



NORTH CAROLINA
Department of Transportation



Integrated **Mobility** Division
N.C. DEPARTMENT OF TRANSPORTATION

Paved Trails & Sidewalks Feasibility Study Grant Program

NCDOT Integrated Mobility Division

Joseph Furstenberg – Senior Project Manager, MPA
Complete Streets, Trails, and Policy

Connecting people, products and places safely and efficiently with customer focus, accountability
and environmental sensitivity to enhance the economy and vitality of North Carolina

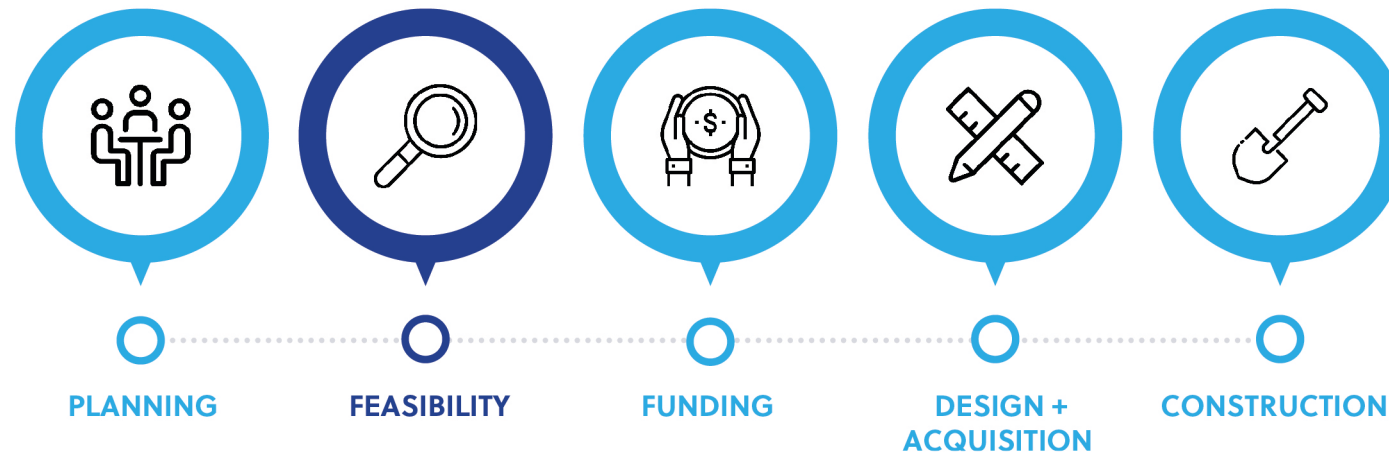
AGENDA

- Program Overview
- Study Development
- Webpage Resources
- Application Process

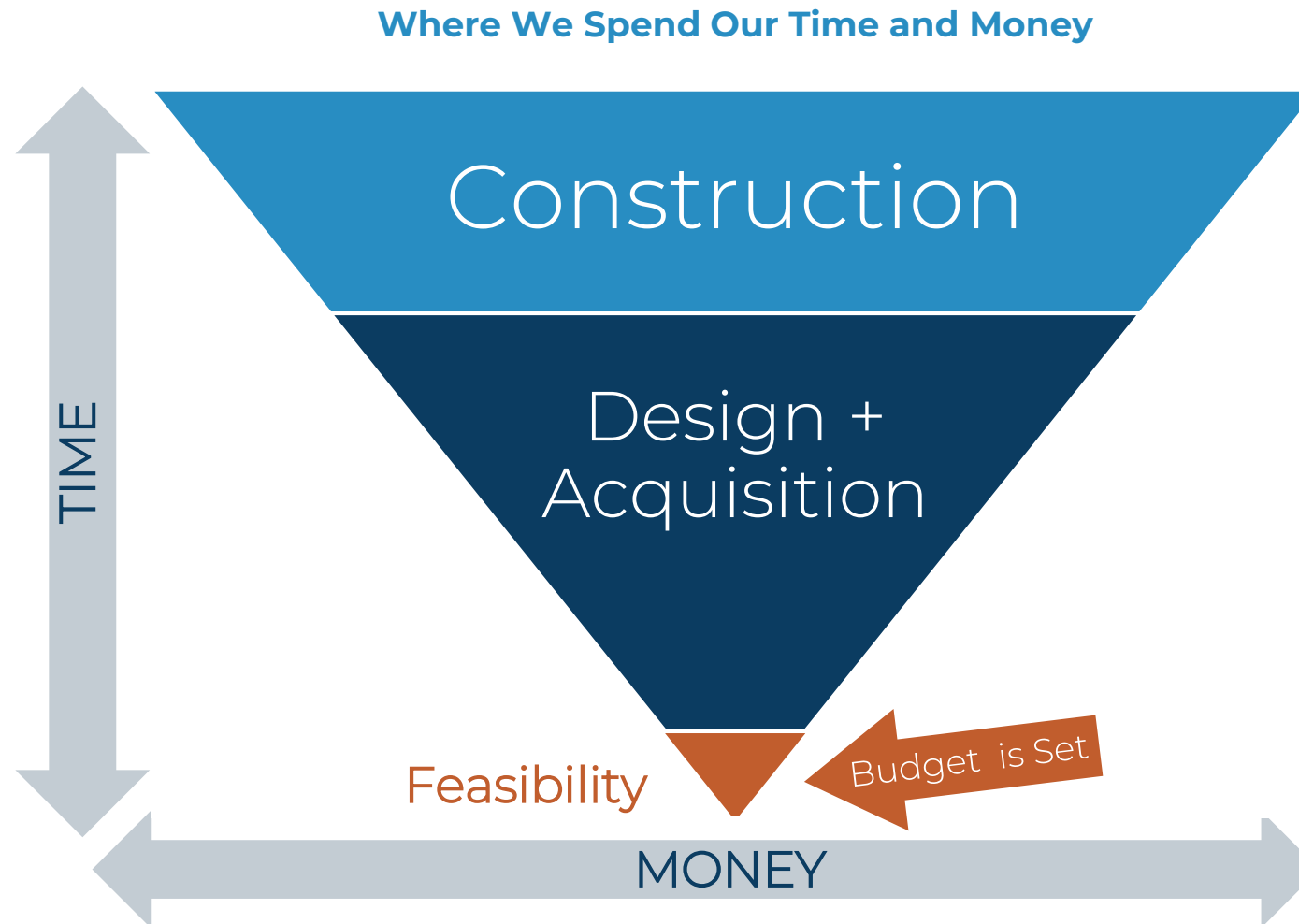
PROGRAM OVERVIEW

PURPOSE

The purpose of the Paved Trails and Sidewalks Feasibility Studies Grant Program is to improve the pathway of bicycle and pedestrian projects accessing state and federal funding, resulting in successful implementation of projects led by communities prioritizing multimodal infrastructure.



