
MARION - PEAVINE
RAIL TRAIL
MRPT
MASTER PLAN

Produced For:

Marion
North Carolina

Blue Ridge Traveler

Produced By:

DBD

CONTENTS

Acknowledgments:

Project Oversight Committee

Carol Price, *McDowell County TDA*
Bob Boyette, *City of Marion*
Heather Cotton, *City of Marion/Friends of the MST*
Ginger Webb, *West Marion Community Forum*
Steve Pierce, *McDowell Trails Association*
Debora Workman, *Marion East Community Forum*
Billy Martin, *City of Marion/West Morehead Cemetery*
Vance McNees, *City of Marion*
Pat Cook, *Marion East Community Forum*
Oscar Creech, *McDowell Trails Association*

Recommendations

4

Implementation

5

Appendix

A

Maps:

Exhibits:

1

INTRODUCTION & BACKGROUND

The Marion Peavine Rail Trail Master Plan presents a detailed master plan for the improvement and extension of the trail from State Street to Jacktown Road in Marion, North Carolina. This chapter provides a brief project background and outlines the project goals and planning process.

1.1 BACKGROUND

In 2010, the City of Marion purchased a 2.4 mile long, 100-foot-wide former railroad corridor from Norfolk Southern Corporation with the vision to create a 10-foot-wide shared use trail between downtown Marion and McDowell Technical Community College. At that time, the City constructed 1.5 miles of crushed gravel and grass trail running from State Street in downtown Marion to Ford Way.

The long-range vision, as outlined in the Peavine to Thermal Belt Rail Trail Connector Feasibility Study from 2020, is to create a 30 mile regional trail that connects Marion to Rutherfordton, North Carolina, and the existing trail system there. The Peavine Trail has also been adopted by the N.C. Department of Transportation as part of the Great Trails State Plan, a statewide plan with the goal of connecting all 100 counties via shared use path or trail.

The Destination McDowell Tourism Master Plan completed in 2021 identified the Peavine Trail as a high-priority project. The plan provides recommendations for a Peavine Trail brand to be incorporated into quality signage and surface treatments along the length of the existing trail. Destination McDowell also presents renderings and site plans of street crossing enhancements for the trail.

The City of Marion plans to improve the Peavine Rail Trail to make it a more attractive asset for community members and visitors. Improvements to the trail will create a more accessible and appealing experience for walkers, runners, and cyclists, which may spark private investment in commercial and residential development along the trail corridor.

The vision for the Marion Peavine Trail includes welcoming trailheads with adequate parking, wayfinding signage, information kiosks, benches, safe pedestrian crossings and eventually the extension of the trail to McDowell Technical Community College.

> **“The 2020 Destination McDowell Tourism Master Plan identified the Peavine Trail as a high-priority project.”**

1.2 GOALS

PROVIDE ACCESS & CONNECTIVITY

Provide safe access and connectivity for pedestrians and cyclists between downtown Marion, residential neighborhoods, and McDowell Technical Community College.

PROMOTE HEALTH & WELLNESS

Enhance quality of life for current and future residents and visitors through outdoor recreation infrastructure that promotes opportunities for physical, mental, and social wellness.

CREATE IDENTITY

Strengthen the appeal of the Marion Peavine Rail Trail as a valuable community asset by providing a unique brand that distinguishes it from other trails and greenways in the area.

SUPPORT COMMUNITY GOALS

Support community goals to improve the health of residents, attract visitors, foster entrepreneurship, and preserve the sense of community that is unique to Marion.

POISED FOR GRANT FUNDING

Ensure grant competitiveness by adhering to planning guidelines required by the North Carolina Parks and Recreation Trust Fund (PARTF) and other grant funding sources.

1.3 PLANNING PROCESS

PHASE 1 // PROJECT LAUNCH

OCTOBER 2022

- Develop Working Maps
- Kick-off Meeting

PHASE 2 // RESEARCH & ANALYSIS

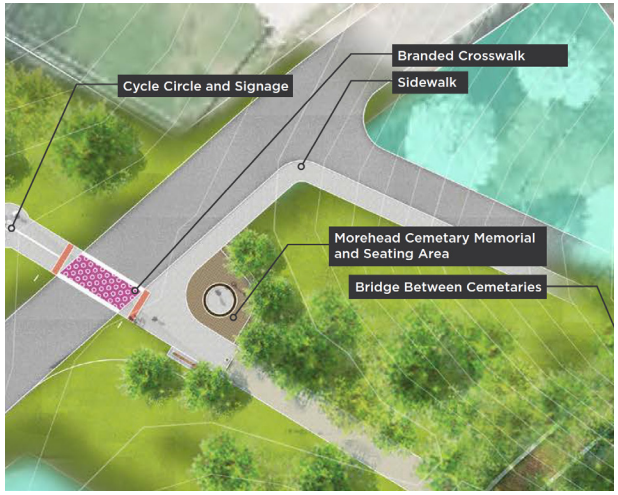
OCTOBER-NOVEMBER 2022

- Previous Plan Review
- Existing Conditions Inventory
- Site Analysis and Field Visit

PHASE 3 // COMMUNITY ENGAGEMENT

DECEMBER 2022

- Stakeholder Meeting
- Public Meeting



PHASE 4 // DRAFT PLAN DEVELOPMENT

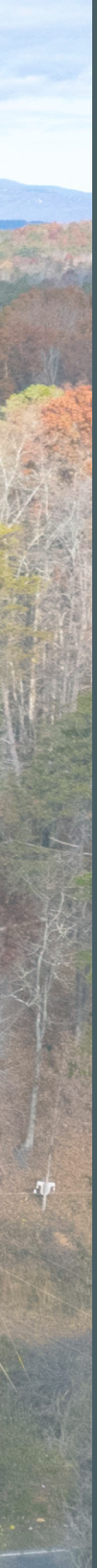
DECEMBER 2022-JANUARY 2023

- Draft Trail Master Plan
- Develop Renderings and Schematics
- Estimate of Probable Costs

PHASE 5 // FINAL PLAN DEVELOPMENT

JANUARY 2023

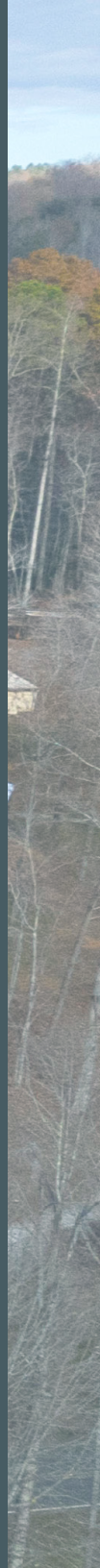
- Finalize Trail Master Plan
- Adoption by City Council



2

SITE ANALYSIS & DESIGN DETERMINANTS

This section provides an overview of existing conditions along the Peavine Trail corridor. The chapter begins by examining the context of the project area and reviewing past planning efforts. Next, it highlights features of the natural and built environment that may have implications on the trail improvements and extension. Finally, the chapter presents opportunities and constraints found along the trail corridor.



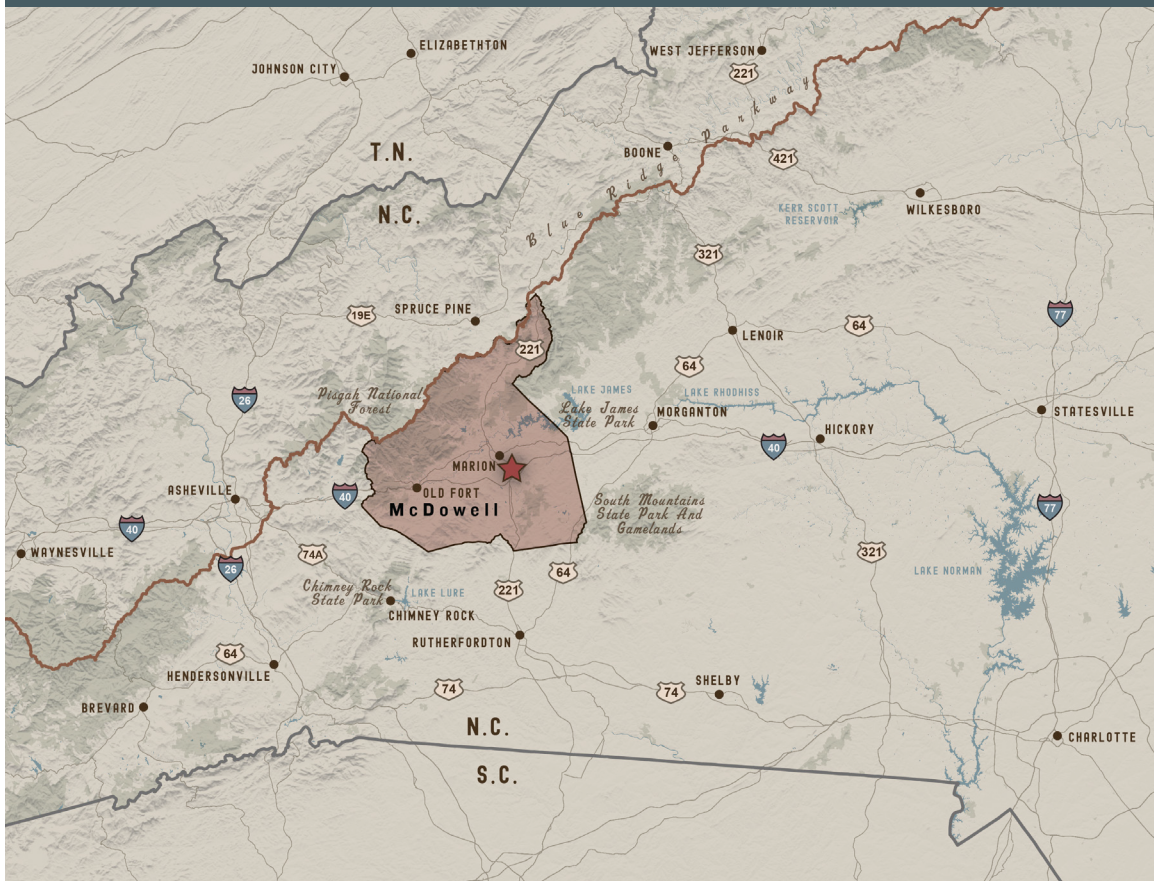
2.1 STUDY AREA CONTEXT

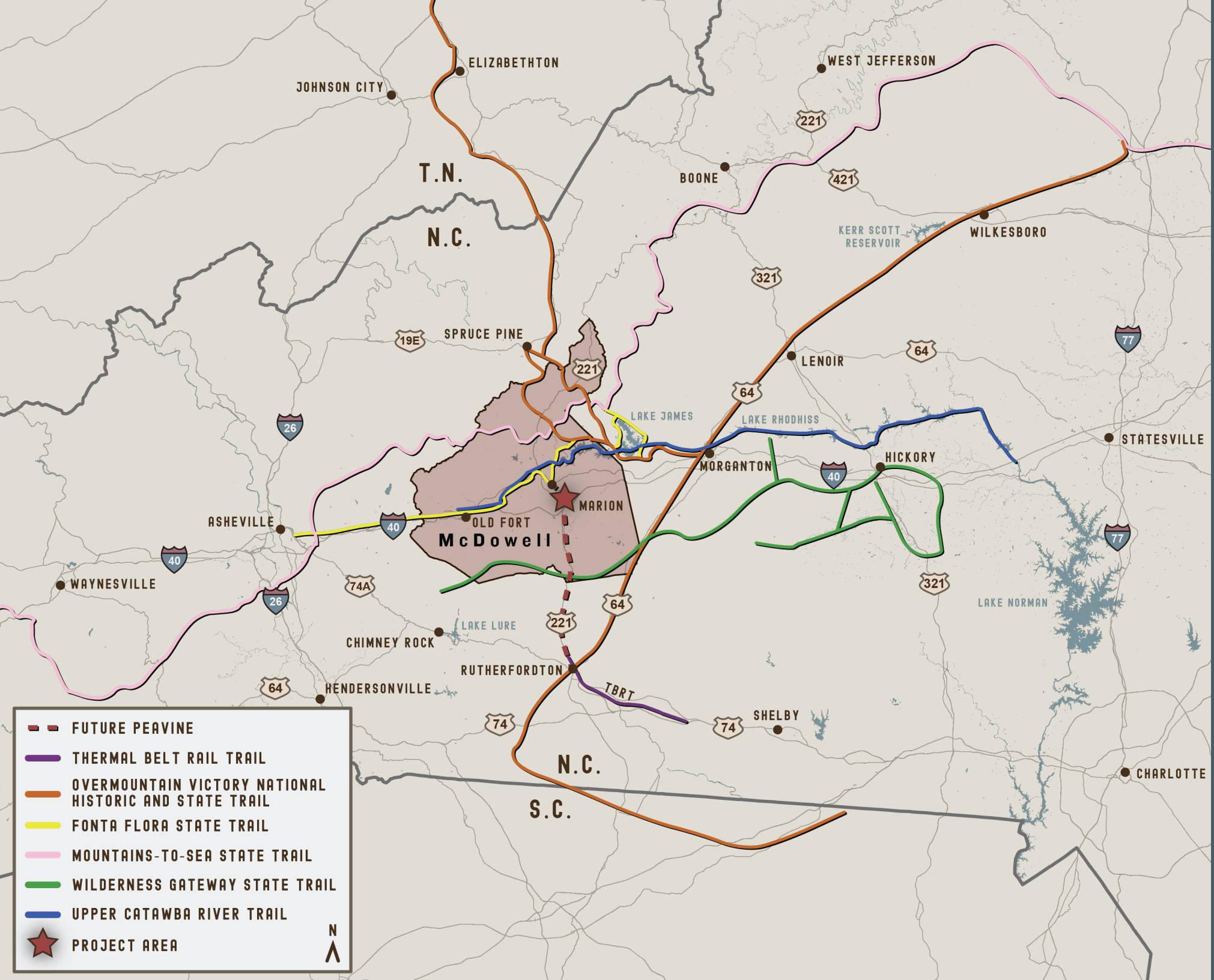
The study area is located in the foothills of western North Carolina within the City of Marion, which lies in close proximity to Interstate 40 in McDowell County. US Highway 221 bisects the County and runs north to south connecting the Blue Ridge Mountains to the Foothills. Asheville, Spruce Pine, Morganton, and Rutherfordton are all within a half-hour drive. The city is surrounded by natural and recreational assets like Pisgah National Forest, Chimney Rock State Park, Blue Ridge Parkway, Lake James State Park, and South Mountains State Park and Game Lands (See Map 1: Study Area Context).

REGIONAL TRAIL NETWORK

The Mountains-to-Sea Trail, Overmountain Victory National Historic and State Trail, Fonta Flora State Trail, and the Wilderness Gateway State Trail all travel through McDowell County. The Fonta Flora State Trail is planned to pass through downtown Marion on its way to Asheville and Morganton. The Upper Catawba River Paddle Trail connects Marion with communities along the Catawba River via an existing blueway. The planned Peavine to Thermal Belt Rail Trail Connector will provide a north to south connection to the Main Street region of neighboring Rutherford County. This growing regional trail network will connect Marion to assets in western North Carolina and statewide (See Map 2: Regional Trail Network, page right).

MAP 01: STUDY AREA CONTEXT





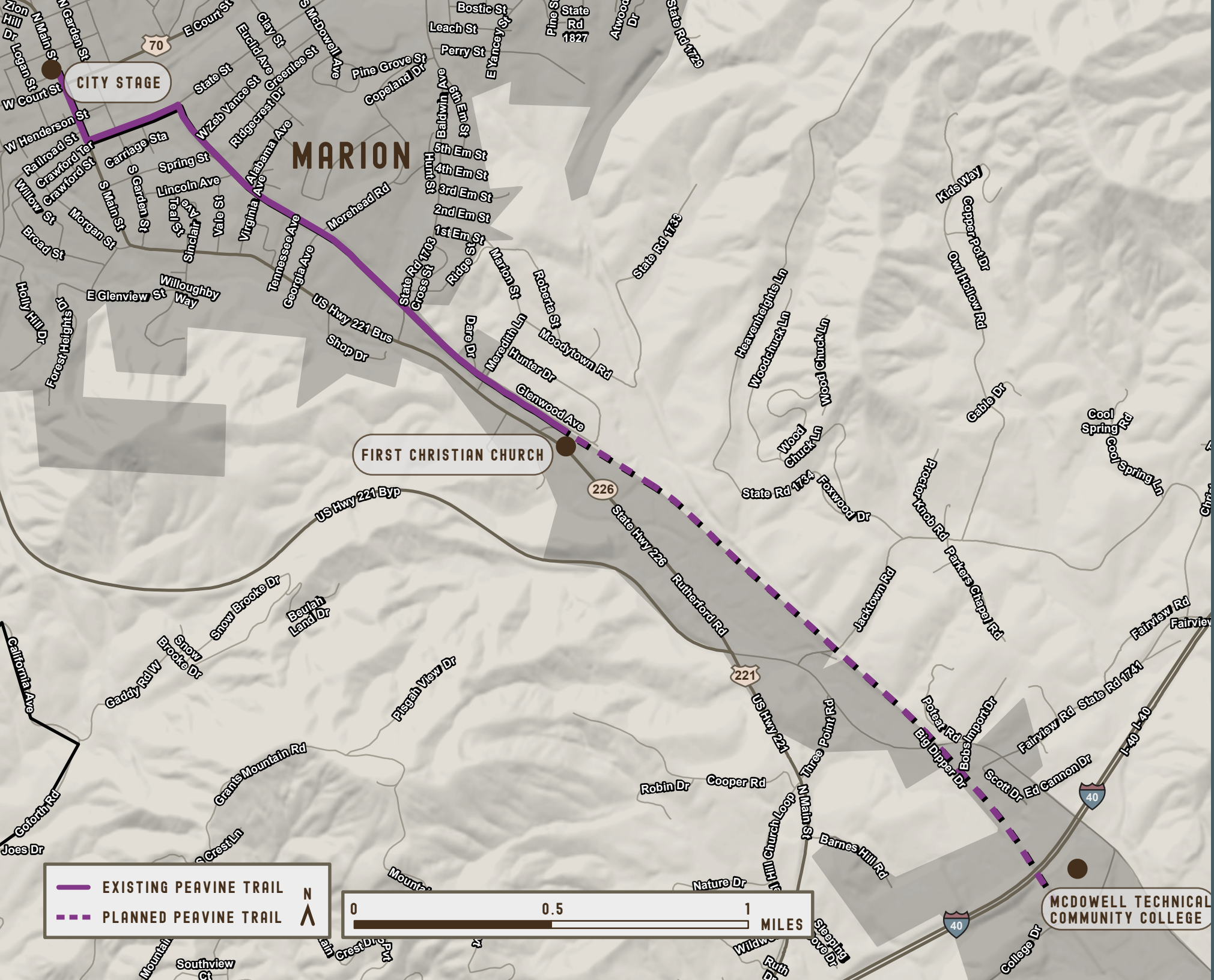
MAP 02: REGIONAL TRAIL NETWORK

MARION PEAVINE TRAIL

The existing Marion Peavine Trail begins at City Stage on North Main Street in downtown Marion. It travels south along sidewalks approximately 0.2 miles to the intersection of South Main Street and State Street then turns east. The trail route follows the sidewalk on the north side of State Street approximately 0.25 miles to the beginning of the rail trail corridor.

The existing rail trail stretches 1.5 miles to Ford Way, just south of First Christian Church on Rutherford Road. A short section stretches approximately 0.2 miles further south before ending at a gate across the trail at an abandoned trestle. The rail corridor continues south parallel to Rutherford Road before ending at Jacktown Road. This section of the corridor above represents the study area for this planning effort.

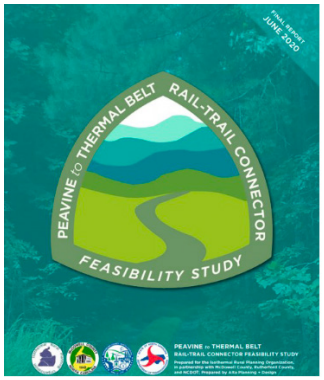
At Jacktown Road the corridor rejoins an active CSX Transportation railroad line. Future plans to extend the Peavine Trail to McDowell Technical Community College will require the trail alignment to travel south across US Highway 226 and through an existing culvert under Interstate 40 (See Map 3: Marion Peavine Trail, page right).



MAP 03: MARION PEAVINE TRAIL

2.2 PREVIOUS PLANS

The consultant team reviewed transportation, tourism, greenway, and parks and recreation planning documents that might have implications on the Marion Peavine Trail alignment, improvements, and desired trail amenities.

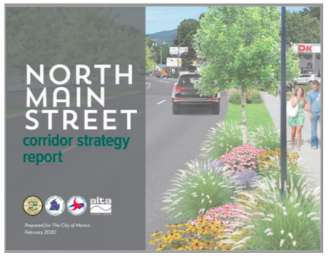


THE PEAVINE TO THERMAL BELT RAIL TRAIL CONNECTOR FEASIBILITY STUDY (2020)

This feasibility study from 2020 examines the potential health, recreation, and economic benefits of establishing a multi-use public trail along an abandoned railroad corridor. This proposed 19-mile long trail will connect the Peavine Trail in Marion to the Thermal Belt Rail Trail in Rutherford County.

GREAT TRAILS STATE FINAL REPORT (2022)

The Peavine Trail has been adopted by the N.C. Department of Transportation as part of the Great Trails State Plan, a statewide plan with the goal of connecting all 100 counties across the state via shared use path or trail to create opportunities for active transportation, conservation, recreation, health, tourism and economic prosperity.

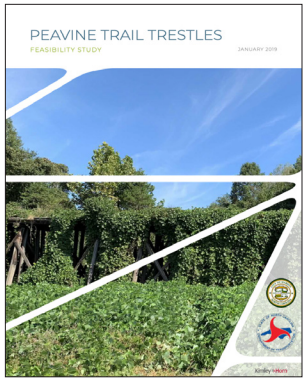


NORTH MAIN STREET CORRIDOR STRATEGY REPORT (2020)

The North Main Street Corridor Plan was produced in 2020 and proposes significant upgrades to a two-mile section of US70/221 in Marion. A four-lane divided boulevard and major gateway features at each end of the corridor have been proposed. The plan provides further connectivity through downtown Marion to the Peavine Rail Trail and the proposed Fonta Flora State Trail.

DESTINATION MCDOWELL TOURISM MASTER PLAN (2021)

This Tourism Master Plan was created in 2021 and provides a 15-year infrastructure development plan for the McDowell County TDA and its partners. Corridor redevelopment and trail improvements along the Peavine Trail were identified as a high-priority project to provide access to recreational opportunities within the city limits and provide connections to longer regional and state trails.

