Spokane County Bicycle Master Plan

Spokane County Public Works Department

2023
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DEFINITIONS

ADA Accessible: Facilities accessible to persons with disabilities.

Active Transportation: Human powered forms of transportation such as walking, cycling, skating, and use of bus transit.

Bicycle: A two wheeled vehicle powered by pedaling or electricity.

Bicycle Facility: Any provisions, improvements, and amenities made to accommodate and encourage bicycling.

Bike Lane: A designates section of roadway for the use of bicyclists designated by road markings and signs.

Bicycle Network: Bicycle facilities consisting of a mix of existing and proposed bicycle routes with the intent to be connected, safe, and providing an acceptable level of service.

Bicycle Route: Any road that provides a bicycle lane, route, or path for use by bicyclists used to get to destinations of interest.

Connectivity: A series of bicycle facilities, free of barriers, linking and providing access to key destinations with the intent to encourage active transportation and function like the road network.

Context Sensitive: An approach that analyzes an environment with the intent to respond in an appropriate manner given various physical settings such as aesthetics, environmental resources, and the preservation of historical sites.

Pedestrian: A person travelling on foot.

Roadway: The part of the right of way intended for vehicles.

Shared Roadway: An area of the road designated for vehicles but allocating sufficient room to share with cyclists.

Shared Use path: Typically, a 10’ to 12’ path that supports multiple recreation and transportation modes, such as walking, bicycling, skating, and wheelchair use.

Shoulder: A strip of pavement outside the outer travel lane used by bicyclists and emergency traffic use.

Sidewalk: A pavement footpath that adds separation from vehicular traffic for pedestrian use.
Executive Summary

This document is the first comprehensive Bicycle Master Plan for the jurisdiction of Spokane County. The Plan is intended to work in conjunction with other local and regional transportation documents, the Spokane County Comprehensive Plan, and other jurisdiction’s Bicycle Master Plans for overall effectiveness to enhance safety, connectivity, and encourage bicycling as a viable form of transportation. The effort of this plan facilitates contemporary bicycle planning and implementation practices for Spokane County.

• This plan focuses on four key goals: 1) improve bicycle safety in Spokane County, 2) increase connectivity and expand the amount of low-stress bicycling facilities over time, 3) provide equal access to bicycle facilities for all members of the community, and 4) improve transportation options for Spokane County residents.

• This plan addresses the value and goal of achieving low-stress bicycle facilities in Spokane County. The intent is to evaluate opportunities and ultimately improve bicycle facilities so people of all ages and abilities feel comfortable and safe riding bicycles to work, transit, commercial centers, and other destinations in the county. This plan looks to identify existing bicycle facilities that may be improved and new facilities to be constructed. The plan does not guarantee that every proposed improvement in the Plan will be funded and constructed.

• The Plan uses a Level of Traffic Stress (LTS) analysis created by Peter Furth to assess the amount of stress people experience when they bicycle with various components of traffic on roads in the county.

• By using the Level of Traffic Stress methodology on Spokane County’s roadway network, recommendations can be selected to improve the bicycle infrastructure. Spokane County bicycle facilities includes approximately 100 miles of shared use paths, 130 miles of separated bike lanes, and 845 miles of shared roadways.

• Public outreach was implemented for the plan with surveys and an online map of the existing bicycle facilities within Spokane County for county residents to provide feedback on bicycling conditions.

• To encourage bicycling, the Plan recommends bicycle-supportive programs and policy framework.

• The Plan evaluates important land uses in connection to the bicycle transportation network to analyze gaps, increase connectivity, improve safety, and improve health. The Plan evaluates high crash density locations as well as underserved people by census block. Over time, active transportation facilities can be upgraded as part of development approval and county facility planning.

• The Plan sets goals, objectives, performance measures that enable transparency and accountability in plan implementation.
• The plan is a key element in Spokane County’s Vision Zero Action Plan to eliminate traffic-related fatalities and serious injuries through annual analysis of crashes. Through annual analysis, trends can be observed and the correct countermeasures can be implemented.

Chapter 1

Purpose

The Spokane County Bicycle Master Plan is intended to guide bikeway facility policies, the planning and development of existing and future bicycle networks, and ultimately increase the number of people that bike in Spokane County. This plan aims to provide a vision for a safe, connected, and integrated bicycling network that encourages active transportation and ensures biking as a feasible mode of transportation. Safe, convenient, and comfortable bicycling should be an option for all residents and visitors of Spokane County facilitating a way to get to school, work, access transit, and recreate for riders of all abilities. The overarching goal is to enhance the safety, connectivity, and convenience of bicycle infrastructure on the County’s road network and thereby improve the quality of life for everyone using the Spokane County transportation system.

Biking is a low-cost, emission free, sustainable, and healthy form of transportation. Benefits of biking for everyday purposes include improved health, increased physical activity, stress reduction, and lower transportation costs. Social benefits of biking include improved air quality, reduced emissions created by driving and idling vehicles, less traffic congestion, reduced amounts of non-renewable fuel resources consumed, reduced health care costs, and healthier residents. It can be argued that roadways with bicycle infrastructure not only make bicycling more accessible and safer but can also improve the experience for drivers as well. Paved shoulders and the addition of bike lanes improve sight distance, provide a buffer, and provide more consistent separation between motorists, cyclists, and pedestrians. This creates a more comfortable environment for all users of the roadway.

Providing safe and convenient biking transportation contributes to Spokane County’s Comprehensive Plan by offering the community a variety of transportation choices. This plan also builds upon the Spokane County Road Standards, the Transportation Element, the ADA Transition Plan, the adopted Complete Streets Ordinance, and the Pedestrian Master Plan. This plan identifies barriers, opportunities, a better understanding of county bicycle assets, connectivity, and rider comfort levels. The elements of this plan aim to determine the next steps for a more holistic bicycle network serving riders of all abilities.
Introduction
Spokane County would like to facilitate a high quality of life for all residents. This is reflected in the County’s mission to provide the traveling public with safe and maintained roads, bridges, roadway construction, engineering, and planning services. The county’s mission and values are supported by the implementation of this bicycle master plan.

Most people travel daily to meet their everyday needs and bicycling is a healthy and affordable option that can be easily integrated into everyday life when biking feels safe and destinations are easily accessible. In Spokane County, the roadway network provides convenient transportation options for those with vehicles, but everyone cannot afford or wants to own and maintain a car. Approximately one-third of the population does not drive a car resulting in walking, biking, and transit as a primary alternative to driving. People who are unable to drive experience barriers in the transportation system that make meeting basic needs time consuming, inconvenient, stressful, and sometimes dangerous. Adding to barriers, bicycle infrastructure is less complete than the road network. Barriers to bicycling in Spokane County often include incomplete or non-existent bicycle infrastructure, a lack of facility connections, environments that make bicyclists directly interact with vehicles traveling at high speeds, and long distances between destinations.

Communities that have connected and safe bicycle facilities tend to be healthy and desirable places because they provide a high quality of life when residents can experience the health benefits of getting free physical activity and meeting their daily needs. Regular physical activity can decrease the risk for major chronic diseases such as heart disease, type 2 diabetes, stroke, and certain types of cancer. Bicycle infrastructure provides an alternative way for people to be less auto dependent, reduce vehicle miles traveled, and promotes a healthy environment. Bicycle infrastructure that is perceived to be safe such as marked, buffered, separated facilities, and intersections that feel safe to navigate produces transportation infrastructure that can be used by bicyclists of all abilities. Communities that invest in safe, complete infrastructure, and programs to promote active transportation tend to have more active and healthier residents. Not only does bicycle infrastructure improve health and improve safety, but residents and businesses are attracted to these communities where biking is safe and feels easy to get from place to place. Active communities also enhance the tax base through increased residential and commercial development.

Why Bike in Spokane County?
Spokane County is a beautiful county rich in aesthetic beauty and offers a complex mix of urban and rural elements. The landscape is diverse, offering towering evergreens, pillars of basalt rock, fertile farmlands, rivers, many lakes, and is home to extensive network of shared-use paths. The county is made up of five primary cities centrally located within the county. The Spokane River runs through the heart of the county offering scenic views and parallels the Centennial Trail, a 40-mile separated path. This lends itself naturally to be a place that should
be well connected, and biking should be a safe option for residents to access daily needs as well as for recreation purposes.

Challenges to Cyclists in Spokane County

- Existing bicycling networks are incomplete.
- Access to a vehicle is a necessity to reach many destinations.
- Gaps in the bicycling networks impact vulnerable populations who do not drive.
- Many County roadways have higher speeds. Higher speed roadways tend to make bicyclists feel less safe.
- Intersection crossings on some County roads can be challenging for bicyclists.
- Urban and rural land use patterns increase distances people must bike to reach destinations.
- Old development requirements may not have been constructed with bicycle facilities or transit options, resulting in land use patterns that primarily serve residents with personal vehicles as the most viable option for transportation.
- Traffic laws for how vehicles and bicyclists interact on roadways may not always be well understood. To improve safety for all roadway users, programs and education are needed for both those that travel by motor vehicle and active transportation.
- Due to the four seasons of the Inland Northwest, winter weather may reduce bicycling.

Goals

Safety: Work towards a bicycle network that is safe and comfortable for bicyclists of all ages and abilities. This can be measured with the reduction of serious injury and deaths of cyclists on the county road network.

Connectivity: Create a connected network of bicycle facilities that strive to link important destinations, transit, neighborhoods, and neighboring cities within the county and relieve auto-dependency.

Livability, Health, & Equity: Improve the health and livability of county residents by creating an environment that is supportive of bicycle riding for all.

Choice: Continually improving and developing the bicycle network system increases county resident’s transportation options while increasing bicycle trips within Spokane County.

IMPROVE BICYCLE SAFETY

Spokane County is dedicated to improving safety for all users of the county road system. This plan includes strategies to analyze Level of Traffic Stress (LTS) of bicycle facilities and reduce the number of bicyclist and vehicle conflicts. Making the decision to bicycle as a means of transportation on county roads is impacted by real and perceived concerns about traffic safety. The goal to improve the safety of those choosing active transportation as a means of
commuting complements the Plan's goal to increase the number of bicyclists on county roads. This goal simultaneously supports the Target Zero vision implemented by the Washington State Traffic Safety Commission (WTSC), to have zero deaths and serious injuries on Washington roads by 2030.

IMPROVE CONNECTIVITY AND TRANSPORTATION CHOICES

Having transportation options is important and Spokane County strives to meet the needs of all transportation system users. County roads facilitate multimodal travel and provide access to community destinations such as places of employment, schools, libraries, grocery stores, retail, and parks. Biking as a transportation option has the potential to alleviate traffic congestion, reduce airborne pollutants, and is a mode to access public transit. For this reason, bicyclists are important users to the county transportation system and the reason for this plan. To access important destinations, increase equity in transportation, and try to improve the environment it is important that the bicycle system is connected. Without connected bicycle facilities, it is more likely that anyone choosing active transportation will encounter conflict and be less likely to bike for nearby trips, to access transit, or for recreation.

Spokane County has a predominant rural element, and this means that the more removed from city centers and transit, the more dependent people are on vehicles as a primary mode of transportation. Safe bicycle facilities support the mobility of residents without access to a vehicle and improve equity disparities within Spokane County. Accessing transit for those that do not drive is another important reason to provide safe, convenient, and connected facilities. County roads often provide the most direct route to important destinations and bus stops. Figure 1.0 shows the percent of households without access to a vehicle for accessing daily needs. The map shows that most residents do have access to a vehicle but also that there are still many places in the county that rely on other forms of transportation. This map is also indicative of the need for connected bicycle facilities and safe crossings, particularly where the county and cities interface, to allow reduce auto-dependency and to reduce vehicle miles traveled (VMT).
An additional goal of this plan is to take a closer look at how bicycle facilities are connected, locate gaps, and find funding and regional partnership opportunities to improve the multi-
jurisdictional bicycle network over time. The connectivity aspect of this plan is an important component in tying together bicyclist safety and providing transportation choices.

**IMPROVE THE HEALTH OF COUNTY RESIDENTS**

Spokane County encourages healthy lifestyles and increased physical activity. Biking is an easy way for children and adults to improve their overall health and increase regular physical activity into their daily routines. Regular physical activity reduces the risk of heart disease, diabetes, high blood pressure, helps control weight, and reduces stress. These conditions have significant effects on quality of life, life span, and health care costs. Most diseases and their associated conditions can be improved by increased physical activity. Active transportation planning can be part of a comprehensive public health strategy to reduce rates of chronic disease by improving bicycle facility conditions to encourage biking for transportation and recreation. This plan also considers how bicycle facility planning can reduce health disparities. Health disparities are defined as the overall quality of health and different rates of preventable diseases among different population groups. In Spokane County, low-income populations and minorities have higher rates of chronic disease. Generally, low income and minority populations tend to have less access to auto oriented transportation and rely on transit and alternative forms of transportation to meet their daily needs. A goal of this plan is to identify geographic areas within the county that have higher rates of vulnerable populations and uses this information to establish priorities for improvements.

When establishing the goals of the Spokane County Bicycle Master Plan it has been important to ask the right questions.

- Does The Plan prioritize reducing the Level of Traffic Stress (LTS) to improve the county’s existing assets and increase the amount of people bicycling?
- Does The Plan improve connectivity and address barriers so that all ages and abilities can use bicycle infrastructure?
- Does The Plan support transportation options and public transit service?
- Does this Plan address equity in the county transportation system?

Monitoring the goals of the Bicycle Master Plan is critical to the success of the plan. This ensures that the correct goals have been selected and allows opportunity to reevaluate and optimize bicycle conditions and infrastructure.

- Measure the increase in connectivity and low stress bikeways. This can be measured with an annual analysis of miles of improvements made. Improvements are expected to be made primarily where the cities and county meet to specifically serve the densest populations
providing the greatest impact. This is typically accomplished by project specific improvements.

- Increase the overall proportion of cyclists, particularly for commuting but also for recreational purposes.
- Decrease the amount of bicycle and vehicle crashes through annual crash analysis and implement countermeasures that support a reduction in serious injury and death.

The Spokane County Bicycle Master Plan supports increased access to important destinations within the County’s jurisdiction such as grocery stores, libraries, schools, recreation centers, bus stops and STA Park and rides.

1-Increase access to high density centers; jobs, education, retail, parks and libraries, schools, recreational centers, transit, and other neighborhood destinations.

- Build low LTS bicycle facilities and lower high LTS bicycle facilities, when feasible, that provide access to county destinations and connect to adjacent jurisdictional bicycle facilities.
- Encourage more bicycle parking at new developments and important destinations like schools, grocery stores, and libraries.
- Evaluate all potential grant funding opportunities as well as developer’s contribution to provide connected and high-quality bicycle facilities.

2-Address barriers so that vulnerable populations can increase their transportation options to important destinations.

- Increase the overall mileage of low-stress bicycle facilities and encourage the use of bicycling as low-cost transportation.
- Prioritize the construction of bikeways that close gaps in the bicycle network.
- Ensure that bikeway designs do not create additional barriers or conflict points.

3-Build bikeways that provide first and last mile connections to STA transit stations and major bus stops.

- Examine first and last mile transportation routes to STA park and rides for gaps and conflict points within the county to reduce transportation costs by reducing the reliance on vehicle ownership.
- Increase active transportation and micro-mobility resources to encourage active transportation options for county residents to popular destinations.

4-Provide information on bicycle resources and online maintenance training, Spokane County Public Library branches, Spokane Regional Health District (SRHD), and through
Spokane County Commute Trip Reduction Program to empower residents to fix bicycle issues for free or a minimal cost.

- Online resources (https://alison.com/course/bicycle-maintenance)
- Local and low-cost bicycle repair resources can be found at places like Fitness Fanatics $25.

Chapter 2

**BENEFITS OF CYCLING**

Biking as a means of transportation is increasingly popular and is a key component of the success of a multimodal transportation system. Increasing transportation options achieves multiple objectives including improving public health, promoting economic development, addressing transportation equity, reducing environmental impacts, and reducing roadway maintenance costs. Addressing bicycle mobility provides strategies that complement local and regional plans and strengthens regional partnerships. These objectives mixed with a growing public demand for more transportation choices point to the need for implementing this plan.

**Background**

Cycling is an important option and mode of transportation for County residents. For many residents cycling is a recreational activity, but for others it is less of a choice but a primary mode of transportation, for commuting and obtaining daily necessities. For households living below the median annual income or households with only a single vehicle, the option of cycling may be the only means of transportation that is readily available for some households. Walking or cycling may be the only way for young people with working parents to get to school, recreational centers, libraries, and extracurricular activities.

**Spokane County Demographics**

Bicycling is an easy way for children and adults to improve their overall health and increase regular physical activity into their daily routines. Regular physical activity reduces the risk of heart disease, diabetes, high blood pressure, helps control weight, and reduces stress. These conditions have significant effects on quality of life, life span, and health care costs. Most diseases and their associated conditions can be improved by increased physical activity such as biking. Decreasing the average rider’s level of traffic stress (LTS) and improving connectivity are elements that can be implemented to encourage biking for transportation and recreation, improve public health, and reduce rates of chronic disease.