IMPORTANCE OF FEASIBILITY STUDIES

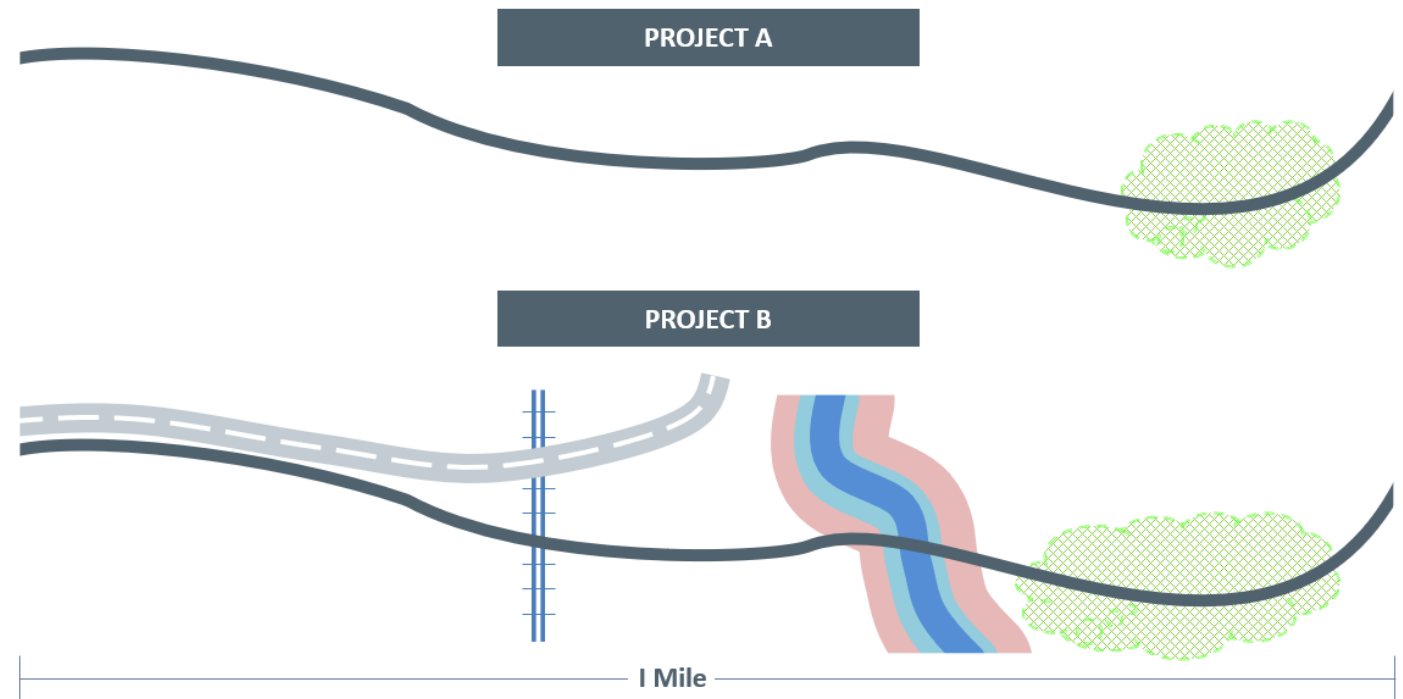


IMPORTANCE OF FEASIBILITY STUDIES

Why Do We Need Them?

No two projects are the same, the following may affect your design / construction budgets and schedules.

- Property impacts (real estate acquisition needs)
- Jurisdictional features (streams, wetlands)
- Threatened and endangered species
- Floodplains (FEMA-studied streams)
- Drainage
- Railroad coordination
- Utilities coordination
- Structures (bridges, boardwalks, walls)
- Road crossings
- Geotechnical investigations
- Construction access
- Construction cost escalation



IMPORTANCE OF FEASIBILITY STUDIES

What Will They Help You Do?

- Develop and comprehensively evaluate preliminary alternative design alternatives
 - Desktop analysis
 - Field observations
- Engage public / landowners / stakeholders early to:
 - Understand concerns
 - Receive feedback on alternatives
 - Build early support for the project
- Better understand potential project costs and avoid underfunding projects
 - Develop quantity-based cost estimates (not just a \$/mile estimate)
 - Escalate costs to anticipate construction year and budget accordingly
- Understand how to implement your project
 - Identify partners and respective roles
 - Understand potential permitting requirements
 - Provide step-by-step action plan
 - Identify potential funding opportunities (local, state, federal or private funding)

ELIGIBLE PROJECTS

Paved Trails & Sidewalks

- ✓ Paved Trails
 - ✓ Shared-Use Paths
 - ✓ Greenways
 - ✓ Sidepaths
- ✓ Sidewalks