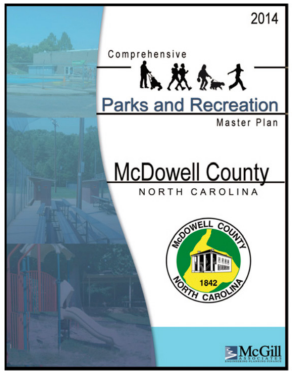


PEAVINE TRAIL TRESTLES FEASIBILITY STUDY (2019)

The Peavine Trail Trestles Feasibility Study was conducted in 2019 to assess the viability of extending the Peavine Trail to the southeast along the existing abandoned railroad corridor. The study evaluated the two railroad trestles in this section for possible conversion into pedestrian bridges.

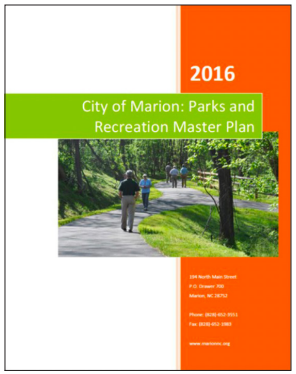
ISOTHERMAL REGIONAL BICYCLE PLAN (2018)

The Isothermal Regional Bicycle Plan was prepared for the Isothermal Planning and Development Commission in 2018. The plan recognizes regional partnerships and the importance of creating an extensive network of bicycle routes and options attractive to tourists and local users alike. The Peavine Trail extension is listed as a top priority project in this plan.



MCDOWELL COUNTY COMPREHENSIVE PARKS AND RECREATION MASTER PLAN (2014)

The McDowell County Comprehensive Parks and Recreation Master Plan from 2014 addresses the parks and recreation needs for the County. This was accomplished through extensive public input and a complete assessment of existing facilities. The plan documents that trails and greenways received tremendous public support during the planning process with nearly 100% of the survey participants in favor of expanding existing greenways in the County.

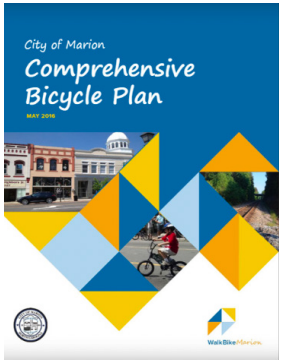


CITY OF MARION: PARKS AND RECREATION MASTER PLAN (2016)

The City of Marion Parks and Recreation Master Plan considers many aspects of both passive and active recreation. The plan provides an evaluation and inventory of existing facilities and describes public involvement and the planning process. The plan notes that residents would like the Peavine Trail to extend to McDowell Technical Community College and would also like to see the old railroad trestles restored for bike and pedestrian use.

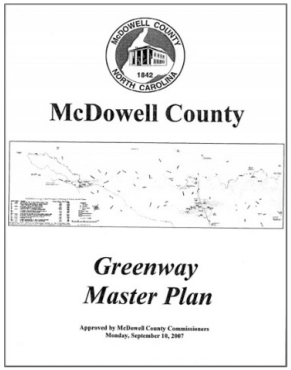
MCDOWELL COUNTY COMPREHENSIVE TRANSPORTATION PLAN (2013)

The McDowell County Comprehensive Transportation Plan (CTP) is a multi-modal plan that examines the County's long-range transportation needs. The CTP was based on the projected growth for the planning area which only included the County.



CITY OF MARION COMPREHENSIVE BICYCLE PLAN (2016)

The City of Marion adopted a Comprehensive Bicycle Plan in 2016. The plan was a part of the NCDOT Bicycle and Pedestrian Planning Grant Initiative program, which places a strong emphasis on traffic safety and the economic benefits of active transportation. Various improvements to the City's street network are suggested including improved linkages between local destinations such as the Peavine Trail and the Catawba River Greenway. The Peavine is identified as a priority investment recommendation in the plan.



MCDOWELL COUNTY GREENWAYS MASTER PLAN (2007)

The McDowell County Greenway Master Plan was adopted by the McDowell County Commissioners in 2007 and lays out the vision of the McDowell Trails Association (MTA), a non-profit organization created for the purpose of establishing an extensive trail system in the County. The plan identifies existing and planned trail sections as well as possible future alignments and connections.

2.3 ENVIRONMENTAL CONDITIONS

This section highlights site analysis findings pertaining to the natural and built environment, including those related to topography, soils, vegetation, land use, and roads. A detailed Phase I Environmental Site Assessment (ESA) of the corridor was conducted in 2011. See Summary in Appendix A: Phase I Environmental Assessment Summary, page 82.

TOPOGRAPHY

The study area corridor is 2.4 miles long, 100-feet-wide, and contains approximately 30 acres. Elevations range from 1400 to 1280 feet above sea level. The highest elevation is near the State Street trail entrance and the lowest elevation is located between Ford Way and Jacktown Road.

Several short sections of the corridor are elevated significantly above the surrounding terrain. This includes the southern halves of the railbed between Virginia Avenue and Georgia Avenue/Morehead Road and Georgia Avenue/Morehead Road and Baldwin Avenue. South of Ford Way the corridor also rises above the surrounding terrain as it approaches the first railroad trestle and continues to a former lumber yard accessed from Jacktown Road.

SOILS

According to the Natural Resources Conservation Service (NRCS), there are 6 different soil types found within the project corridor. The soils identified include: Braddock clay loams (BrC2 and BrD2), Hayesville-Evard complex (HeD), Hayesville-Evard-Urban land complex (HrD), Hayesville-Urban land complex (HuC), and Iotla sandy loam (IoA).

Generally speaking, the soils within the project site are a mixture of sandy clay loams. According to the NRCS soil survey reports, these soils are generally rated as being somewhat limited for path and trail development and very limited for road development due to soil characteristics. However, the Peavine Trail will utilize the existing man-made railroad bed which was constructed in the early 1900s for train use and is appropriate for trail development.

HYDROLOGY AND FLOODPLAIN

Youngs Fork runs parallel and well away from the study area corridor on the west side of Rutherford Road from its beginning at West Henderson Street before crossing underneath Rutherford Road just south of Ford Way. The creek continues south parallel to and below the railroad corridor before passing under Jacktown Road. Two small drainages and creeks flow under the corridor from the east and feed Youngs Fork. A wide floodplain exists on a vacant parcel at the confluence of Youngs Fork and the second drainage below the abandoned railroad corridor.

A variety of multi-aged mixed deciduous tree types are found within the railroad corridor.

The study area corridor passes through a residential area next to Glenwood Road.

An active rail line parallels the abandoned railroad corridor as it leads south to Jacktown Road.

VEGETATION & SIGNIFICANT NATURAL COMMUNITIES

The site consists of a 100-foot-wide corridor with a man-made raised railroad bed. Scattered multi-aged mixed deciduous forests within the corridor contain a variety of tree types typical of the region including Oak, Hickory, Blackgum, Red Maple, Yellow Poplar, and Pine. There are no significant natural communities found on the site.

BUILT ENVIRONMENT

A man-made railbed exists within the study area corridor. Approximately 1.5 miles of the railbed has been cleared and surfaced with crushed gravel. In some areas, erosion has exposed rocks of various sizes. The remaining 0.9 miles of the railbed is overgrown with vegetation and the surface is a mix of grass, leaves, and soil. Two wooden railroad trestles are also located on this section.

The corridor begins at State Street and passes through and next to a mixture of residential, civic, industrial, and commercial land uses. The trail from State Street to Georgia Avenue/Morehead Road features primarily residential development. After this crossing, the large Oak Grove Cemetery is located on the west side of the corridor and the smaller Morehead Cemetery and several wooded parcels are found on the east side of the trail. A large Duke Energy substation is located next to Oak Grove Cemetery at the trail's intersection with Baldwin Avenue. The trail then passes through a mix of residential and commercial uses before ending at Ford Way next to First Christian Church. The abandoned railroad corridor continues south to Jacktown Road through a mix of commercial and light industrial uses and vacant parcels.

The study area corridor parallels Rutherford Road (US Highway 221 Business) for its entire length. The Peavine crosses the following lightly traveled roads from north to south: Alabama and Virginia Avenues, Georgia Avenue/ Morehead Road, Baldwin Avenue, Marion Street, and Ford Way. Spring Street and Glenwood Avenue run parallel to the trail for short distances.

An active CSX Transportation railroad line approaches the study area corridor from the east across from the location where Youngs Fork runs under Rutherford Road on the west side of the corridor. The active rail line parallels the corridor at a distance of approximately 150 feet until they meet on the south side of Jacktown Road outside of the study area corridor.

Morehead Cemetery is located north of Oak Grove Cemetery on Morehead Road. This historically African American cemetery has had alternate names over the years including Morehead City Cemetery. The City of Marion Cemetery Division cleaned up the property and assumed maintenance responsibilities beginning in 2014. The McDowell Cemetery Association manages the 3.47 acre property.

Oak Grove Cemetery is a city-owned cemetery located along Rutherford Road. It's approximately 15.9 acres in size and the cemetery entrance is flanked by two large columns with bronze plaques.

EXH 01: OAK GROVE & MOREHEAD CEMETERIES

2.4 OPPORTUNITIES & CONSTRAINTS

Opportunities

ENVIRONMENTAL FEATURES OR COMMUNITY ASSETS THAT ARE OPTIMAL FOR TRAIL DEVELOPMENT AND CONNECTIVITY.

1. Potential Trailhead-State Street
2. Potential Trailhead-Georgia Avenue
3. Cemetery Connections
4. Large Parcel; Potential Redevelopment Opportunity
5. Wide Floodplain; Potential Park Site

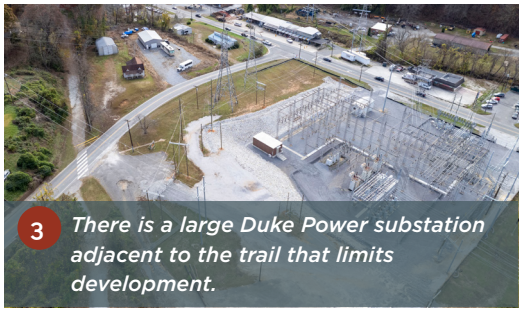
Constraints

NATURAL OR BUILT FEATURES THAT PRESENT CHALLENGES, BUT DO NOT NECESSARILY PRECLUDE TRAIL DEVELOPMENT.

1. Steep Slopes on Sides of Trail
2. Steep Slopes on Sides of Trail
3. Duke Power Substation
4. Property Encroachment

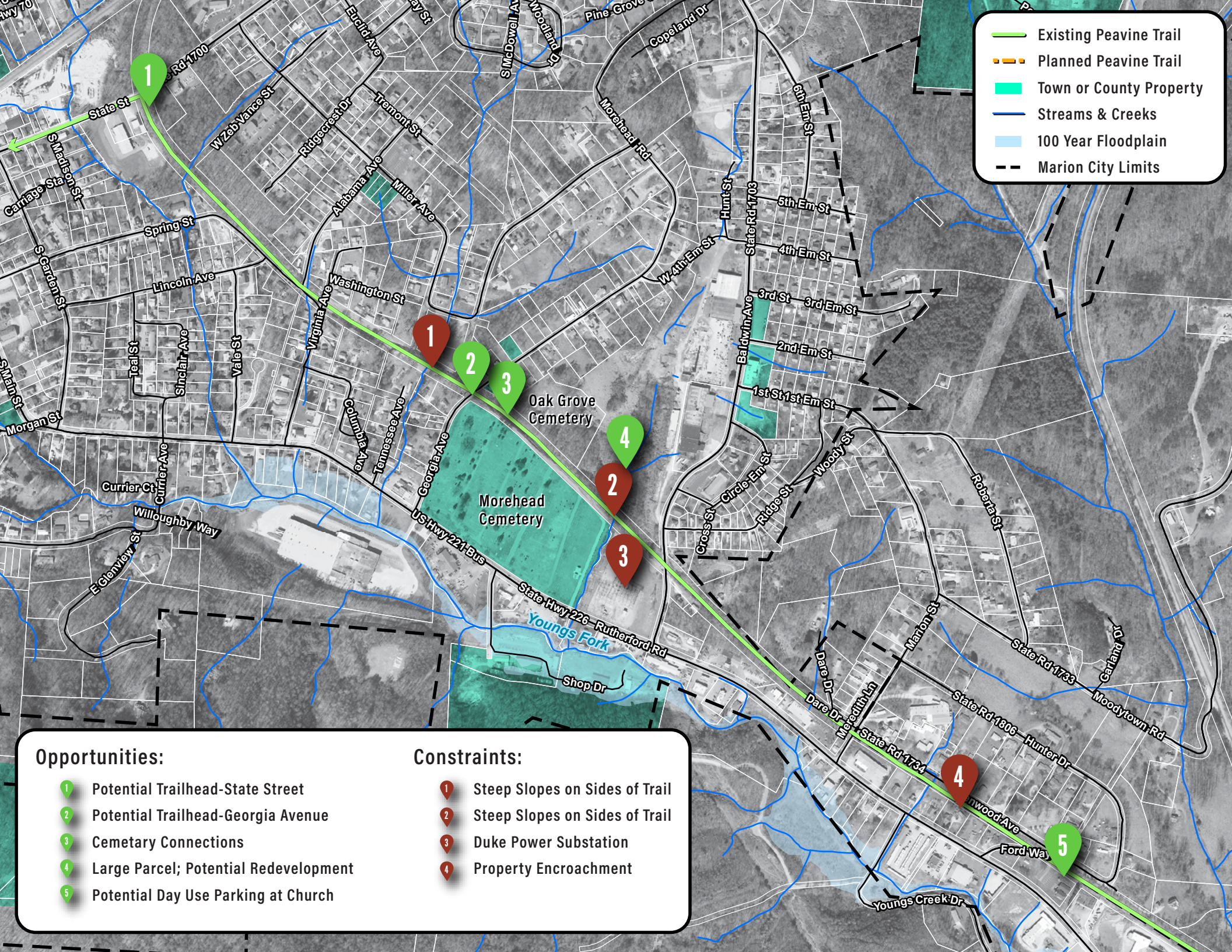
1 *The area around State St. provides an opportunity for a trailhead.*

3 *The Peavine provides an opportunity to connect to two community cemeteries.*



3 *There is a large Duke Power substation adjacent to the trail that limits development.*

4 *There is property encroachment present on the trail northwest of First Christian Church.*


Existing Peavine Trail
Planned Peavine Trail
Town or County Property
Streams & Creeks
100 Year Floodplain
Marion City Limits
Oak Grove Cemetery
Morehead Cemetery
Youngs Fork
State St
Spring St
Lincoln Ave
Washington St
Morehead Rd
Pine Grove Dr
Copeland Dr
Euclid Ave
W Zeb Vance St
Ridgecrest Dr
Tremont St
Alabama Ave
Miller Ave
S Madison St
Carriage Sta
S Garden St
S Main St
Teal St
Sinclair Ave
Vale St
Virginia Ave
Columbia Ave
Tennessee Ave
Georgia Ave
Morgan St
Currier Ct
Currier Ave
Willoughby Way
E Glenview St
US Hwy 221 Bus
State Hwy 226
Rutherford Rd
Shop Dr
Hunt St
State Rd 1703
6th Em St
5th Em St
4th Em St
W 4th Em St
Baldwin Ave
3rd St
3rd Em St
2nd Em St
1st St
1st Em St
Circle Em St
Cross St
Ridge St
Woody St
Roberta St
Marion St
Dare Dr
Meredith Ln
State Rd 1734
State Rd 1806
Hunter Dr
State Rd 1733
Garland Dr
Moodytown Rd
Youngs Creek Dr
Ford Way
Opportunities:
1 Potential Trailhead-State Street
2 Potential Trailhead-Georgia Avenue
3 Cemetary Connections
4 Large Parcel; Potential Redevelopment
5 Potential Day Use Parking at Church
Constraints:
1 Steep Slopes on Sides of Trail
2 Steep Slopes on Sides of Trail
3 Duke Power Substation
4 Property Encroachment

Opportunities

ENVIRONMENTAL FEATURES OR COMMUNITY ASSETS THAT ARE OPTIMAL FOR TRAIL DEVELOPMENT AND CONNECTIVITY.

1. Existing Trestle Over Creek
2. Large Parcel; Potential Redevelopment
3. Abandoned Railroad Bed
4. Aging, Existing Rail Trestle over Creek
5. Wide Floodplain; Potential Park Site
6. Potential Trailhead Opportunity

Constraints

NATURAL OR BUILT FEATURES THAT PRESENT CHALLENGES, BUT DO NOT NECESSARILY PRECLUDE TRAIL DEVELOPMENT.

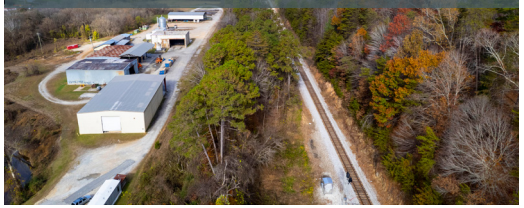
1. Aging Industrial Use
2. Aging Rail Trestle
3. Creek Crossing
4. Overgrown Railroad Bed
5. Large Parcel, Aging Industrial Use
6. Potential Need for Culvert
7. Proximity to Active Rail Line
8. Blind Curve on Jacktown Rd

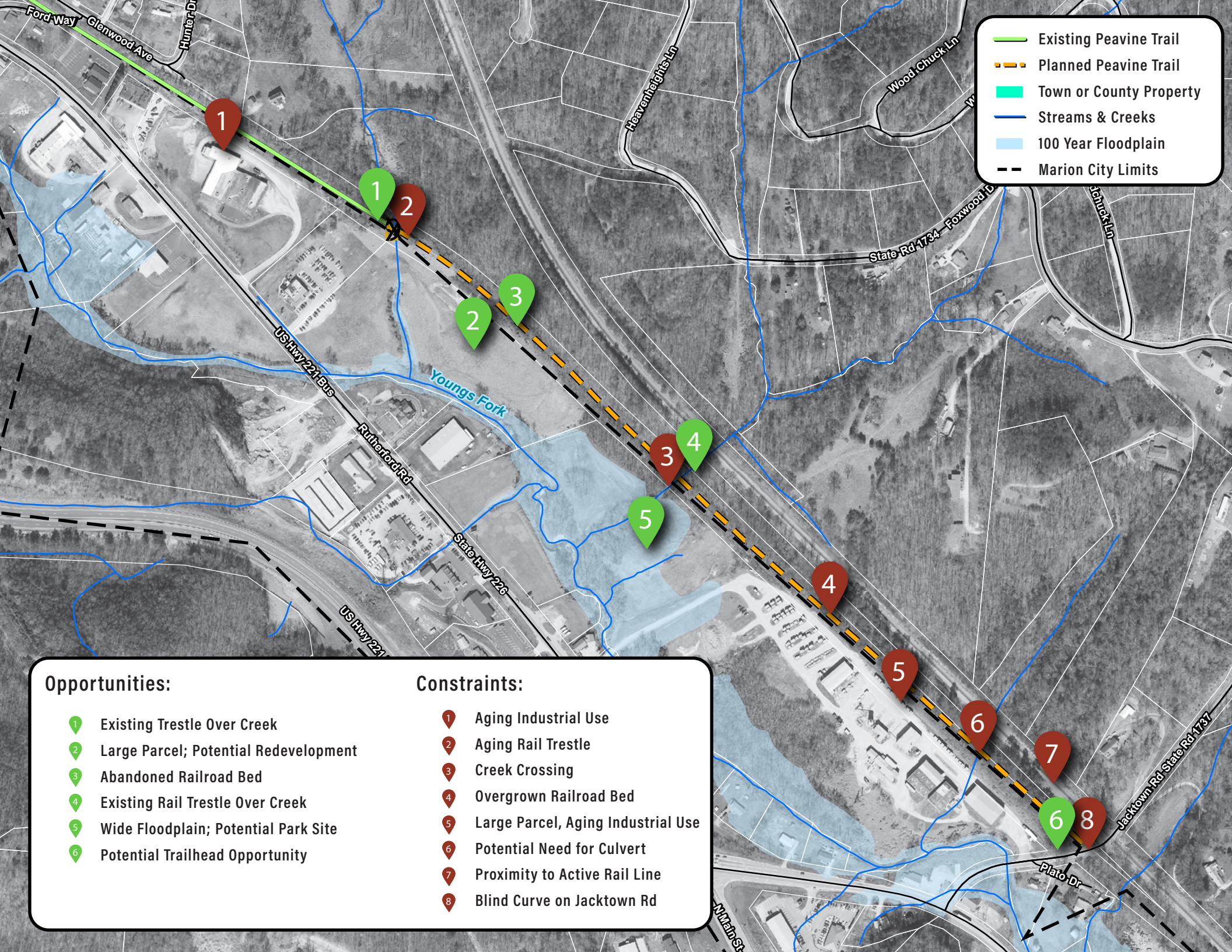
1 An existing trestle crosses a creek east of First Christian Church.

2 A large parcel located adjacent to the trail and Jacktown Road provides an opportunity for redevelopment.

4 The existing railroad corridor is overgrown and would require significant clearing to reach Jacktown Rd.

7 The rail trail corridor parallels an active railroad on the southern end of the study area.




Existing Peavine Trail
Planned Peavine Trail
Town or County Property
Streams & Creeks
100 Year Floodplain
Marion City Limits
Ford Way
Glenwood Ave
Hunter Dr
Heavenlieghts Ln
Wood Chuck Ln
State Rd 1734 - Foxwood D
Chuck Ln
US Hwy 221 Bus
Youngs Fork
Rutherford Rd
State Hwy 226
US Hwy 221
Jacktown Rd-State Rd 1737
Plato Dr
N Main St
Opportunities:
1 Existing Trestle Over Creek
2 Large Parcel; Potential Redevelopment
3 Abandoned Railroad Bed
4 Existing Rail Trestle Over Creek
5 Wide Floodplain; Potential Park Site
6 Potential Trailhead Opportunity
Constraints:
1 Aging Industrial Use
2 Aging Rail Trestle
3 Creek Crossing
4 Overgrown Railroad Bed
5 Large Parcel, Aging Industrial Use
6 Potential Need for Culvert
7 Proximity to Active Rail Line
8 Blind Curve on Jacktown Rd

3

PUBLIC ENGAGEMENT

This chapter outlines public input, led by a project oversight committee, that was gathered through the planning process. The chapter provides an overview of previous plan survey results, project oversight committee meetings, and the community input meeting conducted to collect input on plan recommendations.

3.1 COMMUNITY SURVEYS

The consultant team reviewed public input and community surveys from previous plans that may have implications on the Marion Peavine Rail Trail planning effort. Relevant survey results from the Destination McDowell Tourism Master Plan, Isothermal Regional Bicycle Plan, City of Marion Comprehensive Bike Plan, and McDowell County Comprehensive Parks and Recreation Master Plan can be found below.

