

## CHAPTER FOUR: IMPLEMENTATION

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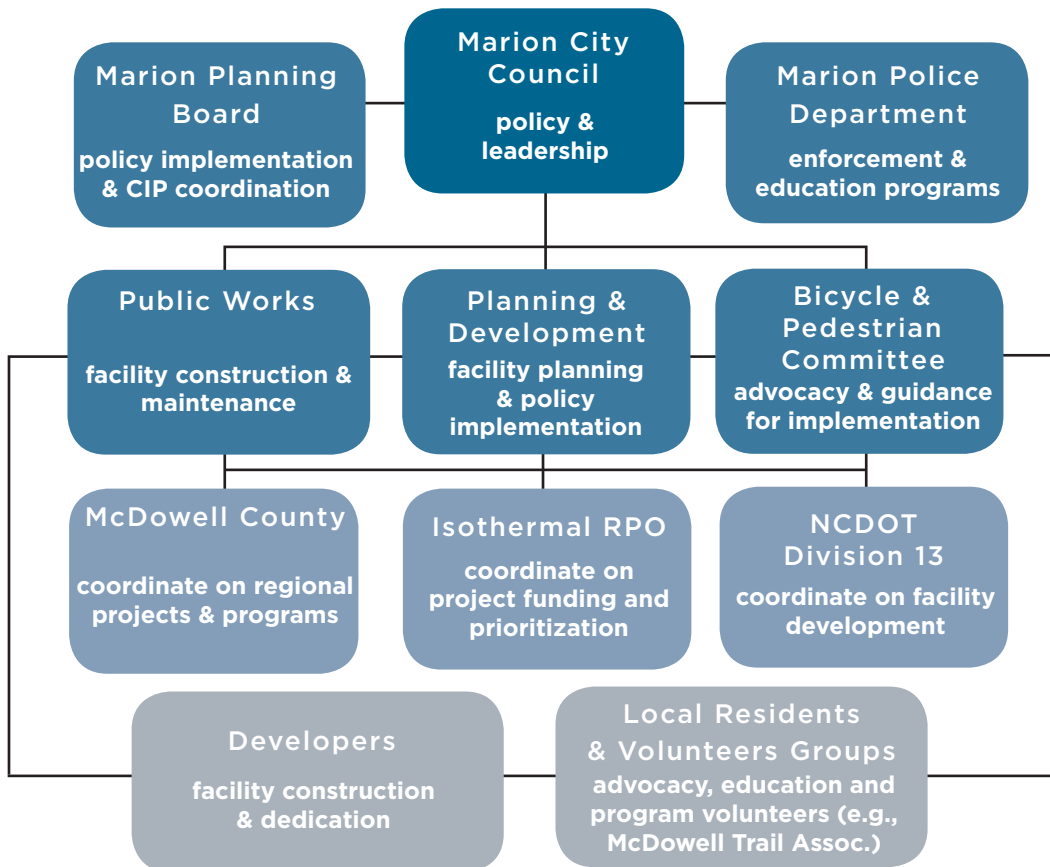
### IMPLEMENTATION OVERVIEW

This chapter defines a structure for managing the implementation of the Marion Bicycle Plan. Implementing the recommendations within this plan will require leadership and dedication to bicycle facility development on the part of a variety of agencies. Equally critical, and perhaps more challenging, will be meeting the need for a recurring source of revenue. Even small amounts of local funding could be very useful and beneficial when matched with outside sources. Most importantly, the City need not accomplish the recommendations of this plan by acting alone; success will be realized through collaboration with regional and state agencies, the private sector, and non-profit organizations. Funding resources that may be available to Marion are presented in Appendix B of this plan.

Given the economic challenges faced by local governments (as well as their state, federal, and private sector partners), it is difficult to know what financial resources will be available at different time frames during the implementation of this plan. However, there are still important actions to take in advance of infrastructure investments, including key organizational steps, the initiation of education and safety programs, and the development of strategic, lower-cost bicycle facilities, trails, and crossing facilities. Following through on these priorities will allow the key stakeholders to prepare for the development of larger bicycle projects over time, while taking advantage of strategic opportunities as they arise.

The organizational framework below and Table 4.1 summarize the key players and steps involved in implementation.

