

CITY
OF
GREEN

TRAILS PLAN

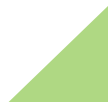
JANUARY 2019



City of Green

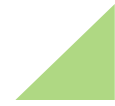
PROJECT TEAM

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EXECUTIVE SUMMARY

The City of Green, once a largely rural landscape, has transformed to a thriving community that nearly 26,000 residents and 1100 businesses call home. The Master Trail Plan, created in response to our community’s growing appeal for walking and biking opportunities, is a calculated effort to understand how to provide connectivity within a community largely dependent on automobiles for transportation.

When asked what kind of connections were missing, many residents pointed to the lack of sidewalks in their neighborhoods. When asked to choose destinations, the popular answer was parks – both city and regional parks. These responses helped the city determine the focus of this study and inform the answer to providing the highest good for the greatest number: access to parks that connect neighborhoods along the way.

The city requirement of sidewalks as part of new development leveraged with recent trail development within the city’s center and along arterial roadways has created momentum and enthusiasm for pedestrian/bicycle infrastructure. The next step was to develop a vision and framework regarding where and how to provide future connections within the city. This study, a joint effort by the Akron Metropolitan Area Transportation Study (AMATS) and the City of Green, achieves this goal through consideration of the following elements:

- Public involvement, social media outreach and education
- Location and type of connectivity improvement to destinations within the City, as well as being part of a regional connectivity plan to trails and points of interest outside the City

- Prioritization schedule and integration with future capital improvement projects
- Implementation strategies including City code review/ revisions
- Design guidance including design standards that meet ODOT and AASHTO requirements, and development of a design toolbox
- Cost opinion and funding sources including grants, loans, public works projects, and public/private partnerships

The process that was followed includes four phases. Phase 1 is the Discovery Phase in which the project sponsors identify key issues, focus areas, expectations, and outcomes. Phase 2 is the Development phase in which the draft plan was developed to address the identified issues and expectations, and provide solutions and recommendations. Development of the draft plan was a multi-step process described in further detail in subsequent sections of this Summary Document. Phase 3 includes review and feedback by the project team and the residents of Green (public involvement meetings). Phase 4 includes development of the final plan based on comments and feedback.

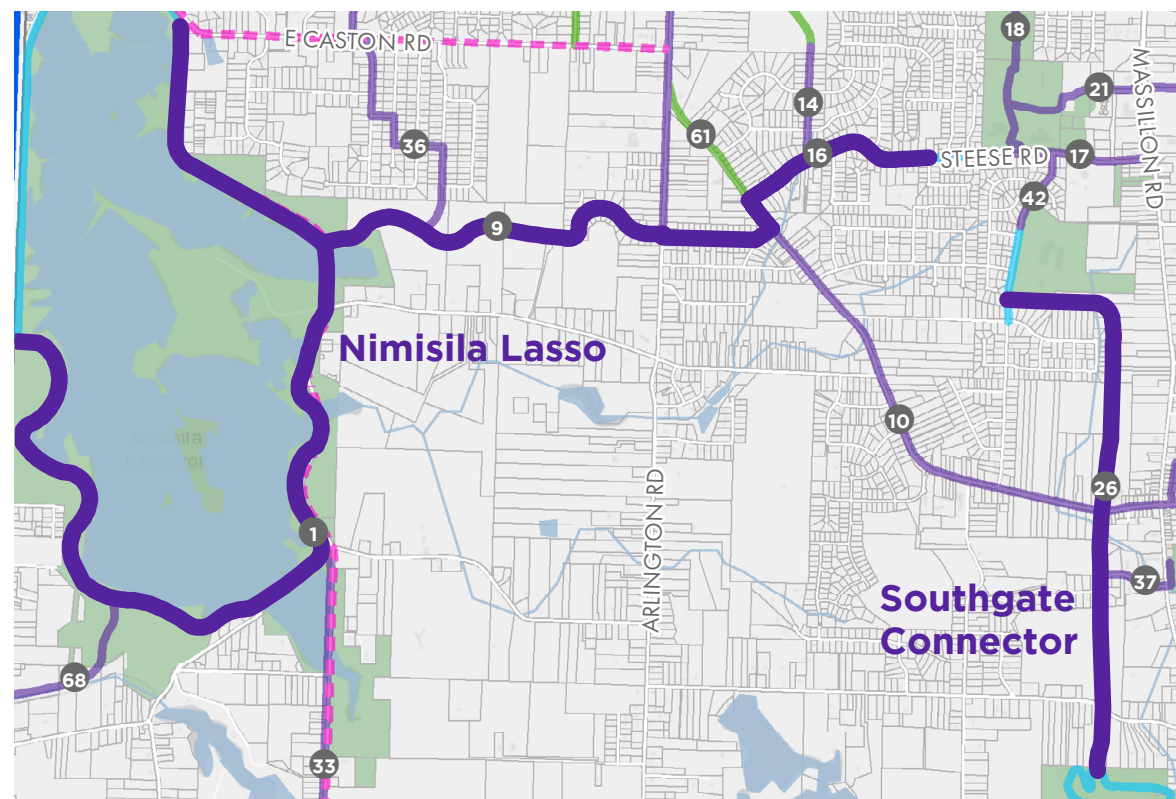
The results of this planning study include:

- A compilation of local destinations that have been ranked based on voting by the residents of the City
- A network of connectivity routes between population centers (neighborhoods) and identified destinations
- A ranking of the connectivity routes using a matrix that includes various attributes

EXECUTIVE SUMMARY

THE BOTTOM LINE

The goals of this planning study were to understand existing conditions, propose new connections, prioritize implementation of those connections and provide for public involvement throughout. The results of this process have revealed that connectivity between the center of the City and Boettler/Southgate Park, and between the center of the City and the Nimisila Reservoir are ranked the highest.



[PRIORITY ROUTES] The Nimisila Lasso and the Southgate Connector emerged as the highest ranked routes. Note: The actual alignment of these trails will be determined during the final design phase.

Also, the type of connectivity facility most preferred includes a 10-foot wide side path or a 10-foot wide off road shared use path.



Side Path

Shared Use Path

It's important to note that this trail plan is and will remain a dynamic document that identifies goals and priorities but is ultimately informed by ever-transforming variables that include funding availability, development opportunities and the timeline of our regional partners. Capitalizing on all of these opportunities allows us to create a truly strong regional pedestrian/cycling network which in turn strengthens our community and our region.



PLAN DEVELOPMENT | BACKGROUND

In 1809, Green was organized as a rural township with an area of just under 33.5 square miles. The principal industry of the community was farming and coal mining and access to the community was by way of stagecoach routes. Today, more than two hundred years later, Green is an incorporated City whose 25,699 residents enjoy a diverse economy, an excellent school and park system, and a transportation network that provides inter-regional access for the driving public.

In recent years, the city has increased efforts to address the needs of the pedestrian/cycling public as well, a significant retrofit for a landscape whose founding agricultural fathers had no need for a pedestrian network and whose location is a considerable distance from major regional connectors such as the Towpath Trail. But while Green faces significant challenges, it also possesses distinct opportunities that include more than 530 acres of parkland and greenspace, a beautiful 742 acre lake known as the Nimisila Reservoir and a railroad line that traverses the entire length of the city's eastern boundary – a corridor that may someday provide a north/south connector within the city while also providing connection to our Stark County, Lake Township and Springfield Township neighbors.

Recognizing that walking and biking community is a healthy and engaged community, City planners began to implement strategies to connect neighborhoods to city's schools, parks, businesses,

ballfields, shopping and entertainment as well as destinations and regional trails outside the city limits. Interested citizen groups and city administrators drafted hike/bike plans to advance this priority. In 1998 the land development code was amended to require new subdivisions and businesses include sidewalks as part of their overall development plan. The city's Transportation Plan was expanded to address pedestrian and cycling infrastructure creating a tool for city administrators to include hike/bike projects as part of capital improvement budgets. Sidewalks and trail connections were constructed in central Green, providing a key hub for future connections to all quadrants of the city.

As the network of sidewalks and trails grew, it became increasingly difficult to determine priorities for funding and future connections. A holistic plan was needed to identify gaps in the existing network and determine what form future connections would take: widened sidewalks, extended berms (bike lanes or cycle tracks) or off road trails to provide for both pedestrian, bike and recreational use to city and regional destinations. This plan addresses that need utilizing a public involvement process and recommending policies for inclusion in the development code, land use plan, transportation plan and the parks master plan providing a strong mechanism for implementation.

PLAN DEVELOPMENT | GOALS

The primary goal of the Master Trail Plan is to provide vision and guidance regarding where and how to develop pedestrian and bicycle connectivity within the City of Green's approximate 33 square mile landscape.

Specific goals include development of the following:

- An understanding of existing conditions
- Public engagement process
- Identifying and ranking local and regional destinations
- A network of connectivity routes between population centers (neighborhoods) and identified destinations both local and regional
- A ranking of the connectivity routes using a matrix containing key attributes
- Identifying and ranking various connection facility types
- Cost opinions and funding sources including grants and loans
- Implementation strategies
- Design guidance





PLAN DEVELOPMENT | PREVIOUS PLANS

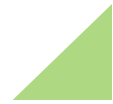
Since Green became a City in 1992, there has been a steady transformation from a rural landscape to a thriving city. Additionally, with the construction of the Central Administration Building, the Torok Community Center, Green Community Park, Central Park, and the Central Fire Station, a “City Center” has been formed along the SR 241/Massillon Road Corridor. In order to properly support and sustain the growth and change that has occurred, the City has regularly amended and revised its Land Development Code and has also developed a number of other plans such as a Long Range Land Use Plan and a City-Wide Transportation Plan. Each of these plans considers connectivity at various levels.

One plan, the 4 Trail Focus Plan was developed by the Hike and Bike Committee and included in the Transportation Plan. This committee was created in 2007 by the Mayor at the request of citizens interested in advancing pedestrian and bicycle connectivity within the City. The committee included City staff, elected officials, City Parks & Recreation Board members, Planning & Zoning Commission member and volunteer citizens. This plan provides a comprehensive approach to pedestrian and bicycle connectivity by means of 4 trail segments that connect

neighborhoods to the center of the City at the school cluster (Green Middle School, Green Intermediate School and Green High School).

Additionally, the Public Service and Transportation Strategic committee was formed in 2009 and they developed recommendations regarding future sidewalk locations. In 2014, the Living Green Task Force identified connectivity as one of its “Healthy Community” priorities. The Task Force reviewed the previous work by the Hike and Bike Committee and the Public Service and Transportation Strategic committee, and considered additional connection points. This culminated in a master trail plan that would serve as the single point of reference for pedestrian connections throughout the City. This Plan is included in the City Land Use Plan, 2014 update.

While the 2014 Master Trail Plan provides a vision for connectivity, this current effort includes a holistic look at connectivity to all destinations within the City and regional destinations. This plan, which will replace the 2014 Master Trail Plan, carries connectivity for City residents to that next level.



PLAN DEVELOPMENT | EXISTING CONDITIONS

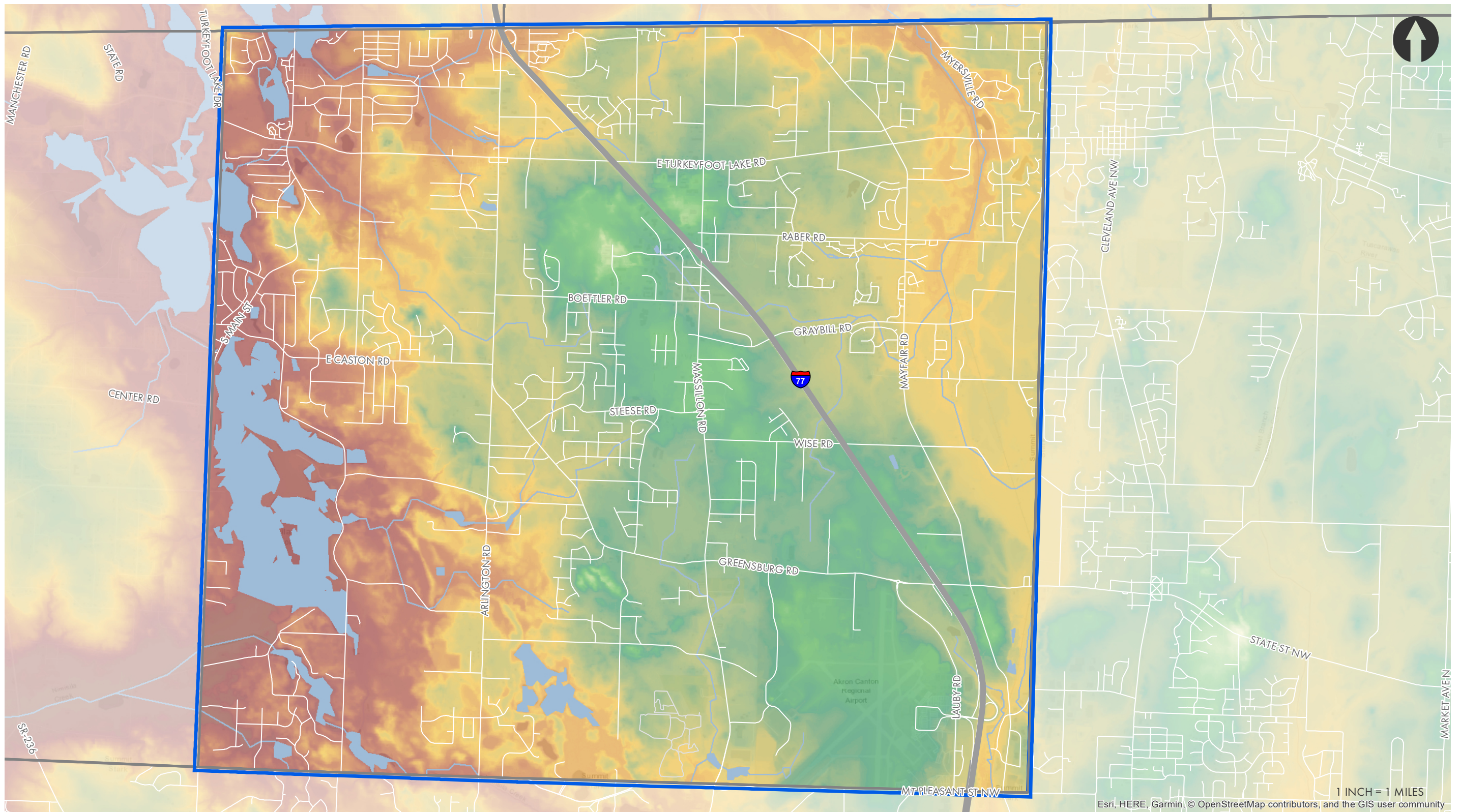
Prior to developing the connectivity routes for the plan, an extensive analysis of the existing conditions and priorities was developed. Critical factors, be they man-made or natural, were studied in detail to ensure that potential alignments were considerate of their surroundings and feasible for implementation.

Topographic conditions proved to be the most impactful factor when developing potential alignments, due to how they impact design standards, costs, and potential funding sources. In some instances, alignments traverse away from road corridors, or take less direct routes to avoid significant design challenges that would otherwise be faced by a direct route. Additionally, land use also provides context for determining the feasibility of a route, and can even enhance the viability of a route by providing an improved trail experience.

Destination connectivity was identified by the project team and the public as a key desire for new bicycle and pedestrian facilities. This is discussed in more detail in the Public Engagement section. Shopping centers, public recreation spaces, and school campuses were identified during the analysis to help drive decisions for alignment placement. An understanding of existing local infrastructure and surrounding regional trail networks was also needed to leverage the proposed plan in the context of impactful connectivity from the neighborhood to a regional level.