This plan also considers how bicycle network planning can reduce health disparities. Health disparities are defined as the overall quality of health and different rates of preventable diseases among different population groups. Generally, disadvantaged, underserved, and overburdened communities have higher rates of chronic disease. A goal of this plan is to
identify geographic areas within the county that have higher rates of health-related issues and use this information to establish priorities for multi-modal improvements.

Figure 2.0, Potentially Disadvantaged Populations of Spokane County by tract level
It is widely accepted that exercise can mitigate many diseases such as cardiovascular disease, diabetes, obesity, high blood pressure, and can benefit those suffering from depression. Biking is an easy and affordable way to achieve these health benefits. Public health is a priority of the community and for Spokane County, this is supported through the goals and policy of the adopted Comprehensive Plan that aims to provide a range of transportation options within the Spokane region. According to Spokane Regional Health District (SRHD) the obesity rate in Spokane County is 34% for the age group range of 45-65, the highest of any of the age groups in the county. Children under 18 years old have an obesity rate of 11% in Spokane County, this is under the state and national average of 18.5%. Obesity based on gender appears to be the same for both males and females, with an obesity rate of about 29%. Prioritizing an integrated and connected pedestrian system that provides access to community districts and recreation may maintain these numbers and possibly facilitate progression in lowering these numbers.

Despite a discrepancy in earning differences among adults, the obesity rate difference is small for the adult demographic at roughly 3%. Adults earning less than $25,000 annually suffer from the highest rate of obesity, averaging a 32.7% obesity rate. Households earning $50,000 or more have an obesity rate just below 30%. There is a clear disparity in obesity rate based on racial and ethnic groups. Regionally, Caucasian adults have a 29.6% obesity rate while Native Americans have a 36% obesity rate and Hispanics have a 34.9% obesity rate.
*All health-related graphics have been provided by the Spokane Regional Health District."
Generally, there are groups of Spokane County residents that may encounter greater vulnerabilities and experience disproportions in accessing the transportation system. The more groups a person identifies with, the greater the vulnerability.

These groups typically include:

- People earning below the median income and/or no income
- People with limited English proficiency
- People with disabilities
- Children, seniors, and women
- Single parents
- People who don’t own cars

*All health-related graphics have been provided by the Spokane Regional Health District.*
According to the U.S. Census Bureau QuickFacts for 2020, 13.4% of Spokane County lives below the poverty level. Figure 3 below, is a map generated by S3R3, shows that most people in Spokane County living below the poverty level are within city limits and within the outskirts of the cities. The suburban ring outside of the designated urban growth area of the cities has the least amount of people affected by poverty.

Figure 3.0 Individuals Below Poverty Level. Data provided by the American Community Survey 2016-2020

Courtesy of S3R3
Public Participation

Spokane County values the public’s opinion and encourages public participation. A survey was created by the Spokane County Public Works staff to investigate how county residents feel about riding their bikes on county roads, how safe they feel bicycling, where they would like to bicycle and what their current destinations are. To see the questions that make up the survey please look in Appendix A.

To get an idea of how the public views the current bicycle system Spokane County staff attended the 2021 Bike Swap at the Spokane County Fairgrounds. A booth was set up for the duration of the event with the primary intention of engaging the public on their thoughts and feelings about the current and potential bicycle network. Additionally, the survey was distributed through the Spokane County’s website to garner broader participation and a map of existing bicycle facilities was made available to engage the public and encourage comments on safety, connectivity, barriers, and gaps in the system. The survey was finally distributed out to bicycle shops to capture those that are actively participating in bicycle related activities and are most likely to have firsthand experience bicycling on county roads. The survey was conducted intermittently by Spokane County Public Works Transportation Planning staff from June of 2021 to November 2022. The survey had a total of 487 responses to questions centering on riding frequency, safety, and perceptions of bicycle facilities. The residents of Spokane County had a lot to say about bicycling, where they bicycle, where they would like to bicycle, their concerns, and what limits them from bicycling more.

Setting

Spokane County is the fourth most populated county in Washington State and is only expected to continue growing. According to the U.S. Census Quick Facts, Spokane County population was 539,339 as of April 2020. Population density is 267.2 people per square mile, which is much higher than the state average of 96.76 people per square mile according to U.S. census. Spokane County is made up of a centralized urban core, a surrounding suburban outer ring, and finally a substantial rural component of undisturbed natural lands, farmlands, and small towns.

Spokane County is bisected by Interstate 90 (I-90) and State Highway 2 running east and west. Additionally, the county is further divided by State Highway 195 running south and State Highway 2 and State Highway 395 (the North Spokane Corridor) that run north. These corridors provide residents and visitors to Spokane County fast and convenient access to the county, but also result in bicycle and pedestrian travel barriers. The county is also divided by the Spokane River and an established railroad network that add to potential barriers that cyclist may encounter.

There are 13 incorporated cities within Spokane County: Deer Park, Cheney, Airway Heights, Medical Lake, Millwood, Liberty Lake, Spangle, Rockford, Fairfield, Waverly, Latah, and the
largest cities within the county are City of Spokane, City of Spokane Valley. The City of Spokane has a standalone Bicycle Master Plan, and the other jurisdictions have transportation documents that address bicycling planning and bicycle infrastructure incorporated into their Comprehensive Plans. WSDOT created their active transportation plan 2020 And Beyond to address all forms of active transportation on the state highway system, helping counties and smaller jurisdictions guide their bicycle and active transportation plans.

The topography and climate are ideal for bicycling for most of the year. County elevations range from flat stretches, rolling hills, steep climbs giving cyclists a range of bicycling experiences. Spokane has warm dry summers and moderate to spring and fall seasons. However, Spokane is subject to very cold winter months and averages approximately 45 inches of snow between November and April. Cold and snowy weather may impede bicycling if facilities are not maintained unless the cyclist is considered strong and fearless or biking is a primary mode of transportation. It should be noted that other cities comparable in size or larger have active bicyclists during winter months such as Chicago, Madison, Minneapolis, Salt Lake City, Montreal, and Calgary. Reflective delineators designating the bicycle facility, equipment for snow storage, de-icing strategies, and snow removal route prioritization are just a few of many things to consider supporting year-round bicycling in Spokane County.

Topographical diversity, various development types and land use patterns lends the county landscape to a dynamic mix of urban and rural. This results in a variety of pedestrian and bicycling environments. Urban environments tend to be developed on grid systems and provide more opportunity to have connected bicycle facilities within close proximities to residential, commercial, and institutional districts. Being close to major nodes and districts tends to make biking to community destinations easier to access if the bicycle facility is connected and feels safe to the user. Safety and connectivity are key components that determine if someone will decide to bike to a desired destination. This particularly effects small outings, considering that most small trips can be made with a short bike ride. The outer ring suburbs and rural areas tend to be less bikeable. In less densely populated environments bike lanes and paths may not be connected let alone exist. Additionally, bike lanes may not make sense or be safe to construct in many rural areas of the county.

Population density can be an important indicator of the potential for bicycle facilities and how they are connected. The population is the densest in the City of Spokane, City of Spokane Valley, Liberty Lake and in outlying communities like Cheney and Deer Park. The population density decreases extending away from the city centers and towards the rural outskirts of the County boundary. Figure 3 shows that despite the city centers carrying a large portion of the population that there is a substantial population to the north, south, and east of the city centers. These census tracts to the north, south, and east are within Spokane County’s jurisdiction and not within the city centers. Census tracts in these areas will need to be analyzed closely for the availability of sidewalks, safe pedestrian crossings, ADA accessibility, and pedestrian-vehicle incidents based on population density and future growth expectations.
Having bicycle facilities that residents want to use can have great impacts not only on county resident’s quality of life but can have many positive impacts on real estate values, retail, tourism, and economic development. Equally important are the benefits to public health, social equity, the environment, and how an increase in cycling may contribute to pavement preservation, crash reduction, improved air quality, and reduced congestion.
Chapter 3
Bicycle Safety

OPERATION OF BICYCLES/RULES OF THE ROAD

Helmet Laws
In Spokane County children between the ages of 3 and 16 are required to wear helmets when riding anything with wheels. In the City of Spokane anyone over the age of one year old is required to wear a helmet when riding anything with wheels.

Additional laws, rules, and regulations
The Revised Code of Washington (RCW 46.61.755 & 46.61.780) contains state rules and regulations for operating a bicycle. The RCW does not define bicycles as vehicles, but states that anyone riding a bicycle has all the rights and responsibilities that drivers of vehicles have (RCW 46.61.755). This means that bicycle riders must follow the basic traffic laws that all drivers follow and may be ticketed (RCW 46.61.750). Per the RCW bicyclists should abide by the following rules and regulations including but not limited to the following:

- Every person riding a bicycle upon a roadway shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of a vehicle. Exceptions and special regulations can be found in RCW 46.61.750 through 46.61.780.
- Every person riding a bicycle upon a sidewalk or crosswalk must be granted the same rights as a pedestrian and is subject to all the duties applicable to a pedestrian.
- Every bicycle when in use during the hours of darkness, as defined in RCW 46.37.020, shall be equipped with a lamp on the front which shall emit a white light visible from a distance of at least five hundred feet to the front and with a red reflector on the rear which shall be visible from all distances up to six hundred feet and visible to the lower beams of head lamps on a motor vehicle. A lamp emitting a red light visible from a distance of five hundred feet to the rear may be used in addition to the red reflector. A light-emitting diode flashing taillight visible from a distance of five hundred feet to the rear may also be used in addition to the red reflector.
- Every bicycle shall be equipped with brakes for safe stopping.
- Parents or guardians cannot knowingly allow their children to commit traffic violations (RCW 46.61.700).
- Cyclists may ride side by side but no greater than two abreast (RCW 46.61.700).
- Cyclists can ride in the travel lane, bike lanes, or shoulder of the road to fit their comfort level (RCW 46.61.770).

Additional traffic and safety considerations while Bicycling:
- Drive on the right side of the roadway
- Obey traffic control devices including signs and signals
- Yield to cross traffic
- Yield when changing lanes
• Slowest traffic stays right. Bicycles are typically slower than auto traffic and are therefore usually found on the right side of the road (or within a bike lane if provided). Bicycles may leave the right side of the road or a bike lane when they:
  – Overtake and pass another bicycle or vehicle proceeding in the same direction.
  – Find it reasonably necessary to avoid conditions (including but not limited to fixed or moving objects, vehicles, bicycles, pedestrians, animals, surface hazards, or substandard width lanes) that make it unsafe to continue along the right curb or edge.
• At intersections, bicycles should travel in the right-most lane that leads to their destination. This means that if a bicycle is preparing to make a left turn, they may leave the right side of the road even if a bike lane is provided.
• Laws and policies can change at any time rendering the above information outdated and non-applicable.

For additional Washington State Bicycle Law information and complete Revised Code of Washington (RCW) text, please visit Washington Bike Laws - Washington BikesWashington Bikes (wabikes.org)

Electric Bicycles
Electric bikes, or e-bikes, are increasingly becoming more popular and considered a viable way to commute and recreate. They are generally regarded in the same manner that a conventional bike is, meaning that helmet, laws, rules, and regulations are enforced in the same manner for e-bikes as for bicycles. To ride an e-bike you must be at least 16 years old in the state of Washington and insurance and registration is not required. E-bikes are emissions-free, less physically demanding, provide assistance when climbing hills, and can extend the range of trips made on bike. Because speed can be picked up quicker and sustained with an e-bike it is important for the rider to be aware of their speed, traffic, and pedestrians especially at intersections.

Washington state has created a three-tiered e-bike classification system to bring clarification on the differing models of e-bikes due to varying speed capabilities. To be considered an E-bike the motor must not exceed 750w.

Class 1 electric bicycle: A bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour.

Class 2 electric bicycle: A bicycle equipped with a motor that may be used exclusively to propel the bicycle, and that is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour.

Class 3 electric bicycle: A bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 28 miles per hour and is equipped with a speedometer.
Level of Traffic Stress

One of the goals of the Spokane County Bicycle Master Plan focuses on increasing bicycling among county residents who would like to bicycle more but are concerned about bicycle safety. The more comfortable a bicycle facility is the more cyclists will be willing to use the facility and increased use increases the appeal to a wider range of users. People are less tolerant of riding close to traffic and feel safer with physical separation from the road especially on wider and faster streets. The amount of traffic lanes, the speed at which traffic flows, truck route designations, intersection control, and types of bicycle facilities constructed for the traveling public are all factors that determine the real and perceived safety and comfort level of bicycle riders. These various factors contribute to and are known as Level of Traffic Stress (LTS). LTS analysis helps to identify the general comfort level of bicycling on a given bicycle path, identifies gaps in facilities and busy crossings that can be dangerous to pedestrians, and may even impede crossing to adjacent facilities. Having knowledge of gaps and potentially dangerous crossings can lead to intersection improvements, recommendations, and prioritization of project development. LTS analysis takes a data driven approach to evaluate bicycle facilities by matching them with the type of roadway a cyclist might be riding on. The criteria for determining LTS for route segments and crossings used in this plan was first published in 2012 in a report by published by the Mineta Transportation Institute.

Scoring LTS

LTS scoring is designed to correspond with the “Four Types of Bicyclists” categories defined by the Mineta Transportation Institute. The LTS ranges of 1 through 4 represent a range from lowest stress facilities to highest stress facilities. Besides bicycle facilities, roads and intersections are also classified into one of four LTS scores. Analysis shows when vehicle traffic volumes and speeds increase and separation between the cyclists and traffic decreases, the LTS scores increase, and the cyclist feels an increase in level of stress.

Most bicyclists prefer facilities with a LTS score of 1, where everyone of all ages and abilities feel safe and comfortable to bike. LTS 1 typically applies to multi-use paths that are separated from traffic. Facilities scoring a LTS of 2 can be cycled comfortably and ridden by the general population.

A LTS score of 3 is assigned to roads that would be used by riders that consider themselves “enthusiastic and confident” bicyclists and a LTS 4 represents roads that are only acceptable to bicycle riders that consider themselves to be “strong and fearless”. A LTS 4 involves traveling on roadways with higher traffic volumes, higher speeds limits, and on bicycle facilities that do not provide separation from traffic.

The analysis of levels of traffic stress ranges from 1 to 4 as follow:

- LTS 1: There is separation from traffic except low speed and low volume traffic. A LTS rating 1 involves crossings that are perceived to be simple, that are generally safe, and suitable for cyclists of all ages and abilities.
• **LTS 2:** Cyclists ride among low volume traffic moving at low speed. Typically, in a LTS 2 facility cyclists have their own designated place to ride keeping them from having to interact with traffic except at crossings. Crossings are considered easy for most riders to cross. Cyclists traveling on LTS 2 routes would be considered “interested and concerned”.

• **LTS 3:** Cyclists ride with multilane traffic flowing at moderate to higher speeds. Cyclists traveling on LTS 3 routes are “enthused and confident.”

• **LTS 4:** Cyclist ride with or in close proximity to high-speed traffic. A LTS of 4 would only be considered acceptable only to those classified as “strong and fearless” cyclists.

According to Mekuria, Furth, and Nixon, when assessing the LTS for any given route a weakest link logic should be adopted. This means that if a bicycle route has a combination of various LTS levels then the entire section of road or bicycle facilities would take on the highest LTS classification for that segment.

**Table 1 LTS Criteria**

<table>
<thead>
<tr>
<th>Speed Limit of Street</th>
<th>Up to 3 Lanes</th>
<th>4 - 5 Lanes</th>
<th>6+ Lanes</th>
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</thead>
<tbody>
<tr>
<td>Up to 25 mph</td>
<td>LTS 1</td>
<td>LTS 2</td>
<td>LTS 4</td>
</tr>
<tr>
<td>30 mph</td>
<td>LTS 1</td>
<td>LTS 2</td>
<td>LTS 4</td>
</tr>
<tr>
<td>35 mph</td>
<td>LTS 2</td>
<td>LTS 3</td>
<td>LTS 4</td>
</tr>
<tr>
<td>40+ mph</td>
<td>LTS 3</td>
<td>LTS 4</td>
<td>LTS 4</td>
</tr>
</tbody>
</table>

In addition to the assigned comfort level based on LTS criteria for the roadway, there is also a connection between the physical ability of the rider and trip purpose. Some trips made by bicycle can be for practical purposes such as commuting to and from work or school and for meeting daily needs such as trips to the grocery store. Many factors are associated with the decision to bicycle for transportation purposes such as the riders age and cognitive ability to respond to rapidly changing situations. The combination of rider experience, LTS, physical ability, and trip purpose can help categorize the four types of bicyclists that use the transportation network. The following categories of bicyclists is derived from Peter Furth’s LTS analysis.

**STRONG AND FEARLESS**

This group is willing to ride a bicycle on any roadway regardless of traffic conditions, vehicular speeds, and without designated bicycle facilities.
EXCITED AND CONFIDENT
This group of bicyclists are confident riding in most roadway situations but prefer a designated facility, such as on major streets with a bike lane.

INTERESTED BUT CONCERNED
This group is more cautious but is concerned about sharing the road with cars. Their comfort level drops on major streets, even with a striped bike lane, and they would prefer separated pathways or low traffic neighborhood streets.

CURRENTLY NOT INTERESTED
This group is not very interested at all in bicycling, may be physically unable or don’t know how to ride a bicycle, and they are currently unlikely to adopt bicycling in any way.