#### Organizational Framework for Implementation



**Table 4-1 Implementation Action Steps**

TASK	LEAD AGENCY	SUPPORT	DETAILS	PHASE
Present Plan to City Council	Project Consultants	City Manager, Bicycle Plan Steering Committee	Presentation to City Council in Fall 2015.	Short-term (2015)
Approve this plan	NCDOT Bike/Ped Division	Project Consultants	Official letter of approval in Fall 2015.	Short-term (2015)
Adopt this plan	City Council	City Manager, Project Consultants	Through adoption, the Plan becomes an official planning document of the City. Adoption shows that Marion has undergone a successful, supported planning process. After adoption, this plan should be incorporated into the 2015 City of Marion CTP.	Short-term (2015)
Designate Staff	City Council	City Manager	Designate staff to oversee the implementation of this plan and the proper maintenance of the facilities that are developed. This role is referred to below as "Designated City Staff"	Short-term (2015)
Form a Bicycle and Pedestrian Technical Advisory Committee (BPAC)	City Council	City Manager, Bicycle Plan Steering Committee	Form and confirm the goals of the BPAC, which should focus on implementation of this plan.	Short-term (2015)
Ensure that Priority Projects are Incorporated in NCDOT's Prioritization Process	Designated City Staff, Planning & Zoning	Isothermal RPO, NCDOT Division 13	Communicate with the RPO and NCDOT Division 13 about the importance of this plan's top projects.	Short-term (2015)
Begin Annual Meeting With Key Project Partners	Designated City Staff	Public Works, NCDOT, BPAC, and local & regional stakeholders	Key project partners (see org. chart on page 4-2) should meet on an annual basis to evaluate the implementation of this Plan. Meetings could also include on-site tours of priority project corridors.	Short-term/Ongoing (Beginning 2016)
Present this plan to other local and regional groups, to ensure planning efforts are integrated and supported regionally	Designated City Staff	BPAC, regional partners, NCDOT Planning Branch	Possible groups to receive a presentation: The Isothermal RPO, regional transportation planners, McDowell County planners and health department leaders, McDowell Trail Association Board, and the Kate B. Reynolds Charitable Trust Board.	Short-term/Ongoing (Beginning 2016)
Policy & Law Orientation	Marion Police	NCDOT Bike/Ped Division, BPAC	Police staff should be familiar with state bicycle and pedestrian policies and laws, including best practices for reporting on accidents involving people walking or bicycling: <a href="http://www.ncdot.gov/bikeped/lawspolicies/policies/">http://www.ncdot.gov/bikeped/lawspolicies/policies/</a>	Short-term (2016)

**Table 4-1 Implementation Action Steps (Continued)**

TASK	LEAD AGENCY	SUPPORT	DETAILS	PHASE
Consider reducing speed limits when new bicycle facilities are added in some locations	City Council	NCDOT, BPAC	For example, consider lowering the speed limit when improvements are made on Rutherford Rd. See Priority Project XX on page 3-XX for more information.	Short-term/Ongoing (2016 onward)
Develop new policies & approaches for implementation	Designated City Staff	City Council	Establish land right-of-way acquisition mechanisms, coordinate development plans, & implement driveway access management. See pages 4-7 and 4-8 for details.	Short-term/Ongoing (2016 onward)
Design Orientation	Public Works and NCDOT Division 13	NCDOT Bike/Ped Division	Become familiar with the guidelines in Appendix A of this Plan, as well as state and national standards for bicycle and pedestrian facility design.	Short-term/Ongoing (2016 onward)
Seek Multiple Funding Sources and Facility Development Options	Designated City Staff	City Council, BPAC, Planning & Zoning, Division 13, Isothermal RPO	Chapter 3 contains project cost estimates and Appendix B contains potential funding opportunities.	Short-term/Ongoing (2016 onward)
Launch New Programs	BPAC	Planning & Zoning, Marion Police Department, McDowell County Health Department	These groups should coordinate to launch new programs, such as those described in Chapter 3, including a media campaign, hike & bike map, one-stop website, wayfinding program, and a bicycle maintenance stand.	Short-term/Ongoing (2016 onward)
Maintain Bicycle Facilities	Public Works, NCDOT Division 13	BPAC, General Public (for reporting maintenance needs), Planning & Zoning	Public Works and NCDOT should maintain existing and future bicycle facilities and pavement markings	Short-term/Ongoing (2016 onward)
Notify Planning & Zoning of upcoming roadway reconstruction, resurfacing, and restriping projects	Public Works Director, NCDOT Division 13	Isothermal RPO, NCDOT Bike/Ped Division	Provide sufficient time for comments (in advance of the design phase); Incorporate bicycle/pedestrian recommendations from this Plan into future updates to the CTP and into future project design plans.	Short-term/Ongoing (2016 onward)
Develop a Long-Term Funding Strategy	Designated Staff	City Council, City Manager, Isothermal RPO, NCDOT Division 13	To allow continued development of the overall system, capital funds for bicycle and pedestrian facility construction should be set aside every year. Powell Bill funds should be programmed for facility construction. Funding for an ongoing maintenance program should also be included in the City's operating budget.	Short-term/Ongoing (2016 onward)
Install bike racks throughout City	Public Works, BPAC	Planning & Zoning, local businesses	Install bike racks at parks, public buildings, schools, shopping centers, downtown destinations, and other important destinations.	Mid-term (2016-2018)