DESTINATION MCDOWELL TOURISM MASTER PLAN (2021)

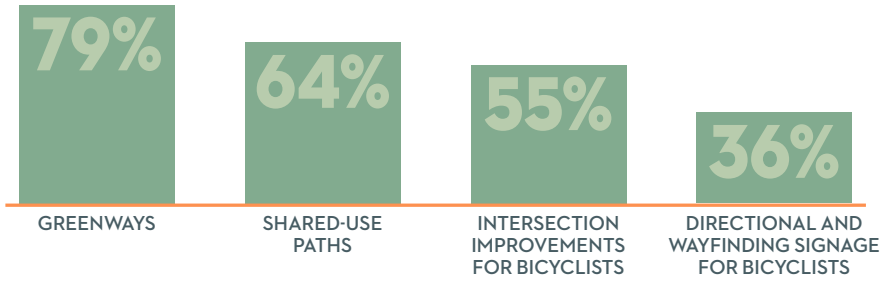
An online survey was used to hear citizen ideas and to identify opportunities and constraints for future tourism infrastructure development projects in the Destination McDowell Tourism Master Plan planning process. It was distributed online by the McDowell County Tourism Development Authority, Town, City, and County officials, and local stakeholder groups via web, email and social media. The survey collected 210 responses between April 20 and June 3, 2021. Survey respondents believed multi-use trails and paved greenways should be a high priority for tourism infrastructure development in McDowell County.

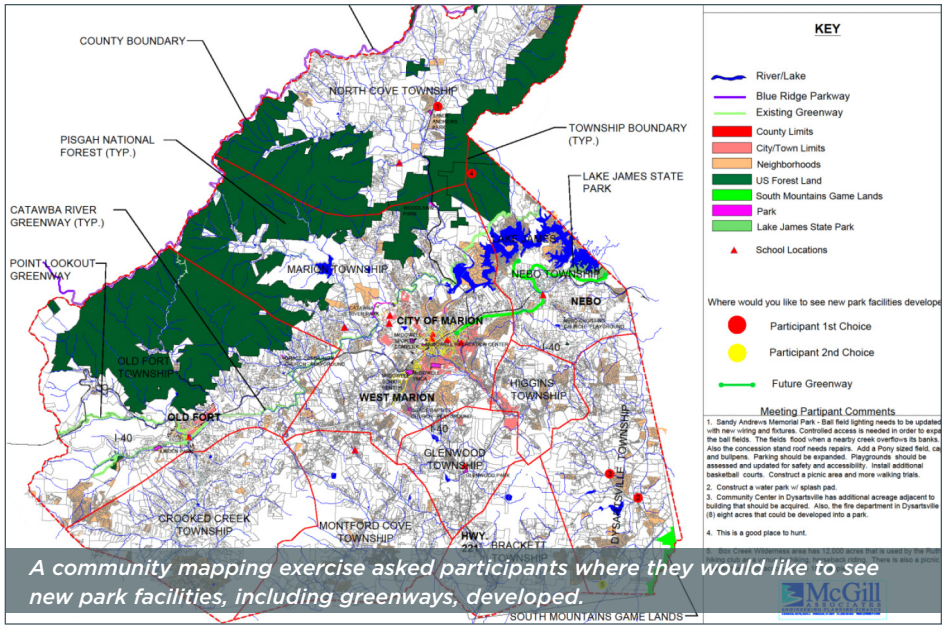
THE FOLLOWING FACILITIES SHOULD BE A HIGH PRIORITY FOR FACILITY DEVELOPMENT IN MCDOWELL COUNTY:

ISOTHERMAL REGIONAL BICYCLE PLAN (2018)

Public input for the planning process was collected between March and December 2017 through forms available online and at events, festivals, and a public open house that focused on the primary recommendations of the draft plan. More than 500 respondents from across the Isothermal region provided input. One of the primary questions that has implications on planning for the rail trail asked survey respondents about the likelihood that the following types of bicycling facilities would influence them to bike more often (% responding “VERY LIKELY”).

WHICH TYPES OF BICYCLING FACILITIES WOULD INFLUENCE YOU TO BIKE MORE OFTEN? (% RESPONDING "VERY LIKELY")





A community mapping exercise asked participants where they would like to see new park facilities, including greenways, developed.

CITY OF MARION COMPREHENSIVE BIKE PLAN (2016)

Public input for this plan was collected in the Spring/Summer 2015 through a project website, public comment form, and public workshops. The public identified safety, opportunities for recreation and exercise, and livability as the main topics being important for the comprehensive bike plan to address.

Specific comments from the public that have implications on the Peavine Trail included the following:

> “Challenging for college students to access downtown by anything other than a car.”

> “Excitement over the potential paving of the Peavine Trail”

MCDOWELL COUNTY COMPREHENSIVE PARKS AND RECREATION MASTER PLAN (2014)

Surveys for this master planning process requested public opinion on needed improvements to existing County facilities and the development of future park facilities and programs in McDowell County. The survey was advertised in the local newspaper and on the County's Facebook and web page. It was also made available at the public workshops. A total of 374 total surveys were returned representing approximately 1,098 people.

Approximately 93% of survey respondents were in favor of the continued expansion of greenways throughout McDowell County. Biking, hiking, and jogging/walking trails were rated high when respondents were asked what improvements needed to be made to existing McDowell County parks and recreation facilities. The addition of trails was the most often mentioned need.

A community mapping exercise was also conducted as part of the planning process. Community meeting participants were asked to mark what activities or recreation amenities they would like to see offered within the County and where they thought these facilities should be located. One concern noted during this exercise was the need for greenway/trail expansion to outlying areas of the County from Marion. Connectivity to facilities in Marion from other towns within the County was also desired.

3.2 PUBLIC ENGAGEMENT & INPUT

A Project Oversight Committee (POC) guided the planning process and included representatives from the City of Marion, McDowell County Tourism Development Authority, McDowell Trails Association, Marion East Community Forum, and West Marion Community Forum, Inc. A community input drop-in session offered the public an opportunity to comment on plan recommendations.

PROJECT OVERSIGHT COMMITTEE MEETING #1

On October 19, 2022, the consultant team conducted a kick-off meeting with the POC at Marion City Hall. The meeting included a review of the project schedule, previous planning efforts, and preliminary analysis results. Committee members discussed future connections to other trails and provided input on opportunities and constraints within the study area and trail types.

KEY TAKEAWAYS:

- The railroad and adjacent cemeteries represent an important part of the City's history which should be promoted along the Peavine with trail connections and interpretive signs.
- The existing trail is in fair condition and could be improved through resurfacing and regular maintenance.
- Personal safety can be a concern along the rail trail and this should be considered when making future improvements.

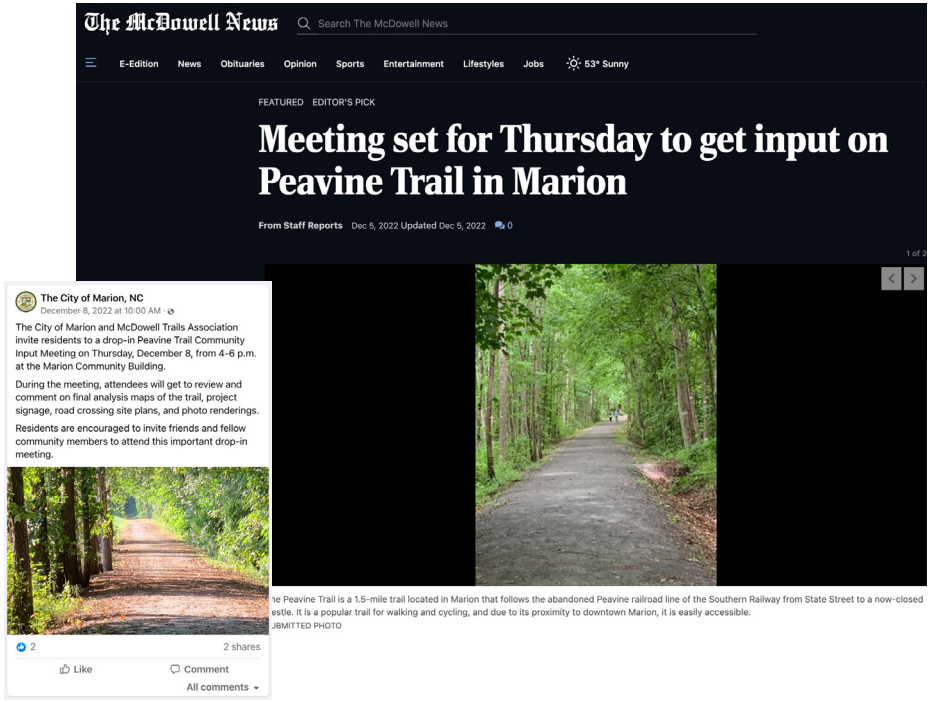
The Project Oversight Committee met in the conference room at Marion City Hall to discuss the project and review maps.

PROJECT OVERSIGHT COMMITTEE MEETING #2

On December 8, 2022, the consultant team presented draft plan recommendations to the POC at the Marion Community Building. Committee members also noted which themes and aspects of the project they believed should be reflected prominently in the recommendations within the planning document.

KEY TAKEAWAYS:

- Committee members supported the recommendations as presented.
- The POC mentioned history, redevelopment, and transportation were themes that were particularly important to the project.



COMMUNITY INPUT DROP-IN MEETING

The consultant team presented project maps and draft plan recommendations at a drop-in meeting on December 8, 2022. Approximately 26 citizens attended the public meeting to review and comment on final analysis maps, project branding and signage, road crossing site plans, and photo renderings. A full list of public meeting comments can be found in Appendix C, page 88.

4

RECOMMENDATIONS

This chapter outlines recommendations for the Marion Peavine Rail Trail from State Street to Jacktown Road. General recommendations highlight trail character and specific site recommendations address safety enhancements along the trail. Site recommendations are supported by site plans and photo renderings.

4.1 GENERAL PEAVINE RAIL TRAIL RECOMMENDATIONS

This section highlights branding and signage for the rail trail. The proposed trail type and standard road crossing enhancements are also described and supported with schematics. Map 04: Marion Peavine Rail Trail Study Area (page right) outlines the plan study area.

BRANDING AND SIGNAGE

Unique branding for the Peavine Rail Trail will help distinguish it from other trails and greenways in the area. Branded signage will provide a consistent visual cue to both trail users and drivers to increase awareness of and safety on the trail at road crossings and access points.

EXH 02: PEAVINE RAIL TRAIL BRANDING & SIGNAGE

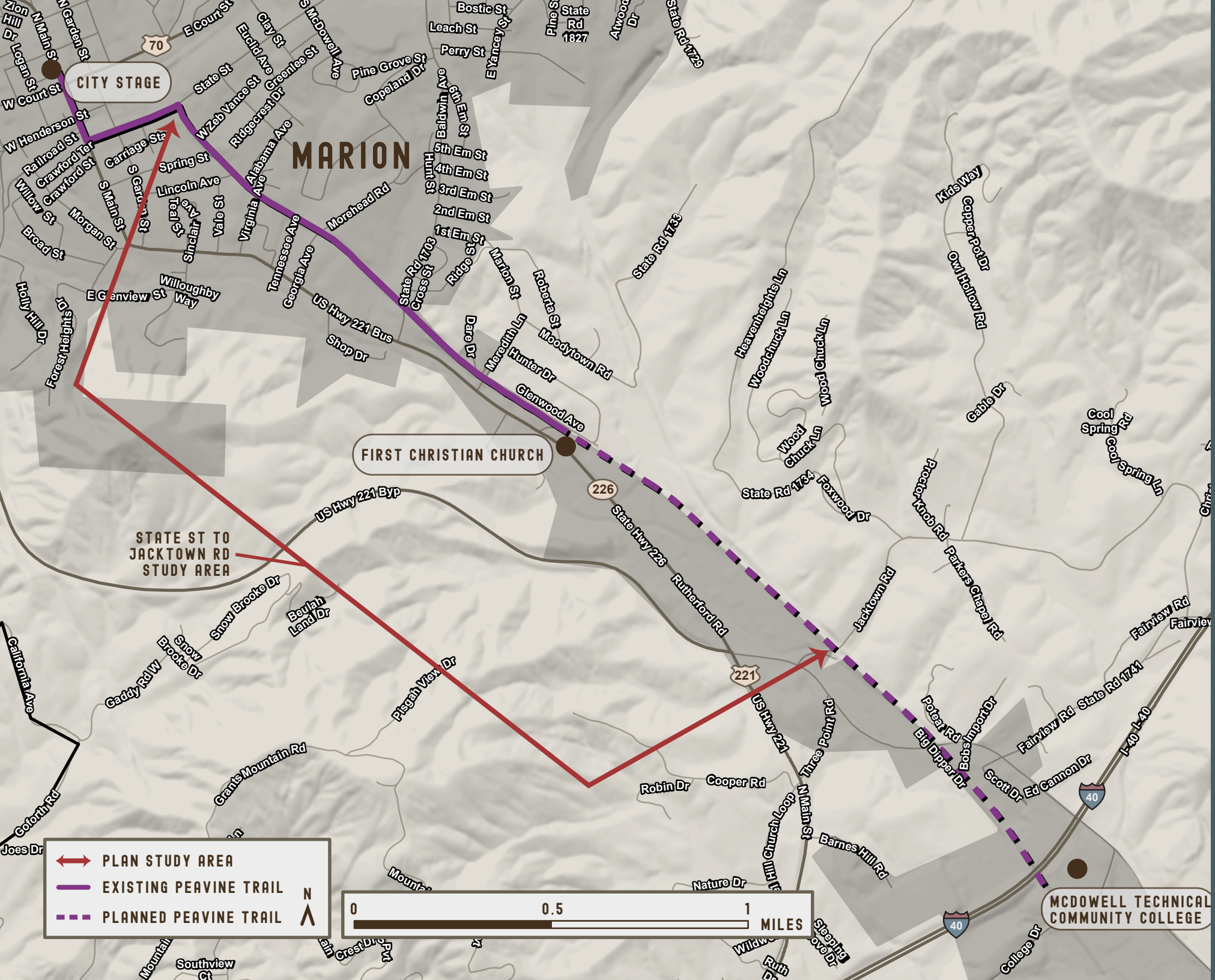
PEAVINE
RAIL TRAIL

PEAVINE
RAIL TRAIL

PEAVINE
RAIL TRAIL

PEAVINE
RAIL TRAIL

A compelling Peavine Trail brand incorporated into quality signage and surface treatments at trailheads and street crossings will create a visual identity for this local community asset and enhance the user experience.


CITY STAGE
MARION
FIRST CHRISTIAN CHURCH
STATE ST TO JACKTOWN RD STUDY AREA
MCDOWELL TECHNICAL COMMUNITY COLLEGE
PLAN STUDY AREA
EXISTING PEAVINE TRAIL
PLANNED PEAVINE TRAIL
N
0
0.5
1
MILES
70
226
221
40
State Rd 1827
State Rd 1729
State Rd 1733
State Rd 1703
State Rd 1734
State Rd 1741
US Hwy 221 Bus
US Hwy 221 Byp
State Hwy 226
US Hwy 221
E Court St
W Court St
N Main St
State St
Pine Grove St
Copeland Dr
Bostic St
Leach St
Perry St
E Yancey St
Baldwin Ave
6th Em St
5th Em St
4th Em St
3rd Em St
2nd Em St
1st Em St
Hunt St
Ridge St
Cross St
Marion St
Roberta St
Moodytown Rd
Hunter Dr
Glenwood Ave
Dare Dr
Meredith Ln
Shop Dr
Morehead Rd
Virginia Ave
Alabama Ave
Tennessee Ave
Georgia Ave
Lincoln Ave
Spring St
Vale St
Sinclair Ave
Morgan St
Broad St
Willow St
Railroad St
Crawford St
Crawford Ter
Carriage Sta
W Henderson St
W Zeb Vance St
Ridgecrest Dr
Greenlee St
Euclid Ave
Clay St
S McDowell Ave
Zion Hill Dr
Logan St
N Garden St
S Garden St
S Main St
Willoughby Way
E Glenview St
Holly Hill Dr
Forest Heights Dr
Heavenheights Ln
Woodchuck Ln
Wood Chuck Ln
Wood Chuck Ln
Kids Way
Copper Pot Dr
Owl Hollow Rd
Gable Dr
Cool Spring Rd
Cool Spring Ln
Foxwood Dr
Proctor Knob Rd
Parkers Chapel Rd
Jacktown Rd
Rutherford Rd
Snow Brooke Dr
Beulah Land Dr
Snow Brooke Dr
Caddy Rd W
California Ave
Pisgah View Dr
Grants Mountain Rd
Goforth Rd
Joes Dr
Three Point Rd
N Main St
Hill Church Loop
Robin Dr
Cooper Rd
Barnes Hill Rd
Nature Dr
Potter Rd
Big Dipper Dr
Bobs Import Dr
Scott D Ed Cannon Dr
Fairview Rd
Fairview Rd
Fairview
L-40
L-40
College Dr
Sleeping
Ruth
Southview Ct
Crest Dr
Mountain

EXH 03: PEAVINE TRAIL TYPE CROSS-SECTION

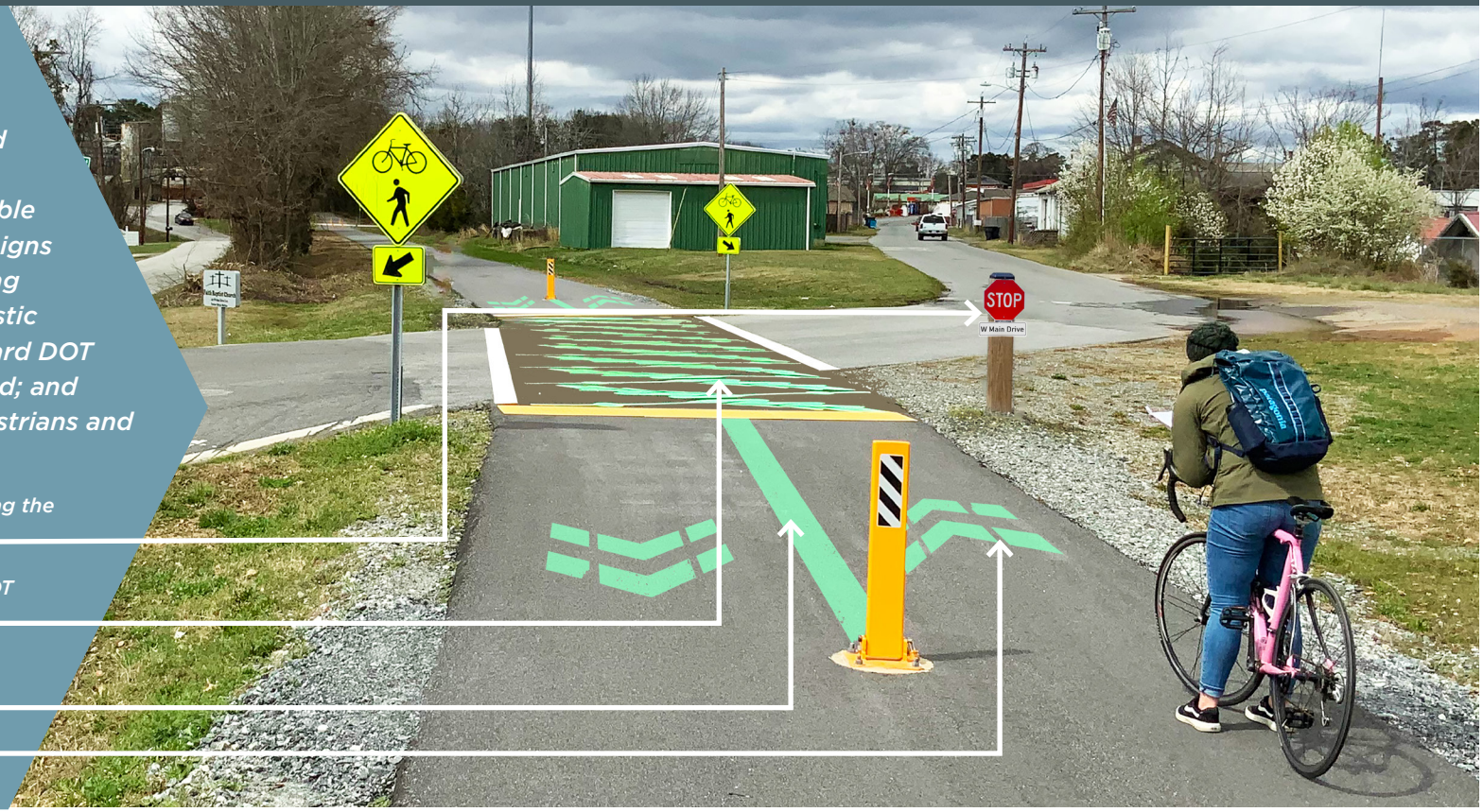
The Peavine Rail Trail will be a ten foot wide path with a two foot wide shoulder on each side. The trail will consist of two adjacent surface types. An asphalt surface will be six (6) feet wide and a crushed granite screenings surface will be four (4) feet wide.

TRAIL TYPE

The Peavine Rail Trail is currently a 10-foot wide path surfaced with crushed granite screenings. A specific trail type is proposed according to the trail's location, surrounding environment, and the opportunity to create a unique and meaningful user experience. The proposed trail type for the Peavine will incorporate both a paved and natural surface in order to accommodate walkers, runners, bikers, and trail users with mobility issues. Both surface types will provide a firm and stable surface suitable for ADA accessibility.

EXH 04: PEAVINE RAIL TRAIL ROAD CROSSINGS

A standard set of enhancements should be applied at every road crossing to include the following: bollards; rumble strips; typical red stop signs including the intersecting street name; thermoplastic Peavine brand or standard DOT markings across the road; and vehicular yield for pedestrians and cyclists signage.



ROAD CROSSINGS

The typical existing road crossing on the Peavine Rail Trail includes a DOT high visibility crosswalk, plastic chain stretched between two posts, and regulatory signage. A standard road crossing should include elements that enhance safety for trail users and increase awareness of the trail for drivers.

4.2 SPECIFIC SITE RECOMMENDATIONS

This section outlines specific site recommendations within two (2) planning sections. Each planning section features an overview of the trail location, quick facts about the trail section, and a description of recommendations. Specific recommendations and projects are marked on a detailed map for each planning section.

