Chiloquin Community Pedestrian and Bicycle Plan

January 2019

Oregon Department of Transportation

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Chiloquin Community Pedestrian and Bicycle Plan

Chiloquin, Oregon

Prepared For:
Klamath Tribes and City of Chiloquin

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The contents of this document do not necessarily reflect views or policies of the State of Oregon.

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TABLE OF CONTENTS

Table of Contents iii
List of Figures iv
List of Tables v
Appendices vi
Acknowledgements vii
Executive Summary 2
Introduction 4
Overview 4
Plans, Regulations, and Policy Summary 4
Public Involvement 6
Goals and Objectives 7
The Chiloquin Community Pedestrian and Bicycle Plan 10
Plan Elements 10
Funding Considerations 32
Project and Programs Funding Options 32
Maintenance Considerations 34
Appendices 36

LIST OF FIGURES

Figure 1: Project Study Area 5

Figure 2: Existing Pedestrian System 11

Figure 3: Existing Bicycle System 12

Figure 4: Project Locations 16

LIST OF TABLES

Table 1: Chiloquin Community Pedestrian and Bicycle Plan Goals and Objectives 7

Table 2: Project Types 14

Table 3: Project List 17

Table 4: High Priority Project Cost 32

Table 5: Medium Priority Project Cost 32

Table 6: Low Priority Project Cost 33

Table 7: Potential Federal and State Funding Sources 33

APPENDICES

Appendix A Technical Memorandum #1: Regulatory and Policy Summary 38

Appendix B Public Involvement Summary 39

Appendix C Technical Memorandum #2: Plan Goals, Objectives, and Evaluation Criteria 40

Appendix D Technical Memorandum #3: Existing System Conditions and Future System Needs 41

Appendix E Technical Memorandum #4: Pedestrian and Bicycle Alternatives 42

Appendix F Pedestrian and Bicycle Design Toolbox 43

Appendix G Evaluation Criteria Matrix 44

Appendix H High Priority Project Conceptual Cost Estimates 45

Appendix I Project Concept Drawings 46

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Section 1
Executive Summary

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EXECUTIVE SUMMARY

The Chiloquin Community Pedestrian and Bicycle Plan was developed through a collaborative process with the Chiloquin community. The plan is intended to guide investment in the pedestrian and bicycle system and provide connections to schools and other community destinations. It provides a summary of projects and strategies needed to complete the walking and biking networks and outlines priorities for the City of Chiloquin, Klamath Tribes, and Oregon Department of Transportation (ODOT) to implement.

The plan includes the following sections:

- **Introduction:** This section highlights the purpose of the plan and overarching goals. This section also describes the document review conducted at the beginning of plan development and summarizes the public involvement process.
- **Chiloquin Community Pedestrian and Bicycle Plan:** This section provides an overview of the existing pedestrian and bicycle network and describes the Community Pedestrian and Bicycle Plan, which lists the prioritized plan elements and maps project locations. Basic information, such as description, location, and priority tier are provided for each element. Additional information including potential funding sources, project partners, and project considerations are provided for the high priority projects, along with a detailed description of the project purpose and extents.
- **Funding Considerations**: This section provides an overview of maintenance considerations, funding sources and a description of opportunities for additional funding in the future.
- **The Appendices:** provide additional information regarding the plan development, including the Technical Memorandums summarizing Existing Conditions and Project Alternative Analysis.

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Section 2
Introduction

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INTRODUCTION

The purpose of the Chiloquin Community Pedestrian and Bicycle Plan is to provide the foundation to make pedestrian and bicycle transportation safer, more convenient, and accessible. The plan identifies critical missing links in the pedestrian and bicycle system, key road crossing opportunities, and proposes projects to address existing needs. This section provides an overview of the purpose and background of the Plan, the guiding principles, and the process and public engagement activities involved in developing the Plan.

OVERVIEW

The City of Chiloquin is located in Klamath County, Oregon, approximately 26 miles north of the City of Klamath Falls and situated at the confluence of the Sprague and Williamson Rivers, just east of US 97. The City limits encompass a total land area of 0.8 square miles with an approximate population of 900 people, roughly half of whom are Klamath Tribes members[1]. The project study area encompasses the City's Urban Growth Boundary (UGB) and includes the surrounding area adjacent to the Klamath Tribes Administration Building. Figure 1 illustrates the project study area.

PLANS, REGULATIONS, AND POLICY SUMMARY

Existing plans, regulations, and policies were reviewed at the outset of the Plan's development and used throughout the project's duration to guide and influence project decision making. The review of existing plans provided background context on previously identified issues and priorities in the Chiloquin community. Federal, State, and local government ordinances were reviewed to maintain compliance and consistency. The policies provided high-level guidance to the Plan. National, State, and local design guidance was also reviewed to inform the types of appropriate treatments with specific consideration to the context of the Chiloquin community. *The complete review of these documents is located in Appendix A.*

[1]SERA Architects. *2016 Pedestrian and Bicycle Safety for the Klamath Tribes and City of Chiloquin, Findings and Recommendations.*

