path Infrastructure

## North Logan, UT



— Unpaved Trails       North Logan Boundary  
- - - Proposed Unpaved Path

0    0.25    0.5    1 Miles  
 Map Authored By: Lloyd Sutton 5/9/2022  
 Data Credits: Strava Metro, Utah AGRC, ESRI

Proposed Unpaved Path Infrastructure				
ID	Priority	Name	Code	Distance (mi)
54990-4001	1	Middle Canal Path	Trail Dirt	2.4
54990-4002	2	Upper Canal Path	Trail Dirt	2.7
54990-4003	2	Bonneville Shoreline Trail	Trail Dirt	1.5
54990-4004	3	Twin Ditch Canal Path	Trail Dirt	1.7
54990-4005	3	Powerline/BST Connector Trail	Trail Dirt	0.4
54990-4006	3	BST/Neighborhood trail connector	Trail Dirt	0.7
54990-4007	3	Neighborhood connector trail 1	Trail Dirt	0.8
54990-4008	3	Neighborhood connector trail 2	Trail Dirt	0.8
54990-4009	3	Neighborhood connector trail 2.1	Trail Dirt	0.2
54990-4010	3	Neighborhood connector trail 3	Trail Dirt	1.0
54990-4011	3	Neighborhood connector trail 4	Trail Dirt	0.3
54990-4012	3	Neighborhood connector trail 5	Trail Dirt	1.0
54990-4013	3	Neighborhood connector trail 6	Trail Dirt	0.5
54990-4014	3	Neighborhood connector trail 7	Trail Dirt	0.4
54990-4015	3	Neighborhood connector trail 7.1	Trail Dirt	0.1

# High Priority Projects Conceptual Designs



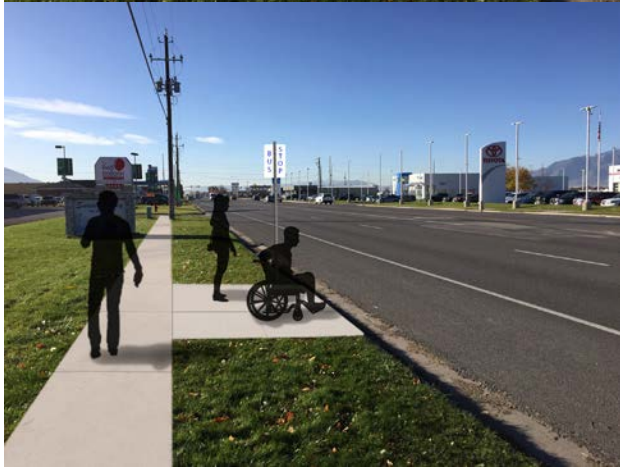
1600 E. Multi-use path and shared lane markings.



1800 N. Buffered bike lane and multi-use path.



2500 N. Access to Elk Ridge Park and North Logan BMX Park via multi-use path.



Main Street sidewalk gap infill with access to local businesses and bus stops.



North Park Elementary improved school crossing with curb bulb-outs to minimize crossing width and to slow traffic.



Canal corridor officially designated as a trail with improved surface, wayfinding, and signage.

# Policy Recommendations

## Micro-mobility policy

With the rise in popularity and use of various micromobility devices (e-bikes, e-scooters, etc), it is recommended that North Logan implement a policy to define micromobility and use.

The neighboring city of Logan has recently implemented a micromobility policy defining micromobility as: Small, lightweight vehicles operating at speeds typically below 20 mph and driven by users personally (no gas power).

The recently adopted policy also touches on the following:

- Requires that all micromobility device operators yield to pedestrians
- Removed a previous license plate requirement
- Defines where micromobility devices can be ridden
- Riding restrictions are places where devices are used rather than in an ordinance
- Gives city staff flexibility to manage conflict as needs arise
- Adaptable to future transportation needs/modes
- Enhanced safety rules

## Maintenance policy

Consider implementing a maintenance plan to address issues such as:

- Sweeping debris in bike lanes, shoulders,

and multi use paths

- Addressing seasonal use issues such as plowing of snow on paved trails and bike lanes in winter months
- Weed control on unpaved trails and adjacent to paved trails
- Trail maintenance
- Restriping of existing infrastructure

## ADA Infrastructure

Consider implementing ADA requirements into official design guidelines or a policy so that varying projects throughout North Logan are not subject to review on a case-by-case basis. Require that all sidewalk and multi-use trail projects adhere to specific ADA requirements (specifically at curbs and road crossings).



Crosswalk at canal trail/road intersections

## Funding Opportunities

Funding Opportunity	Agency	Eligible Projects	Details	Time Frame
Highway Safety Improvement Program (HSIP)	UDOT	Safety improvement projects located on a state route.	No match, variable funding amount. Contact CMPO or UDOT Region 1 Planner	Varies
Spot Safety Improvement Program	UDOT	Funds improvements at crash-prone locations	Varied funding to address crash-prone locations. Contact CMPO or UDOT Region 1 Planner	Varies
ADA Ramps	UDOT	Funds missing ADA Ramps on State Routes	Contact CMPO or UDOT Region 1 Planner	Varies
Safe Sidewalks Program	UDOT	Sidewalks	Provides funding of new sidewalks adjacent to state routes where sidewalks do not currently exist and where major construction is not planned for 10 or more years. Contact CMPO or UDOT Region 1 Planner. <a href="https://www.udot.utah.gov/connect/business/public-entities/local-government-program-assistance/">https://www.udot.utah.gov/connect/business/public-entities/local-government-program-assistance/</a>	Varies
Transportation Alternatives Program (TAP)	UDOT	Funds construction, planning, and design of on and off-road bicycle and pedestrian facilities.	Contact CMPO or UDOT Region 1 Planner. <a href="https://www.udot.utah.gov/connect/business/public-entities/local-government-program-assistance/">https://www.udot.utah.gov/connect/business/public-entities/local-government-program-assistance/</a>	Varies
Transportation Investment Fund - Active (TIF Active)	UDOT	Paved active transportation projects only	40% Match of non-state dollars and/or in-kind required	January-March
Transit Transportation Investment Fund First/Last Mile (TTIF FLM)	UDOT	Must provide connection to transit	40% Match of non-state dollars and/or in-kind required	January-March



Funding Opportunity	Agency	Eligible Projects	Details	Time Frame
Utah Outdoor Recreation Grant (UORG)	Office of Outdoor Recreation	Outdoor recreation infrastructure including trails and trail facilities.	50/50 match with up to 25% in kind. The built recreational infrastructure must provide an economic opportunity for the local area with the ability to increase visitation, boost local businesses and/or attract and retain residents. <a href="https://business.utah.gov/outdoor/uorg/">https://business.utah.gov/outdoor/uorg/</a>	January-March
Cache County RAPZ and Restaurant Tax Program	Cache County	Capital projects and operating expenses for publicly owned or operated recreation, parks, and zoos.	Varies. <a href="https://www.cachecounty.org/rapz/">https://www.cachecounty.org/rapz/</a> Contact: Alma Burgess <a href="mailto:Alma.Burgess@cachecounty.org">Alma.Burgess@cachecounty.org</a>	Early March
Recreational Trails Program	Utah DNR State Parks	Construction and maintenance of trails and facilities (trailheads, restrooms, signage, etc.)	50% match required (cash, in-kind). Funding amount varies from year to year. <a href="https://stateparks.utah.gov/resources/grants/recreational-trails-program/">https://stateparks.utah.gov/resources/grants/recreational-trails-program/</a>	Early May
Land and Water Conservation Fund	Utah DNR State Parks	For acquiring or developing public outdoor recreation areas.	50% match. <a href="https://stateparks.utah.gov/resources/grants/land-and-water-conservation-fund/">https://stateparks.utah.gov/resources/grants/land-and-water-conservation-fund/</a>	Early May
Community Development Block Grants	BRAG	Planning, construction, and maintenance of public facilities in cities with less than 50,000 population	No match. Funding amount varies. Must attend a workshop typically held in Fall. <a href="https://jobs.utah.gov/housing/cdbg/">https://jobs.utah.gov/housing/cdbg/</a>	Attend Fall Workshop

# Recommendation

## Conclusions

The recommendations section was guided by the initial plan goals. The preceding recommendations address the plan goals in the following areas:

### **Prioritize an east/west connection that links residential, commercial, and recreation areas**

The recommendation of a complete network of multi-use trails provides a much needed connection for the majority of North Logan. The existing 3100 N. multi-use trail has proved successful in creating a corridor from residential areas to commercial areas and the existing Wolfpack Way multi-use trail, which acts as a reasonable alternative to the Main Street corridor. The recommended addition of a multi-use trail on 2500 N. and 1800/1900 N. will provide additional connections from east to west. The addition of these paths will provide broader access to the commercial, residential, and recreation areas in North Logan.

### **Address regional connectivity by tying into existing and planned projects from neighboring communities (i.e., Logan ATP, Cache County ATP)**

The recommendations provide connections to all neighboring, planned active transportation routes. Of primary focus in regional connectivity was incorporating the canal corridors as trail recommendations and continuing the recommendation of the Cache Bikeway. These connections primarily address north/

south connections to neighboring areas but also have some east/west connections in areas like the 1800 N. bike lane connection to Logan.

### **Support the city's economic development plan**

This plan supports the city's economic development plan by providing connections to commercial and business areas, connections with transit, and connecting to community assets like Elk Ridge Park, the planned city center, and Green Canyon. Additionally, having a well serving active transportation network provides a more livable community, creating a place more residents want to live. With the recommended funding options, this provides methods for paying for new pathways with greater leverage of city funds. Additionally, many recommendations can be completed during routine maintenance of roadway networks for increased economic efficiency.

### **Proactively prepare for future development pressure**

The recommendations for this plan provide a good framework in currently undeveloped areas for ensuring that current open space has preserved trail networks. It is intended that North Logan will continue to require new developments to install planned trail networks when developing new areas. The planned recommendations also coincide

with planned road alignments. These recommendations can be implemented when roadway networks are continued through those planned alignments.

### **Facilitate safe, accessible routes to North Logan's existing and planned community assets**

Emphasis was given in the planned recommendations to complete connections to existing community assets such as transit stops, commercial areas, parks, schools, the city library, recreational trails, BMX track, etc. Special emphasis was given to provide connections to all existing transit stops, as many stops are currently underutilized. Providing access to these stops has the potential to enhance the transit user experience. In addition to providing accessible routes, higher priority was given to corridors that were physically removed from roadway traffic i.e. multi-use trails. These provide options for residents to get to community assets via active transportation and feel safe doing so.

## Public Survey Comments Regarding Canal Trails:

*The canal offers a safe off road place for recreational walking.*

*Canal trails are easy to walk on and safe from traffic - would love to have them open for walking etc.*

*It is frustrating because there is some excellent space that connects the whole community in the canals trails but it is fenced or signed for no trespassing. I understand the homeowners point of view but it seems like a huge city benefit is being wasted.*

*The canal trails used to be a great place to walk/run. They are shady and pretty. A fantastic idea to make it safer to bike through the area. Add some pooper scooper trash cans on posts near some streets so walkers with dogs who will probably try to use will not leave waste near the canals. And on those signs State leashes are required along those routes. That way dogs don't have collisions with the bikers.*

*I really miss being able to bike along the canal trails! It is such a fun family activity and keeps kids safer when they aren't on the busy roads.*

*I regret that the canal trail access is inconsistent and that the area near the cemetery was formerly open, unmarked and is now clearly labeled as private.*

*I understand why property owners would hesitate to open canal trails to the public, but it would be awesome to be able to have a trail to walk on that is out of traffic and beautiful and safe.*

*Don't understand why these trails were cut off from public.*

*I have a canal running through my property and would support a trail system next to the canal if other property owners would also agree.*

*I have lived here for 20 years and for 19 years have utilized the canal trails for running, walking with my dogs and riding my bicycle until they were blocked off last year. I understand that motorized vehicles can cause damage, however, foot traffic should not cause damage.*

*The canal trails would create a connector path to the north end of the valley and are essential. Cache valley has a poor connected trail system and pales in comparison to most metropolitan areas within Utah. Thanks*

*I don't usually use them. Some of them go right along the edge of backyards and I don't like to invade other people's privacy. Before the canal trails were closed, I walked them often. Never have I littered or caused damage to others property. I feel safer without motorized vehicles. I would love to be able to walk the canal trails again.*

*Canal trails should absolutely be accessible to the people.*

I love the canal trails and would like to see all of them open for public access. I used them regularly before they were closed. I grew up in Hyde Park since 1980. I now live in north Logan. As a child I was able to roam and explore all the canal banks unimpeded. I used to walk the banks, bike the banks, and ice skate the canal in the winter. Once I ice skated the lower canal all the way to 14th north and back from 2nd South in Hyde Park. We would float the canal in inner tubes in the hot summer months. It disturbs me that the canals, which had an unimpeded right of way for over 100 years, could now be closed off to the public.

