

VILLAGE OF GRANVILLE

ACTIVE TRANSPORTATION

A Planning Document For
Non-Motorized Mobility



ACKNOWLEDGMENTS

LICKING COUNTY AREA TRANSPORTATION STUDY

Alex Nouanesengsy

Asst. Transportation Manager / Special
Projects Planner & GIS Coordinator

Greg Huss

Planner I

LICKING COUNTY PLANNING COMMISSION

Jay Fisher, CFM

Asst. Planning Manager &
Special Projects Planner

DENISON UNIVERSITY

VILLAGE OF GRANVILLE

Debi Walker Yost

Village Planner

Steven Smedley

Asst. Village Planner

Jennifer Rubal

Asst. Village Planner

Darryll Wolnik

Village Planning & Development Director

GRANVILLE VILLAGE COUNCIL

Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, concept drawings, cost opinions, and commentary contained herein are based on limited data and information and on existing conditions that are subject to change. Existing conditions have not been field-verified at all locations. Further analysis and engineering design are necessary prior to implementing any of the recommendations contained herein.



TABLE OF CONTENTS

4
INTRODUCTION

6
EXISTING CONDITIONS

9
OPPORTUNITIES & CHALLENGES

14
COMMUNITY ENGAGEMENT

21
RECOMMENDATIONS

30
IMPLEMENTATION

36
APPENDICES

A scenic view of a paved path lined with trees and a stone fence, with the word 'INTRODUCTION' overlaid in white serif font. The path is flanked by lush green grass and mature trees with some autumn-colored leaves. A stone fence with black metal railings and decorative lanterns runs along the right side of the path. In the background, a house and more trees are visible under a clear blue sky.

INTRODUCTION

INTRODUCTION

“Active Transportation” is human-powered mobility; any method by which people travel without using motorized vehicles is active transportation. This includes walking, biking, skating, skateboarding, scootering, and wheelchairs. While these activities can also be seen as a form of recreation, active transportation planning recognizes their significance as forms of mobility. These modes of transportation are also simultaneously forms of physical activity. The intersection of health and mobility is a pronounced benefit of active transportation. Active transportation also has positive environmental, economic, and social impacts, in that it reduces automobile emissions, is more affordable for individual users, unites users with public transit, and encourages communities to share public amenities.

Active transportation planning aims to provide safe connections for active users to reach community assets like parks and trails, and everyday destinations including jobs, schools, and shops. Active transportation plans achieve this by providing an outline to implement infrastructure and programming, such as spanning sidewalk gaps, multi-use path connections, bicycle rack installations, educating the public, and hosting cycling events, among many other such possible improvements. Active transportation planning, thereby, supports investing in a healthy community by making active living more accessible for residents.

VILLAGE OF GRANVILLE

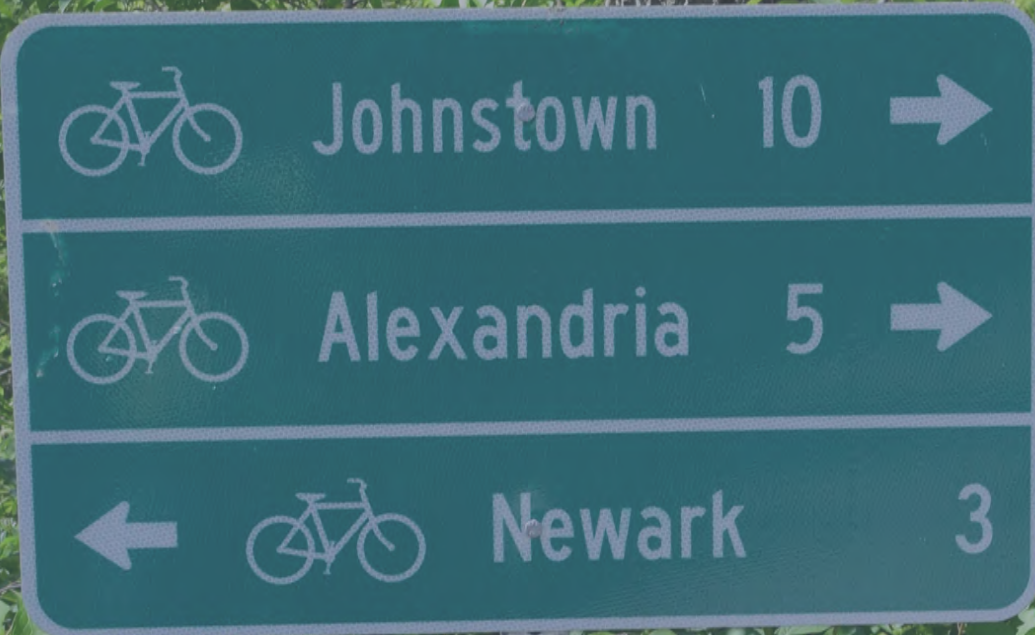
In 1805, settlers from Granville, Massachusetts planned a community near Raccoon Creek tucked between College, Sugarloaf, and Mount Parnassus Hills. Evident to visitors, the Village of Granville, like its New England-based namesake, has a quaint old world feel with a shop-lined pedestrian friendly central corridor. By placing emphasis on pedestrians, Granville is a truly unique community in comparison to the rest of the central Ohio area where automobiles tend to receive primary consideration. In honoring the history and distinctiveness of the village, Granville adheres to attentive planning, work ethic, and maintaining a strong community.

Like their predecessors in 1805, present day Granville must overcome its geography. Its infrastructure faces terrain challenges with some steep topographies, while the highway disconnects portions of the community by cutting off local roads that once spanned from the southern portion of the village to the rest of the community. The disjointed nature of these outlying neighborhoods make it less safe and more time consuming to walk or bike to the central area of Granville because the most direct routes were bisected by the highway. The community is eager to overcome these issues and forge a means to improve the lives of its population.

GOALS

- 1 Build inclusive network connections that overcome barriers and close gaps to important local destinations.
- 2 Ensure safety and accessibility for users of all ages and abilities.
- 3 Enrich the community through public and private partnerships with local stakeholders to encourage, promote, and enable active transportation.





EXISTING CONDITIONS

EXISTING PLAN REVIEW

Reviewing existing plans is crucial to any active transportation planning process. Plans and policies utilized by existing polities form an important foundation, by which active transportation plans benefit. Having an established groundwork to further active transportation is a strong starting point. It would be detrimental to discard such past efforts and ignore the current implementation of compatible strategies.



Broadway in downtown Granville features on-street parking, pedestrian crossings, and sidewalk frontages are indicative of both motorists and pedestrians mixing

LAND USE, STREET DESIGN, & CONNECTIVITY

In 2012, the Village of Granville adopted a Comprehensive Plan, which encompasses policies that aim to achieve a harmonious vision of the Village at the intersection of land use, infrastructure design, and network connectivity. While an updated Comprehensive Plan is currently in development by Granville, the 2012 plan functions to help steer the Village to make equitable decisions for the community. Included in this document are considerations for non-motorized transportation networks, land use policies that strive to prevent sprawling development, and regulations that encourage the inclusion of greenspace and similar public amenities.

The values laid out in the Comprehensive Plan, such as public health, recreation, and community building, align well with the core goals of active transportation as either byproducts or closely related outcomes of having a developed active network. Land use aspects of this plan, like regulating sprawl and maintaining a mixed-use policy, are crucial to creating a pedestrian friendly environment and a community centered around its downtown core. Additionally, the desire for expanding the active network by building and extending paths and greenways shows the commitment to healthy growth.



CYCLIST & PEDESTRIAN INFRASTRUCTURE

As a member of the LCATS Policy Committee, Granville supports the Metropolitan Planning Organization's (MPO's) backing of the Ohio Department of Transportation (ODOT) in its "Toward Zero Deaths" safety initiative, which aims to reduce pedestrian, cyclist, and motorist fatalities and generally improve safety for all users. As well as supporting state and regional goals, the Village produced its own Pedestrian Improvement Plan in 2017. This document aims to improve conditions for walkers by adopting Complete Streets principles for any roadway project, improving and adding crosswalks, and maintaining open green spaces in developments.

The Village of Granville has 4.9 miles of shared-use path in its jurisdiction, while Granville Township has 8 miles of paved trail. These trails are maintained in partnership with the Licking County Park District and serve the entire region, together with the local area. The main trail in the region, which runs through both the Village and the Township, is the TJ Evans Trail. In totality, this trail connects the Cities of Newark and Johnstown over some 14 miles, while also serving as a large segment of US Bike Route 50/A. For its part, the Village of Granville also has the Newark-Granville Trail, which runs along the Newark-Granville Road corridor and acts as a spoke to connect the eastern portion of the Village to the central business district, while also serving as major recreational infrastructure for locals.

PUBLIC TRANSPORTATION

Currently, the Village of Granville is served by Licking County Transit (LCT) services. LCT provides paratransit rides for individuals who schedule service anywhere in the region. Ridership is generally utilized for work and medical trips, with subsidized fare rates for children, the elderly, and the disabled. LCT operates between 5AM and 8PM Monday through Friday and 6AM and 6PM on Saturday, except for specific holidays. They provide a door-to-door service for their patrons.

Due to the nature of limited service for a countywide area, recent planning efforts were undertaken in 2020 to develop a Transit Development Plan and a Coordinated Plan to better serve the growing communities within Licking County. These plans look to implement deviated fixed route services within the next four years. Several of the fixed routes aim to better connect users to medical, occupational, and educational destinations. One of these routes will go through Granville via Newark-Granville Road and Welsh Hills Road/Price Road. LCATS is also adding a mobility manager to their staff. This role will help bridge the gaps between the transit provider and various transit user groups to coordinate more efficient ridership and scheduling.



A view at the wide and welcoming sidewalk frontage along Broadway in Granville's central corridor



A street scene featuring a white brick building with a storefront labeled 'HASHI'. A sidewalk with a brick pattern leads towards the building, flanked by green street lamps and planters. A street with yellow lane markings is visible in the foreground. The text 'OPPORTUNITIES & CHALLENGES' is overlaid in the center of the image.

