

Chelan County

Transportation Element

Appendices



LIST OF APPENDICES

APPENDIX A
PUBLIC INVOLVEMENT MATERIALS

APPENDIX B
TRANSPORTATION PROJECT LIST AND PRIORITIES

APPENDIX C
PROJECT COSTS AND METHODOLOGY

APPENDIX D
TRANSPORTATION FUNDING REPORT

APPENDIX E
CONCURRENCY MANAGEMENT PROGRAM

APPENDIX F
CONCURRENCY REVIEW & TRAFFIC STUDY GUIDELINES

APPENDIX G
INTERSECTION LOS SUMMARY TABLE

APPENDIX H
LIST OF REFERENCE MATERIAL

APPENDIX I
SUBAREA ISSUES & TRAFFIC FORECASTS

Appendix A

PUBLIC INVOLVEMENT MATERIALS

Steering Committee Meeting Summaries

Meeting #1

The first meeting on March 7, 2008 introduced the committee members to the project team, provided a planning process overview, outlined the work program for the update process for the Transportation Element of the Comprehensive Plan and discussed the committee's role in guiding the work. The Public Involvement Plan (PIP) was discussed including the speaker's bureau, web site, e-mail notification and the Commissioner's radio programs as a method for announcing the upcoming meetings. The committee approved the PIP for public release. Potential changes to the goals and policies were presented. A facilitated issues identification discussion resulted in the following themes: 1) UGA transportation issues such as connectivity within neighborhoods, facility needs for all users, safety and impacts of growth; 2) Multi-modal connectivity between communities and the need for alternative routes; 3) Connectivity between travel modes; 4) Future impacts from land use growth and increased economic development; 5) State highways as the backbone of the County's transportation system; 6) Safety, road standards and capacity needs for new modes of travel; and 7) How impacts of new development are measured and how transportation projects are implemented to address those impacts.

Meeting #2

The June 4, 2008 meeting was preceded by the first public open house which was held the prior evening to introduce the project to the community and solicit feedback on potential priorities. The committee confirmed community and stakeholder priorities and issues by subarea. A discussion of potential changes to the level of service (LOS) standards and concurrency program followed with these recommendations: 1) continue developing the road standard index for reviewing concurrency; 2) determine design criteria and weighting; 3) determine handling of "fatal flaws" and mitigation requirements; and 4) establish development thresholds for concurrency evaluation. The committee recommended that a briefing be done for the County Commissioners on June 24th.

Meeting #3

The August 6, 2008 meeting focused on the results of the draft baseline funding analysis performed by Berk & Associates and a recap of the direction provided by the steering committee and County Commissioners on level of service standards. A review of the results of case studies for Sunnyslope and Malaga were used to address the questions:

- Are there modifications that should be considered to the preliminary standards?
- How should the LOS revisions be moved forward as part of the plan?

The committee reviewed the travel forecasting process and results, then discussed the preliminary improvement project list and confirmed the overall project priority criteria.

Meeting #4

The October 1, 2008 meeting was preceded by the second public open house held in Wenatchee the prior evening. Another open house, held in Chelan using the same information, was hosted the evening of October 1st. The committee focused on the funding strategies to address county maintenance and capital project needs followed by a discussion of proposed modifications to the county's LOS standards and revisions to the development review process.

Meeting #5

The November 17, 2008 meeting was used to establish recommended financing strategies for the County. Application of Transportation Impact Fees (TIFs), Transportation Benefit Districts (TBDs), Planned Action Ordinances (PAOs) and other strategies were reviewed. The need for developing a more sustainable County Road Levy was also a major item of discussion. Refinements to the road standards, level of service, and concurrency program were also discussed. This included the need to "calibrate" the program and to refine the threshold values for the concurrency evaluation.

Stakeholder Advisory Group Meeting Summaries

Meeting #1

Introduced Group members to the update process, the project team and the Stakeholder Groups role. Provided an overview of the project requirements, planning process, anticipated work schedule, key decision points and planned meetings topics. Reviewed the draft Public Involvement Plan, confirmed appropriate elements and asked for feedback on participants and communication methods. Facilitated small group discussions identified issue areas and possible projects.

Meeting #2

Commissioner Hawkins provided a brief synopsis of the goals for the Group and noted key areas where their feedback was particularly important. These were the subarea plans, identifying needs, and assessing the viability between subarea plans. The project priority criteria and how they were applied to identifying choices was discussed. Key findings from the prior night's open house noted that community members were most interested in maintaining and improving the existing roadway system, followed by safety and pedestrian and bike improvements. An explanation of the level of service on the County road system included identification of the road types, requirements for developers, and congestion and road safety needs. A list of potential transportation improvements was distributed. These provided the basis for a discussion of deficiencies and improvements to be considered. Items discussed were benefits and costs, transit improvements and key transportation issues within each subarea.

Participants then broke into groups to review population and job growth trends by sub-area. Based on subarea maps that included assumptions based on existing data, the groups confirmed, modified or provided additional factors to consider for each subarea. Many respondents felt the projected land use was underestimated for several of the subareas.

Meeting #3

Public comment from the open house and Group Meeting #2 was compiled to illustrate collective community views. Consistent with the prior input, priorities for Chelan County were maintaining and upgrading existing roads (26%), safety (15%) and pedestrian & bicycle transportation (12%). Also offered were highlights from the community briefings. A discussion of the results of the draft baseline funding analysis performed by Berk & Associates illustrated the current situation for the County's project funding and options for consideration that could provide new funding sources. A preliminary project list was discussed with highlights based on feedback from the prior meeting.

Meeting #4

A prioritized project list divided into three tiers was presented as a single complete list as well as being described for each subarea. Potential funding strategies to address County maintenance and capital project needs identified on the project list were discussed. Participants were somewhat surprised by the limited existing resources available to even do required road maintenance. An overview of proposed modifications to the County's LOS standards and revisions to the development process were presented.