ELIGIBLE PROJECTS

Paved Trails

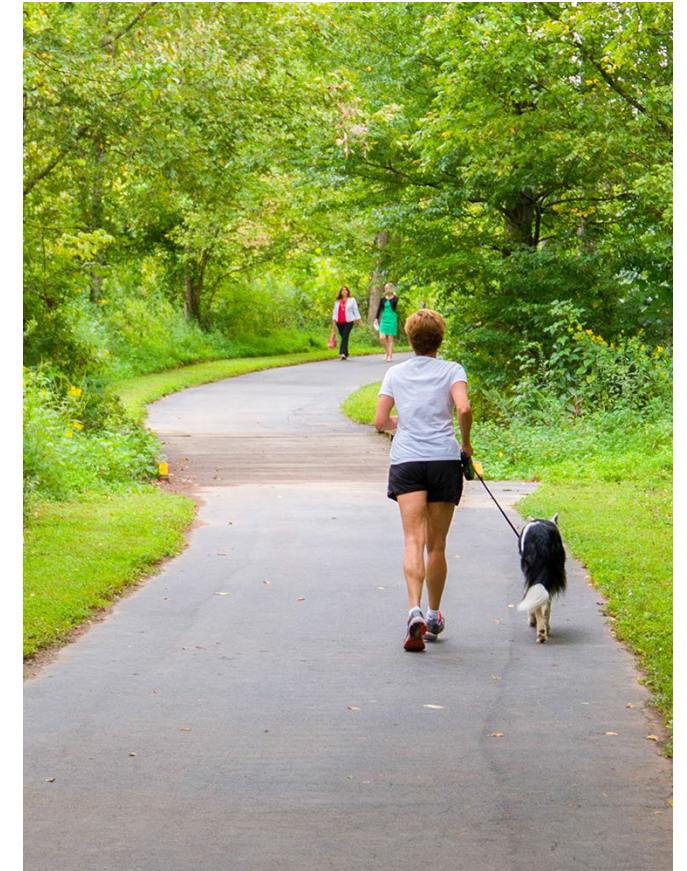
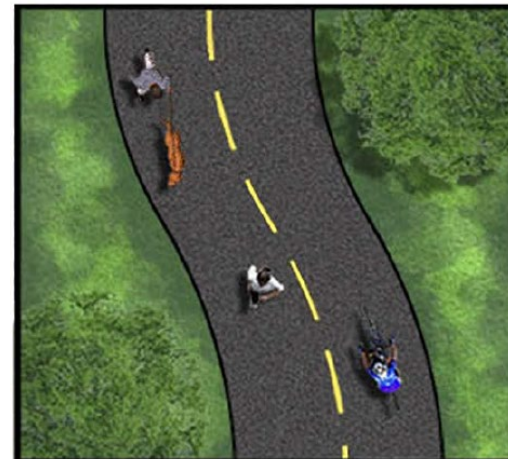
Shared-Use Path or Sidepath: A sidepath is a bidirectional shared use path adjacent and parallel to a roadway, typically 10-12 ft wide. Sidepaths offer a low-stress experience for bicycle and pedestrians along network routes with high-speed or high-volume traffic.



ELIGIBLE PROJECTS

Paved Trails

Greenway: A greenway, or shared use path, provides a travel area separate from motorized traffic for bicyclists, pedestrians, wheelchair users, skaters, joggers, and other users. Greenways are typically 10 to 12+ ft wide and offer network connectivity opportunities beyond the roadway network, as they are often located along streams, in utility corridors, and parks.



ELIGIBLE PROJECTS

Sidewalks

Sidewalk: The portion of a street or highway right-of-way, beyond the curb or edge of roadway pavement, which is intended for use by pedestrians. Sidewalks are generally narrower than paved trails and are usually constructed of concrete pavement or pavers.



ELIGIBILITY

The following governmental entities and non-profit organizations can apply to the Paved Trails and Sidewalk Feasibility Study Grant Program:

- Any municipality or county within North Carolina
- Metropolitan Planning Organizations (MPOs) and Rural Planning Organizations (RPOs) in North Carolina
- Bicycle, pedestrian, and transit advocacy groups, Friends-of-the-Trail groups, and Land Conservancies

Due to limited funding, the following entities are ineligible to apply to the Paved Trails and Sidewalk Feasibility Study Grant Program:

- Colleges or universities
- Other entities such as Business Improvement Districts

Applicants must re-apply each year to be considered within the current grant cycle. Please note that all applications and relevant documents will be accepted online at the program webpage.

SELECTING THE RIGHT PROGRAM

Multimodal Planning Grant Program vs. Paved Trails & Sidewalks Feasibility Study Grant Program

The Multimodal Planning Grant Program encourages municipalities to develop comprehensive multimodal, bicycle, and pedestrian plans.

The Paved Trails & Sidewalks Feasibility Study Grant Program encourages applications from jurisdictions seeking to conduct feasibility studies on paved trails or sidewalk projects.

Multimodal Planning Grant Program	Paved Trails & Sidewalks Feasibility Study Grant Program
Comprehensive Plans for:	Feasibility Studies for:
✓ Multimodal Networks ✓ Bicycle Networks ✓ Pedestrian Networks	✓ Paved Trails ✓ Shared-Use Paths ✓ Greenways ✓ Sidepaths ✓ Sidewalks



