

Chapter 5 | Bicycle and Pedestrian Element

Introduction

Transportation by way of cycling or walking—commonly referred to as non-motorized or active transportation—is utilized for more than just recreation or exercise. Community members of all ages have become more reliant on using active modes of transportation to travel between their homes and commercial shopping locations, as well as other important destinations such as workplaces or educational institutions. This chapter includes current initiatives, future recommendations, and the overall planning process for bicycle and pedestrian projects and improvements throughout the region.

Although planning for bicycle and pedestrian facilities is required by federal law, there are numerous benefits that active transportation provides. Not only does active transportation encourage a healthier lifestyle, it is also better for the natural environment. Planning for bicycle and pedestrian facilities is multifaceted. The improvements for active transportation can extend beyond conventional sidewalks or bicycle lane projects. Studies show that bicycle and pedestrian traffic can increase by up to 6% and 3% annually, respectfully.¹ Regional planning efforts must consider the growing desire for active transportation. Other studies show that bicycle and pedestrian infrastructure increase the quality of life. One study demonstrated that for every \$1 dollar spent on these types of improvements, regional economies see an additional \$8.41 in sales outputs and \$2.65 in personal incomes.² This



Courtesy of the City of Charleston

¹ Huyen T.K., Buehler R., Hankey, S. Have walking and bicycling increased in the USA? 13-year longitudinal analysis of traffic counts from 13 metropolitan areas. Transportation Research Part D 2019;329-345

² Baerg, R. (2016). Active Transportation Health and Economic Impact Study (p. 7) (United States, Urban Design 4 Health). Los Angeles, CA: Southern California Association of Governments.

highlights not only economic benefits of bicycle and pedestrian facilities, but also could contribute to benefits associated with reduced traffic and enhanced quality of life.

Except highways like I-64, all new road facilities should consider cyclist and pedestrian mobility. The construction of new roadways provide opportunities to intentionally incorporate alternative modes of transportation along a corridor. New facility improvements should also consider ADA guidelines. These guidelines ensure that improvements are accessible to all types of people regardless of age or ability. In addition to mobility considerations on new roadway facilities, safety improvements on existing facilities should also be considered. Typically, safety improvements—particularly at intersections—could be low-cost and high-benefit. In order to promote active modes of transportation, providing a variety of facility types based on the existing context is crucial. Examples of these improvements could be wayfinding, dedicated facilities, high-visibility crossings, or traffic signal retiming.

Goals and Objectives

The long-term goals of the *RIC Metropolitan Transportation Plan* are consistent with previous planning efforts, including the *Kanawha-Putnam Bicycle and Pedestrian Plan*. The goals are:

- Increase bicycle and pedestrian connectivity between population centers, educational institutions, public recreational areas, and retail/entertainment activity centers in Kanawha and Putnam counties.
- Improve safety and user comfort levels on all bicycle and pedestrian facilities.
- Increase public awareness of bicycle and pedestrian facility locations.
- Promote education of bicycle safety among both motorized and non-motorized users.
- Promote the adoption and implementation of Complete Streets concepts within each community in Kanawha and Putnam counties.
- Incorporate bicycle and pedestrian improvements into the transportation network and development projects.
- Institutionalize bicycle and walking friendliness as a core value of County and Municipal projects, policies, and programs.



Federal Requirements

Bicycle and pedestrian legislation is contained in Sec. 217 (g) of the United States Code (U.S.C.). This legislation includes a provision titled “Planning and Design,” which states:

“(1) In general. - Bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and State in accordance with sections 134 and 135, respectively. Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use are not permitted.

(2) Safety considerations. - Transportation plans and projects shall provide due consideration for safety and contiguous routes for bicyclists and pedestrians. Safety considerations shall include the installation, where appropriate, and maintenance of audible traffic signals and audible signs at street crossings.”

Current Initiatives

Bicycle Pedestrian Advisory Committee

The Bicycle Pedestrian Advisory Committee was formed in 2016. The committee was relaunched following RIC's adoption of the Kanawha Putnam Bicycle Pedestrian Plan in 2019. The committee is comprised of representatives from the City of Charleston, the Kanawha Valley Regional Transportation Authority, the Kanawha County Commission, the Putnam County Commission, the West Virginia Local Technical Assistance Program, and bicycle-pedestrian citizen advocates. The Bicycle Pedestrian Advisory Committee aims to strategically advance the recommendations for the Kanawha-Putnam Bicycle and Pedestrian Plan as well as advocating for Complete Street policy considerations for new roadway projects.