Shouldn't be locked and off limits  
Those canal trails should be grand-fathered in. I believe that gating these trails is unlawful. North Logan has a very unique existing canal system in place that should be developed.

Other communities use their canal systems very well. Studies show that crime decreases with trail use by homes.

1. Canal property is private property and it needs to remain so.
2. North Logan is already a highly walkable and bicycling-friendly community(I've been doing it for almost 20 years here). We have very wide roads throughout most of North Logan that give ample room for pedestrians and cyclists.
3. Trespassing on private property is already a problem for those who own canal property or those who live close to the canal. This problem would be heightened

with the creation of a public trail. Safety would also be a concern as a whole new group of people would get access to once was a private backyard. Also, there is the issue of heightened concern for vandalism of the canal infrastructure. The primary purpose of these canal paths was to service the canal. They need to remain that way.

What positive assistance (including payment for use & upkeep) will the City provide/pay .... And can USERS be registered or assessed (instead of "every utility user) .....

I feel they would be a great addition to the community.

I would love to be able to use the canal trails for exercise and enjoy the beauty of North Logan

It would be nice if we can access, but we can't force owner to let us use it.

We go to Hyde Park and bike or walk on their canal trails that have been approved for trails. It would be great if North Logan had some.

Would love the canal trails. Nice to bike or walk from Logan to Smithfield on a gradual/level path. I am thoroughly disappointed that these trails are not open. BUT, realize that those using the trails need to respect land ownership

One of my favorite trails in Cache valley is the canal trail from first dam to the temple that's between 400 N and Canyon Road.

It would be amazing if North Logan could get some trails like that.

I'm a Utah native (well, almost native; I was born in 1979 and lived in Hyde Park & North Logan since 1980). As a kid I biked all the canal trails that I wanted to. When they piped the lower canal it was really sad that the canals could not have been made public property. It's disappointing that UT residents don't see the need for public use trails. I feel we could learn a lot from Front Range Colorado communities in this regard. Investing now to wrestle access from landowners along the canal will pay off in the long run.

I thought the city owned a few feet on each side of the canal? Could that be used? I feel like I'd be willing to pay property owners for the space in the form of a limited time tax if it will get a couple LONG trails in North Logan.

I would LOVE to have the canal trails available for walking/biking! That would be a great way to create some beautiful, safe, long trails connecting the various communities in the valley.

I appreciate the generous landowners who currently allow me to walk along the canal. I would think the landowners would be eager to let North Logan City maintain the right away in exchange for public access. I understand the need for privacy of those along the canals, but would love to have acces to a trail along the canal if homeowners and those using the trail could come to an agreement it is absurd to have sections of the canal

trails restricted while other sections aren't. It behooves N. Logan to open access for LONGER trail routes. Increased recreational trails = increased favorability for potential new residents and increased property values. Increased lengths of connected trails means those of us who want longer distances for hikes/runs will be able to achieve that in SAFETY (not having to find workarounds in traffic).

"private property" = NOT YOURS  
What's City liability cover

I strongly support use of water for agricultural purposes. At the same time, water is a PUBLIC resource (even though Utah law has not historically recognized that reality). It ultimately benefits agricultural users if there is public access to canal right of ways.

We had a canal trail that has been illegally blocked by property owners and needs to be addressed by the city. This was a wonderful way to recreate and travel by foot or bike. We should not stand for this shallow tactic by property owners. They need to take the signs down and be punished. It's a joke.

This would be a great opportunity to use the space for a trail network.

We are really missing out on what could be a beautiful trail system!

Should be for non-motorized traffic.

I do not want any more development. The beauty of living in North Logan is that

it is not overly developed. Once trails are developed people will come here bringing trash, crime, crowded road conditions, etc. Keep North Logan beautiful in its undeveloped way.

I would love for there to be lots of bridges across the canals connecting to different areas, especially near USU. I would love for canal trails to be incorporated into the network.

I love canal trails! More people on these trails will actually help prevent crime - more eyes!

Would love them open and connected to have space away from traffic!

The canals have had a long reputation for leisure use. I'm upset JEB has ramrodded projects against the wishes of most citizens. That said, the canals should remain beautiful & accessible areas for residents to enjoy and residents should use them respectfully to land owners near paths. Let us in!!

Recent over-development is a nightmare and has destroyed this community. Closed canal trails are just one example of this. They are close to people's houses, accessible, and vital to community health and animal habitat. Preserve and open them!

The only long trail we have is the Bonneville trail and it is out of the way and not conducive to light recreation. We should have a trail that goes through the valley just like so many communities have. Canal

trails are the best way to do this.

It will be interesting of how electric bikes and their usage impacts this survey.

Their use will aid surveillance and keep crime down

i don't care about them, focus more on more trails in the mountains!

Allowing public access would be an amazing asset to our area

Canal trails are great. They are similar to rail trails. The percent grade is never too steep. If you have to cross private property post signs that state you are on private property stay on trail and respect the owners rights or they will be lost.

Paved would be awesome, but crossing the other roads may make this difficult.

I would LOVE to have canal trails. It is a no-brainer to me and such a missed opportunity in our community. I am not versed on the legality, but canals must have an existing right of way, so it seems like any negotiation should happen with the canal company, and that individual property owners can chose to cooperate or not, but the ROW already exists.

The current canal system is a fantastic system already in place which could be used to link multiple cities together without impacting roadways and traffic Gaps in the trail system make it hard to navigate. It can also cause bad behavior as people try to navigate over private

lands.  
The county currently has 95% of the lower canal w claim deed. I am a life long user of these canals and during the pandemic we have used them multiple times a day. Our street has no sidewalks so using the canals is a great option. We have asked our neighbors for permission to walk there. I think they should put a drain pipe in the canals and cover them up so we do not need to be on private property or canal company easement. The city could put up nice fences for the land owners if the like.

On the middle and upper canals, there a public proscriptive easements by use of the public for many years. These have recently been blocked by new homeowners with warning signs and fencing and threats to call the police. These easements should be recorded as public written records so that owners are aware of these easements. Right now there are frequent confrontations and shouting.

A lot of them are already there.

Canal trails have been part of North Logan for as long as I can remember. They were a peaceful place to walk, scenic and away from traffic etc. Very family friendly and fun to explore.

It would be nice to walk the entire thing rather than having to use part of it, then sidewalks to reach the park, etc.

I understand that we are located on a canal trail, which prevents us from having a sidewalk. Could that rule possibly be revised so we can have a paved sidewalk

on the south side of 2200 North east of 800 East?

Would like an app or better map to know where they are.

I wouldn't feel comfortable using trails that I knew owners didn't want me on.

Private Property? Public funds were and are being used on water transpartation plus the labor and good will of the founders of this valley. Access has been there for generations. Now there are gates and locks. A step backwards in my opinion. The owners liability questions have been answered. Sometimes the greater good should be pursued.

The face of north Logan is changing and no longer a largely agricultural area. The use of these trails would be so great for the people who live in the area.

I find it very frustrating that we have a network of SAFE travel away from cars for my kids to walk and ride bikes, but itâ€™s completely unusable because residents have closed it off. A canal trail should not be private property. I used to run/walk on the canal trails in north Logan when I was young and loved it, but my kids have nowhere to safely ride bikes or go for walks because of where we live. We either need SIDEWALKS along the roads or CANAL TRAILS nearby so my kids can be safely active!!!!

These are historic trails providing level access for MANY types of users. They should not be gated but kept open and

available for people. I see commuters walking to buses, families going to and returning from church, as well as all types of recreationists using the canal trail near me on a regular basis. Work hard to keep them open and educate people on the importance of these connectors.

Go see the legacy parkway trail and you'll notice how many people travel on an uninterrupted trail.

This promotes a healthier community from both cleaner travel and more active community.

I would also promote bike right of way traffic lights, that would allow cyclists to continue without interruption.

Private owners complain that the canals bring crime to their properties and creating canal trails would increase that crime. The unimproved, unkempt, recessed canal areas may attract crime as they have no other purpose. If these areas were improved to attract those with motives such as exercise and recreation, the majority of use would be for those activities and not crime.

We have perfect canal trails to enhance the reputation north logan has of neighborhood inclusion. Everyone I speak to can't understand why they are all closed. Many other communities in the wasatch front have made these canal trails outdoor features used by many. Why can they do it and we can't? North logan should become a leader in this endeavor. I would be willing to add a fee to my

North Logan taxes to improve this in our communities.

Being able to walk on the canal trails is SUPER important to me. There has been so many incidences of owners being extremely rude and even hostile. These connect great walks and greatly increases the availability of safe and beautiful walkways in our communities.

We use a canal trail occasionally to get to Elk Ridge Park.

Continuation of the canal trails would be a wonderful asset to our community. They give our families safe, shaded, natural, quiet areas for recreation that are safe from traffic.

The existing canal trails are a virtually priceless commodity enjoyed by many residents. These trails are flat and often surrounded by trees or other greenery, and feature ducks and other wildlife. They are safe from vehicles and quiet, and they provide natural connections to other trails and roads. Recreating similar quality trails would cost untold millions.

I LOVE the canal trails, and ride my bike on them several times a week, including during the winter. I love them so much that I ignore the no trespassing signs and ride on them anyway. The canal trails should be owned by the city because they automatically make such a wonderful network of scenic trails. It would be nice if I didn't have to worry about getting shot for trespassing by angry property owners. If funds need to be raised to help the city

purchase these trails, I would be happy to help with soliciting these funds. Boyd Edwards, 435-640-5954

leave private property private

I love walking along the canals. I feel it is a great place to walk with my son and dog that gets us off the street and closer to nature.

Canal trails are a natural and almost ready-made solution to help with a safety problem in North Logan. I jog and bike on 1200 E near 3100 N and my grandchildren walk and ride bikes there too. It is dangerous. Traffic is often busy and the road is narrow. Other parts of our city have similar problems. I would love to use canal trails or other safe trails for walking, biking and jogging.

They would be a great way to connect the neighborhoods along the east bench and give a great recreation trail for biking, running, walking.

When I first moved to North Logan the canal trails were open and it was wonderful! The residents of North Logan love to be active! The canal trails are a wonderful way to help the residents be active and enjoy the beautiful place we live in.

Canals are nice to walk by.

We've used them and love them but are disappointed that they are on private property and are not maintained. Canal trails alone would be a huge

improvement!

The canals are beautiful and provide an amazing complement to trail systems.

I get why the homeowners don't want people walking the canal past their house but it is a beautiful place to walk and would connect a lot of area in North Logan and would be such a benefit for everyone. I think it would be great if we could use them!

We would very much like to use the canal trail that starts at the curve on 1900 North and heads North, but one landowner opposes that. It is such a great resource, why can't it be open?

Canals should have a proper buffer to keep property owners privacy, but not acrylic fences that are ugly and do not contribute to the scenery

Please please please

They would provide awesome recreation opportunity. I feel property owners may require fences/walls to be put up to keep people from wandering off the trail.

I'd love to see the canal trail at the Curve on 1900 North heading north become available. Such an incredible untapped resource. It would be amazing to connect this with a sidewalk or trail to Green Canyon. It could be a stellar pedestrian way that would be a jewel to the neighborhood. Housing prices and traffic are becoming major issues throughout Cache Valley, we need to spend time now to prioritize

making the community bike and walk friendly. Sticking a bike sign on the road isn't going to get me or anyone back on my bike with the way people drive around here (especially with their hatred of biking). We need designated, separated/protected bike routes throughout the valley. Be that bike paths with a curb between them and the road, or completely separate multi use paths, but we need options and solutions.