OPPORTUNITIES & CHALLENGES

EXISTING INFRASTRUCTURE & SAFETY CONDITIONS

Opportunities

- ◇ Central Village is pedestrian friendly
- ◇ Trails through the community
- ◇ Lots of parks and greenspace
- ◇ Community is engaged and encouraging
- ◇ Strong community partnerships - village, township, chamber of commerce, parks, university, library, etc.
- ◇ Bike racks at schools and downtown
- ◇ Bike repair stations at trail spots and downtown
- ◇ USBR 50A converges with TJ Evans Trail on west side

Challenges

- ◇ Outside of central district, not much sidewalk
- ◇ Elevation and terrain changes
- ◇ No fixed transit
- ◇ Lacking bicycle infrastructure off trail (bike, lanes, sharrows, etc.)
- ◇ Cyclist safety on rural roadways
- ◇ Highway divides community and is a barrier for certain neighborhoods

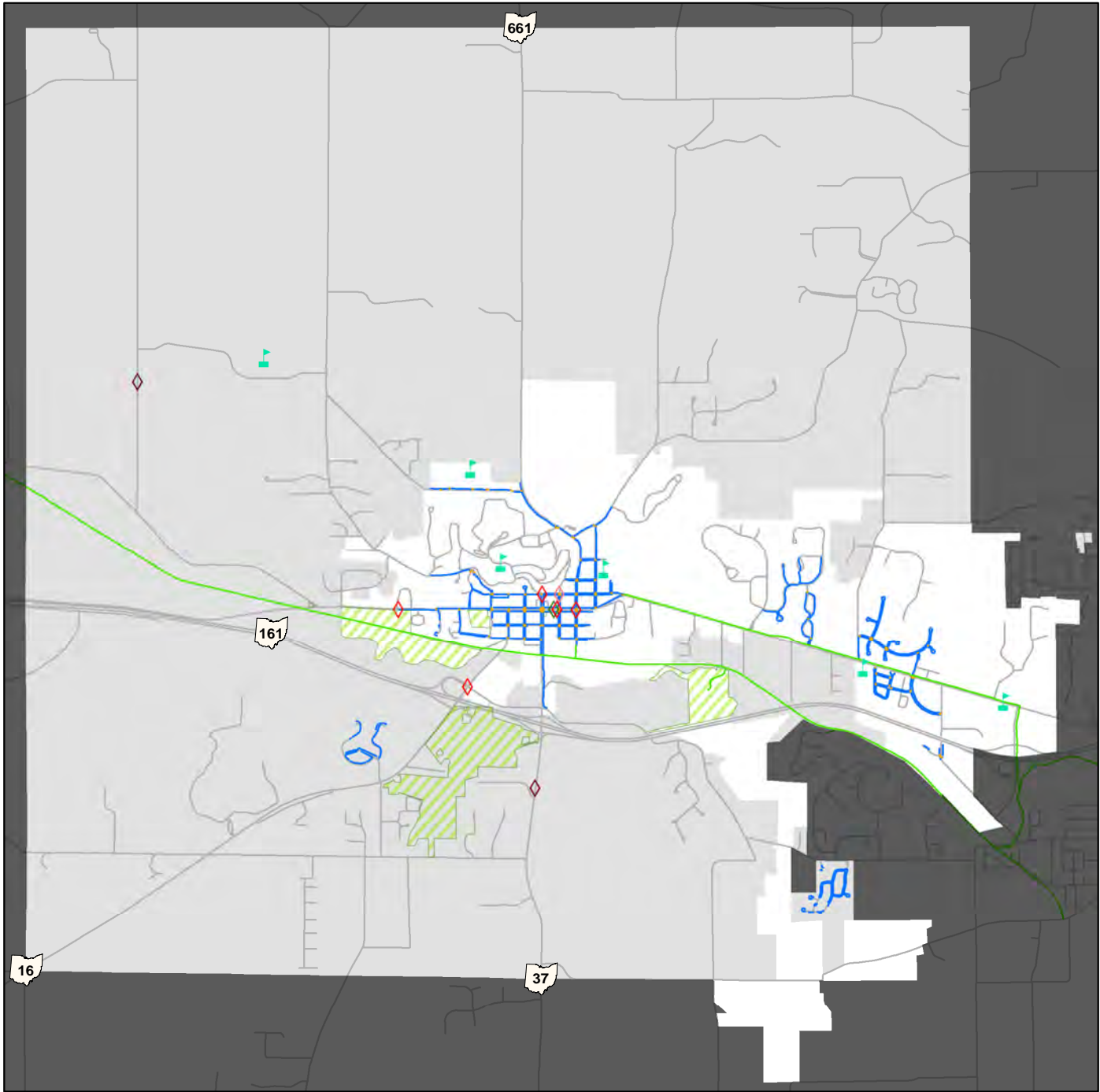













The multi-use path along New Burg Street currently ends at the high school parking lot.



PLANNED & UPCOMING PROJECTS

- ◇ New Burg & SR 661 Intersection Upgrade - Roundabout and safe crossing
- ◇ Transit route and transit stop
- ◇ Columbus Road Bridge project - likely to include path connection over bridge
- ◇ Downtown pedestrian improvements - signal timing coordination and pedestrian bump outs
- ◇ Newark - Granville Road improvements

GRANVILLE INFRASTRUCTURE



 Parks	 Schools	Crashes (2016-2020)
 Village of Granville	 Trails	 Property Damage Only
 Granville Township	 Crosswalks	 Possible Injury
	 Sidewalks	 Visible Injury
		 Serious Injury



AUDIT & COUNT DATA

In May 2021, LCATS staff conducted an abbreviated multipoint walk audit to examine pedestrian and cyclist infrastructure conditions. The general findings of this audit were that sidewalk conditions are primarily in very good condition, with few exceptions, and that bike parking and bike repair stations are available to cyclists at appropriate key locations, including the schools, downtown, and a singular strategic location along the trail. This audit focused specifically on examining conditions at known crash locations and observing issues presented by Village of Granville Planning Staff.

Three crash locations in the central Village occurred at crossings and were examined on this audit: one on Broadway at Prospect Street and two on College, at Main and Prospect Streets. Regarding the incident on Broadway at Prospect Street, there was a cyclist crossing who was at fault for crossing while motorists had the green light right-of-way assignment and actually ran into an automobile. Despite this abnormal series of events, the crossings on Broadway could be improved with lengthened walk signal times and shortened crossing distances by way of curb bump outs. The two occurrences on College Street are, speculatively, the result of a lack of motorists' focus at intersections since there are no inhibitive sight lines at these intersections. This might be due to the nature of the roadway layout itself, where on-street parking narrows the travel lane width along the corridor and switches between the north and south sides of College Street at different blocks. These conditions force motorists to make lateral weaving maneuvers in order to allow opposing traffic to pass in the narrowed travel lane.

During this audit, staff examined pedestrian conditions where infrastructure is lacking. These locations were SR 661/North Pearl Street, Burg and New Burg Streets, Jones Road, River Road, and the southern side of Newark-Granville Road. Jones Road only has a small segment of side path on its eastern side, between Newark-Granville Road and Longford Road. While this short link does connect the neighborhood to the trail network, it fails to connect to social and recreational destinations, such as Bryn Du Mansion and Fanchion Lewis Park, as well as additional residential areas.

SR 661/North Pearl Street has sidewalk and side path infrastructure only as far north as New Burg Street and only on the west side of the roadway between Washington Drive and New Burg Street.



A bike repair station at the intersection of the TJ Evans Trail with the Pearl Street access bridge.



An eastward view of the tree-lined TJ Evans Trail corridor which leads to Raccoon Valley Park and eventually Newark.

This configuration excludes two key destinations on the eastern side of SR 661/North Pearl Street: the Denison Biological Reserve and the Denison Baseball and Softball Fields. The sidewalk on the eastern side of North Pearl Street terminates at a crossing at the intersection of Washington Drive. This forces pedestrians to take the western sidewalk and cross North Pearl Street without a crosswalk or to walk through the grass along the roadway to reach the ball fields. In order for pedestrians to access the biological reserve, they are forced to either walk alongside a 55 mile per hour roadway, or cross the roadway without a formal crossing to access Denison facilities and take a path cut through a wooded area.

While Burg and New Burg Streets are vital network connections to Granville Intermediate School, they lack pedestrian or cyclist infrastructure to complete the connection. The sidewalk on New Burg Street does not advance farther west than the Granville High School campus nor does the sidewalk on Burg Street proceed north of Samson Court. These conditions make it unsafe for students to walk or bike to and from school. Burg Street faces topographical issues as the roadway winds uphill as it heads north, as well as having limited right-of-way, but this is the only direct route from the central Village to the school.

Newark-Granville Road has the Newark-Granville Trail running along its north side from Broadway to Thornwood Crossing. While this arm of the trail network connects many people to central Granville and to the TJ Evans Trail, it does not grant access to the individuals that reside on the south side of the road with any crossings, save for Galway Drive. This leaves a majority of the area residents without a safe connection to this pedestrian and cyclist asset. There is an informal trail access point to the TJ Evans Trail from Vill Edge Drive, but with no crosswalk or infrastructure on the south side of Newark-Granville Road, this becomes a safety concern.

River Road is a roadway divided by the highway yet maintains limited vehicle access. Neither the north nor south segments have pedestrian infrastructure. For the northern segment of River Road, this causes a walkability gap between Main Street and the businesses and park that are located on this portion of River Road. River Road south of the highway is primarily single family residential, but because of the four-lane divided highway, there is no option for any of these residents to walk to the central village amenities despite these desired destinations being within a reasonable walking distance.

Additional notable field audit observations are as

follow: bicycle parking facilities are available at key locations such as schools, on sidewalk in the central district of Granville along Broadway, and at Wildwood Park, but are not present at other parks, nor business destinations outside the heart of the Village. The trail access from South Pearl Street is in need of maintenance as tree roots have displaced the pavement and created an uneven surface to the point of hazard for trail users. The TJ Evans Trail crossing at its intersection with Moots Run Road, because of the skew this convergence takes, is significantly longer (approximately 80 feet) than the direct crossing distance (approximately 24 feet) and is also lacking for pavement striping.

COUNT DATA

LCATS collected pedestrian and cyclist counts across the Village and Township using Eco-counter hardware, which utilizes passive infrared to detect passing users, and traffic counts using MetroCount hardware, which uses pneumatic tubing to detect and classify vehicles. These counts were collected at various times between April and November 2021 at 23 unique pedestrian locations and 3 roadway locations. Traffic counters require site placement for a period of at least 24 hours in order to collect enough data, while the pedestrian counters require a 7-day period of on-site data collection. LCATS uses Eco-visio to process, summarize, visualize, and report our pedestrian count data. With this application, we are able to look at daily and hourly trends.

This table provides a summary glimpse of some of the pedestrian counts taken at key locations. For the entirety of the count data, please refer to the appendices. This count data will be useful to assessing active transportation project impact and prioritization in that it provides direct volume network demands and also an idea of user flow through the network.

