

Draft Active Transportation Project Prioritization Methodology

The active transportation network in Fairfax County has a significant number of gaps, including sidewalks and trails that suddenly end, unsafe street crossings and roads without any active transportation facilities. Since it will take a substantial amount of funding to build out the entire active transportation system, the County needs to prioritize active transportation projects for implementation.

Previous Active Transportation Prioritization Criteria

The 2013 County Dialogue on Transportation and 2014 Transportation Priority Plan applied the following criteria to prioritize active transportation projects:

- Neighborhood Connectivity
- Near School/School Walking Route
- Near Park/Park connectivity
- Near Elderly
- Near Economic Development
- Connection to transit
- Completing the network/Missing link
- Identified on the Bicycle Master Plan
- Staff Priority
- Long standing community request
- Outreach Survey Count

2021 Recommended Active Transportation Prioritization Methodology Overview

The Active Transportation team is proposing a **four step approach** to prioritizing a list of potential small active transportation projects – both linear facilities and spot improvements such as crosswalks - for the Board's consideration. The proposed methodology is customized to aid the selection of a group of small projects not to exceed a \$100 million budget. The proposed active transportation project prioritization methodology will be further refined and expanded on in Phase II of the ActiveFairfax Transportation Plan effort to include larger active transportation projects such as bridges, regional trails, longer sidewalk segments and Complete Street corridor reconstruction projects for future funding cycles.

Step One begins with a high-level spatial analysis of all potential projects using available data and tools to **identify projects that based on their location would likely yield the greatest public benefit**, such as projects located

- in areas with **higher active transportation user volumes** such as denser residential neighborhoods, commercial areas and locations near transit stops, schools and parks (Demand, Access, Economic Development, Placemaking);
- in areas with concentrations of people **that are more likely to rely on active travel and transit** due to economic necessity, young or high age, or disability (Equity Need);

- along **high-risk** corridors for active transportation users (Safety); and/or
- along **regional trail** routes (Regional Connectivity).

The outcome of this analysis is a score for each project, allowing for a ranking of all potential projects.

In **Step Two**, staff, Board members and community stakeholders **identify any key projects** not captured in Step One that should be considered for further analysis in Step Three, in addition to the top-ranking projects identified in Step One.

In **Step Three**, the list of projects identified in Steps One and Two will be further refined by staff by identifying opportunities to combine projects, and assign scores based on proximity to active transportation trip generators and ease of implementation. The highest-ranking projects will move on to Step Four.

In the final step, staff will **provide project feasibility and an order of magnitude costs** for all short-listed projects.

The final product of this process will be a **prioritized short list of projects for Board consideration for funding** with data and evaluation factors from steps One through Four summarized to facilitate funding decisions.

Based on discussions with the Board, staff will develop final staff recommendations for Board approval.

It is envisioned that public input could be sought at Steps Three and/or Four. Outreach plans can be developed specific to the circumstances such as amount of funding available, degree to which input is needed to develop additional projects, and if the proposed projects have already been through a public input process.

The individual steps of the proposed four step approach are described in further detail below.

The Four Step Process

Step One

Goal: Rank projects based on their overall public benefit

Methodology: Geo-spatial analysis using available data and tools to identify projects that are located in or overlap with defined high priority areas.