Meeting #5

Commissioner Hawkins welcomed participants to the final Stakeholder Group meeting. He acknowledged the input and commitment in helping the County prepare the Transportation Element. The discussion focused on transportation funding issues and strategies. Expansion of the County's Road Levy and introduction of new funding programs were discussed. The Group asked questions and provided comment on what might work best for Chelan County. The Group explored strategies for establishing Transportation Impact Fees and Transportation Benefit Districts. Potential use of Interlocal Agreements to meet the cross-jurisdictional needs were discussed. The Stakeholder Group also discussed the relationship of the funding strategies with

development review requirements and mitigation. Potential changes and refinements to the goals and policies for the Transportation Element were reviewed and refined.



Project Fact Sheet

Did you know?

Chelan County had 53,952 licensed drivers and 82,351 licensed vehicles in 2006.

Population growth in Chelan County has climbed an average 6.6% during the past 6 years and doubled in the past 60 years.

78% of Chelan County residents drive to work alone. 8% carpool.

On the mean, it takes 18 minutes for Chelan County residents to drive to work.

Nearly one in four Chelan County residents is enrolled in school.

23% of Chelan County's housing stock has been built in the last 18 years.

Nearly 90% of Chelan County land is publicly-owned.

Chelan County is updating the Transportation Element of the Chelan County Comprehensive Plan, which was initially developed in 2000. The growing population and changing nature of the regional economy require realigning our transportation needs with current and projected land use patterns.

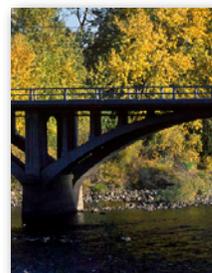
The 20-year plan will identify needed improvements to the county's roadways and bridges, as well as bike, pedestrian, aviation and rail facilities. As required by the Growth Management Act, a prioritized transportation project list, financing strategies and implementation measures will be included in the plan.

Who is involved in the project?

The project is being jointly led by the Public Works Director and the Planning Director. A Steering Committee and a Stakeholder Advisory Group will provide ongoing guidance and direction on the plan update. Their meetings are open to the public. In addition, two open houses will provide members of the public the opportunity to comment on existing conditions and future needs.

How can I participate?

Check the project website for details about upcoming meetings and to review information about the Transportation Element Update as it develops. Attend open houses and Stakeholder Advisory Group meetings to learn the latest and offer comments. (Find details on other side.) Meeting notes and technical reports will be posted regularly. If you are a member of a community organization interested in a presentation about the Transportation Element Update, please contact Lilith Yanagimachi at 509-667-6586 or Lilith.Yanagimachi@co.chelan.wa.us.



Key Issues

Maintaining and upgrading existing roads

Reducing congestion

Increasing safety

Improving regional connections

Adding pedestrian and bicycle facilities

Promoting transit, ride-sharing and other alternatives

Enhancing security and emergency response

Reducing impacts on the environment

Supporting adopted regional and local land use plans

Supporting economic development plans

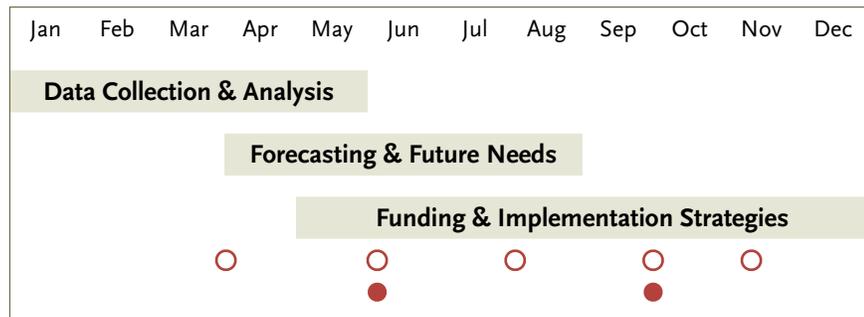
Rising costs of potential improvements

Enhancing the movement of freight and goods

How will the update occur and be complete?

1. Transportation-related data will be collected from all of the cities and agencies in the county to establish comprehensive baseline information.
2. Existing transportation policies will be revised to match current community values and land-use policies and to ensure compliance with all applicable regulations.
3. Twenty-year forecasts will be analyzed to identify aspects of the system that would benefit most from improvements.
4. Potential project costs will be estimated and financial projections will be studied to determine when the highest priority projects should be built.
5. The Transportation Element Update is scheduled to be adopted by the Chelan County Board of Commissioners in December 2008.

Timeline for Completing the Plan



○ Stakeholder Advisory Group Meetings

April 7 • June 4 • August 6
October 1 • November 19

All meetings held at
Confluence Technology Center
285 Technology Center Way, Wenatchee
Check web site for meeting times

● Public Open Houses

June 3 • Sept 30

Both meetings held 5:00—7:00 am
Confluence Technology Center
285 Technology Center Way, Wenatchee





Chelan County
transportation element update

Public Involvement Plan

Project Overview
Project History
Related Projects
Public Involvement Plan Overview

Communication Goals

Plan Elements
Management Team
Steering Committee
Stakeholder Advisory Group
Speaker's Bureau Presentations
Public Meetings
Printed Information & Website
Media Strategy
Communities

Work Plan & Schedule

prepared by
ReadWagoner LLC

The
Transpo
Group

17 Mar 08

Project Overview

Chelan County, located midway between Seattle and Spokane, is served by Highways US 2 and US 97 as its major connectors. The transportation network is shaped by dramatic topography with the Cascade and Chiwaukum Mountains, the Stuart Range, the Columbia and Chelan Rivers and Lake Chelan. Its 2,994 square mile area is home to about 66,000 people in 25,000 households, with the majority residing in Wenatchee.

Continuing growth drives the current effort to systematically address future transportation needs throughout Chelan County. The purpose of this phase of work is to review and update the Transportation Element of the Comprehensive Plan to provide a framework to improve Chelan County's transportation facilities over the next 20 years. Also important, the plan will establish a fundamental link between county land use and transportation facilities. All modes of transportation will be considered, including motor vehicle, aviation, rail, transit, marine and non-motorized. As required by the Growth Management Act, financing strategies and implementation measures needed to support implementation of the resulting transportation project list will be included in the Plan.