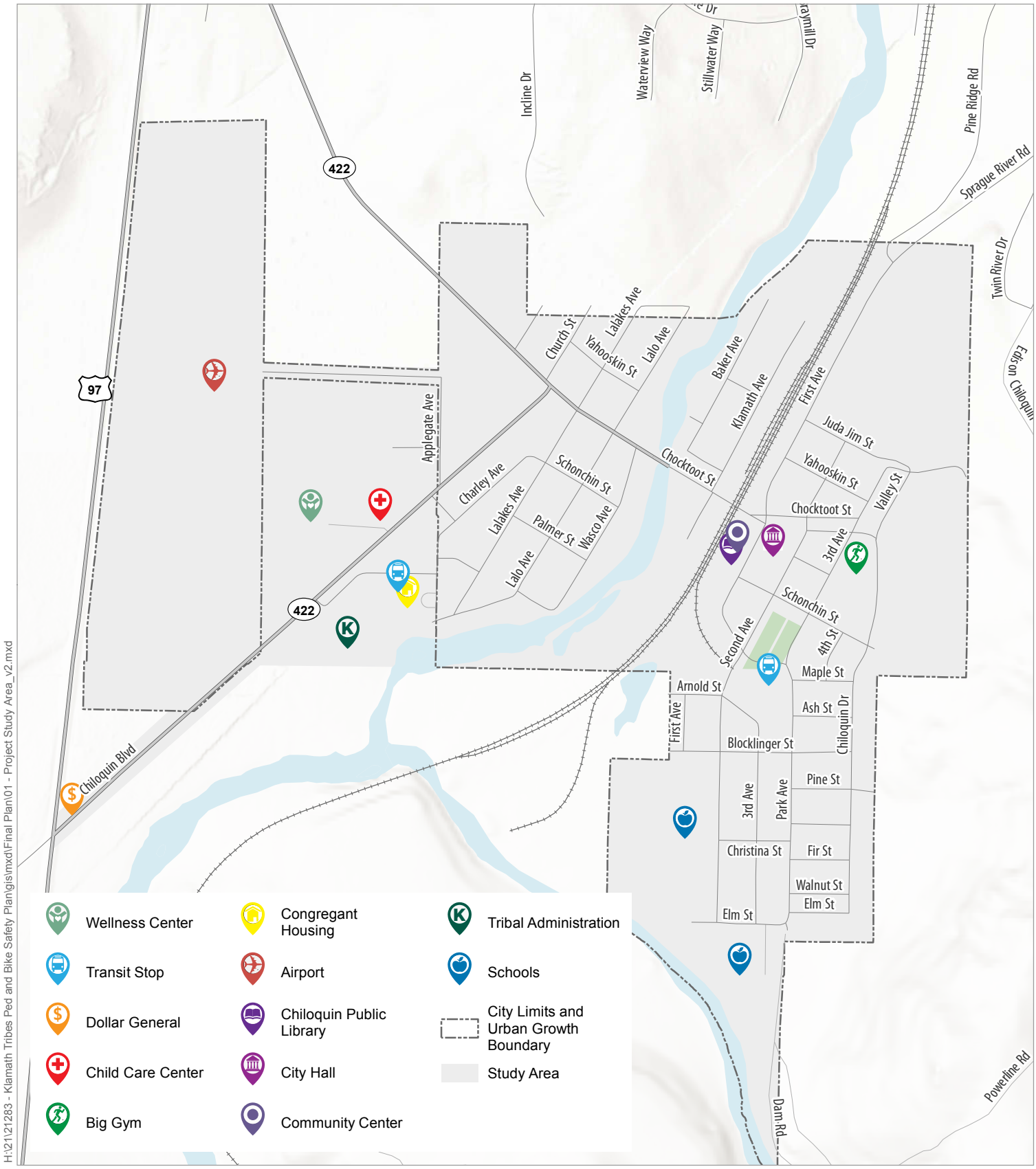

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Figure 1

Project Study Area

PUBLIC INVOLVEMENT

Public Involvement Statistics

12 Events Held

172 Interactions with Community Members

The development of the Chiloquin Community Pedestrian and Bicycle Plan involved significant public involvement, including face-to-face public outreach and ongoing collaboration with project stakeholders, community members, and advisory committee members. Public input was obtained through regular meetings with a Technical Advisory Committee (TAC), Public Advisory Committee (PAC), a project website, community open houses, mobile workshops, an online interactive map, a work session involving the Chiloquin High School leadership class, a virtual online open house, and a community site tour with the TAC, PAC, and interested community members. *A complete summary of public involvement activities and input received at key project milestones is located in Appendix B.*

Community members sign up for project updates and notifications

Community members weigh in on their project priorities

Tribes staff provide input during Public Presentation #2

Project staff receives input in front of the Chiloquin Post Office

During Public Presentation #1, the project team held events at eight locations throughout the community, engaged over 91 community members, and documented input on existing system conditions. This feedback informed project alternatives, which were presented in Public Presentation #2. During the second presentation, the project team held events at four locations and engaged over 81 community members and obtained input on the recommended project alternatives and prioritization.

GOALS AND OBJECTIVES

Goals and objectives were established to guide the development of the Chiloquin Community Pedestrian and Bicycle Plan. The goals and objectives identified in the *2016 Pedestrian and Bicycle Safety for Klamath Tribes and City of Chiloquin; Finding and Recommendation* and the *2012 Native Nutrition & Fitness Project Community Report* were used as the starting point for the development of the initial set of goals and objectives. Transportation related-goals and objectives identified in the City's Comprehensive Plan were also reviewed for potential inclusion in the Plan. Table 1 describes the Chiloquin Community Pedestrian and Bicycle Plan goals and objectives.

Table 1: Chiloquin Community Pedestrian and Bicycle Plan Goals and Objectives

Goal	Description	Objectives
Safety	Improve the pedestrian and bicycle transportation system to enhance the safety and security for all users, skill levels, and ages.	A. Create safer routes for students to walk and bicycle to school. B. Identify modal conflict areas and locations for enhanced crossings to improve city-wide safety. C. Address existing safety issues by identifying locations with a history of pedestrian and bicycle related crashes while mitigating potential future safety issues in locations with similar characteristics.
Accessibility	Develop a pedestrian and bicycle transportation system that connects all members of the community to destinations within the City and beyond.	A. Improve walking and bicycling connections across the Sprague River and Highway 422 to increase accessibility to key attractions and destinations (e.g., the Tribal Administration Building, Wellness Center, Childcare Center, and future Fitness Center). B. Enhance pedestrian and bicycle connections within the downtown area and between households, schools, parks, grocery stores, and other community destinations.
Mobility and Equity	Provide a balanced, safe, and efficient pedestrian and bicycle transportation system for all members of the community.	A. Design context sensitive and appropriate facilities to meet the mobility needs for a wide range of ages and abilities. B. Upgrade existing pedestrian facilities to be Americans with Disabilities Act (ADA) compliant. C. Prioritize investments on routes where vulnerable (i.e., non-motorized) users most commonly travel.

The project team developed evaluation criteria based on the project goals and objectives as well as the overall feasibility of implementing the project. *A detailed summary of the development of the project goals, objectives, and evaluation criteria is located in Appendix C.*

Section 3

Chiloquin Community Pedestrian and Bicycle Plan

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THE CHILOQUIN COMMUNITY PEDESTRIAN AND BICYCLE PLAN

This section presents the Chiloquin Community Pedestrian and Bicycle Plan. The purpose of this section is to identify the recommended projects to address the existing gaps and deficiencies in the pedestrian and bicycle network.

PLAN ELEMENTS

The Chiloquin Community Pedestrian and Bicycle Plan includes the following elements:

- **Existing System Conditions and Future System Needs** – a summary of the existing pedestrian and bicycle system including facility type, locations, gaps, and deficiencies.
- **Projects Types** – multimodal treatments to address existing gaps and deficiencies.
- **Recommended Projects**– capital investment to improve the existing pedestrian and bicycle system that will increase safety, accessibility, and mobility.
- **High Priority Projects** – projects identified as top priorities for the Chiloquin community based on input received from the community and advisory committees.
- **Project Detail Sheets** – one-page project overview including project descriptions, purpose, cost, potential funding sources, potential project partners, and considerations.

Existing System Conditions and Future System Needs

The existing pedestrian and bicycle systems in Chiloquin were assessed to determine locations where improvements were needed now and in the future, to increase opportunities for people to walk and bike. The findings from this analysis formed the basis for the recommended projects that make up the Chiloquin Community Pedestrian and Bicycle Plan.

Figure 2 shows the existing pedestrian system and Figure 3 shows the existing bicycle system. The project team evaluated these networks to identify gaps in the existing transportation system with a specific focus near essential destinations, such as schools, the Klamath Tribes Administration Building, and downtown amenities. The conditions of the existing pedestrian and bicycle network were identified and reviewed during the project team's initial site visit.

The existing pedestrian and bicycle system was reviewed to identify gaps and deficiencies. A gap is defined as a missing link in the network, such as an identified key walking or biking route that is missing a sidewalk or designated bicycle facility. A deficiency is defined as a pedestrian or bicycle facility that does not meet the standard or is insufficient to meet the users' needs. Examples of deficiencies include:

