



City of Joseph Bicycle and Pedestrian Plan



June 2009

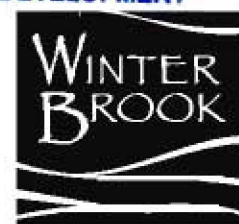
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ACKNOWLEDGEMENTS

The City of Joseph appreciates the efforts of the numerous residents and other walking/bicycling enthusiasts who participated in the development of this Plan. Their creativity, energy, and commitment to the future of Joseph were the driving force behind this planning effort. In addition, the following residents, City staff, and other agency and organization members contributed regularly to the Joseph Bicycle and Pedestrian Plan.

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Executive Summary

Introduction

Whether it be a leisurely bike ride to Wallowa Lake or a short walk to school, Joseph residents and visitors greatly value the area's walking and bicycling opportunities. The foundation of a potentially-tremendous walkway and bikeway network is already in place or in development. Joseph's Downtown core offers an attractive walking environment largely resulting from the visionary Main Street Beautification Project completed in 2000. Surrounding neighborhoods have well-connected streets, many of which serve as excellent bicycling routes, and efforts are underway to establish new recreation opportunities. To further enhance these assets, Joseph residents and leaders desire to make their community even more attractive for walkers and bicyclists. In some areas, bicycle and pedestrian system upgrades are needed. These include intersection improvements, sidewalk completion, Americans with Disabilities Act (ADA) compliance, completing bikeway network gaps, and establishing new connections.

The Bicycle and Pedestrian Plan will take Joseph to the next level. This Plan presents the vision of a fully-developed bicycle and pedestrian system over the next 20 years, serving residents and visitors alike. A complete bikeway and walkway network will increase overall connections within the community, increase the number of children walking and bicycling to school, and promote the overall health of Joseph residents by making walking and bicycling safe, comfortable and attractive travel modes.

Plan Purpose and Community Involvement

The Bicycle and Pedestrian Plan provides an updated inventory and assessment of Joseph's walkway and bikeway network, and replaces the bicycle and pedestrian element of the City's 2001 Transportation System Plan. This Plan lays out comprehensive strategies for systemwide improvements and specifies exactly what needs to be done to achieve the City's goal of becoming a better walking and bicycling community. These strategies will help Joseph leverage the necessary funding and other resources needed to achieve this goal.

City staff, stakeholder groups, and most



Figure ES-1: Walking and bicycling tours, hosted by the Project Team, gave participants first-hand knowledge of opportunities and challenges facing bicyclists and pedestrians in Joseph.

of all – Joseph residents – helped guide this Plan. Community workshops were held throughout the project’s duration, enabling residents and other interested individuals to express concerns and ideas for improvements. The City also hosted walking and bicycling tours, allowing participants to gain a user’s perspective on current conditions and needs (see **Figure ES-1**). The Project Team conducted stakeholder interviews to identify bicycle/pedestrian issues from the standpoint of various interest groups and organizations. Finally, the project’s Technical Advisory Committee and Joseph City Council provided insights in a series of work sessions and public meetings.

Existing Conditions

Sidewalks, roadway shoulders, and shared roadways on low-volume streets comprise Joseph’s current walkway and bikeway network. The quantity and quality of facilities varies by location.

Elements contributing to a positive walking and bicycling environment include:

- Pedestrian-friendly environment in the Downtown core
- Presence of streetscape treatments along Main Street
- Generally-good street system connectivity
- Warning signage advising motorists of pedestrian and bicycle traffic on major roads
- Intersection treatments to facilitate safe and convenient pedestrian crossings in some areas
- Presence of available right-of-way for future walkways and bikeways

System weaknesses include:

- Major roads serving as barriers to walking and bicycling (e.g., either along or across the roadway)
- Limited street connectivity in some locations
- Lack of wayfinding tools to orient bicyclists and pedestrians
- Maintenance issues (e.g., marginal or poor pavement conditions in some locations, damaged or deteriorated sidewalks)
- Fragmented sidewalk network in some areas
- Limited sight distances due to sharp roadway curves and overgrown vegetation
- Presence of informal paths indicating a need for formalized walkways and bikeways
- Lack of bike parking facilities in several areas

Recommendations

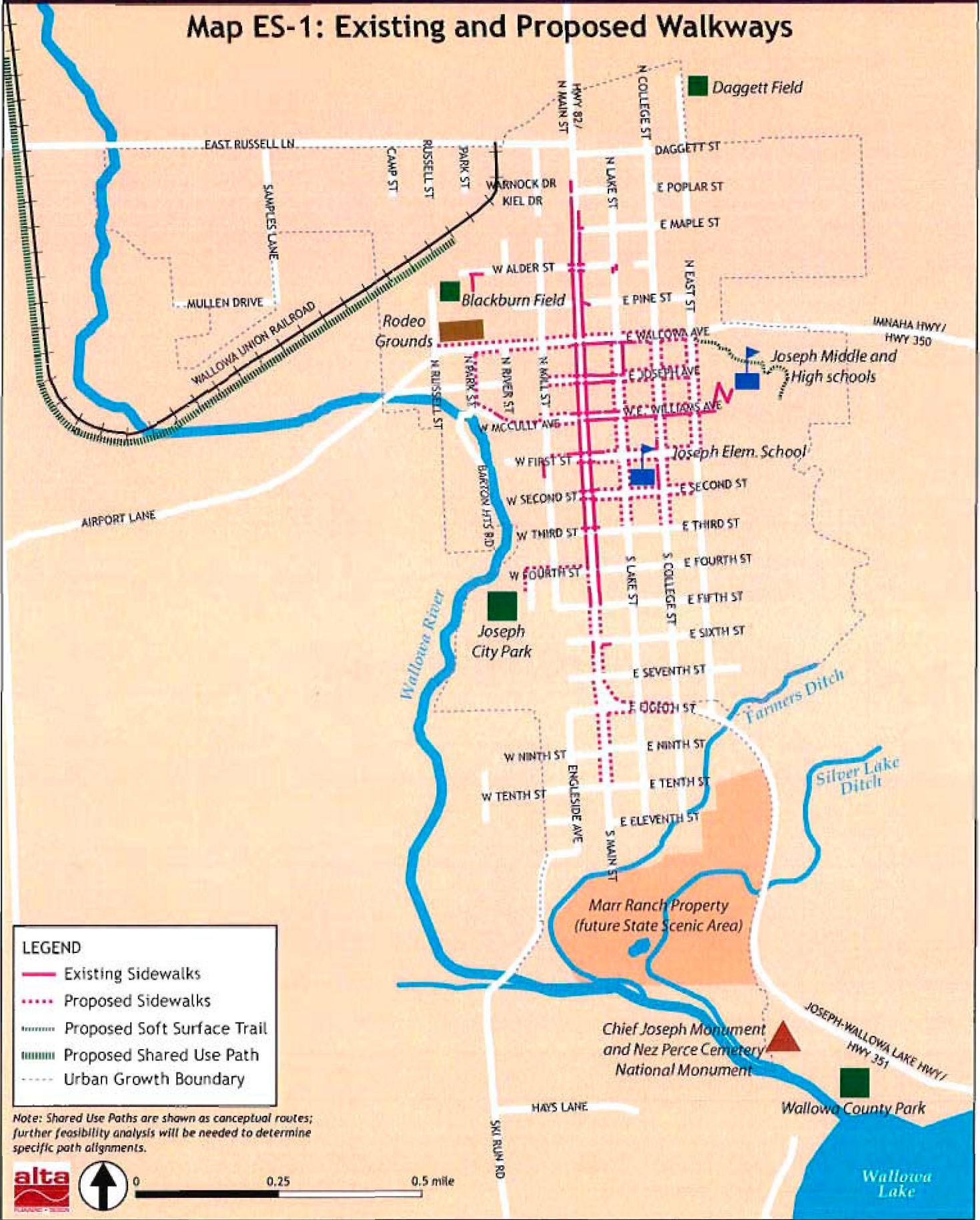
Maps ES-1 and ES-2 depict the recommended walkway and bikeway networks. This Plan lays out a comprehensive system connecting key walking and bicycling destinations and surrounding areas. The recommended system was developed based on input from City staff, stakeholder groups and Joseph residents. The network also builds upon recommendations from previous and on-going planning efforts. The system includes a variety of facilities including sidewalks, bike lanes, shoulder bikeways, Bicycle Boulevards, shared use paths, and intersection improvements.

Equally important to the walkway and bikeway network are support programs. Additional strategies for improving walking and bicycling in Joseph include:

- Bike Rodeos (education tool for children)
- Adult cycling skills education
- Share the Road campaign
- Police education courses
- Safe Routes to School program
- Citywide walking and bicycling maps
- Bike and Walk Central website
- “Complete Streets” policy
- Annual bicycle and pedestrian counts
- Promotional events to encourage walking and bicycling

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Map ES-1: Existing and Proposed Walkways



LEGEND

- Existing Sidewalks
- ⋯ Proposed Sidewalks
- ⋯⋯⋯ Proposed Soft Surface Trail
- ▨ Proposed Shared Use Path
- - - - - Urban Growth Boundary

Note: Shared Use Paths are shown as conceptual routes; further feasibility analysis will be needed to determine specific path alignments.

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0 0.25 0.5 mile

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Map ES-2: Existing and Proposed Bikeways



The Bottom Line: Where to Start

This Plan lays out a long list of projects and programs to make Joseph a premier bicycling and walking community. To get the momentum going, the City should start today with a few key strategies (later chapters discuss these strategies in greater detail):

- **Construct sidewalks on W McCully Avenue between Downtown and the Alpine House Assisted Living Facility:** This project responds to the overwhelming desire among Joseph residents to develop a safe and convenient pedestrian connection between Downtown and the Alpine House Assisted Living Facility. The W McCully Avenue sidewalk would directly connect Alpine House residents with the Joseph Post Office and other Downtown businesses. Specifically, the project would develop a sidewalk on W McCully Avenue's north side between N Park Street and Main Street (see **Figure ES-2**).
- **Develop an "Eastside Bicycle Boulevard" along College and Lake streets:** The Eastside Bicycle Boulevard would provide a continuous north-south bicycle route connecting several neighborhoods with Downtown Joseph, Joseph Elementary School, and the future Marr Ranch State Scenic Area. The improved corridor would also connect riders with other existing and proposed bicycle/pedestrian facilities, and serve as an alternative to higher-volume roads such as Main Street (see **Figure ES-3**). The Bicycle Boulevard would roughly follow College and Lake streets between Daggett Street and the future Marr Ranch State Scenic area. Improvements would include wayfinding signage, directional pavement markings, roadway pavement upgrades, and intersection treatments to improve bicycle/pedestrian crossings.



Figure ES-2: The project would construct a sidewalk on the north side of W McCully Avenue near Mill Street.



Figure ES-3: College and Lake streets provide a comfortable bicycling alternative to nearby higher-volume streets.

- **Prepare a Wallowa River Path Feasibility Study:** This project would develop a feasibility study identifying potential path development opportunities along the Wallowa River between Joseph City Park and Wallowa Lake (see **Figure ES-4**). The study would build on recent trail development research prepared by the Wallowa Land Trust, including a map depicting potential trail corridors in this area. Depending on community preferences and physical or other constraints, a paved or soft surface path could follow either side of the river. The path would establish a premier walking and bicycling facility for Joseph residents and visitors, tying together numerous destinations including Joseph City Park, the future Marr Ranch State Scenic Area, Nez Perce National Historic Park, Wallowa County Park, and Wallowa Lake.



Figure ES-4: A trail along the Wallowa River could provide a direct bicycle/pedestrian connection between Joseph and Wallowa Lake.

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CHAPTER 1. Introduction

Since 1949, a stern yet plain-spoken sign has greeted visitors entering the community of Joseph: “This Little Town Is Heaven To Us. Don’t Drive Like Hell Through It.” In an effort to soften the tone, City leaders recently added the word “Please” (see Figure 1-1). The sign exemplifies this Northeast Oregon community’s character: A town proud of its down-to-earth roots, its straight-forward honesty, and never-ending eagerness to improve itself through efforts small and large.

Joseph’s character, location, and history truly place this community in a class of its own. Known by many as the “Switzerland of America,” Joseph is situated where the towering Wallowa Mountains descend into Wallowa Lake, a five-mile long lake formed by glaciers over nine million years ago. The town officially incorporated in 1879, with its namesake reflecting either that of Old Chief Joseph or his son, both from the Nez Perce Tribe. The Nez Perce resided in the area long before the arrival of farmers and settlers, and even longer before Joseph became the first Wallowa County seat in the late 1880s. The Tribe’s forced exodus from the Wallowa Valley represents a darker moment in America’s 19th Century history, though the Chief Joseph Monument and Nez Perce National Historic Park celebrate the Tribe’s tremendous cultural and historical contributions.

Today, Joseph has transformed itself from a small timber community into a widely popular destination. Since opening two bronze foundries in the 1980s, attractive bronze statues on Main Street now compliment numerous Downtown art studios and galleries. Recreation opportunities abound in and near the city, including Wallowa County Park, Eagle Cap Wilderness Area, and Hells Canyon. The community’s 1,100 residents and countless visitors enjoy activities and events almost every weekend of the year such as Chief Joseph Days, the Bronze Blues and Brews Music Festival, Bronze Bike Motorcycle Rendezvous, and Eagle Cap Sled Dog Races.



Figure 1-1: An unforgettable sign greets visitors entering Joseph.

1.1. Walking and Bicycling: Making the Connection

Whether it be a leisurely bike ride to Wallowa Lake or a short walk to school, Joseph residents and visitors greatly value the area’s walking and bicycling opportunities. The

foundation of a potentially-tremendous walkway and bikeway network is already in place or in development. Joseph's Downtown core offers an attractive walking environment largely resulting from the visionary Main Street Beautification Project completed in 2000. Surrounding neighborhoods have well-connected streets, many of which serve as excellent bicycling routes, and efforts are underway to establish new recreation opportunities. To enhance these assets, Joseph residents and leaders desire to make their community even more attractive for walkers and bicyclists. In some areas, bicycle and pedestrian system upgrades are needed. These include intersection improvements, sidewalk completion, Americans with Disabilities Act (ADA) compliance, completing bikeway network gaps, and establishing new connections.

The Bicycle and Pedestrian Plan will take Joseph to the next level. This Plan presents the vision of a fully-developed bicycle and pedestrian system over the next 20 years, serving residents and visitors alike. A complete bikeway and walkway network will increase overall connections within the community, increase the number of children walking and bicycling to school, and promote the overall health of Joseph residents by making walking and bicycling safe, comfortable and attractive travel modes.

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Figure 1-2. Walking and bicycling tours, hosted by the Project Team, gave participants first-hand knowledge of opportunities and challenges facing bicyclists and pedestrians in Joseph.

City staff, stakeholder groups, and most of all - Joseph residents - helped guide this Plan. Community workshops were held throughout the project's duration, enabling residents and other interested individuals to express concerns and ideas for improvements. The City also hosted walking and bicycling tours, allowing participants to gain a user's perspective on current conditions and needs (see Figure 1-2). The Project Team conducted stakeholder interviews to identify bicycle/pedestrian issues from the standpoint of various interest groups and organizations. Finally, the project's

Technical Advisory Committee and Joseph City Council provided insights in a series of work sessions and public meetings.

1.3. Contents of the Plan

The Joseph Bicycle and Pedestrian Plan is organized as follows:

- **Chapter 1, Introduction**, provides an overview of this Plan and its purpose.
- **Chapter 2, Existing Conditions**, describes Joseph’s existing walkway and bikeway network and summarizes system strengths and weaknesses.
- **Chapter 3, Recommended Walkway and Bikeway Network**, depicts the recommended system of on- and off-street walkways and bikeways, and details several “Top Priority” projects. The chapter also includes a project list with planning-level cost opinions, and a project prioritization discussion.
- **Chapter 4, Recommended Pedestrian and Bicycle Programs**, describes education, encouragement, enforcement and evaluation measures the City of Joseph and/or other local agencies should implement to promote walking and bicycling, to increase bicyclist and pedestrian safety, and to increase the awareness of walking and bicycling as viable travel modes.
- **Chapter 5, Design Guidelines**, provides design guidance to be referenced when implementing Joseph’s walkway and bikeway projects. Design guidelines are gathered from local, state and national best practices.
- **Chapter 6, Funding Sources**, identifies potential strategies for funding the recommended pedestrian and bicycle projects and programs.
- **Appendices** at the end of this Plan include a Facts and Findings Report documenting existing traffic operations at key intersections, along with a discussion of potential traffic impacts associated with the proposed pedestrian/bicycle improvements. Additional appendices include a detailed project evaluation matrix, and recommended changes to Joseph’s Comprehensive Plan, Zoning Ordinance, and Land Division and Partitioning Ordinance.

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CHAPTER 2. Existing Conditions

2.1. Introduction

This chapter describes Joseph's existing walking and bicycling environment as well as system strengths and weakness. The text first discusses the community's various bicycle/pedestrian facility types, highlights non-motorized user destinations, and describes inter-modal connections. The chapter concludes with a summary of system strengths and weaknesses, enabling City leaders to identify system attributes and needs, setting the stage to identify and prioritize improvements.

2.2. Walkways

Pedestrian travel is accommodated and enhanced by sidewalks, shared use paths, crosswalks, curb ramps and other infrastructure. Various facility types comprise Joseph's existing walkway network, the most basic of which are described below.

2.2.1. Sidewalks

Depicted on **Map 2-1**, sidewalks comprise the vast majority of Joseph's walkway network. The most common type of walkway, sidewalks generally parallel roadways and have a hard, smooth surface (e.g., concrete), with separation from the roadway typically consisting of a curb and/or planter strip.

The presence and condition of sidewalks in Joseph varies by location. The Downtown area, particularly along Main Street, benefits from a relatively complete sidewalk system with sidewalks on both sides between Maple and Third streets. This system was completed in 2000 as part of the Joseph Main Street Beautification Project, a partnership of the Joseph Economic Improvement District, Oregon Department of Transportation (ODOT), the Northeast Oregon Economic Development District, and several other agencies and organizations. The Main Street sidewalk environment includes a variety of complementary pedestrian facilities such as curb ramps and amenities like street trees, public art, benches and trash receptacles (see **Figure 2-1**).



Figure 2-1: Main Street's sidewalk network and other pedestrian infrastructure create an attractive walking environment.

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Map 2-1: Existing Bikeways and Walkways



Beyond the downtown core, sidewalk segments exist along Main Street between E Maple and E Poplar streets, and between Third and Fifth streets. The City recently constructed sidewalks on the south side of W.E. Williams Avenue between Main and East streets to better connect students with Joseph Middle and High schools. Other streets with existing sidewalk segments include E Wallowa Avenue (between N Main and N College streets), E Joseph Avenue (between S Main and S Lake streets), and portions of W Alder, N Lake, S Mill, S College, and E Sixth streets.

Sidewalk widths vary by location, ranging from four to five feet wide on residential streets, to over ten feet wide on portions of Main Street in the Downtown core. Sidewalk conditions vary, ranging from relatively smooth surfaces (e.g., along S Main Street north of Third Street), to cracked sidewalks with intruding vegetation (e.g., on the east side of S Main Street south of Third Street).

The vast majority of Joseph streets lack sidewalks or other dedicated pedestrian facilities. In these areas, pedestrians either walk in adjacent shoulders (grass or gravel) or share the road with motor vehicles (see **Figure 2-2**). Despite the general absence of sidewalks on these streets, pedestrians benefit from relatively low traffic volumes and low posted speeds (15-25 MPH).



Figure 2-2: Pedestrians walk in the roadway on S Main Street due to a lack of sidewalks.

2.3. Intersections

The quality of intersections from a pedestrian perspective varies by location. The following sections describe general intersection conditions in Joseph.

2.3.1. Crosswalks

Within the Downtown core, marked crosswalks exist at nearly all intersections along Main Street. Most crosswalks consist of transverse (also called “parallel bar”) markings, while some intersections include higher-visibility longitudinal (also called “ladder-style”) markings (see **Figure 2-3**). Most intersections beyond Downtown lack marked crosswalks, with the exception of a few streets near school areas (e.g., E Wallowa Avenue at N East Street). The City of Joseph currently applies paint to mark and re-mark crosswalks, but has expressed interest in using thermoplastic to reduce maintenance needs.



Figure 2-3: Longitudinal crosswalk on Main Street at W McCully Avenue.

2.3.2. Curb Ramps

Curb ramps represent a fundamental element of an accessible public realm. A sidewalk without a curb ramp can be useless to someone in a wheelchair, forcing them back to a driveway and out into the street for access. In Downtown Joseph, curb ramps exist at most intersections along Main Street. Curb ramps also exist along the recently completed W.E. Williams Avenue sidewalk, with some ramps including detectable warning strips to guide visually-impaired users. A more scattered system of ramps exists along other streets throughout the city.

2.4. Shared Use Paths

Shared use paths currently do not exist in Joseph. These facilities (also referred to as “multi use trails” and “multi use paths”) accommodate various non-motorized users, including pedestrians, bicyclists, in-line skaters, and runners. Shared use paths are typically paved (asphalt or concrete) but may also consist of an unpaved smooth surface as long as it meets Americans with Disabilities Act (ADA) standards. Although shared use paths currently do not exist in Joseph, previous planning efforts have identified several potential path development opportunities (described later in this Plan).

2.5. Soft Surface Trails

Soft surface trails typically serve walkers and joggers, and may also accommodate equestrians and cross-country skiers. Joseph currently lacks a formalized soft surface trail system; however residents and visitors have created several informal trails, including a former jogging trail circling the Joseph Middle/High School campus, a trail along the Wallowa River near Wallowa County Park and the Marr Ranch property, and a trail following the Wallowa River near Barton Heights Road.

2.6. Accessways

Accessways are short sidewalk or shared use path segments providing direct pedestrian/bicycle connections to destinations that would otherwise require out-of-direction travel on the surrounding street system. Accessways commonly connect cul-de-sac streets with nearby streets or paths to minimize pedestrian/bicycle travel distance in areas with limited street system connectivity. North of Joseph’s Downtown core, a



Figure 2-4: Accessway linking N Main Street and E Pine Street.

pedestrian bridge crosses over Big Bend Ditch, linking N Main Street with E Pine Street (see Figure 2-4).

2.7. Bikeways

Several types of “bikeways” exist, as defined by Federal and State bicycle planning and design guides and manuals. Bikeways generally are distinguished as preferential roadways accommodating bicycle travel, with accommodation taking the form of bicycle route designation, bike lane striping, or shared use paths to physically separate cyclists from motorists.

Joseph currently lacks a formalized bikeway system (e.g., bike lanes and shared use paths). Rather, bicyclists share streets with motorists. Most lower-order streets in Joseph can be classified as “shared roadways.” Typically the most common type of bikeway, shared roadways accommodate vehicles and bicycles in the same travel lane (see Figure 2-5). The most suitable roadways for shared vehicle/bicycle use are those with lower posted speeds (25 MPH or less) or lower traffic volumes (3,000 Average Daily Traffic or less). Most lower-order streets in Joseph have posted speeds of 15 to 25 MPH while serving relatively low traffic volumes.

Although bicyclists and motorists can sufficiently share travel lanes on most streets, higher vehicle volumes and speeds on other corridors indicate a potential need for enhanced bicyclist accommodations (e.g., separation from motorists). Joseph’s major roads provide varying shoulder widths to accommodate bicycle travel, including two- to three-foot wide shoulders on segments of Oregon 82 north of Russell Lane, one- to three-foot wide shoulders on E Eighth Street and Wallowa Lake Highway, and no shoulders on Airport Lane/Hurricane Creek Road.



Figure 2-5: S College Street is an example of a shared roadway in Joseph.

2.8. Bike Parking

Bike parking is a critical component of a community’s bikeway network and can strongly influence one’s decision whether to complete a trip via bicycle. Joseph’s bike parking facilities largely consist of bike racks located at intersections along Main Street in the Downtown core (installed as part of the Main Street Beautification Project, see Figure 2-6). Bike racks



Figure 2-6: The Joseph Main Street Beautification Project included installation of several bike racks.

also exist adjacent to Joseph Elementary School (near the building entrance on E Second Street), and at the east end of W.E. Williams Avenue near Joseph Middle and High schools.

The quality of existing bike parking facilities varies by location, particularly due to the style of rack chosen and/or placement of the rack. Some existing racks (particularly those near the schools) are considered substandard because they do not provide sufficient points of contact to support a bicycle at two points. In other words, they do not allow a bicycle frame and at least one wheel to be locked to the rack without the use of a long bicycle cable or mounting the bicycle over the rack.

2.9. Pedestrian and Bicyclist Destinations

Joseph benefits from a relatively compact layout and well-connected street system, making walking and bicycling convenient and attractive travel modes. Major walking and bicycling destinations include:

- Restaurants and commercial/retail businesses on Main Street in Downtown Joseph
- U.S. Post Office
- Public restrooms and informational kiosk at the Joseph Public Parking Lot
- Blackburn Field
- Daggett Field
- Joseph City Park
- Rodeo grounds

Non-motorized users (especially bicyclists) also benefit from a variety of destinations within close proximity of Joseph, including Wallowa County Park and the Nez Perce National Historic Park. Several rural roads immediately outside Joseph serve as recreational cycling routes, including Hurricane Creek Road (see **Figure 2-7**), Imnaha Highway, Wilson Lane, Walker Lane, and Ski Run Road.



Figure 2-7: Hurricane Creek Road is a popular recreational bicycling route.

2.10. Transit Connections

Community Connections of Wallowa County provides fixed route shuttle bus service between Enterprise and Wallowa Lake State Park, including six roundtrips each day between mid-June and mid-September. Within Joseph, shuttle buses travel along Oregon 82, Main and E Eighth streets, and Wallowa Lake Highway. Buses make “flag

stops” along the route (designated stops do not exist), and drivers will deviate from the route to serve mobility-impaired users upon request. Shuttle buses are ADA-accessible, but currently lack bike racks. Shuttle operators allow bicycles inside shuttle buses when sufficient room exists, and the agency is currently seeking grant funding for a new vehicle that would include a bike rack. Approximately 15 to 20 passengers utilize the service each day, while usage increases to 25 to 30 riders during peak periods.

Northeast Oregon Public Transportation operates the “Wallowa Link” shuttle between Joseph and La Grande. Buses operate on Mondays and Tuesdays with two departures each day. Buses also make stops in five communities along Oregon 82 between Joseph and La Grande.

2.11. Connections to Schools

Joseph Elementary School occupies the city block surrounded by E First, E Second, S Lake, and S College streets; while Joseph Middle and High schools share a building on a bluff above East Street near W.E. Williams Avenue. Within the schools’ immediate vicinity, streets with sidewalks include Main Street, W.E. Williams Avenue, E Joseph Avenue, and segments of S College Street. The absence of sidewalks on other streets near the schools forces pedestrians to walk in adjacent yards or share the road with motorists (see Figure 2-8). With the exception of Main Street and the E Wallowa Avenue at N East Street intersection, most nearby intersections lack marked crosswalks. Signage alerting motorists of pedestrians exists on S Lake Street, while a School Speed Zone of 20 MPH is posted on S College Street.



Figure 2-8: Most streets near Joseph schools, including S Lake Street, lack sidewalks.

Designated bikeways do not exist near either school campus, although students use the surrounding residential street and alley system. Bike parking at the Elementary School is located near the S Second Street building entrance; while the closest bike rack to the Middle and High schools is located at the east end of W.E. Williams Avenue.

A cyclone fence encircles the Elementary School campus, limiting access to the E Second Street building entrance. The Middle and High School campus’ location on a bluff largely limits access to the west and south. Most students use a sidewalk and pedestrian path linking W.E. Williams Avenue with the Middle/High School parking lot, where a stairway provides access to the main building entrance.

2.12. System Strengths and Weaknesses

2.12.1. System Strengths

Summarized below, various characteristics create a positive bicycling and walking environment in Joseph and surrounding areas.

Land Use Characteristics

Land use characteristics, particularly along Main Street in Downtown Joseph, foster a pedestrian- and bicycle-friendly environment. For instance, buildings fronting the sidewalk edge on Main Street create a sense of tight urban form and an inviting pedestrian atmosphere. Walking and bicycling as a means for running errands are also encouraged through the grouping of diverse land uses in the Downtown core.

Streetscape Treatments

Streetscape treatments on Main Street (as part of Joseph's Main Street Beautification Project) create an attractive walking and bicycling environment. Treatments include street trees, benches, trash receptacles, and public art celebrating Downtown Joseph (see Figure 2-9). The presence of angled on-street parking also buffers foot traffic from adjacent motor vehicle traffic. Other nearby streets (e.g., W.E. Williams Avenue) include planter strips between the sidewalk and curb, providing an additional buffer between pedestrians and motorists.



Figure 2-9: Pedestrians on Main Street benefit from a variety of streetscape treatments.

System Connectivity

Joseph's street grid provides generally good system connectivity, especially in areas south and east of Downtown. The relatively well-connected grid facilitates convenient and direct bicycle and pedestrian travel.

Presence of Intersection Treatments for Pedestrian Crossings

Curb Extensions

Curb extensions slow vehicle traffic by creating a visual "pinch point" for approaching motorists. Typically constructed within the on-street parking lane (e.g., along Main Street between Maple and Third streets), these devices can calm traffic passing through or turning at an intersection. Curb extensions also reduce the pedestrian crossing distance, while increasing motorists' visibility of pedestrians waiting to cross the street.

High-Visibility Crosswalks and Signage

High-visibility crosswalks and supplemental warning signage exist at several intersections in Joseph. High-visibility crosswalks usually include multiple wide stripes oriented perpendicular to the pedestrian's direction of travel while crossing the street. Some crossings also include warning signage to alert motorists of the presence of foot traffic (e.g., E Wallowa Avenue at N Lake Street).

Signage Alerting Motorists of Bicyclists and Pedestrians

Although many streets in and around Joseph lack sidewalks, bike lanes or other dedicated facilities, the City and ODOT have placed warning signs on some streets to alert motorists to the presence of non-motorized users. For instance, several "BIKES ON ROADWAY" signs exist on Wallowa Lake Highway immediately south of Joseph where bicyclists must ride on narrow shoulders or share travel lanes with motorists (see Figure 2-10).



Figure 2-10: Warning signs on Wallowa Lake Highway alert motorists of bicyclists on the roadway.

Presence of Available Right-Of-Way for Future Bikeways and Walkways

Right-of-way widths on many Joseph streets provide sufficient room for future bicycle and pedestrian facilities. Widths range from about 60 feet on most east-west streets to about 100 feet on north-south streets. These right-of-way widths, coupled with relatively narrow existing street widths (typically two travel lanes) provide opportunities to construct bikeways and walkways with minimal or no private property impacts.

2.12.2. System Weaknesses

Described below, pedestrians and bicyclists in and around Joseph face a variety of challenges.

Barriers

Joseph residents cite major roads as barriers to bicycling and walking, particularly due to higher vehicle speeds and volumes which create uncomfortable and potentially unsafe crossing conditions. Examples include S Main Street (south of Downtown), E Eighth Street, and Wallowa Lake Highway.

Uncomfortable Walking and Bicycling Environment Along High-Volume Roadways

Large vehicles (e.g., trucks, buses, and recreational vehicles), high vehicle speeds, and volumes create challenging, uncomfortable, and potentially unsafe walking and bicycling conditions on major streets. These conditions present additional challenges on

major roads with minimal or no bicycle/pedestrian facilities. Example corridors include S Main Street near Seventh Street (narrow shoulders for bicyclists and no sidewalks for pedestrians), Wallowa Lake Highway (narrow bridges forcing foot and bicycle traffic into the roadway), Airport Lane/Hurricane Creek Road, and Engleside Avenue/Ski Run Road.

Limited Street System Connectivity in Some Areas

Although Joseph benefits from generally good street system connectivity, limited connectivity in some parts of town provides few bicycle/pedestrian routing options. Specific locations include areas west of S Main Street and neighborhoods north of Wallowa Avenue. In these areas, bicyclists and walkers must use major roadways to travel longer distances.

Lack of Wayfinding Tools

Joseph's walkway and bikeway system could benefit from signage and other wayfinding tools to orient users and direct them to and through major destinations like Downtown, surrounding schools, ball fields, and parks.

Maintenance Issues

Described below, several maintenance issues complicate pedestrian/bicycle travel in Joseph.

Marginal/Poor Pavement Conditions on Several Streets

Bicyclists encounter difficult riding conditions on unpaved streets such as W Fourth Street west of Mill Street (near Joseph City Park), and N Russell Street (near the rodeo grounds). These streets present difficult maneuvering issues, especially for cyclists making tight turns. Paved streets with numerous potholes or other pavement quality issues also complicate riding, especially at night in areas with limited or no lighting. Roadways with marginal or poor pavement include segments of Lake, College, and East streets (see **Figure 2-11**).

Gravel/Debris on Roadway Shoulders

Gravel and debris on roadway shoulders create difficult bicycling conditions, and typically force bicyclists to ride in adjacent vehicle travel lanes. The Project Team observed these conditions on E Wallowa Avenue/Imnaha Highway (see **Figure 2-12**).



Figure 2-11: Bicyclists encounter marginal/poor pavement conditions on segments of College Street.



Figure 2-12: Gravel on the E Wallowa Avenue roadway shoulder creates difficult bicycling conditions.

Damaged/Deteriorated Sidewalks

Existing sidewalks in some parts of the city suffer from cracking, heaving, and/or vegetation growing between pavement seams (e.g., the west side of S Main Street south of Fourth Street). Uneven pavement joints (often caused by tree roots below the sidewalk) create tripping hazards and complicate travel for wheelchair users. Mobility-impaired pedestrians also experience difficulty on sidewalk surfaces consisting of larger rocks (e.g., the east side of S Main Street near Fifth Street). Water ponding on sidewalk surfaces can further challenge walking, especially when ponding water freezes in cold weather.

Damaged/Deteriorated Trails

Briefly described earlier, Joseph residents helped construct a soft surface perimeter trail around the Joseph Middle/High School campus in 2004. Approximately $\frac{3}{4}$ mile long, the trail served as a popular walking, jogging, and cross-country trail; and included a weed barrier below the ground surface to deter vegetation encroachment. Little to no maintenance has occurred since trail construction, resulting in vegetation overgrowth and surface deterioration.



Figure 2-13: Vegetation obstructing a School Speed Zone sign on S College Street.

Obstructed Signs

Although the City has posted School Speed Zone and other advisory signs aimed at motorists, overgrown vegetation obstructs these signs in some locations (e.g., on S College Street north of Joseph Elementary School, see Figure 2-13).

Fragmented Sidewalk Network in Some Areas

As discussed earlier, Downtown Joseph benefits from a fairly complete sidewalk network while the system is fragmented in other areas. Beyond the Downtown core, many streets have sidewalks on one side only (e.g., portions of E Wallowa Avenue) while other streets lack sidewalks altogether. In some locations, sidewalks abruptly end (e.g., on W Alder Street), forcing pedestrians into the roadway shoulder (if one exists) or into the road.

Sight Distance Issues

Limited sight distance in some locations creates potentially hazardous bicycling and walking conditions. Several tight curves on the Tenth Street/Engleside Avenue/Ski Run Road corridor create an uncomfortable and potentially unsafe walking and riding environment, as motorists maneuvering around curves have little time to react when encountering foot and bicycle traffic on the roadway. Pedestrians and bicyclists crossing

E Eighth Street also encounter challenging conditions, as relatively tight curves and overgrown vegetation limit visibility for all roadway users (see **Figure 2-14**).

Demonstrated Need for More Bicycle/Pedestrian Facilities

The presence of informal paths (also known as “demand paths”) in some areas indicates a demand for pedestrian and bicycle facilities where they currently do not exist, or where formalized facilities require users to follow circuitous routes to overcome relatively short distances. This is particularly evident along the Wallowa River near Wallowa County Park, where non-motorized users have created a system of informal paths.



Figure 2-14: Overgrown vegetation obstructs sight distance at the E Eighth Street/S Lake Street intersection.

CHAPTER 3. Recommended Walkway and Bikeway Network

3.1. Introduction

Joseph has potential to transform itself into one of the region’s most walkable and bikeable communities. Although challenges lie ahead, the foundation of a fantastic system already exists. This chapter lays out a 20-year plan for completing this system. The recommended network builds upon previous and on-going local and regional planning efforts, and reflects the extensive input offered by City staff, bicycle/pedestrian stakeholder groups, and Joseph residents.

The recommended walkway and bikeway network includes a comprehensive and diverse set of pedestrian and bicycle facilities connecting key destinations in and around Joseph. System improvements include filling sidewalk gaps, establishing a designated bikeway network, upgrading intersections for safer bicycle/pedestrian crossings, expanding the shared use path network, and other infrastructure projects to encourage bicycling and walking. Suggested improvements include low-cost measures yielding immediate results, such as establishing Bicycle Boulevard corridors. Other suggested improvements, such as expanding the local trail system, represent longer-term strategies for transforming Joseph into a truly bicycle- and pedestrian-friendly community.

This chapter contains a long list of suggested improvements, yet projects at the top of the priority list will substantially improve the walking and bicycling environment within the first five years of Plan implementation. A section at the end of this chapter suggests specifically where the City should concentrate its infrastructure improvement efforts first. Chapter 4 describes programmatic strategies to enhance Joseph’s walking and bicycling environment.

3.2. Walkway Improvements

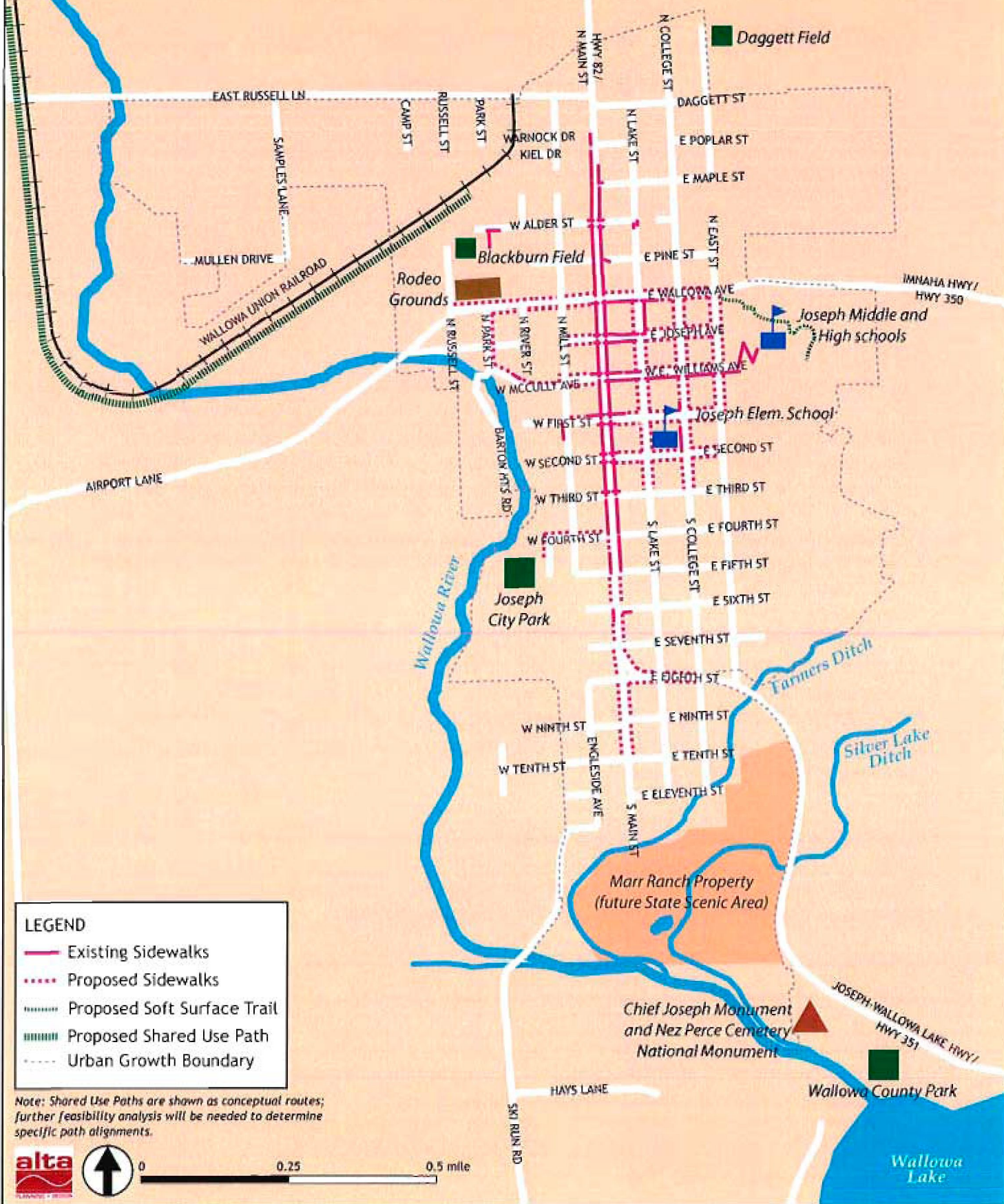
Map 3-1 depicts recommended pedestrian system improvements, while the sections below describe the facility types and projects in greater detail.

3.2.1. Sidewalks

Map 3-1 illustrates the existing and proposed sidewalk system. The existing inventory is largely based on the latest available data provided by the City as well as follow-up site visits in various locations. While the map depicts proposed sidewalks on a limited number of roadways, the City should work to provide sidewalks or other pedestrian accommodations on all streets to maximize connectivity.

JOSEPH BICYCLE AND PEDESTRIAN PLAN

Map 3-1: Existing and Proposed Walkways



LEGEND

- Existing Sidewalks
- ⋯ Proposed Sidewalks
- - - - - Proposed Soft Surface Trail
- ▨ Proposed Shared Use Path
- - - - - Urban Growth Boundary

Note: Shared Use Paths are shown as conceptual routes; further feasibility analysis will be needed to determine specific path alignments.





If physical constraints, limited funding, or other issues preclude sidewalk construction on both sides of a street simultaneously, the City should implement projects in multiple phases (e.g., by first constructing a sidewalk on one side of the street as an interim measure).

Maintaining and improving the existing system holds equal importance. The City should thoroughly inventory the existing sidewalk network to identify needed improvements (e.g., cracked or heaving pavement, intersections lacking curb ramps, etc.) and dedicate resources on a continual basis to address these problem areas.

Alpine House Subarea

The Alpine House Assisted Living Facility is located on N Park Street between W Wallowa and W McCully avenues. Residents and staff have consistently expressed a desire for improved pedestrian connections between the facility and Downtown Joseph. Despite the Alpine House's relatively close proximity to Main Street and Downtown businesses, pedestrians face numerous challenges, most notably an absence of sidewalks and other pedestrian infrastructure. Between the Alpine House and Downtown, pedestrians currently follow two main routes:

- N Park Street to W Wallowa Avenue
- N Park Street to W McCully Avenue

The Project Team, at Community Open Houses and citywide walking tour events, discussed existing conditions and potential improvement ideas with Alpine House residents and staff. Map 3-2 depicts potential pedestrian infrastructure improvement options on the two main routes linking the facility with Main Street and Downtown Joseph, and also describes opportunities and constraints associated with each route. The following sections describe the two routing options in greater detail.

N Park Street and W Wallowa Avenue

The N Park Street and W Wallowa Avenue route link Alpine House residents with a commercial business hub at the N Main Street/Wallowa Avenue intersection, including a popular restaurant and grocery store. **Table 3-1** summarizes opportunities and constraints associated with pedestrian infrastructure improvements on this route. Major opportunities include the route's direct connections with N Main Street, and potential to connect pedestrians with other nearby destinations (e.g., rodeo grounds). Major constraints include potentially-costly sidewalk or path retrofit projects on two W Wallowa Avenue bridges. Wallowa County owns and maintains the bridge over Wrenn Dobbin Ditch while the City of Joseph owns and maintains the bridge over Big Bend Ditch.

Table 3-1: N Park Street/W Wallowa Avenue Opportunities and Constraints

Opportunities	Constraints
<ul style="list-style-type: none"> Provides the most direct routing between Alpine House and Main Street Sidewalk and/or other pedestrian improvements on W Wallowa Avenue would also improve connections to the nearby rodeo grounds Sufficient room exists to construct a sidewalk on the east side of N Park Street adjacent to Alpine House 	<ul style="list-style-type: none"> Higher vehicle volumes compared with W McCully Avenue route Potentially costly sidewalk retrofit projects to two existing bridges on W Wallowa Avenue Existing right-of-way encroachment (parking lot) on north side of W Wallowa Avenue near N Main Street

N Park Street and W McCully Avenue

The N Park Street and W McCully Avenue route link Alpine House residents with the U.S. Post Office and other nearby destinations at the Main Street/McCully Avenue intersection. The Post Office serves as a major pedestrian destination, as Joseph currently lacks mail delivery service. **Table 3-2** summarizes opportunities and constraints associated with pedestrian infrastructure improvements on this route. Major opportunities include the route’s relatively low auto traffic (compared with W Wallowa Avenue), and the presence of a sidewalk on the W McCully Avenue bridge over Wrenn Dobbin Ditch (see **Figure 3-1**). Alpine residents expressed a preference for this route particularly due to these characteristics. Major constraints include private property encroachment in the public right-of-way (e.g., near the W McCully Avenue/Mill Street intersection), and potential sidewalk obstructions such as existing mailboxes and utility poles (see **Figure 3-2**).

Table 3-2: N Park Street/W McCully Avenue Opportunities and Constraints

Opportunities	Constraints
<ul style="list-style-type: none"> Lower vehicle volumes compared with W Wallowa Avenue route Alpine House residents expressed a stronger preference for this route compared with W Wallowa Avenue Sufficient room exists to construct a sidewalk on the east side of N Park Street adjacent to Alpine House Existing sidewalk on bridge over Wrenn Dobbin Ditch 	<ul style="list-style-type: none"> Provides less direct routing between Alpine House and Main Street Existing utility poles on north side of W McCully Avenue (west of Mill Street) could complicate sidewalk construction Existing right-of-way encroachment (vegetation) on north side of W McCully Avenue at Mill Street Existing utility poles and mailboxes in sidewalk area on north side of W McCully Avenue between Mill and Main streets



Figure 3-1: The W McCully Avenue bridge over Wrenn Dobbin Ditch includes a sidewalk on the north side.



Figure 3-2: Existing utility poles and mailboxes could complicate sidewalk construction on W McCully Avenue near Main Street.

Although the opportunities-and-constraints discussion above is intended to guide the City in project prioritization, this Plan strongly recommends improvements on both routes to better connect the Alpine House with surrounding areas.

3.2.2. Intersection Improvements

Although some intersections in Joseph create challenging pedestrian crossing conditions, improvement opportunities exist. This Plan proposes an overall strategy to improve intersections and other pedestrian crossings citywide through a variety of treatments. Most intersections that could benefit from improvements are located on streets with higher vehicle speeds and volumes, higher pedestrian volumes, limited sight distance, and/or other conditions complicating pedestrian crossing movements. Potential improvements include:

- Adding marked crosswalks and warning signs in vicinity of Joseph Elementary School
- Adding warning signage on tight roadway curves to warn motorists of bicycle/pedestrian traffic on cross-streets
- Removing overgrown vegetation impeding intersection sight distance
- Intersection upgrades as part of several proposed Bicycle Boulevard corridors (a later section in this chapter discusses Bicycle Boulevards in greater detail)

Select Intersection Improvements

Among intersections identified by City staff and residents as needing improvements, intersections along E Eighth Street were consistently noted for their challenging crossing conditions. Non-motorized users attempting to cross E Eighth Street encounter higher vehicle speeds and limited sight distance due to tight roadway curves and overgrown vegetation in some locations. E Eighth Street also accommodates higher vehicle volumes, particularly heavy recreational traffic during summer months. Joseph residents, including children who cross E Eighth Street en route to school, expressed a desire for treatments to alert motorists to the presence of bicycle and pedestrian

crossings. Crossing improvements would also reduce E Eighth Street's "barrier effect" between Joseph's southern neighborhood and other community areas.

Figure 3-3 depicts recommended crossing enhancements at the E Eighth Street at S College Street intersection. Among the three intersections along E Eighth Street, this location offers the greatest sight distance for approaching motorists. Suggested improvements include a high-visibility crosswalk and supplemental warning signage to alert motorists to bicycle/pedestrian crossings in this area. This project would tie in with several other proposed enhancements including sidewalks and bike lanes on E Eighth Street west of S College Street, and shoulder bikeways on E Eighth Street east of S College Street. The project also serves as a key element of a proposed Bicycle Boulevard on S College Street (described later in this chapter). It should be noted that E Eighth Street's status as a state highway would require ODOT approval for improvements at this location.

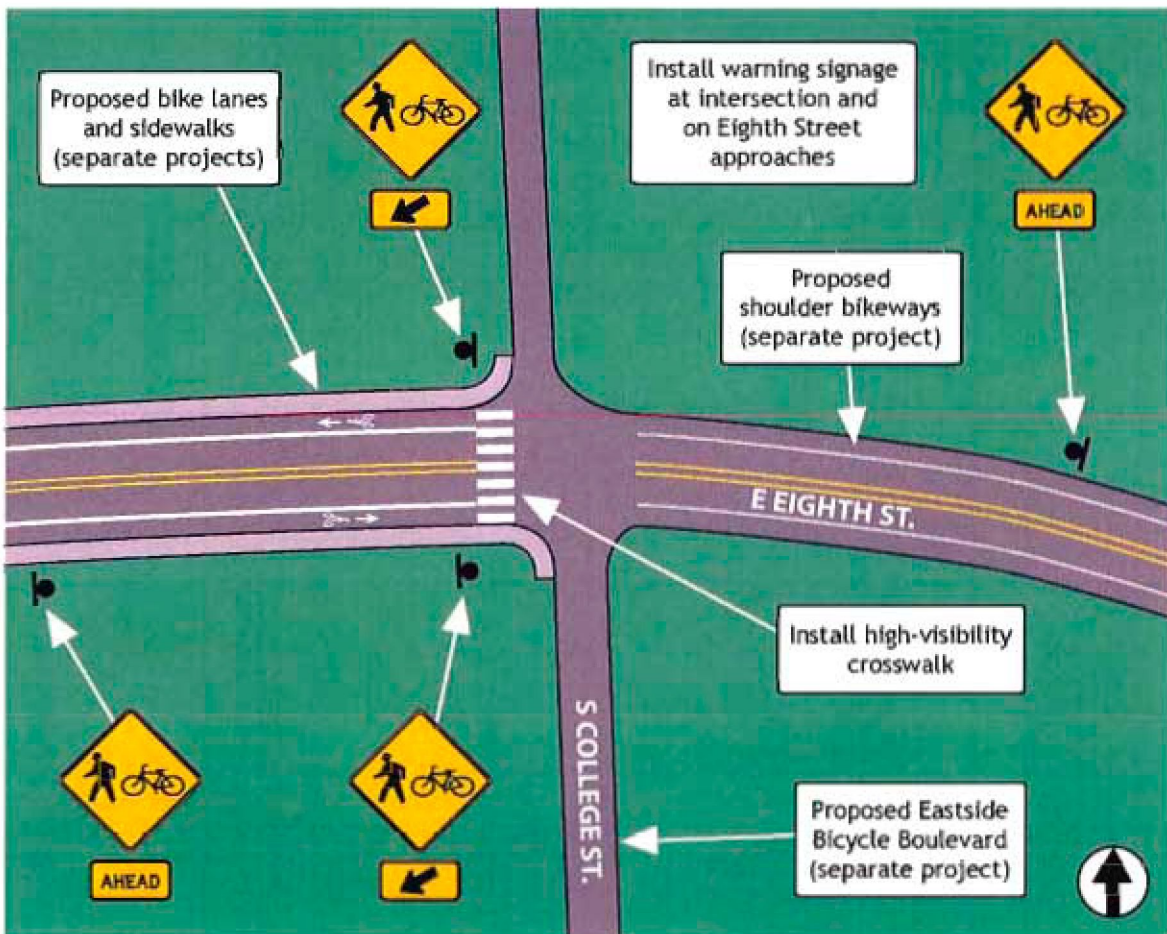
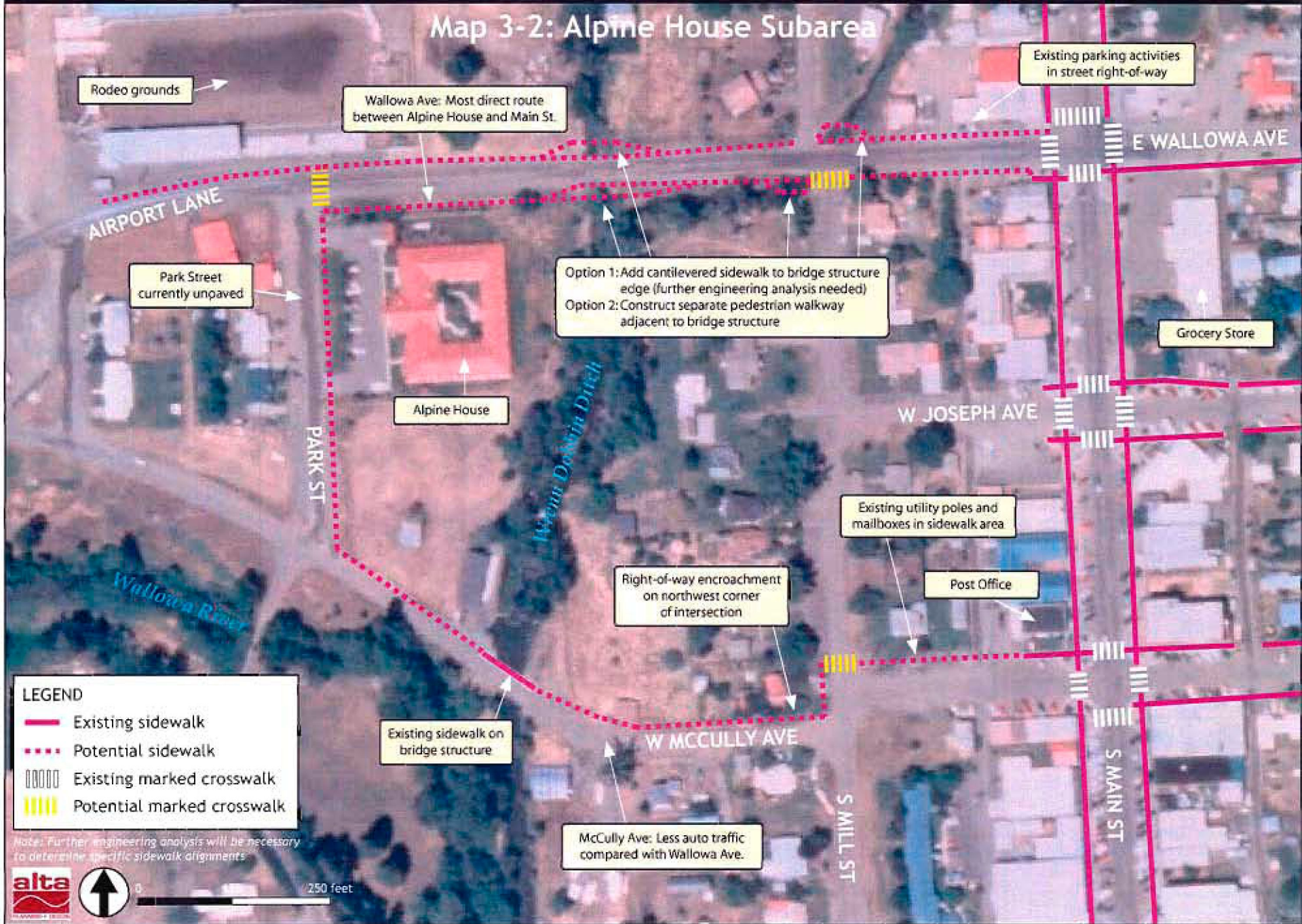


Figure 3-3: Proposed bicycle/pedestrian crossing improvements at E Eighth Street at S College Street.

JOSEPH BICYCLE AND PEDESTRIAN PLAN

Map 3-2: Alpine House Subarea



3.2.3. Shared Use Paths

Although Joseph currently lacks a shared use path system, tremendous path development opportunities exist. Previous planning efforts have identified numerous potential paths in and around the community, and the City should take the next step of evaluating these opportunities in greater detail.

