CITY OF YELM

Downtown Transportation Strategy

A result of the Yelm Avenue and 1st Street Corridor Study

April 2019
Project Information

City of Yelm
106 2nd Street SE
Yelm WA 98597
360.458.3244
Contact: Tami Merriman, Associate Planner

SCJ Alliance
8730 Tallon Lane NE
Suite 200
Lacey WA 98516
360.352.1465
Contact: Elisabeth Wooton, Senior Transportation Planner
# Table of Contents

- **Executive Summary** ........................................................................................................... i
- **Project Background** ............................................................................................................. 1
  - Purpose & Objectives ............................................................................................................ 1
  - Planning Context .................................................................................................................. 2
- **Study Area** .......................................................................................................................... 4
  - Description ......................................................................................................................... 4
  - Crash History ....................................................................................................................... 6
- **Plan Development** ............................................................................................................. 8
  - Project Schedule ................................................................................................................ 8
  - Public Engagement ............................................................................................................. 8
  - Community Issues & Ideas ................................................................................................. 11
- **Action Plan** ....................................................................................................................... 15
  - Overall Concept ................................................................................................................ 15
  - Project List ...................................................................................................................... 17
  - Additional Project Ideas ................................................................................................... 23
  - Further Considerations .................................................................................................... 27
- **Code Compliance** ............................................................................................................. 31
  - Street Design Standards ................................................................................................... 31
  - Speed Hump Specification ............................................................................................... 31
- **Funding** ............................................................................................................................. 33
  - Local Sources ................................................................................................................... 33
  - Grant Sources ................................................................................................................... 35
<table>
<thead>
<tr>
<th>Project Details</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wayfinding Program</td>
<td>1-1</td>
</tr>
<tr>
<td>2nd Street Improvements (North)</td>
<td>2-1</td>
</tr>
<tr>
<td>Mosman Avenue Improvements</td>
<td>3-1</td>
</tr>
<tr>
<td>Washington Avenue &amp; McKenzie Avenue One-Way Couplet</td>
<td>4-1</td>
</tr>
<tr>
<td>3rd Street Improvements</td>
<td>5-1</td>
</tr>
<tr>
<td>Trail Overpass &amp; Trailhead Improvements</td>
<td>6-1</td>
</tr>
<tr>
<td>Yelm Avenue (SR 507) Improvements</td>
<td>7-1</td>
</tr>
<tr>
<td>1st Street (SR 507) Improvements</td>
<td>8-1</td>
</tr>
<tr>
<td>Washington Avenue Improvements</td>
<td>9-1</td>
</tr>
<tr>
<td>McKenzie Avenue Improvements</td>
<td>10-1</td>
</tr>
<tr>
<td>2nd Street Improvements (South)</td>
<td>11-1</td>
</tr>
<tr>
<td>4th Street Improvements</td>
<td>12-1</td>
</tr>
<tr>
<td>Railroad Street Improvements</td>
<td>13-1</td>
</tr>
<tr>
<td>Jefferson Avenue Improvements</td>
<td>14-1</td>
</tr>
</tbody>
</table>
In 2017, the City of Yelm secured a Surface Transportation Program (STP) grant to carry out a transportation study centered around the intersection of 1st Street (SR 507) and Yelm Avenue (SR 510/SR 507). The result of that effort is the Downtown Transportation Strategy which presents transportation-focused solutions that aim to improve safety, mobility, and economic vitality in downtown Yelm.

The pending completion of the Yelm Loop project, which will provide an alternative route for SR 510 traffic north of the city center, is expected to reduce the amount of truck traffic and regional traffic traveling through the heart of Yelm. The anticipated change in traffic patterns and characteristics presents an opportunity for Yelm to reimagine what the local street network should look like and how it should function.

The study area, as illustrated in the diagram to the right, includes the historic business district, civic buildings, community parks, regional trails, and Yelm’s busiest intersection. The projects included in the following strategy address congestion and safety concerns, improve pedestrian and bicycle mobility, increase on-street parking, enhance connectivity between community assets and open spaces, and create an overall greater ‘sense-of-place’ in Yelm.

**STRATEGY DEVELOPMENT**

During the development of the Downtown Transportation Strategy, stakeholders, business owners, and community members were engaged through a series of working group meetings, an open house, a public hearing, and a project webpage. The input and feedback that was shared was used to shape and refine the concepts presented in this strategy. While the following plan aimed to accurately reflect the concerns and interests of the community, further outreach and coordination will be required during subsequent implementation phases to work out project details and final designs.
STRATEGY OBJECTIVES

The overarching purpose of this effort was to develop a transportation-focused action plan that improves mobility for everyone and promotes economic development opportunities in Yelm’s historic downtown core.

In total, fourteen projects are identified in the Downtown Transportation Strategy. The list below is organized to show high-value projects, meaning high-benefit at low-cost, at the top. Taken together, the strategy addresses the following four objectives:

♦ Improve the Flow of people in downtown by improving efficiency and circulation on our streets
♦ Enhance the Vitality of the community through streetscape improvements that highlight Yelm’s unique character
♦ Provide Connectivity with better access to the businesses, civic buildings, and public spaces in downtown
♦ Increase Safety for all travelers, but especially pedestrians and cyclists

PROJECT LIST

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Objectives</th>
<th>Estimated Cost (2018$)</th>
<th>Time Frame</th>
<th>Community Benefit</th>
<th>Phasing Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wayfinding Signage Program</td>
<td>Flow: ●</td>
<td>Vitality: ●</td>
<td>Connectivity: ●</td>
<td>Safety: ●</td>
<td>$130,500</td>
</tr>
<tr>
<td>2nd Street Improvements (North)</td>
<td>Flow: ●</td>
<td>Vitality: ●</td>
<td>Connectivity: ●</td>
<td>Safety: ●</td>
<td>$708,700</td>
</tr>
<tr>
<td>Mosman Avenue Improvements</td>
<td>Flow: ●</td>
<td>Vitality: ●</td>
<td>Connectivity: ●</td>
<td>Safety: ●</td>
<td>$765,800</td>
</tr>
<tr>
<td>Washington Street &amp; McKenzie Avenue One-way Couplet</td>
<td>Flow: ●</td>
<td>Vitality: ●</td>
<td>Connectivity: ●</td>
<td>Safety: ●</td>
<td>$1,163,600</td>
</tr>
<tr>
<td>3rd Street Improvements</td>
<td>Flow: ●</td>
<td>Vitality: ●</td>
<td>Connectivity: ●</td>
<td>Safety: ●</td>
<td>$1,567,300</td>
</tr>
<tr>
<td>Trail Overpass &amp; Trailhead Improvements</td>
<td>Flow: ●</td>
<td>Vitality: ●</td>
<td>Connectivity: ●</td>
<td>Safety: ●</td>
<td>$1,765,300</td>
</tr>
<tr>
<td>Yelm Avenue (SR 507) Improvements</td>
<td>Flow: ●</td>
<td>Vitality: ●</td>
<td>Connectivity: ●</td>
<td>Safety: ●</td>
<td>$2,321,800</td>
</tr>
<tr>
<td>Washington Avenue Improvements</td>
<td>Flow: ●</td>
<td>Vitality: ●</td>
<td>Connectivity: ●</td>
<td>Safety: ●</td>
<td>$478,900</td>
</tr>
<tr>
<td>McKenzie Avenue Improvements</td>
<td>Flow: ●</td>
<td>Vitality: ●</td>
<td>Connectivity: ●</td>
<td>Safety: ●</td>
<td>$562,300</td>
</tr>
<tr>
<td>2nd Street Improvements (South)</td>
<td>Flow: ●</td>
<td>Vitality: ●</td>
<td>Connectivity: ●</td>
<td>Safety: ●</td>
<td>$630,400</td>
</tr>
<tr>
<td>4th Street Improvements</td>
<td>Flow: ●</td>
<td>Vitality: ●</td>
<td>Connectivity: ●</td>
<td>Safety: ●</td>
<td>$1,067,800</td>
</tr>
<tr>
<td>Railroad Street Improvements</td>
<td>Flow: ●</td>
<td>Vitality: ●</td>
<td>Connectivity: ●</td>
<td>Safety: ●</td>
<td>$670,800</td>
</tr>
<tr>
<td>Jefferson Avenue Improvements</td>
<td>Flow: ●</td>
<td>Vitality: ●</td>
<td>Connectivity: ●</td>
<td>Safety: ●</td>
<td>$1,393,500</td>
</tr>
</tbody>
</table>
OPERATIONAL CHANGES

Most of the projects included in the strategy extend the recent redesign of 2nd Street near Yelm City Park to other City streets – improving accessibility and creating consistency in the downtown street network. Many projects only impact the ‘edges’ of the street meaning lane assignments and traffic flows will remain unchanged. However, a handful of projects highlighted below include operational changes that will impact the way traffic moves in downtown.

2nd STREET: One-Way Conversion and Turn Restrictions
A left-turn restriction at Yelm Avenue at 2nd Street, enforced by a center median, will help keep traffic moving on Yelm Avenue. In addition, it allows for the one-way conversion of 2nd Street, between Jefferson Avenue and Yelm Avenue, allowing for angled-parking.

1st STREET: Turn Restrictions and New Midblock Crosswalk
A hardened centerline at the Tim’s Pharmacy driveway on 1st Street will restrict access to right-in/right-out, reducing conflicts and congestion near the busy intersection of Yelm Avenue and 1st Street. In addition, a new midblock crossing will better connect Yelm Skatepark and Yelm City Park.

WASHINGTON AVENUE & McKenzie AVENUE: One-Way Couplet
The one-way conversion of both Washington Avenue and McKenzie Avenue between 2nd Street and 3rd Street will allow for angled-parking and reduce turning conflicts at four downtown intersections.

4th STREET: Speed Humps
The installation of two speed humps on 4th Street between Yelm Avenue and McKenzie Avenue will reduce vehicles speeds, calm traffic, and discourage cut-through behavior as reported by community members.

SENSE-OF-PLACE PROJECTS

Some of the proposed project elements are intended to highlight Yelm’s unique character and make it even more of a destination – a place where people want to get out of their cars, explore on foot, and maybe even spend some money.

PEDESTRIAN INTERSECTION TREATMENT
The application of distinctive paving materials, sidewalk extensions, and pedestrian-activated flashing beacons at three key intersections will significantly improve crossing safety, calm traffic, and highlight the multimodal nature of downtown.

GATEWAY OPPORTUNITIES
An archway sign over 2nd Street south of Yelm Avenue and a Yelm Avenue overpass connecting two trail segments will provide opportunities for gateway treatments, welcoming visitors and better defining the downtown area.

WAYFINDING PROGRAM
Wayfinding signs will help people navigate downtown Yelm more efficiently and improve the connections between community assets such as trails, parks, businesses, and public parking areas. In addition, the signage designs will use consistent color schemes and graphics to further develop and promote the City ‘brand’.
Three additional project ideas were generally supported by the community and warrant further exploration. However, they were not included on the project list because they are not explicitly transportation related and/or are not located in the public right-of-way. Each of these ideas would require significant buy-in, and potentially investment, from property owners to become a reality and may also require the City to acquire properties and/or right-of-way.

**PUBLIC PARKING LOTS**
- The projects proposed in the strategy are expected to increase the number of marked, on-street parking within the study area from roughly 120 spaces to 340 spaces, or an estimated 190% increase
- However, if over time the availability of parking is found to be insufficient, the City may explore providing additional off-street parking in the form of surface lots

**YELM AVENUE POCKET PARK**
- Community members were interested in the idea of a ‘pocket park’ on Yelm Avenue between 2nd Street and 3rd Street
- A small, public open space could be part of a larger redevelopment project on this block, providing patch of green space and a moment of refuge for passers-by
- However, given the commercial value of property on Yelm Avenue, the potential loss of tax revenue should be evaluated

**ACTIVATED ALLEY**
- The idea is to “wake up” the alleyways between Yelm Avenue and Washington Avenue from 1st Street to 4th Street, making them more welcoming spaces for pedestrians and bicycles
- Murals, seating, lighting, alley-facing business entries, and unique paving surfaces could transform the auto-oriented alleys into more vibrant public spaces

**NEXT STEPS**

The City will have to be proactive and opportunistic in their approach to implementation – working to implement high-value projects first, phasing improvements where possible, chasing grant funding, and coordinating with developers and property owners to make other projects happen. Taking the following early steps will help to facilitate implementation, secure funding sources, and maintain momentum within the community.

**UPDATE PLANS AND POLICIES**
Make sure the City code, policies, design standards, and procedures are consistent with the recommended projects and adopt a Complete Street Policy

**SURVEY**
Initiate a right-of-way survey to better understand the constraints and opportunities, especially along Yelm Avenue, and use the results to refine project designs

**GRANT APPLICATIONS**
Start working with grant administrators to identify the most appropriate grant opportunities and take steps to make applications as competitive as possible

**KEEP PEOPLE ENGAGED**
Continue working with stakeholders to make progress on initiatives that would benefit from volunteer labor or further coordination, such as a Wayfinding Program

**TEST CONCEPTS**
Explore implementing the operational elements of projects using temporary materials to cash-in on the mobility benefits as well as to test and refine the design
Project Background

Purpose & Objectives

The overarching objective of this project was to develop a transportation-focused action plan which promotes economic development opportunities and improves mobility for everyone in Yelm’s historic downtown core.