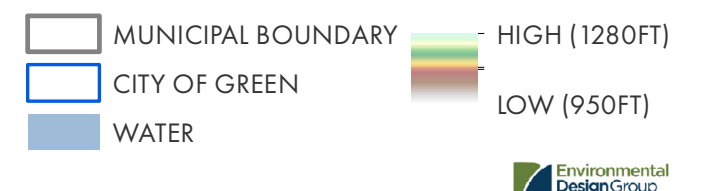
In addition to the community feedback, the following data was used in the development of this plan:

- USGS Elevation Model
- Community Parks
- Land Use
- Census Data
- Existing Sidewalk Network

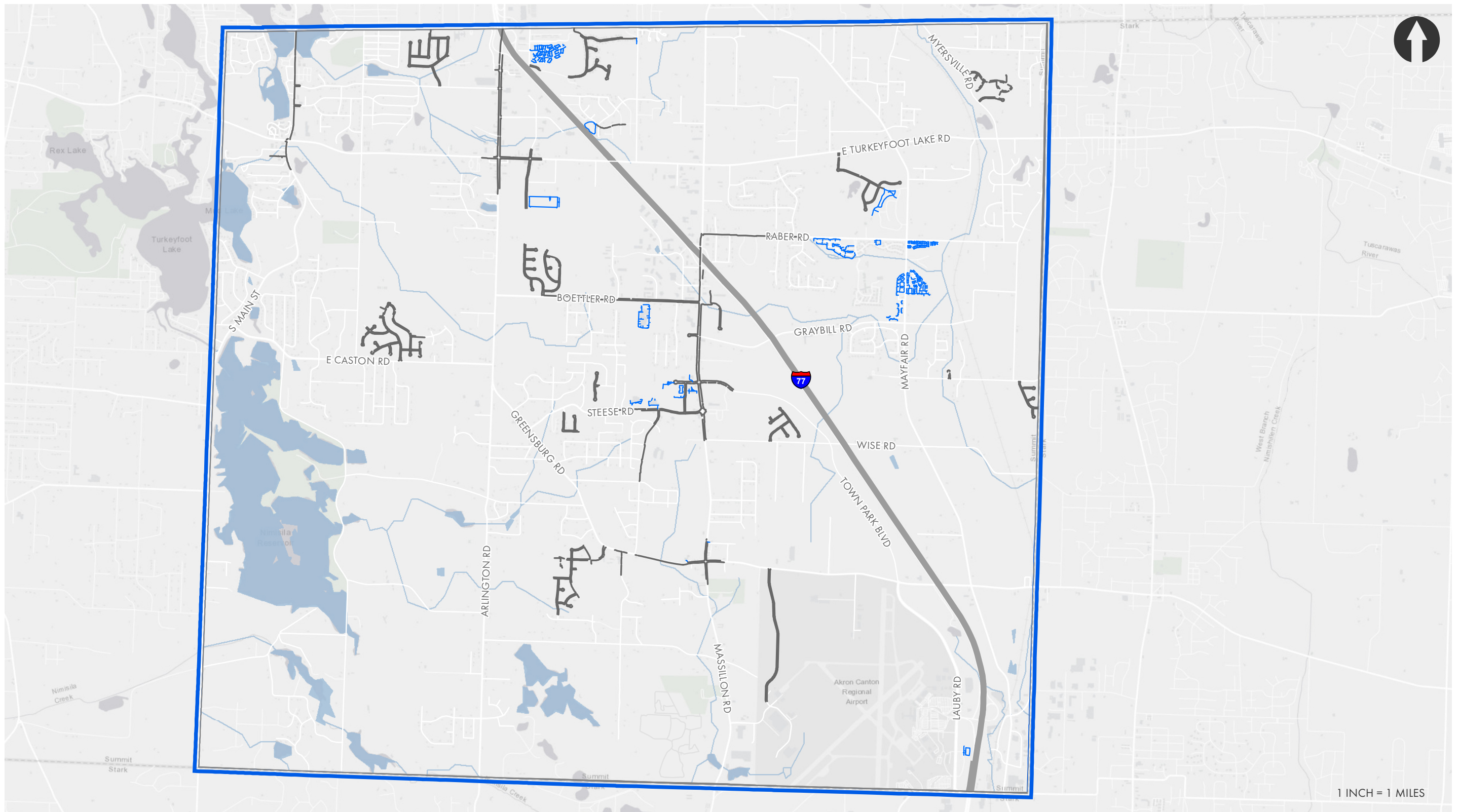


green connecting communities plan

USGS elevation model



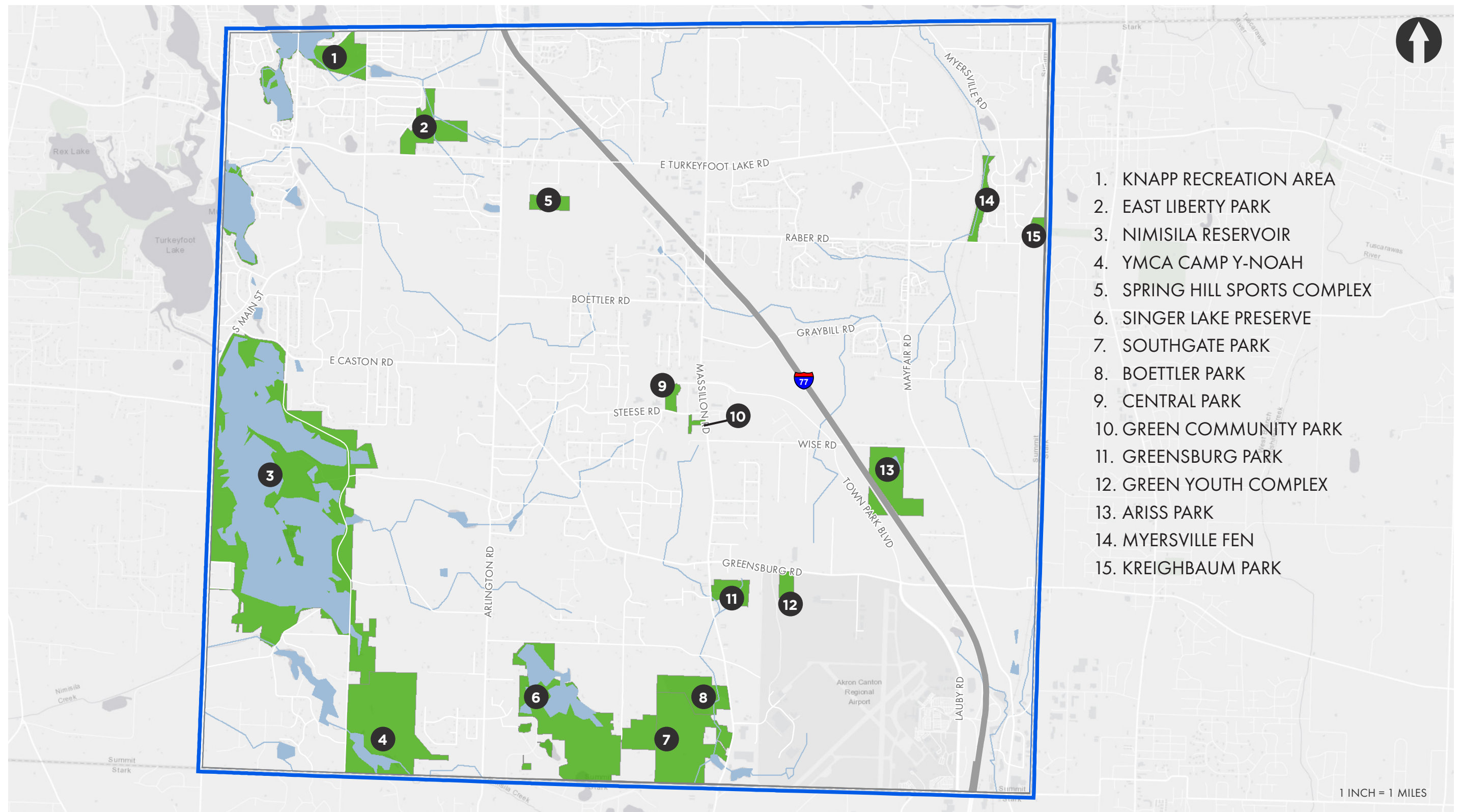
[TOPOGRAPHY] The west side of the city, dominated by Nimisila Reservoir and Portage Lakes, is the topographically lowest area of elevation. The elevation increases to the east, reaching its peak along the I-77 corridor.



green connecting communities plan sidewalk network

- PUBLIC SIDEWALK
- PRIVATE SIDEWALK
- MUNICIPAL BOUNDARY
- CITY OF GREEN
- WATER

[SIDEWALKS] By analyzing the existing and planned sidewalk networks, existing connectivity can be leveraged to help fill in gaps within the larger proposed network.



green connecting communities plan community parks

- PUBLIC OR PRIVATE PARKS
- MUNICIPAL BOUNDARY
- CITY OF GREEN
- WATER



PLAN DEVELOPMENT | PUBLIC ENGAGEMENT

Successful planning relies upon creative and thoughtful input gained from community engagement. Project stakeholders, local political leaders, and the public at large can provide meaningful ideas and feedback enabling the project to better fulfill the needs and objectives.

Community Engagement

Engaging the community into the project from the beginning raises the status and potential impact of the plan. In the case of this plan, the residents of Green were solicited for input by means of a comprehensive public survey to better understand their desires and concerns as to the ability to walk, bike, or run safely and conveniently. The details of the public survey are outlined separately in this document, and the full results may be found in the appendix. (Pg. 30)

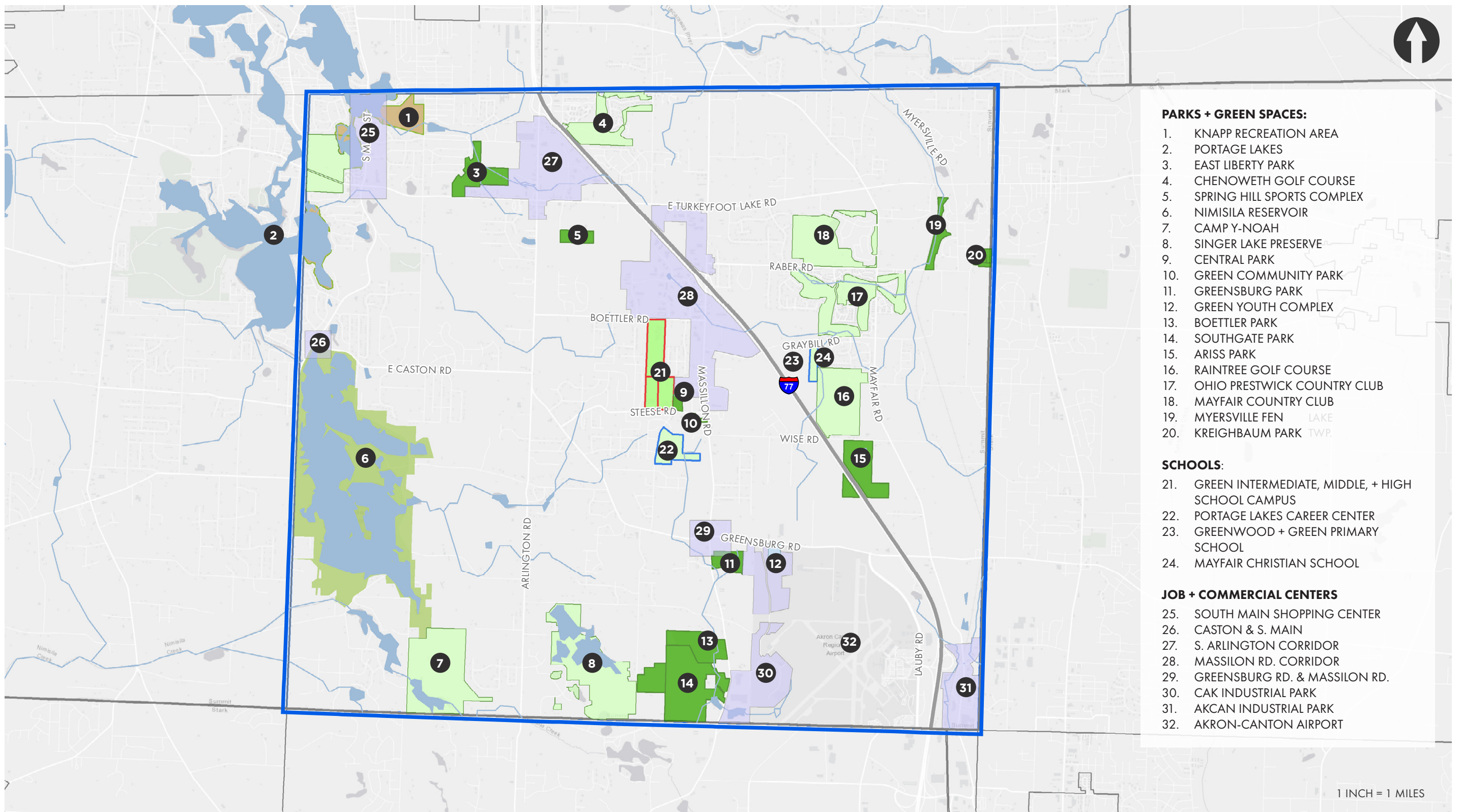
Public Meetings

Additionally, public engagement was solicited in three separate public meetings. The first public meeting was held on January 19, 2018 at the City's Central Park Community Hall. The meeting format included three stations, each containing a separate element for discussion, including destination locations, facility types, and connectivity routes. Voting and written comments were encouraged to solicit input and aid in ranking these elements. A formal presentation was also provided at this meeting, that introduced concepts of bicycle user-groups and facility types. Additionally, at the Mayor's State of the City Address and the Green Schools Celebration of Education event, the stations provided at the first public meeting were available for voting and discussion by those in attendance.

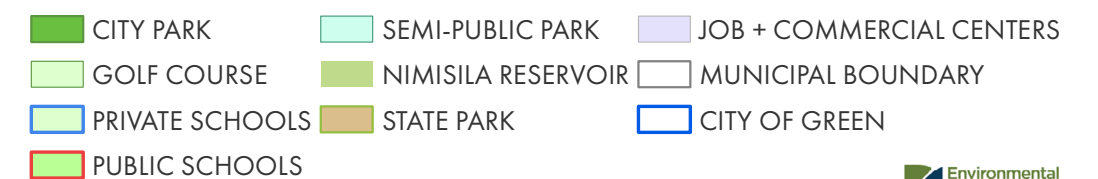
The voting information and commentary received at these meetings was utilized in ranking the connectivity routes. The voting results indicate the top five destinations as Boettler Park, Green Schools Campus, Central Park, Nimisila Reservoir, and the Massillon Road Corridor. The voting results for Route Type indicate a preference tie for 10'-wide sidepath and 10'-wide off-road shared use path. A full tally of the destination and route type voting results can be found in the appendix. (Pg. 44) As part of the overall public engagement strategy, the City published frequent updates on their website and social media platforms to ensure the public was informed of plan progress and upcoming meetings.

Project Team

The project team was engaged over the course of six total formal meetings. The team meetings provided crucial technical and advisory feedback on the pieces and parts of the plan, and refinement of the ideas to be presented at the three public meetings. As the study progressed, all aspects of the public and team feedback were considered and thoughtfully applied to the plan to ensure a final product that would generate excitement and consensus from the community.



green connecting communities plan local destinations



PLAN DEVELOPMENT | PUBLIC ENGAGEMENT

Bike-N-Brainstorm

On August 18, 2018 city leaders partnered with AMATS to host “Bike-N-Brainstorm” a public outreach tool that engages cyclists with the aim of improving cycling infrastructure. The route chosen for Bike-N-Brainstorm followed a preliminary alignment connecting central Green to Boettler Park, the route which achieved the highest ranking in the trail matrix. (Pg. 21) The City of Green and AMATS received constructive and enthusiastic feedback from the twenty-two Bike-N-Brainstorm participants.

The group’s overwhelming consensus was that multi-use trails like the one proposed to connect Central Green with Boettler/Southgate Parks would offer residents and non-residents a crucial alternative connection between two areas of the City that experience high usage as well as a healthy recreational activity. Fifteen of the twenty-two participants filled out comment sheets detailing their experience and opinions regarding existing cycling infrastructure within the City of Green.

All the collected data was then compiled and shared between the City of Green and AMATS. It is clear from this data that not only is connectivity important, but the type of connectivity is critical in encouraging recreational use of pedestrian and cycling infrastructure. This outreach tool was so effective, the City of Green intends to host more of these events in the future in regard to other highly desirable routes.



