



Spokane Plan Commission Transportation Subcommittee Agenda

Meeting Scheduled for 6/6/2023
At 9:00 AM
Hybrid: Virtual/ Briefing Room

VIRTUAL MEETING - SEE BELOW FOR INFORMATION

TIMES GIVEN ARE AN ESTIMATE AND ARE SUBJECT TO CHANGE

Public Comment Period:

3 minutes each Citizens are invited to address the Subcommittee on any topic not on the agenda

Briefing Session:

	1) Approval of the 5/2/2023 Meeting Minutes		
	2) Chair Report		Clifford Winger
9:00 - 9:30	3) Secretary Report		Colin Quinn-Hurst
	4) Council Liaison Report		Jonathan Bingle
	5) Stakeholder Report		PCTS

Workshops:

9:30 - 10:00	Safe Streets and Roads for All – 2023 Grant Application	Inga Note
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Adjournment:

Next Plan Commission Transportation Subcommittee is **cancelled** for the 7/4/2023 Independence Day Holiday.

The password for City of Spokane Guest Wireless access has been changed:

Username: COS Guest
Password: K8vCr44y

AMERICANS WITH DISABILITIES ACT (ADA) INFORMATION: The City of Spokane is committed to providing equal access to its facilities, programs and services for persons with disabilities. The Council Briefing Center in the lower level of Spokane City Hall, 808 W. Spokane Falls Blvd., is wheelchair accessible and also is equipped with an infrared assistive listening system for persons with hearing loss. Headsets may be checked out (upon presentation of picture I.D.) through the meeting organizer. Individuals requesting reasonable accommodations or further information may call, write, or email Human Resources at 509.625.6363, 808 W. Spokane Falls Blvd, Spokane, WA, 99201; or msteinolfson@spokanecity.org. Persons who are deaf or hard of hearing may contact Human Resources through the Washington Relay Service at 7-1-1. Please contact us forty-eight (48) hours before the meeting date.

Meeting Information

When it's time, join the Webex meeting here.

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<https://spokanecity.webex.com/spokanecity/j.php?MTID=m84f61f19b34e1abedeff3a272d55ffed>

Join by meeting number

Meeting number (access code): 146 852 8754

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Special Meeting Spokane Plan Commission Transportation Sub-Committee - Draft Minutes

May 2, 2023

City Council Briefing Center

Meeting Minutes: Meeting called to order at 9:00 AM by Clifford Winger

Attendance:

- Subcommittee Members Present: Clifford Winger (Chair), Charles Hansen, Paul Kropp, Raychel Callary, Eve McMenemy, Charlene Kay, Mike Tresidder, Samantha Hennessy, Jennifer Soto
- Subcommittee Members Not Present: Mary Winkes (Vice Chair), Michelle Pappas, Kris Neely
- Non-Voting Subcommittee Members Not Present: Council Member Jonathan Bingle
- *Quorum Present: yes*
- Staff Members Present: Colin Quinn-Hurst, Jackie Churchill, Tyler Kimbrell, Inga Note

Public Comment:

None

Briefing Session:

Minutes from the April 4, 2023 meeting approved unanimously.

1. Chair Report - Clifford Winger

- Clifford Winger reported that the California Resource Board banned diesel trucks in 2036. He also brought to attention an article in Inlander that was about pedestrian and bicycle crashes. The next PCTS meeting may be rescheduled to later in June.

2. Secretary Report - Colin Quinn-Hurst

- Colin Quinn-Hurst reported that there will be a webinar about Safe Streets for All implementation grant at 10:30 today. He placed the link to the webinar in the meeting chat. Additionally, there is a survey from the WA Traffic Safety Commission and the link is in the chat.
- Colin Quinn-Hurst reported that the next Bicycle Advisory Board will be a special mobile meeting.
- May is Bike Everywhere month and there will be various events to encourage bicycling.
- There will be a preview of new American Association of State Highway and Transportation Officials (AASHTO) Guide to the Development of Bicycle Facilities on May 23rd.

3. Council Liaison Report - Johnathan Bingle

- none

4. Stakeholders Report -

- Paul Kropp, Neighborhood Alliance - none
- Rachel Callary, Citizen-at-Large - none
- Mike Tresidder, Spokane Transit Authority (STA)- reported that CityLine amenity installations are continuing.
- Charlene Kay Washington State Department of Transportation (WSDOT) - gave a status update on North Spokane Corridor and reported that the public survey received over

500 responses on 2 primary alternatives. WSDOT is also reengaging neighborhoods on Children of the Sun trail around North Spokane Corridor.

- Charles Hansen, Whitman Neighborhood Council, PeTT Committee - none
- Eve McMenemy Spokane Regional Transportation Council (SRTC) reported that there will be a board meeting next week and WSDOT will present on the North Spokane Corridor.
- Samantha Hennessy, Spokane Regional Health District- reported that the AASHTO guide to the Development of Bicycle Facilities will be held online on May 23rd from 12-1 pm.

Workshops/Presentations:

1. Safe Streets for All Grant 2023 Grant Application

- Presentation provided by Inga Note
- Questions asked and answered
- Discussion ensued

Meeting Adjourned at 10:00 AM

Next Plan Commission Meeting scheduled for Tuesday, June 6, 2023

Risk Based Safety Assessment & SS4A Action Plan

Date: June 2023
Crash Data Time Period: 2017-2021
Developed using the FHWA Systemic Safety Project Selection Tool

Prepared by:
Integrated Capital Management
Planning Services



Contents

Vision Zero Resolution 1

Introduction 2

Terminology 2

Assessment of Existing Plans, Policies, Guidelines 2

Systemic Safety Project Selection 3

 Methodology 3

 Step 1: Classify Crashes by Type and Assigning Priorities 3

 Step 2. Identifying Roadway Characteristics 4

 Step 3. Identify Priority Locations 7

 Census Tracts Identified as Underserved or Disadvantaged 7

 Priority Study Area..... 10

 Step 4: Select Countermeasures..... 14

 Step 5: Recommended Projects and Strategies 14

Public Engagement 16

 Action Plan Committee Meetings..... 16

 Downtown Plan Public Workshops 16

 Outreach for City Ordinances 16

Needed Policies, Plans, Guidelines, Standards 17

Measuring Progress 17

Vision Zero Resolution

RESOLUTION NO. 2022-0107

IN SUPPORT OF A GOAL TO ELIMINATE FATALITIES AND SEVERE INJURIES ON CITY STREETS

A resolution committing to a goal to achieve zero traffic fatalities and severe injuries among all road users (including people walking, biking, using transit, and driving).

WHEREAS, the City of Spokane's Comprehensive Plan (2019), Spokane Downtown Plan (2021), Bicycle Plan (2017) and Pedestrian Plan (2015) all seek to reduce serious or fatal pedestrian and bicycle injuries; and

WHEREAS, as stated in Spokane City Bicycle Master Plan Policy BMP 2: Complete and maintain connected bikeways that provide safe transportation for Spokane cyclists throughout the City, BMP 4: Enhance the safety of people riding bicycles through detailed crash analysis, BMP 5: Develop a collaborative program between a variety of city departments and agencies and outside organizations to implement the Bike Master Plan through capital project delivery as well as community planning processes; and

WHEREAS, Vision Zero is a holistic strategy aimed at eliminating all traffic fatalities and severe injuries suffered by all road users in Spokane while increasing safe, healthy, and equitable mobility for all;

WHEREAS, similar efforts are founded on a Safe Systems approach that recognizes humans will make mistakes and roadway systems and policies should be designed to protect them; and

NOW THEREFORE, BE IT RESOLVED that the Spokane City Council adopts a goal to eliminate traffic deaths and severe injuries within the set timeframe of 2042, and adopts the analysis provided by the City's Local Road Safety Risk-Based Analysis as the City's Safety Action Plan.

Adopted by the City Council this 12th day of December, 2022.

Yvonne M. ...

City Clerk

Approved as to form:

Michael J. Piccolo

Assistant City Attorney



Introduction

The City of Spokane is committed to reducing fatal and serious injury crashes within its transportation network. Target Zero: Washington State Strategic Highway Safety Plan provides a data-driven approach to achieving this goal through established priorities and strategies, including guidance on using the Federal Highway Administration's (FHWA) *Systemic Safety Project Selection Tool*. Following the methodology in the *Target Zero* plan guides the City toward reducing fatalities and serious injury crashes through a proven approach.