SR 507 and SR 510, known locally as 1st Street and Yelm Avenue, intersect in downtown Yelm. Both state highways serve not only as main arterials in Yelm, with Yelm Avenue functioning as the downtown “Main Street”, but also as significant commuter routes for regional traffic. As such, these two roads and the intersection in downtown Yelm experience significant congestion that creates safety hazards. The current conditions do not support non-motorized travel and negatively impact access and circulation for local businesses.

In developing the Downtown Transportation Strategy, the existing conditions, infrastructure constraints, and opportunities in downtown Yelm were evaluated to identify a number of solutions that:

- Increase the flow of people in downtown by improving efficiency and circulation on our streets
- Enhance the vitality of the community through streetscape improvements that highlight Yelm’s unique character
- Provide connectivity with better access to the businesses, civic buildings, and public spaces in downtown
- Improve safety for all travelers, but especially pedestrians and cyclists
Planning Context

In the last two decades, the population of Yelm has increased nearly three-fold, from 2,700 in 1998 to over 9,100 in 2018. While Yelm is still considered small and rural by most standards, the City expects the population to continue growing and anticipates the development of more urban land uses including new businesses, mixed-use buildings, and higher density housing over time. As such, the City must adapt to accommodate this growth, including the design of streets in the downtown historic business district.

Previous planning efforts, as well as ongoing and recently completed capital projects, provided important context for the Downtown Transportation Strategy. In 1995, a community planning effort produced The Yelm Vision Plan which provided a blueprint of how the City wanted to develop at that time. The plan included transportation recommendations, some of which have been implemented and some of which have not. The Downtown Transportation Strategy revisits and builds upon some of these same concepts.

In recent years, the City has made major investments in their public open spaces and civic buildings, including carrying out the Yelm City Park master plan. As a part of this project, upgrades were also made to the surrounding street network including 2nd Street and Mosman Avenue. Over the course of this study, Yelm City Hall moved to a more central location, across from the new Community Center and the Public Safety Building, which has helped to create a more defined civic center in the community. These improvements act as a catalyst for future projects and provide guidance, in terms of street design and land use decisions, going forward.

Another significant influence on this plan is the Washington State Department of Transportation (WSDOT) Yelm Loop project to construct a bypass for SR 510, creating an alternate route and reducing the volume of regional traffic and truck traffic in downtown Yelm. At the time this plan was prepared, the second stage...
of the Yelm Loop project was underway. In addition to WSDOT’s Yelm Loop project, the City of Yelm’s Transportation Plan (2009) identified a series of connected arterials that will permit through traffic to bypass central Yelm as a way to reduce congestion in the central core. These projects are collectively referred to as the ‘mini-loops’ and offer route alternatives both north and south of Yelm Avenue.

In the long-term, the Yelm Loop and the Mini-Loop projects have the potential to drastically change both the type of traffic and volume of traffic traveling through the heart of Yelm. The completion of these projects presents an opportunity for Yelm to reimagine and revitalize Yelm Avenue and encourage a more walkable downtown. On the flip side, it means Yelm will have to work harder to attract visitors and ensure the local business district remains vibrant and active.
Study Area

Description

Our plan focuses on the area of Yelm bounded by SE Mosman Avenue to the south, Jefferson Avenue NE to the north, SW Railroad Street to the west, and 4th Street SE to the east. The study area, centered around the intersection of SR 507 (1st Street) and SR 510 (Yelm Avenue), combines a more regular street grid with land uses that support a vibrant, walkable, town center. It is home to Yelm’s historic business district and many public facilities including City Hall, Public Safety, Yelm Public Schools, and the Community Center. The iconic Yelm Water Tower is also found in the heart of the study area. Yelm City Park and Yelm Skatepark are both centrally located, with Cochrane Memorial Park located just south of the study boundaries. In addition, two regional trail systems, the Yelm-Tenino Trail and the Prairie Line Trail, both run parallel to 1st Street and terminate within the study area.
Crash History

The plan was also informed by a review of WSDOT’s 3-year crash history, conducted to better understand the existing safety issues and ensure that proposed solutions address them appropriately. The analysis focused on the two state routes which carry the most traffic within the study area limits, 1st Street (SR 507) and Yelm Avenue (SR 510/SR 507).

In total, there were 57 crashes reported between January 1, 2015 and December 31, 2017, which resulted in 21 injuries and no fatalities. Two of the crashes involved pedestrian injuries, one at Jefferson Avenue and 1st Street and another at Yelm Avenue and 3rd Street. The highest concentration of vehicle crashes occurred at the intersection of 1st Street and Yelm Avenue with 16 crashes, most of which were documented as related to following too close and inattention.

The following recommendations came out of the safety analysis:

- Explore traffic signal timing improvements on 1st Street intersections (Yelm Avenue and Mosman Avenue)
- Install pedestrian-activated flashing beacons at existing unsignalized crosswalks (Yelm Avenue/2nd Street, Yelm Avenue/3rd Street, and 1st Street/Jefferson Avenue)
- Install a new mid-block crossing on 1st Street, connecting the city park to the skatepark, with a pedestrian-activated flashing beacon
Plan Development

Project Schedule

This plan took shape over the course of a year with input from City staff, business owners, stakeholders, elected leadership, and community members. As the plan progressed, the concepts and proposed projects got refined and further developed to eventually create the contents of this plan.

Public Engagement

This study included a significant public engagement process over several months, using multiple channels for input and education. The feedback gathered through this outreach process helped to shape and refine the following plan and project recommendations.
Community Workshops

The project team met with several stakeholder groups to solicit input on downtown transportation issues and influences on the livability of downtown Yelm. These groups included:

- Business owners
- Property owners
- Community organizations
- Economic Development Council
- Council members
- Planning Commission members
- Chamber of Commerce

Stakeholder Coordination

The team also spoke with stakeholder groups representing agencies that have an interest in downtown Yelm and proposed improvements in the area. These included:

- Intercity Transit
- SE Thurston Fire Authority
- Yelm Community Schools
- Puget Sound Energy
- Washington State Department of Transportation

Public Open House

On December 13, 2018, the City hosted an Open House meeting at the Yelm Community Center. Over 40 people attended and had the opportunity to learn about the proposed strategies and projects to enhance downtown Yelm. They were also able to provide their feedback to the project team through a survey and general comment form which was used to refine the proposed projects. The overwhelming majority of participants felt the proposed concepts were on the right track and addressed their issues and ideas adequately.
Project Webpage

The City’s website hosted a project information page that provided updates to the community about project progress. From the webpage, community members were able to access information on upcoming meetings, view comments from public engagement events, sign up for project updates, and review the draft plan and recommendations.
Community Issues & Ideas

What We Heard

The following is a summary of the common issues and ideas that were shared in conversations with various community members, business owners, and stakeholders.

Yelm Avenue

- There is congestion on Yelm Avenue, not only during peak periods
- There are existing bike lanes on Yelm Avenue to the east and west of the study area, but not through key blocks in downtown
- Bicycle activity is fairly low on Yelm Avenue, sidewalks and parking should be prioritized
- Sidewalks are in disrepair and are too narrow in some spots
- Many of the existing trees are overgrown and block business fronts
- Right-of-way is constrained so we cannot have everything, must consider trade-offs between on-street parking, sidewalks, and bike facilities
Intersection Modifications

- Left-turns from Yelm Avenue onto 1st Street back through the 2nd Street intersection
- Trucks have difficulty making turns at Yelm Avenue and 1st Street, especially westbound right-turns which have a history of clipping the theater building
- Drivers cut through on 3rd Street and 2nd Street to avoid the signal at 1st Street

One-Way Streets

- Interest in having a one-way couplet in the historic core
- Couplet ideas included 2nd Street and 3rd Street, Yelm Avenue and Stevens Street, and Washington Avenue and McKenzie Avenue
- Opportunity to include angled parking and increase on-street parking

Public Parking

- There is a need for on-street parking on Yelm Avenue for quick stops at businesses
- Parallel parking maneuvers on Yelm Avenue cause congestion and safety concerns
- On-street parking reduces visibility for vehicles entering from driveways and the side streets
- If the pedestrian environment were improved people might be more willing to park further away and walk to their destination
Trail Connections

- Yelm is in an excellent location on the trail system to attract trail users to stop for a bite or a beverage
- Trails are an important community asset that are currently not highlighted or well-integrated with Yelm businesses
- Trailheads and parking are difficult to find
- Missing link between the Yelm-Tenino Trail (south of Yelm Ave) and Prairie Line Trail (north of Yelm Ave)
- Difficult for trail users to cross Yelm Avenue and Mosman Avenue

Wayfinding & Gateway Treatments

- Need to make Yelm more than a ‘drive-by’ experience
- More public art, maybe a city-wide mural program
- Signage needed to orient visitors and highlight public parking, trail, and other assets
What We Know

Transportation planning in an urbanizing but traditional rural community like Yelm must address a number of typical issues, such as:

- Safety of pedestrians and bicyclists as traffic volumes increase
- Travel mode shift with increasing numbers of pedestrians, bicyclists, and transit riders
- Business access, circulation, and visibility
- Community desire for a greater sense-of-place, public spaces, and a “destination” center
- Balance between accommodating regional through-traffic and local access
- Provision for alternate routes
- Land uses transitioning to mixed-use and higher-density housing in the downtown core
- Public investments as a catalyst for private development
- Businesses adapting to shifting trends in transportation

Many of the issues and ideas identified in the public engagement process were consistent with these themes. However, some concerns and ideas shared indicated a limited understanding of traffic operations, trade-offs related to constrained right-of-way, or the limitations of City-sponsored improvement plans. Conversations with community members through work sessions and the open house, were useful in providing public education on these matters and developing a consensus based on a shared understanding of the issues.

The projects included in this plan respond directly to issues and ideas expressed by the community. Furthermore, the Project Action Plan is informed by time-tested strategies for traffic engineering and downtown economic development, as well as some innovative ideas specific to the City of Yelm that were developed collaboratively with the community.
Action Plan

Overall Concept

Within the overall concept, as shown in the illustration on the opposite page, there are fourteen distinct projects to enhance Yelm’s downtown. These projects address the issues and ideas that were identified through the evaluation of downtown traffic conditions, public engagement efforts, and anticipation of future conditions. Several themes arose during the engagement process which helped shape the projects included in this plan. Each of the proposed projects address some or all of the following four objectives:

Flow

FLOW describes traffic operations, property access, and the circulation of people. Without adequate FLOW, businesses will struggle, traffic congestion will clog the streets, and people won’t feel like downtown is a fun place to spend time. Projects that increase FLOW for all modes of travel, will increase the viability of Yelm’s historic commercial district.

Vitality

VITALITY describes those elements that breathe life into the community. People strolling on sidewalks, customers visiting stores, and children playing in the park and riding bikes on the trails. Projects that develop a sense-of-place, add unique character, improve access to businesses, and highlight our community assets will increase VITALITY and make Yelm even more of a destination.

Connectivity

CONNECTIVITY is essential to the flow and vitality mentioned above. If people cannot safely and efficiently move from one part of the community to another, the City suffers. Projects that complete the gaps in the transportation network by building or improving sidewalks, trails, bike lanes, or public gathering spaces increase CONNECTIVITY between people and places.

Safety

SAFETY is a high priority in Yelm. Projects in downtown will enhance the SAFETY of the community through making sidewalks improvements, safer pedestrian crossings, more efficient intersection operations, and applying traffic calming treatments to encourage vehicle speeds that are more compatible with pedestrian and bicycle activity and the nearby land uses.
Project List

The table below provides a quick overview of all fourteen projects that make up the Downtown Transportation Strategy, followed by a brief overview of each project. As noted in the table, the projects vary in terms of objectives, estimated cost, possible time-frame given the complexity of project elements, anticipated community benefit, and an ability to be phased. Understanding these factors will help the City think strategically about how to make the investments needed to carry out this action plan.

The projects in this plan have not been prioritized on purpose. When it comes to implementation, the City will need to be proactive and opportunistic – working to implement high value projects first, chasing funding for projects that are well-suited to a particular grant pool, and working with developers and property owners to make other projects a reality.