PLAN DEVELOPMENT | PUBLIC ENGAGEMENT TIMELINE

PUBLIC MEETINGS

PUBLIC MEETING 1
1.19.2018

PUBLIC MEETING 2
1.25.2018

PUBLIC MEETING 3
2.24.2018

BIKE-N-BRAINSTORM
8.18.2018

PROJECT TEAM MEETINGS

TEAM MEETING 1
9.20.2017

TEAM MEETING 2
11.14.2017

TEAM MEETING 3
12.19.2017

TEAM MEETING 4
4.27.2018

TEAM MEETING 5
5.29.2018

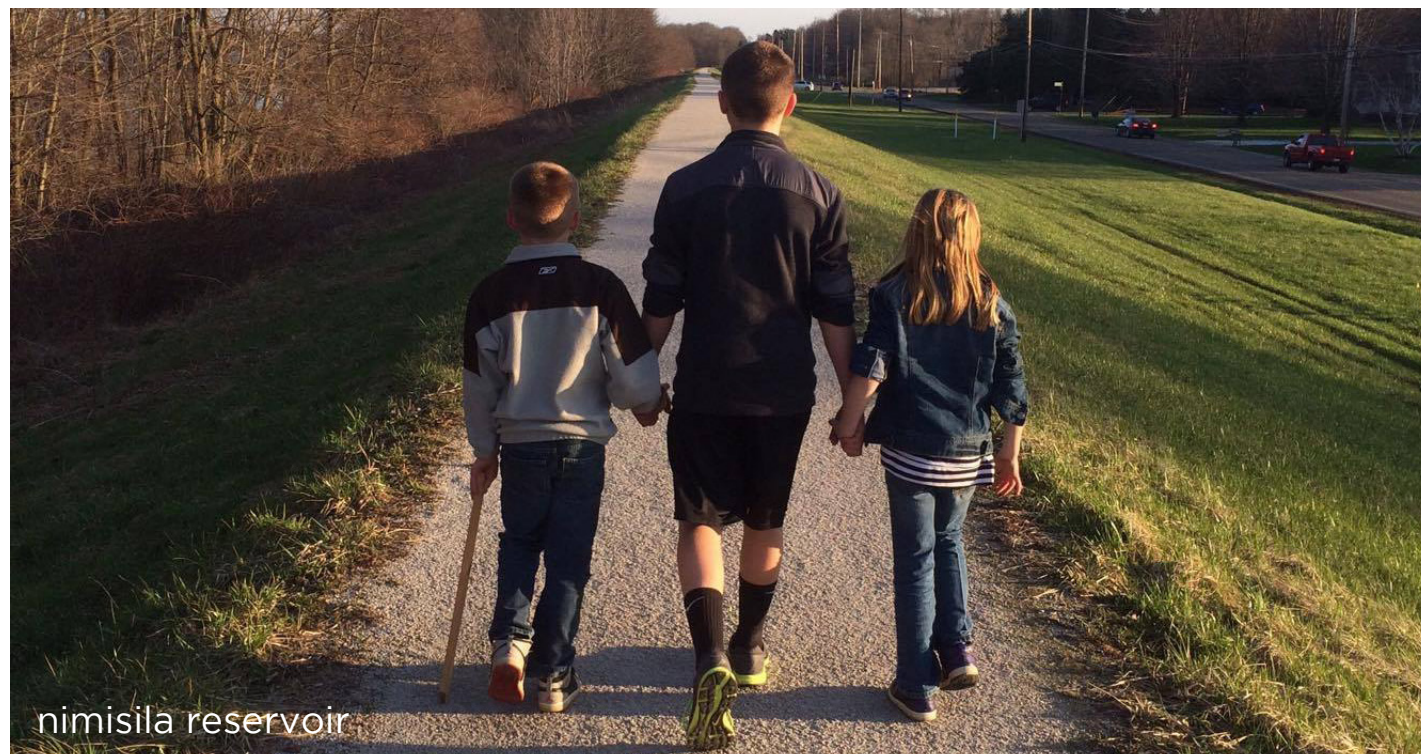
TEAM MEETING 6
6.22.2018



caston road & south main street



public meeting discussions



nimisila reservoir



southgate trail



MASTER TRAIL PLAN | OVERVIEW

The Journey

In generating the plan, the project team followed a logical progression of tasks and deliverables to ensure the plan was fully thought-out and validated. The four major steps consisted of the start-up phase, route development phase, recommendation and review, and lastly the finalization of the final plan.

The start-up phase focused on preliminary data gathering and analysis including, but not limited to, existing transportation networks, environmental constraints, land use, topography, regional trail networks, school locations, and key community destinations. These analyses were used as the fabric on which to weave the potential alignments.

Based on responses from the city-wide survey and meeting with adjacent communities, a destinations plan was developed that included 32 destinations within the city focusing on parks and green spaces, schools, and job and commercial centers. The destination plan is included on Page 14.

This was followed by the route development phase in which a gap analysis was performed to determine where new connectivity routes were needed. From that, a draft connectivity plan was created and presented to the project team. The draft was also presented to the public through meetings and social media outreach. Due to Green’s township history, it consists of a large landmass with population centers and destinations spread across the landscape. These unique circumstances resulted in a significant number and length of connectivity routes. The draft plan included 68 connectivity routes between identified local destinations. Regional connectivity was also addressed by providing two continuous routes between the city’s eastern and western borders and three continuous routes between the northern and southern borders.






Following the draft plan development, project team comments, and public input were incorporated into a revised plan that reflected the desires and priorities of the community. This revised plan was then presented to project team for comment and feedback.

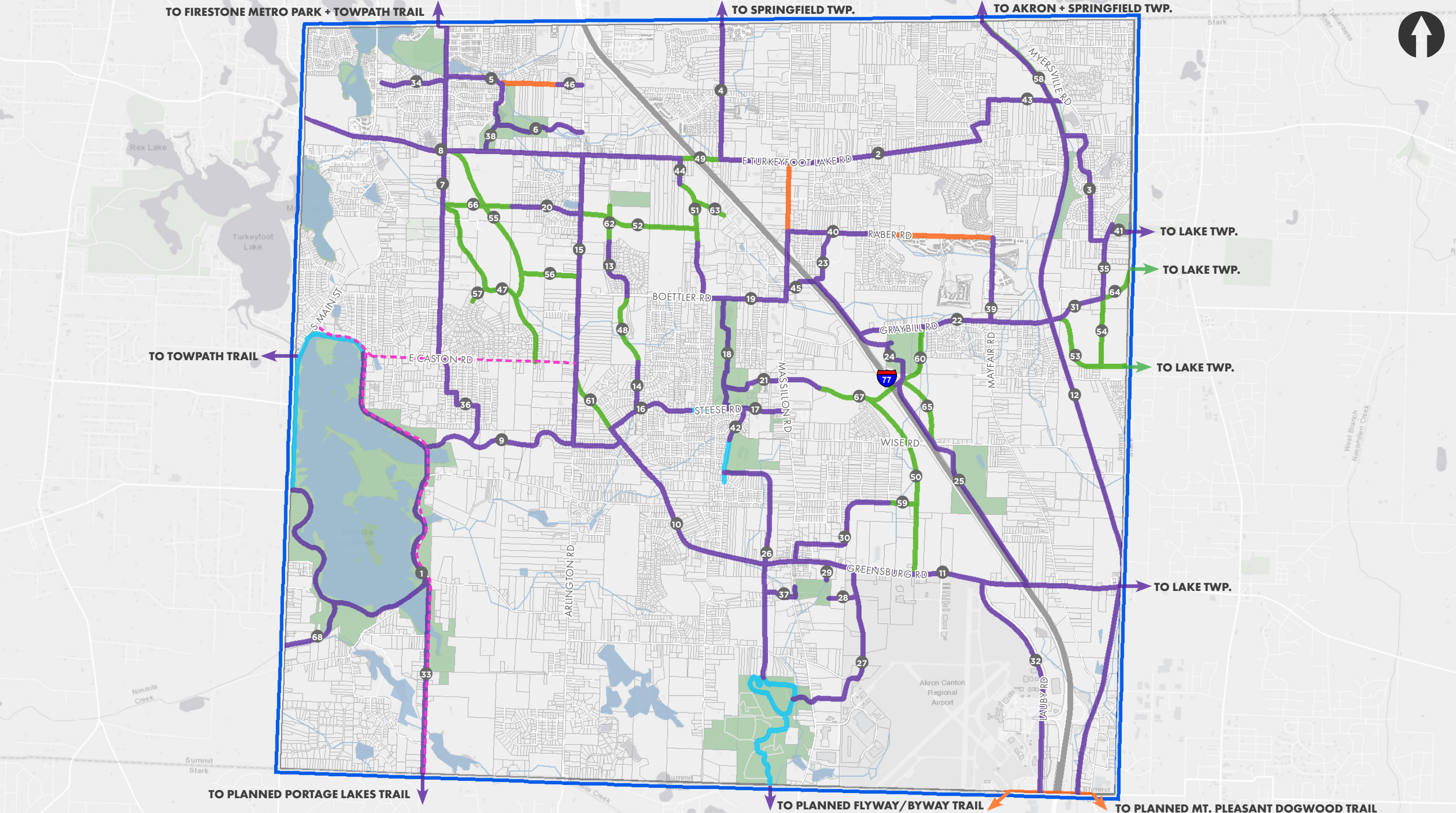
The Destination

Final comments and feedback were incorporated into a final connectivity plan, and priority recommendations were identified using a matrix to prioritize the routes. The prioritized routes are further described in the Priority Recommendations section. These plans and findings culminated in the creation of this document and supporting appendices to be used as a tool by the City of Green to further implement the recommendations.

The following map illustrates the routes included in the Connectivity Plan. The numbers indicated on the map are simply identification numbers and do not reflect the route’s priority ranking. For more detail about each route, see the Route Matrix section. See the table for an explanation of the map features.

It is important to note that the alignments shown on the map are meant to provide guidance on connecting destinations. The actual alignment would be determined when project engineering begins. The alignments indicated on the map are not meant to imply a final alignment.

-  **Potential Route:** These are the routes that the plan recommends should traverse the city.
-  **Planned Improvement:** Projects that have received funding and are in the works.
-  **Future Route Upon Development:** Recommended connections that should be created as each future development occurs. These alignments are not definitive and should change as each specific development is laid out.
-  **Existing Trail:** Existing trails in the city that the plan recommends connecting.
-  **Existing Bike Lane:** E. Caston Rd. and Christman Rd. (south of E. Caston Rd.) have existing bike lanes.



green connecting communities plan master trail plan

POTENTIAL ROUTE

PLANNED IMPROVEMENTS

FUTURE ROUTE UPON DEVELOPMENT

EXISTING TRAIL

EXISTING BIKE LANE

MUNICIPAL BOUNDARY

CITY OF GREEN

1 INCH = 1 MILES

Environmental Design Group



MASTER TRAIL PLAN | ROUTE MATRIX

With concurrence achieved on the various route segments, a detailed route matrix was created that allowed the segments to be ranked and prioritized based on several attributes. The two primary types of alignments, “main” and “future/alternate”, were assigned a rank based on direct/indirect/no connectivity to a ranked destination, and on direct/indirect/no connectivity to a population center/residential neighborhood. These weighted criteria created a baseline to see which alignments, if developed, would provide the best connectivity for residents.

Since future/alternate routes are dependent on future development, these routes were all ranked below the main routes, which are generally located within or parallel to a roadway or easement. Additional detail was then added by considering right-of-way availability, length, alignment complexity, regional impact, and potential cost. These additional data points provided in-depth detail needed by the project team to complete the matrix analysis and determine an initial phasing plan for connectivity implementation. The complete list of field definitions and ranking weights are included in the table to the right.

The route matrix provides the city with a framework of prioritization to use for planning purposes. It is important to understand that projects can, and most likely will, occur out of the prioritization sequence. The timing of projects is dependent on several factors including funding availability, development in the area, or whether it’s associated with a transportation project, to name a few. These types of projects can sometimes take years to go from planning to engineering and then construction.

FIELD	DEFINITION
Segment ID	GIS Assigned Segment ID
Alignment Type	Main = Primary Proposed Alignment Future/Alt = Alignment dependent on future/planned residential or commercial development. Typically shorter segments connecting paper streets or unbuilt home plots.
Destination Rank (1-4)	4- Connects directly to highly Ranked Destination(s) 3- Indirectly connects/passes near to a highly ranked destination(s) 2- Limited destination connectivity, typically short connector route 1- Future/Alternate Route upon development
Population Rank (1-4)	4- Directly connects to dense residential neighborhood developments 3- Indirectly connects/passes near to a dense residential area 2- Limited residential connectivity, typically a short connector route 1- Future/Alternate Route upon development
Length	Linear Feet of Alignment
In-ROW	No = Segment, or a portion of, impacts property outside of the public right-of-way.
Regional Connectivity?	Yes = the segment is part of an overall longer route that extends to/from other neighboring communities.

ROUTE MATRIX

ROADWAY NAME	START	END	SEGMENT ID	ALIGNMENT TYPE	DESTINATION RANK	POPULATION RANK	SEGMENT LENGTH (FT)	PUBLICLY OWNED	REGIONAL CONNECTIVITY
Nimisila Loop	Caston & Main	Nimisila & Main	1	MAIN ORT	4	4	25,694		YES
Nimisila Resv. to Arlington	Christman Rd	Alpine & Arlington	9	MAIN ORT	4	4	6,479	NO	YES
Steese Rd	Greensburg & Steese	Steese & Greenwood	16	MAIN ORT	4	4	3,396		
Off-Road to Boettler Park	Shriver & Wildflower	Across Koons into Boettler Park	26	MAIN ORT	4	4	8,755	NO	YES
Turkeyfoot Lake Rd	TFL & Pickle	Sucrose & Lindale St	2	MAIN ORT	3	4	12,171		YES
Myersville Rd	TFL & Myersville	Raber & Kreighbaum	3	MAIN ORT	3	4	6,393		
Pickle Rd	TFL & Pickle	Pickle & Camden Ridge	4	MAIN ORT	3	4	5,273		YES
East Libery Connector	Cottage Grove & Keltner	Charleston and Cheshire	5	MAIN ORT	2	4	3,582		
East Liberty Park (Internal Trail)			6	MAIN ORT	4	2	3,986		
Cottage Grove Rd	Cottage & Bavview	Cottage & Caston	7	MAIN ORT	3	4	13,342		YES
Turkeyfoot Lake Rd	TFL & Main	TFL & Arlington	8	MAIN ORT	4	3	8,236		YES
Greensburg Rd	Steese & Greensburg	Greensburg & Greensburg Ln	10	MAIN ORT	4	4	8,478		YES
Greensburg Rd	Greensburg & Greensburg Ln	Greensburg & Smith St/RR Corridor	11	MAIN ORT	3	3	13,754		YES
RR Corridor	NE Green Boundary	SE Green Boundary	12	MAIN ORT	2	3	31,611	NO	YES
Boettler Residential Connector	Boetler Road	Fortuna Drive	13	MAIN ORT	2	4	2,546		
Springdale Dr	Steese & Springdale	End of Springdale	14	MAIN ORT	2	4	1,885		
Arlington Rd	TFL & Arlington	Newcomb & Greensburg	15	MAIN ORT	4	4	16,812		
Steese Rd	Steese & Belleau Woods	Steese & Massilon	17	MAIN ORT	4	2	2,790		YES
School Connector	Boettler	Steese	18	MAIN ORT	4	2	4,607		YES
Tabbs - Boettler - Massillon	Tabbs & Tamy	Massillon & Raber	19	MAIN ORT	4	4	8,038		YES
Knollwood Dr	Knollwood & Arlington	End of Knollwood	20	MAIN ORT	2	4	2,674		
Park - Town Park	End of Park	End of Town Park	21	MAIN ORT	4	2	3,939		
Graybill Rd	Graybill & I-77	Graybill & Mayfair	22	MAIN ORT	3	4	5,075		
Raber to Graybill (I-77 Adjacent)	Raber	Graybill at I-77	23	MAIN ORT	2	4	4,806	NO	
Greenwood Elementary Connector	Graybill	Greenwood Primary Campus	24	MAIN ORT	2	2	3,435	NO	
Greenwood Elementary to Greensburg (I-77 Adjacent)	Greenwood Primary Campus	Greensburg at I-77	25	MAIN ORT	2	2	9,519	NO	
Global Gateway	Global Gateway & Greensburg	Boettler Park	27	MAIN ORT	3	2	7,527		
Greensburg Park Connector (East)	Global Gateway	Greensburg Park	28	MAIN ORT	2	2	1,084	NO	
Greensburg Park Connector (North)	Greensburg Rd	Greensburg Park	29	MAIN ORT	2	2	657	NO	
Off-Road Residential Connector	Stake & Etter	End of Max Dr	30	MAIN ORT	2	4	5,557	NO	
Off-Road Connector	Graybill at RR Corridor	Kreighbaum	31	MAIN ORT	3	3	2,268	NO	YES
Lauby Rd	Greensburg & Lauby	Lauby & Mt. Pleasant	32	MAIN ORT	2	2	8,980		YES
Christman Rd	Christman & Comet	Christman & Green South Corp	33	MAIN ORT	3	3	5,335		YES
Moore Rd	Moore & Main	Moore & Cottage Grove	34	MAIN ORT	2	4	2,674		
Kreighbaum Rd	Graybill & Kreighbaum	Raber & Kreighbaum	35	MAIN ORT	2	3	2,205		YES
Caton Residential Connector	Jupiter & Caston	End of Sherylton Hills	36	MAIN ORT	3	4	4,489		YES
Greensburg Park Connector (West)	Greenbrook & Roydean	Greensburg Park	37	MAIN ORT	4	2	1,619		
Liberty Park Connector (South)	TFL Rd at Liberty Park	Liberty Park	38	MAIN ORT	4	2	1,189		
Mayfair Rd & Graybill Rd	Mayfair & Raber	Graybill & RR Corridor	39	MAIN ORT	3	4	5,530		
Raber Rd	Massillon & Raber	Parfoure & Raber	40	MAIN ORT	3	4	3,518		
Kreighbaum Park Connector	Kreighbaum Rd	Kreighbaum Park	41	MAIN ORT	2	2	848		YES
Shriver Dr	Shriver & Steese	Shriver at Existing Trail	42	MAIN ORT	4	4	1,370		YES
Off-Road Connector	Lindale St	Myersville Rd	43	MAIN ORT	2	2	3,006	NO	
Molly Dr	TFL Rd & Molly	End of Molly	44	MAIN ORT	2	4	1,004		YES
Under I-77 Tunnel (West)	Massillon Rd	I-77	45	MAIN ORT	2	4	1,414	NO	
Moore Rd	Planned Moore Improvement	Arlingotn Rd	46	MAIN ORT	2	2	932		
Off-Road Connector	King Arthur & Caston	Knollwood & Cottage Grove	47	FUTR/ALT	1	1	7,866	NO	
Off-Road Connector	End of Sprigndale Dr	Boettler Rd	48	FUTR/ALT	1	1	2,834	NO	
Turketfoot Lake I-77 Underpass	Molly & TFL	Pickle & TFL	49	FUTR/ALT	1	1	1,553		YES
Off-Road Connector	End of Towne Park Blvd	Joan & Greensburg	50	FUTR/ALT	1	1	7,451	NO	
Off-Road Connector	Molly Dr	Tabbs Dr	51	FUTR/ALT	1	1	2,534	NO	YES
Off-Road Connector	Arlington & Knollwood	Tabbs Dr	52	FUTR/ALT	1	1	4,512	NO	
Off-Road Connector	Graybill	Lake Twp Border	53	FUTR/ALT	1	1	3,908	NO	
Kreighbaum Rd	Graybill & Kreighbaum	Kreighbaum & N of Heckman	54	FUTR/ALT	1	1	2,634		
Off-Road Connector	Cottage Grove & TFL	NW of King Arthur & Harring	55	FUTR/ALT	1	1	6,825	NO	
Off-Road Connector	Arlington	Connects to 55	56	FUTR/ALT	1	1	2,218	NO	
Off-Road Connector	End of Paper Street	Connects to 47	57	FUTR/ALT	1	1	751	NO	
RR Corridor	Pressler & RR Corridor	TFL Rd & RR Corridor	58	FUTR/ALT	1	1	5,520		YES
Off-Road Connector	End of Max Dr	End of Joan Dr	59	FUTR/ALT	1	1	1,082		
I-77 Tunnel Connector From Graybill	Graybill Rd	I-77	60	FUTR/ALT	1	1	2,522	NO	
Greensburg Rd	Steese & Greensburg	Greensburg & Arlington	61	FUTR/ALT	1	1	2,395		
Off-Road Connector	End of 13 / Paper Street	N of 52 to Paper Street	62	FUTR/ALT	1	1	1,383	NO	
Off-Road Connector	Forest Lake Dr	Connects to 51	63	FUTR/ALT	1	1	1,234	NO	
Off-Road Connector	Graybill & Kreighbaum	Lake Twp Border	64	FUTR/ALT	1	1	1,535	NO	
Off-Road Connector	E of I-77 Proposed Tunnel	Wise Rd at I-77	65	FUTR/ALT	1	1	3,019	NO	
Off-Road Connector	Cottage Grove	Knollwood Dr	66	FUTR/ALT	1	1	2,671	NO	
Towne Park to I-77 Tunnel	Towne Park Blvd	S of Greenwood Primary Campus	67	FUTR/ALT	1	1	3,256	NO	YES