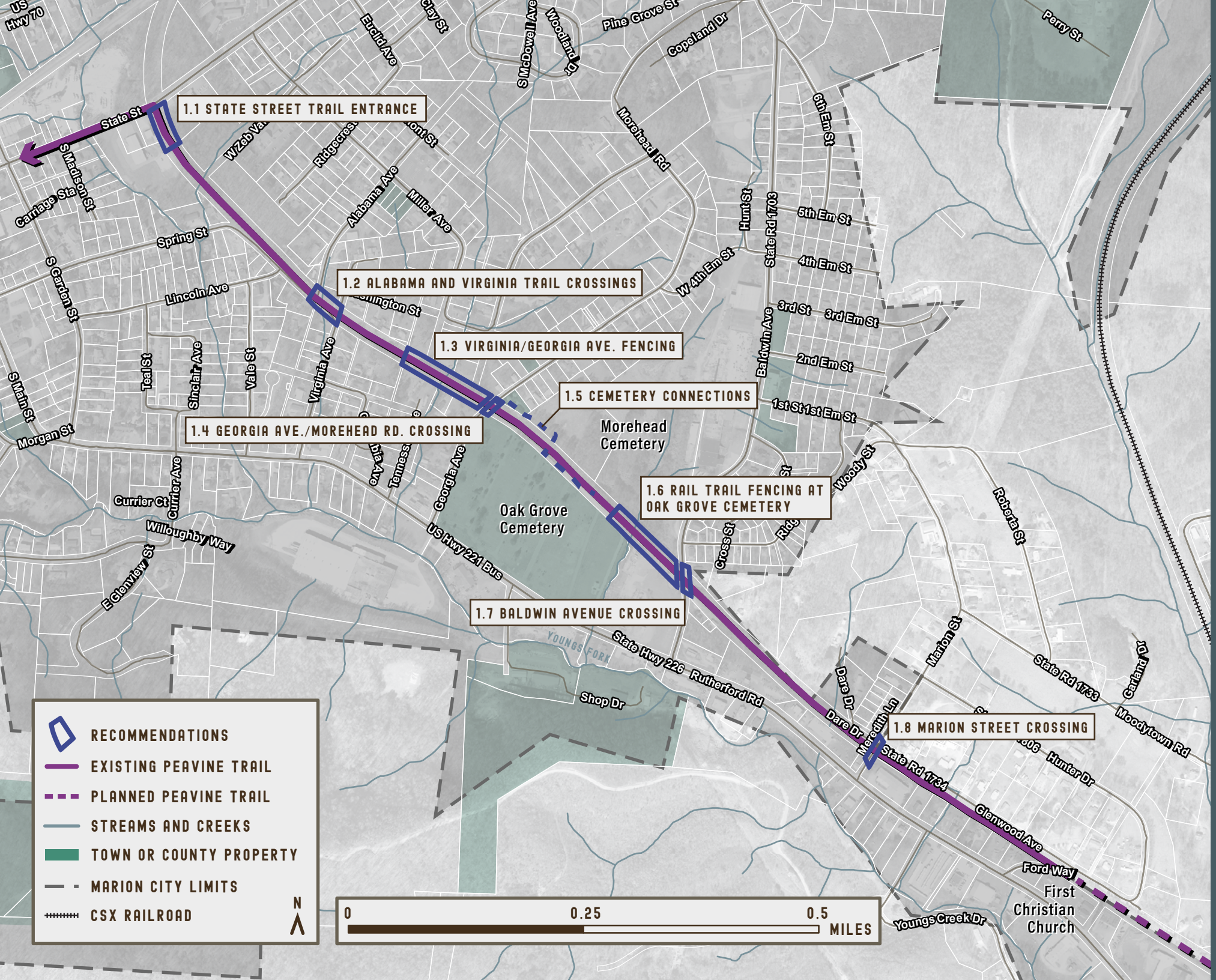
SECTION 1: STATE STREET TO FORD WAY

The Peavine Trail leaves the existing sidewalk on State Street and follows an old railroad line southeast from State Street to Ford Way, passing through woodlands bordered by low density residential neighborhoods, two cemeteries, and light commercial uses (See Map 05: Recommendation - Section 1, page right).

SECTION LENGTH: 1.3 Miles

TRAIL SETTING: Woodlands
Residential
Light Commercial

EXISTING POINTS OF INTEREST: Oak Grove Cemetery
Morehead Cemetery


1.1 STATE STREET TRAIL ENTRANCE
1.2 ALABAMA AND VIRGINIA TRAIL CROSSINGS
1.3 VIRGINIA/GEORGIA AVE. FENCING
1.4 GEORGIA AVE./MOREHEAD RD. CROSSING
1.5 CEMETERY CONNECTIONS
1.6 RAIL TRAIL FENCING AT OAK GROVE CEMETERY
1.7 BALDWIN AVENUE CROSSING
1.8 MARION STREET CROSSING
Morehead Cemetery
Oak Grove Cemetery
First Christian Church
State St
S Madison St
Carriage Sta
Spring St
S Garden St
Lincoln Ave
Alabama Ave
Miller Ave
Virginia Ave
Teal St
Sinclair Ave
Vale St
S Main St
Morgan St
Currier Ct
Currier Ave
Willoughby Way
E Glenview St
Georgia Ave
US Hwy 221 Bus
Shop Dr
State Hwy 226
Rutherford Rd
Youngs Creek Dr
Dare Dr
Meredith Ln
State Rd 1734
Glenwood Ave
Ford Way
Hunter Dr
Moodytown Rd
State Rd 1733
Garland Dr
Marion St
Roberta St
Woody St
Cross St
Ridge St
Baldwin Ave
Hunt St
State Rd 1703
W 4th Em St
4th Em St
5th Em St
6th Em St
3rd St
3rd Em St
2nd Em St
1st St 1st Em St
Morehead Rd
Pine Grove St
Copeland Dr
Perry St
Woodland Dr
S McDowell Ave
Clay St
Euclid Ave
US Hwy 70
RECOMMENDATIONS
EXISTING PEAVINE TRAIL
PLANNED PEAVINE TRAIL
STREAMS AND CREEKS
TOWN OR COUNTY PROPERTY
MARION CITY LIMITS
CSX RAILROAD
N
0
0.25
0.5
MILES

RECOMMENDATION 1.1: STATE STREET TRAIL ENTRANCE

The Peavine Trail enters the old railroad corridor at its intersection with State Street. A formal trailhead on adjoining property at this location will provide access to the northern end of the rail trail and provide an information kiosk, connector trail, and parking.

The Peavine Trail follows the sidewalk on State Street from its northern terminus at City Stage in Downtown Marion to the State Street trail entrance.

EXH 05: STATE STREET TRAIL ENTRANCE

EXISTING CONDITIONS

The State Street Trail Entrance will include a trail monument, fencing, mile marker, benches, and paved entry to the trail.

RECOMMENDATION 1.2: ALABAMA & VIRGINIA AVENUE TRAIL CROSSINGS

The trail parallels Spring Street as it crosses Alabama and Virginia Avenues. This short section of neighborhood green space will be enhanced with an allée of ornamental trees and benches to provide an area of refuge for trail users.

The trail parallels Spring Street for a short distance and is adjacent to open green space.

Branded crossings at Alabama and Virginia Avenues and an allée of ornamental trees along Spring Street will provide a safe corridor for the trail. The crossings will enhance pedestrian safety by providing a visual cue for both drivers and pedestrians.

RECOMMENDATION 1.3: RAIL TRAIL FENCING BETWEEN VIRGINIA & GEORGIA AVENUES

The rail trail is elevated significantly above the surrounding terrain between Virginia and Georgia Avenues. Fencing along this section of the trail will increase safety for trail users and be consistent in appearance with fencing located at trail entrances.

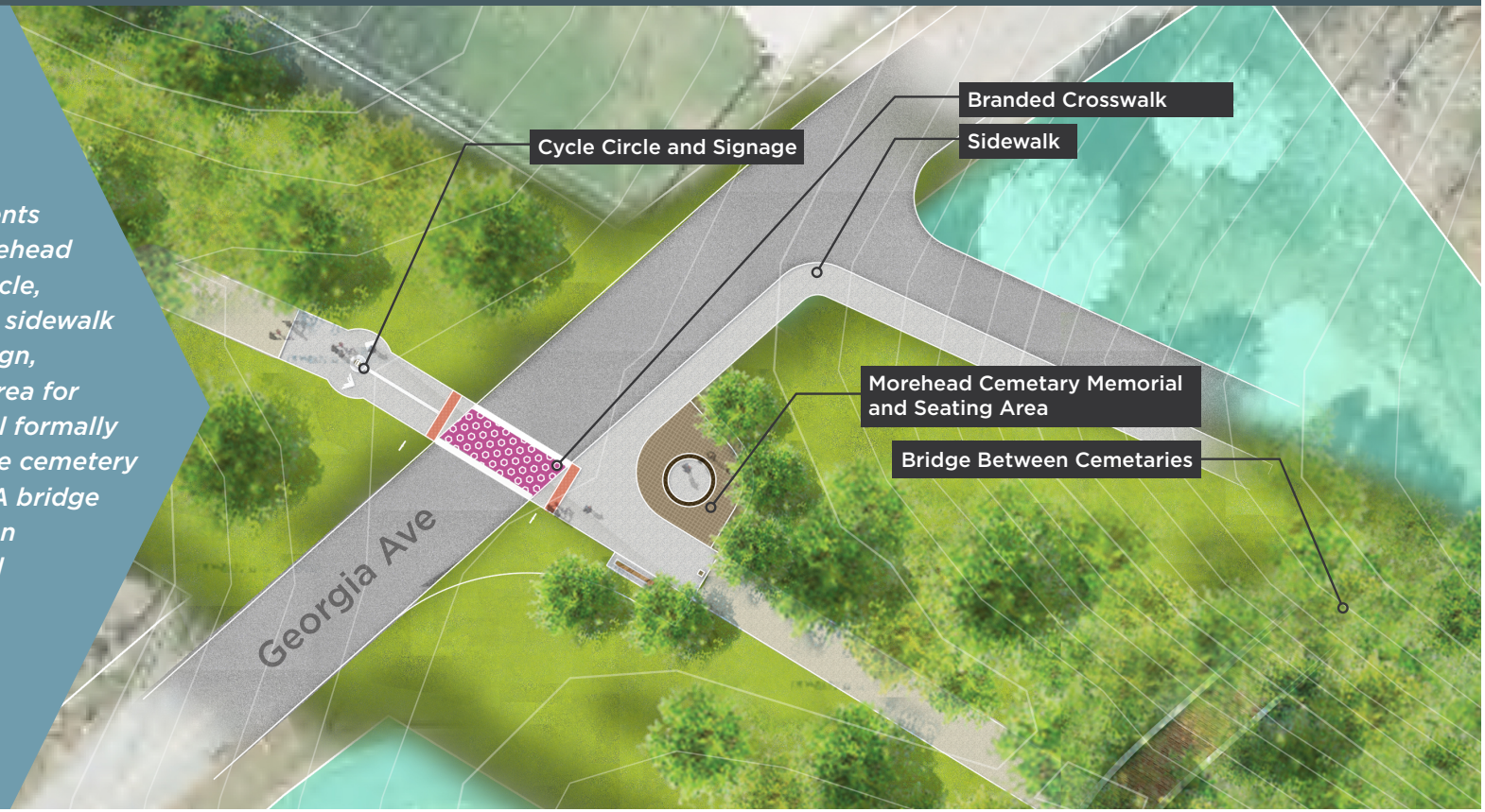
The rail trail is elevated significantly above the surrounding terrain for a short distance in this residential area.

RECOMMENDATION 1.4: GEORGIA AVENUE & MOREHEAD ROAD TRAIL CROSSING

The Peavine Trail approaches Oak Grove and Morehead Cemeteries at the Georgia Avenue/Morehead Road crossing. A small seating area, interpretive waysides, and memorial will provide trail users with a contemplative resting area.

EXH 07: GEORGIA AVENUE/MOREHEAD ROAD TRAIL CROSSING

Intersection enhancements at Georgia Avenue/Morehead Road include a cycle circle, branded crosswalk, and sidewalk connection. A granite sign, memorial and seating area for Morehead Cemetery will formally mark the entrance to the cemetery from the Peavine Trail. A bridge will provide a connection between Oak Grove and Morehead Cemeteries.



A seating wall will give trail users a temporary resting place and interpretive signs will present trail users with information about the history of Morehead Cemetery. A sidewalk will provide a safe connection to the Morehead Cemetery entrance.

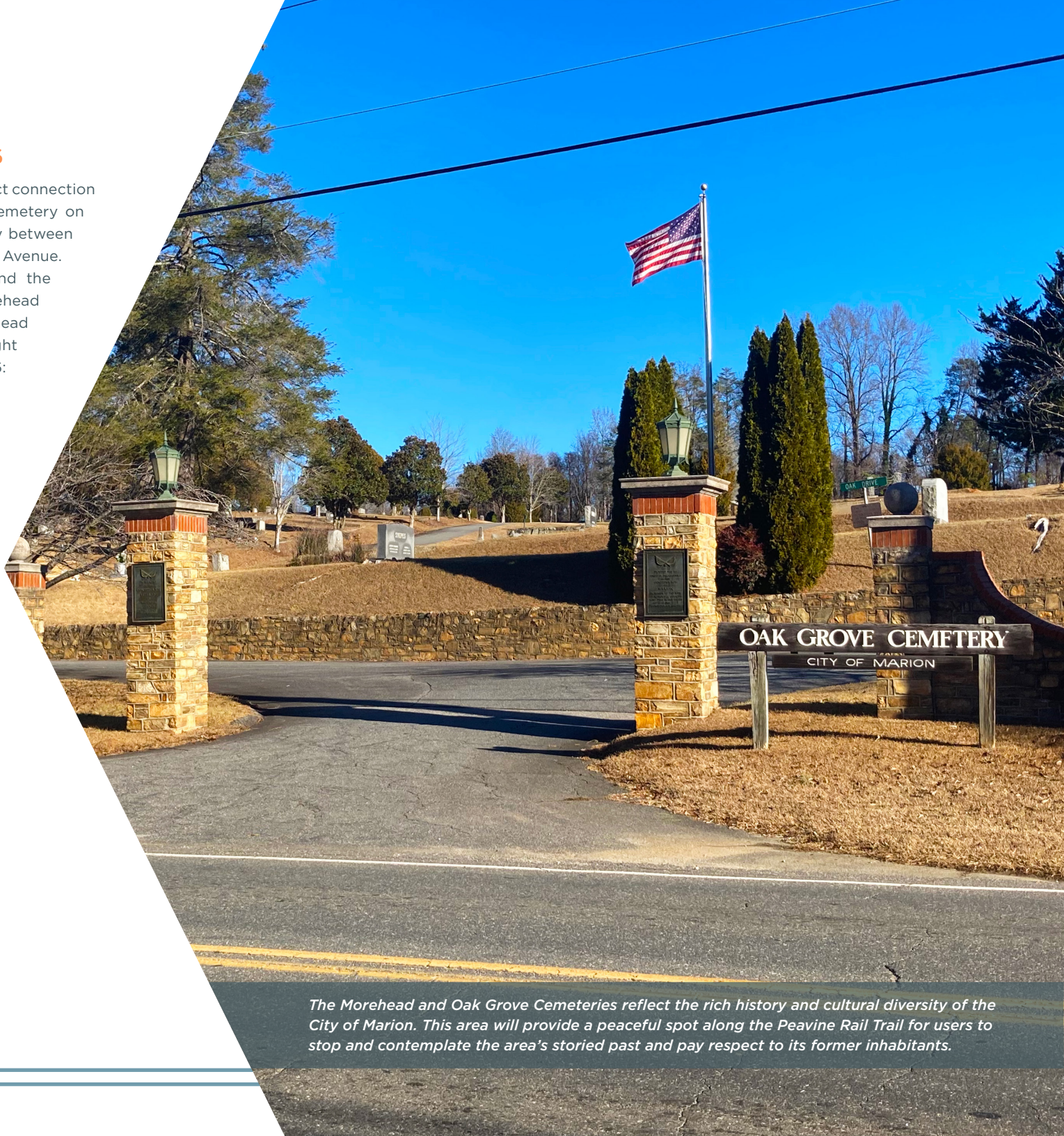
EXISTING CONDITIONS

MOREHEAD CEMETERY

EXH 08: GEORGIA AVENUE/MOREHEAD ROAD RENDERING

RECOMMENDATION 1.5: CEMETERY CONNECTIONS

A short natural surface trail will provide a direct connection from the Peavine Rail Trail to Oak Grove Cemetery on the southwest side of the trail about midway between Georgia Avenue/Morehead Road and Baldwin Avenue. This trail, in combination with a bridge and the sidewalk and driveway connection to Morehead Cemetery at the Georgia Avenue/Morehead Road crossing, will provide a short figure eight loop with the Peavine Rail Trail (See Map 6: Peavine Cemetery Connections, page right). The existing parking area for Morehead Cemetery will also serve as an informal trailhead for the Peavine with this trail connection.

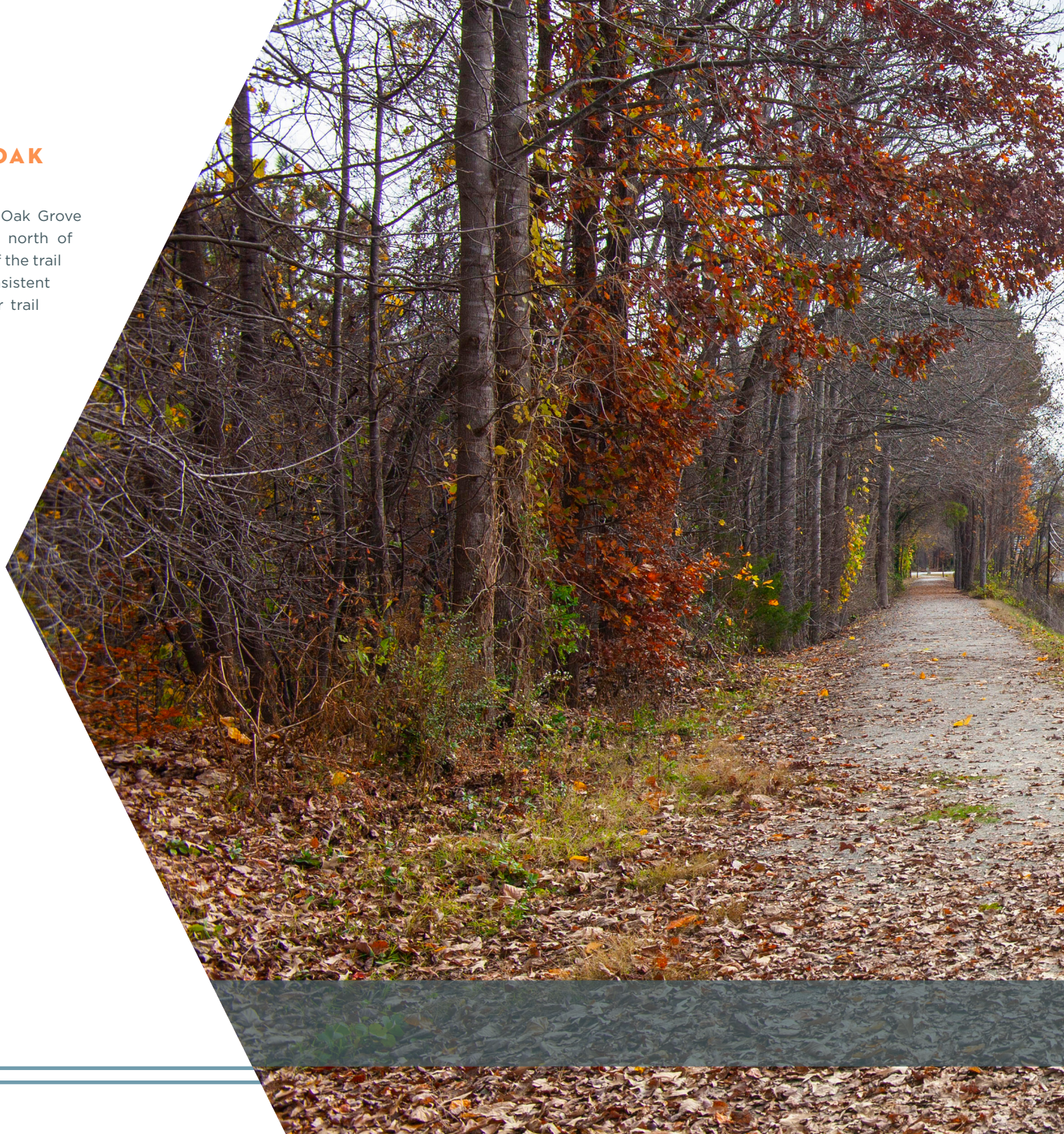


The Morehead and Oak Grove Cemeteries reflect the rich history and cultural diversity of the City of Marion. This area will provide a peaceful spot along the Peavine Rail Trail for users to stop and contemplate the area's storied past and pay respect to its former inhabitants.

MAP 06: PEAVINE CEMETERY CONNECTIONS

RECOMMENDATION 1.6: RAIL TRAIL FENCING AT OAK GROVE CEMETERY

The rail trail is elevated significantly above Oak Grove Cemetery and the Duke Energy substation north of Baldwin Avenue. Fencing along this section of the trail will increase safety for trail users and be consistent in appearance with fencing located at other trail locations.



The rail trail is elevated significantly above a section of Oak Grove Cemetery and the Duke Energy substation.

RECOMMENDATION 1.7: BALDWIN AVENUE CROSSING

Baldwin Avenue represents one of the busiest road crossings along the trail. A small parking area and substation access road is located on Duke Energy property to the southwest of the trail. This crossing location will be ideal for a formal trailhead on adjacent property.

EXH 09: BALDWIN AVENUE CROSSING

The Baldwin Avenue crossing will incorporate a realigned high visibility crosswalk to increase pedestrian safety. A small open green near the trail will provide space for a pocket park.

The Baldwin Avenue crossing will feature trail monuments, mile marker, and fencing to provide a consistent branded identity for the trail.

RECOMMENDATION 1.8: MARION STREET CROSSING

The rail trail leaves a wooded setting as it approaches Marion Street from the northwest and enters a more developed setting along Glenwood Avenue. Crossing enhancements will be consistent with the other road crossings and improve pedestrian safety. The existing parking area for Morehead Cemetery will also serve as an informal trailhead for the Peavine with this trail connection.

The existing Peavine Rail Trail enters a wooded setting near Marion Street as it continues north.

Fencing

Branded Crosswalk

Signage

A branded crossing at Marion Street will enhance safety at this intersection. Branded signage and fencing will visually connect this crossing with the others in the rail corridor.