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Objectives</th>
<th>Estimated Cost (2018$)</th>
<th>Time Frame</th>
<th>Community Benefit</th>
<th>Phasing Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wayfinding Signage Program</td>
<td>Flow, Vitality, Connectivity, Safety</td>
<td>$130,500</td>
<td>Near-term</td>
<td>High</td>
<td>Yes</td>
</tr>
<tr>
<td>2nd Street Improvements (North)</td>
<td>Flow, Vitality, Connectivity</td>
<td>$708,700</td>
<td>Mid-term</td>
<td>High</td>
<td>Yes</td>
</tr>
<tr>
<td>Mosman Avenue Improvements</td>
<td>Flow, Vitality, Connectivity</td>
<td>$765,800</td>
<td>Mid-term</td>
<td>High</td>
<td>No</td>
</tr>
<tr>
<td>Washington Street &amp; McKenzie Avenue One-way Couplet</td>
<td>Flow, Vitality, Connectivity</td>
<td>$1,163,600</td>
<td>Long-term</td>
<td>High</td>
<td>Yes</td>
</tr>
<tr>
<td>3rd Street Improvements</td>
<td>Flow, Vitality, Connectivity</td>
<td>$1,567,300</td>
<td>Mid-term</td>
<td>High</td>
<td>No</td>
</tr>
<tr>
<td>Trail Overpass &amp; Trailhead Improvements</td>
<td>Flow, Vitality, Connectivity</td>
<td>$1,765,300</td>
<td>Long-term</td>
<td>High</td>
<td>Yes</td>
</tr>
<tr>
<td>Yelm Avenue (SR 507) Improvements</td>
<td>Flow, Vitality, Connectivity</td>
<td>$2,321,800</td>
<td>Mid-term</td>
<td>High</td>
<td>Yes</td>
</tr>
<tr>
<td>1st Street (SR 507) Improvements</td>
<td>Flow, Vitality, Connectivity</td>
<td>$338,600</td>
<td>Near-term</td>
<td>Medium</td>
<td>Yes</td>
</tr>
<tr>
<td>Washington Avenue Improvements</td>
<td>Flow, Vitality, Connectivity</td>
<td>$478,900</td>
<td>Mid-term</td>
<td>Medium</td>
<td>No</td>
</tr>
<tr>
<td>McKenzie Avenue Improvements</td>
<td>Flow, Vitality, Connectivity</td>
<td>$562,300</td>
<td>Mid-term</td>
<td>Medium</td>
<td>No</td>
</tr>
<tr>
<td>2nd Street Improvements (South)</td>
<td>Flow, Vitality, Connectivity</td>
<td>$630,400</td>
<td>Mid-term</td>
<td>Medium</td>
<td>No</td>
</tr>
<tr>
<td>4th Street Improvements</td>
<td>Flow, Vitality, Connectivity</td>
<td>$1,067,800</td>
<td>Mid-term</td>
<td>Medium</td>
<td>Yes</td>
</tr>
<tr>
<td>Railroad Street Improvements</td>
<td>Flow, Vitality, Connectivity</td>
<td>$670,800</td>
<td>Mid-term</td>
<td>Low</td>
<td>No</td>
</tr>
<tr>
<td>Jefferson Avenue Improvements</td>
<td>Flow, Vitality, Connectivity</td>
<td>$1,393,500</td>
<td>Mid-term</td>
<td>Low</td>
<td>No</td>
</tr>
</tbody>
</table>
Brief introductions to each project are provided here but a more detailed description is provided in the appendix to this plan, including details on project elements, typical cross sections, cost estimate, design considerations, and potential phasing opportunities.

**Wayfinding Program**

A unified wayfinding program presents an opportunity for Yelm to further develop the 'look-and-feel' of the community by designing signage that uses colors and designs that speak to the unique character of Yelm. Navigational signs will help visitors find businesses, community buildings, parks, and public parking faster and more efficiently. The City can consider different applications for wayfinding such as directional signs on posts intended for low-speed travelers, trail markings, public parking medallions, etc. The City may partner with local artists, designers, and fabricators to contribute to the project.

**2nd Street Improvements (North)**

This project would extend the recent upgrades to 2nd Street near Yelm City Park to the north. Between Washington Avenue and Yelm Avenue, the improvements would match the recently reconstructed portion with sidewalks, sidewalk extensions, street lights, and street trees. In addition, a decorative gateway arch installed over 2nd Street will draw visitors from Yelm Avenue toward destinations like Yelm City Park, City Hall, and the community center.

As a part of the Yelm Avenue Improvements project, a left-turn restriction at 2nd Street would greatly reduce the functionality of the one-block stretch of 2nd Street between Yelm Avenue and Jefferson Avenue. This project would convert that short segment to one-way traffic southbound and install angled parking on the east side of the street to increase the availability of on-street parking near a key downtown intersection.
Mosman Avenue Improvements

In the future, as a part of a City-initiated mini-loop project, Mosman Avenue is planned to be extended eastward to Clark Road. As such, Mosman Avenue is planned to become a minor arterial carrying more traffic than it currently does. A recent project realigned the intersection of Mosman Avenue and 1st Street and constructed curb, gutter, sidewalk, street lighting, and a bike lane on Mosman Avenue between 1st Street and 2nd Street. This project would extend those same street elements to 3rd Street and install a distinct intersection treatment at 2nd Street to improve the pedestrian crossing that connects two of Yelm’s most-loved open spaces, Yelm City Park and Cochrane Memorial Park.

Washington Street & McKenzie Avenue One-Way Couplet

The recent relocation of Yelm City Hall to be closer to the Public Safety Building and Community Center has furthered solidified this area of downtown as the civic heart of Yelm. This project includes the one-way conversion of two one-block segments of both Washington Street and McKenzie Avenue between 2nd Street and 3rd Street. The one-way couplet will improve circulation in downtown Yelm and simplify turning movements at all four intersections. The proposed project installs angled parking on both streets which increases parking in this area significantly. The wider sidewalks, street trees, and decorative lighting features will calm traffic and drastically improve the pedestrian environment. Sidewalk extensions at intersections will reduce crossing distances and improve sightlines, increasing safety for everyone at intersections.

3rd Street Improvements

There is currently a lot of untapped development potential on 3rd Avenue and if the proposed left-turn ban at 2nd Street and Yelm Avenue is implemented, it will increase the volume of vehicles using 3rd Street. In order to accommodate the growth envisioned for 3rd Street, this project would implement the same improvements that were recently constructed on 2nd Street including better sidewalks, parallel parking, sidewalk extensions, decorative street lighting, and street trees. These improvements would increase pedestrian safety, calm traffic, and create consistency in the downtown street network.
Yelm Avenue (SR 507) Improvements

The concentration of pedestrian-oriented, historic businesses and buildings located on Yelm Avenue is what makes it Yelm’s ‘Main Street’. As such, the City envisions it as being the most walkable street in downtown. Recognizing the limited availability of right-of-way on Yelm Avenue, the City has chosen to prioritize pedestrian comfort and traffic flow in the future design.

Maintaining the center turn lane and restricting left-turn movements at 2nd Street will help to keep traffic moving on Yelm Avenue. Wide sidewalks, distinctive intersection treatments, sidewalk extensions at crosswalks, and pedestrian-activated crossing beacons will greatly enhance pedestrian comfort and safety. The proposed streetscape improvements, including street trees, median islands, and decorative street lights with banners, will calm traffic and convey to drivers that they are in a unique place in town.

‘Sharrows’, or markings installed in the travel lane to tell drivers this is a shared space, will connect the bike lanes found on Yelm Avenue to the east and west of the study area. To support local businesses, a parallel parking lane is provided where right-of-way allows while maintaining the center turn-lane and minimum sidewalk width. Options for increasing parking on Yelm Avenue are discussed as a part of the design considerations in the detailed project description.

1st Street (SR 507) Improvements

A section of 1st Street was recently reconstructed to accommodate a center-turn lane and build sidewalks on the west side of 1st Street. This project would build upon these improvements by completing existing sidewalk gaps on the west side of the street and installing a new mid-block crossing south of Washington Avenue, connecting the Yelm Skatepark and Yelm City Park. Pedestrian-activated beacons and median refuge island will improve safety at this new crossing as well as the existing crossing at Jefferson Avenue. To improve safety and traffic flow, turning movements occurring at a driveway just south of the Yelm Avenue and 1st Street intersection will be restricted by curbing along the center line.
Washington Avenue Improvements

The construction of sidewalk and the formalization of on-street parking will increase safety and improve pedestrian connectivity between 1st Street and 2nd Street. In addition, it will create consistency in the street network throughout downtown Yelm.

McKenzie Avenue Improvements

Similar to the Washington Avenue Improvements project, the construction of sidewalk and the formalization of on-street parking will increase safety and improve pedestrian connectivity between 3rd Street and 4th Street. In addition, it will create consistency in the street network throughout downtown Yelm.

2nd Street Improvements (South)

Cochrane Memorial Park, a well-regarded park in Yelm, is located at the southern terminus of 2nd Street. However, there is poor connectivity to the park from downtown. Reconstructing 2nd Street, between Mosman Avenue and the northern entrance of the park, with curb, gutter, sidewalk, street trees, and street lighting will improve access to Cochrane Park, increase safety for visitors, and enhance the connection between the park and amenities found further north.

4th Street Improvements

This project addresses concerns shared by community members regarding speeding and cut-through traffic on 4th Street. This project would increase pedestrian safety and calm traffic along the corridor by constructing curb, gutter, sidewalk, street lighting, and two speed humps between Yelm Avenue and McKenzie Avenue.

Trail Overpass & Trailhead Improvements

Two trails systems, the Yelm-Tenino Trail and the Prairie Line Trail, are valuable recreational assets for the community and come together within the study area. The trails provide a place for Yelm residents to get out and walk or bike uninterrupted and they also bring visitors into the area. However, the connection between the two trail segments and between the trails and downtown business
core is severely lacking. This project would improve connectivity by installing wayfinding signage, improving the trailhead at Railroad Avenue and Washington Street, and constructing an overpass over Yelm Avenue. The bridge structure could also be designed to act as a gateway treatment for vehicles coming from the west into Yelm.

**Railroad Street Improvements**

Railroad Street serves a mix of land uses including commercial and light industrial uses, single family homes, as well as multi-family homes. It also provides access to a trailhead for the Yelm-Tenino Trail, a public parking lot, and the former Yelm City Hall building. This project will construct curb, gutter, and sidewalks on both sides of Railroad Street, improving pedestrian connectivity and enhancing access to the trailhead and public parking area.

**Jefferson Avenue Improvements**

Jefferson Avenue, the northern border of the study area, currently serves a majority of residential uses. However, being located within the Central Business District zone means that Jefferson Avenue could someday experience redevelopment. This project will improve the entire length of Jefferson Avenue by building sidewalks, parallel parking lanes, and sidewalk extensions at intersections. These changes will increase pedestrian safety, shorten crossing distances, improve visibility, and calm traffic along the corridor by visually narrowing the roadway.
Additional Project Ideas

Some ideas were raised in the development of this plan that were generally supported by the community but were not explicitly transportation related and/or were not located within the public right-of-way. Each of these ideas would require significant buy-in, and potentially investment, from property owners and/or may require the City to acquire properties to complete. A description of each is provided below with discussion of potential design considerations for further exploration.

Public Parking Lots

The proposed plan has the potential to increase the number of marked, on-street parking spaces within the study area from the current 116 spaces to an estimated 336 spaces. This represents an increase of 220 spaces or a 190-percent increase in on-street parking downtown. In addition, the improved pedestrian environment will make it easier and more enjoyable for people to park a little further away and walk to their intended destination.

However, during the outreach process, the availability of parking was a common topic of conversation and concern. As the City works through implementing the Downtown Transportation Strategy, they should monitor parking availability and occupancy in the area. There are currently four public parking lots within the study area that provide a total of 70 off-street parking spaces. Before constructing any additional off-street parking, the City should try to increase occupancy of existing public parking through wayfinding signage and projects to improve pedestrian connectivity between parking and retail destinations.

Over time, if a lack of public parking is found to be limiting the economic vitality of downtown businesses, the City may explore providing additional off-street public parking. There are a number of parcels within the study area that are potential candidates for a surface parking lot, some of which are already City-owned.

Yelm Avenue Pocket Park

During the community workshops, an idea for a public open space on the south side of Yelm Avenue between 2nd Street and 3rd Street was brought up. As discussed, this project represents a public-private partnership wherein a private entity would make the capital investment to construct the park and the City would acquire the property as public open space and be responsible for all maintenance and operations. Community members at the workshops and participants of the open house largely supported the idea of a Yelm Avenue Pocket Park.
The term ‘pocket park’ describes a small, public open space, usually nestled within the buildings of a built-out downtown area, that provides a break in the concrete to allow for some green space and moment of refuge for visitors and residents alike. In conjunction with a redevelopment of the corner parcel at Yelm Avenue and 3rd Street and the Activated Alley project described below, the Yelm Avenue Pocket Park could create connectivity between Yelm Avenue and Washington Avenue and provide additional community gathering space for special events or programming. In addition, this project would support policies and goals in the Yelm Comprehensive Plan which specifically calls for the acquisition and development of pocket parks (Parks and Recreation, Goal 2).

Another consideration is the potential loss of tax revenue if a park were to be located on Yelm Avenue, which is a prime property for commercial or mixed-use development. Given the proximity of other public open spaces, using this high-value land for a City park may not be the highest and best use of the space in terms of the public good.

Activated Alley

One concept that represents a long-range vision for the downtown area is to ‘activate’ the alley, located midblock between Yelm Avenue and Washington Avenue, between 1st Street and 4th Street. In general, an activated alley project means the repurposing of underused alleyways to make them more welcoming places for pedestrians and bicyclists. Murals, seating, lighting, alley-facing retail, and unique paving surfaces can all help to transform an auto-oriented alley into a more vibrant public space.

Throughout the public engagement process, the activated alley concept was considered to have value and represent a public benefit. However, the activated alley concept does not address a pressing mobility or safety need in Yelm. As such, implementation of this idea would take time and would require a close partnership between the City and alley-facing property owners and business owners.
Funding a project like this would require significant investment on the private side as well as the public side. If implemented, the proposed activated alley concept for Yelm could include:

- Distinct paving material to indicate the shared nature of the space
- Midblock crosswalks on 2nd Street and 3rd Street, connecting alleyways with the potential to install raised crosswalks to slow traffic and emphasize the pedestrian activity
- Maintain access for truck deliveries to businesses
- Encourage businesses to orient entrances and seating areas toward the alley
- Activate the space with murals and art pieces created by local artists
- Creative, pedestrian-scale illumination to improve safety and security and add unique character
- Provide additional pedestrian connections north-south between Yelm Avenue and Washington Avenue

If done well, the activated alley could increase route options for pedestrians and cyclists and become a defining destination of the community. In addition, it would provide a unique backdrop for hosting public programming and community events.
Rendering of the Activated Alley concept looking toward 1st Street from 2nd Street
Further Considerations

A number of the projects identified in this strategy have design considerations that will require further discussions during the design phase before a final decision is reached. Many of these items were brought up by stakeholders and community members during the public review process of the draft plan. The purpose of this section is to draw attention to some of these outstanding considerations and briefly cover the potential trade-offs associated with the various design options.