Path feasibility studies devote detailed attention to specific trail projects. These studies examine a particular path corridor in-depth, and include opportunities-and-constraints analyses, development of potential path alignment options, selection of a preferred alignment, and development of cost estimates. Feasibility studies are particularly useful for agencies exploring potential path corridors in areas faced with topographic, environmental, political or other challenges. Joseph residents and other bicycle/pedestrian advocacy groups have consistently expressed a desire for shared use paths in potentially-challenging areas, particularly along the Wallowa Union Railroad and Wallowa River. The following sections describe specific areas where the City should devote extra path development evaluation.

Wallowa Union Railroad Path

Joseph residents strongly desire a safe, attractive, and comfortable bikeway and walkway linking Joseph with Enterprise and other Wallowa County communities. In addition to potential on-street bikeway/walkway improvements (described later), potential shared use path opportunities exist along the Wallowa Union Railroad corridor (see **Figure 3-4**). With its eastern terminus in Joseph, the railroad roughly follows Oregon 82 and the Wallowa and Grande Ronde rivers to La Grande. Between June and October, the Eagle Cap Excursion Train offers tourism rides between Elgin and Wallowa.

Previous plans, including the Wallowa County and Joseph Transportation System Plans (TSPs), identify the Wallowa Union Railroad as a potential shared use path corridor. Depending on the railroad's future status (e.g., active or inactive), a path could either be constructed directly on the existing rail alignment (in place of the existing tracks) or adjacent to the railroad. Opportunities also exist to redevelop the former station area near W Alder Street in Joseph.

The City of Joseph should partner with the City of Enterprise, Wallowa County, and the Railroad to conduct a feasibility study evaluating potential "rail-to-trail" or "rail-with-trail" options between Joseph and Enterprise. This segment could serve as the first piece of a potentially longer path corridor. The feasibility study should



Figure 3-4: A shared use path on or along the Wallowa Union Railroad would link Joseph with Enterprise.

specifically examine railroad right-of-way widths, railroad setback requirements, and property ownership adjacent to the railroad corridor.

Wallowa River Path

The Wallowa Land Trust recently prepared a feasibility study examining potential path corridors along the Wallowa River between Joseph City Park and Wallowa Lake. The study includes an “Upper Wallowa River Canyon Trail System” map depicting several potential path corridors on both sides of the river including several trails on the nearby Marr Ranch property, Joseph residents have consistently expressed interest in a Wallowa River path corridor. The City should further examine path development opportunities on both sides of the river between Joseph City Park and Wallowa Lake (see Figure 3-5). A feasibility study would identify potential path development issues (e.g., proximity of private- and publicly-owned properties to the river).



Figure 3-5: Opportunities exist to formalize an existing trail on the Wallowa River's east side near Wallowa County Park.

Irrigation Ditch Paths

Joseph benefits from an extensive irrigation ditch system passing through several neighborhoods. Most adjacent properties along ditch corridors are privately-owned, with development abutting waterway edges (see Figure 3-6). Other potential issues include liability concerns of ditch maintenance companies. Shared use paths or soft surface trails along ditches would represent a longer-term bikeway/walkway expansion strategy. As a first step, the City should identify and preserve path development opportunities in these areas.



Figure 3-6: Existing development along waterway edges could complicate path development along drainage ditches.

Utility Corridor Paths

Path development opportunities also exist along utility corridors, such as the City's existing north-south utility easement near Joseph City Park. Approximately 30 feet wide, the easement is located west of the S Mill Street and Engleside Avenue alignments between Fourth Street and Ski Run Road. A path along this corridor would greatly enhance pedestrian/bicycle system connectivity in this area.

3.2.4. *Soft Surface Trails*

Tremendous opportunities exist to improve Joseph's existing soft surface trails, and establish connections to other planned and proposed trails. As a first step, the City could partner with the Joseph School District to reconstruct the perimeter trail circling the Joseph Middle/High School campus. This project would re-establish a popular walking, jogging and cross-country facility, serving both transportation and recreation users.

Described earlier, new trail development opportunities exist along the Wallowa Union Railroad, Wallowa River, irrigation ditches, and utility corridors. Soft surface trails typically occupy less physical space compared with paved shared use paths, lending the City opportunities to establish trails and paths in a phased approach (e.g., constructing a soft surface trail first, and upgrading the facility to a paved shared use path in the future).

Marr Ranch Trails

Oregon State Parks recently prepared a Draft Master Plan for the Marr Ranch property, a future State Scenic Area in southern Joseph. Native American tribes view the property as sacred ground, representing a key place in their rich cultural history. Consequently, the property will likely remain in its largely undeveloped state, potentially including a series of soft surface trails following existing maintenance roads. The Joseph Bicycle and Pedestrian Plan acknowledges this separate planning process and its associated trail development recommendations.

3.2.5. *Accessways*

The City of Joseph should explore accessway development opportunities in existing neighborhoods where limited street connectivity exists, and require accessways in future residential subdivisions (where necessary) to maximize bicycle and pedestrian connectivity.

3.3. **Bikeway Improvements**

Map 3-3 depicts recommended bicycle system improvements, while the sections below describe the facility types and projects in greater detail.

3.3.1. *Bike Lanes*

Joseph's major streets currently lack dedicated bike lanes, forcing cyclists to ride on narrow roadway shoulders (if they exist) or in vehicle travel lanes. Safely accommodating bicyclists on major roadways is important, as major streets generally offer the most direct routes between bicyclist destinations while providing better connectivity than lower-order streets. Consequently, commuter cyclists and those traveling longer distances often gravitate to these routes.

Map 3-3 depicts proposed bike lanes on portions of S Main Street, E Eighth Street, and Wallowa Avenue. The proposed bike lanes on S Main and E Eighth streets would transition to proposed shoulder bikeways on Wallowa Lake Highway, connecting cyclists to the future Marr Ranch State Scenic Area, Wallowa Lake, and other destinations south of town. The Wallowa Avenue bike lanes would enhance east-west bikeway connections, linking with proposed shoulder bikeways on Hurricane Creek Road and Imnaha Highway. This project would also connect cyclists to two proposed Bicycle Boulevard corridors and a potential shared use path along the Wallowa Union Railroad.

Joseph's bike lane implementation projects would primarily occur through shoulder widening. Sufficient right-of-way width and minimal physical obstructions exist on most roadways targeted for improvements. Potential issues include topography and right-of-way encroachment on E Eighth Street, and the Big Bend Ditch bridge on W Wallowa Avenue.

Depending on funding or other constraints, bike lane project implementation could occur in multiple phases. For instance, the City of Joseph and ODOT could first widen the western/southern shoulder of S Main Street/E Eighth Street, as shown in Figures 3-7 and 3-8. This improvement would vastly improve conditions for southbound bicyclists riding in the uphill direction. As ODOT and Wallowa County own and maintain most roadways targeted for future bike lanes, the City of Joseph will need to coordinate with these agencies during project planning, design, and implementation.



Figure 3-7: S Main Street near Fourth Street (existing conditions).



Figure 3-8: S Main Street near Fourth Street (with addition of southbound uphill bike lane).

3.3.2. Shoulder Bikeways

Shoulder bikeways are common in less-developed and rural areas, and typically consist of a wide paved shoulder for pedestrian and bicycle travel. This Plan recommends shoulder bikeways on several roads in Joseph's outlying areas, including Oregon 82, Imnaha Highway, Wallowa Lake Highway, and Airport Lane/Hurricane Creek Road. Shoulder bikeways on Oregon 82 and Imnaha Highway would connect cyclists to popular recreational riding routes such as Walker Lane, Wilson Lane, and Dobbins Road. Shoulder bikeways on Wallowa Lake Highway (south of the proposed bike lanes

on E Eighth Street) would better connect riders to the future Marr Ranch State Scenic Area, the Nez Perce National Historic Park, Wallowa County Park, and Wallowa Lake.

Joseph residents have consistently expressed a desire for shoulder bikeways on Airport Lane/Hurricane Creek Road, an attractive bicycle route linking Joseph with Enterprise. Several previous plans, including the Highway 82 Corridor Plan and Wallowa County TSP, reference this project (although funding has not been secured). Within Joseph's urban growth boundary, sufficient right-of-way and bridge width may exist for shoulder widening (see **Figure 3-9**), although bridges and culverts on the corridor's remaining sections do not provide sufficient width.



Figure 3-9: Sufficient width exists to add shoulder bikeways on Airport Lane/Hurricane Creek Road.

The proposed shoulder bikeway projects would require roadway widening, as most roads targeted for improvements currently provide narrow or no shoulders. Most proposed shoulder bikeways lie outside Joseph's urban growth boundary and are located on County- or ODOT-owned roadways. The City of Joseph should coordinate with these agencies to establish seamless bicycle connections in these jurisdictional transition areas.

3.3.3. *Bicycle Boulevards*

Joseph benefits from a generally well-connected system of lower-volume streets that – with the addition of relatively small-scale treatments – could become spectacular bicycling routes for riders of all ages and skills. These streets (commonly referred to as “Bicycle Boulevards”) accommodate bicyclists and motorists in the same travel lanes often with no specific vehicle or bike lane delineation. Traffic controls along a Bicycle Boulevard assign priority to thru cyclists while encouraging thru vehicle traffic to use alternate parallel routes. Traffic calming and other treatments along the corridor reduce vehicle speeds so that motorists and bicyclists generally travel at the same speed, creating a safer and more-comfortable environment for all users. Boulevards also incorporate treatments to facilitate safe and convenient crossings where bicyclists must traverse major streets. Bicycle Boulevards work best in well-connected street grids where riders can follow reasonably direct and logical routes with few “twists and turns.” Boulevards also work best when higher-order parallel streets exist to serve thru vehicle traffic.

Map 3-3 depicts two primary Bicycle Boulevard corridors in Joseph. A Bicycle Boulevard on Mill Street would connect western Joseph neighborhoods with Joseph City Park, while providing an alternative route to Main Street. Located one block west of Main Street, this corridor would lie within close proximity of Downtown Joseph businesses and other attractions.

JOSEPH BICYCLE AND PEDESTRIAN PLAN

Map 3-3: Existing and Proposed Bikeways



LEGEND

- Proposed Bike Lanes
- - - Proposed Shoulder Bikeways
- . . . Proposed Bicycle Boulevard
- - - Proposed Shared Use Path
- - - Urban Growth Boundary

Note: Shared Use Paths are shown as conceptual routes; further feasibility analysis will be needed to determine specific path alignments.



0 0.25 0.5 mile

Eastside Bicycle Boulevard Subarea

The Project Team conducted a more detailed evaluation to determine an appropriate Bicycle Boulevard corridor on Joseph’s eastside. Map 3-4 illustrates three potential corridors, including Lake, College, and East streets. The map graphically depicts benefits and drawbacks of each corridor, while Table 3-3 lists the evaluation criteria and results. The evaluation considered several elements affecting the bicycling environment, including pavement conditions, number of stopping points along the corridor, proximity to bicyclist destinations, and quality of intersections.

Table 3-3 and Map 3-4 demonstrate that each corridor presents benefits and drawbacks, with no single corridor emerging as the preferred route. The Project Team, working with City staff, bicycle advocates and Joseph residents, ultimately selected a hybrid alignment following Lake and College streets, shown on Map 3-3. The Lake/College Bicycle Boulevard would provide direct access to Joseph Elementary School while lying within close proximity of Downtown Joseph businesses and attractions. This corridor also directly connects cyclists with a potential Marr Ranch State Scenic Area access point at S Main Street’s south terminus.

Table 3-3: Eastside Bicycle Boulevard Corridors Evaluation

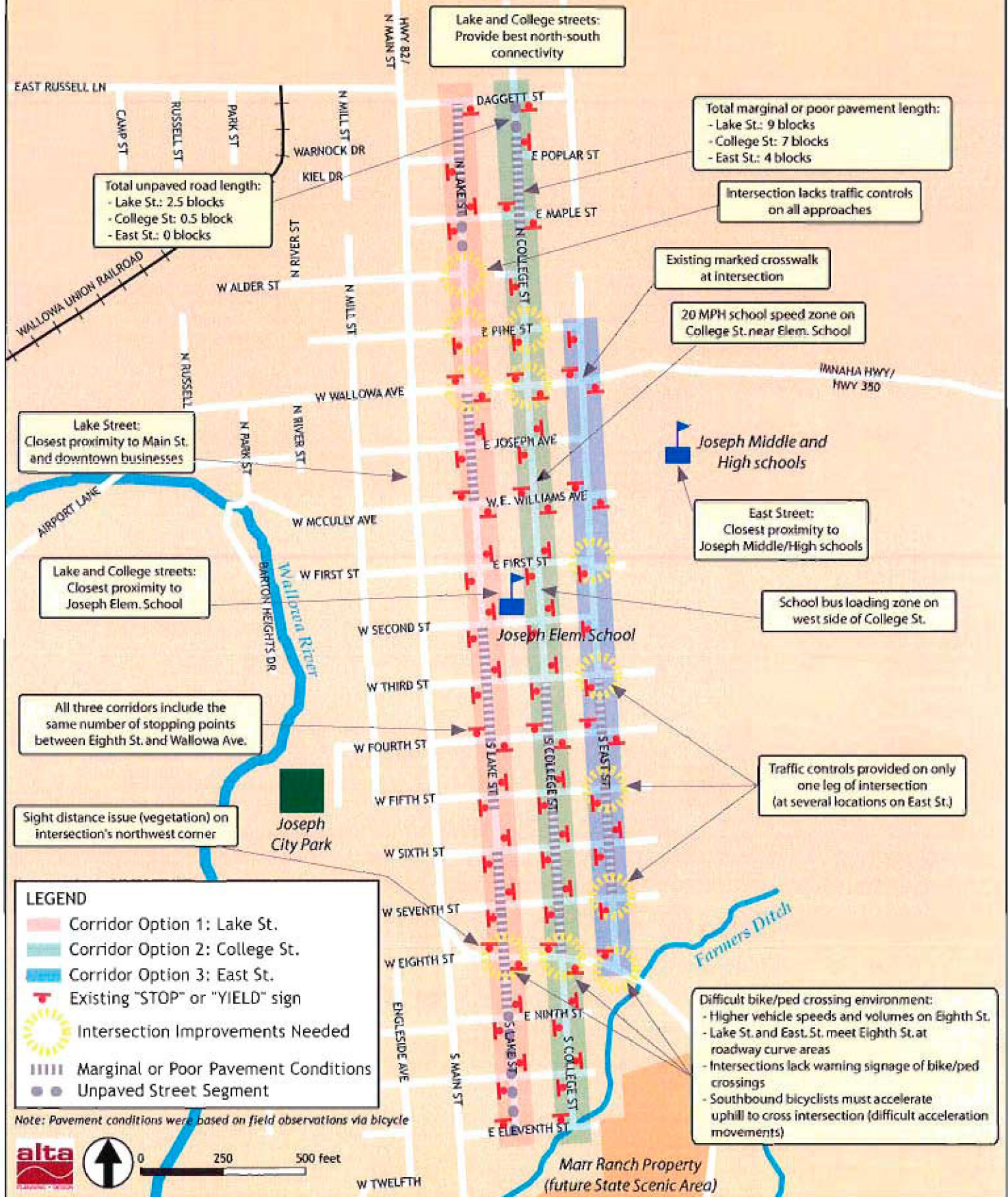
Evaluation Criterion	Potential Corridors		
	Option 1: Lake St.	Option 2: College St.	Option 3: East St.
Total corridor length	18 blocks	18 blocks	11 blocks
# of stopping points for bicyclists on corridor between E Eighth St. and E Wallowa Ave.*	4	4	4
Proximity to Main St.	1 block	2 blocks	3 blocks
Proximity to Joseph Elem. School	Adjacent to school	Adjacent to school	1 block
Proximity to Joseph Middle/High schools	3 blocks from school access road	2 blocks from school access road	1 block from school access road
Potential conflicts with school bus loading zones	No	Yes	No
Total existing marginal/poor pavement length	9 blocks	7 blocks	4 blocks
Total unpaved road length	2.5 blocks	0.5 blocks	0 blocks
# of intersections needing improvements**	4	3	5

* This segment is the only common segment among the three corridors; count includes stopping points at E Eighth Street and at E Wallowa Avenue.

** Depending on location, intersection improvements may include marked crosswalks and warning signage, vegetation removal to improve sight distance, and/or installation of traffic control devices where they currently do not exist.

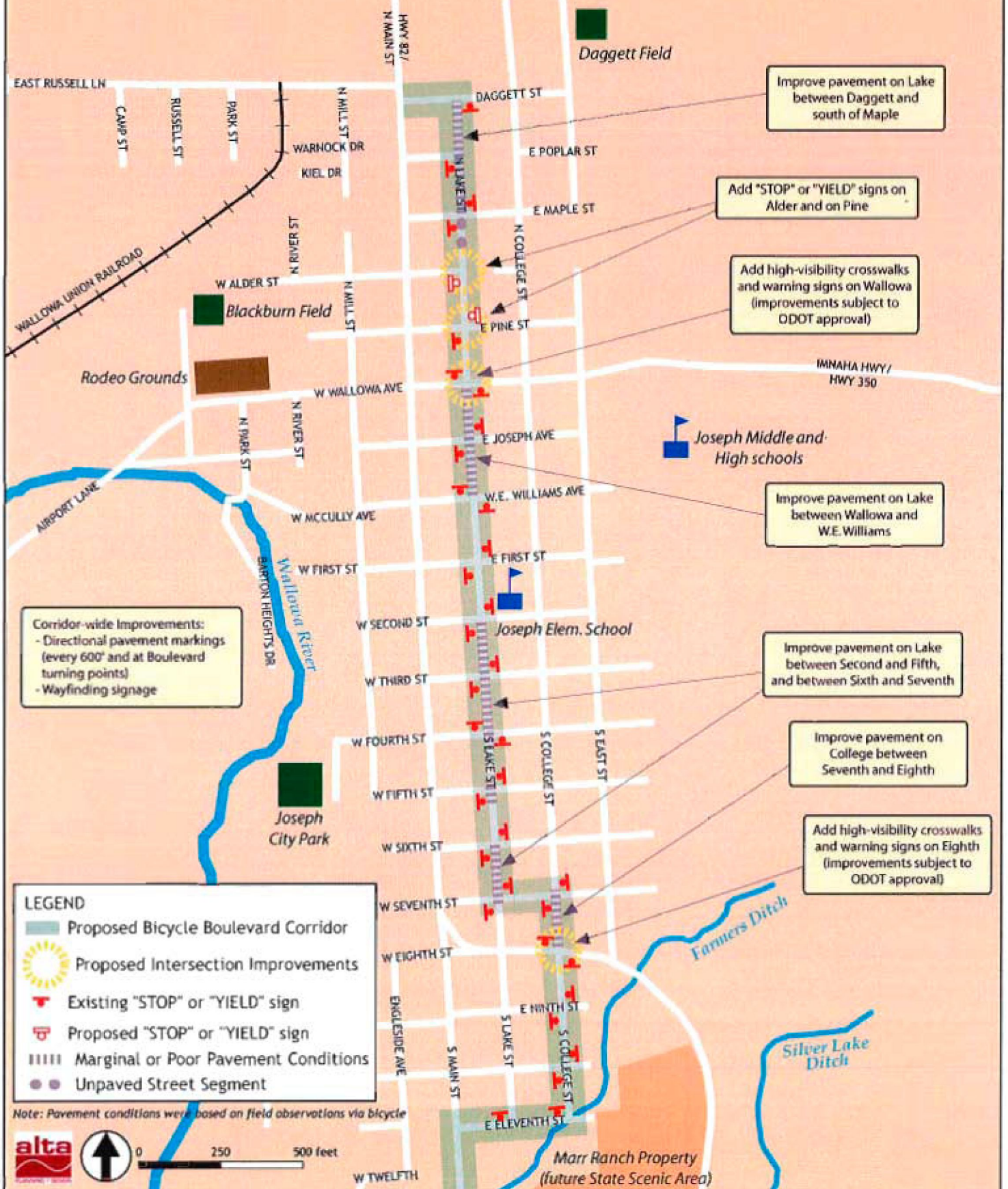
JOSEPH BICYCLE AND PEDESTRIAN PLAN

Map 3-4: Eastside Bicycle Boulevard Subarea



JOSEPH BICYCLE AND PEDESTRIAN PLAN

Map 3-5: Recommended Eastside Bicycle Boulevard Improvements



Map 3-5 depicts the proposed Eastside Bicycle Boulevard in greater detail, highlighting specific improvements necessary to transform this corridor into a premier bicycle facility. Recommended improvements range from relatively low-cost measures such as wayfinding signage, directional pavement markings, and minor intersection traffic control revisions, to higher-cost measures such as pavement resurfacing. The Eastside Bicycle Boulevard would also take advantage of proposed improvements at the E Eighth Street at S College Street intersection, described earlier in this chapter.

3.3.4. Other Bikeway System Improvements

Wallowa Lake State Park Access

Joseph residents have routinely expressed interest in improved bikeway connections to Wallowa Lake State Park. Numerous planning documents reference this strongly-desired connection and offer potential improvement options. The Highway 82 Corridor Plan recommends evaluation of potential shoulder widening on Wallowa Lake Highway's east side between the State Park and Wallowa County Park. The Corridor Plan, Wallowa Lake State Park Master Plan, and Joseph and Wallowa County TSPs also recommend consideration of a potential soft surface trail on the lake's west side, which would also serve as a secondary emergency access road to/from the State Park. Depending on the roadway targeted for improvements, the project would fall under Wallowa County or ODOT jurisdiction.

Establishing a dedicated bicycle facility (e.g., shoulder bikeways, shared use paths, or soft surface trails) could incur substantial cost; however several cost-effective interim options exist, including:

- Lowering the existing posted speed on Wallowa Lake Highway between Wallowa County Park and Wallowa Lake State Park (the current posted speed is 55 MPH). This measure would require a speed study to be conducted, and is also subject to ODOT approval.
- Installing warning signs at pre-determined distances along the highway advising motorists of bicyclists' presence (similar to existing "BIKES ON ROADWAY" signs on Wallowa Lake Highway north of Wallowa County Park).
- Routine police enforcement of speeding and other relevant traffic laws.

Citywide Improvements

Bike Parking

Lack of secure, convenient bike parking is a deterrent to bicycle travel. Bicyclists need parking options that provide security against theft, vandalism, and weather. Like automobile parking, bike parking is most effective when located close to trip destinations, is easy to access, and is easy to find. Where quality bike parking facilities are not provided, determined bicyclists lock their bicycles to street signs, utility poles or trees. These alternatives are undesirable as they are usually not secure, may interfere

with pedestrian movement, and can create liability issues or damage street furniture or trees. Bike parking facilities that are conveniently located and adequate in both quantity and quality can help reduce bicycle theft and eliminate inappropriate parking, benefiting everyone. Bike parking is also highly cost-effective compared with automobile parking.

The City of Joseph currently specifies minimum bike parking requirements for multi-family housing, public parking lots, schools, and Downtown businesses. Although the City's "blanket" requirements ensure a minimum number of bike parking spaces for most developments, the requirements may not fully address parking demand for some land uses. The City also currently lacks bike parking facility design requirements (e.g., rack type, distance between spaces, etc.). The proposed Zoning Ordinance updates developed as part of this Plan reflect guidelines outlined in the *Oregon Bicycle and Pedestrian Plan* (Draft update) and ODOT's *Model Development Code and User's Guide for Small Cities*.

Zoning Ordinance enforcement holds equal importance. The City should periodically undertake a bicycle parking analysis to determine whether all of the bicycle parking required by the Ordinance is provided, and if so, that it is sited in locations that are visible and free of obstacles. It should also be noted that the proposed Ordinance updates only establish parking minimums, and new developments should be encouraged to exceed these standards.

[Pedestrian/Bicycle/Transit Connections](#)

Tremendous opportunities exist for increasing pedestrian/bicycle/transit connections in Joseph. Pedestrian infrastructure improvements leading to the Community Connections shuttle route would enhance pedestrian safety, comfort, and may generate more ridership since most passengers start and end their trips on foot. Integrating bicycles with transit allows the bicyclist to overcome barriers such as hills, inclement weather, night riding, and breakdowns. To improve the pedestrian/bicycle/transit link, the City of Joseph and Community Connections should:

- Complete the sidewalk network on both sides of streets along the Community Connections shuttle route (specifically along S Main and E Eighth streets) to ensure connectivity and accessibility for all users
- Provide benches, shelters, lighting, posted maps and schedules at transit stops (if designated stops are established)
- Provide secure bike parking at or near transit stops (including bike racks for short-term parking and bike lockers or other facilities for long-term parking)
- Ensure that bicycles are always allowed on shuttle buses and other transit vehicles

[Other Improvements](#)

The City of Joseph should implement the following additional infrastructure improvements to further enhance walking and bicycling:

- Install warning signage on high-volume roadways (e.g., Engleside Avenue and Ski Run Road) advising motorists of bicycle/pedestrian traffic (particularly on roads lacking dedicated walking/bicycling facilities)
- Develop and implement a bicycle/pedestrian wayfinding signage plan
- Develop a routine walkway and bikeway maintenance program and schedule (e.g., sweeping, pothole repair, pavement upgrades, snow/ice removal)
- Implement traffic calming measures as needed
- Ensure that all new and upgraded pedestrian facilities meet ADA standards and guidelines
- Provide sidewalks on both sides of new and reconstructed streets
- Retrofit existing streets with sidewalks on both sides where possible
- Complete sidewalk gaps, especially near schools and other activity centers
- Upgrade and repair existing cracked sidewalks and curb ramps

3.4. Project Prioritization

The Project Team developed several evaluation criteria to identify and prioritize Joseph’s bicycle and pedestrian projects. Specifically, the criteria were applied in two ways:

- To lay out the best possible future pedestrian/bicycle network by identifying the features of a network most important to Joseph residents
- To rank projects against each other as an indication of their relative importance

The goal was to develop a three tiered priority list, enabling the City to focus financial resources and funding applications on the highest priority projects. The Project Team assigned each criterion a range of points, with the number of potential points reflecting the criterion’s relative importance (based on input from City staff, the Technical Advisory Committee, and the public). Specific criteria included the following:

- **User Generator:** To what degree will the project likely generate transportation or recreational usage based on population, corridor aesthetics, etc.?
- **Land Uses:** How many user generators does the project connect within reasonable walking or bicycling distance, such as schools, parks, Downtown, etc.?
- **Overcomes Barrier:** How well does the project overcome a barrier in the current bicycle and pedestrian network?
- **Safety and Comfort:** Can the project potentially improve bicycling and walking at locations with perceived or documented safety issues? This criterion takes into

account available crash data as well as feedback from the local bicycling and walking community.

- **Regional Benefit:** To what degree does the project offer potential benefits to the wider, regional community by offering opportunities for increased connectivity to parks, Wallowa Lake, surrounding communities, etc.?
- **Community Support:** To what degree do Joseph residents desire the proposed project? This criterion takes into account oral and written feedback received at the Community Open Houses, the walking and bicycling tours, and other public outreach events.
- **Cost:** What financial resources are needed to implement the project? Is the project cost prohibitive, or can it be implemented through grant funding or other opportunities?

Using the above criteria, the Project Team ranked each project based on information obtained from site visits, field work, City staff and the public. Projects fulfilling the greatest number of evaluation criteria received higher scores, correspondingly leading to higher rankings in the overall project list. As a result, the projects were grouped by classification into Tier 1 (short-term, 0-5 years), Tier 2 (medium-term, 6-10 years) and Tier 3 (long-term, 10-20 years) priorities. The short-, medium-, and long-term priorities may change according to available funds, changing priorities, new roadway projects that coincide, new development and redevelopment opportunities, or other factors.

It should be noted that the purpose of this exercise is to understand the relative priority of the projects so that the City may apportion available funding to the highest priority projects. Medium- and long-term projects are also important, and may be implemented at any point in time as part of a development or public works project. The ranked lists should be considered a “living document” and should be frequently reviewed to ensure they reflect current priorities.

Table 3-4 lists the recommended bicycle/pedestrian improvement projects and relative prioritization, while Appendix C provides the evaluation scoring for each individual project.

Table 3-4: Recommended Pedestrian and Bicycle Projects

Project	Segment	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Opinion ¹
Intersection Improvements					
Intersections in vicinity of Joseph Elem. School	N/A	Install high-visibility crosswalks and advanced warning signs	Joseph	Tier 3	\$49,600
E Eighth St. at S College St.	N/A	Install crosswalks and advanced warning signs on E Eighth St.	ODOT	Tier 3	\$5,900
Sidewalks					
N Park St.	W McCully Ave. to W Wallowa Ave.	Construct sidewalk on east side of street	Joseph	Tier 1	\$57,800
S Main St.	Eighth St. to Tenth St.	Construct sidewalks on both sides of street	Joseph	Tier 3	\$212,400
S Main St./E Eighth St.	Fourth St. to S College St.	Construct sidewalks on both sides of each roadway where they currently do not exist	Joseph, ODOT	Tier 2	\$382,300
Lake St.	E Third St. to E Wallowa Ave.	Construct sidewalks on both sides of street where they currently do not exist	Joseph	Tier 3	\$401,800
College St.	E Third St. to E Wallowa Ave.	Construct sidewalks on both sides of street where they currently do not exist	Joseph	Tier 3	\$260,900
East St.	E First St. to E Wallowa Ave.	Construct sidewalks on both sides of street	Joseph	Tier 3	\$251,100
W Wallowa Ave.	N Russell St. to N Main St.	Construct sidewalk on north side of street	Joseph, Wallowa County	Tier 2	\$290,200
W Wallowa Ave.	N Park St. to N Main St.	Construct sidewalk on south side of street	Joseph, Wallowa County	Tier 2	\$241,100
E Wallowa Ave.	N Main St. to N East St.	Construct sidewalks on both sides of street where they currently do not exist	Joseph, ODOT	Tier 3	\$211,600
W Joseph Ave.	N Mill St. to N Main St.	Construct sidewalks on both sides of street	Joseph	Tier 3	\$67,400
E Joseph Ave.	N Lake St. to N East St.	Construct sidewalks on both sides of street	Joseph	Tier 3	\$160,100
W.E. Williams Ave.	Lake St. to East St.	Construct sidewalk on north side of street	Joseph	Tier 3	\$81,600
W McCully Ave.	N Park St. to W Main St.	Construct sidewalk on north side of street	Joseph	Tier 1	\$139,800
W McCully Ave.	Mill St. to Main St.	Construct sidewalk on south side of street	Joseph	Tier 3	\$33,700

Project	Segment	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Opinion ¹
W First St.	S Mill St. to S Main St.	Complete sidewalk gaps on north side of street	Joseph	Tier 3	\$33,700
E First St.	S Main St. to S East St.	Construct sidewalks on both sides of street where they currently do not exist	Joseph	Tier 2	\$119,300
E Second St.	S Main St. to S East St.	Construct sidewalks on both sides of street	Joseph	Tier 3	\$119,300
W Fourth St.	Joseph City Park to S Main St.	Construct sidewalk on north side of street	Joseph	Tier 2	\$82,300
Shared Use Paths					
Wallowa Union Railroad Path Feasibility Study	Joseph to Enterprise	Conduct a study to determine the feasibility of developing a shared use path on or along the Wallowa Union Railroad corridor between Joseph and Enterprise	Joseph, Enterprise, Wallowa County, Wallowa Union Railroad	Tier 1	\$30,000
Wallowa River Path Feasibility Study	Joseph City Park to Wallowa Lake	Building on the previous Wallowa Land Trust study, develop a study to determine the feasibility of developing a soft surface or paved path along Wallowa River between Joseph City Park and Wallowa Lake	Joseph, Wallowa County	Tier 1	\$15,000
Soft Surface Trails					
Joseph Middle/High School Trail	N/A	Reconstruct perimeter trail surrounding the Joseph Middle/High School campus	Joseph	Tier 3	\$100,800
Bike Lanes					
S Main St./E Eighth St.	S College St. to Third St.	Widen shoulders to provide bike lanes	ODOT	Tier 2	\$167,900
Wallowa Ave.	N Russell St. to N East St.	Widen shoulders to provide bike lanes	Wallowa County, ODOT	Tier 3	\$100,400
Shoulder Bikeways					
Oregon 82/N Main St.	Daggett St. to north city limits	Construct shoulder bikeways	Joseph, ODOT	Tier 3	\$116,300
Airport Ln./Hurricane Cr. Rd.	West city limits to N Russell St.	Construct shoulder bikeways	Joseph, Wallowa County	Tier 2	\$93,000
E Wallowa Ave./Imnaha Hwy.	N East St. to east city limits	Construct shoulder bikeways	Joseph, ODOT	Tier 3	\$279,000

Project	Segment	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Opinion ¹
Bicycle Boulevards					
Westside Bicycle Boulevard	S Main St. at E Fourth St. to N Main St. at E Fourth St.	Develop a "Level 3" Bicycle Boulevard along Fourth St. between Lake and Mill, along Mill between Fourth and Alder, and along Alder between Mill and Lake	Joseph, ODOT	Tier 3	\$18,600
Eastside Bicycle Boulevard	S Main St. southern terminus to N Main St. at Daggett St.	Develop a "Level 3" Bicycle Boulevard along Main St. between its southern terminus and Eleventh, along Eleventh St. between Main and College, along College St. between Eleventh and Seventh, along Seventh St. between College and Lake, along Lake St. between Seventh and Daggett, and along Daggett St. between Lake and Main	Joseph, ODOT	Tier 1	\$19,200 ²
Other Projects					
Wayfinding Signage Plan	N/A	Develop a citywide pedestrian and bicycle Wayfinding Signage Plan identifying: appropriate sign locations, destinations to be highlighted on each sign, approximate distance and walking/riding time to each destination	Joseph	Tier 3	\$7,000
Warning Signage	N/A	Install signage (e.g., "BIKES ON ROADWAY") on major roads to alert motorists to the presence bicyclists on the roadway	Wallowa County, ODOT	Tier 2	\$5,600
Safe Routes to Schools Plan	N/A	Develop a Safe Routes to School Plan for Joseph Elementary, Middle, and High schools outlining engineering, education, encouragement, enforcement, and evaluation measures to increase walking and bicycling to school among Joseph students	Joseph	Tier 2	\$15,000
Programmatic Elements					
Bike/Ped Education, Encouragement, Enforcement, Evaluation Measures	N/A	Implement programmatic measures relating to education, encouragement, enforcement, and evaluation (see Chapter 4).	Joseph	Tier 1	Varies

¹ Infrastructure-related cost opinions do not include right-of-way or easement acquisitions. All cost opinions include an additional 20% for contingency and 35% for design, engineering, mobilization and construction management (beyond the original project cost)

² This project does not include roadway resurfacing. Resurfacing needed on approximately 9.5 blocks to improve riding conditions for bicyclists.

3.5. Project Costs

Table 3-4 provides planning level cost opinions for each project recommended in this Plan. The estimates were based on similar Bicycle and Pedestrian Plans and experience in Joseph and other nearby communities. The infrastructure project costs also include contingency, design, engineering, mobilization, and construction management costs (typically representing a proportion of the original project cost) Supplementing the bicycle/pedestrian infrastructure projects, the table lists recommended programmatic measures (described in greater detail in Chapter 4).

Table 3-5 provides a cost summary for Tier 1, Tier 2 and Tier 3 projects combined. The total implementation cost of the Bicycle and Pedestrian Plan is estimated at approximately \$4.2 million. Chapter 6 discusses potential funding sources for implementing projects in this Plan.

Table 3-5: Planning Level Cost Opinions for Tier 1, 2 and 3 Projects

Projects	Planning Level Cost Opinion
Tier 1	\$281,900
Tier 2	\$1,452,000
Tier 3	\$2,460,500
Total	\$4,174,400

3.6. Top Priority Project Description Sheets

Setting the initial stage for Plan implementation, the following “Project Description Sheets” highlight specific actions the City should undertake first to improve walking and bicycling in Joseph. The Project Description Sheets provide detailed information for three Tier 1 projects, including project descriptions, recommended improvements, potential issues, lead agencies, and estimated costs. This information can be used as the City pursues grant or other funding opportunities, and as guidance for project implementation.

W McCully Avenue Sidewalk

Description

This project would develop a sidewalk on the north side of W McCully Avenue between N Park Street and Main Street. In most locations, sufficient room exists to construct a sidewalk with minimal or no impacts to adjacent properties.

This project responds to the overwhelming desire among Joseph residents to develop a safe and convenient pedestrian connection between Downtown and the Alpine House Assisted Living Facility. The W McCully Avenue sidewalk would directly connect Alpine House residents with the Joseph Post Office and other Downtown businesses. The project would also connect users with several other existing and proposed bicycle/pedestrian facilities.



The project would construct a sidewalk on the north side of W McCully Avenue near Mill Street.

Proposed Improvements

- Sidewalk on north side of W McCully Avenue between N Park Street and Main Street
- Removal of encroaching vegetation on northwest corner of W McCully Avenue at Mill Street
- Utilize existing sidewalk on bridge crossing Wrenn Dobbin Ditch
- Potential to add marked crosswalk on north side of W McCully Avenue at Mill Street intersection

Potential Issues

- Existing right-of-way encroachment (vegetation) on W McCully Avenue's north side at Mill Street
- Existing utility poles on W McCully Avenue's north side (west of Mill Street) could complicate sidewalk construction
- Existing utility poles and mailboxes on W McCully Avenue's north side between Mill and Main streets could complicate sidewalk construction



A short sidewalk segment exists on the W McCully Avenue bridge over Wrenn Dobbin Ditch.

Lead Agency(ies)

Joseph

Planning-Level Cost Opinion

\$139,800

Eastside Bicycle Boulevard

Description

This project would develop a Bicycle Boulevard on Joseph's eastside, roughly following College and Lake streets between Daggett Street and the future Marr Ranch State Scenic area. As shown on Map 3-5, improvements would include wayfinding signage, directional pavement markings, roadway pavement upgrades, and intersection enhancements to improve bicycle/pedestrian crossings.

The Eastside Bicycle Boulevard would provide a continuous north-south bicycle route connecting several neighborhoods with Downtown Joseph, Joseph Elementary School, and the future Marr Ranch State Scenic Area. The improved corridor would also connect riders with other existing and proposed bicycle/pedestrian facilities, and serve as an alternative to higher-volume roads such as Main Street.

Proposed Improvements (see Map 3-5)

- Additional STOP or YIELD signs on E Alder St. and on E Pine St. to clarify intersection traffic controls
- High-visibility crosswalks and warning signage on E Eighth St. at S College St.
- High-visibility crosswalks and warning signage on E Wallowa Ave. at N Lake St.
- Directional pavement markings
- Wayfinding signage
- Pavement upgrades on approximately 9.5 blocks to improve riding conditions for bicyclists

Potential Issues

- Pavement upgrades could substantially increase project implementation cost
- Intersection improvements at College & Eighth and at Lake & Wallowa subject to ODOT approval

Lead Agency(ies)

Joseph, ODOT

Planning-Level Cost Opinion

\$19,200 (project cost does not include roadway resurfacing, nor does it include intersection improvements at College & Eighth, which are identified as a separate project)



College and Lake streets provide a comfortable bicycling alternative to nearby higher-volume streets.



The Eastside Bicycle Boulevard would include wayfinding signage orienting riders to popular destinations, and would include approximate distances and estimated "riding time."

Wallowa River Path Feasibility Study

Description

This project would develop a feasibility study identifying potential path development opportunities along the Wallowa River between Joseph City Park and Wallowa Lake. The study would build on recent trail development research prepared by the Wallowa Land Trust, including a map depicting potential trail corridors in this area. The Land Trust has also discussed the potential trail with nearby property owners.

Depending on community preferences and physical or other constraints, a paved or soft surface path could follow either side of the river. The path would establish a premier walking and bicycling facility for Joseph residents and visitors, tying together numerous destinations including Joseph City Park, the future Marr Ranch State Scenic Area, Nez Perce National Historic Park, Wallowa County Park, and Wallowa Lake. The trail would also connect with several existing and proposed bikeways and walkways.

Proposed Improvements

Path feasibility study including an existing conditions review and assessment, opportunities-and-constraints analysis (e.g., property ownership, environmental issues, etc.), development of potential path alignment alternatives, selection of a preferred alignment, cost estimates, and potential funding sources.

Potential Issues

- Major topography on both sides of the river
- Privately-owned property along most segments of the river under focus
- Potential need for bridges crossing the river (depending on the path's alignment), which could substantially increase path development costs

Lead Agency(ies)

Joseph, Wallowa County

Planning-Level Cost Opinion

\$15,000



A trail along the Wallowa River could provide a direct bicycle/pedestrian connection between Joseph and Wallowa Lake.



An informal trail exists along the Wallowa River's east side near the Nez Perce National Historic Park.

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Police Education Courses	
Target	Law enforcement agencies
Primary agency	Wallowa County Sheriff's Department
Partners	City of Joseph
Key elements	Pedestrian and Bicycle Law Enforcement Training Course includes a "How Pedestrian and Bicycle Crashes Happen," "Education on Pedestrian Laws and Bicycle Laws," and "Crash Investigation and Reporting." The course can be open to all law enforcement entities for a fee, which covers instruction and materials.
Time frame	Spring, annually
Cost	\$ - \$\$
Potential funding sources	Federal and state safety grant funding
Sample programs	http://www.bicyclinginfo.org/enforcement/training.cfm http://www.massbike.org/police/

The City of Joseph should work with the Wallowa County Sheriff's Department to provide bicycle traffic education to police officers focusing on the rights and responsibilities of bicyclists and the practice of proper bicycle positioning techniques in traffic (see **Figure 4-3**). Bicycle traffic education should be integrated into trainings for all Wallowa County Sheriff's Department officers. In addition to developing awareness of the challenges of maneuvering a bicycle in traffic, a bicycle safety training course should provide a list of guidelines to assist with bicycle-related collision reports. This helps ensure valuable documentation of information for public health studies regarding injury prevention. A League of American Bicyclists Certified Instructor should administer the bicycle safety training. There are currently three League-certified instructors within 100 miles of Joseph.



Figure 4-3: Law enforcement officers serve as a valuable education resource.

Adult Cycling Skills Education	
Target	Current and potential adult cyclists
Primary agency	City of Joseph Fire Department
Partners	Wallowa County Sheriff's Department
Key elements	On-bike skills training for adult cyclists
Time frame	Flexible (one-time or on-going)
Cost	\$
Potential funding sources	Bike shops; transit agencies and local news outlets; traffic safety foundations and grant programs; hospitals and insurance companies
Sample programs	League of American Bicyclists skills courses: http://bikeleague.org/programs/education/courses.php

Most bicyclists learn to ride a bike when they are children, and do not have the opportunity to learn riding skills or safe road positioning. Adult bicycle skills training is an excellent way to improve both cyclist confidence and safety. Any training should include a significant on-bike section.

The League of American Bicyclists has developed a comprehensive bicycle skills curriculum considered the national standard for adults seeking to improve their on-bike skills. Various classes are offered, including basic and advanced on-road skills, and commuting (as well as driver education and youth courses). The local League of American Bicyclists chapter offers "StreetSmarts Cycling" classes, where participants can learn how to safely operate a bicycle under various conditions, and learn about bicyclists' rights and responsibilities (see **Figure 4-2**). There are currently three League-certified instructors within 100 miles of Joseph. Contact the League of American Bicyclists to schedule a course with these instructors.

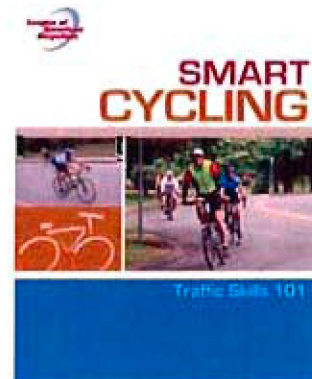


Figure 4-2: StreetSmarts Cycling Booklet.

Share the Road Campaign	
Target	Residents and tourists who drive through Joseph
Primary agency	City of Joseph
Partners	Wallowa County Sheriff's Department, Joseph Fire Department
Key elements	Implement an education campaign targeting unsafe motorist, bicycle, and pedestrian behavior
Time frame	Spring, annually
Cost	\$ - \$\$
Potential funding sources	Federal and state safety grant funding
Sample programs	http://www.bicyclinginfo.org/education/motorists.cfm http://www.walkinginfo.org/problems/problems-motorists.cfm http://www.marinbike.org/Campaigns/ShareTheRoad/Index.shtml

Share the Road programs seek to remind road users that bicyclists, pedestrians, and motor vehicles are legal road users. While laws for bicyclists, pedestrians, and passenger vehicles may differ, all groups share the responsibility to use the road safely and respect the rights of other users.

The City of Joseph should work with the Wallowa County Sheriff's Department to implement a Share the Road campaign focusing on motorist behaviors that endanger cyclists and pedestrians. This includes issues such as failure to yield to bicyclists and pedestrians, speeding, and passing too closely to bicyclists. The Share the Road campaign should also include information for cyclists and pedestrians on what it means to be safe, responsible, and courteous road users.

A Share the Road campaign can include the following:

- Safety literature for motorists, bicyclists, and pedestrians outlining Oregon Vehicle Code information and a code of safe conduct for all road users.
- Share the Road safety checkpoints in which volunteers stop motorists, bicyclists, and pedestrians and highlight safe road sharing using safety literature.
- Police checkpoints in which traffic violations are administered for road users exhibiting unsafe behavior.
- Share the Road presentations at local community group meetings to highlight the importance of traffic safety.

Police Education Courses	
Target	Law enforcement agencies
Primary agency	Wallowa County Sheriff's Department
Partners	City of Joseph
Key elements	Pedestrian and Bicycle Law Enforcement Training Course includes a "How Pedestrian and Bicycle Crashes Happen," "Education on Pedestrian Laws and Bicycle Laws," and "Crash Investigation and Reporting." The course can be open to all law enforcement entities for a fee, which covers instruction and materials.
Time frame	Spring, annually
Cost	\$ - \$\$
Potential funding sources	Federal and state safety grant funding
Sample programs	http://www.bicyclinginfo.org/enforcement/training.cfm http://www.massbike.org/police/

The City of Joseph should work with the Wallowa County Sheriff's Department to provide bicycle traffic education to police officers focusing on the rights and responsibilities of bicyclists and the practice of proper bicycle positioning techniques in traffic (see Figure 4-3). Bicycle traffic education should be integrated into trainings for all Wallowa County Sheriff's Department officers. In addition to developing awareness of the challenges of maneuvering a bicycle in traffic, a bicycle safety training course should provide a list of guidelines to assist with bicycle-related collision reports. This helps ensure valuable documentation of information for public health studies regarding injury prevention. A League of American Bicyclists Certified Instructor should administer the bicycle safety training. There are currently three League-certified instructors within 100 miles of Joseph.



Figure 4-3: Law enforcement officers serve as a valuable education resource.

Safe Routes to School – Phase 1	
Target	Parents, schoolchildren, administrators, City of Joseph staff
Primary agency	Joseph School District
Partners	ODOT, parent groups at schools, school neighbors
Key elements	Bicycle and pedestrian audit of infrastructure at elementary schools; recommended route maps
Time frame	Spring
Cost	\$\$
Potential funding sources	Federal Safe Routes to School grant funding; local, state or national health grants (e.g., Robert Wood Johnson Active Living by Design grants)
Sample programs	Portland Safer Routes to School Program: http://www.trans.ci.portland.or.us/saferoutes/

Helping children walk and bicycle to school is good for childrens’ health and can reduce congestion, traffic dangers and air pollution caused by parents driving children to school. Robust Safe Routes to School programs address all of the “Five Es” (Engineering, Education, Encouragement, Enforcement, and Evaluation).

The City of Joseph and the Joseph School District should work with ODOT and Wallowa County to implement the first phase of a Safe Routes to School Program. This phase will use a walkabout (also known as a bicycle and pedestrian audit) to assess walking and bicycling conditions of streets adjacent to Joseph schools. Parents, students, neighbors, and city planners and/or traffic engineers should be invited to join in the walkabout. Safety concerns, issues, and ideas should be recorded (see Figure 4-4).



Figure 4-4: Students participate in a walkabout to evaluate pedestrian conditions.

After the bicycle and pedestrian audit is conducted, parent maps for each school showing recommended routes to reach school, along with high-traffic intersections and routes to avoid, should be produced and distributed.

As a final step, an initial infrastructure improvement plan should be produced for each school, including cost estimates and a prioritized project list. This infrastructure improvement plan will serve as a blueprint for future investments, and can be used to apply for further grant funding.

Bike and Walking Maps	
Target	Current and potential cyclists and walkers
Primary agency	City of Joseph
Partners	Wallowa County, Northeast Oregon Economic Development District
Key elements	Clear symbology, designations and services attractive for cyclists and walkers, good selection of routes
Time frame	One-time, with regular updates; can happen at any time
Cost	\$\$ - \$\$\$
Potential funding sources	Bike shops (in-kind donations); transit agencies and local news outlets (donated ad space); traffic safety foundations and grant programs; hospitals and insurance companies
Sample programs	http://www.sfbike.org/download/map.pdf http://www.cityofchicago.org/Transportation/bikemap/keymap.html http://www.nycbikemaps.com/

One of the most effective ways of encouraging people to bike and walk is through the use of maps and guides showing that the infrastructure exists, to demonstrate how easy it is to access different parts of the community by bike or on foot, and to highlight unique areas, shopping districts or recreational areas. Bicycling and walking maps can be used to promote tourism, encourage residents to walk, or promote local business districts. Maps can be citywide, district-specific, or neighborhood/family-friendly maps.

The Joseph Chamber of Commerce has created an Art Walk: Bronze Sculpture Display brochure. The Chamber could enhance this brochure by creating a walking map highlighting historic Joseph and its amenities including walking and bicycling facilities. This map could be distributed at the information kiosk on Main Street near City Hall, the Wallowa County Museum, and other places attracting residents and visitors.

Joseph Bike and Walk Central Website	
Target	Current and potential cyclists and walkers
Primary agency	City of Joseph
Partners	Local bicycle advocacy groups and enthusiastic cyclists, Joseph Chamber of Commerce, Wallowa Mountain Institute, Northeast Oregon Economic Development District, Cycle Oregon, Travel Oregon
Key elements	Resources, maps and map orders, safety, events, groups
Time frame	On-going
Cost	\$ - \$\$ (depending on design and scope)
Potential funding sources	Low cost; may not require outside funding
Sample programs	Vélo Québec website: http://www.velo.qc.ca/english/home.lasso

The Joseph Bike and Walk Central website should contain:

- A list of all **bicycling and walking groups**, including clubs, racing teams, hiking and advocacy groups
- Information about **current projects and how to get involved** (e.g., public meetings, comment periods)
- **Maps and brochures** (links to online maps and brochures, where to find in-person, and how to request mailed materials)
- Links to **laws and statutes** relating to bicycling and walking
- Links to all relevant **local jurisdictions and their contacts** (e.g., City of Joseph, Wallowa County Sheriff's Office, etc.)
- Information about **cycling and walking events** (e.g., rides, walks, classes, volunteer opportunities)
- A list of **local bike shops**, including phone number and address
- Relevant **phone numbers** (e.g., hotlines for pothole repair, parking enforcement, bike rack installation request, etc.)

The website may also feature:

- Events calendar
- Request form for route planning assistance
- Message boards
- Blog featuring stories and news
- Photo galleries from events and submitted by readers
- Popular ride routes

Note that these additional features may increase the cost to set up and maintain the website.

A one-stop bike and walk website would not be difficult to set up, but would only be successful if the site is both easy to use and updated regularly. Corners should not be cut in either design or in maintenance of the site and its information. All website content should be reviewed annually for accuracy.

Complete Streets Policy	
Target	Planners and engineers
Primary agency	City of Joseph, Wallowa County
Partners	Bicycle advocacy groups, health organizations, etc.
Key elements	Policy language that creates streets to work for all users, including drivers, freight, walkers, cyclists and transit riders
Time frame	One-time; can happen at any time
Cost	\$
Potential funding sources	Low cost; may not require outside funding
Sample programs	http://www.completestreets.org/

Complete Streets policies direct transportation planners and engineers to consistently design roadways with all users in mind (e.g., motorists, transit riders, pedestrians, bicyclists, older people, children, and people with disabilities). There are many ways to implement Complete Streets policies.

Once a policy is in place, training is recommended for professionals whose work will be affected by the policy (e.g., planners and engineers).

Guidance from the Complete Streets Coalition:

The Principle:

- Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street.
- Creating complete streets means changing the policies and practices of transportation agencies.
- A complete streets policy ensures that the entire right of way is routinely designed and operated to enable safe access for all users.
- Transportation agencies must ensure that all road projects result in a complete street appropriate to local context and needs.

Elements of a Good Complete Streets Policy:

- Specifies that “all users” includes pedestrians, bicyclists, transit vehicles and users, and motorists, of all ages and abilities
- Aims to create a comprehensive, integrated, connected multi-modal network
- Recognizes the need for flexibility: that all streets are different and user needs will be balanced
- Is adoptable by all agencies to cover all roads
- Applies to both new and retrofit projects, including design, planning, maintenance, and operations, for the entire right of way
- Makes any exceptions specific and sets a clear procedure requiring high-level approval of exceptions
- Directs the use of the latest and best design standards
- Directs that complete streets solutions fit in with context of the community
- Establishes performance standards with measurable outcomes

Perform Annual Bicycle and Pedestrian Counts	
Target	N/A
Primary agency	City of Joseph
Partners	Wallowa County, bicycle advocacy groups, health organizations, etc.
Key elements	Annual bicycle and pedestrian user counts and surveys at set locations to provide for evaluation over time
Time frame	Annually
Cost	\$\$-\$\$\$
Potential funding sources	Oregon Department of Transportation
Sample programs	National Bicycle & Pedestrian Documentation Project (http://www.fhwa.dot.gov/environment/bikeped/study/)

Many jurisdictions do not perform regular bicycle user counts. As a result, they do not have a mechanism for tracking ridership trends over time, or for evaluating the impact of projects, policies, and programs.

It is recommended that the City of Joseph perform and/or coordinate annual counts of bicyclists (and pedestrians if desired) according to national practices. The National Bicycle and Pedestrian Documentation Project has developed a recommended methodology, survey and count forms, and reporting forms, and can be modified to serve the needs and interests of individual jurisdictions.

If desired, further bicycle and pedestrian data collection opportunities may be pursued as well, including:

- Include before-and-after bicycle/pedestrian/vehicle data collection on priority roadway projects
- Insert bicycle/pedestrian survey questions into any existing travel mode or city audit survey instrument
- Require counting of bicyclists/pedestrians in all traffic studies
- Purchase National Household Travel Survey add-on

Promotional Events to Encourage Walking and Biking	
Target	Joseph residents
Primary agency	City of Joseph
Partners	Joseph Chamber of Commerce, Wallowa County, event organizers, bicycle advocacy groups, health organizations, etc.
Key elements	Sponsor events that create a low-barrier of entry for people to “try” walking and bicycling
Time frame	On-going
Cost	\$
Potential funding sources	Low cost; may not require outside funding
Sample programs	WalkBikeMarin, Way to Go events: http://walkbikemarin.org/documents/WTGcalendar0616.pdf

In many cases, the decision to drive rather than walk or bike is guided by habit. People often choose what is familiar to them: driving. Encouragement programs help shift peoples’ driving habits by providing a fun environment for them to “try” walking. Encouragement programs are one of the most cost effective ways of getting people out walking and biking.

It is recommended that the City of Joseph promote events to encourage and support walking and biking. Events may include City-sponsored walking tours of new projects (see Figure 4-5) and development, recreational walks, historic walks, car-free days, Walk and Bike to Work and School days, and walks and rides to Chief Joseph Days.

The City of Joseph should also encourage organizers of existing events to promote walking and biking to the event.



Figure 4-5: City-sponsored walking tours are a great way to promote trails and other recently-completed projects.