**Table 4-1 Implementation Action Steps (Continued)**

TASK	LEAD AGENCY	SUPPORT	DETAILS	PHASE
Provide Enforcement and Education Training for Police Officers Through Free Online Resources	Police Department	Planning & Zoning, NCDOT Bike/Ped Division	Resources are available from the National Highway Traffic Safety Administration, and from webinars by the Association of Pedestrian and Bicycle Professionals. Continue to implement the WatchForMeNC campaign and take advantage of valuable materials and resources provided by NCDOT.	Mid-term (2016-2018)
Complete Three Priority Projects	Planning, Public Works, NCDOT Division 13	Isothermal RPO, NCDOT Bike/Ped Division	Chapter 3 provides info on the priority projects. Aim to complete at least three of the priority projects by the end of 2017.	Mid-term (2016-2018)
Distribute Bicycle and Pedestrian Safety Information	BPAC, Designated City Staff	NCDOT Bike/Ped Division, Police Department	NCDOT has print material with safety tips for motorists, bicyclists and pedestrians available for download at <a href="http://www.ncdot.gov/bikeped/safetyeducation/materials/">www.ncdot.gov/bikeped/safetyeducation/materials/</a> . Other methods of distribution could include web sites, social media, and 'on-the-ground' in trail kiosks.	Mid-term (2016-2018)
Communication & Outreach	BPAC, Designated City Staff	Local newspapers, City web site & social media managers	The BPAC should establish a communication campaign to celebrate successes as facilities are developed and otherwise raise awareness of the overall bicycle network and its benefits. A key first task of this group is to establish a page on the City website dedicated to bike/ped education and project updates. The page should provide information to residents and visitors on bicycling in the region. To begin, the website can include the maps included in this plan.	Mid-term (2016-2018)
Seek designation as a Bicycle-Friendly Community	Designated City Staff	BPAC	The development and implementation of this plan is an essential first step toward becoming a designated Bicycle-Friendly Community. With ongoing efforts and the short-term work program recommended here, the City should be in a position to apply for and receive recognition within a few years.	Mid-term (2018-2020)
Complete Additional Priority Projects	Planning & Zoning, Public Works + NCDOT Division 13	Isothermal RPO, NCDOT Bike/Ped Division	Chapter 3 provides info on the Priority Projects. Aim to complete at least XX of the priority projects by the end of 2020.	Mid- to Long-term (2018-2020)
Plan Update	City Council & BPAC	Planning & Zoning	This plan should be updated in 2020. If many projects and programs have been completed by then, a new set of priorities should be established. If many projects and programs have not been completed, a new implementation strategy should be established.	Long-Term (2020)

## KEY ACTION STEP DESCRIPTIONS

### *POLICY ACTION STEPS*

Several policy steps are crucial to the success of future facility development. These steps will legitimize the recommendations found in this plan and enable the right-of-way acquisition necessary to carry out those recommendations.

### *ADOPT THIS PLAN*

Before any other action takes place, the City of Marion should adopt this plan. This should be considered the first step in implementation. Through adoption of this plan and its accompanying maps as the City's official bicycle plan, Marion will be better able to shape transportation and development decisions so that they fit with the goals of this plan. Most importantly, having an adopted plan is extremely helpful in securing funding from state, federal, and private agencies. Adopting this plan does not commit the Marion to dedicate or allocate funds, but rather indicates intent to implement this plan over time, starting with these action steps.

The Planning Board should review and recommend the plan to the City Council, which in turn must consider and officially incorporate the recommended infrastructure improvements of this plan into its land-use plans. The following entities should adopt this plan:

- » The City of Marion
- » Isothermal RPO

This plan and its recommended facilities should be approved by the NCDOT, and they should be included in the future planning of the NCDOT Planning Branch, the Division of Bicycle and Pedestrian Transportation (DBPT), and NCDOT Division 13. This plan's recommendations should also be integrated into an update to the Comprehensive Transportation Plan (CTP) for McDowell County. NCDOT should refer to this

document when assessing the impact for future projects and plans. Likewise, NCDENR's Division of Parks and Recreation should refer to this plan in any projects for future state parks or trails near Marion.

### *ESTABLISH LAND RIGHT-OF-WAY ACQUISITION MECHANISMS*

It is recommended that local zoning and subdivision ordinances be amended to ensure that, as developments are planned and reviewed, the bicycle facilities and greenway corridors identified in this plan are protected. This would entail amending development regulations to have developers set aside land for trail infrastructure whenever a development proposal overlaps with the proposed routes, as adopted. Marion staff should ensure that an effective review of all bicycle elements in proposed developments takes place.

In addition, local policies should also be revised to appropriately address the ROW needs. For example, revising policy language to allow for public access for trail users, as a matter of right, on all new sewer and utility easements, or to mandate the installation of "bicycle-friendly" drainage grates on all roadways during future roadway projects would have a significant impact on the bicycling environment in Marion.

### *COORDINATE DEVELOPMENT PLANS*

The City of Marion should ensure that adopted bicycle and multi-use path recommendations from this plan are included in future residential and commercial developments that connect with such proposed facilities.