Yelm Avenue On-Street Parking

While there are pros and cons of accommodating on-street parking on a busy arterial street such as Yelm Avenue, the City is in favor of accommodating on-street parking in the historic downtown because it activates the street, calms traffic, and supports small, locally-owned businesses that often have limited on-site or off-street parking availability.

However, Yelm Avenue has right-of-way limitations which require the consideration of trade-offs when approaching the street design. Between 2nd Street and 4th Street, the working assumption when developing conceptual designs was that there is 60-feet of right-of-way available. Maintaining the three-lane profile, with a continuous center turn-lane, was considered necessary to keep traffic moving more smoothly and reduce vehicle conflicts. Accommodating a center turn-lane means that there is less right-of-way available for other street elements such as sidewalks, bike facilities, and on-street parking.

To provide parallel parking lanes on both sides of Yelm Avenue, assuming 60-foot right of way and a standard 8-foot parking lane, sidewalks would be reduced to 6-feet on either side of the street. Minimum required width, as stated in the United State Access Board’s Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (2011), is 4-feet. Considering the placement of light poles, street trees, and other street furniture, a 6-foot sidewalk would just barely meet this minimum requirement. Simply satisfying the minimum requirement is not consistent with the larger vision for this segment of Yelm Avenue which is seen as the ‘Main Street’ of the community. The intention is to build on the existing fabric of historic buildings and businesses while making changes toward achieving a more people-focused street design that encourages pedestrian activity and provides a comfortable walking environment for all types of pedestrians, including people with mobility limitations, seniors, and school children. Yelm Avenue should be a street where families and friends can walk side-by-side and easily share the sidewalk with other people walking.

The Pros of On-Street Parking:
- Creates a ‘Main Street’ feel and supports local businesses
- Acts as buffer between the travel lane and pedestrian space
- Calms traffic and reduces vehicle speeds

The Cons of On-Street Parking:
- Parking maneuvers cause conflicts and congestion
- Increased impervious surface and stormwater run-off
- Less right-of-way available for other street elements
The conceptual design, as presented in this plan, is considered to be the best-possible solution given the known constraints. In addition, the proposed 10-foot sidewalk is consistent with what was built on the south side of the street in the mid-2000's. However, to address the concerns that were shared about the loss of parking on the north side of Yelm Avenue between 2nd Street and 3rd Street, the design considerations section of the Yelm Avenue project descriptions presents three potential design solutions that would provide more on-street parking on Yelm Avenue.

While the City has an interest in providing adequate parking for the businesses on Yelm Avenue, the plan does not presuppose what the best solution might be. Reaching a decision regarding the final design of Yelm Avenue will require a right-of-way survey, further discussion with and approval from WSDOT, additional coordination with impacted property owners and business owners, and potentially right-of-way acquisition.

The existing parking will not be removed prior to exploring these, and potentially other, options for providing adequate and/or alternate parking. In addition, any potential changes to parking would not be implemented as a stand-alone effort. If required, they would be part of a larger capital project that also significantly improves the safety and comfort of crossings on Yelm Avenue.

2nd Street One-Way Direction

As included in this plan, the one-block section of 2nd Street between Jefferson Avenue and Yelm Avenue in proposed to be converted to one-way traffic in the southbound direction. The reasoning behind that decision was based on the following two factors:

▪ Eliminates the potential for back-ups caused by vehicles pulling into or out of parking spaces spilling onto Yelm Avenue and blocking traffic
▪ Presents less impactful diversion routes given the left-turn restriction at 2nd Street and Yelm Avenue, especially for drivers coming from the west traveling eastbound on Yelm Avenue

However, business owners on 2nd Street expressed their interest in accommodating northbound traffic instead, which would provide more direct and intuitive access for westbound drivers on Yelm Avenue. Before making a final decision on the direction of travel, the City will need to collect traffic data to better understand where people that use this segment of 2nd Street are coming from currently. The City will coordinate further with affected property owners and business owners before a final decision is reached.

Potential Options to Increase On-street Parking on Yelm Avenue:

▪ Use survey data to determine how much additional right-of-way would be required to accommodate a parallel parking lane on both sides of the street and purchase frontage from the impacted businesses.
▪ Shift the alignment of Yelm Avenue to accommodate parallel parking on to the north side of the street instead of the south side of the street.
▪ Install a chicane, or curve in the roadway, to shift the westbound travel lane into the unneeded portion of the center turn-lane and provide parking along the curb.
Street Trees and Hanging Planter Baskets

As a designated Tree City USA community, the City’s standards for pedestrian-focused streets include street trees with tree grates. However, some property owners and business owners expressed their interest in limiting the number of street trees to reduce maintenance, such as annual pruning and leaf collection. They also expressed concern that large trees can limit visibility of store fronts. Instead of street trees, there was an interest in expanding the use of hanging flower baskets on street light poles.

While hanging planter baskets and street trees both provide environmental and beautification benefits, street trees have the added benefits of helping to calm traffic by adding vertical elements along the street edge and providing shade for the people on the sidewalk and in patio seating areas. The maintenance requirements of hanging planter baskets, including seasonal replanting and regular watering, must also be considered.

Street trees can require minimal maintenance if appropriate tree species are selected and tree wells are installed to direct roots downward as they grow. Proper placement of street trees, such as siting closer to property lines, can help to maintain sightlines of business fronts. In addition, understanding that all trees eventually outgrow their environment, the City should consider developing a regular replacement program.

Given these considerations, the City has included street trees in their conceptual plans and is open to providing hanging planter baskets on street poles as well. The City currently has protocols in place to maintain both hanging baskets and street trees and intends to provide maintenance services for additional baskets or trees as feasible. During future design phases, the City will work with property owners and business owners to discuss the right balance between planted hanging baskets and street trees, including the placement and maintenance of both options.

Yelm Avenue Traffic Capacity

During the engagement process, some community members expressed interest in increasing the number of travel lanes on Yelm Avenue within the study area to relieve traffic congestion. However, the working assumption used for developing concepts was that, due to the completion of the Yelm Loop, traffic volumes on the planning horizon will be similar or slightly higher than what is there today and will not require additional capacity.

Constructing more capacity in the form of an additional through lane in each direction would require additional right-of-way and limit the ability to provide sidewalks, parking lanes, and a center turn lane as well as potentially impact existing, historic buildings on Yelm
Avenue. Additionally, Yelm Avenue to the east and west of the study area is one lane in each direction. Therefore, widening a short segment would simply result in a new bottleneck at the required merge points.

More broadly, providing additional travel lanes would send a clear message that the road is designed to move cars with little regard for other users on the street. Additional travel lanes would increase vehicle speeds, make pedestrian crossings longer, and dilute the historic character of the street.

**Aesthetics and Character**

Overall, there is an interest in maintaining the existing small-town, rural character of downtown Yelm and some concerns were raised that the proposed changes would weaken that character and make Yelm feel more generic. The Downtown Transportation Strategy acknowledges the existing character of the community and the City’s interest in maintaining and enhancing that character while also upgrading the street network to improve safety and mobility for everyone traveling in downtown.

While Yelm is a rural community, the City and Central Business District represent the urban core of the community and the street design must support the kind of activities and land uses that are allowed and encouraged in the City center. However, to ensure the character of Yelm is maintained, the City will make mindful choices regarding construction materials and street furniture. Antique street light fixtures, tinted concrete, and gateway feature design are just some examples of ways to protect and promote the existing look-and-feel of the public space. In addition, the business community may further develop the Yelm ‘brand’ and create consistency in the built environment by adopting or encouraging design standards such as exterior paint colors, signage types, or distinct architectural features.

**Truck Turn Restrictions**

The Yelm Loop project is expected to significantly reduce the amount of truck traffic using Yelm Avenue through downtown Yelm. Once the Yelm Loop is complete and travel patterns have normalized, the City should evaluate the feasibility of restricting truck turns at downtown intersections, especially at 1st Street and Yelm Avenue. Trucks turning right from westbound Yelm Avenue to northbound 1st Street have been known to damage the sidewalk, street poles, and building located on the corner. Not only would limiting truck turns alleviate that issue but it would also improve safety and efficiency of traffic in downtown.
Code Compliance

Yelm already has policies and procedures in place that govern street design and development practices. As a part of this study, the Yelm Municipal Code and Development Guidelines were reviewed to identify potential conflicts between current regulation and the proposed projects, actions, and strategies. The following changes or additions are recommended to ensure consistency and compliance.

Street Design Standards

The City of Yelm will have to review and amend their street standards found in the municipal code, development guidelines, and planning documents to ensure compliance with the street designs proposed in this plan. For instance, according to the minimum street design standards included Development Guidelines, Chapter 4: Transportation, parking lanes are not allowed on streets classified as urban arterials. However, this plan recommends parallel parking lanes where feasible on Yelm Avenue which is classified as an urban arterial. Additionally, Yelm Municipal Code (18.35.040.J) specifies that angled parking is allowed on local access and collector streets within the Central Business District, which is the current zoning of the study area. If needed, the City could make the code language more specific by allowing angled parking on any one-way street within the CBD as long as a minimum sidewalk width of 5’ can be maintained on both sides of the street.

Speed Hump Specification

The 4th Street Improvements project proposes the installation of two speed humps between Yelm Avenue and McKenzie Avenue to reduce speeding and cut-through behaviors. However, the City of Yelm does not currently include a specification for speed humps in their standard specifications. Speed humps, which are different than speed bumps, typically span across the entire width of the street and are generally 12-feet in length and 4- to 6-inches high. The parabolic shape of a speed hump is designed to permit vehicles to traverse them at a reasonable speed, usually 15 mph to 20 mph, without significant discomfort to the passengers. However, if a car is driving at an unsafe speed, the speed hump will jar the vehicle and cause discomfort to the occupants and disruption to cargo.

In addition to providing a standard specification, the City should also develop a policy which outlines the required conditions for the approval and installation of a speed hump. The policy may speak to such factors as street classification, average daily volume, posted speed limit, speed hump spacing, etc. For instance, speed humps may be installed, spaced 300- to 500-feet apart, on streets.
classified Local Access Residential with a posted speed limit of 25 mph or less and average daily traffic volumes are between 200 and 1,200 vehicles. The City may also require that a speed study be conducted to confirm that speeding is an issue.
Funding

Identifying funding is often the biggest hurdle when taking a project from the concept phase into design and construction phases. Having an adopted planning document is a great first step toward securing funding but it must be followed up with policy changes, grant applications, design work, and further stakeholder engagement before construction can begin. Making this plan a reality will require a mix of local and external funding sources and the City of Yelm will have to be strategic in how they go about matching the appropriate funding source to each project. The following provides an overview of the potential local sources and grant sources that could be used to finance the type of projects included in this plan.

Local Sources

The City of Yelm has a number of local funding sources it can apply to transportation projects. For instance, some portion of the City General Funds, Gas Tax Revenue, and the Real Estate Excise Tax can all be used to implement transportation projects. In addition, the City collects Traffic Facility Charge (TFC) from property developers to mitigate the traffic impacts related to a particular development which can then be applied to related projects identified in the City’s Transportation Improvement Plan (TIP). However, to implement all the projects included in this plan is likely to require additional sources of funding. Below are additional local funding avenues that Yelm may explore.

Local Improvement District (LID)

Local Improvement Districts (LIDs) are a tool for assisting benefiting properties in financing capital improvement projects through establishing a special assessment district. Special assessment districts permit improvements to be financed and paid for over a period of time through assessments on the benefiting properties.

The City has experience using LIDs to fund infrastructure projects including sewer extensions and road projects, such as Yelm Avenue West. They have the option, if supported by the property owners, to create a LID to finance one or some of the projects identified in this plan. Projects that are expected to have a positive economic impact and increase surrounding property values are good candidates for this type of financing model.
Transportation Benefit District (TBD)

Yelm could also explore establishing a Transportation Benefit District (TBD) which is a local option taxing district authorized by state statute (Chapter 36.73 RCW). A TBD is a quasi-municipal corporation and independent taxing district that can raise revenue for specific transportation projects. In Washington State, TBD revenue is usually raised through a sales tax increase (typically 0.1% to 0.2%) or a vehicle license fee increase (typically $20 and $40). Some jurisdictions implement a combination of the two mechanisms.

Any city or county may form a TBD by ordinance, following a public hearing, if it finds that the action is in the public interest which is usually determined through a public vote. The establishing ordinance must specify the boundaries of the district - which may include all or part of the city or county establishing the TBD. Almost all TBDs share the same boundaries as their establishing jurisdiction. The boundaries and functions of the TBD may not be changed without further public hearings.

Once established, the City would be required to identify the specific projects to be funded and report annually on how the funds were spent. TBD revenue may be used for transportation improvements that have been identified in a local, regional, or state transportation plan. Improvements can range from roads and transit service to sidewalks and transportation demand management. Construction, maintenance, and operation costs are eligible.