Location	Average Daily Users
Broadway & N Prospect Sidewalk (NW Corner)	1,739
Broadway & S Prospect Sidewalk (SE Corner)	563
Newark-Granville Trail at St. Edward's Catholic Church	241
TJ Evans Trail S of Moots Run	297
TJ Evans Trail at S Pearl	178



A photograph of a sidewalk lined with trees and a white fence, with the text "COMMUNITY ENGAGEMENT" overlaid in white. The scene is a residential street with a concrete sidewalk on the left, a white picket fence with decorative finials, and a row of trees with green and yellowing leaves. A red sign is visible on the fence. To the right of the sidewalk is a grassy area with a green trash can and a street with parked cars and a pedestrian crossing sign. The text "COMMUNITY ENGAGEMENT" is centered in the middle of the image in a white, serif font.

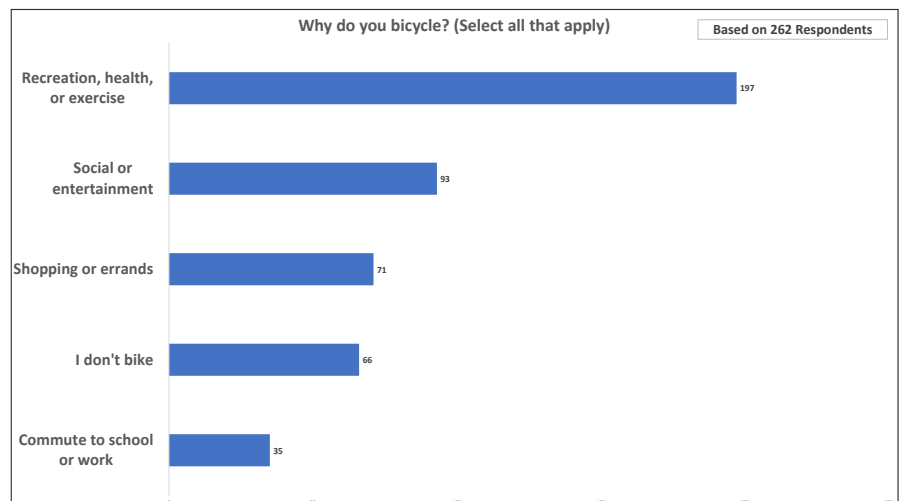
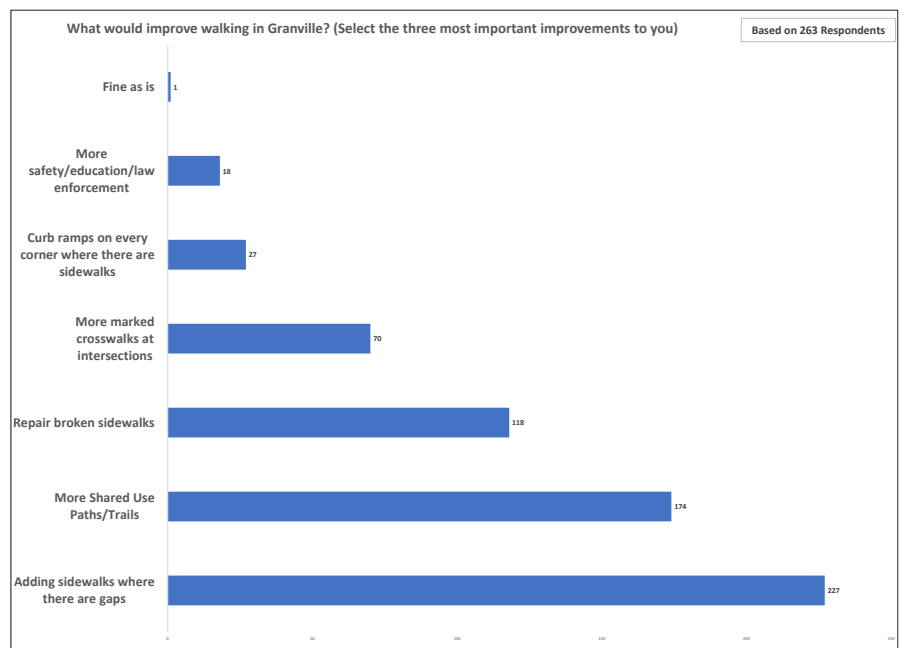
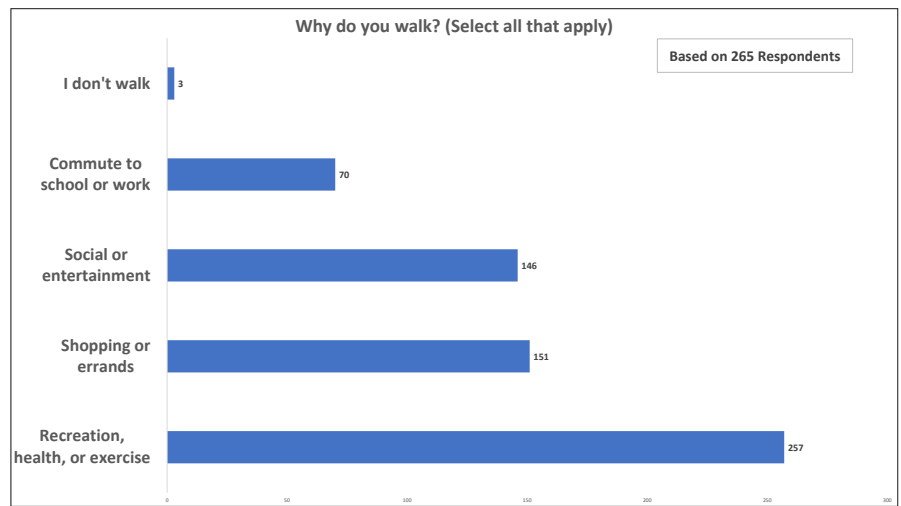
COMMUNITY ENGAGEMENT

IMPORTANCE OF COMMUNITY ENGAGEMENT

Reaching out and working with the community in a variety of ways is a critical step in the planning process. Because a plan such as this Active Transportation Plan is created for the people of Granville, collecting feedback on residents' want and need helps to determine project prioritization. When paired with statistics and data, community engagement can help distinguish perceived issues from real risks or challenges for locals. Working directly with the community allows first-hand experience to shine through on a plan such as this.

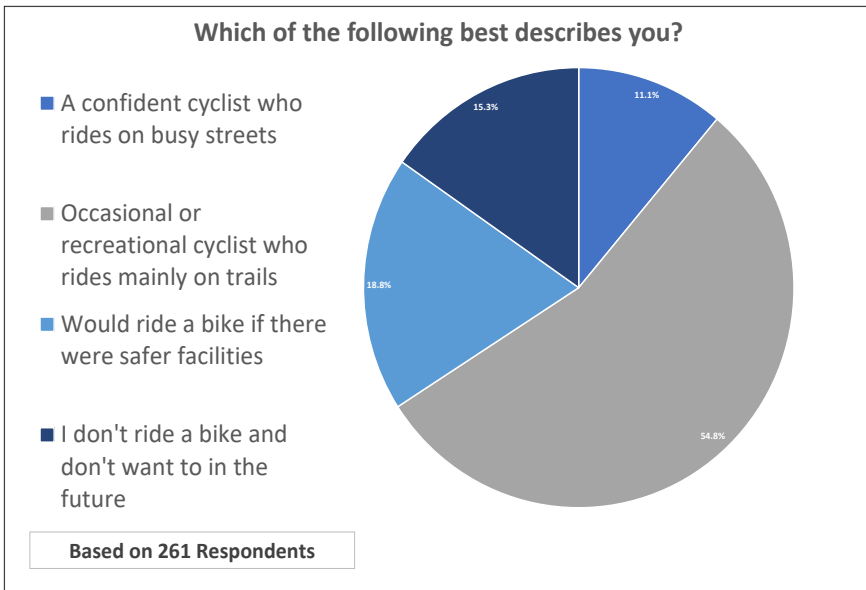
ONLINE ENGAGEMENT STRATEGIES

For community feedback, LCATS created an interactive map and survey, using WikiMap and Google Forms, respectively. As the primary source of community engagement, over 300 respondents utilized the map and survey. LCATS supplemented the map and survey with a website dedicated to Active Transportation in Licking County, specifically designed to give more information to Granville community members interested in this Active Transportation Plan. To advertise these online engagement methods, LCATS strategically placed over 20 yard signs with the URL and a QR code directing locals to the dedicated Active Transportation homepage and encouraging participation. Social media platforms Facebook and LinkedIn were also utilized to engage the public; announcements were sent out via these platforms and links to our survey, map and website were provided. Lastly, LCATS and the Village of Granville sent out emails to a wide network of local stakeholders in the community, which proved to be the most effective means of outreach for the engagement portion of this project.



IN-PERSON ENGAGEMENT STRATEGIES

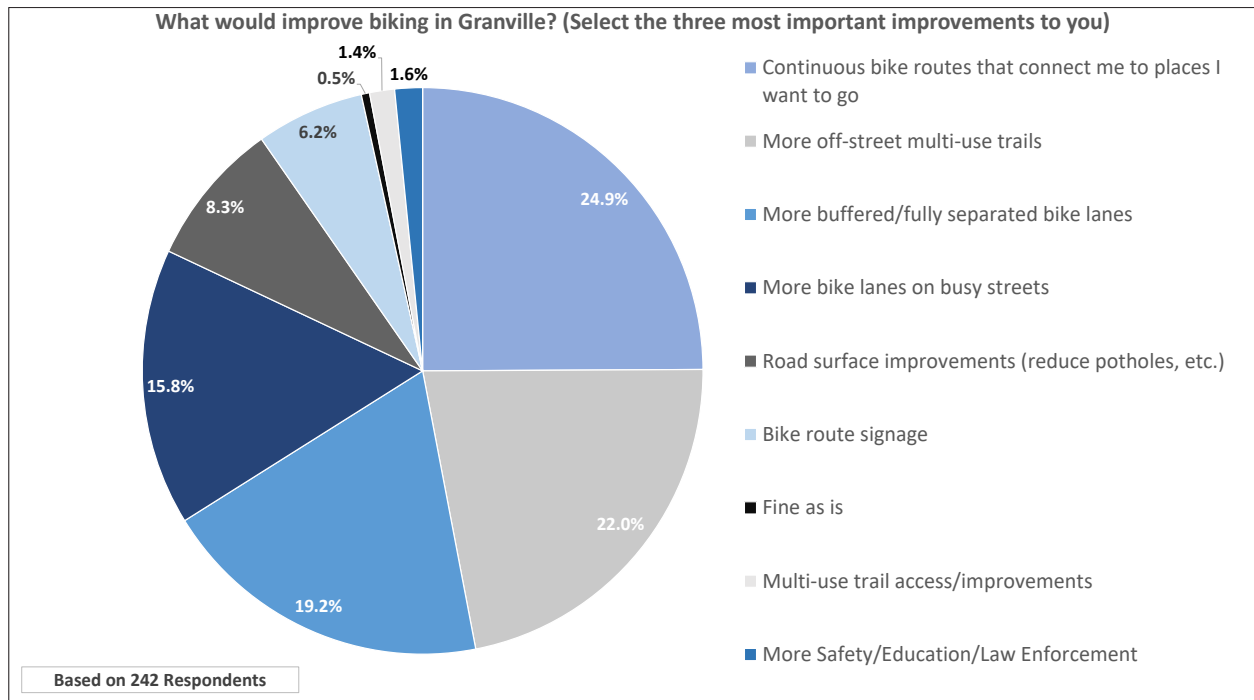
During the public input period for this plan, Granville Village Planners and LCATS staff members attended two Granville Farmers' Markets on Saturday mornings to engage, discuss, and capture local feedback for active transportation planning efforts. This engagement included printed maps for the public to mark up, small handouts with links to the aforementioned online engagement resources, and many conversations on the breadth of active transportation and its potential impact on the community.