### *IMPLEMENT DRIVEWAY ACCESS MANAGEMENT*

Marion should consider adding access management language to the City ordinances for both future development and retrofits to existing development, especially high-volume corridors. The NCDOT's policy on 'Street and Driveway Access to North Carolina Highways' provides exam-

ples on how to reduce conflict points between motor vehicles and pedestrians and bicyclists. For more information: [www.ncdot.org/doh/pre-construct/altern/value/manuals/pos.pdf](http://www.ncdot.org/doh/pre-construct/altern/value/manuals/pos.pdf)

### **PROGRAM ACTION STEPS**

While policies provide support for facility development, the program recommendations featured at the end of Chapter 3 will build community support for the creation of new facilities and help establish a stronger bicycling culture. The action steps that follow will support these programing efforts.

#### **DESIGNATE STAFF**

Designate staff to oversee the implementation of this plan and the proper maintenance of the facilities that are developed. It is recommended that a combination of existing planning staff and public works staff oversee the day-to-day implementation of this plan. In many municipalities, a full-time bicycle and pedestrian coordinator covers this task, but in smaller Cities, such as Marion, it makes more sense to fold these responsibilities into current staff responsibilities.

#### **FORM A BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE**

The City of Marion should form a bicycle and pedestrian advisory committee (BPAC) out of the plan's steering committee to assist in the implementation of this plan. The BPAC should have representation from active pedestrians and commuting and recreational cyclists and should champion the recommendations of this plan. The formation of this group would be a significant step in becoming designated as a Bicycle Friendly Community (see section that follows). The committee would provide a communications link between the citizens of the community and local government. They should also continue to meet periodically, and be tasked with assisting Marion staff in community

outreach, marketing, and educational activities recommended by this plan.

#### **BECOME DESIGNATED AS A BICYCLE FRIENDLY COMMUNITY**

A goal for Marion should be to seek a "Bicycle Friendly Community" (BFC) designation from the League of American Bicyclists. The BFC campaign is an award program that recognizes municipalities that actively support bicycling activities and safety. A Bicycle Friendly Community provides safe accommodation for bicycling and encourages its residents to bicycle for transportation and recreation. Carrboro and Davidson are examples of small North Carolina cities that have become designated as Bicycle Friendly Communities.

Becoming designated as a Bicycle-Friendly Community signals to current residents, potential residents, and visitors that the City is a safe and welcoming place for individuals and families to live and recreate. The development and implementation of this plan is an essential first step toward becoming a Bicycle Friendly Community. With ongoing efforts and the short-term work program recommended here, the City should be in a position to apply for and receive BFC status within a few years.

#### **COMMUNICATION AND OUTREACH**

The BPAC should lead the effort to establish a communication campaign to celebrate successes as facilities are developed and otherwise raise awareness of the overall pedestrian and bicycle network and its benefits. A key first task of this group is to design and launch a one-stop website (or a web page on the City's current website).

Many current and potential bicyclists do not know where to turn to find out about traffic laws, events, maps, tips, and groups. Developing a "Bike Central" web page provides information to a wide audience and encour-

ages people to walk and bicycle. This would be especially useful in attracting visitors who are seeking out a vacation destination where bicycling is safe and enjoyable. Such a site is not usually difficult to set up, but it will only be successful if the site is both easy to use and updated frequently. All website content should be reviewed regularly for accuracy. Walking groups, the bicycling community, and volunteer organizations interested in safety and health can assist in keeping the site up to date.

#### ***ESTABLISH A MONITORING PROGRAM***

From the beginning, and continuously through the life of a bicycle facility project, the BPAC should brainstorm specific benchmarks to track through a monitoring program and honor the completion of projects with public events and media coverage. Benchmarks should be revisited and revised periodically as the pedestrian and bicycle facility network evolves.

#### ***BEGIN ANNUAL MEETING WITH KEY PROJECT PARTNERS***

Coordination between key project partners will establish a system of checks and balances, provide a level of accountability, and ensure that recommendations are implemented. This meeting should be organized by the designated City staff, and should include representatives from the Organizational Chart shown on page 4-2. The purpose of the meeting should be to ensure that this plan's recommendations are integrated with other transportation planning efforts in the region, as well as long-range and current land use planning, economic development planning, and environmental planning. Attendees should work together to identify and secure funding necessary to immediately begin the first year's work, and start working on a funding strategy that will allow the City to incrementally complete each of the suggested physical improvements, policy changes and programs over a 5-10 year period. A brief progress benchmark memo should be a product of these meetings, and

participants should reconfirm the plan's goals each year. The meetings could also occasionally feature special training sessions on pedestrian, on-road bicycle, and trail issues.

#### ***SEEK MULTIPLE FUNDING SOURCES AND FACILITY DEVELOPMENT OPTIONS***

Multiple approaches should be taken to support bicycle and pedestrian facility development and programming. It is important to secure the funding necessary to undertake priority projects but also to develop a long-term funding strategy to allow continued development of the overall system. Dedicated local funding sources will be important for the implementation of this plan. Capital and local funds for pedestrian facilities and trail construction should be set aside every year, even if only for a small amount. Small amounts of local funding can be matched to outside funding sources or could be used to enhance NCDOT projects with bicycle features that may otherwise not be budgeted for by the state. A variety of local, state, and federal options and sources exist and should be pursued. These funding options are described in Appendix B.