For more information visit on Transportation Benefit Districts in Washington, visit: http://mrsc.org/Home/Explore-Topics/Finance/Special-Topics/Transportation-Benefit-Districts.aspx

Volunteers and Donations

While the local community may have limited funding resources to tap for capital improvement projects, some of the concepts developed in this plan could be implemented through small-scale contributions from businesses and civic boosters. Some projects may provide opportunities for community involvement, either on a for-hire or volunteer basis, on the design and/or installation tasks. For instance, landscaping upgrades and maintenance may be carried out by a coalition of local business owners either on a volunteer or donation-driven basis. Likewise, local artists and or contractors could be used in the design, fabrication, and installation of gateway features, wayfinding signage, and/or mural projects. There are also a number of opportunities to partner with private property owners to enhance the streetscape on projects that blur the line between public right-of-way and private property, such as the trail-facing businesses entrances and the activated alley concept.
Grant Sources

For a small city like Yelm, implementing major infrastructure projects often requires going beyond local sources and securing funding through state, county, or federal grant programs. As such, they will need to meet specific criteria and work through time-consuming processes. This does not mean they are not worth pursuing but it does mean the City of Yelm will need to have a good understanding of these processes and get the ball rolling soon. The following is a list of potential grant funding sources that are available for the projects identified in this plan, categorized by the administering agency.

Washington State Department of Commerce

The state legislature created the Public Works Board, under the Department of Commerce, to assist local governments in addressing local infrastructure needs.

Pre-Construction and Construction Loan Programs

The Public Works Board is authorized to loan money to counties, cities, and special purpose districts to repair, replace, or create infrastructure, including roads and streets. The Pre-Construction Loan Program can be applied to design engineering, bid-document preparation, environmental studies, right-of-way acquisition, value planning, permits, cultural and historic resources, and public notification. The Construction Loan Program focuses on the activities that repair, replace, or create a facility and can be used for any combination of pre-construction and construction elements of a project.

Washington State Department of Transportation (WSDOT)

The following is a summary of federal funding programs that WSDOT administers and allocates directly to local agencies.

Safe Routes to School (SRTS) Program

The purpose of the SRTS program is to improve safety and mobility for children by enabling and encouraging them to walk or bike to school. Projects must be located within two-miles of primary, middle, and high schools to be eligible to apply. All of the projects identified in this plan are close enough to a number of schools to qualify for SRTS funding, including Yelm Middle School, Yelm High School, Ridgeline Middle School, Mill Pond Elementary School, and Fort Stevens Elementary. The SRTS program is administered by WSDOT through a competitive application process and there is no local match requirement. Projects have already been selected for the 2019-2021 biennium. The next call for projects is expected in early 2020.
Pedestrian and Bicycle Program

The Pedestrian and Bicycle Program objective is to make improvements to the transportation system that enhance safety and mobility for people who choose to walk or bike. The program funds two types of projects: construction projects that may include preliminary engineering and design-only projects. The Pedestrian and Bicycle Program is administered by WSDOT through a competitive application process and there is no local match requirement. Projects have already been selected for the 2019-2021 biennium. The next call for projects is expected in early 2020.

Highway Safety Improvement Program (HSIP) City Safety Program

The HSIP is a federal program administered by WSDOT that allows states and local governments to target safety. It provides funding for projects that aim to reduce serious traffic injuries and deaths, consistent with Washington’s Strategic Highway Safety Plan (Target Zero) and local road safety plans. HSIP funds are split between local agency and state programs based on the priority one areas as identified in Target Zero which are currently lane departure crashes and intersection crashes. Under the HSIP, WSDOT administers the following three programs: City Safety, County Safety, and Railway-Highway Crossing.

Projects in Yelm would be eligible for the City Safety Program which provides funding for projects that reduce fatal and serious injury crashes on city streets and state highways using engineering improvements and countermeasures. The 2020 program has not yet been determined but the 2018 program included two subprograms:

- **Spot Location:** Projects must be at a specific intersection(s), spot or mid-block location(s), or corridor(s) and must address at least one fatal or serious injury crash in the most recent five-year period.
- **Systemic:** Projects are identified through a city's local road safety plan, that identifies and prioritizes risk-based projects. Projects can be at intersection(s), spot or mid-block location(s), and/or on corridor(s) throughout a city/town or over wide areas within a city/town.

Call for projects occurs in January or February of even numbered years. A minimum local match of 10% is required.

Transportation Improvement Board (TIB)

TIB administers a number of grant funding programs that serve large and small cities. There are three TIB grant pools available to cities like Yelm with populations of 5,000 or greater and that support the kind of projects included in this plan. Yelm is required to provide a minimum 10% match on any TIB-funded project and exceeding the minimum match makes applications more competitive. The application period is open between June and August of every year.
Sidewalk Program (SP)

The SP was established by the Legislature in 1995 to provide funding for pedestrian projects and supports transportation projects (not recreation) on a federally classified roadway to improve pedestrian safety, access, connectivity, and address system continuity. SP funds can only be applied to sidewalk construction tasks. The federally classified streets in Yelm include Yelm Avenue, 1st Street, Mosman Avenue, and 3rd Street.

Urban Arterial Program (UAP)

The UAP supports roadway construction projects that score well in one of four bands: safety, growth and development, physical condition, or mobility. Based on the UAP criteria, the projects identified in this plan may be competitive in the safety or mobility categories, especially the projects on the state route facilities and transit routes such as the Yelm Avenue Improvement project. All projects must also rate well in sustainability and constructability categories.

Complete Streets Award

The Complete Streets Award is flexible money given to any city or county in Washington state that has an adopted complete streets ordinance and shows an ethic of planning and building streets that use context sensitive solutions to accommodate all users, including pedestrians, transit users, cyclists, and motorists. A number of approved state agency partners and non-profit organizations may nominate eligible agencies. While Yelm is not currently listed with TIB as an eligible agency, the City has submitted the recently approved complete streets ordinance (Ordinance No. 1051, December 2018) to TIB. Once formally determined to be eligible, the City will reach out to the established nominating partners to promote projects that are a good fit for the funding source and seek nomination during the next open application period. Award amounts range between $100,000 and $1,000,000. The next call for nominations is expected to open in the summer of 2020.

Thurston Regional Planning Council (TRPC)

Thurston Regional Planning Council (TRPC) administers the allocation of the following Federal Highways Administration (FHWA) formula grant programs which are authorized under the Funding America’s Surface Transportation Act (FAST Act). The following are two programs that are available for transportation projects in Yelm. For both of these grants, a minimum non-federal match of 13.5% is required. Funding has been awarded for the 2020-2022 biennium and there is no call for projects scheduled at this time.
Surface Transportation Block Grant Program (STBG)

The Surface Transportation Block Grant Program (STBG) is the most flexible of the highway programs, providing funds to local agencies for almost any transportation related planning, design, or construction project. Based on a population-driven formula, WSDOT allocates funds to Metropolitan Planning Organizations (MPOs) and County Lead Agencies for prioritizing and selecting local projects that align with their regional priorities. The current regional funding priorities for TRPC are safety, preservation, and efficiency of the multi-modal transportation system.

Transportation Alternatives Set-Aside (STBG-TA)

TRPC administers the allocation of this funding program which is a set-aside of Surface Transportation Block Grant (STBG) program funding for transportation alternatives (TA). STBG-TA funds can be used for a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity. Historically, TRPC has made STBG-TA awards for bicycle and pedestrian projects and programs. Project applicants are limited to one application for the SGTB-TA program but there is no limitation on how much a single grant application may request.

Washington State Recreation and Conservation Office (RCO)

Washington Wildlife and Recreation Program (WWRP)

The WWRP was envisioned as a way for the state to preserve valuable recreation and habitat lands and develop recreation areas for a growing population. The program provides funding for a broad range of activities including park land acquisition and development, habitat conservation, and construction of outdoor recreational facilities. Of the entire WWRP funding pool, typically $55 million biennially, 9% is allocated to fund trail projects. Applications are typically due in the spring of even years. To be eligible, a jurisdiction must have a comprehensive parks, recreation, and open space plan adopted and submitted prior to applying. Local agencies must provide a 50% match and at least 10% of the total project cost must be from non-state, non-federal, contribution. The Trail Overpass and Trailhead Improvements project would be eligible for WWRP funds.

Thurston County

Community Development Block Grant Program (CDBG)

The CDBG program is a formula-based grant program administered by the U.S. Housing and Urban Development (HUD) department that provides grants to states and localities to provide decent housing and a suitable living environment, and to expand economic
opportunities, principally for low- and moderate-income persons. Thurston County receives an annual allocation of CDBG funds directly from HUD which are then distributed to local projects at the discretion of the County. In 2018, Thurston County received $1.2 million in CDBG funds. Eligible projects include the construction of public facilities and improvements, such as water and sewer facilities, streets, neighborhood centers, and the conversion of school buildings for eligible purposes.
Next Steps

Taken as a whole, the Yelm Downtown Transportation Strategy may appear overwhelming. However, the intent of this plan is to provide guidance for making transportation decisions and investments for many years to come. Not everything will happen quickly. Some things may take decades to come to fruition. But the time to start implementing the plan is now.

This section of the plan provides direction on some of the next steps that will facilitate the implementation of the Downtown Transportation Strategy and build on the momentum that was created during its development.

Update Plans and Policies

Formally adopting the Downtown Transportation Strategy as a City planning document is the first step but there are more to be taken. One of the next early steps will be making any necessary code and comprehensive plan changes that are required to ensure the projects, designs, and ideas included in the plan are consistent with City regulations and other planning documents. The Code Compliance section of the plan discussed some of the outstanding issues but there may be others. Likewise, the projects included in this plan will have to be included in the Capital Facilities Plan and on the six-year Transportation Improvement Project when they are next updated.

Survey

This plan was developed in the absence of current survey and right-of-way data. Most of the concepts presented in the plan were developed assuming 60-feet of right-of-way but there may be some additional right-of-way needs and/or existing encroachments that need to be resolved or accommodated as projects progress into preliminary and final design. As a preemptive measure, the City can initiate a right-of-way survey of the study area, or a part of the study area. This data would assist with preliminary design and allow the City to get a better handle on the roadway alignments, any potential right-of-way impacts, stormwater needs, environmental issues, and/or utility conflicts/relocations.

Grant Applications

The City can begin seeking grant funding right away. Most grant opportunities are available on a biannual basis which means if you miss the boat it is going to be awhile until the next one comes. Being well-positioned when the call for applications opens can help to
avoid significant project delays. Taking that into account, now is time to get familiar with the various grant programs and their application cycles. The City can begin talking with grant coordinators about your potential projects to determine which projects are best suited for each pool. They can identify ways to combine grant sources and leverage local investments and find ways to make grant applications more competitive.

Every grant application has project criteria tailored to the specific funding source but there are some common project attributes that grantees tend to favor such as:

- Local funding above the minimum required match
- Proof of community support or multi-agency partnerships
- Commitment to sustainable project delivery practices
- Demonstrated project readiness by completing preliminary design or testing concepts

An early grant-writing focus might be the 1st Street Improvement project which represents a high value project, meaning a relatively lower-cost project with high community benefit, that is well-suited for a number of grant funding opportunities such as:

- Safe Routes to Schools (WSDOT)
- Pedestrian and Bicycle Program (WSDOT)
- Complete Streets Award (TIB)
- STBG Transportation Alternatives Set-Aside (TRPC)

Using the project details included in this plan, the City of Yelm could begin working with the grant coordinators at the administering agencies to see if this project seems like a viable project for these funds and work to make the application as competitive as it can be.

**Keep People Engaged**

One of the most essential elements of successfully implementing a plan is identifying and fostering project champions. Concepts like the Activated Alley, the Yelm Avenue pocket park, and the Trail Overpass and Trailhead Improvements will all require significant partnership between the City and private property owners. The City should continue to engage in discussions with people who have a personal stake in seeing these initiatives become a reality.

As a way to make progress with minimal investment, the City or the Chamber of Commerce could convene a task force to tackle some the projects that will require additional stakeholder involvement. For instance, prior to installing wayfinding signs across the community, a planning effort is needed to determine what types of signs are needed, develop designs, and determine specific locations. This type of project would lend itself well to a community-driven process by pulling together a group of local artists,
business owners, and interested community members to get the ball rolling and make some progress. The process of developing this plan created a certain amount of traction within the community and it is important to keep working and build upon that energy.

**Test Concepts**

Prior to constructing a full capital project, some of the concepts in this plan could be implemented in easy-to-implement, temporary materials. This approach would allow the City to cash-in on the safety, mobility, and economic vitality benefits of the project before it is fully constructed. A temporary project also provides an opportunity to ground-test the concept and refine the design for the capital project as necessary.

One opportunity to take this approach would be the left-turn ban at Yelm Avenue and 2nd Street, potentially coupled with the one-way conversion of the one-block stretch of 2nd Street between Jefferson Avenue and Yelm Avenue. These operational changes could be made by installing signage, using rubber curbing, planters, and restriping. Further coordination with stakeholders, such as property owners, WSDOT, and Intercity Transit, would be required to make this happen but all of that work would also be required for the future capital project. A temporary project will only help to pave the way for the larger, permanent effort.
APPENDIX: Project Details
Wayfinding Program

Project Limits
Multiple Locations

Project Description
Wayfinding helps pedestrians, cyclists, and drivers navigate cities more efficiently. Signage also provides an opportunity to develop a city brand and help to create a stronger sense-of-place in a community by using consistent color schemes and graphics. There are many potential applications for wayfinding signs in the City of Yelm including direction signs on posts designed for low-speed travelers, public parking signs, street light banners, and trail signage. A wayfinding program in Yelm will help visitors find community assets, alert drivers of public parking areas, and help connect trail users to businesses in downtown.

Project Elements
- Sign design
- Location selection
- Fabrication and installation

Preliminary Cost Estimate

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTRUCTION TOTAL</td>
<td>$ 90,000</td>
</tr>
<tr>
<td>DESIGN ENGINEERING (10%)</td>
<td>$ 13,500</td>
</tr>
<tr>
<td>CONTINGENCY/MISC. (30%)</td>
<td>$ 27,000</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>$ 130,500</td>
</tr>
</tbody>
</table>
Design Considerations

- Distinct sign types should be designed for different applications such as low-speed scale, banners, trail uses, and public parking areas.
- Further consideration will need to go into identifying specific locations and sign types. The cost estimate assumes a total of 20 signs and 20 street light banners.
- Signs should be designed to match the branding of the City of Yelm and highlight unique features of the community.