Considering that bicyclists of all defined categories and abilities can easily bicycle on low stress facilities it is important to strive for as many low stress connections to existing destinations as possible. Providing low-stress bicycle facilities is an important strategy to make bicycling feel safer and more comfortable. Low LTS can be achieved by shared low traffic neighborhood streets, designated greenways, traffic calming techniques, providing facilities that involve very little interaction with higher vehicle speeds and volumes, and with greater physical separation between the rider and traffic. If low LTS cannot be obtained, then lowering the LTS where possible should be the goal to strive for.

Prioritizing LTS Improvements
Bicycle facilities can be diverse and vary significantly in their design and locations. It is important to assess LTS for bikeway networks to evaluate how well-connected facilities are but also to see if the existing conditions are meeting the needs of the facility users. To serve all levels of bicycle riders an ideal bikeway network should consist primarily of continuous low-stress LTS 1 and LTS 2 segments and intersections. A good goal is to obtain a minimum LTS rating on improvement projects but striving for LTS 2 & 3 whenever possible if the goal is to get more people bicycling as a means of transportation. If LTS 1 and 2 segments are not continuous then bicycling activity will most likely be low, but it is extremely hard to eliminate LTS 3 and LTS 4 entirely from the network or from intersections. LTS analysis helps focus on, identify, and prioritize improvements that will bring the high-stress LTS 3 and LTS 4 gaps down to lower stress levels and reduce higher stress segments and barriers to bicycling so that most of the population can use the cycling facilities when feasible. LTS analysis is a tool to analyze if bicycling networks can be easily transitioned to lower stress facilities and especially relevant to a cyclist’s exposure to the proximity and speed of vehicles, how many lanes a pedestrian must cross, and navigating intersections. Gaps in the bicycle infrastructure network may cause bicyclists to cross into or travel with vehicle traffic. Having awareness of the County’s current LTS status brings awareness of current conditions but may help program and prioritize future improvements.
Bikeway Facilities in Spokane County

Spokane County manages 2,527 miles of county roads. Along the road network there is over 1,000 miles of bicycle facilities. Spokane County primarily has three types of bicycle facilities including shared use paths, dedicated bike lanes, and shared roadways. There are 94 miles of shared use paths that county residents can use to travel to desired destinations or to be used as a safe place to bicycle. Notably this includes the Centennial Trail, Fish Lake Trail, the Children of the Sun Trail, and some smaller trails and separated paths. These shared use paths occasionally cross county roads and are primarily used for recreation.

Cycling for everyday use and commuting is not widely accepted as a primary option for most county residents yet. This generally holds true for children, women, and aging populations. Another reason that cycling is not widely accepted is because Spokane County has a substantial rural component that makes connecting an integrated bicycle facility impracticable. Facility improvements and connectivity need to be focused on areas in the county that link to other bicycle facilities, schools, commercial, adjacent cities within the county, and places people want to bike to.

Getting more residents on their bicycles depends on if the bicycle networks feel safe, comfortable, and connected, resulting in more people are inclined to use the facilities and become more physically active. Safe, comfortable, and connected bike routes give everyone the option to ride their bikes and not just those that have experience riding in stressful traffic situations. Having transportation options to choose from expands local programming opportunities, may facilitate funding opportunities, and provides long-range goals for the county to pursue.

Multi Use Paths

Class I shared use paths are designed to parallel roadways, travel along rivers, can be a neighborhood amenity, or transition abandoned railroad right of ways into public facilities. They can be used as a transportation or recreational option and are typically 10’ to 12’ in width for bicycle traffic to be able to flow in two directions. A 5’ separation between the path and the roadway is required for further separation from vehicles.

The most notable shared use paths in Spokane County are the Centennial Trail, the Children of the Sun Trail, Columbia Plateau Trail, Wandermere Rd, Chapman Rd, and the N. Little Spokane Drive neighborhood shared use path as shown in the image below. There are approximately 100 miles of these types of transportation and recreation options in Spokane County. Shared use paths would be considered to have a LTS of 1 where these routes would be acceptable to all cyclists of all capabilities.

Little Spokane Dr. 35 mph
Bicycle Lanes

Class II Bicycle lanes are a designated part of the right of way that has been designated for bicyclists for transportation purposes. Bike lanes are typically striped, signed, or have pavement marking that specifically indicate a portion of the road to cyclists but may only have a centerline stripe depending on the speed of the road. Bike lanes run in the same direction as vehicular traffic and do not have any physical separation from motor vehicles. Bicycle lanes tend to primarily be located within the city centers with some owned and operated by WSDOT within Spokane County. Some notable bicycle lanes in Spokane County are on Midway Road, 57th Avenue, Day Mt. Spokane Road, and E. Farwell Rd. as shown in the image below. Bicycle lanes tend to make good connections to multi-use paths and shared roadways as a way to eliminate gaps and connect the bicycle transportation system. The LTS ranges from a score of 2 through 4 depending on type of road, traffic speed, width of bicycle lane, and level of comfort of the individual cyclist. Bike lanes are versatile facilities that can be located on minor and major collectors and on some arterials.

E Farwell Rd. in North Spokane County. Speed limit 35 mph
Bike Route/Shared Roadway

S. Pittsburg St 25 mph
Shared Roadway

Bicyclists are legally permitted to use all roads unless specifically prohibited, as stated below. A “shared roadway” as defined by AASHTO is “a roadway which is not officially designated and marked as a bicycle route, but which is open to both bicycle and motor vehicle travel”. In Spokane County bicyclists are prohibited from cycling on Interstate 90, sections of Division Street, US 395, sections of Highway 2 adjacent to Airway Heights, and sections of Highway 195. Most of the roads within the county would be classified as a shared roadway and are subject to the bicyclist’s perception of safety. This means that roads that we typically view as Shared Roadways in Spokane County can be anything from neighborhood roads, calm streets, to streets with moderate levels of traffic, or extremely busy roadways. The LTS ranges from LTS of 1 through 4 depending on the road classification, traffic speed, volume of traffic, and level of experience of the individual cyclist. Below is an example of a Shared Roadway on E Colbert Road.
Separated Bikeways
Spokane County does not currently have any separated bicycle routes. The closest facility that Spokane County has to a separated facility is a multi-use path. Separated facilities offer little to no pedestrian vehicle interaction. Separated bikeways are considered low stress because they offer a bicycling experience that feels safer due to some kind of vertical element (curbs, bollards, etc.) and is set back from vehicle traffic volumes and speed. Separated facilities are typically constructed in more urban environments, on major streets with high speeds, high volumes of traffic, and are on direct routes to major destinations. Suitable areas to incorporate separated bikeways into the bicycle network is where the county boundary interfaces more densely populated areas. This also affords both the county and cities opportunities to collaborate to enhance facilities that link.

Intersections
Intersection functionality and safety is extremely important to the bicycle network and directly affects who and how many bicyclists will choose to ride their bikes. Crash locations involving bicycles primarily occur at intersections in Spokane County. This lends itself to the idea that bicycle facilities are only as safe as the intersections along the bicycle route. If pedestrians perceive an intersection as unsafe then they may choose to cross mid-block, away from the intersection, in attempt to avoid vehicular conflict. However, mid-block crossings can be extremely dangerous because vehicle speeds increase the further a vehicle gets from the
intersection and can result in an even more severe incident. Safe intersections increase the amount of pedestrian and bicycle users and make the bicycle infrastructure within the county complete and functional.

When analyzing operation improvements at intersections a context sensitive approach should be taken. Some important components that should be considered when evaluating the context of the intersection are intersection geometry, nearby land use, traffic volume and speed, crosswalk crossing distance, lighting, signal timing, and if bus stops are present. Intersection analysis, especially at intersections with crash history, allows the county to take a proactive stance on safety and multi-modal advocacy as well as lower long-term improvement costs. A systematic and context sensitive approach also helps to prioritize vulnerable pedestrians and bicyclists at intersections and draw attention to their presence by drivers and remind them that the roadway is traveled on by more than just vehicles.

Intersection improvements will be carefully reviewed by the County Engineer and supporting staff with care and attention. Intersection improvements are typically made when addressing safety concerns, new construction, and roadway rehabilitation projects. Intersection improvements are typically funded through grant awards and county capital improvement funds.

Wayfinding

Wayfinding is an important part of the bicycle facility network because it is a good way to help cyclists navigate destinations that are important to them. Wayfinding signs should be implemented and evaluated on routes that go to heavily used recreation destinations, park & rides, schools, parks, community centers, and neighboring cities. Gathering input from public engagement and from local bicyclists can be an indispensable resource when evaluating bicycle route wayfinding. Providing adequate wayfinding is another way that the county supports multi-modal transportation and supports riders that wouldn’t necessarily cycle as a means of transportation. Effective wayfinding systems will help anyone destination driven to identify their location, guarantee that they are traveling in the right direction, navigate intersections, and identify the proximity of their destination.

The County will need to collaborate with the partner agencies to evaluate existing wayfinding, determine if any improvements can be made, and assess any gaps in signage that may need to be filled. The goal is to provide wayfinding that directs people to the safest intersection crossings, to nearby destinations, and reflects the context of each district. Wayfinding that is customized to reflect routes and accommodates different ages and abilities is considered an important asset to the bicycling community as identified by the public outreach survey results.

Destination Ranking
When creating a wayfinding system, it is helpful to have important destinations ranked based on regional significance. Major destinations should be ranked the highest and local destinations should be ranked lowest.

Level I
- Destinations up to five miles
- Neighboring cities

Level II
- Destination up to two miles away
- Districts, colleges, transit centers, neighborhoods

Level III
- Destinations up to one mile away
- Regional parks, hospitals, major bikeway facilities

Level IV
- Up to a half mile away
- Local parks, libraries, elementary, middle, and high schools, community centers

Sign Implementation

1. Determine the bicycle routes that need wayfinding, connects multijurisdictional routes together, and identifies routes for clarity.
2. Determine a list of destinations and assign each a hierarchical level.
3. Choose signage design and the location the signs will be placed.
4. Locate intersections and other places where turns will be necessary for strategically placed signs.
5. Configure the bicycle network, destinations, and wayfinding signs on a web-based map for County and public use.
6. Use a GIS database to manage location details for each sign and future system management
7. Prioritize implementation
8. Implement signs
Chapter 4
Crash Analysis

Pedestrian and bicyclist safety is a priority to Spokane County. Bicycle and vehicle collision data was excluded for all the cities within the county and this data focuses on incidents in unincorporated Spokane County. From 2017 – 2021 there was a total of 24 bicycle/automobile incidents and 1 fatality within Spokane County. Table 2 shows the bicyclist vs. vehicle collision trend reported during 2017 to 2021. In 2017 there were seven bicyclists versus vehicle collisions. Overall, the trend shows a gradual decrease in these types of collision incidents but spikes in 2019 with six incidents.

Table 2. Five-year bicycle and automobile collision history

![Graph showing bicycle and automobile collisions in Spokane County from 2017 to 2021.]

Of the total bicycle/automobile crashes 1 of the 24 incidents were fatal, 22 of the 24 crashes resulted in an injury and only 2 of the crashes resulted in property damage only. Half of the crashes occurred at intersections and most of the incidents occurred in either afternoon, evening, or night. Seven of the twenty-four crashes occurred on roads classified as rural and seventeen were roads classified as urban. Assessing bicycle/automobile crashes annually provides an opportunity to examine crash trends on bicycle facilities and analyze spot locations of concern within the county. A more complete bicycle facility system lends to fewer active transportation crashes and fatalities. Figure 4 shows bicycle and vehicular crashes from 2017-2021.
Figure 4 shows bicycle and vehicular crashes from 2017-2021.
Connectivity

Having access to a vehicle is often a necessity to reach many destinations within Spokane County. Gaps in the bicycling networks can heavily impact those that do not drive. How connected the bicycle network is plays an important role in how intensely the bicycle facility is used and by who. A well-connected bicycle facility affords the residents of the county an additional opportunity to travel to desired destinations in a healthy low-cost way. Improvements to the bicycle network will strive to close gaps in the existing facilities to help people biking reach their destinations within the county. This strategy will look to add bike lanes where bike lanes currently end and focus on connections to longer corridors that serve as the bike network backbone. To do this, Spokane County aims to provide meaningful connections where reasonable and feasible while looking for enhanced connectivity to long distance corridors, enhancing connections to adjacent cities, and places of interest in the upcoming years. Gap analysis can be a tool used to improve the existing bicycle network and prioritize projects that can be addressed through grant application funding and county funded transportation improvement projects.

Intersections

Spokane County actively implements safety as a primary factor when evaluating, constructing, and making intersection improvements. It is important to note that intersection capacity and functionality vary greatly and intersection with the same design configuration may be treated with different countermeasures based on number of trips generated and other data driven analyses. Currently, Spokane County treats bicyclists at intersections the same as vehicular traffic and there are not bicycle specific intersection elements currently implemented.

Intersections can be conflict points for users of the road and tend to be especially challenging for bicyclists and pedestrians. Crash data is a common data driven measurement that transportation professionals use to assess problem locations. It is becoming increasing popular to move away from reactive mitigation measures that are based on crash data alone and take a systemic approach to identify intersection characteristics that are likely to have risk of incidents. Notable intersection characteristics could be pedestrian generating land uses, traffic volume and speed, crossing distance, lighting, intersection control, bus stops, and intersection geometry just to name a few. Once higher risk locations are identified mitigation measures can be taken to reduce injury and fatalities.

People will use active transportation to get where they need to go. Clear sight lines of bicycle infrastructure provide the first layer of protection from incidents occurring. Additionally, identifying potential conflict points, reducing speed limits, and minimizing the amount of time bicyclists are exposed to conflict are all ways to increase safer intersection crossings.

The National Cooperative Highway Research Program published *Guidance to Improve Pedestrian and Bicycle Safety at Intersections* in 2020. The report explains that just like LTS for bicycle facilities, intersections can be broken down into tiers based on the vehicle ADT, speed
limits, and lanes of traffic. There are many countermeasures and combination of countermeasures at the tier 1 through 3 level that can be used to address potential issues at intersections. Most of Spokane County’s intersection fall within the tier 1 category.

<table>
<thead>
<tr>
<th>Roadway Type</th>
<th>Vehicle ADT</th>
<th>Vehicle ADT</th>
<th>Vehicle ADT</th>
<th>Vehicle ADT</th>
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<tbody>
<tr>
<td>(Number of Travel Lanes and Median Type)</td>
<td>&lt; 9,000</td>
<td>9,000–12,000</td>
<td>12,000–15,000</td>
<td>≥ 15,000</td>
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<tr>
<td>2 Lanes</td>
<td>≤ 30</td>
<td>35</td>
<td>≥40*</td>
<td>≤ 30</td>
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<tr>
<td>3 Lanes</td>
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<td>1</td>
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<tr>
<td>4 Lanes with raised median**</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
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<tr>
<td>4+ Lanes without raised median</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 3 Recommended Countermeasure Tiers Depending on Traffic Context. Graph from Guidance to Improve Pedestrian and Bicycle Safety at Intersections, (National Cooperative Highway Research Program, 2020), 50 online resources.

Tier 1: countermeasures that are inexpensive to implement while slowing motorist down and get them to yield to pedestrians. Examples can include anything from improving lighting, crossing islands, improving visibility by reducing parking, raised medians, curb extensions, to active warning beacon among other countermeasures.

Tier 2: countermeasures that encourage motorist to yield and tend to be less expensive. Examples can include narrow the road widths, re-channelization, turn prohibitions for vehicles, traffic signals, leading bicycle intervals, bike boxes, improved lighting, advanced stop/yield lines.

Tier 3: countermeasures that separate pedestrians and vehicular traffic or require motorists to stop. Roundabouts, traffic signals, raised crossings, turn prohibitions, rectangular rapid flashing beacons (RRFB), or narrowing of lanes.

**Bike Parking**

Most trips that we take for our daily needs are within a few miles of our home, school, or workplace. Bicycle parking is an important part of the overall quality of bicycle network and can affect the decision whether to bicycle or drive. Having strategically placed bicycle racks or bike lockers adds an extra layer of security to bicycle owners. To reduce the amount of bicycle theft and create an environment that cyclists feel safe to lock their bike up, bicycle racks should be designed so that they:

- Can accommodate high security U-shaped bike locks
- Can accommodate locks that secure both the frame and one or both wheels
- Provides adequate distance between racks so that bicycles do not get intertwined
- Does not have any sharp or protruding parts
• Does not bend wheels or damage the bicycle
• Does not require the user to lift the bicycle off the ground
• Support the bicycle at two points above its center of gravity

In Spokane County bicyclists can register their bicycles with one of the eleven Spokane C.O.P.S. shops to help recover their bicycle if it were to be stolen. [Spokane C.O.P.S. (spokanecops.org)](mailto:spokanecops.org)
Chapter 5

RELATIONSHIP TO OTHER PLANS

Introduction
This chapter summarizes regional and local planning documents that guide the development and implementation of multi-modal transportation and state statutes codified by the Washington Growth Management Act. The combined statutes and adopted plans are the guiding documents that determine how multi-modal safety measures, infrastructure, and implementation are administrated holistically within individual jurisdictions and as a combined effort throughout Spokane County. Predominant documents guiding bicycle policy for and within Spokane County can be in Table 4.

