

# NORTH MAIN STREET

## corridor strategy report



Prepared for: The City of Marion  
February 2020







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*Pin-up at the June 2019 charrette.*



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**stakeholder committee**

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<b>Nick Larson</b>	US Forest Service
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<b>Greg Daniels</b>	McDowell Trails Association
<b>Oscar Creech</b>	McDowell Trails Association
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1



# INTRODUCTION + EXISTING CONDITIONS

## project background

The Isothermal RPO, through SPR funding from the North Carolina Department of Transportation, conducted a corridor study for North Main Street in Marion, NC during the summer of 2019. In June 2019, the City of Marion held a three-day charrette, with RPO support and the work of Alta Planning + Design. The Corridor Study focuses on a 2-mile section of North Main Street (US70/US221B) from Viewpoint Drive to the Catawba River Greenway. North Main Street, known only as “The 5-Lane” by locals, is a key gateway corridor into Downtown Marion.

In addition to serving as a northern gateway into Marion, “Where Main Street Meets the Mountains,” the North Main Street Corridor provides a direct connection between downtown Marion, the Catawba

River Greenway, and the Pisgah National Forest. With further connectivity through downtown to the Peavine Rail Trail and the proposed/developing Fonta Flora State Trail through Marion, the design of complete streets elements along North Main Street will be a critical element to improve walk- and bike-able access to these emerging trail systems.

**The City has recognized the opportunity to capture economic success and sustainability by expanding access for the corridor to include multiple travel modes that link to the Pisgah National Forest, regional trail systems, businesses, and neighborhoods throughout Marion.**



## CHARRETTE PROCESS

**PRE-CHARRETTE (MAY)**  
Review existing plans  
and collect base data

**CHARRETTE (JUNE-DAY 1)**  
Kickoff meeting; Listen to the  
community and stakeholders;  
Establish vision

**CHARRETTE (DAY 2)**  
Open and closed studio;  
development of draft Master  
Plan; Pin-up session for  
feedback

**CHARRETTE (DAY 3)**  
Open and closed studio;  
Final draft product  
development; Work-in-  
Progress Public meeting

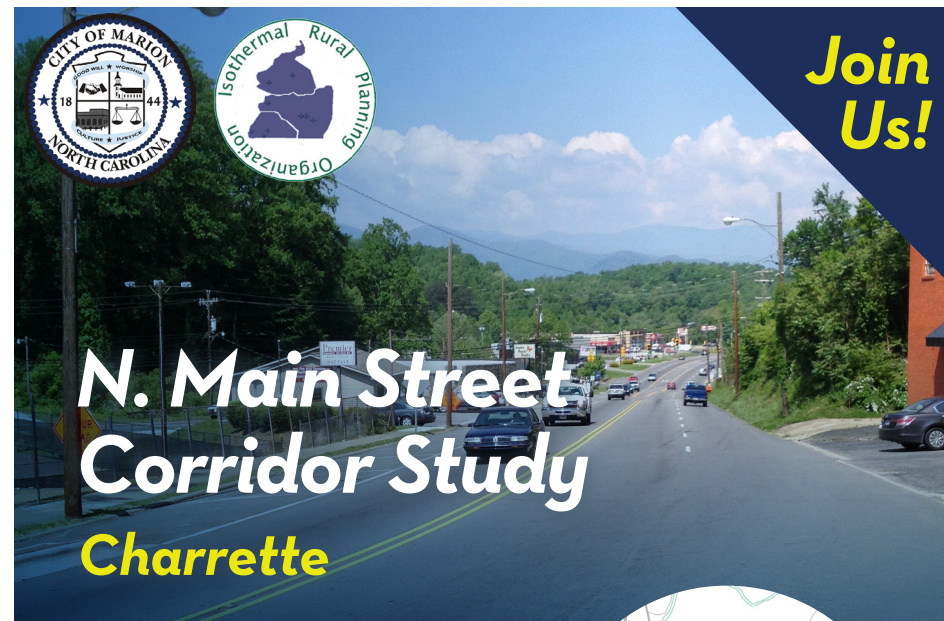
**FINAL REPORT (JULY)**  
Summary document of  
process and corridor  
recommendations

**NEXT STEPS**  
Funding and project  
implementation

## charrette process

The City of Marion, Isothermal RPO, and Alta Planning + Design led a charrette planning process in June 2019, held at the Marion Community Building on North Main Street. The team prepared by providing press releases and flyers throughout the community, as well as assessing the existing conditions on the corridor (traffic volumes and patterns, land use context, sidewalk presence/conditions, and other elements). A stakeholder committee formed of representatives from the City, Marion Business Association, McDowell Trails Association, NCDOT, Isothermal RPO, US Forest Service, McDowell County Chamber of Commerce and business owners began the process by identifying a vision for the project.

The charrette process included multiple opportunities for the public to learn more about the project and provide input. The public provided their vision for the corridor and were able to provide feedback on draft recommendations.



A **charrette** is an interactive planning session where citizens, designers and others collaborate on a vision for corridor enhancements.

## SEVERAL PUBLIC INPUT OPPORTUNITIES:

**WHERE:** MARION COMMUNITY BUILDING  
191 N. MAIN ST, MARION, NC 28752

**WHEN:** JUNE 11-13, 2019

**TUESDAY, JUNE 11**  
Project Introduction 6:00pm-7:30pm

**WEDNESDAY, JUNE 12**  
Design Studio 10:00am-12:00pm  
Design Pin-Up Session 5:00pm-6:30pm

**THURSDAY, JUNE 13**  
Design Studio 10:00am-12:00pm  
Work-in-progress Presentation 4:00pm-5:30pm



Share your thoughts with planning staff: How can we improve connectivity between downtown Marion, businesses along N. Main Street, and the Catawba River Greenway? How can we balance safety for pedestrians, bicyclists, and motorists? How can we help businesses and economic development along the corridor? How can we better connect you to your destinations? For more information contact Heather Cotton [hcotton@marionnc.org](mailto:hcotton@marionnc.org)