Phasing Opportunities

- A planning project could get underway to begin sign design and citing prior to fabrication and installation.
- Signs should only be installed once the street has been improved and construction is complete.
2nd Street Improvements (North)

Project Limits
Jefferson Avenue to Washington Avenue

Project Description
In recent years, the City implemented street improvements on 2nd Street adjacent to Yelm City Park and the new community center. This project would extend these same improvements north. For the block between Yelm Avenue and Washington Street, the improvements would match the reconstructed portion to the south with sidewalks on both sides of the street, parallel parking lanes, street trees, decorative lighting, and sidewalk extensions at intersections. A decorative, gateway arch over 2nd Street, in conjunction with wayfinding signage, provides a branding opportunity for the city. These changes will improve connectivity and draw visitors from Yelm Avenue into the civic center of Yelm toward Yelm City Park, City Hall, and the community center.

A left-turn restriction at 2nd Street, proposed as a part of the Yelm Avenue Improvements project, would limit the functionality of 2nd Street, between Yelm Avenue and Jefferson Avenue. Therefore, the proposed conversion of this block from two-way traffic to one-way southbound would have minimal impact to overall circulation of traffic across the street network. In addition, it frees up some of the street so that angled parking can be accommodated to better support adjacent businesses. This project will improve pedestrian safety and access, reduce congestion on Yelm Avenue, and increase public parking near a key downtown intersection.

Gateway Sign Example, City of Auburn
Project Elements

- Curb and gutter on both sides
- Sidewalks on both sides of the street (8-feet) and sidewalk extensions at intersections
- Decorative street lights
- One-way conversion of 2nd Street between Jefferson Avenue and Yelm Avenue (southbound)
- Gateway feature over 2nd Avenue on the south side of Yelm Avenue
- Front-in angle parking on the east side of 2nd Street between Yelm Avenue and Jefferson Avenue
- Parallel parking on the west side of 2nd Street between the alleyway and Jefferson Avenue
Rendered Perspective
Conceptual Design

- **ADD PARKING**
The one-way conversion creates space to accommodate angled parking on one side of the block. Parallel parking is provided where possible.

- **ONE-WAY CONVERSION**
Left-turn restriction at 2nd Street and Yelm Avenue presents an opportunity to convert one block of 2nd Street to one-way southbound and accommodate angled parking.

- **GATEWAY SIGN**
Decorative gateway sign spanning over 2nd Street will help to draw people from the commercial corridor into the civic center of Yelm.

- **EXTEND IMPROVEMENTS**
Extend the recently implemented streetscape improvements on 2nd Street to the north including sidewalks, street trees, and decorative street lights.
Proposed Typical Cross-section

A) 2nd Street between Jefferson Avenue and alley

B) 2nd Street between alley and Yelm Avenue
C) 2nd Street between Yelm Avenue and Washington Avenue

### Preliminary Cost Estimate

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTRUCTION TOTAL</td>
<td>$457,200</td>
</tr>
<tr>
<td>DESIGN ENGINEERING (15%)</td>
<td>$68,600</td>
</tr>
<tr>
<td>CONSTRUCTION MANAGEMENT (10%)</td>
<td>$45,700</td>
</tr>
<tr>
<td>CONTINGENCY/MISC. (30%)</td>
<td>$137,200</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>$708,700</strong></td>
</tr>
</tbody>
</table>

### Design Considerations

- **The conceptual design was prepared to minimize impacts to existing buildings and properties. However, a survey must be completed to determine the final roadway design and identify any potential right-of-way encroachments that need to be accommodated or resolved.**
- **The location of existing buildings in the southern section reduces the available right-of-way to approximately 54-feet. For this reason, parallel parking is not provided in this section and the roadway jogs slightly between the north and south section.**
• The preliminary cost estimate includes approximations for stormwater conveyance, flow control, and treatment as necessary for each phase based on the scope of the improvements. The potential cost of right-of-way acquisition for flow control and/or treatment facilities is not factored into the estimate.

• The roadway is proposed to be one-way in the southbound direction because it reduces the potential for congestion on Yelm Avenue caused by parking maneuvers on 2nd Street. It also provides more direct access to 2nd Street than the northbound alternative which required longer diversion routes.

• Street trees should be installed with tree grates to increase walkable space and tree wells to direct roots downward as they grow. Special consideration should be given to the tree species and placement as to limit overgrowth and visual obstruction of storefronts.

• The City may consider hanging planter baskets from street light poles in lieu of or in addition to street trees.

• Back-in angle parking has been proven to be safer than front-in angle parking because driver visibility is much better when pulling out of a spot. The City may consider installing back-in angled parking instead of front-in angle as shown in this plan. Overall, there should be consistency in the design of angled parking throughout the City.

• The City may consider undergrounding utilities as a part of this project which would add additional project costs.

Phasing Opportunities

• The one-way conversion of 2nd Street between Jefferson Avenue and Yelm Avenue could be implemented at fairly low-cost using striping and signage. This could be done in conjunction with the implementation of a left-turn restriction at Yelm Avenue and 2nd Street or it could be implemented on its own.

• The gateway sign over 2nd Street on the south side of Yelm Avenue could be done as a stand-alone project.
Mosman Avenue Improvements

Project Limits
Between 2nd Street to 3rd Street

Project Description
The City of Yelm’s Comprehensive Plan includes a capital project to extend Mosman Avenue east to Clark Road as a part of the southern mini-loop project. In the future, Mosman Avenue is intended to be a minor arterial carrying a significant volume of traffic.

A recent project realigned the intersection of Yelm Avenue and Mosman and constructed curb, gutter, sidewalk, and a bike lane between Railroad Street and 2nd Street. This project would extend these same improvements to 3rd Street where it will eventually tie in with the mini-loop project. A distinct intersection treatment at 2nd Street, along with wayfinding signage, will alert drivers that this is a key intersection in downtown Yelm with connections to community assets both north and south of Mosman Avenue. It will also improve pedestrian safety at an intersection that connects two City parks.

Project Elements
- Curb and gutter on both sides of the street
- Sidewalk on both sides of the street (8-feet)
- Sidewalk extensions, or bulb-outs, at intersections
- Bicycle lane in both directions (6-feet)
- Distinct paving materials at 2nd Street intersection, such as stamped concrete
- Pedestrian-activated flashing beacons at 2nd Street crossing Mosman Avenue
- Street lighting
- Standard street lights
Conceptual Design

**BIKE LANE**
The City has identified Mosman Avenue as a bicycle route. A standard 6’ bike lane is provided to safely accommodate cyclists.

**INTERSECTION TREATMENT**
Use distinctive paving materials at intersection to indicate 2nd Street as a gateway to Yelm community assets. Install pedestrian activated flashing beacons for Mosman Avenue crosswalks that are unsignalized.

**MINI-LOOP PROJECT**
The City's Comprehensive Plan includes an extension of Mosman Avenue to Clark Road as a piece of the 'mini-loop' project.
Proposed Typical Cross-section

Preliminary Cost Estimate

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Total</td>
<td>$494,100</td>
</tr>
<tr>
<td>Design Engineering (15%)</td>
<td>$74,100</td>
</tr>
<tr>
<td>Construction Management (10%)</td>
<td>$49,400</td>
</tr>
<tr>
<td>Contingency/Misc. (30%)</td>
<td>$148,200</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>$765,800</strong></td>
</tr>
</tbody>
</table>
Design Considerations

- The conceptual design was prepared to minimize impacts to existing buildings and properties. However, a survey must be completed to determine the final roadway design and identify any potential right-of-way encroachments that need to be accommodated or resolved.

- The preliminary cost estimate includes approximations for stormwater conveyance, flow control, and treatment as necessary for each phase based on the scope of the improvements. The potential cost of right-of-way acquisition for flow control and/or treatment facilities is not factored into the estimate.
Washington Avenue & McKenzie Avenue One-Way Couplet

Project Limits
Washington Street between 2nd Street and 3rd Street
McKenzie Avenue between 2nd Street and 3rd Street

Project Description
The community expressed an interest in a one-way couplet in downtown to help with traffic circulation. After exploring alternatives, the option that presented the least disruptive traffic diversions was the one-way conversion of both Washington Avenue and McKenzie Avenue for one-block between 2nd Street and 3rd Street. The one-way conversion would make four intersections in downtown simpler and safer by reducing turning movement conflicts. In addition, the new sidewalks and sidewalk extensions at intersections would provide a safer, more comfortable walking environment and shorter crossing distances.

The one-way conversion also frees up space in the road to install angled parking on one side of the road. A portion of on-street parking on McKenzie Avenue in front of the Public Safety Building has already been converted to angled parking which has proven to work well. Converting these two blocks to angled parking will add an additional 70 marked, on-street parking spaces in downtown Yelm.

Project Elements
- Curb and gutter on both sides
- Sidewalks on both sides of the street (8-feet) and sidewalk extensions at intersections
- Decorative street lights
- Street trees
- One-way conversion of Washington Avenue between 2nd Street and 3rd Street (eastbound)
- One-way conversion of McKenzie Avenue between 2nd Street and 3rd Street (westbound)
- Front-in angle parking on the north sides of Washington Avenue and McKenzie Avenue
- Parallel parking on the south sides of Washington Avenue and McKenzie Avenue

Conceptual Design

**ONE-WAY COUPLET**
The conversion of Washington Street and McKenzie Street for one-block will allow for angled parking on one side of the street and parallel parking on the other side. It will also reduce turning conflicts at intersections and simplify the circulation patterns on these low volume streets.

**SIDEWALK EXTENSIONS**
Construct pedestrian bulb-outs at crosswalks to reduce crossing distances, calm traffic, and improve visibility for pedestrians and drivers.
Proposed Typical Cross-section

A) *Washington Avenue between 2nd Street and 3rd Street*

B) *McKenzie Avenue between 2nd Street and 3rd Street*
Rendered Perspectives

Washington Avenue Redevelopment Concept
APPENDIX: Project Details

Preliminary Cost Estimate

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTRUCTION TOTAL</td>
<td>$750,700</td>
</tr>
<tr>
<td>DESIGN ENGINEERING (15%)</td>
<td>$112,600</td>
</tr>
<tr>
<td>CONSTRUCTION MANAGEMENT (10%)</td>
<td>$75,100</td>
</tr>
<tr>
<td>CONTINGENCY/MISC. (30%)</td>
<td>$225,200</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>$1,163,600</strong></td>
</tr>
</tbody>
</table>

Design Considerations

- The conceptual design was prepared to minimize impacts to existing buildings and properties. However, a survey must be completed to determine the final roadway design and identify any potential right-of-way encroachments that need to be accommodated or resolved.
- The preliminary cost estimate includes approximations for stormwater conveyance, flow control, and treatment as necessary for each phase based on the scope of the improvements. The potential cost of right-of-way acquisition for flow control and/or treatment facilities is not factored into the estimate.
- Street trees should be installed with tree grates to increase walkable space and tree wells to direct roots downward as they grow. Special consideration should be given to the tree species and placement as to limit overgrowth and visual obstruction of storefronts.
- The City may consider hanging planter baskets from street light poles in lieu of or in addition to street trees.
- The City may consider undergrounding utilities as a part of this project which would add additional project costs.
- Back-in angle parking has been proven to be safer than front-in angle parking because driver visibility is much better when pulling out of a spot. The City may consider installing back-in angled parking instead of front-in angle as shown in this plan. However, it would require converting the existing angled parking on McKenzie Avenue and perhaps require an educational campaign or signage to make sure drivers are comfortable with the new design. Overall, there should be consistency in the design of angled parking throughout the City.

Phasing Opportunities

- The one-way conversions and angled parking could be implemented at fairly low-cost using striping and signage. Paint and flexible delineators could be used to create the sidewalk extensions until a capital project can be funded.
- Parcels along both streets toward the east end of the block are likely to redevelop. Frontage improvements along those parcels could include the planned improvements if not completed by the City prior to redevelopment.
- The City may consider hanging planter baskets from street light poles in lieu of or in addition to street trees.
3rd Street Improvements

Project Limits
Jefferson Avenue to Mosman Avenue

Project Description
3rd Street has potential for redevelopment and upgrades to the street will be required to support new land uses along the corridor. The intent of this project is to upgrade 3rd Street to match the recently completed 2nd Street segment which includes new sidewalk, sidewalk extensions at intersections, decorative street lighting, street trees, and parallel parking on both sides of the street. These improvements will not only increase safety and improve access, they will create a sense of consistency in the street network.

Project Elements
- Curb and gutter on both sides of the street
- Sidewalks on both sides of street (8-feet) and sidewalk extensions at intersections
- Marked crosswalks at Washington Street and McKenzie Street with pedestrian warning signage
- Parallel parking on both sides of street
- Decorative street lighting
- Street trees
Conceptual Design

PARALLEL PARKING
Provide parallel parking on both sides of the street, north and south of Yelm Avenue.

NEW CROSSWALKS
Mark crosswalks at Washington Street and McKenzie Street with pedestrian warning signage.