Complete Street Policy

The Complete Streets concept promotes safer, more-livable street designs to serve all citizens. Complete Streets considers the needs of cyclists, pedestrians, and those with varying abilities to ensure the appropriate facility accommodations are included in the design. Several states and municipalities have already passed legislation for and adopted Complete Streets concepts. During the 2013 legislative session, with the passage of Senate Bill 158, West Virginia became the 28th state to adopt the Complete Streets policy. When complete street policies are in place, all users of the roadways experience a safer roadway network. The implementation of Complete Streets can reduce vehicle-related crashes, pedestrian risk, and bicyclist risk.³ The policy can also promote walking and bicycling by providing safe and dedicated facilities. One study found that 43% of people reporting a place to walk were significantly more likely to meet current recommendations for regular physical activity than were those reporting no place to walk.⁴

Kanawha Boulevard Improvement Project

The City of Charleston completed the Kanawha Boulevard Bicycle and Pedestrian Improvement project in late 2017. The project constructed a shared use path, suitable for cyclist and pedestrians to use while also being separated from vehicular traffic. The project spans for 1.3 miles from Patrick Street to Magic Island. The space for the path was created using a road diet technique which included removing the median lane and reducing the width of the existing lanes.



Construction for the City of Charleston's Kanawha Boulevard shared use path was recently made complete.

³ Reynolds CC, Harris MA, Teschke K, Cipton PA, Winters M. The impact of transportation infrastructure on bicycling injuries and crashes: a review of the literature. *Environmental Health* 2009;8:47.

⁴ Powell KE, Martin L, Chowdhury PP. Places to walk: convenience and regular physical activity. *American Journal of Public Health* 2003;93:1519-1521.

Bicycle and Pedestrian Survey

An online survey was administered in conjunction with the development of the *Regional Intergovernmental Council's Kanawha-Putnam Bicycle and Pedestrian Plan*. The survey was made available to residents of Kanawha and Putnam counties as part of the public outreach initiatives of the plan. The survey was distributed via social media, RIC's website, and email. A Facebook advertisement was created for the Kanawha Valley area to promote the survey. The Facebook advertisement reached a total of 30,593 users and made 41,082 impressions. There were 84 link clicks as a result of the Facebook advertisement. Information sought by the survey included location, demographics, bicycling experience, purpose, destinations, challenges, and recommendations. One hundred (100) people started or partially completed the survey. Sixty-eight (68) people completed the full survey. Appendix E of the *Regional Intergovernmental Council's Kanawha -Putnam Bicycle and Pedestrian Plan* includes a summary of the survey results, which can be viewed on RIC's website at www.wvregion3.org.

Americans with Disabilities Act Transition Plan Audit Program

With the guidance of West Virginia University's West Virginia Local Technical Assistance Program (WVLTA), the Regional Intergovernmental Council (RIC) can enroll new and ongoing participants for its American with Disabilities Act (ADA) Transition Plan Assistance Program. This member-only program is designed to provide tools that a regional municipal government may need to ensure compliance with the latest surface transportation infrastructure accessibility guidance. Listed below, are the ways to leverage these resources.

- Virtual classroom training:
 - Equip municipal staff with the knowledge from WVLTA to be aware of existing surface transportation accessibility and safety deficiencies.
- On-site self-evaluations:
 - Enlist RIC staff to audit transportation infrastructure of any existing surface transportation accessibility or safety deficiencies.
- ADA Transition Plan drafting:
 - Enlist RIC staff to assist in drafting an ADA Transition Plan from outline to resolution.
- ADA Transition Plan auditing:
 - Enlist RIC staff to conduct an internal review of an existing ADA Transition Plan for quality, compliance, and adherence.

Non-motorist Related Crash Incident Analysis

RIC is continuing to make use of traffic data compiled by the West Virginia Division of Highways (WVDOT) by analyzing crash hot spots, especially those with fatalities or serious injuries. RIC has made special effort to continue to reconfigure crash data, so it specifies to non-motorist related incidents. The data allows us to identify fatality and injury hot spots and create maps of the results. This ongoing effort will be updated annually. The purpose of this analysis is to keep interagency partners and constituents informed about the safety of the region's bicycle-pedestrian infrastructure, or lack thereof.