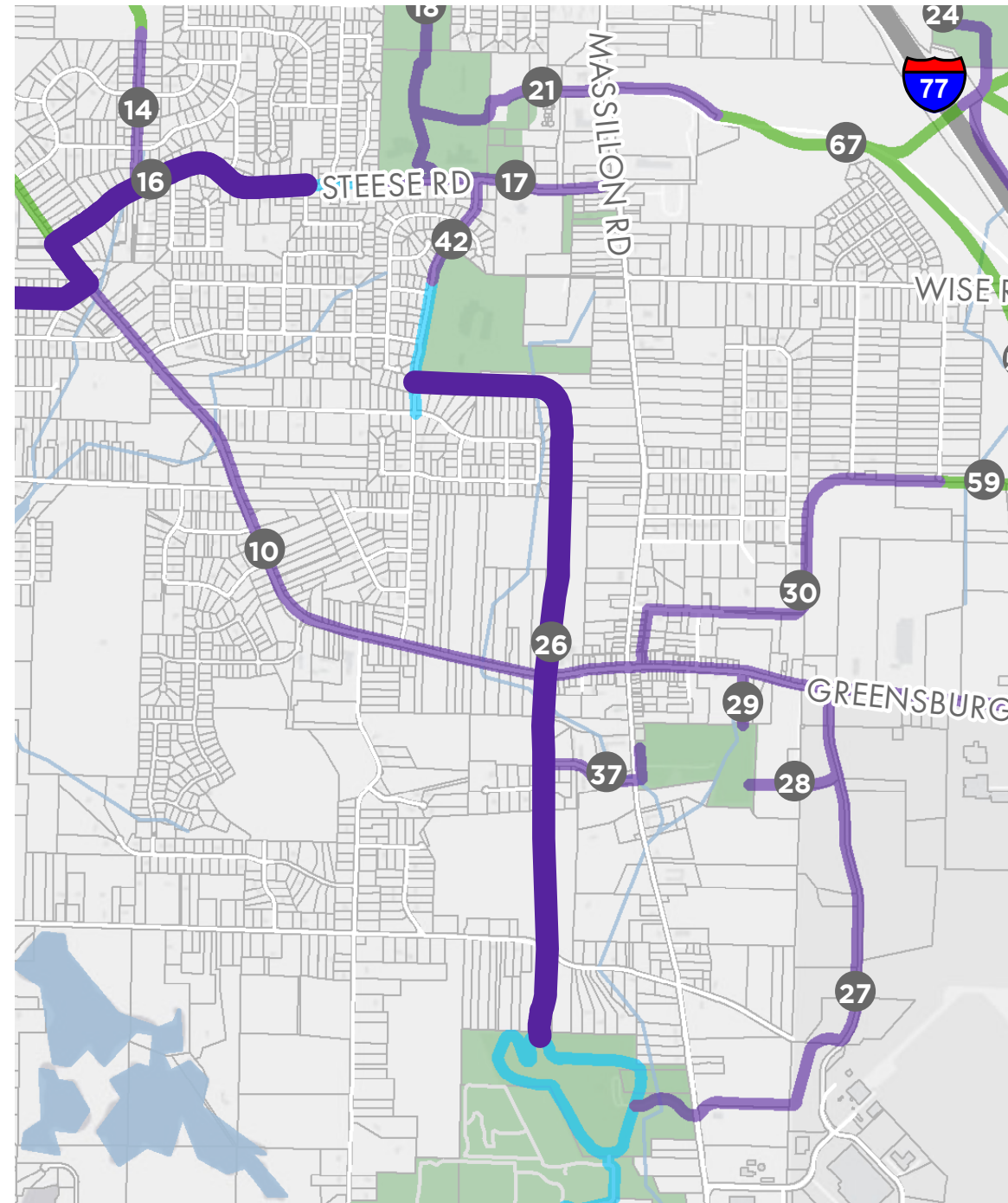
MASTER TRAIL PLAN | PRIORITY RECOMMENDATIONS

The completion of the matrix provided a clear ranking of the route segments. The ranking permitted the project team to prioritize potential projects and determine which routes/projects would be included in the city's Capital Improvement Plan.

Two routes tied for top ranking and they include a connection from the City's Central Park to the Nimisila Reservoir and from the City's Central Park to Boettler/Southgate Park trail system.

SOUTHGATE CONNECTOR

The Southgate Connector is a primarily a north/south route between an existing trail that terminates at the Shriver Road/King Drive intersection and Boettler/Southgate Park. This route parallels public roadway, but also traverses developed and undeveloped land, some of which parallels Anderson Ditch. The route is approximately two miles long and will provide access to the trail for families that reside along various neighborhood streets including Melanie Drive, Sunnyview drive, Shriver Road, King Drive, Forsythia Drive, Wildflower Drive, and Greenbrook Road. Additionally, a portion of the trail abuts the Portage Lakes Career Center. For areas where wetlands and stream crossings must be accessed, bridges and boardwalks will be incorporated into the route.



[SOUTHGATE CONNECTOR] Route 26

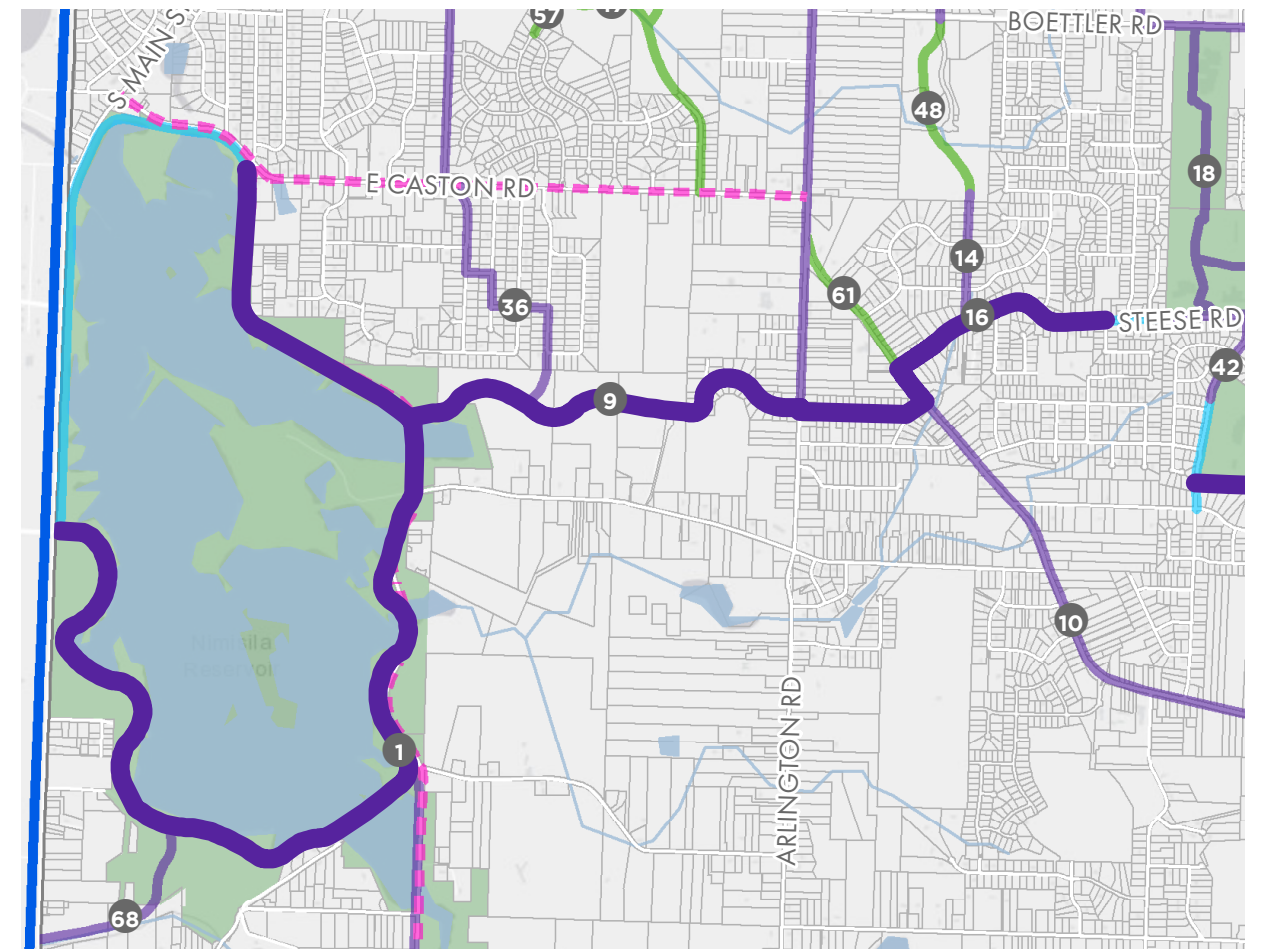
MASTER TRAIL PLAN | PRIORITY RECOMMENDATIONS

NIMISILA LASSO

The Nimisila Lasso is primarily an east/west route between an existing trail that terminates near the Steese Road/Greenwood Drive intersection and the east side of Nimisila Reservoir. This route parallels public roadway, but also traverses undeveloped land along a power transmission route. An aggregate trail has been constructed along a portion of the north and west sides of the reservoir. Completing the trail around the reservoir is included in this connectivity route. Note that there is an existing bicycle path adjacent to Christman Road along the east side of the reservoir. This path is narrow and is not conducive to expansion for a 10-foot wide trail. Thus, a separate off-road trail that parallels the Christman Road is proposed for areas that support it. The route from Steese road to the reservoir is approximately two miles long and will provide trail access for families that reside along various neighborhood streets including Steese Road, Slaughter Road, Ridgeview Drive, Springdale Road, Pezzotti Lane, Greensburg Road, Newcomb Drive, and Alpine Boulevard. Completing the loop around the remainder of the reservoir requires approximately four miles of trail and boardwalk.

The un-constructed portion of the trail shown in this plan that circumferences the reservoir will be on land that is controlled by the Ohio Department of Natural Resources (ODNR) or by Summit County Metroparks. As such the project team conducted a meeting on June 22, 2018 with representatives of these agencies to discuss the concept of completing the loop around the reservoir. Both agencies indicated that they would partner with the City to provide access for this great natural resource. Summit County Metroparks has developed a concept plan for a primitive trail within the confines of land that they control.

ODNR and the City of Green partnered to construct an extension to the existing aggregate trail on the north side of the reservoir. Based on discussions at the meeting, Metroparks will proceed with their primitive trail system. The City will focus on the portion of the trail from Steese Road to the campground at the reservoir. Over time the primitive trails may evolve into a 10-foot shared use path, and/or the route shown in this study could be implemented. In the interim, Christman Road could be repaved, re-striped and marked to continue its current public use.



[NIMISILA LASSO] Routes 1, 9, & 16

MASTER TRAIL PLAN | REGIONAL CONNECTIONS

This plan set out to recognize regional connections as they are just as vital to a connectivity plan as the connections made within and across Green. Green is fortunate to be surrounded by communities who also recognize the importance of regional trail connections. While the City can't fund trails outside of Green, this plan can align trails at strategic points so these regional connections can come to fruition in the future.

To the West, New Franklin has a developed plan to connect Nimisila Reservoir to the Ohio & Erie Canalway Towpath Trail. The trail would also traverse the Portage Lakes State Park. The portion of the trail within Green is relatively small due to the location of Nimisila Reservoir on the western boundary of Green. This particular trail would serve the residents of Green as a spoke to travel to the Towpath spine.

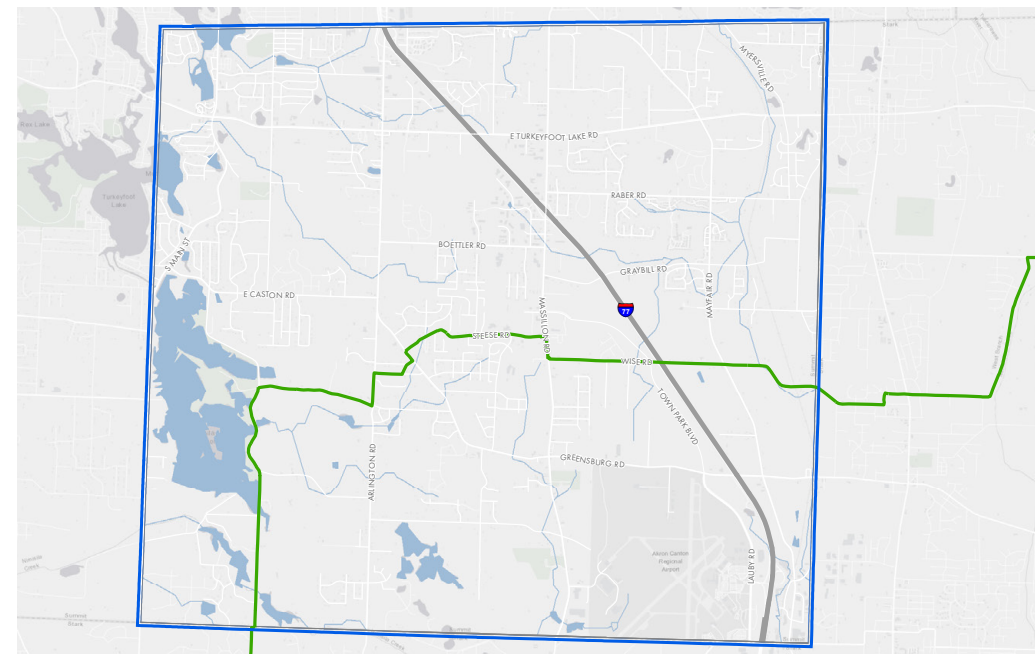
To the North, Coventry Township and Springfield Township both offer some appealing points of connection. In Coventry Township, a connection could be made to Firestone Metro Park via Cottage Grove Road. While in Springfield Township, the railroad corridor would make for a natural connection and another connection is shown at Pickle Road. The team met with officials from Springfield Township during the course of this plan development. Springfield was also creating a trail plan so the two teams were able to pinpoint regional connection locations on the shared border.

On the Eastern border of Green, Kreighbaum Park is adjacent to Uniontown Community Park in Lake Township. To connect these two parks via a trail would be a relatively simple undertaking. The plan also indicates potential connections in areas of future development along the Eastern border. Should these areas be

developed, the development should include trails and strive to connect the neighborhoods to the East.