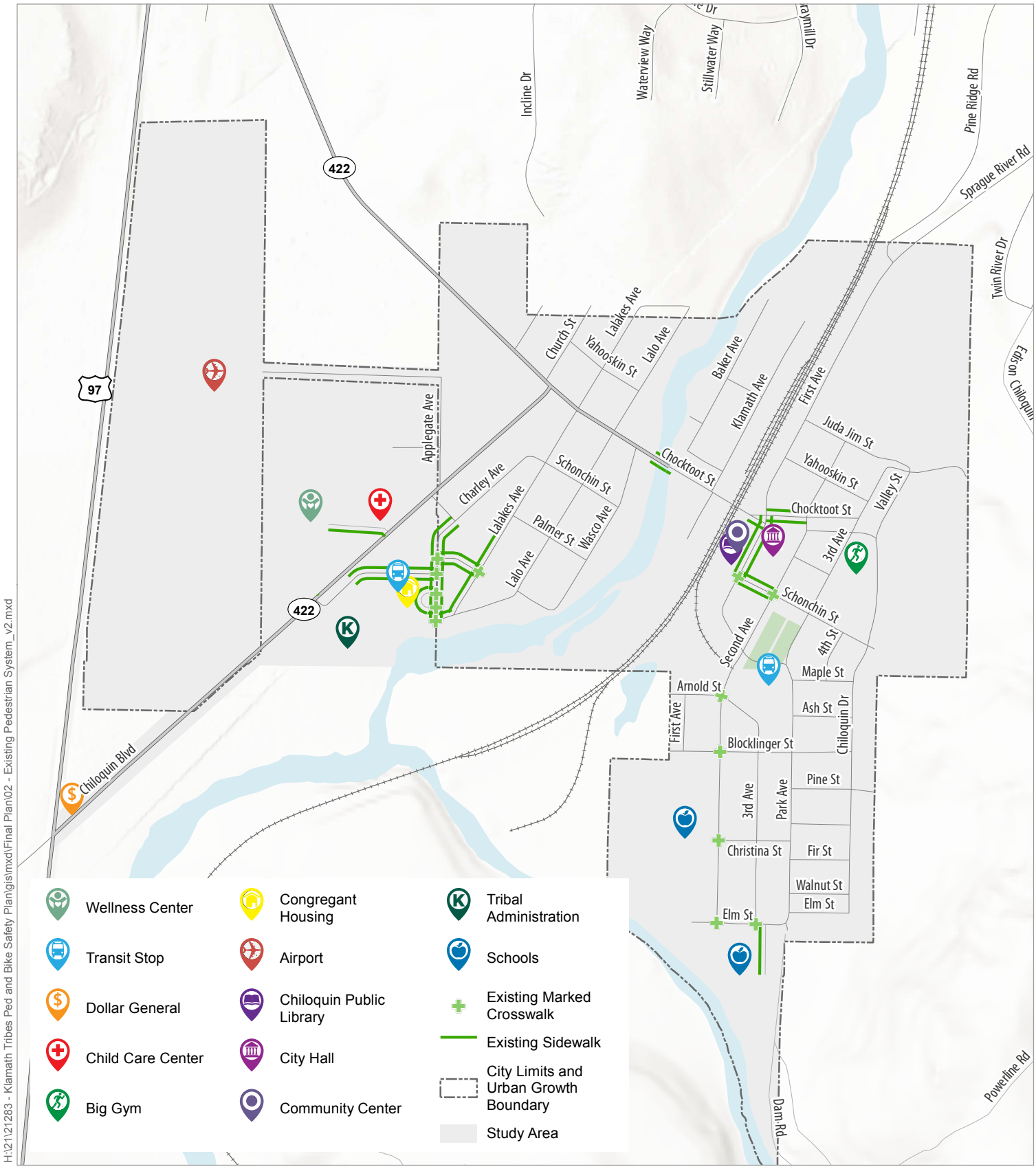

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Figure 2

Existing Pedestrian System

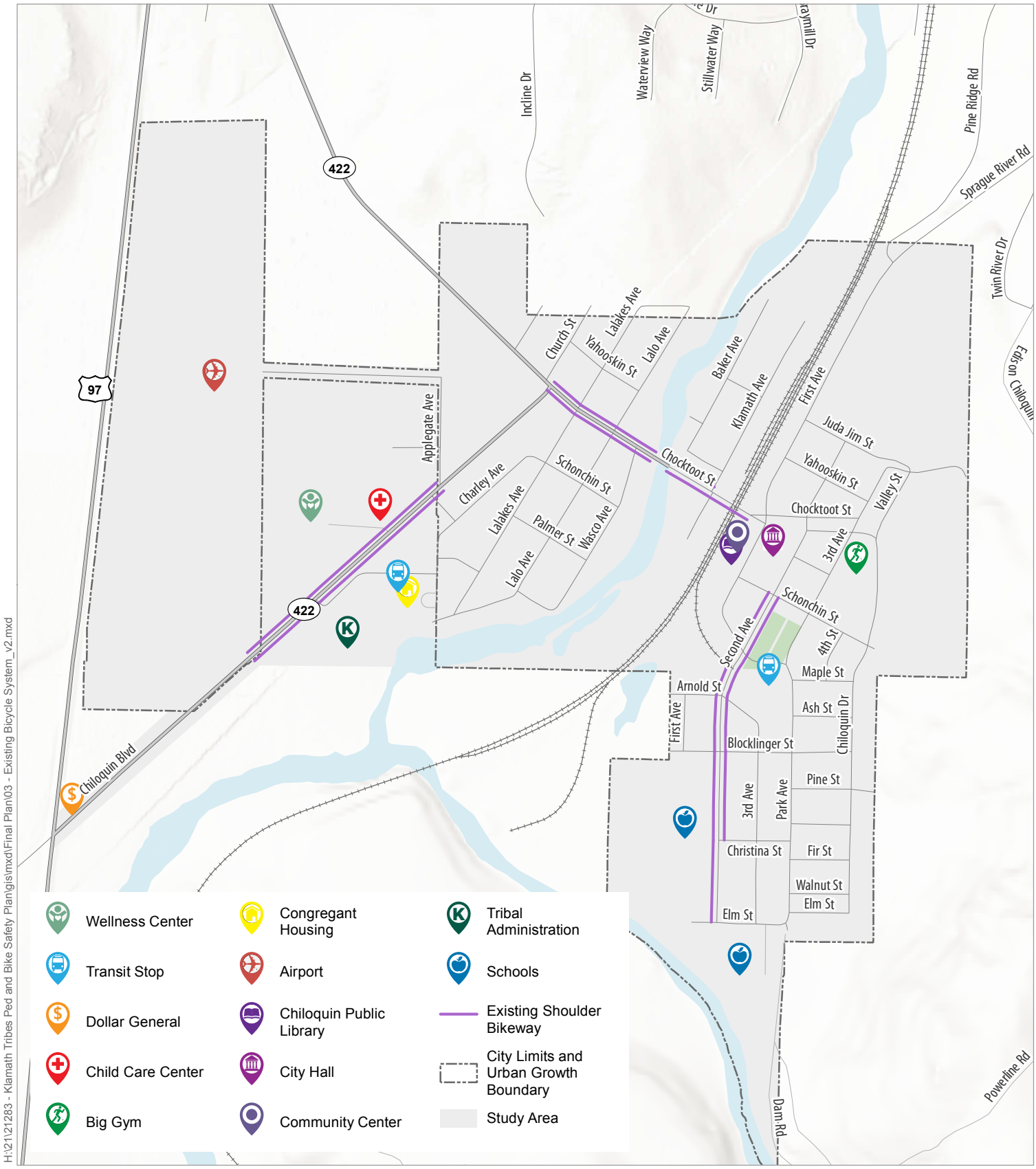

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Figure 3

Existing Bicycle System

- Locations with documented pedestrian and bicycles crash histories.
- On-street connections that have a Bicycle Level of Traffic Stress rating greater than 2.
- On-street connections that have a Pedestrian Level of Traffic Stress rating greater than 2.
- City or State roadway crossings where enhancements may be warranted.

In addition, an analysis of historical bicycle and pedestrian crash data and roadway crossings was conducted to identify potential safety issues that could be addressed by the Plan.

Key crossings on City and State-owned roadways identified through the public involvement process, past planning efforts in the area, and through field observations conducted during Public Presentation #1 were reviewed to determine whether the type of crossing currently present may warrant enhancement. This review included an assessment of the crossing using National Cooperative Highway Research Program (NCHRP) Report 562 *Improving Pedestrian Safety at Unsignalized Crossing* procedures. NCHRP Report 562 provides guidance on the type of treatments that should be considered for an unsignalized crossing given a number of factors, including the 85th percentile speed limit of the roadway being crossed[2], pedestrian volumes, motor vehicle traffic volumes, length of the crossing, walk time, and expected compliance of motor vehicle drivers.

Other system gaps were identified based on connectivity needs, input received during Public Presentation #1 and input on the project's online interactive map. Based on the existing conditions analysis, a set of locations was identified for further review for potential treatments. *Appendix D contains Technical Memorandum #3: Existing System Conditions and Future System Needs.*

Project Types

Project types have been identified to address the gaps and deficiencies and are based on the specific needs of each unique location. In some situations, a curb-protected walkway may be sufficient as a near-term, low cost solution; however, a sidewalk will likely be the desired long-term solution because of its increased level of separation. Therefore, curb-protected walkways can be used as an interim solution until funding is available for sidewalk installation. The types of projects that are recommended in the Plan are summarized in Table 2.

Appendix E, which contains Technical Memorandum #4: Pedestrian and Bicycle Alternatives, provides the full evaluation matrix explaining why a specific treatment was selected. Additional design guidance for the facilities shown in Table 2 is included in Appendix F.

[2] If 85th percentile speed data is unavailable, NCHRP Report 562 methodology utilizes the posted speed limit.

Table 2: Project Types

Pedestrian Lane

Shared-Use Path

Curb-Protected Walkway

Shared Pavement Marking "Sharrow"

Sidewalk

Bike Lane

Pedestrian Path (Sidepath)

Rectangular Rapid Flashing Beacon (RRFB)

Projects

Figure 4 illustrates the locations of the projects included in the Plan and Table 3 summarizes the project list, including project description and priority tier. The projects in Table 3 are organized into three priority tiers: High, Medium, and Low. Projects were placed into these tiers based on their evaluation criteria scores and feedback from the TAC, PAC, and general public. If necessary, many of the projects identified in Table 3 can be implemented in phases to match funding availability and project constraints.