None

Need to pay property owners for rights of way over the canals!worth it because having those trails will increase property values. Offer to pay for fences and privacy barriers.

Canals provide connectivity, connectedness and some sense of being in nature. It makes sense to utilize these existing resources.

Would LOVE to use these as running trails so I don't have to be afraid of getting hit by a car. Not a lot of options to run around here.

I used the canal trails for years. Having so many of them closed in recent years was a real loss.

There is high crime along every waterway trail in Utah. The canal company has already destroyed the beauty along the canal. All it is now is a miles long trash and toxic waste dump with yellow from all the roundup. It used to be beautiful and green with all kinds of wildlife. The trees are all dying from lack of water.

I moved from an area that had public access trails on it's canal system and it was wonderful.

Canal trails would be the best route and such a great idea if property owners will agree to it. Would love a place for my family to ride together without the danger of cars. 1600 east is flat, but traffic is heavy, sidewalks are incomplete and it is stressful to take my kids on the road. If the canal trails connected we would love it and use it several times a week

Canal trails are a great option from my perspective. All the impact and degrading factors of the natural environment have already happened, might as well take advantage of the access and connectivity.

Would love more access

These are critical to distance and connections! Paved would be preferred but any sort of connected trail is critical and appreciated.

I hope that canal trails will also include keeping the canals clean/free of trash

Such a great resource. Most of these seem to work fine and dont impact neighbors (even though they are not officially open)

I would use them weekly if they were available!

Trails along the canal should be open access

Canal trails are the best and easiest safe way to have wide access and trails. There is potential to connect from Logan Canyon all the way to Hyde park canyon if these canals were open. It would be a great addition to the county.



## Public Survey General Comments:

Very excited to see this being discussed! I have wondered about the lack of sidewalks in North Logan, and I have been concerned about the active community having safe places to walk without being in traffic.

North Logan has made some great improvements! I'm excited for the possibility of additional walking/biking trails and connecting sidewalks that randomly end. I definitely worry about all the new condos along Wolfpack Way and how citizens, especially children, are trying to cross the dangerous intersection of 2500 N at Wolfpack Way to stay on the trail or get to home from school. My family calls it "death corner" because of how many accidents we see there.

thank you for allowing us to voice our thoughts on this issue.

1600 East is a popular place for walkers and bikes. It is dangerous because of traffic.

I appreciate your efforts in making biking and walking improvements in our area.

Spend a day at the entrance of Green Canyon. People want a place to walk and bike safely. Thanks.

We are an active family, but We do not ride bikes in the valley due to our perception that drivers are unaware of bikers, do not like bikers and we know people who have been hit. North Logan

city is designed for car driving only. We do not believe that many people think about walkers or bikers or walking and biking themselves. They drive to ward houses just down the block. We walk our dog with our son in a stroller almost always twice a day. So often cars are parked blocking the sidewalks. Snow is not cleared by homeowners consistently for winter walking with a stroller. We find broken glass on sidewalks all the time and it sits there for months. Loose dogs constantly approach us making it unsafe for our dog and son. There is a lot of work to be done with resident mind-set, not just physical changes to trails etc.

Given the growth in the valley we need to make these improvements asap before it becomes more difficult to do so and to keep this valley a gem.

I appreciate the thought going into these improvements! I would love to be able to get around North Logan more easily/safely with my little kids on bicycles.

The biggest drawback for cycling here is the chip seal method used to maintain road surfaces (sort of... it doesn't seem terribly effective). Unfortunately, the time that loose gravel is prevelant, and mounds of gravel are heaped at the sides of the roads, where bikes must travel to avoid cars, seems to extend over many months.

We use a cargo bike as our family transportation for getting everywhere (school, shopping, parks, etc). Having improved infrastructure is very valuable to families like us.

I currently use roadways, walking paths, and sidewalks when I walk/run. I would love to see gaps in sidewalks get fixed and more designated places for walking. My teenage son also travels by foot and by bicycle often and I would feel so much better if he was not using roadways as often. People seem to be very courteous and cautious on the road but I am seeing more people on their phones while driving and it makes me nervous that someone might not see us walking someday.

There are also some dirt trails commencing at the north end of 1600 E bordering Hyde Park. This is where I run with my dogs now. It would be nice to be able to deviate on occasion to trails that lead off of this dirt road but the owners have it marked no trespassing. Again, I know motorized vehicles can cause damage. It would be nice to be able to run or walk with my dogs without having to share the road with motorized vehicles, ie designated trails for motorizes vehicles and designated trails or for foot traffic.

Please add more trails for public use. We desperately need them!!!

If bike lanes are increased, there needs to a push to get the biking community to use them. Currently the biking community uses roads however they want and are hostile to cars. I was traveling south on 400 East between 1600 North and 1800 North. There was a biker heading north in my lane. There was also oncoming traffic so I could not pass the biker without causing a head on collision. To continue forward

would have meant I would hit the biker, so I stopped. Even though I was doing my best to avoid hitting anyone else on the road, the biker who was traveling the wrong way for the lane he was in used his fist to pound on my car on his way past. With the existing bike lanes, the bikers are often still in the road because of debris in the bike line. Instead of making more bike lanes, I think resources should be allocated to keeping the ones we do have clean enough for the bikers to use and encourage them to use the bike lanes. And also follow road rules when bikers are choosing to use roads.

Most cities would be thrilled with what we currently have as far as the existing canal easements, with having to exercise eminent domain laws. It's time to move forward on developing this incredible existing resource we have.

Trails are a nationwide trend. Here in Utah, we already have the space on our roads/sidewalks to ride and walk safely. North Logan's biggest asset is it's country feel, which is quickly disappearing. The walking trail/sidewalk that is going in on the upper section of 3100 has totally changed the quiet country walk experience that made a walk on that street such a pleasant experience.

plz lean a little (er, a lot) to the private property owner: weight their interest above any "free pass" aka trespassing than users only

I'm not planning to attend indoor meeting with people without a mask for a while, so you may want to Zoom the meeting.

If North Logan builds biking/walking paths and trails, we will use them often. We love walking and biking!!!

I am particularly disappointed in the way that the Centennial ""trail"" has practically been abandoned by the city. It's really just an old access dirt road that was (kind of) adopted by the city. Transitions from the trail to roadways are terrible. Was it North Logan or a private landowner that improved the access at the 3025 N crossing? New development on 2300 E added a sidewalk that intersects the trail but fill was never put in for bikes to reasonably traverse this trail-to-sidewalk transition.

Moreover, the Centennial Trail is supposed to be non-motorized yet I see motorcycles and side-by-sides on the trail regularly - no one seems to care because no one educates or enforces correct use.

Also, many homeowners seem to think the Centennial trail is built for them to access their backyards. I have seen dump trucks, cement mixers, and many other vehicles on the ""trail"".

I use nearly the full length of this trail twice a (work)day in the late spring, summer, and fall to commute to and from work.

I would really like to see more signage, community education on appropriate use, and improvement of sidewalk and road transition on this trail.

Another high priority for North Logan should be (officially) connecting the Centennial Trail and the brand-new segment of Bonneville trail to Green Canyon. There is a single-track trail there that crosses private property, but there appears to be no

guarantee of access in the years to come.

We've been in North Logan 4 years and I feel like this is THE best issue that can be addressed right now in terms of recreation and citizens' well-being. Lets get a network of trails put in and maintain them.

We love living in North Logan. We would love to see more trails

As a N. Logan resident I am very pleased to see a proactive approach to improving recreational opportunities within N. Logan.

Our trails need to be safer from traffic. Dedicated bike lanes are a good start. But total separation from traffic would be best (Barrier or a trail network away from roads)

The Bonneville Shoreline Trail should be kept in nice condition and motorized vehicles kept off it!!!

Don't develop the trails!

Protected bike lanes, more signaled cross walks, and lower speed limits at certain areas would be great for Logan.

Bicycles are useless for transportation if we do not have continuous safe paths. Some streets are okay, but that means nothing if I have to pass thorough unsafe areas. I can't ride bike to USU because 800 East is barely wide enough for two cars from 1400 N to 1800 N. It is ridiculous. It is also ridiculous that the many of the nicest homes and largest lots do not have sidewalks. All residential property should have sidewalk or path so people do not have to walk in

street.

*I assume walking some paths will not include more raucus activities like mountain biking and skateboarding. North Logan has a lot of natural beauty and wildlife. The walking paths should avail users of a quiet recreational opportunity similar to the Boulevard path, while allowing for rowdier activities in separate space.*

*It would be great to get a flashing light at 2500 N and Wolfpack Lane. Like they do at the roundabout. Especially when it get dark earlier*

*I'm excited for improvements to bike paths and trails around north Logan. I would also suggest some attention goes toward cleanliness of the road. By that I mean a lot of debris, rocks, shards of glass, garbage end up on the side of the road. In a bike lane that I would otherwise be fine sharing with cars, I sometimes feel unsafe because I'm trying to dodge items that might cause a crash or damage my bike. People also leave their garbage cans for pickup in existing bike lanes or shoulders which are a nuisance. I dont know exactly how to address this issue, but its worth bringing up. Thanks for all you do!*

*Please help us get more trails, up in the mountains too*

*Please stop the developers from destroying open space. At the very least, make the developers include trails as part of all their ugly and endless subdivisions. INSIST that property owners along the Bonneville Trail maintain public access to the trail. Just like*

*the closed canal trails, the Bonneville will be the next victim!*

*The "trail" that was implemented through logan is not consistent and does not flow well. This needs improved. We have good short portions of trails but other than bonneville we have no accessible trails through town. I live by Merlin Olsen and see so many people out every single day but we dont have much space or ability to stay on a trail or sidewalk very long.*

**MORE MOUNTAIN BIKE TRAILS!**

*Everyone would benefit from having access to the canal trails. I really hope you can make this happen.*

*I would love more dedicated bike routes that are asphalt.*

*Biking from airport road, east into north Logan is dangerous since there is no bike lane up to the high school road. I commute daily there and often have someone behind me as I ride into north Logan.*

*Improving the road ways to have a nice shoulder for bicycles to ride on and not be so close to automobile traffic is my big concern. And then maintaining those so that the debris is not in that bike path way which would force us into riding in traffic again*

*I think that North Logan has done a great job with expanding our park amenities the last couple of years, but trails and non-motorized transit in the city has gotten a short-shrift. Right now we can get away*

*with it because the city isn't so big that there is a ton of traffic. But as it continues to grow, it will be harder to add trails later and the existing "nice" sidewalk routes will become less and less inviting with increased motorized traffic on the roads.*

*The city has said it would take steps to enforce the public easements along the canal but we have heard nothing for at least a year and a half.*

*I am glad you are looking into this. It is a benefit to the comunity.*

*As a senior, I find riding on busy roads challenging and frankly quite scary. I find it sad that this area has few paved trails*

*More sidewalks and access to trails would be the thing that would improve the life of my family the most in this community.*

*Sidewalks to reach parks are so important to me. With little ones it always adds some stress getting to parks and going for walk when there is not a sidewalk to use.*

*I love the sidewalk and canal trails in the Lundstrum park area, Bonneville shoreline trail, and the Bridger Park trail in Logan.*

*I think sidewalks to and from city parks are very important. Consider that Elk Ridge park has NO unbroken sidewalk connecting it to to the surrounding city even though it is very popular, especially around Pumpkin Walk time. Sidewalks or appropriate shoulders should be installed throughout the city, especially areas that are not zoned for agriculture.*

*Its time we actually DO something to improve the trails system in North Logan for the generations of people to come.*

*North Logan roadways are used heavily for runners, bikers and walkers. Most are narrow with out sidewalks. Children, individuals and families need safe walkways to walk from place to place and participate in the before mentioned activities. North Logan City needs to do more to provide a safe community for its members and less to support aging farmers who despise progress!*

*I would love to see bike paths connecting our parks and hopefully our future economic city center with a children's museum.*

*Thanks for this opportunity. I love what North Logan has done with existing parks and trails, and it would be fantastic to officially incorporate the canal trails into that structure.*