Existing Planning Efforts

Kanawha-Putnam Bicycle and Pedestrian Plan

RIC adopted the *Kanawha-Putnam Bicycle and Pedestrian Plan* in 2019. The planning process included extensive public involvement outreach events in both Kanawha and Putnam counties, stakeholder interview meetings, survey administration, and consideration of existing municipal plans. Following the results of the initial analysis and recommendations, the projects were ranked in a priority matrix based on feasibility, costs, regional connectivity impact, and safety. A final priority list was produced to serve as a guide for regional planning efforts. The Bicycle and Pedestrian Advisory Committee will continue to analyze and update this plan as needed.

Kanawha County 2020 Vision Plan

The Kanawha County 2020 Vision Plan, developed by the Kanawha County Commission, is a comprehensive and multi-faceted plan that includes recommendations for bicycle and pedestrian improvements. A complete list of recommendations can be found in the plan. The recommendations include ensuring wheelchair access on the Dunbar Toll Bridge, creating a bridge from US-119 to Coonskin Park over the Elk River, and many more.

City of South Charleston Bike Plan

The city of South Charleston completed the *Master Plan for Pedestrian and Bicycle Trail Corridors* in 2011. The plan focuses on recreation and connectivity improvements along key corridors such as the Kanawha Turnpike and MacCorkle Avenue. The plan recommends locations for bike lanes, “share the road” signage, sidewalk improvements, and connector trails. The study recommends an additional connector trail from the South Charleston Memorial Ice Arena to Little Creek Park and the golf course.

Imagine Charleston

Prior to the City of Charleston’s development of the *Bike & Trail Master Plan*, a plan titled *Imagine Charleston* (2013) came to fruition. Imagine Charleston is a comprehensive, citywide, downtown redevelopment plan for the city that recommends various bicycle and pedestrian improvements. The focus of the plan was to provide connections between key destinations, such as schools, parks, cultural institutions, and existing non-motorized facilities inside the city.

An excerpt from the Action Plan portion states: “Charleston’s Comprehensive Plan was developed through a highly interactive process that engaged the community in defining a preferred future. Through this collaborative effort, the City, community leaders, and the public have contributed both resources and personal time to formulate a useful, exciting, and visionary blueprint for the future. This level and breadth of participation signals Charleston’s commitment as a community to seek creative solutions to its many challenges. The plan will position Charleston to manage future development,



redevelopment, capital improvements, collaborative partnerships, and programs on a solid foundation of fiscal, social, and environmental sustainability.”

City of Charleston’s Bike & Trail Master Plan

In 2016, the City of Charleston released the *Bike & Trail Master Plan*, the city’s first all-inclusive bike and trail master plan. This plan’s project vision is to expand network of bikeways and trails connecting all parts of the community. People of all ages and abilities will enjoy access to safe, comfortable, and convenient bicycling routes and benefit from enhanced quality of life and economic opportunity. The plan includes a list of ten “priority” projects, listed in the table below.

Table 5-1: City of Charleston’s Priority Projects

CORRIDOR	FROM	TO	RECOMMENDATION	COST ESTIMATES
Virginia St. W	Tennessee Ave.	Park Ave.	Two-Way Cycle Track	\$99,000- \$150,000
Quarrier St.	Elk River Trail at Civic Center	Elizabeth St.	Two-Way Cycle Track (riverfront trail to Summers Street) Shared Lane Markings (Summer St. to Morris St.) Bicycle Boulevard (Morris St. to Elizabeth St.)	\$88,600- \$139,500
Kanawha Ave. Bike Route; Kanawha Landing; Lancaster Ave.	—	—	Bicycle Boulevard upgrade to existing bike route Bicycle boulevard through Kanawha Landing Shared-Use Path on Lancaster Ave. with bicycle boulevard spurs	\$993,200- \$1,214,900
MacCorkle Ave.	Frontage Rd.	Thayer St.	Shoulder Maintenance Improvements	—
Kanawha Blvd.	Leon Sullivan Way	Magic Island	Cycle Track/Side path	\$2,020,900
South Side Bridge	Ferry St.	Virginia St.	Priority Shared Bike Lanes (“Green-Backed Sharrows” and signage)	\$2,700-\$5,200
Capitol St./Summers St.	Kanawha Blvd.	Smith St.	Bicycle Boulevard	\$23,400- \$40,900
Piedmont Rd. and Court St.	Capitol St.	Slack St.	Two-Way Cycle Track	\$58,100- \$88,000
Kanawha Blvd. – Patrick St.	North Ford in Roadway	5 th Ave.	Separated Two-Way Cycle Track	\$115,500- \$175,100