5 SIGNALIZED INTERSECTIONS

N MAIN ST/US 70



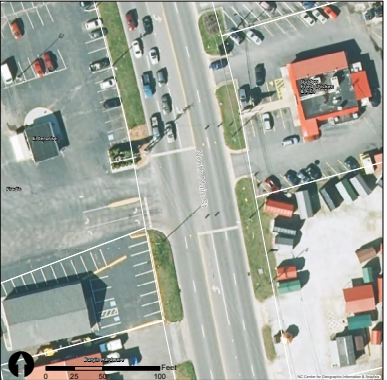
A

N MAIN ST/MCDOWELL HS RD



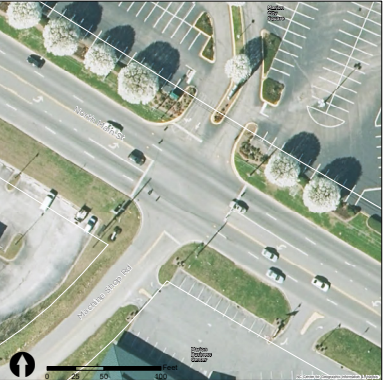
B

N MAIN ST/FRED'S GROCERY



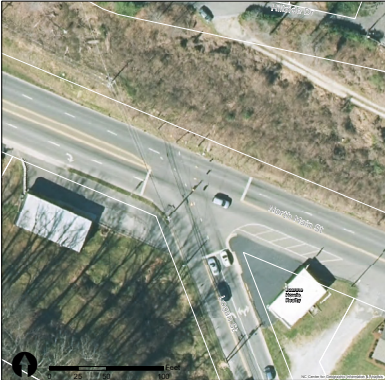
C

N MAIN ST/MACHINE SHOP RD



D

N MAIN ST/LOGAN ST

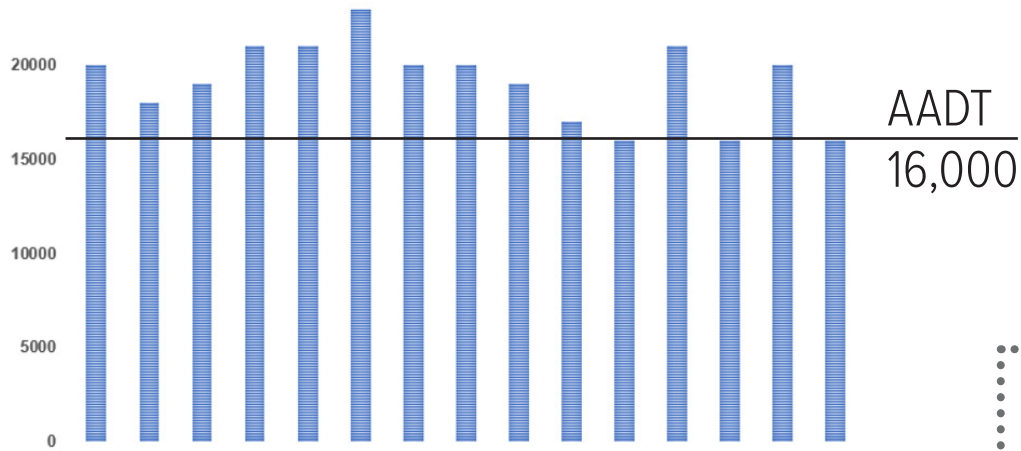


E



# EXISTING CONDITIONS

DRAFT



## SPEED LIMIT

45<sub>MPH</sub>

## 2002-2017 AADT TREND

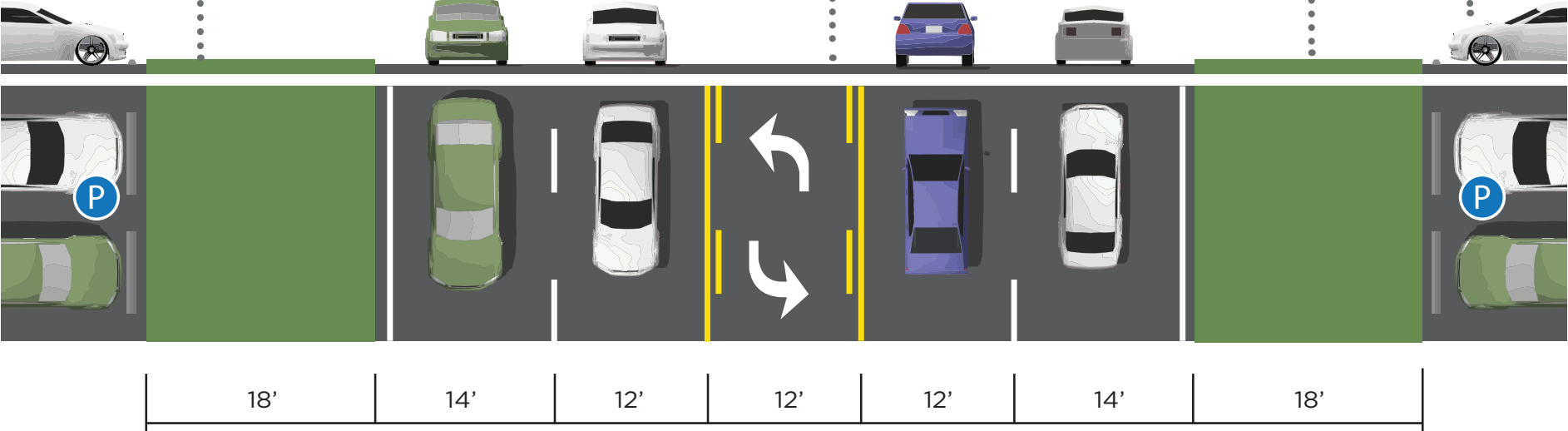


Excessive curb cuts and driveways fragment what would be the pedestrian corridor and create more points of conflict along the corridor

**“The 5-Lane”**  
Travel lanes are wider than necessary for the traffic volumes they serve, and could be reduced to 11'

Development characterized by wide expanses of parking lots separating buildings from the corridor

The entire corridor lacks pedestrian facilities on both sides of the road





## us-70 to creek street

### opportunities and constraints

On the first day of the charrette, the team led a site tour with the stakeholder committee to identify specific opportunities and constraints in order to create a more complete picture of the pedestrian environment that exists along the corridor. The following pages provide an overview of the existing conditions that impact pedestrian safety and accessibility on North Main Street, and inform the specific recommendations for improving the pedestrian environment (see Chapter 2, page 12).

### TOP CHALLENGES

- **Nonexistent sidewalks** create significant mobility and accessibility barriers throughout the entire corridor
- Lack of **high-visibility crosswalks and pedestrian signal heads** at some intersections make it difficult for pedestrians and bicyclists to safely cross North Main
- Steep **grade constraints** along the edges of the corridor affect the width and location of proposed pedestrian facilities and will require stretches of retaining walls to meet ADA-accessibility prerequisites





## creek street to ginger drive





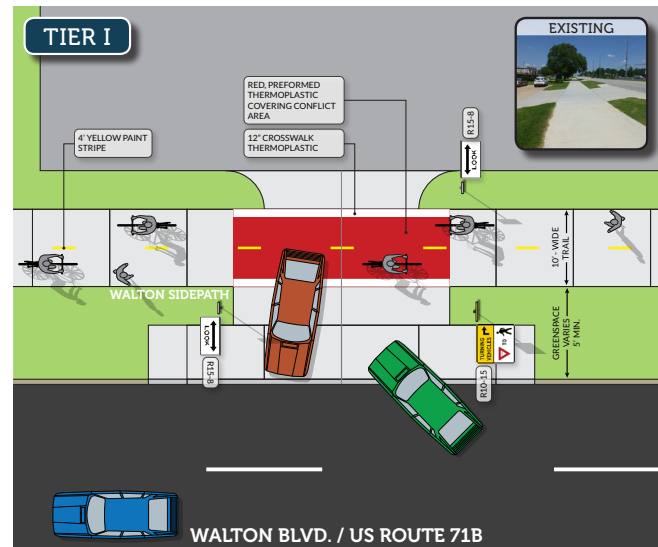
## ginger drive to viewpoint drive





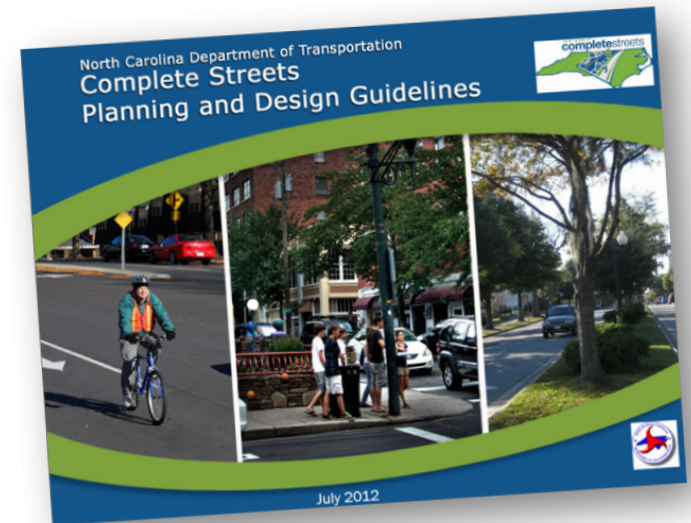
## best practices

The design team leaned on national and state design guidance but also considered examples of similar roadways in communities across the Southeast. This page describes some of those resources and best practices that were drawn from for this study.



(Above) An example of sidepath crossing guidance for the Walton Boulevard Sidepath in Bentonville, AR along a route similar to North Main Street.

Source: Alta Planning + Design



(Above) "Complete streets is NCDOT's approach to... transportation networks that safely accommodate access and travel for all users."

(Right) Boundary Street in Beaufort, SC has similar conditions to North Main Street. A new sidepath along both sides of the road and a vegetative median in the center of the road contributes to beautification and facilitates safe pedestrian and bicycle mobility along the corridor. This project was recently completed as a federally-funded TIGER III grant recipient.

Source: Google Streetview







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# 2



*Photo simulation of potential gateway improvements at the southern terminus of North Main Street.*



# PROJECT VISION + CORRIDOR CONCEPT

## introduction

The Catawba River Greenway, Peavine Rail Trail, and future Fonta Flora State trail are assets of critical importance to not only Marion, but to the greater mountain region as a whole. Today, they function primarily as recreational amenities that people drive to for an afternoon stroll, a morning run, or a family bike ride. For those visiting for a weekend or longer, they are a place to come and engage with nature (or even search for Bigfoot!) within the heart of a scenic small-town setting. These trails are a small but integral part of what makes Marion so well-loved by its residents and unique from other communities in North Carolina.

**As the regional trail network continues to expand around Marion, the pedestrian and bicycle connection along North Main Street has the potential to serve as a critical piece of a comprehensive active transportation network**, granting Marion tourists and residents alike access to a wide variety of goods, services, and recreation without needing a vehicle. **In order to realize the corridor as the link between the mountains and Main Street, it is necessary to provide facilities that are attractive, accessible to all modes of travel, and in harmony with the built and natural environment.** To that end, a concept for a more balanced street that is safe and enjoyable for users of all ages and abilities, was developed.

**The corridor concept was rooted in the shared vision and goals developed by the Marion residents and stakeholders.** The vision statement and key, guiding principles can be found on the following page.

This chapter includes the following elements:

- Project vision + guiding principles
- Recommended cross sections
- Streetscape photo simulations
- Corridor master plan
- Gateway + wayfinding concepts



## vision statement

North Main Street will serve residents and tourists of Marion as a vibrant, active transportation and recreation amenity that will connect the City to the Pisgah National Forest, spur economic growth, provide multi-modal connectivity, and serve as a gateway where Main Street truly meets the mountains.

## guiding principles

- 1 Provide multi-modal, Complete Street corridor that gives residents and visitors transportation choices.
- 2 Make a seamless trail/shared-use path connection from Downtown to the Catawba River Greenway that is safe, accessible, and convenient for all ages and abilities.
- 3 Provide an urban trail experience as part of the Fonta Flora State Trail that connects the regional trail systems and connects federally designated historic downtown locations to Federal (Forest Service) Lands.
- 4 Carry elements of the Downtown streetscape throughout the North Main Street Corridor to enhance corridor identity.
- 5 Bring quintessential, local design elements (such as blue ridge stone) throughout the corridor design.
- 6 Ensure safe intersection and driveway crossings for vulnerable users.
- 7 Create an inviting, vibrant corridor that attracts businesses, residents, economic development, and tourism.
- 8 Create a sense of place that is currently lacking across the corridor.
- 9 Ensure compliance with national and NCDOT standards, design guidelines and best practices.