CHAPTER 5. Design Guidelines

5.1. Introduction

This chapter discusses recommended design guidelines for Joseph's pedestrian and bicycle system. Design recommendations are proposed for each of the non-motorized facility types proposed in this Plan including bikeways and walkways. This chapter also discusses other important issues that should be considered as the City improves existing facilities and expands the pedestrian and bicycle network. The recommendations described in this chapter are based on several bicycle and pedestrian design guidance documents, including the *Manual on Uniform Traffic Control Devices* (MUTCD), the American Association of State Highway and Transportation Officials' (AASHTO) *Guide for the Development of Bicycle Facilities* and *Guide for the Planning, Design and Operation of Pedestrian Facilities*, the *Oregon Bicycle and Pedestrian Plan*, and other literature describing best practices.

5.2. Walkways

5.2.1. Sidewalks

A variety of considerations are important in sidewalk design. Providing adequate and accessible facilities should lead to increased numbers of people walking, improved safety, and the creation of social space. Attributes of well-designed sidewalks include the following:

- **Accessibility:** A network of sidewalks should be accessible to all users and meet Americans with Disabilities Act (ADA) requirements.
- **Adequate width:** Two people should be able to walk side-by-side and pass a third person comfortably and different walking speeds should be possible. In areas of intense pedestrian use, sidewalks should be wider to accommodate the higher volume of foot traffic.
- **Safety:** Design features of the sidewalk should allow pedestrians to have a sense of security and predictability. Sidewalk users should not feel they are at risk due to the presence of adjacent traffic.
- **Continuity:** Walking routes should be obvious and should not require pedestrians to travel out of their way unnecessarily.
- **Landscaping:** Plantings and street trees within the roadside area should contribute to the overall psychological and visual comfort of sidewalk users, without providing hiding places for attackers.

- **Social space:** Sidewalks should be more than areas to travel; they should provide places for people to interact. There should be places for standing, visiting, and sitting. The sidewalk area should be a place where adults and children can safely participate in public life.
- **Quality of place:** Sidewalks should contribute to the character of neighborhoods and business districts and strengthen their identity.

Sidewalk conditions in Joseph vary, ranging from relatively smooth surfaces (e.g., along S Main Street north of Third Street), to cracked sidewalks with intruding vegetation (e.g., on the east side of S Main Street south of Third Street). Common sidewalk problems include obstructions (e.g., sign posts, utility poles, mail boxes, etc.), cracks, and driveway interruptions. General strategies for addressing these existing sidewalk deficiencies include:

- **Relocating/removing sidewalk obstructions:** Provides sufficient horizontal clearance for pedestrian movement
- **Repairing cracked sidewalks:** Increases safety for walkers and wheelchair users by providing a smooth surface free of cracks or other tripping hazards
- **Driveway consolidation** (especially on streets with surrounding commercial or strip development): Reduces the number of potential conflict points between pedestrians and motorists

Width

Sidewalk widths in Joseph vary by location, ranging from four to five feet wide on residential streets, to over ten feet wide on portions of Main Street in the Downtown core. Required sidewalk widths in Joseph vary based on a street's ownership and functional classification. The 2001 TSP recommends sidewalk widths of six to ten feet on Arterial streets, and five- to six-foot wide sidewalks on Collector and Local streets. According to the *Oregon Bicycle and Pedestrian Plan*, sidewalks should measure at least six feet wide, enabling pedestrians and wheelchair users to pass each other or walk side-by-side comfortably. The TSP recommends a seven- to eight-foot wide planter strip (between the sidewalk and curb) on all streets.

Surface

Sidewalk surfaces should be smooth and continuous. It is also desirable that the sidewalk surface be stable, firm and slip resistant. Preferred materials include Portland Cement Concrete (PCC) and Asphalt Concrete (AC). PCC provides a smooth, long-lasting and durable finish that is easy to grade and repair. PCC can also be patterned and colorized if desired. AC has a shorter life expectancy but may be more appropriate in less urbanized areas and in park settings. Crushed aggregate may also be used as an all-weather walkway surface in park areas, but this material generally requires a higher level of maintenance to maintain accessibility.

Brick pavers (or other decorative treatments) may be used on some sidewalks and crosswalks if they are constructed to avoid settling or removal of bricks, which can create tripping hazards. This treatment should also be constructed to provide a high level of smoothness to accommodate wheelchairs and other mobility devices. Alternatives to brick pavers include “stamping” molds to create the visual appearance of bricks.

ADA allows a maximum two percent cross-slope on sidewalks and other walkways. Where sidewalks meet driveways, curb cuts or intersections, a three-foot-wide area should be maintained with a two percent cross-slope.

Addressing Obstructions

Obstructions to pedestrian travel in the sidewalk corridor typically include sign posts, utility and signal poles, mailboxes, fire hydrants and street furniture. Obstructions should be placed between the sidewalk and the roadway to create a buffer for increased pedestrian comfort while maintaining six feet of lateral clearance. When sidewalks abut perpendicular or angled on-street parking, wheelstops should be placed in the parking area to prevent parked vehicles from overhanging in the sidewalk. When sidewalks abut hedges, fences, or buildings, an additional two feet of lateral clearance should be added to provide appropriate shy distance.

Driveways represent another sidewalk obstruction, especially for wheelchair users. The following techniques can be used to accommodate wheelchair users at driveway crossings:

- Reducing the number of driveways minimizes the need for special provisions. This strategy should be pursued first.
- Constructing wide sidewalks avoids excessively steep driveway slopes. The overall width must be sufficient to avoid an abrupt driveway slope.

- Planter strips allow sidewalks to remain level, with the driveway grade change occurring within the planter strip (Figure 5-1).
- Where constraints preclude a planter strip, wrapping the sidewalk around the driveway has a similar effect (Figure 5-2). However, this method may have disadvantages for visually-impaired pedestrians who follow the curb line for guidance.
- When constraints only allow curb-tight sidewalks, dipping the entire sidewalk at the driveway approaches keeps the cross-slope at a constant grade (Figure 5-3). However, this may be uncomfortable for pedestrians and could create drainage problems behind the sidewalk.

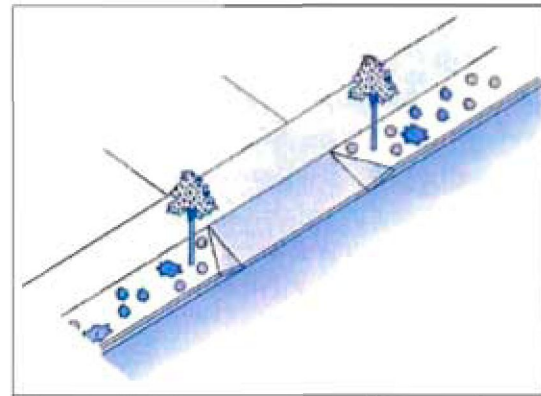


Figure 5-1: Driveway apron utilizing a planter strip.

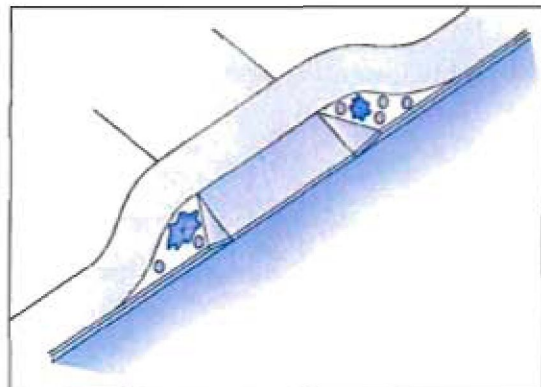


Figure 5-2: Sidewalk wrapped around driveway.

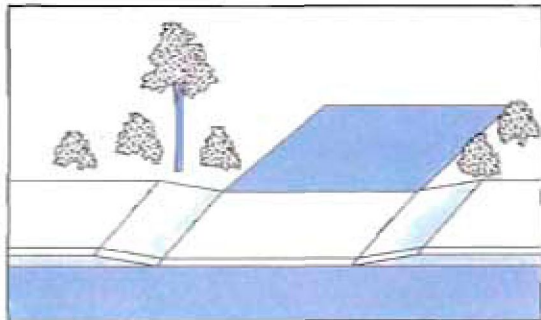


Figure 5-3: Entire sidewalk dips at driveway.

Alternatives to Sidewalks

Although the City of Joseph has a goal of providing sidewalks on both sides of all streets, physical and other constraints (especially in older neighborhoods) could preclude sidewalks in some parts of the city. Described below, alternative sidewalk treatments could be used to accommodate foot traffic in these areas.

Soft Paths

In areas where paved sidewalks are not feasible or appropriate due to site conditions such as existing trees, walls, or other obstacles, a soft path alternative should be explored. A soft path is a pedestrian path constructed of a pervious material such as decomposed granite or other universally accessible material. Soft paths should be at least five feet wide. Constricted areas may have a reduced width consistent with ADA guidelines.

Another option is rubberized sidewalks, which use one recycled automobile tire per square foot of sidewalk. Rubberized sidewalks cost approximately one-third more than the cost of typical concrete sidewalks, but require significantly less maintenance than

concrete sidewalks that are located near trees, since they can be lifted out of the ground for periodic tree root trimming. Rubberized sidewalks are less likely than concrete to be broken up by tree roots, further reducing long-term costs.

Colored Shoulders

Colored shoulders visually narrow the roadway and slow traffic, making it more pedestrian friendly. They are optional treatments for neighborhoods with no room for traditional sidewalks. Drivers see only travel lanes as available road space, so the roadway appears narrower than it is when the shoulders are a different color. Painting the road surface requires frequent maintenance; lower-maintenance methods include:

- Paving travel lanes with concrete, and shoulders with asphalt, or the reverse
- Slurry sealing or chip-sealing the roadway, and not the shoulder
- Incorporating dyes into concrete or asphalt
- Colored unit pavers that resemble brick

5.3. Intersection Treatments

Several design and operational treatments could be implemented to improve the pedestrian environment at intersections. Attributes of good intersection design include the following:

- **Clarity:** It should be obvious to motorists that there will be pedestrians present; it should be obvious to pedestrians where to cross.
- **Predictability:** The placement of crosswalks should be predictable. Additionally, the frequency of crossings should increase where pedestrian volumes are higher.
- **Visibility:** The location and illumination of the crosswalk allows pedestrians to see and be seen by approaching traffic while crossing.
- **Short wait:** The pedestrian does not have to wait unreasonably long for an opportunity to cross.
- **Limited exposure:** Conflict points with traffic are few, and the distance to cross is short or is divided into shorter segments with crossing islands.
- **Clear crossing:** The crosswalk is free of barriers, obstacles, and hazards and is accessible to all users. Pedestrian crossing information is available in accessible locations.

These factors should be considered whenever bicyclists or pedestrians cross a street. Strategies and treatments for improving intersections and other bicycle/pedestrian crossings in Joseph include:

- **Enhanced crosswalks and warning signage:** Longitudinal (“ladder-style”) crosswalks, raised crosswalks, and crosswalks with pavement or color texturing provide visual cues to oncoming motorists
- **Curb extensions:** Reduce the pedestrian crossing distance on the roadway, and also increase motorists’ visibility of pedestrians crossing the street
- **Medians and refuge island:** Separate the pedestrian crossing into multiple segments, allowing pedestrians to focus on one direction of traffic at a time
- **ADA-accessible curb ramps with detectable warning strips:** Facilitate safe and convenient crossings for wheelchairs and mobility-impaired users; also convenient for pedestrians with strollers

5.3.1. Crosswalks

Joseph currently uses a variety of crosswalk treatments, including “transverse” (also called “parallel bar”) markings consisting of two bars crossing an intersection; “longitudinal” (also called “ladder style”) markings; and combinations of these marking styles. The MUTCD indicates that transverse crosswalks should include solid white lines six to 24 inches wide (extending across the full pavement width), with a minimum of six feet between the lines. Longitudinal crosswalk bars should be 12 to 24 inches wide, at least six feet long, with one- to five-foot spacing between each bar (the space between bars should not exceed two and a half times the bar width). To minimize maintenance costs, the bars should not be placed directly within vehicle wheelpaths (where possible). Also, the City of Joseph currently applies paint to mark and re-mark crosswalks, but has expressed an interest in using thermoplastic to reduce maintenance needs.

ODOT prescribes additional standards for the placement of crosswalks on state highways. Longitudinal crosswalks may only be placed in designated School Zones, at mid-block crossing locations, and at intersection slip lanes. ODOT’s longitudinal crosswalk bars typically measure nine feet in length. Transverse markings on state highways consist of 12-inch wide bars spaced ten feet apart. The placement of all crosswalks on state highways is subject to the State Traffic Engineer’s approval.

5.3.2. Curb Ramps

Curb ramps are a fundamental element of an accessible public realm. A sidewalk without a curb ramp can be useless to someone in a wheelchair, forcing them back to a driveway and out into the street for access. Likewise, street crossings must be aligned and properly designed to accommodate the needs and desires of all people. Many of the single access ramps built in previous decades direct



Figure 5-4: Dual curb ramps with detectable warning strips.

users diagonally into the street intersection (rather than straight into the crosswalk area). This can be problematic for visually-impaired pedestrians as they could experience difficulty orienting themselves toward the crosswalk.

Where possible, all intersection corners should provide dual curb ramps oriented directly across the street. Curb ramps should also have detectable warning strips to accommodate the visually-impaired (Figure 5-4). AASHTO's *Guide for the Planning, Design, and Operation of Pedestrian Facilities* and the ODOT *Highway Design Manual* provide further guidance on curb ramp design.

Curb extension installations should include a vertical element to alert snowplow operators to their location (Figure 5-5). Reducing the width of the curb extension to fall just inside the edge of the parking lane will allow the plow to remove snow from the entire travel lane in a single pass.



Figure 5-5: Vertical signage indicates the location of pedestrian amenities to snowplows.

5.4. Signals and Signal Warrants

Although the need for traffic signals in Joseph is not anticipated in the next several decades, this section briefly discusses the role of traffic signals in the bicycle/pedestrian environment.

5.4.1. Full Signalized Crossings

The Federal government provides guidance to determine where traffic control signals should be considered for installation. The Pedestrian Volume signal warrant is intended to be applied where traffic volumes on a major street are high enough that pedestrians on an approaching side street or path experience excessive delay in crossing the major street. Section 4C.05 of the MUTCD details Warrant Four, Pedestrian Volume. For signal warrant analysis, a location with a wide median, even if the median width is greater than 30 feet, should be considered as one intersection.

5.4.2. Half Signalized Crossings

In situations where there are few “crossable” gaps and where vehicles do not stop for pedestrians waiting to cross, there are a number of innovative pedestrian traffic signals that do not operate as full signals that



Figure 5-6: Toucan Signal.

exist, including the Toucan signal (Figure 5-6) and Hawk signal (Figure 5-7). Many of these models have been used successfully for years overseas, and their use in the United States has increased dramatically over the last decade.

5.4.3. Signal Timing Evaluation and Modification

Providing adequate pedestrian crossing time is a critical element of the walking environment at signalized intersections. The MUTCD recommends traffic signal timing to assume a pedestrian walking speed of four feet per second, meaning that the length of a signal phase with parallel pedestrian movements should provide sufficient time for a pedestrian to safely cross the adjacent street. It should be noted however that the four feet per second walking speed does not reflect the walking rates of many users. At crossings where older pedestrians or pedestrians with disabilities are expected, crossing speeds as low as three feet per second may be assumed.



Figure 5-7: Hawk signal.

5.4.4. Pedestrian Countdown Signals

According to the MUTCD, "Pedestrian Signal Heads provide special types of traffic signal indications exclusively intended for controlling pedestrian traffic. These signal indications consist of the illuminated symbols of a WALKING PERSON (symbolizing WALK) and an UPRAISED HAND (symbolizing DON'T WALK)". An advanced type of pedestrian signal head contains a countdown signal, in addition to the WALK/DON'T WALK symbol. The countdown signal displays the number of seconds remaining for the individual to complete his or her crossing (Figure 5-8).



Figure 5-8: Pedestrian countdown signal.

5.5. Bicycle Facilities

5.5.1. Bike Lanes

Bike lanes are appropriate on busy thoroughfares, and are marked to call attention to the presence of bicyclists. They encourage more predictable cyclist behavior, and differentiate an area on the street where bicycles have priority.

Typical bike lanes range from five to seven feet wide. A bike lane's usable width is normally measured from the curb face to the center of the lane stripe, although adjustments should be made for drainage grates and longitudinal joints between the street pavement and the curb gutter pan. ODOT's standard as defined by the *Oregon Bicycle and Pedestrian Plan* for a bike lane is six feet. Five feet is an appropriate width if the lane is against a curb or adjacent to a parking lane. A four-and-a-half foot lane can be acceptable in severely strained conditions. Four-foot bike lanes are acceptable only on uncurbed shoulders. If parking is permitted on a street, bike lanes should be placed between the parking lane and the travel lane. Wider bike lanes (as much as seven feet wide) may be desirable in areas with high vehicle parking turnover, considerable bicycle use or substantial automobile traffic.



Figure 5-9: Bike lanes should include pavement stencils and directional arrows.

Joseph's TSP recommends five- to six-foot wide bike lanes on Arterial streets, while ODOT requires six-foot wide bike lanes on state highways. This Plan recommends a six-foot bike lane width standard for Arterials in addition to five-foot wide bike lanes on Collectors in Joseph.

Oregon Administrative Rules require bike lanes to be striped with an eight-inch solid white line to increase the visual separation between the vehicle lane and bike lane, as shown in Figure 5-9. A four-inch solid white line may also be striped between the bike lane and adjacent on-street parking to encourage parking closer to the curb and to provide additional separation from motor vehicles. Bike lanes should also be marked with stencils and directional arrows. The *Oregon Bicycle and Pedestrian Plan* recommends placing stencils after most intersections to alert motorists and cyclists of the exclusive nature of bike lanes. For long street segments with few intersections, the appropriate frequency of stencils is calculated by multiplying the street's design speed by 40. For instance, stencils should be placed every 1,400 feet on streets with a 35 MPH design speed.

Addressing Drainage Grates and Other Obstacles

Bike lanes should be provided with adequate drainage to prevent ponding, washouts, debris accumulation and other potentially hazardous situations for cyclists. Drainage grates should be bicycle-safe, as shown in Figure 5-10. When an immediate replacement of an incompatible grate is not possible, a temporary correction of welding thin metal straps across the grates perpendicular to the drainage slots (four to six inches apart, center-to-center spacing) should be considered. Bike lanes should also include a smooth riding surface, and utility covers should be adjusted flush with the street surface. Furthermore, raised pavement markings (e.g., reflectors and truncated domes) can cause steering difficulties for bicyclists, and should not be used to delineate bike lanes.

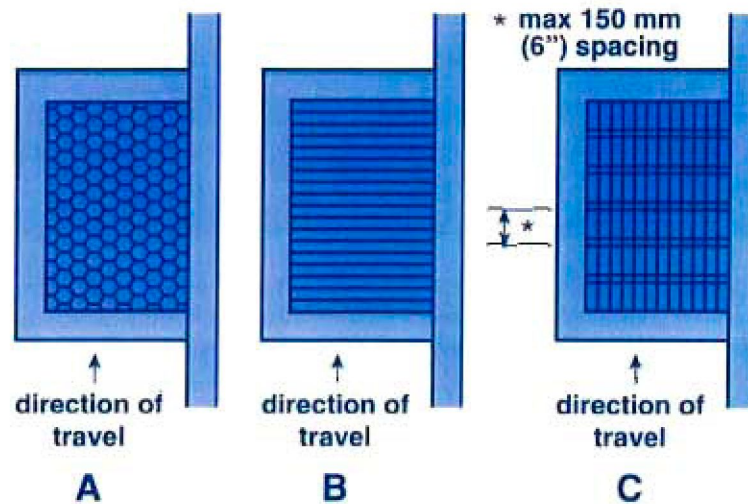


Figure 5-10: Bicycle-safe drainage grates.

5.5.2. Shoulder Bikeways

Shoulder bikeways serve bicyclists and pedestrians in less-developed and rural areas, and typically consist of a wide paved shoulder separated from vehicle traffic through striping treatments. The *Oregon Bicycle and Pedestrian Plan* recommends a six-foot wide paved shoulder on each side of the roadway, allowing a cyclist to ride far enough from the pavement edge to avoid debris, yet far enough from passing motorists to avoid conflicts. The *Oregon Bicycle and Pedestrian Plan* also recommends that gravel driveways approaching the road be paved at least 15 feet from the roadway to prevent gravel from spilling onto roadway shoulders.

5.5.3. Shared Roadways

Typically the most common type of bikeway, shared roadways are streets with relatively low traffic volumes and posted speeds enabling cyclists and motorists to share the same travel lanes. These streets usually have two travel lanes with or without adjacent on-street parking. Additional treatments, described below, vary by street.

Shared Lane Markings (“Sharrows”)

Shared lane markings (also known as “sharrows”) are high-visibility pavement markings that help position bicyclists within the travel lane. These markings are often used on streets where dedicated bike lanes are desirable but are not possible due to physical or other constraints. Sharrows are placed strategically in the travel lane to alert motorists of bicycle traffic, while also encouraging cyclists to ride at an appropriate distance from the “door zone” of adjacent parked cars (Figure 5-11). On streets too narrow to accommodate a bicycle and car side-by-side, sharrows encourage cyclists to ride in a straight line so their movements are predictable to motorists who may want to pass them. They also reduce the incidence of wrong-way riding by indicating the appropriate direction of travel.



Figure 5-11: Shared lane marking.

MUTCD Guidelines

The Draft 2009 MUTCD provides guidance on the use and placement of shared lane markings. Sharrows are not appropriate on streets with bike lanes, on shoulders, or on roadways with posted speed limits over 35 MPH. Markings should be placed in a linear pattern along a corridor (typically every 100-200 feet, with a maximum of 250 feet) at a minimum of 11 feet from the face of curb (see Figure 5-12). If the street does not have on-street parking, sharrows should be placed at least four feet from the face of the curb (or roadway edge if a curb does not exist).

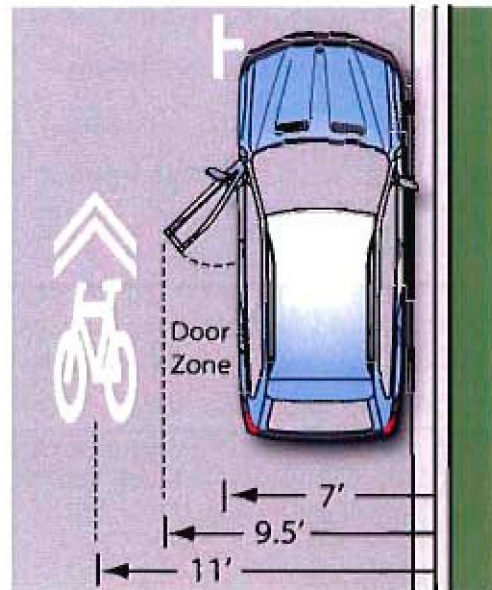


Figure 5-12: Shared lane marking placement guidance.

These pavement markings have been successfully used in many small and large communities throughout the U.S. Sharrow markings made of thermoplastic tend to last longer than traditional paint.

Bicycle Boulevards

Bicycle routes that incorporate treatments to accommodate cyclists are often called “bicycle boulevards.” Bicycle Boulevards are developed through a combination of traffic calming measures and other streetscape treatments, and are intended to slow vehicle traffic while facilitating safe and convenient bicycle travel. Appropriate treatments depend on several factors including traffic volumes, vehicle and bicycle

circulation patterns, street connectivity, street width, physical constraints, and other parameters.

Bicycle Boulevard Application Levels

This section describes various treatments commonly used for developing Bicycle Boulevards. The treatments have been divided into five main “application levels” based on their level of physical intensity, with Level 1 representing the least physically-intensive treatments that could be implemented at relatively low cost. Identifying appropriate application levels for individual Bicycle Boulevard corridors provides a starting point for selecting appropriate site-specific improvements. The five Bicycle Boulevard application levels include the following:

- Level 1: Signage
- Level 2: Pavement markings
- Level 3: Intersection treatments
- Level 4: Traffic calming
- Level 5: Traffic diversion

It should be noted that some applications may be appropriate on some streets while inappropriate on others. In other words, it may not be appropriate or necessary to implement all “Level 2” applications on a Level 2 street. Furthermore, several treatments could fall within multiple categories as they achieve multiple goals. To identify and develop specific treatments for each Bicycle Boulevard, the City of Joseph should involve the bicycling community, neighborhood groups, and the Public Works Department. Further analysis and engineering work may also be necessary to determine the feasibility of some applications.

The following sections describe the five Bicycle Boulevard application levels and associated treatments.

Level 1: Signage

Bikeway signage is a relatively cost-effective treatment that can improve the bicycling environment along Joseph’s Bicycle Boulevard system. Described below, signage can serve both wayfinding and safety purposes.

Wayfinding Signs

Bicycle wayfinding signs should be installed along Joseph’s Bicycle Boulevards and other cycling routes.

MUTCD Guidelines

There are no standards prescribed for wayfinding or guide signs in the current MUTCD. However, there are several sections that do address wayfinding signage along bicycle routes.

Section 9B.20 Bicycle Route Guide Signs provides the following guidance: "Bicycle Route Guide (D11-1) signs may be provided along designated bicycle routes to inform bicyclists of bicycle route direction changes and to confirm route direction, distance, and destination. If used, Bicycle Route Guide signs may be repeated at regular intervals so that bicyclists entering from side streets will have an opportunity to know that they are on a bicycle route."

Section 9B.21 Bicycle Route Signs provides the option of establishing a unique identification (route designation) for a state or local bicycle route using the Bicycle Route (M1-8, **Figure 5-13**) sign. The guidance is to establish continuous routing for bicycle routes.

Section 9B.22 Bicycle Route Sign Auxiliary Plaques provides the option of mounting Destination (D1-1b, **Figure 5-14**) signs or directional arrow signs (M7-1 through M7-7, **Figure 5-15**) below the Bicycle Route Guide sign to furnish additional information.

Optional Signage Design

The City of Portland has found great success in using a slightly different bicycle route sign than identified in the MUTCD, shown in **Figure 5-16**. The City of Portland sign differs in three primary ways:

- It incorporates the Bicycle Route Guide Sign, the Destination Arrow, and the Directional Arrow signs all on one sign
- It provides for the inclusion of multiple destinations on one sign
- It includes riding time to destinations as well as distances

Warning Signs

On Bicycle Boulevards with higher vehicle and bicycle volumes, the City should also consider installing additional warning signs advising motorists to the



Figure 5-13: MUTCD Bicycle Route Sign M1-8.



Figure 5-14: MUTCD Destination Sign D1-1b.



Figure 5-15: MUTCD Directional Arrow Signs M7-1/7.



Figure 5-16: City of Portland wayfinding signage design.

presence of cyclists. This signage would also be effective in other areas with higher numbers of bicycle trips.

MUTCD Guidelines

Section 9B.17 Bicycle Surface Condition Warning Sign notes that a Bicycle Surface Condition Warning sign (W8-10) alerts the road user to unexpected entries into the roadway by bicyclists and other crossing activities that might cause conflicts, such as bumps, dips and pavement ending. As an option, a supplemental plaque with the legend AHEAD or XXX FEET may be used with the Bicycle Warning sign.

Section 9B.18 Bicycle Warning and Combined Bicycle/Pedestrian Signs allows for signage that “alerts the road user to unexpected entries onto the roadway by bicyclists and other crossing activities that might cause conflicts.” This should be supplemented with a downward pointing arrow plaque indicating the location of the crossing.

Section 9B.19 Other Bicycle Warning Signs provides the option to install warning signs such as PATH NARROWS (W5-4a) and Hill (W7-5) on bicycle facilities to warn bicyclists of conditions not readily apparent. In addition, in situations where there is a need to warn motorists to watch for bicyclists traveling along the highway, the SHARE THE ROAD (W16-1, **Figure 5-17**) plaque may be used in conjunction with the W11-1.



Figure 5-17: MUTCD Bicycle Warning Sign (W11-1) with supplemental plaque (W16-1)

Level 2: Pavement Markings

A variety of pavement marking techniques can effectively improve bicycling conditions along Bicycle Boulevards.

On-Street Parking Delineation

Delineating on-street parking through paint or other materials clearly indicates where a vehicle should be parked, and can discourage motorists from parking their vehicles too far into the adjacent travel lane. This helps cyclists by maintaining a wide enough space to safely share a travel lane with moving vehicles while minimizing the need to swerve farther into the travel lane to maneuver around parked cars. In addition to benefiting cyclists, delineated parking spaces also promote the efficient use of on-street parking by maximizing the number of spaces in high-demand areas.

Directional Pavement Markings

MUTCD Guidelines

The MUTCD currently provides no guidance on the use of directional pavement markings for bicyclists, although *Section 9C.01 Function of Markings* provides this general support: “Markings indicate the separation of the lanes for road users, assist the bicyclist by indicating assigned travel paths, indicate correct position for traffic control signal actuation, and provide advance information for turning and crossing maneuvers.”

Directional pavement markings effectively lead cyclists along a Bicycle Boulevard (and reinforce cyclists that they are on a designated route). The markings take the form of small bicycle symbols (about one foot in diameter) placed every 600-800 feet along a linear corridor, shown in **Figure 5-18**. When a Bicycle Boulevard travels along several streets (with multiple turns at intersections), additional markings accompanied by directional arrows are provided to guide cyclists through turns and other complex routing areas. Directional pavement markings also visually cue motorists that they are traveling along a bicycle route and should exercise caution.

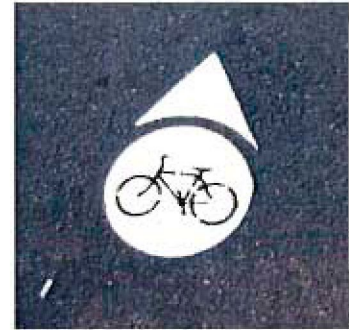


Figure 5-18: Directional Pavement Marking

Level 3: Intersection Treatments

Described below, a variety of intersection treatments can be used to safely and conveniently facilitate bicycle travel on bicycle boulevards.

Stop Sign Placement

Placing stop signs on cross-streets approaching a Bicycle Boulevard can facilitate convenient thru bicycle travel. A reduced number of stop signs on a designated bicycle route enables riders to maintain their momentum and exert less energy with fewer “stops and starts.” This treatment should be used judiciously to minimize the potential for increasing vehicle speeds on the Bicycle Boulevard. Additionally, appropriate traffic control measures should be used where Bicycle Boulevards intersect major streets.

Half Signals

Bicycle Boulevards often follow lower-volume side streets that provide minimal or no bicycle/pedestrian treatments to cross major roadways. In situations where there are few “crossable” gaps and where vehicles on the major street do not stop for pedestrians and cyclists waiting to cross, “half signals” (described earlier) could be installed to improve the crossing environment. Half signals include pedestrian and bicycle activation buttons and may also include bicycle loop detectors on the Bicycle Boulevard approach. Many of these models have been used successfully for years overseas, and their use in the United States has increased dramatically over the last decade.

Curb Extensions

Curb extensions slow vehicle traffic by creating a visual “pinch point” for approaching motorists. Typically constructed within the on-street parking lane, these devices can calm vehicle traffic passing through or turning at an intersection. Curb extensions also benefit cyclists and pedestrians on cross-streets by reducing the crossing distance within the roadway. Curb extensions should be designed with sufficient radii to accommodate the turning movements of snowplows, school buses and emergency vehicles.

Medians/Refuge Islands

Medians are elevated or delineated islands that break up non-motorized street crossings into multiple segments. Where Bicycle Boulevards cross major streets at unsignalized intersections, medians can be used to simplify bicyclist and pedestrian crossings on the major street. Appropriate signage should be installed on the major street to warn motorists of bicyclist/pedestrian crossings. Additionally, vegetation within the median should be low to maintain adequate sight distances for both motorists and bicyclists/pedestrians. Medians can also be used along the Bicycle Boulevard to create a visual pinch point for motorists as well as to accommodate mid-block bicycle/pedestrian crossings.

Level 4: Traffic Calming

Traffic calming treatments on Bicycle Boulevards improve the bicycling environment by reducing vehicle speeds to the point where they generally match cyclists’ operating speeds, enabling motorists and cyclists to safely co-exist on the same facility. Specific traffic calming treatments are described below.

Chicanes

Chicanes are a series of raised or delineated curb extensions on alternating sides of a street forming an S-shaped curb, which reduce vehicle speeds through narrowed travel lanes (see **Figure 5-19**). Chicanes can also be achieved by establishing on-street parking on alternate sides of the street. These treatments are most effective on streets with narrower cross-sections. Chicane installations should include a vertical element as a visibility aid for snowplows.



Figure 5-19: Chicane.

Mini Traffic Circles

Mini traffic circles are raised or delineated islands placed at intersections, reducing vehicle speeds through tighter turning radii and narrowed vehicle travel lanes (Figure 5-20). These devices can effectively slow vehicle traffic while facilitating all turning movements at an intersection. Mini traffic circles can also include a paved apron to accommodate the turning radii of larger vehicles like fire trucks or school buses.

Speed Humps

Speed humps are rounded raised areas of the pavement requiring approaching motor vehicles to reduce speed (Figure 5-21). These devices also discourage thru vehicle travel on a street when a parallel alternate route exists.

Speed humps are generally 12 to 22 feet long and three to four inches high. There are four speed hump shapes - sinusoidal, circular, parabolic and flat-topped - which differ in the shape of their slope (see Figure 5-22). The sinusoidal shaped are much smoother to drive over at the intended speed, and are also more friendly to bicyclists. (Many older speed humps are of the parabolic shape, which provides a more pronounced bump when driving over them.) Sinusoidal speed hump design should be used in snowy areas as they are compatible with snow removal operations.

Level 5: Traffic Diversion

Traffic diversion treatments maintain thru bicycle travel on a street while physically restricting thru vehicle traffic. These treatments direct thru vehicle traffic onto parallel higher-order streets while accommodating bicyclists and local vehicle traffic on the Bicycle Boulevard. Traffic diversion is most effective when the higher-order streets can sufficiently accommodate the diverted traffic associated with these treatments.



Figure 5-20: Mini traffic circle.



Figure 5-21: Speed hump.



Figure 5-22: Speed hump designs.

Choker Entrances

Choker entrances are intersection curb extensions or raised islands allowing full bicycle passage while restricting vehicle access to and from a Bicycle Boulevard (see Figure 5-23). When they approach a choker entrance at a cross-street, motorists on the Bicycle Boulevard must turn onto the cross-street while cyclists may continue forward. These devices can be designed to permit some vehicle turning movements from a cross-street onto the Bicycle Boulevard while restricting other movements.

Traffic Diverters

Similar to choker entrances, traffic diverters are raised features directing vehicle traffic off the Bicycle Boulevard while permitting thru bicycle travel. Two examples of traffic diverters are shown in Figure 5-24 and Figure 5-25.

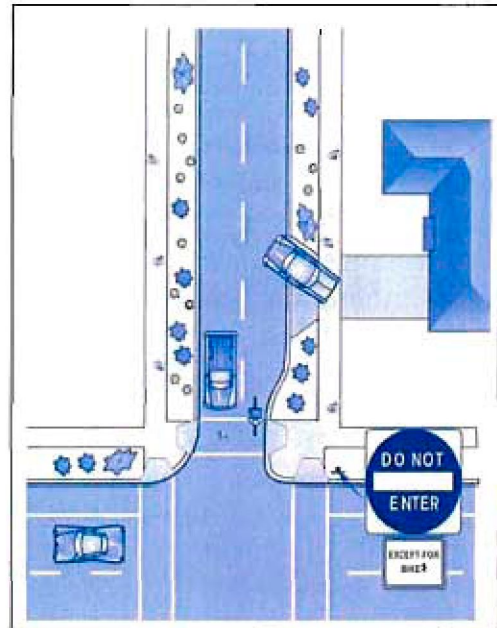


Figure 5-23: Choker at entrance of two-way local street.



Figure 5-24: Median island allows bicycle thru-traffic.



Figure 5-25: Bicycle/pedestrian only refuge island diverts auto traffic.

Figure 5-26 depicts sample Bicycle Boulevard treatments on a hypothetical street.

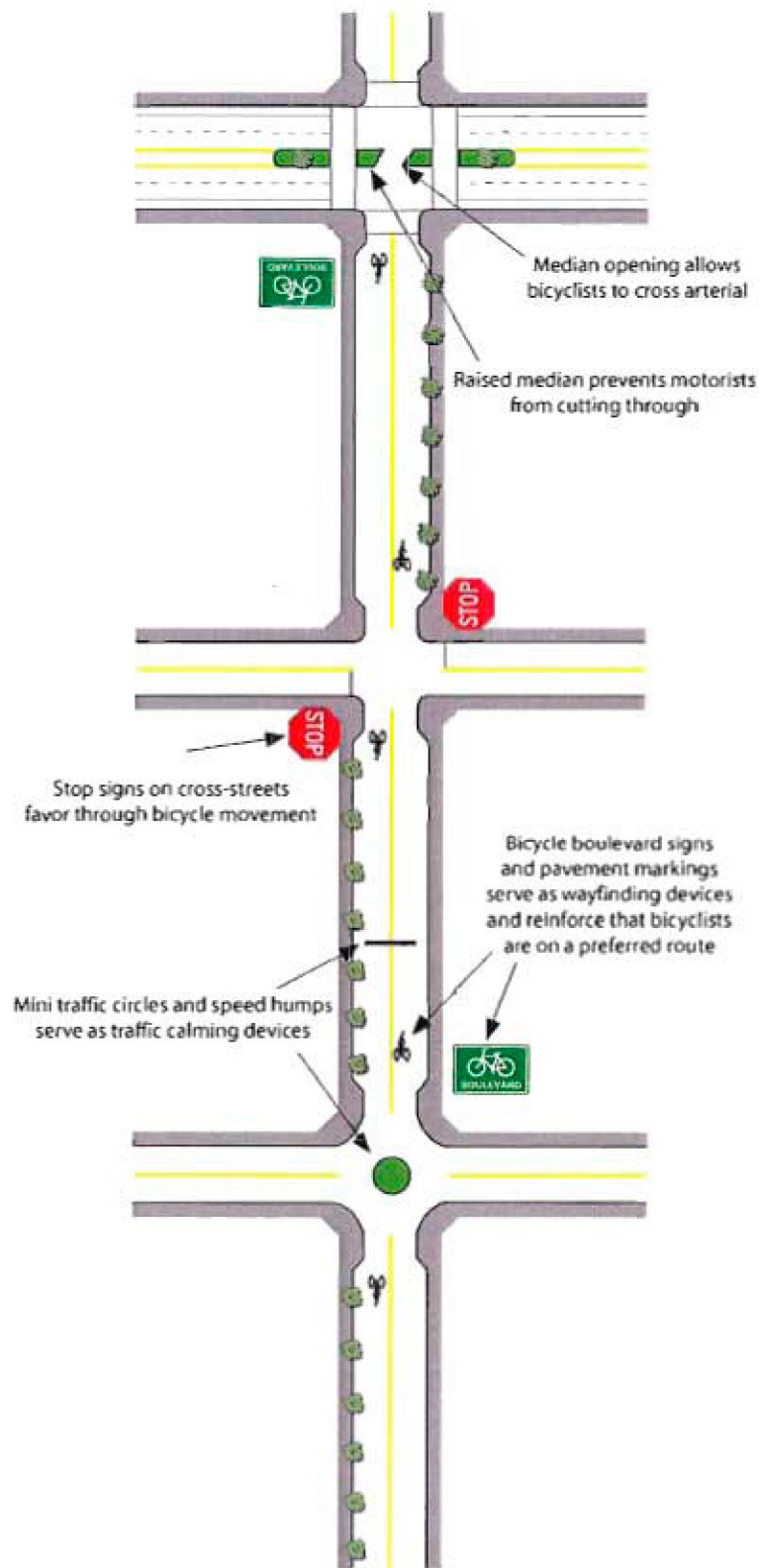


Figure 5-26: Sample Bicycle Boulevard treatments.

5.6. Recommended Street Standards

This section discusses recommended changes to street design standards pertaining to walking and bicycling fatalities. Depending on the corridor under focus, standards are either dictated by the City of Joseph or ODOT.

5.6.1. ODOT Street Design Standards

Within Joseph, designated state highways include E Wallowa Avenue/Imnaha Highway, and the north-south corridor formed by Oregon 82, Main Street, E Eighth Street and Wallowa Lake Highway. These highways are subject to ODOT design standards, which are laid out in the agency's *Highway Design Manual* (HDM), updated in 2003. The HDM standards are based on several parameters, including a highway's functional classification and traffic volumes. Within Joseph's city limits, the HDM classifies E Wallowa Avenue/Imnaha Highway as a "Rural Major Collector," while the Oregon 82/Main Street/Eighth Street/Wallowa Lake Highway corridor is classified as a "Rural Principal Arterial-Other." Based on these classifications and traffic volume data collected for this Plan, the HDM requires five- to eight-foot wide shoulders on E Wallowa Avenue/Imnaha Highway, and six- to eight-foot wide shoulders on the Oregon 82/Main Street/Eighth Street/Wallowa Lake Highway corridor. Rural roadway shoulders, as stated in the HDM, are intended for shared bicycle/pedestrian use. Although the HDM does not require sidewalks on these corridors, the relatively urban character of these roadways in Joseph indicates a potential need for sidewalks which are addressed by the City's street design standards.

Within Joseph, the segment of Oregon 82/Main Street between Russell Lane and Third Street includes ODOT's "Special Transportation Area" (STA) designation. Within an STA, local auto, pedestrian, bicycle and transit movements on a state highway are considered equally important as the movement of thru traffic. State highways passing through STAs typically include design standards to foster a more bicycle- and pedestrian-friendly environment. The HDM does not provide design standards for designated rural highways passing through STAs, but provides the following bicycle/pedestrian facility design guidance for urban highways:

- 13- to 15-foot wide center landscaped median
- Five-foot wide (minimum) striped bike lanes
- Seven-foot wide minimum on-street parking lanes (or 12-foot wide combined parking/bike lanes)
- Ten-foot wide curb-tight sidewalks (or a minimum six-foot wide sidewalk separated from the curb by a four-foot wide planter strip)

It should be noted that on-street parking tends to increase conflicts between vehicles and cyclists, especially if parking and bicycle travel is accommodated in the same lane. In these areas, bicyclists need room to operate and safely maneuver around open car doors, side mirrors, and vehicles entering or leaving parking spaces.

This Plan does not recommend changes to ODOT’s bicycle/pedestrian facility design standards for state highways in Joseph, as they generally reflect sound design practices. However, as mentioned earlier, this Plan recommends the inclusion of sidewalks on the urbanized portions of state highways within the city.

5.6.2. City of Joseph Street Design Standards

The Joseph TSP presents recommended design standards for City-owned streets (based on a street’s functional classification, as shown in the TSP), listed in Table 5-1. The standards generally reflect best practices for bicycle and pedestrian facilities, although this Plan recommends that the Collector street design standard be revised to include striped bike lanes. Dedicated bike lanes would enhance bicyclists’ comfort and safety on these higher-order roadways. Figure 5-27 and Figure 5-28 (respectively) depict Joseph’s existing Collector street design standard, and the proposed design revision.

Table 5-1: Existing and Recommended City Street Design Standards (bicycle and pedestrian facilities)

Functional Classification	Bike Lanes		Sidewalks		Planter Strips	
	Existing TSP Standard	Proposed Standard	Existing TSP Standard	Proposed Standard	Existing TSP Standard	Proposed Standard
Arterial	5' min.	5' min.	6' min.	6' min.	7' min.	7' min.
Collector	Not required	5' min.	5' min.	5' min.	7' min.	7' min.
Local	Not required	Not required	5' min.	5' min.	7' min.	7' min.
Alley	Not required	Not required	Not required	Not required	Not required	Not required

The proposed standards noted above are intended for application when new streets are built and when major reconstruction of existing streets (e.g., if a street is completely rebuilt) occurs. As the City works to complete the bicycle and pedestrian network within the current built environment, adhering to the proposed standards noted in Table 5-1 above will provide tremendous improvements in many locations.

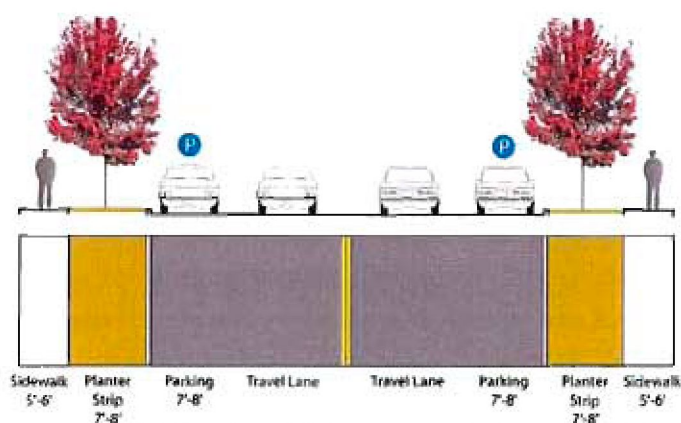


Figure 5-27: Existing Collector street design standards.

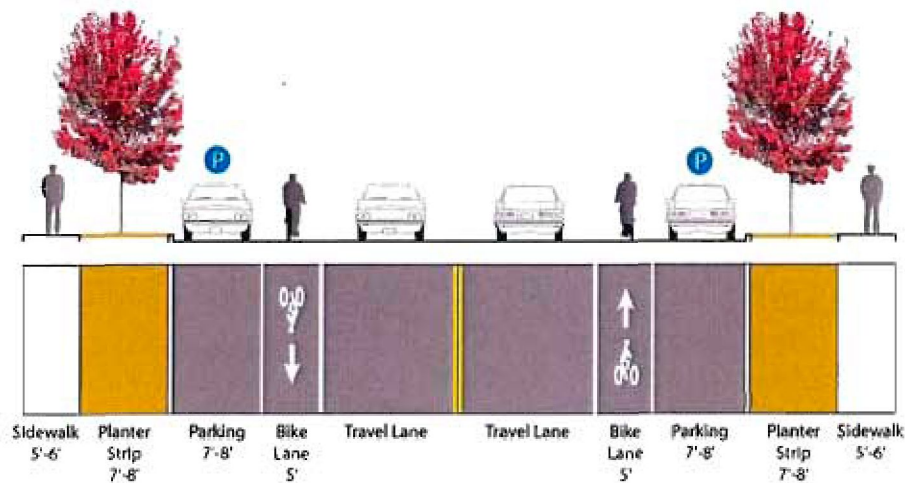


Figure 5-28: Proposed Collector street design standards.

5.7. Transition Zones

The ODOT HDM discusses the importance of accommodating pedestrians and cyclists in “transition zones.” These transitions often occur when high-speed rural highways (e.g., Oregon 82) enter urbanized areas. The HDM indicates that visual cues and other design elements are critical to informing motorists that they are entering a changing environment that is urbanized, requires slower speeds, and greater attention to pedestrians, cyclists and transit vehicles. The HDM recommends various treatments on rural state highways where they enter urbanized areas, including bike lanes, sidewalks with planter strips, marked crosswalks and landscape features. On the state highway system in Joseph, the primary rural/urban transition areas exist along Oregon 82 north of town, E Wallowa Avenue/Imnaha Highway on the east, and Eighth Street/Wallowa Lake Highway to the south. A variety of treatments are proposed to visually cue motorists that they are entering the city, including shoulder bikeways and sidewalks.

5.8. Accessways

Accessways provide direct connections to schools, parks, community centers, retail areas, neighborhoods, and other paths. They are intended to be short, direct connections to reduce unnecessary out-of-direction travel for bicyclists and pedestrians, as shown in Figure 5-29. Accessways are necessary where routes for pedestrians are not otherwise provided by the street system, particularly in neighborhoods with a disconnected street grid that requires both out-of-direction travel and walking on a major street. Accessways should be considered when ‘desire lines’ or informal, unauthorized and unmaintained paths have been created.

Accessways should include a ten-foot wide paved path centered in a 20-foot wide right-of-way or easement. The City of Joseph should explore accessway development opportunities in existing neighborhoods where limited street connectivity exists, and

require accessways in future residential subdivisions (where necessary) to maximize bicycle and pedestrian connectivity.

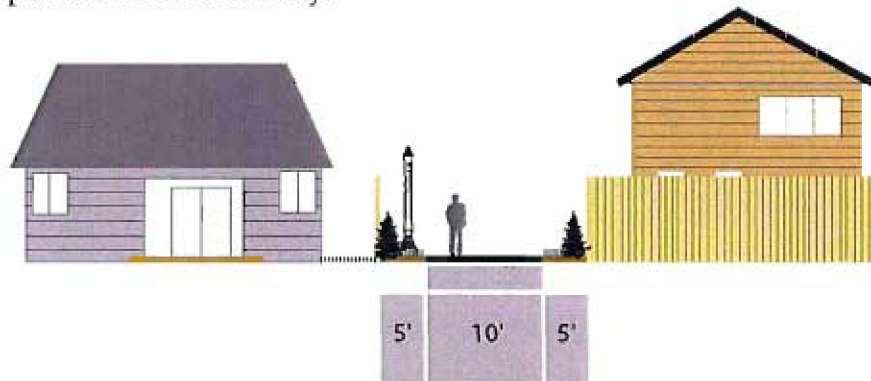


Figure 5-29: Proposed accessway cross-section.

5.9. Shared Use Paths

Shared use paths (also referred to as “multi use trails” and “multi use paths”) accommodate various non-motorized users, including pedestrians, bicyclists, in-line skaters, and runners. Shared use paths are typically paved (asphalt or concrete) but may also consist of an unpaved smooth surface as long as it meets ADA standards. Although shared use paths currently do not exist in Joseph, previous planning efforts have identified several potential path development opportunities.

The recommended cross-section for shared use paths in Joseph is a 12-foot minimum width with two-foot minimum shoulders (Figure 5-30). AASHTO and the *Oregon Bicycle and Pedestrian Plan* recommend a 12-foot width, although narrower widths may be allowed (8 feet minimum) in physically constrained areas. Wider path widths are recommended in areas where user volumes are expected to be high, and a wider shoulder should be provided to accommodate runners and joggers where space permits. Soft shoulders may consist of bark or wood chips. For paths in outlying areas of town, the City should consider providing a parallel soft surface equestrian trail.

Table 5-2 summarizes design recommendations for Joseph’s shared use path network. The recommendations are based on experience in other communities, as well as guidelines prescribed by AASHTO and the *Oregon Bicycle and Pedestrian Plan*.

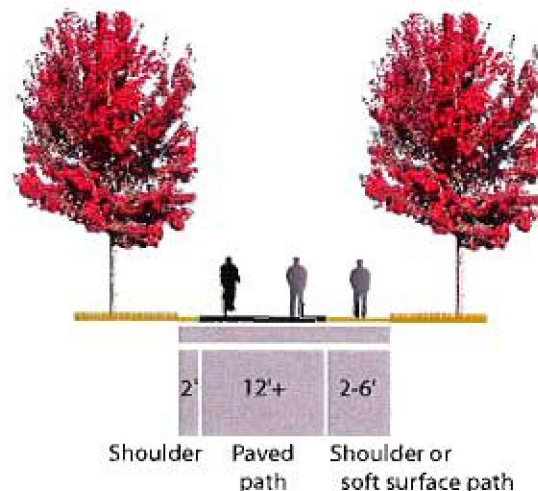


Figure 5-30: Proposed shared use path cross-section.

Table 5-2: Shared Use Path Design Recommendations.

Element	Recommendation
Paved width	12' (8' in constrained areas)
Soft surface width	6' minimum
Shoulder width ¹	2' minimum
Lateral clearance between path and adjacent signs	3'-6'
Overhead clearance	8' minimum
Separation from parallel roadway	5' minimum
Grade/running slope	5% maximum
Cross-slope	2% maximum
Fence height	60 inches ²
Bollards	5' minimum between bollards

Source: AASHTO *Guide for the Development of Bicycle Facilities*; ODOT *Oregon Bicycle and Pedestrian Plan*.

¹ A soft surface path paralleling the paved path can take the place of a shoulder on one side.

² Although bicycle/pedestrian design guidance documents typically recommend fence heights of 42 to 54 inches, the 60-inch height reflects current City of Joseph requirements.

5.9.1. Shared Use Paths along Roadways

Shared use paths should not be placed directly adjacent to roadways (e.g., with minimal or no separation) for a variety of reasons:

- Half of bicycle traffic would ride against the normal flow of vehicle traffic, contrary to the rules of the road.
- When the path ends, cyclists riding against traffic tend to continue to travel on the wrong side of the street, as do cyclists making their way to the path. Wrong-way bicycle travel is a major cause of vehicle/bicycle crashes.
- At intersections, motorists crossing the path often do not notice bicyclists approaching from certain directions, especially where sight distances are poor.
- Bicyclists on the path are required to stop or yield at cross-streets and driveways, unless otherwise posted.
- Stopped vehicles on a cross-street or driveway may block the path.
- Because of the closeness of vehicle traffic to opposing bicycle traffic, barriers are often necessary to separate motorists from cyclists. These barriers serve as obstructions, complicate facility maintenance and waste available right-of-way.
- Paths directly adjacent to high-volume roadways diminish users' experience by placing them in an uncomfortable environment. This could lead to a path's underutilization.

Shared use paths can successfully be placed along roadways, provided several design considerations are met:

- A minimum five-foot buffer should be provided between the path and roadway to address potential conflicts between motorists and path users.

- There are few vehicle/path user conflict points (e.g., cross-streets and driveways).
- There is a commitment to provide path continuity along the corridor.
- The path can be terminated at each end onto streets with good bicycle and pedestrian facilities or onto another safe, well-designed path through appropriate street crossing treatments.
- The path should not take the place of bicycle/pedestrian facilities (e.g., sidewalks and bike lanes) on the parallel street.

5.9.2. *Sidewalks as Shared Use Paths*

Utilizing or providing a sidewalk as a shared use path is unsatisfactory for several reasons. Sidewalks are typically designed for pedestrian speeds and maneuverability and are not safe for higher bicycle speeds. Conflicts are common between pedestrians traveling at low speeds (e.g., exiting stores, parked cars, etc.) and bicyclists, as are conflicts with fixed objects (e.g., utility poles, mailboxes, parked cars extending into the sidewalk from a driveway). Walkers, joggers, skateboarders and in-line skaters can (and often do) change their speed and direction almost instantaneously, leaving bicyclists insufficient reaction time to avoid collisions.

Similarly, pedestrians often have difficulty predicting the direction an oncoming cyclist will take. At intersections, motorists are often not looking for bicyclists (who are traveling at higher speeds than pedestrians) entering a crosswalk area, particularly when motorists are making a turn. Sight distance is often impaired by buildings, walls, fences and shrubs along sidewalks, especially at driveways. In addition, bicyclists and pedestrians often prefer to ride or walk side-by-side when traveling in pairs. Sidewalks are typically too narrow to enable this to occur without serious conflict between users.

It should also be noted that developing extremely wide sidewalks does not necessarily add to the safety of sidewalk bicycle travel. Wide sidewalks might encourage higher speed bicycle use and can increase the potential for conflicts with motorists at intersections.

5.9.3. *Path/Roadway Crossings*

Like most bicycle and pedestrian systems in built urban areas, non-motorized users in Joseph must cross roadways at certain points. While at-grade crossings create a potentially high level of conflict between bicyclists and pedestrians and motorists, well-designed crossings have not historically posed a safety problem. In most cases, intersection crossings can be properly designed at-grade to a reasonable degree of safety and meet existing traffic and safety standards.

Evaluation of intersections involves analysis of vehicular and anticipated path user traffic patterns, including vehicle speeds, traffic volumes (e.g., average daily traffic and peak hour traffic), street width, sight distance and user profile (e.g., age distribution, destinations served). Crossing features for all roadways include warning signs both for

vehicles and path users. The type, location, and other criteria are identified in AASHTO's *Guide for the Development of Bicycle Facilities* and the MUTCD. Consideration must be given for adequate warning distance based on vehicle speeds and line of sight, with visibility of any signing absolutely critical. Catching the attention of motorists jaded to roadway signs may require additional alerting devices such as a flashing light, roadway striping or changes in pavement texture. Care must be taken not to place too many signs at crossings lest they begin to lose their impact.

The following section identifies several roadway crossing treatments that should be considered for Joseph's bicycle and pedestrian system.