Table 4, Bicycle Planning and Policy Documents

<table>
<thead>
<tr>
<th>Spokane County</th>
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</thead>
<tbody>
<tr>
<td>Spokane County Comprehensive Plan, 2017</td>
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<tr>
<td>Spokane County Transportation Element, 2019</td>
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<td>Spokane County Trails Plan, 2014</td>
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<td>Spokane County Commute Trip Reduction Program, 1991</td>
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<td>City of Spokane</td>
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<td>City of Spokane Bicycle Master Plan, 2017</td>
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<td>City of Spokane Valley</td>
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<td>City of Spokane Valley Comprehensive Plan, 2016</td>
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<td>Draft Transportation System Existing Conditions, 2015</td>
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<td>City of Airway Heights</td>
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<td>Complete Streets Ordinance, 2010</td>
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<td>City of Liberty Lake</td>
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<td>City of Liberty Lake Comprehensive Plan, 2015</td>
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<td>Spokane Transit Authority</td>
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<td>Connect Spokane, 2019</td>
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<td>Spokane Regional Transportation Council</td>
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<td>Horizon 2040, 2013</td>
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<td>WSDOT</td>
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<tr>
<td>Active Transportation Plan 2020 and Beyond, 2020</td>
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<tr>
<td>Washington State Growth Management Act, 1990</td>
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Countywide Plans
The Spokane County Bicycle Master Plan builds upon years of collective planning objectives and initiatives to plan and develop cycling facilities throughout the County. The following efforts by various jurisdictions show the combined efforts that have influenced how and where people bike in Spokane County. This chapter summarizes bicycle planning documents that frame the bicycling policies currently in place for bicyclists and biking infrastructure throughout the region.
and how the future development and investment in bicycling infrastructure is collectively planned. These plans have been grouped into two categories: countywide plans, and regional plans.

**Spokane County**

Spokane County engineers, develops plans, improves, maintains, and constructs transportation infrastructure and understands the importance of supporting multi-modal transportation. The primary documents that Spokane County uses that support and guide current and future policies and implementation measures for an always improving transportation and active transportation system is the adopted Comprehensive Plan, Transportation Element, Spokane County Trails Plan, Spokane County Commute Trip Reduction Program, and the Spokane County Sub-Area Plans.

**Spokane County Comprehensive Plan, 2017**

The Spokane County Comprehensive Plan is the master planning document to guide growth and development through a set of goals, policies, and implementation strategies. The plan provides long range vision and guidance around the intricate role land use has on various components including but not limited to: the economy, environment, and transportation.

**Overall Goals and Policies**

T.1 Develop transportation plans that complement, support, and are consistent with land use and transportation plans from other jurisdictions and agencies.

T.1.1 Coordinate planning and operational aspects of the regional transportation system with cities within Spokane County, adjacent jurisdictions, Washington State Department of Transportation, Spokane Transit Authority, Spokane Regional Transportation Council and any other affected agencies.

T.1.2 Consistency with the Transportation Element of the Comprehensive Plan.

T.3a Provide a range of transportation choices and modes within the Spokane Region.

T.3b.1 Coordinate with other governments and communities to create a regional network of safe, efficient and cost-effective public transportation services and facilities.

T.3b.3 Support development of secure, conveniently located park-and-ride lots.

T.3b.4 Encourage the use of bus, ride-sharing and high-capacity transit services to make major segments of the transportation system more efficient.

T.3b.5 Provide intermodal connections to enhance the efficiency and convenience of public transportation.
T.3e Promote pedestrian and bicycle transportation countywide and increase safety, mobility and convenience for non-motorized modes of travel.

T.3e.1 The transportation network should provide safe and convenient bicycle and walking access between housing, recreation, shopping, schools, community facilities and mass transit access points. Obstructions and conflicts with pedestrian and bicycle movement should be minimized.

T.3e.2 Bicycle facilities should be designed where practical along arterials and should be clearly marked.

T.3e.3 Inventory existing pedestrian and bicycle facilities and maintain a pedestrian/bicycle plan coordinated through the Spokane Regional Transportation Council and implemented through the County 6-year transportation improvement program.

T.3e.5 Convenient bicycle parking and designated areas where bicycles can be secured shall be required at major destinations and at transportation centers.

T.3e.6 Encourage preservation of abandoned rail rights-of-way for development of bike, pedestrian, equestrian routes or other non-motorized forms of transportation.

T.3e.8 Develop street, pedestrian path and bike path standards that contribute to a system of fully connected routes.

**Spokane County Transportation Element, 2019**

The Transportation Element provides a 20-year vision and framework for the Spokane County transportation network. This is a context sensitive document that plans for future growth, land use, and an efficient transportation system supporting the intricate interactions of these components.

**Overall Goals**

**Bicycle Facilities**

Accommodating a large range of bicyclists and experience levels requires a variety of bicycle facilities such as dedicated bike lanes, shared-use paths, and shared-bike friendly routes. Bicycle facilities are an imperative part of the active transportation system throughout Spokane County and a wide range of users, from school-age bicyclists, families biking together recreationally, to commuter cyclists. Much like the pedestrian facilities, Spokane County realizes that there are gaps in the bicycle network that may cause bicyclists to cross into vehicle traffic or travel with vehicles in the roadway.
Spokane County Bicycle Plan

The Bicycle Plan promotes bicycling through the development of a countywide multimodal transportation system that focuses on increasing safety and convenience for non-motorized modes of travel as supported by Goal T.3e in the Spokane County Comprehensive Plan. An additional goal and strategy for the county is supporting the regional trail system as a cornerstone of Spokane County bicycle facilities goals and policies.

The Spokane County Comprehensive Plan supports the development of a comprehensive bicycle plan. The County Comprehensive Plan shows the inventory of bike routes, bicycle facilities such as bike lanes, pathways, and potential gaps in bike routes. The bicycle and pedestrian chapter of the Comprehensive Plan also strives to identify and plan for improvements where they are most needed. The Spokane County Bicycle Plan was developed through coordination with the regional bike plan (published by SRTC), area city bicycle plans (City of Spokane and City of Spokane Valley), and WSDOT.

Planning for Growth

To plan for growth, promote a healthy community, and to provide for alternative modes of travel, Spokane County Road Standards require new urban developments located on bike routes to accommodate bicycles and pedestrians through frontage developments. This also affords opportunities to connect bicycle facilities and add multi-use paths where appropriate.

Existing Deficiencies

The Bicycle Plan plays a vital role in planning the improvement of bicycle facilities. The plan indicates barriers and gaps in the system for bicycle travel, lays the groundwork for planning projects to address deficiencies, and show opportunities where bicycle facilities can be added to improve the overall network. Gaps in the network may create environments of high levels of traffic stress where cyclists must navigate through vehicle traffic or difficult arterial crossings to complete their journey. Federal and state grant funding sources may be sought to fund the improvement of existing gaps and other deficiencies.

Future Conditions

The Bicycle Plan helps to guide short-term (6-year TIP) and long-range (7 to 20-year plan) bicycle infrastructure needs, identifying and planning for the improvement of Spokane County’s bike facilities. Spokane County will continue to support regional trails such as the Centennial Trail and the Children of the Sun Trail as recreational and transportation resources. For example, supporting the Centennial Trail means that Spokane County will continue planning efforts to develop plans and projects and seek funding for gaps in the multi-use path system, such as the Argonne Gap and the “detoured” section from Boulder Beach trailhead to the Donkey Island trailhead. To support the Children of the Sun Trail, Spokane County will plan local system and development activities to allow for connectivity to the trail.
Spokane County Trails Plan, 2020

The Spokane County Regional Trails Plan was developed by the Spokane County Department of Parks Recreations and Golf in partnership with the Inland Northwest Trails Coalition to assess and analyze arterial trail systems that link communities and transit systems. The vision for this document is to acquire open space and create a large circle and spoke system interconnecting communities. This document shows a concerted effort to connect the county and includes many trails that are separated from vehicular traffic or include a sidewalk element to the trail as well as addressing safe crossings at intersections. The Spokane County Regional Trails Plan focuses more on the recreational needs of the community but also recognizes that non-motorized travel should not be seen as strictly recreational. There is a strong connection to how this plan can directly influence transportation needs while including the health benefits that county residents need. Trail systems provide a sense of place and make the County more desirable for residents and visitors.

Overall Goals related to Active Transportation

Each jurisdiction should coordinate its housing and transportation strategies to support existing, or develop new, public multimodal transportation systems.

Each jurisdiction shall address land use designations and site design requirements that are supportive of and compatible with public transportation, including, but not limited to:

a. pedestrian-scale neighborhoods and activity centers;
b. mixed-use development; and
c. pedestrian-friendly and non-motorized design
Spokane County Commute Trip Reduction Program

In 1991 the State of Washington determined that all organizations in specified counties that employ 100 or more employees, are required to participate in a Commute Trip Reduction (CTR) program. The program is designed to reduce the number of single occupancy vehicles commuting to work during peak morning commute hours of 6:00 to 9:00 in the morning. The goal of the program is to reduce traffic congestion and pollution caused from commuting. The program also provides information of basic bicycle maintenance and biking safe and legally.

Overall Goal

Support the regional goals of increasing multi-modal transportation and improving the health of county residents by:

- Carpooling
- Walking
- Alternative work schedules
- Biking
- Public Transit
- Vanpooling
Spokane County Sub-Area Plans

Spokane County has identified five subareas for bicycle infrastructure improvements. These sub-area plans involve completing and improving connectivity in existing bicycle facilities in the Greater Morgan Acres Transportation Improvement Plan, Five Mile Prairie Bike and Pedestrian Plan, South East Spokane Trails Master Plan, Mead-Mt. Spokane Transportation Area Plan, and the Little Spokane Trail System. The five sub-areas are growing and developing at a fast pace. Multi-modal improvements within the five sub-areas will ultimately improve safety and decrease auto-dependency for basic daily transportation needs.

Mead-Mt. Spokane:

The Mead Mt. Spokane area is in north Spokane County. The study and plan were developed in 2019. The primary outcomes of the sub area plan were to prioritize a list of capital improvement projects, recommended policies and future studies aimed at improving traffic safety, street connectivity, driveway access and multimodal mobility for all users of the transportation system through the year 2040. The full study can be found at MMSTAP-Final-Study-Plan-06292019 (spokanecounty.org).

Key Findings related to bicycle infrastructure improvements were that providing more options for walking and biking had very strong support. Future Bike Network Implementation of the projects and policies identified in the Plan are intended to result in more complete and connected bicycle facilities that can be accessed people of all ages and abilities. Identified bicycle infrastructure improvements that were generated from the study include:

1- Yale Road Bicycle/Pedestrian Bicycle Pedestrian Bridge Connection

The need for a pedestrian and bicycle-only bridge over the BNSF railroad tracks to connect the two sides of Yale Road was identified. This project will require a study to determine the location, preliminary design, and feasibility, followed by final design and construction. This bridge will need to be constructed along an alignment that could allow a future parallel full street connection

2- Day Mt. Spokane Road Safety and Multimodal Improvements

Within the existing curb-to-curb width, restripe the four-lane segment of Day Mt. Spokane Road east of US 2, to three lanes with wide buffered bicycle lanes (including one travel lane in each direction and a center-turn lane). Construct a pedestrian refuge median at the marked crosswalk in front of Mountainside Middle School adjacent to Patricia Drive. Speed reduction from 45 mph to 35 mph will also be considered. This project would be implemented in conjunction with a related storm-water project.

3- Study a bicycle connection along Market Street and Center Road
This project would require a study to be conducted with the ultimate preferred alternative resulting in a separate bicycle connection from Mt. Spokane Park Drive (SR 206) to Farwell Road and Children of the Sun Trail via bicycle lanes or a parallel multiuse trail. The bicycle connection would likely follow Market Street south of SR 206. The study should also consider the feasibility of constructing a multiuse trail to connect Center Road to the Children of the Sun Trail including paving the segment of Center Road east of Oak Street. This would provide a lower stress bicycle connection from Children of the Sun Trail to Market Street than the alternative along Farwell Road. The bicycle connection along Center Road could be a shared facility because it is a low volume, low speed facility.

4- Market Street to SR 206 Connection

This project may be implemented in phases, with the first phase consisting of an alternative analysis to determine the best solution to improve the connection from Market Street to US 2. The second phase will consist of construction of the preferred alternative. A study would be required to determine if rerouting Market Street to connect into Mt. Spokane Park Drive (SR 206) east of the Yoke’s Fresh Market is feasible. A roundabout may be considered at the new intersection to allow for safe full access of pedestrian, bicycle and motor vehicle traffic. Chris Court to the northern leg of this intersection may need to be realigned if a roundabout is determined to be the preferred alternative.

5- Mt. Spokane Park Drive Multiuse Trail

This project intends to construct a new multiuse trail on the north side of Mt. Spokane Park Drive (SR 206) from US 2 to Fairview Drive to meet existing bicycle and pedestrian demand between Mt. Spokane High School, nearby residential subdivisions, and commercial development around US 2.

6- Lowe Road to Mt. Spokane Park Drive Multiuse Trail Connection

This project would construct a new multiuse trail along existing County and WSDOT right-of-way between Lowe Road (just south of Peone Pines Drive) and Mt. Spokane Park Drive (SR 206) just west of the railroad crossing. This connection will provide a more direct bicycle and pedestrian connection between the existing residential subdivision and commercial development west of the railroad along a currently unestablished route already being used by pedestrians. As a first phase of this project WSDOT and the County will work to secure the property along the trail alignment in anticipation of future construction.

7- Mt. Spokane Park Drive Bicycle & Pedestrian Improvements

As a condition of future development, buffered sidewalks and bicycle lanes (or a parallel multiuse trail) will be provided on both sides of Mt. Spokane Park Drive (SR 206) between US 2 and the railroad tracks east of Yale Road to accommodate future multimodal traffic.
Five Mile Prairie Pathways

The Five Mile area is in northwest Spokane County. The plan was adopted in 2012 with the intent to set the framework to guide an implement a plan for more sidewalks, safe walking and biking infrastructure on the Five Mile Prairie, and connections to important community destinations.

The goals of the Plan:

1- Develop public, non-motorized routes connecting the hilltop Prairie to services, neighborhoods, parks, and transit facilities below.
2- Provide safer, connected pedestrian and bike routes on top of the Prairie.
3- Provide safe walking and biking routes to Prairie View Elementary School, Five Mile School, Sky Prairie Park, and natural areas.
4- Ensure consistency with locally adopted transportation plans, development regulations, and land use plans, including the Comprehensive Plan for the City of Spokane and Spokane County.

Key routes were identified and prioritized by the community for road widening to accommodate bicycle facilities among other active transportation related amenities.

1- Five Mile Road between Lincoln Road and Strong Road
2- Johannsen Road
3- Strong Road
4- Lincoln Road between F Street and Five Mile Road
5- Cedar Road between Chaucer Avenue and Johannsen Road

Little Spokane River Valley Plan

The Little Spokane River Valley is a scenic riparian area in northwest Spokane County and because of the beautiful natural elements is a frequently used by pedestrians and bicyclists.

Goals:

1- Create trails and pathways
2- Encourage community and regional connectivity
3- Promote stewardship
4- Encourage community involvement
5- Support interpretive and educational opportunities

Improvements were advised for bicycle shoulders, pathways, and connections:

Primary Routes:

<table>
<thead>
<tr>
<th>Hatch Road</th>
<th>Wandermere Road</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midway Road</td>
<td>Little Spokane Connector Road</td>
</tr>
<tr>
<td>Little Spokane Drive</td>
<td>Wandermere Shopping Center Connection</td>
</tr>
<tr>
<td>Dartford Drive</td>
<td></td>
</tr>
</tbody>
</table>
**Secondary Routes:**
Glenden Connection from Little Spokane Drive to Midway Road
Little Spokane Drive to Colbert Road
Perry Road
Connection to the Children of the Sun multi-use path

**Tertiary Routes:**
Fender Road
Handy Road
Baade Road to Panorama Road to Halfmoon Road
Burke Road
Division Road
Ballard Road
Lower Colbert Road
Upper Shady Slope Road
Woolard Road
Burlington Northern Railroad
Little Spokane Drive to Eastview Drive or Gleneden Park

Greater Morgan Acres Subarea Plan

Morgan Acres is in northeast Spokane County with a variety of land uses and zoning designations. The development of US 395 (NSC Corridor) will eventually be constructed through the greater Morgan Acres subarea. To preserve the identity and livability of the area the Subarea Plan identified the following transportation related goals supporting active transportation.

1- Goals for reducing traffic in residential areas
   - Implement a workable traffic design plan that discourages or prevents truck and other through traffic from using residential streets.
   - Traffic calming measures should be employed to discourage truck traffic from using residential access streets such as additional speed limit signs, roundabouts, speed bumps, prominent crosswalk markings, warning signage and electronic speed monitoring signage.

2- Improve pedestrian safety
   - Improve pedestrian crossings with markings
   - Over pass across Francis Avenue near Arlington School

3- Improve public transportation service to the industrial areas of Greater Morgan Acres
4-Long term traffic management

- Maintain adopted levels of service for arterial intersections.
- Assess traffic and noise impacts from the North Spokane Freeway on residential areas and recommend actions to minimize those impacts.

5- Provide bicycle facilities and improvements that facilitate safe pedestrian and bicycle access within the Greater Morgan Acres and safe separation between bicycle and pedestrian traffic, and vehicular traffic.