A priority action is to immediately evaluate the recommendations against transportation projects that are currently programmed in the Transportation Improvement Program (TIP) to see where projects overlap, compliment, or conflict with each other. The City should also evaluate which of the proposed projects could be added to future TIP updates, and should coordinate closely with NCDOT Division 13 and the Isothermal RPO on priority projects.

#### ***DEVELOP BICYCLE AND PEDESTRIAN FACILITY DESIGNS AND SPECIFICATIONS FOR PROPOSED PROJECTS***

City of Marion staff could prepare these in-house to save resources, using the design guidelines of this plan and the project cut-sheets as starting points. The public should have an opportunity to comment on the design of new facilities.



### **LAUNCH NEW PROGRAMS**

The program recommendations found in Chapter 3 provide a set of programmatic resources that will support the goals of the Marion Bicycle Plan. The City should reference the recommendations to develop new programs that promote walking and bicycling.

Through cooperation between the City, the BPAC, and groups such as walking and bicycling clubs, strong education, encouragement, and enforcement campaigns could also occur as new facilities are built. When an improvement has been made, the roadway environment has changed and proper interaction between motorists, bicyclists, and pedestrians is critical for the safety of all users. A campaign through local television, on-site enforcement, education events, and other methods will bring attention to the new facility, and educate, encourage, and enforce proper use and behavior. Chapter 3 provides program ideas to choose from, some of which are included in the action steps table starting on page 4-3.

### **PROVIDE ENFORCEMENT AND EDUCATION TRAINING FOR POLICE OFFICERS**

Law enforcement officers have many important responsibilities, yet pedestrians and bicyclists remain the most vulnerable forms of traffic. The Marion Police Department has been aware of this planning process, and should be involved in implementation. In many cases, citizens (and even sometimes officers) are not fully aware of state and local laws related to bicyclists and pedestrians. Training on this topic can lead to additional education and enforcement programs that promote safety. Training for Marion's officers could be done through free online resources available from the National Highway Traffic Safety Administration (NHTSA) (see links at [www.bicyclinginfo.org/enforcement/training.cfm](http://www.bicyclinginfo.org/enforcement/training.cfm)), or through fee-based webinars available through the Association of Pedestrian and Bicycle Professionals (APBP).

### **INFRASTRUCTURE ACTION STEPS**

While establishing the policies and programs described, Marion should move forward with the design and construction of priority projects. They should also work to identify funding for long-term, higher-cost projects.

### **IDENTIFY FUNDING**

Achieving the vision defined within this plan will require, among other things, a stable and recurring source of funding. Communities across the country that have successfully engaged in pedestrian and bicycle programs have relied on multiple funding sources to achieve their goals. No single source of funding will meet the recommendations identified in this Plan. Instead, stakeholders will need to work cooperatively with municipality, state, and federal partners to generate funds sufficient to implement the program.

A stable and recurring source of revenue is needed that can then be used to leverage grant dollars from state, federal, and private sources. The ability of local agencies to generate a source of funding for pedestrian and bicycle facilities depends on a variety of factors, such as taxing capacity, budgetary resources, voter preferences, and political will. It is very important that these local agencies explore the ability to establish a stable and recurring source of revenue for facilities.

Donations from individuals or companies are another potential source of funding. The BPAC should establish an "Adopt a Trail" program as a mechanism to collect these donations for the development of the trail and sidepath recommendations discussed in Chapter 3. In addition to a formalized program, a website should be set up as an easy way for individuals to donate smaller amounts.

Federal and state grants should be pursued along with local funds to pay for necessary

right-of-way acquisition and project design, construction, and maintenance expenses. “Shovel-ready” designed projects should be prepared in the event that future federal stimulus funds become available. Additional recommended funding sources may be found in Appendix B.

### **COMPLETE SHORT-TERM PRIORITY PROJECTS**

By quickly moving forward on priority projects, Marion will demonstrate its commitment to carrying out this plan and will better sustain momentum generated during the planning process. Refer to Chapter 3: Network Recommendations for priority projects.

## **KEY PARTNERS IN IMPLEMENTATION**

### **ROLE OF THE MARION CITY COUNCIL**

The City Council will be responsible for adopting this plan. Through adoption, the City’s leadership is further recognizing the value of bicycle and pedestrian transportation and is putting forth a well-thought out set of recommendations for improving public safety and overall quality of life (see the ‘Why This Plan is Important’ section in Chapter 1). By adopting this plan, the City Council is also signifying that they are prepared to support the efforts of other key partners in the plan’s implementation, including the work of City departments and NCDOT.

Adoption of this plan is in line with public support. Marion’s online comment form for the planning process yielded less than 50 responses, but showed strong support for improving bicycling conditions.