Planning Process

Bicycle and pedestrian improvements require extensive planning if they are to be successfully implemented. In order to achieve funding, projects must move from the *RIC Metropolitan Transportation Plan* into the Transportation Improvement Program (TIP).

This chapter was developed in collaboration with local municipal constituents, members of the public, the RIC Bicycle and Pedestrian Advisory Committee, the Transportation Technical Advisory Committee (TTAC), and interagency partners including the Federal Highways Administration and WVDOH. Much like the planning process for all roadway projects, changes to the Kanawha-Putnam Bicycle and Pedestrian Plan must be approved by the TTAC and the RIC Policy Board, with the one exception being new project recommendations for the Bicycle-Pedestrian plan may begin with the BPAC committee. The planning process for bicycle and pedestrian improvement projects takes specific considerations that are exclusive to bicycle and pedestrian travel versus those of motorized travel.

The Bicycle and Pedestrian Advisory Committee and RIC Staff developed measurable criteria—specific to bicycle and pedestrian mobility—as part of the planning prioritization process. Ultimately, these factors are weighted to determine which projects will be included in the TIP. The following are descriptions of the prioritization criteria:

- *Regional Connectivity* – This criterion how connectivity is improved within the Kanawha-Putnam transportation planning area for non-motorized users.
- *Access to Local Facilities* – The capability and ease of accessibility for non-motorized users is important for travel to local community facilities, government resources, essential services, and transit routes.
- *Emphasis on Low-Income Communities* – Utilizing data from the United States Census Bureau, this measurement focuses on the transportation planning area’s local communities that possess a higher volume of low-income households, specifically zero-vehicle households that are dependent on transit as well as the bicycle and pedestrian infrastructure.
- *User Safety* – This measurement highly emphasizes the variable of safety for motorized and non-motorized users alike for recommended projects or improvements.
- *User Population/Demographics* – Criteria for this measurement include inclusivity of all users, regardless of factors such as age or rider skill level.
- *Condition of Facility Type* – This measurement relates to the existing surface conditions or land terrain of the project or improvement.
- *Bicycle & Pedestrian Advisory Committee and Public Feedback* – The final measurement is exclusive to project or improvement feedback provided by members of the RIC Bicycle and Pedestrian Advisory Committee as well as comments made by the public that are discussed within the committee.

Potential Funding Sources

For bicycle and pedestrian projects and improvements, funding sources typically stem from federal, State, and local contributions. Available federal funds for these projects have generally increased due to the growing demand for multimodal facilities.

Notably, the location of projects and/or improvements has a direct impact on potential project funding and fiscal responsibilities. For example, fiscal obligation for a project or improvement would be the primary responsibility of the entity that owns the affected facilities or roadway(s). Several project recommendations from this plan are located on roads or facilities that are non-State owned. This means that the financial responsibility of the project would be obliged to the owning entity. WVDOH does *not* own nor maintain all roads within the transportation planning area.

The narrative below details eligibility criteria under the federal guidance.

West Virginia Transportation Alternatives (TA) Grant Process

On an annual basis, WVDOH opens the federally funded Transportation Alternative Grants, which are available to public organizations. Typically, these grants provide funding for 80 percent of the project costs and require a 20 percent match by the recipient. RIC staff members are available to assist agencies within the region in completing TA grant applications.

Recreational Trails Program

The Recreational Trails Program falls under the Transportation Alternatives (TA) Set-Aside and distributes funding to each state to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses.