Roadway Crossing Prototypes

The proposed intersection approach that follows is based on established standards, published technical reports,¹ and experiences from cities around the country.² Intersection crossings generally will fit into one of four basic categories:

- Type 1: Marked/Unsignalized; Type 1+: Marked/Enhanced
- Type 2: Route Users to Existing Signalized Intersection
- Type 3: Signalized/Controlled
- Type 4: Grade-Separated Crossings

Although Joseph's predominantly rural character may not create the need for some of the more intensive crossing treatments described below, their inclusion in this Plan is intended to provide additional guidance on path/roadway crossing design.

Type 1: Marked/Unsignalized Crossings

A marked/unsignalized crossing (Type 1) consists of a crosswalk, signage, and often no other devices to slow or stop traffic (Figure 5-31). The approach to designing crossings at mid-block locations depends on an evaluation of vehicular traffic, line of sight, use patterns, vehicle speed, road type and width, and other safety issues such as proximity to schools. The following thresholds recommend where unsignalized crossings may be acceptable:

¹ Federal Highway Administration (FHWA) Report, "Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations."
² In particular, the recommendations in this report are based in part on experiences in cities like Portland (OR), Seattle (WA), Tucson (AZ), and Sacramento (CA), among others.

Maximum traffic volumes:

- ≤9,000-12,000 Average Daily Traffic (ADT) volumes
- Up to 15,000 ADT on two-lane roads, preferably with a median
- Up to 12,000 ADT on four-lane roads with median

Maximum travel speed:

- 35 MPH

Minimum line of sight:

- 25 MPH zone: 155 feet
- 35 MPH zone: 250 feet
- 45 MPH zone: 360 feet



Figure 5-31: Type 1 crossing treatment.

On two-lane Local and Collector streets below 15,000 ADT with average vehicle speeds of 35 MPH or less, crosswalks and warning signs (“Path Xing”) should be provided to warn motorists, with engineering judgment used to determine the appropriate level of traffic control and design.

Type 1 Enhanced (Type 1+)

If well-designed, crossings of multi-lane higher-volume arterials over 15,000 ADT may be unsignalized with features such as a combination of some or all of the following: excellent sight distance, sufficient crossing gaps (more than 60 per hour), median refuges, and/or active warning devices like flashing beacons or in-pavement flashers. These are referred to as “Type 1 Enhanced” (Type 1+). Such crossings would not be appropriate however, if a significant number of school children used the identified route. Furthermore, both existing and potential future non-motorized traffic volumes should be taken into consideration.

On roadways with low to moderate traffic volumes (<12,000 ADT) and a need to control traffic speeds, a raised crosswalk may be the most appropriate crossing design to improve pedestrian visibility and safety. These crosswalks are raised 75 millimeters above the roadway pavement (similar to speed humps) to an elevation matching the adjacent sidewalk. The top of the crosswalk is flat and typically made of asphalt, patterned concrete, or brick pavers. Brick or unit pavers should be used sparingly due to potential problems related to pedestrians, bicyclists, and ADA requirements for a continuous, smooth, vibration-free surface. Detectable warning strips are needed at the sidewalk/street boundary so that visually-impaired pedestrians can identify the edge of the street.

Type 2: Route Users to Existing Signalized Intersection

Where paths intersect roadways within 250 feet of an existing signalized intersection with pedestrian crosswalks, users are typically diverted to the signalized intersection for safety purposes. For this option to be effective, barriers and signing may be needed to direct trail users to the signalized crossing. In most cases, signal modifications would be made to add pedestrian detection and to comply with ADA requirements. Figure 5-32 shows an example Type 2 crossing treatment.

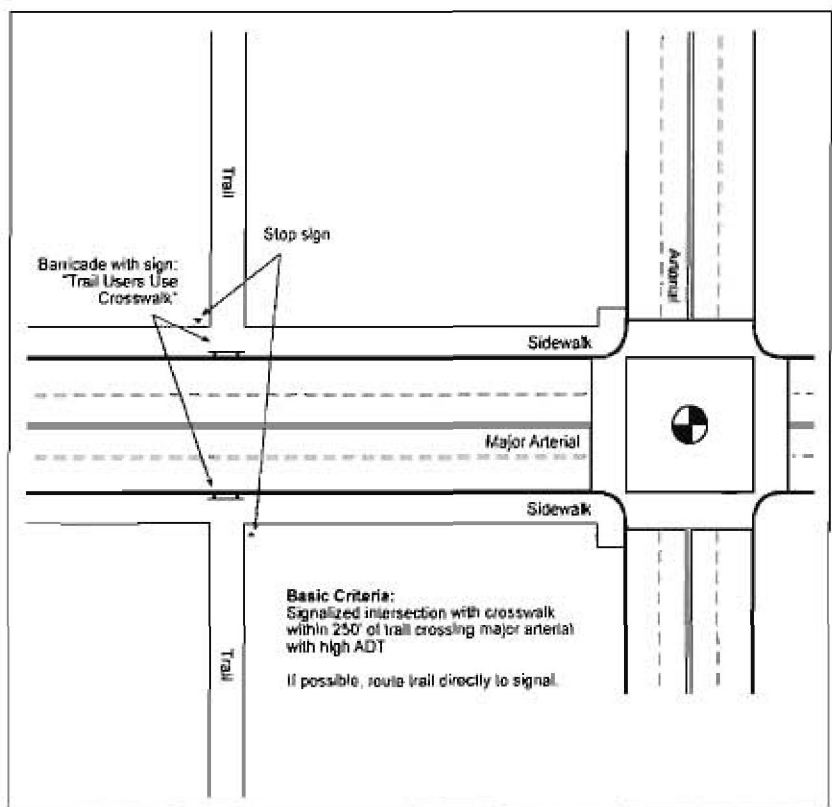


Figure 5-32: Type 2 crossing treatment.

Type 3: Signalized/Controlled Crossings

New signalized crossings may be recommended for crossings that meet pedestrian, school, or modified warrants, are located more than 250 feet from an existing signalized intersection and where 85th percentile travel speeds are 40 MPH and above, and/or ADT exceeds 15,000 vehicles. Each crossing, regardless of traffic speed or volume, requires additional review by a registered engineer to identify sight lines, potential impacts on traffic progression, timing with adjacent signals, capacity, and safety (Figure 5-33).



Figure 5-33: Type 3 crossing treatment.

The maximum delay for activation of the signal should be two minutes, with minimum crossing times determined by the width of the street. As described in the “Half Signalized Crossings” section earlier in this chapter, various types of pedestrian signals exist and can be used at Type 3 crossings.

Type 4: Grade-separated Crossings

Grade-separated crossings may be needed where existing bicycle/pedestrian crossings do not exist, where ADT exceeds 25,000 vehicles, and where 85th percentile speeds exceed 45 MPH. Grade-separated crossings are expensive and create additional concerns, including safety, ADA accessibility, drainage and maintenance.

5.9.4. Soft Surface Trails

Soft surface trails typically serve walkers and joggers, and may also accommodate equestrians and cross-country skiers. Soft surface trails can be considered when a trail is desired next to a natural resource or if the expected use will be minimal. They are also appropriate where a paved trail would be incompatible with the surroundings. Soft surface trails should take into account issues such as drainage, erosion, compaction/impaction from anticipated use, presence of waterways and sensitive riparian areas, and habitat areas. They should be designed to minimize illegal activity and trash dumping.

Trail width will depend on the number and characteristics of intended users and the width of available right-of-way. For example, narrower paths intended only for walking use may be necessary in constrained areas. Larger areas with natural trails (e.g., natural parks and green spaces) should have a complimentary accessible route that meets or exceeds ADA standards in addition to the natural trail. A soft surface trail should have a five- to eight-foot trail width, and can be as narrow as three feet if constraints exist.

The trail width should include two-foot shoulders where possible, which can be planted with a bio-swale or low shrubbery. This area is meant to prevent the tunnel

effect that can occur if fences directly abut the trail's edge. Clearance to overhead obstructions should be eight feet minimum, with ten feet of clearance recommended.

5.9.5. Path Amenities

A variety of amenities can make a path inviting to the user. The following sections highlight some common items that make path systems stand out. Costs vary depending on the design and materials selected for each amenity.

Interpretive Installations

Interpretive installations and signs can enhance users' experience by providing information about the history of Joseph and the surrounding area. Installations can also discuss local ecology, environmental concerns, and other educational information.



Water Fountains and Bike Parking

Water fountains provide water for people (and pets, in some cases) and bike racks allow recreational users to safely park their bikes if they wish to stop along the way, particularly at parks and other desirable destinations.



Pedestrian-Scale Lighting and Furniture

Pedestrian-scale lighting improves safety and enables the facility to be used year-round. It also enhances the aesthetics of the path. Lighting fixtures should be consistent with other light fixtures in the city, possibly emulating a historic theme.

Providing benches at key rest areas and viewpoints encourages people of all ages to use the path by ensuring that they have a place to rest along the way. Benches can be simple (e.g., wood slates) or more ornate (e.g., stone, wrought iron or concrete).



Maps and Signage

A comprehensive signing system makes a path system stand out. Informational kiosks with maps at trailheads and other pedestrian generators can provide enough information for someone to use the network with little introduction - perfect for areas with high out-of-area visitation rates.



Art Installations

Local artists can be commissioned to provide art for the path system, making it uniquely distinct. Many path art installations are functional as well as aesthetic, as they may provide places to sit and play on.



Landscaping

Landscape features, including street trees or trees along paths, can enhance the visual environment and improve the path user experience. Trees can also provide shade from heat and also provide protection from rain and snow.



Restrooms

Restrooms benefit path users, especially in more remote areas where other facilities do not exist. Restrooms can be sited at major trailheads or at other strategic locations along the path system.



5.9.6. Path Safety and Security

Various design and programmatic measures can be taken to address safety issues on a shared use path. Table 5-3 summarizes key safety issues and strategies for minimizing impacts.

Table 5-3: Path safety and Security Recommendations.

Safety Issue	Recommended Improvements
Unwanted vehicle access on the path	<ul style="list-style-type: none"> Utilize landscaping to define the corridor edge and path, including earth berms and large boulders. Use bollards at intersections. Pass a motorized vehicle prohibited ordinance and sign the path. Create a Path Watch Program and encourage citizens to report illegal vehicle use of the corridor. Lay the trail out with curves that allow bike/ped passage, but are uncomfortably tight for automobile passage.
Privacy of adjacent property owners	<ul style="list-style-type: none"> Encourage the use of neighborhood friendly fencing and also planting of landscape buffers. Clearly mark path access points. Post path rules that encourage respect for private property. Strategically placed lighting.
Litter and dumping	<ul style="list-style-type: none"> Post path rules encouraging pack-it-in/pack-it-out etiquette. Place garbage receptacles at trailheads. Strategically-placed lighting, utilizing light shields to minimize unwanted light in adjacent homes. Manage vegetation within the right-of-way to allow good visual surveillance of the path from adjacent properties and from roadway/path intersections. Encourage local residents to report incidents as soon as they occur. Remove dumpsites as soon as possible.
Trespassing	<ul style="list-style-type: none"> Clearly distinguish public path right-of-way from private property through the use of vegetative buffers and the use of good neighbor type fencing. Post path rules that encourage respect for private property.

Safety Issue	Recommended Improvements
Crime	<ul style="list-style-type: none"> ▪ Manage vegetation so that the corridor can be visually surveyed from adjacent streets and residences. ▪ Select shrubs that grow below 3' in height and trees that branch out greater than 6' in height. ▪ Place lights strategically and as necessary. ▪ Place benches and other path amenities at locations with good visual surveillance and high activity. ▪ Provide mileage markers at quarter-mile increments and clear directional signage for orientation. ▪ Create a Path Watch Program involving local residents. ▪ Proactive law enforcement; utilize the corridor for mounted patrol training.
Local on-street parking	<ul style="list-style-type: none"> ▪ Post local residential streets as parking for local residents only to discourage path user parking. Place "no outlet" and "no parking" signs prior to path access points.
Trailhead safety	<ul style="list-style-type: none"> ▪ Clearly identify trailhead access areas.
Vandalism	<ul style="list-style-type: none"> ▪ Select benches, bollards, signage and other site amenities that are durable, low maintenance and vandal resistant. ▪ Respond through removal or replacement in rapid manner. ▪ Keep a photo record of all vandalism and turn over to local law enforcement. ▪ Encourage local residents to report vandalism. ▪ Create a Path Watch Program; maintain good surveillance of the corridor. ▪ Involve neighbors in path projects to build a sense of ownership. ▪ Place amenities (benches, etc.) in well used and highly visible areas.

5.9.7. Community Involvement with Safety on the Path

Creating a safe path environment goes beyond design and law enforcement and should involve the entire community. The most effective and most visible deterrent to illegal activity on Joseph's path system will be the presence of legitimate path users. Getting as many "eyes on the corridor" as possible is a key deterrent to undesirable activity. There are several components to accomplishing this as outlined below.

Provide good access to the path

Access ranges from providing conveniently located trailheads along the path, to encouraging the construction of sidewalks to accommodate access from private developments adjacent to the path. Access points should be inviting and signed so as to welcome the public onto the path.

Good visibility from adjacent neighbors

Neighbors adjacent to the path can potentially provide 24-hour surveillance of the path and can become Joseph's biggest ally. Though some screening and setback of the path is needed for privacy of adjacent neighbors, complete blocking out of the path from neighborhood view should be discouraged. This eliminates the potential of neighbors' "eyes on the path," and could result in a "tunnel effect" for users on the path.

High level of maintenance

A well-maintained path sends a message that the community cares about the public space. This message alone will discourage undesirable activity along the path.

Programmed events

Community events along the path will help increase public awareness and thereby attract more people to use the path. Neighbors and residents can help organize numerous public events, which will increase support for the path. Events might include a day-long path clean up or a series of short interpretive walks led by long time residents or a park naturalist.

Community projects

The support generated by community groups could be further capitalized by involving neighbors and friends of the path in a community project. Ideas for community projects include volunteer planting events, art projects, interpretive research projects, or even bridge building events. These community projects are the strongest means of creating a sense of ownership along the path that is perhaps the strongest single deterrent to undesirable activity along the path.

Adopt-a-Path Program

Nearby businesses, community institutions, and residential neighbors often see the benefit of their involvement in path development and maintenance. Businesses and developers may view the path as an integral piece of their site planning and be willing to take on some level of responsibility for the path. Creation of an adopt-a-path program should be explored to capitalize on this opportunity and build civic pride.

Path Watch Program

Partnering with local and county law enforcement, a path watch program would provide an opportunity for local residents to become actively involved in crime prevention along Joseph's path system. Similar to Neighborhood Watch programs, residents are brought together to get to know their neighbors, and are educated on how to recognize and report suspicious activity.

5.10. Internal Circulation Standards

Pedestrian and bicycle circulation in larger residential and commercial developments is influenced by the infrastructure provided for non-motorized users as well as the infrastructure and design of auto circulation and parking.

5.10.1. Automobile Infrastructure

Parking lots should be located in such a manner as to encourage pedestrian access to the development, connect land uses to the street and decrease the distance between adjacent developments. To accomplish this, parking should be located behind and to the side of buildings wherever possible. Landscaping should be provided between the pedestrian circulation system and automobile areas to provide protection, security and

accessibility for the pedestrian while providing sufficient sight distance. Parallel parking can also be used to buffer pedestrian routes from moving vehicles.

5.10.2. *Pedestrian Infrastructure*

An internal pedestrian circulation system should:

- Be barrier-free and designed for safety and security
- Provide continuous sidewalks and safe crossing points
- Connect all uses within a development (buildings, parking areas, etc.)
- Clearly link public sidewalks with all internal walkways
- Clearly link the individual sites within a development to each other and to surrounding off-site uses (mixed-use and residential areas)
- Be defined with landscaping, paving, and pedestrian-scale lighting
- Meet ADA standards and guidelines
- Provide adequate sight distance

Pedestrian circulation routes could consist of treated surfaces such as scored or brushed concrete to differentiate the pedestrian system from the auto system. Where pedestrian routes cross an auto circulation route, striping should be provided.

To enhance pedestrian connectivity and prevent autos from having to use the public street system to travel between adjacent developments, parking and pedestrian circulation should be designed to accommodate connections between developments.

Pedestrian circulation plans should be required with each large lot development. These plans must emphasize connectivity through sidewalk design, traffic circulation, landscaping, and lighting.

5.10.3. *Bicycle Infrastructure*

Internal circulation for bicyclists is as important a consideration as for cars and pedestrians. Bicyclists should have a clearly delineated travel path through any development, as well as clear travel paths linking individual sites within the development and provide safe travel. In smaller developments or constrained situations, this can be accomplished through directional signage, lane markings, and signage clearly delineating a shared roadway system (such as a shared lane marking), and signage and markings indicating slow speeds (10 MPH) required while in the development.

In larger developments, bike lanes should be striped to both indicate the preferred bicycle route to constantly inform motorists to expect bicyclists within the development. Bike lanes should be supplemented with appropriate directional signage

5.11. Bike Parking

Lack of secure, convenient bike parking is a deterrent to bicycle travel. Bicyclists need parking options that provide security against theft, vandalism, and weather. Like automobile parking, bike parking is most effective when located close to trip destinations, is easy to access, and is easy to find. Where quality bike parking facilities are not provided, determined bicyclists lock their bicycles to street signs, utility poles or trees. These alternatives are undesirable as they are usually not secure, may interfere with pedestrian movement, and can create liability issues or damage street furniture or trees. Bike parking facilities that are conveniently located and adequate in both quantity and quality can help reduce bicycle theft and eliminate inappropriate parking, benefiting everyone. Bike parking is also highly cost-effective compared with automobile parking.

Bike parking can be broadly defined as either short-term or long-term parking:

- **Short-term parking:** Bike parking meant to accommodate visitors, customers, messengers and others expected to depart within two hours; requires approved standard rack, appropriate location and placement, and weather protection.
- **Long-term parking:** Bike parking meant to accommodate employees, students, residents, commuters, and others expected to park more than two hours. This parking is to be provided in a secure, weather-protected manner and location.

5.11.1. Short-Term Bike Parking

Short-term bike parking facilities typically include racks which permit the locking of the bicycle frame and one wheel to the rack while supporting the bicycle in a stable position without damaging wheels, frame or components (see Figure 5-34 through Figure 5-37). Short-term bike parking is currently provided at no charge in Joseph. Such facilities should continue to be free, as they provide minimal security, but encourage cycling and promote proper bicycle parking.

Bike rack dimension requirements should meet or exceed those recommended by the *Oregon Bicycle and Pedestrian Plan*,³ including the following:

³ These standards are being set in the 2009 update to the 1995 *Oregon Bicycle and Pedestrian Plan*.



Figure 5-34: Bolt-on ring rack.



Figure 5-35: Inverted U-rack.

- Bike parking spaces should be at least six feet long and two feet wide, and overhead clearance for covered spaces should be at least seven feet.
- A five-foot aisle for bicycle maneuvering should be provided and maintained beside or between each row of bike parking.
- Bike racks or lockers should be securely anchored to the surface or structure.
- Bike parking should be located in well-lit, secure locations within 50 feet of the main entrance to a building.
- Combined parking could be allowed in areas of concentrated small businesses.

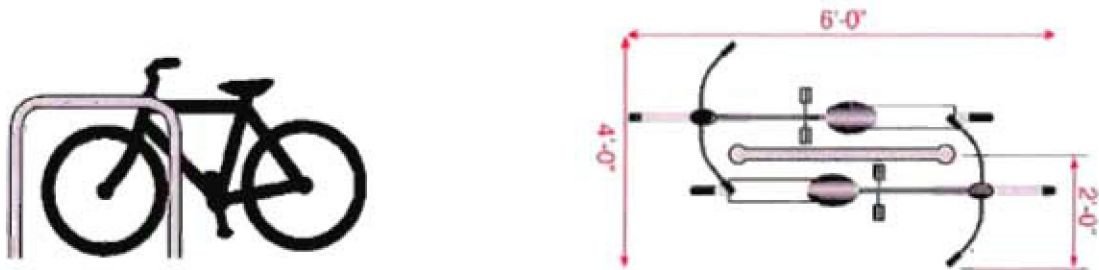
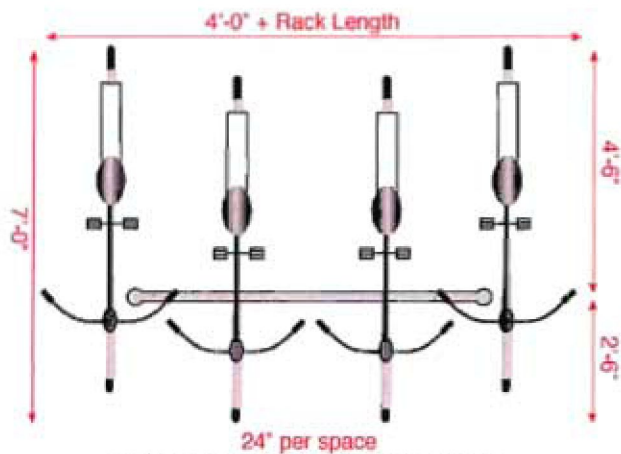


Figure 5-36: Inverted U-rack.

Ribbon, Spiral, or Freestanding Racks

(with access from only one side)



Actual capacity is usually 3 bikes

Figure 5-37: Ribbon, spiral, or freestanding racks.

Where racks are not possible on sidewalks (because of narrow sidewalk width, sidewalk obstructions, or other issues), bike parking can be created in the street where on-street vehicle parking is allowed (Figure 5-38). Two possible options for creating parking in the street include clustered racks in a car parking space protected by bollards or curbs, and racks installed on sidewalk curb extensions where adequate sight distance can be provided. Installing bike parking directly in a car parking space incurs only the cost of the racks and bollards or other protective devices.

A curb extension is more expensive to install, and can be prohibitively expensive if substantial drainage and/or utility work is necessary. Costs may be less if the curb extension is installed as part of a larger street or pedestrian improvement project. While on-street bike parking may take space away from automobile parking, there are ways to mitigate auto parking loss: Additional auto parking spaces can be created by consolidating driveways, moving fire hydrants, or otherwise



Figure 5-38: On-street bike parking.

finding places where it may be possible to permit auto parking where it is currently prohibited. Options for combining bicycle and motorcycle parking also exist.

On-street bike parking may be installed at intersection corners or at mid-block locations. Mid-block on-street parking may be closer to cyclists' destinations, although it could force cyclists to dismount and walk to the parking site if access from the street is difficult or dangerous. Combining a mid-block pedestrian crossing with mid-block on-street parking facilities could mitigate this situation.

Table 5-4 provides additional guidance for placement of bike racks, considering a range of design issues.

Table 5-4: Bike Rack Placement Guidelines

Design Issue	Recommended Guidance
Minimum rack height	To increase visibility to pedestrians, racks should have a minimum height of 33 inches or be indicated or cordoned off by visible markers.
Signing	Where bike parking areas are not clearly visible to approaching cyclists, signs at least 12 inches square should direct them to the facility. The sign should give the name, phone number, and location of the person in charge of the facility, where applicable.
Lighting	Lighting of not less than one foot-candle illumination at ground level should be provided in all bike parking areas.
Frequency of racks on streets	In popular retail areas, two or more racks should be installed on each side of each block. This does not eliminate the inclusion of requests from the public which do not fall in these areas. Areas officially designated or used as bicycle routes may warrant the consideration of more racks.
Location and access	Access to facilities should be convenient; where access is by sidewalk or walkway, curb ramps should be provided where appropriate and be ADA compliant. Parking facilities intended for employees should be located near the employee entrance, and those for customers or visitors near the main public entrances. (Convenience should be balanced against the need for security if the employee entrance is not in a well traveled area). Bike parking should be clustered in lots not to exceed 16 spaces each. Large expanses of bike parking make it easier for thieves to operate undetected.
Locations within buildings	Provide bike racks within 50 feet of the entrance. Where a security guard is present, provide racks behind or within view of a security guard. The location should be outside the normal flow of pedestrian traffic.
Locations near transit stops	To prevent bicyclists from locking bikes to bus stop poles - which can create access problems for transit users, particularly those who are disabled - racks should be placed in close proximity to transit stops where there is a demand for short-term bike parking.

Design Issue	Recommended Guidance
Locations within a campus-type setting	Racks are useful in a campus-type setting at locations where the user is likely to spend less than two hours, such as classroom buildings. Racks should be located near the entrance to each building. Where racks are clustered in a single location, they should be surrounded by a fence and watched by an attendant. The attendant can often share this duty with other duties to reduce or eliminate the cost of labor being applied to the bike parking duties; a cheaper alternative to an attendant may be to site the fenced bicycle compound in a highly visible location on the campus. For long-term parking needs of employees and students, attendant parking and/or bike lockers are recommended.
Retrofit program	In established locations, such as schools, employment centers, and shopping centers, the City should conduct bicycle parking audits to assess bike parking availability and access, and add additional bike racks where necessary.

5.11.2. Long-Term Bike Parking

Long-term bike parking facilities protect the entire bicycle, its components and accessories against theft and against inclement weather, including snow and wind-driven rain. Examples include lockers (Figure 5-39 and Figure 5-40), check-in facilities, monitored parking, restricted access parking, and personal storage. Long-term parking facilities are more expensive to provide than short-term facilities, but are also significantly more secure. Although many bicycle commuters would be willing to pay a nominal fee to guarantee the safety of their bicycle, long-term bike parking should be free wherever automobile parking is free. Potential locations for long-term bike parking include large employers and institutions where people use their bikes for commuting, and not consistently throughout the day. An advantage of lockers is that they can be configured to more easily accommodate different styles of bicycles, such as recumbent bicycles.



Figure 5-39: Bike lockers

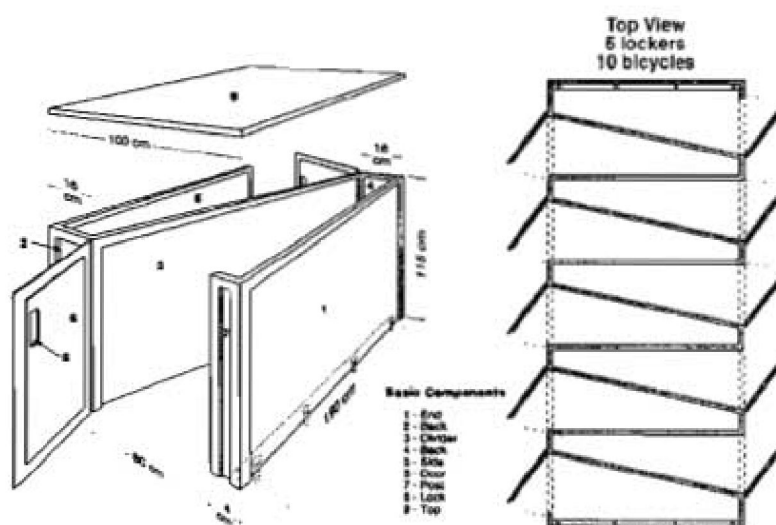


Figure 5-40: Cycle-safe locker dimensions.

5.12. Transit Stops

This section provides guidance for the design of transit stop elements, including sidewalk approaches, landing pads, bus pullouts and bus shelters.

5.12.1. Sidewalk and Path Approaches

Pedestrian connections should be designed to provide the most direct route to transit stops to avoid out-of-direction travel. Direct routes will also reduce damage to landscaping by providing pedestrians with other preferred routes. Connections should be a continuation of the sidewalk and path system to reduce dead-end paths. At transit stops, sidewalks should be provided at a minimum to the nearest intersection or to the nearest section of existing sidewalk. It may also be necessary to wrap a sidewalk around a corner to join an existing sidewalk on a side street. If a transit route does not have complete sidewalks, it is still important to provide a suitable area for waiting passengers.

5.12.2. Landing Pads

At permanent bus stops, the ADA requires an eight- by five-foot landing pad to accommodate disabled users. For bus stops along streets without curbs, the roadway shoulder should be at least eight feet wide to serve as the landing pad.

5.12.3. Bus Pullouts

Where traffic conditions warrant a bus pullout at an intersection, a far-side location is preferred. The needs of passengers boarding or exiting the bus should not conflict with the needs of pedestrians and cyclists moving through the area. A curb extension helps pedestrian crossing movements, prevents motorists from entering the bus pullout area, and reduces conflicts with thru bicyclists. Each pullout should be designed to meet roadway conditions and bus characteristics. Where parking is allowed on streets, a curb extension can be placed within the parking lane so that passengers may board or exit the bus without stepping into the street. This also makes it easier to meet ADA requirements (the bus pulls up right next to the curb).

5.12.4. Bus Shelters

A standard-size bus shelter requires a six- by ten-foot pad. The shelter should be placed at least two feet from the curb when facing away from the street and at least four feet when facing toward the street (see Figure 5-41). The adjacent sidewalk must still have a five-foot clear passage. Orientation of the shelter should take into account prevailing winter winds. Sidewalks separated from the



Figure 5-41: Bus shelter.

roadway with a planter strip offer a unique opportunity to provide a bus shelter out of the path of passing pedestrians.

5.13. Maintenance Guidelines

Proper maintenance of pedestrian and bicycle facilities is a critical element of providing a safe and user-friendly system. Table 5-5 summarizes a recommended maintenance schedule for Joseph’s bicycle/pedestrian system. These guidelines address maintenance of the system’s off-street portions. On-street segments should be maintained according to the standards of the responsible jurisdiction (e.g., City of Joseph, Wallowa County, ODOT, etc.).

Table 5-5: Recommended Maintenance Guidelines

Maintenance Task	Frequency
Inspections	Seasonal – at both beginning and end of summer
Signage replacement	1-3 years
Site furnishings; replace damaged components	As needed
Fencing repair	Inspect monthly for holes and damage, repair immediately
Pavement markings replacement	1-3 years
Pavement sweeping/blowing	As needed; before high use season
Pavement sealing; pothole repair	5-15 years
Lighting repair	Annually
Introduced tree and shrub plantings, trimming	1-3 years
Shrub/tree irrigation for introduced planting areas	Weekly during summer months until plants are established
Shoulder plant trimming (weeds, trees, branches)	Twice a year; middle of growing season
Major damage response (fallen trees, washouts, flooding)	Schedule based on priorities
Culvert inspection	Before rainy season; after major storms
Maintaining culvert inlets	Inspect before onset of wet season
Waterbar maintenance (soft surface trails)	Annually
Trash disposal	Weekly during high use; twice monthly during low use
Litter pick-up	Weekly during high use; twice monthly during low use
Graffiti removal	Weekly; as needed

CHAPTER 6. Funding Sources

6.1. Federal Funding Sources

Federal funding is primarily distributed through a number of different programs established by the Federal Transportation Act. The latest act, The Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU) was enacted in August 2005 as Public Law 109-59. SAFETEA-LU authorizes Federal surface transportation programs for highways, highway safety, and transit for the five-year period 2005-2009.

In Oregon, Federal funding is administered through State (ODOT) and regional planning agencies. Most, but not all, of these funding programs are oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. Federal funding is intended for capital improvements and safety and education programs, and projects must relate to the surface transportation system.

6.1.1. SAFETEA-LU

There are a number of programs identified within SAFETEA-LU that provide for the funding of bicycle and pedestrian projects.

Surface Transportation Program

The Surface Transportation Program (STP) provides states with flexible funds which may be used for a variety of projects on any Federal-aid Highway including the National Highway System, bridges on any public road, and transit facilities.

Bicycle and pedestrian improvements are eligible activities under the STP. This covers a wide variety of projects such as on-street facilities, off-road trails, sidewalks, crosswalks, bicycle and pedestrian signals, parking, and other ancillary facilities. SAFETEA-LU also specifically clarifies that the modification of sidewalks to comply with the requirements of the Americans with Disabilities Act (ADA) is an eligible activity.

As an exception to the general rule described above, STP-funded bicycle and pedestrian facilities may be located on local and collector roads which are not part of the Federal-aid Highway System. In addition, bicycle-related non-construction projects, such as maps, coordinator positions, and encouragement programs, are eligible for STP funds. ODOT estimates that they will receive an average of \$84 million annually for this program through the lifetime of SAFETEA-LU.

Highway Safety Improvement Program

This program funds projects designed to achieve significant reductions in traffic fatalities and serious injuries on all public roads, bikeways and walkways. This program includes the Railway-Highway Crossings Program and the High Risk Rural Roads Program. ODOT estimates that they will receive an average of \$14 million annually for this program through the lifetime of SAFETEA-LU. This program replaces the Hazard Elimination Program from TEA-21.

Transportation Enhancements

Administered by ODOT, this program is funded by a set-aside of STP funds. Ten percent of STP funds are designated for Transportation Enhancement Activities (TEAs), which include "provision of facilities for pedestrians and bicycles, provision of safety and educational activities for pedestrians and bicyclists," and the "preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian and bicycle trails." *23 USC Section 190 (a)(35)*. Projects must serve a transportation need. These funds can be used to build a variety of pedestrian, bicycle, streetscape and other improvements that enhance the cultural, aesthetic, or environmental value of transportation systems. The statewide grant process is competitive.

Congestion Mitigation/Air Quality Program

The Congestion Mitigation/Air Quality Improvement Program (CMAQ) provides funding for projects and programs in air quality non-attainment and maintenance areas for ozone, carbon monoxide, and particulate matter which reduce transportation related emissions.

These Federal funds can be used to build bicycle and pedestrian facilities that reduce automobile travel. Recreational facilities generally are not funded. ODOT estimates that they will receive an average of \$14 million annually for this program through the lifetime of SAFETEA-LU.

Recreational Trails Program

The Recreational Trails Program of the Federal Transportation Bill provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized uses. Examples of trail uses include hiking, bicycling, in-line skating, and equestrian use. These funds are available for both paved and unpaved trails, but may not be used to improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails, including unpaved trails
- Acquisition or easements of property for trails

- State administrative costs related to this program (limited to seven percent of a State's funds)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds)

Safe Routes to School (SR2S)

Under the SR2S Program, Federal funds are administered by ODOT. Under the Oregon Safe Routes to School Program, approximately \$3.7 million will be available for grants between 2006 and 2010. The grants can be used to identify and reduce barriers and hazards to children walking or bicycling to school. ODOT estimates that they will receive an average of \$1.37 million annually for this program through the lifetime of SAFETEA-LU.

New Freedom Initiative

SAFETEA-LU creates a new formula grant program providing capital and operating costs to provide transportation services and facility improvements that exceed those required by the Americans with Disabilities Act.

6.1.2. Community Development Block Grants

The Community Development Block Grants program provides money for streetscape revitalization, which may largely consist of pedestrian improvements. Federal Community Development Block Grant grantees may “use Community Development Block Grants funds for activities that include (but not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing Community Development Block Grants funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs.”

6.1.3. Rivers, Trails and Conservation Assistance Program

The Rivers, Trails and Conservation Assistance Program (RTCA) is a National Parks Service program providing technical assistance via direct staff involvement to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance – there are no implementation monies available. Projects are prioritized for assistance based on criteria including conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation, and focusing on lasting accomplishments.

6.1.4. Land and Water Conservation Fund

The Land and Water Conservation Fund is a Federally-funded program providing grants for planning and acquiring outdoor recreation areas and facilities, including trails. Funds can be used for right-of-way acquisition and construction. These funds are administered by the Oregon Parks and Recreation Department.

6.1.5. Transportation, Community and System Preservation Program

The Transportation, Community and System Preservation Program provides Federal funding for transit-oriented development, traffic calming and other projects that improve transportation system efficiency, reduce the impact on the environment, and provide efficient access to jobs, services and trade centers. The program is intended to provide communities with resources to explore the integration of their transportation system with community preservation and environmental activities. The Transportation, Community and System Preservation Program funds require a 20 percent match.

6.2. State Funding Sources

6.2.1. Statewide Transportation Improvement Program

The Statewide Transportation Improvement Program (STIP) is ODOT's short-term capital improvement program, providing project funding and scheduling information for the department and Oregon's metropolitan planning organizations. It is a four-year program developed through the coordinated efforts of ODOT, federal and local governments, Area Commissions on Transportation, tribal governments and the public.

In developing this funding program, ODOT must verify that the identified projects comply with the Oregon Transportation Plan, ODOT Modal Plans, Corridor Plans, local comprehensive plans, and SAFETEA-LU planning requirements. The STIP must fulfill Federal planning requirements for a staged, multi-year, statewide, intermodal program of transportation projects. Specific transportation projects are prioritized based on Federal planning requirements and the different State plans. ODOT consults with local jurisdictions before highway-related projects are added to the STIP.

6.2.2. Oregon Revised Statute 366.514

Often referred to as the "Oregon Bike Bill," this law applies equally to bicycle and pedestrian facilities. The statute's intent is to ensure that future roads be built to accommodate bicycle and pedestrian travel. The statute requires the provision of bicycle and pedestrian facilities on all Major Arterial and Collector roadway construction, reconstruction or relocation projects where conditions permit. The statute also requires that in any fiscal year, at least one percent of highway funds allocated to a jurisdiction must be used for bicycle/pedestrian projects.

6.2.3. Oregon Transportation Infrastructure Bank

The Oregon Transportation Infrastructure Bank is a statewide revolving loan fund designed to promote innovative transportation funding solutions. Oregon's program was started in 1996 as part of a ten-state Federal pilot program. Additional legislation passed in 1997 by the Oregon Legislature establishes the program in State law and includes expanded authority. Eligible borrowers include cities, counties, transit districts, other special districts, port authorities, tribal governments, State agencies, and private for-profit and non-profit entities. Eligible projects include:

- Highway projects, such as roads, signals, intersection improvements and bridges
- Transit capital projects, such as buses, equipment, and maintenance or passenger facilities
- Bicycle or pedestrian access projects on highway right-of-way

Eligible project costs include preliminary engineering, environmental studies, right-of-way acquisition, construction (including project management and engineering), inspections, financing costs, and contingencies.

6.2.4. Measure 66 Funds – Oregon State Lottery

Ballot Measure 66 amends the Oregon Constitution to allow money from the State Lottery to be used for restoring and protecting Oregon's parks, beaches, watersheds and critical fish and wildlife habitat. Funds are coordinated by the Oregon Parks and Recreation Department, and may be used for trail-related right-of-way acquisition and construction.

6.2.5. Special Transportation Fund

The State's Special Transportation Fund Program (STF) provides financial support to designated counties, transit districts and Indian tribal governments for special transportation services benefiting seniors and people with disabilities. The majority of the STF money (75 percent) is allocated on a population-based formula. The remaining funds are distributed by the Public Transportation Discretionary Grant Program.

6.2.6. Bicycle and Pedestrian Program Grants

The Pedestrian and Bicycle Grant Program is a competitive grant program providing approximately \$5 million every two years to Oregon cities, counties and ODOT regional and district offices for design and construction of pedestrian and bicycle facilities. Proposed facilities must be within public rights-of-way. Grants are awarded by the Oregon Bicycle and Pedestrian Advisory Committee.

6.2.7. Bicyclist Safety Mini-Grant Program

The Community Cycling Center Bicyclist Mini-Grant Program provides funding to public agencies and non-profit 501(c)(3) organizations to promote the safety of bicyclists

in Oregon. Funding is available statewide through a grant to the Community Cycling Center from ODOT's Transportation Safety Division. Funding is available for projects targeting youth and/or adults, with a focus on projects incorporating a strong educational element, especially in communities that do not currently have access to bike safety education resources. For communities that currently do have access to these resources, innovative and creative project proposals are highly encouraged. Applicants may apply for grants between \$800 and \$5,000.

6.2.8. Pedestrian Safety Mini-Grant Program

Administered by Oregon's Bicycle Transportation Alliance and the Willamette Pedestrian Coalition, the Pedestrian Safety Mini-Grant Program is funded through ODOT's Traffic Safety Division. The program provides funds to police departments around the state to stage crosswalk enforcement actions against motorists who fail to yield to pedestrians. In these operations, a decoy police officer attempts to cross a street at an intersection or marked crosswalk (crosswalk laws apply to unmarked crosswalks as well). If passing motorists fail to stop and yield for the pedestrian, they are issued either a warning or a citation. The operations include a media outreach component, with the purpose of raising awareness around motorists' responsibility toward pedestrians. Grant funds may also be used to offer diversion classes that violators can take in lieu of paying tickets. Applicants may apply for grants up to \$5,000.

6.2.9. Business Energy Tax Credits (BETC)

Offered by the Oregon Department of Energy, BETCs reward companies who invest in energy conservation, recycling, renewable energy resources and less-polluting transportation fuels. Eligible applicants include trade, business or rental property owners with business sites in Oregon or Oregon non-profit organizations, tribes, or public entities partnering with an Oregon business or resident. Non-profit organizations, schools and other public entities can use a transfer option for a cash-sum payment. Investments in alternative fuel infrastructure projects can recoup 50 percent of eligible project costs over five years. Projects with eligible costs under \$20,000 can take the tax credit in one year. Employer bicycle purchases may be eligible for a 35% of cost grant. To receive the credit, an application must be submitted prior to the beginning of the project, and again after the project is completed, indicating the resulting reduction in vehicle miles traveled.

6.3. Local Funding Sources

6.3.1. Local Bond Measures

Local bond measures, or levies, are usually initiated by voter-approved general obligation bonds for specific projects. Bond measures are typically limited by time based on the debt load of the local government or the project under focus. Funding

from bond measures can be used for right-of-way acquisition, engineering, design and construction of pedestrian and bicycle facilities.

6.3.2. Tax Increment Financing/Urban Renewal Funds

Tax Increment Financing is a tool to use future gains in taxes to finance the current improvements that will create those gains. When a public project (e.g., sidewalk improvements) is constructed, surrounding property values generally increase and encourage surrounding development or redevelopment. The increased tax revenues are then dedicated to finance the debt created by the original public improvement project. Tax Increment Financing typically occurs within designated Urban Renewal Areas (URA) that meet certain economic criteria and approved by a local governing body. To be eligible for this financing, a project (or a portion of it) must be located within the URA.

6.3.3. System Development Charges/Developer Impact Fees

System Development Charges, also known as Developer Impact Fees, are typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may reduce the number of trips (and hence impacts and cost) by paying for on- or off-site pedestrian improvements that will encourage residents to walk or use transit rather than drive. In-lieu parking fees may be used to help construct new or improved pedestrian facilities. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical in avoiding a potential lawsuit.

6.3.4. Street User Fees

The revenue generated by a street user fee is used for operations and maintenance of the street system, and priorities are established by the Public Works Department. Revenue from this fund should be used to maintain on-street bicycle and pedestrian facilities, including routine sweeping of bicycle lanes and other designated bicycle routes.

6.3.5. Local Improvement Districts (LIDs)

Local Improvement Districts (LIDs) are most often used by cities to construct localized projects such as streets, sidewalks or bikeways. Through the LID process, the costs of local improvements are generally spread out among a group of property owners within a specified area. The cost can be allocated based on property frontage or other methods such as traffic trip generation.

6.3.6. Business Improvement Districts

Pedestrian improvements can often be included as part of larger efforts aimed at business improvement and retail district beautification. Business Improvement Districts collect levies on businesses in order to fund area-wide improvements that benefit businesses and improve customer access. These districts may include provisions for

pedestrian and bicycle improvements, such as wider sidewalks, landscaping, and ADA compliance.

6.3.7. Other Local Sources

Residents and other community members are excellent resources for garnering support and enthusiasm for a bicycle and pedestrian facility, and the City should work with volunteers to substantially reduce implementation and maintenance costs. Local schools, community groups, or a group of dedicated neighbors may use the project as a project for the year, possibly working with a local designer or engineer. Work parties can be formed to help clear the right-of-way for a new path or maintain existing facilities where needed. A local construction company could donate or discount services. Other opportunities for implementation will appear over time, such as grants and private funds. The City should look to its residents for additional funding ideas to expedite completion of the bicycle and pedestrian system.

6.4. Other Funding Sources

6.4.1. American Greenways Program

Administered by The Conservation Fund, the American Greenways Program provides funding for the planning and design of greenways. Applications for funds can be made by local, regional or statewide non-profit organizations and public agencies. The maximum award is \$2,500, but most awards range from \$500 to \$1,500. American Greenways Program monies may be used to fund unpaved trail development.

6.4.2. Bikes Belong Grant Program

The Bikes Belong Coalition of bicycle suppliers and retailers has awarded \$1.2 million and leveraged an additional \$470 million since its inception in 1999. The program funds corridor improvements, mountain bike trails, BMX parks, trails, and park access. It is funded by the Bikes Belong Employee Pro Purchase Program.

6.5. Future Potential Funding Sources

6.5.1. 2010 Campaign for Active Transportation

Organized by the Rails-to-Trails Conservancy, the Campaign for Active Transportation aims to double the Federal Funding for trails, walking and biking in the upcoming Federal transportation reauthorization. The campaign is encouraging communities to gather a campaign team and develop an active transportation case statement, considering what the community could achieve with a \$50 million Federal investment in bicycling and walking.

6.5.2. Complete Streets Act of 2008

The Complete Streets Act was proposed to the U.S. Senate on March 3, 2008, and would ensure that future transportation investments made by State Departments of Transportation and Metropolitan Planning Organizations create appropriate and safe transportation facilities for all roadway users, including motorists, transit vehicles and riders, bicyclists, and pedestrians of all ages and abilities.

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APPENDIX A – FACTS AND FINDINGS REPORT

INTRODUCTION

To support the development of the Bicycle and Pedestrian Plan for the City of Joseph, an investigation of existing and future transportation conditions was conducted through a tour of the study area and an examination of data describing traffic volumes, the recent crash history, and the physical environment. This memorandum documents the findings of that investigation.

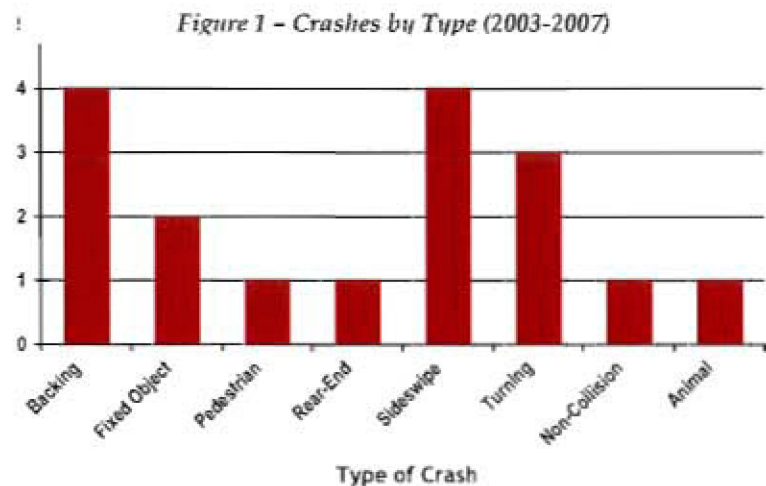
CRASH ANALYSIS

The most recent five years (2003-2007) of crash data for all roadways within the City of Joseph urban growth boundary (UGB) was obtained from the ODOT Crash Analysis & Reporting Unit and analyzed to identify high crash locations and crash patterns where countermeasures may be needed to improve safety, specially in regards to walking and biking. Crashes reported over that period of time have been illustrated in the “2003-2007 Reported Crashes” map, which has been organized to show all crash locations and types of crashes that occurred.

Crash Characteristics

From the “2003-2007 Reported Crashes” map, it is seen that crashes within the City have been spread out, with no noticeable concentration of crashes occurring at any one location. Also, nearly half of all of the crashes occurred along Oregon 82, which should be expected given the higher traffic volumes.

Of the 19 total crashes that occurred over the five-year period, the types of crashes are varied. **Figure 1** compares the number of crashes per crash type experienced. As shown, crashes involving backing maneuvers and sideswipes were the most common, but the numbers of those crash types were not significantly higher than most others.



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2003-2007 Reported Crashes (all travel modes)



It should also be noted that there was one crash that involved a pedestrian crossing Oregon 82 south of Sixth Street. According to the crash record, the pedestrian was crossing the highway at a mid-block location at night. There were no reported crashes involving bicycles.

In general, the severity of crashes experienced was low, with 13 of the 19 total crashes resulting in only property damage with no injuries (see Figure 2). Five crashes resulted in possible or minor injuries (reported as “Type C Injuries”), while only one crash resulted in moderate injuries (reported as “Type B Injuries”). There were no crashes resulting in

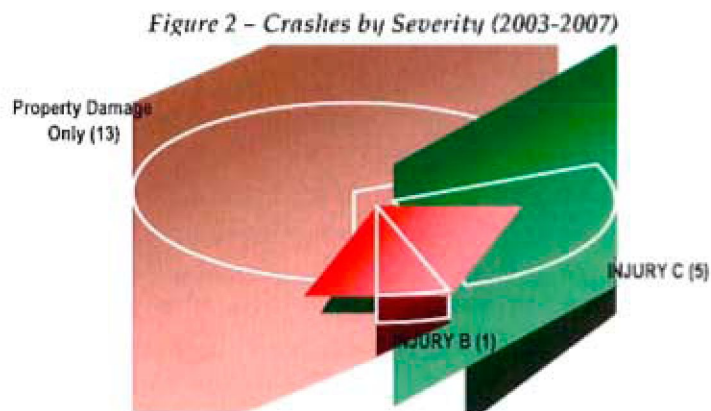
incapacitating or fatal injuries reported and only two of the six total crashes resulting in injuries were found to have occurred on the highways.

In searching for other potential crash trends, it was found that most crashes occurred under daylight conditions (79%), with dry pavement (74%), and were spread out relatively evenly among all days of the week. Crashes were also spread out relatively evenly among the months of the year, with slight peaks in the months of July and November. There was also a slight trend towards crashes occurring during the mid-day hours.

Crash Rates

To help assess whether the number of crashes experienced on the state highways through the city is significant, crash rates per million vehicles miles (MVM) on Oregon 82 and Imnaha Highway were compared to those experienced on similar facilities throughout the state. The use of crash rates as a means of comparison between facilities is common practice because it accounts for the differences in traffic volumes served, which is typically proportional to the number of crashes.

Crash rates for study area highways were taken from an annual publication by the ODOT Crash Analysis Reporting Unit called the *State Highway Crash Rate Tables*.¹ In this document, crash rates for given segments of all state highways are calculated and listed for each of the last five years. In addition, this document provides average crash rates over each of the last five years for various types of facilities, separating urban and rural environments and freeways from non-freeways, to allow for comparison between similar facilities. When comparing highway segments from the study area to the



¹ 2006 *State Highway Crash Rate Tables*, ODOT Transportation Data Section, Crash Analysis & Reporting Unit, July 2007.

statewide averages for similar facilities, the use of segments less than one mile in length was avoided, as crash rates for such short segments can be heavily influenced by a single problem location.

When examining the crash data over the last five-year period (note that due to the publishing date of the Crash Rate Tables, the five-year span from 2002 to 2006 was the most recent available), it was noticed that there had not been any reported crashes on the ¼-mile segment of Innaha Highway within the City Limits from 2003 through 2006. However, in 2002, there were 3 reported crashes, which is a significantly high amount for such a short segment of roadway. Because no crashes have been found to occur since then (even in 2007, as evidenced by the new crash data obtained), a comparison of the crash rates for this segment of highway to the statewide average rates would not be of value as there is clearly no trend of frequent crashes occurring on a consistent basis.

In the Crash Rate Tables, Oregon 82 is comprised of two separate state highways: Highway 10, which approaches from the north and ends at the Innaha Highway intersection, and Highway 351, which begins at the Innaha Highway intersection and runs past the end of Wallowa Lake. For the purpose of this analysis, the segments of each separate highway along Oregon 82 within the City Limits were combined into one 1.24-mile long segment. The resulting crash rates during each of the five years examined are shown in Table 1, with the statewide average crash rate for principal arterials in rural cities also provided for comparison. As shown, the crash rate for this segment was significantly lower than the statewide average rate during most years, with the exception of the year 2002. Further examination of crash data revealed that three crashes occurred within the segment of Oregon 82 from the north City Limits to the Innaha Highway intersection during the year 2002, which is relatively high for such a short distance. However, since crash rates have substantially dropped every year since then, the rate of crashes occurring on Oregon 82 within the City Limits is not of concern.

Table 1 - OR 82 5-year Crash Rate Comparison for Statewide Rural Cities (2002-2006)

Section Limits (mile points)	Section Description	Annual Crashes per Million Vehicles				
		2002	2003	2004	2005	2006
Statewide Average Rate		1.16	1.28	0.99	0.90	0.94
Hwy 10 MP 70.98 – Hwy 351 MP 0.80	OR 82 from North City Limits to South City Limits	2.19	1.10	0.57	0.00	0.60

Note: Bold type indicates the crash rate is greater than the statewide average.

SPIS LOCATIONS

This analysis was supplemented by reviewing ODOT’s Safety Priority Index System listing for locations on state highways ranked among the state’s top 10% of hazardous locations. The Safety Priority Index System (SPIS) is a method developed by ODOT for identifying hazardous locations on state highways. The SPIS score is based on three years of crash data and considers crash frequency, crash rate, and crash severity. ODOT

bases its SPIS on 0.10-mile segments to account for variances in how crash locations are reported. This information is a general comparison of the overall safety of the highway based on crash information for all sections throughout the state.

According to ODOT's 2006 SPIS ratings, there are no locations on any of the state highways within the study area with a SPIS score ranked among the state's top 10%.

Sight Distance

Through field observations, locations on area roadways within the City were examined for provision of adequate sight distance. The provision of proper sight distance allows adequate time for drivers to react to changing conditions, such as obstacles in the roadway or other vehicles that are crossing or entering the roadway ahead.

The most common location noted where sight distance is limited is along Oregon 82 through the downtown, where sight distance is often limited by cars in angled parking stalls. The presence of these parked cars along the highway can limit sight distance at intersections, as well as for vehicles attempting to back out of parking stalls. In fact, the backing maneuvers and poor sight distance were cited as deterrents to bicycling along Oregon 82 in this area by residents.

Another location where sight distance was noted to be limited is at the intersection on Oregon 82 at Lake Street, where the horizontal curve to the north and the adjacent vegetation/development on the north side of the highway shorten sight distance for vehicles, bicyclists, and pedestrians crossing or entering from the north. The existing sight distance to the west from the north approach was measured at approximately 225 feet. According to *A Policy of Geometric Design of Highways and Streets*², assuming a highway design speed of 30 mph (it is currently posted at 25 mph), the minimum intersection sight distance should be 335 feet, with the minimum stopping sight distance being 200 feet. Therefore, the provided sight distance is not desirable for entering or crossing traffic, but is sufficient for on-coming vehicles to stop prior to the intersection if needed.

TRAFFIC VOLUMES

To provide a basis for evaluating the conditions of area transportation, the volumes of motor vehicles, bicycles, and pedestrians were counted for two hours during the AM and PM peak periods at three key intersections in the City, including:

- Oregon 82 at Innaha Highway,
- Oregon 82 at McCully Avenue, and
- Innaha Highway at College Street.

In addition, hourly motor vehicle data was collected over a 24-hour period at 15 locations throughout the City to determine how traffic volumes vary throughout the

² *A Policy on Geometric Design of Highways and Streets*, fifth edition, American Association of State Highway and Transportation Officials, Washington, D.C., 2004.

day, which may provide further insight into the appropriate accommodation of bicycles and pedestrians on City streets.

SEASONAL FACTORING

To provide for consistency during analysis, common peak hours were selected at all studied locations during the AM and PM periods. The peak hours chosen were from 7:40 to 8:40 AM and from 4:35 to 5:35 PM.

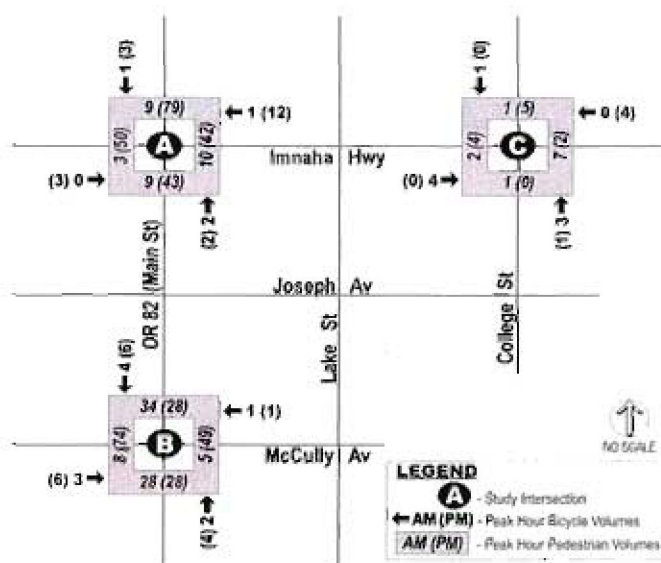
For the purposes of transportation facility analysis and design, the 30th highest annual hour (30 HV) of traffic volume is typically the time period of interest. The 30 HV is also used by ODOT as the basis for highway mobility standards. Therefore, all volume data collected was adjusted to better reflect this time period.