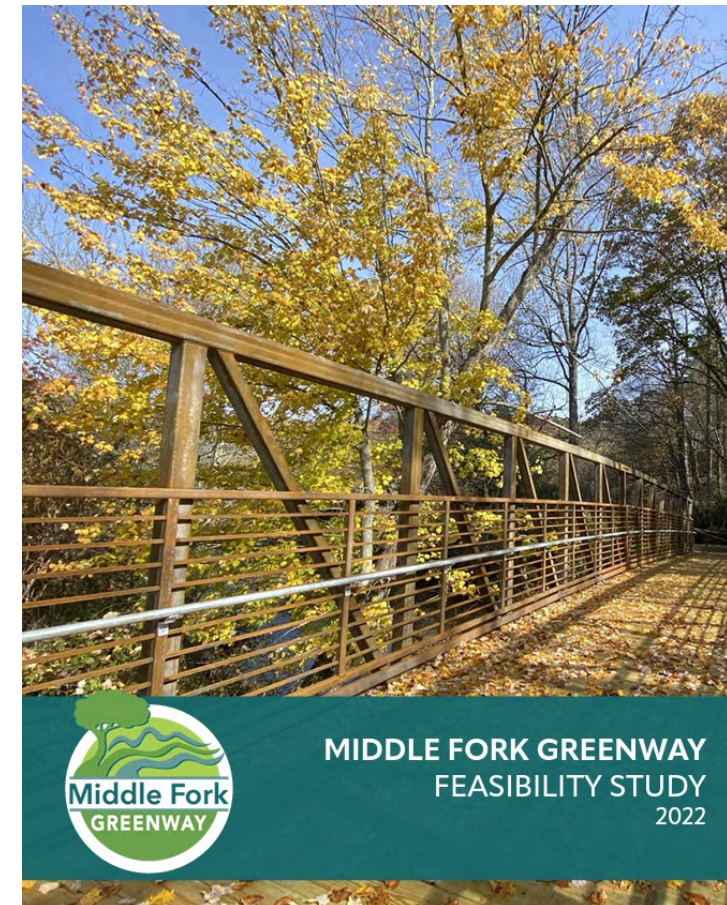
STUDY DEVELOPMENT

FEASIBILITY STUDY SCALE

Project budgets are contingent upon corridor context and complexity. These guidelines are provided to help determine the scale of the project. The development of a small-scale study will differ from that of a large-scale study.

The following should be considered in the development of a study:

- Cost
- Number of route alternatives
- Mileage range
- Jurisdictional range
- Corridor constraints
- Community and stakeholder engagement expectation



MIDDLE FORK GREENWAY
FEASIBILITY STUDY
2022

FEASIBILITY STUDY SCALE

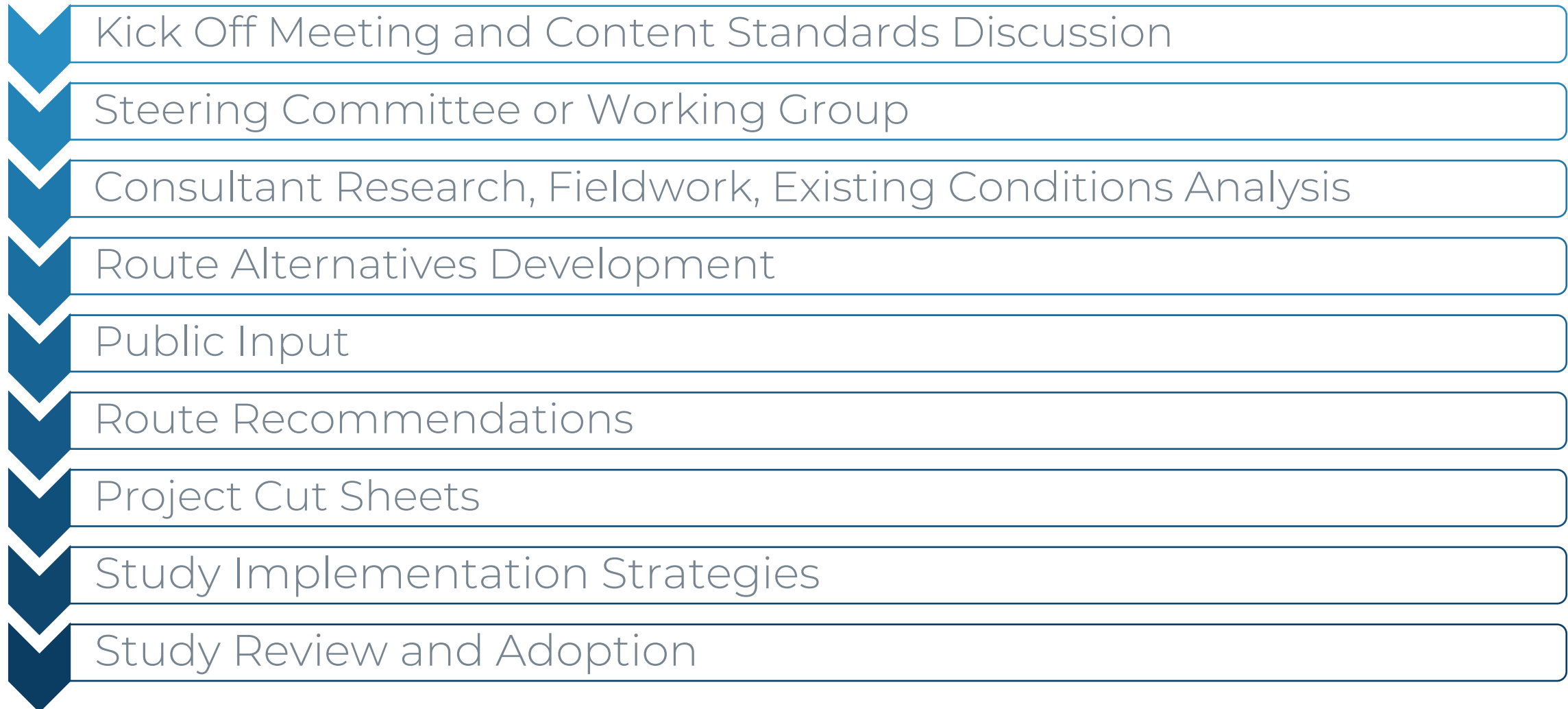
	Small-Scale Feasibility Study	Large-Scale Feasibility Study
Cost	\$60,000 - \$80,000	\$80,000 - \$120,000+ Significantly more complex and extensive corridors may result in a higher plan cost
Number of Route Alternatives	Up to 4 alternatives to be evaluated	Greater than 4 alternatives to be evaluated
Mileage Range	¼ mile to 3 miles	3+ miles
Jurisdictional Range	Up to 2 jurisdictions along the corridor	2+ jurisdictions along the corridor (may require additional jurisdictional meetings/coordination)
Corridor Constraints	Minimal utilities Moderate topography Smaller FEMA studied streams (creeks and streams) Moderate roadway characteristics constraints (minor road crossings, moderate to high traffic volumes, moderate to high-speed limits)	Rail corridors/crossings Significant roadway characteristic constraints (controlled access roadways, major road crossings, high traffic volumes, high speeds) Larger FEMA studied streams (major water bodies – rivers, lakes) Moderate/significant utilities Significant topography
Community + Stakeholder Engagement Expectation	3 steering committee meetings (virtual) 1 online survey 1 public meeting Up to 4 focused stakeholder (landowners, local businesses, underrepresented groups, etc.) meetings (1-on-1 or may include multiple stakeholders per meeting)	4-5 steering committee meetings (virtual) 1 online survey 1 public meeting Up to 8 focused stakeholders (landowners, local businesses, underrepresented groups, etc.) meetings (1-on-1 or may include multiple stakeholders per meeting)