Additional Information:

https://www.fhwa.dot.gov/Environment/recreational_trails/

Surface Transportation Block Grant (STBG Program)

With the enactment of the Fixing America's Surface Transportation Act (FAST), the Surface Transportation Block Grant (STBG) Program was created. The STBG Program includes set-aside funding for a variety of bicycle and pedestrian improvement projects in addition to projects that were eligible under the Transportation Alternatives (TA) program). The Federal Highway Administration (FHWA) references these funds as the Transportation

According to the FHWA Fiscal Management Information System \$925 million went to Bicycle and Pedestrian Projects.⁵

- TA funded 38% of projects.
- CMAQ funded 18% of projects.
- HSIP funded 5% of improvements.
- STBG funded 3% of improvements.
- RTP funded 2% of projects.⁵

⁵ FHWA. (2021). Federal-Aid highway program funding for pedestrian and bicycle facilities and programs. Retrieved April 01, 2021, from https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/bipedfund.cfm

Alternatives Set-Aside or TA Set-Aside. These set-aside funds include all projects and activities that were previously eligible under TA and subsume several types of smaller-scale transportation projects. These projects include bicycle and pedestrian facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity.

Additional Information:

<https://safety.fhwa.dot.gov/hsip/>

Congestion Mitigation and Air Quality (CMAQ) Improvement Program

CMAQ is a federal program designed to provide funding for transportation projects that improve air quality and alleviate traffic congestion. Transportation projects that receive CMAQ funds must be in areas that are not considered to meet air quality standards. CMAQ is administered by FHWA and has provided more than \$30 billion to fund over 30,000 transportation related environmental projects for state DOTs, MPOs, and other sponsors throughout the U.S.

Additional Information:

https://www.fhwa.dot.gov/environment/air_quality/cmaq/

Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP) is a federal program aimed at achieving a significant reduction in fatalities and serious injuries on roadways. Funding by HSIP is a data-driven process that apportions funds to each state. Each state is responsible for administering HSIP funds to address their individual safety needs. Projects that receive HSIP funds must also be consistent with each state's Strategic Highway Safety Plan (SHSP).

Additional Information:

<https://safety.fhwa.dot.gov/hsip/>

Alternative Funding Sources

Many public organizations may seek funding projects, but struggle to come up with the required twenty percent match. With the guidance of the Bicycle and Pedestrian Advisory Committee, RIC has created an inventory of alternative funding sources that could be paired with a transportation alternative grant to help ease the burden of the funding match requirement on public organizations. Other potential funding sources include the Congestion Mitigation and Air Quality funding from the federal government and the Greater Kanawha Valley Foundation. RIC will continue to extend invitations to collaborate and take advantage of funding opportunities, while receiving technical assistance from RIC staff.

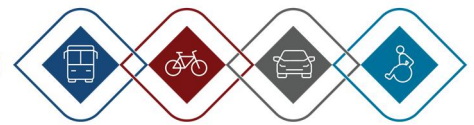
Nationwide Spending Analysis by State

Is West Virginia spending enough on Bicycle and Pedestrian infrastructure? The following table contains data retrieved from the FHWA Fiscal Management Information System. It compares spending on bicycle and pedestrian related projects against total highway spending for the year 2017. It also provides a rank for each state. West Virginia, which ranks 17th in the nation for total highway spending, ranked 20th on this list.

Table 5-2: Nationwide Spending Analysis by State

STATE	TOTAL HIGHWAY SPENDING PER CAPITA ⁶	BIKE PED SPENDING PER CAPITA	PCT OF TOTAL	PCT OF TOTAL RANK	TOTAL SPENDING RANK
Indiana	\$366.91	\$5.70	1.55%	1	48
Montana	\$802.04	\$11.05	1.38%	2	11
Delaware	\$877.70	\$11.81	1.35%	3	7
Vermont	\$996.77	\$10.29	1.03%	4	5
Rhode Island	\$448.02	\$3.98	0.89%	5	41
California	\$394.23	\$3.37	0.85%	6	46
New Mexico	\$431.70	\$3.64	0.84%	7	42
Colorado	\$582.10	\$4.71	0.81%	8	24
North Carolina	\$473.84	\$3.71	0.78%	9	39
Tennessee	\$333.71	\$2.49	0.75%	10	50
Illinois	\$731.05	\$5.39	0.74%	11	14
Alaska	\$1,909.40	\$12.95	0.68%	12	2
Washington	\$591.54	\$4.01	0.68%	13	22
Missouri	\$387.71	\$2.47	0.64%	14	47
Hawaii	\$423.07	\$2.68	0.63%	15	44
New York	\$623.77	\$3.92	0.63%	16	21
Florida	\$537.31	\$3.25	0.60%	17	32
Ohio	\$519.97	\$3.11	0.60%	18	34
Virginia	\$582.00	\$3.43	0.59%	19	25
West Virginia	\$675.76	\$3.74	0.55%	20	17
Alabama	\$519.59	\$2.87	0.55%	21	35
Mississippi	\$578.47	\$3.11	0.54%	22	26
New Hampshire	\$561.11	\$2.88	0.51%	23	28
Kansas	\$660.82	\$3.35	0.51%	24	18
Georgia	\$418.04	\$2.07	0.50%	25	45