NEW ENGAGEMENT STRATEGIES

In partnership with Denison University Data Analytics Faculty, LCATS developed a local pedestrian count data project, which engaged teams of Denison University students through locally collected data and planning policy. As it pertains to the scope of this planning process, the aims of this local student engagement were to gain fresh insights and perspectives from a specific local stakeholder demographic more prone to participate in active transportation. Outside the purview of this document, the expectations were that data specialists would provide fresh visualization styles and pattern analytics useful to the LCATS trail count program.

The Data Analytics Policy Parley (DAPP), as it was dubbed, provided students with background information on active transportation, pedestrian count data and an associated location reference map, and a call to provide their conclusions, insights, and active transportation improvement recommendations in a brief pitch presentation. The data was sorted by location and provided in 15-minute incremental bins. Other insights were kept limited to reduce any data bias.



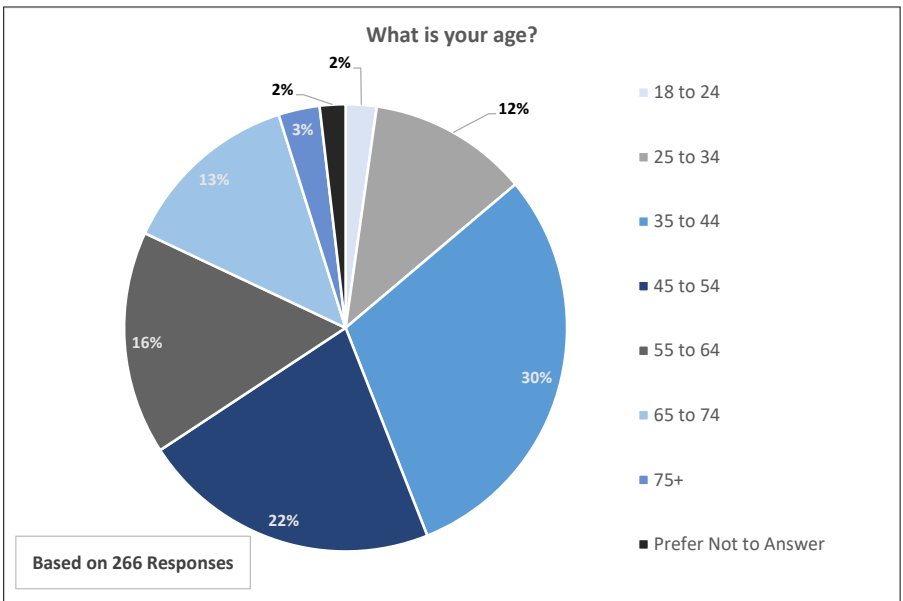
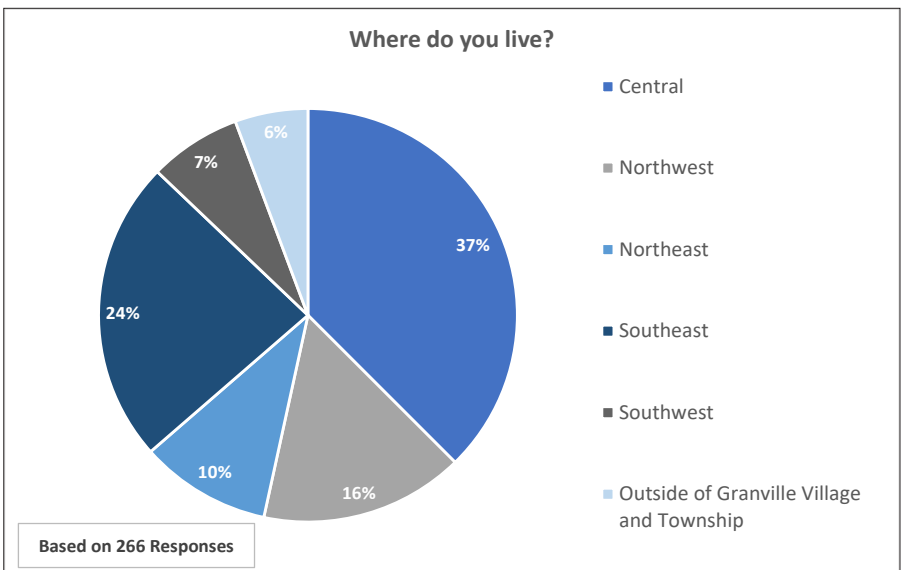
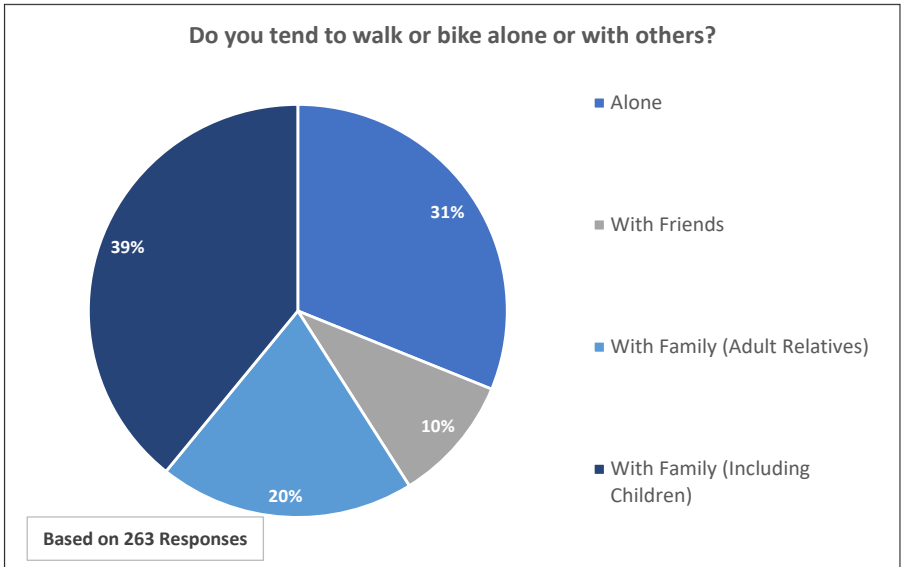
The students were encouraged to form teams and given two weeks to analyze the data and prepare their presentations.

Eleven teams participated and presented in the DAPP. With the granular pedestrian count data provided from LCATS, participants utilized their skills to find patterns, create statistical models, provide visualizations, and give recommendations. The teams presented these findings to a panel of judges, which included LCATS planners, Village of Granville planners, the Granville Area Chamber of Commerce, and Denison faculty. The insights provided by the various teams of students echoed many of our audit assessments of the area and called for crosswalk and sidewalk or trail infrastructure improvements and additions.

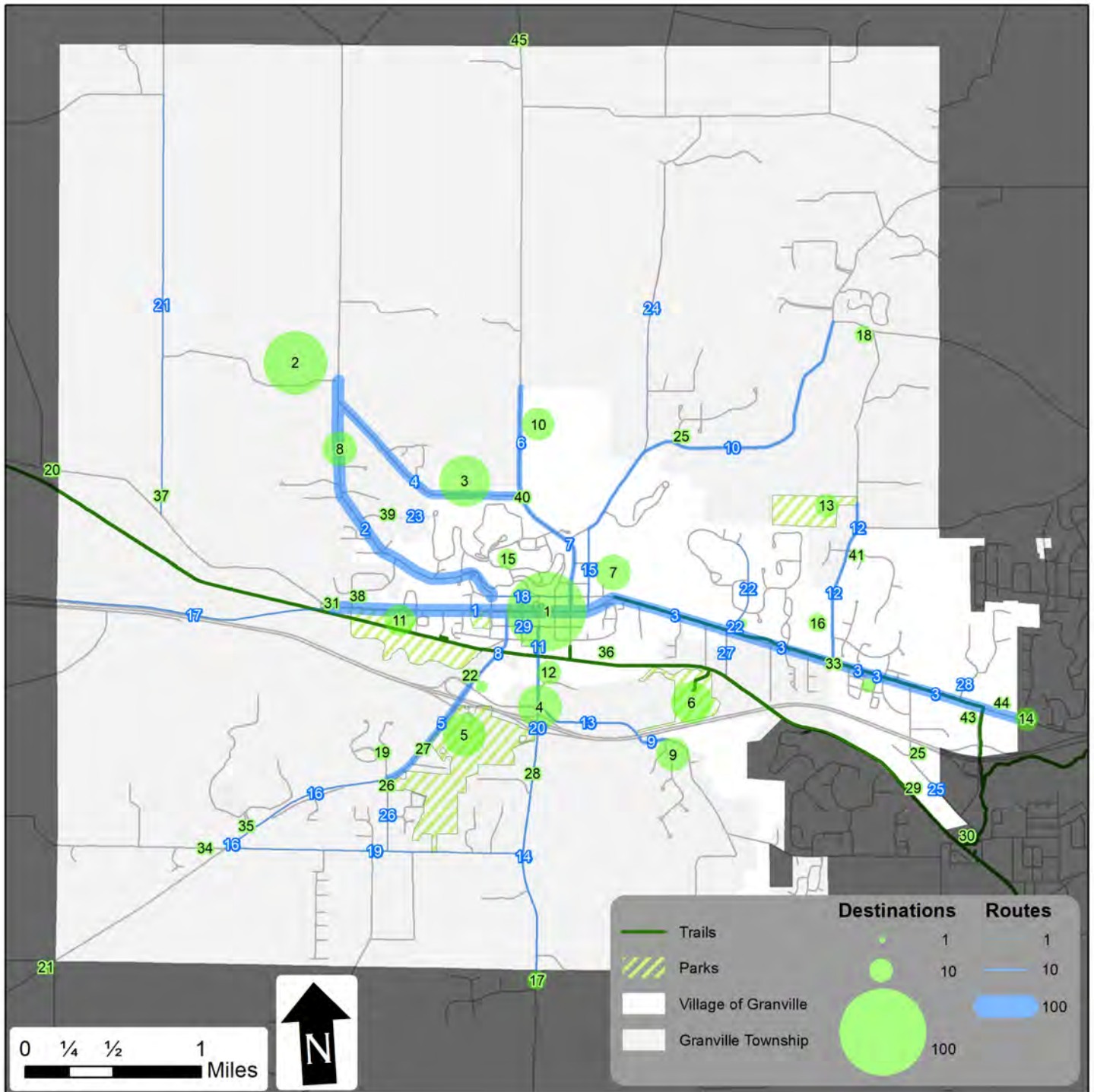
POPULAR & DESIRED ROUTES AND DESTINATIONS