Through the goals of the sub-area plan the Lincoln Road project was able to be implemented. Improvements include improvements have been successfully made to improve the livability of the residents in this area, increase transportation options, alternative forms of transportation, and improve multi-modal safety.

South East Spokane Trails Plan

The South-East Trails Plan is a pedestrian and bicycle improvement plan that will improve active transportation facilities in south-east Spokane County. The plan envisions a significant increase of sidewalk, bike lanes, paved shared use paths, and trails.
Local Jurisdiction Bicycle Planning

City of Spokane Bicycle Master Plan, 2017

The City of Spokane strives to make cycling “safe, accessible, convenient, and attractive” for all residents by enhancing bicycling opportunities for all residents. The vision, objectives, and policies are supported by both their Comprehensive Plan and their Bicycle Master Plan. The City of Spokane Bicycle Master Plan is intended to be “a living document that will provide guidance and serve as a reference as this vision becomes reality.”
Objectives

- Enhance Public Safety
- Maximize Public Benefits and Fiscal Responsibility
- Provide Transportation Choices
- Accommodate access to daily needs and regional destinations
- Promote economic opportunity
- Respect natural and community access

Policies

- Continually increase the bicycle mode share for all trips.
- Complete and maintain connected bikeways that provide safe transportation.
- Provide convenient and secure short-term and long-term bike parking to connect people to popular destinations and transit throughout Spokane and encourage employers to provide shower and locker facilities.
- Increase bicycling by educating people using all transportation modes about the benefits of bicycling to the entire community. Enhance the safety of people riding bicycles through effective law enforcement, education and detailed crash analysis.
- Develop a collaborative program between a variety of city departments and agencies and several outside organizations to secure funding and implement the Bike Master Plan through capital project delivery as well as community planning processes.

City of Spokane Valley Comprehensive Plan, 2016

The City of Spokane Valley incorporates their Bicycle Master Plan into their Comprehensive Plan. The following are transportation goals that they would like to see achieved related to multi-modal and bicycle transportation planning and implementation.

Overall Goals

- Maintain and enhance a comprehensive multimodal transportation system that promotes, supports, and improves the safe, efficient, and reliable movement of people, vehicles, and goods.
- Provide and maintain quality street, sidewalk, and shared-use path surfaces that provide a safe environment for all users.
- Develop a citywide trail system that provides improved access and linkages between Spokane Valley’s existing trails, neighborhoods, and community amenities.
- Evaluate opportunities to improve multimodal connectivity in all transportation planning projects.
- Consider evaluating multimodal level of service for citywide planning efforts, particularly focusing on the quality of pedestrian, bicycle, and transit facilities.
- Design parks and community facilities to provide easy access for pedestrians, bicycles, autos, and public transit.
• Strategy: Coordinate transportation planning efforts with other jurisdictions to ensure that Spokane Valley businesses and neighborhoods are well served.

Draft Transportation System Existing Conditions, 2015

The Spokane Valley Draft Transportation System Existing Conditions is an evaluation of existing conditions as part of their Comprehensive Plan update. This document summarizes the existing state of their transportation system and identifies how the transportation network and the surrounding land uses influence how people travel.

City of Airway Heights, 2010

The City of Airway Heights adopted a Transportation Circulation Plan in 2018 and their Comprehensive Plan in 2020. Airway Heights also formally adopted a Complete Streets ordinance in 2010 to further support their goals and policies on active transportation.

Combined Overall Goals

• Implementing policies that support bicycle infrastructure improvements
• Maintain and improve the continuity of sidewalks, trails, and bicycle paths
• Analyzing existing conditions, prioritizing and plan for approximately 15 miles of bicycle improvements
• Implement complete streets

City of Liberty Lake Comprehensive Plan, 2015

The City of Liberty Lake supports active transportation through their adopted Comprehensive Plan.

Overall Goals

• Providing active transportation users with access
• Secure bicycle parking
• Increase safety, mobility, connectivity and convenience
• Integrated development patterns with friendly pedestrian/bicycle-friendly settlement patterns
• Designing transportation improvements for pedestrians, bicycles, transit, and vehicular use
Regional Plans
Washington State Growth Management Act

Overall Goal

The Washington State Growth Management Act (GMA) was enacted in 1990 to act as a planning guide for growth and development for populations greater than 20,000. One of the required components of the GMA is to address transportation. The State’s GMA requires local governments to prepare a transportation plan for regional consistency.

The following GMA goals are relevant to all regional transportation documents:

• Urban growth. Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner (RCW 36.70A.020(1))

• Transportation. Encourage efficient multimodal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans (Revised Code of Washington [RCW] 36.70A.020(3)).

• Public facilities and services. Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards (RCW 36.70A.020(12)).

• Environment. Protect the environment and enhance the State’s high quality of life, including air and water quality, and the availability of water (RCW 36.70A.020(10)).

• Citizen participation and coordination. Encourage the involvement of citizens in the planning process and ensure coordination between communities and jurisdictions to reconcile conflicts (RCW 36.70A.020(11)).

Washington State Department of Transportation

WSDOT’s Active Transportation Plan 2020 and Beyond addresses walking and biking on or across state highways in Washington based on comments from public outreach.

• Addresses safety, traffic related fatalities, and serious injuries such as higher driving speeds and roadway crossing issues.
• Considers ways to correct for the effects of past infrastructure decisions on active transportation safety and mobility, particularly in places where those decisions affected transportation access and health.
• Provides a first-ever needs assessment of the state system for active transportation use.
• Gives a cost estimate for walk and bike improvements on the state highway in population centers.
• Introduces the concept of a statewide bikeways and trails network.
• Uses “level of traffic stress” as a quantitative tool to evaluate the state system with a focus on state routes in population centers and how they affect people's ability to use active transportation.
• www.wtp2040andbeyond.com

Spokane Regional Transportation Council (SRTC)
Horizon 2045, 2021

SRTC is the regional Metropolitan Planning Organization (MPO) that coordinates directly with local jurisdictions and WSDOT to ensure safety and security of the regional transportation system. The Horizon 2045 Plan is a holistic long-range transportation plan for the Spokane Region. Their transportation planning document aims to “Increase the safety of the transportation system for motorized and nonmotorized users” and the state’s safety transportation goal “To provide for and improve the safety and security of transportation customers and the transportation system”. SRTC understands that demographic and land use are interconnected and therefore put added pressure on the regional transportation network. Encouraging and increasing alternative modes of transportation for the community to utilize will regionally alleviate stress on the transportation network.

Notable regional concerns stemming from the Horizon 2045 document related to active transportation in the region are as follows:

• Snow removal and snow storage needs to be improved,
• Pedestrian and bicycle signage, education and enforcement is needed,
• Driver awareness of pedestrians needs to be improved,
• A lack of a serious bicycle network,
• A lack of bike networks to trail heads,
• Trail gaps need to be filled in such as Centennial Trail and Fish Lake Trail,
• Sidewalk improvements; fixing damaged sidewalks and filling in gaps where none exist,
• Roadways need to be swept more often to improve safety for cyclists,
• Implement land use decisions that support nonmotorized transportation.

SRTC Active Transportation Implementation Strategies

Strategy 7: Provide multimodal options

Everyone, regardless of age, ability, income, race, or ethnicity, ought to have safe, comfortable, & convenient access to community destinations and public places—whether walking, driving,
bicycling, or taking public transportation. Horizon 2045 promotes policies and practices that ensure streets are safe for all people while balancing the needs of different modes, and supporting local land uses, economies, and the surrounding environments.

**Horizon 2045 will implement Strategy 7 by:**

- Prioritizing roadway projects that include multimodal elements
- Continuing to require that Safe and Complete Streets Checklists are completed as related to the SRTC Policy and the SRTC Guiding Principles
- Coordinating with jurisdictions and agencies region-wide to determine viability of a regional Active Transportation Plan
- Implementing a regional bicycle and pedestrian count program for bicycle and pedestrian usage and trend data
- Pursuing collaboration opportunities with public health partners for projects with complimentary health and transportation benefits such as: Safe Routes to School, improving built environment, ensuring equity of access to transportation, reducing pollution, reducing collisions, and placemaking to improve social connections
- Targeting funding for bicycle and pedestrian network improvements at nearly $280 million over the planning period

**Spokane Transit Authority (STA), Connect Spokane, 2019**

STA supports alternative transportation options that reduce the reliance on single occupant vehicles and provide Spokane County residents increased transportation options. *Connect Spokane* is the vision and policy framework document used by STA’s Board of Directors to guide policy and implementation to increase ridership and reduce pollution, congestion, and single occupant vehicles.

In addition to STA’s goals of reducing vehicle miles traveled and encouraging transit as an alternative to single car occupancy STA offers bike lockers for those looking to take advantage of one of the many Park and Rides in Spokane County for a small fee.

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Bike Lockers Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hastings Park and Ride</td>
<td>6</td>
</tr>
<tr>
<td>Jefferson Park and Ride</td>
<td>6</td>
</tr>
<tr>
<td>Liberty Lake Park and Ride</td>
<td>16</td>
</tr>
<tr>
<td>Mirabeau Park and Ride</td>
<td>6</td>
</tr>
<tr>
<td>South Hill Park and Ride</td>
<td>6</td>
</tr>
<tr>
<td>Valley Transit Center</td>
<td>12</td>
</tr>
</tbody>
</table>

**Overall Goals**

*Increase interest in multi-modal connections*
Support bicycle and pedestrian infrastructure: these accommodations include bus stop design and locations as well as the design and capabilities of its vehicles.

**Bicycle Facilities**
STA accommodates bicycles at STA’s facilities and on STA busses. By supporting bike share, bicycle ridership through short- and long-term bicycle parking, and greater bicycle capacity on busses STA can increase options for those who choose multi-modal transportation.

**Improve Pedestrian Infrastructure**
STA partners with local jurisdictions, as funding allows, to improve pedestrian infrastructure in locations that link to STA bus routes. Financial contributions to any infrastructure improvements aim to maximize transit benefit and are directly determined by Spokane Transit.
Chapter 6

GOALS, POLICIES, AND IMPLEMENTATION MEASURES

Goals are general statements of intent proposed to provide direction for policy implementation. Goals provide detail and context of the Bicycle Master Plan and a point of measurement. Goals can always be revised to achieve the long-term vision of the countywide bicycle network and Bicycle Master Plan if context and concerns change over time.

Various Spokane County policies and regional planning documents were reviewed relating to bicycle and transportation planning. Document review and feedback collected from public outreach helped to develop a vision statement with supporting goals. Many of the goals presented are based on the County’s transportation related documents and other jurisdictions’ goals and policies.

Vision Statement

To provide a safe, connected, and accessible bicycle and pedestrian system infrastructure that encourages active transportation as a viable form of transportation and recreation.

Goals

Goal 1 Safety: Work towards a bicycle network that is safe and comfortable for bicyclists of all ages and abilities.

Implementation Measures

1- Monitor bicycle/vehicle crash data annually to identify trends and specific problem areas.
2- Evaluate the presence of pedestrian scale lighting at key crossing locations, uncontrolled crosswalks, and intersections with a crash history.
3- Continue to apply for grant funding that supports active transportation within Spokane County to improve existing facilities and add low stress connected facilities to the county bicycle network.
4- Work with Spokane County schools to encourage bicycle education in correlation with each Safe Routes to School project.
5- Coordinate with Spokane County Sherriff’s department and Target Zero liaisons to identify locations with more than one incident of bicycle/vehicle collisions for increased cross agency awareness and implementation of countermeasures.
6- Continue to develop, expand, and connect low stress bicycle facilities and bicycle boulevards that reduce conflict between bicyclists and vehicular traffic.
Goal 2 Connectivity: Create a connected network of bicycle facilities that link important destinations, transit, neighborhoods, and neighboring cities within the county and relieving auto-dependency.

Bicycling can become a mainstream mode of transportation in Spokane County if a connected and low-stress network is developed that enables people to travel by bicycle to the places they want to go. About 11% of the bicycle facilities in Spokane are considered to have a LTS of 1 or 2 and can be considered low-stress bicycling environments. However, even with a LTS of 1 or 2 the bicycle facility may eventually encounter high speed and high-volume roads or difficult intersections. High stress encounters effectively act as barriers and as difficulties within the bicycling facility.

A standalone bicycling network is not enough if people do not feel safe bicycling. Reducing the amount of traffic lanes and the vehicle traveling speeds can help to link high stress barriers where it is feasible and makes sense. Separated bike lanes, marked shared bike lanes, signage, and side paths may be needed to connect the bicycle network and make cyclists feel safe. Another element that may help encourage biking for transportation is if cyclists have a secure place to lock up their bicycles when they get to their destinations. This goal should also consider bicycle parking at major destinations, such as transit stops, park and rides commercial areas and public facilities, including schools, libraries, and recreation centers. An effective way to incorporate more bike racks and bicycle parking is to incorporate this into the site plan review requirements with new developments.

Implementation Measures

1. Increase low stress connectivity to the busiest park and rides and transit stops, this will need to be done in coordination with STA.
2. Evaluate (and increase if needed) the level of low stress bicycle networks around county schools. Priority should be given to the most populated neighborhoods.
3. Prioritize and increase low stress connectivity to county libraries, recreation centers, major commercial centers, parks, and education centers.
4. Develop and implement effective wayfinding throughout the County bicycle routes, especially where barriers exist, such as rivers, freeways, and railroads.

Goal 3 Livability, Health & Equity: Improve the health of county residents by creating an environment that is supportive of bicycle riding.

Incrementally increasing safe and connected bicycle facilities throughout Spokane County encourages residents to participate in healthy activities while lowering the rate of preventable diseases and improving the quality of life. Equal access to low stress bicycle facilities for all members of the community, especially those considered to be overburdened, underserved, and
disadvantaged should be prioritized for fair distribution of the transportation resources, benefits, and services.

Implementation Measures

1- Prioritize connectivity and low stress bicycle infrastructure when reasonable and feasible in census tracts identified with high proportions of disabled and elderly communities as well as census tracts at or below the designated poverty level.

2- Continue to apply for Congestion Mitigation and Air Quality (CMAQ) funding through WSDOT in an effort to increase the amount of bicycle infrastructure, lower VMT, and improve air quality.

3- Work with agencies within Spokane County to promote improved health and lower obesity and chronic disease.

4- Continue to support local programs that help low-income residents own a bicycle such as the Commute Smart Northwest Bike Swap.

5- Incorporate more greenways within Spokane County that end at desirable destinations.

Goal 4 Choice: Update the bicycle network routes giving county residents informed bike route information so that choices can be made about what multi-modal transportation options are best for them.

1- Provide a GIS based bicycle map on the Spokane County Public Works web site that shows county residents the Level of Traffic Stress (LTS) of existing bicycling facilities. This is intended to show what bicycling experience can be expected and eliminates high stress/high speed Class IV shared roads as viable bike routes.

2- Reduce gaps in the bicycle network within a three-mile buffer of the cities to improve connectivity between destinations and expand the network of bicycle facilities. This offers cyclists access to a variety of destinations and provide route choices.

3- Increase and improve access and wayfinding to the Centennial Trail, Children of the Sun Trail, other low stress separated trails, and to important destinations.

4- Work on implementing corridor projects adjacent to busy arterial streets as an alternative to bicycling on high speed and high-volume roads.

The most important measure of success for the Bicycle Master Plan is if there is an increase in bicycling over time among different ages and experience levels of people, destinations, and trip types. Advancing this goal is largely driven by success in advancing the four goals of the plan and, therefore, the recommendations for bikeways, bicycle parking, policies and programs.
Chapter 7

EXISTING CONDITIONS

There are four different types of bicycle facilities throughout the county with varying levels of LTS associated with them depending on class type and components of the facilities. The existing conditions in this section describe the status of bicycle facilities in Spokane County.

Existing Bicycle Network

Spokane County has a variety of bicycle facilities accommodating active transportation in both the urban and rural context including dedicated bike lanes, shared-use paths, and shared-bike friendly routes. The bicycle infrastructure can be used by a diverse range of cyclists from new riders to very experienced cyclists. There are over 1,000 miles of bicycle facilities available for county residents to use.

Class I Shared Use Paths

Shared use bicycle paths in Spokane County are primarily separated completely from traffic but the user may encounter intersections that need to be crossed particularly the closer these trails come to urban environment. Some notable Class I separated facilities are the Centennial Trail, Children of the Sun trail, and the Columbia Plateau Trail. There are approximately 100 miles of Class I bicycle facilities in Spokane County.

Centennial Trail

The Centennial Trail is a 40-mile trail that travelling through Spokane County and into Idaho. This is primarily a LTS 1 trail with few intersections to cross in the northern section of this trail. The trail eventually runs through urban environments and into downtown Spokane, through the City of Spokane Valley, and terminating in Idaho. The LTS increases to 3 or even 4 depending on the continuity of the trail network and the various types of intersection crossings the facility user may encounter in the urban environments. An example of this separated trail having an increased LTS is the section from Boulder Beach to Donkey Island. The separated trail ends and requires that the facility user to navigate approximately 2 miles of county roads and a busy arterial intersection before eventually reconnecting to a low stress separated trail again.