*(Right) Input from the stakeholder team, local residents, and business owners informed the vision and goals for corridor improvements.*



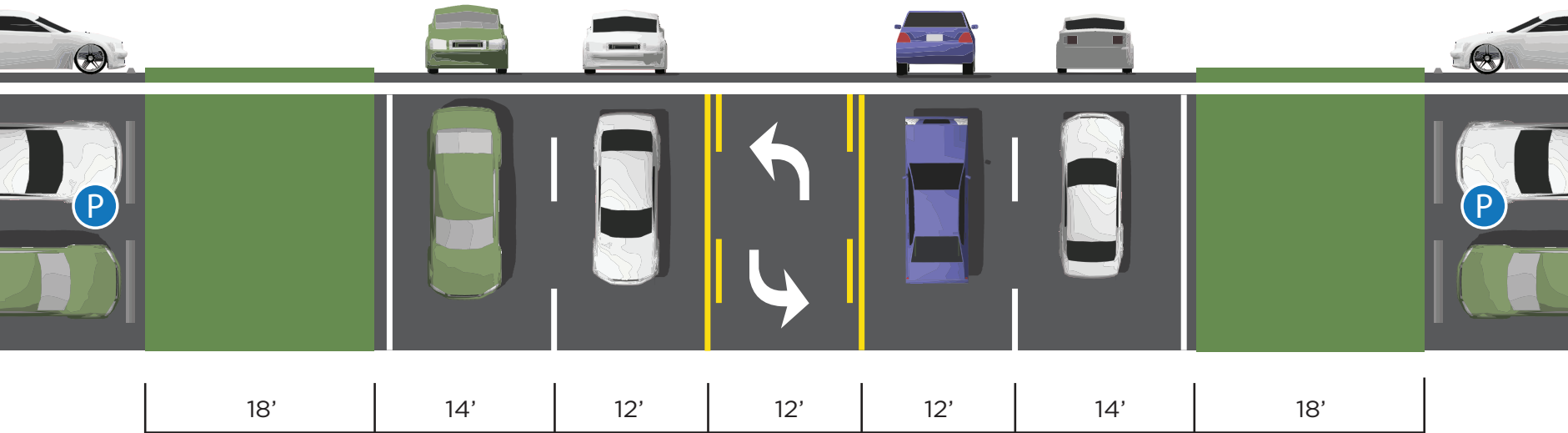


# North Main Street

## existing cross section

As previously stated in the existing conditions chapter of the report (see page 6), the road is characterized by 4 travel lanes with a two-way center turn lane, ranging from 12-14' width. **Currently the road has no dedicated pedestrian or bicycle facilities**, including sidewalks, bike lanes, crosswalks, or pedestrian-activated signalization. Pedestrians often have to walk in the road, through parking lots, or along minimal grass strips flanked by steep grades - indicating a true need and demand for proper facilities.

There is **leftover right-of-way** outside the edge of pavement to accommodate new sidewalks and shared-use paths, as well as an opportunity to reduce the oversized travel lanes in order to slow traffic and make the pedestrian environment more safe and comfortable.

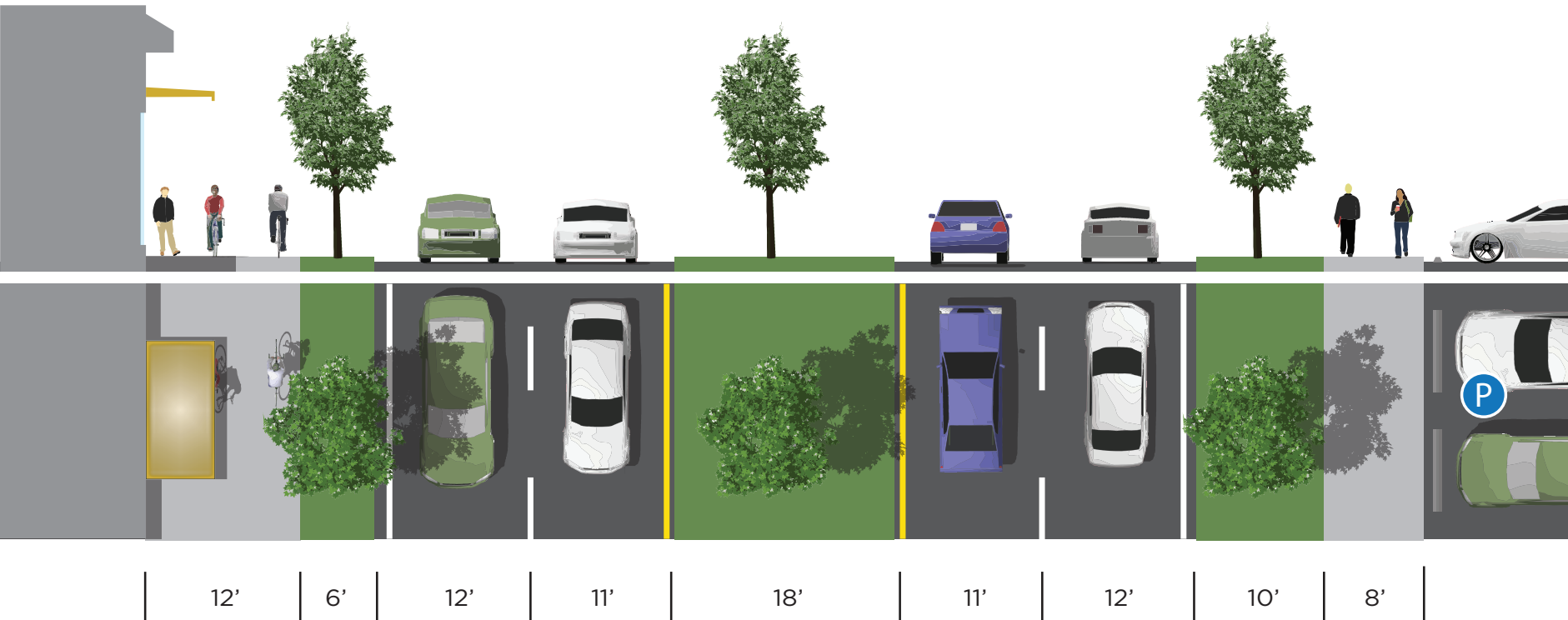




# North Main Street Recommendation

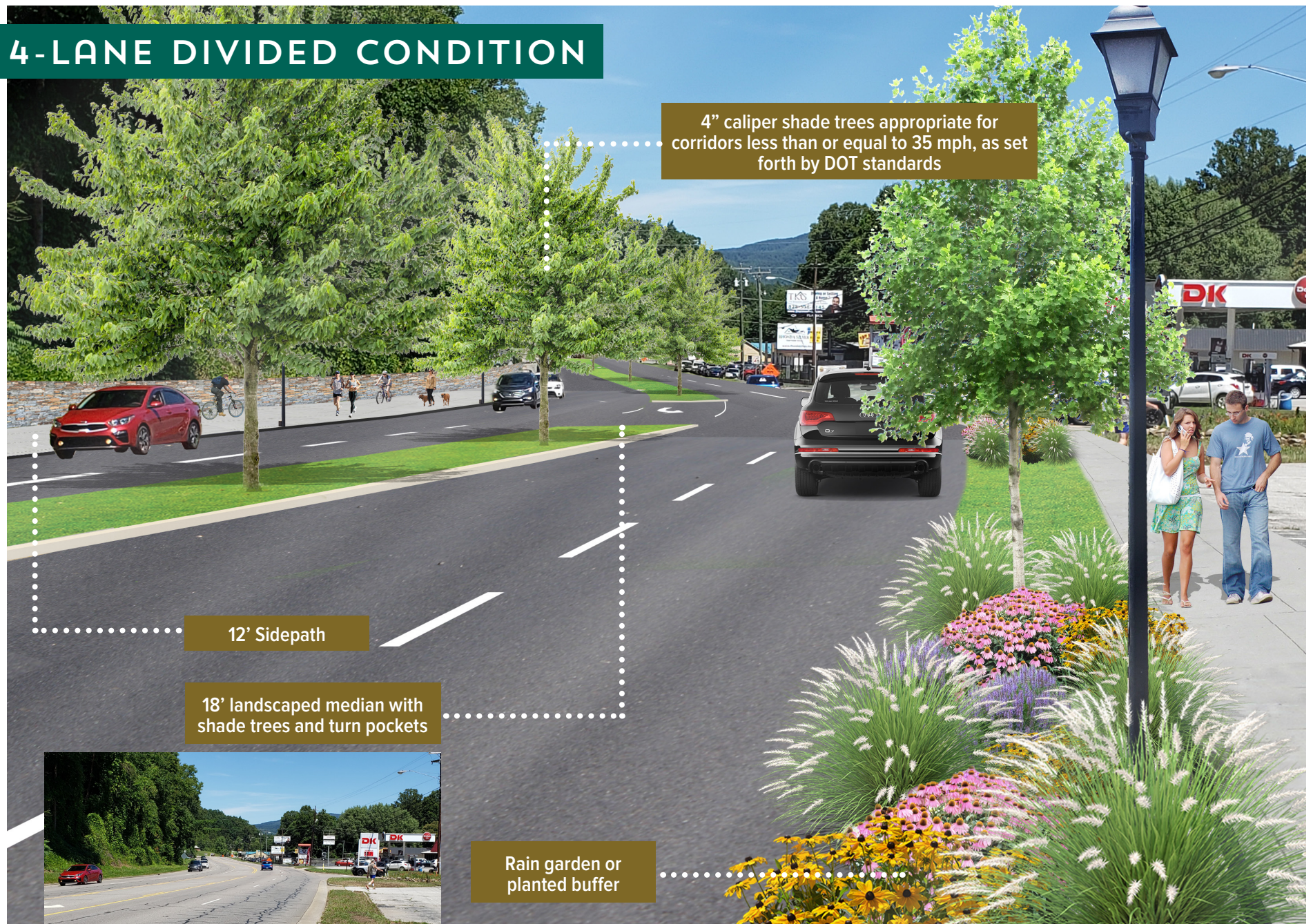
## 4-lane divided boulevard

**These recommendations for the corridor do not require replacement or reconstruction of the existing curb.** Reallocating the pavement space to reduce the width of lanes leaves space for 18’ of grass median with trees and plantings, and turn pockets at key locations and intersections. Proposed pedestrian facilities on either side of the road include a 12’ buffered multi-use sidepath on the west, and an 8’ buffered sidewalk on the east. The planting strips on either side include DOT-approved trees that beautify the street, keep pedestrians out of direct sunlight, and slow traffic by visually narrowing the street for vehicles. Traffic speed will also be managed by a reduction in the speed limit - from 45 to 35 mph.