STUDY CONTENT STANDARDS

- Cover
- Acknowledgements
- Table of Contents
- Executive Summary
- Introduction
- Study Considerations & Alternatives Development
- Community Involvement
- Evaluation & Recommendations
- Implementation
- Appendices

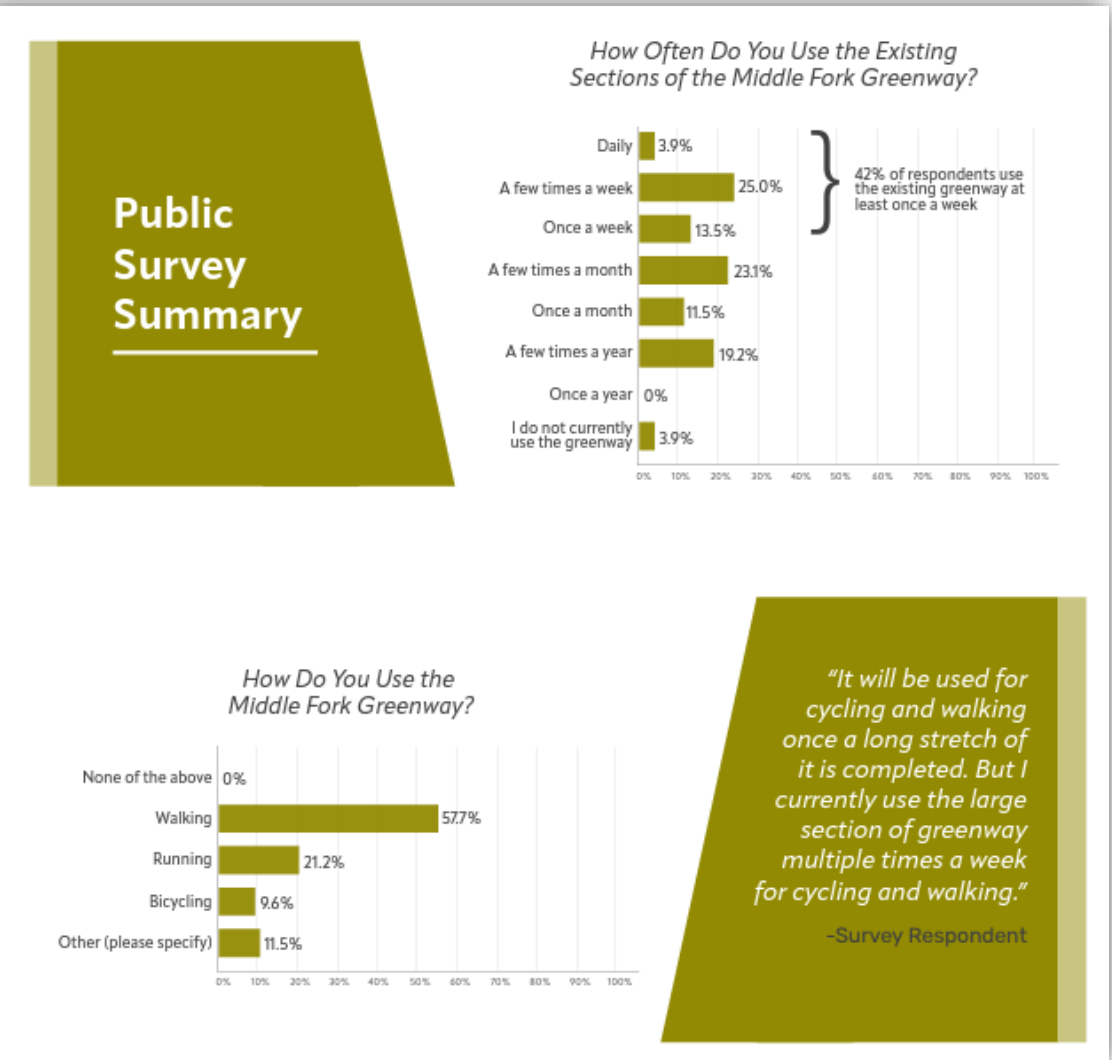
**See the “Content Standards” pdf on the grant program webpage for more information.*