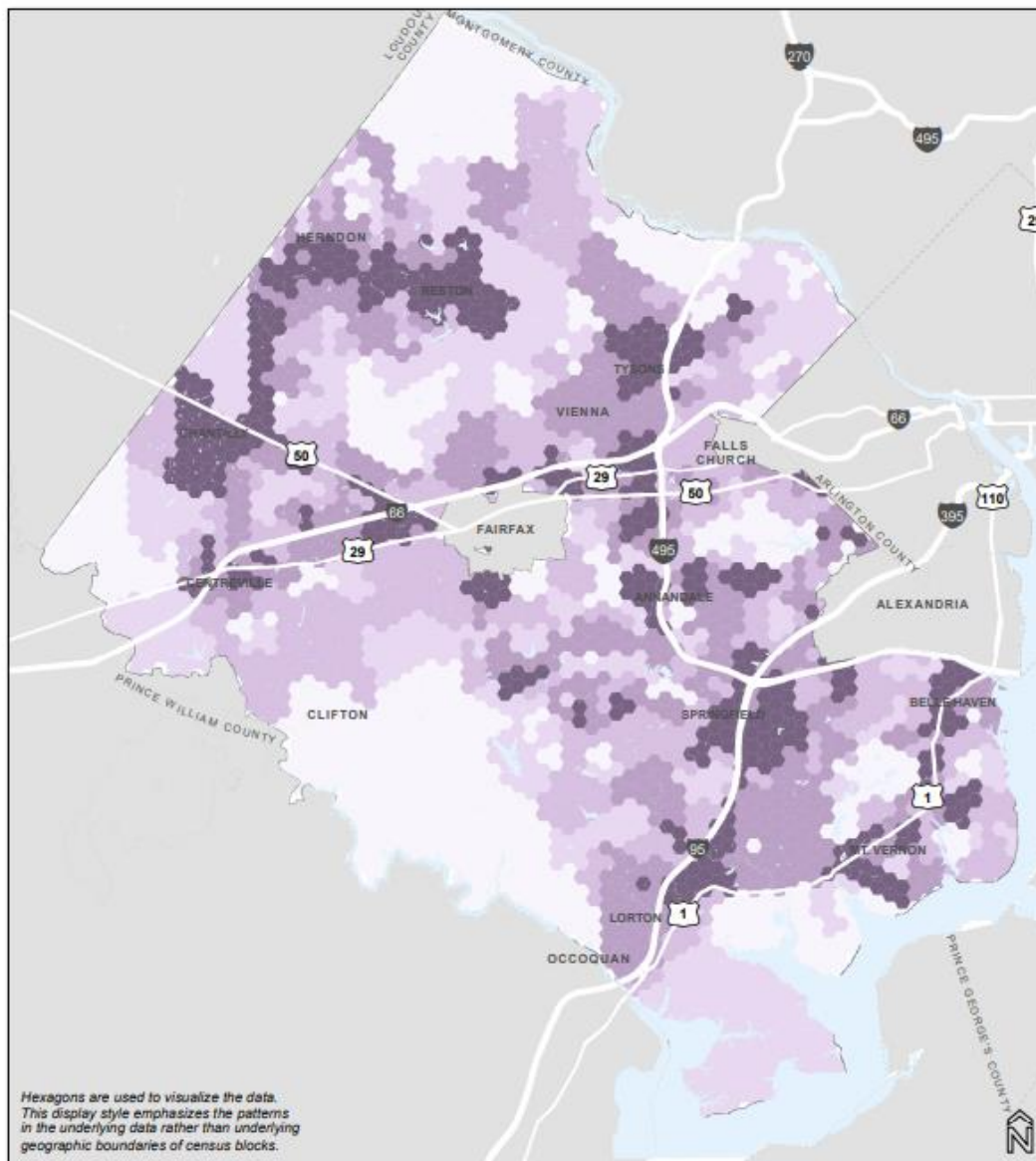
Priority Areas- Demand, Access, Economic Development, Placemaking

Since the full spectrum of land uses - ranging from urban activity centers to rural areas – can be found in Fairfax County, demand for active transportation facilities and active transportation user volumes are expected to vary by location. To identify areas with current or projected demand for active transportation facilities and high active transportation activity, the ActiveFairfax Transportation Plan completed a spatial analysis categorizing areas based on the density of places where people live, work, play, shop, learn, take transit, and access community resources. Areas with more trip generators and

areas where trip generators are closer together were scored higher. Areas with fewer trip generators and areas where trip generators are further apart, received lower scores.

The analysis also included planned land uses and future transit facilities to account for expected future activity. Areas with projected high active transportation demand scored at least 60 out of 100 points.

The map below summarizes the geographic distribution of active transportation trip generators throughout Fairfax County.