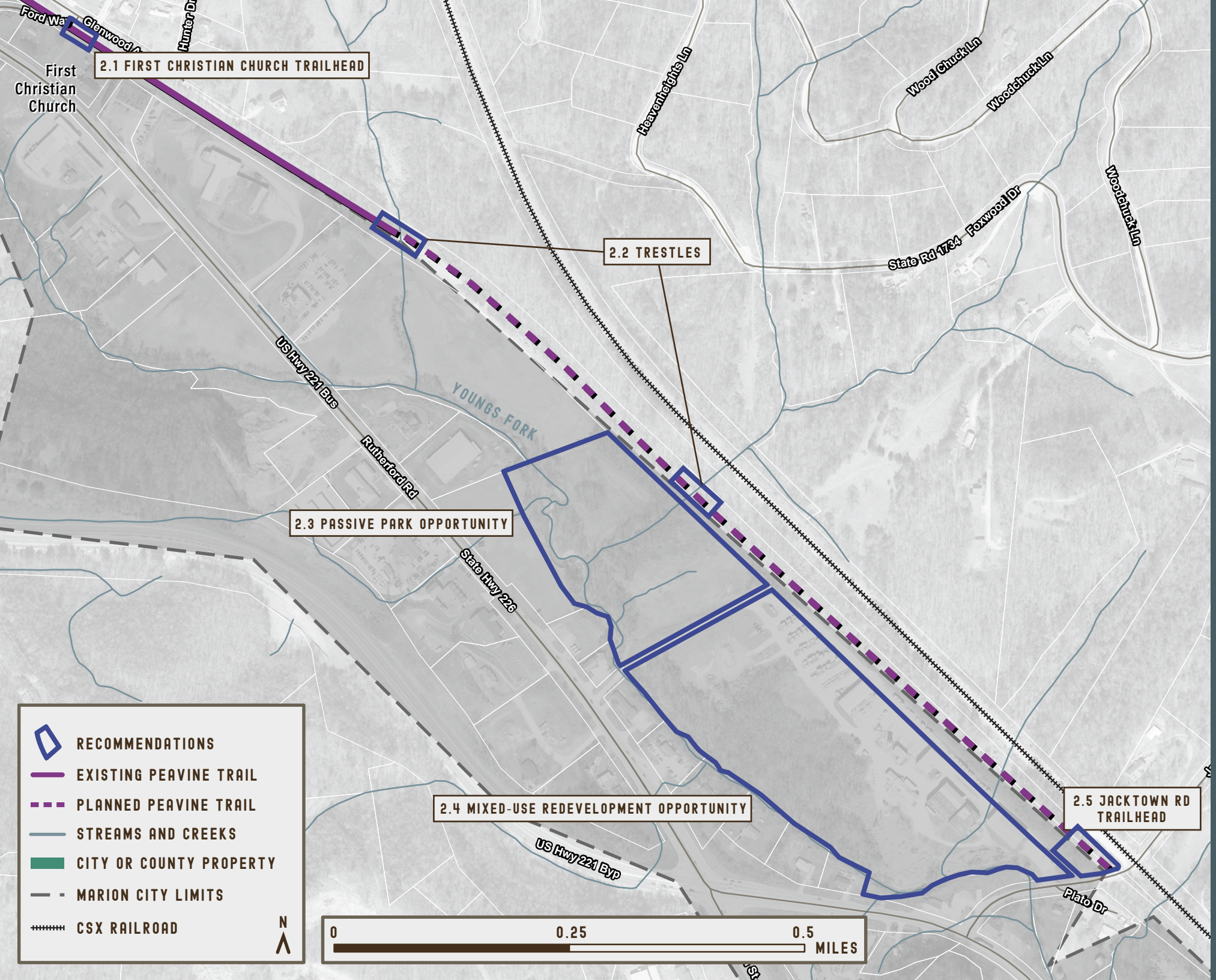
SECTION 2:
FORD WAY TO JACKTOWN ROAD

The Peavine Trail continues from Ford Way through the parking lot of First Christian Church southeast to Jacktown Road, passing through woodlands and sparse commercial and industrial uses.

SECTION LENGTH: 0.88 MILES

TRAIL SETTING: Woodlands
Sparse commercial and Industrial land uses

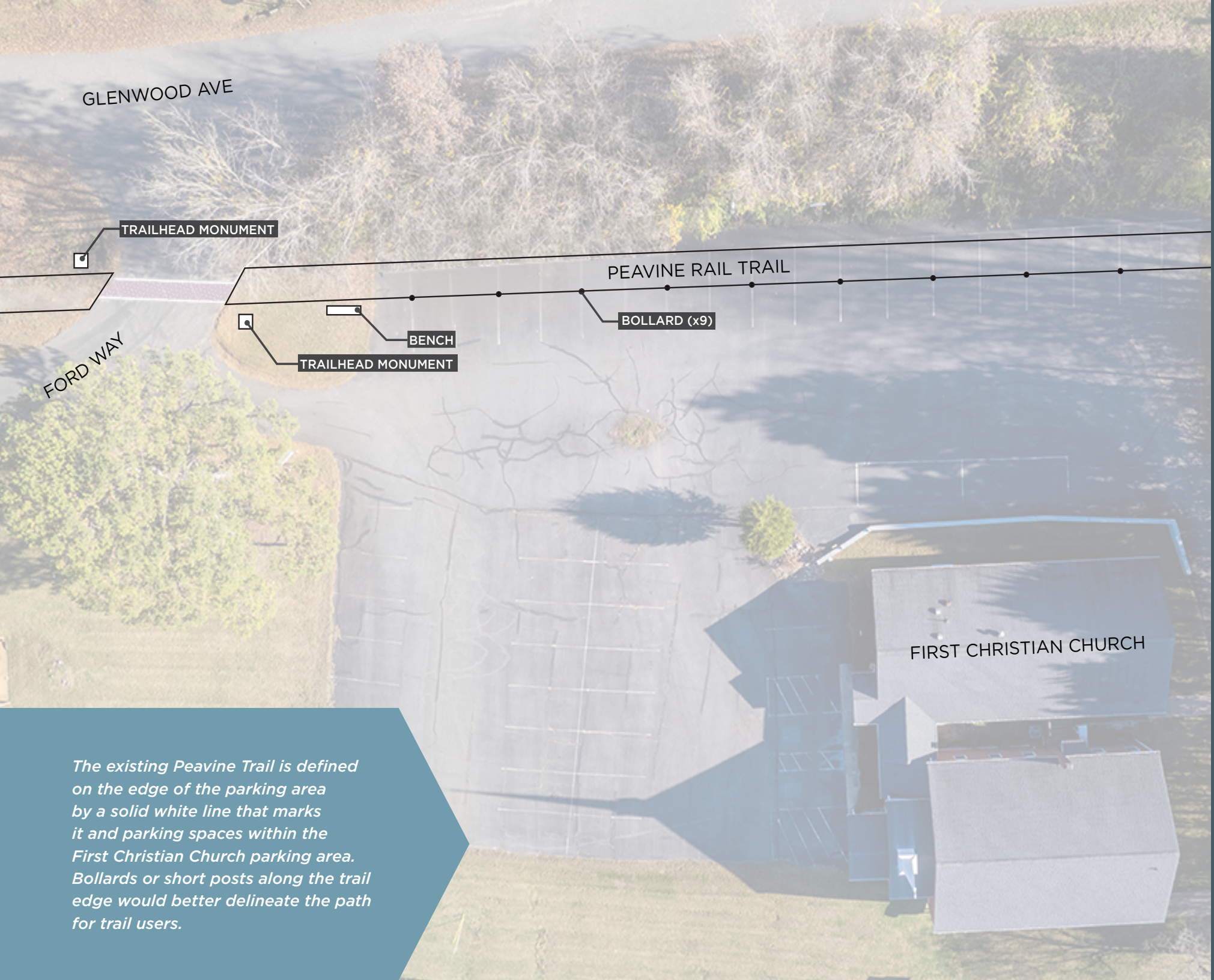
EXISTING POINTS OF INTEREST: Trestles


2.1 FIRST CHRISTIAN CHURCH TRAILHEAD
First Christian Church
2.2 TRESTLES
2.3 PASSIVE PARK OPPORTUNITY
2.4 MIXED-USE REDEVELOPMENT OPPORTUNITY
2.5 JACKTOWN RD TRAILHEAD
Heavenheights Ln
Wood Chuck Ln
Woodchuck Ln
Woodchuck Ln
State Rd 1734 Foxwood Dr
US Hwy 221 Bus
Rutherford Rd
YOUNGS FORK
State Hwy 226
US Hwy 221 Byp
Plato Dr
RECOMMENDATIONS
EXISTING PEAVINE TRAIL
PLANNED PEAVINE TRAIL
STREAMS AND CREEKS
CITY OR COUNTY PROPERTY
MARION CITY LIMITS
CSX RAILROAD
N
0
0.25
0.5
MILES

RECOMMENDATION 2.1: FIRST CHRISTIAN CHURCH TRAILHEAD

The existing Peavine Trail is defined by a narrow asphalt strip adjacent to the First Christian Church parking area and is difficult to find. Currently, the trail and parking spaces are delineated by painted white lines. A sign notes no parking during Sunday church hours. A trailhead monument, mile marker, and bench at this location would promote it as a formal trailhead.

The Peavine Trail is defined by a narrow asphalt strip and painted white line on the edge of the First Christian Church parking area.



The existing Peavine Trail is defined on the edge of the parking area by a solid white line that marks it and parking spaces within the First Christian Church parking area. Bollards or short posts along the trail edge would better delineate the path for trail users.

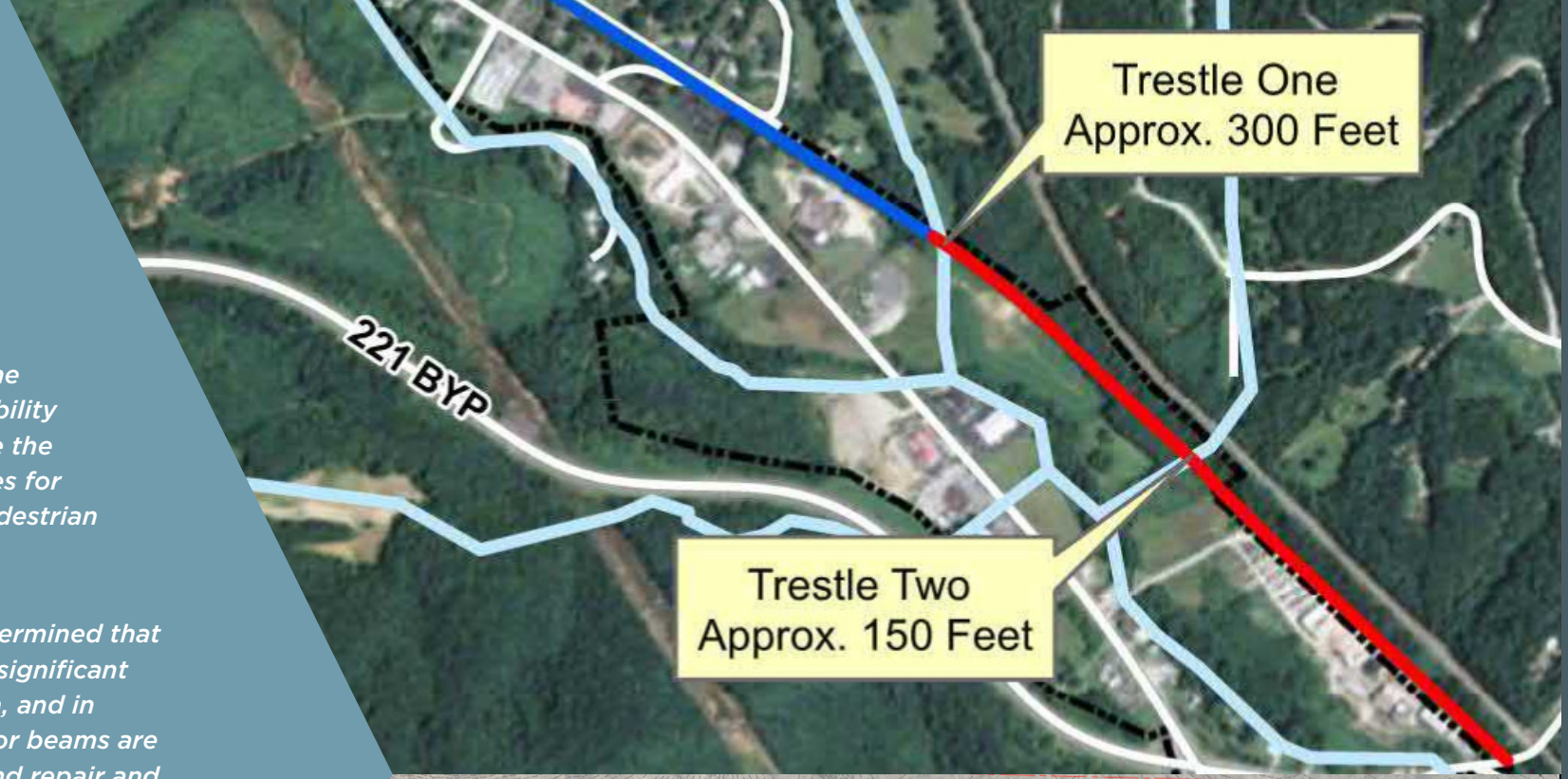
RECOMMENDATION 2.2: TRESTLES

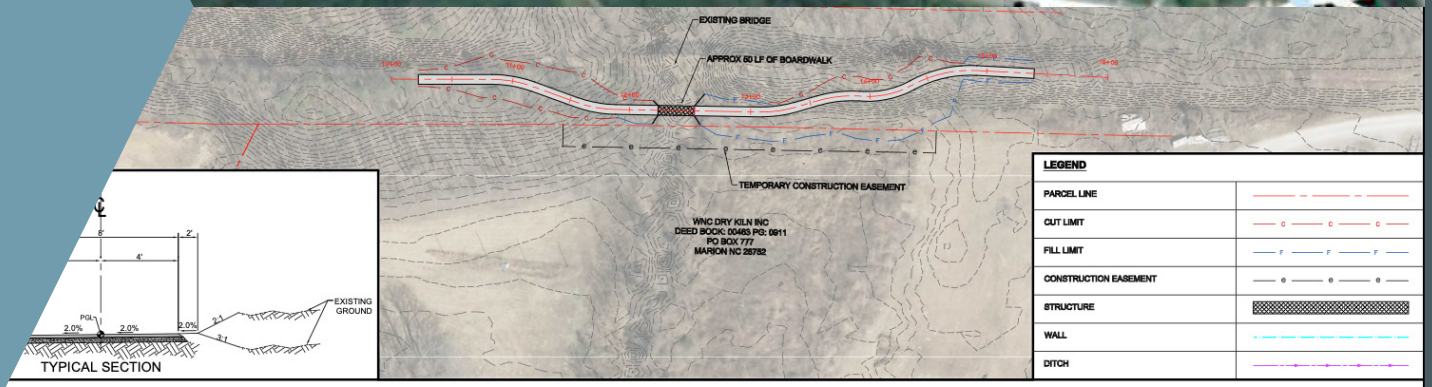
On this section of the proposed trail, there are two abandoned railroad trestles that cross small streams. The northern trestle is approximately 300 feet long and the southern trestle is approximately 150 feet in length. The trestles offer unique points of interest along the Peavine Rail Trail that provide a reminder of the history of the railroad corridor. The trestles will be modified and repaired to keep their historical look and provide safe passage for trail users.

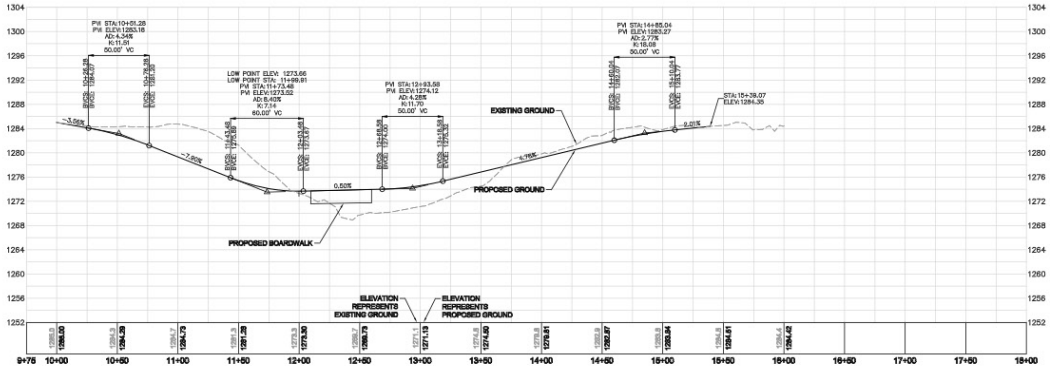
In January 2019, the City of Marion contracted with Kimley-Horn to conduct the Peavine Trail Trestles Feasibility Study and evaluate the two existing trestles for conversion into pedestrian bridges.

The consultant determined that both trestles have significant foliage overgrowth, and in many areas, exterior beams are deteriorated beyond repair and the timber is rotted. The study recommended and provided cost estimates for repurposing the existing trestles through a series of modifications and repairs. A cost estimate was also provided for demolishing the existing trestles, rerouting the trail, and utilizing shorter pedestrian bridges

Source: Peavine Trail Trestles Feasibility Study



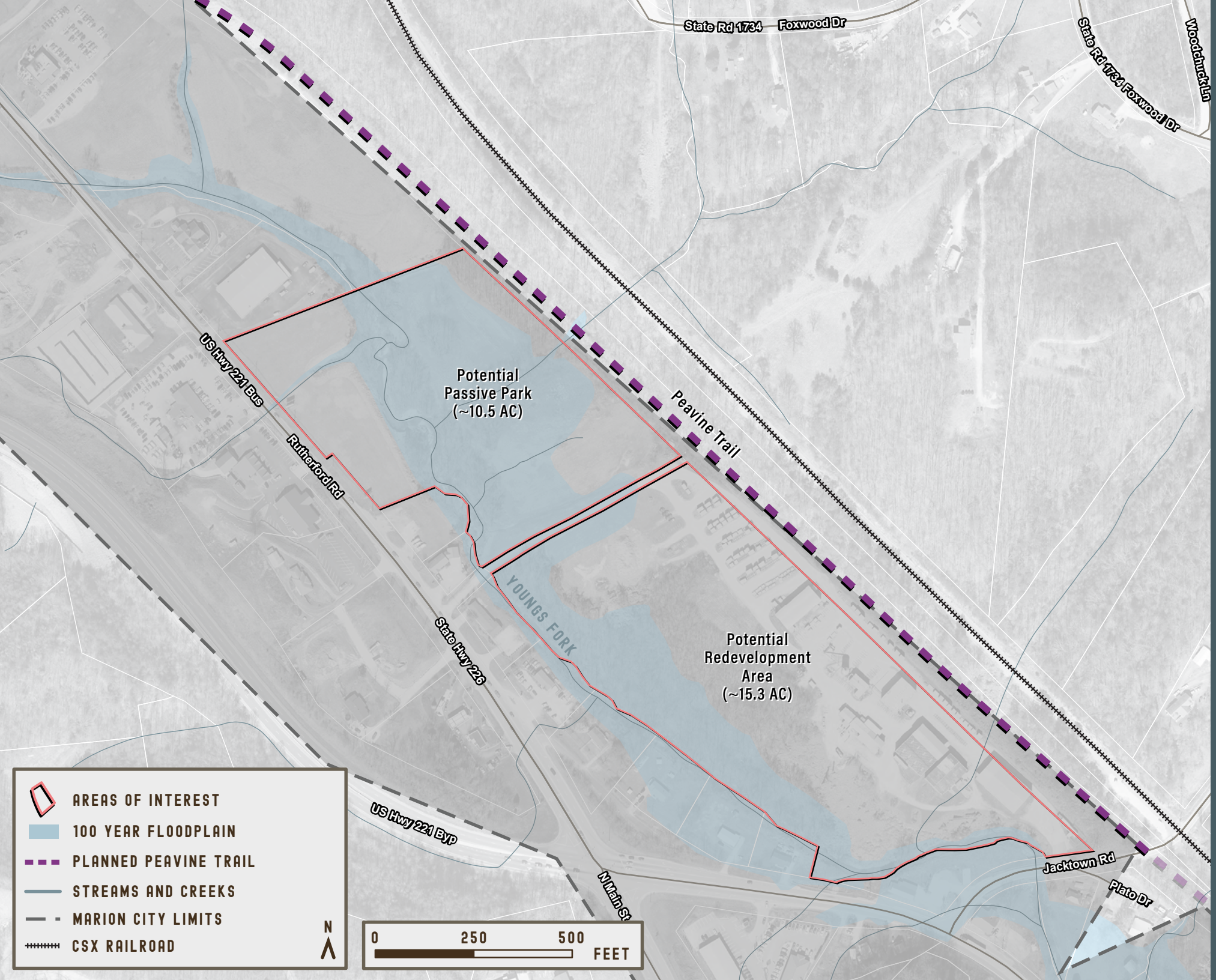




RECOMMENDATION 2.3: PASSIVE PARK OPPORTUNITY

A large 10.5 acre parcel of vacant land adjacent to the trail contains Youngs Fork and a wide floodplain. This site could present an opportunity for city officials to develop a passive park if the landowner is willing to sell or donate the property. Due to the site's location next to the stream and within the floodplain, the purchase price and associated costs may be covered by grant funding sources like the North Carolina Land and Water Fund (See Map 8: Passive Park & Mixed Use Redevelopment Opportunities, page right).

A large parcel adjacent to the rail trail provides a passive park and mixed-use redevelopment opportunity. The City can use grant funding to acquire the floodplain, and seek a private investor to develop the remaining portion of the property.