Because there are no local or comparative sources of traffic volume data that indicate how volumes fluctuate throughout the year, ODOT's 2008 Seasonal Trend Table was used to determine how the collected counts should be factored to replicate the 30 HV. The Seasonal Trend Table was developed by ODOT by averaging seasonal trends at Automatic Traffic Recorder (ATR) stations throughout the state that continuously collect traffic volume data. For traffic characteristics through Joseph, the seasonal trends from ATRs on routes described as, "recreational summer" were used.

For "recreational summer" routes, the 30 HV typically occurs in mid-July. Because the traffic counts in Joseph were collected on July 23, 2008, the count data obtained was taken to be representative of the 30 HV and no seasonal factoring was applied. It should

be noted that the Chief Joseph Days festival/rodeo had begun on the day the counts were collected and that as a result, the traffic volumes may actually be higher than the 30 HV. However, after comparing the volumes to historical counts and conducting a sensitivity test on the operational analysis, it was determined that while the counts may be conservatively high, they would not be high enough to affect the study findings.³

Figure 3 - 2008 AM & PM Peak Hour Bicycle and Pedestrian Volumes



The resulting 30 HV traffic volumes at the three study intersections are displayed in the "Existing and Future AM/PM Peak Hour Traffic Volumes" map (showing both

³ Confirmed with Dorothy Upton, ODOT Transportation Planning Analysis Unit (July 29, 2008).

2008 volumes as well as forecasted 2030 volumes). Volumes of bicycles by intersection approach and pedestrians by crosswalk for each of the three intersections during the 2008 AM and PM peak hours are displayed in Figure 3.

When examining the volumes of motor vehicle, bicycle, and pedestrian traffic at each of the three intersections, the intersections along Oregon 82 are shown to experience far more traffic than the intersection on Imnaha Highway at College Street, where volumes are relatively low. Also, traffic volumes are higher in the afternoon than in the morning. Finally, as expected given the surrounding land uses, the pedestrian activity along Oregon 82 is fairly high.

In addition to the motor vehicle turning movements and bicycle and pedestrian volumes, daily traffic volumes on area streets were obtained and displayed in the "Weekday 24-hour Two-Way Traffic Volumes (2008)" map. To provide a frame of reference when viewing the daily traffic volumes, roadways maintaining average daily traffic volumes of less than 3,000 vehicles are generally considered acceptable for shared use of travel lanes between motor vehicles and bicycles, while roadways with daily volumes of less than 1,500 vehicles are often considered desirable for residential neighborhood streets (assuming posted speeds are compatible with these uses). As shown in the "Weekday 24-hour Two-Way Traffic Volumes (2008)" map, all streets within the City, with the exception of Oregon 82, Imnaha Highway, and Wallowa Avenue, are maintaining traffic volumes well below these thresholds, with shared bicycle-motor vehicle use of travel lanes possible on some segments of these roadways as well.

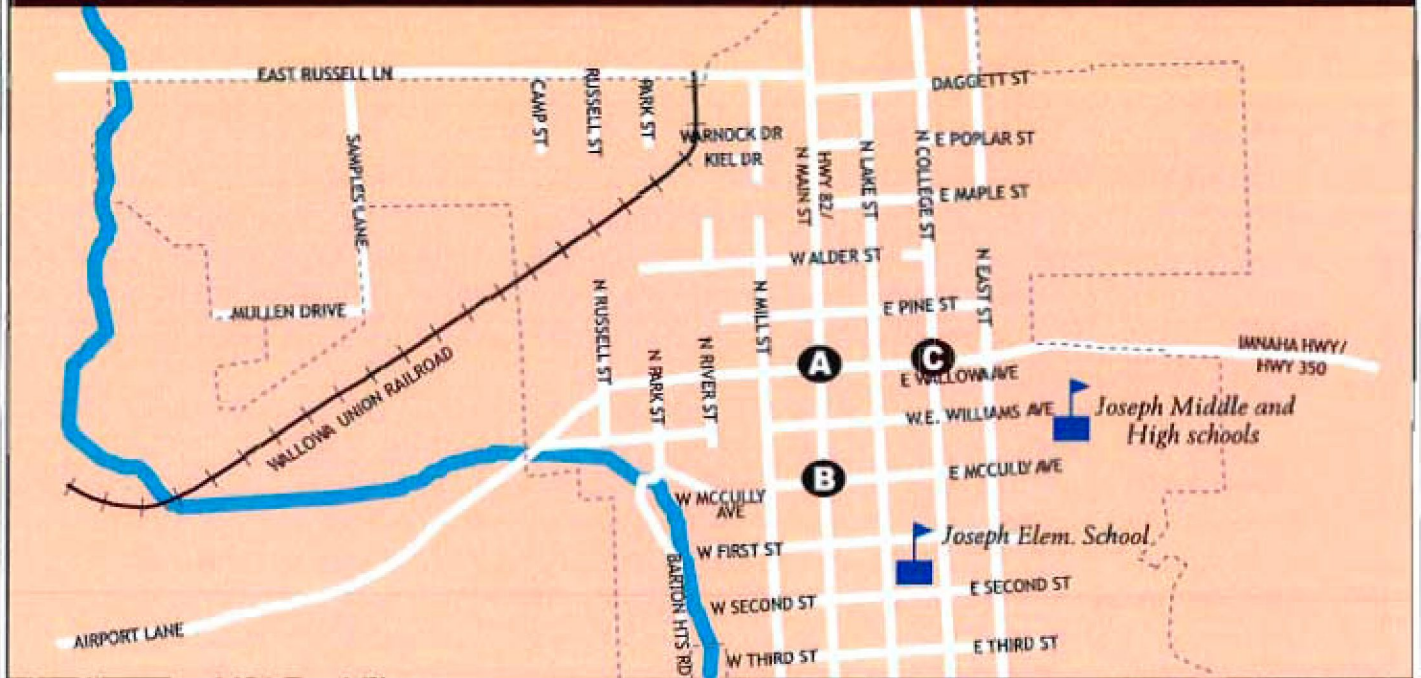
At several of the locations where 24-hour volume data was collected, additional information showing hourly motor vehicle volumes by direction of travel was obtained as well. The hourly volume profiles for these locations are provided in Figures 4 through 18, showing how traffic volumes change during each hour of the day.

When examining the volume profiles, it is shown again that the traffic volumes on streets within the City, with the exception of Oregon 82, Imnaha Highway, and Wallowa Avenue, are low. In fact, traffic volumes on most streets are so low that residents are comfortable walking on them without the presence of sidewalks.

Also, in most cases, traffic is nearly non-existent between midnight and 5:00 AM. It is also common to experience a more gradual rise and distribution of traffic throughout the day, rather than having dramatic morning and afternoon rush hour periods as are often experienced in larger urban areas.

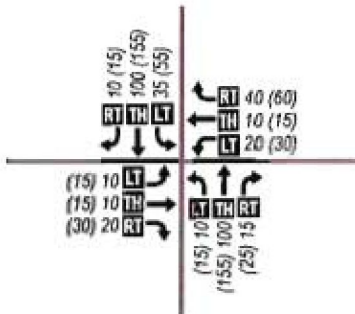
It should also be noted when viewing the hourly volumes from locations surrounding the rodeo grounds (e.g., **Figure 4 - Oregon 82 north of Maple Street**, **Figure 5 - Alder Street west of Mill Street**, **Figure 6 -Wallowa Avenue west of Oregon 82**, and **Figure 9 - McCully Avenue west of Mill Street**) that rodeo-related traffic caused the notable traffic peaks during the evening hours.

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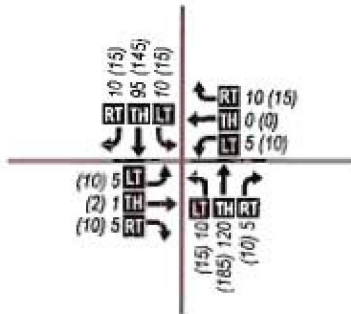


AM Traffic Volumes

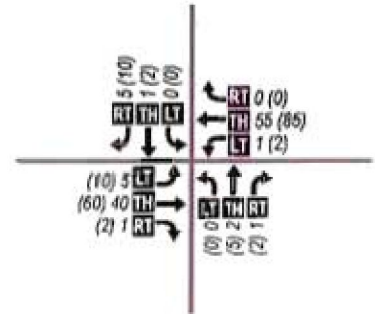
A. OR 82 (Main St) @ Imnaha Hwy



B. OR 82 (Main St) @ McCully Av

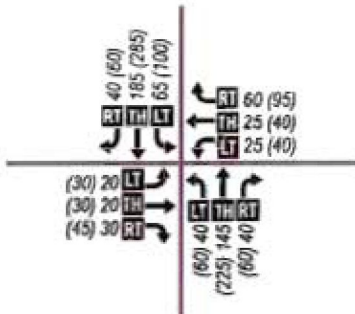


C. Imnaha Hwy @ College St

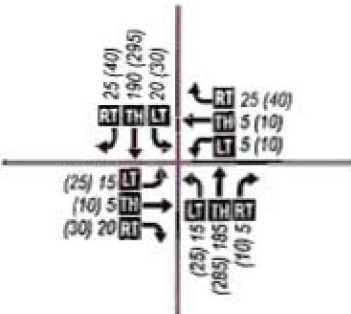


PM Traffic Volumes

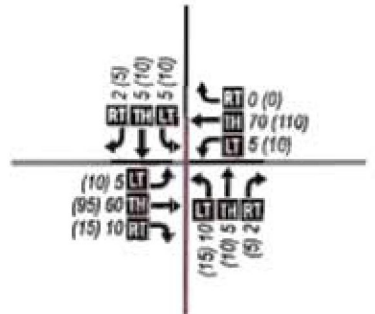
A. OR 82 (Main St) @ Imnaha Hwy



B. OR 82 (Main St) @ McCully Av

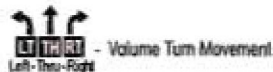


C. Imnaha Hwy @ College St



LEGEND

- A** - Study Intersection
- 00 (00) - 2008 30 HV (2030 DHV) Peak Hour Traffic Volumes



DKS Associates
TRANSPORTATION SOLUTIONS



**EXISTING & FUTURE
AM/PM PEAK HOUR
TRAFFIC VOLUMES**

Figure 4 - 24-Hour Traffic Volumes: Oregon 82 north of Maple Street

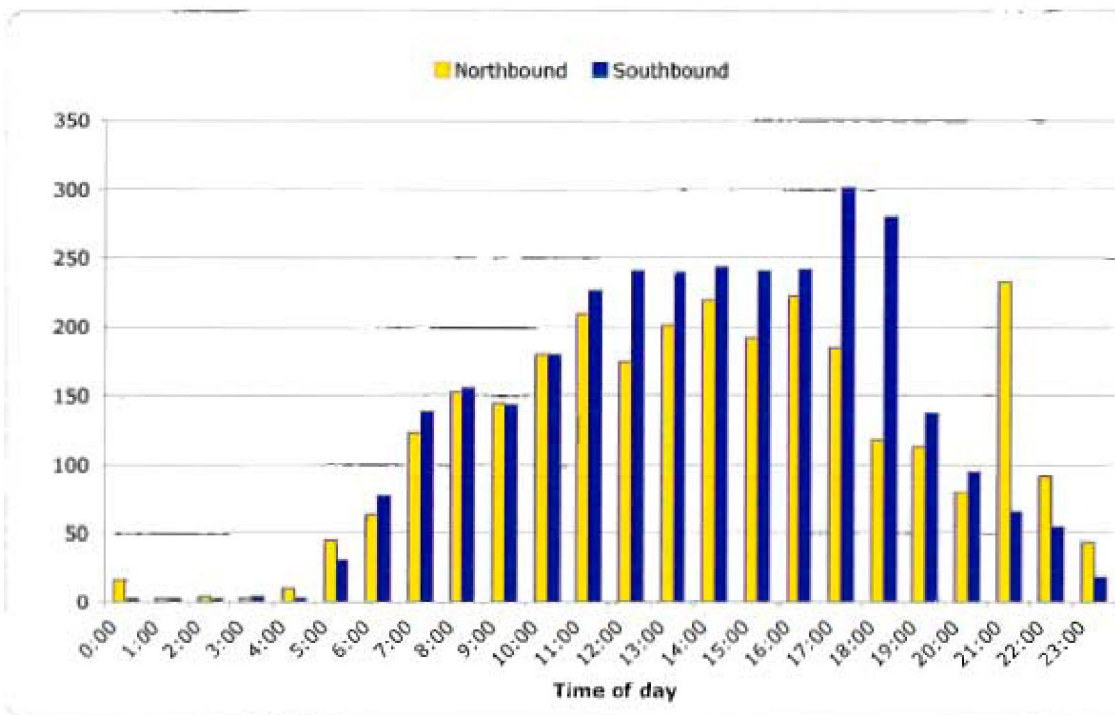


Figure 5 - 24-Hour Traffic Volumes: Alder Street west of Mill Street

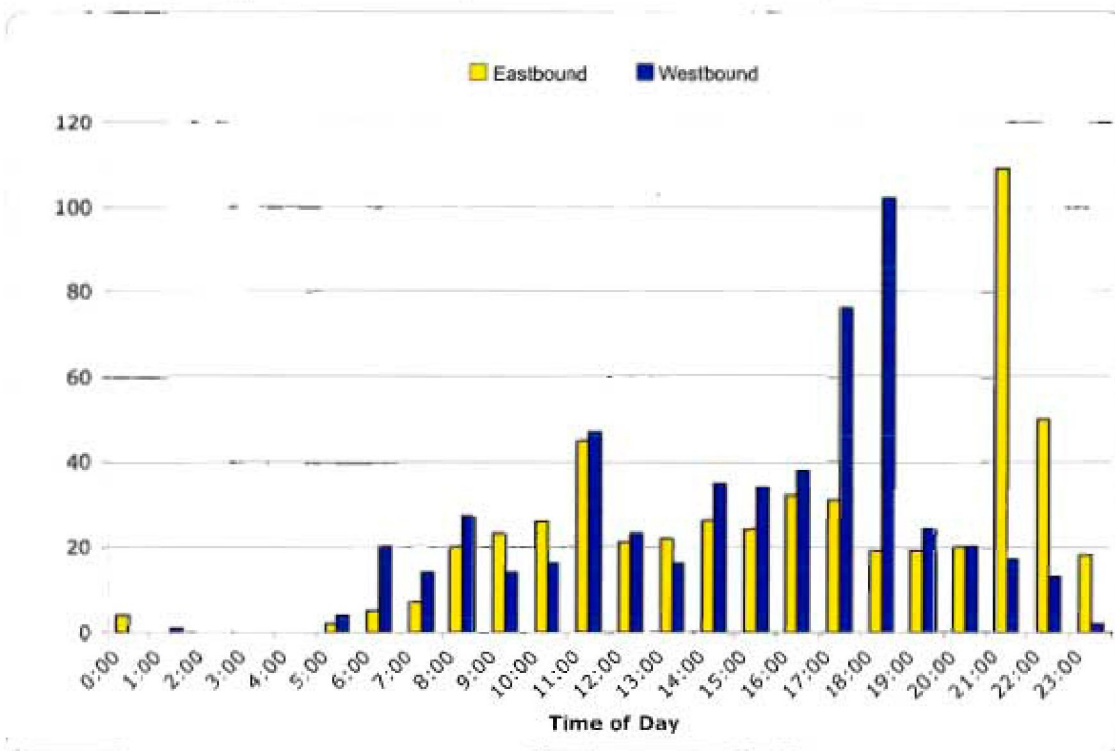


Figure 6 – 24-Hour Traffic Volumes: Wallowa Avenue west of Oregon 82

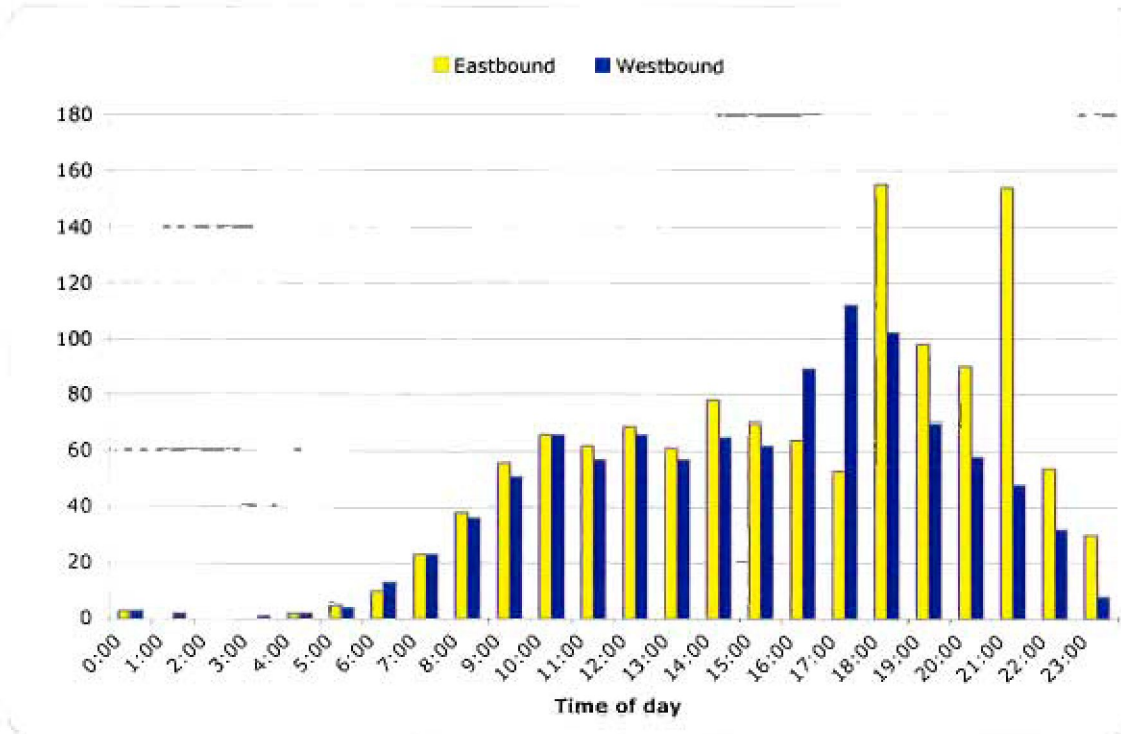


Figure 7 – 24-Hour Traffic Volumes: Lake Street north of Innaha Highway

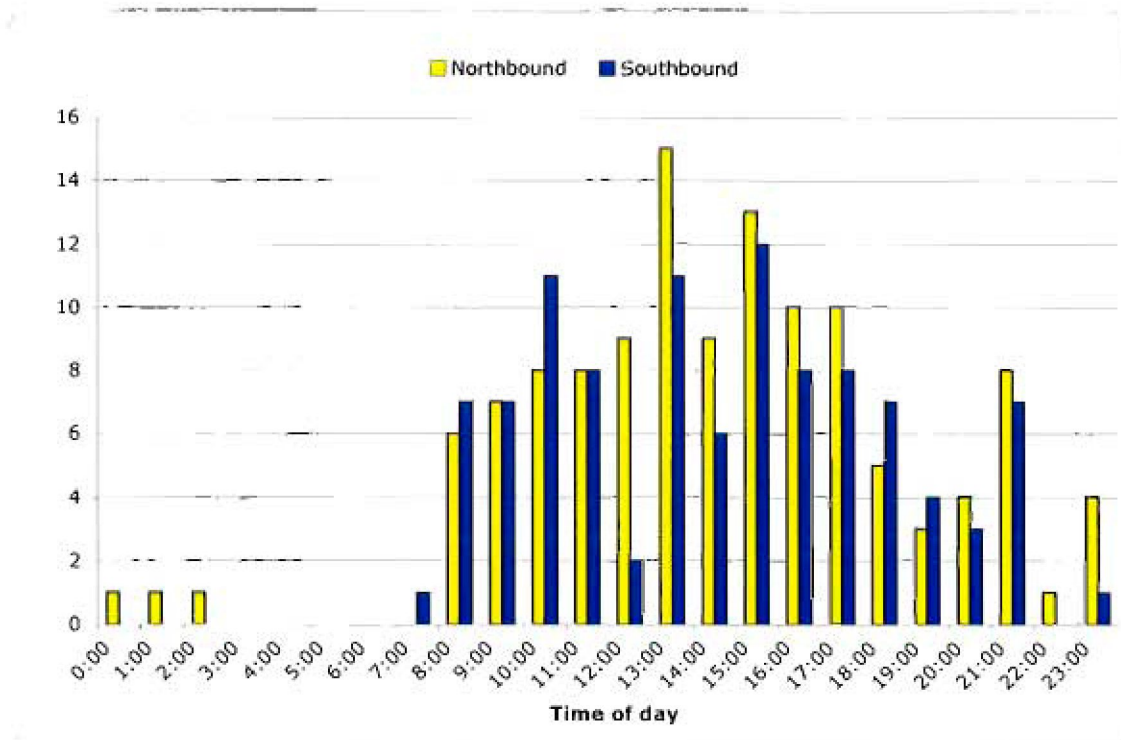


Figure 8 - 24-Hour Traffic Volumes: Mill Street north of McCully Avenue

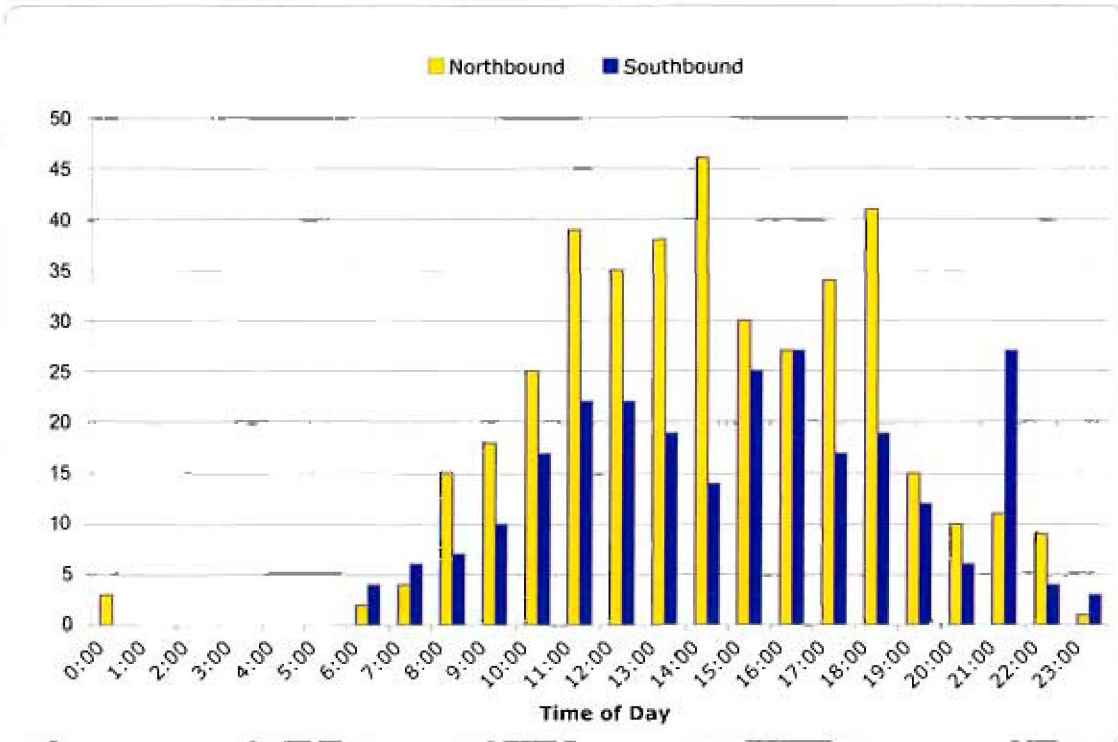


Figure 9 - 24-Hour Traffic Volumes: McCully Avenue west of Mill Street

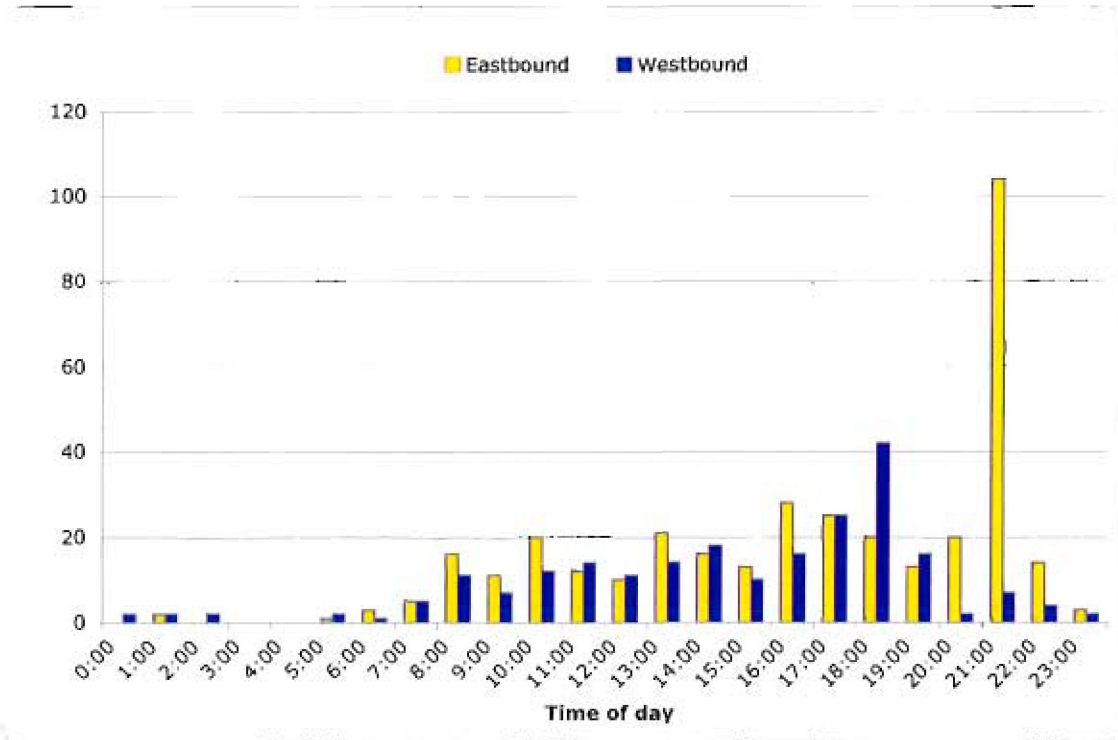


Figure 10 - 24-Hour Traffic Volumes: East Street north of McCully Avenue

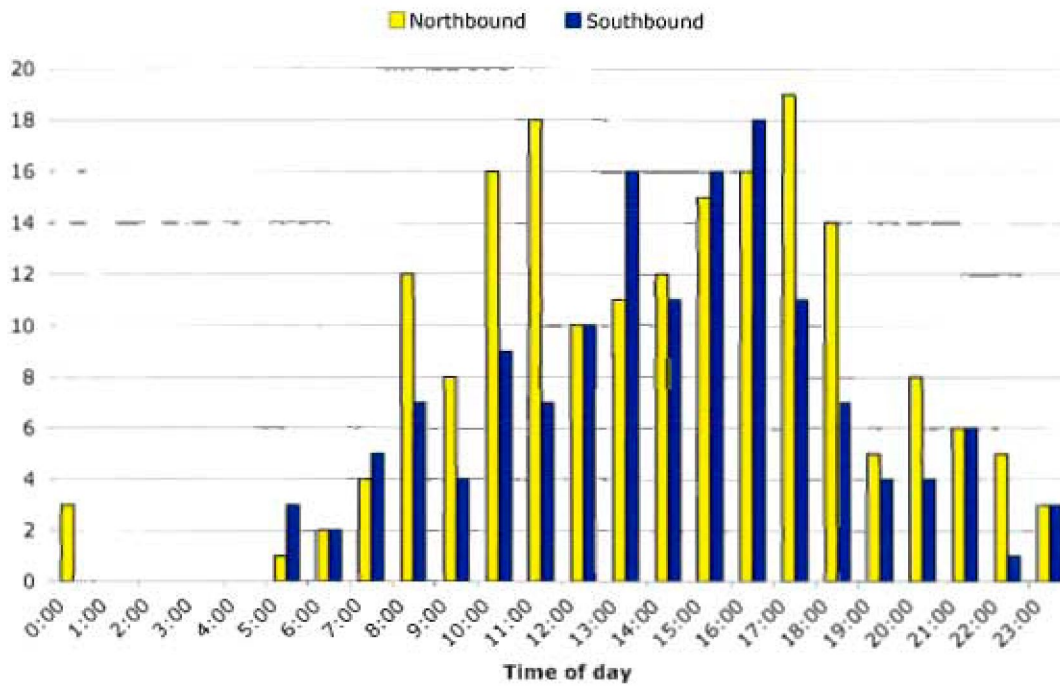


Figure 11 - 24-Hour Traffic Volumes: McCully Avenue west of College Street

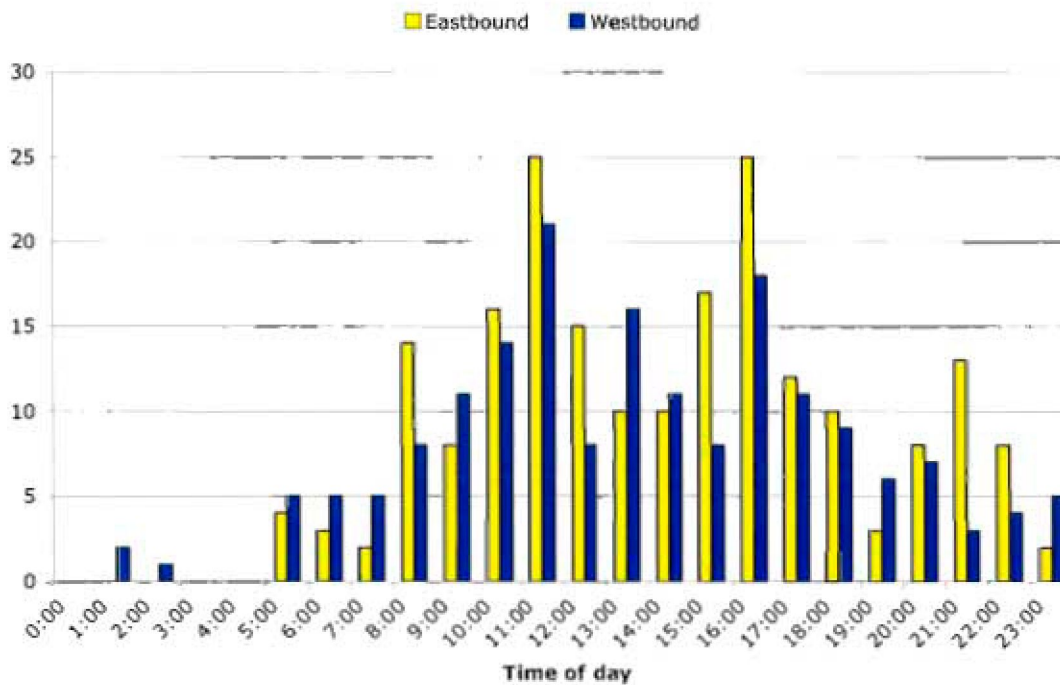


Figure 12 - 24-Hour Traffic Volumes: College Street north of First Street

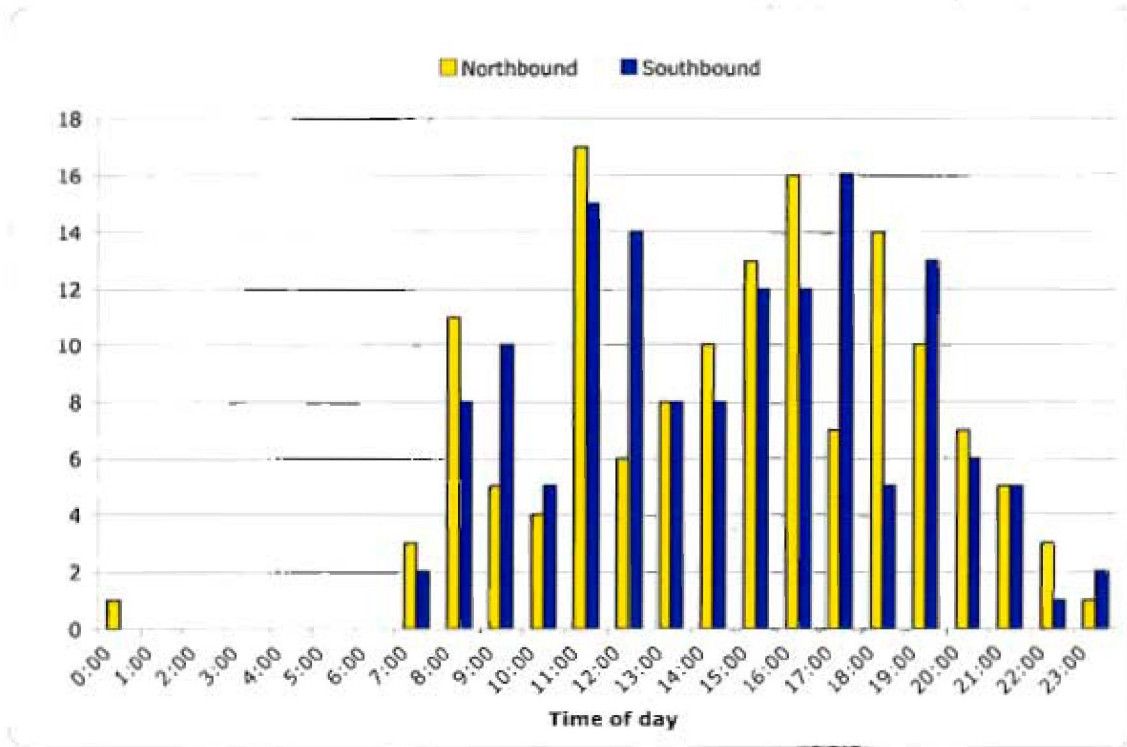


Figure 13 - 24-Hour Traffic Volumes: First Street west of Lake Street

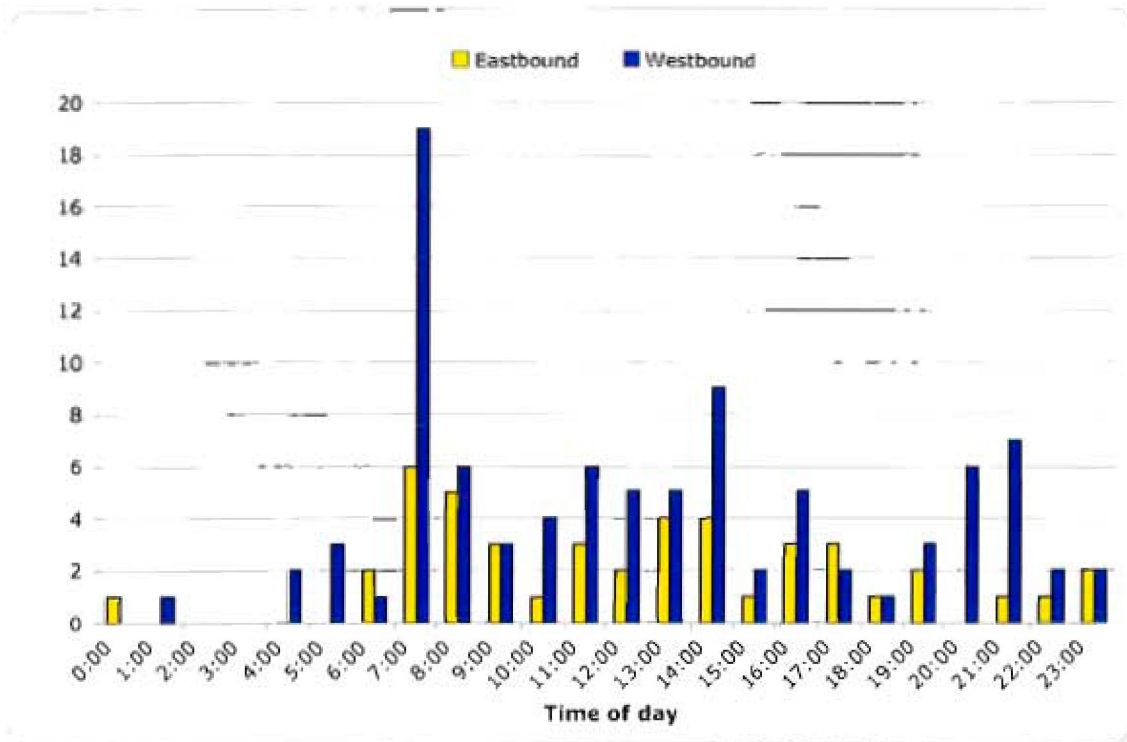


Figure 14 - 24-Hour Traffic Volumes: Lake Street south of First Street

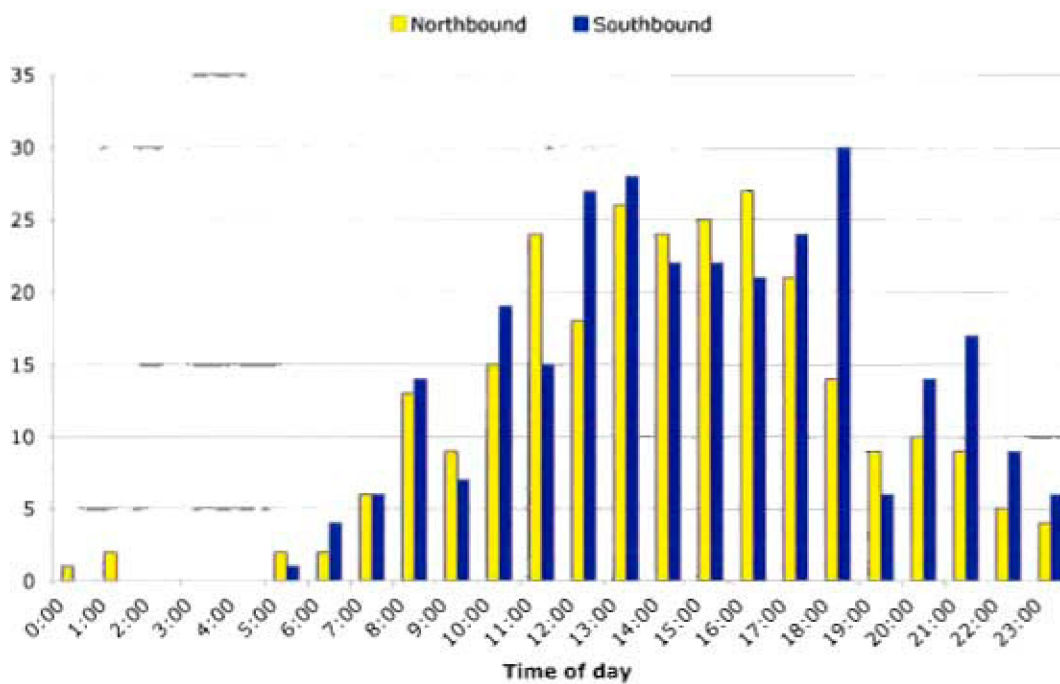


Figure 15 - 24-Hour Traffic Volumes: Second Street west of Lake Street

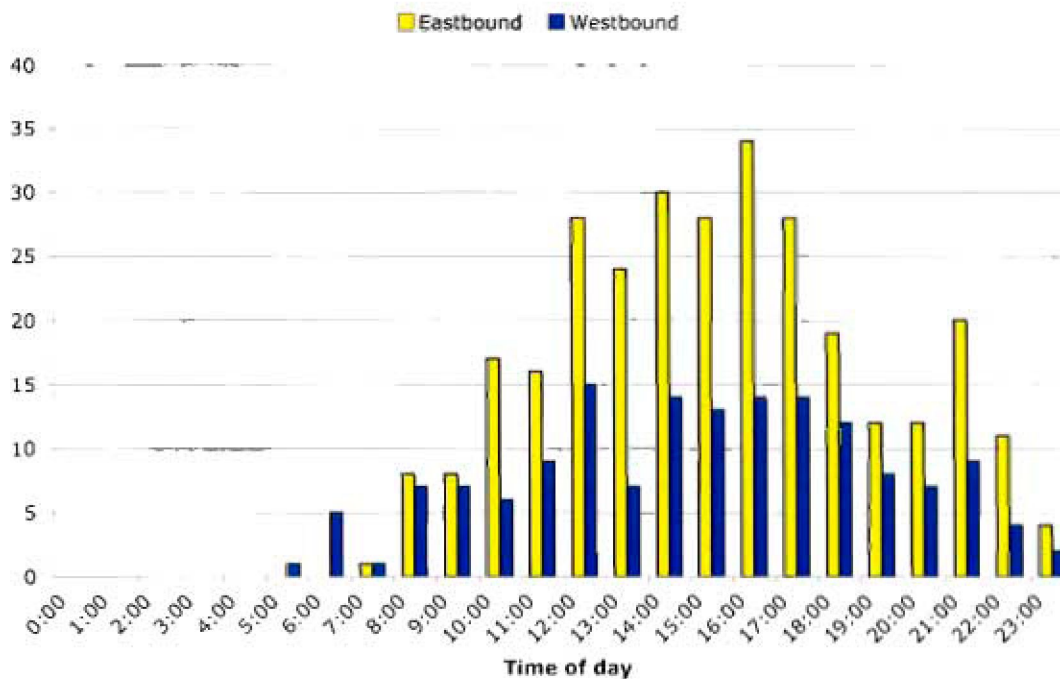


Figure 16 - 24-Hour Traffic Volumes: East Street south of Second Street

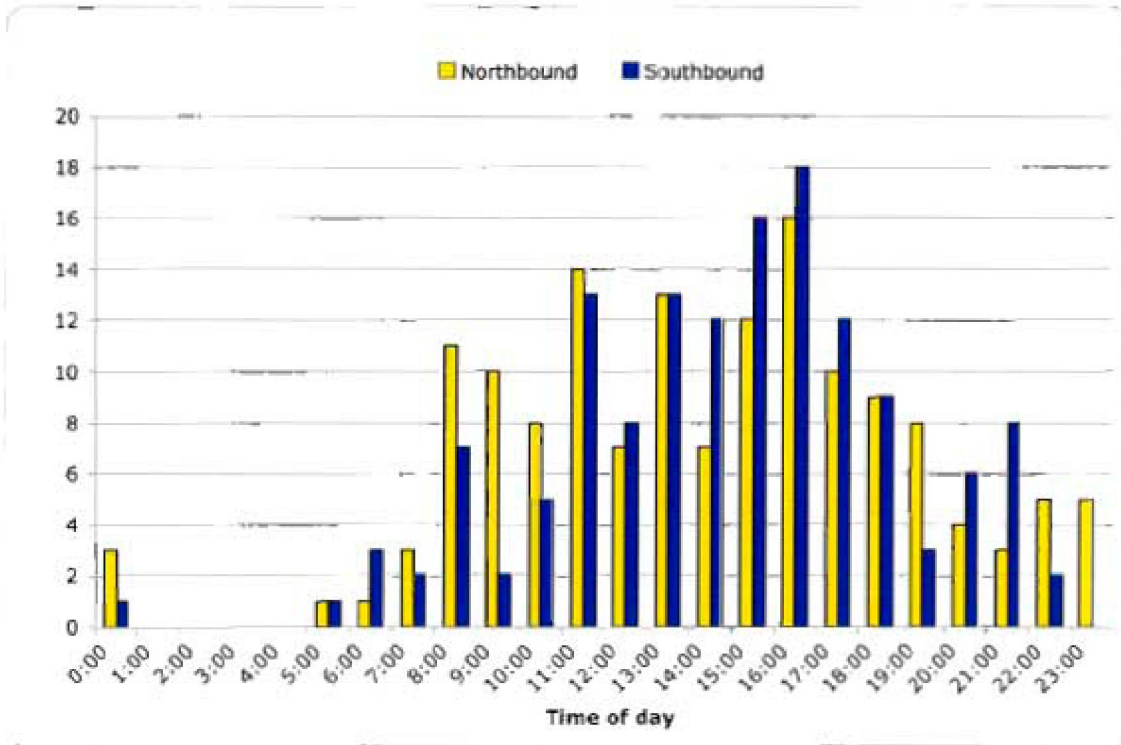


Figure 17 - 24-Hour Traffic Volumes: Mill Street north of Fourth Street

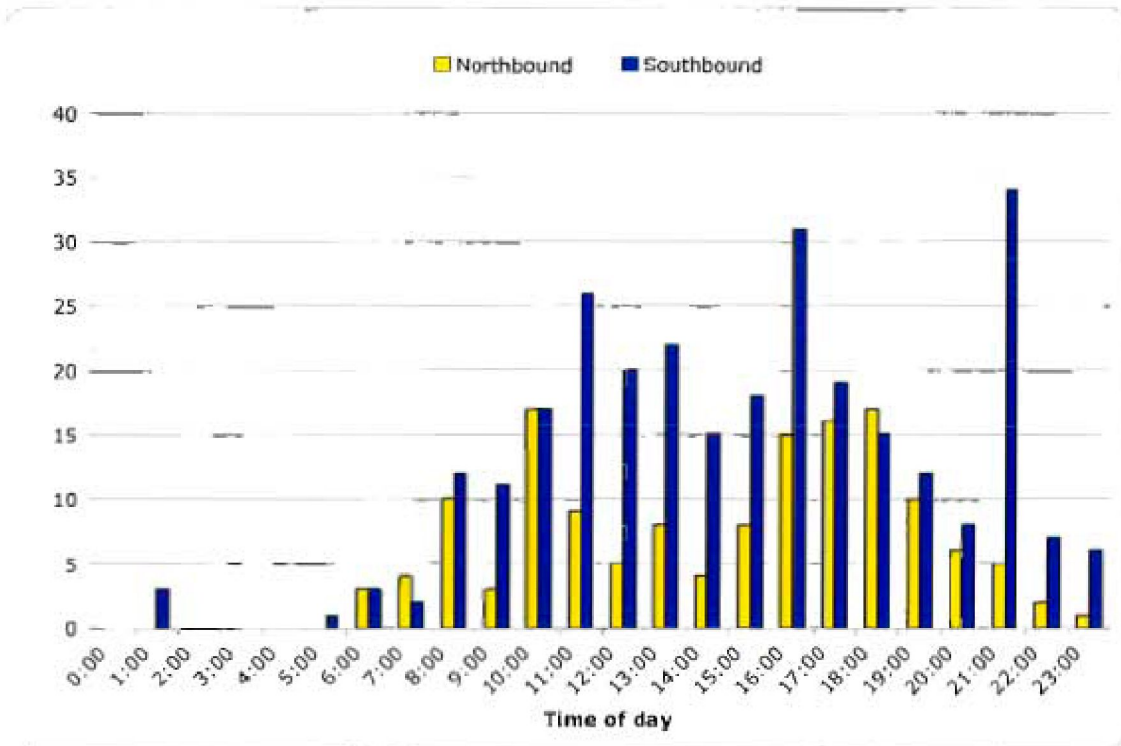
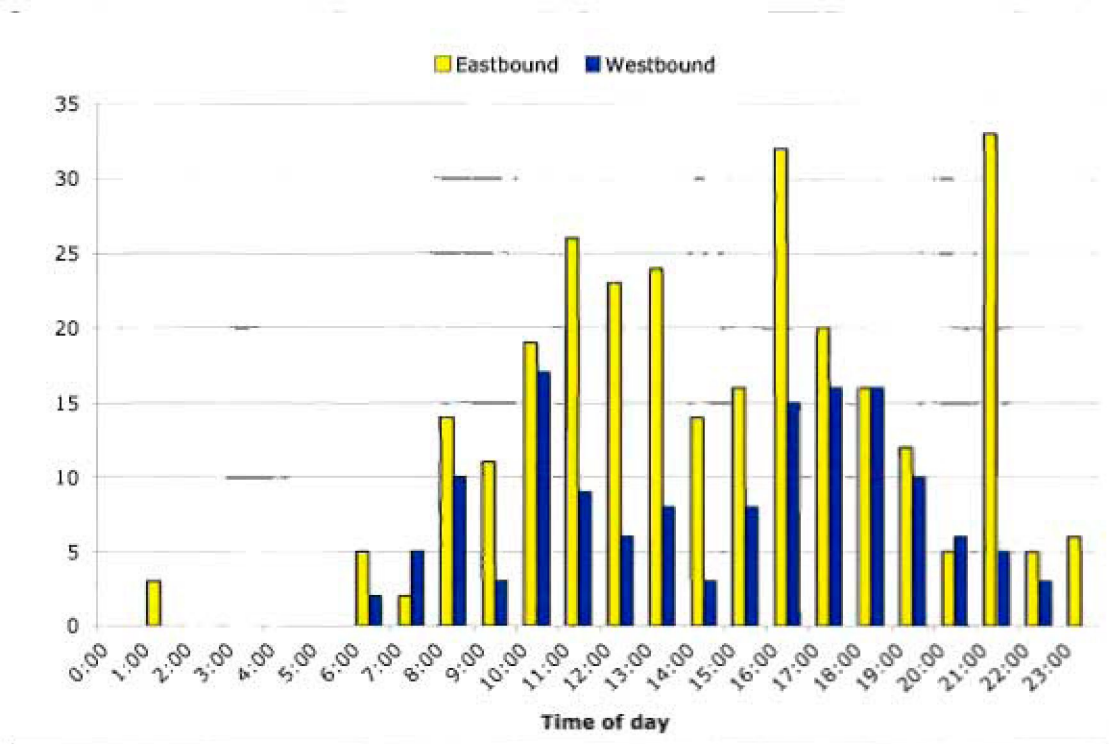


Figure 18 – 24-Hour Traffic Volumes: Fourth Street east of Mill Street



ANNUAL GROWTH FACTOR

To forecast future conditions in the year 2030, a growth rate was applied to the existing 30 HV in 2008. This growth rate was calculated using ODOT’s 2026 Highway Future Volume Table⁴, which provides base year average daily traffic volumes for state highways, as well as projected average daily traffic volumes for the year 2026. The projected volumes for 2026 are based on historical growth trends or travel demand modeling where available.

The Future Volume Table includes projections for three highway segments within Joseph: Oregon 82 north of Imnaha Highway, Imnaha Highway east of Oregon 82, and Oregon 82 south of Imnaha Highway. For all segments of highway, the forecasts from the Future Volume Tables had r-squared values of 0.77 or higher, so were deemed acceptable for use. Using these forecasts, an annual compound growth rate of 2.0% was calculated and applied to the 30 HV developed for the year 2008 over a 22-year period to estimate traffic volumes at study intersections during the year 2030. These volumes have been provided in the “Existing and Future AM/PM Peak Hour Traffic Volumes” map.

⁴ 2026 Highway Future Volume Table, Oregon Dept. of Transportation, obtained July 2008 at <http://www.oregon.gov/ODOT/TD/TP/TADR.shtml>

TRAFFIC OPERATIONS

To help understand the measures of effectiveness used in traffic analysis to evaluate the quality of traffic operations provided, as well as the quality of operation expected, the following sections describe the concepts of “level of service” and “volume-to-capacity ratios” and identify standards for traffic mobility adopted by ODOT for state highways.

LEVELS OF SERVICE (LOS) AND VOLUME-TO-CAPACITY (V/C) RATIOS

An intersection’s LOS is similar to a “report card” rating, based on the average vehicle delay (seconds per vehicle) for all movements at the intersection. Level of service A, B, and C indicate conditions where vehicles can move freely. Level of service D and E are progressively worse and generally indicate intersections where queuing of vehicles occur. Level of service F is the worst performance an intersection can attain.

Another measure of effectiveness is the volume-to-capacity (v/c) ratio. This is a measure of the actual number of vehicles that utilize the intersection during the peak hour compared to the amount of capacity (number of vehicles an intersection can accommodate) available. As an intersection becomes more heavily utilized, the v/c ratio increases, heading toward a maximum value of 1.0. When the v/c ratio exceeds 1.0, the demand is greater than the intersection capacity, revealing that more traffic wants to use the intersection that it can actually serve (most commonly seen when forecasting future conditions).

MOBILITY STANDARDS

As all three study intersections are under ODOT jurisdiction, the *1999 Oregon Highway Plan*⁵ (OHP) sets out planning mobility standards based on functional classification, posted speed limit, presence of highway segment designations, and location relative to urban growth boundaries, which employ v/c ratios rather than LOS. Selected relevant mobility standards from the OHP, Policy 1F, that are to be applied to the study intersections along Oregon 82 and Imnaha Highway can be seen in **Table 2**. It should be noted that at unsignalized intersections, the mobility standards from **Table 2** are to be applied only to movements that are not required to stop or yield right of way. For movements that must stop or yield right of way, the mobility standard for District Highways/Local Interest Roads is to be applied, regardless of the actual highway classification.

While the planning mobility standards from the OHP are used for deficiency identification purposes, a different set of mobility standards from ODOT’s Highway

⁵ *1999 Oregon Highway Plan*, Oregon Dept. of Transportation, Amended January 2006.

Design Manual⁶ (HDM) are used for design. Therefore, future needs are determined by comparing operations to the OHP mobility standards, while the adequacies of proposed improvements are determined by comparing operations to the HDM standards. The HDM mobility standards have also been included in Table 2 below.

Because Oregon 82 is designated as a Statewide Highway and both study intersections at Imnaha Highway and McCully Avenue are within the Special Transportation Area (STA) designation, the v/c ratio requirement for unstopped movements at these intersections is 0.90 (for both OHP and HDM standards) or lower during the 30 HV. Imnaha Highway is designated as a District Highway, with the study intersection at College Street being in a zone posted for 30 mph (with a 20 mph school zone to the east). Therefore, the v/c ratio requirement for unstopped movements at this intersection will also be 0.90 or lower during the 30 HV for planning purposes (OHP), but will be 0.80 or lower for design applications (HDM). Stopped movements at all study intersections will be subject to the mobility standard for District Highways/Local Interest Roads.

Table 2 - Selected Mobility Standards

<i>Maximum Volume to Capacity Ratios Inside Urban Growth Boundary, Non-MPO</i>				
<i>Highway Category</i>	<i>Inside a Special Transportation Area (STA)</i>		<i>Outside a Special Transportation Area (STA) with Speed ≤ 35 mph</i>	
	<i>1999 Oregon Highway Plan</i>	<i>2003 Highway Design Manual</i>	<i>1999 Oregon Highway Plan</i>	<i>2003 Highway Design Manual</i>
<i>Statewide Highways (non-Freight Route)</i>	<i>0.90</i>	<i>0.90</i>	<i>-</i>	<i>-</i>
<i>District Highway/ Local Interest Roads</i>	<i>.95</i>	<i>.95</i>	<i>0.90</i>	<i>0.80</i>

Operational Analysis Results

Each study intersection was analyzed using the traffic volumes shown in the “Existing and Future AM/PM Peak Hour Traffic Volumes” map and the existing lane configurations and traffic controls. No modifications to these intersections were assumed to occur in the future. The operational analysis was performed using the Synchro software program, which employs the Highway Capacity Manual⁷ methodology. The results of this analysis are shown in Tables 3 and 4 for conditions under existing (2008) and future (2030) traffic volumes.

As shown in Tables 3 and 4, under existing conditions the PM peak hour experiences more congestion than the AM peak hour, with the intersection on Oregon

⁶ *Highway Design Manual*, Oregon Department of Transportation – 2003 English.

⁷ *2000 Highway Capacity Manual*, Transportation Research Board, Washington D.C., 2000.

82 at Imnaha Highway being the most congested. However, all study intersections operate well and are in compliance with adopted mobility standards.