Overall 2008 Work Plan

Phase 1	Review of existing Transportation Element	February - March
Phase 2	Transportation Needs Analysis	March - July
Phase 3	Transportation Plan Development	May - December

Project History

The following is from the introduction to the 2000 Chelan County Transportation Element which will be updated by this current project.

The Transportation Element establishes a vital link between land use and County Transportation facilities and services needed to meet current system deficiencies and to support future growth, economic development, recreation, and the full range of activities anticipated in the County. The anticipated types, intensity and timing of land development in Chelan County will largely determine the mode of behavior of people using the land. In addition, land use decisions outside of the County impact the transportation system, and attention must be paid to the anticipated trends in these peripheral areas.

Although Chelan County is well-known for its orchards, the amount of farmland in Chelan County has halved over the last 45 years, from 215,646 acres at its peak in

1959 to 112,023 in 2002. Ninety-nine percent (99%) of the current tree fruit crop is exported out of the Chelan County by truck and rail, with approximately 30% exported out of the country (Smith 2004). Though orchards are still prominent where irrigation is available in the Columbia, Wenatchee, and Entiat valleys and uplands in the Lake Chelan area, challenges in the national and international tree fruit markets have led to grower, warehouse and processing consolidations, departures from farming and to changes in land use. Wineries, orchards, fruit stands, vineyards, nurseries, restaurants and lodging are becoming a successful part of a burgeoning agro-tourism industry. These changes in the regional economy influence current and future transportation needs of Chelan County.

The growing population and changing nature of Chelan County's economy make this update an opportunity to realign transportation and land use needs and to identify needed improvements to the county's roadways, bridges, bike, pedestrian, aviation and rail facilities.

Public Involvement Plan Overview

The overall intent of the public involvement program is to inform the community about the update of the Transportation Element of the Comprehensive Plan, involve the community in its development and to provide decision-makers with public feedback on the proposed policy changes and project rankings. Public officials want to understand community and stakeholder priorities to ensure their decisions balance proposed policy revisions with technical recommendations and community values.

Information about the update of the Transportation Element of the Comprehensive Plan will be distributed and feedback gathered from communities throughout Chelan County. Information will be available to the public in a variety of forms, including a project website, an e-serve list of organizations and interested parties, presentation materials for a speaker's bureau, exhibit materials for community locations and targeted media coverage.

The Steering Committee, composed of agency representatives directly involved in the project and elected representatives, will guide the work of the consultant team. A Stakeholder Advisory Group, composed of representatives from Chelan County, WVTC, WSDOT, local communities, transportation service providers, organizations, business interests and citizens will be formed to provide advice at key points throughout the process. A speaker's bureau, led by members of the Steering Committee, will schedule presentations with cities and interested organizations throughout the county. Two county-wide public meetings will be conducted, the first following identification of needs and consideration of proposed improvement priorities and the second to review project priorities and the draft plan.

Communication Goals

- Create interest in the update of the Transportation Element of the Comprehensive Plan process.
- Establish and maintain productive partnerships with individuals, agency representatives, organizations and other stakeholder interests.
- Actively engage a stakeholder group in the process to provide guidance and to communicate about the process to their communities, agencies and interest groups.
- Direct information to the public and media through a variety of methods.
- Incorporate a record of public recommendations into the decision-making process.

Plan Elements

The public involvement plan will coordinate both agency and consultant outreach efforts.

Management Team

The Management Team is composed of the Chelan County Public Works Director, the Community Development Director and a Chelan County Commissioner. Regularly scheduled conference calls every other week with the consultant will provide the forum for an ongoing information exchange, consideration of choices, planning for the stakeholder meetings and public open houses, and ongoing decisions that enable the project to move forward.

Steering Committee

The Steering Committee is composed of agency representatives directly involved in the project with the responsibility of providing direction to the consultant at each phase of the project. The Steering Committee will be briefed on the project progress, provided with technical, policy and community information, and be asked to provide advice and recommendations.

Steering Committee Members

- Greg Pezoldt Chelan County Public Works Director, Co-Project Manager
- John Guenther Chelan County Planning Director, Co-Project Manager
- Buell Hawkins Chelan County Commissioner
- Jeff Wilkens WVTC Executive Director
- Connie Krueger City of Leavenworth Community Development Director
- Dave Honsinger WSDOT North-Central Planning Manager
- Richard Derock LINK Transit

The Steering Committee will meet prior to each of the five stakeholder meetings. These meetings will enable the Steering Committee to review and consider the information to be presented to the Stakeholder Advisory Group and to provide direction to the consultant based on their collective position. Following the stakeholder meeting, the Steering Committee will meet with the consultant to review the comments and advice from the stakeholders.

Steering Committee & Stakeholder Advisory Group Meetings

- march Planning Process Overview
- Confirmation of the Public Outreach Plan
- Workplan
- Issues Identification
- may Summary of findings based on data collection
- Transportation Deficiencies

	Land Use Growth Trends
july	20-year Travel Forecasts
	Future Transportation Deficiencies
	Transportation Improvement Options
september	Financing strategies and choices
	Level of Service Standards & Concurrency Management
	Confirmation of project priorities
november	Draft plan review

Roles

consultant	draft meeting agendas, prepare materials for discussion and decision making, identify action items
county	finalize meeting agendas, confirm meeting attendance with members, secure meeting facility and coordinate all meeting logistics, take notes and create meeting summary

Stakeholder Advisory Group

The Stakeholder Advisory Group is composed of a large, broadly representative group of interests from throughout the county. Members will reflect the different geographic areas of the county as well as different interests including business, community, recreation, non-motorized and freight. The group members will have differing levels of understanding, interest and investment in the update of the Transportation Element of the Comprehensive Plan, therefore meetings will be designed to assure participants have the necessary information in order to provide meaningful feedback. The large size of the group offers a chance to reach and engage many different areas and interests within the county and for members to hear and understand a range of perspectives on the transportation needs of their community.