Project Priority Levels

High – Projects that are close to identified destinations that could be implemented in the near-term.

Medium – Projects with implementation challenges or connect to a limited number of destinations.

Low – Projects with a higher cost, implementation challenges, and/or do not provide as great of a benefit as other projects.

Students cross 2nd Avenue at Christina Street in front of the Chiloquin Elementary School after school dismissal.

Appendix G contains the evaluation matrix used to rank the projects against the project evaluation criteria contained in Appendix C. Appendix H contains the cost estimate calculations for the high priority projects.

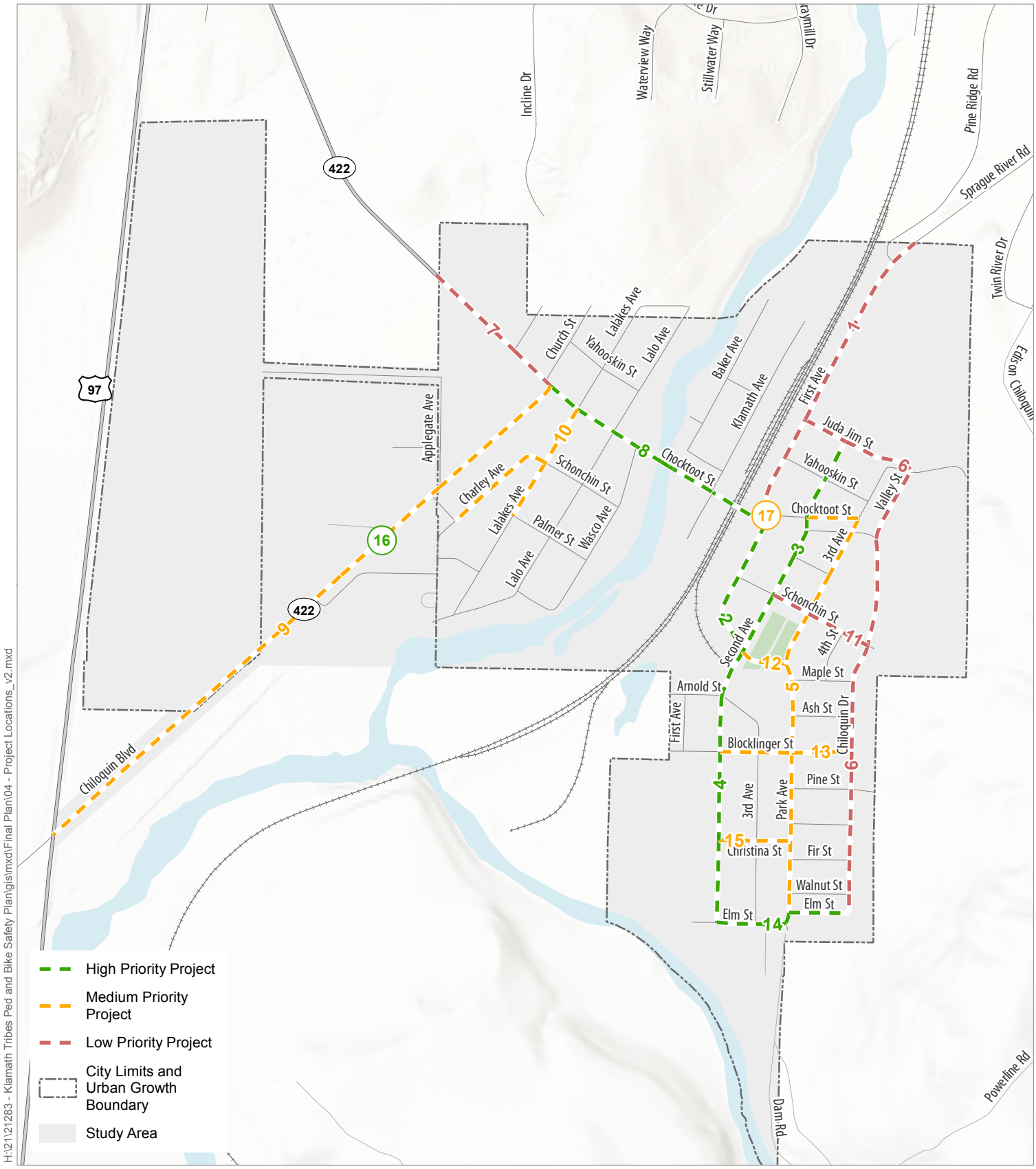

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Figure 4

Project Locations

Table 3: Project List

ID	Location	Project Description	Priority Tier
1	1st Avenue: Northern City Limits to Chocktoot Street	Widen shoulder and install curb-protected walkway on east side of the roadway. Construct sidewalks and bike lanes as funding becomes available or as parcels along the roadway develop/redevelop.	Low
2	1st Avenue: Chocktoot Street to 2nd Avenue[3]	Construct sidewalk on the west side of the roadway. Construct sidewalk on the east side of the roadway when funding becomes available or as parcels fronting the roadway develop/redevelop. Install shared pavement markings, or "sharrows," on 1st Avenue.	High
3	2nd Avenue: Juda Jim Street to 1st Avenue	Stripe pedestrian lane on west side of the roadway between Juda Jim Street and Chocktoot Street. Install curb-protected walkway on west side of the roadway within existing paved cross section between Chocktoot Street and 1st Avenue. Require sidewalk to be built as funding becomes available or as parcels along the road develop/redevelop.	Medium
4	2nd Avenue: 1st Avenue to Elm Street[3]	Construct sidewalks on west side of the roadway. Stripe bike lanes in existing shoulders and widen shoulder in the northbound direction to provide dedicated space for bike lanes.	High
5	Chocktoot Street/3rd Avenue/Park Avenue: 2nd Avenue to Elm Street	Widen shoulder and install curb-protected walkway on east side of the roadway along 3rd Avenue and Park Avenue between Chocktoot Street and Elm Street. Construct sidewalks on the south side of the Chocktoot Street between 2nd Avenue and 3rd Avenue. Install shared pavement markings, or "sharrows" along 3rd Avenue and Park Avenue between Chocktoot Street and Elm Street.	Medium
6	Valley Street/Chiloquin Drive/Juda Jim Street: 1st Avenue to Elm Street	Widen shoulder and install curb-protected walkway on west side of the roadway. Construct sidewalks and bike lanes as funding becomes available or as parcels along the roadway develop/redevelop.	Low
7	Chiloquin Highway (OR 422): Western City Limits to Chiloquin Boulevard (OR 422)[3]	Construct sidewalks on the southwest side of the roadway. Widen shoulder on both sides of the roadway and provide striping for dedicated bike lanes in both directions. Reconfigure Chiloquin Boulevard/Chiloquin Highway intersection into a "T"; remove eastbound right-turn slip lane; provide marked crosswalks across all legs of the intersection.	Low
8	Chocktoot Street: Chiloquin Boulevard to 1st Avenue[3]	Construct sidewalks on the south side of the roadway. Construct sidewalks on the north side of the roadway when funding becomes available or as parcels fronting the roadway develop/redevelop. Widen shoulder on north side of the roadway and stripe bike lanes on both sides of the roadway. Install marked crosswalk, appropriate signage, and rectangular rapid flashing beacon (RRFB) at the Chocktoot Street/Lalo Avenue intersection.	High
9	Chiloquin Boulevard (OR 422): Highway 97 to Chiloquin Highway	Construct a shared-use path on the southeast side of the roadway to provide a connection from Highway 97 to the Tribes Administration Building driveway. Between the Tribes Administration Building driveway and Chiloquin Highway, construct a pedestrian path (sidepath) on the southeast side of Chiloquin Boulevard (OR 422) and provide wayfinding for people bicycling to parallel routes along Charley Avenue and Lalakes Avenue.	Medium
10	Lalakes Avenue/Charley Avenue: Applegate Street to Chocktoot Street	Construct sidewalks on south side of Charley Avenue between Applegate Street and Lalakes Avenue. Construct sidewalks on the west side of Lalakes Avenue between Chocktoot Street and Palmer Street.	Medium
11	Schonchin Street: 2nd Avenue to Chiloquin Drive	Widen shoulder and provide curb-protected walkway on at least one side of the roadway. Construct sidewalks when funding becomes available or as parcels along the roadway develop/redevelop.	Low
12	Pioneer Street: 2nd Avenue to 3rd Avenue	Stripe pedestrian lane on the north side of the roadway within the existing paved cross section. Construct sidewalks when funding becomes available or as parcels along the roadway develop/redevelop.	Medium
13	Blockinger Street: 2nd Avenue to Chiloquin Drive	Install curb-protected walkway on the south side of the roadway within existing shoulder. Construct sidewalks when funding becomes available or as parcels along the roadway develop/redevelop.	Medium
14	Elm Street: 2nd Avenue to Chiloquin Drive	Install curb-protected walkway on the south side of the roadway. Replace the curb-protected walkway with sidewalk when funding becomes available or as parcels along the roadway develop/redevelop.	High
15	Christina Street: 2nd Avenue to Park Avenue	Install curb-protected walkway on the south side of the roadway. Construct sidewalks when funding becomes available or as parcels along the roadway develop/redevelop.	Medium
16	Chiloquin Boulevard (OR 422) Mid-Block Crossing[3]	Install enhanced crossing with raised median and RRFB midway between the Tribal Administration Building driveway and the Wellness Center driveway. Construct sidepath, or sidewalk, along the southeast side of OR 422 between the Tribal Administration Building and the proposed crossing, and along the northwest side of OR 422 between the proposed crossing and the Wellness Center driveway.	High
17	Chocktoot Street/1st Avenue[3]	Remove eastbound turn lane onto 1st Avenue and "T" up intersection to provide aligned through movement across Chocktoot Street to create traditional four-way stop controlled intersection. Install marked crosswalks across each leg of the intersection.	Medium