SIDEWALK EXTENSIONS
Construct pedestrian bulb-outs at crosswalks to reduce crossing distances and improve visibility for pedestrians and drivers.
**Proposed Typical Cross-section**

**Preliminary Cost Estimate**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Total</td>
<td>$1,011,200</td>
</tr>
<tr>
<td>Design Engineering (15%)</td>
<td>$151,700</td>
</tr>
<tr>
<td>Construction Management (10%)</td>
<td>$101,100</td>
</tr>
<tr>
<td>Contingency/Misc. (30%)</td>
<td>$303,300</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>$1,567,300</strong></td>
</tr>
</tbody>
</table>
Design Considerations

▪ The conceptual design was prepared to minimize impacts to existing buildings and properties. However, a survey must be completed to determine the final roadway design and identify any potential right-of-way encroachments that need to be accommodated or resolved.

▪ The preliminary cost estimate includes approximations for stormwater conveyance, flow control, and treatment as necessary for each phase based on the scope of the improvements. The potential cost of right-of-way acquisition for flow control and/or treatment facilities is not factored into the estimate.

▪ The cost estimate does not include intersection signalization or a roundabout at the intersection of 3rd Street and Yelm Avenue.

▪ Street trees should be installed with tree grates to increase walkable space and tree wells to direct roots downward as they grow. Special consideration should be given to the tree species and placement as to limit overgrowth and visual obstruction of storefronts.

▪ The City may consider hanging planter baskets from street light poles in lieu of or in addition to street trees.

▪ The City may consider undergrounding utilities as a part of this project which would add additional project costs.
Trail Overpass & Trailhead Improvements

**Project Limits**
Multi-purpose Trail from Mosman Avenue to Jefferson Avenue

**Project Description**
There are two multi-purpose trails that both have termini in Yelm, the Yelm-Tenino Trail and Prairie Line Trail. These trail systems are important community assets that provide regional, non-motorized connectivity and draw visitors to the community. However, they are currently not well integrated with Yelm’s downtown, trailheads are difficult to find, and connectivity between the two segments is poor.

In addition, part of the Yelm Loop project is constructing a shared-use path along its alignment. Once completed, that new trail will connect to the Prairie Line Trail north of downtown. This additional connection between trail systems that is on the horizon makes it even more important to address the connectivity issues in downtown Yelm now.

A large part of this project is constructing a pedestrian and bicycle bridge over Yelm Avenue to provide a direct, and much safer, connection between the Yelm-Tenino Trail and the Prairie Line Trail. An overpass structure over Yelm Avenue just west of 1st Street will also provide an opportunity to construct a gateway feature as people enter Yelm from the west.

This project would also make upgrades to the trailhead located near the old City Hall building on Railroad Street at Washington Avenue and provide better connections between the trail and the proposed midblock crossing at the Yelm Skatepark. New wayfinding signs at key decision points will alert trail users of the amenities that are available just a block or two east of the trail and show users the safest way to get there.
Another idea that should be explored further, is encouraging businesses to orient entrances, seating areas, and bike parking towards the trail. Businesses could capture a new customer base if there were obvious establishments along the trail that provide a place rest, have a bite to eat, or sip on a beverage.
Project Elements

- Construct a pedestrian and bicycle overpass over Yelm Avenue connecting the Yelm-Tenino Trail segment to the Prairie Line Trail segment
- Improve the existing trailhead on Railroad Avenue with clear signage and bike parking
- Construct trail connection to new midblock crossing on 1st Street at the Yelm Skatepark
- Install wayfinding signage along the trail to point users toward amenities in downtown
- Encourage trail-facing business entrances and seating areas between Yelm Avenue and Mosman Avenue

Preliminary Cost Estimate

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Total</td>
<td>$1,138,900</td>
</tr>
<tr>
<td>Design Engineering (15%)</td>
<td>$170,800</td>
</tr>
<tr>
<td>Construction Management (10%)</td>
<td>$113,900</td>
</tr>
<tr>
<td>Contingency/Misc. (30%)</td>
<td>$341,700</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>$1,765,300</strong></td>
</tr>
</tbody>
</table>

Design Considerations

- In order to achieve the required bridge height and maintain a grade that is consistent with ADA PROWAG guidelines, the run-ups to the bridge may have to be quite long.
- As long as Yelm Avenue (SR 510) west of 1st Street (SR 507) is classified as a state route, WSDOT will be required to review and provide approval of the overpass design.
- The overpass must be designed in such a way as to not limit the visibility of traffic signals at 1st Street and Yelm Avenue for eastbound drivers.

Phasing Opportunities

- Gathering funding and getting approvals for the pedestrian and bicycle bridge will be a long-term effort. In the meantime, the City could improve trail connections between Railroad Avenue and 1st Street, make upgrades to the trailhead, and install wayfinding signs.
Yelm Avenue (SR 507) Improvements

Project Limits
1st Street to 4th Street

Project Description
Yelm Avenue (SR 507) serves a dual function as a regional state highway and Yelm’s historic ‘Main Street’. There are many small, locally-owned storefronts on Yelm Avenue which make it an ideal street for focusing streetscaping elements and pedestrian-oriented design. Yelm Avenue east and west of the project area has been reconstructed to include sidewalks and bike lanes. However, the section of Yelm Avenue between 1st Street and 4th Street needs upgrades to improve safety, walkability, and access.

The purpose of this project is to complete the corridor upgrade and bring streetscape improvements to this section of Yelm Avenue. The proposed changes will calm traffic and create a ‘destination-feel’ along this important commercial corridor. Given the limitations of right-of-way availability and existing structures on Yelm Avenue, the City has chosen to prioritize maintaining the center-turn lane to keep traffic moving and improving the pedestrian environment.

Wide sidewalks (10-feet minimum) improve pedestrian comfort, support walkability, and increase community vitality. Sidewalk extensions at intersections, in addition to pedestrian-activated beacons at unsignalized crossings, reduce crossing distances, improve visibility, and increase safety for pedestrians crossing Yelm Avenue.

Distinct intersection treatments, decorative street lights, and street trees will create a more distinct sense of place and help to calm traffic. These streetscape features will also let drivers know that they are passing through a unique place that might be worth making a stop and walking around a bit, and the. The Intercity Transit stop at 3rd Avenue will also be upgraded to include shelters and benches to improve the waiting and boarding experience.
Restricting left-turns at 2nd Street will reduce traffic congestion, vehicle conflicts, and cut-through behavior. The median at this intersection will enforce the turn-restrictions and have the added benefit of providing pedestrian crossing refuge. To support local businesses, parallel parking lanes are provided where there is available right-of-way to accommodate it without compromising minimum sidewalk widths. Another benefit of parallel parking is that it acts as a buffer between moving traffic and pedestrians. In the absence of parallel parking, a 2-foot shy zone is provided between the curb and the travel lane. Sharrows, or special street markings that indicate the travel lane is shared with cyclists, will complete the gap in the bicycle network on Yelm Avenue.

Project Elements

- Wide sidewalks on both sides of the street (10-feet minimum) and sidewalk extensions at intersections
- Parallel parking where feasible between 1st Street and 3rd Street
- Sharrow markings in travel lanes
- Decorative street lights
- Street trees
- Bus stop improvements
- Distinct paving materials at 3rd Street and 2nd Street intersections, such as stamped concrete
- Marked crosswalk at 4th Street
- Pedestrian-activated flashing beacons at unsignalized crosswalks on Yelm Avenue
- Median island at 2nd Street to restrict left-turns and provide pedestrian refuge
- Planted median island between 3rd Street and 4th Street
- Possible signalization of 3rd Street intersection pending traffic study
Conceptual Design

**TURN RESTRICTION**
Construct a center median island to restrict left-turns at 2nd Street which will reduce congestion and vehicle conflicts. Median also provides pedestrian refuge island to improve crossing safety.

**SIDEWALK EXTENSIONS**
Construct pedestrian bulb-outs at crosswalks to reduce crossing distances and improve visibility for pedestrians and drivers.

**SHARRWS**
Install thermoplastic 'sharrow' markings in the travel lanes to indicate to vehicles that this lane is shared with bicyclists.

**MEDIAN ISLAND**
Install planted median islands in locations that do not limit driveway access to calm traffic on Yelm Avenue.

**PARALLEL PARKING**
Provide an 8' parallel parking lane if the minimum 10' sidewalk width is maintained.

**INTERSECTION TREATMENT**
Use distinctive paving materials at key intersections to highlight the multimodal nature of downtown. Install pedestrian activated flashing beacons for Yelm Avenue crosswalks that are unsignalized.

**PATIO SEATING**
Allow patio seating in front of businesses if the minimum 10' sidewalk width is maintained.
Proposed Typical Cross Section

A) Yelm Avenue between 1st Street and 2nd Street

B) Yelm Avenue between 2nd Street and 3rd Street
C) Yelm Avenue between 3rd Street and 4th Street
Rendered Perspective
Preliminary Cost Estimate

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTRUCTION TOTAL</td>
<td>$1,497,900</td>
</tr>
<tr>
<td>DESIGN ENGINEERING (15%)</td>
<td>$224,700</td>
</tr>
<tr>
<td>CONSTRUCTION MANAGEMENT (10%)</td>
<td>$149,800</td>
</tr>
<tr>
<td>CONTINGENCY/MISC. (30%)</td>
<td>$449,400</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>$2,321,800</strong></td>
</tr>
</tbody>
</table>

Design Considerations

- The conceptual design was prepared to minimize impacts to existing buildings and properties. However, a right-of-way survey must be completed to determine the final roadway design and identify any potential right-of-way encroachments that need to be accommodated or resolved.
- Coordination with Intercity Transit will be required to finalize the exact location and design of the bus stop within the study area.
- The preliminary cost estimate includes approximations for stormwater conveyance, flow control, and treatment as necessary for each phase based on the scope of the improvements. The potential cost of right-of-way acquisition for flow control and/or treatment facilities is not factored into the estimate.
- Consider planting street trees at property lines to maintain visibility of businesses or installing hanging planters on street light poles as an alternative to street trees.
- WSDOT will not be responsible for maintaining any street trees or landscaped areas. The City or another local entity will be required to maintain any plantings.
- Traffic study to determine the operational impacts of restricting turns at 2nd Street. Evaluate the left-turn queues for the westbound approach at 1st Street to determine the required left-turn lane length and to identify any potential signal phasing changes that may be required to adequately process traffic at the intersection.
- Concentrating left-turn movements to 3rd Avenue may result in the need for additional traffic control. During the design phase, traffic analysis should be performed to determine the appropriate left-turn storage as well as whether the forecasted volumes and/or intersection operations warrant additional traffic control, such as a signal or a roundabout. The cost estimate does not include intersection signalization or a roundabout at the intersection of 3rd Street and Yelm Avenue.
- Street trees should be installed with tree grates to increase walkable space and tree wells to direct roots downward as they grow. Special consideration should be given to the tree species and placement as to limit overgrowth and visual obstruction of storefronts.
- The City may consider hanging planter baskets from street light poles in lieu of or in addition to street trees.
Parallel parking on Yelm Avenue is important to local businesses and the City supports on-street parking on Yelm Avenue. However, providing parallel parking on both sides of the street would require additional right-of-way, a variance from the minimum sidewalk width, and/or approvals from WSDOT. During the design phase, further consideration will be required to determine the feasibility of increasing the amount of parallel parking between 2nd Street and 4th Street on Yelm Avenue. Possible options include:

- Working with property owners on Yelm Avenue to determine their interest in selling a portion of their property along the frontage to provide the City with additional right-of-way to accommodate a parallel parking lane.
- Working with WSDOT to explore the possibility of shifting the roadway alignment to provide parking on the north side of Yelm Avenue between 2nd Street and 3rd Street, instead of on the south side of the street.
- Working with WSDOT to explore the feasibility of a chicane, or a deliberate curve in the roadway, as an alternate design for the block between 2nd Street and 3rd Street. This design would help to further calm traffic, add additional parking on the north side of Yelm Avenue, and make use of a portion of center turn lane that will be under-used. During design, further consideration would need to be given to determine the required storage length for eastbound left-turns from Yelm Avenue to 3rd Street as well as determining the appropriate access to Habitat’s driveway/parking area.

The City will not remove parking on the north side of Yelm Avenue between 2nd Street and 3rd Street prior to performing a right-of-way survey and coordinating further with WSDOT and the affected property owners to determine the best possible solution. The final design will either provide on-street parking on the north side of Yelm Avenue or an adequate alternative.

**Phasing Opportunities**

- The left-turn restriction at 2nd Street could be implemented prior to full construction in temporary materials such as paint, flexible delineators, restriping.
- Truck bans or turning restrictions at Yelm Avenue and 1st Street should be explored once the Yelm Loop project is complete.
1st Street (SR 507) Improvements

Project Limits
Jefferson Avenue to Yelm Skatepark

Project Description
1st Street (SR 507) is a busy arterial running through the heart of Yelm. Within the study area, there are a number of businesses and City parks located on either side of the roadway as well as the Yelm-Tenino Trail running parallel to the west. Recently, a project was completed on this segment of 1st Street which installed a center turn lane and completed the sidewalk on the west side of the street. This project builds upon the previous effort by completing the sidewalk on the east side of the street, adding or improving pedestrian crossings, and restricting some turning movements. The project will further improve pedestrian connectivity and mobility, increase safety, and reduce congestion and vehicle conflicts along the corridor segment.

Project Elements
- Continuous sidewalks on both sides of the street (8-feet)
- Decorative street lighting
- Add pedestrian-activated flashing beacon and median refuge island at existing Jefferson Street midblock crosswalk
- New midblock crossing with pedestrian-activated flashing beacon and median refuge island connecting Yelm Skatepark and Yelm City Park
- Curbing to restrict left-turns at Tim’s Pharmacy driveway
Conceptual Design

**ENHANCED CROSSING**
Install pedestrian activated flashing beacon at existing Jefferson Avenue crossing. Explore option to construct a pedestrian refuge island in the median without restricting left-turn movement from Jefferson Avenue.