Members of the Stakeholder Advisory Group will also be asked to provide information from their meetings to others. This will be accomplished through individual, ongoing conversations as well as through briefings to interested organizations through the Speaker's Bureau.

The Group will be identified by the members of the Steering Committee.

Project Stakeholders

Cities and Other Agencies

- Agency Staff (planning, public works or community development)
- Elected Officials
- Link Transit
- School Districts in Chelan County
- Wenatchee Valley College
- Planning Commission
- Water Districts

- Fire Districts
- Post Offices
- Reclamation Districts
- Chelan County Sheriff's office
- Washington State Patrol
- RiverCom
- Region 7 Emergency Responders (contact: Maria Agnew, Sheriff's Office)
- National Forest Service
- National Park Service

Commercial Interests

- Orchardists
- Farmers
- Fruit industry
- Businesses
- Northwest Trailways
- Ski Areas (Mission Ridge and Stevens)
- Lake Chelan Boat Company
- Alcoa
- Airports (Chelan and Cashmere)
- Railroad
- Waste Management
- Telephone and Utilities

Residential Interests

- Property Owners and renters
- Neighborhood Schools
- Commuters
- Neighborhood Organizations

Community Organizations and Interest Groups

- Chambers of Commerce (including Hispanic Chamber)
- Greater Wenatchee Bicycle Advisory Board (GWBAB)
- Loop Trail Coalition
- Build the Highway Committee (?)
- Senior Citizen Groups
- Service Clubs
- Equestrian groups
- Bicycle groups
- Trust for Public Land

Roles

- | | |
|------------|--|
| consultant | draft letter of invitation to stakeholders, create meeting agenda, prepare presentation materials and handouts |
| county | identify stakeholders, direct communication with stakeholders, secure meeting facility and coordinate all meeting logistics, take meeting notes and create summary |

Speaker's Bureau Presentations

A speaker's bureau presentation will be created following the second Stakeholder Meeting with introductory project information. The presentation will include speaking points and key questions, so that it can be given by a variety of presenters from the Steering Committee who may also include members of the Stakeholder Group. The speaker's bureau will be available for presentations to boards, commissions, city councils and community groups. Comments and questions following presentations will be gathered and included in the documentation of public comment.

Potential Audiences

- Cities
- Community Councils
- Forest Leadership Teams
- Rotary
- Chambers of Commerce
- Lion's Club
- Realtors & Home Builders (monthly advisory group meeting)
- Intergovernmental Liaison
- Region 7 Health District (Chuck Johnson)
- Fire Districts
- Monthly Superintendent Advisory
- Farm Bureau
- Agricultural Tourism/Cascade
- Wine Grape Growers (Lake Chelan & Wenatchee)

Roles

consultant	gather information, develop presentation and speaking points
county	schedule speaking engagements, make presentations, gather and summarize comments from each engagement

Public Meetings

Two public meetings will be held to provide the broader public with an opportunity to express their views about the update of the Transportation Element of the Comprehensive Plan. Meeting dates will be coordinated to occur on evenings following meetings of the Steering Committee and Stakeholder Advisory Group.

The first public meeting will be hosted following the second set of Steering Committee and Stakeholder Advisory Group meetings. This introductory meeting, provided in an open house format, will explain the purpose of the update to the Transportation Element of the Comprehensive Plan, describe current conditions based upon the consultant's review of data, identify transportation deficiencies and show priorities for transportation improvements. Through staffed exhibits, attendees will be invited to share their knowledge and observations about the

transportation system. Several methods for gathering community input will be used, including annotation of base maps, written responses to identify deficiencies, a rating system for project priorities and comment forms. Information from the open house will be gathered and summarized to further inform the next phase of consultant work.

The second public meeting will occur following the fourth set of Steering Committee and Stakeholder Advisory Group meetings. Its purpose will be to show the work to date and how prior public comment has influenced ranking of priority projects. Community input will be gathered on project priorities and the draft plan through written comment and a rating mechanism for preferred projects. A summary of public comment will be considered by the consultant team in developing the final plan.

Roles

- consultant create public meeting agenda, prepare presentation materials and handouts, facilitate event, summarize feedback
- county secure meeting facility, coordinate all meeting logistics, print handouts, meeting materials and sign-in sheets, staff exhibits

Printed Information & Website

Printed information sheets and website information will be developed to provide project information consistent with that offered through the speaker's bureau presentation and public meetings. Notice of public meetings and information on the purpose, membership and activities of the Stakeholder Advisory Group will also be included on the website. The printed information sheets may also be used as the basis for a poster series that can be exhibited at community locations such as city halls, libraries and community centers. This information will be updated as the project progresses to reflect the community responses to each phase of the project.

An initial package of information will be developed in preparation for the first Steering Committee and Stakeholder Advisory Group meeting. The information will serve as a basis for creating a website and project information sheet. The basic information will be used for the speaker's bureau presentation, assuring that all information is well coordinated.

Roles

- consultant draft content, prepare web-ready graphics, send PDFs of information pieces to be printed
- county host web pages, finalize content, coordinate all postings, print and distribute printed pieces

Media Strategy

Press releases will be issued to newspapers and Spanish-language radio stations (to reach targeted population) prior to Stakeholder Advisory Group meetings and public open houses. Press attendance will be encouraged to provide coverage of the stakeholder meetings.