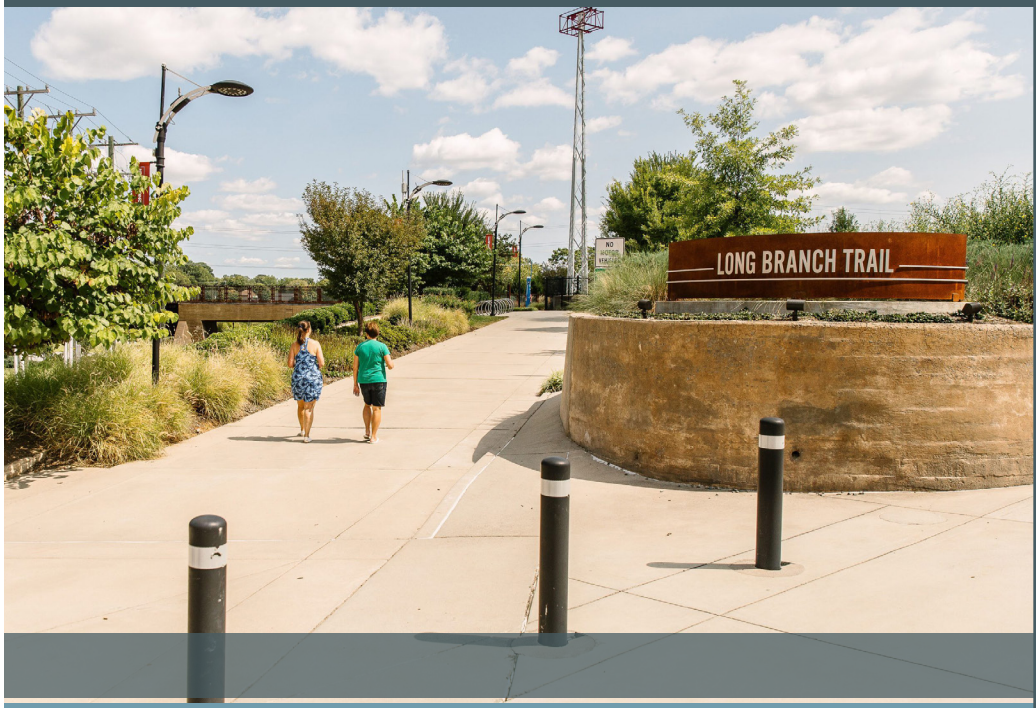


MAP 08: PASSIVE PARK & MIXED USE REDEVELOPMENT OPPORTUNITIES

RECOMMENDATION 2.4: MIXED-USE REDEVELOPMENT OPPORTUNITY

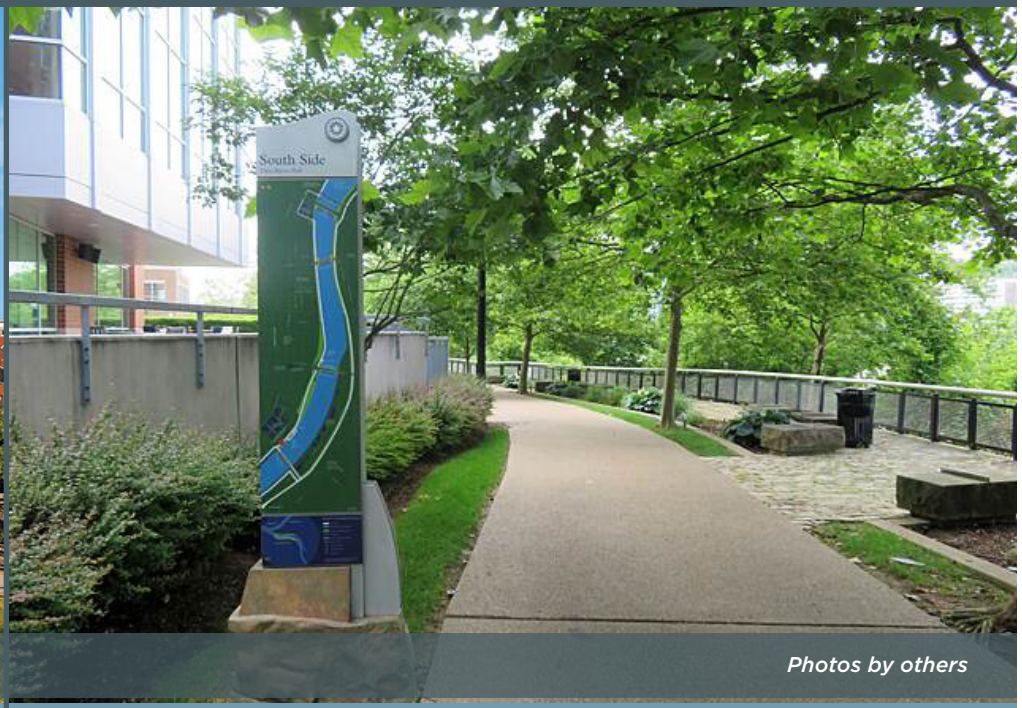
A 15.3 acre parcel formerly used as a sawmill with a dry kiln and lumber yard is located adjacent to the trail and Jacktown Road. The site is next to an identified public park opportunity, and with private investment it could become a major node along the trail accommodating residential units, shopping, restaurants, services, and office space (See Map 8: Passive Park & Mixed Use Redevelopment Opportunities, page 67).

EXH 14: TRAILS & MIXED USE DEVELOPMENTS



Innovation Quarter - Winston Salem, NC

In Winston Salem, North Carolina, the Innovation Quarter represents a vision for a research park led by city, county and state governments, educational institutions, local businesses, developers, and community members. The development offers a place for diverse businesses, residential apartments, research institutions, and public greenspace. The Long Branch Trail is a 1.7-mile greenway that runs the length of the Innovation Quarter and connects to other greenways, trails, and the larger community.



Photos by others

Union Square - Hickory, NC

Union Square is the centerpiece of downtown in Hickory, North Carolina, with shops, restaurants, and outdoor spaces that host farmers markets, public events, and dining. The recently developed Hickory City Walk runs adjacent to the site and parallel to an active Norfolk Southern railroad line. The ten-foot-wide, shared use path is part of the larger planned Hickory Trail that features a series of interconnected paths that provide connectivity throughout the city.

Southside Works - Pittsburgh, PA

Southside Works is a large development in Pittsburgh, Pennsylvania, that houses local and national retailers, restaurants, fitness, and lifestyle shops. Recent investments include innovative office space, parks and greenspace, and residential living space. Nearby connections to the Three Rivers Heritage Trail, an urban rail trail paralleling the Monongahela River, provide residents with a place to live, work, and play.

RECOMMENDATION 2.5: JACKTOWN ROAD TRAILHEAD

The abandoned railroad corridor crosses Jacktown Road before merging into an active CSX Transportation railroad line. At this location, an alternative alignment will need to be utilized to connect the rail trail at Jacktown Road with McDowell Technical Community College to the south. The study area ends at Jacktown Road.

Jacktown Road will serve as the southern terminus for the Peavine Rail Trail until a connection to McDowell Technical Community College is determined. Due to an uncertain timeline for this extension, a small formal trailhead with an information kiosk and parking would be appropriate within the abandoned corridor on the northwest side of Jacktown Road.

A small formal trailhead within the abandoned railroad corridor on the northwest side of Jacktown Road would mark the southern terminus of the trail.

5

IMPLEMENTATION

This chapter includes general implementation recommendations and a review of site specific recommendations for the trail corridor with an estimated probable cost range. The section concludes with a review of potential grant funding opportunities.

5.1 GENERAL IMPLEMENTATION RECOMMENDATIONS

Prior to implementation of this project, the City of Marion needs to complete a property boundary survey of the corridor to determine exactly where the 100-foot wide railroad easement is located in reference to adjacent properties, DOT right-of-ways, and the active railroad easement on the southern end of the corridor study area (See Appendix E: Corridor Deed, page 107). Along some sections of the trail, encroachments exist within the rail trail corridor. The City needs to identify areas of encroachment and resolve them with property owners.

A design level topographic survey will be required to complete engineering for the project. Due to the proposed trail type, features in the surrounding environment, and expected level of use, the Peavine Rail Trail should be designed and engineered for maximum sustainability and longevity. An appropriate design may include a crowned trail surface, ditches, and culverts to effectively deal with stormwater within the trail corridor. A design level survey can be included when the property boundary survey is completed.

Encroachments within the railroad corridor need to be identified and resolved.

5.2 PHYSICAL NEEDS SUMMARY AND ESTIMATE OF PROBABLE COSTS

This project summary matrix provides a listing of general and specific site recommendations from Chapter 4 with comments and an estimated cost range. The branding and signage cost estimate is included within specific site recommendations that incorporate these elements. The estimate for trail type recommendations include design, engineering, and construction. Road crossing recommendations reflect elements included in the standard road crossing enhancements (See Exhibit 4, page 41).

	COMMENTS	ESTIMATED COST RANGE
GENERAL PEAVINE RAIL TRAIL RECOMMENDATIONS		
Branding and Signage	Estimated cost range is noted within total for specific site recommendations.	Not applicable
Trail Type	Includes design, engineering, and construction.	$1,300,000-$1,650,000
Road Crossings	Includes five standard road crossing enhancements (See Exhibit 4, page 41).	$125,000
SPECIFIC SITE RECOMMENDATIONS		
SECTION 1: STATE STREET TO FORD WAY		
1.1: State Street Trail Entrance	Trail monument, fencing, mile marker, and benches	$40,000-$55,000
1.2: Alabama and Virginia Avenue Trail Crossings	Landscaping	$5,000-$10,000
1.3: Rail Trail Fencing between Virginia and Georgia Avenues	1,150 LF	$34,500-$46,000
1.4: Georgia Avenue and Morehead Road Trail Crossing	Sidewalk connection, cemetery sign, small seating area, interpretive waysides, and memorial	$60,000-$75,000
1.5: Cemetery Connections	Bridge (200') and natural surface trail (100')	$250,000-$275,000
1.6: Rail Trail Fencing at Oak Grove Cemetery	800 LF	$24,000-$32,000
1.7: Baldwin Avenue Crossing	Open green	$3,000-$5,000
1.8: Marion Street Crossing	Signage and fencing	$15,000-$20,000
SECTION 2: FORD WAY TO JACKTOWN ROAD		
2.1: First Christian Church Trailhead	Trail monument, mile marker, bench, and bollards	$30,000-$40,000
2.2: Trestles	Modification and repair of trestles	$980,000-$1,100,000
2.3: Passive Park Opportunity	Potential land acquisition may be reimbursed with grant funding	TBD
2.4: Mixed-use Redevelopment Opportunity	Potential project for private developer	TBD
2.5: Jacktown Road Trailhead	Small trailhead with parking and kiosk	$30,000-$40,000
	TOTAL	**$2,908,500-$3,473,000**

5.3 FUNDING OPPORTUNITIES

The Marion Peavine Rail Trail recommendations focus on improvements to an existing rail trail and development of an extension to the trail along the abandoned railroad corridor. The trail represents a feasible recreation, health, and tourism project for the City of Marion.

Many federal, state, and foundation grants and funding sources have a recreation or health focus (See Exhibit 16: Grant Funding Opportunities, page right). The City should develop a grant procurement strategy that leverages grants “against each other” to minimize the amount of matching funding contributed from local dollars. The City may appropriate funding from the City budget and request funding from McDowell County Tourism Development Authority occupancy tax revenues to supplement project funding.

PARTNERSHIP FUNDING AGENCY	MARION PEAVINE TRAIL IMPLICATIONS	MAXIMUM AMOUNT	MATCHING FUNDS REQUIRED	DEADLINES
NC Parks and Recreation Trust Fund (PARTF)	All types of parks, trails, and recreation facilities	$500,000	50%	Early May
NC Recreational Trails Program (RTP)	All types of trails, greenways, and paddle access areas	$100,000	25%	Varies
McDowell County Tourism Development Authority	Tourism-related infrastructure development	Varies	Varies	Varies
NC Water Resources Development Grant Program	Greenways, boardwalks, and water access areas	Varies	50%	Late December/ Late June
People for Bikes Community Grant	Bike Trails and Greenways	$10,000	50%	Spring/Fall
NC Land and Water Fund	Land acquisition, stream restoration, enhancement, or stabilization	Varies	Varies	Early February
AARP Community Challenge Grant	Help communities become more livable for people of all ages	Varies	N/A	Early March
T-Mobile Hometown Grant	Community and Public Spaces	$50,000	N/A	Rolling/Quarterly

APPENDIX

A: Phase I Environmental Assessment Executive Summary

B: NRCS Soil Map

C: Public Engagement Meeting Comments

D: Peavine Trail Trestle Feasibility Study

E: Corridor Deed

SUMMARY

S&ME, Inc. performed a Phase I Environmental Site Assessment (ESA) for subject property located approximately 0.1 mile northeast of State Street continuing to the southeast where it terminates approximately 0.2 miles southeast of Jacktown Road in Marion, McDowell County, North Carolina. The following summary is intended as an overview of the Phase I ESA, and does not include the complete findings and opinions of the full report.

The Phase I ESA included research of public records for the subject property and surrounding properties that might have a bearing on the subject property, interviews with local authorities, a reconnaissance of the subject property and the surrounding area in preparation of this report.

The subject property consists of an approximately 2½ mile long by 100-foot wide section of former Norfolk Southern railroad line located in the southeast portion of the city of Marion, North Carolina. The subject property is currently owned by the City of Marion, North Carolina.

The subject property is currently developed as a hiking/biking trail. Track ballast and soil cover the majority of the trail. Several chain-link fences are located along the trail designating sections that are currently closed to the public including one trestle. Stop signs and other trail signage are present on the property.

S&ME contracted Environmental Data Resources (EDR), to conduct an environmental search and prepare a Radius Map with GeoCheck® Report (EDR Report) compiling federal, state, and tribal environmental database information from the regulatory records of the United States Environmental Protection Agency (US EPA), the State of North Carolina, and available tribal sources. The purpose of the EDR Report was to identify environmental sites and activities within a radius of potential concern from the subject property, as outlined by ASTM Standard Practice E 1527-05. According to the EDR Report, the subject property is not listed in the searched databases. The following mapped sites were identified by EDR: three (3) RCRA Conditionally Exempt Small Quantity Generators, two (2) Emergency Response Notification System records, one (1) US Clandestine Drug Lab location, eight (8) Facility Index System sites, one (1) Historical US Clandestine Drug Lab location, one (1) NC Leaking Underground Storage Tank site, and five (5) NC Registered Underground Storage Tank sites. None of the mapped sites are considered a *recognized environmental condition*.

Creosote-treated railroad ties have historically been used for railroad track construction. Piles of excavated ties are still present on the southern portion of the property. Creosote contains polycyclic aromatic hydrocarbons (PAHs) which can be released from the treated wood. According to Brooks (2004) it is reasonable to expect a detectable migration of creosote-derived PAHs from newly treated railroad ties into supporting ballast during their first exposure to hot summer weather. The PAHs rapidly disappear from the ballast during the fall and winter following the initial summer loss. Then statistically insignificant vertical and horizontal migration of these PAHs suggest

that they either evaporated or were degraded in the ballast. Based on interviews conducted with Mr. Neal and Mr. Boyette, the former rail line located on the subject property was taken out of service in the mid 1970s. Based on the length of time since the former railroad track on the subject was in service, the presence of creosote-treated railroad ties on the subject property are not considered to be a *recognized environmental condition*.

Several **above-ground storage tanks** were observed at the residences and businesses adjoining the subject property. Storage tanks have the potential to leak and leach contaminants into the soil and groundwater. None of the storage tanks observed gave indications such as excessive rust or staining that they were leaking. If a release from a storage tank on an adjoining property were to occur impacting the soil and/or groundwater, the tank owner would be the responsible party for any required assessment and/or remediation, therefore; the above-ground storage tanks observed on properties adjoining the subject property are not considered to be a *recognized environmental condition*.

Buildings labeled as **glue room, engine room, machine shop, junk, and painting/spraying** are identified on the adjoining Catawba Furniture Company property on the Sanborn Fire Insurance maps from 1902 to 1939. This property was utilized as a concrete plant at the time of the site reconnaissance. Based on the property location, topography suggests contaminant migration would be to the south towards Youngs Fork, not towards the subject property. Based on this information, the previous building uses on the Catawba Furniture Company property adjoining the subject property are not considered to be a *recognized environmental condition*.

1. INTRODUCTION

S&ME, Inc. (S&ME) conducted a Phase I ESA of the above referenced property. The ESA was conducted using the American Society for Testing and Materials (ASTM) E 1527-05, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. S&ME's services were authorized by Mr. Jim B. Edwards, Executive Director with Isothermal Planning and Development Commission, and were completed in general accordance with S&ME, Inc. Proposal No. ENV-160-10 dated November 4, 2010.

1.1 Purpose

The purpose of the ESA is to identify, pursuant to ASTM E 1527-05, recognized environmental conditions in connection with the subject property. ASTM defines the term *recognized environmental condition* (REC) as the presence or likely presence of hazardous substances or petroleum products on the property under conditions that indicate an existing release, past release, or a material threat of a release of hazardous substances or petroleum products into the structures on the property or into the ground, groundwater, or surface water of the property. The term does not included *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of enforcement action if brought to the attention of appropriate governmental agencies.

1.2 Detailed Scope of Services

1.2.1 ASTM E 1527-05

S&ME's approach to performing this Environmental Site Assessment consisted of four major tasks in accordance with ASTM Standard Practice E 1527-05.

Task 1 - A review of reasonably ascertainable public records for the site and the immediate vicinity was conducted. This review was performed to characterize environmental features of the site and to identify past and present land use activities, on or in the vicinity of the site, which may indicate a potential for *recognized environmental conditions*. The review of the reasonably ascertainable public records included:

1. Examination of federal, state, tribal and reasonably ascertainable local public records for the site and immediate vicinity.

2. Examination of one or more of the following standard historical sources: aerial photographs, fire insurance maps, tax files, building department records, zoning/land use records, street directories and topographic maps of the site and vicinity for evidence suggesting past uses that might have involved hazardous substances or petroleum products.

Task 2 - A site reconnaissance was performed to identify visual signs of past or existing contamination on or adjacent to the site. This reconnaissance was also performed to evaluate evidence found in our public record review that might indicate activities resulting in hazardous substances or petroleum products being used or deposited on the site. The site reconnaissance included the following activities:

1. A reconnaissance of the site was performed to look for evidence of current and past property uses, signs of spills, stressed vegetation, buried waste, underground or above ground storage tanks, subsidence, transformers, or unusual soil discoloration which may indicate the possible presence of contaminants on the properties. Photographs are provided to document these conditions.

2. The exterior reconnaissance involved a viewing of the periphery of the property and a walk-through of accessible areas of the site interior including the exterior of on-site structures.

3. The interior reconnaissance involved a walk-through of the interior of accessible rooms within the onsite structures.

Task 3 – Interviews with the present property owner/property manager and business managers/employees, as well as appropriate local officials were conducted to consider local knowledge of hazardous substances or petroleum products on the property or on adjacent properties.

Task 4 - Report preparation and review.

1.2.2 Exclusions from and Additions to Scope of Services

Unless specifically authorized as an addition to the Phase I ESA work scope, the assessment did not include any assessment of environmental conditions not specifically included in the ASTM E1527-05 standard including, but not limited to sampling of materials (i.e., soil, surface water, groundwater or air), or the assessment of business risk issues such as wetlands, lead in drinking water, asbestos containing materials, mold, fungi or bacteria in on-site buildings, regulatory compliance, cultural/historic risks, industrial hygiene, health/safety, ecological resources, endangered species, indoor air quality (including an evaluation of vapor intrusion), radon or high voltage power lines.

1.3 Significant Assumptions

A significant assumption used in evaluating potential impacts to the subject property of nearby, off-site incidents was that the groundwater within the local geologic province is typically contained in an unconfined (water table) aquifer. The slope of the water table under static conditions (no pumping interference) often approximates the land surface topography. Thus, the interpreted groundwater flow direction is assumed to be approximately the same as the dip of the ground surface. Perennial surface waters (creeks, streams, rivers, etc.) are assumed to act as a discharge point for groundwater flow.

1.4 Limitations and Exceptions of Assessment

The Phase I Environmental Site Assessment was conducted using ASTM E 1527-05. The findings of this report are applicable and representative of conditions encountered at the property on the date of this assessment, and may not represent conditions at a later date. The review of public records was limited to that information which was available to S&ME at the time this report was prepared. Interviews with local and state government authorities were limited to those people whom S&ME was able to contact during the preparation of this report. Information was derived from “reasonably ascertainable” and “practically reviewable” sources in compliance with our understanding of the standards set forth by ASTM E 1527-05.

A limitation of the Phase I ESA was that standard historical sources were not reasonably ascertainable to trace the operational history of the property since 1940 in approximately five year intervals because standard historical sources, such as additional aerials photographs or Sanborn Maps, were not readily ascertainable to obtain the information.

The client was responsible for reviewing land title and judicial records for environmental liens and activity and use limitations. The results of that review were not shared with S&ME, Inc. Information provided by the client, including the User Questionnaire, is assumed to be correct.

1.5 Special Terms and Conditions

This Phase I ESA was conducted in general accordance with S&ME Proposal No. ENV-160-10 dated November 4, 2010. Agreement for Professional Services (Contract# 11-001) is incorporated into the Proposal, a copy of which is included in **Appendix VII**.

1.6 User Reliance

The resulting report is provided for the sole use of Isothermal Planning and Development Commission and the City of Marion, North Carolina. Use of this report by any third parties will be at such party's sole risk except when granted under written permission by S&ME. Any such authorized use or reliance by third parties will be subject to the same Agreement, under which the work was conducted for Isothermal Planning and Development Commission.

The additional party's use and reliance on the report will be subject to the same rights, obligations, and limitations imposed on the client by our Agreement. However, the total liability of S&ME to all parties of the Phase I ESA shall be limited to the remedies and amounts as provided in the Agreement as a single contract. The additional party's use and reliance on the report shall signify the additional party's agreement to be bound by the proposal and contract that make up the Agreement between S&ME and Isothermal Planning and Development Commission.

2. SITE DESCRIPTION

2.1 Site Location

The subject property is an approximately 2½ mile long by 100-foot wide section of former railroad line located in the southeast portion of the city of Marion, McDowell County, North Carolina. The location of the site is depicted on the Location Map, presented as **Figure 1** in **Appendix I.**

The subject property begins approximately 0.1 mile northeast of State Street at the intersection with the active Norfolk Southern rail line and continues to the southeast where it terminates approximately 0.2 miles southeast of Jacktown Road at the intersection with the active Norfolk Southern rail line. No parcel identification number has been assigned to the property by McDowell County as of the issuance of this report. The approximate boundaries of the subject property are depicted on **Figure 3** in **Appendix I**.