### **ROLE OF THE MARION PLANNING BOARD**

The Marion Planning Board serves as an advisory board to the City Council on matters of planning and zoning. The Planning Board should be prepared to:

- » Become familiar with the recommendations of this plan, and support its implementation.
- » Learn about pedestrian- and bicycle-related policies in North Carolina. (see: [www.ncdot.gov/bikeped/lawspolicies/policies/](http://www.ncdot.gov/bikeped/lawspolicies/policies/))

### **ROLE OF THE MARION PUBLIC WORKS DEPARTMENT**

The Public Works Department is responsible for the construction and maintenance of pedestrian and bicycle facilities on locally owned and maintained roadways, as well as on NCDOT roadways, where encroachment agreements are secured. This department should be prepared to:

- » Communicate and coordinate with other City departments and the BPAC on priority bicycle and pedestrian projects.
- » Become familiar with the standards set forth in Appendix A of this plan, as well as state and national standards for bicycle and pedestrian facility design.
- » Secure encroachment agreements for work on NCDOT-owned and maintained roadways.
- » Design, construct, and maintain pedestrian and bicycle facilities.
- » Assist the Planning & Zoning Department in communicating with NCDOT and regional partners.
- » Work with NCDOT Division 13 to ensure that when NCDOT-owned and maintained roadways in Marion are resurfaced or reconstructed, this plan’s adopted recommendations for bicycle and pedestrian facilities are included on those streets. If a compromise to the original recommendation is needed, then contact NCDOT Division of Bicycle and Pedestrian Transportation for guidance on appropriate alternatives.

### **ROLE OF MARION PLANNING & DEVELOPMENT**

Planning & Development staff will take primary responsibility for the contact with new development to implement the plan (with support

from the Public Works Department). The staff should be prepared to:

- » Communicate and coordinate with local developers on adopted recommendations for bicycle and pedestrian facilities, including paved multi-use trails.
- » Communicate and coordinate with NCDOT Division 13 on this plan’s recommendations for NCDOT-owned and maintained roadways. Provide comment and reminders about this plan’s recommendations no later than the design phase.
- » Communicate and coordinate with McDowell County, Isothermal RPO, and neighboring municipalities on regional facilities; partner for joint-funding opportunities.
- » Become experts on bicycle-related policies in North Carolina. (see: [www.ncdot.gov/bikeped/lawspolicies/policies/](http://www.ncdot.gov/bikeped/lawspolicies/policies/))

**ROLE OF THE BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE**

The Committee should be prepared to:

- » Meet with staff from Planning & Development and the Public Utilities Department; evaluate progress of the plan’s implementation and offer input regarding pedestrian, bicycle, and trail-related issues; assist Marion staff in applying for grants and organizing bicycle- and pedestrian-related events and educational activities.
- » Build upon current levels of local support for pedestrian and bicycle issues and advocate for local project funding.

**ROLE OF THE LOCAL NCDOT DIVISION 13**

Division 13 of the NCDOT is responsible for the construction and maintenance of pedestrian and bicycle facilities on NCDOT-owned and maintained roadways in Marion, OR is expected to allow for the City to do so with encroach-

ment agreements. Division 13 should be prepared to:

- » Recognize this plan as not only as an adopted plan of the City of Marion, but also as an approved plan of the NCDOT.
- » Become familiar with the bicycle and pedestrian facility recommendations for NCDOT roadways in this plan (Chapter 3); take initiative in incorporating this plan’s recommendations into the Division’s schedule of improvements whenever possible.
- » Become familiar with the standards set forth in Appendix A of this plan, as well as state and national standards for facility design; construct and maintain recommended facilities using the highest standards allowed by the State (including the use of innovative treatments on a trial basis).
- » Notify the City of Marion Public Works Department of all upcoming roadway reconstruction or resurfacing/restriping projects in City, no later than the design phase. Provide sufficient time for comments from the planning staff.
- » If needed, seek guidance and direction from the NCDOT Division of Bicycle and Pedestrian Transportation on issues related to this plan and its implementation.

**ROLE OF THE MARION POLICE DEPARTMENT**

The Marion Police Department is responsible for providing the community the highest quality law enforcement service and protection to ensure the safety of the citizens and visitors. The Police Department should be prepared to:

- » Become experts on pedestrian-related laws in North Carolina. (see: [www.ncdot.gov/bikeped/lawspolicies/laws/](http://www.ncdot.gov/bikeped/lawspolicies/laws/) )
- » Continue to enforce not only bicycle- and pedestrian-related laws, but also motorist laws that affect walking and bicycling, such

- as speeding, running red lights, aggressive driving, etc.
- » Participate in bicycle- and pedestrian-related education programs.
- » Review safety considerations with the Public Works Department as projects are implemented.

### **ROLE OF DEVELOPERS**

Developers in Marion can play an important role in facility development whenever a project requires the enhancement of transportation facilities or the dedication and development of on-road bicycle facilities, sidewalks, trails or crossing facilities. Developers should be prepared to:

- » Become familiar with the benefits, both financial and otherwise, of providing amenities for walking and biking (including trails) in residential and commercial developments.
- » Become familiar with the standards set forth in Appendix A of this plan, as well as state and national standards for facility design.
- » Be prepared to account for bicycle and pedestrian circulation and connectivity in future developments.