Children of the Sun

The existing trail is a 7-mile paved path in north Spokane and is still in the process of being completed. The final product will be a 14-mile trail that runs parallel to the North Spokane Corridor (SR 395) and will connect to four specific communities and the Centennial Trail. Most of this trail could be considered to have a LTS 1, but where the trail intersects urban environments the LTS will naturally increase.
Columbia Plateau Trail

This trail is located in southwest Spokane County and is 7.5 miles long. This trail has an LTS of 1 and is less likely to be used for transportation purposes as it ends at Fish Lake recreational facility. The trail head is located a few miles outside the city of Cheney.

Class II Bicycle Lanes

There are over 130 miles of Class II bicycle facilities in Spokane County with a significant portion of them residing in a dense urban setting. Designated bicycle lanes are not overly common in Spokane County, totaling roughly 19 miles and are primarily located in north Spokane County and buffer City of Spokane boundaries.

- Market St 1.87 miles
- Wall St 0.75
- Country Homes 1.85
- Cascade Way 0.33
- Hawthorne Rd 1.09
- Waikiki/Mill Rd 1.48
- Farr Rd 0.41
- Upriver Dr 4.0
- Columbia Dr. 1.24
- Hastings/Farwell Rd 2.44
- Little Spokane Dr. 0.67
- Midway Rd 0.50
- Day Mt Spokane Rd 0.54
- Newport Rd (WSDOT) 1.29

Class IV signed and unsigned roadways

There are 845 miles of Class IV roadways in Spokane County, and they typically have a mixed LTS score depending on population density and roadway. A shared road may be in a quiet neighborhood or have high traffic volumes and vehicular traffic may be traveling at higher speeds. There may or may not be a shoulder provided resulting in bicycle and vehicular traffic being mixed, these routes are primarily for the “strong and fearless” riders that do not mind bicycling with high-speed traffic in close proximity. Table 5 summarizes the Spokane County bicycle facilities by miles and type.

Table 5 Spokane County Bicycle Facility Miles by Type

<table>
<thead>
<tr>
<th>Class I</th>
<th>Class II</th>
<th>Class IV</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

![Miles of Bicycle Facilities in Spokane County](image)
In Spokane County there are 18 schools and many public parks. Figure 7 shows that there are few Class I and Class II facilities that connect to County schools. 11 of the 18 schools and some of the parks that are closest to populated areas lack any Class I or Class II bicycle facilities. It should be noted that a sidewalk inventory is not part of the Existing Conditions study and that there may sidewalks accessible where there are no low stress bicycle facilities present. It should also be noted that because of the rural nature of some parts of the county, or if schools and parks are located in calm neighborhood settings, that bicycle infrastructure may not be necessary.

Figure 7, Low Stress Bicycle Facilities Located Near Schools and Parks
Regional and Multi-Modal Connections

The previous chapter identified the goal and implementation measures to improve Spokane County’s bicycle facilities and network. These goals include bicycle facilities and a network that is connected to the surrounding communities and to the larger regional bicycle network. The County also envisions a multi-modal transportation system that encourages bicycling and makes it easier for those who choose active transportation as a viable alternative to single occupancy vehicles. Finally, the County wants to provide the support facilities and amenities that can make bicycling a more enjoyable experience for more people. This section looks at the existing conditions of support facilities within Spokane County.

Support Facilities

Bicycle network support facilities include physical infrastructure designed to encourage and accommodate bicycling. This may include anything from bicycle racks, water fountains, benches for resting, lighting, wayfinding along routes, and restrooms facilities. The entire length of the Centennial Trail includes periodic restrooms, drinking fountains, picnic areas, and parking facilities. Some supporting facilities may only be open seasonally. Support facilities are important because insufficient facilities may discourage active transportation. In Spokane County, the installation of secure bicycle parking is required as part of zoning code 14.805.060 (4). The required ratio is one bicycle rack, accommodating five or more bicycles, for every 25 parking spaces to encourage the use of bicycles as an alternative to driving. Most schools, parks, and other public buildings have bike parking. In addition to having the right support facilities in place is equally important to have them located strategically to maximize the benefits they provide and reduce theft.

Public Participation

Public participation is an essential component to the development of the Spokane County Bicycle Master Plan. Public participation gives insight into how the residents of Spokane County use bicycling for transportation related purposes and their needs and concerns with existing bicycle facilities. Furthermore, feedback from bicyclists of various abilities helps to direct future goals, projects, and development of this plan.

A survey was created by the Spokane County Public Works department to help understand bicycle commuting needs, their real and perceived perceptions of biking in the county, where people ride their bikes, how often people are biking, and where they would like to bike if improvements were made.

Public participation was kicked off at the June 12th, 2021, Bike Swap at the Spokane County Fairgrounds. The survey was made available through a variety of websites and social media sites as well as through bicycle shops throughout Spokane County. The intent of such a wide range of public outreach is to reach as many people as possible with varying levels of bicycling
experience and abilities. Additionally, an online map of the existing bicycle infrastructure was put on the Spokane County website for public feedback and to document public opinion and concerns of bicycling conditions. The intent of this was to show how residents use bicycling for transportation purposes, where people like to bike, and where people currently feel the safest biking. Public comments are used to guide policy and implementation of the Bicycle Master Plan and future capital projects. To gather enough data for this document public participation was ongoing. Due to the Covid-19 pandemic and the seasonal nature of the Inland Northwest public participation lasted approximately 18 months.

Survey Results

General Opinions

Survey results shows that bicyclists in Spokane County have four main concerns when bicycling in Spokane County. Table 6 shows that bicyclists experience the greatest stress riding their bikes due to the fear of getting hit by a car, a lack of connectivity (bicycle infrastructure) and aggressive drivers. These concerns are real with the potential for serious injury or death related to collisions with vehicles. The last two high ranking concerns are bike theft and secure bicycle storage when arriving at their destination.

![Real and Perceived Challenges to Riding a Bike in Spokane County](image)

The results of the bicycle survey show that respondents would like to see improvements to bicycle facilities all throughout the county but specifically in the south and north with almost even number of responses for both locations. Additional locations respondents would like to see improvements are in the downtown and the Spokane Valley. Even though the downtown and Spokane Valley are not within the Spokane County jurisdiction it is worth noting that these
may be optimal locations for Spokane County to collaborate and improve connectivity of the regional bicycle infrastructure for a more wholistic transportation system.

It is clear from the responses that safety and driver behavior is a substantial concern for those that bicycle. There was an overwhelming number of requests from the public for separation, more dedicated bicycle lanes, buffered facilities, and new bicycle routes. Respondents also showed concern for the general maintenance of bicycle facilities requesting that existing and new facilities remain clear of debris, overhanging branches, improved signage, and prefer facilities to have high visibility paint when marked. Additionally, improved connectivity, bicycle parking, and generally anything that gets bicyclists away from high speed and heavy traffic was a common concern. The following graphs and information are derived from the Bicycle Survey.

Where do you ride your bike?

91.8% of the respondents to this survey primarily ride their bicycles to and from parks and on trails. 44.77% of respondents feel that it is safe enough and they are close enough to commute to their place of employment by way of two wheels. 41.36% of respondents like to bicycle to restaurants and coffee shops while 31.36% can do a little shopping via bicycle.
Why do you bike?

Most people that ride their bicycles do so for fun or recreational reasons with responses in this category being 91.59%, while 83.86% ride a bicycle to improve their health, 45.91% ride for environmental reasons, and 24.32% do so because it is their primary mode of transportation.

How often do you bike?

The results here show that most of the people that responded to this survey ride a bicycle quite frequently with 77.95% of the respondents riding a minimum of two times a week with bicycle rides primarily consisting of short to moderate outings with most respondents bicycling for 30 – 60 minutes per outing.
What barriers to biking do you encounter?

70.5% of respondents reported that a lack of connectivity of the bicycle network is the reason why they do not ride their bicycles more often. This is complemented with a lack of bike lanes coming in at 67.5%. This is followed up with unpredictable drivers, narrow roads, and poor road conditions as the top-ranking barriers to getting people to ride their bikes more often.

What would make your biking experience better?

The survey results indicate that separation is a primary concern when biking in Spokane County. 82.5% of the respondents want protected bike lanes, 73.6% want more separation from vehicular traffic and this is further backed up with 50% of respondents asking for wider bike
lanes. To follow this up safer intersections and better lighting are highly encouraged by the public.

Real and perceived challenges

Respondents were asked to rank their top three challenges that they face while bicycling in Spokane County. The responses to these questions were communicated clearly with almost half (44.09%) of the respondents being afraid of getting struck by a vehicle. The other top concerns are aggressive drivers by 33.64%, 21.36% feel there is a lack of connectivity, 14.09% worry about bicycle theft, and 17.5% feel like they do not have safe bicycle parking. The rest of the questions and the percentage of concern and response can be found in Appendix A.

Existing Conditions Map

Existing bicycle facilities in Spokane County are predominantly contained within the boundaries of the city centers as indicated by the red lines on the map. The yellow lines show where the shared use paths are. All other roads would be classified as shared facilities that mix bicyclists in with vehicular traffic. Figure 9 shows the existing bicycle facilities within Spokane County.
Needs Analysis

Bicycle Safety

It is important that bicycle collision data is reviewed annually to identify collision locations and trends within unincorporated Spokane County. Collision data is provided by the Spokane County Sherriff’s department. Typically, a five-year analysis of all bicycle/vehicle-related incidents occurring within Spokane County is a good start at understanding any trends of incidents and locations of concern. The heat map representing the five-year crash data in Chapter 1 shows that there has been an overall decrease in serious injuries and fatalities within Spokane County with two bicycle involved crashes in 2021. This is the lowest amount of bicycle
involved crashes since 2015. Note that other types of bicycle collisions do occur including bicyclists crashing into other bicyclists as well as bicycle and pedestrian collisions, but typically very little data is reported on those types of collisions.

It is clear from the 5-year collision heat map in Chapter 1 that there is clustered bicycle involved crashes occurring in both north and south Spokane County, specifically within a few miles of where Spokane County and the City of Spokane interface. In north Spokane this seems to be occurring along Hastings Rd and within the vicinity of Wall Street. Incidents occurring to the south of Spokane County look to be occurring around the Ben Burr Rd and Palouse Highway area. These areas will need to be monitored for crashes and areas that will need to be analyzed for preferred improvements to increase safety at these locations.
Chapter 8

RECOMMENDATIONS

This section addresses a comprehensive list of improvements recommended to help improve Spokane County’s bicycling infrastructure and connectivity. The following list can be used to identify projects but is not entirely comprehensive or imply an order to what project should be implemented first. Additionally, the list does not imply a timeline in which a project should be prioritized since the availability of funds for implementation is tied to the priorities of the County’s capital improvement project list (6 Year TIP), the variability of grant funding from year to year, and the annual Spokane County budget. If necessary, a best fit approach can be used to achieve the most impactful outcome to the bicycle network. Projects prioritization may be implemented on the following but not limited to funding cycles, new and evolving information, new funding sources, updated collision statistics, project collaboration with adjacent entities, or updated capital improvement projects.

Recommendations for bicycle facility improvements in Spokane County emphasize the goals from Chapter 1. Proposed recommendations ensure that opportunities to implement a community endorsed bicycling network are not lost and help guide the direction of implementation in conjunction with the capital improvement projects to promote bicycling as an attractive transportation option. However, it is important to have bicycle facilities identified in the County’s 6-year TIP for funding and implementation reasons. Recommendations for improvements to be considered during project development should include the following:

- Places people want to go (health care, institutions, grocery, employment)
- Schools lacking low LTS connectivity
- Parks lacking low LTS connectivity
- Reported collisions and incident trends
- Public transportation/first & last mile
- Households without vehicles by census tract
- 2020 population density
- 2020 employment density
- Census tracts identifying as disadvantaged, overburdened, or underserved
- Gap closure
- Comments received from the community engagement process
- Grant funding opportunities
- Projects that have been previously identified for active transportation and traffic calming improvements.
Neighborhood Bike Routes

Neighborhood bike routes are also known as bicycle boulevards or greenways. People typically enjoy these types of bikeways because they provide low stress bicycle routes on their local street network instead of busy arterials. Neighborhood Bike Routes should have wayfinding signage, so cyclists are aware of the routing, but also play an important role in traffic calming. The road markings and signage decrease cars speeds and prioritize people biking.

Bicycle Facility Improvements in School Zones

Although Safe Routes to School Routes documents are developed and published by the school districts, Spokane County encourages safe transportation to and from schools. Spokane County participates by providing recommendations that can facilitate needed improvements as well as securing partnerships with local advocacy groups and schools. GIS analysis was used to look at existing conditions and determine what schools in unincorporated Spokane County lack bicycle facilities or have a LTS of 3 or greater. These school zones are where connecting bicycle facilities or reducing the LTS should be prioritized and considered when doing any roadway improvements or when seeking grant funding. Spokane County is in continual collaboration with SRTC and WSDOT to improve safety and increase multi-modal transportation options for children.

The listed school within the County are schools that can be scoped and considered for projects to improve connectivity and lower LTS. It should be noted that if schools in rural communities are located on higher speed but lower volume roads it may not make sense to have young children bicycling as a transportation option to and from school or be feasible to implement facilities at these locations. Additionally, there are also a fair number of schools within neighborhoods where there are sidewalks or bicycle facilities, and it is expected that vehicles will be traveling at 20 mph or under during school hours of operation. This would lower the LTS for school age children and be a safe environment for children to commute. Implementation of bicycle facilities within school zones should be analyzed for the individual context sensitive site and schools with the greatest needs should be prioritized first.

Otis Orchards Elementary, Colbert Elementary, Midway Elementary, Meadow Ridge Elementary, Shiloh Hills Elementary, Northwood Middle School, Farwell Elementary, East Farms, Elementary, Brentwood Elementary, Prairie View Elementary, Arlington Elementary, Evergreen Elementary, Phil Snowden Elementary, Windsor Elementary, Mullan Road Elementary, East Valley Elementary, Linwood Elementary, Moran Prairie Elementary, Mountain Side Middle School, Pasadena Park Elementary
Figure 10, Spokane County Schools and Parks with Class I and II Bicycle Facilities
Bicycle Facility in Coordination with County Parks

There are 52 parks that Spokane County maintains and operates. Parks play an important role within the County for relaxation, recreational purposes, to conserve natural areas from development, and secure the natural beauty of the region. Parks are frequently visited destinations by county residents and visitors to Spokane County. As stated throughout this Plan, due to the rural nature of Spokane County, it may not be reasonable or feasible to develop bicycle facility connections to all parks. Parks with insufficient connectivity or with LTS of 3 or greater and adjacent to higher density development should be project priorities. These community amenities should have safe connections to the established transportation network, provide safe street crossings, and be accessible. These elements and more are professionally planned out and delivered but should not be left out when improvements to the bicycle network are under consideration. Improving accessibility to parks provides opportunity to collaborate with the Spokane County Parks and Recreation department.

-Bicycle facilities incompletely connect to the popular 95-acre Plante’s Ferry Sports Complex. This park is partially accessible via the Centennial Trail by Class I bicycle facilities but then turns into a slightly disjointed Class II facility before reconnecting to another section of the Centennial Trail and lowering back down to a Class I facility. This higher-Class II section would provide an opportunity to make a more direct and clear connection along the Spokane River and lower the Class and LTS level.

-Bicycle facilities on Waikiki Rd lead partially to Holmberg Park but do not link to the park. This park is surrounded by residential homes for locals to access but a bicycle facility gap is present. Both Waikiki Road and Country Homes Boulevard have existing Class II bicycle facilities that could be linked and provide access to not only the park but Whitworth University, the 5 Mile Park & Ride, as well as grocery and other commercial opportunities.

-Trolley Trail Conservation Area and Sterling Heights Park are adjacent to each other in semi-rural residential areas of southwest Spokane County. They are served by Class IV facilities, but these two amenities afford an opportunity to lower the bicycle class level and collaborate with the City of Spokane to connect this residential area to light industrial and improve the bicycle network in this area of Spokane County.