To the South, Stark Parks has an extensive Master Trail Plan that shows connection points along Green's southern border. The team met with the Stark Parks Director and discussed the importance of regional connections along with connection priorities. Stark Parks is working towards a trail connection to Green's southeast corner, Southgate Park and Christman Road. The project team believes a connection to Southgate Park is a top priority and would further connect the region.

Green is currently crossed by one existing statewide roadside trail: the Buckeye Trail. The Buckeye Trail is a roadside hiking trail that circles the state. The Buckeye Trail Association is an active association that promotes the trail and organizes events along the trail.



[OHIO BUCKEYE TRAIL] Shown above in green

MASTER TRAIL PLAN | IMPLEMENTATION STRATEGIES

The land development process is key to implementing the routes that traverse undeveloped land. Adopting this plan and referencing it to the City's Transportation Plan by ordinance, can facilitate the construction of sections of connectivity routes as land is developed for residential or commercial purposes. As all subdivisions are required to include sidewalks along public streets, portions of the walk could be widened to become a side path; or an off-road trail could be constructed within the open space that is set aside within the subdivision. The cost of these improvements can be included in the development cost of the subdivision.

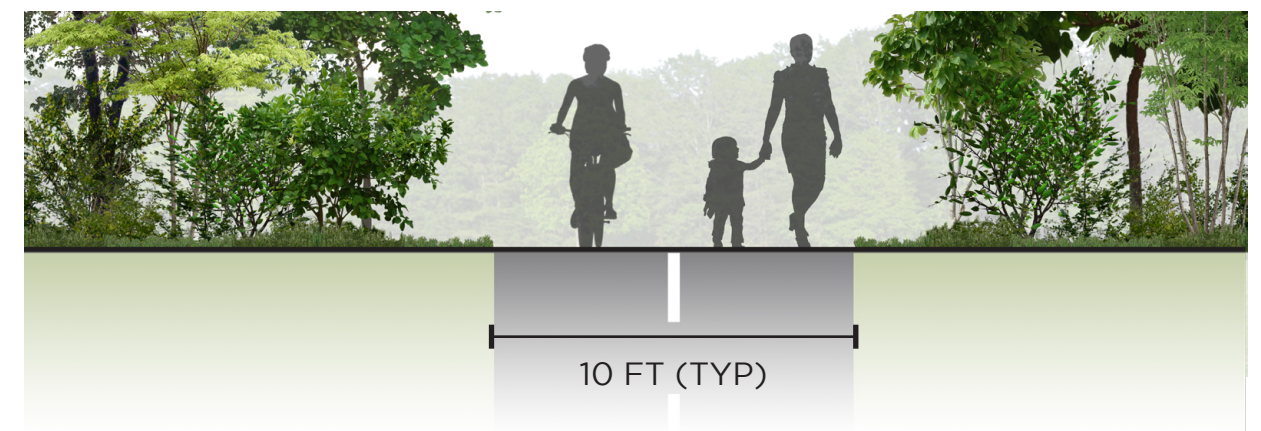
A majority of the connectivity routes parallel existing city streets and roadways. Also, a majority of the City's transportation improvement projects include sidewalks. Exchanging sidewalks for sidepaths or an off-road trail within the project footprint is a logical means of implementing this plan. A policy that requires each transportation project to consider a side path or an off-road trail in accordance with this plan is critical. Other projects such as storm sewer improvements, particularly those located outside road right of way should consider purchasing a sufficient right of way or easement width to support the implementation of a trail.

Design aids that are critical for the consistent implementation of a side path or off road trail include typical sections for side path and off road trail. These details are provided in the appendix. (Pg. 48) Design guidelines for shared use paths, including side paths, are provided in the ODOT Location and Design manual, Volume 1, Section 700, Multi-modal Considerations. These design aids and the ODOT design guidelines should be adopted by the City, and referenced in the City's Land Development Code. Design guidelines are also provided in Designing Sidewalks and Trails for Access (FHWA, September 2001, and the Guide for the Development of

Bicycle Facilities (AASHTO, 4th Edition). These design aids and design guidelines should be adopted by the City, and referenced in the City's Land Development Code.

Additionally, there may be situations when various physical constraints lead to the need for a design exception from the established criteria, particularly when considering design items that are not safety related. It is recommended that the City develop a formal process to provide flexibility to designers if such situations arise.

TYPICAL OFF-ROAD TRAIL SECTION





MASTER TRAIL PLAN | FUNDING STRATEGIES

FUNDING PROCESS

Budget priorities and constraints at the national and state levels have created greater challenges in funding capital projects. Communities are trying to perform a balancing act between the needs and demands for equipment, personnel, maintenance and critical capital expenditures along with making infrastructure investments that improve the quality of life for their residents.

One thing is very clear; funding capital projects will be more challenging than it has been in the past. The demand for grant funds and other financial assistance from state and federal sources will increase and become more competitive as the availability of these funds is reduced. Consequently, it will be imperative to develop a variety of funding streams to pay for a system of connectivity routes within the City.

PRIORITIZE ROUTES

The first step in developing a funding strategy is to prioritize the connectivity routes. This has been completed as part of this study. A detailed funding plan should be developed for the top ranked routes. A funding plan could be developed for all the identified (67) routes. However, due to the large number of routes, funding sources and grant opportunities will most likely change before many of these routes are selected for implementation, requiring a review/revision to the detailed funding plan.

DETAILED COST ESTIMATES

The next step is to develop a detailed cost opinion for each route. Besides the construction cost, this includes land acquisition and/or easements, design and administrative costs, and permits. It is critical to have an accurate cost opinion for each recommended route so that when funding becomes available, a proposal may be submitted. Many times, there is not significant lead-time available to prepare accurate cost estimates for a specific project. Approximate cost-per-mile estimates have been developed for the proposed routes, but an accurate cost analysis relies on variables such as final trail alignment, time/date of construction and type of pedestrian/cycling facility.

FUNDING AND FACILITY MATCHING

This step includes analyzing each recommended route for applicable or relatable funding. For example, a recommended route that has connectivity to an existing regional facility might be available for funding through that organization. Or a route that is contiguous to a private business might be funded by that business in a private-public partnership. Many larger businesses have developed Employee Wellness programs for their employees and see value in providing opportunities to improve the health of their associates.



MASTER TRAIL PLAN | FUNDING STRATEGIES

FUNDING SOURCES

Identifying funding sources for building trail connections is critical not only to offset the rising cost of labor and materials, but also to establish supportive partnerships necessary to the success of connecting Green and our larger regional community. Ohio Department of Natural Resources grant programs are available to communities for funding connectivity routes that are in alignment with the State of Ohio's priorities for these capital projects. The Ohio Department of Transportation also offers funding sources through various grant programs.

An additional funding source is the Local Metropolitan Area Transportation Study (AMATS) which manages various federal funding programs for the region. Some of these federal funds are designated for alternative transportation projects. On a local level, other sources of funding may be secured from private foundations that have an interest in the community. Private foundations have

stated missions and purposes for their funds. Most are interested in public projects that enhance the quality life of the populace. Information on private foundations can be found in the Foundation Center site available online at www.foundationcenter.org.

The City of Green capital planning process identifies public facilities such as trail connectors, positions them in order of priority and schedules them for funding and implementation. In addition, the City has designated a portion of its income tax for parks & recreation funding through its Charter. These two city funding mechanisms may provide for connectivity route construction and maintenance.

Finally, as many of the connectivity routes identified in this study parallel an existing roadway, piggybacking the construction of the connectivity route within a roadway project footprint provides a means to offset some of the soft costs. Where federal highway funds are provided for the project, a portion of the connectivity construction may be funded as well.



APPENDIX

JANUARY 2019

CITY
OF
GREEN

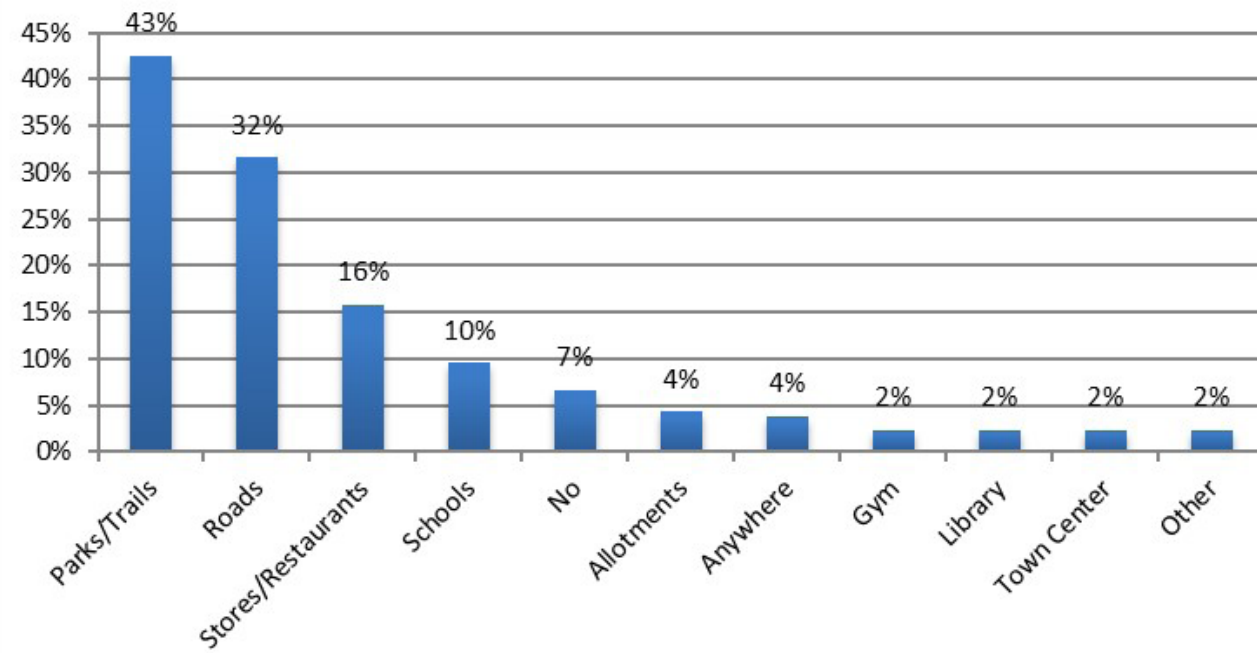
TRAILS MASTER PLAN



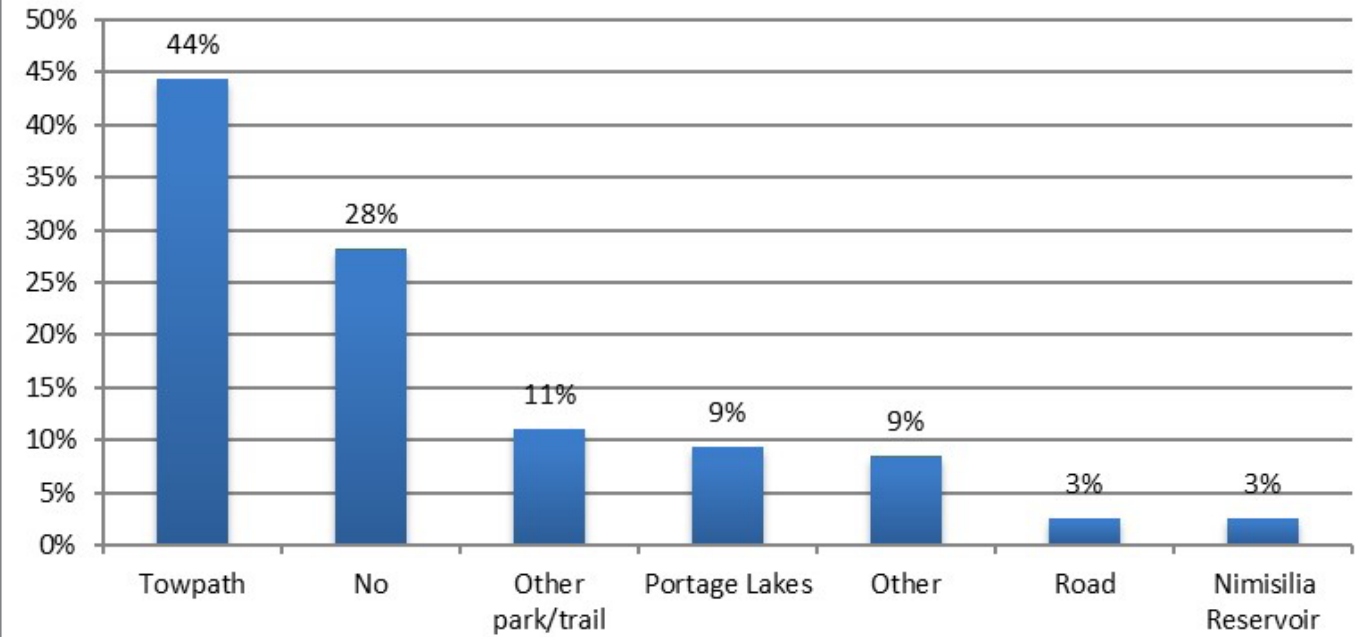
City of Green

PUBLIC SURVEY RESULTS

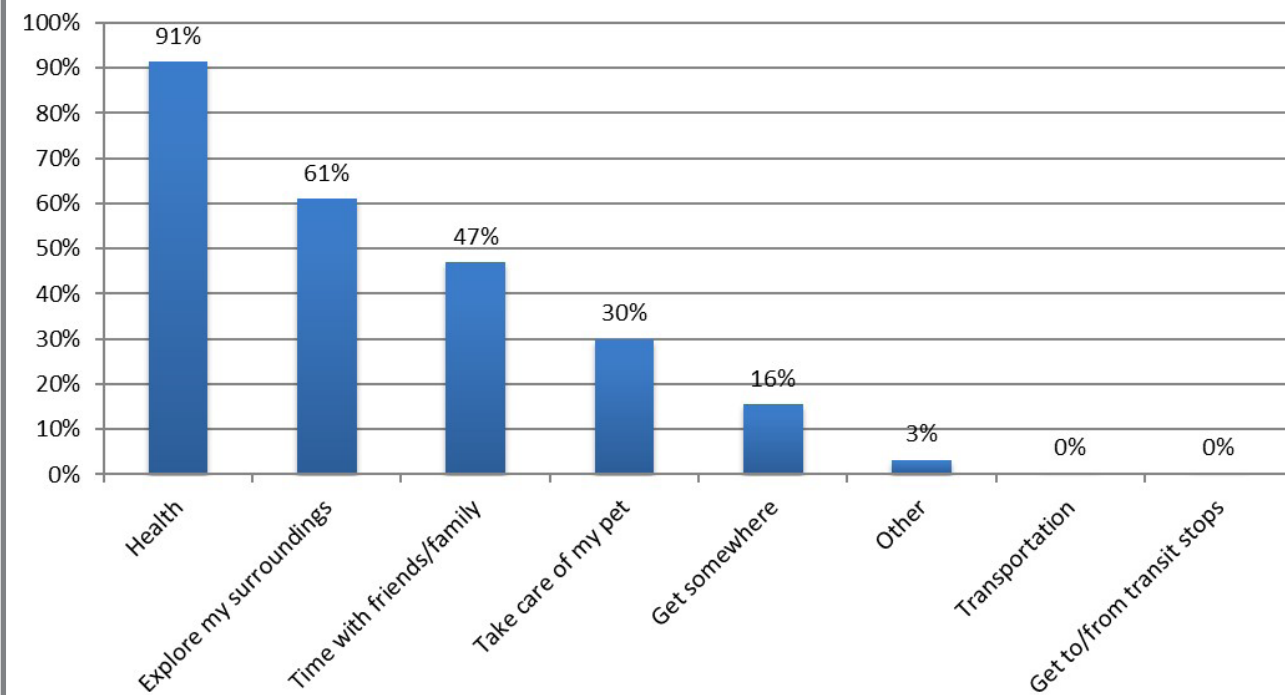
Are there any destinations inside of Green would you like to walk/run/bike to, but can't? (generalized responses)