*Creating a network of trails in North Logan is the right thing to do, and it's worth almost any sacrifice. It's green, smart, and makes good economic sense because people want to live in a city with an extensive network of trails. For me, the surface doesn't matter much - rough dirt / rocks are totally fine because I ride a mountain bike. But I'm also fine with crushed limestone, gravel, asphalt, and pavement. What does matter is opening up as many trails as possible. I'm also in favor of putting bike lanes along roads, but this takes a back seat to opening up*

*more scenic routes, such as those along the canals. I would be happy to serve on a trails planning team, to help write proposals for funding, etc. Boyd Edwards, 1290 E 3250 N, North Logan, 435-640-5954, boyd.edwards@usu.edu*

*I love walking around North Logan. More completed sidewalks would be welcome. I enjoy the trails around the city parks. I enjoy the easy access to Green Canyon and the Bonneville Shoreline Trail. Canal trails would be wonderful.*

*Trails!! Trails!! Trails!!*

*Thank you for giving us the opportunity to discuss this.*

*We need to make it easier for residents to move around the city and enjoy the parks and being outside.*

*This would be money well spent. North Logan and the rest of the valley is growing faster than the infrastructure. Let's get busy making improvements before its too late*

*We live in a beautiful area and enjoying our surroundings with even more accessibility, and more accommodations for bikes, foot traffic, strollers etc., would be such a benefit for our little city and help us all enjoy it even more!*

*Seems like a lost opportunity that green Canyon is not connected to North Logan in the canal trails with a pedestrian walkway. It would be really nice to have sidewalks along 1900 North between the stop sign*

*and the curve. Traffic moves fast along that road, and there are a lot of pedestrians who use it daily. It is a safety issue as much as a recreation one. I would love to see a pedestrian walkway connecting Green Canyon to the canal Trails on 1900 North! It would connect North Logan to a bigger Network and would be such a boon to the community.*

*Canal trails should be top priority. They are a fantastic underutilized resource*

*Quit taxing and spending to provide for paths and bicycle trails when no one is hardly using what we have now.*

*North Logan desperately needs a plan. This is an active community that is increasing in development. A plan needs to be in place before everything is developed and nothing can be done. Thank you!*

*I'd also like to see a rail trail next to the railroad connecting Richmond to Hyrum. I think a small portion would be in North Logan.*

*Go trails and active transportation! I am an advocate for this issue, I would love to help promote improvement. Please use me!*

*North Logan and surrounding areas are lacking in their trail system. St George and other comparable areas are much further ahead.*

# Facility Design Guidance

Helpful references for facility planning and design is included in the following sources:

NACTO Urban Bikeway Design Guide, National Association of City Transportation Officials (2014)

The Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD)

The Federal Highway Administration's (FHWA) Small Town and Rural Multimodal Networks (2016)

AASHTO Guide for the Development of Bicycle Facilities, The American Association of State Highway and Transportation Officials' (2012)

The following design guidance pages are relevant excerpts from The NACTO Urban Bikeway Design Guide (2014).

NACTO National Association of City Transportation Officials. (2014). Urban Bikeway Design Guide.

## Design Guidance

### Conventional Bike Lanes

#### Required Features

- 1 The desirable bike lane width adjacent to a curbface is 6 feet. The desirable rideable surface adjacent to a street edge or longitudinal joint is 4 feet, with a minimum width of 3 feet. In cities where illegal parking in bike lanes is an concern, 5 foot wide bike lanes may be preferred.<sup>2</sup>
- 2 When placed adjacent to a parking lane, the desirable reach from the curb face to the edge of the bike lane (including the parking lane, bike lane, and optional buffer between them) is 14.5 feet; the absolute minimum reach is 12 feet. A bike lane next to a parking lane shall be at least 5 feet wide, unless there is a marked buffer between them. Wherever possible, minimize parking lane width in favor of increased bike lane width.<sup>3</sup>
- 3 The desirable bike lane width adjacent to a guardrail or other physical barrier is 2 feet wider than otherwise in order to provide a minimum shy distance from the barrier.<sup>4</sup>
- 4 Bicycle lane word and/or symbol and arrow markings (MUTCD Figure 9C-3) shall be used to define the bike lane and designate that portion of the street for preferential use by bicyclists.<sup>5</sup>
- 5 Bike lane word, symbol, and/or arrow markings (MUTCD Figure 9C-3) shall be placed outside of the motor vehicle tread path at intersections, driveways, and merging areas in order to minimize wear from the motor vehicle path.

- 6 A solid white lane line marking shall be used to separate motor vehicle travel lanes from the bike lane. Most jurisdictions use a 6 to 8 inch line.<sup>6</sup>
- 7 A through bike lane shall not be positioned to the right of a right turn only lane or to the left of a left turn only lane (MUTCD 9C.04). A bike lane may be positioned to the right of a right turn only lane if split-phase signal timing is used. For additional information, see bicycle signal heads. For additional strategies for managing bikeways and right turn lanes, see through bike lanes in this guide.

#### Recommended Features

- 8 Bike lanes should be made wider than minimum widths wherever possible to provide space for bicyclists to ride side-by-side and in comfort. If sufficient space exists to exceed desirable widths, see buffered bike lanes. Very wide bike lanes may encourage illegal parking or motor vehicle use of the bike lane.
- 9 When placed adjacent to parking, a solid white line marking of 4 inch width should be used between the parking lane and the bike lane to minimize encroachment of parked cars into the bike lane.<sup>7</sup>
- 10 Gutter seams, drainage inlets, and utility covers should be flush with the ground and oriented to prevent conflicts with bicycle tires.<sup>8</sup>
- 11 If sufficient space exists, separation should be provided between bike lane striping and parking boundary markings to reduce door zone conflicts. Providing a wide parking lane may offer similar benefits. Refer to buffered bike lanes for additional strategies.

- 12 If sufficient space exists and increased separation from motor vehicle travel is desired, a travel side buffer should be used. Refer to buffered bike lanes for additional details.
  - 13 Lane striping should be dashed through high traffic merging areas. See through bike lanes for more information.
  - 14 The desirable dimensions should be used unless other street elements (e.g., travel lanes, medians, median offsets) have been reduced to their minimum dimensions.
  - 15 In cities where local vehicle codes require motor vehicles to merge into the bike lane in advance of a turn movement, lane striping should be dashed from 50 to 200 feet in advance of intersections to the intersection. Different states have varying requirements.
- #### Optional Features
- 16 "Bike lane" signs (MUTCD R3-17) may be located prior to the beginning of a marked bike lane to designate that portion of the street for preferential use by bicyclists. The 2009 MUTCD lists bike lane signs as optional; however, some states still require their use.
  - 17 On bike lanes adjacent to a curb, "No Parking" signs (MUTCD R8-3) may be used to discourage parking within the bike lane.



# Design Guidance

## Shared Lane Markings

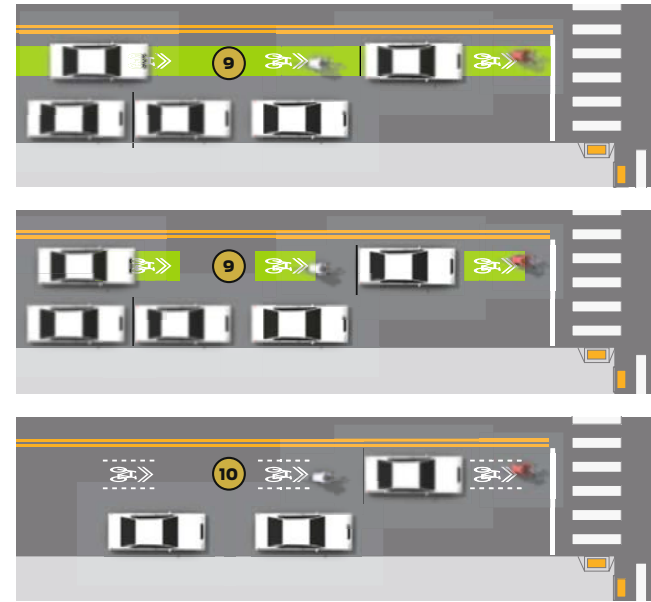
### Required Features

- 1 The Shared Lane Marking in use within the United States is the bike-and-chevron “sharrow,” illustrated in MUTCD figure 9C-9.
- 2 Shared Lane Markings shall not be used on shoulders, in designated bicycle lanes, or to designate bicycle detection at signalized intersections. (MUTCD 9C.07 03)

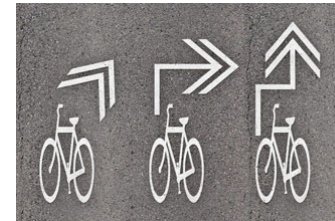
### Recommended Features

- 3 Frequent, visible placement of markings is essential. The number of markings along a street should correspond to the difficulty bicyclists experience taking the proper travel path or position. SLMs used to bridge discontinuous bicycle facilities or along busier streets should be placed more frequently (50 to 100 feet) than along low traffic bicycle routes (up to 250 feet or more). SLMs used along low volume routes can be staggered by direction to provide markings closer together.<sup>110</sup>
- 4 Lateral placement is critical to encourage riders to avoid the “door zone,” and to encourage safe passing behavior. MUTCD guidance recommends minimum placement when a parking lane is present at 11 feet from the curb face.<sup>111</sup>
- 5 On streets with posted 25 mph speeds or slower, preferred placement is in the center of the travel lane to minimize wear and encourage bicyclists to occupy the full travel lane.
- 6 On streets with posted 35 mph speeds or faster and motor vehicle volumes higher than 3,000 vpd shared lane markings are not a preferred

### Optional Shared Lane Marking Applications



### 8 Modified Shared Lane Markings as seen in Portland, OR



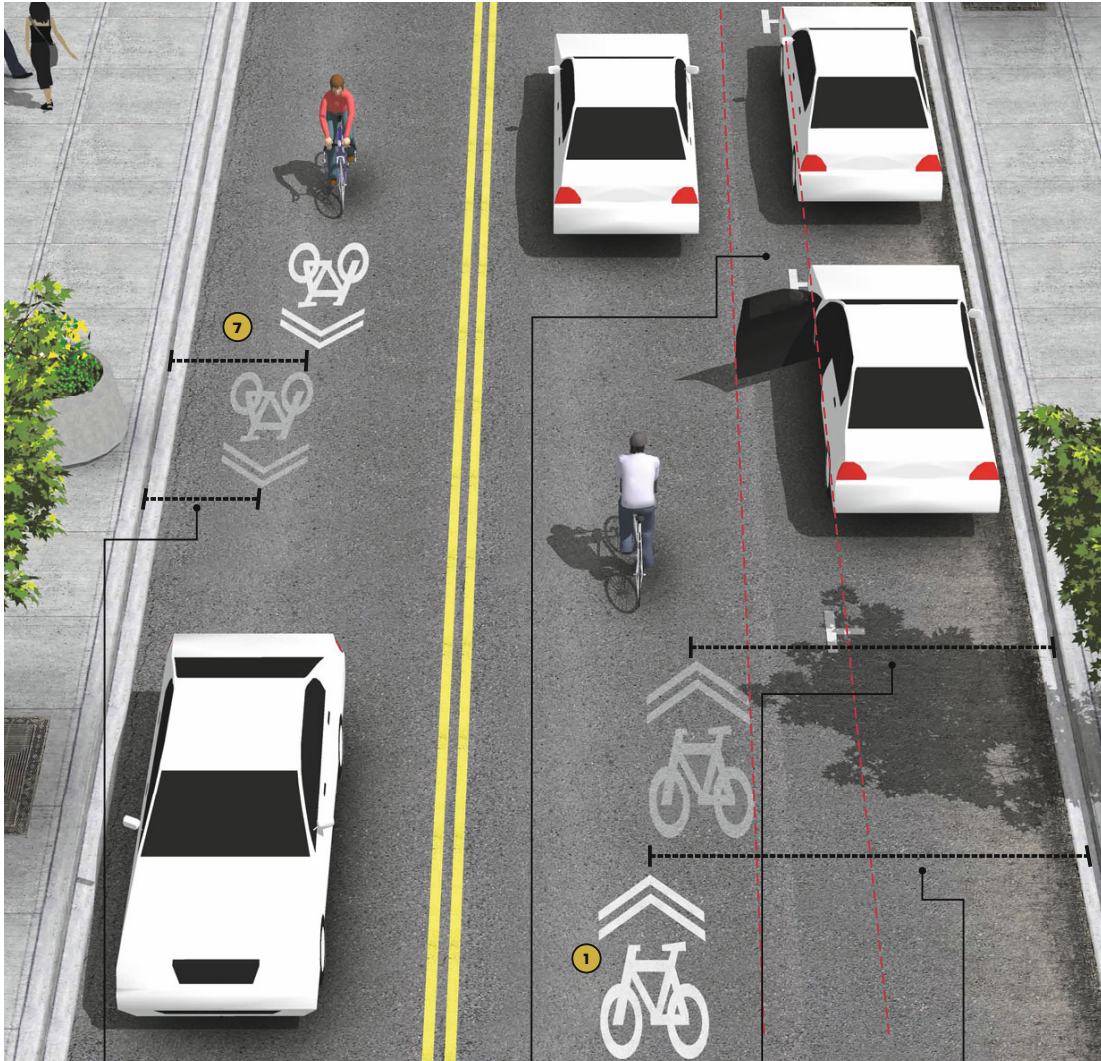
treatment. On these streets other bikeway types are preferred.