Using the recommended, standardized methods of data analysis allows the City to efficiently direct resources towards efforts that create the greatest reduction of the most severe crash types. Using Washington State Department of Transportation's (WSDOT) crash data allows the City to efficiently sort crash types and locations, identify trends, select the most effective treatments, and undertake a logical approach to addressing the most critical locations and behaviors in the transportation network. By identifying priorities, creating common goals, developing a common language, and offering a menu of solutions, the Plan helps identify the unique risks in our community and the most effective strategies for addressing them.

Terminology

High Injury Network: Analyzing up-to-date local crash data allowed identification of street characteristics most frequently associated with severe or serious-injury crashes. Streets with these characteristics represent Spokane's High Injury Network, shown on Map 3.

Priority Study Area: Based on the results of the crash data assessment, the downtown area and adjacent census tracts emerged as an area with a high concentration of streets on the High Injury Network. With recent public involvement and street safety improvement concepts developed for this area through the Downtown Master Plan and other parallel planning processes, this area was well-situated for safety project implementation and was identified as the Priority Study Area shown on Map 4.

Risk Based Safety Assessment: The City previously completed a Risk Based Safety Assessment to serve as a Local Road Safety Plan under WSDOT's City Safety Program. This assessment was updated with 2017-2021 data to serve as the basis for the City's SS4A Action Plan.

Assessment of Existing Plans, Policies, Guidelines

Over the past two decades Spokane has adopted several ordinances, policies and guidelines to improve safety.

SMC 17H.020 Complete Streets Program: Adopted in 2011. This section focuses on providing better facilities for non-motorized and transit users throughout the city.

SMC 17H.010.210 Crosswalks: Adopted in 2014. This section establishes typical locations for marked crosswalks by zoning and adjacent land use (parks, schools, trail crossings, etc.) without the need to conduct a detailed engineering evaluation first.

SMC 17H.010.215 Regional Trail Crossings: Adopted in 2014. This section requires that raised

crosswalks be installed for regional trail crossings. In addition, traffic control shall require street traffic to stop for the trail, if deemed appropriate by an engineering study.

SMC 16A.84 Pedestrian Safety: Adopted in 2019. This section recommended implementation of pedestrian recall on downtown signals during the daytime hours. Leading pedestrian intervals are strongly encouraged at downtown signals and those near schools, childcare centers, hospitals, and any others with higher levels of pedestrian traffic. This

section sets a goal to deploy Accessible Pedestrian Signals at all signalized intersections.

SMC 17H.010 Street Development Standards:

Updated in 2020. Along with updates to the City’s Design Standards, staff updates several sections of code to allow narrower residential streets, wider sidewalks and buffers, narrower arterial lane widths, two ADA ramps per corner, and many other adjustments.

SMC 16A.64 Automated Traffic Camera Systems:

Adopted in 2008. The City adopted code allowing Red Light cameras and School Zone Speedy cameras to reduce speeding and red lighting running. Proceeds from the fines are put into the City’s Neighborhood Traffic Calming Program.

Pedestrian Master Plan: Adopted in 2015. This plan prioritizes certain areas of the City for sidewalk investment based on population density and surround land uses.

Bicycle Master Plan: Updated in 2022. Staff regularly updates the Bicycle Master Plan to reflect

the needs and priorities for future bicycle facilities in the City.

Downtown Plan Goal – Connected and Walkable:

Updated in 2021. Energize streets as active pedestrian and bike-friendly connections. Capitalize on the City Line and support the transit network by improving access to it.

Comprehensive Plan Goal F – Enhance Public Health and Safety:

Updated in 2017. Promote healthy communities in Spokane by providing and maintaining a safe transportation system with viable active mode options that provides for the needs of all travelers, particularly the most vulnerable users.

Comprehensive Plan Policy TR1 – Transportation

Network for All Users: Updated in 2017. Design the transportation system to provide a complete network for all users, maximizing innovation, access, choice and options through the four seasons. All streets must meet mandated accessibility standards.

Systemic Safety Project Selection

Methodology

Data for this analysis runs from January 1, 2017, through December 31, 2021, with data derived from accident reports provided by the Washington State Patrol.

This analysis seeks to identify trends in fatal and serious crashes and then propose solutions. In achieving this goal, the analysis follows five steps:

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>I. Classify fatal and serious crashes by crash type, and assign priority levels to each type,</p> <p>II. Identify roadway characteristics associated with high priority crash types,</p> | <p>III. Identify locations within the City transportation network that have these characteristics,</p> <p>IV. Identify treatments for these locations, and</p> <p>V. Prioritize projects.</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Step 1: Classify Crashes by Type and Assigning Priorities

In this step, WSDOT-provided data was sorted by crash type. Each crash type was then assigned a priority level, based on examples and approaches recommended in *Target Zero*. Based on this guidance, the selected priority levels are as follows:

- **Priority Level 1:** Contributing factors involved in 30% or more of fatal or serious injury crashes.
- **Priority Level 2:** Contributing factors involved in 10% to 30% of fatality or serious injury crashes.

- **Priority Level 3:** Contributing factors involved in all other fatality or serious injury crashes.

Table 1 quantifies the City’s crash types and compared to the same accident types in Washington State overall and indicate priority levels for each crash type. Priority 1 and 2 crash types have been highlighted.

The most prominent collision pattern is the “Vulnerable User Involved” at 39.7% of all Fatal/Serious crashes within the City of Spokane. This collision pattern has been selected as the focus of the analysis and project list for this round.

Table 1 Analysis of City Crash data 2017-2021

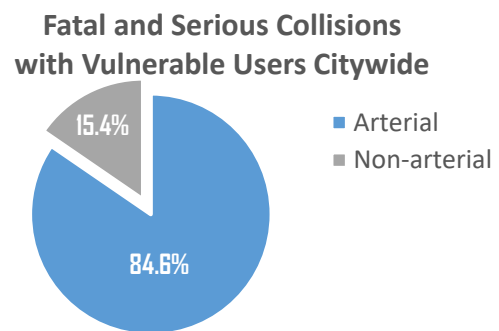
Overall Numbers	Fatal/Serious Crashes				All Injuries				Target Zero Priority Level
	City of Spokane		City-Owned Streets Statewide		City of Spokane		City-Owned Streets Statewide		
Total # of Collisions	443	-	4,520	-	18,301	-	223,502	-	
<i>By Collision Type</i>									
Vulnerable User Hit (Ped and Bike)	176	39.7%	1,699	37.5%	929	5.1%	10,745	4.8%	1
Hit Pedestrian	138	31.1%	1,273	28.2%	628	3.4%	6,543	2.9%	2
All Angle (T,left,right)	100	22.6%	700	15.5%	5,638	30.8%	61,111	27.3%	2
Hit Fixed Object	64	14.4%	799	14.7%	2,299	12.6%	27,287	12.2%	2
Hit Cyclist	38	8.6%	426	9.4%	301	1.6%	4,202	1.9%	2
Rearend	17	3.8%	181	4.0%	3,586	19.6%	44,767	20.0%	3

Step 2. Identifying Roadway Characteristics

Staff analyzed the fatal/serious crash patterns for vulnerable users to home in on common roadway characteristics. Appendix A includes the detailed analysis, which shows that 85% of fatal and serious crashes involving vulnerable users occurs on Spokane’s arterial street system.