Table 3 - Intersection Operations - AM PEAK HOUR

Intersection	OHP Mobility Standard (v/c ratio)	v/c ratio	LOS	delay (sec)
2008 Existing Conditions				
Oregon 82 @ Imnaha Hwy	0.90	0.12	B	11.0
Oregon 82 @ McCully Ave	0.90	0.02	B	10.4
Imnaha Hwy @ College St	0.90	0.01	A	9.4
2030 Future Conditions				
Oregon 82 @ Imnaha Hwy	0.90	0.21	B	13.4
Oregon 82 @ McCully Ave	0.90	0.05	B	11.6
Imnaha Hwy @ College St	0.90	0.02	A	9.8

Notes: Operations are only shown for stop-controlled movements, as they are the critical movements in all cases.

While traffic volumes will have increased by approximately 55% by the year 2030, adequate operating conditions will continue to be provided at the study intersections, with no further improvements required to comply with ODOT's mobility standards. Again, the intersection on Oregon 82 at Imnaha Highway will be the most heavily congested intersection.

Table 4 - Intersection Operations - PM PEAK HOUR

Intersection	OHP Mobility Standard (v/c ratio)	v/c ratio	LOS	delay (sec)
2008 Existing Conditions				
Oregon 82 @ Imnaha Hwy	0.90	0.31	C	18.9
Oregon 82 @ McCully Ave	0.90	0.10	B	13.3
Imnaha Hwy @ College St	0.90	0.03	B	10.2
2030 Future Conditions				
Oregon 82 @ Imnaha Hwy	0.90	0.78	F	56.3
Oregon 82 @ McCully Ave	0.90	0.22	C	19.1
Imnaha Hwy @ College St	0.90	0.06	B	11.1

Notes: Operations are only shown for stop-controlled movements, as they are the critical movements in all cases.

Although it will comply with ODOT’s mobility standards, the delays experienced on the stop-controlled side-streets of the Oregon 82 at Imnaha Highway intersections will be nearly one minute long per vehicle on average, resulting in a level of service F rating. Traffic volumes on the east-west approaches of Imnaha Highway and Wallowa Avenue would be too low to warrant the installation of a traffic signal⁸ and construction of a roundabout would have significant right of way impacts, potentially requiring the purchase of all properties adjacent to the intersection. The installation of a separate westbound to northbound right turn lane would provide some benefits (improved to LOS E with 49.5 seconds of delay), but is also likely to require significant impacts to the property in the northeast quadrant of the intersection.

Alternatively, if the existing intersection were converted from two-way stop-control to all-way stop-control, all approaches would comply with ODOT’s mobility standards from the HDM. As an added benefit, the new stop-control on the northbound and southbound highway approaches would facilitate bicycle and pedestrian crossings. However, while the side-street operations would be significantly improved, the north-south highway approaches along Oregon 82, which previously experienced almost no delay, would be significantly degraded to the point where the critical v/c ratio would actually be higher than under no-build conditions (from 0.78 to 0.82). Table 5 shows the v/c ratios, levels of service, and delay anticipated to occur on each approach under all-way stop-control.

Table 5 - Oregon 82 at Imnaha Highway Operations under All-Way Stop-Control (2030 PM PEAK HOUR)

Intersection Approach	v/c ratio	LOS	delay (sec)
Northbound	0.67	C	18.6
Southbound	0.82	D	26.9
Eastbound	0.26	B	11.9
Westbound	0.40	B	13.2

Again, it should be recognized that no improvements to the Oregon 82 at Imnaha Highway intersection are necessary to comply with ODOT’s adopted mobility standards. Because the installation of all-way stop-control would introduce trade-offs in transportation operations, improving side-street, bicycle, and pedestrian movements at the expense of highway through traffic movement, the appropriate treatment of this intersection should be discussed between ODOT and the City of Joseph, with prioritization of traffic movement reflecting statewide, regional, and local needs.

The need for advanced warning signing for motorists traveling along Oregon 82 should also be considered if all-way stop-control is to be implemented. Such signing may improve driver awareness, as this would be the only required stop for several miles in either direction. However, the roadside environment in this area, including

⁸ According to *ODOT Preliminary Signal Warrants* for 2030 condition.

angled parking, striped crosswalks, and zero building setbacks, should already convey to motorists that stopping may be necessary.

Under existing conditions, vehicle queue lengths at study intersections are relatively low, ranging from two to four vehicles in length during peak periods (noted during observations in the field). With existing block lengths of approximately 300 feet, queue spillback into adjacent intersections is rare.

Future vehicle queue lengths in the year 2030 were calculated through a simulation analysis using the SimTraffic software program. The results showed that vehicle queues will continue to be low, with the highest queues found at the Oregon 82 / Imnaha Highway intersection of less than 200 feet, which would still fit within the existing block lengths.

If all-way stop-control were installed at the Oregon 82 / Imnaha Highway intersection, the queue lengths on the eastbound and westbound approaches would not be significantly different, but the northbound and southbound approaches, which previously were not required to stop, would experience much longer queues. However, it was estimated that these queues would be approximately 175 feet long in the northbound direction and 275 feet long in the southbound direction, which would still fit within the existing block lengths.

SUMMARY

The history of crashes within the City of Joseph suggests there is a relatively low crash potential, with most crashes being of low severity. There have been no significant patterns or locations experiencing reoccurring crashes requiring mitigation. Because of the higher traffic volumes, bicycles and pedestrians are more likely to be involved in crashes with motor vehicles along Oregon 82, suggesting that the provision of separate walking and biking facilities should be a priority along this route.

Furthermore, bicyclists traveling along Oregon 82 through the downtown are frequently in conflict with vehicles backing out of angled parking stalls, where the driver's sight distance is limited by adjacent parked cars. This condition makes biking through the downtown on Oregon 82 undesirable by many bicyclists.

Traffic volumes in the City are typically higher during the PM peak period than during the AM peak period, but traffic tends to increase gradually throughout the day without the presence of significant peak hours.

Most traffic activity, including motor vehicle, bicycle and pedestrian modes of travel, is focused on the Oregon 82 corridor.

With the exception of Oregon 82, Imnaha Highway, and Wallowa Avenue, traffic volumes on City streets are low enough that they would typically be considered adequate for allowing shared bicycle and motor vehicle use of travel lanes and are consistent with the character of neighborhood residential streets. Field observations and feedback from residents also indicate that walking on these streets, even without the presence of sidewalks, is generally a comfortable experience.

The three study intersections of Oregon 82 at Innaha Highway, Oregon 82 at McCully Avenue, and Innaha Highway at College Street all operate adequately, complying with ODOT mobility standards under both existing (2008) and future (2030) conditions. However, by the year 2030, the delays experienced on the stop-controlled side-streets of the Oregon 82 at Innaha Highway intersection during the PM peak hour will average nearly a minute per vehicle. Should mitigation of this condition be desired, it is recommended that installation of all-way stop-control (potentially paired with advanced warning signing), which would also benefit bicycle and pedestrian movement, be considered. While the intersection will continue to meet ODOT mobility standards under this scenario, the added stop signs will significantly increase delays for north-south highway traffic. Therefore, before such improvements are implemented, the needs of statewide, regional, and local travel should be considered, with prioritization of traffic movement established accordingly.

APPENDIX B – POTENTIAL TRAFFIC IMPACTS OF PROPOSED WALKWAY/BIKEWAY IMPROVEMENTS

The Joseph Pedestrian and Bicycle Improvement Plan recommends many modifications to the transportation system throughout the city that are intended to enhance safety and mobility for walking and biking. However, because different modes of travel share many of the transportation corridors through the city (e.g., motor vehicles, pedestrians, bicycles), modifications made for the enhancement of travel by one mode could have a negative impact on travel by the other modes. While some negative impacts may be minor and may be accepted as necessary to balance needs for all modes, others that compromise safety or degrade operations below adopted standards should be avoided.

To ensure the recommended improvements in the plan are compatible with other travel modes and do not result in negative safety or operational impacts that would be considered unacceptable, the proposed improvements were reviewed and evaluated to determine the associated impacts.

INTERSECTION IMPROVEMENTS

Improvements made at intersections have the potential to have some of the greatest impacts on operations and safety, as intersections often represent the bottlenecks in travel corridors and are typically the locations where conflicts between travelers are the most frequent. Each intersection improvement recommended was examined, with the results described below.

Intersections in the Vicinity of Joseph Elementary School

Description:

Install high-visibility crosswalks and advanced warning signs.

Impact:

The local streets surrounding the elementary school experience low volumes of motor vehicle traffic at low speeds. The installation of crosswalks and signing should be compatible with the existing transportation system and surrounding area. However, given the pavement conditions on many local streets and the short life span of pavement markings in Joseph due to the weather, painted crosswalks may not be possible prior to street resurfacing and may not last long if implemented.

E. Eighth Street (OR 82) at College Street

Description:

Install crosswalks and advanced warning signs on E. Eighth St.

Impact:

Eighth Street (OR 82) acts as a barrier for bicyclists and pedestrians traveling to and from the south end of the city, as well as for those destined for Wallowa Lake. Through discussions with citizens and field observations, the intersection on Eighth Street at College Street was selected as a preferred crossing location. The primary reasons for selecting this location was the availability of better sight distance than at Lake Street or East Street and the non-standard geometry at Main Street, which can make it difficult to predict where motor vehicles will turn.

Key characteristics of the transportation system at this location include:

Sight Distance: Fair. According to *A Policy of Geometric Design of Highways and Streets*¹, assuming a highway design speed of 35 mph (it is currently posted at 30 mph), the minimum intersection sight distance should be 390 feet, with the minimum stopping sight distance being 250 feet. In the most constrained direction (from the south College Street approach to the east along OR 82), the available sight distance is approximately 375 feet.

The crossing of Eighth Street at College Street provides the best sight distance of the four intersections from Main Street to East Street that provide crossing opportunities, with the possible exception of the Main Street intersection. However, the non-standard geometry of the Main Street intersection makes vehicle turns unpredictable and is often avoided by pedestrians.

Posted Speed: Eighth Street is posted for 30 mph through this area.

Traffic Controls: There is stop-control on the northbound and southbound College Street approaches. Eighth Street is uncontrolled.

Traffic Volumes: Eighth Street serves approximately 2,000 vehicles per day. College Street is estimated to serve less than 500 vehicles per day.

Crash History: There have been no crashes at this intersection over the last five years (2003-2007). There was one turning crash at the intersection on Eighth Street at Lake Street one block to the west.

Grade: Relatively flat.

Requests for marked crosswalks at uncontrolled locations on state highways must be approved by ODOT's Region and State Traffic Engineers. ODOT maintains guidance for the application of marked crosswalks at uncontrolled locations in the ODOT Traffic

¹ *A Policy on Geometric Design of Highways and Streets*, fifth edition, American Association of State Highway and Transportation Officials, Washington, D.C., 2004.

Manual.² As part of the consideration for a marked crosswalk, an engineering investigation must be provided that includes an assessment of the following criteria (from Section 6.6.2.2 of the ODOT Traffic Manual).

1. *There is good visibility of the crosswalk from all directions, or it can be obtained. Stopping sight distance is a minimum.*

As noted previously, sight distance in all directions is greater than the minimum required stopping sight distance of 250 feet. Visibility in all directions is good.

2. *There is no reasonable alternative crossing location.*

There are a total of four locations to cross Eighth Street (OR 82), including Main Street, Lake Street, College Street, and East Street. All locations are relatively evenly spaced within a 1,200-foot segment of Eighth Street. However, due to the horizontal alignment of OR 82 through this area, sight distance is significantly less at the other three locations. In addition, the intersection at Main Street has a non-standard geometry that makes vehicle movements unpredictable.

Through discussions with residents it was revealed that College Street is the preferred crossing location of the four, with some people claiming to avoid the other locations altogether due to concerns regarding safety.

In summary, there are other crossing locations available. However, the crossing at College Street is the best from a safety perspective and is preferred by residents interviewed.

3. *There is established pedestrian usage. Considerations include: volume of pedestrians, opportunity for safe crossing (i.e., sufficient gaps in traffic), percentage of elderly or young children, and the nature of the attraction (See ITE suggested pedestrian volume thresholds in Section 6.6.2.11). Lower pedestrian volumes would be acceptable for areas where there is greater proportion of less experienced and less agile pedestrians (e.g., near schools and/or elderly housing areas)*

Pedestrian volumes in the area are generally low. The population of Joseph is approximately 1,000 people. Tourism adds a significant amount of pedestrian activity, but most of that is experienced in the downtown, several blocks to the northwest. The total crossings are not anticipated to meet the pedestrian volume thresholds referenced in Section 6.6.2.11.

With average daily traffic volumes on Eighth Street of approximately 2,000, there are ample gaps for crossing.

The use of the proposed crossing is general in nature and would serve people of all ages. It would facilitate the connection for pedestrians and bicycles between schools, parks, residences, and the amenities/ services in the downtown to the north with residences and recreational opportunities at Wallowa Lake (approximately one mile to the south) to the south. The crossing location would also be used as part of a proposed bicycle boulevard running from north to south

² ODOT Traffic Manual, Oregon Department of Transportation, March 2008, p. 6-9.

through the city.

4. *Posted speeds should be 35 mph or less.*

The posted speed on Eighth Street is 30 mph.

5. *Traffic Volumes should be less than 10,000 ADT or if above 10,000 ADT raised median islands should be included.*

Eighth Street serves approximately 2,000 vehicles per day. College Street is estimated to serve less than 500 vehicles per day.

6. *On multi-lane highways, pedestrian crossing enhancements (curb extensions and/or pedestrian refuges) should be considered.*

Eighth Street (OR 82) is a two-lane facility in the area.

In addition, Section 6.6.2.10 of the ODOT Traffic Manual recommends that engineering studies for proposed marked crossings include:

1. *Marked crosswalks at other than signalized intersections or stop-controlled approaches should be used selectively. Allowing a proliferation of marked crosswalks may reduce the overall effectiveness of marking crosswalks.*

There are other marked crossings over OR 82 at uncontrolled intersections approximately eight blocks to the north in the downtown. The downtown is designated as a Special Transportation Area and has curb extensions to aid crossings. There are no marked crossings to the south. No other marked crossings of OR 82 are requested at this time (the crossing at OR 82 and Fourth Street discussed later is not recommended). To avoid the proliferation of marked crossings on OR 82 through Joseph, it is recommended that no other crossings be marked between College Street and the Special Transportation Area in the downtown.

2. *Consideration must be given to concerned citizens, civic groups, and neighborhood organizations; balancing engineering judgment with perceived public need.*

The establishment of College Street as a preferred and marked crossing location was, in part, encouraged by public comments received at an open house and through other stakeholder group meetings. The general feeling from the public is that other crossing opportunities along Eighth Street are uncomfortable or unsafe. While it is possible to cross Eighth Street at other locations, College Street does represent the best opportunity from a safety perspective, with other locations either having limited sight distance or awkward geometry.

3. *The roadway design features that influence the pedestrians' ability to cross the street, e.g., street width, presence of a median, one-way versus two-way operation, and geometrics of the highway or intersection being crossed, all need to be included in the planning of the crosswalk. Other pedestrian design improvements such as curb*

extensions and pedestrian refuges should be encouraged to increase the safety of the crossing.

Under existing conditions, Eighth Street (OR 82) is a two-lane highway with no curb or sidewalk. While curb and sidewalk are proposed as a future improvement, the widening of Eighth Street beyond two lanes is not anticipated. As the complimenting sidewalk improvements are being designed at some time in the future, curb extensions could be considered.

4. *A three to five-year pedestrian crash history should be obtained.*

There have been no crashes at this intersection over the last five years (2003-2007). There was one turning crash at the intersection on Eighth Street at Lake Street one block to the west.

5. *The walking path of the pedestrian. Will marking crosswalks encourage pedestrians to use a single point of crossing rather than choosing random crossing points?*

Pedestrians could still cross Eighth Street at the intersections with Main Street, Lake Street, and East Street. However, College Street provides a direct path to the elementary school six blocks to the north and a near direct path to the middle and high schools nine blocks to the north. Parents could be encouraged to instruct children to use the College Street crossing as part of a Safe Routes to School Plan.

College Street would also provide a crossing that would be in the natural path for most people destined for Wallowa Lake and would be part of a proposed bicycle boulevard connecting the north and south ends of the city.

6. *There should be opportunities for crossing (sufficient gaps in traffic)*

With average daily traffic volumes on Eighth Street of approximately 2,000, there are ample gaps for crossing.

7. *Uncontrolled marked crosswalks may be continental crosswalk marking and should be accompanied by other enhancements such as pedestrian refuge islands, bulb-outs, pedestrian signs etc.*

Under existing conditions, Eighth Street (OR 82) is a two-lane highway with no curb or sidewalk. While curb and sidewalk are proposed as a future improvement, the widening of Eighth Street beyond two lanes is not anticipated. As the complimenting sidewalk improvements are being designed at some time in the future, curb extensions could be considered. Pedestrian crossing warning signs are proposed as part of this improvement.

8. *There should be adequate sight distance for the motorist and the pedestrian, or it can be obtained. This includes examination of on-street parking, street furniture (e.g., mailboxes, utility poles, newspaper stands), and landscaping. Corrective measures should be taken wherever possible.*

As noted previously, the available sight distance of 375 feet is greater than the

minimum required stopping sight distance of 250 feet and nearly meets the minimum intersection sight distance of 390 feet. Visibility in all directions is good. It could be improved further, but that would require vegetation removal/maintenance on private property.

9. *All crosswalk locations should be investigated for adequate illumination where there is prevalent nighttime pedestrian activity.*

Nighttime pedestrian activity is anticipated to be low. The intersection is currently illuminated.

10. *Mid-block and school crossings must be supplemented with crosswalk signs*

This would not create a mid-block or school crossing.

11. *Mid-block crosswalks should not be located immediately down-stream from bus stops.*

This would not be a mid-block crossing.

12. *For mid-block crosswalks: are there more reasonable locations pedestrians could cross, i.e., no more than a block (300 feet) from a location being considered?*

This would not be a mid-block crossing.

In consideration of the above criteria, the installation of a marked crosswalk at the Eighth Street/ College Street intersection is recommended.

SIDEWALKS

Sidewalk improvements generally include infilling gaps in the existing system and constructing new sidewalks along streets where none currently exist. These types of improvements typically have no negative impact on travel by other modes and can improve safety by appropriately accommodating pedestrians who may have been previously walking in the roadway.

It should be noted that the proposed sidewalk construction projects along Wallowa Avenue between Park Street and Main Street will require crossings over two irrigation ditches. While there are currently two bridges on Wallowa Avenue spanning these ditches, there is not sufficient width on the bridges to add both sidewalks and shoulders/ bike lanes. Therefore, to provide for separate pedestrian facilities, the construction of parallel pedestrian bridges may be necessary.

SHARED USE PATHS

Shared use paths are often located in right of ways separate from those used by motor vehicles. Conflicts generally only occur at crossing locations.

The proposed projects involving shared use paths are for studies to better define conceptual connections. As alignments are identified for shared use paths through Joseph, the design and operations will need to be reevaluated.

SOFT SURFACE TRAILS

The proposed project to reconstruct the perimeter trail surrounding the Joseph Middle/High School campus is entirely contained on private property. The trail does not conflict with other elements of the transportation system and is intended for recreational purposes.

BIKE LANES

The inclusion of bike lanes on a roadway can impact motor vehicle travel by potentially reducing travel lanes where right of way is limited. However, where a significant amount of bicycle traffic is expected, bike lanes can be beneficial by separating bikes and motor vehicles, enhancing both street capacity and safety.

S. Main Street/ E. Eighth Street: College Street to Third Street

Description:

Widen shoulders to provide bike lanes on OR 82 from College Street to Third Street.

Impact:

In general, the widening of shoulders to provide bike lanes would improve safety and operations by removing bicycles from the travel lanes used by motor vehicles. However, because the bike lanes would end at Third Street, dropping into a shared roadway with curb extensions and angled on-street parking, warning signs to alert bicyclists of this condition should be considered.

Wallowa Avenue: Russell Street to East Street

Description:

Widen shoulders to provide bike lanes on Wallowa Avenue (Imnaha Highway east of Main Street) from Russell Street to East Street.

Impact:

In general, the widening of shoulders to provide bike lanes would improve safety and operations by removing bicycles from the travel lanes used by motor vehicles. In this corridor, the most significant constraints are the two bridges over the irrigation ditches west of Main Street and the curb extensions at the intersection with Main Street. However, it appears that sufficient width is available in all locations to provide the proposed bike lanes.

SHOULDER BIKEWAYS

The construction of shoulder bikeways generally consists of widening paved shoulders to an appropriate width (generally a minimum of 6 feet) to accommodate bicycle travel out of the motor vehicle travel lanes. These types of improvements enhance both capacity and safety by providing for the separation of bikes and motor vehicles. In addition, the widened shoulders can be used by pedestrians and generally enhance motor vehicle safety by providing additional opportunities for errant vehicles to recover and return to their travel lanes without running off of the road.

BICYCLE BOULEVARDS

Description:

These types of facilities provide for bicycle travel within an existing motor vehicle corridor without the added expense of constructing separate bike lanes. In general, corridors where bicycles share the roadway with motor vehicles can experience some reductions in capacity and concerns regarding safety due to the presence of the slower moving bicycles. However, on the corridors identified for such improvements in this plan, the current posted speeds are no higher than 25 mph and average daily traffic volumes are expected to be less than 1,000 vehicles, which should limit the impact of bicycle presence.

The extent of the treatments applied to such corridors may vary from only signage to the implementation of traffic calming devices in the roadway. For this plan, a five-level system was presented to identify the range of treatments possible. Only Level 3 applications have been recommended as part of this plan, which include: intersection treatments (flipping stop signs at some locations, crosswalks, warning signing, wayfinding signing, and directional pavement markings).

Most treatments proposed would be compatible with the existing transportation system. However, the proposed marking and signing of uncontrolled crossings of major roadways may be of concern in some locations. Proposed marked crossings include:

- Main Street (OR 82) at Alder Street
- Main Street (OR 82) at Fourth Street
- Eighth Street (OR 82) at College Street
- Imnaha Highway at Lake Street
- Wallowa Avenue at Mill Street

Impact:

The crossing on **Main Street at Alder Street** is in the improved downtown corridor and already has curb extensions, marked crosswalks, and illumination. No further improvements should be required.

The crossing on **Main Street (OR 82) at Fourth Street** would facilitate the connection of the west side and east side bicycle boulevards between Mill Street and Lake Street.

Key characteristics of the transportation system at this intersection include:

Sight Distance: Good. According to *A Policy of Geometric Design of Highways and Streets*³, assuming a highway design speed of 35 mph (it is currently posted at 30 mph), the minimum intersection sight distance should be 390 feet, with the minimum stopping sight distance being 250 feet. Main Street is relatively straight and flat in this area and sight distance easily exceeds these minimum lengths.

Posted Speed: Main Street is posted for 30 mph through this area.

Traffic Controls: There is stop-control on the westbound and eastbound Fourth Street approaches. Main Street is uncontrolled.

Traffic Volumes: Main Street serves approximately 3,900 vehicles per day in this area. Fourth Street is estimated to serve less than 500 vehicles per day.

Crash History: There was one crash at this intersection over the last five years (2003-2007) related to a turning movement. In addition, there was another crash on Main Street just to the north involving a collision with a fixed object.

Grade: Relatively flat.

Requests for marked crosswalks at uncontrolled locations on state highways must be approved by ODOT's Region and State Traffic Engineers. ODOT maintains guidance for the application of marked crosswalks at uncontrolled locations in the ODOT Traffic Manual. As part of the consideration for a marked crosswalk, an engineering investigation must be provided that includes an assessment of the following criteria (from Section 6.6.2.2 of the ODOT Traffic Manual).

1. *There is good visibility of the crosswalk from all directions, or it can be obtained. Stopping sight distance is a minimum.*

As noted previously, sight distance in all directions is greater than the minimum required stopping sight distance of 250 feet. Visibility in all directions is good.

2. *There is no reasonable alternative crossing location.*

There are a number of reasonable alternative crossing locations in this area. The intersection on Main Street at Third Street is one block to the north (approximately 300 feet) and is illuminated with curb extensions and a marked crosswalk on the north approach. The intersection on Main Street at Third Street also marks the end of the improved downtown area.

³ *A Policy on Geometric Design of Highways and Streets*, fifth edition, American Association of State Highway and Transportation Officials, Washington, D.C., 2004.

To the south, crossings can also be made at the unmarked intersections on Main Street with Fifth and Sixth Streets.

3. *There is established pedestrian usage. Considerations include: volume of pedestrians, opportunity for safe crossing (i.e., sufficient gaps in traffic), percentage of elderly or young children, and the nature of the attraction (See ITE suggested pedestrian volume thresholds in Section 6.6.2.11). Lower pedestrian volumes would be acceptable for areas where there is greater proportion of less experienced and less agile pedestrians (e.g., near schools and/or elderly housing areas)*

Pedestrian volumes in the area are generally low. The population of Joseph is approximately 1,000 people. Tourism adds a significant amount of pedestrian activity, but most of that is experienced in the improved downtown corridor along Main Street, which begins one block to the north. The total crossings are not anticipated to meet the pedestrian volume thresholds referenced in Section 6.6.2.11.

With average daily traffic volumes on Main Street of approximately 3,900, there are ample gaps for crossing.

The crossing location is proposed as part of a bicycle boulevard system connecting corridors that would run from north to south through the city, but it would serve general pedestrian traffic as well. The use of the proposed crossing is general in nature and would serve people of all ages. It would facilitate connections for pedestrians and bicycles between schools, parks, and residences.

4. *Posted speeds should be 35 mph or less.*

The posted speed on Main Street is 30 mph.

5. *Traffic Volumes should be less than 10,000 ADT or if above 10,000 ADT raised median islands should be included.*

Main Street serves approximately 3,900 vehicles per day in this area. Fourth Street is estimated to serve less than 500 vehicles per day.

6. *On multi-lane highways, pedestrian crossing enhancements (curb extensions and/or pedestrian refuges) should be considered.*

Main Street is a two-lane facility in the area.

In addition, Section 6.6.2.10 of the ODOT Traffic Manual recommends that engineering studies for proposed marked crossings include:

1. *Marked crosswalks at other than signalized intersections or stop-controlled approaches should be used selectively. Allowing a proliferation of marked crosswalks may reduce the overall effectiveness of marking crosswalks.*

With the improved downtown corridor beginning only one block to the north, there are several marked crosswalks in succession in the immediate vicinity (nine

intersections in total). In addition, another marked crossing has been proposed along OR 82 (Eighth Street) at the unsignalized intersection with College Street. As part of that investigation, it has been recommended that no other marked crossings be installed between College Street and Third Street to avoid the proliferation of marked crossings. Installing another marked crosswalk at Fourth Street may reduce the overall effectiveness of all crossing locations, as drivers could become less attentive if marked crosswalks become too common.

2. *Consideration must be given to concerned citizens, civic groups, and neighborhood organizations; balancing engineering judgment with perceived public need.*

There has been do direct request for such a crossing.

3. *The roadway design features that influence the pedestrians' ability to cross the street, e.g., street width, presence of a median, one-way versus two-way operation, and geometrics of the highway or intersection being crossed, all need to be included in the planning of the crosswalk. Other pedestrian design improvements such as curb extensions and pedestrian refuges should be encouraged to increase the safety of the crossing.*

Under existing conditions, Main Street is a two-lane highway. There is no curb, but sidewalks are present along both sides of Main Street. The widening of the highway beyond two lanes is not anticipated. Curb extensions could be considered in the future.

4. *A three to five-year pedestrian crash history should be obtained.*

There was one crash at this intersection over the last five years (2003-2007) related to a turning movement. In addition, there was another crash on Main Street just to the north involving a collision with a fixed object.

5. *The walking path of the pedestrian. Will marking crosswalks encourage pedestrians to use a single point of crossing rather than choosing random crossing points?*

With several reasonable crossing locations nearby and relatively low traffic volumes on Main Street, it is unlikely that the proposed marked crossing at Fourth Street would encourage pedestrians to use a single point of crossing.

6. *There should be opportunities for crossing (sufficient gaps in traffic)*

With average daily traffic volumes on Main Street of approximately 3,900, there are ample gaps for crossing.

7. *Uncontrolled marked crosswalks may be continental crosswalk marking and should be accompanied by other enhancements such as pedestrian refuge islands, bulb-outs, pedestrian signs etc.*

Under existing conditions, Main Street is a two-lane highway. There is no curb, but sidewalks are present along both sides of Main Street. The widening of the highway beyond two lanes is not anticipated. Curb extensions could be considered in the future. Pedestrian crossing warning signs are proposed as part

of this improvement.

8. *There should be adequate sight distance for the motorist and the pedestrian, or it can be obtained. This includes examination of on-street parking, street furniture (e.g., mailboxes, utility poles, newspaper stands), and landscaping. Corrective measures should be taken wherever possible.*

As noted previously, the available sight distance is far greater than the minimum required stopping sight distance of 250 feet and exceeds the minimum intersection sight distance of 390 feet as well. Visibility in all directions is very good.

9. *All crosswalk locations should be investigated for adequate illumination where there is prevalent nighttime pedestrian activity.*

Nighttime pedestrian activity is anticipated to be low. The intersection is currently illuminated.

10. *Mid-block and school crossings must be supplemented with crosswalk signs*

This would not create a mid-block or school crossing.

11. *Mid-block crosswalks should not be located immediately down-stream from bus stops.*

This would not be a mid-block crossing.

12. *For mid-block crosswalks: are there more reasonable locations pedestrians could cross, i.e., no more than a block (300 feet) from a location being considered?*

This would not be a mid-block crossing.

In consideration of the above criteria, the installation of a marked crosswalk at the intersection on Main Street at Fourth Street is not recommended. The primary reasons being the availability of other reasonable crossing locations and the need to not over-stripe the corridor with crosswalks, which could reduce the overall effectiveness of all crossing locations. However, other treatments, such as warning signing and curb extensions, could still be considered.

The crossing on **Eighth Street at College Street** was previously discussed under "Intersection Improvements" and has been proposed as a pedestrian system enhancement as well.

The crossing on **Imnaha Highway at Lake Street** is already improved with a marked crosswalk on the west approach and illumination. Other than warning signing, no further improvements should be required.

The crossing on **Wallowa Avenue at Mill Street** is under Wallowa County jurisdiction. This crossing would be part of the west side bicycle boulevard and would facilitate the connection between the north and south sides of the city.

Key characteristics of the transportation system at this intersection include:

<u>Sight Distance:</u>	Good. According to <i>A Policy of Geometric Design of Highways and Streets</i> ⁴ , assuming a design speed of 35 mph (it is currently posted at 30 mph), the minimum intersection sight distance should be 390 feet, with the minimum stopping sight distance being 250 feet. Wallowa Avenue is relatively straight and flat in this area and sight distance easily exceeds these minimum lengths.
<u>Posted Speed:</u>	Wallowa Avenue is posted for 30 mph through this area.
<u>Traffic Controls:</u>	There is stop-control on the northbound and southbound approaches of Mill Street. Wallowa Avenue is uncontrolled.
<u>Traffic Volumes:</u>	Wallowa Avenue serves approximately 2,200 vehicles per day in this area. Mill Street is estimated to serve less than 700 vehicles per day.
<u>Crash History:</u>	There were no crashes at this intersection over the last five years (2003-2007). There was one crash on Wallowa Avenue just to the east involving a turning collision.
<u>Grade:</u>	Relatively flat.

The installation of a marked crosswalk at this intersection must be approved by Wallowa County. Key factors in that decision should include:

- **Sight Distance:** As shown above, sight distance is good.
- **Crash History:** As shown above, there were no crashes at this intersection over the last five years (2003-2007).
- **Traffic Volumes:** Ample gaps in traffic for crossing should be available, as volumes are moderately low. Wallowa Avenue serves approximately 2,200 vehicles per day in this area. Mill Street is estimated to serve less than 700 vehicles per day.
- **Posted Speed:** The posted speed is relatively low at 30 mph. The presence of the stop sign on Wallowa Avenue one block to the east will also slow traffic down.
- **Availability of other Crossing Opportunities:** Main Street is one block to the east and has marked crosswalks, curb extensions and illumination. However, to the west, the closest intersections are at Park Avenue (approximately 700 feet away) and Russell Street (approximately 950 feet away). Neither of these intersections have crossing treatments.
- **Proliferation of Marked Crosswalks:** There are no other marked crosswalks on Wallowa Avenue west of Main Street. The installation of a crosswalk one block from Main Street would be consistent with the existing treatments east of Main Street, where a crosswalk has been installed at Lake Street. However, if installed, it is recommended that no other crosswalks be striped on Wallowa Avenue west of Main Street.

⁴ *A Policy on Geometric Design of Highways and Streets*, fifth edition, American Association of State Highway and Transportation Officials, Washington, D.C., 2004.

OTHER PROJECTS

These projects involve the installation of wayfindings signing for walking and biking routes. The installation of any signing must first be approved by the agency maintaining jurisdiction of the subject right of way.

PROGRAMMATIC ELEMENTS

Programs to promote walking and biking do not directly impact traffic operations and safety, but proposed actions originating from them may. Any proposed actions that may arise in the future involving transportation system modifications should be coordinated with affected stakeholders and agencies maintaining jurisdiction of affected infrastructure.

APPENDIX C – PROJECT EVALUATION MATRIX

Project	Segment	Description	Evaluation Criteria							TOTAL SCORE
			User Generator (15 points)	Land Uses (15 points)	Overcomes Barrier (15 points)	Safety & Comfort (15 points)	Regional Benefit (10 points)	Community Support (25 points)	Cost (10 points)	
Intersection Improvements										
Intersections in vicinity of Joseph Elem. School	N/A	Install high-visibility crosswalks and advanced warning signs	10	14	14	15	7	15	7	82
E Eighth St. at S College St.	N/A	Install crosswalks and advanced warning signs on E Eighth St.	6	6	15	15	6	24	10	82
Sidewalks										
N Park St.	W McCully Ave. to W Wallowa Ave.	Construct sidewalk on east side of street	10	15	15	15	8	25	6	94
S Main St.	Eighth St. to Tenth St.	Construct sidewalks on both sides of street	5	5	5	10	6	13	3	47
S Main St./E Eighth St.	Fourth St. to S College St.	Construct sidewalks on both sides of each roadway where they currently do not exist	7	8	15	15	10	23	2	80
Lake St.	E Third St. to E Wallowa Ave.	Construct sidewalks on both sides of street where they currently do not exist	8	15	10	12	6	10	1	62
College St.	E Third St. to E Wallowa Ave.	Construct sidewalks on both sides of street where they currently do not exist	8	12	10	12	6	8	3	59
East St.	E First St. to E Wallowa Ave.	Construct sidewalks on both sides of street	7	19	8	9	5	6	3	48
W Wallowa Ave.	N Russell St. to N Main St.	Construct sidewalk on north side of street	8	13	15	15	8	20	3	82
W Wallowa Ave.	N Park St. to N Main St.	Construct sidewalk on south side of street	8	15	15	15	8	20	3	84
E Wallowa Ave.	N Main St. to N East St.	Construct sidewalks on both sides of street where they currently do not exist	9	13	15	15	9	2	3	66
W Joseph Ave.	N Mill St. to N Main St.	Construct sidewalks on both sides of street	7	8	7	8	5	5	6	46
E Joseph Ave.	N Lake St. to N East St.	Construct sidewalks on both sides of street	10	11	12	12	7	5	4	61
W.E. Williams Ave.	Lake St. to East St.	Construct sidewalk on north side of street	10	14	8	8	5	5	5	55
W McCully Ave.	N Park St. to W Main St.	Construct sidewalk on north side of street	10	14	15	15	7	25	4	90
W McCully Ave.	Mill St. to Main St.	Construct sidewalk on south side of street	9	8	7	10	5	5	7	51
W First St.	S Mill St. to S Main St.	Complete sidewalk gaps on north side of street	5	5	5	5	5	5	7	37
E First St.	S Main St. to S East St.	Construct sidewalks on both sides of street where they currently do not exist	10	15	15	15	8	5	4	72
E Second St.	S Main St. to S East St.	Construct sidewalks on both sides of street	10	12	14	12	7	5	4	64
W Fourth St.	Joseph City Park to S Main St.	Construct sidewalk on north side of street	10	14	14	12	10	10	5	75
Shared Use Paths										
Wallowa Union Railroad Path Feasibility Study	Joseph to Enterprise	Conduct a study to determine the feasibility of developing a shared use path on or along the Wallowa Union Railroad corridor between Joseph and Enterprise	10	10	15	15	10	22	8	90
Wallowa River Path Feasibility Study	Joseph City Park to Wallowa Lake	Building on the previous Wallowa Land Trust study, develop a study to determine the feasibility of developing a soft surface or paved path along Wallowa River between Joseph City Park and Wallowa Lake	10	15	15	15	10	20	9	94
Soft Surface Trails										
Joseph Middle/High School Trail	N/A	Reconstruct perimeter trail surrounding the Joseph Middle/High School campus	8	10	5	4	5	5	4	41

Project	Segment	Description	Evaluation Criteria							TOTAL SCORE
			User Generator (15 points)	Land Uses (15 points)	Overcomes Barrier (15 points)	Safety & Comfort (15 points)	Regional Benefit (10 points)	Community Support (25 points)	Cost (10 points)	
Bike Lanes										
S Main St./E Eighth St.	S College St. to Third St.	Widen shoulders to provide bike lanes	10	10	15	15	10	16	4	80
Wallowa Ave.	N Russell St. to N East St.	Widen shoulders to provide bike lanes	8	12	10	13	10	5	4	62
Shoulder Bikeways										
Oregon 82N Main St.	Daggett St. to north city limits	Construct shoulder bikeways	7	3	14	15	10	5	4	58
Airport Ln./Hurricane Cr. Rd.	West city limits to N Russell St.	Construct shoulder bikeways	7	4	14	15	10	20	5	75
E Wallowa Ave./Timnaha Hwy.	N East St. to east city limits	Construct shoulder bikeways	7	6	14	15	10	5	3	60
Bicycle Boulevards										
Westside Bicycle Boulevard	S Main St. at E Fourth St. to N Main St. at E Fourth St.	Develop a "Level 3" Bicycle Boulevard along Fourth St. between Lake and MI, along MI between Fourth and Alder, and along Alder between MI and Lake	9	12	14	15	8	2	9	69
Eastside Bicycle Boulevard	S Main St. southern terminus to N Main St. at Daggett St.	Develop a "Level 3" Bicycle Boulevard along Main St. between its southern terminus and Eleventh, along Eleventh St. between Main and College, along College St. between Eleventh and Seventh, along Seventh St. between College and Lake, along Lake St. between Seventh and Daggett, and along Daggett St. between Lake and Main	10	15	15	15	10	18	9	92
Other Projects										
Wayfinding Signage Plan	N/A	Develop a citywide pedestrian and bicycle Wayfinding Signage Plan identifying appropriate sign locations, destinations to be highlighted on each sign, approximate distance and walking/riding time to each destination	10	10	10	6	10	10	10	66
Warning Signage	N/A	Install signage (e.g., "BIKES ON ROADWAY") on major roads to alert motorists to the presence bicyclists on the roadway	5	10	12	15	10	13	10	75
Safe Routes to Schools Plan	N/A	Develop a Safe Routes to School Plan for Joseph Elementary, Middle, and High schools outlining engineering, education, encouragement, enforcement, and evaluation measures to increase walking and bicycling to school among Joseph students	10	10	13	13	8	8	9	71

¹ Infrastructure-related cost opinions do not include right-of-way or easement acquisitions. All cost opinions include an additional 20% for contingency and 15% for design, engineering, mobilization and construction management (beyond the original project cost)

² This project does not include roadway resurfacing. Resurfacing needed on approximately 3.5 blocks to improve riding conditions for bicyclists.

APPENDIX D – ADOPTED COMPREHENSIVE PLAN (TRANSPORTATION ELEMENT)

XII TRANSPORTATION

Summary. This goal states that Joseph will "provide and encourage a safe, convenient and economic transportation system. In the larger, metropolitan areas the siting of transportation facilities is a critical land use planning tool. However, in the small rural towns this goal must be satisfied through recognition and maintenance of existing facilities.

Background. Joseph, as well as the rest of the county, is relatively transportation isolated. That is, the town is situated close to "the end of the road." It appears completely unlikely that any major transportation facility will by-pass close to Joseph due to the physical constraints imposed by the Wallowa Mountains. Although the personal automobile accommodates most trips in and around Joseph, the community's relatively small size and compact development layout create an ideal walking and bicycling environment. This Plan recognizes the value of a diverse multi-modal transportation system serving Joseph residents and visitors. The following sections briefly describe Joseph's multi-modal transportation system.

State Highways – Joseph is served by three state highways: Highways 82, 350 and 351. Highways 82 and 351 serve as the major route through town with commercial and industrial development focused along this corridor. Highways 82 and 351 are of statewide significance; Highway 350 is of district significance.

Street Classifications – Joseph's street system includes three levels: arterials, collectors, and residential streets. The classification system includes city, county, and state roadways. In Joseph, the arterials are State Highway 82 (Main Street and 8th Street) and State Highway 351 (Wallowa Avenue).

Pedestrian System – Joseph's existing pedestrian system largely consists of sidewalks in the downtown core on Main Street and surrounding roadways. Where sidewalks or other dedicated pedestrian facilities do not exist, pedestrians share the roadway with motor vehicles. The 2009 Joseph Bicycle and Pedestrian Plan provides a detailed description of the existing walkway network.

Bikeway System – Joseph's existing bikeway network largely consists of shared roadways, where motorists and bicyclists share the same travel lanes. Dedicated bikeways (e.g., striped bike lanes) do not currently exist. Relatively low traffic volumes and vehicle speeds make most streets suitable for bicyclists of most ages and skill levels. The bikeway system also includes bicycle parking facilities along Main Street and at Joseph Elementary School. The 2009 Joseph Bicycle and Pedestrian Plan provides a detailed description of the existing bikeway network.

Public Transportation – Community Connections of Wallowa County provides fixed route shuttle bus service between Enterprise and Wallowa Lake State Park, including six roundtrips each day between mid-June and mid-September. Within Joseph, shuttle buses travel along Oregon 82, Main and E Eighth streets, and Wallowa Lake Highway. Buses make “flag stops” along the route (designated stops do not exist), and drivers will deviate from the route to serve mobility-impaired users upon request. Northeast Oregon Public Transportation operates the “Wallowa Link” shuttle between Joseph and La Grande. Buses operate on Mondays and Tuesdays with two departures each day. Buses also make stops in five communities along Oregon 82 between Joseph and La Grande.

Rail Service – Joseph has no passenger rail service. The Wallowa Union Railroad (WURR) has an abandoned freight line that runs through the northern part of town. Discussions among WURR, the Oregon Department of Transportation (ODOT), local jurisdictions, and shippers concerning the future of the rail line and right-of-way are ongoing.

Air Service – Joseph is served by the Joseph State Airport, which is under the jurisdiction of the Department of Aviation. In 1964, the City of Joseph sold the airport to the State of Oregon for \$1 with the provision that if the State at any time ceased or failed to use and operate the property as an airport, then the property ownership would immediately revert back to the City of Joseph.

Findings of Fact.

1. Joseph’s transportation facilities typify a small, rural town.
2. Joseph has no passenger rail service, and an abandoned freight rail runs through the northern part of town.
3. Mass transit within city limits is not economical.
4. The State Highways are important links in providing access to Joseph.
5. The City of Joseph adopted a Transportation System Plan on March 2, 2004 that includes several of the transportation goals and objectives listed below. Additional goals and objectives (also included below) were developed as part of the 2009 Joseph Bicycle and Pedestrian Plan.

Overall Goal. To provide and encourage a safe, convenient, and economic transportation system.

Goal 1. Preserve the function, capacity, highway mobility (level of service), and safety of the state highways.

- a. Develop access management standards.
- b. Develop alternative, parallel routes.
- c. Promote alternative modes of transportation.
- d. Promote transportation demand management programs.

- e. Promote transportation system management.
 - f. Develop procedures to minimize impacts to and protect transportation facilities, corridors, or sites during the development review process.
- Goal 2. Ensure that the road system within the city and urban area is adequate to meet public needs, including those of the transportation disadvantaged.
- a. Develop a city transportation plan.
 - b. Meet identified maintenance level of service standards on the county and state highway systems.
 - c. Review and revise, if necessary, street cross section standards for local, collector, and arterial streets to enhance safety and mobility.
 - d. Develop access management strategies for Highway 82.
 - e. Evaluate the need for traffic control devices, particularly along Highway 82.
 - f. Analyze the safety of the transportation system, particularly along Highway 82.
- Goal 3. Improve coordination among Wallowa County, ODOT, the US Forest Service (USFS), the Federal Highway Administration (FHWA), and the city.
- a. Cooperate with ODOT in the implementation of the Statewide Transportation Improvement Program (STIP).
 - b. Work with the County in establishing cooperative road improvement programs and schedules.
 - c. Work with the County in establishing the right-of-way needed for new roads identified in the transportation system plan.
 - d. Take advantage of federal and state highway funding programs.
 - e. Coordinate with Oregon State Parks to develop a network of trail connections and other bicycle/pedestrian improvements linking Joseph with nearby historical/recreational attractions, such as the future State Scenic Area.
- Goal 4. Increase the use of alternative modes of transportation (walking, bicycling, and public transportation) through improved access, safety, and service.
- a. Continue and improve existing service and seek new public transportation including that targeted for seniors.
 - b. Seek funding for projects evaluating and improving the environment for alternative modes of transportation.
- Goal 5: Expand bicycle and pedestrian facilities and access in and between neighborhood areas, shopping areas, schools, and recreational sites.
- a. Implement the Bicycle and Pedestrian Plan, which identifies existing and future needs, and provides specific recommendations for facilities and programs.
 - b. Maintain and improve the quality, operation, and integrity of bikeway and walkway network.

Goal 6: Develop programmatic strategies to supplement the physical bikeway and walkway network.

- a. Develop and implement safety, education and encouragement plans aimed at youth, adult cyclists, pedestrians, and motorists.

Goal 7: Make the bicycle an integral part of daily life in Joseph by implementing and maintaining a bikeway network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer and more convenient.

- a. Complete a continuous network of bikeways that are feasible, fundable, and that serve bicyclists' needs, especially for travel to schools, commercial districts, transit stops, and institutions.
- b. Provide short- and long-term bicycle parking and end-of-trip facilities in employment and commercial areas, in multifamily housing, at schools, and at transit facilities.

Goal 8: Encourage walking as a daily form of transportation in Joseph by completing a pedestrian network that services short trips and transit, improving the quality of the pedestrian environment, improving the health of all residents, and increasing safety, convenience and access opportunities for all users.

- a. Complete a network of walkways that serves pedestrian needs, especially for short trips to schools, commercial districts, transit stops, and institutions.

Goal 9: Support efforts to maintain the airport facilities for small aircraft and charter services.

- a. Encourage the State to improve and maintain airport facilities.
- b. Cooperate with airport master planning efforts.
- c. Incorporate airport master plans into the local Comprehensive Plan.

Goal 10. Encourage the continued and improved rail transportation of goods.

- a. Maintain operational status of the WURR rail line.

6. The 2001 City of Joseph Transportation System Plan is an element of the Comprehensive Plan. It identifies the general location of transportation improvements. The 2009 Joseph Bicycle and Pedestrian Plan replaces the bicycle and pedestrian elements of the 2001 Joseph Transportation System Plan. The Bicycle and Pedestrian Plan describes existing conditions, anticipated needs, and proposed improvement projects.

7. Section 660-12-045(1) of the Transportation Planning Rule requires that cities amend their land use regulations to conform with the jurisdiction's adopted Transportation System Plan. This section of the Transportation Planning Rule is intended to clarify the approval process for transportation-related projects.

8. Section 660-12-045(2) of the Transportation Planning Rule requires that jurisdictions protect future operation of transportation corridors. In addition, the proposed function of a future roadway and other transportation facilities, such as airports, must be protected from incompatible land uses.
9. Section 660-12-045(2)(d) of the Transportation Planning Rule requires that jurisdictions develop a process for the coordinated review of land use decisions affecting transportation facilities.
10. Section 660-12-045(3) of the Transportation Planning Rule requires that urban areas plan for bicycling and walking as part of the overall transportation system.

Policies.

1. All new developments with City jurisdiction shall provide as visually attractive transportation facilities as possible and of such specifications as listed within the appropriate Ordinance.
2. Priority for improvements will be identified and evaluated annually.
3. All new subdivisions shall be so planned and located as to tie into and conform to the existing street system.
4. The naming of new streets shall attempt to follow the general pattern of existing streets.
5. The City shall encourage existing and future development along Main Street to conform to the provisions of this plan and to be well maintained to retain a high quality of visual attractiveness.
6. Changes in the specific alignment of proposed public road and highway projects shall be permitted without plan amendment if the new alignment falls within a transportation corridor identified in the Transportation System Plan.
7. Operation, maintenance, repair, and preservation of existing transportation facilities shall be allowed without land use review, except where specifically regulated.
8. Dedication of right-of-way, authorization of construction and the construction of facilities and improvements, for improvements designated in the Transportation System Plan and Bicycle and Pedestrian Plan, the classification of the roadway and approved road standards shall be allowed without land use review.
9. For State projects that require an Environmental Impact Statement (EIS) or Environmental Assessment (EA), the draft EIS or EA shall serve as the documentation for the local land use review, if local review is required.

- a. Where the project is consistent with the Transportation System Plan or Bicycle and Pedestrian Plan, formal review of the draft EIS or EA and concurrent or subsequent compliance with applicable development standards or conditions.
 - b. Where the project is not consistent with the Transportation System Plan or Bicycle and Pedestrian Plan, formal review of the draft EIS or EA and concurrent completion of necessary goal exceptions or plan amendments.
10. The City shall protect the function of existing and planned transportation facilities or corridors as identified in the Transportation System Plan and Bicycle and Pedestrian Plan through the application of appropriate land use regulations.
11. The City shall include a consideration of their impact on existing or planned transportation facilities in all land use decisions.
12. The City shall consider the potential to establish or maintain accessways, paths, or trails prior to the vacation of any public easement or right-of-way.
13. The City shall preserve right-of-way for planned transportation facilities through exactions, voluntary dedication, or setbacks.
14. The City shall coordinate with ODOT to implement the highway improvements listed in the Statewide Improvement Program (STIP) that are consistent with the Transportation Plan and comprehensive plan.
15. The City shall provide notice to ODOT of land use applications and development permits for properties that have frontage or access onto Highway 82, Highway 350 and Highway 351.
16. All development proposals, plan amendments, or zone changes shall conform with the adopted Transportation System Plan and Bicycle and Pedestrian Plan.
17. The City shall maximize coordination between government agencies, schools, and community organizations to address bicycle and pedestrian issues of mutual concern.
18. The City shall work with adjacent government agencies and local community groups to ensure a complete and continuous bikeway and walkway network across jurisdictional boundaries.
19. The City shall work with Community Connections of Wallowa County to ensure that bicycle and pedestrian concerns are addressed in the design of any future transit stops.
20. The City shall construct a bikeway and walkway network that encourages bicycling and walking for transportation and recreation purposes.

21. The City shall seek funding for bicycle and pedestrian projects through current local, regional, state, and federal funding programs and encourage multi-jurisdictional funding applications.
22. The City shall require construction of relevant planned bikeways and walkways as an integral part of any transportation facility maintenance or construction project.
23. Striped bike lanes shall be included on all new and reconstructed arterials and collectors within the Joseph Urban Growth Boundary. Design and construction of such facilities shall follow the guidelines established by the Oregon Bicycle and Pedestrian Plan and the Joseph Bicycle and Pedestrian Plan.
24. Sidewalks shall be included on both sides all new and reconstructed streets within the Joseph Urban Growth Boundary.
25. Bikeways and walkways shall be designed and constructed to minimize potential conflicts between transportation modes. Design and construction of such facilities shall follow the guidelines established by the Oregon Bicycle and Pedestrian Plan and the Joseph Bicycle and Pedestrian Plan.
26. The pedestrian walkway network shall be accessible to, and usable by, persons with disabilities as technically feasible, in compliance with ADA requirements.
27. The City shall complete missing connections to make direct routes for walking, especially connections between residential neighborhoods, schools and the downtown area.
28. The City shall work to build walkways along existing and potential pedestrian rights-of-way.
29. For new development or redevelopment projects, the City shall require construction of planned bicycle and pedestrian facilities.
30. The City shall require streets and accessways where appropriate to provide direct and convenient access to major activity centers, including downtown, schools, shopping areas, and community centers.
31. The City shall undertake routine maintenance of bikeway and walkway facilities, such as sweeping bike lanes and sidewalks, and removing vegetation which impinges on bicycle or pedestrian rights-of-way and forces them into the vehicle lanes of the roadway.
32. The City shall undertake regular maintenance of bicycle and pedestrian facilities such as striping, signing and surface condition to avoid safety issues for users including integrating into the existing Public Works maintenance process a

regular inspection of the road, path or sidewalk for cracks and potholes that might affect bicyclists and pedestrians.

33. The City shall require that repair or construction of any transportation facility minimizes disruption to the bicycling and walking environment and that safe, direct alternate routes clear of vegetation, debris or other safety hazards are signed for bicycling and walking through or around construction zones for the duration of the project. The alternate route shall be clearly signed and communicated prior to start of construction, with signs notifying motorists of the presence of bicyclists and/or pedestrians in the area. All projects completed by outside agencies shall be coordinated with the City to demonstrate compliance with this policy.
34. Repair, construction, or reconstruction of any transportation facility shall not result in the permanent removal of an existing bicycle or pedestrian facility.
35. The City shall require bicycle parking spaces as part of new development or redevelopment projects.
36. The City shall work with Joseph Elementary, Middle, and High schools to promote bicycle commuting and to assist in purchasing and siting long- and short-term bicycle parking.

Recommendations.

1. ODOT is encouraged to maintain and improve the State Highways within the City Limits.
2. Wallowa County is encouraged to maintain and improve County highways within city limits.
3. That the City take advantage of state and/or federal funding to help provide a comprehensive transportation network for the citizens of Joseph.
4. That the City coordinate with ODOT and Wallowa County as necessary to implement the actions and improvements recommended in the Transportation System Plan.

APPENDIX E – JOSEPH ZONING ORDINANCE (2009) ADOPTED BY ORDINANCE 2009-01

ARTICLE 1. INTRODUCTORY PROVISIONS.

Section 1.010. Title.

This ordinance shall be known as the Joseph Zoning Ordinance (2009) replacing Ordinance No. 2002-04.

Section 1.020. Purpose.

The purpose of this ordinance is to encourage appropriate and orderly physical development without diminishing the desirability of the town's living and recreating space, considering such standards as open space, desired levels of population density, adequate community facilities and to promote in other ways the public's general health, safety, convenience and welfare. It is also the intent of this ordinance to implement the provisions of the City of Joseph's Comprehensive Land Use Plan and any amendments thereto.

Section 1.030. Definitions.

As used in this ordinance, the following words and phrases shall mean:

Access Related Definitions

- **Access.** The right to cross between public and private property allowing pedestrians and vehicles to enter and leave property.
- **Access Classification.** A ranking system for roadways used to determine the appropriate degree of access management. Factors considered include functional classification, the appropriate local government's adopted plan for the roadway, subdivision of abutting properties, and existing level of access control.
- **Access, Cross.** A service drive providing vehicular access between two or more contiguous sites so a motorist, bicyclist, or pedestrian need not enter the public street system.
- **Access Connections.** Any driveway, street, turnout or other means of providing for the movement of vehicles to or from the public roadway system.
- **Access Features, Nonconforming.** Features of the property access that existed prior to the date of ordinance adopting and do not conform with the requirements of this ordinance.
- **Access, Joint or Shared.** A driveway connecting two or more contiguous sites to the public street system.
- **Access Management.** The process of providing and managing access to land development while preserving the regional flow of traffic in terms of safety, capacity, and speed.
- **Access, Reasonable.** The minimum number of access connections, direct or indirect, necessary to provide safe access to and from the roadway, as consistent with the purpose and intent of this ordinance and any applicable plans and policies of the (city/county).
 - **Accessway.** A walkway that provides pedestrian and bicycle passage either between streets or from a street to a building or other destination such as a school, park, or

transit stop.