- 7 If on-street vehicle parking is not present, SLMs should be placed far enough from the curb to direct bicyclists away from gutters, seams, and other obstacles. On streets with posted 25 mph speeds or slower, preferred placement is in the center of the travel lane to minimize wear and encourage bicyclists to occupy the full travel lane. MUTCD guidance recommends minimum placement with no parking at 4 feet from the curb face.<sup>112</sup>

### Optional Features

- 8 For wayfinding purposes the orientation of the chevron marking may be adjusted to direct bicyclists along discontinuous routes.
- 9 Color may be used to enhance the visibility of the shared lane marking and to further encourage desired lane positioning.<sup>113</sup>
- 10 Dotted line markings may accompany the shared lane marking to further encourage desired lane positioning.<sup>114</sup>

NACTO National Association of City Transportation Officials. (2014). Urban Bikeway Design Guide.



**7**  
Minimum placement: 4 feet

**4**  
Lateral placement is critical to encourage riders to avoid the "door zone."

*The door zone represents an area where bicyclists must be especially aware of hazards that could be presented by the driver side door. Dedicated*

*bicycle facilities can be designed to heighten this awareness. See guidance for Bike Lanes and Cycle tracks for more information.*

**4**  
Minimum placement: 11 feet

**5**  
Preferred placement on 25 mph streets: center of travel lane



# Design Guidance

## Buffered Bike Lanes

### Required Features

1 Bicycle lane word and/or symbol and arrow markings (MUTCD Figure 9C-3) shall be used to define the bike lane and designate that portion of the street for preferential use by bicyclists.<sup>9</sup>

2 The buffer shall be marked with 2 solid white lines, with diagonal hatching if 3 feet in width or wider. White lines on both edges of the buffer space indicate lanes where crossing is discouraged, though not prohibited. For clarity, consider dashing the buffer boundary where cars are expected to cross at driveways.<sup>10</sup>

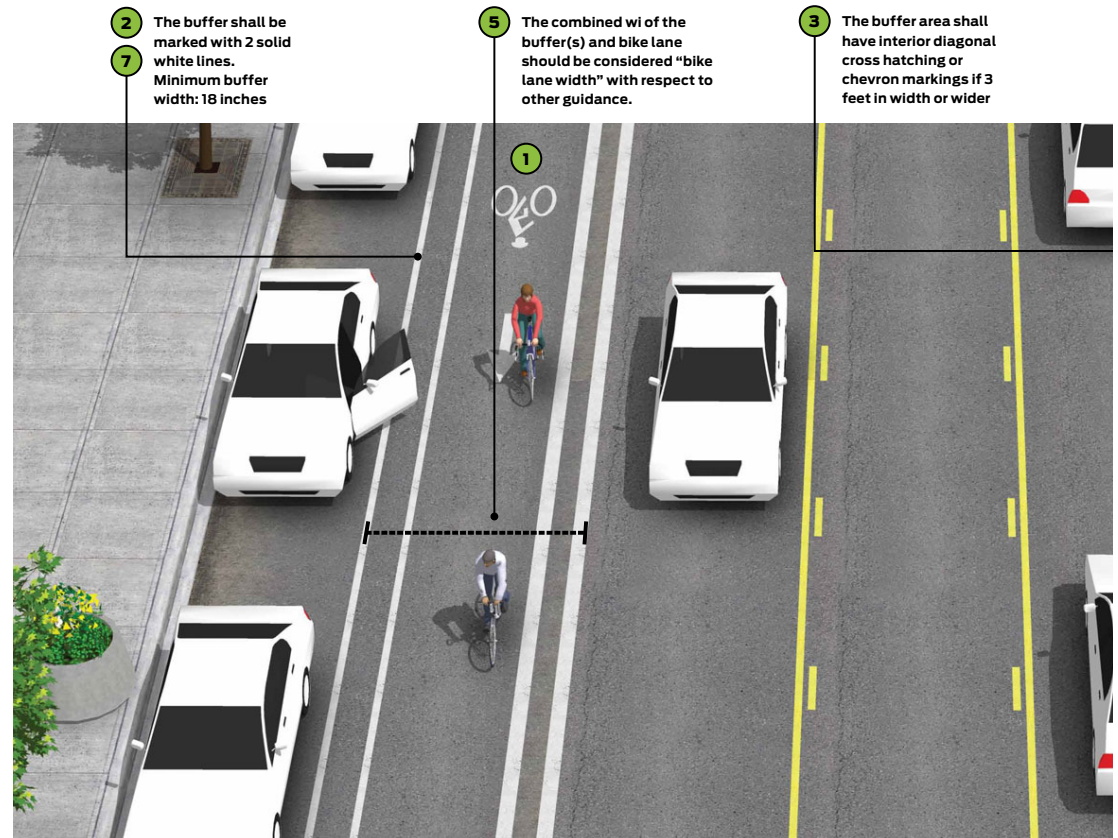
3 The buffer area shall have interior diagonal cross hatching or chevron markings if 3 feet in width or wider.<sup>11</sup>

### Recommended Features

4 If used, interior diagonal cross hatching should consist of 4 inch

lines angled at 30 to 45 degrees and striped at intervals of 10 to 40 feet. Increased striping frequency may increase motorist compliance.<sup>12</sup>

5 The combined width of the buffer(s) and bike lane should be considered "bike lane width" with respect to guidance given in other documents that don't recognize the existence of buffers. Where buffers are used, bike lanes can be narrower because the shy distance function is assumed by the buffer. For example, a 3 foot buffer and 4 foot bike lane next to a curb can be considered a 7 foot bike lane. For travel side buffered lanes next to on street parking, a 5 foot minimum



Parking Side Buffer Configuration

NACTO National Association of City Transportation Officials. (2014). Urban Bikeway Design Guide. NACTO

width is recommended to encourage bicyclists to ride outside of the door zone.

6 Where bicyclist volumes are high, bicyclist speed differentials are significant, or where side-by-side riding is desired, the desired bicycle travel area width is 7 feet.

7 Buffers should be at least 18 inches wide because it is impractical to mark a zone narrower than that.

8 On intersection approaches with right turn only lanes, the bike lane should be transitioned to a through bike

5 Desired minimum next to on street parking: 5 feet



Travel Side Buffer Configuration

lane to the left of the right turn only lane, or a combined bike lane/turn lane should be used if available road space does not permit a dedicated bike lane.

9 On intersection approaches with no dedicated right turn only lane the buffer markings should transition to a conventional dashed line. Consider the use of a bike box at these locations.

### Optional Features

10 Like a conventional bike lane, a wide (6 to 8 inch) solid white line may be used to mark the edge adjacent to a motor vehicle travel lane. For a parking side buffer, parking T's or a solid line are acceptable to mark between a parking lane and the buffer.

11 Separation may also be provided between bike lane striping and the parking boundary to reduce door zone conflicts.

11 For travel lane buffer configurations, separation may also be provided between bike lane striping and the parking boundary to reduce door zone conflicts. This creates a type of parking-side buffer.

12 On wide one-way streets with buffered bike lanes, consider adding a buffer to the opposite side parking lane if the roadway appears too wide. This will further narrow the motor vehicle lanes and encourage drivers to maintain lower speeds.

13 The interior of the buffer area may use different paving materials to separate it from the bike lane. Textured surface materials may cause difficulties for bicyclists as surfaces may be rough. Increased maintenance requirements are likely.

14 Color may be used at the beginning of each block to discourage motorists from entering the buffered lane. For other uses of color in buffered bike lanes see colored bike facilities.



MUTCD FIGURE 3B-24



MUTCD FIGURE 3B-24



MUTCD FIGURE 3D-2

# Design Guidance

## Combined Bike Lane/ Turn Lane

Guidance for conventional bicycle lanes and intersection crossing markings may also apply. When configured as a mixing zone for a cycle track, additional guidance for a cycle track intersection approach may also apply.

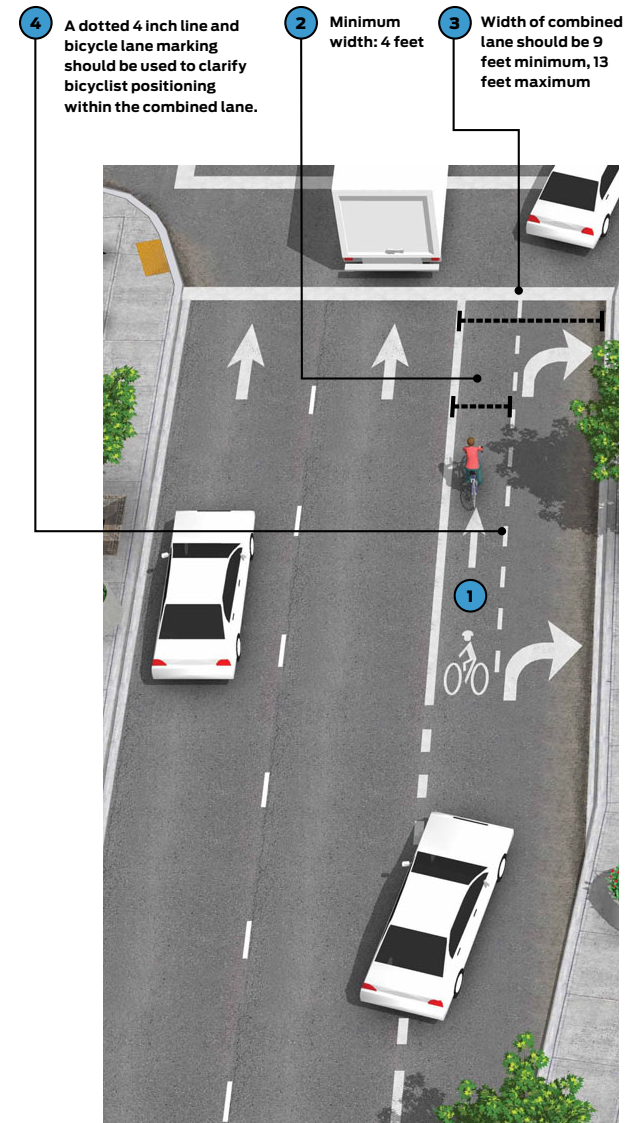
### Required Features

- 1 Some form of bicycle marking shall be used to clarify bicyclist positioning within the combined lane.

### Recommended Features

- 2 Within the combined lane, the bicycle area width should be 4 feet minimum.
- 3 Width of combined lane should be 9 feet minimum, 13 feet maximum. A full bicycle through lane can be accommodated if the vehicle right turn only lane can be made 14 feet or wider.
- 4 A dotted 4 inch line and bicycle lane marking should be used to clarify bicyclist positioning within the combined lane without excluding cars from the suggested bicycle area.
- 5 If the right lane is signed for "Right Turn Only," or if a sign is otherwise needed to make it legal for through bicyclists to use a right turn lane, signage should be installed in advance alerting the start of the combined turn lane.
- 6 If configured as a mixing zone on a cycle track corridor, the following features are recommended:
  - A Turning Vehicles Yield to Bikes (modified R10-15) sign should be used in advance of the mixing zone.