Newspapers

The Wenatchee World
Wenatchee Business Journal
El Mundo

Roles

consultant	draft press releases
county	finalize and distribute press releases, respond to press inquiries, invite reporter attendance

Communities

Census-recognized Communities

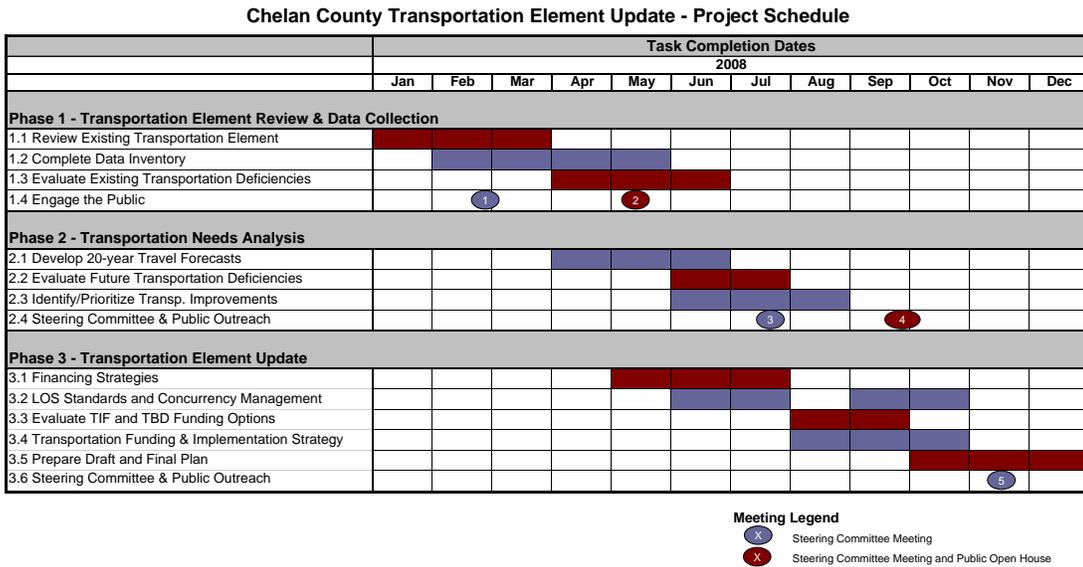
Chelan (3,522)
Entiat (957)
Leavenworth (2,074)
South Wenatchee (1,991)
Sunnyslope (2,521)
Wenatchee (27,856)
West Wenatchee (1,681)

Other Communities

Appleyard
Ardenvoir
Blewett
Chelan Falls
Chiwaukum
Chumstick
Dryden
Grant Road Addition
Holden Village
Kenroy
Lakeside
Lucerne
Malaga
Manson
Merritt
Mission Square
Monitor
Pearcot
Peshastin
Plain
Stehekin
Telma
Wenatchee Heights
Winton

Work Plan & Schedule

Overall Project Schedule



Public Involvement Work Plan

The overall work plan below will serve as the roadmap for implementation of the Public Involvement Plan. Detailed work plans will be developed for components of the plan that require coordination between consultants and Chelan County staff for successful implementation. A sample detailed work plan follows the overall work plan below.

Overall Work Plan

month	activities
February	Project Start-up <ul style="list-style-type: none"> • Prepare Public Involvement Plan. • Establish Steering Committee (SC). • Establish Stakeholder Advisory Group (SAG). • Coordinate first meetings of CC & SAG.
March	SC + SAG Meetings #1 and Base Public Information <ul style="list-style-type: none"> • Host first meeting of SC & SAG. • Post project web pages with base information.

- Prepare project fact sheet.

-
- April Planning and Communications
- Coordinate second meetings of SC & SAG.
 - Plan and coordinate first public open house.
 - Prepare and distribute press release.

-
- May SC + SAG Meetings #2 and Public Open House #1
- Host second meetings of SC & SAG.
 - Host first public open house.
 - Schedule speaker's bureau presentations.

-
- June Planning and Communications
- Update project web pages.
 - Create speaker's bureau presentation.
 - Coordinate third meetings of SC & SAG.

-
- July SC + SAG Meetings #3
- Host third meetings of SC & SAG.
 - Give speaker's bureau presentations.
 - Develop exhibit materials for community locations.

-
- August Planning and Communications
- Coordinate fourth meetings of SC & SAG.
 - Plan and coordinate second public open house.
 - Update project web pages.
 - Update speaker's bureau presentation.
 - Install exhibit materials at community locations.
 - Prepare and distribute press release.

-
- September SC + SAG Meetings #4 and Public Open House #2
- Host fourth meetings of SC & SAG.
 - Host second public open house.
 - Give speaker's bureau presentations.

-
- October Planning and Communications

- Coordinate fifth meetings of SC & SAG.
- Update project web pages.

November SC + SAG Meetings #5

- Host fifth meetings of SC & SAG.

December Project Wrap-up

- Prepare Summary of Public Involvement
- Update project web pages.



Chelan County Transportation Element Update

Agenda • Stakeholder Advisory Group Meeting #1
March 7, 2008 • 9:30 – 11:30 am

- Purpose Introduce the Stakeholder Advisory Group members to the update process for the Transportation Element of the Comprehensive Plan, the project team who will be doing the work and the group's role in the process.
- 9:30 Welcome and Introductions • John Guenther
Introduction to the project and anticipated role of the SAG. Opportunity for other members of the Steering Committee to add their thoughts. Round robin introduction of members, their positions and interest in this project. Introduce the consultant team.
- 9:50 Work Plan Overview • Jon Pascal
Overview of the project requirements, planning process, anticipated work schedule, key decision points, and planned meeting topics. Q & A
- 10:10 Public Involvement Plan • Marcia Wagoner
Review of draft PIP, confirm appropriate elements and ask for information and advice based on local knowledge. Q & A
- 10:40 Issues Identification • Jon, Marcia, John
Ask participants to breakout into small groups, then lead a facilitated discussion with each group to identify issue areas and possible projects using a base map of the County to annotate locations. Capture information that is not geographically specific on a flip chart. Summarize findings and key guidance to the team.
- 11:10 Report Out • All
Brief report out from each group on key findings and guidance. Review next steps and meeting date.
- 11:30 Adjourn