- Accessways generally include a walkway and additional land on either side of the walkway, often in the form of an easement or right-of-way, to provide clearance and separation between the walkway and adjacent uses.
- Accessways through parking lots are generally physically separated from adjacent vehicle parking or parallel vehicle traffic by curbs or similar devices and include landscaping, trees, and lighting.
- Where accessways cross driveways, they are generally raised, paved, or marked in a manner that provides convenient access for pedestrians.

Accessory Use or Accessory Structure. A use or structure incidental and subordinate to the main use of the property, as storage of automobiles in a garage is accessory to residential use of a dwelling. A home occupation is considered an accessory use.

Americans With Disabilities Act and Guidelines.

- Federal law prohibiting discrimination against people with disabilities. Requires public entities and public accommodations to provide accessible accommodations for people with disabilities.
- Accessibility Guidelines (ADAAG) provide scoping and technical specifications for new construction and alterations undertaken by entities covered by ADA.

Annexation. An action commenced by a city through public hearing, the intent of which is to incorporate additional land into legal boundaries of the City.

Attached House (Townhome or Rowhouse). A dwelling unit located on its own lot which shares one or more common or abutting walls with one or more dwelling units. The common or abutting wall must be shared for at least 50 percent of the length of the side of the dwelling. An attached house does not share common floor/ceilings with other dwelling units. An attached house is also called a townhome, rowhouse, zero-lot line dwelling, or a common-wall house.

Bicycle Related Definitions

- Bike Lane. A portion of the roadway which has been designated by striping and pavement markings for the preferential or exclusive use of bicyclists.
- Bikeway. A generic term for any road, street, path or way which in some matter is specifically designated for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.
- Bikeway, Shoulder. A type of bikeway where bicyclists travel on a paved shoulder.
- Bicycle. A vehicle designed to operate on the ground on wheels, propelled solely by human power, upon which any person or persons may ride, and with two tandem wheels at least 14 inches in diameter. An adult tricycle is considered a bicycle.
- Bicycle Facility. Any facility provided for the benefit of bicycle travel, including bikeways and parking facilities as well as all other roadways not specifically designated for bicycle use.
- Wide Outside Lane. A wider than normal curbside travel lane that is provided for ease

of bicycle operation where there is insufficient room for a bike lane or shoulder bikeway.

Building. A structure, but not an R.V. or mobile home, built for support, shelter or enclosure of persons, animals, chattels or property of any kind and having a fixed base on or fixed connection to the ground.

City. The City of Joseph, Oregon.

Clearance (for Vehicles) Definitions

- **Clearance, Corner.** The distance from an intersection of a public or private road to the nearest access connection, measured from the closest edge of the pavement of the intersecting road to the closest edge of the pavement of the connection along the traveled way.
- **Clearance, Lateral.** The width required for safe passage as measured in a horizontal plane.
- **Clearance, Vertical.** The height required for safe passage as measured in a vertical plane.

Commercial. A zone and land use that involves the buying/selling of goods or services.

Commercial Outdoor Use. A use supporting a commercial activity in a commercial zone.

Comprehensive Land Use Plan. The controlling land use document for the City of Joseph. The Comprehensive Land Use Plan includes and is implemented by the City of Joseph:

- Annexation Ordinance.
- Land Division Ordinance.
- Transportation System Plan (including the Joseph Bicycle and Pedestrian Plan).
- Zoning Ordinance.

Community Building. A publicly owned structure, used and operated for the benefit of the general public.

Community Center. A structure, either public or private non-profit, used primarily as a facility for public purposes and gatherings.

Conditional Use. A use specifically identified within a zone that may be allowed, subject to a public hearing and satisfaction of any applicable standards. Generally, conditional uses should conform to the general use and purpose of the area or zone in which they are located.

Council. The Common Council of the City of Joseph, Oregon.

Curb Related Definitions.

- **Curb Extension.** A section of sidewalk extending into the roadway at an intersection or

midblock crossing that reduces the crossing width for pedestrians and may help reduce traffic speeds.

- Curb Ramp. A combined ramp and landing to accomplish a change in level at a curb. This element provides street and sidewalk access to pedestrians using wheelchairs.
- Curb Ramp, Diagonal. Curb ramp positioned at the apex of the curb radius at an intersection, bisecting the corner angle.
- Curb Ramp, Parallel. Curb ramp design where the sidewalk slopes down on either side of a landing. Parallel curb ramps require users to turn before entering the street.
- Curb Ramp, Perpendicular. Curb ramp design where the ramp path is perpendicular to the edge of the curb.

Dwelling Related Definitions

- Dwelling, Multi-Family. A building or portion thereof, designed for occupancy by two or more families living independently of each other.
- Dwelling, Single-Family. A detached building containing one dwelling unit and designed for occupancy by one family only.
- Dwelling Unit. A living facility that includes provisions for sleeping, eating, cooking and sanitation, as required by the Uniform Building Code, for not more than one family, or a congregate residence of 10 or less persons. (UBG 205)

Downtown Area. The eight block area fronting Main Street (Wallowa Lake Highway 82) from East Maple Street to West Third Street. The east and west boundaries of the Downtown Area are the alleys that parallel Main Street. The Downtown area has curb extensions, diagonal on-street parking, and special sidewalk block paving.

Easement. A grant of one or more property rights by a property owner to or for use by the public, or another person or entity.

Fence Related Definitions

- Electric Fence. Any fence with any portion electrified or with electrical insulators.
- Fence. Any man made structure except a building, constructed of wood, chain link, brick, cement block, berms, wrought iron, decorative metal or other man-made material which serves to enclose a lot or parcel or any material portion of a lot or parcel, including without limitation intended and by way of example only, gates, livestock stock panels, arbors and lattice.
- Solid Fence. A fence which does not allow persons on each side of a fence to view substantially all of the scenery on the other side of the fence. Woven wire fences are an example of a fence which is not a solid fence.
- Support System shall mean posts, rock jacks or bracing.
- Woven Wire Fences shall mean a fence constructed almost entirely of wood and/or steel posts, and agricultural woven wire fencing material commonly referred to as "field fence" or "horse fence".

Home Occupation. A lawful occupation carried on by an occupant at their primary residence as an accessory use within the same dwelling or an existing accessory structure, not to exceed one-third of dwelling, and which does not constitute a hazard or public

nuisance.

Hostel. An establishment having beds rented or kept for rent on a daily basis to travelers for a charge or fee paid or to be paid for rental or use of facilities and which are operated, managed or maintained under the sponsorship of a nonprofit organization which holds a valid exemption from federal income taxes under the Internal Revenue Code of 1954 as amended.

Light Industrial Business. A business engaged in manufacturing or repairing of a product. Said business must comply with all state and local codes concerning sound levels, utility, and structural guidelines. A qualifying business located in a commercial zone may not adversely affect the nature of the commercial and adjoining residential zones in any way.

Lot Related Definitions

- Lot. A parcel or tract of land.
- Lot Area. The total horizontal area within the lot lines of a lot, exclusive of streets and easements of access to other property.
- Lot, Corner. A lot abutting on two or more streets, other than an alley, at their intersection.
- Lot Depth. The average distance measured from the front lot line to the rear lot line.
- Lot, Flag. A lot not meeting minimum frontage requirements and where access to the public road is by a narrow, private right-of-way line.
- Lot Frontage. That portion of a lot extending along a street right-of-way line.
- Lot Line. The property line bounding a lot.
- Lot Line, Front. The lot line separating the lot from the street other than an alley. In the case of a corner lot, the front line is the shortest lot line along a street other than an alley. In the case of a through lot, each street has a front lot line.
- Lot Line, Rear. The lot line which is most opposite and most distant from the front lot line. In case of irregular, triangular or other shaped lot, a line 10 feet in length within the lot parallel to and at a maximum distance from the front lot line.
- Lot Line, Side. Any lot line, not a front or rear lot line.
- Lot, Through. A lot having frontage on two parallel or approximately parallel streets other than alleys.
- Lot Width. The average horizontal distance between the side lot lines, ordinarily measured parallel to the front lot line.
- Reversed Corner Lot. A corner lot, the side street line of which is substantially a continuation of the front line of the first lot to its rear.

Major Traffic Generators. A “major traffic generator” is a land use that generates more than 400 daily trips as determined by the latest edition of the Institute of Transportation Engineers *Trip Generation Manual*.

Mobile Home Related Definitions

- Mobile Home. A vehicle or structure constructed for movement on the public highways, that has sleeping, cooking, and plumbing facilities and that is intended for

permanent human occupancy and is being used for residential purposes. A mobile home shall consist of one of two following classifications:

- Triple-Wide. Three separate housing units expressly manufactured to be connected together to form one single-family residence.
- Double-Wide. Two separate housing units expressly manufactured to be connected together to form one single-family residence.
- Mobile Home Park. A place where four or more mobile homes are located within 500 feet of one another on a lot, tract or parcel of land under the same ownership, the primary purpose of which is to rent space or keep space for rent to any other person for a charge or fee paid or to be paid for rental or use of facilities or to offer space free in connection with securing the trade or patronage of such person.

Neighborhood Activity Center. An attractor or destination for residents of surrounding residential areas. Includes, but is not limited to existing or planned schools, parks, shopping areas, transit stops, and employment areas.

Non-Conforming Structure or Use. A lawful existing structure or use at the time this ordinance or any amendment thereto becomes effective, which does not conform to the requirements of this ordinance (or amendment) for the zone in which it is located.

ODOT. The Oregon Department of Transportation.

Owner. An owner of real property as shown by deed or contract and officially recorded in the office of the Wallowa County Clerk or on the last complete assessment role. An owner shall also include an authorized agent of owners of real property affected.

Part Time Resident. For the purposes of determining eligibility for home occupations, you are a part time resident if you reside outside the City limits at any time during the term of the Home Occupation permit.

Pedestrian, Crosswalk, Sidewalk, and Walkway Definitions

- Crosswalk. That part of the roadway at an intersection that is included within the extensions of the lateral lines of the sidewalks on opposite sides of the roadway, measured from the curb line, or in the absence of curbs from the edges of the roadway, or in the absence of a sidewalk on one side of the roadway, the part of the roadway included within the extension of the lateral lines of the sidewalk at right angles to the centerline. Also, any portion of a roadway at an intersection or elsewhere that is distinctly indicated for pedestrian crossing by lines or other markings on the surface.
- Crossing, Midblock. A crossing point positioned within a block rather than at an intersection.
- Detectable Warning. Standardized surface feature built in, or applied to, walking surfaces or other elements to warn pedestrians with vision impairments of hazards on a sidewalk and/or landing platform, such as the curb line or drop-off.
- Landing. Level area of sidewalk at the top or bottom of a ramp.
- Pedestrian. A person afoot, in a wheelchair, or walking a bicycle.
- Pedestrian-Actuated Traffic Signal. Push button or other control operated by

pedestrians designed to interrupt the prevailing signal cycle to permit pedestrians to cross a signalized intersection or midblock crossing.

- Pedestrian Facility. A facility provided for the benefit of pedestrian travel, including walkways, crosswalks, signs, signals, illumination and benches.
- Refuge Island. An island in the center of a road that physically separates the directional flow of traffic and can provide pedestrians with a place of refuge and reduce the crossing distance between safety points.
- Sidewalk. A walkway separated from the roadway with a curb, constructed of a durable, hard and smooth surface, designed for preferential or exclusive use by pedestrians.
- Tactile Warning. Change in surface condition providing a tactile cue to alert pedestrians with vision impairments of a potential hazardous situation.
- Vibrotactile Pedestrian Device. Device that communicates information about pedestrian timing through a vibrating surface by touch.
- Vision Impairment. Loss or partial loss of vision.
- Walk Interval. Traffic signal phase in which the WALKING PERSON (symbolizing WALK) signal indication is displayed.
- Walkway. A transportation facility built for use by pedestrians, including persons in wheelchairs. Walkways include sidewalks, paths and paved shoulders.

Person. A natural person, firm, partnership, association, social or fraternal organization, corporation, trust, estate, receiver, syndicate, branch of government, or any group or combination action as a unit.

Permitted Transportation Uses and Activities

- Normal operation, maintenance, repair, and preservation activities of existing transportation facilities.
- Installation of culverts, pathways, medians, fencing, guardrails, lighting and similar types of improvements within existing right-of-way.
- Projects specifically identified in the Transportation System Plan and Bicycle and Pedestrian Plan as not requiring further land use regulation.
- Landscaping as part of a transportation facility.
- Emergency measures necessary for the safety and protection of property.
- Acquisition of right-of-way for public roads, highways, and other transportation improvements designated in the Transportation System Plan and Bicycle and Pedestrian Plan except for those that are located in exclusive farm use or forest zones.
- Construction of a street or road as part of an approved land division.

Planning Official. A City employee or contract employee designated by the City Council to administer this ordinance.

Plat. An exact and detailed map showing the subdivision of land.

Primary. The largest or most substantial element on the property, as in "primary" use, residence, entrance, etc. All other similar elements are secondary in size or importance.

Primary Residence. A dwelling where one actually lives for determination of his civil status or other legal purposes because it is actually or legally his permanent and principal home. All other similar elements are secondary in size or importance.

Public Facilities and Services. Projects, activities, and facilities which the City determines to be necessary for the public health, safety and welfare.

Road and Roadway, Alley and Street Definitions

- Alley. A narrow street which affords only secondary means of access to property.
- Right-Of-Way. Land reserved, used, or to be used for a highway, street, alley, walkway, drainage facility, or other public purpose.
- Road, Frontage or Service Road. A public or private drive which generally parallels a public street between the right-of-way and the front building setback line. The frontage road provides access to private properties while separating them from the arterial street.
- Road, Private. Any roadway for vehicular travel which is privately owned and maintained and which provides the principal means of access to abutting properties.
- Road, Public. A road under the jurisdiction of a public body that provides the principal means of access to an abutting property.
- Roadway Construction or Reconstruction. Does not include maintenance and repair of existing roadways, or providing a gravel or paved surface to existing vehicular travel lanes of 24 feet or less within dedicated rights-of-way.
- Roadway Functional Classification. A system used to group public roadways into classes according to their purpose in moving vehicles and providing access.
- Roadway Intersection Functional Area That area beyond the physical intersection of two roads that comprises decision and maneuver distance, plus any required vehicle storage length.
- Roadway Pavement Markings. Painted or applied lines or legends placed on a roadway surface for regulating, guiding or warning traffic.
- Roadway, Signed Shared. A shared roadway which has been designated by signing or directional pavement markings as a preferred route for bicycle use.
- Roadway, Shared. A type of bikeway where bicyclists and motor vehicles share the same travel lane.
- Roadway, Shoulder. The portion of a roadway that is contiguous to the travel lanes provided for pedestrians, bicyclists, emergency use by vehicles and for lateral support of base and surface courses.
- Street. A public or private right-of-way which provides ingress and egress to adjacent properties for vehicular, bicycle, pedestrian, public utilities and other such uses. The term "street" shall include such designations as "highways," "roads," "lane," "avenue," "alley," "court," or other such similar terms.
- Street, Arterial. Higher volume streets with a minimal number of access points, providing direct routes between cities, districts, and neighborhoods; includes sidewalks and bike lanes.
- Street, Collector. Serves local access needs through connecting local streets to arterial; includes sidewalks and may have on-street parking and bike lanes.
- Street, Cul-de-sac or Dead-end Street. A short section of residential street intended to

serve only adjacent land in residential neighborhoods, typically includes a bulb-shaped turn-around area for emergency vehicles.

- Street, Half. A portion of the ultimate width of a street, usually along the edge of a subdivision, where the remaining portion of the street could be provided in another subdivision.
- Street, Minor. A street intended primarily for access to abutting properties.
- Street, Residential. Provides access to individual residential or multi-family lots, includes walkways, on-street parking, and is designed for very low speeds
- Street Stub-Out (Stub-street). A portion of a street or cross access drive used as an extension to an abutting property that may be developed in the future.

Shared Bicycle and Pedestrian Definitions

- Minimum Clearance Width. The narrowest point on a sidewalk or path. A minimum clearance width is created when obstacles, such as utility poles or tree roots, protrude into the sidewalk and reduce the design width.
- Reasonably Direct. A route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users.
- Safe and Convenient. Bicycle and pedestrian routes that are reasonably free from hazards, and provide a reasonably direct route of travel between destinations.
- Shared Use or Multi-Use Path. A path physically separated from motor vehicle traffic by an open space or barrier and either within a roadway right-of-way or within an independent right-of-way, used by bicyclists, pedestrians, joggers, in-line skaters, and other non-motorized users.

Sign. An identification, description, or device which is affixed to or represented directly or indirectly upon a building, structure or land and which directs attention to a product, place, activity, person, institution or business.

Significant Change in Trip Generation. A change in the use of the property, including land, structures or facilities, or an expansion of the size of the structures or facilities causing an increase in the trip generation of the property exceeding: (1) local — 10 percent more trip generation (either peak or daily) and 100 vehicles per day more than the existing use for all roads under local jurisdiction; or (2) State — exceeding 25 percent more trip generation (either peak or daily) and 100 vehicles per day more than the existing use for all roads under state jurisdiction.

Structure. Something constructed or built or piece of work artificially built up or composed of parts joined together in some definite manner. Structures with roofs are required to meet standard setbacks.

Structural Alteration. A change to the supporting members of structure including foundations, bearing walls, or partitions, columns, beams girders or any structural change in the roof or in the exterior walls.

Recreational Vehicle (R.V.). A vehicle or similar portable device including trailers,

campers, motor homes and the like, originally designed or presently constructed to permit temporary human occupancy for living or sleeping.

Recreational Vehicle (R.V.) Park. A lot which is operated on fee or other basis as a place for the parking or siting of two or more occupied R.V.'s.

Travelers' Accommodations. Any primary residence, which is not a hotel or motel, having rooms, apartments or sleeping facilities rented or kept for rent on a daily or weekly basis to travelers or transients for a charge or fee paid or to be paid for rental or use of facilities excluding hotels and motels in R1 and R2 zones.

Use. The purpose for which land or a structure is designed, arranged or intended or for which it is occupied or maintained.

Utility Structure. A building, plant, works or other property used for the development or transmission of a commodity including such commodities as water, gas, sewer service, electricity, telephone, and television.

Variance. A deviation either from the size or uses allowed within a given zone or area, subject to a public hearing, and provided that the resulting use or size generally conforms to the surrounding area or zone.

Yard-Related Definitions

- **Setback.** The distance between a building or other feature of development and a property line. Minimum and maximum setbacks may be required for front, side and rear yards. Building setbacks are measured from the foundation nearest the property line to the respective property line. Setbacks for covered decks and porches are measured from the edge of the deck or porch nearest the property line to the property line.
- **Yard.** An open space on a lot which is unobstructed from the ground upward except as otherwise provided in this ordinance. Sidewalks, patios and unroofed decks are so excepted.
- **Yard, Front.** A yard between side lots lines and measured horizontally at right angles to the front lot line to the nearest point of a building or other structure.
- **Yard, Rear.** A yard between side lot lines and measured horizontally at right angles to the rear lot line to the nearest point of a building or other structure.
- **Yard, Side.** A yard between the front and rear yard measured horizontally at right angles from the side lot line to the nearest point of the building or other structure.
- **Yard, Side Street.** A yard adjacent to a street between the front yard and the rear yard lot line measured horizontally and at right angles from the side lot line to the nearest point of the building or other structure.

Wayfinding. A system of information comprising visual, audible, or tactile elements that helps users experience an environment and facilities getting from point A to point B.

Section 1.040. Compliance with this Ordinance.

A lot or land may be used and a structure or part of a structure may be constructed, reconstructed, altered, occupied or used only as this ordinance permits. Penalties enforcing the provisions of this ordinance shall be set by Resolution of the City Council.

Section 1.050. Relationship to Comprehensive Land Use Plan.

A permit may be issued and a use allowed only as it conforms to this ordinance and as it relates to the City of Joseph's Comprehensive Land Use Plan, including the Transportation System Plan and the Bicycle and Pedestrian Plan.

Section 1.060. Interpretation.

Where the conditions imposed by a provision of this ordinance are less restrictive than comparable conditions imposed by any other provisions of this ordinance or any other ordinance, the provisions which are more restrictive shall govern.

Section 1.070. Applicability.

This ordinance shall be applicable to all land within the corporate limits of the City of Joseph, Oregon.

ARTICLE 2. ESTABLISHMENT OF ZONES

Section 2.010. Classification of Zones.

For purpose of this ordinance, the following zones are hereby established:

<u>Zone</u>	<u>Abbreviated Designation</u>
Select Residential	R-1
General Residential	R-2
Commercial	C
Industrial	I

Section 2.020. Location of Zones.

The boundaries for the zones listed in this ordinance are indicated on Joseph Zone Map which is hereby adopted by reference. The boundaries shall be modified in accordance with the provisions of Joseph's Land Use Plan and with the zoning map amendments which shall be adopted by reference.

Section 2.030. Zoning Map.

A zoning map or zoning map amendment adopted by Section 2.020 of this ordinance by an amendment thereto shall be prepared or modified by authority of the City Council. The map or map amendment shall be dated with the effective date of the ordinance that adopts the map or map amendment. A certified print of the adopted map or map amendment shall be maintained in the office of the City Recorder as long as this ordinance remains in effect.

Section 2.040. Zone Boundaries.

Unless otherwise specified, zone boundaries are section lines, subdivision lines, center lines of street or railroad right-of-ways, or such lines extended.

Section 2.050. Zoning of Annexed Areas.

Unzoned areas annexed to the City shall be zoned at the time of annexation and shall comply with the provisions and policies of the Joseph Land Use Plan and this ordinance.

ARTICLE 3. USE ZONES

Section 3.010. Uses Permitted Outright in a Select Residential Zone, R-1.

In an R-1 zone, the following uses and their accessory uses are permitted outright:

1. Single-family dwelling. A minimum floor space of 1,000 square feet of living space is required.
2. Manufactured homes, placed outside of a manufactured home subdivision provided they:
 - A. Be multi-sectional ("double wide" or wider) and enclose a floor area of not less than 1,000 square feet;
 - B. Be placed on an excavated and back-filled foundation, enclosed at the perimeter such that they are not located more than 12 inches above grade;
 - C. Have a roof with a minimum pitch of 3 feet in height for each 12 feet in width;
 - D. Have exterior siding and roofing which in color, material and appearance is similar to the exterior siding and roofing material commonly used on residential dwellings within the community or which is comparable to the predominant materials used on surrounding dwellings as determined by the City;
 - E. Be certified by the manufacturer to have an exterior thermal envelope meeting performance standards which reduce heat loss to levels equivalent to the performance standards required of single family dwellings constructed under the state building code as defined in ORS 455.010;
 - F. Not be sited adjacent to any structure listed on the Register of Historic Landmarks and Districts.
3. Livestock grazing and crop cultivation including farm, orchard, truck garden or plant nursery.
4. Public park.
5. Temporary R.V.'s provided that:
 - A. Prior to its installation, the owner shall obtain a zoning permit for ninety (90) days with 180 days maximum per annum;
 - B. If not self-contained, the R.V.'s shall be connected, prior to issuance of the permit, to

- the City's sewer and water system at the owner's expense;
 - C. There shall be no more than one R.V. allowed per city lot or in addition to an existing single-family dwelling;
 - D. The storage of a non-occupied R.V. does not constitute a use.
6. Two-family (duplex) dwelling.
 7. Permitted transportation uses and facilities as defined in Section 1.030.

Section 3.020. Conditional Uses Permitted in an R-1 Zone.

In an R-1 zone, the following uses and their accessory uses are permitted when authorized in accordance with Article 6:

1. Church.
2. Community building.
3. School, public or private.
4. Home occupation.
5. Travelers' accommodation. The facility is subject to review during the first three years of the operation after which time a permanent permit for the facility as an accredited travelers' accommodation will be issued. Said accommodation shall also be subject to the following:
 - A. That each rental unit have one off-street parking space and the owner's unit have two parking spaces;
 - B. That only one ground or wall wood sign of six (6) square feet maximum size with no more than 150 watts of illumination be allowed;
 - C. An annual inspection by the County Health Department shall be required; and
 - D. That all State requirements be met.
6. Construction, reconstruction, or widening of highways, roads, bridges or other transportation projects which are:
 - A. Designated in the Transportation System Plan (including the Bicycle and Pedestrian Plan) but for which no site-specific decisions have been made; or
 - B. Not otherwise approved as the result of a land division, site development review or conditional use application.

Section 3.030. Dimensional Standards in an R-1 Zone.

In an R-1 zone, the following dimensional standards shall apply:

1. The front yard shall be a minimum of 15 feet except that garages shall be set back from the front line at least 20 feet as measured from the foundation.
2. Each side yard shall be a minimum of 5 feet, except that on the corner lots, the side yard on the street shall be a minimum of 10 feet.
3. The rear yard of the primary structure shall be a minimum of 20 feet. Accessory buildings shall have a rear yard of not less than five feet.
4. No structure shall be placed less than ten feet from the high water mark of any irrigation ditch or stream.
5. No structure shall be placed less than ten feet from the high water mark of the Wallowa River.
6. The minimum lot area shall be 5850 square feet.
7. The minimum lot width at the front building line shall be 50 feet.
8. No building shall exceed the height of 25 feet as measured from the base of the foundation, except church spire or as provided in SECTION 5.040.
9. All roofing must be non-reflective.
10. The dimensional standards of this section shall be met in the event of any future partition or lot line adjustment.

Section 3.040. Uses Permitted Outright in a General Residential Zone, R-2.

In an R-2 Zone, the following uses and their accessory uses are permitted outright:

1. Any use permitted outright in an R-1 Zone.
2. Multiple-family dwelling.
3. Church.
4. School, public or private.
5. Permitted transportation uses and activities as defined in Section 1.030, Definitions.

Section 3.050. Conditional Uses Permitted in an R-2 Zone.

In an R-2 zone, the following uses and their accessory uses are permitted when authorized in

accordance with Article 6:

1. Government use.
2. Hospital, nursing home or residential care facilities as defined by State Statutes.
3. Recreational vehicle park.
4. Utility structure.
5. Circus, fair and carnival.
6. Home occupation.
7. Traveler's accommodation. The facility is subject to review during the first three years of the operation after which time a permanent permit for the facility as an accredited travelers' accommodation will be issued. Said accommodation shall also be subject to the following:
 - A. That each rental unit have one off-street parking space and the owner's unit have two parking spaces;
 - B. That only one ground or wall wood sign of six (6) square feet maximum size with no more than 150 watts of illumination be allowed;
 - C. An annual inspection by the County Health Department shall be required; and
 - D. That all State requirements be met.
8. Construction, reconstruction, or widening of highways, roads, bridges or other transportation projects which are:
 - A. Designated in the Transportation System Plan (including the Bicycle and Pedestrian Plan) but for which no site-specific decisions have been made; or
 - B. Not otherwise approved as the result of a land division, site development review or conditional use application.

Section 3.060. Dimensional Standards in an R-2 Zone.

In an R-2 zone, the following dimensional standards shall apply:

1. The front yard shall be a minimum of 15 feet except that garages shall be set back from the front line at least 20 feet as measured from the foundation.
2. Each side yard shall be a minimum of 5 feet, except that on the corner lots, the side yard on the street shall be a minimum of 10 feet.

3. The rear yard of the primary structure shall be a minimum of 20 feet. The rear yard of an accessory structure shall be not less than five (5) feet.
4. No structure shall be built less than ten feet from the high water mark of any irrigation ditch or stream.
5. No structure shall be built less than ten feet from the high water mark of the Wallowa River.
6. The minimum lot area shall be 5850 square feet, except that for each dwelling unit over two, the minimum lot area shall be increased 1000 square feet per additional unit.
7. The minimum lot width at the front building line shall be 50 feet.
8. No building shall exceed the height of 25 feet, except a church spire or as provided in SECTION 5.040.
9. All roofing must be non-reflective.
10. The dimensional standards of this section shall be met in the event of any future partition or lot line adjustment.

Section 3.070. Uses Permitted Outright in a Commercial Zone, C.

In a C zone, the following uses are permitted outright:

1. Retail or wholesale establishment.
2. Eating or drinking establishment.
3. Financial institution.
4. Office.
5. Sign.
6. Hotel, motel.
7. Government use.
8. Community building, community center not including schools or churches.
9. Repair and maintenance shops.
10. Amusement establishment.

11. Second hand store.
12. Second floor residential.
13. Permitted transportation uses and activities as defined in Section 1.030, Definitions.

Section 3.080. Conditional Uses in a C Zone.

In a C zone, the following uses and their accessory uses are permitted when authorized in accordance with Article 6:

1. Residential (Single and Multiple Family).
2. Mini-storage buildings.
3. Light industrial business.
4. Construction, reconstruction, or widening of highways, roads, bridges or other transportation projects which are:
 - A. Designated in the Transportation System Plan (including the Bicycle and Pedestrian Plan) but for which no site-specific decisions have been made; or
 - B. Not otherwise approved as the result of a land division, site development review or conditional use application.

Section 3.090. Dimensional Standards in a C Zone.

In a C zone, all new structures and any alterations, repairs, or extensions of an existing structure shall conform to the following standards:

1. All roofing must be non-reflective.
2. Height shall not exceed 30 feet as measured from the average elevation of the finished ground level at the center of all walls of a building to the highest point of the structure. This height of 30 feet is restricted to that portion of Highways 82/351 and the alley bordering the lot east or west of the property line. In all other commercial zones, the height is restricted to 25 feet as measured from the average elevation of the finished ground level at the center of all walls of a building to the highest point of the structure.
3. There shall be no yard setbacks in a C zone.

Section 3.100. Uses Permitted Outright in an Industrial Zone, I.

In an I zone, the following uses and their accessory uses are permitted outright:

1. Repair and maintenance shops.
2. Light industry.

3. Mini-storage and storage building and warehouses.
4. Blacksmith and machine shops.
5. Welding shops.
6. Manufacturing, processing, or treatment plants or other uses which comply with State and Federal Environmental Quality standards.
7. Granaries.
8. Permitted transportation uses and activities as defined in Section 1.030, Definitions.

Section 3.110. Conditional Uses Allowed in an I Zone.

In the I zone, the following uses and their accessory uses are permitted when authorized in accordance with Article 6.

1. A single-family residential dwelling necessary for the caretakers, watchmen, or the owner of the industry existing on the parcel.
2. R.V. Parks.
3. Construction, reconstruction, or widening of highways, roads, bridges or other transportation projects which are:
 - A. Designated in the Transportation System Plan (including the Bicycle and Pedestrian Plan) but for which no site-specific decisions have been made; or
 - B. Not otherwise approved as the result of a land division, site development review or conditional use application.

Section 3.120. Dimensional Standards in an I Zone.

In the I zone, the lot size shall be determined by the anticipated use, providing it generally conforms to:

1. Existing land uses.
2. The provisions of the Joseph Land Use Plan.
3. The purpose of this ordinance.

ARTICLE 4. SUPPLEMENTAL PROVISIONS

Section 4.010. Maintenance of Minimum Ordinance Requirements.

No lot area, yard or other open space existing on or after the effective date of this ordinance shall

be reduced below the minimum required for it by this ordinance, and no lot area, yard or other open space which is required by this ordinance for one use shall be used as the required lot area, yard or other open space for another use.

Section 4.020. Access Management and Connectivity.

The purpose of this section is to implement the Transportation System Plan (including the Bicycle and Pedestrian Plan) by managing access to roadways while allowing for the safe and efficient movement of people and goods. The standards in this section are intended to maintain roadway safety, capacity, foster connectivity, be consistent with roadway functional classifications, and maintain highway mobility (level of service) standards set forth in the Transportation System Plan.

1. General Frontage Standard. Except as modified in this section, every lot shall abut a street, other than an alley, for at least 25 feet.
2. Applicability. Except for Subsection 4.020.1 above, Section 4.020 shall apply to arterial and collector streets (as defined in the Transportation System Plan) and to properties that abut such streets.
3. Cross Access for Major Traffic Generators Required. Subsection 4.020.3 applies to major traffic generators as defined in Section 1.030 and is intended to minimize traffic congestion from commercial and office development. Adjacent commercial or office properties identified as major traffic generators shall provide a cross access drive and bicycle and pedestrian access to allow circulation between sites.
4. Joint Use Driveways and Cross Access Easements Required Where Feasible. For commercial and offices uses that are not major traffic generators, a system of joint use driveways and cross access easements to allow circulation between sites shall be established and incorporate the following:
 - A. A continuous service drive or cross access corridor extending the entire length of each block served to provide for driveway separation consistent with the access management classification system and standards.
 - B. A design speed of 10 mph and a maximum width of 20 feet to accommodate two-way travel aisles designated to accommodate automobiles, service vehicles, and loading vehicles
 - C. Stub-outs and other design features to make it visually obvious that the abutting properties may be tied in to provide cross-access via a service drive.
 - D. A unified access and circulation system plan for coordinated or shared parking areas.
 - E. The City of Joseph may modify or waive the requirements of this section where the characteristics or layout of abutting properties would make the development of a unified or shared access and circulation system impractical.
5. Shared Parking. Shared parking areas shall be permitted as a reduction in required

vehicle parking spaces if peak demands do not occur at the same time periods.

6. Implementation of Cross Easements and Shared Parking Agreements. Where cross access easements or shared parking are required and feasible, property owners shall:
 - A. Record an easement with the deed allowing cross access to and from other properties served by the joint use driveways and cross access or service drive;
 - B. Record an agreement with the deed that remaining access rights along the roadway will be dedicated to the City of Joseph and pre-existing driveways will be closed and eliminated after construction of the joint-use driveway;
 - C. Record a joint maintenance agreement with the deed defining maintenance responsibilities of property owners.
7. Reduction in Access Separation Distances. The city may reduce required separation distance of access points where they prove impractical, provided all of the following requirements are met:
 - A. Joint access driveways and cross access easements are provided in accordance with this section.
 - B. The site plan incorporates a unified access and circulation system in accordance with this section.
 - C. The property owner enters into a written agreement with the (city/county), recorded with the deed, that pre-existing connections on the site will be closed and eliminated after construction of each side of the joint use driveway.
8. Driveway and Approach Standards. Driveways and their approaches shall meet the following standards:
 - A. If the driveway is a one way in or one way out drive, then the driveway shall be a minimum width of 10 feet and shall have appropriate signage designating the driveway as a one way connection.
 - B. For two-way access, each lane shall have a minimum width of 10 feet and a maximum width of 12 feet.
 - C. Driveway approaches must be designed and located to provide an exiting vehicle with an unobstructed view. Construction of driveways along acceleration or deceleration lanes and tapers shall be avoided due to the potential for vehicular weaving conflicts.
 - D. The length of driveways shall be designed in accordance with the anticipated storage length for entering and exiting vehicles to prevent vehicles from backing into the flow of traffic on the public street or causing unsafe conflicts with on-site circulation.
9. Nonconforming Access Features. Legal access connections in place as of (date of

adoption) that do not conform with the standards herein are considered nonconforming features and shall be brought into compliance with applicable standards under the following conditions:

- A. When new access permits are requested; or
- B. Change in use, enlargements, or improvements that will increase trip generation to 400 daily trips or above.

10. Requirements for Consolidated Development Plans. Subsection 5 promotes unified access and circulation systems.

- A. Plans for phased developments, development sites under the same ownership, or development sites that have been consolidated for the purposes of development and comprised of more than one building site, shall be reviewed as single properties in relation to the access standards of this ordinance.
 - a. The number of access points permitted shall be the minimum number necessary to provide reasonable access to these properties, not the maximum available for that frontage.
 - b. All necessary easements, agreements, and stipulations shall be met. This shall also apply to phased development plans.
 - c. The owner and all lessees within the affected area are responsible for compliance with the requirements of this ordinance and both shall be cited for any violation.
- B. All access must be internalized using the shared circulation system of the principal development or retail center. Driveways shall be designed to avoid queuing across surrounding parking and driving aisles, and pedestrian walkways.

11. Access to Street of Lower Classification Required.

- A. Lots that front on more than one street shall be required to locate motor vehicle accesses on the street with the lower functional classification.
- B. New direct accesses to individual one and two family dwellings shall be prohibited on all but District-level State Highways.

Section 4.023. Corner Clearance Standards.

- 1. Corner clearance for access connections shall meet or exceed the minimum access connection spacing requirements for that roadway.
- 2. New access connections shall not be permitted within the functional area of an intersection as defined by the connection spacing standards of this ordinance, unless no other reasonable access to the property is available.

3. Where no other alternatives exist, the Planning Official may allow construction of an access connection along the property line farthest from the intersection. In such cases, directional connections (i.e. right in/out, right in only, or right out only) may be required.

Section 4.025. Commercial Building and Parking Orientation Standards.

1. New commercial buildings shall be oriented to the street, near or at the setback line. A main entrance shall be oriented to the street. For lots with more than two front yards, the building(s) shall be oriented to the two busiest streets.
2. Off-street motor vehicle parking for new or expanded commercial development shall not be located between the building and Main Street in the downtown area. Existing downtown off-street parking areas are exempt from this standard.

Section 4.027. Pedestrian Circulation and Bicycle Circulation and Parking.

Safe and convenient pedestrian and bicycle access shall be provided within new subdivisions, and within new or expanded multi-family, commercial, industrial, school, park and office developments as set forth in this section.

1. Bicycle and Pedestrian Access. Bicycle and pedestrian access shall provide safe, direct and convenient connections to adjacent streets, as well as residential areas and neighborhood activity centers within one-half mile of the development.
 - A. Residential developments shall include streets with walkways and accessways.
 - B. Pedestrian circulation through parking lots shall be provided in the form of accessways or other clearly defined walkways.
 - C. Internal pedestrian circulation shall be provided by clustering of buildings, construction of hard surface walkways, landscaping, accessways, or similar techniques.
 - D. Bikeways shall be required along all arterial and collector streets. Striped bike lanes or other separated bikeways shall be provided on roadways serving 3,000 vehicle trips per day or greater.
 - E. Walkways shall be required along both sides of all arterials, collectors, and local streets.
2. Bicycle Parking. Bicycle parking shall be provided for new multiple family, commercial, office, industrial, park, school and other institutional uses, and to additions to these uses of 1,000 square feet or greater. Bicycle parking is not required for single-family and two-family housing (attached, detached, or manufactured housing), home occupations, agriculture or livestock uses. Table A sets forth bicycle parking standards. Where two options are provided, the option resulting in more bike parking shall be used.

Table A. Minimum Required Bicycle Parking Spaces

Use Categories	Specific Uses	Long-Term Spaces (covered or enclosed)	Short-Term Spaces (near building entrances)
Residential Categories			
Household Living	Multi-Family	1 per 4 units	2, or 1 per 20 units
Group Living		2, or 1 per 20 bedrooms	None
	Dormitory	1 per 8 bedrooms	None
Commercial Categories			
		2, or 1 per 12,000 sq. ft. of floor area	2, or 1 per 5,000 sq. ft. of floor area
	Lodging	2, or 1 per 20 rentable rooms	2, or 1 per 20 rentable rooms
Office		2, or 1 per 10,000 sq. ft. of floor area	2, or 1 per 40,000 sq. ft. of floor area
Commercial Outdoor Recreation		8, or 1 per 20 auto spaces	None
Major Event Entertainment		8, or 1 per 40 seats per CU review	None
Industrial Categories			
Manufacturing and Production		2, or 1 per 15,000 sq. ft. of floor area	None
Warehouse and Freight Movement		2, or 1 per 40,000 sq. ft. of floor area	None
Institutional Categories			
Basic Utilities	Bus Transit Center	8	None
Community Service		2, or 1 per 10,000 sq. ft. of floor area	2, or 1 per 10,000 sq. ft. of floor area
	Park-and-Ride	8, or 5 per acre	None
Schools	Grades 2-5	1 per classroom, or per CU review	1 per classroom, or per CU review
	Grades 6-12	2 per classroom, or per CU review	4 per classroom, or per CU review
Colleges	Excluding dormitories (see Group Living above)	2, or 1 per 20,000 sq. ft. of net building area, or per CU review	2, or 1 per 10,000 sq. ft. of net building area, or per CU review
Medical Centers		2, or 1 per 70,000 sq. ft. of net building area, or per CU review	2, or 1 per 40,000 sq. ft. of net building area, or per CU review
Religious Institutions and Places of Worship		2, or 1 per 4,000 sq. ft. of net building area	2, or 1 per 2,000 sq. ft. of net building area
Daycare		2, or 1 per 10,000 sq. ft. of net building area	None
Other Categories	Determined through Site Development or Conditional Use Review as applicable		

- A. Location and Design: Long-term (e.g., covered) bicycle parking should be incorporated whenever possible into building design. Short-term bicycle parking, when allowed within a public right-of-way, should be coordinated with the design of street furniture, as applicable.
- B. Visibility and Security: Bicycle parking for customers and visitors of a use shall be visible from street sidewalks or building entrances, so that it provides sufficient security from theft and damage.

- C. Options for Storage: Long-term bicycle parking requirements for multiple family uses and employee parking can be met by providing a bicycle storage **room**, bicycle lockers, racks, or other secure storage space inside or outside of the building.
- D. Lighting: For security, bicycle parking shall be at least as well-lit as vehicle parking.
- E. Reserved Area: Areas set aside for bicycle parking shall be clearly-marked and reserved for bicycle parking only.
- F. Hazard: Bicycle parking shall not impede or create a hazard for pedestrians. Parking areas shall be located so as not to conflict with vision clearance standards.
- G. Additional Location and Design Guidance: The Design Guidelines chapter of the 2009 Joseph Bicycle and Pedestrian Plan provides further guidance on the location and design of short- and long-term bicycle parking facilities.

Section 4.030. General Provisions Regarding Accessory Use.

An accessory use or structure shall comply with the requirements for a principal use or structure, except as this ordinance specifically allows to the contrary. Accessory structures are allowed in all zones.

Section 4.040. Signs in a Residential Zone.

In an R-1 or R-2 zone, signs are generally regulated and allowed as follows:

- 1. One temporary sign pertaining to the lease, rental or sale of the property and not exceeding eight square feet in area.
- 2. One temporary sign per tract of land or subdivision advertising the sale of the tract of land or lots and not exceeding 32 square feet in area.
- 3. A temporary political sign, not exceeding 6 square feet in area, purporting to advertise a candidate or issue for a period not to exceed 60 days prior to the date of an election. Said sign must be removed not later than 10 days after the date of the election.
- 4. Private signs shall not be allowed in any portion of a public right-of-way unless specifically authorized by the City.
- 5. Sign ordinance 2003-02 governs signs in the Commercial Zone.

Section 4.050. Fences and Intersection Safety.

Fences and walls that are located within yards shall comply with the standards of this section and shall require a permit prior to construction.

- 1. Residential Zone: In residential zones in the City.
 - A. No solid fence shall be higher than six (6) feet above the natural ground level at any place: provided, however, that woven wire fences eight (8) feet in height are allowed.

- B. Arches and arbors over a gate may be up to eight (8) feet above the natural ground level.
2. Commercial and Industrial Zones: In commercial and industrial zones in the City.
- A. Properties abutting a residential zone shall comply with their specific zone.
 - B. Any fence abutting alleys must comply with their specific zone.
 - C. Maximum fencing of eight (8) feet in height is allowed. Barbed wire may be allowed between six and eight feet in height, with each strand spaced equally apart and not more than three strands.
3. All zones throughout the City.
- A. No fence or vegetation shall materially obstruct or impair visibility at intersections of public roads, private roads and/or alleys.
 - B. Electric fences are prohibited, except electric fences which are located at two feet distance inside an existing woven wire or solid fence.
 - C. No fences shall be located on or within any public right of way. Any pre-existing fence located on or within a public right of way (is grand-fathered in as of this date) any fence after this date shall be removed by and at the sole cost and expense of the owner of the property benefited by the fence, within 30 days as requested by the City.
 - D. No fence shall materially impair access to the City's or any public utilities' infrastructure within a public right of way.
 - E. If a fence has one surface which is finished and another which is unfinished, the supporting system and unfinished surface shall face the interior of the lot or parcel of the person erecting the fence.
4. Building Requirements. As applicable, the construction, repair and replacement of fences shall comply with the Uniform Building Code as administered by the State Building Codes Department.
5. Effective Date.
- A. All fences constructed before the effective date of this Section 4.050 with the exception of unsightly or hazardous fences shall be deemed to be in compliance with the City of Joseph Zoning Ordinance. After the effective date of this Section 4.050, all further fence construction and replacement shall comply with this Section 4.050.
 - B. The effective date of this Section 4.050 is April 7, 2006.

6. Self Help Remedy: If any person violates this Section 4.050, without limiting the other rights and remedies of the City or any affected person, the City may give the person notice of the violation, and if the violation is not cured within 30 days after the date such notice is given, a court hearing will take place, with the sole cost and expenses being that of the property owner.

Section 4.060. Flood Plain.

No structure constructed, reconstructed or altered shall be located within a flood plain area as identified in the City of Joseph's Land Use Plan unless adequate flood precaution measures have been taken according to the Department of Housing and Urban Development guidelines.

Section 4.070. Historically Significant Buildings.

The following provisions shall apply to buildings currently listed as being of historical importance in Joseph's Land Use Plan and future additions to that list. Uses, alterations or demolition of historical buildings shall be according to the following:

1. Historical buildings may be used conditionally for purposes not otherwise authorized in the zone in which they are located. Such conditional uses shall be granted only as they will preserve the integrity of the building and historic value and will be subject to review by the Council, following the provisions of Article 6.
2. Exterior alterations shall be in accordance with the following:
 - A. Upon receipt of an application for exterior alteration of a historic structure listed on the significant building list, the Council, at a public hearing, shall review the proposed alteration to determine whether the proposed changes will alter the resource's historical significance. This review shall be based on the criteria for determining historic significance contained in the comprehensive plan.
 - B. Exterior alterations as governed by this ordinance include any change or alteration of a facade, texture, design, material, fixtures, or other treatment.
 - C. All application for exterior alteration shall be accompanied by plans and specifications of the proposed alteration. The Council may request additional sketches and other information deemed necessary to make an informed decision.
 - D. The Council shall approve the change if the treatment proposed is determined to be harmonious and compatible with the character of the resource. In order to approve the application, the Council shall find the alteration harmonious and compatible with the resource with respect to style, scale, texture, and construction materials and/or find that the alteration will enhance the historical value of the resource. Conditions may be attached to the approval if the Council so deems it necessary to achieve the above objectives. The Council shall disapprove the request if the proposal would reduce the resource's value or historic significance.

- E. Conditions attached to a permit for exterior alterations of a significant historic structure shall be limited to requirements addressing architectural design, surface, texture, materials, fixtures or other facade or surface treatments which are deemed inconsistent with the integrity of the historic values being preserved.
 - F. The Council shall not make any recommendations or requirements except for the purpose of preventing developments out of character with the historic aspects of the resource.
 - G. Nothing in this section shall be construed to prevent the ordinary maintenance or repair of any exterior architectural feature which does not involve a change in design, or the construction, reconstruction, or alteration of such feature which the building inspector shall certify is required by the public safety because of an unsafe condition.
3. A demolition permit shall be applied for when a historical building is to be destroyed. The permit application shall be reviewed by the City Council in a public hearing. If the permit is tentatively approved, demolition will not commence for a minimum of 90 days in order that an alternative to demolition may be devised. If no alternative is forthcoming at the end of the 90 day period, demolition may proceed.

Section 4.080. Off-Street Automobile and Truck Parking.

The City shall require that off-street parking be provided in connection with the establishment of new uses or the expansion of existing uses. The City shall require the standards of the Architectural Graphic Standards, the edition in effect on the effective date of this ordinance, adopted by reference. When square feet are specified, the area measured shall be the gross floor area of the building, but shall exclude any space within a building devoted to the off-street parking or loading. When the number of employees is specified, persons counted shall be those working on premises, including proprietors, during the largest shift at peak season. New uses shall provide off-street parking as listed in the following examples:

- | | |
|--|--|
| 1. Hotels, motels. | One space per guest room. |
| 2. Retail, wholesale, commercial establishment, eating or drinking establishments or financial institutions. | One space per 400 square feet floor area. |
| 3. Places of assembly, including fraternal organizations and churches. | One space per 35 square feet of floor area used as a meeting room. |
| 4. Industrial/light industrial | One space per employee. |
| 5. Institutional uses, including hospitals, nursing homes, and rest homes. | One space per two beds for patients or residents |

6. Multiple-family dwellings

One and one-half spaces per unit.

Section 4.085. When a Transportation Impact Study (TIS) is Required.

1. **Threshold.** An applicant shall submit a TIS when a proposed land use action affects a transportation facility as set forth below. The following vehicle trip generation thresholds shall determine the level and scope of transportation analysis required for a new or expanded development. The developer shall be required to mitigate impacts attributable to the project. The determination of impact or effect and the scope of the impact study shall be coordinated with the provider of the affected transportation facility.
 - A. If a proposed development will generate 400 or more daily trip ends, as defined by the Institute of Transportation Engineers (ITE), *Trip Generation Manual* or trip generation studies of comparable uses prepared by an engineer, then a TIS shall be required. The requirements for the TIS shall be established by the Planning Official in consultation with ODOT.
 - B. If a proposed development will generate 100 or more daily trip ends but less than 400 daily trip ends, then a Transportation Site Review (TSR) shall be required. The requirements of a TSR shall be established by the County Planning Department or City Planning Official in consultation with ODOT.
2. **Special Transportation Analysis.** Projects that generate less than 100 daily trip ends may also be required to provide traffic analysis when a capacity problem and/or safety concern is caused and/or is adversely impacted by the development. The Planning Official shall determine the scope of this special analysis in consultation with ODOT.

Section 4.090. Home Occupations.

1. A Home Occupation may only be conducted/approved if:
 - A. It is conducted at the primary residence of the applicant.
 - B. It is secondary to the use of the dwelling for dwelling purposes.
 - C. It does not change the residential character of the lot in any manner visible off the property.
 - D. The applicant is not a part time resident.
 - E. It does not create objectionable noise, noticeable vibration, or objectionable odor at the property lines.
 - F. It does not create waste or unsightly conditions visible off the property.
 - G. It does not create interference with radio or TV reception in the vicinity.

- H. It does not have full time employees on the premises who are not residents of the premises.
 - I. It occupies 33% or less of the dwelling floor area not considering basement and garage. No restriction shall be placed on the percentage of the accessory structure used for the home occupation as long as the residential character of the lot is not changed in any manner visible off the property.
 - J. It has sufficient parking for both the residential and specific business use as defined in this regulation.
 - K. Does not create a volume of traffic inconsistent with the level of traffic of the street on which it is located.
2. Applicant must show that his intended home occupation cannot be conducted in the commercial zone by the following:
- A. Available Space, and/or
 - B. Profit/Loss.
3. The following are examples of permitted home occupations provided they do not violate any of the provisions of the previous paragraphs.
- A. Dressmaking, sewing, and tailoring.
 - B. Painting, sculpting, or writing.
 - C. Telephone answering.
 - D. Home crafts, such as model making, rug weaving, lapidary work, and cabinet making.
 - E. Tutoring, or educational activity limited to four students at a time.
 - F. Home cooking and preserving.
 - G. Computer programming or Internet based business.
 - H. Barber shops and beauty parlors (limited to one chair).
 - I. Mail order operation.
4. The following are prohibited as home occupations:
- A. Any occupation as a part time resident.

- B. Animal hospitals.
 - C. Private clubs.
 - D. Repair shops.
 - E. Restaurants.
 - F. Stables or kennels.
 - G. Automobile repair or paint shops.
5. The purpose of a home occupation is to provide an incubation period for a business in a cost effective manner with the intent of moving to the commercial zone.
 6. Any proposed home occupation that is neither specifically permitted by paragraph (2) or specifically prohibited by paragraph (3) shall be considered a conditional use and be granted or denied by the City Council upon consideration of those standards contained in paragraph (1).
 7. In determining whether or not to grant a Conditional Use Permit for a home occupation, the City Council will assess the level of public contact, retail sales, or customer activity on the premises.

Section 4.100. Flag Lots.

Flag lots may be created to provide access to future development. A flag lot driveway may serve no more than two dwelling units unless Uniform Fire Code (UFC) standards are met for more units. When UFC standards are met, the maximum number of dwellings shall be six. A drive serving more than one lot shall have a reciprocal access and maintenance easement recorded for all lots. No fence, structure, or other obstacles shall be placed within the drive area.

ARTICLE 5. EXCEPTIONS

Section 5.010. Non-Conforming Use.

1. A non-conforming use or structure may be continued but may not be altered or extended. The extension of a non-conforming use to a portion of a structure which was arranged or designed for the non-conforming use at the time of passage of this ordinance is not an enlargement or expansion of a non-conforming use. Any expansion of a non-conforming use or structure must meet the current standards set forth in this ordinance
2. If a non-conforming use is discontinued for a period of one year, further use of the property shall conform to this ordinance.
3. If a non-conforming use is replaced by another use or structure, the new use shall conform to this ordinance. For example, single-wide mobile homes in any R-1 zone may not be replaced by other single-wide mobile homes even though they may be tenant

occupied and owned.

4. If a non-conforming structure or a structure containing a non-conforming use is destroyed by any cause to an extent exceeding 80% of its fair market value as indicated by the records of the County Assessor, a future structure or use on this site shall conform to this ordinance.
5. Nothing contained in this ordinance shall require any change in the plans, construction, alteration or designation of use of a structure for which a permit has been issued by the City or state and construction has commenced prior to the adoption of this ordinance, providing the structure, if non-conforming or intended for a non-conforming use, is completed and in use within two years from the time the permit is issued.

Section 5.020. General Exceptions to Lot Size Requirements.

If a property ownership consisting of the entire contiguous land holdings held in a single ownership at the time of passage of this ordinance has an area or dimension which does not meet the lot size requirements of the zone in which the property is located, the holdings may be occupied by a use permitted in the zone subject to the other requirements of the zone, provided that, if there is an area deficiency, residential use shall be limited to a single-family dwelling or to the number of dwelling units consistent with the density requirements of the zone. The record of ownership as recorded in the office of the Wallowa County Clerk at the time of passage of this ordinance shall be the basis for application of this exception unless the owner submits proof that a different ownership existed at the time the provision of this ordinance because applicable to the land concerned.

Section 5.030. General Exceptions to Yard Requirements.

The following exceptions to yard requirements are authorized for a lot in any zone:

1. If there are buildings on both abutting lots which are within 100 feet of the intervening lot and the buildings have front yards of less than the required depth for the zone, the depth of the front yard for intervening lot need not exceed the average depth of the front yards of the abutting lots.
2. If there is a building on one abutting lot which is within 100 feet of the lot and this building has a front yard of less than the required depth for the zone, the front yard for the lot need not exceed a depth halfway between the depth of the front yard of the abutting lot and the required front yard depth.

Section 5.040. General Exceptions to Building Height Limitations.

Vertical projections such as chimneys, spires, domes, elevator shaft housing, towers, aerials, flagpoles, and other similar objects not used for human occupancy are not subject to the building height limitations of this ordinance.

Section 5.050. Projections from Buildings.

Fixed architectural features such as cornices, eaves, canopies, sunshades, gutters, chimneys and

flues shall not project more than 24 inches into a required yard.

Section 5.060. Modifications to Access Standards.

An applicant may seek relief from the access standards in Section 4.020 by providing factual evidence that addresses the following criteria:

1. The proposed modification is consistent with the stated purpose and intent of Section 4.020;
2. Unique or special conditions related to the property itself make strict application of the provisions impractical;
3. Indirect or restricted access cannot be obtained;
4. Every feasible option for meeting access standards has been seriously considered;
5. No engineering or construction solution can reasonably be applied to mitigate the condition;
6. No reasonable alternative access is available from a street with a lower functional classification than the primary roadway;
7. The need for the modification did not result from an previous action taken by the property owner (i.e., the hardship is not self-imposed).

ARTICLE 6. CONDITIONAL USES

Section 6.010. Authorization to Grant or Deny Conditional Uses.

A conditional use listed in this ordinance shall be permitted, altered or denied in accordance with the standards and procedures of this article. In the case of a use existing prior to the effective date of this ordinance and classified in this ordinance as a conditional use, a change in the use or in lot area or an alteration of structure shall conform with the requirements for conditional use. In judging whether or not a conditional use proposal shall be approved or denied, the Council shall weigh the proposal's appropriateness and desirability or the public convenience or necessity to be served against any adverse conditions that would result from authorizing the particular development at the location proposed. To approve such use, the Council shall find the following criteria are either met, or are not applicable.