# 4-LANE DIVIDED CONDITION



4" caliper shade trees appropriate for corridors less than or equal to 35 mph, as set forth by DOT standards

12' Sidepath

18' landscaped median with shade trees and turn pockets

Rain garden or planted buffer



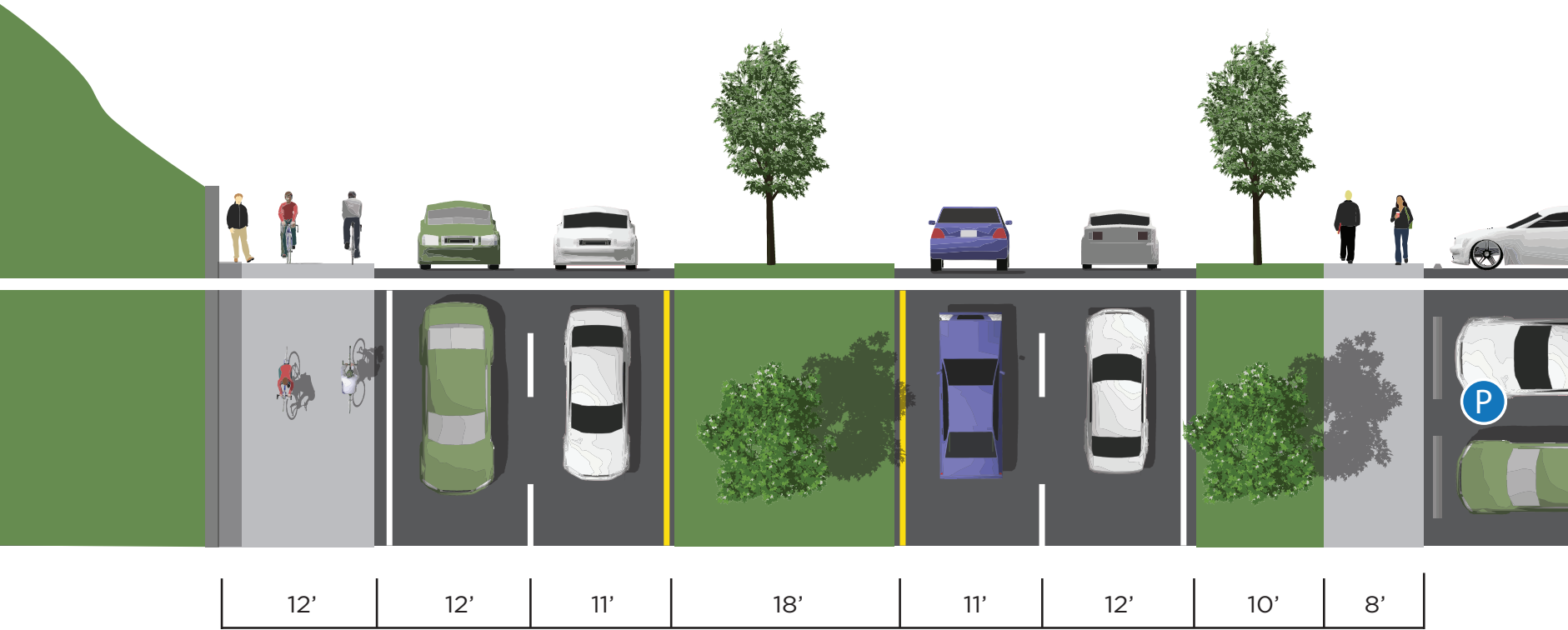
(Left) Existing conditions at the North Main Street/Creek Street intersection (facing north)



# North Main Street Recommendation

## 4-lane divided boulevard (constrained)

Constrained recommendations include much of the same elements as the 4-lane divided solution, but reflect what happens to the sidepath when it is limited by the steep grade conditions present along portions of the corridor. Retaining walls of varying heights will be necessary along some stretches of the facility, but can be designed in a way that is attractive and resonant to Marion’s sense of place by using local blue ridge stone, murals, and artistic concrete form liner (see opposite page).





# CONSTRAINED CONDITION

Constrained sidepath has blue ridge stone retaining wall with artistic mural



*(Left) Existing conditions at North Main Street before the Bojangles (facing north)*

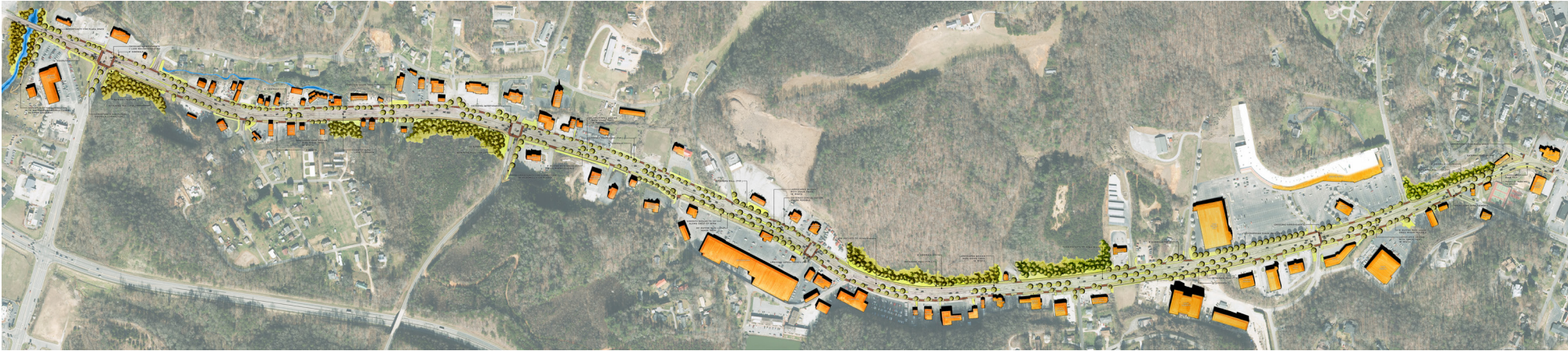


# POTENTIAL REDEVELOPMENT



(Right) Existing conditions at the Lady Marian Plaza shopping center (facing north)





## corridor master plan

The master plan for the corridor aims to encourage and support a more vibrant public realm by improving the experience and overall connectivity for pedestrians, bicycles, and vehicles. The following 7 pages include the interim vision for the corridor with site-specific improvements along North Main Street, from north to south. Recommendations begin at the intersection of North Main Street and US-70 and continue south to the intersection of North Main Street and Viewpoint Drive (the beginning of Downtown Marion).

**This section is broken into the following 7 segments:**

1. US-70 to Peachtree Street (pg 22)
2. Peachtree Street to Creek Street (pg 23)
3. Creek Street to Bradley Street (pg 24)
4. Bradley Street to Westwood Chateau Drive/Lady Marian Plaza (pg 25)
5. Westwood Chateau Drive to Ginger Drive (pg 26)
6. Ginger Drive to Machine Shop Road (pg 27)
7. Machine Shop Road to Viewpoint Drive (pg 28)



us-70 to peachtree street





peachtree street to creek street





## creek street to bradley street





## bradley street to westwood chateau drive (lady marian plaza)





westwood chateau drive to ginger drive





ginger drive to machine shop road





# machine shop road to viewpoint drive





## gateway feature

A major gateway feature at the southern terminus of North Main Street provides a visual cue to those driving, walking, and biking that they are entering a special area. **While the wayfinding signage and artistic elements along the corridor are the breadcrumbs that draw visitors in, the gateway is the entrance to the main event.** The design of the gateway should be contextually appropriate and highlight one of Marion's best assets - the stoic Blue Ridge Mountain range that can be seen in the distance.

Playing off of the City's motto, "Where Main Street Meets the Mountains," the proposed gateway feature includes two columns flanked by steel panels. The steel panels are already commonly used by local business owners in the downtown area to decorate their building frontages or outdoor dining spaces. The gateway panels are laser cut into familiar silhouettes - on the east they represent the Blue Ridge mountain range and on the west they mimic the recognizable building facades in Downtown. The design represents the approachable, small-town feel that exists against a picturesque backdrop - uniquely Marion in every way.

Gateway features are recommended in this plan at two key locations:

- Major gateway into Downtown on existing 2-lane portion of North Main (see the following page for photo simulation).
- Minor gateway feature at the intersection of North Main Street and US-70. This could be a blue ridge stone column or obelisk without an attached steel panel.