STUDY DEVELOPMENT PROCESS



COMMUNITY ENGAGEMENT

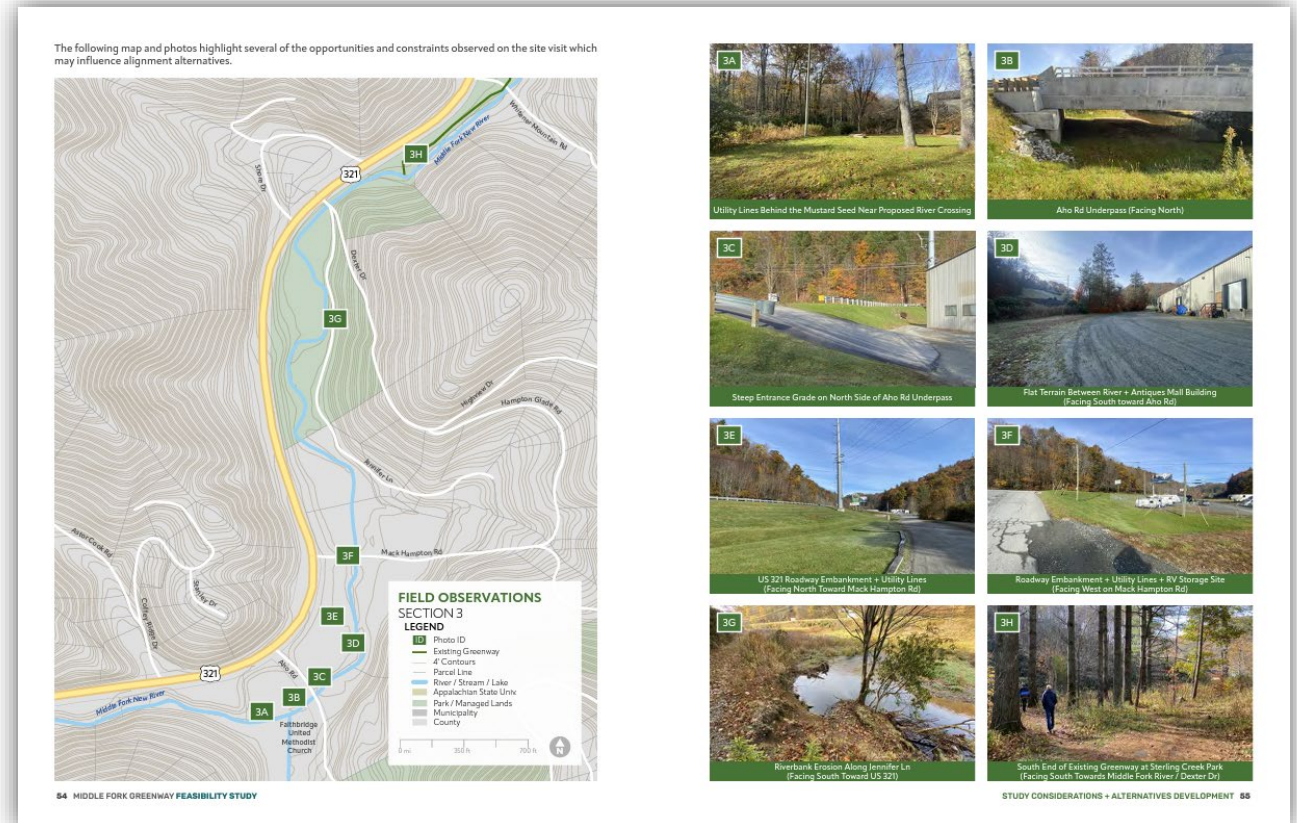
- Summarize any prior engagement activities and results
- Create a Steering Committee or Working Group: 10+ members comprised of agency staff, civic leaders, and local advocates to guide the planning development process.
- Gather input on goals and objectives, existing conditions, priority projects, and implementation strategies.
- Host stakeholder and landowner meetings.
- Utilize survey tools to gather input (consider online and paper copies).
- In-person and/or virtual public meetings/workshops



STUDY CONSIDERATIONS + ALTERNATIVES DEVELOPMENT

Study Considerations

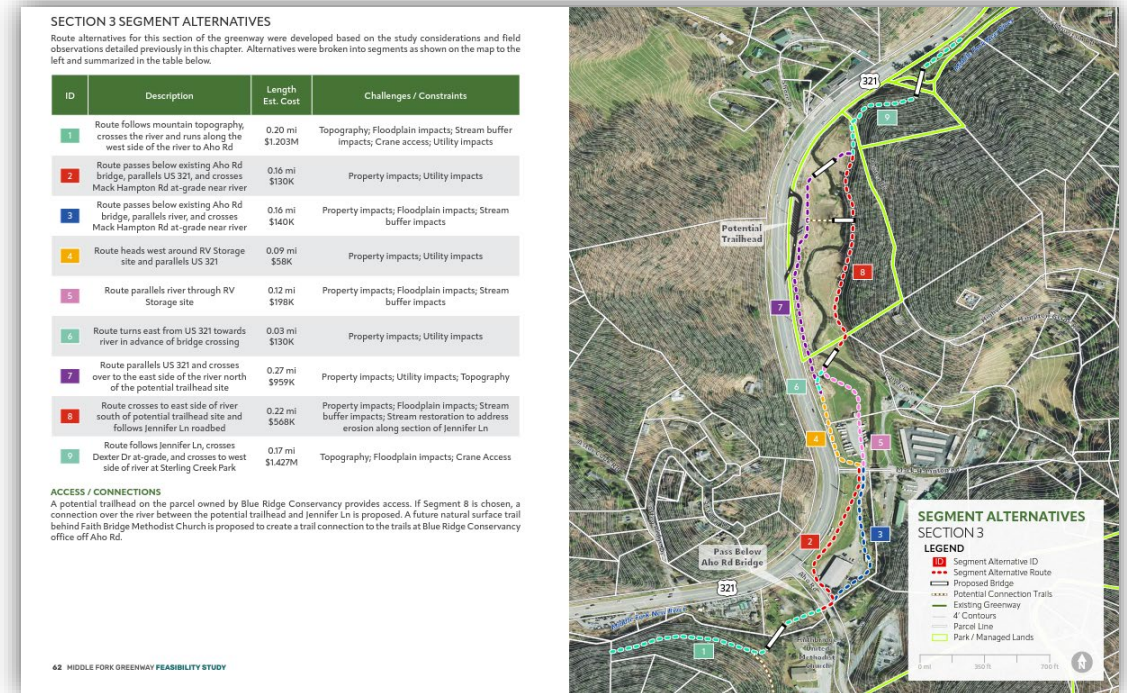
- Discuss the following relevant considerations for the study area:
 - Planning level considerations
 - Natural environment considerations
 - Human environment considerations
- Conduct field observations to inventory conditions as a basis for planning. Field observations should include a site review of the transportation context, utilities, topography/terrain, surrounding land use, wetlands, rivers/streams, creeks, and other surface waters, etc.



STUDY CONSIDERATIONS + ALTERNATIVES DEVELOPMENT

Alternatives Development

- Provide selected design criteria and desired typical section information to be used when developing alternatives.
- The overall project corridor may be divided into segments or key areas, as necessary. Describe opportunities and constraints associated with each area (including photos/ maps) and develop alignment alternatives within each segment/area.
- Identify and discuss potential connections and access areas (such as trailheads, etc.).
- Summarize results of preliminary modeling that may have been performed.