Chelan County Transportation Element Update

Agenda • Steering Committee Meeting #1

March 7, 2008 • 12:00 – 2:30 pm

- Purpose** Introduce the Steering Committee to the project team, the update process for the Transportation Element of the Comprehensive Plan and their role in guiding the work.
- Members** Greg Pezoldt, Chelan County Public Works Director, Co-Project Manager
John Guenther, Chelan County Planning Director, Co-Project Manager
Buell Hawkins, Chelan County Commissioner
Jeff Wilkens, WVTC Executive Director
Connie Krueger, City of Leavenworth Community Development Director
Dave Honsinger, WSDOT North-Central Planning Manager
Richard Derock, LINK Transit
- 12:00 Welcome and Introductions • John Guenther
Introduction to the project and anticipated role of the SC. Round robin introduction of committee members, their positions and interest in this project. Introduce the consultant team.
- 12:10 Work Plan Overview • Jon Pascal
Overview of the project requirements, planning process, anticipated work schedule, key decision points, and planned meeting topics. Q & A
- 12:30 Public Involvement Plan • Marcia Wagoner
Review of draft PIP, confirm appropriate elements and offer information and advice based on local knowledge. Q & A
- 1:00 Review Goals & Policies • Jon Pascal
Discuss recommended changes to the goals and policies.
- 1:30 Issues Identification • Marcia Wagoner
Lead a facilitated discussion with the group to identify issue areas and possible projects using a base map of the County to annotate locations. Capture information that is not geographically specific on a flip chart. Summarize findings.
- 2:00 Steering Committee Guidance • Marcia Wagoner
Facilitate a response from each Steering Committee member asking “What would a successful project outcome be from your perspective?” and “Do you have suggestions for the consultant team?” Brief summary by consultants on what they have heard.
- 2:30 Adjourn



Chelan County Transportation Element Update

DRAFT Meeting Minutes

Stakeholder Advisory Group Meeting #1

March 7, 2008 • 9:30 – 11:30 am

Attendees:

Jolene Gosselin	Chelan County Engineer
Dave Honsinger	WSDOT / Planning Manager
Susan Driver	Entiat / Contract Planner
Gary Owen	City of Wenatchee Engineer
Andy Wendell	Chelan County PUD
Patrick Walker	CDLT
Bob Sheehan	Forest Service
Kathy Springer	Peshastin Community Council
Mark Urdahl	Port of Chelan County
JoEllen Colson	ESD School Grant Coordinator
Bill Fraser	State Parks
Robert Nova	WSDOT / Transportation Planner
Chuck Garvey	Malaga Community Council
Tim Bentz	Cascade School District Transportation Director
Joe Rumble	Monitor Community Council
Florence Robinson	Monitor Community Council
Marshall West	Planning Commission Leavenworth
Dick Gormley	Assistant Chelan County Fire Marshall
Tim Herellebaugh	Engineering Director / Central Washington Hospital
Lauren Rejniak	Consultant Coordinator
Jon Pascal	Transpo
Larry Toedtli	Transpo
Marcia Wagoner	ReadWagoner
Michael Read	ReadWagoner
Greg Pezoldt	Chelan County Public Works Director
John Guenther	Chelan County Community Development Director
Buell Hawkins	Chelan County Commissioner

Purpose: *Introduce the Stakeholder Advisory Group members to the update process for the Transportation Element of the Comprehensive Plan, the project team who will be doing the work and the group's role in the process.*

Chelan County Commissioner Buell Hawkins called the Stakeholder Advisory Group Meeting to order at approximately 9:35 AM.

THE TRANSPO GROUP

Commissioner Hawkins gave a brief synopsis of the stated goals of the Stakeholder Advisory Group and advised members of the aggressive timeline for the Transportation Element.

Welcome and Introductions: Introduction to the project and anticipated role of the SAG. Opportunity for other members of the Steering Committee to add their thoughts. Round robin introduction of members their positions and interest in this project. Introduce the consultant team.

Introductions of the assembled members were made. Dick Gormley was introduced to the assembled members as the incoming Fire Marshall for Chelan County.

Work Plan Overview: Overview of the project requirements, planning process anticipated work schedule, key decision points and planned meeting topics. Q & A.

The Transpo Group provided an overview of the Transportation Element process, highlighting prioritization and implementation of projects. Identification of transportation issues and the means to collect data were also discussed. It was also noted that ideas and input from the stakeholders and public regarding transportation needs would be a vital element of the planning process. It was noted that the plan will focus on the unincorporated areas of the County and where they link into the Cities.

Preparation of the Transportation Element will include five Stakeholder meetings with the remaining four meetings occurring in May, July, September and November. In addition the process would happen in three distinct phases.

- Phase I / Starting the process and inventory
- Phase II / How to address Transportation issues
- Phase III / How to get it done: implementation, cost, prioritization and strategies.

A draft plan report will be drafted and submitted to Chelan County at the November meeting.

Public Involvement Plan: Review of draft PIP, confirm appropriate element and ask information and advice based on local knowledge.

Marcia Wagoner from ReadWagoner noted that public involvement would be a vital part of the Transportation Element. She noted that this was a Countywide process and would involve the cities as well. She stated that the process would build off of projects already in the works and that final prioritization would be done by Chelan County.

Ms. Wagoner invited questions and asked what other agencies and groups should be involved in the process.

During discussion of the Public Involvement Plan, participants offered additions to the interests to be represented on the Stakeholder Group. Some of the groups were noted

as already being on the list of stakeholders, but not present at the meeting. These included:

- School Districts in Chelan County
- Wenatchee Valley College
- Alcoa
- Region 7 Emergency Responders (contact: Maria Agnew, Sheriff's Office)
- State Patrol
- RiverCom
- Chelan County Sheriff's office
- Senior Citizen Groups
- Lake Chelan Boat Company
- National Park
- Airports (Chelan and Cashmere)
- Waste Management
- Telephone and Utilities
- Planning Commission
- Water Districts
- Service Clubs
- Fire Districts
- Post Offices
- Bus Companies
- Ski Areas (Mission Ridge and Stevens)
- Equestrian groups / Bicycle groups
- Businesses
- Fruit industry
- Railroad
- Reclamation Districts
- Trust for Public Land
- Northwest Trailways

It was asked if Douglas County would be involved in the Transportation Plan. Commissioner Buell Hawkins noted that the Transportation Element was strictly a Chelan County project at this time and that there were regional transportation studies involving Pangborn Airport and other transportation needs in Central Washington.