[3] Conceptual project drawings are included in Appendix I

High Priority Projects

High priority projects were identified through the public involvement process and input received from the PMT, TAC, and PAC. Projects identified as High priority in Table 3 were advanced for further development to consider implementation constraints, project coordination requirements, conceptual cost estimates[4], and potential funding sources. Information for each High priority project is summarized in one-page project prospectus sheets providing project descriptions, location, images, cost estimates, and potential funding sources and partners.

Project ID: 2 – 1st Avenue: Chocktoot Street to 2nd Avenue

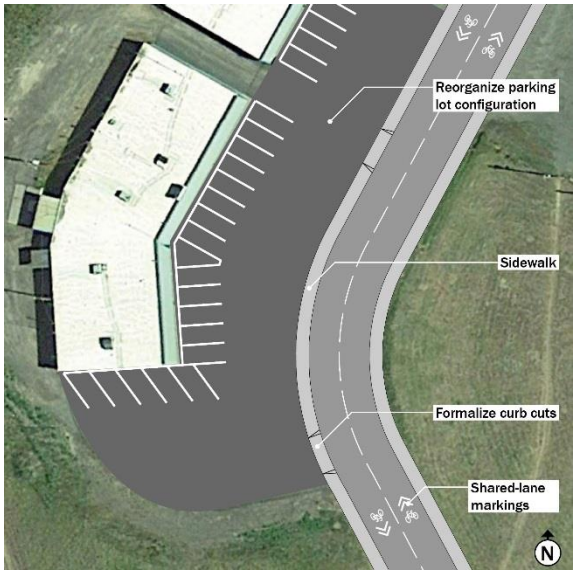
The 1st Avenue: Chocktoot Street to 2nd Avenue project will construct a sidewalk along the west side of 1st Avenue to provide a connection from the downtown Chiloquin area toward points south along 2nd Avenue, including the Chiloquin Elementary and Junior and Senior High School (*note: constructing Project ID: 4 will be required to complete these connections to the schools*). When funding becomes available, a sidewalk should also be constructed on the east side of 1st Avenue. In order to construct a sidewalk on the west side of 1st Avenue, formal access points (i.e., driveways) to the Chiloquin Plaza will need to be defined. Coordination between the City and the property owners will be required to determine the most appropriate location and size of these access points. Access points should be designed to minimize conflicts between people driving entering and exiting the parking lot and people walking on the sidewalk, as well as to provide for adequate circulation in the parking lot. On-street shared lane pavement markings (also known as "sharrows") will be installed on 1st Avenue to remind people driving to expect people bicycling in the roadway and to help people bicycling position themselves appropriately away from on-street parking.

Project ID: 2 proposes to construct sidewalks along the east side of 1st Avenue in front of the Chiloquin Plaza

[4] *Cost estimates are high level conceptual cost estimates based on year 2018 unit costs, with one year of inflation applied, and do not include right-of-way. Detailed cost estimates should be completed during the design phase of each project.*

Project ID: 2	1ST AVENUE: CHOCKTOOT STREET TO 2ND AVENUE
Description:	Construct sidewalk on the west side of the roadway. Construct sidewalks on the east side of the roadway when funding becomes available or as parcels fronting the roadway develop/redevelop. Install shared pavement markings, or "sharrows," on 1st Avenue.
Purpose:	Provides physical separation for people walking between the Chiloquin Plaza and Downtown area. Consolidates vehicular access points and reduces number of turning conflicts to Chiloquin Plaza. Provides near-term, low cost treatment for people bicycling near many destinations. Provides pedestrian connection for students walking to Chiloquin Elementary and Junior and Senior High School (with Project ID: 4).
Cost: $386,100 / $760,200[5]	**Potential Funding Sources:** STIP, ARTS, SRTS, TTP
Potential Project Partners: City of Chiloquin, Klamath County School District (KCSD), Klamath Tribes	
Considerations:	The west side provides a more direct connection to adjacent destinations. Sidewalk construction on the west side of 1st Avenue may affect up to five (5) parking spaces within Chiloquin Plaza; coordination with Chiloquin Plaza business owners needed to determine best locations for driveways. Construction will be required outside existing paved section. Drainage needs to be considered. Shared-lane pavement markings should be striped outside of the "door zone," or approximately 4-feet from on-street parking.

Project Location/Images:



[5] The first cost estimate includes sidewalk on the west side only, the second estimate includes sidewalks on both sides.

Project ID: 4 – 2nd Avenue: 1st Avenue to Elm Street

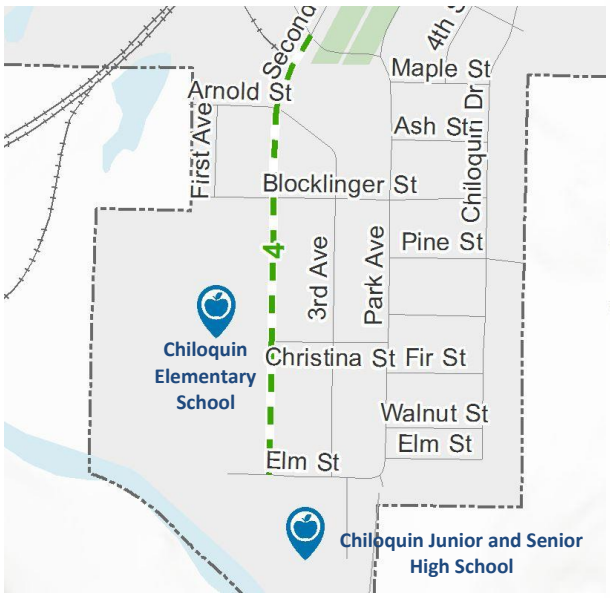
The purpose of the 2nd Avenue: 1st Avenue to Elm Street project is to make it safer for students to walk and bike to school. 2nd Avenue is a primary access route to both Chiloquin Elementary and Chiloquin Junior and Senior High School. Today, there are no sidewalks along 2nd Avenue, forcing students to walk on the limited shoulder of the roadway. The project team also heard through the public involvement process that students are often forced to walk in the road to avoid the snow berms caused by roadway plows during inclement weather. This project proposes to provide a continuous sidewalk along the west side of 2nd Avenue with Americans with Disabilities Act (ADA) compliant accessible curb ramps at the intersections of 1st Avenue, Arnold Street, Blockinger Street, Chiloquin Elementary School driveways, and Elm Street. North of Blockinger Street the project proposes to construct a sidewalk adjacent to the roadway with striped bike lane stencils in the existing shoulders. South of Blockinger Street the project proposes to construct a sidewalk between the existing utility poles and fence line of the Chiloquin Elementary School athletic fields. In locations where the width between the utility pole and fence line is less than 5 feet, the sidewalk would transition to be located adjacent to the roadway[6]. Existing shoulders would also need to be widened to accommodate bike lanes in this section of 2nd Avenue.