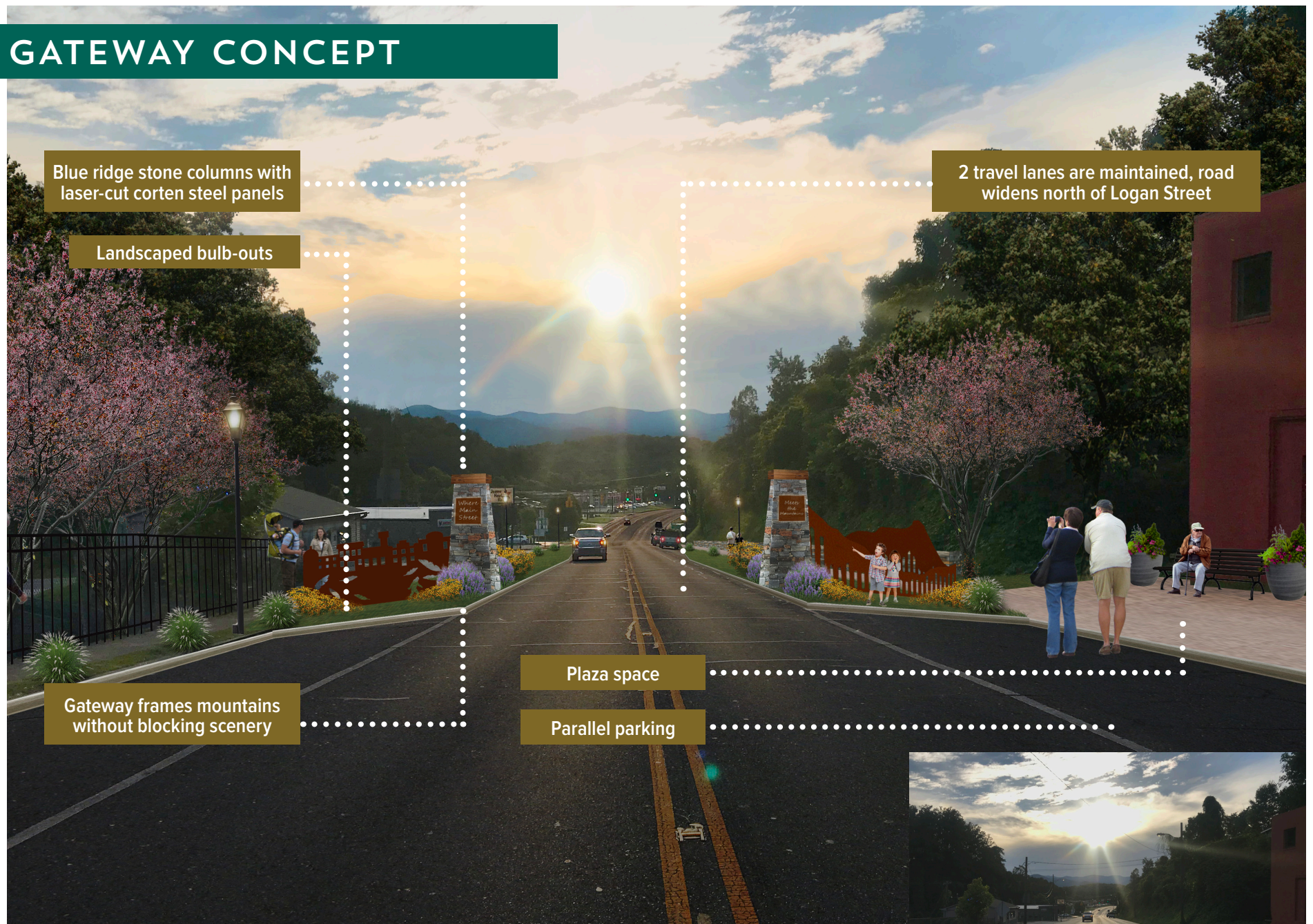
### MAJOR GATEWAY FEATURE



(Above) Some of the iconic building facades in Downtown Marion.



# GATEWAY CONCEPT



Blue ridge stone columns with laser-cut corten steel panels

Landscaped bulb-outs

2 travel lanes are maintained, road widens north of Logan Street

Gateway frames mountains without blocking scenery

Plaza space

Parallel parking



(Right) Existing conditions at the North Main Street gateway into downtown – “Where Main Street Meets the Mountains.”



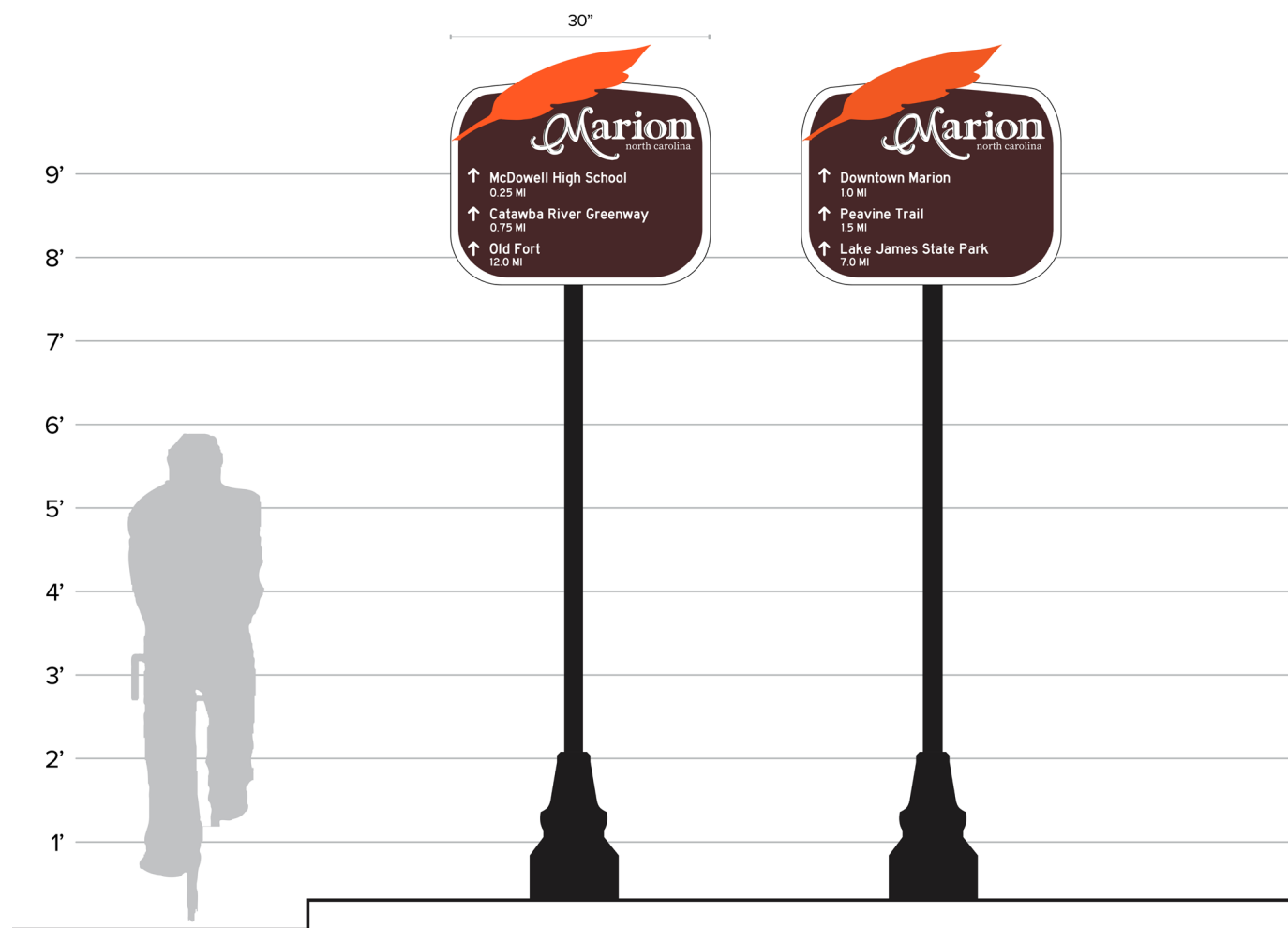
## wayfinding

A pedestrian wayfinding plan and consistent signage design will reflect the character of Marion and reinforce the value of the assets available to users.

**Signage helps orient pedestrians and bicyclists to key destinations and assists with distance tracking.**

Investing in a permanent wayfinding signage program is an important step in creating a more cohesive, welcoming, and accessible pedestrian and bicycling environment in Marion.

A consistent approach to selecting and signing along the corridor is necessary where limited space is available for information and a multitude of potential points of interest exist. **The most appropriate location for wayfinding is at major intersections and decision points.** Consideration of the context and natural landscape is of utmost importance in maintaining the integrity of the scenic sidepath; signage design should reflect the local flavor of the community with colors and materials that are similar to what already exists Downtown.



## SIGNAGE CONCEPT

Wayfinding signage should be simple and easy to read. This concept builds off of existing signage in Downtown Marion and includes the quintessential orange feather of the Fonta Flora trail to quickly let trail users know that they are still on the Fonta Flora route. Coupled with City of Marion branding and approximate time and distance to local destinations, signage directs trail users along North Main Street and into Downtown. This design could be expanded into more signage types including mile markers, trail information kiosks, trailhead markers, and educational signage.



## phasing

Based on feedback from City residents and City Council, it is recommended that the project be divided into three phases. The City will move forward with this approach and will seek funding to accomplish this.

PHASE 1: Sidewalk and side path along both sides of the corridor, along with gateway entries at each end of the corridor.

PHASE 2: Decorative elements including lighting and landscaping along the sides of North Main Street.

PHASE 3: Spot medians, with locations to be determined based on discussions and negotiations with property and business owners and with the goal of not negatively affecting access to or from businesses located along the corridor.