Recommendations on groups to be briefed through the speaker's bureau were as follows:

- Cities
- Community Councils
- Forest Leadership Teams
- Rotary
- Chambers of Commerce
- Lion's Club
- Realtors & Home Builders (monthly advisory group meeting)
- Intergovernmental Liaison
- Region 7 Health District (Chuck Johnson) all of fire district/police/highway patrol
- Fire Districts
- Monthly Superintendent Advisory

- Farm Bureau
- Agricultural Tourism/Cascade
- Wine Grape Growers (Lake Chelan & Wenatchee)
- Post Office

Issues Identification: Ask participants to breakout into small groups, and then lead a facilitated discussion with each group to identify issue areas and possible projects.

The assembled members broke into two groups. Transportation issues in Chelan County were discussed, it was noted there was no specific agenda and issues could range from very broad to very specific in nature. Examples of projects and issues were submitted to the groups.

Report Out: Brief report out from each group on key findings and guidance. Review next steps and meeting date

The groups reconvened and reported their results and identified transportation needs in Chelan County. A full listing of the notes from each group are attached.

Group I Report:

- Signage and wayfinding
- School buses and alternative routes due to closures
- Bridges
- Multimodal - sidewalks and trail issues
- Alternate routes in the Chelan, Monitor and Manson areas
- Traffic studies and growth impacts to surrounding communities
- Amenities to support transit stops
- Access across Lake Chelan and water service
- Bike / trail connections in Chelan County
- Rural / Urban issues and development in Chelan County

Group II Report:

- Highways within communities
- Canyon roads. Single access and increasing growth
- Intersection improvements
- Truck turning radius with narrow roads and bridges
- Pedestrian safety
- Connection roads and transit issues
- ATV / Snow Access to Forest Service lands
- Bike connection trails / trailheads with impact to highway speeds
- Street standards
- Amtrak in Leavenworth / access connection
- Airport changes and growth
- Law enforcement with additional growth
- River / Creek crossings

- Railroad crossings
- Transportation needs due to growth pressures in communities such as Peshastin and Sunnyslope.

It was noted that a website would be available to the members and the public with findings from the meeting within approximately two weeks.

The next SAG Meeting was scheduled for mid to late May (the date will be May 29th as decided by the steering committee).

The meeting adjourned at approximately 11:30.

Summary of issues that were discussed during the group breakout session

Specific issues that were discussed by the groups as part of the Issues Identification portion of the meeting included the following:

- East-west connectivity in Leavenworth UGA and within Sunnyslope
- How do we plan for change in fuel prices?
- Transportation Needs Assessment Policy Direction
- Access to properties in the Canyons. Only one access point for residential cabins and houses.
- Access to trailheads and bicycle connectivity
- Many issues are due to road standards and lack of amenities on County roads
- Wayfinding to Hospitals
- Secondary county roads served mostly orchards, but now serve new residential developments. For example the North Road in Peshastin.
- The process by which traffic impact studies are completed in the County needs to be changed. What if the County did the studies? Need to see cumulative impacts.
- Balance between rural and urban. For example, identify which roadways are to remain rural, which to become urban, and evaluate some classes in between..
- Entiat / Chelan / Mason /Leavenworth - State highway runs thru middle of town. Issues include:
 - Speeds
 - Pedestrian crossings
 - Turn lanes
 - Signals/Traffic Control
 - Safe Access
- Alternate routes
 - Around Leavenworth
 - Manson to Chelan
 - Cashmere to Wenatchee
 - Dryden/Peshastin area
 - Impacts from Tumwater canyon closures
 - Access issues – like alternate routes – also affect emergency vehicles.
- Wenatchee Area
 - Intersections in Sunnyslope that should be evaluated

- Park & Ride
 - School Street at 2/97
 - 97 to Sleephollow
 - Easy Street at Ohme Garden
 - Peter Street at Easy Street
 - Penny Road & Euclid @ RR Tracks
 - Crestivew at Easy Street
 - Knolls Road
 - Intersections in South Wenatchee that should be evaluated
 - Terminal at Schoolchuck
 - Terminal at Malager/Alcoa Hwy.
- US 2 / Wenatchee Valley Corridor
 - Connectivity within Valley
 - River access points
- Leavenworth
 - Pedestrian crossings along US 2
 - RR platform for AMTRAK – blind curve nearby
 - Ski hill road
 - where it comes out of city 8' shoulder, but no amenities within the City
 - A great ped/bike route
 - No connectivity – no safe routes to schools
- Peshastin
 - 60 acres port property – mixed use
 - Could include high tech businesses/residential/open space
 - Access Issue
 - Old Peshastin Bridge
 - Tight radius for big trucks
 - Narrow
 - Students cross bridge
 - Not safe in winter for pedestrians
 - Lack of pedestrian and non-motorized accommodations
 - Narrow roads/issue as growth happens
 - No sidewalks, storm drains
 - Railroad underpass
- Monitor
 - Aged bridges that connect the community to US 2
 - Need a new corridor into Wenatchee, somewhere other than adjacent to highway 2
- Malaga
 - Concerned about traffic from new 234 homes in 4 separate developments (traffic studies say no impact – if there are all 4, there is an impact)
- Chelan
 - Draft airport master plan – regular relocate of road
 - Larger runway – airport overlay (John G to provide info)
 - To accommodate small jet (G4)
 - Significant land use issues
 - Union Valley road connection to Manson – high priority
 - Existing SR 150 to Manson
 - Narrow ROW

- Too close to lake
 - Limited access, clear zone issues
 - Utility corridor alongside
 - Blind intersections
 - Need a trail connection between 25 mile creek state park and lake chelan state park
 - Additional water transportation – such as service between the south shore and north shore in Manson
- National Forest / Recreation Uses
 - Access to developments on roads that cross forest land
 - Should some roads become county roads, not national forest roads?
 - First Creek
 - Transportation access management plan completed in December 06
 - OHV, ATV use on roads and trails
 - Better signage on city/county roads - check website to allow campers to get to sites (re: fire closures)
 - Considerations for other users
 - Snow mobile
 - Dirt bikes
 - Cross Country Skiing
- Link
 - Park and ride lots
 - Winter conditions act as deterrent to using the system
 - No shoulders to access stops
 - Many stops along state highways
 - Anticipate higher interest as work progresses on issues such as
- Project Costs
 - Include cost of relocation utility infrastructure
 - Include future costs on projects scheduled for the future
 - Revenues not increasing as fast as costs



Plan Process

Chelan County Transportation Element Update



What will the future bring?