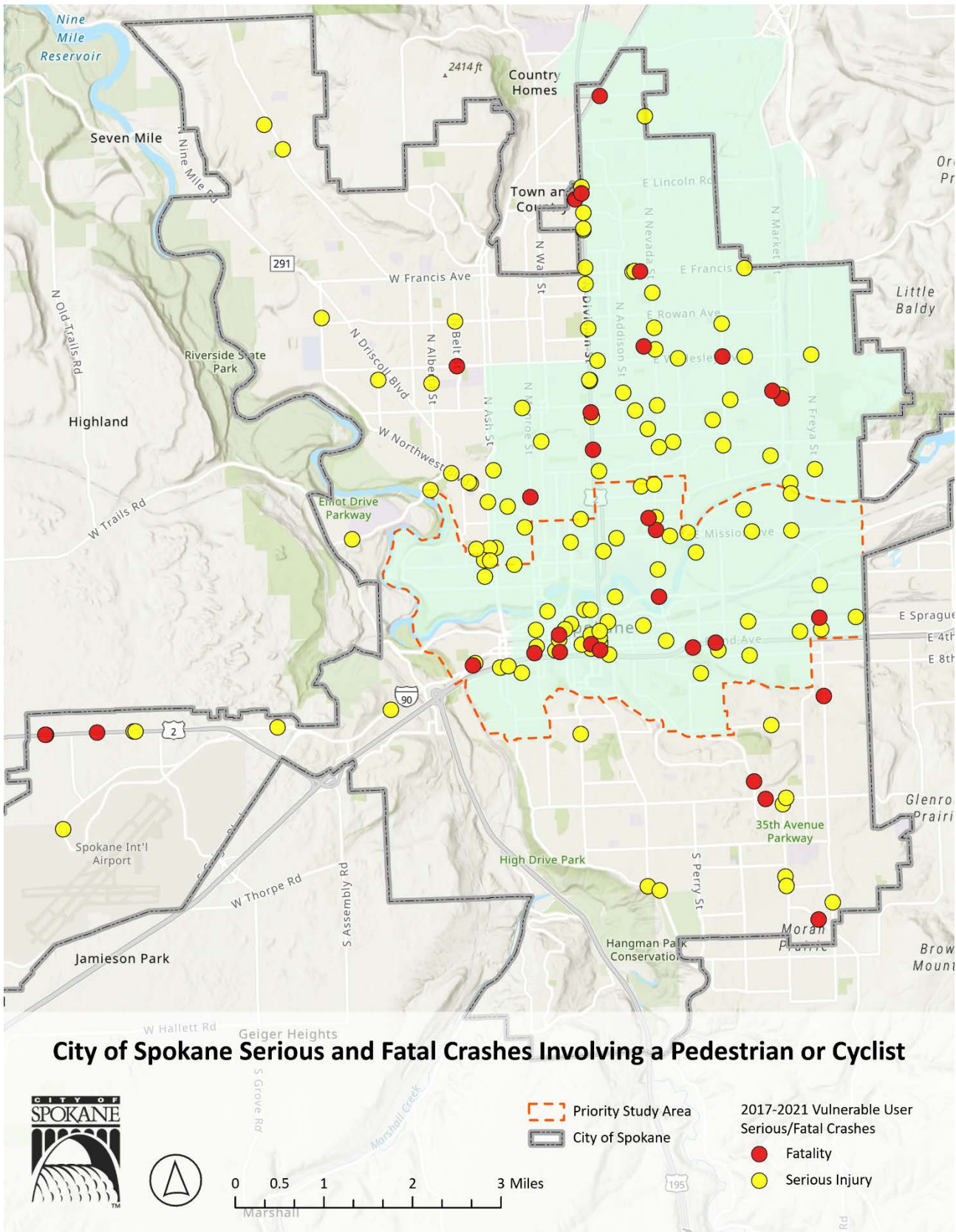
Contributing factors for Fatal and Serious Collisions with Vulnerable Users citywide can be drawn from the additional analysis in Appendix A and are summarized as follows:

- 23% of these collisions occurred at arterial traffic signals.
- 58% of these collisions occurred at arterial intersections (all types of control).
- 40% of bicycle-specific collisions occurred on arterial roadway segments

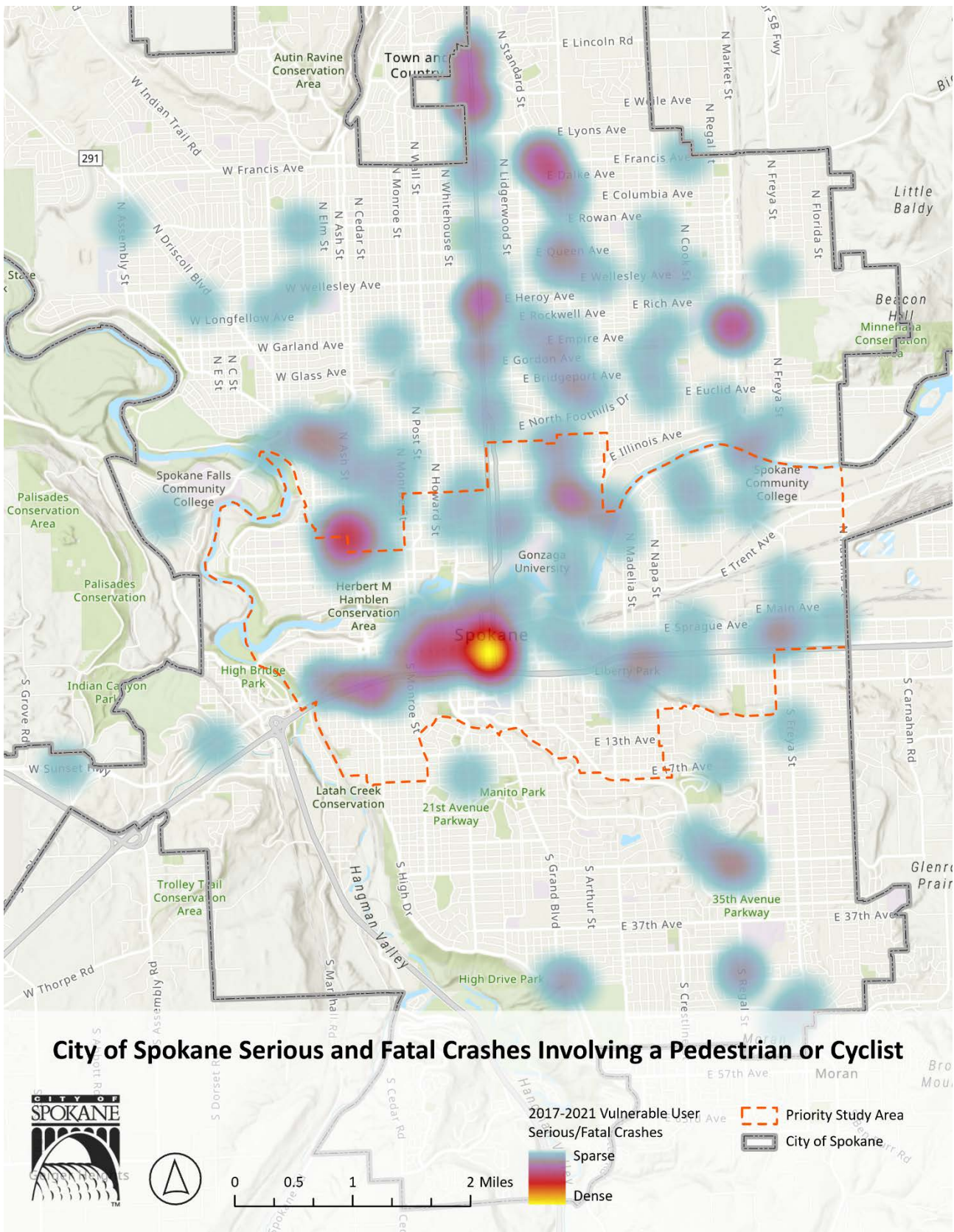


A closer look at the arterials and crash locations indicates that 241.67 specific miles of arterial stand out as a High-Injury Street Network for the city. This High Injury Network includes Major & Minor Arterials, Highways, and all streets within the Downtown Plan Boundaries (see Map 3).

Map 1 Vulnerable User (Ped & Bike) Serious and Fatal Crashes



Map 2 Vulnerable User Crash Heat Map



Step 3. Identify Priority Locations

Census Tracts Identified as Underserved or Disadvantaged

For purposes of this study the City is identifying disadvantaged communities using the [2023 Climate and Economic Justice Screening Tool](#). This tool identifies almost all the downtown core, surrounding areas and much of north Spokane as areas considered disadvantaged (see Map 3). According to the 2020 census tract data 127,255 people reside in disadvantaged community tracts. Spokane has a total population of 219,185¹ meaning that approximately 58% of residents reside in a disadvantaged community tract. Within these disadvantaged community tracts 126 of 162 (78%) vulnerable user fatal and serious crashes occurred. Total area of the disadvantaged community tracts is 39.4 square miles and total area of the City of Spokane is 69.5 square miles.

Total high risk road network² miles is 241.67 and within the disadvantaged community tracts total high risk road network miles is 135.65, or 56% of total high risk road network miles (see Map 3).