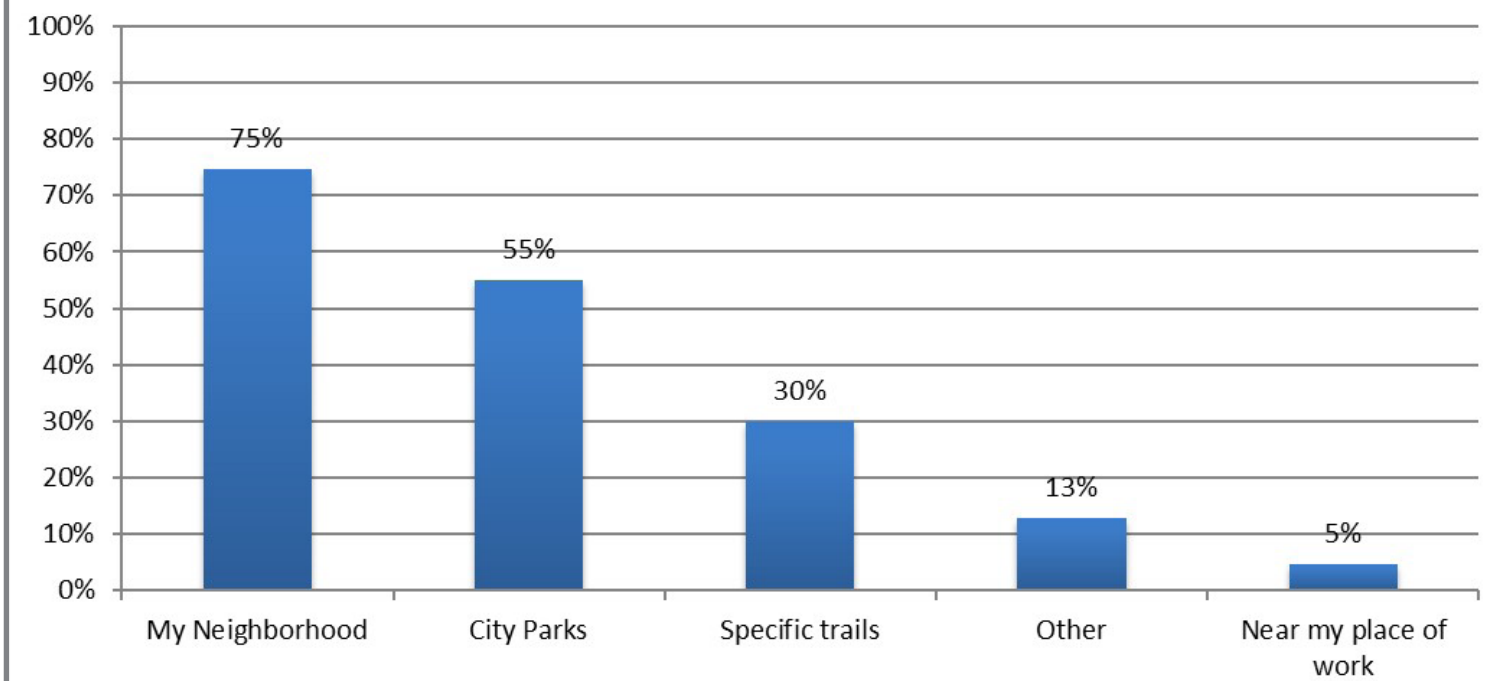
Are there any places outside of Green would you like to walk/run/bike to but can't? (generalized responses)

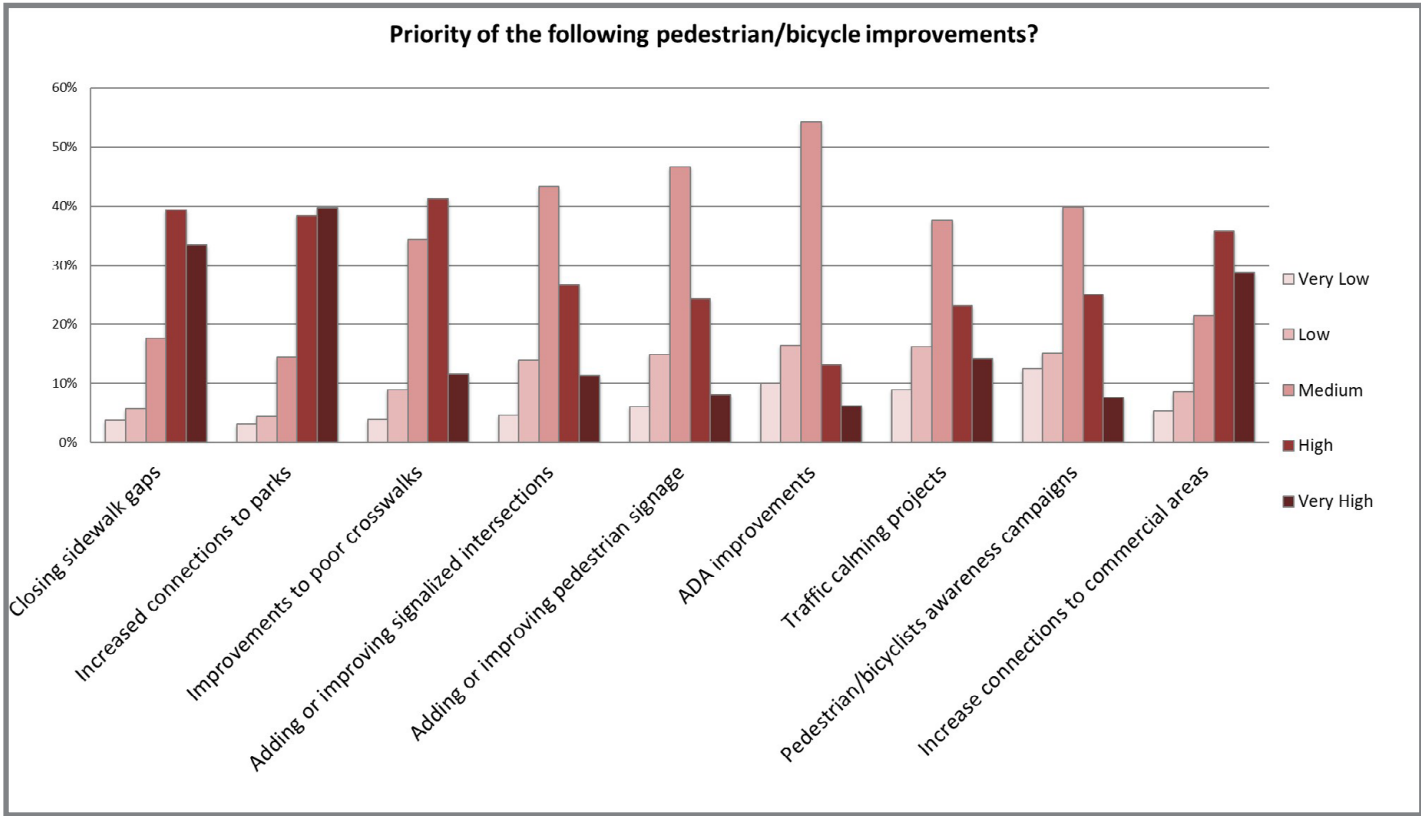
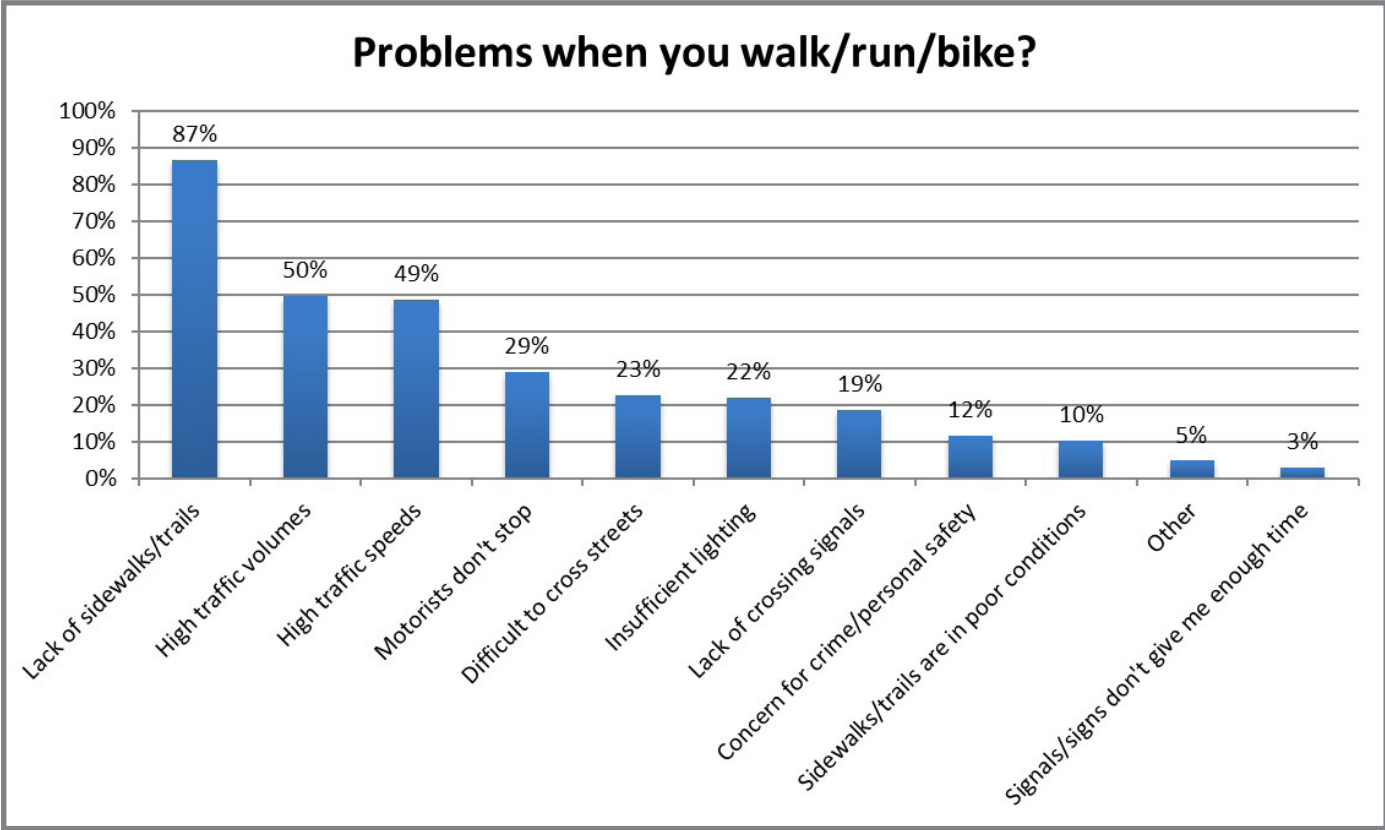


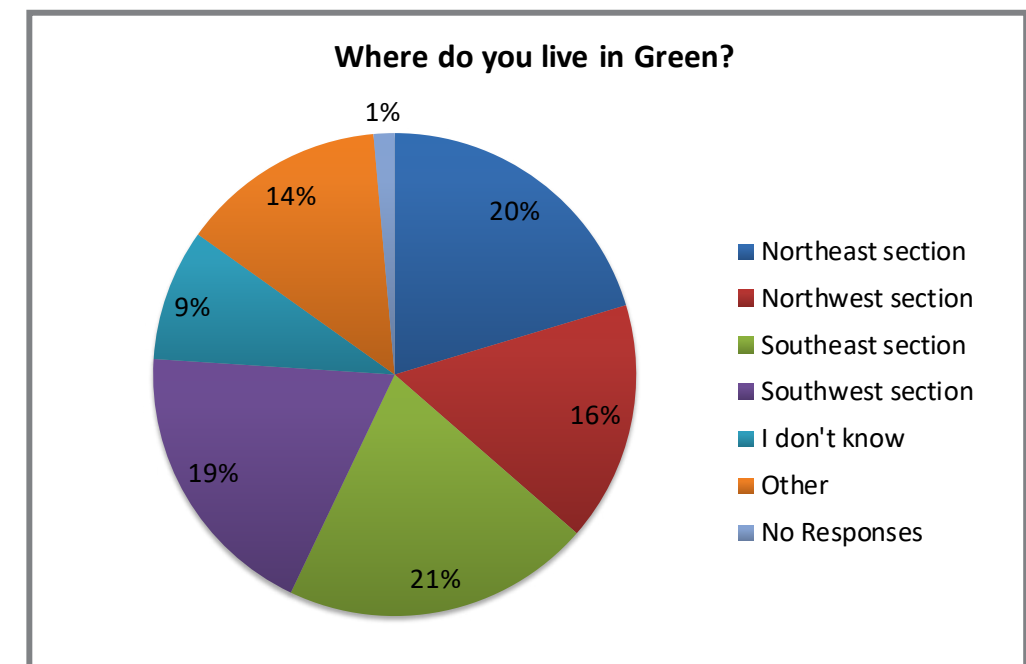
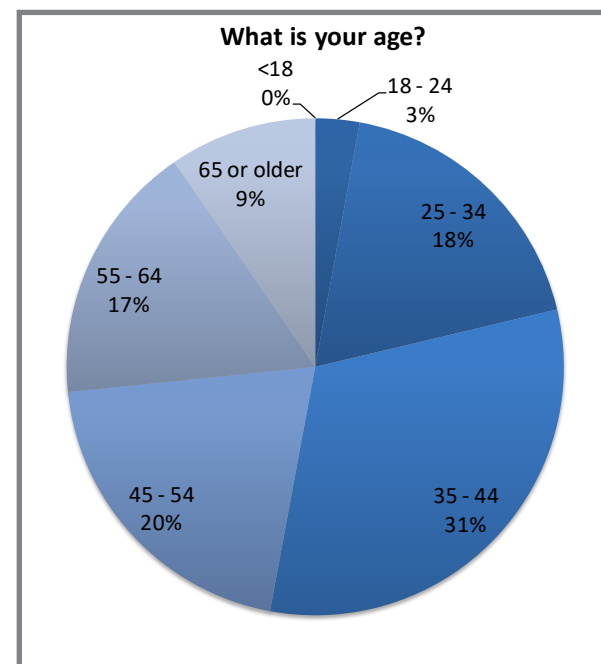
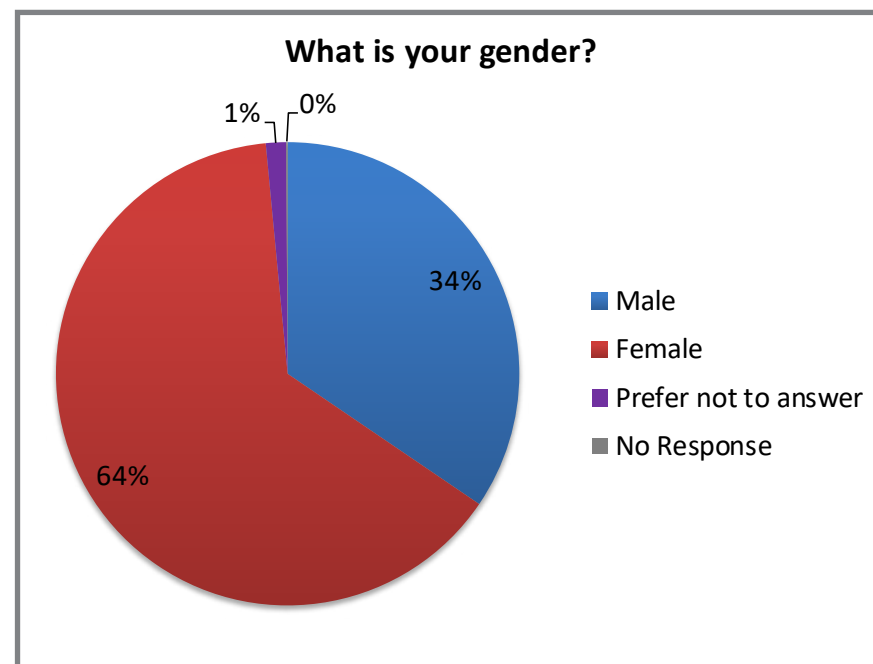
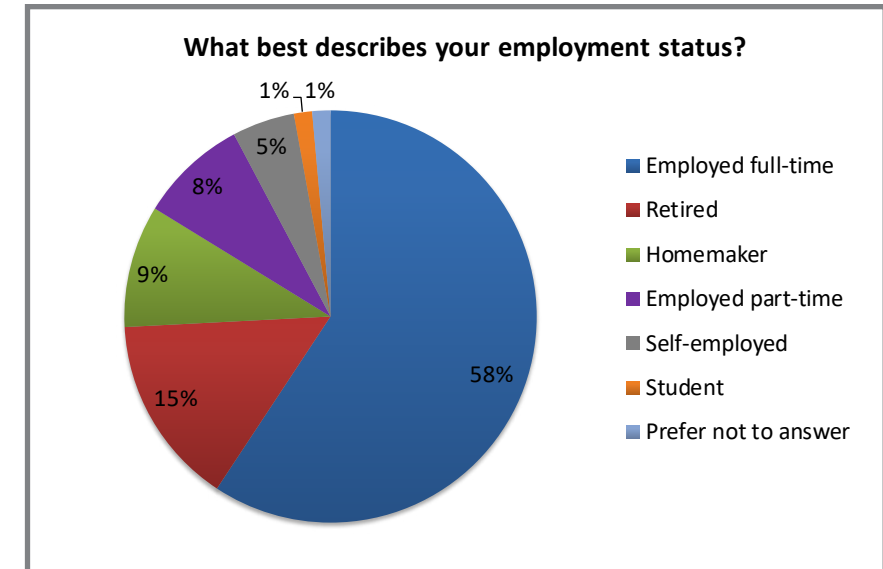
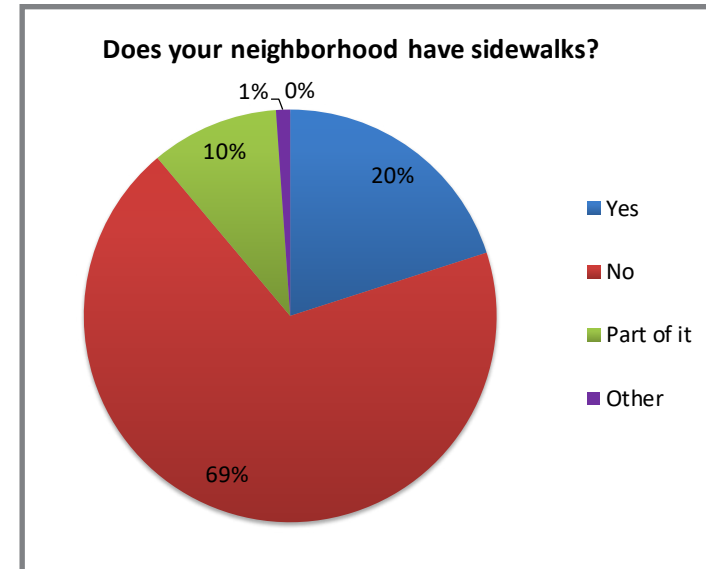
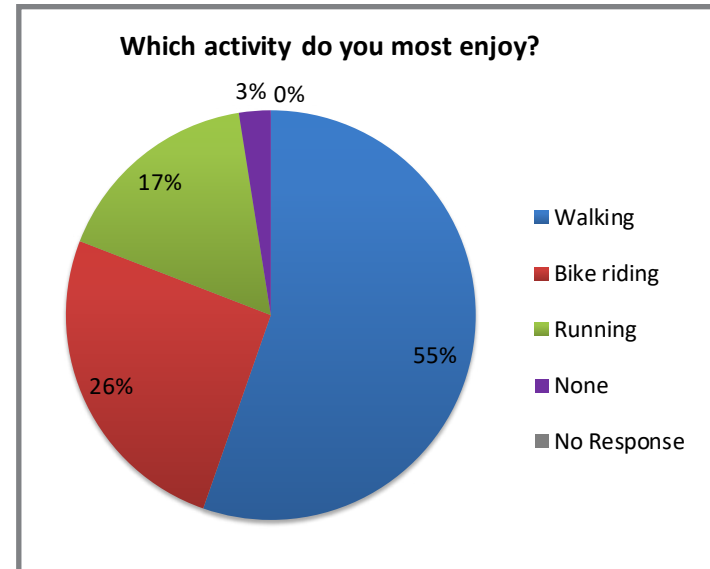
Why do you walk/run/bike?