NACTO National Association of City Transportation Officials. (2014). Urban Bikeway Design Guide.

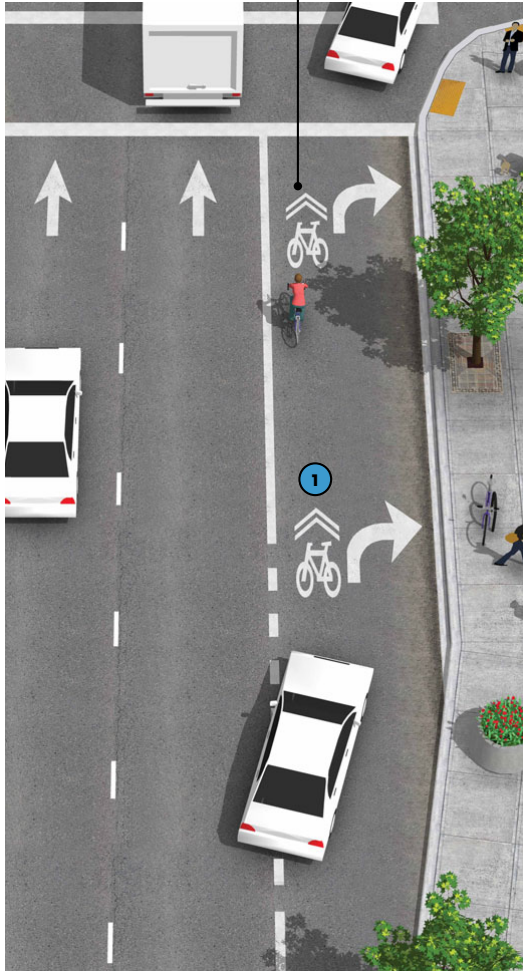


- A yield line should be used in advance of the mixing zone.
- The transition to the mixing zone should begin a minimum of 70 feet in advance of the intersection. Mixing zones that are shorter in length and begin abruptly encourage slower vehicle speed.

### Optional Features

- 7 A shared lane marking (MUTCD figure 9C-9) may be used as an alternative to dotted striping to clarify bicyclist position within the combined lane.

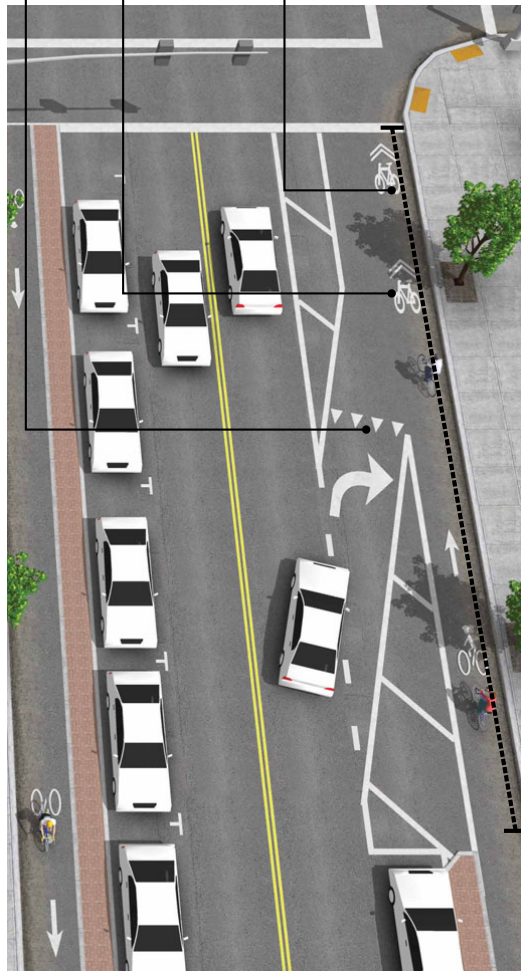
7 A shared lane marking (MUTCD figure 9C-9) may be used as an alternative to dotted striping to clarify bicyclist position within the combined lane.



6 A yield line should be used in advance of the intersection

1 Shared lane marking

6 The transition to the mixing zone should begin a minimum of 70 feet in advance of the intersection.



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# Design Guidance

## Intersection Crossing Markings

### Required Features

- 1 Dotted lines shall bind the bicycle crossing space. See MUTCD Section 3B.08 for dotted line extensions through intersections.<sup>64</sup>
- 2 Striping width shall be a minimum of 6 inches adjacent to motor vehicle travel lanes and shall otherwise match the width and lateral positioning of leading bike lane striping, except when using elephant's feet markings.<sup>65</sup>

### Recommended Features

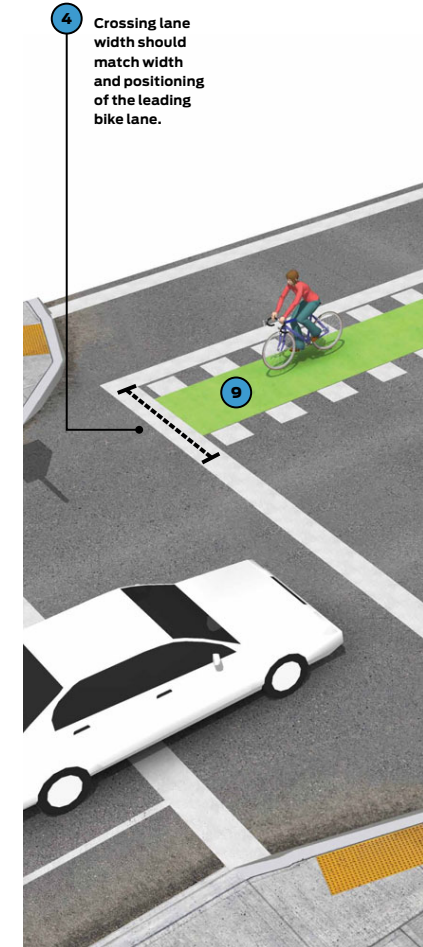
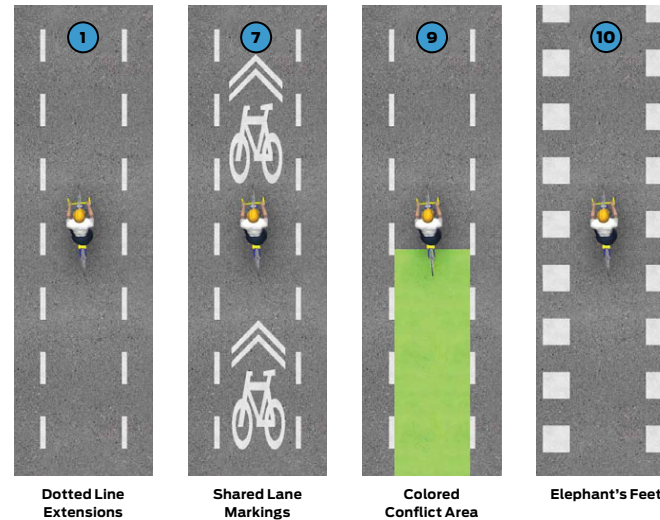
- 3 Dotted lines should be 2 foot lines with 2 to 6 foot spacing. Markings should be white, skid resistant and retro-reflective.

- 4 Crossing lane width should match width and positioning of the leading bike lane.
- 5 On crossings of two-way paths and cycle tracks, markings should indicate that there is two-way traffic either by marking the path center line through the intersection, or by marking bicycle silhouettes and/or chevrons in opposite directions in the two lanes. See Two-Way Cycle Tracks.

### Optional Features

- 6 Chevrons may be used for increased visibility within conflict areas or across entire intersections. Placement shall be in the middle of the moving lanes, and close to crosswalks.
- 7 Shared lane markings (MUTCD Figure 9C-9) may be used for increased visibility within conflict areas or across entire intersections. Placement shall be in the middle of the moving lanes, and close to crosswalks.<sup>66</sup>

- 8 Helmeted rider or bicycle symbol pavement markings may be used for increased visibility within conflict areas or across entire intersections. Placement should consider a rotated symbol facing cross-traffic in the middle of the bicycle lane.<sup>67</sup>



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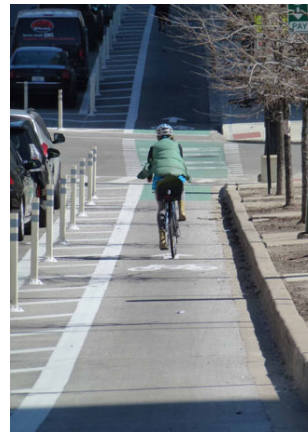
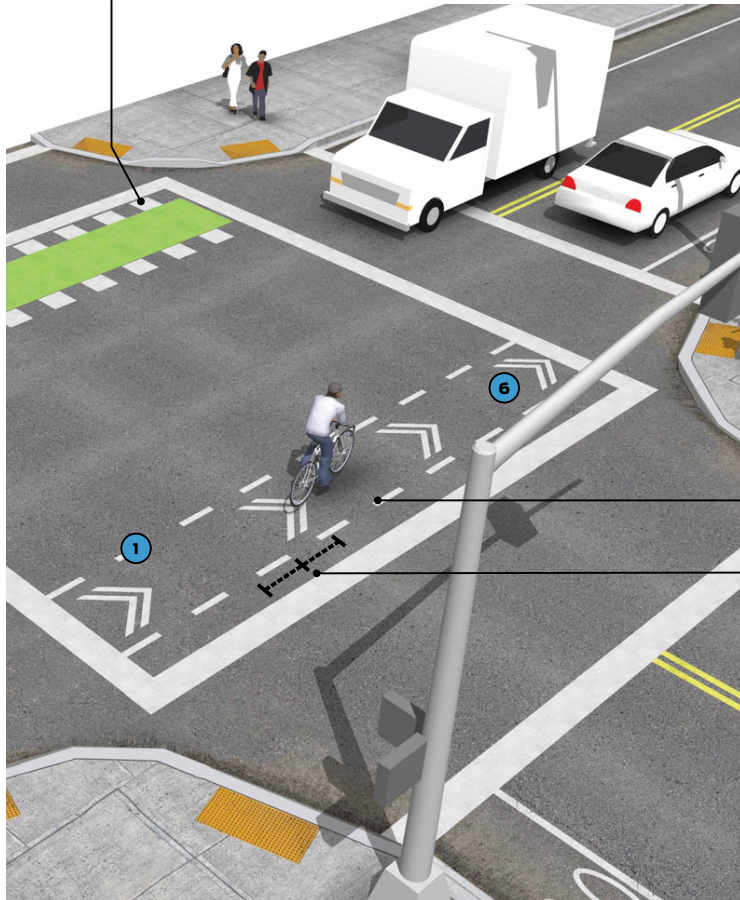
9 Colored pavement may be used for increased visibility within conflict areas or across entire intersections.<sup>68</sup>

10 Elephant's feet markings may be used as an alternative to dotted line extensions to offer increased visibility. If used, the markings should be 14 to 20 inches square, with equal distance spacing between markings. Markings should be positioned on outside of lane.<sup>69</sup>

11 Combinations of several of the listed strategies may be considered to increase visibility.

12 Yield Lines, also known as "Sharks Teeth" may be used when crossing driveways and alleyways to mark the edge of the bike lane.<sup>70</sup>

10 Elephant's feet markings may be used as an alternative to dotted line extensions to offer increased visibility.



CHICAGO, IL

2 Desired minimum stripe width: 6 inches

3 Dotted lines should be 2 foot lines with 2 to 6 foot spacing.

# Design Guidance

## Through Bike Lanes

### Required Features

- 1 The desired width of a dashed bike transition lane and through bike lane is 6 feet with a minimum width of 4 feet.
- 2 Bicycle lane word and/or symbol and arrow markings (MUTCD Figure 9C-3) shall be used to define the bike lane and designate that portion of the street for preferential use by bicyclists.
- 3 The through bike lane shall be placed to the left of the right-turn only lane.
- 4 Dotted lines signifying the merge area shall begin a minimum of 50 feet before the intersection (MUTCD). Dotted lines should begin 100 feet before the intersection if along a high speed/volume roadway.
- 5 Dotted lane line transition areas to through bike lanes shall not be used on streets with double right turn lanes. Double right turn lanes are extremely difficult for bicyclists to negotiate. Shared lane markings may be used in the center of the inside turn lane to designate the preferred path of through bicycle travel.