⁶ Tax Policy Center. (2020, June 18). State and local general expenditures, per capita. Retrieved April 01, 2021, from <https://www.taxpolicycenter.org/statistics/state-and-local-general-expenditures-capita>



South Carolina	\$456.64	\$2.24	0.49%	26	40
Arizona	\$357.11	\$1.73	0.48%	27	49
Minnesota	\$863.92	\$4.17	0.48%	28	9
Arkansas	\$690.93	\$3.33	0.48%	29	15
Pennsylvania	\$765.13	\$3.68	0.48%	30	12
Louisiana	\$514.83	\$2.26	0.44%	31	36
Iowa	\$874.57	\$3.53	0.40%	32	8
Kentucky	\$528.81	\$2.04	0.39%	33	33
Oregon	\$511.74	\$1.89	0.37%	34	38
Michigan	\$429.12	\$1.58	0.37%	35	43
Texas	\$554.17	\$1.96	0.35%	36	31
Wyoming	\$1,173.28	\$4.04	0.34%	37	3
Massachusetts	\$557.85	\$1.85	0.33%	38	30
Oklahoma	\$660.05	\$2.17	0.33%	39	19
Connecticut	\$636.85	\$2.00	0.31%	40	20
Nevada	\$682.82	\$2.09	0.31%	41	16
Idaho	\$514.33	\$1.07	0.21%	42	37
Maryland	\$559.57	\$0.82	0.15%	43	29
Wisconsin	\$948.80	\$1.35	0.14%	44	6
South Dakota	\$1,148.34	\$1.62	0.14%	45	4
North Dakota	\$2,296.50	\$3.15	0.14%	46	1
Maine	\$740.27	\$0.87	0.12%	47	13
Nebraska	\$820.77	\$0.45	0.06%	48	10
New Jersey	\$561.45	\$0.23	0.04%	49	27
Utah	\$589.51	\$0.08	0.01%	50	23

Recommendations

Please note that the listing order of the following bicycle and pedestrian project recommendations is not indicative of priority. Additionally, several of the below-listed project recommendations are intended to be completed in conjunction with roadway improvement projects listed previously in Chapter 4.

Table 5-3: High Priority Bicycle Projects

ID	PROJECT TYPE	PROJECT ROAD	EXTENT FROM	EXTENT TO	DESCRIPTION
1	Bicycle and Pedestrian	WV-64	Winfield Bridge	Eleanor	Shoulder improvements, sidewalk, and bicycle path
2	Bicycle and Pedestrian	Teays Valley Road	CR 33	Scott Depot	Road widening, shoulder improvements, and sidewalks
3	Bicycle	Jefferson Road; at Davis Creek Interchange	-	-	Install traffic signal, shared lane marking, and pavement striping
4	Bicycle	Tennessee Avenue	Kanawha Blvd.	Washington Street West	Bicycle lanes and signs
5	Bicycle	Virginia Street West	Tennessee Ave.	Delaware Ave.	Bicycle lanes and signs
6	Bicycle	Quarrier Street	Capitol St.	Clendenin	Two-way cycle track and shared road markings
7	Bicycle	Kanawha Boulevard	Tennessee Ave.	Capitol St.	Cycle Track
8	Bicycle	Barlow Drive	Slack St.	Coonskin Park	Bicycle path, widen shoulders, and signs
9	Bicycle	MacCorkle Avenue	Kanawha City	Marmet	Shoulder improvements and signs
10	Bicycle	Corridor G	Davis Creek Interchange	South Ridge	Bicycle path
11	Bicycle	US 60	4 th Ave.	MacCorkle Ave.	Intersection improvements, shared road markings, signs
12	Bicycle	WV 817	Winfield	Hurricane Creek Rd	Shoulder improvements and signs
13	Bicycle	Kanawha Boulevard	Capitol St.	Chesapeake Ave.	Cycle track
14	Bicycle	Kanawha Boulevard	Chesapeake Ave.	35 th St. Bridge	Cycle track
15	Bicycle	WV 817	I-64	Winfield	Shoulder improvements, bicycle lanes, and signs
16	Bicycle	WV 25	Iowa St.	Washington St. West	Shoulder improvements
17	Bicycle	Stockton Street	Kanawha Blvd.	7 th Ave.	Bicycle lanes and signs
18	Bicycle	Former B&O railroad; Elk Ri Trail	Coonskin Park	WV 114	Bicycle trail
19	Bicycle	Elk River (NC) Railroad bridge	Pennsylvania Ave.	Bullitt St.	Bicycle path
20	Bicycle	Teays Valley Bike Trail – Poplar Fork	St. Albans	Teays Valley	Bicycle path
21	Bicycle	Kanawha River Trestle Trail	Kanawha Blvd.	6 th St.	Bicycle path