Where do you walk/run/bike?







CITY OF GREEN
TRAIL MASTER PLAN

PUBLIC MEETING FLYER

JOIN US!

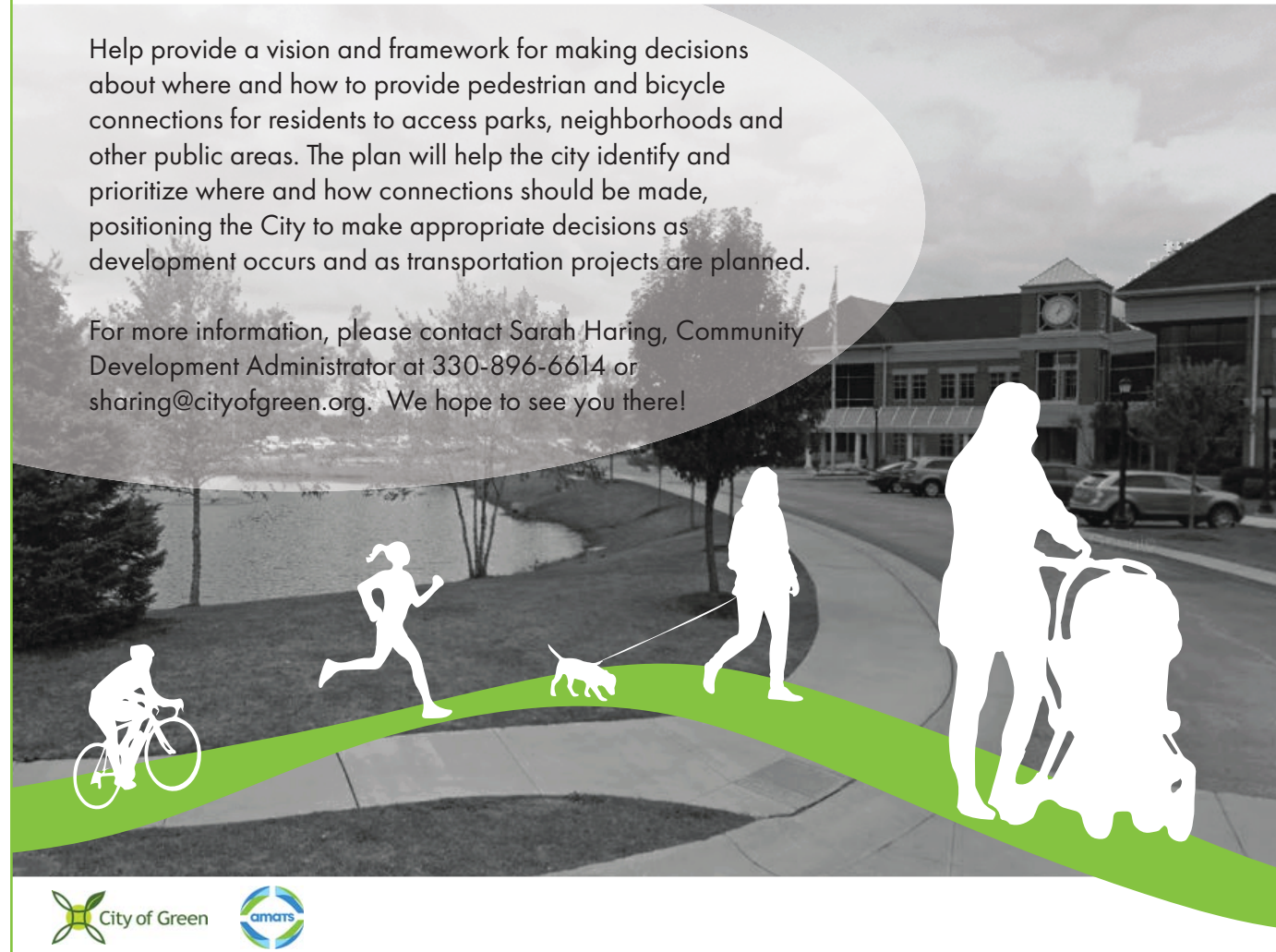
AT THE OPEN HOUSE FOR FUTURE TRAILS AND CONNECTIVITY PLAN

JANUARY 11, 2018 | 5:30-7:30PM

formal presentation at 6:30pm
at CENTRAL PARK COMMUNITY HALL
1755 TOWN PARK BLVD

Help provide a vision and framework for making decisions about where and how to provide pedestrian and bicycle connections for residents to access parks, neighborhoods and other public areas. The plan will help the city identify and prioritize where and how connections should be made, positioning the City to make appropriate decisions as development occurs and as transportation projects are planned.

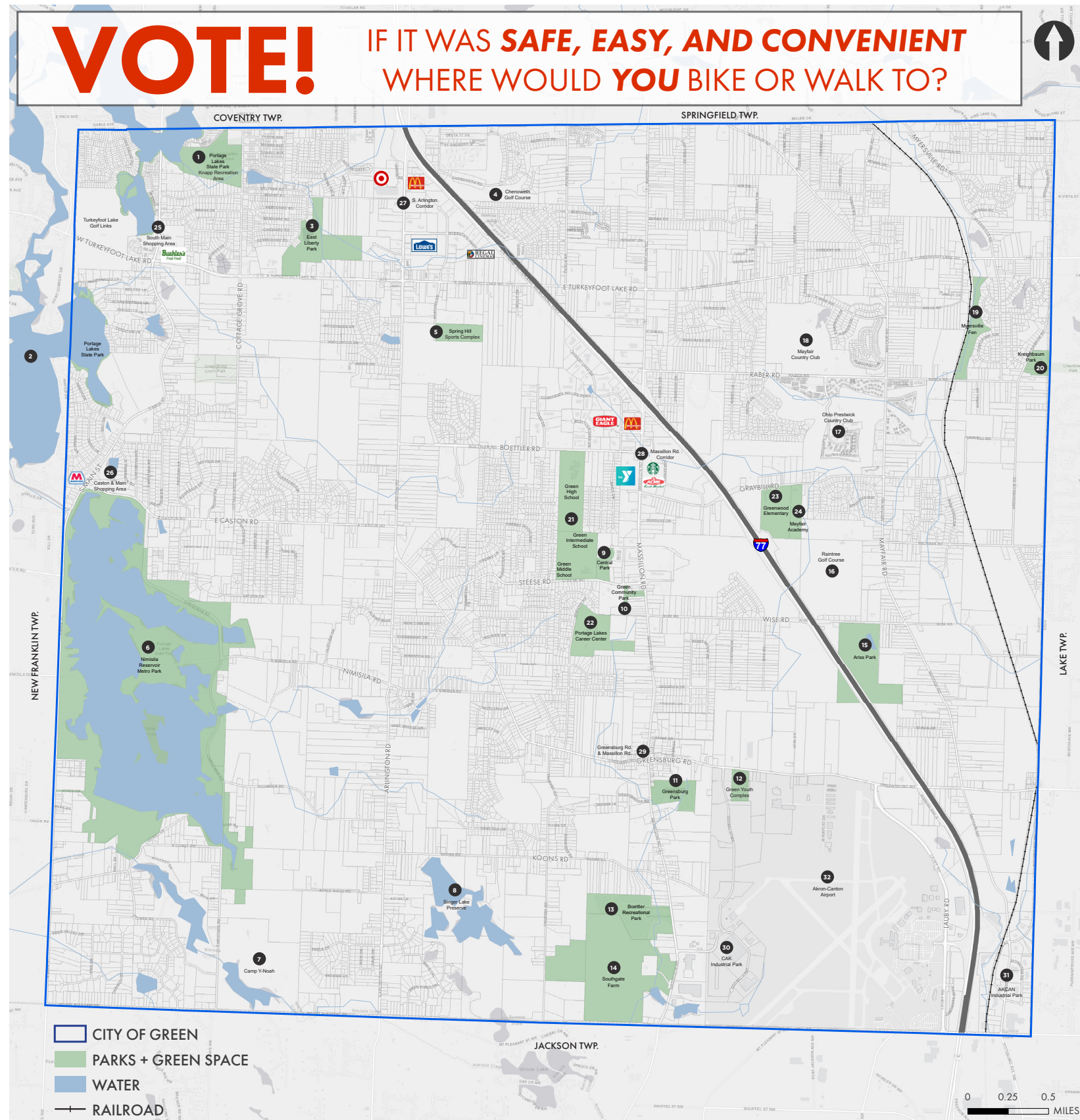
For more information, please contact Sarah Haring, Community Development Administrator at 330-896-6614 or sharing@cityofgreen.org. We hope to see you there!



PUBLIC MEETING VOTING BOARDS

VOTE!

IF IT WAS **SAFE, EASY, AND CONVENIENT**
WHERE WOULD **YOU** BIKE OR WALK TO?