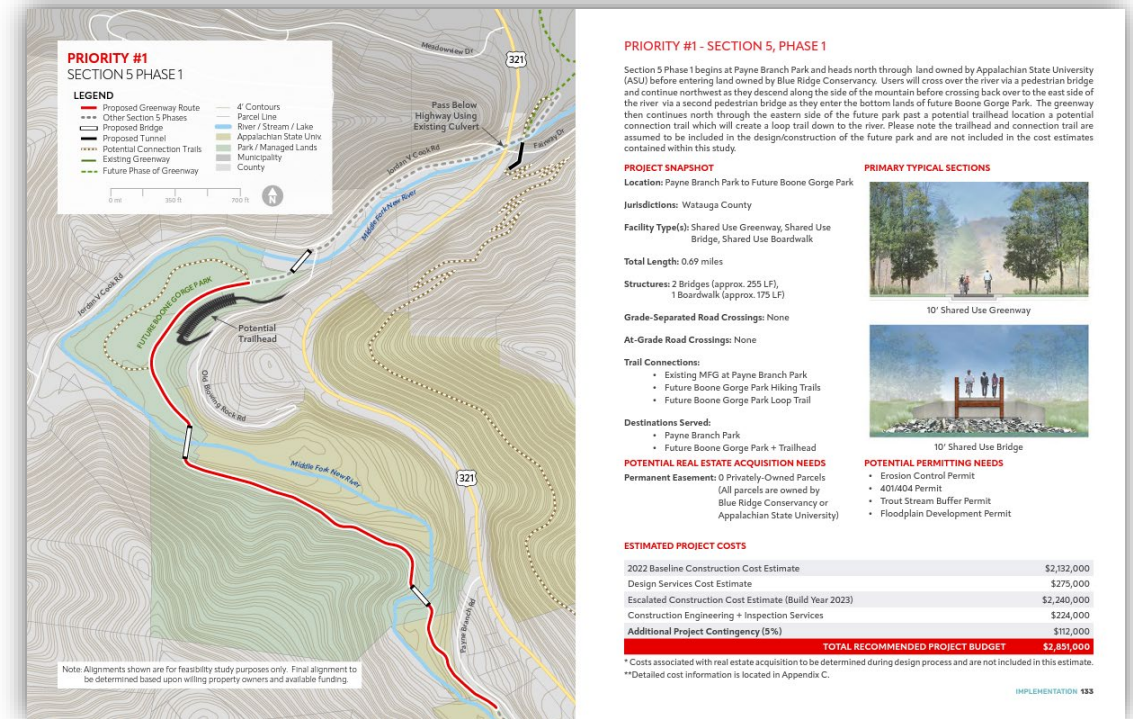
ROUTE RECOMMENDATIONS

- Identify and map alternatives for evaluation.
- Develop methodology for evaluation of alternatives.
- Evaluate alternatives and provide a decision matrix table showing the scoring relationships between the alternatives for the evaluation criteria.
- Provide recommendation and justification for preferred alternative including alignment, typical section(s), road crossing treatments, access points including trailheads/parking and connector trails.
- Discuss recommended trail amenities, placemaking opportunities, wayfinding or placemaking strategies, potential branding, and any other design elements. If applicable, discuss interim vs. long-term recommendations.



PROJECT CUT SHEETS

- Provide project cut sheet(s) for recommended alternative (if phasing is recommended, include a cutsheet for each phase).
- Cut sheets may include an alignment map; brief description; typical sections; renderings; accessibility/connectivity; demand/density; potential permitting needs; potential right-of-way/easement acquisition needs; and estimated cost information
- Cut sheets should be suitable for communities to use in the Strategic Prioritization Process (SPOT) prioritization, CIP budgeting and/or pursuit of federal funding.



IMPLEMENTATION GUIDANCE

- Identify partners and their respective responsibilities.
- List key action steps to see the project from planning to construction.
- Establish a committee to oversee implementation of the project.
- Identify funding resources.
- Identify STIP-ready projects.
- Establish a lead agency for construction of projects, implementation of program recommendations, and policy revisions.
- Coordination with local NCDOT Highway Division and IMD.

IMPLEMENTATION

ACTION PLAN

The following table provides a summary of action steps to implement the North Main Street Sidepath in Marion over a 10-year planning horizon. The previously mentioned partners may act as the responsible parties for various actions associated with the sidepath.

TASK #	ACTION	LEAD	PARTNERS	TIMEFRAME	PERFORMANCE MEASURES
1	Adopt the <i>North Main Street Sidepath Feasibility Study</i> . This action allows the study to become the official planning document for the Fonta Flora State Trail through the City of Marion and demonstrates local intention to support project implementation.	City of Marion: City Council	Foothills RPO, McDowell County, NCDOT Div. 13, NCDOT IMD, NC State Parks, Friends of Fonta Flora State Trail, McDowell County Trails Association	Winter 2022	Plan Adoption, Minutes
2	Amend the McDowell County Comprehensive Transportation Plan (CTP) to include the North Main Street Sidepath alignment and to reference study recommendations into the CTP.	Foothills RPO, NCDOT Transportation Planning Branch	City of Marion, McDowell County, NCDOT Div. 13, NCDOT IMD, NC State Parks, Friends of Fonta Flora State Trail, McDowell County Trails Association	Winter 2022/ Spring 2023	CTP Amendment, Meeting Minutes
3	Coordinate with the Friends of the Fonta Flora State Trail to support inter-agency coordination and assist project development of the North Main Street Sidepath. Consider developing an advisory committee that continues the work of the North Main Street Sidepath steering committee.	City of Marion	Friends of Fonta Flora State Trails, NC State Parks, McDowell County Trails Association, Great Trails State Coalition	Spring 2023	Meeting Agendas and Minutes
4	Consider developing an annual work plan based on opportunities to advance project development. The work plan should include key goals/milestones to make progress on coordination with NCDOT, secure funding, design, permitting, and construction. The work plan should be updated annually.	City of Marion	Foothills RPO, McDowell County, NCDOT Div. 13, NCDOT IMD, NC State Parks, Friends of Fonta Flora State Trail, McDowell County Trails Association	Spring / Summer 2023	Meeting Agendas and Minutes, Work Plan

WEBPAGE RESOURCES

WEBPAGE RESOURCES

- Program Overview
- Frequently Asked Questions (FAQs)
- Content Standards
- Application Questions
- Great Trails State Network

IMD Feasibility Studies Program Webpage:
<https://connect.ncdot.gov/municipalities/PlanningGrants/Pages/IMD-Feasibility-Studies-Program.aspx>

Connect NCDOT
BUSINESS PARTNER RESOURCES

Home Help Site Map

Doing Business Bidding & Letting Projects Resources **Local Governments** Search...