Table 5-4: Medium Priority Bicycle Projects

ID	PROJECT TYPE	PROJECT ROAD	EXTENT FROM	EXTENT TO	DESCRIPTION
22	Bicycle	Former B&O Railroad	Elk River Trail connecting WV 114 Bridge	Elkview	Bicycle Trail
23	Bicycle	Former B&O Railroad	Elk River Trail connecting Elkview	Clendenin	Bicycle Trail
24	Bicycle	35 th Street Bridge; at Kanawha Blvd	-	-	Improve approaches, shared road markings, and signs
25	Bicycle	Buffalo Bridge	WV 817	WV 62	Signs
26	Bicycle	US 60	Campbells Creek	Malden	Repave shoulders and signs
27	Bicycle	Piedmont Road	Court St.	Leon Sullivan Way	Bicycle route with shared road markings and signs
28	Bicycle	Kanawha Boulevard	35 th St.	Daniel Boone Park	Widen shoulders with bicycle lanes and signs
29	Bicycle	MacCorkle Avenue	Montrose Dr.	Patrick St.	Widen shoulders and signs
30	Bicycle	US-60	St. Albans	Culloden	Widen shoulders with bicycle lanes
31	Bicycle	Kanawha Trestle Trail	-	-	Bridge Upgrade
32	Bicycle	Washington Street; at Pennsylvania Ave.	-	-	Bicycle lane signs
33	Bicycle	Greenbrier Street; at I-64 Interchange	-	-	Bicycle lane signs
34	Bicycle	Washington Street; near CAMC	-	-	Bicycle lane signs
35	Bicycle	South Poplar Fark Road	Teays Valley Rd (CR 33) to CSX Railroad	CSX Railroad	Widen shoulders and bicycle lanes
36	Bicycle and Pedestrian	Great Teays Boulevard	WV 34	Teays Valley (CR 33)	Bicycle lanes, widen shoulders, and signs
38	Bicycle	Court Street	Kanawha Blvd	Piedmont Rd.	Bicycle lanes
39	Bicycle	7 th Avenue	Virginia St West	Patrick St.	Bicycle lanes, signs and shared road markings
40	Bicycle	MacCorkle Avenue	Thayer St.	31 st St.	Bicycle lanes
41	Bicycle and Pedestrian	Hurricane Creek Road (CR 19)	I-64	Walmart (Hurricane)	Sidewalk and signs
42	Bicycle	WV 34	Valley Park	Hurricane Creek Rd.	Pavement markings and signs

Table 5-5: Pedestrian Projects

ID	PROJECT TYPE	PROJECT ROAD	DESCRIPTION
1	Pedestrian	Kanawha Boulevard and Chesapeake Avenue	ADA compliant curb ramps
2	Pedestrian	Kanawha Boulevard and California Street	ADA compliant curb ramps
3	Pedestrian	Kanawha Boulevard and Greenbrier Street	ADA compliant curb ramps
4	Pedestrian	Kanawha Boulevard and Ruffner Avenue	Crosswalks
5	Pedestrian	Patrick St at 5 th Street Intersection	Crosswalks and pedestrian signal
6	Pedestrian	WV 34 between Hurricane Creek Road and Hurricane Middle School	Sidewalk
7	Pedestrian	Penn Avenue to CAMC Women and Children's Hospital	Crosswalks
8	Pedestrian	MacCorkle Avenue (US 60); Gateway Shopping Center to Oliver Street	Crosswalks

The ID's listed in bold, italicized font represent projects that are located on non-State-owned roads or facilities.