**TURN RESTRICTION**
Harden center line with curbing to restrict left-turn movements at driveway to reduce vehicle conflicts near busy intersection.

**NEW CROSSING**
Connect parks with a new mid-block crosswalk. Install a pedestrian activated flashing beacon and construct a pedestrian refuge island in the median.
Preliminary Cost Estimate

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTRUCTION TOTAL</td>
<td>$218,400</td>
</tr>
<tr>
<td>DESIGN ENGINEERING (15%)</td>
<td>$32,800</td>
</tr>
<tr>
<td>CONSTRUCTION MANAGEMENT (10%)</td>
<td>$21,900</td>
</tr>
<tr>
<td>CONTINGENCY/MISC. (30%)</td>
<td>$65,500</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>$338,600</strong></td>
</tr>
</tbody>
</table>

Design Considerations

- The preliminary cost estimate includes approximations for stormwater conveyance, flow control, and treatment as necessary for each phase based on the scope of the improvements. The potential cost of right-of-way acquisition for flow control and/or treatment facilities is not factored into the estimate.
- This project is not proposing to alter the existing lane configuration on 1st Street (SR 507), no anticipated changes to the existing typical cross section.
- WSDOT will not be responsible for maintaining any street trees or landscaped areas. The City or another local entity will be required to maintain any plantings.
- Intersection operations at 1st Street and Washington Avenue will have to be monitored for conflicts between the northbound queued vehicles from Yelm Avenue and left-turn movements at Washington Avenue. If issues arise, the City may consider left-turn restrictions at this location, perhaps by time of day.
- Further coordination with property owners will be required to clarify and confirm access impacts.
- Consider hanging planters and/or banners for the street light poles.
- The City may consider undergrounding utilities as a part of this project which would add additional project costs.
- Use civil engineering software to ensure that median refuge island at Jefferson Avenue crossing can accommodate left-turns from Jefferson Avenue to 1st Street.
Washington Avenue Improvements

Project Limits
1st Street to 2nd Street

Project Description
The purpose of this project is to create consistency in the street network throughout downtown Yelm and improve multimodal access. The construction of sidewalk and the formalization of on-street parking will increase safety and improve pedestrian connectivity between 1st Street and 2nd Street.

Project Elements
- Curb and gutter on both sides of the street
- Sidewalk on both sides of the street (8-feet)
- Parallel parking on the north side of the street
- Decorative street lighting
- Street trees
Proposed Typical Cross-section

Preliminary Cost Estimate

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Total</td>
<td>$308,900</td>
</tr>
<tr>
<td>Design Engineering (15%)</td>
<td>$46,400</td>
</tr>
<tr>
<td>Construction Management (10%)</td>
<td>$30,900</td>
</tr>
<tr>
<td>Contingency/Misc. (30%)</td>
<td>$92,700</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>$478,900</strong></td>
</tr>
</tbody>
</table>
Design Considerations

▪ The conceptual design was prepared to minimize impacts to existing buildings and properties. However, a survey must be completed to determine the final roadway design and identify any potential right-of-way encroachments that need to be accommodated or resolved.

▪ The preliminary cost estimate includes approximations for stormwater conveyance, flow control, and treatment as necessary for each phase based on the scope of the improvements. The potential cost of right-of-way acquisition for flow control and/or treatment facilities is not factored into the estimate.

▪ Street trees should be installed with tree grates to increase walkable space and tree wells to direct roots downward as they grow. Special consideration should be given to the tree species and placement as to limit overgrowth and visual obstruction of storefronts.

▪ The City may consider hanging planter baskets from street light poles in lieu of or in addition to street trees.
McKenzie Avenue Improvements

Project Limits

3rd Street to 4th Street

Project Description

The purpose of this project is to create consistency in the street network throughout downtown Yelm and improve multimodal access. The construction of sidewalk and the formalization of on-street parking will increase safety and improve pedestrian connectivity between 3rd Street and 4th Street.

Project Elements

- Curb and gutter on both sides of the street
- Sidewalk on both sides of the street (8-feet)
- Parallel parking on the north side of the street
- Decorative street lighting
- Street trees
Proposed Typical Cross-section

Preliminary Cost Estimate

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTRUCTION TOTAL</td>
<td>$362,800</td>
</tr>
<tr>
<td>DESIGN ENGINEERING (15%)</td>
<td>$54,400</td>
</tr>
<tr>
<td>CONSTRUCTION MANAGEMENT (10%)</td>
<td>$36,300</td>
</tr>
<tr>
<td>CONTINGENCY/MISC. (30%)</td>
<td>$108,800</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>$562,300</strong></td>
</tr>
</tbody>
</table>
Design Considerations

- The conceptual design was prepared to minimize impacts to existing buildings and properties. However, a survey must be completed to determine the final roadway design and identify any potential right-of-way encroachments that need to be accommodated or resolved.
- The preliminary cost estimate includes approximations for stormwater conveyance, flow control, and treatment as necessary for each phase based on the scope of the improvements. The potential cost of right-of-way acquisition for flow control and/or treatment facilities is not factored into the estimate.
- Street trees should be installed with tree grates to increase walkable space and tree wells to direct roots downward as they grow. Special consideration should be given to the tree species and placement as to limit overgrowth and visual obstruction of storefronts.
- The City may consider hanging planter baskets from street light poles in lieu of or in addition to street trees.
- The City may consider undergrounding utilities as a part of this project which would add additional project costs.
2nd Street Improvements (South)

Project Limits
Mosman Avenue to Cochrane Memorial Park

Project Description
Many residents shared that Cochrane Memorial Park is an important recreational asset in Yelm. However, access between downtown and Cochrane Memorial Park is lacking adequate pedestrian facilities and is poorly marked. Reconstructing 2nd Street, between Mosman Avenue and the northern entrance of the park, will improve access to Cochrane Memorial Park, increase safety for visitors, and enhance the connection between two of Yelm’s most-loved open spaces. The full benefits of this project will be realized when the Mosman Avenue project and wayfinding program are implemented.

Project Elements

- Curb and gutter on both sides of the street
- Sidewalk on both sides on the street (8-feet)
- Street lights
- Street trees
- Angled parking area at north entrance to Cochrane Memorial Park
Proposed Typical Cross-section

Preliminary Cost Estimate

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTRUCTION TOTAL</td>
<td>$406,700</td>
</tr>
<tr>
<td>DESIGN ENGINEERING (15%)</td>
<td>$61,000</td>
</tr>
<tr>
<td>CONSTRUCTION MANAGEMENT (10%)</td>
<td>$40,700</td>
</tr>
<tr>
<td>CONTINGENCY/MISC. (30%)</td>
<td>$122,000</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>$630,400</strong></td>
</tr>
</tbody>
</table>

Design Considerations

- The conceptual design was prepared to minimize impacts to existing buildings and properties. However, a survey must be completed to determine the final roadway design and identify any potential right-of-way encroachments that need to be accommodated or resolved.
- Further consideration is required for stormwater mitigation. The preliminary cost estimate includes a lump sum value for conveyance but does not identify the potential cost of right-of-way acquisition for a retention pond and/or treatment.
4th Street Improvements

Project Limits
Jefferson Avenue to Mosman Avenue

Project Description
Within the study area, the land uses along 4th Street are the most residential in nature. During the outreach process, residents and property owners expressed concerns over speeding vehicles and drivers using it as a cut-through to avoid congestion on Yelm Avenue. The proposed project includes sidewalks to increase pedestrian comfort and connectivity as well as speed humps to calm traffic and reinforce the 25mph speed limit.

Project Elements
- Curb and gutter on both sides of the street
- Sidewalks on both sides of street (8-feet)
- Street lighting
- Speed humps between Yelm Avenue and McKenzie Avenue

Speed Hump Example
**Conceptual Design**

**SIDEWALK**
Construct curb, gutter, and sidewalk on both sides of 4th Street between Jefferson Avenue and Mosman Avenue.

**SPEED HUMPS**
Install speed humps on 4th Street to discourage cut-through behavior and to discourage speeding on the largely residential street.
Proposed Typical Cross-section

Preliminary Cost Estimate

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTRUCTION TOTAL</td>
<td>$ 688,900</td>
</tr>
<tr>
<td>DESIGN ENGINEERING (15%)</td>
<td>$ 103,300</td>
</tr>
<tr>
<td>CONSTRUCTION MANAGEMENT (10%)</td>
<td>$ 68,900</td>
</tr>
<tr>
<td>CONTINGENCY/MISC. (30%)</td>
<td>$ 206,700</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>$ 1,067,800</strong></td>
</tr>
</tbody>
</table>
Design Considerations

- The City must adopt a standard specification for speed humps before implementing this project.
- The conceptual design was prepared to minimize impacts to existing buildings and properties. However, a survey must be completed to determine the final roadway design and identify any potential right-of-way encroachments that need to be accommodated or resolved.
- The preliminary cost estimate includes approximations for stormwater conveyance, flow control, and treatment as necessary for each phase based on the scope of the improvements. The potential cost of right-of-way acquisition for flow control and/or treatment facilities is not factored into the estimate.
- The City may consider undergrounding utilities as a part of this project which would add additional project costs.
- Further consideration is required for stormwater mitigation. The preliminary cost estimate includes a lump sum value for conveyance but does not identify the potential cost of right-of-way acquisition for a retention pond and/or treatment.

Phasing Opportunities

- The City may choose to construct speed humps on the street to address the reported speeding issues in advance of the curb, gutter, and sidewalk project.
Railroad Street Improvements

Project Limits
Yelm Avenue to Mosman Avenue

Project Description
Railroad Street serves a mix of land uses including commercial and light industrial uses, single family homes, as well as multi-family homes. It also provides access to a trailhead for the Yelm-Tenino Trail, a public parking lot, and the former Yelm City Hall building. The existing roadway has a paved vehicle lane and provides no designated pedestrian or bicycle facilities. This project will upgrade the street to current city standards, improving pedestrian access and enhancing connectivity to the trailhead and public parking area.

Project Elements
- Curb and gutter on both sides of the street
- Street lights
- Sidewalk on both sides of the street (8-feet)
- ADA compliant pedestrian ramps at all crosswalks
Conceptual Design

SIDEWALKS
Construct curb, gutter, and sidewalk on both sides of Railroad Street between Mosman Avenue and Yelm Avenue.
Proposed Typical Cross-section

A) Railroad Street between Mosman Avenue and Yelm Avenue

Preliminary Cost Estimate

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTRUCTION TOTAL</td>
<td>$432,800</td>
</tr>
<tr>
<td>DESIGN ENGINEERING (15%)</td>
<td>$64,900</td>
</tr>
<tr>
<td>CONSTRUCTION MANAGEMENT (10%)</td>
<td>$43,300</td>
</tr>
<tr>
<td>CONTINGENCY/MISC. (30%)</td>
<td>$129,800</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>$670,800</strong></td>
</tr>
</tbody>
</table>
Design Considerations

- The preliminary cost estimate includes approximations for stormwater conveyance, flow control, and treatment as necessary for each phase based on the scope of the improvements. The potential cost of right-of-way acquisition for flow control and/or treatment facilities is not factored into the estimate.

- The conceptual design was prepared to minimize impacts to existing buildings and properties. However, a survey must be completed to determine the final roadway design and identify any potential right-of-way encroachments that need to be accommodated or resolved.

- The City may consider undergrounding utilities as a part of this project which would add additional project costs.
Jefferson Avenue Improvements

Project Limits
Between 1st Street to 4th Street

Project Description
This project will upgrade the entire length of Jefferson Avenue by building sidewalks, parallel parking lanes, and sidewalk extensions at intersections. These improvements will provide a safer and more comfortable experience for pedestrians. The sidewalk extensions will shorten crossing distances, calm traffic along the corridor by visually narrowing the roadway and improve visibility for drivers at intersections.

Project Elements
- Curb and gutter on both sides of the street
- Sidewalk on both sides of the street (8-feet) with sidewalk extensions at intersections
- Street lighting
- Parallel parking on both sides of the street
Conceptual Design

**LANE ASSIGNMENT**
Maintain existing lane assignment at 1st Avenue to provide allow right-turn movements to flow while left-turning vehicles wait for a gap in traffic.

**SIDEWALK EXTENSIONS**
Construct sidewalk extensions at intersections to reduce crossing distances and calm traffic along the corridor.
Proposed Typical Cross-section

Preliminary Cost Estimate

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Total</td>
<td>$899,000</td>
</tr>
<tr>
<td>Design Engineering (15%)</td>
<td>$134,900</td>
</tr>
<tr>
<td>Construction Management (10%)</td>
<td>$89,900</td>
</tr>
<tr>
<td>Contingency/Misc. (30%)</td>
<td>$269,700</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>$1,393,500</strong></td>
</tr>
</tbody>
</table>
Design Considerations

- The conceptual design was prepared to minimize impacts to existing buildings and properties. However, a survey must be completed to determine the final roadway design and identify any potential right-of-way encroachments that need to be accommodated or resolved.
- The preliminary cost estimate includes approximations for stormwater conveyance, flow control, and treatment as necessary for each phase based on the scope of the improvements. The potential cost of right-of-way acquisition for flow control and/or treatment facilities is not factored into the estimate.
- Parallel parking is not provided between 1st Street and 2nd Street to accommodate the existing lane assignments approaching 1st Street.