Bridge Reuse Interagency Leadership Local Projects **Planning** School Transportation State Airport Aid State Street-Aid (Powell Bill) Utilities

IMD Feasibility Studies Program

New Feasibility Studies Grant Program

Connect NCDOT > Local Governments > Planning > IMD Feasibility Studies Program

IMD Feasibility Studies Program

Feasibility studies bridge the gap between conceptual planning and programming of projects. They build upon higher-level planning efforts and take a comprehensive approach to identify possible route alternatives of multimodal corridors. The purpose of this type of study is to evaluate technical feasibility of a project from a design, permitting, and constructability perspective.

Project types eligible for these studies include paved trails, greenways, shared-use paths, sidepaths, and sidewalks.

Who can apply?

- Any municipality or county within North Carolina
- Metropolitan Planning Organizations (MPOs) and Rural Planning Organizations (RPOs) in North Carolina
- Bicycle, pedestrian, and transit advocacy groups, Friends-of-the-Trail groups, and Land Conservancies

For more info, see the attached documents:

- Program Overview
- FAQs
- Study Content Standards
- Application Questions
- (Plus two example feasibility studies: greenway and sidepath.)

Documents

- Feasibility Studies Grant - Application Questions PDF
- Feasibility Studies Grant - Content Standards PDF
- Feasibility Studies Grant - FAQs PDF
- Feasibility Studies Grant - Overview PDF
- Feasibility Study - Greenway - Watauga County PDF
- Feasibility Study - Sidepath - City of Marion PDF

Links

APPLICATION QUESTIONS

Key Questions

- Select type and scale of study:

Type of Feasibility Study:

- ☒ Off-Road Corridor, Greenway
- ☐ Off-Road Corridor, Sidepath
- ☐ Off-Road Corridor, Sidewalk

Project Scale of Feasibility Study:

- ☐ Smaller Scale Feasibility Study
- ☒ Larger Scale Feasibility Study

- Provide a summary of the project and study vision and goals.
- Provide an overview of the study location and study limits.
- What are the reasons the community needs this study?
- Describe key opportunities and constraints of the study corridor.
- Summarize prior plans and studies relevant to the project.
- Describe prior community involvement conducted and proposed community engagement strategies for the project.
- Describe community's project management and project implementation experience.

North Carolina Department of Transportation - Integrated Mobility Division Application for Paved Trails and Sidewalk Feasibility Study Grant 2022 Application

Applicant Information

Name of Jurisdiction (Municipality or County): _____
 Population: _____ County: _____ NCDOT Division: _____
 MPO / RPO: _____
 Department Applying for Grant: _____
 Primary Contact (Name & Title): _____
 Work Phone: _____ Email Address: _____
 Mailing Address: _____

Will the jurisdiction be able to provide any contributing funds? (Note: A local match is not required for this grant program. However, the contribution of local funds may factor into project selection if there is a need to prioritize application submittals within the existing program budget.)

- ☐ Yes
- ☐ No

Study Information

Study Name: _____

Type of Feasibility Study:

- ☐ Off-Road Corridor, Greenway
- ☐ Off-Road Corridor, Sidepath
- ☐ Off-Road Corridor, Sidewalk

Project Scale of Feasibility Study:

- ☐ Smaller Scale Feasibility Study
- ☐ Larger Scale Feasibility Study

Feasibility Study Summary

Please provide a summary of the proposed feasibility study. This summary should include a brief description of the study purpose and goals.

APPLICATION PROCESS & KEY DATES

The grant application can be accessed through Smartsheet's.

If you have any questions regarding the process or the grant program, please contact IMD:

Joe Furstenberg, jcfurstenberg@ncdot.gov

ACTIVITY	DATE
Issue Call for Applications	October 1
Application Submission Deadline	November 6
Board of Transportation Approval	December
Notification of Award	December-Jan*
Notice to Proceed Issued	January 2027

APPLICATION REQUIREMENTS

Read each question carefully. **Answer all questions thoroughly and concisely.** Use only the space provided.

Required Application Attachments:

- Map of Study Area
- Hyperlinks (or Digital Copies) to Relevant Previous Plans or Studies
- Municipal/County Resolution
- MPO/RPO Resolution
- Resume(s) of Staff Managing Study
- Letters of Support

Applicants may submit resolutions following the application deadline.



SELECTION CRITERIA

The following selection criteria are used for the program and will affect project scoring:

- How well the grant proposal addresses questions and key prompts listed in the application
 - *Study Corridor Considerations*
 - *Community Need*
 - *Proposed Community Engagement Strategies*
 - *Project Management Experience/Project Implementation*
- **Geographic Location** – NCDOT will support the equitable distribution of projects across the state.
 - *Inclusion in the Great Trails State Network*
- Inclusion of a local match of 20%

GENERAL TIPS

- Read each question carefully. **Answer all questions thoroughly and concisely.** Use only the space provided.
- Reach out to our MPO/RPO for guidance and relevant info they maintain (planning documents, etc.).
- Utilize local staff members to answer the application questions, where possible.
- Remember to **note online references and materials** where applicable.
- Review Feasibility Study Grant Program Overview for **Eligibility Criteria**.
- **Demonstrate local support** – Application questions and letters of support.
- Fill out the correct application.
- Please contact us with questions.

Contact Us

Joseph Furstenberg – Senior Project Manager, MPA

jcfurstenberg@ncdot.gov

919-707-2603

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