### **ROLE OF LOCAL & REGIONAL STAKEHOLDERS**

Stakeholders for bicycle and pedestrian facility development and related programs, such as McDowell County, Isothermal RPO, and local organizations play important roles in the implementation of this plan. Local and regional stakeholders should be prepared to:

- » Become familiar with the recommendations of this plan, and communicate & coordinate with the City for implementation, specifically in relation to funding opportunities, such as grant writing and developing local matches for facility construction.
- » The RPO should work with Marion on populating the Strategic Transportation Improvement (STI) list with pedestrian and bicycle infrastructure projects.

- » McDowell County should coordinate with the City on trail development.
- » Business owners and organizations should look for opportunities to partner on specific projects, such as streetscape improvements, or comprehensive signage and wayfinding projects.

### **ROLE OF LOCAL RESIDENTS, CLUBS AND ADVOCACY GROUPS**

Local residents, clubs, and advocacy groups play a critical role in the success of this plan. They should be prepared to:

- » Continue offering input regarding pedestrian and bicycling issues in Marion.
- » Assist City staff and the BPAC by volunteering for bicycle- and pedestrian-related events and educational activities and/or participate in such activities.
- » Assist Marion staff and the BPAC by speaking at City Council meetings and advocating for local pedestrian and bicycle project and program funding.

### **ROLE OF VOLUNTEERS**

Services from volunteers, student labor, and seniors, or donations of material and equipment may be provided in-kind, to offset construction and maintenance costs. Formalized maintenance agreements, such as adopt-a-trail/greenway or adopt-a-highway can be used to provide a regulated service agreement with volunteers. Other efforts and projects can be coordinated as needed with senior class projects, scout projects, interested organizations, clubs or a neighborhood's community service to provide for many of the program ideas outlined in Chapter 3 of this plan. Advantages of utilizing volunteers include reduced or donated planning and construction costs, community pride and personal connections to the City's greenway, bicycle, and pedestrian networks.



## PERFORMANCE MEASURES (EVALUATION AND MONITORING)

Marion should establish performance measures to benchmark progress towards fulfilling the recommendations of this plan. These performance measures should be stated in an official report within two years after the plan is adopted. Performance measures could address the following aspects of pedestrian and bicycle transportation and recreation in Marion:

- » *Safety.* Measures of pedestrian- and bicycle-related crashes and injuries.
- » *Facilities.* Measures of how many pedestrian and bicycle facilities have been funded and constructed since the plan's adoption.
- » *Maintenance.* Measures of existing sidewalk/crosswalk or bicycle facility deficiency or maintenance needs.
- » *Counts.* Measures of pedestrian and/or bicycle traffic at specific locations.
- » *Education, Encouragement and Enforcement.* Measures of the number of people who have participated in part of a pedestrian- or bicycle-related program since the plan's adoption.

## FACILITY DEVELOPMENT METHODS

This section describes different construction methods for the proposed pedestrian and bicycle facilities outlined in Chapter 3. It is much more cost-effective to provide bicycle and pedestrian facilities during roadway construction and re-construction projects than to initiate the improvements later as "retrofit" projects.

### **NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) STRATEGIC TRANSPORTATION INVESTMENTS (STI)**

The NCDOT's State Transportation Improvement Program is based on the Strategic Transportation Investments Bill, signed into law in 2013. The Strategic Transportation Investments

(STI) Initiative introduces the Strategic Mobility Formula, a new way to fund and prioritize transportation projects.

The new Strategic Transportation Investments Initiative is scheduled to be fully implemented by July 1, 2015. Projects scheduled for construction before then will proceed as scheduled under the current Equity Formula. Projects slated for construction after that time will be ranked and programmed according to the new formula. The new Strategic mobility formula assigns projects for all modes into one of three categories: 1) Statewide Mobility, 2) Regional Impact, and 3) Division Needs.

All independent bicycle and pedestrian projects are placed in the "Division Needs" category, and are ranked based on 50% data (safety, access, demand, connectivity, and cost effectiveness) and 50% local input. **See Appendix B, page B-8 to B-10 for more information.**

### **LOCAL ROADWAY CONSTRUCTION OR RECONSTRUCTION**

Pedestrians and bicyclists should be accommodated any time a new road is constructed or an existing road is reconstructed. In the longer-term, all new roads with moderate to heavy motor vehicle traffic should have sidewalks, bicycle facilities, and safe intersections. However, side paths can be an acceptable solution when a road has few driveways and high-speed, high-volume traffic.

More information is available on the following website:

<http://www.ada.gov/doj-fhwa-ta.htm>.