Causal factors specific vulnerable user collisions in the Disadvantaged Community census tracts include:

- 58% at intersection and related
- 68% had no traffic control device, indicating a mid-block or uncontrolled intersection
- 25% at signalized intersections
- Travelling in the dark

Data-driven safety enhancements for these neighborhoods may include: sidewalk infill on arterial streets, narrowing or removing vehicular travel lanes, installing bike lanes, shortened crossing distances, refuge islands, pedestrian hybrid beacons, crosswalk lighting and ADA ramps to ensure everyone can access the sidewalk.

¹ American Community Survey (2023). S0101 AGE AND SEX 2020: ACS 5-Year Estimates Subject Tables. Retrieved from <https://data.census.gov/>

² High risk road network includes major arterials, minor arterials, collectors, freeways, and highways. Also includes all streets and roads in the Downtown Plan Boundaries.

Map 3 City of Spokane High Injury Network & Disadvantaged Community Tracts

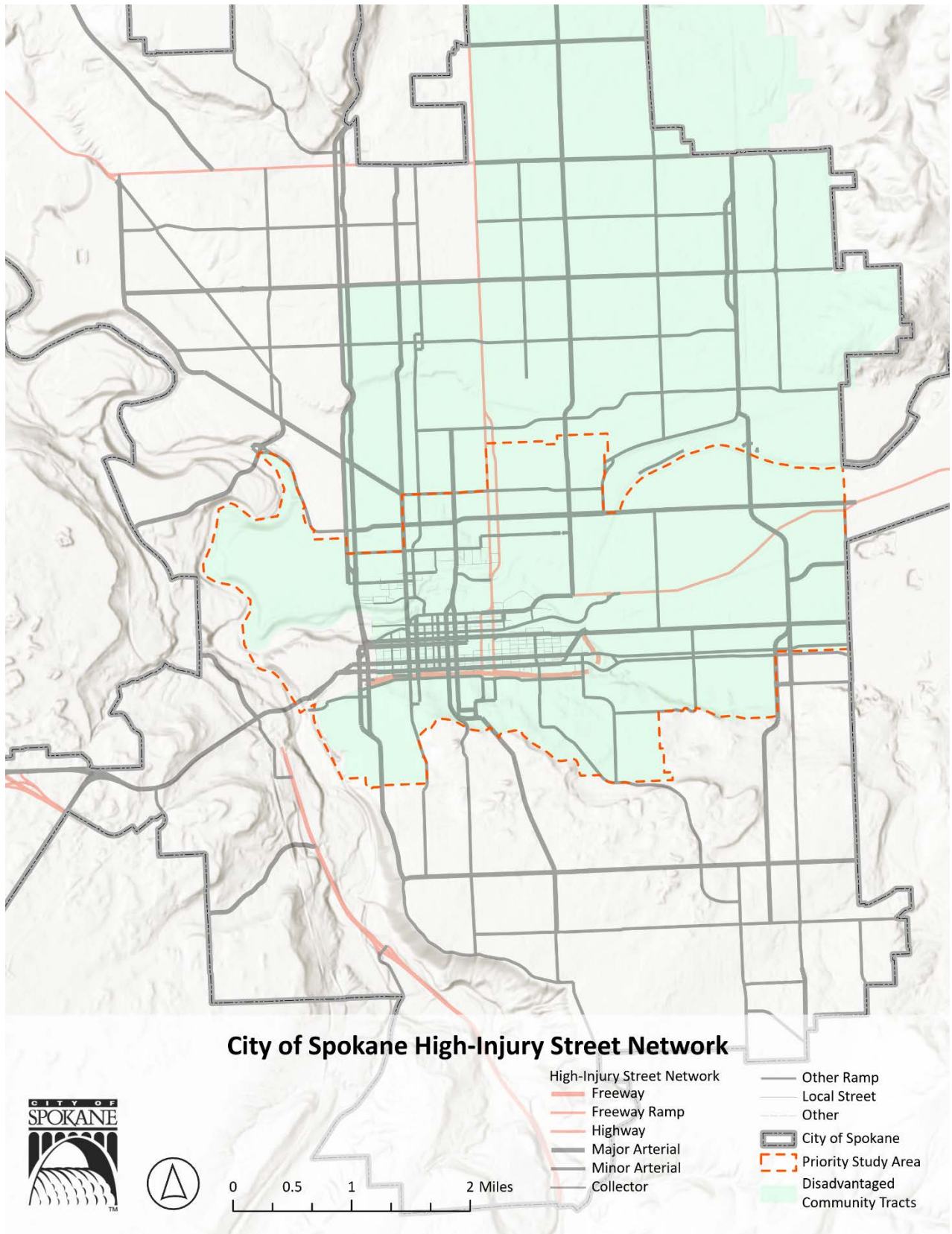


Table 2 Contributing Factors to Fatal and Serious Crashes with Vulnerable Users, within Disadvantaged Community Tracts

Contributing Factors	# of Severe and Fatal Injuries	% of Total Serious and Fatal Injuries (n=126)
Light Conditions		
Dark	62	49.21%
Daylight	58	46.03%
Dusk/Dawn	6	4.76%
Posted Speed		
20	2	1.59%
25	15	11.90%
30	53	42.06%
35	10	7.94%
45	1	0.79%
60	1	0.79%
<Null>	44	34.92%
Vehicle Action		
Backing	4	3.17%
Changing Lanes	2	1.59%
Going Straight Ahead	85	67.46%
Making Left Turn	18	14.29%
Making Right Turn	8	6.35%
Making U-Turn	1	0.79%
Other	3	2.38%
Starting From Parked Position	3	2.38%
Starting in Traffic Lane	2	1.59%
Junction Relationship		
At Driveway	4	3.17%
At Intersection and Not Related	4	3.17%
At Intersection and Related	74	58.73%
Exiting Roundabout	1	0.79%
Intersection Related but Not at Intersection	3	2.38%
Not at Intersection and Not Related	40	31.75%
Traffic Control		
No Traffic Control	86	68.25%
Other Traffic Control	1	0.79%
Signals	32	25.40%
Stop Sign	7	5.56%
Road Classification		
Alley	1	0.79%
Collector	6	4.76%
Freeway	3	2.38%
Highway	29	23.02%
Local	19	15.08%
Major Arterial	48	38.10%
Minor Arterial	20	15.87%

Priority Study Area

The Priority Study Area as identified in Map 4 contains 68 of the 162 vulnerable user fatal and serious injury crashes. This subsection of the total high injury network is 12 square miles of vital core for pedestrian and pedacyclist traffic. According to the 2020 census tract data, the study area has a population of 50,708 with 45,249 (89.23%) residents living within census tracts considered disadvantaged. Table 3 identifies all crashes and some of the causal factors within the Priority Study Area boundaries.

89% of the 50,000 residents in the Priority Study Area are considered disadvantaged.

Included in the Priority Study Area is the [Downtown Planning area](#).

The Downtown Planning Area has the highest rate of serious and fatal collisions for vulnerable users (bicyclists and pedestrians). Of the 162 serious and fatal collisions across the city 28, or 17.2%, of those crashes occurred in the Downtown Planning Area while only account for 1.66 square miles of the 69.52 square miles, or 2.4%, of the land within City boundaries.

Causal factors specific to the Priority Study Area include:

- Lack of a traffic control device
- Speeding
- Turning at signalized intersections
- Travelling in the dark

In the Priority Study Area these types of collisions can be prevented through data-driven safety enhancements such as: leading pedestrian intervals, signal phasing improvements, lane reductions, protected bike lanes, shortened crossing distances, removing vehicular travel lanes, crosswalk lighting and ADA ramps to ensure everyone can access the sidewalk.

The Priority Study Area meets a significant number of criteria for being classified as being disadvantaged according to the [Climate and Economic Justice Screening Tool](#). Some of the criteria for this area being considered disadvantaged include:

- **Low income:** People in households where income is less than or equal to twice the federal poverty level, not including students enrolled in higher ed. Most of the tracts within the study area exceed the 65th percentile.
-

Why is the Downtown area (primarily located in tract 35, see Map 5) considered disadvantaged?

- **95th Percentile** in “Low Income: People in households where income is less than or equal to twice the federal poverty level, not include students enrolled in higher ed.”
- **91st percentile** in “Asthma: Share of people who have been told they have asthma.”
- **96th percentile** in “Heart disease: Share of people ages 18 ears and older who have been told they have heart disease.”
- **96th percentile** in “Low life expectancy: Average number of years a person can expect to live.”
- **91st percentile** in “Lack of green space: Amount of land, not including crop land, that is covered with artificial materials like concrete or pavement.”
- **97th percentile** in “Traffic proximity and volume: Count of vehicles at major roads within 500 meters.”