Figure 5-1: Bicycle and Pedestrian Projects in Kanawha County

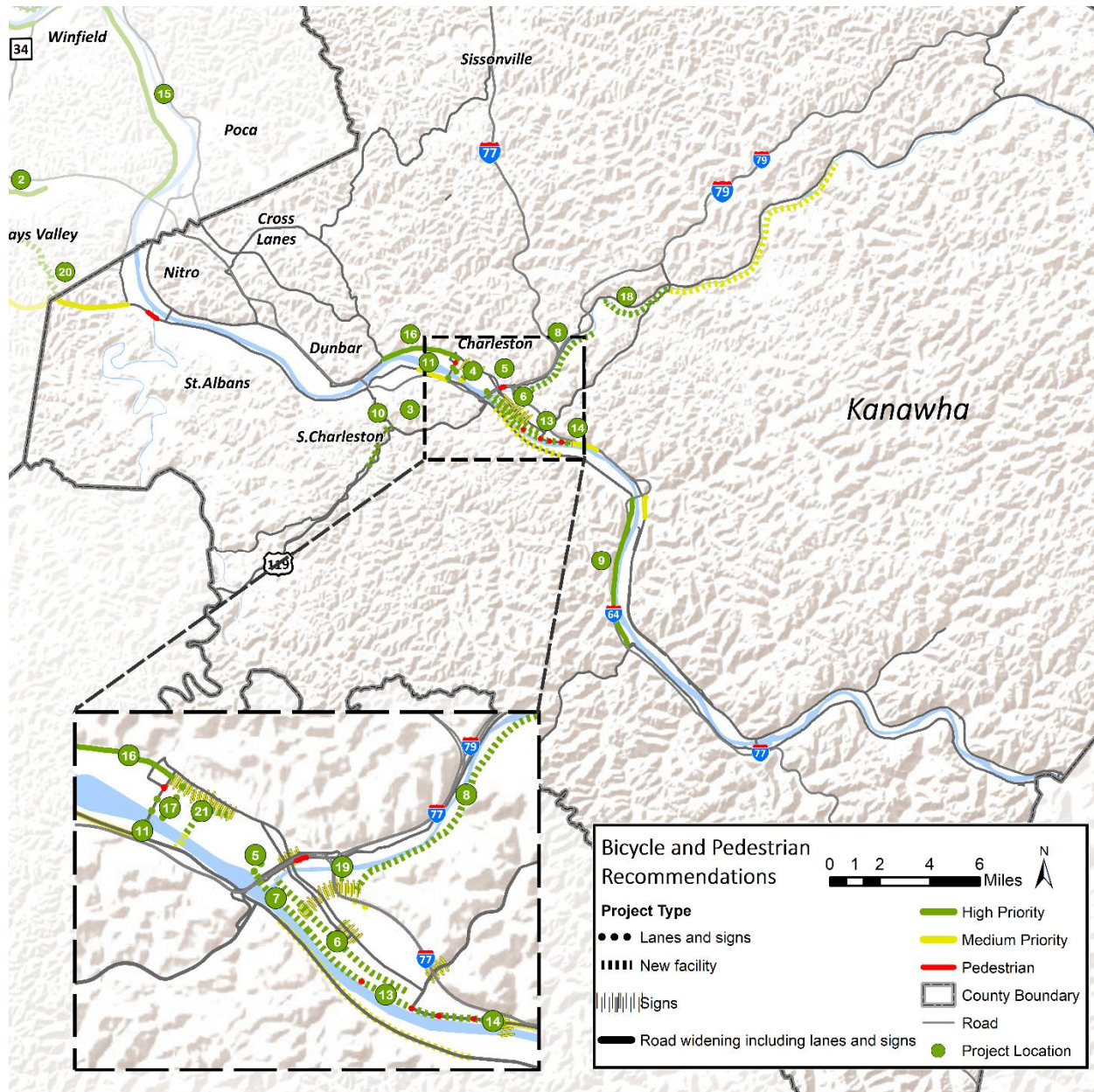


Figure 5-2: Bicycle and Pedestrian Projects in Putnam County