### PROJECT PHASING

#### PHASE 1:

Sidewalk and sidepath along both sides of the corridor, with gateway entries at both ends

#### PHASE 2:

Decorative elements including lighting and landscaping along both sides of the corridor

#### PHASE 3:

Spot medians, with locations to be determined based on discussions and negotiations with property and business owners and with the goal of not negatively affecting access to or from businesses located along the corridor





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# 3



# NEXT STEPS

## introduction

The implementation of the North Main Street corridor concept will require a comprehensive approach that includes multiple sources of funding, partnerships, design, construction, and management. It will also require the continued dedication of City staff and a commitment to the vision established by the stakeholder committee, the public, and this plan. The following pages list action items that will help City staff set up a framework to put the implementation process in motion.

This chapter includes the following elements:

- City review process
- Form-based code update
- Private development projects
- Marketing and events
- Identification of funding sources
- Cost estimates

## PROJECT PHASING

### PHASE 1:

Sidewalk and sidepath along both sides of the corridor, with gateway entries at both ends

### PHASE 2:

Decorative elements including lighting and landscaping along both sides of the corridor

### PHASE 3:

Spot medians, with locations to be determined based on discussions and negotiations with property and business owners and with the goal of not negatively affecting access to or from businesses located along the corridor





(Left) Photo taken at the 2018 Bigfoot Festival in Downtown Marion, NC.

## city review process

As the City moves toward a funding strategy, the conceptual design should be revisited to determine current needs, uses, future uses, zoning, and design standards. The following list should be included as future tasks:

- Construction documents of the corridor plan
- Design of gateway features
- Phasing plan
- Cost estimates for facility elements
- Operations and maintenance

## form-based code

Specific attention should be placed on form-based code to ensure that appropriate redevelopment, both public and private, occurs along the corridor. This includes regulating the form of proposed architecture, minimum setback, frequency of driveways/curb cuts, and private parking lots. Setting a form-based code along the corridor will guide development in order to realize the shared vision established in this plan.

### WHAT IS A FORM-BASED CODE?

“A form-based code is a land development regulation that fosters predictable built results and a high-quality public realm by using physical form (rather than separation of uses) as the organizing principle for the code. A form-based code is a regulation, not a mere guideline, adopted into city, town, or county law. A form-based code offers a powerful alternative to conventional zoning regulation.” – **Form Based Code Institute**

## private development projects

Build strategic partnerships between City departments and public/private partnerships related to funding, implementation, and management. Identify private partners who want to invest in the vision of this plan and form a group as the leaders of organization, collaboration, and implementation.

## marketing and events

Throughout the development and implementation of this corridor master plan, the City must emphasize and promote the unique characteristics of Marion and North Main Street that are driving the vision. A branding and identity process should be conducted to understand which elements are acceptable reflections of the corridor and the identity of the City and its people. This brand should be carried through the built environment as well as marketing and outreach materials to promote the City and the future trail connections through it.

As the corridor continues to redevelop, the City of Marion should implement a marketing strategy to encourage greenway use, as well as non-motorized trips into Downtown from North Main. Potential examples include programming the Gateway feature as the starting or finishing point for sanctioned greenway events (such as a 5k), or building off of existing culturally significant events that occur annually in Downtown (the Bigfoot Festival, for example). These events strengthen awareness of the surrounding trail networks and support using the corridor as a means to connect to them.



## project phasing

Based on feedback from City residents and City Council, a three phase approach is recommended and described on page 32. The first phase will be the addition of sidepath along the east side and sidewalk along the west side.

## funding sources

Because the North Main Street corridor is part of the developing Fonta Flora State Trail, with connectivity to Pisgah National Forest as well historic sites in downtown Marion, the City of Marion should pursue a North Carolina Federal Lands Access Program (FLAP or “Access Program”) grant. North Main Street is also part of the NCDOT-owned and maintained roadway system and State Transportation Improvement Program (STIP) funding should be pursued concurrently with FLAP grant funding as next steps in the project development process.

### NORTH CAROLINA FEDERAL LANDS ACCESS PROGRAM (FLAP OR ACCESS PROGRAM) GRANT

FLAP was established in 23 U.S.C. 204 to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. The Access Program supplements State and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on high use recreation sites and economic generators.

A FLAP grant should be pursued for design and construction of the proposed sidepath along the west side of North Main Street, including access management and streetscape improvements (see Chapter 2 for more details). This aspect of the project is the highest priority and should be completed first if funding is not available to complete all interim recommended improvements at once.

**The most recent NC Federal Lands Access Program call for projects occurred on June 13, 2016 for fiscal years 2017-2020, which included approximately \$2.5 million annually in total funding.** The next call for projects as well as funding amounts are unknown at this time, pending the expiration of the FAST Act and future legislation. See the following for key aspects of the FLAP grant application process:

1. The goal of the Access Program is to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands.
2. The Access Program supplements State and local resources for public roads, transit systems, and other transportation facilities that provide seamless access to high-use Federal recreation sites or Federal economic generators within federally-owned lands.
3. Eligible activities are transportation planning, research, engineering, preventive maintenance, rehabilitation, restoration, construction, and reconstruction of FLATFs located on or adjacent to, or that provide access to, Federal lands, and—
  - adjacent vehicular parking areas;
  - acquisition of necessary scenic easements and scenic or historic sites;
  - **provisions for pedestrians and bicycles;**
  - environmental mitigation in or adjacent to Federal land to improve public safety and reduce vehicle-caused wildlife mortality while maintaining habitat connectivity;
  - construction and reconstruction of roadside rest areas, including sanitary and water facilities;
  - other appropriate public road facilities, as determined by the Secretary;
  - operation and maintenance of transit facilities; and
  - any transportation project eligible for assistance under title 23, United States Code, that is within or adjacent to, or that provides access to, Federal land.



Funds are allocated among the States using a statutory formula based on road mileage, number of bridges, land area, and visitation. Projects are selected by a Programming Decision Committee (PDC) established in each State. The PDCs request project applications through a call for projects. The frequency of the calls is established by the PDCs.

Further guidance can be found here - <https://flh.fhwa.dot.gov/programs/flap/nc/>, including previous scoring criteria, the application, frequently asked questions, and other information.

## STATE TRANSPORTATION IMPROVEMENT PROGRAM (STIP) FUNDING THROUGH NCDOT

The STIP is based on the Strategic Transportation Investments Bill, signed into law in 2013. The Strategic Transportation Investments (STI) Initiative includes the Strategic Mobility Formula, a way to fund and prioritize transportation projects.

If the FLAP grant is successful, it is unlikely that funding will be able to cover the entirety of interim recommendations. STI funding should be pursued to complete all elements of interim recommendations that are not fulfilled by a successful FLAP grant (see Chapter 2 for more details).

The City of Marion should work with NCDOT Division 13 and the Isothermal RPO to incorporate the recommendations from this study into the 2023-2032 STIP. See the following for key aspects of the STIP:

1. The Strategic Mobility Formula assigns projects for all modes into one of three tiers: 1) Statewide 2) Regional and 3) Division.
2. All independent bicycle and pedestrian projects are placed in the Division Tier, and are currently ranked based on 50% quantitative scores, 25% local Input from the NCDOT Division Offices, and 25% from the MPO/RPO. The criteria for the quantitative component is scored as follows:



- **Safety (20%)** – Measurement of the number of bicycle and pedestrian crashes, severity of the crashes, crash risk based on existing surroundings, and safety benefit the project is expected to provide.
- **Accessibility/Connectivity (15%)** – Measurement of the quantity of destinations near the project, the quantity of connections to existing or planned bicycle/pedestrian facilities, and whether the project improves or connects to a designated bicycle route.
- **Demand/Density (10%)** – Measurement of the population and employment density within a walkable or bike-able distance of the project.
- **Cost Effectiveness (5%)** – Measurement of total Safety, Accessibility/Connectivity, and Demand/Density criteria scores compared to the cost of the project to NCDOT.

Further information on 2020-2029 STIP development can be found here - <https://www.ncdot.gov/initiatives-policies/Transportation/stip/development/Pages/default.aspx>



## other funding considerations

### Private Sources

Funding resources such as FLAP grants require a 20% match that can be challenging for smaller communities such as the City of Marion to fulfill. However, across the United States, one of the fastest emerging funding sources for trail development is the private sector. Philanthropic organizations, corporate and family foundations, non-profit organizations and corporations have stepped up their involvement in trail development in the form of financial support. A recent example is a \$4.5 million RHI Legacy Foundation grant that was used to complete the Thermal Belt Rail Trail 20 miles south of Marion in Rutherford County. This trend is occurring for various reasons, including support for improvements to quality of life, health and wellness, alternative transportation, conservation of natural resources and economic development. Private sources should be pursued to help fulfill any match that may be required.

### Additional Resources

Below is an additional list of both public and private funding sources that could be pursued if a FLAP grant application is

unsuccessful, or unable to cover all of the estimated costs of the completion of the sidepath along the west side of North Main Street as part of the Fonta Flora State Trail.