2.2 Site and Vicinity Characteristics

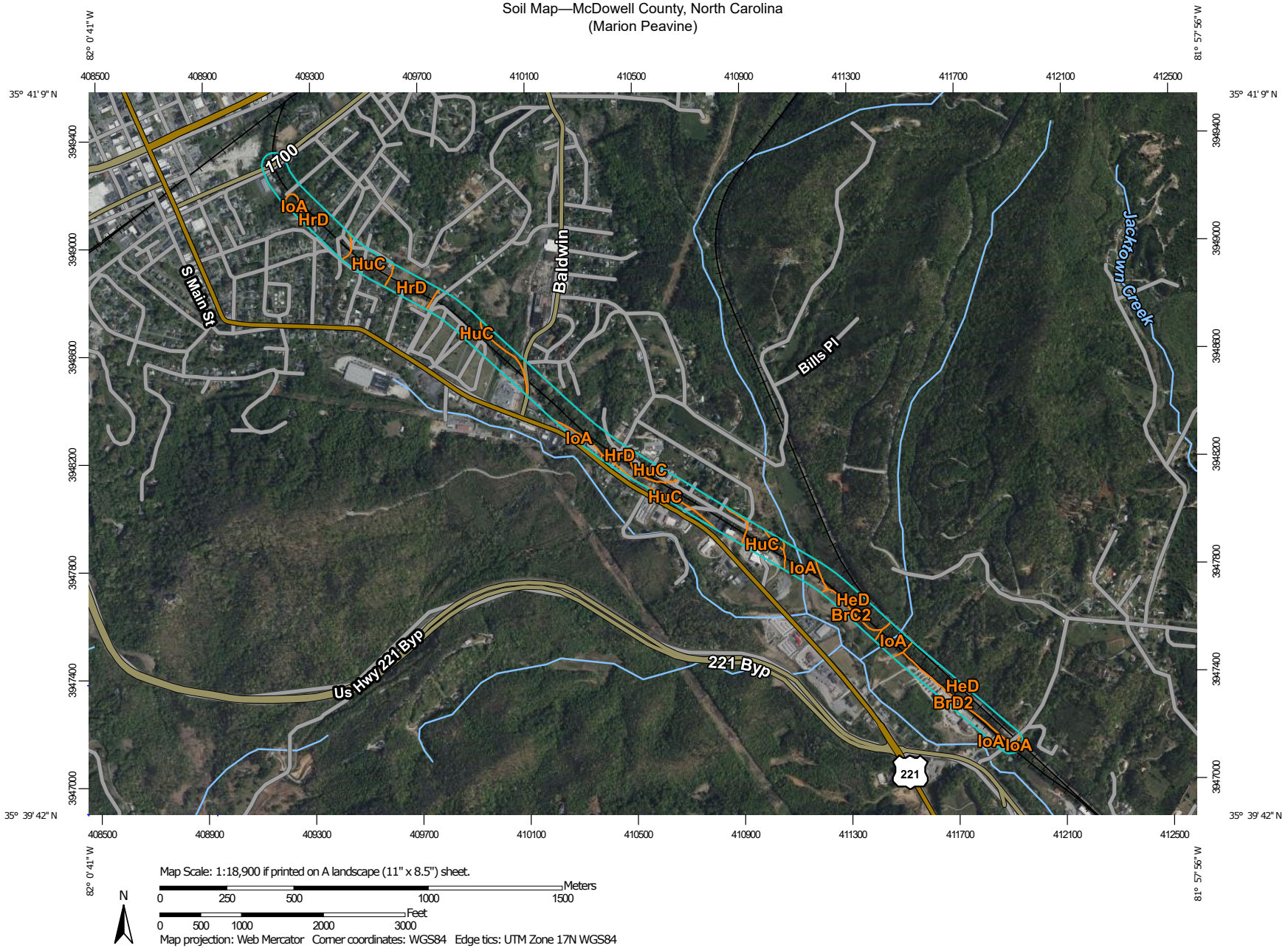
The site is a former rail line and is level to gently sloping along its length. Groundcover consists of railroad ballast and soil. Access to the property can be gained from several cross streets along the length of the property. The properties surrounding the subject property are primarily developed as light industrial, commercial/retail, residential, and undeveloped properties.

In general, the topography of the subject property and immediate adjoining properties slope to the southwest towards Youngs Fork.

2.3 Current Uses of the Property

The property is currently used as a hiking/biking trail.

Soil Map—McDowell County, North Carolina
(Marion Peavine)



Map Scale: 1:18,900 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 250 500 1000 1500

Feet
0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: McDowell County, North Carolina
Survey Area Data: Version 24, Sep 14, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 22, 2022—May 10, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BrC2	Braddock clay loam, 6 to 15 percent slopes, eroded	1.8	2.2%
BrD2	Braddock clay loam, 15 to 25 percent slopes, eroded	4.9	6.1%
HeD	Hayesville-Evard complex, 15 to 25 percent slopes	12.9	15.9%
HrD	Hayesville-Evard-Urban land complex, 15 to 25 percent slopes	32.6	40.3%
HuC	Hayesville-Urban land complex, 6 to 15 percent slopes	20.5	25.3%
IoA	Iotla sandy loam, 0 to 2 percent slopes, occasionally flooded	8.3	10.3%
Totals for Area of Interest		**81.0**	**100.0%**

Community Input Drop-in Session
Marion Community Building
Thursday, December 8, 2022 - 4-6 pm

- Peavine is very good.
- Appreciate the opportunity to have input.
- Work on trestles in particularly impressive.
- Many thanks.

- Thank you, thank you, thank you!
- So excited about the trail work.

- RJR fund for exercise and active living

- Just for the area @ State St down to VA St. Leave it alone - maybe smoother trail
- The less done the better.

- We support the Peavine Rail to Trail project and the current plan.
- Consider handi cap access
- Safety items on trestles and large hills

- Instead of rebuilding trestles excavate on each side and replace with a smaller bridge.

PEAVINE TRAIL TRESTLES

FEASIBILITY STUDY

JANUARY 2019

Kimley»Horn

Peavine Trail Trestles

Peavine Trail is a current pedestrian trail located in Marion, North Carolina. The trail follows an existing railroad corridor that has been repurposed for pedestrian usage. In its current state, the trail begins at State Street and runs southeast to Ford Way. The City of Marion and The North Carolina Department of Transportation (NCDOT) have plans to extend the Peavine Trail to the southeast along the existing railroad corridor. Along the proposed extension of the trail are two railroad trestles that span small creeks. The City asked Kimley-Horn to evaluate the two abandoned railroad trestles for possible conversion into pedestrian bridges for the trail extension.

Kimley-Horn performed a site visit to Marion, North Carolina on October 3rd, 2018 to observe and document the current condition of the two trestle bridges along the existing railroad corridor. Photographs were taken during the site visit to document the condition of the trestles. Full photographic documentation can be found in the photo log in Appendix A. On the day of the site visit, the weather was mostly sunny with temperatures in the mid-80s. Kimley-Horn's scope included a site visit that was limited to visual, non-destructive observations of the readily accessible portions of each trestle. In addition, Kimley-Horn will provide two alternatives for converting the existing trestles to pedestrian bridges. The scope did not include structural calculations, materials testing, hydraulic calculations, geotechnical services, construction documents or any additional services that were not explicitly described in the original scope of services.

The following section of this report describes the two trestle bridges based on the site visit and information provided by the City of Marion. For general location and naming convention of the trestles, please see Figure 1, below.

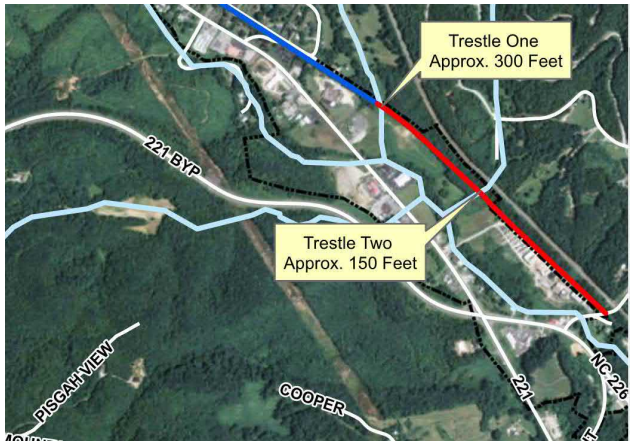


Figure 1: Location map and naming convention for trestle bridges

General Description

- Railroad line was in operation until 1983.
- The land was purchased by the City of Marion from Norfolk Southern Railway in 2010.
- Both trestles have significant foliage and overgrowth around/on them which partially obscures them from view.
- Both trestles span over minor streams that feed into Youngs Fork.
- Trestle One has 16 spans and is approximately 25' above the ground surface at its highest point.
- Trestle Two has 9 spans and is approximately 15' above the ground surface at its highest point.
- Per field measurements, the approximate span length was 14'–0", typical for all spans on both trestles.
- The substructure consists of timber bent caps, each supported by six (6) timber piles.
- Timber piles were tapered from top to bottom and have an approximate diameter of 12" near ground level.
- Timber cap beams are approximately 16" width x 15" depth.
- Superstructure of both trestles consists of 18 beams that measure approximately 12" width x 15" depth.
- The railroad ties and rails have been removed from both trestles. No ballast was visible on the trestles.
- The surface of each bridge has been covered with soil, which has allowed for vegetation growth.

Observed Previous Modifications and Repairs

- Trestle One
  - Two of the timber bent caps have been replaced with concrete bent caps.
  - The concrete bent caps have been anchored to the piles with steel rods.
  - Bent 3 has a major pile repair on one of the exterior piles. The original pile was cut off near the ground line and replaced with a new square pile. This square pile is supported by at least three concrete members which appear to be bearing directly on the ground.
  - Several piles were cut near the ground line. The top part of the existing pile was replaced with newer timber members (square in some cases and circular in other cases) with the existing pile remaining in the ground. In these cases, the new timber members were connected to the existing piles with railroad tie nails.

- Trestle Two
  - No obvious modifications or repairs.

Peavine Trail Trestle Feasibility Study (EB-5542)
January 2019 – Marion, North Carolina

Key Findings

Trestle One

Figure 2: Elevation view of Trestle One – showing significant overgrowth on structure

- **Superstructure**

There was a significant amount of overgrowth on Trestle One. Kudzu is growing on the substructure elements and obstructing the view of these elements. In addition, the walking surface of the bridge has a significant amount of vegetation, including trees, growing over and covering the beams. Because of this overgrowth, the top of the deck/beams were inaccessible and the condition of the top of the beams is unknown.

Figure 3: Overgrown plants and foliage on Trestle One

Underneath the trestle, the beams were more accessible/visible which allowed for some visual observation. The exterior beams in nearly all spans were deteriorated beyond repair. In many cases there was significant section loss and severe rotting of the timber, which is shown in Figure 4.

Figure 4: Significant deterioration of exterior beam, typical for exterior beams

In some select spans, the exterior beams have begun to separate from the interior beams, allowing for openings in the deck, which can be seen in Figure 5.

Figure 5: Exterior beam that has rotated away from the interior beams, showing visible light from above

In various spans along the trestle, there was an assortment of interior beams with varying degrees of section loss, as seen in Figure 6. The level of decay in the interior beams varied, with some of the beams only showing minor decay, while other beams showed significant section loss and major rotting. Beams with major rotting will require full replacement, as the section loss is too significant for the member to be relied on to provide structural capacity.

Figure 6: Interior beam showing significant section loss in span 2

- **Substructure**

Two of the timber bent caps have been replaced with concrete bent caps. These concrete caps were anchored to the piles using steel rods. The cap and the connection are both shown in Figure 7. In general, the concrete caps appeared to be in good condition with minimal cracking/spalling.

Figure 7: Concrete bent cap with connection to existing timber piles

Many of the timber bent caps were inaccessible due to their height from the ground, therefore Kimley-Horn was only able to complete a visual assessment from the ground. Many of the bent caps were in generally good condition. However, there were several timber bent caps that would require replacement due to significant decay and rotting. For instance, Bent 7, shown in Figure 8, shows some severe splitting and general decay. This bent cap, and all similar caps, will require replacement.

Figure 8: Timber bent cap with some section loss and decay

Overall the piles were in fair condition with miminal section loss and decay. There was a single pile with some major section loss at the end bent that will need to be replaced. Additionally, there were several piles that had been cut near the ground line and spliced with a new section of pile. The portion of the pile that was in the ground remained in place and the portion of the pile above ground had been replaced with various timber members – some square and some circular. The new timber members were connected to the existing pile (the portion in the ground) with a single railroad tie nail. Further investigavtion is requied to determine if this detail is structurally adequate. An example of one of these piles is shown in Figure 9.

Figure 9: Timber piling that has been cut and replaced with a circular timber member and connected with a railroad tie nail.

A major pile modification was completed on one of the exterior piles on Bent 3. The original pile was cut off near the gournd and replaced with a square pile. The load was taken from the square pile to the ground, bypassing the existing in-groud pile, by a system of concrete members bearing directly on the ground. This repair does not appear to be structurally adequate and would need to be modified or completely removed before the trestle could be placed in service. The pile modification can be seen in Figure 10.

Figure 10: Timber piling resting on concrete members – a modification to the existing piles.

- **Stream Conditions**

The stream was generally calm during the site visit with minimal noticeable scour on either bank. There is no rip rap or other scour protection on the banks of the stream.

Figure 11: Stream under the Trestle One

Trestle Two

Figure 12: Elevation view of Trestle Two – showing some overgrowth on structure

- **Superstructure**

As with Trestle One, there was some overgrowth on top of the structure. Because of this overgrowth, the top of the deck/beams was inaccessible and the condition of the top of the beams is unknown.

Figure 13: Standing on top of Trestle Two, looking at the overgrowth on the superstructure

The exterior beams in nearly every span have failed or have considerable damage. In many cases, the beams have separated from the interior beams due to falling trees or tree root systems from the vegetation on top of the trestle. These beams should not be used to resist structural loading in any future modifications to the trestle.

Figure 14: Complete failure in exterior beam in second span

In general, the interior beams of Trestle Two were in better condition than the interior beams of Trestle One. However, there were still several beams that showed signs of decay and section loss. Prior to reusing any interior beam, they will need to be investigated in more detail to determine which beams must be replaced.

Figure 15: Interior beam showing several spans where the beams are generally in good condition

- **Substructure**

End Bent 1 (south end bent) has numerous issues relating to various structural members. First, there were backwall members showing signs of severe decay and section loss. This damage was noticeable at the ends of each backwall member. Additionally, the cap has numerous locations of spliting and failed timber that will require replacement. Finally, one exterior pile has significant damage and is no longer providing any structural capacity. See Figure 16 for documentaion of the cap and pile damage.

Figure 16: End Bent 1 pile cap, showing signs of decay

Many of the timber bent caps were inaccessible due to their height from the ground, so Kimley-Horn was only able to complete a visiual assessment from the ground. Several of the timber bent caps were observed to have splitting and section loss. This damage was noticed almost exclusively on the ends of the timber bent caps. It is anticipated that several of these timber bent caps will need to be replaced prior to the bridge being repurposed.

Figure 17: Interior bent cap, showing signs of deterioration at the edge

Overall the piles were in fair condition with miminal section loss and decay. However, there were a few piles on this trestle with noticeable splitting. In addition, there were two piles on the last bent with significant section loss. These piles are not adequate and would need to be replaced with similar sized piles.

Figure 18: Interior bent cap, highlighting the splitting of the timber piles

Figure 19: Significant section loss in two interior piles

- **Stream Conditions**

  The stream at this location meandered more and had a higher velocity than the stream at Trestle One. Each bank of the stream has scour issues, both upstream and downstream. At the location of the trestle, several piles have experienced scour, which will need to be remediated prior to the structure being repurposed.

  There was noticeable debris (tires, old trees, etc.) in the stream that is causing the stream to meander. The tires appeared to be supporting the west bank, however it was not clear if the tires were intended for scour protection or just debris that has become lodged in the stream bank.

Figure 20: Stream under the Trestle Two with various debris

Figure 21: Stream bank scour

Recommendations

Based on the information gathered during the site visit, two options were developed to continue developing Peavine Trail along the existing railroad line. Option One is to repurpose the existing trestles through a series of modifications and repairs. Option Two involves demolition of the existing structures and rebuilding similar structures at the same locations. Each of these options is discussed in more detail below.

A third option would be to realign the trail to avoid the existing trestle locations. With this option, no modifications would be necessary, and the existing trestles would remain in place. It is recommended that access to the trestle decks be restricted since the structure would continue to deteriorate over time.

Option One – Repurpose Existing Trestles

The first option for the trestles is to repurpose them to accommodate pedestrian traffic as part of the Peavine Trail. Based on the current state of the trestles and observations from the site visit, Kimley-Horn believes that the trestles can be repurposed for use on a greenway trail. If the City chooses to move forward with repurposing the trestles, Kimley-Horn has developed a list of modifications/repairs to the trestles that are recommended for the repurposing. These recommendations are discussed in more detail below.

- **Remove Exterior Beams**

  The exterior beams, in nearly all spans of both trestles, have failed or have significant section loss. These beams should be removed. Because of the width of the existing bridge and the necessary width for a greenway trail, replacing these members is not necessary.

- **Replace Damaged Timber Bent Caps and Timber Backwalls**

  Select timber bent caps and backwalls are failing in both trestles and should be replaced with same-sized timber members. Approximately 3 bent caps at each trestle and all backwalls will require replacement at this time. Additional bent caps could also need replacement with continued decay. The new timber bent caps and backwall members should be pressure treated to help with long term durability.

- **Replace Damaged Interior Timber Beams**

  Multiple locations of damaged interior beams were observed during the site visit on both trestles. Any interior beam that has been damaged by roots or has section loss due to decay must be replaced with a similar-sized member. From the limited visual observations, it is estimated that approximately 25% of interior beams on Trestle One and 15% of interior beams on Trestle Two will require replacement. Visual inspection of the top of the beams was not possible due to vegetation on top of the trestle. Depending on condition of the top side of the beams, more interior beams might require replacement.

- **Repair timber piles**

  Multiple piles on Trestle One have been cut near the ground line and replaced with new piling. These piles should be wrapped with a pile jacket to ensure they are transferring the load to the existing piles in the ground. In addition, there are several damaged piles on both trestles that must be addressed. These damaged piles can be repaired with a pile jacket to provide adequate structural capacity.

- **Add Decking**

  Decking needs to be added to the to surface of the beams to create an acceptable surface for the greenway trail. There are two practical options for this trail surface. The first option involves providing timber decking boards placed transverse to the bridge. This option would have a look consistent with typical boardwalk construction. The second option would be a concrete deck. This option would consist of several inches of concrete with steel reinforcing to create the walking surface. The concrete deck would be more expensive than the timber decking option but would require less long-term maintenance.

- **Add Railing**

  A railing must be added on each side of the trestle for the structure to be used as a greenway trail. This railing must be 54" above the walking surface and have openings of 6" or less to accommodate both pedestrians and bicyclist.

- **Remove Vegetation/Debris/Insects**

  Remove all vegetation and debris from both trestles. This includes the kudzu growing on the substructure and all vegetation on the top surface of the trestles. This process should be a regular maintenance item to prevent the vegetation from causing damage to the trestles. In addition, remove any standing debris, such as tree limbs, trash, etc. from the trestles and surrounding area. These materials allow moisture to build-up, which can increase the rate of deterioration of the structural members.

  In addition, harmful insects will sometime nest inside the timber members of the bridge. Intermittently monitor and safely remove any insect nests affixed to the trestles to alleviate any pedestrian safety hazards and to prevent deterioration of structural members.

- **Power Wash and Apply Preservative Treatment to Timber Members**

  Power wash the entire structure to mitigate growth of mold/mildew. Once power washing is complete apply a preservative treatment to all timber members that remain to extend the lifespan of the existing timber members.

- **Stabilize Stream Bank**

  Remove the debris on and under the stream banks. Stabilize the stream bank at Trestle Two with armoring or riprap. Routinely monitor for and remove debris accumulation around bridge.

Peavine Trail Trestle Feasibility Study (EB-5542)
January 2019 – Marion, North Carolina

Option Two – New Trestle Structures

Option Two consists of replacing the existing trestles with new structures. In this option, the superstructure would be removed from the trestles followed by the bent caps and cross braces. The timber piles would be cut off near the existing ground line with the piles below ground remaining in place. Timber members that are not damaged could be reused in other applications. The new structure would then be constructed following roughly the same horizontal and vertical alignment. These new structures would be constructed of timber members and have a similar look to the old structures. Timber piles would be driven or drilled depending on soil conditions and then connected with crossing bracing and timber caps. Timber stringers would be used to span between bents with span lengths ranging from 10' to 15'. Timber or concrete decking would be used for the surface of the bridge with AASHTO and NCDOT compliant railings. There are several advantages of providing new structures, which include less long-term maintenance, more control over the appearance, and more predictability in construction cost.

Option Three – Leave Existing Trestles & Realign Trail

Option Three consists of realigning the trail to the south side of the existing trestles and leaving the trestles in-place as-is. Realignment concepts for both trestles are shown in Appendix C. For the purposes of this study, a typical section consisting of an 8 ft wide trail with 2 ft shoulders was assumed based on other segments of the trail and direction from the City of Marion. Retaining walls were used at the north trestle to limit grading impacts into the railroad embankment, minimize fill in potential wetlands, and minimize the need to acquire additional right-of-way outside the existing railroad right-of-way. Boardwalk structures were used to span a potential stream location at the north trestle and to span the existing stream at the south trestle. Temporary construction easements will be necessary for the grading required with this option as well as access agreements with adjacent landowners to provide construction access.

Cost Estimates

After reviewing the two options for maintaining the Peavine Trail along the current railroad alignment as well as realigning the trail around the trestles, an Opinion of Probable Construction Cost (OPCC) was developed for each option. This cost estimate is a preliminary projection of approximate construction cost and should be used for planning purposes only. ***Cost included in the estimates for Options 1 and 2 are for structural items only.*** For a detailed breakdown of cost associated with each option, see full OPCC in Appendices B & C.

Option 1 – Repurpose Existing Trestle	Cost
Trestle One & Two (Structures Cost Only)	
With Timber Decking	$533,546
With Concrete Decking	$611,457
Option 2 – New Trestle Structures	**Cost**
Trestle One & Two (Structures Cost Only)	
With Timber Decking	$756,800
With Concrete Decking	$831,320

Option 3 – Realign Trail Around Trestles	Cost
Trestle One	$368,000
Trestle Two	$74,000

Kimley-Horn has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Kimley-Horn at this time and represent Kimley-Horn's judgment as a design professional familiar with the construction industry. Kimley-Horn cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinion of probable construction costs.

Summary

At the request of the City of Marion and NCDOT, Kimley-Horn completed an assessment of two existing railroad trestles for possible conversion to pedestrian bridges as part of the Peavine Trail extension. Based on the information gathered during the site visit and from the City of Marion and NCDOT staff, Kimley-Horn has recommended two structural options for extending Peavine Trail over the existing trestle structures. Option One consists of repurposing the existing trestle by repairing, replacing, or adding various elements to create a structure that is capable of functioning as a pedestrian bridge. Option Two involves using the existing alignment of the railroad but demolishing the existing trestles and building new timber structures. Both options are viable alternatives of extending Peavine Trail.

A third option that does not include any structure modification or replacement would be to realign the trail to avoid the existing trestle locations. With this option, no structure modifications would be necessary, and the existing trestles would remain in place.

To assist in the planning of this project, Kimley-Horn has provided cost estimates for each of the two trestle modification options as well as the trail realignment option. The totals are shown in the Cost Estimate section of this report and the detailed breakdown is included in Appendices B & C. Also included in those estimates is a separate cost for timber or concrete decking. Please note that the cost estimates for Options 1 and 2 are for structure items only and do not include any other greenway costs.

Both repurposing the existing trestles and constructing new structures will require a detailed design analysis to ensure the final structure is sufficient to handle the code-required loading of the greenway trail. Analysis shall be performed according to all NCDOT and AASHTO standards. A professional engineer that is registered in the state of North Carolina shall be retained for this analysis. All recommendations in this report must be investigated in the design phase to confirm their feasibility.