- **96th percentile** in “Underground storage tanks and releases: Formula of the density of leaking underground storage tanks and number of all active underground storage tanks within 1500 feet of the census tract boundaries.”
- **99th percentile** in “Low median income: Comparison of median income in the tract to median incomes in the area.”
- **97th percentile** in “Poverty: Share of people in household where income is at or below 100% of federal poverty level.” Though Downtown has been identified as a disadvantaged census tract, as highlighted above, [The Downtown Plan](#) recognizes that Spokane’s Downtown is the hub of the region’s economic viability and stability and is also the center of the region’s cultural and art scene attracting diverse populations. The Downtown neighborhood has one of the overall lowest populations in the City but is representative of the diversity in Spokane being 16% non-white and is generally younger than Spokane’s overall population at 82% under 62 years of age.

To implement the five goals of the Downtown Plan (below) that were refined through community and stakeholder input, the plan has 15 priority actions that utilize a framework to implement improvements oriented towards increasing equitable access to services and amenities. These priority actions include the conversion of over-built low traffic streets to include bicycle and pedestrian infrastructure, activating pedestrian zones, decreasing land dedicated to vehicle storage, and implementing transportation demand management strategies.

Five goals of the Downtown Plan

- *A connected and walkable Downtown;*
- *Thriving arts, culture and historic places*
- *A great place to live, work and play;*
- *Welcoming and engaging public spaces for all; and*
- *A well-organized Downtown.*

There were seven key findings from the Downtown Plan, four of these findings were related to transportation and equity issues, they are:

- I. Many streets in Downtown are auto dominated and oversized for vehicle capacity: Opportunities exist to energize streets by expanding space for pedestrians, cyclists, and other forms of micro-mobility.
- II. Community members desire continued progress on two significant issues facing Downtown: providing services and solutions for those experiencing homelessness, followed by improved public safety. People consistently expressed concern for public safety.
- III. Activity centers are disconnected: While areas of Downtown have successful concentrations of activity, they are disconnected both physically and visually from the core of Downtown. Enhancing connections through street and mobility improvements, wayfinding, and infill development will help connect the City and the man amenities in Downtown.
- IV. Entries and connections into Downtown should feel safe, welcoming, and distinct: Major streets that are entrances to and exits from Downtown merit improvements as city-defining gateways. Other natural gateways like undercrossings can help offer a better experience and image of Downtown.

Map 4 Priority Study Area boundaries

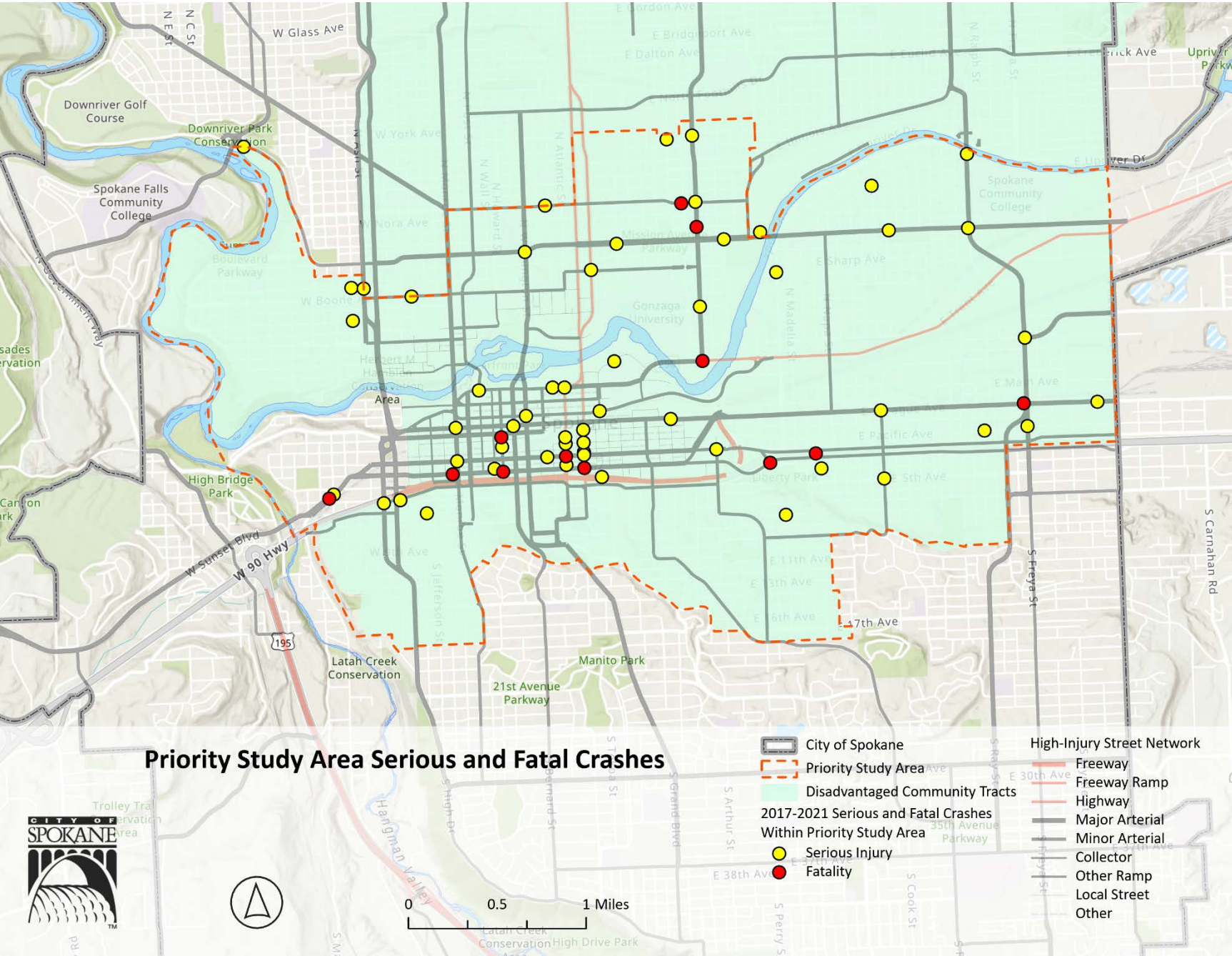


Table 3 Priority Study Area Boundary Crashes with a Vulnerable User

Contributing Factors	# of Severe and Fatal Injuries	% of Total Serious and Fatal Injuries (n=68)
Light Conditions		
Dark	34	50.00%
Daylight	32	47.06%
Dusk/Dawn	2	2.94%
Posted Speed		
25	7	10.29%
30	20	29.41%
35	2	2.94%
60	2	2.94%
<Null>	37	54.41%
Vehicle Action		
Backing	4	5.88%
Changing Lanes	2	2.94%
Going Straight Ahead	42	61.76%
Making Left Turn	12	17.65%
Making Right Turn	3	4.41%
Making U-Turn	1	1.47%
Other	2	2.94%
Starting	2	2.94%
Junction Relationship		
At Driveway	1	1.47%
At Intersection and Not Related	5	7.35%
At Intersection and Related	35	51.47%
Not at Intersection and Not Related	27	39.71%
Traffic Control		
No Traffic Control	45	66.18%
Signals	20	29.41%
Stop Sign	3	4.41%
Road Classification		
Collector	3	4.41%
Freeway	3	4.41%
Highway	13	19.12%
Local	11	16.18%
Major Arterial	26	38.24%
Minor Arterial	12	17.65%

Step 4: Select Countermeasures

Following identification of locations, effective countermeasures are identified for each crash type as shown in Table 4. Countermeasures are evaluated through FHWA's Crash Modification Factors (CMF) clearinghouse. The CMF clearinghouse contains safety countermeasures and scores its effectiveness at reducing crashes. The CMF rating estimates the reduced frequency of crashes following the installation of the countermeasure. For example, if the CMF is 0.70, the amount of crashes would be expected to be 70% of the existing number of crashes.