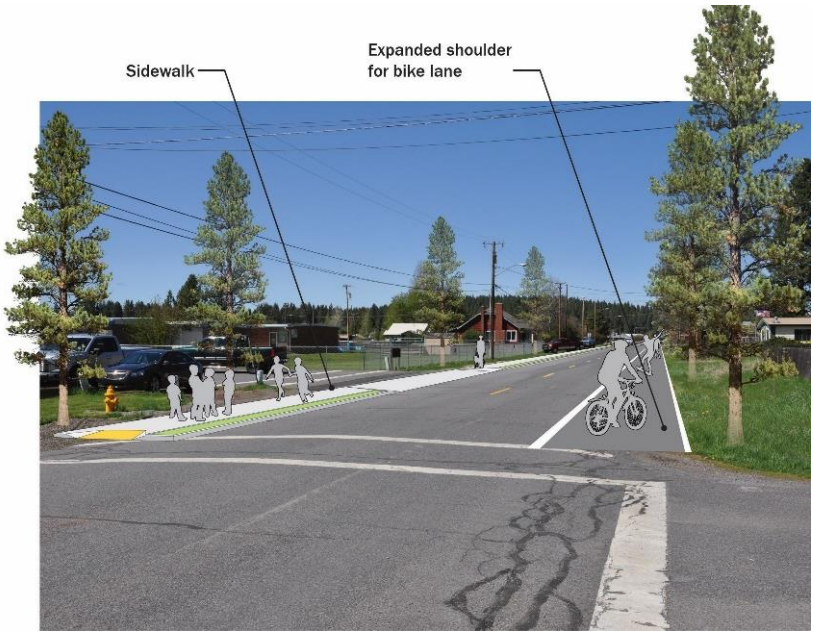
Project ID: 4 proposes to construct sidewalks along the west side of 2nd Avenue and widen the shoulder on the east side to provide bike lanes

[6] *Based on field observations, this transition to be adjacent to the roadway would likely need to occur near the southern two utility poles.*

Project ID: 4	2ND AVENUE: 1ST AVENUE TO ELM STREET
Description:	Construct sidewalk on west side of the roadway. Stripe bike lanes in existing shoulders and widen shoulder in the northbound direction to provide dedicated space for bike lanes.
Purpose:	Provides preferred walking treatment for one side of the roadway. Provides connection to Chiloquin Elementary and Junior and Senior High School. Provides separation for people biking from the motor vehicle space.
Cost: $1,546,300	**Potential Funding Sources:** STIP, ARTS, SRTS, TTP
Potential Project Partners: City of Chiloquin, KCSD, Klamath Tribes	
Considerations:	Need to consider drainage for curb-tight sidewalk construction. Sidewalks could possibly be built within the existing paved section by replacing existing shoulders. Along the Elementary School property south of Blockinger Street, sidewalks could be constructed between the utility poles and fence line adjacent to the athletic fields. This alternative provides further separation between people walking and vehicles on 2nd Avenue. Right-of-way impacts should be considered and will need to be further verified.

Project Location/Images:





Project ID: 8 – Chocktoot Street: Chiloquin Boulevard to 1st Avenue

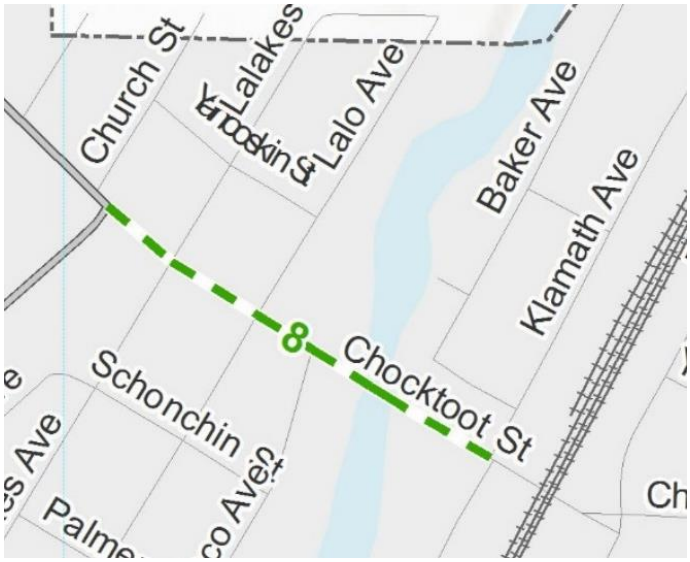
The purpose of the Chocktoot Street: Chiloquin Boulevard to 1st Avenue project is to connect downtown Chiloquin to commercial destinations on the west side of the Williamson River, including toward the Klamath Tribes facilities. Chocktoot Street serves as the only connection across the Williamson River and is an essential walking route from the Klamath Tribes Administration Building and other facilities to the downtown business area. The project proposes to construct sidewalks along the south side of the roadway, stripe bike lanes in the existing shoulder, and widen the shoulder where needed to accommodate bicyclists. As funding becomes available, sidewalks should also be constructed on the north side of the roadway. The addition of sidewalks will likely require consolidating access points to adjacent properties; coordination with property and business owners will be required. The project also includes an enhanced crossing for people walking at the Chocktoot Street/Lalo Avenue intersection.

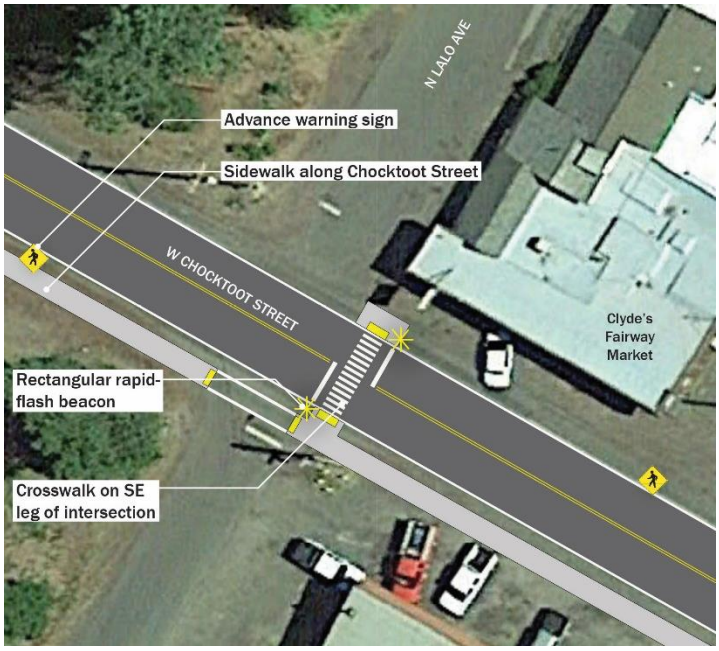
A second phase of the project would include installing warning signage and railroad crossing gates to prevent people from walking, biking, and driving across the tracks when a train is approaching. For the purposes of implementation feasibility and cost estimates, all project enhancements associated with the railroad crossing have been separated out as Project ID: 8.2 in the prospectus sheets. All other improvements are included in Project ID: 8.1.