The most desired destinations can easily be grouped into 3 categories as follows: parks, schools, and businesses. The parks combined received 90 mentions. These facilities include Wildwood Park, Raccoon Valley Park, Fanchion Lewis Park, Spring Valley Nature Preserve and Bryn Du Manor. Schools were an even more highly desired destination with all public and private area schools garnering 121 comments. This includes Granville Elementary, Intermediate, Middle, High Schools, as well as Granville Christian Academy and Welsh Hills School. Businesses were also very popular with the destinations listed being in either downtown, Main Street, or River Road.

Most desired routes, according to the survey, are spokes from downtown Granville, along major local corridors, to peripheral residential areas. These include Burg Street, Cherry Street/SR 16, Newark-Granville Road, Welsh Hills Road, Pearl Street, and Main Street/SR 37. Additionally, there is public desire for Broadway as an active transportation thoroughfare.



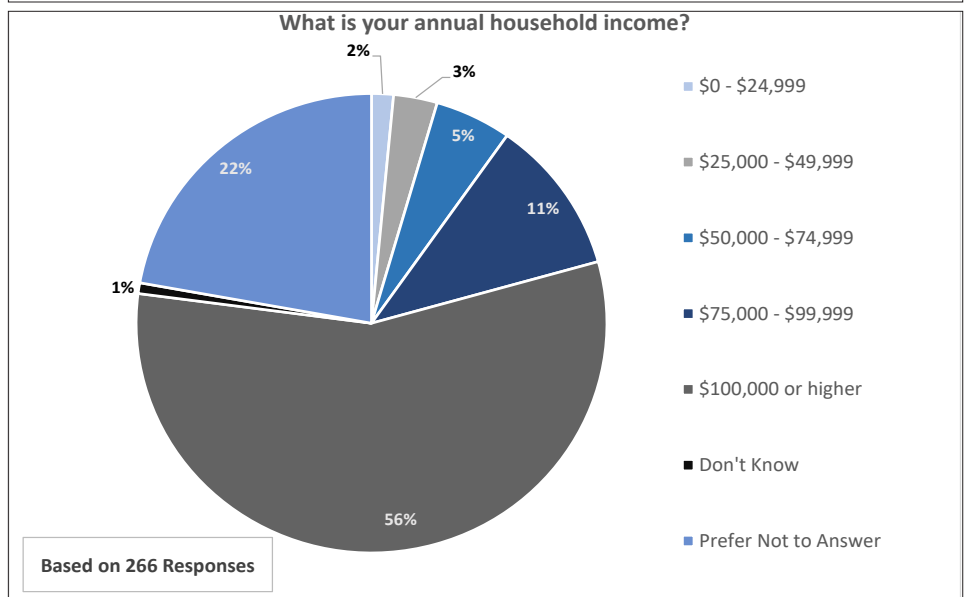
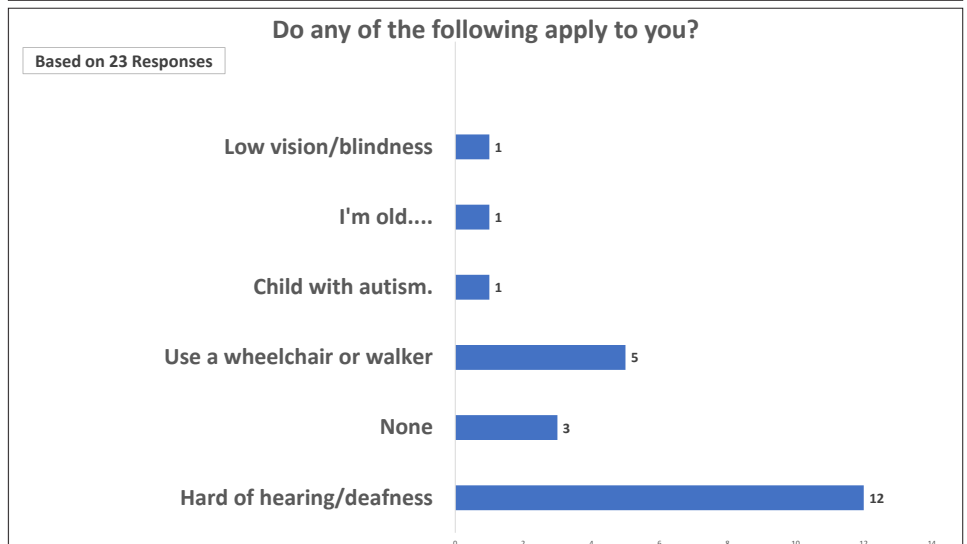
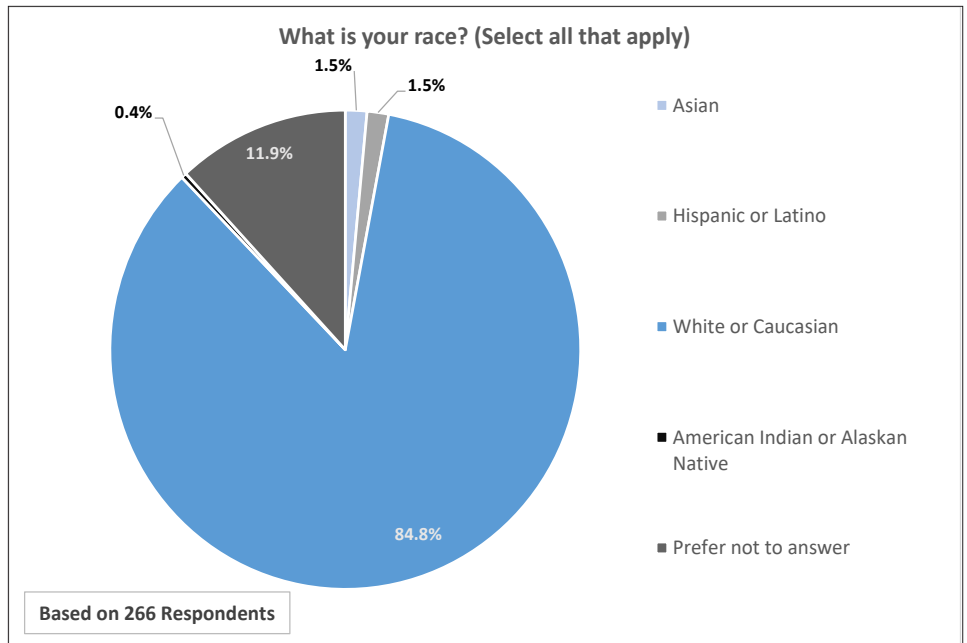
GRANVILLE ACTIVE TRANSPORTATION PLAN ROUTES & DESTINATIONS



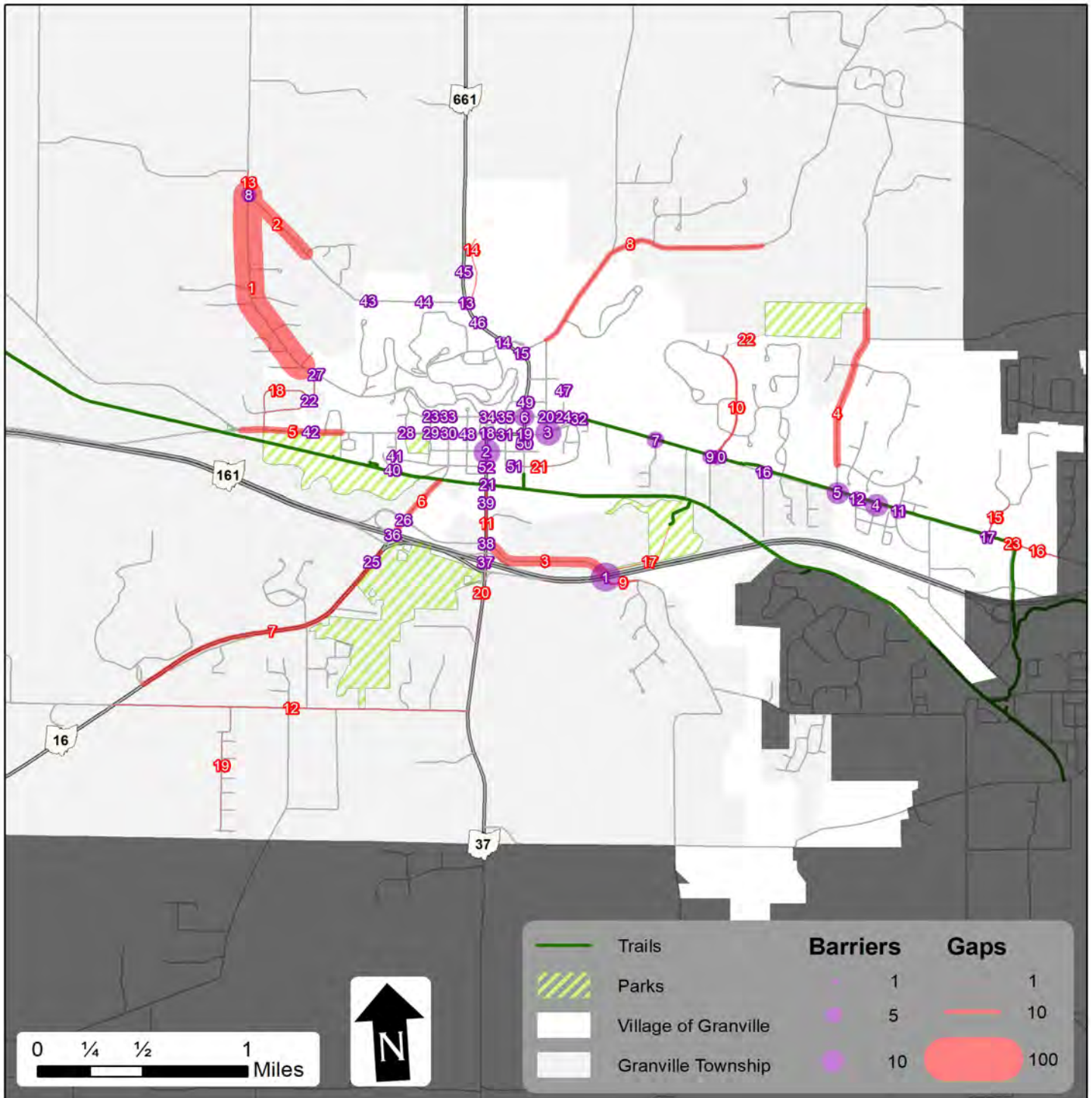
See Appendix C, Page 147 for the full table of routes and destinations