### Recommended Features

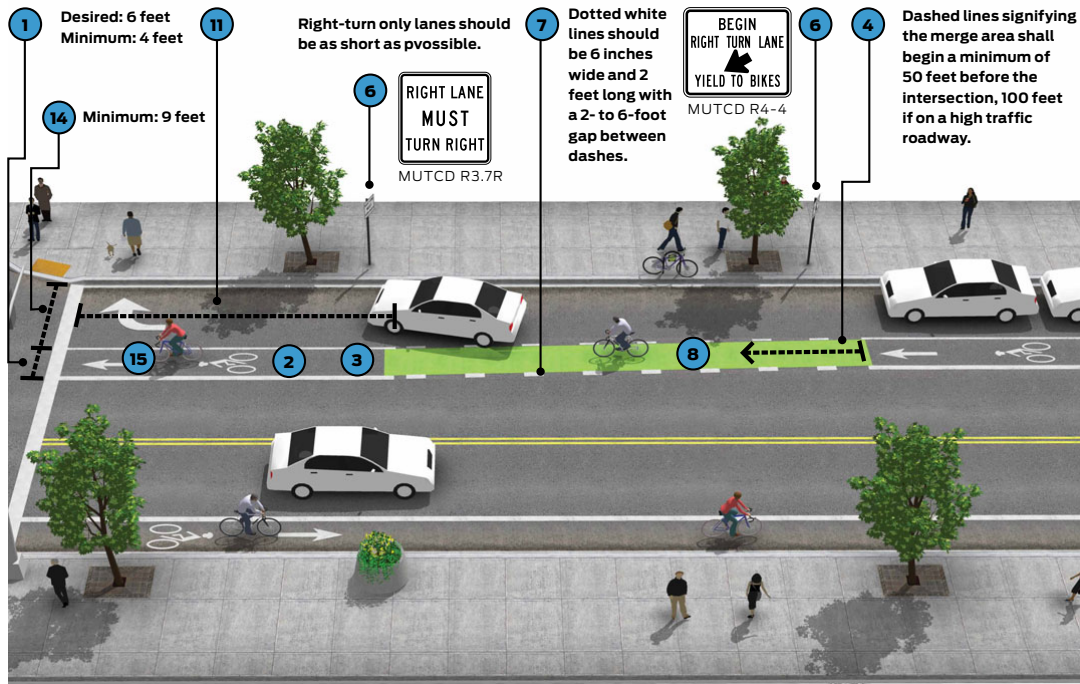
- 6 Accompanying signage should include R3-7R "Right Lane Must Turn Right" and R4-4 "Begin Right Turn Yield to Bikes" (MUTCD).
- 7 Dotted white lines should be 6 inches wide and 2 feet long with a 2- to 6-foot gap between dashes (MUTCD).
- 8 Through bike lanes should be provided at any intersection approach where a right turn only auxiliary lane is created (also known as a right turn add lane). It is desirable for bicyclists to travel straight through the merging area to reinforce right-of-way.
- 9 Dotted lane line transition areas to through bike lanes should not be provided at any intersection approach where a through travel lane transitions into a right turn only lane (also known as a right turn drop or trap lane). In such instances consider utilizing an exclusive bicycle signal phase with the bike lane remaining to the right, or not delineating the merging area connecting to the through lane. Shared lane markings may be used to provide additional guidance.
- 10 At intersections with high right turning vehicle volumes, high bicyclist volumes, or along priority bicycle corridors, treatments beyond dotted white lines such as coloring and increased signing should be provided.
- 11 Right-turn only lanes should be as short as possible in order to limit the speed of cars in the right turn lane. Fast moving traffic on both sides can be uncomfortable for bicyclists.

- 12 Terminating the bike lane in advance of the intersection is discouraged.
- 13 For intersections that lack the physical width to install a bicycle pocket, a combined bike/turn lane should be used.
- 14 Vehicle turn lane width should not be reduced to less than 9 feet.
- 15 Bicycle detection should be provided within the through bike lane.

### Optional Features

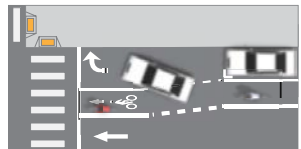
- 16 On streets with a combined turn and through lane, shared lane markings may be used in the center of the lane.
- 17 A bike box may be used in lieu of a designated through bike lane.
- 18 Bicycle warning signs may be used in advance of the merge/transition area.

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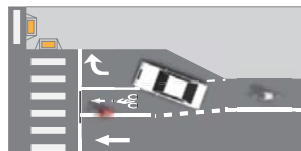


### Auxiliary Right-Turn-Only Lane Added

These are appropriate conditions for use of through bike lanes.



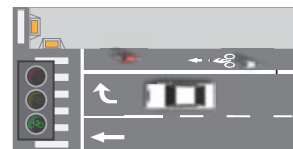
**Parking lane into right-turn-only lane.**  
Through bike lanes provide bicycle priority within weaving area



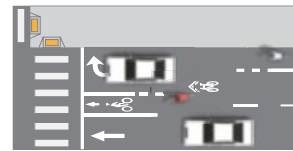
**Right-turn-only lane added at intersection with throat widening.**  
Through bike lanes provide bicycle priority within weaving area.

### Through Travel Lane Transitions into Right-Turn-Only Lane

These are generally inappropriate conditions for use of through bike lanes. Consider alternate treatments.



Exclusive bicycle signal phase used to separate conflicting movements.



Bicycle lane dropped in advance of the intersection encourages bicyclists to merge across as gaps permit. Shared lane markings may be used to provide additional guidance.



Bicyclists are not provided priority in weaving area and must use caution to merge across potentially high-speed motor vehicle traffic. Dotted lane line transition areas to through bike lanes should not be provided at ..

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# Design Guidance

## Bike Route Wayfinding

### Required Features

1 Follow MUTCD standards (Section 9B.01—Application and Placement of Signs), including mounting height and lateral placement from edge of path or roadway. Additional standards and guidance are found in Section 9B.20—Bicycle Guide Signs.

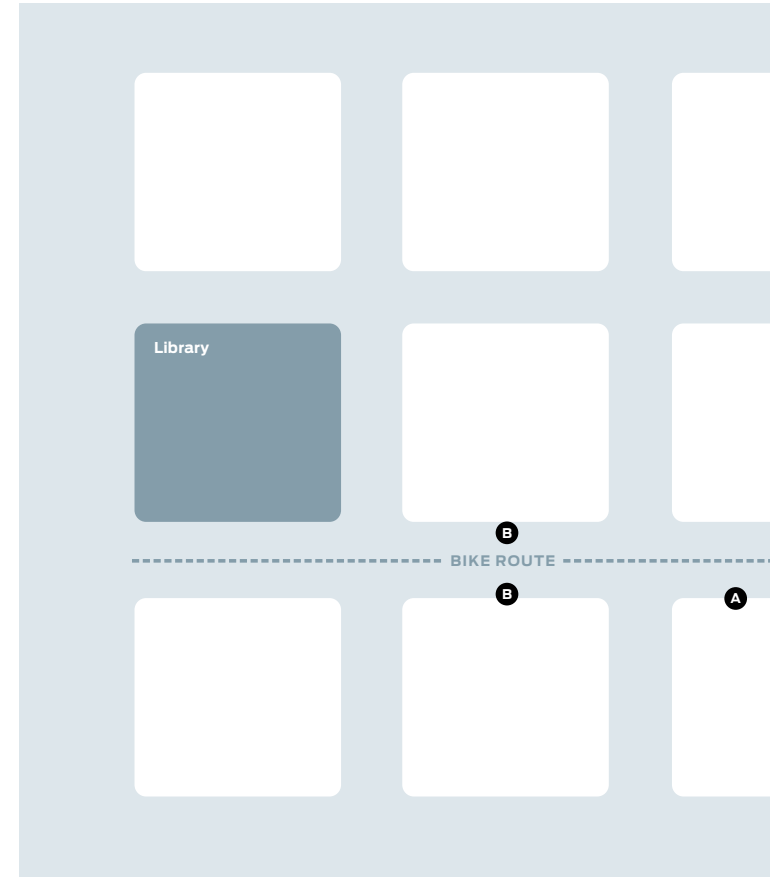
### Recommended Features

2 Decision signs should be placed in advance of all turns (near side of the intersection) or decision points along the bicycle route.<sup>16</sup>

3 Decision signs should include destinations, directional arrows, and distance. Travel time required to reach the destination provides bicyclists with additional information and may also be included. It is recommended that a 10 mph bicycle speed be used for travel time calculations.<sup>17</sup>

4 Place the closest destination to each sign in the top slot. Destinations that are further away can be placed in slots two and three. This allows the nearest destination to “fall off” the sign and subsequent destinations to move up the sign as the bicyclist approaches. For longer routes, show intermediate destinations rather than include all destinations on a single sign.

5 Turn signs should be placed on the near-side of the intersection to indicate where the bike route turns.<sup>18</sup>



6 Confirmation signs should be placed every 1/4 to 1/2 mile along off-street bicycle routes or every 2 to 3 blocks along on-street routes, as well as on the far side of major street intersections.

7 Clearview Hwy font is recommended, as it is commonly used for guide signs in the United States.<sup>19</sup>

### Optional Features

8 Signs may be placed on “feeder” streets between the bicycle route and nearby destinations.

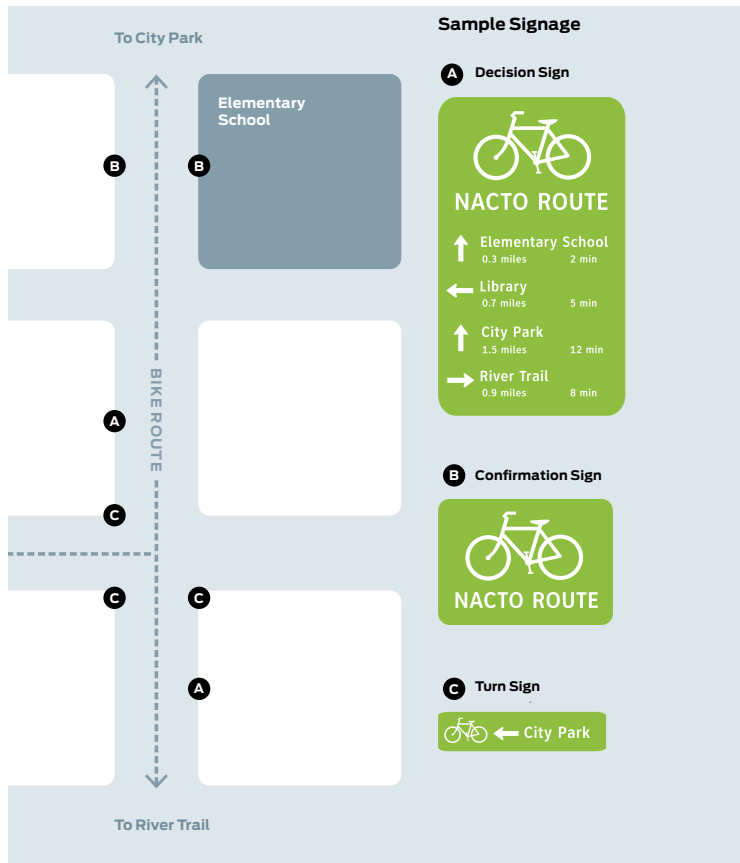
9 Bicycle route map signs may be periodically placed along bike routes to provide additional wayfinding benefits to users.

10 Conventional street name signs along bicycle routes may be redesigned to incorporate the street's identity as a bicycle route.

11 The placement of wayfinding signs may be limited specifically to the designated bicycle network, as other streets may be difficult or dangerous for bicyclists.