Table 4 CMF's for Fatal/Serious crashes with Vulnerable User

CMF	ID #	Countermeasure	Crash Type	Severity
0.75	#9017	Install advanced yield or stop markings and signs	Veh-Ped	All
0.60	#4123	Install high-visibility crosswalk markings	Veh-Ped	All
0.54	#175	Add raised median with marked crosswalk	Veh-Ped	All
0.61	#176	Add raised median without marked crosswalk	Veh-Ped	All
0.29	*	Install raised median	All	All
0.41	#441	Provide intersection illumination	Veh-Ped	S, M
0.5 (?)	-	Add curb extensions (estimated CMF)	all	all
0.53	#9024	Install RRFB	Veh-Ped	All
0.43	#9021	Install PHB with advanced yield or stop markings	Veh-Ped	All
0.77	#319	Install traffic signal	All	All
0.73	#10741	Install bike lanes with reduced vehicle lane width	All	All
0.84	#9903	Install Leading Pedestrian Interval	Veh-Ped	All
0.60	#11246	Install sidewalk	Veh-Ped	All
0.75	#9250	Install shared-use pathway	Veh-Bike	All
0.37	**	Install bicycle boulevard	Veh-Bike	All
0.61	#3258	Install colored bike lanes at signalized intersections	Veh-Bike	All
0.55	***	Install raised pedestrian crosswalks	Veh-Ped	All
0.59	***	Changeable speed warning signs	All	All
0.94	***	Corridor-specific traffic calming	All	All
n/a	n/a	Add bike runnels to existing public stairways	Veh-Bike	All
n/a	n/a	Add lighting, railing, etc to existing public stairways	Veh-Ped	All

* Correlating Access Management to Crash Rate, Severity and Collision Type

** Cyclist Safety on Bicycle Boulevard and Parallel Arterial Routes, 2011.

*** Handbook of Road Safety Measures, 2004.

Step 5: Recommended Projects and Strategies

Projects on the list are from a variety of sources, including the Downtown Plan, prior-year Local Road Safety Plans, the ADA Transition Plan, requirements from City Ordinances, and locations identified in the 2017-2021 crash analysis in this document, with the intent to mitigate many fatal and serious non-motorized collisions. Cost estimates are detailed in Appendix C.

Prioritization of these projects and strategies shown in Table 5 are reflected in the “Time” column. High-priority projects are expected within 5 years. Mid and lower priority projects are reflected with the 10 or 20 year implementation timeline.

Table 5 Project and Strategies

Location	Improvement	Cost*	Time**
<i>Specific Location Projects in Priority Study Area</i>			
1 st Avenue from Maple to Bernard	Remove travel lane, install protected bike lane	TBD	5 yrs
Sprague Avenue from Maple to Bernard	Remove travel lane, install protected bike lane	TBD	5 yrs
Washington from Riverside to I-90	Remove travel lane, install protected bike lane	TBD	10 yrs
Stevens from Riverside to I-90	Remove travel lane, install protected bike lane	TBD	10 yrs
2 nd Avenue from Division to Arthur	Adjust lane widths, install buffer and extend bike lane	TBD	10 yrs
3 rd Avenue from Division to Arthur	Remove travel lane, install protected bike lane	TBD	10 yrs
Broadway Ave from Chestnut to Post	Reduce or remove TWLTL, install bike lanes	TBD	10 yrs
Mallon Ave from Lincoln to Howard	Reduce or remove TWLTL, install bike lanes	TBD	10 yrs
Sharp Ave from Atlantic to Lidgerwood	Adjust striping to add bike lanes	TBD	10 yrs
Howard Street/Parkade Plaza	Mid-block crossing with raised crosswalk	TBD	10 yrs
Maple Street Bridge north side (old toll plaza)	Replace stairway with combination stairs and shared-use pathway	TBD	5 yrs
14 th Avenue Stairway west of Perry and Perry from 13 th to 18th	Rebuild stairway with improved railings, bike runnel and lighting, sidewalk on Perry.	TBD	5 yrs
<i>Systemic Strategies (Priority Study Area and High-Injury Network)</i>			
Unsignalized intersections	ADA ramps, including allowances for drainage adjustments	\$10,000 per corner	1-20 yrs
Unsignalized intersections	Bumpouts as an add-on to ADA ramp	\$15,000 per corner	1-20 yrs
Signalized intersections	ADA ramps, including allowances for drainage adjustments, junction boxes	\$15,000 per corner	1-20 yrs
Signalized intersections	Add accessible pedestrian pushbuttons	\$20,000 per intersection	10 yrs
Signalized intersections	Implement Leading Pedestrian Intervals	\$5,000 per intersection	5 yrs
Unsignalized crosswalks	Raised crosswalk	\$30,000	1-10 yrs
Unsignalized crosswalks	Hard-wired RRFB with illumination	\$150,000	1-20 yrs
Unsignalized multilane crosswalks	PHB with illumination	\$250,000	20 yrs
Bike lanes through intersections	Green paint for high-volume conflict zones	TBD	10 yrs

*Concept level estimates that include design, construction, construction monitoring and contingency.

Public Engagement

The public engagement effort for elements of this action plan have taken place over several years and involved several different citizen groups. See Appendix D for a summary of the public engagement efforts.

Action Plan Committee Meetings

The City is working with the [Plan Commission Transportation Subcommittee](#) for further efforts on development, implementation and monitoring of the SS4A action plan. This group is a transportation-focused advisory committee to the Plan Commission, with representation from Spokane Public Schools, WSDOT, Spokane Regional Health District, several neighborhood councils, the Bicycle Advisory Board, Spokane Transit Authority, the Spokane Regional Transportation Council and several other citizens at large. These additional engagement efforts started in fall 2022 and ran through May 2023. The discussions were focused on the collision patterns, likely countermeasures, needed improvements to ordinances and methods to track progress over time. Their feedback was incorporated into the plan update in May 2023.

Going forward, the City will continue to work with this subcommittee for guidance on allocating any awarded funds for systemic projects.

Downtown Plan Public Workshops

The City's Downtown Plan update started in 2019 and ran through adoption in 2021. This included a wide variety of outreach such as workshops, online surveys, open houses, targeted group presentations and eventual adoption by the Plan Commission and City Council. The 22 member steering committee included representation from business and property owners, neighborhood councils, restaurant employees, homeless assistance organizations, arts groups and the university district. Many of the comments from the workshops and open houses were transportation focused, and point to the need for improved safety of non-motorized users in the city center.



Outreach for City Ordinances

Because the City has adopted a number of safety-related ordinances for non-motorized travelers, the outreach associated with those efforts is also considered part of the public engagement effort for this action plan. All city ordinances involve a hearing in front of council and are often discussed in the local newspaper, giving citizens an opportunity to comment. These processes took place in 2011 with the Complete Streets Ordinance, in 2014 with the Crosswalk Ordinance and in 2019 with the Pedestrian Safety Ordinance.

Needed Policies, Plans, Guidelines, Standards

City staff has identified the following areas that need updates to provide safer facilities for our community:

- Comprehensive review of arterial speed limits to ensure appropriateness and consistency
- Speed limit downtown?
- Regular updates to the school zone and park speed limits
- Protected bike lane maintenance equipment and policy
- Clear view triangle updates for alleys, local roads, arterials, shared-use pathways
- Other vegetation blocking views or encroaching on sidewalks
- Crosswalk maintenance or new treatments
- Add to Standard Plans – shared-use pathway sections, protected bike lane design
- Comprehensive update of bicycle plan