GAPS & BARRIERS

The biggest network gaps that concern survey respondents are Burg Street, New Burg Street, and River Road. These roadways are missing critical segments of active infrastructure to connect users with their end destinations. Specifically, the Burg and New Burg Streets reflect a desire to connect to schools. Currently, there are no safe off-street connections to Granville Intermediate School, which is attended by ideal walking age students. Many barriers exist throughout the area. The most noteworthy is the River Road and SR-16 barrier, which prevents residents that live south of the freeway from connecting by foot or bike to the public amenities available north of the divided highway. The public also has concerns with the Broadway, Pearl Street and Newark-Granville Road corridors. Several issues here relate to crossing safety and cyclist safety. There is a large concern about unsafe motorists' behavior in these areas.



GRANVILLE ACTIVE TRANSPORTATION PLAN GAPS & BARRIERS



See Appendix C, Page 149 for the full table of gaps and barriers



RECOMMENDATIONS

PROJECT RECOMMENDATIONS

This plan recommends several types of infrastructure projects including sidewalks, trails, bicycle parking, bicycle repair equipment stations and crosswalks improvements and additions. In total, 11.34 miles of trail, which will take the form of shared use paths and side paths, 1.7 miles of sidewalk, 5 locations to house bicycle parking, 4 locations to house bicycle repair stations, 10 new crosswalks, 5 crosswalk improvements, and a bicycle boulevard comprise the recommended projects for the Village of Granville to improve active transportation in the community. Many of these projects will require partnerships with public and private organizations to implement.

Several of the projects on this list are known upcoming projects or were drawn from the existing plan review. Notably, this applies to several of the crosswalks, all 3 downtown crosswalk improvements, and a few of the sidewalk and trail recommendations. Some projects were added after the public input period, during which, residents shed light on particular safety concerns or potential improvements in the existing network, as well as providing optics into a desirable network or support for planning level concepts held by area professionals.

Project lengths are listed in feet in order to align with the cost estimate guide. Sidewalk widths are assumed at 5 feet to match current sidewalk infrastructure in the Village. 10 feet is the assumed trail width. A map displaying location points for each project can be found in the appendices.

ID	Location	Type	Description	Length (ft)
BB1	Broadway/College Street	Bicycle Boulevard	Various changes to this corridor to improve cyclist safety	-
BR1	Wildwood Park	Bicycle Rack	Bike parking for park at trail access	-
BR2	TJ Evans Main Street - East Entrance	Bicycle Rack	Bike parking for businesses at trail intersection	-
BR3	Raccoon Valley Park	Bicycle Rack	Bike parking for park at trail access	-
BR4	Newark-Granville Trail	Bicycle Rack	Bike parking at green space/bench location	-
BR5	Bryn Du Mansion	Bicycle Rack	Bike parking at desired destination	-
RS1	West Broadway	Bicycle Repair Station	Bike repair at Centennial Park	-
RS2	Wildwood Park	Bicycle Repair Station	Bike maintenance for park at trail access	-
RS3	Raccoon Valley Park	Bicycle Repair Station	Bike maintenance for park at trail access	-
RS4	Newark-Granville Trail	Bicycle Repair Station	Bike maintenance at green space location	-
CI1	Broadway and Main	Crosswalk Improvement	Extended curbs to decrease crossing distance	-
CI2	Broadway and Prospect	Crosswalk Improvement	Extended curbs to decrease crossing distance	-
CI3	Broadway and Pearl	Crosswalk Improvement	Extend curbs to decrease crossing distance	-
CI4	Newark - Granville Road at Galway - West	Crosswalk Improvement	Improving crosswalk visibility- improved striping & signage, potentially including a beacon	-

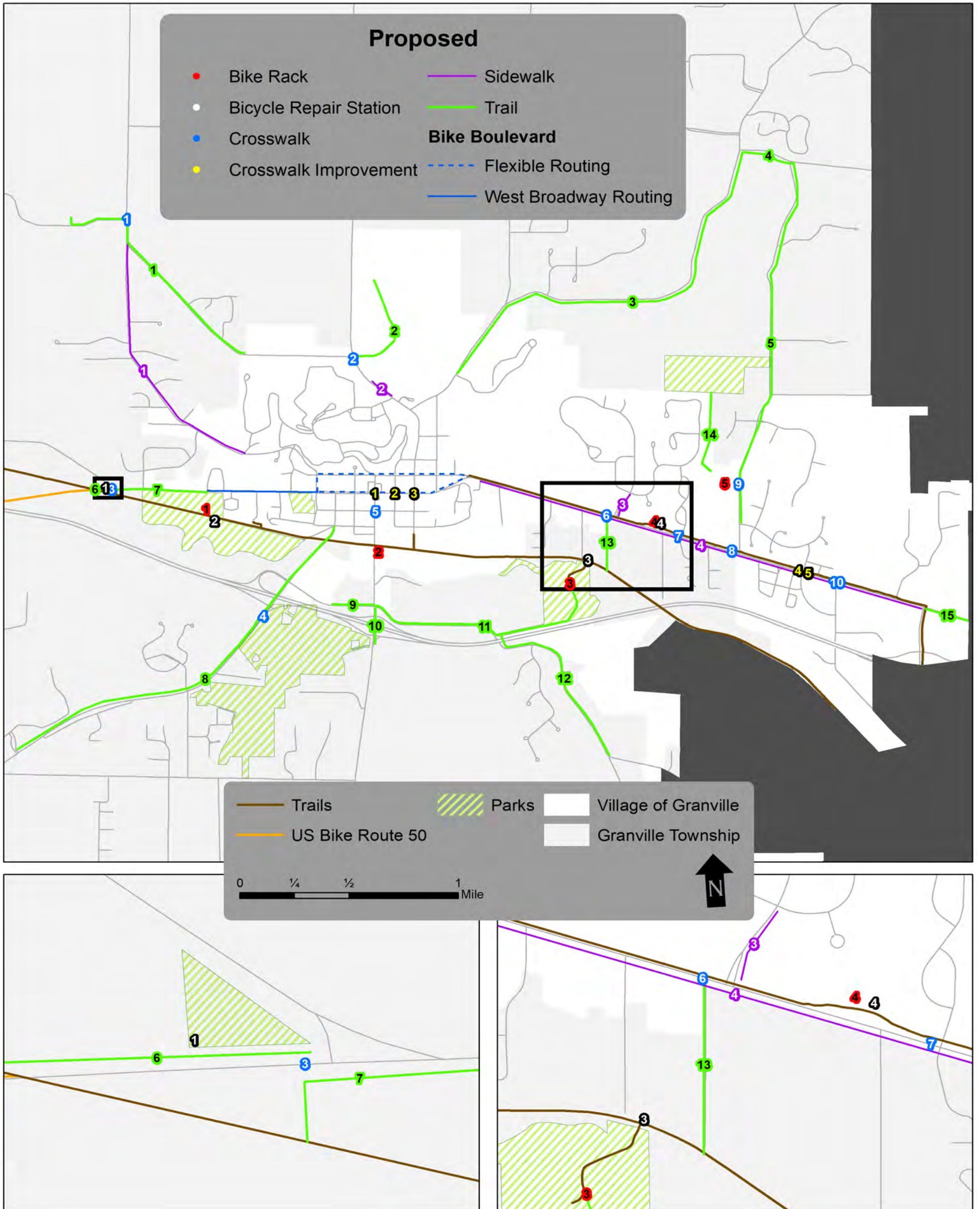
ID	Location	Type	Description	Length (ft)
C15	Newark-Granville Road at Galway-East	Crosswalk Improvement	Improving crosswalk visibility- improved striping & signage, potentially including a beacon	-
C1	New Burg at Granville Intermediate	Crosswalk	Striping and signage for future sidewalk/trail location	-
C2	New Burg and Pearl	Crosswalk	Striping and signage at proposed roundabout location	-
C3	West Broadway at Moots Run	Crosswalk	Striping and signage for future sidewalk/trail location	-
C4	Columbus Rd at Spring Valley	Crosswalk	Striping and signage for future sidewalk/trail location	-
C5	Elm St and Main St	Crosswalk	Signage & striping, potentially including a beacon for new crosswalk location	-
C6	Newark-Granville Rd and Fairview Dr	Crosswalk	Striping and signage for future sidewalk/trail location	-
C7	Newark-Granville Rd and Colomen Gwen Cir	Crosswalk	Striping and signage for future sidewalk/trail location	-
C8	Newark-Granville Rd and Jones Rd	Crosswalk	Striping and signage for future sidewalk/trail location	-
C9	Jones at Bryn Du Mansion	Crosswalk	Striping and signage for future sidewalk/trail location	-
C10	Newark-Granville Rd and Cherry Valley Rd	Crosswalk	Striping and signage for future sidewalk/trail location	-
S1	Burg St	Sidewalk	Continue sidewalk from Samson Pl up to Granville Intermediate	6,605
S2	Pearl St to Baseball Fields	Sidewalk	Continue sidewalk on east side of Pearl St from Washington Dr up to baseball fields	593
S3	Bryn Du Dr	Sidewalk	Connect sidewalk from Newark-Granville Trail to Glyn Tawel Dr	620
S4	Newark-Granville Rd	Sidewalk	Add sidewalk along south side of road from Parnassus Village Dr to Thornwood Crossing	1,114
T1	New Burg Extension	Trail	Continue path from Granville High west to Granville Intermediate	6,143
T2	Biological Reserve Connector	Trail	Add path on east side of North St to connect students to Bio Reserve	2,736
T3	Welsh Hills Trail	Trail	Add path along Welsh Hill Rd to connect peripheral neighborhoods to central Village	10,450
T4	Sharon Valley Trail	Trail	Add path along Sharon Valley Road to tie together Welsh Hills and Jones Road Trails	1,289
T5	Jones Rd Extension	Trail	Extend path on Jones north to Bryn Du Mansion	4,177
T6	Moots Run Connector	Trail	Extend TJ Evans Trail to the east to facilitate shorter and safer crossing	431