Project ID: 8 proposes to construct sidewalks along the south side of Chocktoot Street and install an enhanced pedestrian crossing at Lalo Avenue

Project ID: 8.1	CHOCKTOOT STREET: CHILOQUIN BOULEVARD TO 1ST AVENUE (PHASE 1)
Description:	Construct sidewalks on the south side of the roadway. Construct sidewalks on the north side of the roadway when funding becomes available or as parcels fronting the roadway develop/redevelop. Widen shoulder on north side of the roadway and stripe bike lanes on both sides of the roadway. Install marked crosswalk, appropriate signage, and rectangular rapid flashing beacon (RRFB) at the Chocktoot Street/Lalo Avenue intersection.
Purpose:	Provides long-term solution for people walking and biking. Provides connection to Clyde's Market, JJ's Café, and roads connecting to the Tribal Administration building and other facilities.
Cost: $1,546,000 / $2,773,900[7]	**Potential Funding Sources:** HSIP, STIP, ARTS, TTP
Potential Project Partners: ODOT, City of Chiloquin, Klamath Tribes	
Considerations:	Need to consider drainage. Will require coordination with adjacent property and business owners to determine appropriate locations of access points. May require limited shoulder widening. Advance warning signs for the crossing may be helpful given the roadway grade. An engineering study of the crossing at Lalo Avenue should be conducted to further assess the appropriate treatment and signing needs.

Project Location/Images:

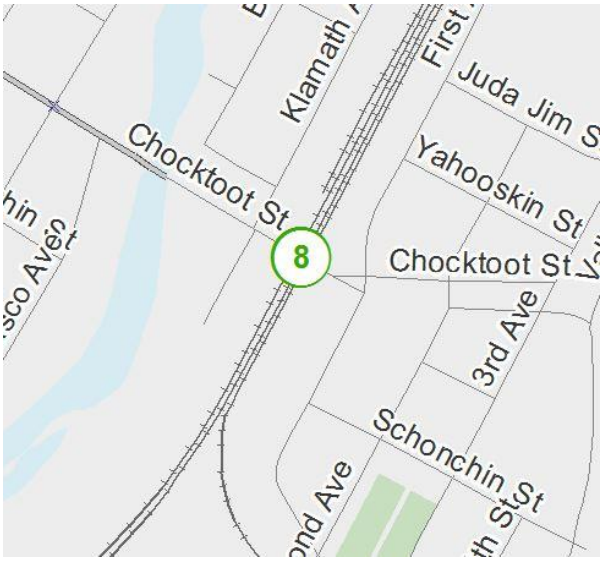


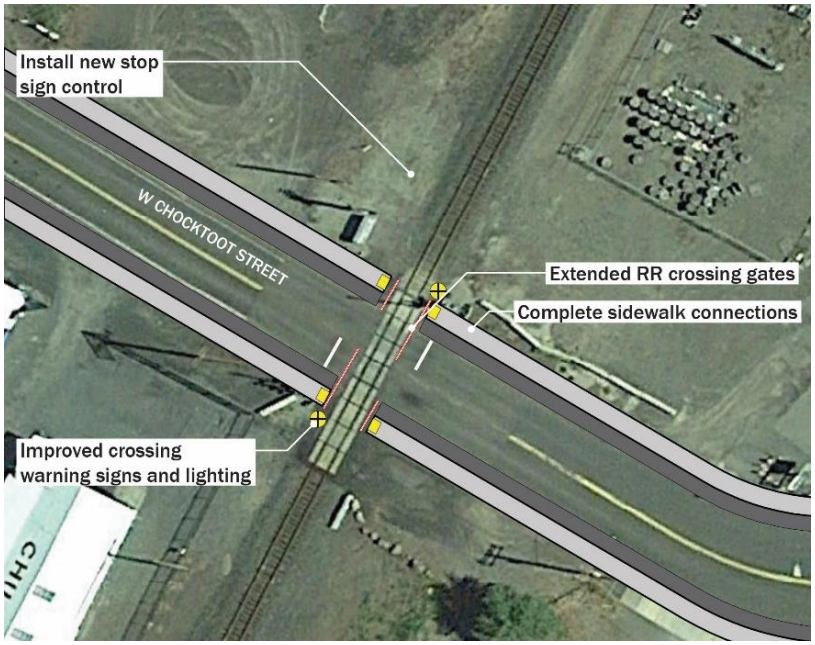


[7] The first cost estimate includes sidewalk on the south side only, the second estimate includes sidewalks on both sides.

Project ID: 8.2	CHOCKTOOT STREET: CHILOQUIN BOULEVARD TO 1ST AVENUE (PHASE 2)
Description:	Install warning signage and railroad crossing gates to prevent people from walking, biking, and driving across the tracks when a train is approaching. Install barrier fences to prevent trespassing on the tracks from the street and from the backside of the business and adjacent homes.
Purpose:	Provides safety enhancements and clarification on railroad crossing/operations.
Cost: $1,519,500	**Potential Funding Sources:** ARTS, TTP
Potential Project Partners: ODOT, City of Chiloquin, Klamath Tribes	
Considerations:	Will require coordination with Union Pacific Railroad.

Project Location/Images:





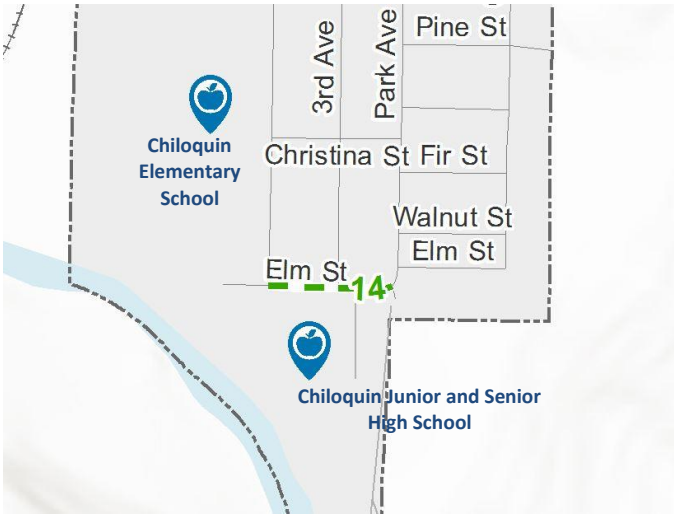
Project ID: 14 – Elm Street: 2nd Avenue to Chiloquin Drive

The purpose of the Elm Street: 2nd Avenue to Chiloquin Drive is to improve conditions for people walking to the Chiloquin Junior and Senior High School. The project proposes to install a curb-protected walkway along the south side of Elm Street to tie into the proposed sidewalks along the west side of 2nd Avenue (see Project ID: 4). As funding becomes available, or adjacent parcels develop/redevelop, the curb-protected walkway should be replaced with sidewalks.

Project ID: 14 proposes to install a curb-protected walkway on the south side of Elm Street adjacent to the Junior and Senior High School

Project ID: 14	ELM STREET: 2ND AVENUE TO CHILOQUIN BOULEVARD
Description:	Install curb-protected walkway on the south side of the roadway. Replace the curb-protected walkway with sidewalk when funding becomes available or as parcels along the roadway develop/redevelop.
Purpose:	Provides lower cost solution compared to sidewalk, while still providing separation for students walking along Elm Street to Chiloquin Junior and Senior High School.
Cost: $74,500 / $464,700[8]	**Potential Funding Sources:** STIP, ARTS, SRTS, TTP
Potential Project Partners: City of Chiloquin, KCSD, Klamath Tribes	
Considerations:	Curb-protected walkway does not provide the same level of separation as sidewalks. May require widening roadway.

Project Location/Images:



Example of a curb-protected walkway

[8] The first cost estimate includes a curb-separated walkway and the second estimate includes a sidewalk.