**Build Grant** – <https://www.transportation.gov/BUILDgrants/2019-build-application-faqs>

- Awards: \$1 million to \$25 million
- Match required: \$0 (for rural locations such as Marion)

**Parks and Recreation Trust Fund** – <https://www.ncparks.gov/more-about-us/parks-recreation-trust-fund/parks-and-recreation-trust-fund>

- Awards: Up to \$500,000
- Match required: 50%

**Recreational Trails Program Grant** – <https://trails.nc.gov/trail-grants/apply-grant>

- Awards: \$10,000 – \$100,000
- Match required: 25%

**The McDowell Endowment** – <https://cfwnc.org/grants/the-mc-dowell-endowment>

- Awards: \$2,500 – \$5,000
- Match required: none

**Urban & Community Forestry Grant Program** – [https://www.ncforestservice.gov/Urban/urban\\_grant\\_eligibility.htm](https://www.ncforestservice.gov/Urban/urban_grant_eligibility.htm)

- Awards: \$2,500 – \$15,000
- Match required: 50%

**Federal Bike/Ped Funding Opportunities Summary Matrix** – [https://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/funding/funding\\_opportunities.cfm](https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.cfm)

## 4 BASIC STEPS FOR ENGAGING PRIVATE FUNDING

### 1. DEVELOP THE PITCH

For the City of Marion and local partners, this corridor study can become part of that pitch, detailing the overall concept and vision for connecting downtown Marion to the Catawba River Greenway as part of the Fonta Flora State Trail.

### 2. MAKE THE “ASK.”

The team making the ask should expect to work extremely hard in advance of the ask, delivering the pitch to all participants, so that when the time comes for the ask, the result will be more or less expected.

### 3. LEVERAGE A “LEAD GIFT.”

A lead gift from a prominent and respected local project sponsor signifies the importance of the project throughout the entire community, and can be used to leverage other private funds and/or a match for public sector grants.

### 4. CREATE AN INVITE LIST.

Continue to build momentum by asking additional groups, organizations, and entities that may be interested in supporting the Fonta Flora State Trail.



## cost estimates

Cost estimation relies on a variety of factors that are related to the complexity of ownership throughout the project, as well as design challenges. The following factors play a role in cost estimation.

### Right-of-Way Acquisition Costs

Payments to landowners for the easements and parcels can vary widely depending upon existing land use, size, and utility of the acquired portion of a parcel, development potential of the area, and a host of other factors. In addition to the payments to property owners, the services of a licensed surveyor will be needed during the ROW acquisition process. The survey firm will perform boundary surveys and prepare easement maps that must be recorded in the City's land records. Finally, legal services will be needed to perform the property transactions.

### Engineering Costs

Engineering costs cover a variety of professional services, including:

- Survey (including a preparation of easement maps as described above)
- Wetland delineation
- Preliminary, semi-final, and final design

- Public participation
- Permitting (local, state, and federal as required)
- Preparation of construction documents
- Bid assistance
- Construction observation and contract administration

Based upon similar project experience and proposed concept design features, engineering costs are expected to be approximately 15% of the total construction cost. However, the actual cost of these services will vary widely depending on project phasing. Similarly, survey and design are most cost effective if done at one time. For this reason, significant cost savings can be realized by developing the North Main Street corridor as a single project.

### Construction Costs

This section includes preliminary estimates of construction costs based upon the conceptual designs described in this plan.

Important assumptions used to arrive at these estimates include:

- Proposed designs are conceptual and lack detailed engineering feasibility

- Opinion of probable cost is derived from previous studies, contractor coordination, and recent indexed construction cost
- Costs do not include property acquisition
- Standard construction methods and materials are used

In developing these cost estimates, similar corridor projects were used to select the construction materials with the best life-cycle cost and performance characteristics. Therefore, aesthetically pleasing materials with a track record of durability and low maintenance requirements that can be constructed at reasonable cost have been assumed.

Since these preliminary estimates are based on a planning level understanding of streetscape components, rather than a detailed design, they should be considered as "Order of Magnitude." American Society for Testing and Materials (ASTM) Standard E2620 defines Order of Magnitude as being accurate to within plus 50% or minus 30%. This broad range of potential costs is appropriate given the level of uncertainty in the design at this point in the process. Many factors can affect final construction costs, including:

- Final construction phasing

- Revisions to the design as required by local, state, and federal permitting agencies
- Additional requirements imposed by property owners as a condition of granting property rights (i.e. fencing, vegetative buffers, etc.)
- Fluctuations in commodity prices during the design and permitting processes
- Selected construction materials
- Type and quantity of amenities (i.e. benches, lighting, bike racks, etc.)
- Extent of landscaping desired

As the project progresses through preliminary, semi-final, and final design phases, these uncertainties begin to diminish. With each round of refinement and range of expected construction costs will become more accurately known.

**The following cost estimates include three scenarios that coincide with possible phasing plans for the 4-lane divided boulevard condition – sidepath construction only, a full-build, and a full-build plus pedestrian lighting.**



# Conceptual Estimate sidepath only

ITEM NO.			ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
LINE NO.	DESC. NO.	SECT. NO.					
ROADWAY ITEMS							
0001	0000100000-N	800	MOBILIZATION	1	LS	\$254,100.00	\$254,100.00
0002	0000400000-N	801	CONSTRUCTION SURVEYING	1	LS	\$50,900.00	\$50,900.00
0003	0043000000-N	226	GRADING	1	LS	\$543,870.00	\$543,870.00
0004	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	190	TON	\$175.00	\$33,250.00
0005	1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	80	TON	\$225.00	\$18,000.00
0006	1519000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	60	TON	\$125.00	\$7,500.00
0007	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	20	TON	\$1,000.00	\$20,000.00
0008	1693000000-E	654	ASPHALT PLANT MIX, PAVEMENT REPAIR	50	TON	\$150.00	\$7,500.00
0009	2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	1500	LF	\$50.00	\$75,000.00
0010	2591000000-E	848	4" CONCRETE SIDEWALK	13440	SY	\$60.00	\$806,400.00
0011	2605000000-N	848	CONCRETE CURB RAMP	16	EA	\$3,000.00	\$48,000.00
0012	2612000000-E	848	6" CONCRETE DRIVEWAY	3460	SY	\$100.00	\$346,000.00
0013	4399000000-N	1105	TEMPORARY TRAFFIC CONTROL	1	LS	\$50,900.00	\$50,900.00
0014	6695000000-E	SP	GENERIC PLANTING ITEM STREET TREES	131	EA	\$800.00	\$104,800.00
0015	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT HWY 70	1	LS	\$15,000.00	\$15,000.00
0016	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT MCDOWELL HIGH SCHOOL ROAD	1	LS	\$15,000.00	\$15,000.00
0017	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT LADY MARION PLAZA	1	LS	\$15,000.00	\$15,000.00
0018	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT MACHINE SHOP ROAD	1	LS	\$15,000.00	\$15,000.00
0019	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT LOGAN STREET	1	LS	\$15,000.00	\$15,000.00
WALL ITEMS							
0020	8848000000-E	SP	GENERIC RETAINING WALL ITEM DECORATIVE FORM LINER RETAINING WALL	39950	SF	\$75.00	\$2,996,250.00

			ITEM COST	\$5,437,470.00
INFLATION FACTOR			2 YEARS	5%
				\$557,340.68
			CONSTRUCTION COST (2021)	\$5,994,810.68
CONTINGENCIES			20.0%	\$1,198,962.14
MINOR ITEMS			6.0%	\$359,688.64
UTILITIES			1.0%	\$59,948.11
RIGHTS OF WAY			0.0%	\$0.00
			ESTIMATED CONTRACT COST (2021)	\$7,613,409.56
			E. & C. (10%)	\$761,340.96
			CONSTRUCTION COST (2021)	\$8,374,750.51

NOTE:

COMPUTED BY BMB

DATE 7/12/2019



# Conceptual Estimate

sidepath

sidewalk

medians

ITEM NO.			ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
LINE. NO.	DESC. NO.	SECT. NO.					
ROADWAY ITEMS							
0001	0000100000-N	800	MOBILIZATION	1	LS	\$506,900.00	\$506,900.00
0002	0000400000-N	801	CONSTRUCTION SURVEYING	1	LS	\$101,400.00	\$101,400.00
0003	0043000000-N	226	GRADING	1	LS	\$906,210.00	\$906,210.00
0004	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	1230	TON	\$175.00	\$215,250.00
0005	1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	580	TON	\$225.00	\$130,500.00
0006	1519000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	430	TON	\$125.00	\$53,750.00
0007	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	110	TON	\$1,000.00	\$110,000.00
0008	1693000000-E	654	ASPHALT PLANT MIX, PAVEMENT REPAIR	50	TON	\$150.00	\$7,500.00
0009	2542000000-E	846	1'-6" CONCRETE CURB & GUTTER	8500	LF	\$25.00	\$212,500.00
0010	2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	2850	LF	\$40.00	\$114,000.00
0011	2591000000-E	848	4" CONCRETE SIDEWALK	22000	SY	\$60.00	\$1,320,000.00
0012	2605000000-N	848	CONCRETE CURB RAMP	31	EA	\$3,000.00	\$93,000.00
0013	2612000000-E	848	6" CONCRETE DRIVEWAY	5920	SY	\$100.00	\$592,000.00
0014	4399000000-N	1105	TEMPORARY TRAFFIC CONTROL	1	LS	\$202,800.00	\$202,800.00
0015	6695000000-E	SP	GENERIC PLANTING ITEM STREET TREES	305	EA	\$800.00	\$244,000.00
0016	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT HWY 70	1	LS	\$50,000.00	\$50,000.00
0017	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT MCDOWELL HIGH SCHOOL ROAD	1	LS	\$50,000.00	\$50,000.00
0018	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT LADY MARION PLAZA	1	LS	\$50,000.00	\$50,000.00
0019	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT MACHINE SHOP ROAD	1	LS	\$50,000.00	\$50,000.00
0020	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT LOGAN STREET	1	LS	\$50,000.00	\$50,000.00
WALL ITEMS							
0021	8848000000-E	SP	GENERIC RETAINING WALL ITEM DECORATIVE FORM LINER RETAINING WALL	78500	SF	\$75.00	\$5,887,500.00