ID	Location	Type	Description	Length (ft)
T7	West Broadway Extension	Trail	Add path to fill gap between TJ Evans Trail on the west and Wildwood Park, where the sidewalk stops	2,391
T8	Columbus Rd Trail	Trail	Add path from Maple St to Owens Corning	9,935
T9	Weaver Dr Extension	Trail	Extend path along Weaver Dr to connect to Main St and River Rd	982
T10	SR-37 Bridge Connector	Trail	Extend path along SR-37 bridge to facilitate future connections	907
T11	River Rd Extension	Trail	Extend path along River Rd to connect to Main St and Raccoon Valley Park	6,012
T12	River Rd South Trail	Trail	Add path to connect neighborhoods on River Rd, south of SR-16, and overcome SR-16 barrier	4,536
T13	Fairview Dr Connector	Trail	Add path to formalize connection between Newark-Granville and TJ Evans Trails	1,432
T14	Bryn Du-Fanchion Lewis Connector	Trail	Add path to connect the 2 sites	2,108
T15	Newark-Granville Trail Extension	Trail	Extend path east to Village limits	1,081



Example of bike rack and repair station installed along the existing trail network.

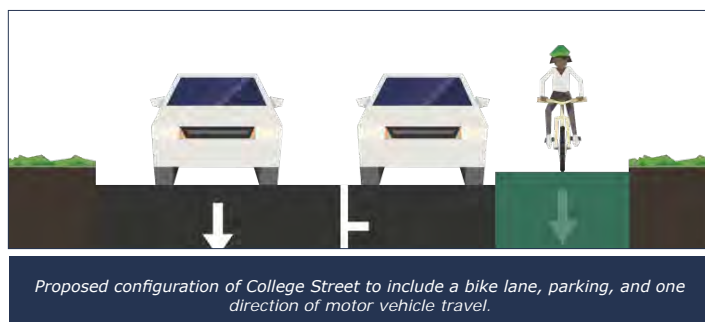
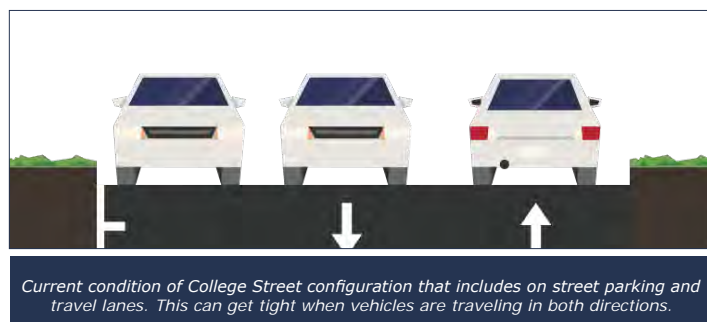
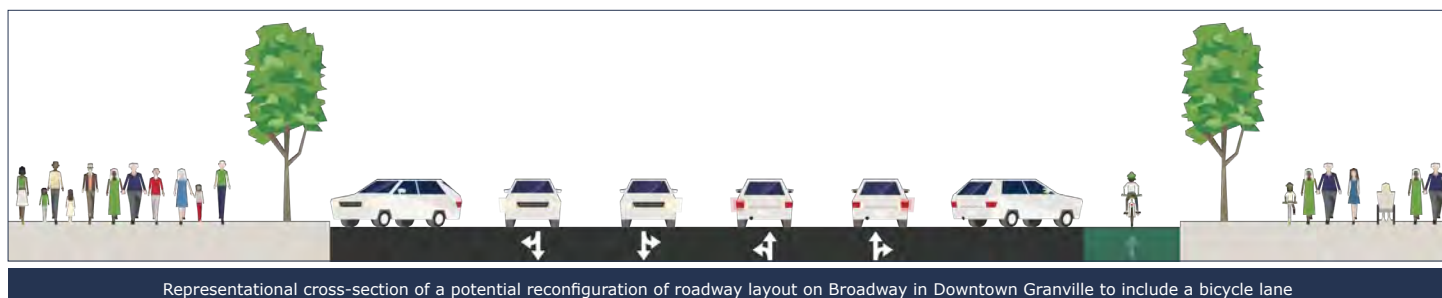
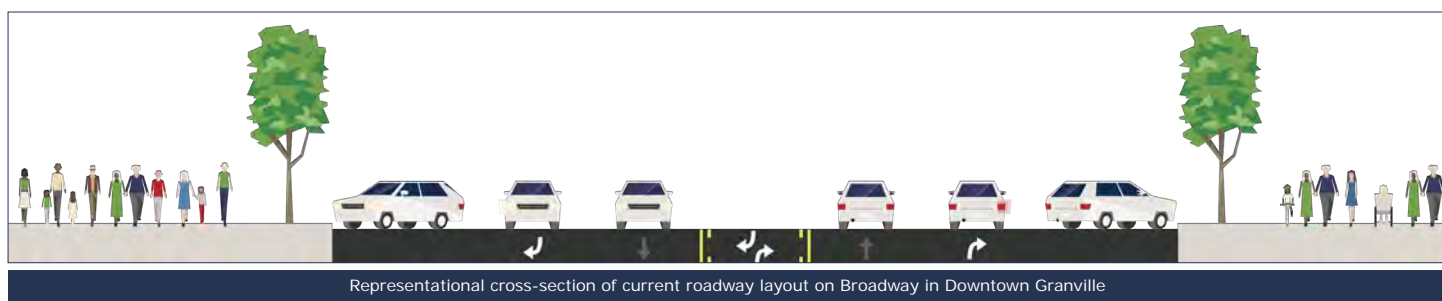
GRANVILLE ACTIVE TRANSPORTATION PLAN PROPOSED PROJECTS



BICYCLE BOULEVARD

Based on the high volume of public survey comments received regarding user experiences in downtown Granville along the Broadway and College Street corridors, a bicycle boulevard is recommended. Nearly every intersection was mentioned in the comments noting problems or room for improvement. A bicycle boulevard would help correct these issues by separating motorist traffic from pedestrians and cyclists, thereby improving safety and flow through the central Village. There are several approaches to implementing such a solution. Key to all of these implementations are effective route planning, appropriate signage and demarcation, managing traffic speeds and volumes, providing safe intersection crossings, and including pedestrian- and cyclist-friendly infrastructure.

The recommended routing runs along West Broadway with the options of transferring to College Street or maintaining the route along Broadway. These two route options would come with different challenges to provide cyclists with a safe thoroughfare. The addition of a bicycle lane on Broadway would make it a true complete street. This could be achieved with either a traffic lane redesign or parking reconfiguration. In order to route along College Street, on-street parking would require uniform alignment to a single side of the roadway or complete removal of on-street parking. Both of these solutions would necessitate a change to automobile traffic patterns, being either limited vehicle access or reduction of the current 2-way traffic into a simplified 1-way. In any of these scenarios, it would be recommended that intersections are modified to suite the inclusion of bicycle traffic and adjusted conditions of motorist traffic.



RIVER ROAD SOUTH TRAIL

In order to create safe network accessibility among the community residents, the highway barrier must be crossed. In instances like this, at-grade crossings are not permitted on a limited access highway for obvious safety reasons as well as traffic flow. In order to create a safe crossing, a bridge or tunnel is a necessity. Due to flood plain proximity, a bridge is recommended for this location. Such a structure would need to meet Americans with Disabilities Act (ADA) standards of compliance for bridge access and bridge slope. This would also benefit cyclists utilizing this crossing infrastructure as well.

TRAIL LOOPS

There are several recommended projects that extend and enhance existing trail and sidewalk infrastructure. They all focus on filling desired network gaps in a manner that creates loops. Loops are preferred to out-and-back linear facilities as they provide a single route, which does not require stopping and turning around. They also provide a unique view for the entirety of its length, as a pedestrian or cyclist will not see the same sights as they would if they doubled back on a linear path. Several of the trail projects in this plan will require project phasing in order to fund and construct.



This image shows what a pedestrian bridge connecting River Road South neighborhoods to Raccoon Valley Park and River Road businesses might look like

TJ EVANS TRAIL - MOOTS RUN ROAD CROSSING & BICENTENNIAL PARK

This trail-roadway intersection has a particularly long crossing since the TJ Evans Trail crosses Moots Run Road at a skew. This crossing should be shortened by extending the trail short distances and creating a direct crossing at a perpendicular to Moots Run Road. With the proximity of this crossing to Bicentennial Park, there is a unique opportunity to highlight the park as the western gateway into the village for trail users. Signage and bike equipment at this park could be beneficial and inviting.



This image is a rendering of a shortened trail crossing at Moots Run Road with new path connections to Bicentennial and Wildwood Parks.

OTHER RECOMMENDED PROJECTS

In addition to the capital infrastructure projects and spot improvements proposed in this plan, there are 2 generic recommendations that are worth consideration: wayfinding and a bike sharing program. Both of these would be beneficial in existing conditions, but are even more valuable as the active transportation grows.

WAYFINDING

Wayfinding would be a small, cost-effective venture worth consideration to supplement the aforementioned projects. Since Granville has several trail connections, parks and a pedestrian friendly core, the Village already implements destination signage along some downtown sidewalk. Paint striping or decals could be an efficient and engaging way to improve upon the existing signage. It could be particularly beneficial to the large student population of Denison University, whom are less familiar with the area and lack the local knowledge of these public assets. Additionally, wayfinding would be helpful to informing the public on new paths that are created in the future. Wayfinding could also be funded via private-public partnerships.