Peavine Trail Trestle Feasibility Study (EB-5542)
January 2019 – Marion, North Carolina

Appendix A

Photo Log

Appendix A - Photo Documentation Trestle 1:

Photo 1
Trestle One – General Elevation

Photo 2
End Bent Pile Decay

Photo 3
Interior Beam Decay

Photo 4
Interior Beam Decay

Photo 5
Decayed/Damaged Exterior Beam

Photo 6
Typical Interior Bent

Peavine Trail Trestle Feasibility Study (EB-5542)
January 2019 – Marion, North Carolina

Photo 7
Failed Exterior Beam

Photo 8
Concrete Bent Cap

Photo 9
Bent 3 Major Pile Repair

Photo 10
Bent 3 Major Pile Repair

Photo 11
Bent 3 Major Pile Repair

Photo 12
Bent 3 Major Pile Repair

Photo 13
Spliced Cross Brace

Photo 14
Rotated Exterior Beam

Photo 15
Side Elevation

Photo 16
Failed Exterior Beam

Photo 17
Typical Interior Bent

Photo 18
Split Bent Cap

Photo 19
Bearing Pads at Concrete Bent Cap

Photo 20
Split Bent Cap

Photo 21
Failed Exterior Beam

Photo 22
Typical Cross Bracing

Photo 23
Typical Pile Modification

Photo 24
Failed Exterior Beam

Photo 25
Damaged Interior Beams

Photo 26
Typical Pile Modification

Photo 27
Damaged Interior Beam

Photo 28
Interior Beam Decay

Photo 29
Damaged Interior Beam

Photo 30
Rotated Exterior Beam

Photo 31
North Trestle One Approach

Photo 32
Looking South on Top of Trestle One

Photo 33
Typical Vegetation on Trestle Deck

Photo 34
Rotated Exterior Beam from Above

Photo 35
Tree Growing on Trestle One Deck

Photo 36
Trestle One Deck

Photo Documentation Trestle Two:

Photo 37
Trestle Two – General Elevation

Photo 38
Trestle Two Deck

Photo 39
Trestle Two South Approach

Photo 40
End Bent Backwall Decay

Photo 41
Failed Exterior Beam

Photo 42
Typical End Bent Backwall Elevation

Photo 43
Damaged Timber Pile

Photo 44
Damaged Timber Cap

Photo 45
Typical Timber Pile

Photo 46
Exterior Beam Decay

Photo 47
Tree Growing Under Trestle Two

Photo 48
Completely Failed Exterior Beam

Photo 49
Completely Failed Exterior Beam

Photo 50
Typical Interior Bent

Photo 51
Typical Interior Beams

Photo 52
Tree Growing from Timber Cap

Photo 53
Looking Upstream

Photo 54
Looking Downstream

Peavine Trail Trestle Feasibility Study (EB-5542)
January 2019 – Marion, North Carolina

Photo 55
Stream Bank Scour

Photo 56
Stream Bank Scour

Photo 57
Tire Imbedded into Stream Bank

Photo 58
Split Cross Brace Member

Photo 59
Section Loss in Two Timber Piles

Photo 60
Damage from Falling Tree

Appendix B

Opinion of Probable Construction Costs (Repurpose or Rebuild Trestles)

Kimley»Horn

Appendix B - Opinion of Probable Construction Cost (OPCC)

Option One - Timber Decking

Repair Items	Quantity		Unit Cost	Estimated Cost
Trestle One				
Selective Demolition of Existing Structure and Debris Removal	1	LS	$100,000.00	$100,000
Timber Decking	1	LS	$11,850.00	$11,850
Replace Deteriorating Timber Beams[1]	1	LS	$25,600.00	$25,600
Replace Deteriorating Timber Caps	1	LS	$13,800.00	$13,800
Replace Deteriorating Timber Backwalls	1	LS	$7,400.00	$7,400
Railing	493	LF	$75.00	$36,975
Repair Existing Piles with Pile Jackets	80	LF	$600.00	$48,000
Stabilize Stream Bank w/ Riprap[2]	0	TON	$65.00	$0
Powerwash Entire Structure & Apply Preservative Treatment to Timber Members	7,728	SF	$2.00	$15,456
Contingency (10% of cost)	1	LS	$25,909.00	$25,909
Trestle Two				
Selective Demolition of Existing Structure and Debris Removal	1	LS	$75,000.00	$75,000
Timber Decking	1	LS	$7,410.00	$7,410
Replace Deteriorating Timber Beams[3]	1	LS	$9,600.00	$9,600
Replace Deteriorating Timber Caps	1	LS	$9,200.00	$9,200
Replace Deteriorating Timber Backwalls	1	LS	$7,400.00	$7,400
Railing	308	LF	$75.00	$23,100
Repair Existing Piles with Pile Jackets	70	LF	$600.00	$42,000
Stabilize Stream Bank w/ Riprap	16	TON	$65.00	$1,040
Powerwash Entire Structure & Apply Preservative Treatment to Timber Members	4,347	SF	$2.00	$8,694
Contingency (10% of cost)	1	LS	$18,345.00	$18,345
Sub-Total Repair Items				$486,779
Engineering Costs				
Design Costs (15% of Construction Cost)[4]	1	LS	$46,767.00	$46,767
			Total Estimated Cost[5] =	**$533,546**

Footnotes

1 It is assumed that approximately 25% of the beams of Trestle One will need to be replaced
2 At this time, riprap is not necessary at Trestle One.
3 It is assumed that approximately 15% of the beams of Trestle Two will need to be replaced
4 Engineering costs are included for estimating purposes only are not to be considered final nor negotiated.
5 Total Estimated Cost is for structures items only.

Kimley»Horn

Appendix B - Opinion of Probable Construction Cost (OPCC)

Option One - Concrete Decking

Repair Items	Quantity		Unit Cost	Estimated Cost
Trestle One				
Selective Demolition of Existing Structure and Debris Removal	1	LS	$100,000.00	$100,000
Concrete Decking	3,450	SF	$15.00	$51,744
Replace Deteriorating Timber Beams[1]	1	LS	$25,600.00	$25,600
Replace Deteriorating Timber Caps	1	LS	$13,800.00	$13,800
Replace Deteriorating Timber Backwalls	1	LS	$7,400.00	$7,400
Railing	493	LF	$75.00	$36,975
Repair Existing Piles with Pile Jackets	80	LF	$600.00	$48,000
Stabilize Stream Bank w/ Riprap[2]	0	TON	$0.00	$0
Powerwash Entire Structure & Apply Preservative Treatment to Timber Members	7,728	SF	$2.00	$15,456
Contingency (10% of cost)	1	LS	$29,898.00	$29,898
Trestle Two				
Selective Demolition of Existing Structure and Debris Removal	1	LS	$75,000.00	$75,000
Concrete Decking	1,940	SF	$15.00	$29,106
Replace Deteriorating Timber Beams[3]	1	LS	$9,600.00	$9,600
Replace Deteriorating Timber Caps	1	LS	$9,200.00	$9,200
Replace Deteriorating Timber Backwalls	1	LS	$7,400.00	$7,400
Railing	308	LF	$75.00	$23,100
Repair Existing Piles with Pile Jackets	70	LF	$600.00	$42,000
Stabilize Stream Bank w/ Riprap	16	TON	$65.00	$1,040
Powerwash Entire Structure & Apply Preservative Treatment to Timber Members	4,347	SF	$2.00	$8,694
Contingency (10% of cost)	1	LS	$20,514.00	$20,514
Sub-Total Repair Items				$554,527
Engineering Costs				
Design Costs (15% of Construction Cost)[4]	1	LS	$56,930.00	$56,930
Total Estimated Cost[5] =				**$611,457**

Footnotes

1 It is assumed that approximately 25% of the beams of Trestle One will need to be replaced
2 At this time, riprap is not necessary at Trestle One.
3 It is assumed that approximately 15% of the beams of Trestle Two will need to be replaced
4 Engineering costs are included for estimating purposes only are not to be considered final nor negotiated.
5 Total Estimated Cost is for structures items only.

Kimley»Horn

Appendix B - Opinion of Probable Construction Cost (OPCC)

Option Two - Timber Decking

Repair Items	Quantity		Unit Cost	Estimated Cost
Trestle One				
Demolition of Existing Structure	1	LS	$150,000.00	$150,000
New Trestle Structure	1	LS	$276,000.00	$276,000
Trestle Two				
Demolition of Existing Structure	1	LS	$110,000.00	$110,000
New Trestle Structure	1	LS	$156,000.00	$156,000
Sub-Total Replacement Items				$692,000
Engineering Costs				
Design Costs (15% of Construction Cost)[1]	1	LS	$64,800.00	$64,800
Total Estimated Cost[2] =				**$756,800**

Footnotes

1 Engineering costs are included for estimating purposes only are not to be considered final nor negotiated.
2 Total Estimated Cost is for structures items only.

Kimley»Horn

Appendix B - Opinion of Probable Construction Cost (OPCC)

Option Two - Concrete Decking

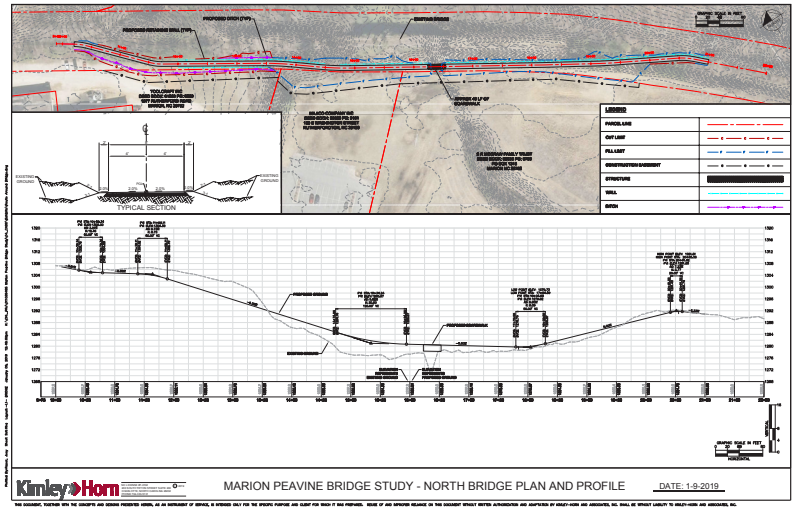
Repair Items	Quantity		Unit Cost	Estimated Cost
Trestle One				
Demolition of Existing Structure	1	LS	$150,000.00	$150,000
New Trestle Structure	1	LS	$317,400.00	$317,400
Trestle Two				
Demolition of Existing Structure	1	LS	$110,000.00	$110,000
New Trestle Structure	1	LS	$179,400.00	$179,400
Sub-Total Repair Items				$756,800
Engineering Costs				
Design Costs (15% of Construction Cost)[2]	1	LS	$74,520.00	$74,520
Total Estimated Cost[2] =				**$831,320**

Footnotes

1 Engineering costs are included for estimating purposes only are not to be considered final nor negotiated.
2 Total Estimated Cost is for structures items only.

Appendix C

Trail Realignment Exhibits
&
Opinion of Probable Construction Costs



Kimley»Horn

Prepared By: JMR Date: 1/7/2019
Checked By: AJH Date:
KHA Project No: 011036485

Marion Peavine Bridge Study

Project Location: Marion, NC
Project Description: 8' Greenway Around Trestle 1 (North Trestle)
Client: NCDOT
Client Project No.

ENGINEER'S OPINION OF PROBABLE COST OF CONSTRUCTION - Planning

Peavine Trail North Trestle						
Section	**Item Code**	**Item Description**	**Quantity**	**Unit**	**Unit Price**	**Cost**
800	10800.000	Mobilization	1	LS	$ 26,700.00	$ 26,700.00
200	10200.000	Supplementary Clearing and Grubbing	0.6	AC	$ 10,000.00	$ 6,000.00
225	10225.000	Unclassified Excavation	800	CY	$ 6.00	$ 4,800.00
SP	81436.000	Biaxial Geogrid	120	SY	$ 2.50	$ 300.00
453	10453.000	Wall, Gravity Retaining	4000	SF	$ 40.00	$ 160,000.00
500	10500.001	Fine Grading	1600	SY	$ 2.50	$ 4,000.00
520	10520.000	Aggregate Base Course	455	TN	$ 37.00	$ 16,835.00
610	10610.451	Asphalt Concrete Surface Course, Type S 9.5C	140	TN	$ 90.00	$ 12,600.00
SP	80010.000	Safety Rail, Metal CLDS 50.04	200	LF	$ 60.00	$ 12,000.00
876	10876.503	Geotextile for Drainage	200	SY	$ 6.00	$ 1,200.00
SP	81170.000	Erosion Control	1	LS	$ 15,000.00	$ 15,000.00
SP		Boardwalk	30	LF	$ 500.00	$ 15,000.00
		Drainage	1	LS	$ 13,000.00	$ 13,000.00

SUBTOTAL **$293,685.00**

CONTINGENCY @ **25%** **$73,421.25**

CONSTRUCTION COST **SAY** **$368,000**

Notes:
1. Cost opinion does not include costs for easement or ROW acquisition.

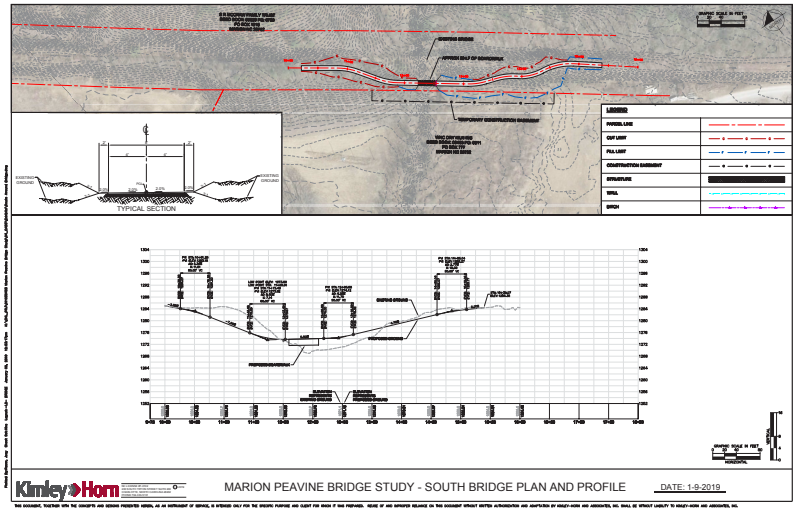
2. Cost opinion does not include engineering, geotech, design survey, or construction administration.

3. Cost opinion does not include cost for private utility relocations.

4. Unit costs used in this cost opinion are representative of typical market costs as best known to the Consultant as of the date of this estimate, and do not account for inflationary cost escalation.

5. Quantities used in this cost opinion are approximations based Planning Level Concepts by Kimley-Horn and are subject to revision prior to design/bid.

6. The Engineer has no control over the cost of labor, materials, or equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs, as provided here, are made on the basis of the Engineer's experience and qualifications and represent the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from opinions of probable cost prepared for the Owner.



Kimley»Horn

Prepared By: JMR Date: 1/7/2019
Checked By: AJH Date:
KHA Project No: 011036485

Marion Peavine Bridge Study

Project Location: Marion, NC
Project Description: 8' Greenway Around Trestle 2 (South Trestle)
Client: NCDOT
Client Project No.

ENGINEER'S OPINION OF PROBABLE COST OF CONSTRUCTION - Planning

Peavine Trail South Trestle						
Section	Item Code	Item Description	Quantity	Unit	Unit Price	Cost
800	10800.000	Mobilization	1	LS	$ 5,360.00	$ 5,360.00
200	10200.000	Supplementary Clearing and Grubbing	0.6	AC	$ 10,000.00	$ 6,000.00
225	10225.000	Unclassified Excavation	700	CY	$ 6.00	$ 4,200.00
SP	81436.000	Biaxial Geogrid	120	SY	$ 2.50	$ 300.00
500	10500.001	Fine Grading	630	SY	$ 2.50	$ 1,575.00
520	10520.000	Aggregate Base Course	173	TN	$ 37.00	$ 6,401.00
610	10610.451	Asphalt Concrete Surface Course, Type S 9.5C	10	TN	$ 90.00	$ 900.00
876	10876.503	Geotextile for Drainage	200	SY	$ 6.00	$ 1,200.00
SP	81170.000	Erosion Control	1	LS	$ 15,000.00	$ 15,000.00
SP		Boardwalk	30	LF	$ 500.00	$ 15,000.00
		Drainage	1	LS	$ 3,000.00	$ 3,000.00

SUBTOTAL		**$58,936.00**
CONTINGENCY @	**25%**	**$14,734.00**
CONSTRUCTION COST	**SAY**	**$74,000**

Notes:
1. Cost opinion does not include costs for easement or ROW acquisition.

2. Cost opinion does not include engineering, geotech, design survey, or construction administration.

3. Cost opinion does not include cost for private utility relocations.

4. Unit costs used in this cost opinion are representative of typical market costs as best known to the Consultant as of the date of this estimate, and do not account for inflationary cost escalation.

5. Quantities used in this cost opinion are approximations based Planning Level Concepts by Kimley-Horn and are subject to revision prior to design/bid.

6. The Engineer has no control over the cost of labor, materials, or equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs, as provided here, are made on the basis of the Engineer's experience and qualifications and represent the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from opinions of probable cost prepared for the Owner.

2010004395
MCDOWELL CO, NC FEE $28.00
PRESENTED & RECORDED
09-30-2010 11:48:15 AM
JANE B MCGEE
REGISTER OF DEEDS
BY: LINDA C HARWOOD
DEPUTY REGISTER OF DEEDS
BK: CRP 1029
PG: 401-404

No Consideration

Tax Lot No._____Parcel Identifier No._____
Verified by_____County on the _____ day of _____, 20___
by_____

Mail After Recording to Bob Boyette, City Manager, P.O. Drawer 700, Marion, NC 28752-0700
This instrument was prepared by Louis S. Cataland, Norfolk Southern Corporation
Brief Description for the Index: 3.5 miles of abandoned right of way

NORTH CAROLINA NON-WARRANTY DEED

This Deed, made this 28th day of September, 2010, by and between NORFOLK SOUTHERN RAILWAY COMPANY, a Virginia corporation, Grantor, and CITY OF MARION, NORTH CAROLINA, a North Carolina municipal corporation, Grantee.

WITNESSETH, that the Grantor, for valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee, pursuant to Section 8(d) of the National Trails System Act, 16 U.S.C. §1247(d) and Surface Transportation Board proceeding AB-290 (Sub-No. 266X) unto Grantee, its successors and assigns, the following described premises, located in McDowell County, North Carolina; to wit:

All that strip, piece or parcel of land situate, lying and being in McDowell County, North Carolina being known as the Pea Vine Line of Norfolk Southern Railway Company, and being more particularly described as follows:

Beginning at a point on the south right of way line of the "S" Line (said Pea Vine Line) of said Grantor, as it runs between Asheville and Salisbury, North Carolina, said point being located at Railroad Valuation Station 11024+47, more or less, as shown on Railway

APPROVED BY CRA

23

This certifies that there is no ad valorem real estate taxes, which the McDowell County Tax Collector is charged with collecting that are a lien on:
PIN EXEMPT
This is not a Certification that the PIN# matches the deed description. This Certification expires January 6, 2011
Date 9/30/10 Deputy LA
This Certification expires January 6, 2011.

DeH 9/29/10
APPROVED TO RECORD
TAX DEPARTMENT

Valuation Map V43/16; thence, continuing with said Railway along said right of way line in a general southeasterly direction, with a strip of land of varying widths bordered on the east by the centerline of tracks owned or operated by CSX Transportation, Inc., a distance of approximately 3.5 miles between milepost SB 208.5 and milepost SB 205.0, more or less, to a point, said point being located at Railway Valuation Station 10884+71, and being substantially as shown on Railway Valuation Maps V43/16, inclusive, attached hereto and made a part hereof.

Said strip or parcel of land containing a total area of 33.3 acres, more or less.

TO HAVE AND TO HOLD the aforesaid property and all privileges and appurtenances thereto belonging to the Grantee.

THE GRANTOR makes no warranty, express or implied, as to title to the property hereinabove described.

THE FOREGOING CONVEYANCE is made, however, expressly subject to any conditions, restrictions, reservations, licenses or easements, whether or not of record, and the future restoration of rail service pursuant to 16 U.S.C. §1247(d) and 49 CFR §1152.29.

IN WITNESS WHEREOF, the Grantor has caused these presents to be executed, and its seal to be hereunto affixed and attested by its officers, thereunto duly authorized, the day and year first above written.

L. S. ATTEST:

NORFOLK SOUTHERN RAILWAY COMPANY

By

Assistant Corporate Secretary

Assistant Vice President - Real Estate

STATE OF GEORGIA

COUNTY OF FULTON

I, L.N. Cannon, a Notary Public of the County and State aforesaid, do hereby certify that P.G. Carroll, personally came before me this day and acknowledged that she is Assistant Corporate Secretary of Norfolk Southern Railway Company, a Virginia corporation, and that by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name by its Assistant Vice President - Real Estate, sealed with its corporate seal and attested by M.A. Mullady as its Assistant Corporate Secretary.

Witness my hand and seal, this 28th day of September, 2010.

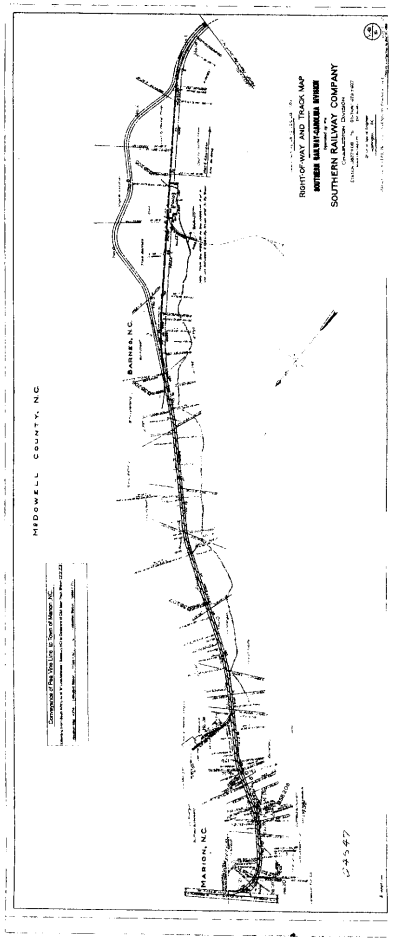
Notary Public

My Commission expires: 1/12/13

L. N. CANNON NOTARY PUBLIC GA DEKALB COUNTY

LSC
758064v3

CRP 1029 404



"THIS MAP IS NOT A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS"

JANE B MCGEE
Register of Deeds

Mcdowell County
Register of Deeds

21 South Main Street, Suite A • Marion, NORTH CAROLINA 28752
Telephone 828-652-4727 • Fax 828-652-1537 • E-Mail jmcgeemcdowell@titlesearcher.com

****

Filed For Registration: 09/30/2010 11:48:15 AM

Book: CRP 1029 Page: 401-404

Document No.: 2010004395

DEED 4 PGS 28.00

Recorder: LINDA C HARWOOD

****

State of North Carolina, County of McDowell

Filed for registration and Duly Recorded this 30TH day of SEPTEMBER 2010.

JANE B MCGEE, REGISTER OF DEEDS

By: Linda C. Harwood
DEPUTY REGISTER OF DEEDS

****

DO NOT REMOVE!

This certification sheet is a vital part of your recorded document. Please retain with original document and submit when re-recording.