The following list includes all parks within Spokane County:

1 Northwood Community Park
2 Bidwell Community Park
3 Camelot Community Park
4 Camp Caro/Dishman Community Park
5 Glenden Community Park
6 Half Moon Community Park
7 Holmberg Community Park
8 Linwood Community Park
9 Orchard Ave Community Park
10 Pine River Community Park
11 Prairie View Community Park
12 Shields Community Park
13 Sontag Community Park
<table>
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<tr>
<th>14 Valleyford Community Park</th>
<th>29 Antoine Peak Conservation Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 Bear Lake Regional Park</td>
<td>30 Cedar Grove Conservation Area</td>
</tr>
<tr>
<td>17 Fish Lake Regional Park</td>
<td>31 Dishman Hills Cons. Area - North</td>
</tr>
<tr>
<td>18 Gateway Regional Park</td>
<td>32 Dishman Hills Cons. Area - South</td>
</tr>
<tr>
<td>19 Liberty Lake Regional Park</td>
<td>33 Edburg-Bass Conservation Area</td>
</tr>
<tr>
<td>20 Plante's Ferry Regional Park</td>
<td>34 Feryn Conservation Area</td>
</tr>
<tr>
<td>21 Dishman Hills Natural Area</td>
<td>35 Gateway Conservation Area</td>
</tr>
<tr>
<td>22 Haggin Natural Area</td>
<td>36 Hauser Lake Conservation Area</td>
</tr>
<tr>
<td>23 Little Spokane Natural Area</td>
<td>37 Haynes Estate Conservation Area</td>
</tr>
<tr>
<td>24 MacKenzie Natural Area</td>
<td>38 Holmberg Conservation Area</td>
</tr>
<tr>
<td>25 Morrow Park Natural Area</td>
<td>39 Liberty Lake Conservation Area</td>
</tr>
<tr>
<td>26 Newman Lake Natural Area</td>
<td>40 McKenzie Conservation Area</td>
</tr>
<tr>
<td>27 Willow Lake Natural Area</td>
<td>41 McLellan Conservation Area</td>
</tr>
<tr>
<td>28 Freddie's Natural Area</td>
<td>42 Mica Peak Conservation Area</td>
</tr>
<tr>
<td></td>
<td>43 Saltese Uplands Conservation Area</td>
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<tr>
<td></td>
<td>44 Slavin Family Conservation Area</td>
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<td></td>
<td>45 Trautman Conservation Area</td>
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<tr>
<td></td>
<td>46 Hangman Valley Golf Course</td>
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<tr>
<td></td>
<td>47 Liberty Lake Golf Course</td>
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<tr>
<td></td>
<td>48 Meadow Wood Golf Course</td>
</tr>
<tr>
<td></td>
<td>49 Spokane County ORV Park</td>
</tr>
<tr>
<td></td>
<td>50 Liberty Lake ORV Park</td>
</tr>
<tr>
<td></td>
<td>51 Spokane County Raceway</td>
</tr>
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</table>
Figure 11, Parks Within Spokane County
Spokane County remains primarily rural. While there are other transportation options serving the rural communities, it is not feasible or reasonable for STA bus routes to serve these rural communities. However, access to employment, education, and essential services within the cities is a main objective of STA. Transit plays an important role in increasing the number of people choosing to bicycle within unincorporated Spokane County as a source of transportation to access their daily needs. Bicycle infrastructure and the associated LTS to STA Park & Rides and to STA bus stops that are in unincorporated north and south Spokane County were examined with GIS analysis. While there may not be large numbers of bus stops or many Park & Rides in unincorporated Spokane County, they play a vital role to the overall health of the transportation system and the County’s economy. The following analysis and results help highlight areas that may or may not be well served by the existing County bicycle infrastructure.
In the south side of unincorporated Spokane County there are 19 bus stops and 17 of those are accessible by a 35 mph Class II bicycle facility. The two bus stops that are not on the Class II facility are classified as local access roads with a speed limit of 25 mph.
Results indicate that most of bus stops in unincorporated north Spokane County are accessible by 30 miles per hour Class II bicycle facilities. Figure 9 shows bicycle facilities that provide direct access to Hawthorn Road serving Whitworth University and Country Homes Boulevard is a Class II facility with a direct path to the Five Mile Park & Ride within the City of Spokane. The obvious gap in facilities is the north side Hastings Park & Ride. This could be considered especially problematic for bicyclist with the Park & Ride adjacent to US 395 and a 5 lane Urban Principal Arterial. The Aero and Westbow Park & Ride and the Moran Prairie are two STA transit facilities.
that may be good candidates for improved access by those using bicycles as transportation to bus stops.

**Census Designated Places**
Census Designated Places (CDPs) in Spokane County are places that have been identifies as significant within the County. CDPs are edge cities that people want to gather for commercial, educational, and other opportunity reasons but they are still considered unincorporated. Spokane County has seven significant CDPs. Two abut city limits and in turn make bicycle facilities a potentially important transportation option for residents. These are in north Spokane and the other is in east Spokane. The other significant CDP is on the West Plains of Spokane County. This is a significant CDP due to the amount of residential and commercial development taking place in these communities.

**Summary of Recommendations**

- **Project Priority** - Special consideration should be considered for projects that have already been scoped and are ready for grant application submittal in the 6-year TIP, community parks, commercial centers, schools, employment centers, and census blocks designated as overburdened, disadvantaged, or underserved. Additionally, roadway conditions need to be considered for all bicycle infrastructure projects including but not limited to federal functional classification, number of lanes, capacity, and speed.

- **Connectivity** - It is intended that meaningful connections between existing bicycle facilities and places of interest are made, ultimately correlating to the goals of this plan. Enhancing connections ensures that people will use multimodal transportation options. Annual Traffic Analysis Zone (TAZ) analysis may need to be done, with the help of SRTC, to re-evaluate changes in land use to see where connections may need to be made to support a connected bicycle network in Spokane County.

- **System Coverage** - Proposed improvements to the bicycle infrastructure system should improve access to population centers for both commuting and recreational purposes.

- **Multi-jurisdictional projects** - Projects that close gaps or connect to other jurisdictions to complete a larger multi-jurisdictional project. This is important because this creates access to bikeways that can be used for long uninterrupted rides to important destinations.

- **Safety Countermeasures** - Safety concerns will be evaluated using a context sensitive approach based on such traffic volumes, land use, transit, daily trips, and natural environment.

**IMPROVING MAJOR STREET CROSSINGS**
Biking on low volume neighborhood streets is usually a low stress activity but the experience can be adversely impacted when forced to cross a high-volume high-speed road. Some solutions that have been used to improve intersection crossings are protected intersections, bike boxes, traffic signalization, leading bike intervals (LBI) or curb extensions to improve the visibility and safety of bicyclists at heavily trafficked intersections.

**REDUCING OR PREVENTING SPEEDING**
It is widely accepted that the severity of an injury to a bicyclist in a collision is related to how fast a vehicle travel. Neighborhood are recommended for bicycle greenways because their posted speed limits are 25 MPH.

**PREVENTING HIGH CAR VOLUMES**
The volume of cars passing a cyclist on the street affects the comfort of a bicyclist, particularly if the travel lane is shared with motor vehicles. For example, a high-volume road has motorists passing a bicycle at least once a minute with the potential for many vehicles per minute. Data from Peter Furth and the Dutch guidelines suggest that sharing a road does not work well when the average daily trips on a road exceed 4,000. Roadways with higher traffic volumes should be considered for alternate side routes that parallel higher volume roads.

**INCREASING PAVEMENT QUALITY**
Many of the roads within Spokane County have mixed pavement quality because these types of road improvements rely heavily on grant funding. Spokane County's Public Works department strives for smooth and safe roads for all to travel but poor pavement quality such as cracks, potholes, and bumps can make bike riding uncomfortable. It is the intent that when roads get resurfaced that the adjacent bicycle facility will also get resurfaced if necessary.

As well as advancing projects that are at roughly 30% design, other project components that should be considered address connecting the active transportation system, improving safety, wayfinding, and pavement markings. These components help to create a desirable environment for all users of the roadway and reinforce appropriate behavior for all roadway users.

**Education**

When looking at the bicycle network, infrastructure is only part of the solution to making the county more bicycle friendly. It is important to address non-infrastructure elements to reduce the number of bicycle-vehicle conflicts and make bicycling safe for all roadway users. Developing safe bicycling habits, behaviors, and drivers being aware that the road must be shared with pedestrians and bicyclists is a critical element to increase the number of cyclists in the county and ensuring their safety on the county transportation system. An educational component is necessary to support the goal of safety and increasing the number of people choosing to bicycle. It may be beneficial for users of the road to be reminded of the following:

1-Sharing the road
Encourage respectful driving behavior and increase awareness of bicyclists as vulnerable users of the roadways. Bring understanding of the cyclist’s right to use the roadway and drivers are required by law to give bicyclists enough room to travel safely per RCW 46.61.110.
- If there are two or more lanes, drivers must move out of the right lane to pass a cyclist.
- If there is only one lane in each direction, drivers must slow down and give the cyclist at least three feet of space.
- If there is one lane in each direction, but not enough room to pass, the driver must move into oncoming traffic when safe to do so.

2- Bicycling is a fun and financially attractive alternative travel option
Bicycling is a fun, healthy, can reduce roadway congestion, and save money. Developing a safe and well-connected bicycle network will make Spokane an appealing place to live and may attract businesses to connected parts of the county.

3- Bicycling as a healthy choice
Bicycling is an excellent way for people of all ages to increase their physical activity and makes the county a better place to live. A connected bicycle network is one way to accomplish a healthier and greener Spokane County.

Recommendations for improving bicycle infrastructure segments are analyzed using a context sensitive approach, taking into consideration right-of-way limits, posted speeds, traffic volumes, truck and bus routes, adjacent land use, etc. Recommended facility improvements should not be considered proposed projects or final recommendations. County Planning and Engineering staff will study all proposed bicycle facility improvements and their locations in greater detail and consider context sensitive alternatives as funding and scheduled projects advance. New projects may be proposed to close gaps in the bicycle facilities or to create longer corridors. Final project implementation and scheduling will be determined by project prioritization and funding eligibility and at the final discretion of the County Engineer.
<table>
<thead>
<tr>
<th>Project or Road Name</th>
<th>Type of Improvement</th>
<th>Project Limits</th>
<th>Location In County</th>
<th>Partnerships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glenrose Path</td>
<td>10'-12' path</td>
<td>Palouse Highway/57th to Big Springs / Spokane City Limits</td>
<td>Southeast of COS</td>
<td>COS &amp; STA</td>
</tr>
<tr>
<td>Hatch Rd Phase 1</td>
<td>Add bike lanes, sidewalks, swales, and improve pedestrian crossings</td>
<td>Midway Ave to Urban Growth Area</td>
<td>North Spokane County</td>
<td>Spokane County Parks</td>
</tr>
<tr>
<td>Hatch Rd Phase 2</td>
<td>Add bike lanes, sidewalks, swales, and improve pedestrian crossings</td>
<td>Midway Ave to Urban Growth Area</td>
<td>North Spokane County</td>
<td>Spokane County Parks</td>
</tr>
<tr>
<td>32nd</td>
<td>Bicycle lane</td>
<td>Best Rd to Sullivan Rd 0.75 miles</td>
<td>Southeast of CoSV</td>
<td>CoSV</td>
</tr>
<tr>
<td>Government Way</td>
<td>10'-12' path</td>
<td>Connect path from Houston Rd to existing Government Way path 0.75 miles</td>
<td>West of COS</td>
<td>COS</td>
</tr>
<tr>
<td>Nevada Street</td>
<td>Complete sidewalk gaps and 10'-12' path on east side</td>
<td>US-2 to Hawthorne Rd</td>
<td>North of COS</td>
<td>COS, WSDOT</td>
</tr>
<tr>
<td>Argonne Gap</td>
<td>Planning study will determine project limits and extent of project implementation</td>
<td>TBD, Boulder Beach to Donkey Island. Possible connection to CoSV Loop project</td>
<td>North of City of Millwood</td>
<td>Millwood, CoSV, Friends of the Centennial Trail</td>
</tr>
<tr>
<td>Hastings Rd</td>
<td>Bicycle facility</td>
<td>Mill Rd to US 395 0.85 miles</td>
<td>North Spokane County</td>
<td>Neighborhood, local businesses, fire dept, Mead school dist.</td>
</tr>
<tr>
<td>Market St</td>
<td>Bicycle facility</td>
<td>Farwell Rd north to US 206 1.0 mile, Francis to SR206 (Phased?)</td>
<td>North Spokane County</td>
<td>WSDOT</td>
</tr>
<tr>
<td>Harvard Rd</td>
<td>10'-12' path</td>
<td>Wellesley Ave to Euclid Ave 1.0 mile</td>
<td>East, north of Liberty Lake</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Type</td>
<td>Description</td>
<td>Responsible Agency</td>
<td></td>
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<tr>
<td>Frederick Ave</td>
<td>Bicycle facility</td>
<td>Already being managed by COS/Parks?</td>
<td>East, north of Liberty Lake</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Spokane County Parks and COS</td>
<td></td>
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<tr>
<td>Colfax Rd</td>
<td>Neighborhood greenway</td>
<td>Hawthorne Rd to Westview Ave 0.35 miles</td>
<td>North Spokane County</td>
<td></td>
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<td></td>
<td></td>
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<td>COS, STA</td>
<td></td>
</tr>
<tr>
<td>First/Last Mile Connections</td>
<td>Various</td>
<td>0.5 to 1.0 miles</td>
<td>Systemic</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>STA</td>
<td></td>
</tr>
<tr>
<td>Sub-area plan</td>
<td>Various</td>
<td>Yet to be determined</td>
<td>Within the 5 sub-area</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Various</td>
<td></td>
</tr>
<tr>
<td>Homberg Park Bike Route</td>
<td>Bicycle facility</td>
<td>Through neighborhood then on to Wall St</td>
<td>North Spokane County</td>
<td></td>
</tr>
<tr>
<td>Aero Rd / Westbow Rd</td>
<td>Bicycle facility</td>
<td>Connect to PnR / Fill in gaps</td>
<td>West Spokane County</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>STA</td>
<td></td>
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<tr>
<td>Maringo Dr</td>
<td>Neighborhood greenway</td>
<td>Upriver Dr past Farr Rd</td>
<td>East Spokane County</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Friends of the Centennial Trail</td>
<td></td>
</tr>
<tr>
<td>Trolley Trail</td>
<td>10'-12' path</td>
<td>City of Spokane limits to Thorpe Rd</td>
<td>West Spokane County</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>COS</td>
<td></td>
</tr>
<tr>
<td>Palouse Highway</td>
<td>10'-12' path</td>
<td>Fill gap on Palouse Highway Shared Use Path (0.50 miles) &amp; connect to Moran Prairie PnR and 57th</td>
<td>South Spokane County</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>COS</td>
<td></td>
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<tr>
<td>Hayford Rd</td>
<td>Bike lanes or bike path</td>
<td>TBD</td>
<td>West Spokane County</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>CoAWH</td>
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<tr>
<td>Craig Rd</td>
<td>Bike lanes or bike path</td>
<td>TBD</td>
<td>West Spokane County</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>CoAWH</td>
<td></td>
</tr>
<tr>
<td>Graves Rd</td>
<td>Neighborhood greenway</td>
<td>Connect Greta bike path to Holmberg Park</td>
<td>North Spokane County</td>
<td></td>
</tr>
<tr>
<td>Yale Rd</td>
<td>Shared use path bridge study</td>
<td>Over BNSF Railroad</td>
<td>North Spokane County</td>
<td></td>
</tr>
<tr>
<td>Hawthorne Rd Path</td>
<td>Shared use path</td>
<td>COS limits to Nevada to Children of the Sun Trail</td>
<td>North Spokane County</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>COS, WSDOT</td>
<td></td>
</tr>
<tr>
<td>Day Mt Spokane Rd</td>
<td>Shared use path</td>
<td>Bruce Rd to Greenbluff</td>
<td>North Spokane County</td>
<td></td>
</tr>
<tr>
<td>Market St</td>
<td>Path or bike route</td>
<td>Children of the Sun Trail to SR 206</td>
<td>North Spokane County</td>
<td></td>
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<td></td>
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<td>WSDOT</td>
<td></td>
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<tr>
<td>Rhoades Ave</td>
<td>Greenway</td>
<td>Wall St to Normandie</td>
<td>North Spokane County</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>COS</td>
<td></td>
</tr>
<tr>
<td>Area</td>
<td>Type</td>
<td>Connections</td>
<td>Location</td>
<td>Responsible Parties</td>
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</tr>
<tr>
<td>Eagle Ridge</td>
<td>Path or bike route</td>
<td>Marshall Rd to Fish Lake Trail</td>
<td>West Spokane County</td>
<td>COS</td>
</tr>
<tr>
<td>Grove Rd</td>
<td>Bike lanes or bike path</td>
<td>Connect to I-90 Interchange</td>
<td>West Spokane County</td>
<td>COS, WSDOT</td>
</tr>
<tr>
<td>Glenrose Rd</td>
<td>Bike lanes or bike path</td>
<td>Addition of bicycle lanes and possible connections to other bicycle routes</td>
<td>Southwest Spokane County</td>
<td>COS, COSV</td>
</tr>
<tr>
<td>Price Rd</td>
<td>Bike land and sharrows</td>
<td>Division St to Weipert Dr</td>
<td>North Spokane County</td>
<td>COS, STA</td>
</tr>
<tr>
<td>Future West Plains Community County Park</td>
<td>TBD, potential for paths, sidewalks, and crossing treatments</td>
<td>TBD upon project completion</td>
<td>West Plains</td>
<td>Spokane County Parks</td>
</tr>
<tr>
<td>Little Spokane River Trails and Pathways Sub-Area Plan</td>
<td>Connections to paved paths, sidewalks, bicycle facilities, and additional developments upon area buildout</td>
<td>Within the area of the identified sub-area plan</td>
<td>North Spokane County</td>
<td></td>
</tr>
<tr>
<td>Greater Morgan Acres Sub-Area Plan</td>
<td>Connections to paved paths, sidewalks, bicycle facilities, and additional developments upon area buildout</td>
<td>Within the area of the identified sub-area plan</td>
<td>North Spokane County</td>
<td></td>
</tr>
<tr>
<td>Mead-Mt Spokane Sub-Area Plan</td>
<td>Connections to paved paths, sidewalks, bicycle facilities, and additional developments upon area buildout</td>
<td>Within the area of the identified sub-area plan</td>
<td>North Spokane County</td>
<td></td>
</tr>
<tr>
<td>Spokane County Regional Trails Sub-Area Plan</td>
<td>Connections to paved paths, sidewalks, bicycle facilities, and additional developments</td>
<td>Within the area of the identified sub-area plan</td>
<td>System wide</td>
<td></td>
</tr>
<tr>
<td><strong>Five Mile Prairie Pathways</strong></td>
<td>Connections to paved paths, sidewalks, bicycle facilities, and additional developments upon area buildout</td>
<td>Within the area of the identified sub-area plan</td>
<td>North Spokane County</td>
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<td></td>
</tr>
<tr>
<td><strong>Meadow Ridge Elementary</strong></td>
<td>Sidewalks, 20 MPH when flashing and improved crossing infrastructure</td>
<td>Day Mt. Spokane Rd from Myrtle Rd south to Freya St and terminating at Moody Rd</td>
<td>North Spokane County</td>
<td></td>
</tr>
<tr>
<td><strong>Melville Rd Park</strong></td>
<td>Sidewalks, crossings, path, and connectivity</td>
<td>Thomas Mallen Rd to Hayford Rd</td>
<td>West Spokane County</td>
<td>Spokane County Parks &amp; Area HOAs</td>
</tr>
</tbody>
</table>

Table 7, Proposed Active Transportation Projects

*City of Spokane (COS), City of Spokane Valley (COSV), City of Airway Heights (CoAWH), Spokane Transit Authority (STA), Park and Ride (PnR)
Chapter 9
PROJECT IMPLEMENTATION

Implementation of the Spokane County Bicycle Master Plan will be implemented and led by the Spokane County Public Works Department. This Plan will guide the county’s ongoing work and be updated every three to five years and in conjunction with other transportation related plan updates. The Public Works Department will coordinate the implementation and recommendations of this plan with all other transportation related documents for the most current information to best serve county residents. Each recommendation will be implemented in collaboration with the appropriate county departments, local, and state jurisdictions. Progress of the plan will be monitored and tracked to measures performance and allow for new and innovative approaches to complex active transportation related issues. Monitoring the Plan’s progress will be done by how many additional facilities are added, if connectivity is improved, health trends over time, and serious injury and fatality trends.