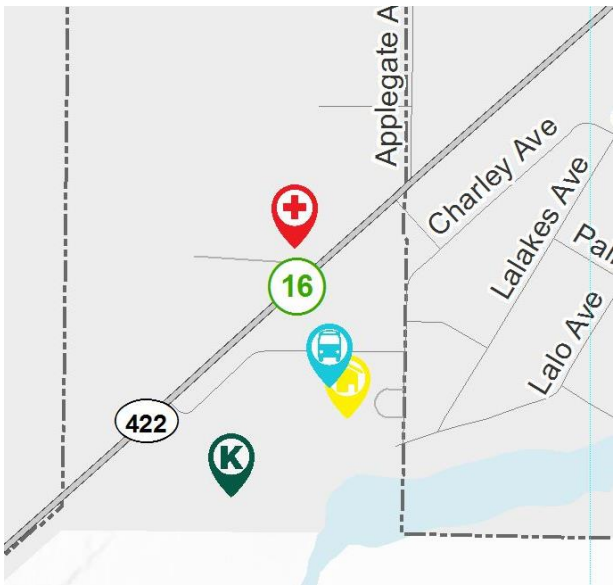
Project ID: 16 – Chiloquin Boulevard (OR 422) Mid-Block Crossing

The Chiloquin Boulevard (OR 422) Mid-Block Crossing project builds upon the recommendations identified in the *2016 Pedestrian and Bicycle Safety for the Klamath Tribes and City of Chiloquin, Findings and Recommendations Report.* Through the public involvement process, input was received that this project was the highest priority for the Klamath Tribes and other local stakeholders. Several locations for an enhanced crossing were discussed with the TAC and PAC, including at the Klamath Tribes Administration Building driveway, the Wellness Center driveway, and a mid-block option. Based on the feedback received from these groups, the mid-block option was selected because it best matches current travel patterns. The project also proposes a sidepath connection from the Klamath Tribes Administration Building on the southeast side of Chiloquin Boulevard (OR 422) with a connection to the enhanced crossing. Similarly, the project proposes a sidepath connection on the north side of Chiloquin Boulevard (OR 422) from the proposed crossing to the Wellness Center driveway. The parcel northwest of the proposed crossing is planned to be developed as a Fitness Center by the Klamath Tribes. The proposed crossing project should consider opportunities to connect to the Wellness Center through the future Fitness Center; however, this connection should not replace the connection along Chiloquin Boulevard (OR 422). The enhanced crossing would likely include advanced warning signage, rectangular rapid flashing beacons (RRFBs), a raised median island, and possibly traffic calming elements. The posted speed limit at the proposed crossing drops from 40 miles per hour (mph) to 35 mph. As part of implementing the crossing, an engineering study should be conducted to further assess the crossing location, treatments, and whether the 35 mph speed limit zone should be moved further to the west. It should also review whether a sidepath or sidewalk is the most appropriate treatment along the roadway.

Location of Proposed Enhanced Pedestrian Crossing along OR 422 (Chiloquin Boulevard)

Project ID: 16	CHILOQUIN BOULEVARD (OR 422) MID-BLOCK CROSSING
Description:	Install enhanced crossing with raised median and RRFB midway between the Tribal Administration Building driveway and the Wellness Center driveway. Construct sidepath, or sidewalk, along the southeast side of OR 422 between the Tribal Administration Building and the proposed crossing, and along the northwest side of OR 422 between the proposed crossing and the Wellness Center driveway.
Purpose:	Provides key connection across Chiloquin Boulevard between Tribes Administration Building and Child Care and Wellness Center.
Cost: $712,800	**Potential Funding Sources:** HSIP, STIP, ARTS, TTP
Potential Project Partners: ODOT, City of Chiloquin, Klamath Tribes	
Considerations:	This location may allow for a short-distance connection to the existing sidewalks on Charley Avenue. Sight distance to the west should be evaluated. An engineering study will be required to further assess the installation of an enhanced pedestrian crossing and should include an evaluation of sight distance and the current speed limit zones. Coordination with the owner of the fiber optics line on the southeast side of the roadway will be required for the construction of the sidepath/sidewalk and enhanced crossing treatments.

Project Location/Images:



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Section 4
Funding Considerations

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FUNDING CONSIDERATIONS

Funding for implementation of the Chiloquin Community Pedestrian and Bicycle Plan may come from a variety of sources. Funding considerations should include the cost of capital improvement projects as well as the on-going costs to maintain facilities after they are built. This section provides an overview of potential funding opportunities that may be used to complete the projects identified in this plan.

PROJECT AND PROGRAMS FUNDING OPTIONS

As shown in Table 4 through Table 6, the total funding needed to accomplish the construction of all high, medium and low priority projects is $5,785,200-$7,777,400, $7,230,000+, and $14,230,000 respectively.

Table 4: High Priority Project Cost

ID	Location	Total Cost
2	1st Avenue: Chocktoot Street to 2nd Avenue	$386,100 / $760,200
4	2nd Avenue: 1st Avenue to Elm Street	$1,546,300
8.1	Chocktoot Street: Chiloquin Boulevard to 1st Avenue	$1,546,000 / $3,025,400
8.2	Chocktoot Street: Chiloquin Boulevard to 1st Avenue	$1,519,500
14	Elm Street: 2nd Avenue to Chiloquin Drive	$74,500 / $464,700
16	Chiloquin Boulevard (OR 422) Mid-Block Crossing	$712,800
	Total	**$5,785,200 / $7,777,400**

Table 5: Medium Priority Project Cost

ID	Location	Total Cost
3	2nd Avenue: Juda Jim Street to 1st Avenue	$3,000 / $370,000[9]
5	Chocktoot Street/3rd Avenue/Park Avenue: 2nd Avenue to Elm Street	$820,000
9	Chiloquin Boulevard (OR 422): Highway 97 to Chiloquin Highway	$4,730,000
10	Lalakes Avenue/Charley Avenue: Applegate Street to Chocktoot Street	$1,060,000
12	Pioneer Street: 2nd Avenue to 3rd Avenue	$1,500 / $170,000[2]
13	Blockinger Street: 2nd Avenue to Chiloquin Drive	$50,000
15	Christina Street: 2nd Avenue to Park Avenue	$30,000
17	Chocktoot Street/1st Avenue	$-[10]
	Total	**$7,230,000+**

[9] *Interim solution cost estimate noted first (pedestrian lane) and final solution cost estimate noted second (sidewalk)*

[10] *Detailed cost estimates will need to be further evaluated*

Table 6: Low Priority Project Cost

ID	Location	Total Cost
1	1st Avenue: Northern City Limits to Chocktoot Street	$6,130,000
6	Valley Street/Chiloquin Drive/Juda Jim Street: 1st Avenue to Elm Street	$3,200,000
7	Chiloquin Highway (OR 422): Western City Limits to Chiloquin Boulevard (OR 422)	$4,750,000
11	Schonchin Street: 2nd Avenue to Chiloquin Drive	$150,000
	Total	**$14,230,000**

Existing Funding Levels

The Tribes and City have limited existing resources to fund the pedestrian and bicycle projects identified in the Plan. Most projects will likely be constructed using external funding sources, such as the ones described in the next section.

Potential Funding Sources

Projects can be funded from a number of Federal, State, Tribal, and local sources. Most Federal and State funding programs are grant programs, which typically have eligibility requirements and applications required. Table 7 document potential Federal, State, and Tribal funding sources, respectively.

Table 7: Potential Federal and State Funding Sources

Source	Award Cycle	Intended Use	Applicable Project Types	Administration Agency	Local Match
Highway Safety Improvement Program	Annual	Reduce fatalities and serious injuries on all public roads.	On-street bikeways, sidewalks, crossings	ODOT	10%
Oregon Parks and Recreation Local Government Grants	Annual	Primary use is recreation; transportation allowed. Construction limited to outside road right-of-way, only in public parks or designated recreation areas	Shared-use paths	OPRD	20%
Connect Oregon	Biennial	Program rules still to be drafted, but funding from bicycle excise tax will be dedicated to bicycle and pedestrian projects.	To be determined	ODOT	30%
Statewide Transportation Improvement Program	Every 4 years	Programs funds for a variety of programs, including bicycle and pedestrian projects along State and local facilities	All	ODOT	Varies
All Roads Transportation Safety (ARTS)	Biennial	Address safety needs on all public roads in Oregon; reduce fatal and serious injury crashes.	Projects consistent with those identified through ODOT's hot spot and systemic efforts.	ODOT	8%
Safe Routes to School (SRTS) Infrastructure Program	Biennial	Address existing safety concerns and barriers for students walking and biking to school.	All	ODOT	20%
Tribal Transportation Program (TTP)	Annual	Planning, design, and construction of a range of project types, including pedestrian and bicycle facilities.	All projects on National Tribal Transportation Facility Inventory (NTTFI) Routes	Federal Lands Highway & Bureau of Indian Affairs	0%

MAINTENANCE CONSIDERATIONS

In addition to the construction of planned projects, the Tribes and City should identify funds to be used for maintenance of existing pedestrian and bicycle facilities. The goal of any maintenance program is to proactively address declining conditions as soon as possible. Such a program achieves the least cost for maintenance over time and the best condition possible. If maintenance is neglected past a certain point, more expensive rehabilitation techniques are necessary.