			ITEM COST	\$10,947,310.00
INFLATION FACTOR			2 YEARS	5%
				\$1,122,099.28
			CONSTRUCTION COST (2021)	\$12,069,409.28
CONTINGENCIES			20.0%	\$2,413,881.86
MINOR ITEMS			6.0%	\$724,164.56
UTILITIES			7.0%	\$844,858.65
RIGHTS OF WAY			0.0%	\$0.00
			ESTIMATED CONTRACT COST (2021)	\$16,052,314.34
			E. & C. (10%)	\$1,605,231.43
			CONSTRUCTION COST (2021)	\$17,657,545.77

NOTE:

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COMPUTED BY BMB  
DATE 7/12/2019



ITEM NO.			ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
LINE. NO.	DESC. NO.	SECT. NO.					
ROADWAY ITEMS							
0001	0000100000-N	800	MOBILIZATION	1	LS	\$613,500.00	\$613,500.00
0002	0000400000-N	801	CONSTRUCTION SURVEYING	1	LS	\$122,700.00	\$122,700.00
0003	0043000000-N	226	GRADING	1	LS	\$906,210.00	\$906,210.00
0004	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	1230	TON	\$175.00	\$215,250.00
0005	1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	580	TON	\$225.00	\$130,500.00
0006	1519000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	430	TON	\$125.00	\$53,750.00
0007	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	110	TON	\$1,000.00	\$110,000.00
0008	1693000000-E	654	ASPHALT PLANT MIX, PAVEMENT REPAIR	50	TON	\$150.00	\$7,500.00
0009	2542000000-E	846	1'-6" CONCRETE CURB & GUTTER	8500	LF	\$25.00	\$212,500.00
0010	2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	2850	LF	\$40.00	\$114,000.00
0011	2591000000-E	848	4" CONCRETE SIDEWALK	22000	SY	\$60.00	\$1,320,000.00
0012	2605000000-N	848	CONCRETE CURB RAMP	31	EA	\$3,000.00	\$93,000.00
0013	2612000000-E	848	6" CONCRETE DRIVEWAY	5920	SY	\$100.00	\$592,000.00
0014	4399000000-N	1105	TEMPORARY TRAFFIC CONTROL	1	LS	\$214,700.00	\$214,700.00
0015	5265000000-E	SP	GENERIC LIGHTING ITEM PEDESTRIAN SCALE LIGHTING	10659	LF	\$200.00	\$2,131,800.00
0016	6695000000-E	SP	GENERIC PLANTING ITEM STREET TREES	305	EA	\$800.00	\$244,000.00
0017	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT HWY 70	1	LS	\$50,000.00	\$50,000.00
0018	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT MCDOWELL HIGH SCHOOL ROAD	1	LS	\$50,000.00	\$50,000.00
0019	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT LADY MARION PLAZA	1	LS	\$50,000.00	\$50,000.00
0020	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT MACHINE SHOP ROAD	1	LS	\$50,000.00	\$50,000.00
0021	7985000000-N	SP	GENERIC SIGNAL ITEM CROSSING AT LOGAN STREET	1	LS	\$50,000.00	\$50,000.00
	WALL ITEMS						
0022	8848000000-E	SP	GENERIC RETAINING WALL ITEM DECORATIVE FORM LINER RETAINING WALL	78500	SF	\$75.00	\$5,887,500.00

ITEM COST \$13,218,910.00

INFLATION FACTOR 2 YEARS 5% \$1,354,938.28

CONSTRUCTION COST (2021) \$14,573,848.28

CONTINGENCIES 20.0% \$2,914,769.66

MINOR ITEMS 6.0% \$874,430.90

UTILITIES 6.0% \$874,430.90

RIGHTS OF WAY 0.0% \$0.00

ESTIMATED CONTRACT COST (2021) \$19,237,479.72

E. &amp; C. (10%) \$1,923,747.97

CONSTRUCTION COST (2021) \$21,161,227.70

NOTE: \_\_\_\_\_

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DATE 7/12/2019

Conceptual Estimate

sidepath

sidewalk

medians

pedestrian-scale  
lighting



A photograph of two men in a room with wood-paneled walls and floors. They are leaning over a table, looking at a large map or aerial photograph. One man is pointing at the map with a pen. On the table, there is a notebook, a pen, and a water bottle. The word 'appendix' is overlaid in large white letters across the bottom half of the image.

# appendix

*Design team gathers input at the public workshop, held June 11-13, 2019.*



# STAKEHOLDER + PUBLIC INPUT

## introduction

As part of the data collection process and design development, the project team solicited input from Marion residents, community leaders, and project stakeholders. Feedback was collected over the course of three days in a number of ways to be most inclusive and representative of the community make-up. This includes:

- Steering committee meetings and corridor tour
- 2 stakeholder focus group meetings (open to the public)
- 3 pin-up sessions/work-in-progress presentations

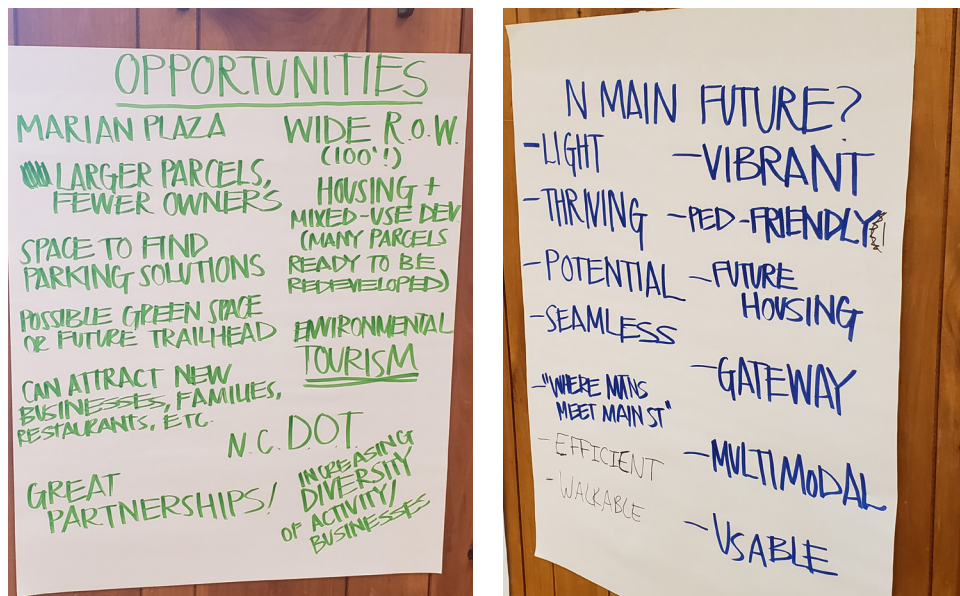
This section includes the key findings and input collected during the charrette.

## KEY FINDINGS

- Improve corridor for all modes of transportation
- Connect downtown Marion to the Catawba River Greenway
- Support the extension of the Fonta Flora State Trail into Downtown
- Economic vitality and access
- Safety
- Create a sense of place
- Attract a mixture of development types (including mixed-use)
- Increase tourism
- Carry history forward (nostalgia)
- Increase function



## workshop day 1



Day 1 of the workshop was the Discovery phase of the project. Participants in the workshop were asked to share what they perceived as opportunities and constraints along the corridor (responses are above). They were also asked to describe in one word or phrase North Main Street today, as well as what they think North Main Street could be in the future. From these responses, two word clouds (see right) were generated.

These prompts allowed the project team to establish a shared vision for the future corridor and guide the design efforts during the workshop.

### NORTH MAIN STREET TODAY

SEGMENTED  
AGED GATEWAY  
**OUTDATED**  
"GENERICA"  
SINKHOLE  
CAR-CENTRIC  
UNDERUTILIZED  
UNAPPEALING  
BORING  
USEFUL MOTORIST  
UNSAFE  
CONGESTED  
ANYWHERE  
**HIGHWAY**  
**"HELP!"**

### NORTH MAIN STREET TOMORROW

WALKABLE  
VIBRANT  
POTENTIAL  
HOUSING  
SEAMLESS  
FUTURE  
EFFICIENT  
CONNECTED  
THRIVING  
TRANSIT  
USABLE  
UPDATED  
PEDESTRIAN-FRIENDLY  
INVITING  
ENGAGING  
"MOUNTAINS MEETS MAIN ST"  
GATEWAY  
MULTIMODAL



## workshop day 2

Day 2 of the workshop included further evaluation of opportunities and constraints along the corridor (see pages 7-9). The team conducted more fieldwork and traffic observation in the morning before creating initial recommendations for the corridor. At the end of the day, a pin-up session open to the public allowed the recommendations to be seen by local residents and community leaders. After receiving feedback at the pin-up session, the project team continued to refine their recommendations.

## workshop day 3

Day 3 of the workshop included another steering committee meeting, followed by the final work session before the presentation to the public. A 22' long corridor plan at 40-scale was drafted and pinned to the wall for the public to review, as well as multiple photo simulations and proposed cross sections. At the presentation, residents were able to add comments to the corridor plan for the project team to consider. Input gathered at the presentation informed design decisions when drafting the final corridor plan (see pages 23-30).

### PHOTOS FROM DAY 2 + 3 OF THE WORKSHOP