## **RESIDENTIAL AND COMMERCIAL DEVELOPMENT**

The construction of sidewalks, bicycle facilities, trails, and safe crosswalks should be required during development. Construction of facilities that corresponds with site construction is more cost-effective than retrofitting. In commercial development, emphasis should also be focused on safe pedestrian and bicyclist access into, within, and through large parking lots. This ensures the future growth of the pedestrian and bicycle networks and the development of safe communities.

## **REMOVING PARKING**

Some neighborhood collector roadways are wide enough to add pedestrian and bicycle facilities, but they are used by residents for on-street parking, especially in the evening. In locations like this, removing parking is likely to create considerable controversy and is not recommended unless there is no other solution or the parking is rarely used. In the rare case that removing parking is being considered, the parking should not be removed unless there is a great deal of public support for the facilities on that particular roadway and a full public involvement process with adjacent residents and businesses is undertaken prior to removing parking.

If it is not practical to add a bike lane, edgelines and shared lane markings may be considered. On roads where the outside lane and parking area combined are more than 17 feet wide, 10 foot wide travel lanes can be striped with an edgeline, leaving the rest of the space on either side for parking. The stripe would help slow motor vehicles and provide extra comfort for bicyclists, especially during the daytime when fewer cars would be parked along the curb. On roads with outside lane and parking areas that are narrower than 17 feet wide, shared lane markings can be provided every 250 feet on the right side of the motor vehicle travel lane to increase the visibility of the bike route.

## **REPAVING**

Repaving projects provide a clean slate for revising pavement markings. When a road is repaved, the roadway should be restriped to create narrower lanes and provide space for bike lanes and shoulders, where feasible.

In addition, if the spaces on the sides of non-curb and gutter streets have relatively level grades and few obstructions, the total pavement width can be widened to include paved shoulders.

## **INSTALLING SHARED LANE MARKINGS**

Marion should adopt the use of shared lane markings, or “sharrows,” as one of its bicycle facility types. Shared lane markings have been newly incorporated into the Manual on Uniform Traffic Control Devices (MUTCD). They take the place of traditional bicycle lanes where travel lanes cannot be narrowed, where speeds do not exceed 35 mph, and/or where there is on-street parking. The intent of the shared lane marking is threefold:

- » They draw attention to the fact that the roadway is accommodating bicycle use and traffic;
- » They clearly define the direction of travel for both bicyclists and motorists; and
- » With proper placement, they remind bicyclists to bike further from parked cars to prevent “dooring” collisions.

While shared-lane markings are not typically recommended or needed on local, residential streets, they are sometimes used along such streets when part of a signed route or bicycle boulevard. It should be noted that sharrows are not a replacement for bicycle lanes in their effectiveness or use.

### **RETROFIT ROADWAYS WITH NEW BICYCLE AND PEDESTRIAN FACILITIES**

There may be critical locations in the pedestrian and bicycle network that have safety issues or are essential links to destinations. In these locations, it may be justifiable to add new pedestrian and bicycle facilities before scheduling a roadway to be repaved or reconstructed. In some other locations, it may be relatively easy to add sidewalk or to add extra pavement for shoulders, but other segments may require removing trees, relocating landscaping or fences, or re-grading ditches. Retrofitting roadways with side paths creates similar challenges.

### **BRIDGE CONSTRUCTION OR REPLACEMENT**

Provisions should always be made to include a walking and bicycling facility as a part of vehicular bridges. All new or replacement bridges should accommodate two-way travel for all users. Even though bridge construction and replacement does not occur regularly, it is important to consider these policies for long-term bicycle and pedestrian planning. NCDOT bridge policy states that sidewalks shall be included on new NCDOT road bridges with curb and gutter approach roadways. A determination of providing sidewalks on one or both sides is made during the planning process. Facility design standards such as widths of facilities and heights of handrails are presented in Appendix A: Design Guidelines.

### **SIGNAGE AND WAYFINDING PROJECTS**

A relatively low-cost, short-term action that Marion can pursue immediately is to develop and adopt a wayfinding signage style policy and procedure, to be applied throughout the entire community, to make it easier for people to find destinations. Bicycle route signs are one example of these wayfinding signs, and should be installed along routes independently of oth-

er signage projects or as a part of a more comprehensive wayfinding improvement project. Posting signage that includes bicycle and walk travel times to major destinations can help to increase awareness of the ease and efficiency of bicycle and pedestrian travel. See Appendix A: Design Guidelines for more detailed guidance on signage and wayfinding improvements.

For a step-by-step guide to help non-professionals participate in the process of developing and designing a signage system, as well as information on the range of signage types, visit the Project for Public Places website: [www.pps.org/reference/signage\\_guide](http://www.pps.org/reference/signage_guide)

### **CITY EASEMENTS**

Marion should explore opportunities to revise existing easements to accommodate public access greenway trail facilities. Similarly, as new easements are acquired in the future, the possibility of public access should be considered. Sewer easements are very commonly used for this purpose, offering cleared and graded corridors that easily accommodate trails. This approach avoids the difficulties associated with acquiring land, and it better utilizes the City's resources.