BIKE SHARE

A bike share program allows for shared utilization of bicycles. This is advantageous to locals that might not desire the costs, maintenance, and storage associated with bicycle ownership. It is also advantageous as a recreational tourism draw. Bike shares tend to be particularly successful near universities, trails, and bike lanes. Typically bike share programs are operated by either the municipality on its own, or by contracting a private company to manage the bicycles, docking stations, and fares, which are usually collected through a smart phone application.

Electric bikes can be part of share programs as well. E-bikes are becoming more popular, particularly among casual cyclists interested in longer rides. Further, providing locations to charge e-bikes would be helpful to encouraging cyclists to stop in Granville on a long ride. E-Bike chargers and any bike share docking stations should be located at centralized locations and signed as part of any wayfinding.



Here is an example of paint stripe wayfinding, which would be useful for navigating to Granville's various public amenities.

A photograph of a paved road lined with lush green trees. A cyclist is riding away from the camera in the center of the road. In the distance, a blue car is visible. The scene is bright and sunny, with shadows cast by the trees onto the road. The word "IMPLEMENTATION" is overlaid in large white capital letters across the middle of the image.

IMPLEMENTATION

PROJECT PRIORITIZATION

Prioritizing projects for this plan accounts for feasibility, aligns with public input and community goals, and considers cost and safety. Funding, land use, property rights, terrain, and other project specific factors may make certain recommendations less reasonable than others. Through this planning process, stakeholder and public input were considered to help create project recommendations and sort them by importance. Cost estimates and safety data were utilized to assess the means and significance of recommendations. The proposed trail, sidewalk, crosswalk, and bicycle rack placements contained in this plan are conceptual, and are meant to show the potential of a comprehensive active transportation system. These recommendations are planning level in scope and are not necessarily constrained by existing challenges. Additional analysis can be conducted to reprioritize projects as new opportunities become available or conditions change. Plan priorities should be reviewed and reconfirmed on a regular basis.

Many of these projects, particularly several crosswalk recommendations, will take longer to implement than a crosswalk would on its own. This is due to the nature of combined facility recommendations, whereby many of the crosswalk proposals are tied into trail and sidewalk recommendations with the anticipation that these new paths will require additional infrastructure to provide a useful and total active transportation network. Notably, the bicycle repair stations and rack, along with crossing improvements have received high prioritization due to ease of execution or the nature of safety, respectively.

Cost estimation key: (\$) <\$10,000 | (\$\$) <\$100,000 | (\$\$\$) < \$1,000,000 | (\$\$\$\$) >\$1,000,000

ID	Location / Name	Facility Type	Cost	Priority
BB1	Broadway/College Street	Bicycle Boulevard	\$\$	High
BR1	Wildwood Park	Bicycle Rack	\$	Low
BR2	TJ Evans Main St- East Entrance	Bicycle Rack	\$	Low
BR3	Raccoon Valley Park	Bicycle Rack	\$	Low
BR4	Newark-Granville Trail	Bicycle Rack	\$	Low
BR5	Bryn Du Mansion	Bicycle Rack	\$	Low
RS1	West Broadway	Bicycle Repair Station	\$	Low
RS2	Wildwood Park	Bicycle Repair Station	\$	Low
RS3	Raccoon Valley Park	Bicycle Repair Station	\$	Low
RS4	Newark-Granville Trail	Bicycle Repair Station	\$	Low
CI1	Broadway and Main	Crosswalk Improvement	\$\$	Medium
CI2	Broadway and Prospect	Crosswalk Improvement	\$\$	Medium
CI3	Broadway and Pearl	Crosswalk Improvement	\$\$	Medium
CI1	Pearl and Washington	Crosswalk Improvement	\$\$	High
CI2	Newark-Granville Rd at Galway-West	Crosswalk Improvement	\$\$	Medium
CI3	Newark-Granville Rd at Galway-East	Crosswalk Improvement	\$\$	Medium
CI4	Newark-Granville Rd at Galway-West	Crosswalk Improvement	\$\$	Medium

ID	Location / Name	Facility Type	Cost	Priority
C15	Newark-Granville Rd at Galway-East	Crosswalk Improvement	\$\$	Medium
C1	New Burg at Granville Intermediate	Crosswalk	\$\$	High
C2	New Burg and Pearl	Crosswalk	\$	Medium
C3	West Broadway at Moots Run	Crosswalk	\$\$	High
C4	Columbus Rd at Spring Valley	Crosswalk	\$\$	Low
C5	Elm St and Main St	Crosswalk	\$\$	High
C6	Newark-Granville Rd and Fairview Dr	Crosswalk	\$\$	Medium
C7	Newark-Granville Rd and Colomen Gwen Cir	Crosswalk	\$\$	Low
C8	Newark-Granville Rd and Jones Rd	Crosswalk	\$\$	Medium
C9	Jones at Bryn Du Mansion	Crosswalk	\$\$	Low
C10	Newark-Granville Rd and Cherry Valley Rd	Crosswalk	\$\$	Low
S1	Burg St	Sidewalk	\$\$\$\$	High
S2	Pearl St to Baseball Fields	Sidewalk	\$\$	High
S3	Bryn Du Dr	Sidewalk	\$\$	Low
S4	Newark-Granville Rd	Sidewalk	\$\$\$\$	Low
T1	New Burg Extension	Trail	\$\$\$\$	High
T2	Biological Reserve Connector	Trail	\$\$\$	High
T3	Welsh Hills Trail	Trail	\$\$\$	Medium
T4	Sharon Valley Trail	Trail	\$\$\$	Low
T5	Jones Rd Extension	Trail	\$\$\$	Medium
T6	Moots Run Connector	Trail	\$\$\$	High
T7	West Broadway Extension	Trail	\$\$\$	Medium
T8	Columbus Rd Trail	Trail	\$\$\$\$	Medium
T9	Weaver Dr Extension	Trail	\$\$\$	Low
T10	SR-37 Bridge Connector	Trail	\$\$	Low
T11	River Rd Extension	Trail	\$\$\$\$	Medium
T12	River Rd South Trail	Trail	\$\$\$\$	High
T13	Fairview Dr Connector	Trail	\$\$\$	Medium
T14	Bryn Du-Fanchion Lewis Connector	Trail	\$\$\$	Low
T15	Newark-Granville Trail Extension	Trail	\$\$\$	Low

COST ESTIMATION

Cost estimates are simply a way to help the Village get an idea of the cost of some of the recommended infrastructure projects. They are not precise numbers, but take into consideration similar local projects in recent years. They do account for installation costs, but not design and engineering costs, where those will be necessary. The assumption made with bicycle racks and repair stations is that the Village's maintenance team would handle the installation.

Facility	Cost Estimate
Sidewalk (per square foot)	\$9
Basic "U" Bike Rack (per unit)	\$120
Trail (per foot)	\$200
Standard Crosswalk (striping only)	\$1,000
High Visibility Crosswalk (striping & signage)	\$3,200
Solar Powered RRFB (per pair)	\$14,000

FUNDING STRATEGIES

Active transportation projects are a fraction of all transportation construction and maintenance projects, but active transportation infrastructure is beneficial to local economies and livelihoods by improving and promoting public health. Between healthier living and the reduction to the financial and environmental costs of motorized mobility, active transportation infrastructure tends to have a positive return on investment for communities. Additionally, there are multiple funding sources which can be utilized for such projects, and reduce the burden on local taxpayer funds. These funds are mainly available at the state level for local governments. LCATS, as the area MPO, is actively engaged in providing assistance in pursuit and application of appropriate funds for municipalities in its region. Other potential partners for active transportation project funding and planning are the Licking Park District and the Licking County Health Department's Creating Healthy Communities Grant Program.

There are several newer grants worth pursuing to help alleviate the local cost burden of active transportation projects. The Safe Streets and Roads for All Grant Program, which is overseen by the US Department of Transportation, will offer grant funding opportunities over at least the next 4 years to assist communities improve pedestrian safety and fill gaps in the

sidewalk network, among other pedestrian and cyclist friendly goals. American Trails is an organization with a new, but growing grant program focused on trail projects which both expand and maintain trail networks.

MAINTENANCE

Maintaining infrastructure is crucial for the safety of facility users. It is also beneficial to extending the life of a facility and reducing costs overall. Maintenance of recommended projects will mainly be a continuation of the Village's operating standards. Sidewalk maintenance will continue to be the responsibility of the property owner, although this might be in consideration for change in the future. Trail maintenance responsibility is split evenly between the Village of Granville and the Licking Park District. They share the cost and workload to repave and correct any other issues on the trail requiring correction. Bicycle racks are facilities that are easily replaced if damaged. Crosswalks will require restriping as the markings fade over time and signage for the crosswalks will need replaced if they are damaged or near the end of their reflectivity standards life.



A view down the TJ Evans Trail corridor, just west of Moots Run Road.

DEMONSTRATION PROJECTS

Infrastructure projects can take a long time from conception to construction due to many factors. Sometimes funding can cause a project to stall before it can be complete. Demonstration projects are a cheaper way to improve operation of a network before final construction occurs. They are also a way to involve the community and ensure that projects still have public support and will function as needed to enhance active transportation. As well as serving as a project test, demonstration projects can help to refine project ideas and hone recommendations while engaging local users. Data can be collected from these temporary projects before funding is spent on expensive, permanent projects. Within the scope of the project list, demonstration crosswalks and the bicycle boulevard would be projects to consider.



A crosswalk at Bryn Du Drive, looking eastward along the Newark-Granville Road Trail as it heads towards Thornwood Crossing.

PERFORMANCE MEASURES

Measuring performance is important for the continuing success of any transportation infrastructure projects. Two major metrics for performance in this field are safety and usage. LCATS will continue to execute its pedestrian and cyclist counts on regional trail, including current and future trail in the Village of Granville. This count program will also be utilized to count sidewalk and crosswalk users as projects are implemented. Measuring safety will be accomplished by extraction of crash data from ODOT's Transportation Information Mapping System (TIMS) at regular intervals. Local knowledge is also important to the process of ensuring safety. LCATS uses drones to film and photograph various roadway infrastructure to document safety conditions.

RESOURCES & GUIDANCE

The following information covers multiple aspects of design and maintenance for active transportation infrastructure as well as providing some case studies and materials that are at the forefront of active transportation planning. These are meant to help with the completion of recommended projects, maintenance, performance measures, plan review, and updates in the future as Granville implements new and improved infrastructure and programming.

Safe Transportation for Every Pedestrian (FHWA)

Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations (FHWA)

Urban Bikeway Design Guide (NACTO)

Facility Design and Maintenance (ODOT)

Bicycle and Pedestrian Resources for Engineers (ODOT)



The playground at Wildwood Park as seen from the TJ Evans Trail.