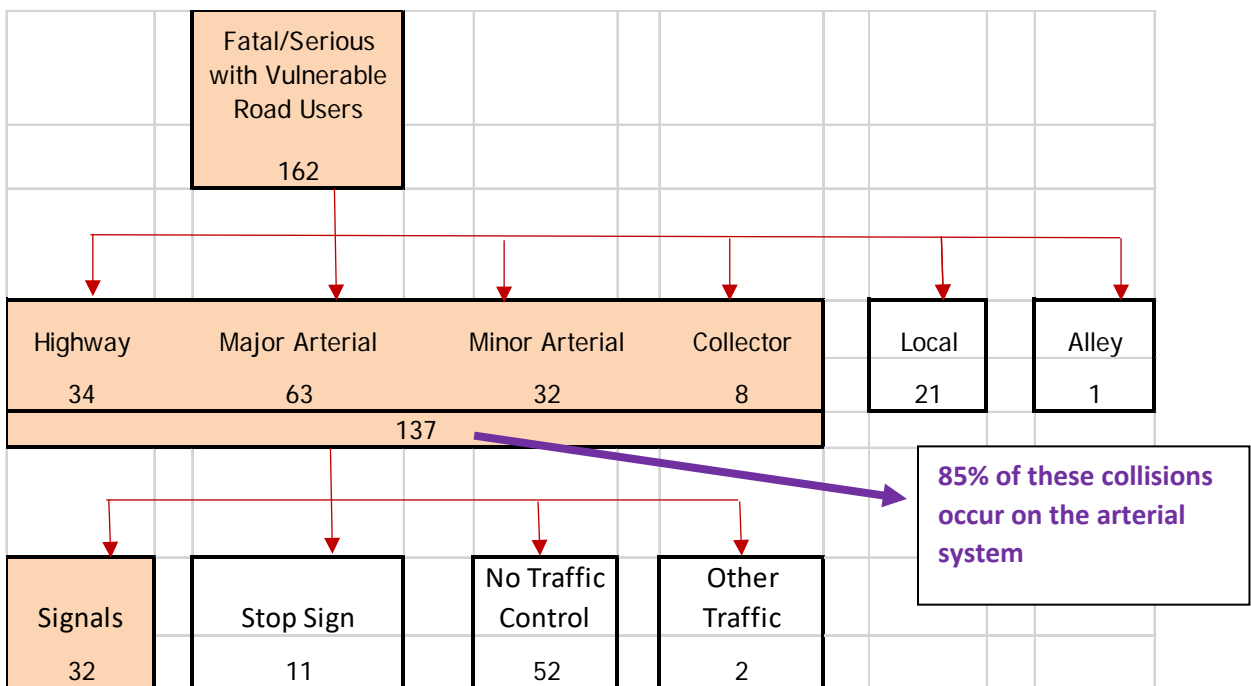
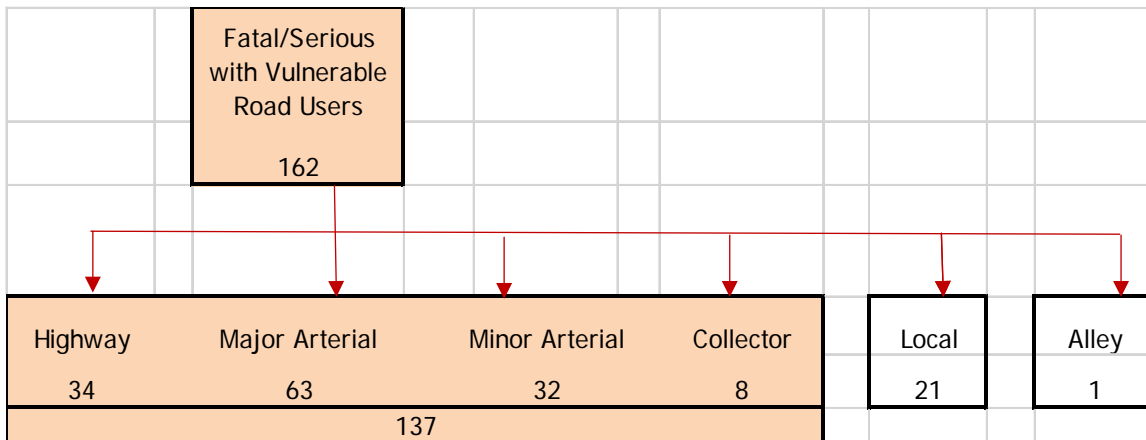
Measuring Progress

The City evaluates collision data through several planning and project level efforts. Much of this data is also available through WSDOT's online data portal, allowing more real-time monitoring. The City commits to tracking the following data points:

- Total number of collisions, fatalities and serious injuries citywide and downtown
- Total number of Pedestrian collisions, fatalities and serious injuries citywide and downtown
- Total number of bike collisions, fatalities and serious collisions citywide and downtown
- Most common contributing factors to these collision types
- STA boarding data in the downtown

Appendix A

Risk Factor Identified details



Appendix B

Pedestrian Crossing Treatments

Figure 1 FHWA-SA-18-018 “Field Guide for Selecting Countermeasures at Uncontrolled Crossing Locations”

Table 1. Application of pedestrian crash countermeasures by roadway feature.

Roadway Configuration	Posted Speed Limit and AADT								
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph
2 lanes (1 lane in each direction)	① 2 4 5 6	① 5 6 7 9	① 5 6 ⑦ ⑨	① 4 5 6 7 9	① 5 6 7 9	① 5 6 ⑦ ⑨	① 4 5 6 7 9	① 5 6 7 9	① 5 6 ⑨
3 lanes with raised median (1 lane in each direction)	① 2 3 4 5	① ③ 5 7 9	① ③ 5 ⑦ ⑨	① 3 4 5 7 9	① ③ 5 ⑦ ⑨	① ③ 5 ⑦ ⑨	① ③ 4 5 7 9	① ③ 5 ⑦ ⑨	① ③ 5 ⑨
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	① 2 3 4 5 6 7 9	① ③ 5 6 7 9	① ③ 5 6 ⑨	① 3 4 5 6 7 9	① ③ 5 6 ⑦ ⑨	① ③ 5 6 ⑨	① ③ 4 5 6 7 9	① ③ 5 6 ⑨	① ③ 5 6 ⑨
4+ lanes with raised median (2 or more lanes in each direction)	① ③ 5 7 8 9	① ③ 5 7 8 9	① ③ 5 8 ⑨	① ③ 5 7 8 9	① ③ 5 ⑦ 8 ⑨	① ③ 5 8 ⑨	① ③ 5 ⑦ 8 ⑨	① ③ 5 8 ⑨	① ③ 5 8 ⑨
4+ lanes w/o raised median (2 or more lanes in each direction)	① ③ ① ③ 5 6 7 8 9	① ③ ① ③ 5 ⑥ 7 8 9	① ③ ① ③ 5 ⑥ 8 ⑨	① ③ ① ③ 5 ⑥ 7 8 9	① ③ ① ③ 5 ⑥ ⑦ 8 ⑨	① ③ ① ③ 5 ⑥ 8 ⑨	① ③ ① ③ 5 ⑥ ⑦ 8 ⑨	① ③ ① ③ 5 ⑥ 8 ⑨	① ③ ① ③ 5 ⑥ 8 ⑨
<p>Given the set of conditions in a cell,</p> <ul style="list-style-type: none"> # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location. ● Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location. ○ Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.* <p>The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.</p>					<ul style="list-style-type: none"> 1 High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs 2 Raised crosswalk 3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line 4 In-Street Pedestrian Crossing sign 5 Curb extension 6 Pedestrian refuge island 7 Rectangular Rapid-Flashing Beacon (RRFB)** 8 Road Diet 9 Pedestrian Hybrid Beacon (PHB)** 				

Appendix C

Project Cost Estimates

Appendix D

Public Engagement Dates

Downtown Plan Engagement Effort <https://my.spokanecity.org/projects/downtown-plan-update/>

Email list – staff established an email of list of more than 700 contacts to share project announcements

9/23/19 thru 9/24/19 – Stakeholder focus groups

10/14/19 thru 11/4/19 Online survey – 590 respondents took the survey on priority topics for the update and vision for Downtown Spokane.

10/22/19 Public Workshop – 55 attendees at a workshop focused on existing conditions, peer cities, best practices and preliminary survey results.

1/8/20, 1/30/20, 2/28/20, 6/26/20, 12/18/20 – Steering Committee meetings inviting 22 members from stakeholder groups to provide input and guidance.

2/5/20 Public Workshop – workshop focused on goals and strategies, including improving multi-modal access, new residential development, enhancing residential amenities and a historical trail.

8/18/20 Bicycle Advisory Board – present goals and strategies and discuss concepts with citizen bicycle board.

3/16/21 Virtual Open House – 89 attendees participated in the online open house to view the draft plan which included Q and A and polling. Polling focused on the concurrence with the strategies in the plan.

3/24/21 Plan Commission workshop – workshop for Plan Commission members to review and ask questions.

5/12/21 Plan Commission hearing – hearing in front of Plan Commission to approve the draft plan. With option for citizen testimony.

7/26/21 City Council Hearing – the Downtown Plan was adopted by the City Council.