12 Pavement markings may be used to help reinforce routes and

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## Pavement Markings

Pavement markings can be installed to help reinforce routes and directional signage and to provide bicyclist positioning and route branding benefits. Under urban conditions, pavement markings may often be more visible than signs to users of the route. Pavement markings may be especially useful where signs are difficult to see (due to vegetation or parked cars). They can also help bicyclists navigate difficult turns. In the United States, Portland OR, Berkeley CA and Minneapolis MN have experimented with pavement markings. Berkeley and Minneapolis have applied a large stencil taking up nearly the entire travel lane designating the street as a 'bicycle boulevard.' In Portland, smaller markings including a small circle and arrow system were initially used; however, since the adoption and wide spread use of the shared lane marking, most bicycle boulevards are being retrofitted with these larger markings. Portland has also applied the shared lane marking as a wayfinding device by turning the chevrons of the marking in the direction of intended travel.



NEW YORK, NY

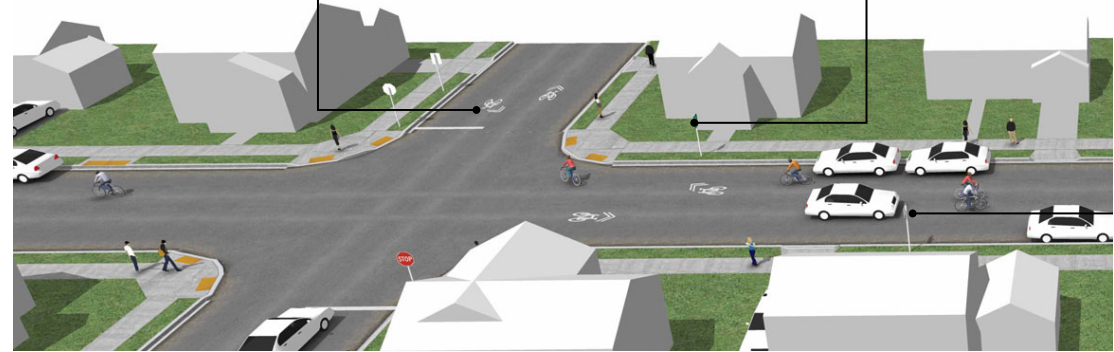
directional signage. Pavement markings may be useful where signs are difficult to see (due to vegetation or parked cars) and can help bicyclists navigate difficult turns and provide route reinforcement. Pavement markings may also be a standard component of bicycle routes.

**13** Some wayfinding signage networks, such as those in San Francisco and Denver, utilize a route numbering system. Refer to MUTCD Section 9B.21—Bicycle Route Signs for standards and options. Route numbering systems may not be intuitive for bicyclists without a map or directory.

**14** There is no standard color for bicycle wayfinding signage. Section 1A.12 of the MUTCD establishes the general meaning for signage colors. Green is the color used for directional guidance and is the most common color of bicycle wayfinding signage in the US, including those included in the MUTCD. Signed bicycle routes may be partnered with a printed or on-line bicycle route map. Many online services, such as Google, now offer bicycle route mapping that may differ from signed routes. Cities may wish to consider such advancements in technology when planning wayfinding programs.<sup>20</sup>

# Design Guidance

## Signs and Pavement Markings



**2** Where the bicycle boulevard turns or jogs onto another street, signs and/or markings shall be provided to indicate how users can remain on the route.



**5** Decision and turn signs should include destinations with arrows and distance and/or bicycling times.

### Required Features

- 1** Bicycle wayfinding signage and pavement markings shall be included on bicycle boulevards. Pavement markings and identification/wayfinding signs provide a strong visual identity for the street and designate the corridor as a bicycle route.
- 2** Where the bicycle boulevard turns or jogs onto another street, signs and/or markings shall be provided to indicate how users can remain on the route.
- 3** Center line stripes (if present) shall be removed or not repainted, except for short sections on intersection approaches that have a stop line or traffic circle. Drivers have an easier time passing bicyclists on roads that do not have centerline stripes. If vehicles cannot easily pass each other using the full width of the street, it is likely that there is too much traffic for the street to be a successful bicycle boulevard.<sup>128</sup>

### Recommended Features

- 4** Pavement markings should be large enough to be visible to all road users; 112 inches by 40 inches (the standard size of a shared lane marking) is the minimum recommended size.
- 5** Decision and turn signs should include destinations with arrows and distance and/or bicycling times. Bicycling time should assume a typical speed of 10 mph.
- 6** Advanced crossing warning signs such as MUTCD sign W11-1 (bicycle crossing; may be supplemented with AHEAD plaque) should be placed on intersecting streets with more than 5,000 vpd. A non-standard sign using the coloration and style of other bicycle boulevard signs may be used with an arrow showing bi-directional cross traffic.
- 7** On narrow local streets where it can be difficult for cars traveling in opposite directions to pass, pavement markings should be applied in closer intervals near the center of the travel lane.

### Optional Features

- 8** Signs may differ from those outlined in the MUTCD to highlight or brand the bicycle boulevard network. If used, signs shall be consistent in content, design, and intent; colors reserved by the MUTCD Section 1A.12 for regulatory and warning road signs (red, yellow, orange, etc.) are not recommended. Green, blue and purple are commonly used.
- 9** Confirmation signs may include destinations and distance and/or bicycling times.
- 10** To minimize sign clutter, a bicycle symbol may be placed on a standard street name sign, along with distinctive coloration.<sup>129</sup>
- 11** Either shared lane markings or non-standard markings may be used along bicycle boulevards.
- 12** On particularly narrow streets (approximately 25 feet wide with parking), shared lane marking stencils may be placed either in the center of the lane facing each other, or with the

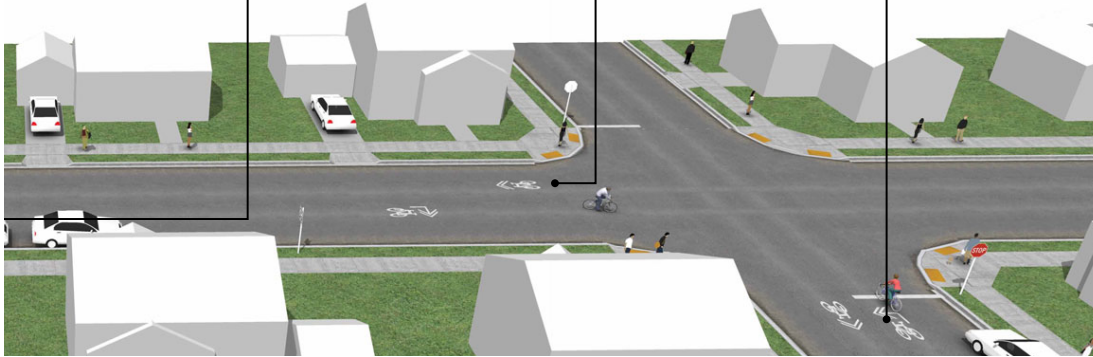
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**1** Identification/wayfinding signs provide a strong visual identity for the street and designate the corridor as a bicycle route.

**11** Either shared lane markings or non-standard markings may be used along bicycle boulevards.

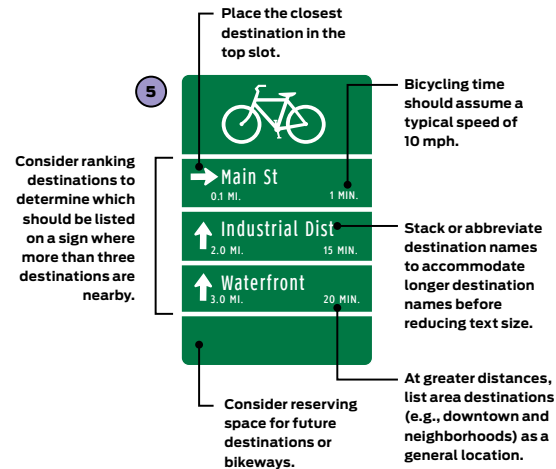
**13** The orientation of the chevron marking at offset intersections may be adjusted to direct bicyclists along discontinuous routes.



bicycle marking in the center of the roadway and two sets of chevrons offset 1 foot in each direction or travel.

**13** For wayfinding purposes, the orientation of the chevron marking at offset intersections may be adjusted to direct bicyclists along discontinuous routes. Alternately, an arrow may be used with the chevrons to indicate the direction of the turn.

**14** On-street parking spaces may be delineated with paint or other materials to clearly indicate where a vehicle should be parked and to discourage motorists from parking their vehicles too far into the adjacent travel lane.<sup>130</sup>



# Application for Other Communities

## Introduction

Much of the planning processes used to complete the North Logan Active Transportation Plan could be implemented in other, similar communities. While all of the data collected and analyzed was specific to North Logan and its immediate surroundings, nearly all of the used data sources were subsets of a larger scale (state and county). Additionally, the North Logan specific data (such as trail and intersection counts) used methods that could be replicated in other municipalities. The North Logan Active Transportation Plan followed the framework of precedents in other communities; likewise, other communities can continue using this Active Transportation Plan as a framework for planning in similar settings.

## Process

The methods for completing the Active Transportation Plan for North Logan, UT, followed the Active Transportation Plan Standards provided as a resource by BikeUtah (<https://www.bikeutah.org/atplans>). Although the process appears to follow a linear progression through each step, various steps are repeated as needed throughout the entire planning process. Additionally, stakeholder groups and public involvement is critical during all phases of the planning process in an iterative manner.

More information regarding the process followed for this plan can be found on page 5.

## Resources

### Collision Data:

Collision data was provided by UDOT via the AASHTO collision dashboard. This provides all reported collision data throughout Utah along with various statistics. Data can typically be exported with XY coordinates as an Excel file from the dashboard and be imported into GIS software.

### Strava Cycling/Pedestrian Data:

[metro.strava.com](https://metro.strava.com)

Strava Metro data is available for free to planners, government agencies, university researchers, etc. An account must be created on their website. You must provide details regarding the area of interest and project. Account approval can take several weeks.

### Public Transit Data:

The Cache Valley Transit District collects stop-specific ridership data every several years and is currently working to implement automatic passenger counting equipment in the near future. This data was provided by CVTD via a GRAMA request.

Outside of Cache Valley, UTA provides similar, more updated data on a regular basis (updated 3 times a year). This data

can be found at [gis.utah.gov](https://gis.utah.gov)

Other transit agencies such as SunTrans (St. George) and Park City Transit may have similar data upon request.

### Estimated Annual Average Daily Pedestrian Data:

<https://arcg.is/0G5fKy>

The linked dashboard uses a model to estimate pedestrian volume at 62,000 intersections throughout Cache Valley, the Wasatch Front, and St. George. Due to the limitations in the model, it does not include many of the rural areas in Utah.

### Existing On Street Bicycling Infrastructure Data:

Due to lack of updated data and the relatively small scale of North Logan, this data was self collected via in-person observations. Various Utah areas may have more up-to-date data resources.

### Existing Sidewalk Infrastructure Data:

Due to lack of updated data and the relatively small scale of North Logan, this data was self collected via recent aerial imagery. Various Utah areas may have more up-to-date data resources.

### Additional data collection:

The National Bicycle and Pedestrian Documentation project is conducted at least annually through Cache County. This data was made available by the county

and specific intersections were provided to the county to be used during the overlapping study dates.

The multi-use trails data was self collected using equipment on loan from BikeUtah. More information is provided in detail on page 43.

#### Other planning resources:

Statewide Active Transportation Data Resources: [www.udot.utah.gov/atmap](http://www.udot.utah.gov/atmap)

This links to a UDOT database that has links to many of the data sets available at the Utah statewide level. This includes existing and planned trails and pathways and also provides links to other previously cited data resources.

Utah Geospatial Resource Center:  
[gis.utah.gov](http://gis.utah.gov)

This link is a main resource for statewide GIS data.

Utah State University Extension:  
[extension.usu.edu/laep/index](http://extension.usu.edu/laep/index)

USU's LAEP Extension works with individuals, communities, and organizations to assist in addressing regional planning and localized design challenges. This project was funded in part by USU Extension.

## **Conclusion**

There is a realization that the limiting factor in most municipalities for planning efforts is time and available labor resources.

However, given that all of the resources used in this plan were publicly available suggests this type of planning effort is more feasible for municipalities with limited staffing and budgets.

With the provided resources used in completing this plan, it is hoped that other communities can have an accelerated starting point for completing similar plans. While the needs and specifics of many communities will differ greatly, there are some parts of the planning that can be transferable. The publicly-provided resources can help individual communities identify the active transportation needs under their own unique circumstances.