Since Spokane County operates on a constrained budget, bicycle facility projects may be combined with other transportation improvement projects such as preservation, safety, and corridor improvements rather than as standalone projects. Funding for the implementation will come from grant funding and county allocated funds when available. The county actively seeks grant opportunities to accelerate the implementation of projects and overall active transportation improvements throughout the jurisdiction.

The county will focus primarily on project scoping and on recommendations that have been identified as high priority for short term implementation and as funding allows. With limited funding, Spokane County must decide what projects to prioritize. Projects with minimal trade-offs and community support can typically be installed as part of a street repaving project. These projects are considered short range projects. Long range projects are projects that require a community outreach process, evaluation of highest-ranking alternatives, and require multi-agency coordination.
Priority projects are primarily safety improvement projects, but project implementation may also be given to projects that met two or more criteria in terms of safety, access, gap closure, and allow for low-cost solutions. The first step of the prioritization process identifies projects that would provide the greatest benefit to Spokane County residents and align with the various multi agency goals. Selection criteria included but may not be limited to:

Safety Improvement Projects
These projects improve bicycling safety on the arterials and collector roads, intersections with a known bicycle-vehicle collision history, and aim to provide parallel routes that provide alternatives to a roads and intersections with higher LTS ratings.

Destination Connectivity Projects
These projects provide direct bikeway connections to local destinations including schools, libraries, recreation centers, and major transit stations.

Gap Closure Projects
These projects strive to reduce and close gaps in the existing bike network.

Low-Cost Solution Projects
These projects align with pavement preservation projects that are simultaneously preserving bicycle infrastructure. Additional low-cost solutions to improve the bicycle network could include restriping bike lanes to help designate bicyclists as a priority on the transportation system and additional signage and wayfinding.

Short Range Projects Project Ideas

- Prioritizing collector streets and increase separation along busier streets, a bikeway networks that feels safer will increase bicycle use.

- Neighborhood greenways are local access streets with low motorized traffic volumes and speeds designated and designed to give bicyclists priority. Neighborhood greenways use signs, pavement markings, are designed for low speed and low volume to discourage cars from cutting through neighborhoods for a more comfortable bicycling experience. Neighborhood greenways are selected based on households adjacent to public institutions, commercial centers, and essential services. Currently, Spokane County has the great to Whitworth Bike Route as the one designated greenway.

- Filling in gaps in the bicycle infrastructure system to improve connectivity and expanding the designated space allotted for bicyclists could be examples of short-range projects.

Long Range Planning Project Ideas
Connecting large gaps in the bicycle network and connecting bicycle network infrastructure to adjacent cities within the county could be considered long range projects. Building connections to parks, aquatic centers, institutions, and essential services that are lacking connectivity could be considered long range projects.

Funding Strategies
Spokane County allocates between $500,000 and $600,000 annually for active transportation projects dependent upon the annual County budget. Project implementation of the bicycle network as well as any proposed active transportation projects relies on supplemental funding from local, state, and federal entities for projects. Grant funding for active transportation is typically a small fraction of available transportation funds and grants are often times extremely competitive and tend to be primarily allocated for urban projects. However, a variety of sources exist to help fund bicycle infrastructure projects, programs, and studies. Local, state, and federal funding sources that can be used for construction or maintenance of bicycle or pedestrian improvements, along with competitive grant programs are described here.

FUNDING SOURCES

Safe Routes to School- The purpose of the Safe Routes to School grant program is to improve safety and accessibility of travel to and from schools. Through safety improvements children are able and encouraged to walk and bike to school. Funding for this grant is for all schools age children (K-12) within two miles of all schools. This grant is administered through WSDOT and the federal government and on a two-year cycle.

Bike/Pedestrian Safety- This program has been active since 2005 and is administered through WSDOT. The goal of this grant program is to improve safety for those who choose to travel by means of walking and biking and improve the travel infrastructure that makes this kind of active transportation possible. This grant program is on a two-year cycle.

Connecting Washington Multimodal- This grant was passed into Washington State legislature in 2015 and is intended to last for 16 years. This is a large grant program that facilitates general funding for biking, pathways, rail, and transit.

Transportation Improvement Board Complete Streets Awards- This grant is awarded to local governments that have adopted a Complete Streets Ordinance and demonstrating that their planning and building practices are intended to accommodate all users of all ages and abilities. The grant is awarded on a two-year cycle but has been temporarily suspended as a result of the I-976 initiative.

Transportation Improvement Board Urban Arterial Program- This grant is awarded to arterials in urbanized areas in a two-year cycle and scored on safety, growth and development, physical condition of the arterial, mobility, sustainability, and constructability. Grant funding provides
.awardees the ability to improve both arterial roadways as well as improve pedestrian infrastructure for long term sustainable transportation options.

**Surface Transportation Block Grant (STBG)** - This grant is the most flexible of all the WSDOT grants that is distributed through SRTC due to the broad range of transportation related components that this grant can fund. This grant may apply to public roads, pedestrian and bicycle infrastructure, and transit.

**STBG Set Aside** - This is a Federal Highway Funds grant distributed by SRTC that specifically funds transportation alternatives and funding for bridges not located on Federal aid highways.

**CMAQ** - The CMAQ is a federal funding program administered to State and local governments for transportation related projects that help improve air quality and reduce traffic congestion.

**Private Sources** - There may be opportunity for private investment for active transportation.

**Maintenance**

Spokane County strives to keep the roadways safe, comfortable, and free of hazards and this is done in part by the County Maintenance division. Most county roads are swept and cleaned in spring to clean up the remnants of winter sand ensuring smooth pavement and the removal of debris and vegetation along the roadway. Bicycle facilities within the jurisdiction of Spokane County are included in the annual maintenance of county roads, as well as the maintenance of traffic control devices, striping, and signage that facilitate bike travel.

To ensure proactive maintenance of bikeways, as well as response to maintenance requests by residents. County residents can submit requests to the Public Works Department through the county website or reach out to the Spokane County Public Works Senior Project Manager to report issues that may affect bicycling or bicycle infrastructure. Reported issues will be circulated internally to the correct department for consideration or remediation.

Bicycle facility maintenance is addressed as part of planning and design process and through collaboration across Spokane County Public Works departments. Current efforts to ensure clean and clear bicycle infrastructure include but are not limited to:

- Maintenance needs are considered with the design of Spokane County bikeways to ensure proper maintenance after construction.
- Operational issues such as crossings, vehicular parking, and traffic operations are addressed during the design process to ensure that bike paths, intersections, and vehicular traffic can be properly maintained and operate safely.
- Planning efforts of bike lanes and shared roads are coordinated with Spokane County Pavement Management to ensure good pavement quality.

**Performance Measures**
Evaluating performance measures is the best way to determine whether the goal and the delivery of the project meet the expected outcomes. Performance measures are an important part of this plan and help to track Spokane County’s success and reprioritize goals if needed. They are directly related to the goals established in Chapter 1 and are used to monitor progress, optimize success, or redirect strategies as needed.

-Increase Bicycle Safety
Spokane County’s staff goes through an incident safety analysis regularly on the county road system. Crash data is provided by the Spokane County Sheriff’s Department to provide a high level of accuracy and reliability. Included in the crash data reports is information about the severity of bicyclist’s injuries resulting from the incidents on the county road system, time of day, details of the incident, and if there are fatalities. The purpose of tracking the number of bicycle-vehicle incidents is to understand where incidents are occurring, to understand trends in the severity of bicycle-vehicle crashes, and to predict where pedestrian generating land uses may cause accidents even if they are not currently occurring at a specific location for a systemic approach to eliminating crashes. Even though data shows Spokane County has low bicycle fatality rates and a declining bicycle-vehicle injury rate, the best way to measure safety success is to see no injuries or fatalities. The ultimate objective is to obtain the vision zero goal of reduce crashes and reach zero fatalities.

-Level of Traffic Stress
Decreasing the LTS is another way to improve the safety of bicyclist in Spokane County. The LTS of bicycle facilities can be lowered using many options including but not limited to:
Making sure that bike lanes are clearly marked;
Provide separation from vehicular traffic when feasible;
Reduce speed limits when possible;
Analyze busy intersections for improvements that make bicycling easier and improve connectivity and;
Provide adequate lighting as many incidents occur when vision is compromised.

-Connectivity
Well-connected bicycle infrastructure systems are a key component to get more people of all ages and abilities to bicycle more for transportation purposes and recreationally. Performance measures for connectivity can be measured with the number of bicycle lane gaps that get connected through transportation improvement projects and new bicycle lanes added to the network. These measurements are particularly important to desirable destinations like places of employment, schools, community/commercial centers, and neighborhoods.

-Livability, Health, & Equity
Performance measures for livability, health, and equity should address access to amenities such as parks, libraries, and important institutions to improve health and wellbeing. Other performance measures could include measuring safety, education, employment, and preventable chronic diseases within census blocks. This data may come predominantly from the Spokane Regional Health Department.
-Mode Choice
The goal of providing choice in transportation options benefits everyone. Increase biking for transportation reduces the number of vehicles on the road, reduces traffic congestion, and improves air quality. Benefits of choice can also be experienced by those that are limited to the number of vehicles in a household, those that are too young to drive, those that cannot afford to drive, and those that choose not to drive. An inadvertent consequence people may experience is an improvement to their physical and emotional health.

Despite long and cold winters in the Inland Northwest bicycling for transportation can be achieved when temperatures drop, and daylight hours are reduced. Other places that have comparable winters to Spokane County, or worse, with residents that cycle for transportation year-round include Calgary, Chicago, Madison, Minneapolis, Montreal, and Salt Lake City to name a few. Achieving the goal of improved transportation choices for county residents and increasing the number of people bicycling year-round is facilitated by decreasing the gaps in the bicycle transportation system, decreasing LTS when feasible, improving the safety of bicyclists through crash data analysis and implementing countermeasures, education of sharing the road for both cyclists and drivers, and reducing theft of bicycles.

Spokane County encourages public input on bicycle facility deficiencies, suggestions for improvements, safety concerns, what projects are being done that prove to be beneficial, and projects that improve the quality of life for those that bicycle in unincorporated Spokane County. Continual community discussion is critical to achieve the goals of this Plan and to ensure that the Plan keeps momentum. Spokane County will continue to monitor crash data and implement best practice countermeasures. Additionally, Spokane County will continue to evaluate implement bicycle infrastructure projects to better understand how improvements to county facilities impact and provide benefits. Information about new and improved bicycle facilities will be shared with the public on the Spokane County website and through social media channels.

Bike Share

Currently micro mobility in Spokane County is limited to the city boundaries. It may be worth considering if bike sharing and electric scooters could benefit county residents where city and county jurisdiction meet. Due to the rural nature of the county this obviously does not make sense in the more rural context. Micro mobility is an increasingly popular form of transportation in Spokane with approximately 300,000 trips made in 2019. This could be extended to within a half mile of the cities to accommodate the densely populated areas where the county interfaces with the cities, this would be particularly relevant in north Spokane County and on the South Hill just outside of the City of Spokane city limits. Where the county and the cities interface there is commercial, educational institutions, and residential developments that may benefit from added micro mobility. This may be a solution to the
critical first/last mile people have accessing transit. Just like all components of transportation micro mobility has its own barriers such as pricing, credit card requirements, access to a cell phone, and a lack of familiarity with how the system works. The trend shows bike sharing and electric scooters have increased over time and is here to stay.

Additional resources

1-C.O.P.S
Register your bike in case your bike gets stolen for quick recovery. [https://www.spokanecops.org/how-to-register-your-bicycle](https://www.spokanecops.org/how-to-register-your-bicycle)
Every year, C.O.P.S. volunteers register hundreds of bicycles throughout the city of Spokane.
- Volunteers take information on the bike; including size, gender, color and serial number.
- The owner of the bicycle will give their name, address and phone number so they can be contacted if their bike is found.
- A numbered sticker is placed on the bike that will identify the substation and the owner information.
- Some C.O.P.S. shops sponsor Bike Rodeos and Safety Fairs where the bikes get an inspection and tune-up.

2-Spokane Bike Swap and Expo
The bike swap is your region’s only biking and biking equipment event featuring hundreds of new and used bikes, offering something for everyone. Exhibitors sell new bicycles, accessories and promote their products and services including cycling events, health and wellness programs, recreational non-profits and more! The Spokane Bike Swap is a wonderful way to donate or consign bikes you have outgrown, don’t ride or want to upgrade. It also provides affordable bikes for those who cannot afford to purchase a new one.

3-Spokane Bicycle Club
The Spokane Bicycle Club is a recreational and social organization that promotes cycling for fun and health. They advocate for safe cycling through sponsoring and supporting cycle-positive events and activities as well as involvement in local, state, and national transportation legislation. They educate members on bicycle safety, local cycling routes, and cycling innovation. Socially the Spokane Bicycle Club organizes group rides accommodating riders of various skill levels with organized bicycle rides that cover a variety of terrains, distances, and organizing multi-day cycling tours. Additional social opportunities are provided through monthly meetings, bimonthly newsletter.
Appendix

Bicycle Survey

1-Where do you ride your bike? School, work, shopping, restaurants/coffee shops, parks/trails, library, bus stops, other?

2-Where do you wish you could ride your bike but do not?

3-What would make your biking experience better? Protected bike lanes, better lighting, better police enforcement, safer intersections, better signage and wayfinding, wider bike lanes, more separation from vehicles, other?

4-What barriers to biking to you encounter? Unconnected bicycle network, narrow roads, issues with vehicle separation, lack of bike lanes, lack of bike lanes with buffer, unsafe intersection, unpredictable drivers, poor road conditions, too much traffic, other?

5-Why do you bike? Recreational, primary mode of transportation/commuting, environmental reasons, to improve health, for fun?

6-How often do you bike? 0-1 day a week, 2-3, more than 4?

7-How long are your bike trips? 0-30 minutes, 30-1 hours, 1-2 hours, greater than 2 hours?

8-General areas of Spokane County you would like to see bicycle facility improvements made?

Real and Perceived Challenges (Rank top 3)

Aggressive Drivers
Bike theft
Getting hit by a car
Secure bike parking
Distance to destination
Lack of bicycle facility connectivity
Knowing the best route to take
Carrying needed items
Bike issues (flat tires)
Knowing how to get bike on STA bus/lifting bike
Time needed to get to destination
Knowing the rules on the road
Transporting kids
Owning a bike/bike that fits
Maintenance of bicycle facilities

References

Safety.fhwa.dot.gov

Evaluating the Connectivity of a Bicycling Network (northeastern.edu)

City of Spokane/ https://my.spokanecity.org/projects/wheelshare/

City of Spokane Valley Bike and Pedestrian Master Program - Spokane Valley, WA
https://spokanevalley.org/BPMP

Active Transportation Plan | WSDOT (wa.gov)
https://wsdot.wa.gov/construction-planning/statewide-plans/active-transportation-plan

Horizon 2040 | SRTC
https://www.srtc.org/horizon-2040

Helmet Laws | Spokane City and Spokane County
https://ccdlaw.com/safety/bicycle-helmet-law/

Spokane C.O.P.S. (spokanecops.org)

Guidance to Improve Pedestrian and Bicyclist Safety at Intersections, NCHRP, 2020

https://www.spokanecops.org/how-to-register-your-bicycle

https://www.spokanebikeswap.com/

State Electric Bicycle Laws | A Legislative Primer (ncsl.org)