DEMAND ANALYSIS | COMPOSITE DEMAND



Data Sources: Fairfax County, TIGER
Map Produced: 3/18/2021
By: Alta Planning + Design

The analysis of active transportation demand used the following weighted indicators:

Category	Indicator	Weighting
Live: Where people live	Population Density	15
Work: Where people work	Employment Density	10
Learn: Where people attend school/educational facilities	K-12 Public and Private Schools; Two- and Four-Year Colleges/Universities	10
Play: Where people recreate	Parks; Trails	10
Shop: Where people shop	Retail Job Density; Farmer's Markets	10
Transit: Where people access public transportation	Bus stops; VRE/ Metrorail Stations; Park and Ride Locations	10
Community Resources: Where people access community services and resources	Hospital / Urgent Care Facilities; Human Service Offices; Historic Sites; Community Centers; Government Centers; Libraries	10
Future Activity: Where planned land use and facilities indicate future activity	Comprehensive Plan – Special Areas; Planned Regional Trails; Planned Transit	5

Priority Areas - Public Need

While all communities offer a variety of ways to travel, **not everyone has equal access to a wide range of convenient, safe, and affordable means of transportation**. Uneven distribution and design of active transportation infrastructure, including infrastructure to support walking, bicycling, and accessing transit, can provide health, safety, mobility, and economic benefits for some subsegments of a population, while increasing hardships for others.

In coordination with OneFairfax, the ActiveFairfax Transportation Plan is in the process of completing a custom spatial analysis to **identify areas with the greatest concentration of people that may rely on active transportation or transit for transportation**, including people experiencing economic hardship, children, older adults or people with disabilities. This effort is currently underway and will be finalized in early January 2022. Areas with high reliance on active transportation include areas that score at least 60 points out of 100. The indicators used for this analysis include:

Category	Indicator
Income	200% above poverty level
Race	People of color
Age	Under 18 years old/ Over 65 years old
Disability	Hearing difficulty; Vision difficulty; Cognitive difficulty; Ambulatory difficulty; and Disabled Veterans
Air Quality	Exposure to harmful airborne particulate pollutants (PM _{2.5})
Single-parent households	One guardian present
Housing Cost Burden	Renter households that are housing cost-burdened (that spend 50% or more of their incomes on housing costs)
Linguistic Isolation	Does not speak English well or at all
Educational Attainment	Less than High School degree

Priority Areas - Safety

The ActiveFairfax Transportation Plan conducted a spatial review of pedestrian crashes and bicycle crashes and identified **high-risk corridors for pedestrians and bicycle riders** based on crash rate per mile. In addition, projects near schools and bus stops will be prioritized to proactively improve safe and comfortable access.

Priority Areas - Regional Connectivity

The regional trail network provides long-distance active transportation connectivity between activity centers, surrounding jurisdictions and key destinations throughout Fairfax County. Closing gaps in the regional active transportation network will **improve local and regional connectivity and increase usage of active transportation modes**.

Result

The outcome of this analysis is a score for each project, allowing for a ranking of all potential projects.

Prioritization Indicators Summary

1. Public Demand
 - Demand Analysis Tool (includes activity centers, transit, schools, parks, community services, etc.) (Yes – 60+ points or above/No)
2. Public Need
 - Equity Need Analysis Tool (includes income, race, disability, children, older adults, etc.) (Yes – 60+ points or above/No)
3. Safety
 - Pedestrian High-Risk Corridor or Location (Yes/No)
 - Bicycle High-Risk Corridor or Location (Yes/No)

- Within a ¼ mile of a transit station or bus stop (Yes/No)
 - Within a ¼ mile of a K-12 school (Yes/No)
4. Regional Connectivity
- Regional Trail Network Segment (Yes/No)

Step Two

Goal: Include additional key projects

Methodology: Staff, Board member and community stakeholder review

Not all key active transportation projects fall within high priority areas. In addition to the top-ranking projects, staff, Board members and community stakeholders can **identify key projects** that should also be considered for further analysis in Step Three. Step One tools will be used to provide consistent data for any new projects.

Step Three

Goal: Manually refine short list of potential projects

Methodology: Staff analysis; Board member and community stakeholder input

The list of projects identified in Step One and Two will be further refined by identifying opportunities to combine projects, and assign scores based on proximity to active transportation trip generators and ease of implementation.

The highest-ranking projects will move on to Step Four.

Step Four

Goal: Provide guidance on cost and feasibility of final list of projects

Methodology: Staff analysis

Feasibility

Each project will be evaluated for potential **property and environmental impacts and constructability** based on available GIS data and engineering judgment.

Order of Magnitude Costs

A ballpark **Order of Magnitude Cost** will be developed for every project.