<https://static.spokanecity.org/documents/projects/downtown-plan-update-2020/2021-07-26-spokane-downtown-plan-web.pdf>

Other Efforts

5/2/23 Plan Commission Transportation Subcommittee meeting – Discussed the goals, collision analysis, and countermeasures of the draft Action Plan. Solicited feedback from the committee on measuring progress and needed policy updates.

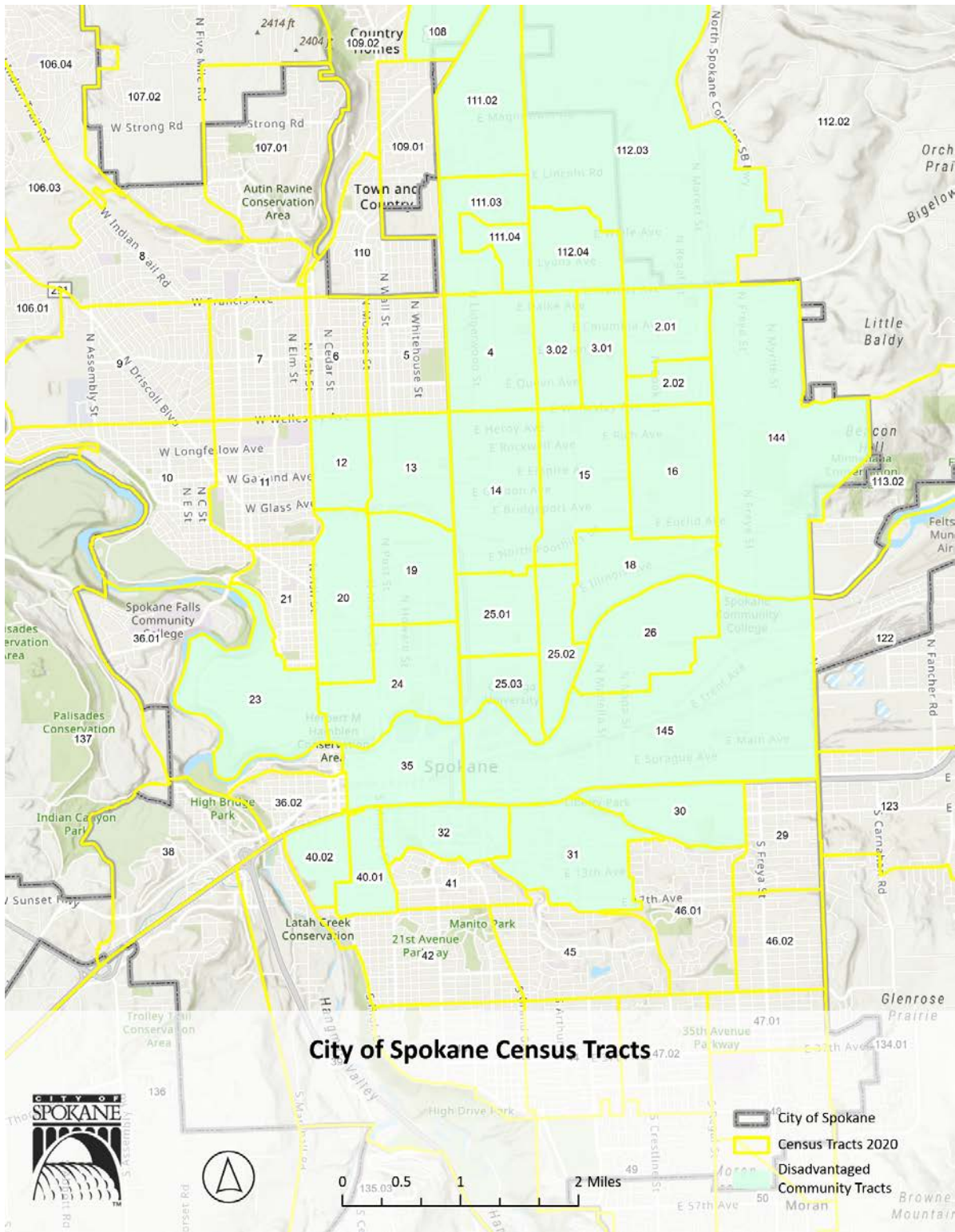
6/6/23 Plan Commission Transportation Subcommittee meeting – Review and feedback on the draft Action Plan. Discussion of project priorities.

Appendix E

Underserved Census Tracts

According to 2023 Climate and Economic Justice Screening Tool

Map 5 City of Spokane Census Tracts



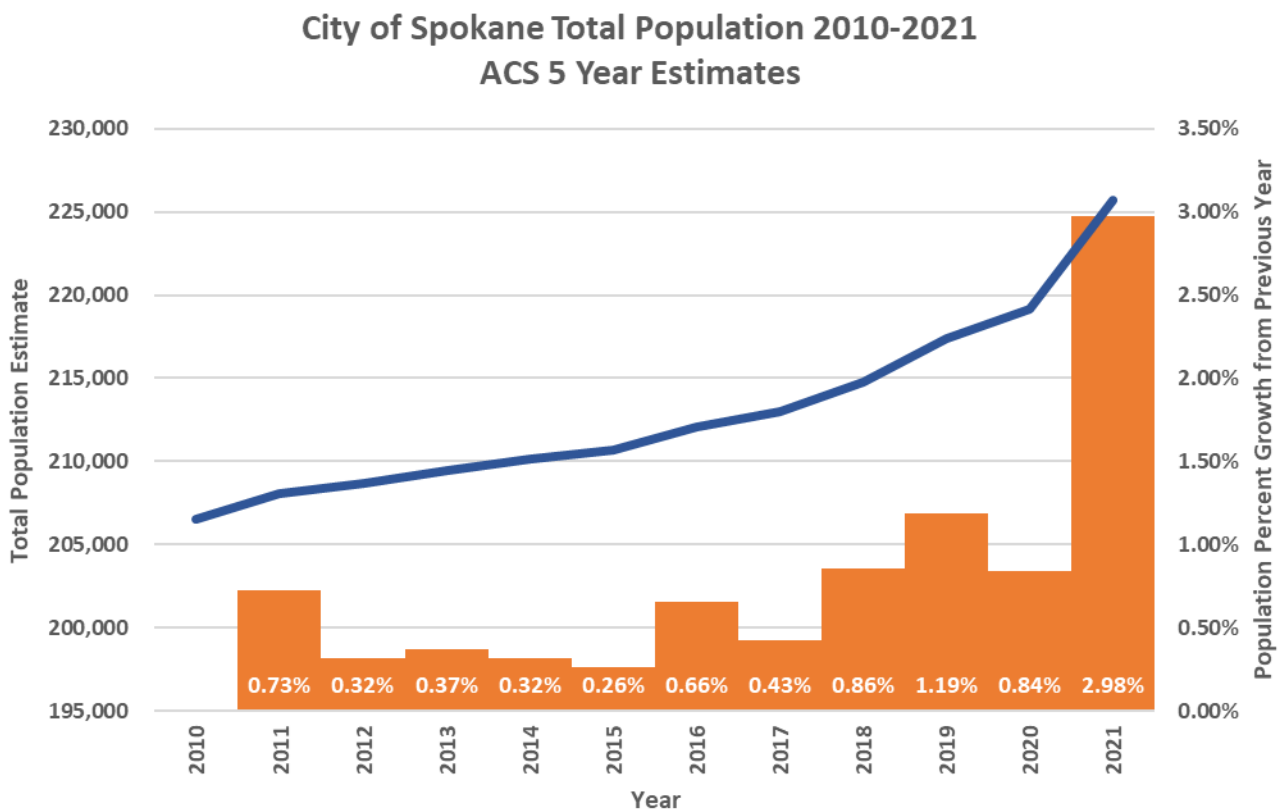
Appendix F

Required Background Data

This section discusses background information on Spokane’s population and some citywide data trends.

- The City of Spokane has a population of 219,185³ (see Chart 1 City of Spokane Total Population 2010-2021 ACS 5 Year Estimates)
- Table 6 shows the total number of fatal crashes from years 2017-2021 according to the NHTSA Fatality and Injury Reporting System Tool (FIRST).

Chart 1 City of Spokane Total Population 2010-2021 ACS 5 Year Estimates



³ American Community Survey (2023). S0101 AGE AND SEX 2020: ACS 5-Year Estimates Subject Tables. Retrieved from <https://data.census.gov/>