1. The proposal will be in compliance with the City of Joseph's Comprehensive Land Use Plan and applicable provisions of this ordinance, including but not limited to the applicable dimensional standards of Article 3 and the supplemental provisions of Article 4.
2. Taking into account location, size, design and operation characteristics, the proposal will have minimal impact on the abutting properties and the surrounding area compared to the impact of the development that is permitted outright.

3. The location and design of the site and structures for the proposal will be as attractive and as consistent with other developments within the area and the zone as possible.
4. The proposal will preserve assets of particular interest to the community as may be identified within the Comprehensive Land Use Plan.
5. The applicant has a bona fide intent and capability to develop and use the land as proposed and has some appropriate purpose for submitting the proposal and is not motivated solely by such purposes as the alteration of property value or speculative purposes.

Section 6.015. Additional Review Criteria for Transportation Projects.

The following criteria apply to transportation projects identified as conditional uses in the use zone:

1. Transportation projects shall comply with the Transportation System Plan and applicable review criteria and standards of this ordinance, and shall also be designed to:
 - A. Minimize avoidable environmental impacts to identified wetlands, wildlife habitat, air and water quality, cultural resources, and scenic qualities.
 - B. Preserve or improve the safety and function of the facility through access management, traffic calming, or other design features.
 - C. Include provision for bicycle and pedestrian circulation as consistent with the Comprehensive Land Use Plan, Transportation System Plan (including the Bicycle and Pedestrian Plan) and other applicable requirements of this ordinance.
 - D. Be compatible with existing land use and social patterns, including noise generation, safety, and zoning.
2. For State projects that require an Environmental Impact Statement (EIS) or Environmental Assessment (EA), the draft EIS or EA shall be reviewed and used as the basis for findings to comply with the criteria listed in this section.
3. If review under this Section indicates that the use or activity is inconsistent with the Transportation System Plan, the procedure for a plan amendment shall be undertaken prior to or in conjunction with the conditional permit review.

Section 6.020. Placing Conditions on a Permit.

In permitting a new conditional use or the alteration of an existing conditional use, the Council may impose conditions which it finds necessary to avoid a detrimental impact and to otherwise protect the best interests of the surrounding area or the community as whole. These conditions may include the following:

1. Limiting the manner in which the use is conducted including restricting the time an activity may take place and restraints to minimize such environmental effect as noise, vibration, air pollution, glare and odor.
2. Establishing a special yard or other open space or lot area or dimension.
3. Limiting the height, size or location of a building.
4. Designating the size, number, location and nature of vehicle access points.
5. Increasing the amount of street dedication, roadway width or improvements within the street right-of-way.
6. Designating the size, location, screening, draining, surfacing or other improvement of a parking area or truck loading area.
7. Limiting or otherwise designating the number, size, location, height and lighting of signs.
8. Limiting the location and intensity of outdoor lighting and requiring its shielding.
9. Requiring diking, screening, landscaping or other facilities to protect adjacent or nearby property and designating standards for its installation and maintenance.
10. Designating the size, height, location and materials for a fence.
11. Protecting and preserving existing trees, vegetation, water resources, fish and wildlife habitat or other significant natural resources.
12. Requiring dedication of land for streets, transit facilities, walkways, bikeways, paths, or accessways shall be required where the existing transportation system will be impacted by or is inadequate to handle the additional burden caused by the proposed use.
13. Requiring improvements such as paving, curbing, installation or contribution to traffic signals, construction of walkways, bikeways, accessways, paths, or streets that serve the proposed use where the existing transportation system may be burdened by the proposed use.
14. Other conditions to permit the development of the City in conformity with the intent and purpose of the Comprehensive Land Use Plan.

Section 6.030. R.V. Conditional Use Standards.

In addition to the standards of the zone in which the conditional use is located and the other standards of this ordinance and section, an R.V. park approved as a conditional use shall use the following procedures and meet the following standards:

1. All R.V. parks must be registered, operated and maintained as provided in ORS 446.002

to 446.200.

2. Application shall be made to the City Recorder for establishment of an R.V. park and shall contain a plot and area plan, legal description of the property, number of units to be established, name of applicant and such other information as required by State Law and considered necessary by the Council.
3. Application shall be accompanied by a non-refundable fee which has been set by the Council by Resolution and there shall also be an annual licensing fee of \$25.00. Said fees will be used to defray costs of administering the provisions of this ordinance.

Section 6.040. Procedure for Taking Action on a Conditional Use Application.

The procedure for taking action on a conditional use application shall be as follows:

1. A property owner may initiate a request for a conditional use by filing an application with the City Recorder.
2. Before the Council may act on a conditional use application, it shall hold a public hearing thereon, following the procedure as established in Section 10.060 of this ordinance.
3. Within 5 days after a decision has been made on a conditional use application, the City Recorder shall provide the applicant with written notice of the decision of the Council.

Section 6.050. Time Limit on a Permit for a Conditional Use.

Authorization of a conditional use shall be void after one year unless substantial construction pursuant thereto has taken place or unless specifically authorized by the Council for an additional period not to exceed one more year. Request for extension must be in writing prior to the deadline.

ARTICLE 7. VARIANCES

Section 7.010. Authorization to Grant or Deny Variances.

The Council may authorize variances from the requirements of this ordinance where it can be shown that owing to special and unusual circumstances related to a specific lot, strict application of this ordinance would cause an undue or unnecessary hardship. In granting a variance, the Council may attach conditions which it find necessary to protect the best interests of the surrounding property or vicinity and otherwise achieve the purpose of this ordinance. Variances shall not be granted for a use or for a lot size deviation that is specifically allowed as a use or a lot size within another zone.

Section 7.020. Criteria for Granting a Variance.

A variance may be granted only in the event that all of the following criteria are met.

1. Exceptional or extraordinary circumstances apply to the property that do not apply generally to other properties in the same zone or vicinity and result from lot size or shape, topography or other circumstances over which the owners of property since the

enactment of this ordinance had no control.

2. The variance is necessary for the preservation of a property right of the applicant, substantially the same as owners of the other property in the same zone or vicinity possess.
3. The variance would not be materially detrimental to the purpose of this ordinance or the property in the same zone or vicinity in which the property is located or otherwise conflict with the objectives of any City Plan or Policy.
4. The variance request is the minimum variance which would alleviate the hardship and the hardship was not self-imposed.

Section 7.030. Procedure for Taking Action on a Variance Application.

The procedures for taking action on a variance application shall be as follows:

1. A property owner may initiate a request for a variance by filing an application with the City Recorder using forms prescribed pursuant to Section 9.040.
2. Before the Council may act on a variance application, it shall hold a public hearing thereon, following the procedures as established in Section 9.060.
3. Within five (5) days after a decision has been rendered with reference to a variance application, the City Recorder shall provide the applicant with written notice of the decision of the Council.

Section 7.040. Time Limit on a Permit for Variance.

Authorization of a variance shall be void after one year unless substantial construction has taken place. However, the council may, upon request, extend written authorization for an additional period not to exceed one year.

ARTICLE 8. AMENDMENTS

Section 8.010. Authorization to Initiate Amendments.

An amendment to the text of this ordinance, the Land Use Plan or to the zoning map may be initiated by the Council, the City Land Use Planning Commission (should one be established), or by application of a property owner. The request by a property owner for an amendment shall be accomplished by filing a statement of purpose or application with the City Recorder, consistent with ORS 227.220 and 227.240.

Section 8.020. Public Hearings on Amendments.

The Council shall conduct a public hearing on the proposed amendment at its earliest practicable meeting after the amendment is proposed and shall render a decision within 120 days from the date the application has been deemed complete. The decision shall be placed in written form and forwarded to the applicant within 5 days after the decision is made. The decision may constitute an approval, disapproval, or modified approval of the amendment.

Section 8.030. Record of Amendments.

The final decision of the council regarding an amendment to this ordinance or zoning map shall be maintained for public inspection in the office of the City Recorder.

Section 8.040. Limitation of Reapplication.

No application of a property owner for an amendment to the text of this ordinance or to the zoning map shall be considered by the Council within a one year period following denial of the request.

Section 8.050. Amendment Review Criteria.

This section sets forth criteria for amendments to adopted plans and land use regulations.

1. An amendment to land use regulations (i.e., the zoning, subdivision or annexation ordinances) must be consistent with the Comprehensive Land Use Plan and Transportation System Plan, including the Bicycle and Pedestrian Plan.
2. An amendment to the Comprehensive Land Use Plan or Transportation System Plan must be consistent with applicable Statewide Planning Goals and administrative rules.
3. An amendment to the Comprehensive Land Use Plan or implementing land use regulations which significantly affects a transportation facility shall assure that allowed land uses are consistent with the function, capacity, and level of service of the facility identified in the Transportation System Plan. This shall be accomplished by one of the following:
 - A. Limiting allowed land uses to be consistent with the planned function of the transportation facility;
 - B. Amending the Transportation System Plan or Bicycle and Pedestrian Plan to ensure that existing, improved, or new transportation facilities are adequate to support the proposed land uses consistent with the requirement of the Transportation Planning Rule; or,
 - C. Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes.
4. A plan or land use regulation amendment significantly affects a transportation facility if it:
 - A. Changes the functional classification of an existing or planned transportation facility;
 - B. Changes standards implementing a functional classification system;
 - C. Allows types or levels of land use that would result in levels of travel or access that are inconsistent with the functional classification of a transportation facility; or

- D. Would reduce the level of service of the facility below the minimum acceptable level identified in the Transportation System Plan.

ARTICLE 9. ADMINISTRATIVE PROVISIONS

Section 9.010. Interpretation.

Where the conditions imposed by a provision of this ordinance are less restrictive than comparable conditions imposed by any other provisions of this ordinance or any other ordinance, the provisions which are more restrictive shall govern.

Section 9.020. Administration.

The Council shall designate a City employee to administer this ordinance and the land division ordinance. The designate shall be known as the "Planning Official" and shall provide recommendations concerning applications made pursuant to the requirements of this ordinance and the land division ordinance. The City Recorder shall have final responsibility for issuing land use permits under this ordinance.

Section 9.030. Appeals.

Final decision of the Council may be appealed in compliance with ORS 197.763, provided that the appeal is filed within twenty-one (21) days after the officer has rendered his decision. Written notice of the appeal shall be filed with the City Recorder.

Section 9.040. Forms of Petition, Applications and Appeals.

Petitions, applications and appeals provided for in ordinance shall be made on forms prescribed by the City. Applications shall be accompanied by plans and specifications, drawn to scale, showing the actual shape and dimensions of the lot to be built upon; and the sizes and locations on the lot of existing and proposed structures; the intended use of each structure; the number of families, if any, to be accommodated thereon; the relationship of the property to the surrounding area; and such other information as is needed to determine conformance with the purpose of this ordinance.

Section 9.050. Filing Fees.

Fees for applications shall be paid to the City Recorder upon filing an application. Such fees, which shall be set by resolution of the Council, will be used to defray the cost of administering this ordinance and shall be non-refundable.

Section 9.060. Public Hearings.

1. Each notice of a public hearing authorized by this ordinance shall be published in a newspaper of general circulation in the City at least 20 but not more than 30 days prior to the date of the hearing.
2. In addition, a notice of hearing on a conditional use, a variance or an amendment to a zone boundary shall be mailed to all owners of property within 250 feet of the property for which the variance, conditional use or zoning map amendment has been requested. The notice of hearing shall be at least 20 days prior to the date of the hearing and shall be by regular mail, first class.

3. Failure of a person to receive the notice prescribed in this section shall not impair the validity of the hearing.
4. The Council may recess a hearing in order to obtain additional information or to serve further notice upon other property owners or persons it decided may be interested in the application being considered. Upon recessing a hearing, the time and date when the hearing is to be resumed shall be announced.

Section 9.070. Consolidated Procedure.

An applicant may apply at one time for all permits or zone changes needed for a development project. The applicant can consolidate any presentations/testimony that would customarily be given separately with respective applications. The consolidated proposal shall be reviewed with respect to the appropriate provisions of this ordinance. Although the application can be presented as a consolidated proposal, separate approvals/denials will be given for the various components of the proposal with regard to the permits being requested.

Section 9.080. Time Limit on Decisions.

The City shall take final action on an application for a permit or zone change, including resolution of all appeals under ORS 227.180, within 120 days after the application is deemed complete. The 120 day period may be extended for a reasonable period of time at the request of the applicant. This provision does not apply to Comprehensive Land Use Plan amendments.

Section 9.090. Approval Without Hearing.

The City Council or Planning Official may approve or deny an application for a permit other than a Conditional Use Permit or Variance without a hearing if the City gives notice of the decision and provides an opportunity for an appeal of the decision to those persons who would have had a right to notice if a hearing had been scheduled or who are adversely affected or aggrieved by the decision. Notice of the decision shall be given in the same manner as notice of the hearing would have been given if a hearing had been held. An appeal shall be heard by the City Council as a de novo hearing.

Section 9.100. Notice Regarding Land Use Actions.

1. Notice shall be sent to ODOT regarding any land use action on or adjacent to a state transportation facility.
2. Notice shall be sent to the City or County public works department as appropriate, regarding any land use action that potentially affects another jurisdiction's transportation facility. Notice also shall be sent to ODOT.
3. Upon written request, notice shall be sent to providers of public transit and special interest transportation groups such as truckers, railroad, bicyclists, pedestrians, and disabled persons regarding any roadway or other transportation project.

**ARTICLE 10. ZONING AND SITE DEVELOPMENT REVIEW
PROCEDURES**

Section 10.010. Purpose.

The purpose of Article 10 is to:

1. Provide procedures and standards for administration of Zoning and Site Development Review permits;
2. Promote the public health, safety and general welfare by carrying out Comprehensive Land Use Plan and Transportation System Plan policies; and
3. Provide adequate light and air, prevent overcrowding of land, and provide for adequate transportation, water supply, sewage, fire protection, pollution control, surface water management, and protection against natural hazards.

Section 10.020. Applicability.

Either Zoning Review or Site Development Review shall be required for all new developments and modifications of existing developments described below. Regular maintenance, repair and replacement of materials (e.g., roof, siding, awnings, etc.), parking resurfacing and similar maintenance and repair shall be exempt from review.

- I. Zoning Review. Zoning Review is a review conducted by the Planning Official without a public hearing. It is for minor developments, such as single family homes on existing lots, that do not require a conditional use permit or site development review approval. Zoning Review ensures compliance with the basic land use and development standards of the use zone, such as lot area, building setbacks, lot coverage, maximum building height, and other provisions of Article 3. Zoning Review is required for all of the types of land uses and development listed below. Land uses and developments exceeding the thresholds below require Site Development Review.
 - A. Change in occupancy from one type of land use to a different land use;
 - B. Single-family detached dwelling (including manufactured home on its own lot);
 - C. A single duplex, or up to two single family attached (town home) units not requiring a land division, and accessory parking on the same lot;
 - D. Non-residential building additions up to 1000 square feet or 50% of an existing structure;
 - E. Home occupations;
 - F. Any proposed development that has a valid conditional use permit. Major modifications to a development with a conditional use permit shall require review and approval in accordance with Article 6 - Conditional Use Permits;
 - G. Temporary uses requiring a permit;

- H. Accessory structures and accessory parking;
- I. Development and land uses that are part of a previously approved Site Development Review or Conditional Use Permit application;
- J. Public improvements required by a condition of development approval (e.g., transportation facilities and improvements, parks, trails, and similar improvements, as determined by the Planning Official).

2. Site Development Review. Site Development Review is conducted by the Planning Official or City Council (if referred to the Council by the Planning Official) in accordance with this section.

- A. Site Development Review applies to commercial, industrial, institutional, public and multi-family residential development that is not specifically listed under Section 10.020.1 above (applications subject to Zoning Review).
- B. Site Development Review ensures compliance with the land use and development standards in Article 3 (e.g., lot area, building setbacks, lot coverage, maximum building height) and the supplemental development standards and public improvement requirements in Article 4.

Section 10.030. Zoning Review Procedure and Standards.

When Zoning Review is required, it shall be conducted prior to issuance of building permits, occupancy permits, business licenses, or public improvement permits, as determined by the Planning Official. An application for Zoning Review shall be approved only upon meeting all of the following standards:

- 1. The proposed land use or development is permitted by the underlying zoning district (Article 3); and
- 2. The land use, building/yard setback, lot area, lot dimension, density, lot coverage, building height and other applicable standards of the underlying land use district are met (Article 3).

Zoning reviews do not address a project's compliance with applicable building, fire and life safety regulations.

Section 10.040. Site Development Review - Application Review Procedure.

When Site Development Review is required, it shall be conducted by the Planning Official or City Council (if referred by the Planning Official) after providing notice as set forth in Section 9.090 and using the application requirements and approval criteria contained in Sections 10.050 - 060, below.

Section 10.050. Site Development Review - Application Submission Requirements.

The following information is required for Site Development Review application submittal as deemed applicable by the Planning Official:

I. Site Development Review Information. An applicant for Site Development Review shall provide the following information.

A. A site analysis map showing:

- a. The applicant's entire property (properties under the same ownership) and the surrounding properties to a distance sufficient to determine the location of the development in the City, and the relationship between the proposed development site and adjacent properties and development.
- b. The property boundaries, dimensions and gross area shall be identified;
- c. Topographic contour lines at 2-foot intervals for slopes of less than 10 percent, and 5-foot intervals for steeper slopes;
- d. Identification of slopes greater than 25 percent;
- e. The location and width of all public and private streets, drives, sidewalks, pathways, rights-of-way, and easements on the site and adjoining the site;
- f. Where available and relevant to the proposal, information related to: distances to neighboring constructed access points, median openings, traffic signals, intersections, and other transportation features on both sides of the property; the number and direction of lanes to be constructed on the driveway, plus striping plans; planned transportation features (lanes, signals, bikeways, walkways, crosswalks, etc.); and trip generation data or appropriate traffic studies;
- g. Potential natural hazard areas, including any areas identified as subject to a 100-year flood, areas subject to high water table, and areas mapped by the City, County, or State as having a potential for geologic hazards;
- h. Resource areas, including marsh and wetland areas, streams, and wildlife habitat identified by the City or any natural resource regulatory agencies as requiring protection;
- i. Site features, including existing structures, pavement, large rock outcroppings, areas having unique views, and drainage ways, canals and ditches;
- j. Locally or federally designated historic and cultural resources on the site and adjacent parcels or lots;

- k. The location, size and species of trees and other vegetation having a caliper (diameter) of six (6) inches or greater at four feet above grade;
 - l. North arrow, scale, names and addresses of all persons listed as owners of the subject property on the most recently recorded deed; and
 - m. Name and address of project designer, engineer, surveyor, and/or planner, if applicable.
- B. Proposed site plan. The site plan shall contain the following information:
- a. The proposed development site, including boundaries, dimensions, and gross area;
 - b. Features identified on the existing site analysis maps that are proposed to remain on or removed from the site;
 - c. The location and dimensions of all proposed public and private streets, drives, rights-of-way, and easements;
 - d. The location and dimensions of all existing and proposed structures, utilities, pavement and other improvements on the site.
 - e. Setback dimensions for all existing and proposed buildings shall be provided on the site plan.
- C. The location and dimensions of entrances and exits to the site for vehicular, pedestrian, and bicycle access:
- a. The location and dimensions of all parking and vehicle circulation areas (show striping for parking stalls and wheel stops);
 - b. Pedestrian and bicycle circulation areas, including sidewalks, internal pathways, pathway connections to adjacent properties, and any bicycle lanes or trails;
 - c. Loading and service areas for waste disposal, loading and delivery;
 - d. Outdoor recreation spaces, common areas, plazas, outdoor seating, street furniture, and similar improvements;
 - e. Location, type, and height of outdoor fencing and lighting;
 - f. Location of mail boxes, if known;
 - g. Name and address of project designer, if applicable;

- h. Locations of bus stops and other public or private transportation facilities;
 - i. Locations, sizes, and types of signs;
 - j. Location of utility connections and pipe sizes.
- D. Architectural drawings. Architectural drawings showing one or all of the following shall be required for new buildings and major remodels:
- a. Building elevations (as determined by the Planning official) with building height and width dimensions;
 - b. Building floor plans with dimensions and use of rooms;
 - c. Building materials, colors and type;
 - d. The name of the architect or designer.
- E. Preliminary grading plan. A preliminary grading plan shall be required for development sites of 10,000 square feet or larger. The preliminary grading plan shall show the location and extent to which grading will take place, indicating general changes to contour lines, slope ratios, slope stabilization proposals, and location and height of retaining walls, if proposed. Surface water detention and treatment plans may also be required by the City Engineer.
- F. Landscape plan. The Planning Official may require a landscape plan showing:
- a. The location and height of existing and proposed fences, buffering or screening materials;
 - b. The location of existing and proposed terraces, retaining walls, decks, patios, shelters, and play areas;
 - c. The location, size, and species of the existing and proposed plant materials (at time of planting);
 - d. Existing and proposed building and pavement outlines;
 - e. Specifications for irrigation (may be automatic or other approved method of irrigation) and anticipated planting schedule;
- G. Sign drawings shall be required in conformance with this ordinance.
- H. Deed restrictions. Copies of all existing and proposed restrictions or covenants, including those for access control.

- I. Narrative. Letter or narrative report documenting compliance with the applicable approval criteria contained in Section 10.060 Approval Criteria.
- J. Traffic Impact Study, when required, shall be prepared in accordance with City and ODOT requirements (Section 4.085).
- K. Public Facilities and Services Demand. The applicant shall work with City staff to assess the impact of the development on the transportation system (including street access, pedestrian ways and bikeways), the drainage system, the parks system, the water system, and the sewer system. For each public facility system and type of impact, improvements shall be identified necessary to meet City standards and to minimize the impact of the development.
- L. State Highway Access Permit. A copy of an approved State Access Permit shall be submitted for any proposal creating a new access or changing an existing access onto a State Highway;
- M. Other information determined by the Planning Official. The City may require studies or exhibits prepared by qualified professionals to address specific site features or project impacts (e.g., traffic, environmental features, natural hazards, etc.), in conformance with this ordinance.

Section 10.060. Site Development Review - Approval Criteria.

The Planning Official (or City Council on referral) shall make written findings with respect to all of the following criteria when approving, approving with conditions, or denying an application:

- 1. The application complies with all of the applicable provisions of the underlying Land Use District (Article 3).
- 2. The application complies with all of the development standards in this ordinance, with particular focus on Article 4 Supplemental Provision requirements.
- 3. Conditions of approval required as part of any prior Land Divisions Conditional Use Permits, or Variances (or other land use approvals) shall be met.
- 4. Conditions of approval require dedication of land for and improvements to public facilities (including but not limited to sanitary sewer, water, storm drainage, communication and transportation facilities) that will be impacted by or are inadequate to handle the additional burden caused by the proposed use.
- 5. Proposed roads follow the natural topography and preserve natural features of the site as much as possible and planned alignments minimize grading. The road system provides adequate access to buildings for residents, visitors, deliveries, emergency vehicles, and garbage collection. Access is properly placed in relation to sight distance, driveway

spacing, and other related considerations, including opportunities for joint and cross access and meets the access management standards in the Transportation System Plan.

6. An internal bicycle and pedestrian system of sidewalks or paths provides connections to parking areas, entrances to the development, and open space, recreational, and other community facilities associated with the development. Streets shall have sidewalks on both sides and pedestrian linkages shall also be provided to the peripheral street system.
7. Any application that involves access to the State Highway System has been reviewed by the Oregon Department of Transportation for conformance with state access management standards.

Section 10.070. Bonding, Assurances and Exactions.

1. Performance (or “Completion”) Bonds for Public Improvements. On all projects where public improvements are required, the City shall require a bond in an amount equal to the contract amount of the public improvements as a condition of site development approval in order to guarantee the public improvements. The City shall be named “obligee” on all bonds.
2. Release of Performance Bonds. The bond or assurance shall be released at the end of a one-year warranty period, which shall begin when the Planning official finds the completed project conforms to the site development approval, including all conditions of approval.
3. Completion of Landscape Installation. Landscaping shall be installed prior to issuance of occupancy permits, unless security equal to 150% of the cost of the landscaping as determined by the Planning official or a qualified landscape architect is filed with the Planning official assuring such installation within six months after occupancy. If the installation of the landscaping is not completed within the six-month period, the security may be used by the City to complete the installation.
4. Dedication of Real Property – City Obligation. In situations where this ordinance requires the dedication of real property to the City, the City shall either (1) include in the written decision evidence that shows that the required property dedication is directly related to and roughly proportional to the projected impacts of the development on public facilities and services, or (2) delete the dedication as a condition of approval.

Section 10.080. Development in Accordance With Permit Approval; Modifications; Permit Expiration.

Development shall not commence until the applicant has received all of the appropriate land use and development approvals (i.e., site development review approval) and building permits. Construction of public improvements shall not commence until the City has approved all required public improvement plans (e.g., utilities, streets, public land dedication, etc.). The City may require the applicant to enter into a development agreement (e.g., for phased developments and developments with required public improvements), and may require bonding or other assurances for improvements.

Development Review and Site Development Review approvals shall be subject to all of the following standards and limitations:

1. Modifications to Approved Plans and Developments. Minor modifications of an approved plan or existing development may be approved by the Planning Official under Zoning Review. However, major modifications, as determined by the Planning Official, shall be reviewed by the City Council under Site Development Review procedures.
2. Approval Period. Zoning Review and Site Development Review approvals shall be effective for a period of one year from the date of approval. The approval shall lapse if:
 - A. A public improvement plan or building permit application for the project has not been submitted within one year of approval; or
 - B. Construction on the site is in violation of the approved plan.
3. Extension. The Planning Official shall, upon written request by the applicant, grant a written extension of the approval period not to exceed one year; provided that:
 - A. No changes are made on the original approved site development review plan;
 - B. The applicant can show intent of initiating construction on the site within the one-year extension period;
 - C. There have been no changes to the applicable Code provisions on which the approval was based. If there have been changes to the applicable Code provisions and the expired plan does not comply with those changes, then the extension shall not be granted; in this case, a new site development review shall be required; and
 - D. The applicant demonstrates that failure to obtain building permits within one year of site design approval was beyond the applicant's control.
4. Phased Development. Phasing of development may be approved with the Site Development Review application, subject to the following standards and procedures:
 - A. A phasing plan shall be submitted with the Site Development Review application.
 - B. The Planning Commission shall approve a time schedule for developing a site in phases, but in no case shall the total time period for all phases be greater than 3 years without reapplying for site development review.
 - C. Approval of a phased site development review proposal requires satisfaction of all of the following criteria:

a. The public facilities required to serve each phase are constructed in conjunction with or prior to each phase;

b. The development and occupancy of any phase dependent on the use of temporary public facilities shall require Planning Commission approval. Temporary facilities shall be approved only upon City receipt of bonding or other assurances to cover the cost of required public improvements, in accordance with Section 4.3.180. A temporary public facility is any facility not constructed to the applicable City or district standard, subject to review by the City Engineer;

c. The phased development shall not result in requiring the City or other property owners to construct public facilities that were required as part of the approved development proposal; and

d. An application for phasing may be approved after Site Development Review approval as a minor modification.

APPENDIX F – JOSEPH LAND DIVISION ORDINANCE (2009) ADOPTED BY ORDINANCE 2009-01

CHAPTER 1. INTRODUCTORY PROVISIONS

Section 101. Short Title. This ordinance may be cited as the Joseph Land Division Ordinance (2009) and replaces the “Sub-division and Partitioning Ordinance of the City of Joseph, Wallowa County, Oregon” adopted by Ordinance No. 76-6.

Section 102. Purpose. In their interpretation and application, the provision of this ordinance shall be held to be the minimum requirement adopted for the public health, safety, and welfare. It is further provided to carry out the intent of the City of Joseph’s Comprehensive Land Use Plan and to promote orderly growth, consistent with the purposes of the plan.

Section 103. Scope of Regulations. All subdivision and partition plats created within the limits of the City of Joseph shall be approved in accordance with these regulations. A person desiring to subdivide land or desiring to partition land shall submit tentative plans and final documents for approval as required by this ordinance and Oregon Revised Statutes (ORS) Chapter 92.

Section 104. Definitions. Definitions used in this ordinance are found Section 1.030, Definitions in the Joseph Zoning Ordinance (2009) and include the following statutory definitions specifically related to the land division process:

Declarant means the person who files a declaration under ORS 92.075.

Declaration means the instrument described in ORS 92.075 by which the subdivision or partition plat was created.

Lawfully established unit of land means:

- A lot or parcel created pursuant to ORS 92.010 to 92.190; or
- Another unit of land created:
 - In compliance with all applicable planning, zoning and subdivision or partition ordinances and regulations; or
 - By deed or land sales contract, if there were no applicable planning, zoning or subdivision or partition ordinances or regulations.

Lawfully established unit of land does not mean a unit of land created to establish a separate tax account.

Lot means a single unit of land that is created by a subdivision.

Negotiate means any activity preliminary to the execution of a binding agreement for the sale of land in a subdivision or partition, including but not limited to advertising, solicitation and promotion of the sale of such land.

Parcel means a single unit of land that is created by a partition.

Partition means either an act of partitioning land or an area or tract of land partitioned.

Partition land means to divide land to create not more than three parcels of land within a calendar year. Partitioning does not include:

- A division of land resulting from a lien foreclosure, foreclosure of a recorded contract for the sale of real property or the creation of cemetery lots;
- An adjustment of a property line by the relocation of a common boundary where an additional unit of land is not created and where the existing unit of land reduced in size by the adjustment complies with any applicable zoning ordinance;
- The division of land resulting from the recording of a subdivision or condominium plat;
- A sale or grant by a person to a public agency or public body for state highway, county road, city street or other right of way purposes provided that such road or right of way complies with the applicable comprehensive plan and ORS 215.213 (2)(p) to (r) and 215.283 (2)(q) to (s). However, any property divided by the sale or grant of property for state highway, county road, city street or other right of way purposes shall continue to be considered a single unit of land until such time as the property is further subdivided or partitioned; or
- A sale or grant by a public agency or public body of excess property resulting from the acquisition of land by the state, a political subdivision or special district for highways, county roads, city streets or other right of way purposes when the sale or grant is part of a property line adjustment incorporating the excess right of way into adjacent property. The property line adjustment shall be approved or disapproved by the applicable local government. If the property line adjustment is approved, it shall be recorded in the deed records of the county where the property is located.

Partition plat includes a final map and other writing containing all the descriptions, locations, specifications, provisions and information concerning a partition.

Plat includes a final subdivision plat, replat or partition plat.

Property line means the division line between two units of land.

Property line adjustment means the relocation or elimination of a common property line between abutting properties.

Replat means the act of platting the lots, parcels and easements in a recorded subdivision or partition plat to achieve a reconfiguration of the existing subdivision or partition plat or to increase or decrease the number of lots in the subdivision.

Sale or sell includes every disposition or transfer of land or an interest or estate therein.

Subdivide land means to divide land to create four or more lots within a calendar year.

Subdivision means either an act of subdividing land or an area or a tract of land subdivided.

Subdivision plat includes a final map and other writing containing all the descriptions, locations, specifications, dedications, provisions and information concerning a subdivision.

Utility easement means an easement noted on a subdivision plat or partition plat for the purpose of installing or maintaining public or private utility infrastructure for the provision of water, power, heat or telecommunications to the public.

CHAPTER 2. FILING PROCEDURES FOR TENTATIVE PLANS

Section 201. Submission Of Tentative Subdivision Plan. Whenever it is proposed to subdivide land, those persons responsible for said subdivision shall prepare and submit, at least five (5) copies of the tentative plan to the Planning Official's office at least fifteen (15) days prior to the City Council's regularly scheduled meeting. The tentative plan shall contain such information as indicated below.

Section 202. Scale. The tentative plan of a subdivision shall be on a scale of one inch equal 100 feet, or for areas over 100 acres, one inch equal 200 feet.

Section 203. General Information. The following information shall be shown on the tentative plan of a subdivision.

1. Name of Subdivision. The name of any proposed subdivision shall not be the same as or similar to any name used on a recorded plat within Wallowa County as required by ORS 92.090 and shall be approved by the Council.
2. Date, north point and scale of drawing.
3. An indication of the drawing as a tentative plan.
4. The township, range, and section in which the subdivision is located.
5. Names and addresses of the owner(s), sub-divider, and engineer or surveyor responsible for laying out the subdivision.
6. The location and dimensions of all existing or proposed streets within and adjacent to the proposed subdivision.

7. The location and design of all proposed pedestrian and bicycle facilities, including accessways.
8. The location and approximate dimensions of proposed lots and the proposed lot and block numbers.
9. Proposed sites if any, allocated for purposes other than single-family dwellings.
10. Location of existing and proposed access point(s) on both sides of the road where applicable;
11. Distances to neighboring constructed access points, median openings (where applicable), traffic signals (where applicable), intersections, and other transportation features on both sides of the property;
12. Number and direction of lanes to be constructed on the driveway plus striping plans;
13. All planned transportation features (such as walkways, bikeways, auxiliary lanes, signals, etc.);
14. Parking and internal circulation plans including walkways and bikeways;
15. A detailed description of any requested variance and the reason the variance is requested.
16. The location and design of bicycle parking facilities shall be indicated on the site plan. The development shall include the number and type of bicycle parking facilities required in section 4.087 of the City of Joseph Zoning Ordinance.
17. The location and approximate dimensions of proposed lots and the proposed lot and block numbers.
18. Proposed sites if any, allocated for purposes other than single-family dwellings.
19. Existing uses and significant natural features of the property and locations of existing structures to remain on the property after platting.
20. All parcels of land intended to be dedicated for public use or reserved in the deeds for the use of all property owners in the proposed subdivision or partition, together with the purpose of conditions or limitations of such reservation, if any.
21. Location of any significant drainage ways or easements in or adjacent to the proposed subdivision.
22. Contour lines related to some established bench work or other datum approved by the City.

Section 204. Supplemental Information.

1. Water Supply. A brief statement indicating proposed source of water, estimated pressure, and other related water service facilities.
2. Sewage Disposal. A brief statement indicating proposed methods of sewage disposal, storm drainage, and data pertinent thereto.
3. Public Utilities. The location and kind of existing and proposed public utilities in or adjacent to the subdivision.
4. Ownership. A preliminary title report issued by a licensed title company indicating all owners of record may be necessary as determined by the City.
5. Additional Information. Such other information as deemed necessary by the City to comply with the intent of this ordinance shall be furnished by the sub-divider.

Section 205. Preliminary Review of Tentative Plan. Upon receipt, the Planning Official shall furnish one copy of a tentative plan and supplementary information to the City Mayor or manager and such other agencies as are known to be affected, including but not limited to irrigation districts, special water districts, fire districts, and school districts. The following access-related criteria for subdivision and site plan review shall be the basis for approval by the City:

1. All proposed roads shall follow the natural topography and preserve natural features of the site as much as possible. Alignments shall be planned to minimize grading.
2. Access shall be properly placed in relation to sight distance, driveway spacing, and other related considerations, including opportunities for joint and cross access.
3. The road system shall provide adequate access to buildings for residents, visitors, deliveries, emergency vehicles, and garbage collection.
4. An internal pedestrian system of sidewalks or paths shall provide connections to parking areas, entrances to the development, and open space, recreational, and other community facilities associated with the development.
5. Streets shall have sidewalks on both sides. Pedestrian linkages shall also be provided to the peripheral street system.
6. The access shall be consistent with the access management standards adopted in the Transportation System Plan.

Section 206. Approval of Tentative Subdivision Plan.

1. Within forty (40) days from the first meeting of the Council following submission of a tentative plan of a subdivision, the Council shall review the plan and the reports of appropriate officials, agencies and districts. The Council may approve the tentative plan

as submitted or as it may be modified in conformance with this ordinance. If the Council does not approve the plan, it shall so express its disapproval and its reason therefore in writing to the sub-divider.

2. No plan or map shall be approved unless it complies with ORS 92. Said approval of the tentative plan shall indicate approval of the final plat, provided, however, that no substantial changes are made in the subdivision and that the sub-divider complies with the requirements of this ordinance.

CHAPTER 3. FINAL PLAT

Section 301. Submission of the Subdivision Plat. Within one year after approval of the tentative plan, the sub-divider shall cause the subdivision or any part thereof to be surveyed and a plat prepared in conformance with and indicating the same information as the approved tentative plan. Extensions may be granted as determined necessary by the City Council.

Section 302. Action on Final Plat. A subdivision plat, when ready for final approval prior to recording, shall be substantially in accord with the approved tentative plan.

1. Before approval by the City, the final plat shall indicate the signatures of all persons set out in the dedication, signatures of the mortgagees, if any, the signature of the County Surveyor, the signature of the County Assessor, and the seal of the registered professional engineer or registered land surveyor responsible for the laying out of the subdivision.
2. All signatures must be in black ink.
3. The plat shall be presented and prepared on such material as required by ORS 92.080.
4. The final plat, when presented for approval thereof by the City, shall be accompanied by an exact duplicate copy.
5. The City shall withhold final approval of a plat until a field check of the subdivision has been made as required by ORS 92.100.
6. If the City does not approve the plat, it shall advise the sub-divider of the changes or additions that must be made and shall afford the sub-divider an opportunity to make corrections.
7. If the City determines that the plat conforms to all requirements, as specified by this ordinance, it shall give its approval, provided supplemental documents and provisions for required improvements are satisfactory.

Section 303. Time Limit for the Recording of a Plat. Within ninety (90) days after the date the last required approving signature has been obtained, the sub-divider shall record the final plat. Failure to record within the ninety (90) day period may cause the subdivision to be declared null and void.

CHAPTER 4. PARTITIONING PROCEDURE

Section 401. General Information. The following information shall be required when submitting a partitioning plan to the City for review:

1. North point, scale and date.
2. Names and addresses of the land owners, mortgagees, if any, the developer and the engineer or surveyor responsible for the surveying and preparation of the description for each parcel involved.
3. A plan of the proposed partitioning showing parcel dimensions, bearings of all lines, area of each parcel and the names of existing and proposed streets.
4. Topography, when considered necessary by the City.
5. Legal description.
6. A statement regarding contemplated water supply and sewage disposal for each tract.
7. Such additional information as the City deems necessary within the intent of this ordinance.

Section 402. Submission and Approval of a Partition. The Planning Official may approve a preliminary partition application when the following criteria are met:

1. The proposed parcels conform to the minimum lot size requirements of the zoning ordinance.
2. The proposed parcels conform to the provisions of the comprehensive land use plan.
3. The proposed parcels conform to the general provisions of this ordinance.

It is further provided that the Planning Official may, if considered so necessary, refer the application to the City Council for review.

Section 403. Serial Partitioning. Serial partitioning shall not be permitted in lieu of the subdivision process. The Planning Official or Council may require a master development plan prior to approving a partition.

CHAPTER 5. GENERAL REGULATIONS AND DESIGN STANDARDS

Section 501. Streets. Each lot or parcel approved through the land division process shall abut a public or private street for the required minimum lot frontage for the zoning district where the lots or parcels are located. The location, width and grade of streets shall be considered in their relation to existing streets in the vicinity of the proposed subdivision or partition, to the

topographical conditions, and to the proposed use of land to be served by the streets and shall be, whenever possible, extension of existing center lines. Streets should intersect at or as near right angles as practicable. These regulations may be modified where the City determines that topography, or the small number of lots or parcels involved or other unusual conditions, justify such modification. If not otherwise indicated in the comprehensive plan or a capital improvement's plan, streets shall conform to standards of the Transportation System Plan (including the Pedestrian and Bicycle Plan) as summarized in Table A.

Table A. Street Standards

STREET TYPE	RIGHT-OF-WAY WIDTH	TOTAL SURFACE WIDTH	PARKING STRIP WIDTH	BIKE LANE	WALKWAY (PLANTING STRIP)	CURB RETURN RADIUS	MAXIMUM PERCENT OF GRADE	MINIMUM RADIUS OF CURVATURE
Arterial	80'	48'-52'	8' on both sides ³	6' on both sides ⁴	6'-18' ² (7'-8') ³	20'	10%	700'
Collector	66'-72'	32'-34'	7-8' on both sides ³	5' on both sides ⁴	5'-6' (7'-8') ³	20'	12%	500'
Local	47'-51'	25'-28"	7'-8' parking on one side ¹	<u>None</u>	5'-6' (7'-8')	15'	13%	100'
Alley	16'-20'	12'-16'	None	None	None	15'	10%	150'

Notes: For all right-of-ways, one street name sign shall be provided at each intersection for each street.

1. Parking may be provided on unpaved shoulder that is designated as a planting strip. The minimum sidewalk width on Main Street in downtown Joseph is 10 feet.
2. Optional planting strips and appropriate curb extensions may be accommodated within walkways.
3. In physically-constrained areas, a planter strip may be constructed in lieu of on-street parking; conversely, on-street parking may also be constructed in lieu of a planter strip at the City's discretion. Parking may consist of parallel or angled parking in downtown Joseph.
4. Narrower bike lanes may be allowed under certain circumstances, as explained in the Design Guidelines chapter of the Joseph Bicycle and Pedestrian Plan.
5. Standards for cul-de-sacs are addressed in Section 501.11 below.

1. Street Grades. No street grade shall be in excess of eight percent, unless the Council finds that, because of topographic conditions, a steeper grade is necessary.
2. Reserve Block. Reserve blocks controlling the access to public ways or which will not prove taxable for special improvements may be required by the Council, but will not be approved unless such strips are necessary for the protection of the public welfare or of substantial property rights, or both, and in no case, unless the land comprising such strips is placed in the name of the City of Joseph for disposal and dedication for street or road purposes whenever such disposal or dedication has the approval of the Council or such other person as may have jurisdiction.
3. Additional right-of-way. Where topographical requirements necessitate either cuts or fills for the proper grading of the street, additional right-of-way shall be required to allow

all cut and fill slopes to be within the rights-of-way.

4. Street Names. Except for extensions of existing street, no street name shall be used which will duplicate or be confused with the name of an existing street. Street names and numbers shall conform to the established pattern in the City and shall be subject to the approval of the Council.
5. Street Dedication. If an area or unit of land to be sub-divided or partitioned includes a portion of a right-of-way, highway or road, the location of which has been determined by the City, but which has not been acquired by the City, the person subdividing or partitioning said land shall dedicate such right-of-way, highway or road for the purpose or use proposed.
 - A. If any lot abuts a street right-of-way that does not conform to the design specifications of this ordinance, the owner may be required to dedicate up to one-half of the total right-of-way width required by this ordinance.
 - B. In no instance shall a sub-divider be required to dedicate more than 25 percent of the total land area of the subdivision.
6. Radius At Street Intersection. The property line radius at street intersections shall be approved by the Council.
7. Two-level Streets. Where it is determined that two-level streets best serve hillside tracts, the right-of-way shall be of sufficient width to provide on each level, space for one sidewalk, plus a minimum width of 20 feet for roadway, curbs, and drainage facilities. Between the two street levels and out to the right-of way lines there shall be space for cut and fill slopes.
8. Street Improvements. All plans and specifications for street improvements, including pavement, curbs, sidewalks and surface drainage shall be approved by the Council prior to construction. Approval of the subdivision may be withheld until the Council is satisfied that some or all of the following improvements will be completed:
 - A. Clearing and grading to full right-of-way limits.
 - B. Storm drainage facilities both within and outside of right-of-way limits if determined to be so necessary by the Council.
 - C. Base and/or pavement materials for streets as required by the Council.
9. Connectivity. The street system of proposed land divisions shall be designed to connect with existing, proposed, and planned streets outside of the subdivision as provided in this Section.
 - A. Wherever a proposed land division abuts unplatted land or a future development phase

of the same development, street stubs shall be provided to provide access to abutting properties or to logically extend the street system into the surrounding area. All street stubs shall be provided with a temporary turn-around unless specifically exempted by the Public Works Director, and the restoration and extension of the street shall be the responsibility of any future developer of the abutting land.

10. Local Connectivity. Minor collector and local residential access streets shall connect with surrounding streets to permit the convenient movement of traffic between residential neighborhoods or facilitate emergency access and evacuation.

A. Connections shall be designed to avoid or minimize through traffic on local streets.

B. Appropriate design and traffic control such as four-way stops and traffic calming measures are the preferred means of discouraging through traffic.

11. Cul-de-Sacs and Accessways. Cul-de-sacs or permanent dead-end streets are discouraged but may be used to serve a proposed development plan where topographical, environmental, or existing adjacent land use constraints make connecting streets infeasible.

A. Cul-de-sac lengths in excess of 300 feet are prohibited.

B. Where cul-de-sacs are planned, accessways shall be provided connecting the ends of cul-de-sacs to each other, to other streets, or to neighborhood activity centers.

12. Corner Clearance.

A. Corner clearance for connections shall meet or exceed the minimum connection spacing requirements for that roadway.

B. New connections shall not be permitted within the functional area of an intersection or interchange as defined by the connection spacing standards of this ordinance, unless no other reasonable access to the property is available.

C. Where no other alternatives exist, the City may allow construction of an access connection along the property line farthest from the intersection. In such cases, directional connections (e.g., right in/out, right in only, or right out only) may be required.

13. Joint and Cross Access. Where land divisions are proposed in commercial areas the City shall require cross access easements and bicycle and pedestrian access as provided in the Joseph Zoning Ordinance, Section 4.020.

14. Access Connection and Driveway Design. Access connections and driveway design, where approved through the land division process, shall comply with the Joseph Zoning

Ordinance, Section 4.020.

15. Nonconforming Access Features. Legal access connections in place as of (date of adoption) that do not conform with the standards herein are considered nonconforming features. These access connections shall be brought into compliance with applicable standards under the following conditions:
 - A. When new access connection permits are requested; or
 - B. Change in use or enlargements or improvements that will increase trip generation are requested.
16. Accessways. Accessways, when required through the land division process, shall meet the following standards:
 - A. Accessways for pedestrians and bicyclists shall be 10 feet wide and located within a 20-foot-wide right-of-way or easement. If the streets within the subdivision are lighted, the accessways shall also be lighted. Stairs or switchback paths may be used where grades are steep, but shall be designed in a manner to facilitate reasonably direct pedestrian and bicycle access.
 - B. Accessways for pedestrians and bicyclists shall be provided at mid-block where the block is longer than 600 feet.
 - C. The Planning Official or City Council may determine, based upon evidence in the record, that an accessway is impracticable. Such evidence may include but is not limited to:
 - a. Physical or topographic conditions make an accessway connection impractical. Such conditions include but are not limited to freeways, railroads, extremely steep slopes, wetlands, or other bodies of water where a connection cannot reasonable be provided.
 - b. Buildings or other existing development on adjacent lands physically preclude a connection now or in the future, considering potential for redevelopment.
 - c. Where accessways would violate provisions of leases, easements, covenants, restrictions, or other agreements existing as of May 1, 1995 that preclude a required accessway connection.
17. Perimeter Street Dedication. If any lot abuts a street right-of-way that does not conform to the design specifications of this ordinance, the owner may be required to dedicate up to one-half of the total right-of-way width required by this ordinance.
18. Pedestrian Access and Circulation. Internal pedestrian circulation shall be provided in for all lots and parcels approved through the land division process.

19. Shared Parking. Shared parking is required as provided in the City of Joseph Zoning Ordinance, Section 4.020.

Section 502. Subdivision Blocks. Subdivision blocks, block lengths and widths shall be determined by giving consideration to the following factors.

1. The distance and alignment of existing blocks and streets adjacent to or in the general vicinity of a proposed subdivision.
2. Topography.
3. Adequate lot size.
4. Need for and direction of the flow of through and local traffic. Provided, however, that in no instance shall the block width be more than 300 feet.

Section 503. Mid-block Accessways. Where topographic or other conditions make it necessary or desirable, the Council may require an accessway through a block on a public right-of-way of such width, at such location and of such material or materials as the Council may specify.

Section 504. Lot Dimensions. All lots and parcels shall conform to minimums established in the City of Joseph Zoning Ordinance.

1. Each proposed lot must be buildable in conformance with the requirements of this ordinance and all other applicable regulations.
2. In cul-de-sacs the minimum lot or parcel line fronting the turnaround shall be 30 feet, and in no case, shall the lot or parcel width be less than 50 feet at the building line.
3. If topography, drainage or other conditions justify, the City may require a greater area on any or all lots or parcels.

Section 505. Curved Front Lot Lines. When front lot lines are on a curve or arc, the front line distances shall be indicated on the final plat by bearing and chord distance.

Section 506. Lot Line.

1. Side lot or parcel lines shall be as close to right angles to the front street line as practicable.
2. Unless otherwise approved, rear lot lines shall be not less than on-half the width of the front lot lines.
3. To provide for proper site design and prevent the creation of irregularly shaped parcels, the depth of any lot or parcel shall not exceed 3 times its width (or 4 times its width in rural areas) unless there is a topographical or environmental constraint or an existing man-made

feature such as a railroad line

Section 507. Building Lines Along Streets. Unless otherwise approved because of some unusual topographic or other conditions, minimum building lines shall be in accordance with setback requirements of the zone in which the subdivision or partition is located.

Section 508. Public Survey Monuments. Any donation land claim, corner, section corner, or other official survey monument within or on the boundary of a proposed subdivision shall be accurately referenced in accordance with ORS 92.

Section 509. Sewage Disposal. All lots or parcels shall be serviced by the City's sewage system. It shall be the sub-divider's responsibility to furnish and install all material necessary to comply with City requirements on sewage disposal. These infrastructure improvements become the property of the City.

Section 510. Water Supply. The sub-divider shall be responsible for providing water lines and fire hydrants to each lot or parcel and connecting the subdivision to the City mains, as required by the Council. Adequate water pressure, as determined by the Oregon State Board of Health, will be provided to each lot by the Developer.

Section 511. Underground Facilities. All permanent utility services to lots in a sub-division shall be provided from underground facilities and no overhead utility service to a subdivision shall be permitted. The sub-divider shall be responsible for complying with the requirements of this section and shall:

1. Obtain all necessary permits for the placement of all underground facilities.
2. Make all necessary arrangements with utility companies and other persons or corporations affected by the installation of such underground lines and facilities in accordance with the rules and regulations of the Public Utility Commissioner of the State of Oregon.
3. Underground easement for utilities shall be provided for by the sub-divider and set forth on the final plat. Each easement shall be a minimum of ten feet in width, and when possible, centered on a bordering lot line.

Section 512. Improvement Guarantee. The Council may, if deemed so necessary, execute an agreement with the sub-divider to have any or all of the above improvements provided by the sub-divider before the parcels within the proposed subdivision are offered to the general public for sale.

Section 513. Flag Lot Standards. Flag lots shall not be permitted when the result would be to increase the number of properties requiring direct and individual access connections to the State Highway System or other arterials. Flag lots may be permitted for residential development when necessary to achieve planning objectives, such as reducing direct access to roadways, providing internal platted lots with access to a residential street, or preserving natural or historic resources,

under the following conditions:

1. Flag lot driveways shall be separated by at least twice the minimum frontage requirement of that zoning district.
2. The flag driveway shall have a minimum width of 10 feet and maximum width of 20 feet.
3. In no instance shall flag lots constitute more than 10 percent of the total number of building sites in a recorded or unrecorded plat, or three lots or more, whichever is greater.
4. The lot area occupied by the flag driveway shall not be counted as part of the required minimum lot area of that zoning district.
5. No more than one flag lot shall be permitted per private right-of-way or access easement.

Section 514. Reverse Frontage. When a residential subdivision is proposed that would abut an arterial, it shall be designed to provide through lots along the arterial with access from a frontage road or interior local road.

1. Access rights of these lots to the arterial shall be dedicated to the (city/county) and recorded with the deed.
2. A berm or buffer yard may be required at the rear of through lots to buffer residences from traffic on the arterial. The berm or buffer yard shall not be located with the public right-of-way.

Section 515. Shared Access. Land divisions with frontage on the state highway system shall be designed to have a maximum of two shared access points to and from the highway, regardless of the number of lots or businesses served.

1. If access off of a secondary street is possible, then access shall not be allowed onto the state highway. If access off of a secondary street is possible in the future, then the land division layout shall allow for conversion of access to that secondary road with a stub-out or reserved right-of-way.
2. New direct accesses to lots or parcels accommodating individual one and two family dwellings shall be prohibited on all state highways except district-level state highways

Section 516. Pedestrian and Bicycle Circulation. Safe and convenient pedestrian and bicycle access shall be provided within new land divisions. Bicycle access shall provide safe, direct and convenient connections to adjacent streets, as well as residential areas and neighborhood activity centers within one-half mile of the development. Residential developments shall include streets with walkways and accessways.

1. Bikeways and sidewalks shall be required along all arterials and collectors.
2. On-site facilities shall be provided that accommodate safe and convenient pedestrian and bicycle access within new subdivisions, multi-family developments, planned development,

shopping centers, and commercial districts, and connecting to adjacent residential areas and neighborhood activity centers within one-half mile of the development. Residential developments shall include streets with sidewalks and accessways. Pedestrian circulation through parking lots shall be provided in the form of accessways or other clearly-defined walkways.

3. Bikeways shall be required along all arterials and collectors. Striped bike lanes or other separated bikeways shall be provided on roadways serving 3,000 vehicle trips per day or greater.
4. Sidewalks shall be required along both sides of all arterials, collectors, and most local streets, except that sidewalks are not required along controlled access roadways (freeways).

Section 517. Relief from Access Requirements. The granting of relief from these access standards of this chapter shall be in harmony with the purpose and intent of these regulations and shall not be considered until every feasible option for meeting access standards is explored. Applicants for relief from these standards must provide proof of unique or special conditions that make strict application of the provisions impractical. Applicants shall include proof that:

1. Indirect or restricted access cannot be obtained;
2. No engineering or construction solutions can be applied to mitigate the condition; and
3. No alternative access is available from a street with a lower functional classification than the primary roadway.

CHAPTER 6. SPECIAL PROVISIONS

Section 601. Variance Process. In requesting a variance, the applicant must submit a written statement specifying the reasons and conditions a specific variance should be submitted to the Council before the presentation of the final plat. In granting or denying a variance, the Council shall make a written record of its findings and reasons for supporting or denying the variance. Such findings shall be kept on file as a matter of public record.

Section 602. Variance Application. The Council may authorize conditional variance to requirements of this ordinance. A variance may be granted only in the event that all of the following circumstances exist:

1. Exceptional or extraordinary circumstances apply to the property that do not apply generally to other properties in the same vicinity and result from tract size or shape, topography or other circumstances.
2. The variance is necessary for the preservation of a property right of the applicant substantially the same as owners of other property in the same vicinity possess.

3. The variance would not be materially detrimental to the purposes of this ordinance, or to property in the same vicinity in which the property is located, or otherwise conflict with the objectives of any City plan or policy.
4. The variance is the minimum variance which would alleviate the hardship and the hardship was not self-imposed.

Section 603. Appeal and Request for Reconsideration.

1. Any person may appeal a decision on a partition made by the Planning Official. The appeal shall be filed with the office of the City Recorder within ten (10) days of the Council's action.
2. Any person who participated in the review of a land division by the City Council may request reconsideration of the Council's decision. The request for reconsideration shall be filed with the office of the City Recorder within ten (10) days of the Council's action.
3. If still aggrieved by the Council's action, a person may use the procedures as provided in ORS 34.100.

Section 604. Severability. The provisions of this ordinance are severable. If a section, sentence, clause or phrase of this ordinance is adjudged by a court of competent jurisdiction to be invalid, the decision shall not affect the validity of the remaining portions of this ordinance.

Section 605. Applicability. This ordinance shall be applicable to all lands within the corporate limits of the City of Joseph, Oregon.

Section 606. Penalties For Violation. In addition to Penalties provided by State law, a person who violates or fails to comply with the provisions of this ordinance shall, upon conviction thereof, be punished by a fine of not more than \$500.00 or by imprisonment for not more than 100 days, or both. A violation of this ordinance shall be considered a separate offense for each day the violation continues.

Section 607. Establishment of Planning Commission. If and when the City considers it desirable to establish a planning commission, as provided in ORS 227, the referral, recommendatory and subsequent appeal provisions normally attributed to a commission may be transferred from the Council to the Commission in matters relating to the enforcement of this ordinance.

Section 608. Fees. Land division fees shall be adopted by Council resolution and periodically will be amended to cover actual costs of development review.