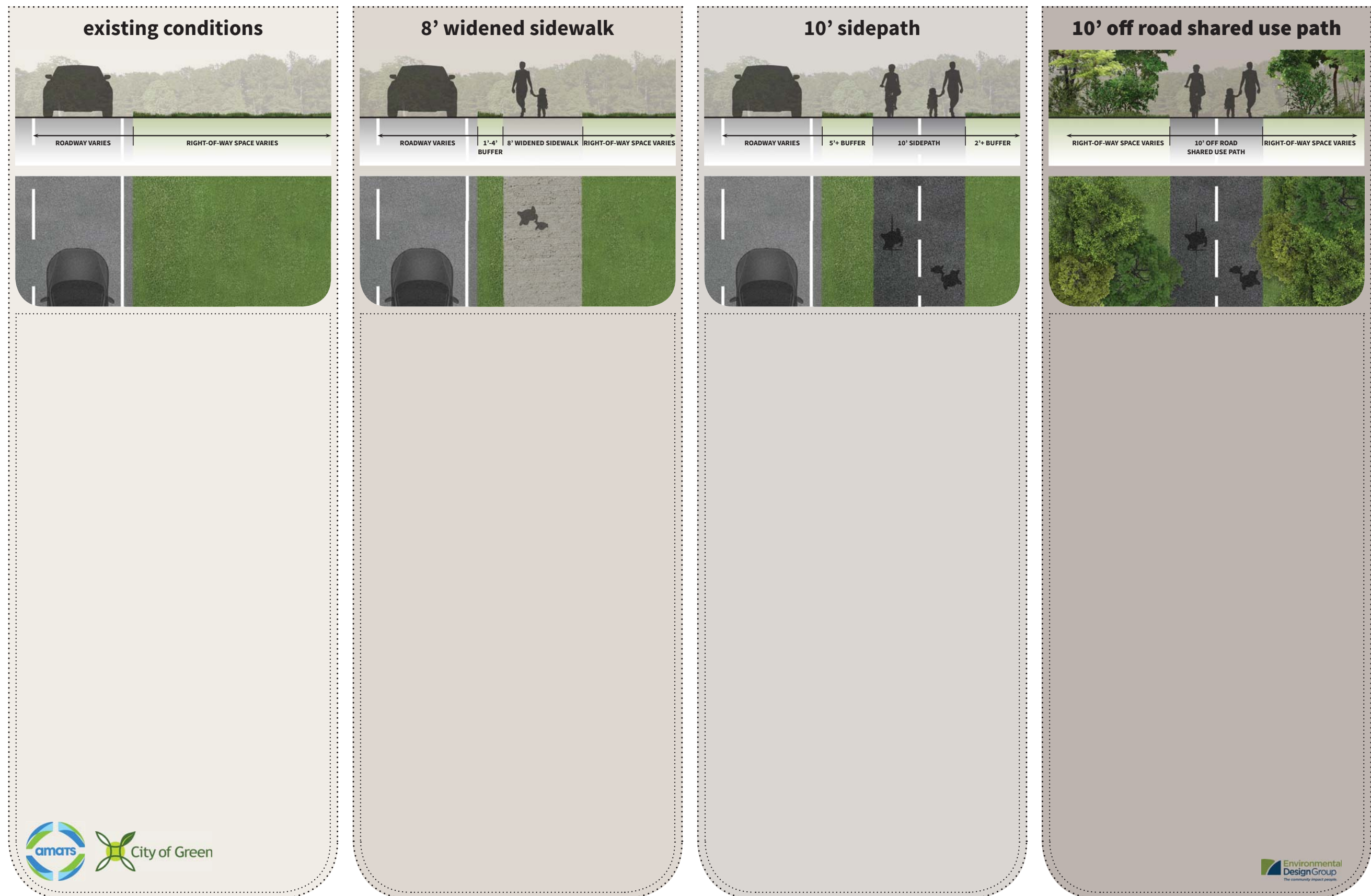


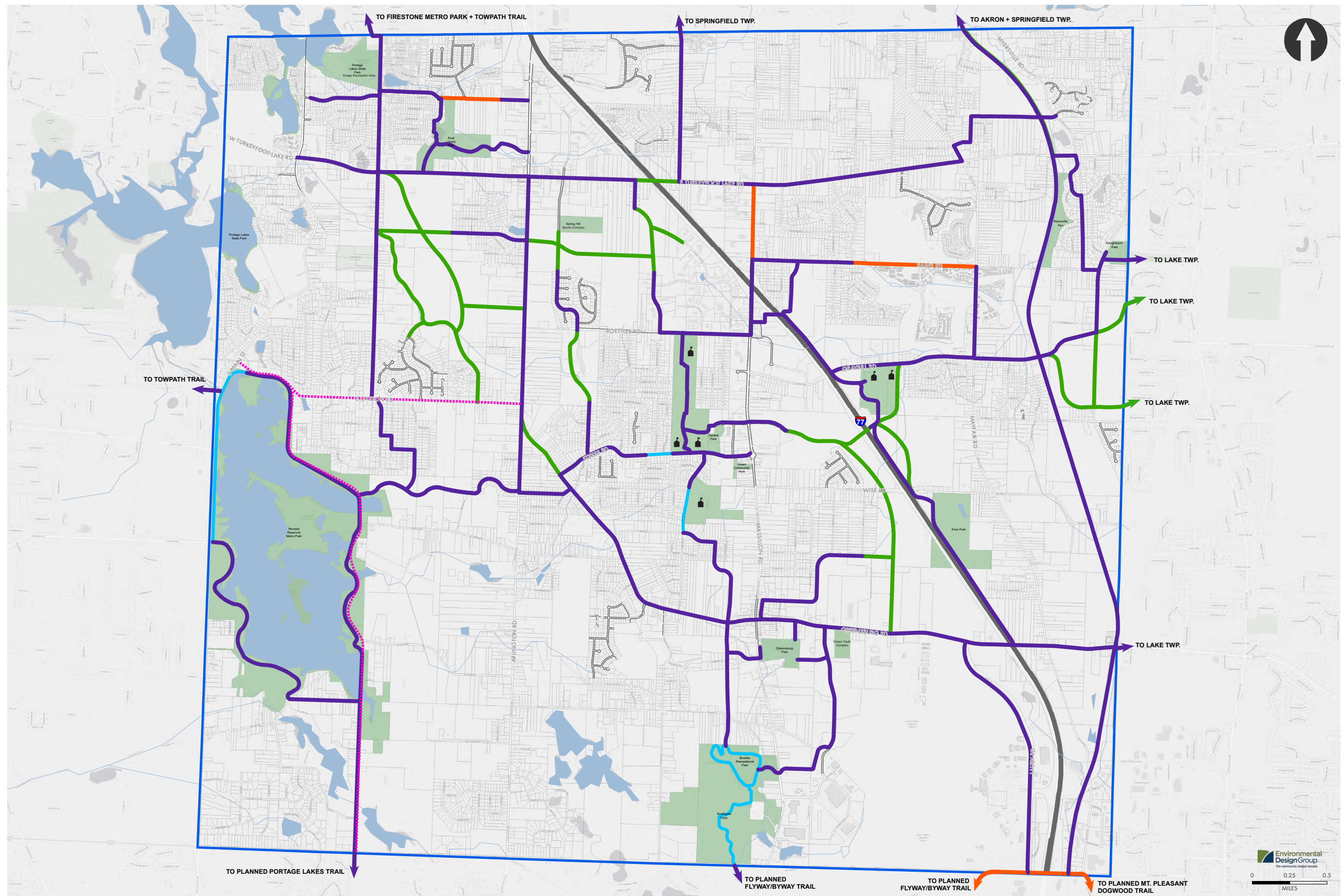
KNAPP RECREATION AREA 1	PORTAGE LAKES 2	EAST LIBERTY PARK 3	CHENOWETH GOLF COURSE 4
SPRING HILL SPORTS COMPLEX 5	NIMISILA RESERVOIR 6	CAMP Y-NOAH 7	SINGER LAKE PRESERVE 8
CENTRAL PARK 9	GREEN COMMUNITY PARK 10	GREENSBURG PARK 11	GREEN YOUTH COMPLEX 12
BOETTLER PARK 13	SOUTHGATE PARK 14	ARISS PARK 15	RAINTREE GOLF COURSE 16
OHIO PRESTWICK COUNTRY CLUB 17	MAYFAIR COUNTRY CLUB 18	MYERSVILLE FEN 19	KREIGHBAUM PARK 20
GREEN SCHOOLS CAMPUS 21	PORTAGE LAKES CAREER CENTER 22	GREENWOOD ELEMENTARY 23	MAYFAIR CHRISTIAN SCHOOL 24
SOUTH MAIN SHOPPING CENTER 25	CASTON & MAIN SHOPPING AREA 26	S. ARLINGTON CORRIDOR 27	MASSILLON RD. CORRIDOR 28
GREENSBURG SHOPPING AREA 29	CAK INDUSTRIAL PARK 30	AKCAN INDUSTRIAL PARK 31	AKRON-CANTON AIRPORT 32

green connecting communities plan destinations



green connecting communities plan





green connecting communities plan potential routes



- PLANNED IMPROVEMENTS
- POTENTIAL ROUTE
- FUTURE ROUTE UPON DEVELOPMENT
- EXISTING TRAIL
- EXISTING BIKE LANE
- EXISTING SIDEWALK
- CREEKS + STREAMS
- PARKS + GREEN SPACE
- CITY OF GREEN
- SCHOOLS

PUBLIC MEETING COMMENTS

- Disappointed to see Mayfair Road not included in plans. It runs the entire length of Green. No pedestrian traffic is safe on this road.
- Sidewalks needed along Mayfair Road, between Graybill and 619. Lots of pedestrians from the apartment and condominium complexes are forced to walk on the side of the road, many times with young children. Even if only between Graybill to Raber as there is a bus stop at the corner of Raber and Mayfair to which people walk from the apartments. (However, there are also pedestrians seen between Raber and 619, often teenagers.) Also, pedestrians who travel between Mayfair and Massillon roads on 619 need a sidewalk, particularly due to poor lighting. These are serious safety concerns.
- Connectivity is important – as a distance biker I would love a long-distance circuit within Green – if this circuit exists, all of the connectors could tie into this loop (circuit). Circuit suggestion – North South on East side of city is the RR Easement, from North center to South East is using the Interstate 77 corridor, missing is dedicated space from North railroads to Interstate.
- I really like the proposed connections around high school, middle school, and intermediate schools. Please look at connecting surrounding neighborhoods. What I would really like to see is sidewalks in all allotments. I will never buy a house again in an allotment without sidewalks.
- Explore curbing along Caston, prioritize connecting existing projects: complete Steese Road, and Steese to Arlington to Caston. Create bike destinations – parking/gathering spots at terminus, parking area at S Main/Caston (Giuseppe's and ice cream), Boettler Park, Kreighbaum, Massillon shopping hub, and South Arlington shopping hub.
- If connectivity is set within 1 mile of the schools, it seems you would eliminate a great deal of the safety problems. 3,000 kids attend the various campuses. No one uses the connectivity more than our kids.
- We would like to see connectivity between the highly populated areas along Raber Road to the Towpath.
- Meadowwood to Portage Lakes.
- I would be extremely excited to have the railroad made into a Rails-to-Trails.
- Rolling Greens (neighborhood by Arlington/Greensburg split) to Green Middle School/Green High School and to the Acme Plaza area (Massillon Road).
- We would like sidewalk all Raber to Mayfair and Graybill to Acme.
- I would like to see a bike lane all along Arlington and Greensburg.
- Would really like neighborhood sidewalks. Coming from Cuyahoga Falls which has sidewalks everywhere, I really miss them and in hindsight I wouldn't buy in an area without them. Walking the dogs is dangerous in the street. Our streets do not drain properly and there is standing water that turns to ice in winter, collects leaves which makes it slippery. Plus, you have to avoid cars. I would not buy again in a city without sidewalks.
- In addition to destination trails, another nice option would be suggested 'exercise loop.' Users could start anywhere, but for instance from Nimisila Reservoir, E Caston, Greensburg, Mayfair, E Turkeyfoot, Cottage Grove. There are nice options for 'ride challenges' along the way. For instance, the developments on the South side of E Caston have some nice hills to climb and are away from traffic. Another route off of Greensburg: Stoney Pointe to Timber Creek to Stoney Creek to Gray Fox to Thursby to Greensburg would provide extra 'challenge' routes which could be suggested which would require little investment beyond signage. Note these suggestions are made from the point of view of a cyclist.
- Facility Types: I would prefer the 10' off road shared use path, but due to routes I would be ok with 10' sidepath. Something is better than nothing.
- #1 off road shared, #2 10' sidepath where necessary.
- Would like to see paths for kids. Kids walking home from after school sports prior to parents being off work 3-6p.
- East to West access Central Park to Bulldog Boulevard.
- East/West connection for the school campus.
- Would like to have a path connecting the dead end on July through the field to Bulldog Boulevard. That way students could walk to the schools and bikers could connect to Bulldog Boulevard over to Steese to continue to Nimisila.
- East Liberty connectivity to Robin's Trace and Arlington connectivity to Nimisila Reservoir.
- Glad to have path along Shriver Road to Central and Veteran's Parks. The path is well used all times of day!
- Connectivity to Towpath- use Nimisila Creek – past Lake Lucerne into Towpath Mile Post #8 (Stark).
- Connect Western neighborhoods to commercial areas, Portage Lakes commercial areas, E Liberty Park, and Towpath.
- East Liberty Park Area: I'm really concerned about bumping in any types of paths off Moore Road. Connectivity should be through the existing park entrances exclusively.

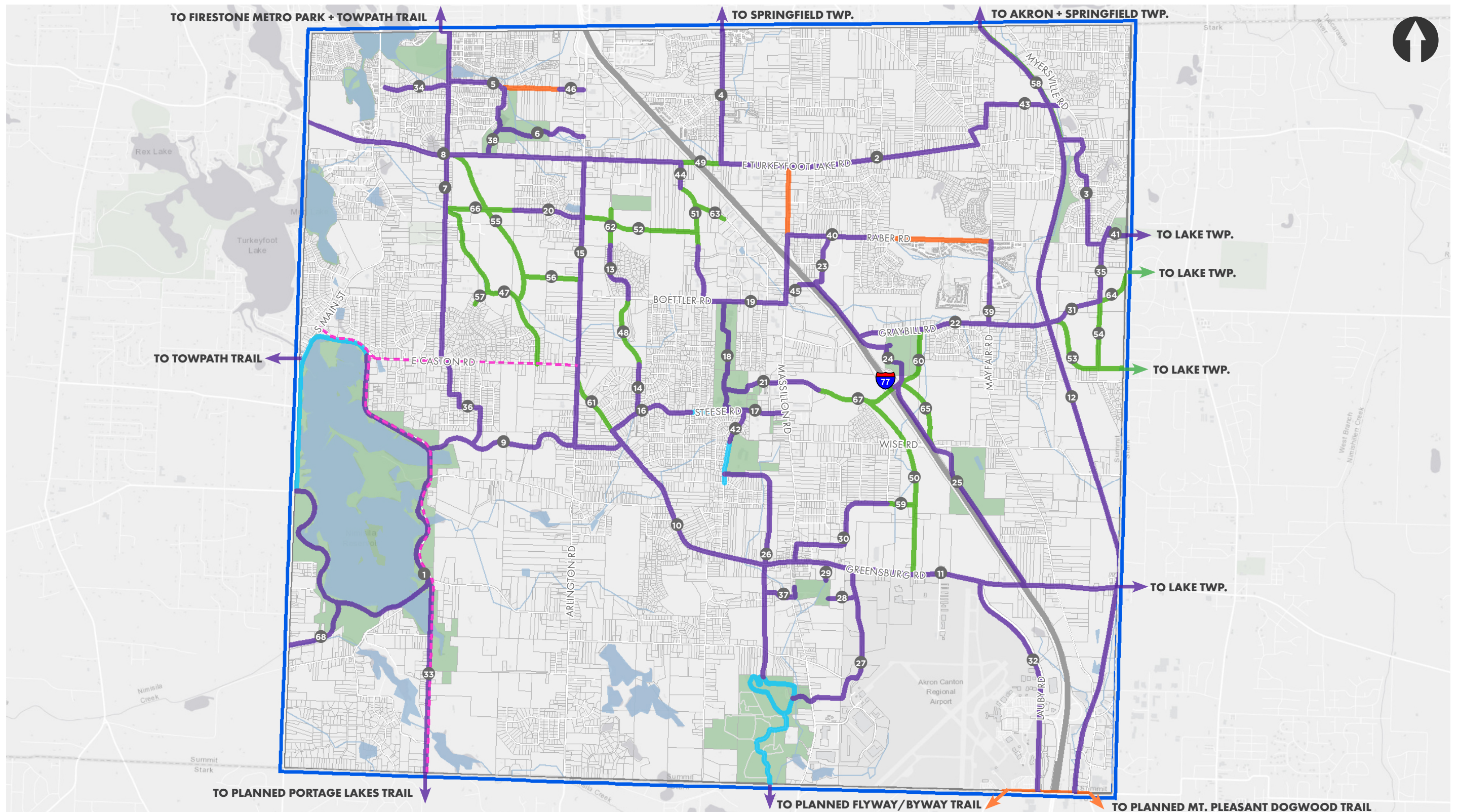


**PUBLIC MEETING DESTINATION
+ FACILITY TYPE VOTING RESULTS**

DESTINATION EVALUATION	
Destination	Tally
Boettler Park	49
Green Schools Campus	43
Central Park	41
Nimisila Reservoir	40
Massillon Road Corridor	34
Southgate Park	25
Portage Lakes	17
Green Community Park	15
E. Liberty Park	13
Portage Lakes Career Center	12
S. Arlington Corridor	11
Spring Hill Sports Complex	10
S. Main Shopping Center	10
Ariss Park	9
Prestwick Golf Club	9
Singer Lake	8
Myersville Fen	8
Greensburg Park	7
Mayfair Country Club	7
Kreighbaum Park	7
Knapp Recreation Area	6
Camp Y Noah	6
Caston & Main Shopping Center	5
Greenwood Elementary	4
Greensburg Shopping Area	4
Akron Canton Airport	4
Raintree Country Club	3
Mayfair Christian School	3
Chenoweth Golf Course	1
Green Youth Complex	1
AKCAN Industrial Park	1
CAK Industrial Park	0

ROUTE TYPE EVALUATION	
Destination	Tally
Maintain Existing Conditions	3
8' Widened Sidewalk	22
10' Sidepath	82
10' Off Road Shared Use Path	82

TRAIL MASTER PLAN



green connecting communities plan master trail plan

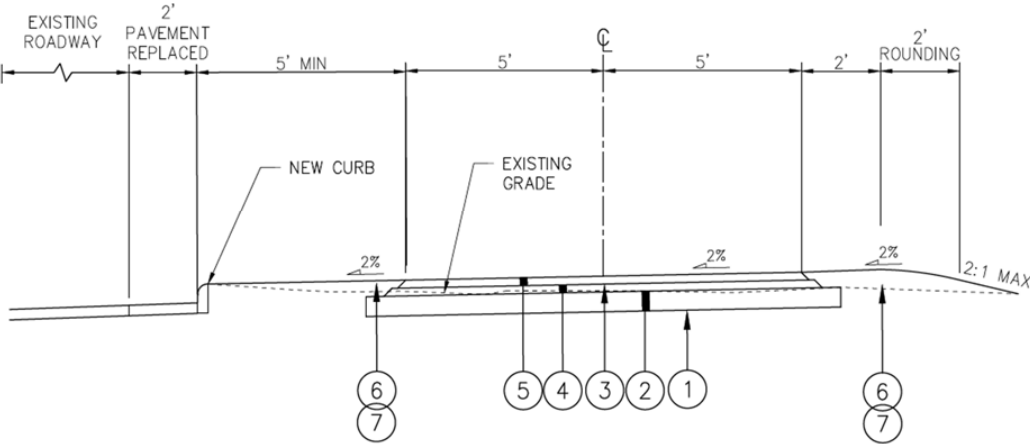
- POTENTIAL ROUTE
- PLANNED IMPROVEMENTS
- FUTURE ROUTE UPON DEVELOPMENT
- EXISTING TRAIL
- EXISTING BIKE LANE
- MUNICIPAL BOUNDARY
- CITY OF GREEN

1 INCH = 1 MILES Environmental Design Group

FACILITY DETAILS

Typical Shared Path Sections

SIDEPATH

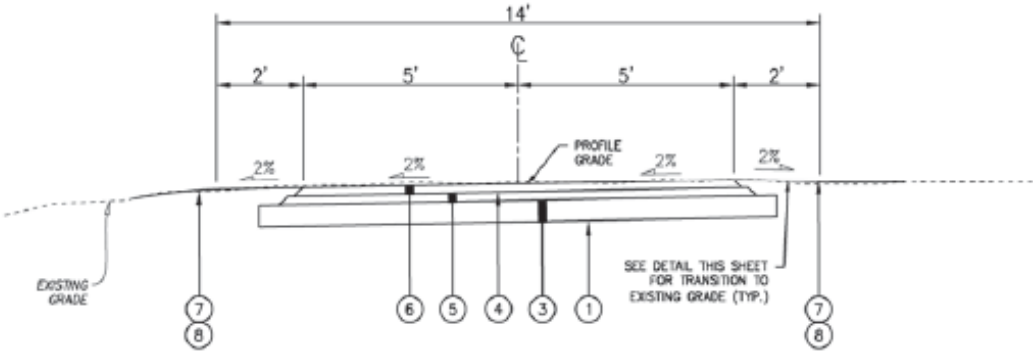


LEGEND

- 1 ITEM 204 - SUBGRADE COMPACTION
- 2 ITEM 304 - AGGREGATE BASE (T=6"0
- 3 ITEM 407 - TACK COAT - 0.06 GAL/SY
- 4 ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (448) , PG 64-22 (T=1.75")
- 5 ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448), PG 64-22 (T=1.25")
- 6 ITEM 652 - PLACING STOCKPILED TOPSOIL (T=3")
- 7 ITEM 659 - SEEDING AND MULCHING - LAWN MIX

Typical Shared Path Sections

OFF-ROAD TRAIL



LEGEND

- 1 ITEM 204 - SUBGRADE COMPACTION
- 2 ITEM 204 - GRANULAR MATERIAL TYPE E, AS PER PLAN
- 3 ITEM 304 - AGGREGATE BASE (T=6")
- 4 ITEM 407 - TACK COAT - 0.06 GAL/SY
- 5 ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (448) , PG 64-22 (T=1.75")
- 6 ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448), PG 64-22 (T=1.25")
- 7 ITEM 652 - PLACING STOCKPILED TOPSOIL (T=3")
- 8 ITEM 659 - SEEDING AND MULCHING - LAWN MIX