- Household and employment growth
- Safety issues
- Non-motorized transportation needs
- Capacity problems
- Operational deficiencies
- Freight movements
- Transit opportunities

What are things like in 2008?

- Land uses
- Transportation inventory
- Traffic data and analyses
- Current issues/concerns

Public Open House #1

- What are your biggest transportation concerns?
- What other transportation issues can you share with us?
- What kinds of solutions have you thought about?

May 2008

Public Open House #2

- What are your highest priorities?
- Which projects/ programs are needed first?
- How can we best implement the projects?

Sept/Oct 2008

Transportation Needs Analysis

- Evaluate future transportation deficiencies
 - Roadways
 - Bicycle & pedestrian facilities
 - Transit services
 - Airports, waterways, railroads
- Develop a project list, prioritization criteria and resulting project priorities
- Project Cost Estimates

Transportation Element Update

- Assess available funding resources.
- Evaluate application of transportation impact fees and transportation benefit district.
- Adjust concurrency management program.
- Combine technical analyses, financial plan and policy direction into Updated Transportation Element.





Workplan & Schedule

Chelan County Transportation Element Update



	Task Completion Dates											
	2008											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Phase 1 - Transportation Element Review & Data Collection												
1.1 Review Existing Transportation Element												
1.2 Complete Data Inventory												
1.3 Evaluate Existing Transportation Deficiencies												
1.4 Engage the Public		1			2							
Phase 2 - Transportation Needs Analysis												
2.1 Develop 20-year Travel Forecasts												
2.2 Evaluate Future Transportation Deficiencies												
2.3 Identify/Prioritize Transp. Improvements												
2.4 Steering Committee & Public Outreach							3		4			
Phase 3 - Transportation Element Update												
3.1 Financing Strategies												
3.2 LOS Standards and Concurrency Management												
3.3 Evaluate TIF and TBD Funding Options												
3.4 Transportation Funding & Implementation Strategy												
3.5 Prepare Draft and Final Plan												
3.6 Steering Committee & Public Outreach											5	

Meeting Legend



Steering Committee Meeting



Steering Committee Meeting and Public Open House



Key Relevant Documents

Chelan County Transportation Element Update



- Subarea plans: Sunnyslope, Manson, Malaga, Monitor, Peshastin
- County Parks and Recreational Plan
- Cities Comprehensive Plans and TIPs
- Leavenworth Downtown Master Plan
- Wenatchee Foothills Trails Plan
- Wenatchee Bicycle Advisory Board Master Plan
- US 2/97 Corridor Safety Study
- 2008-13 Regional TIP
- Regional Transportation Plan (Confluence 2025)
- Community Visioning Report



Chelan County

Update for the Transportation Element of the Comprehensive Plan

Stakeholder Advisory Group Work Plan

March

- Planning Process Overview
- Public Involvement Plan
- Workplan
- Issues Identification

May

- Summary of findings based on data collection
- Transportation Deficiencies
- Land Use Growth Trends

July

- 20-year Travel Forecasts
- Future Transportation Deficiencies
- Transportation Improvement Options
- Project Priority Criteria

September

- Financing Strategies and Choices
- Level of Service Standards
- Confirmation of Project List and Priorities

November

- Draft Plan Review



Chelan County Transportation Element Update

Agenda • Stakeholder Advisory Group Meeting #2

To Be Determined: tentatively Wednesday June 4, 2008 • 9:30 — 11:30 pm

Purpose Update the Stakeholder Advisory Group members on progress and findings to date, discuss level of service objectives, review capital costs of various improvements and confirm land use inventory.

- 9:30 Welcome and Introductions • John Guenther
Review the project purpose and role of the SAG. Round robin introductions and welcoming of new attendees.
- 9:40 Project Update • Marcia Wagoner
Overview of the project progress, big picture view of traffic counts and other data collection findings. Q & A
- 9:50 Open House Findings • Marcia Wagoner
Summary of comments heard, key themes and highlights. Solicit observations from SAG members who attended. Q & A
- 10:10 Level of Service 101 • Jon Pascal
Review various conceptual approaches to address LOS objectives. Discuss pros and cons of current system. Present volume-based approach for design and operational standards. Q & A
- 10:40 Transportation Deficiencies & Improvements to Consider • Jon Pascal
Review weak areas in network. Discuss relative costs and benefits of various types of improvements. Identify priority criteria for evaluating potential projects. Q & A
- 11:10 Land Use Projections • Jon Guenther
Review population and job growth trends by sub-area. Confirm assumptions and projections. Solicit additional factors to consider. Q & A
- 11:25 Next Steps • Marcia Wagoner
Brief review of work to be accomplished over next few months. Confirm meeting schedule.
- 11:30 Adjourn



Chelan County Transportation Element Update

Agenda • Steering Committee Meeting #2

To Be Determined: tentatively Wednesday June 4, 2008 • 1:00 — 3:00 pm

- Purpose Introduce the Steering Committee to the project team, the update process for the Transportation Element of the Comprehensive Plan and their role in guiding the work.
- Members Greg Pezoldt, Chelan County Public Works Director, Co-Project Manager
John Guenther, Chelan County Planning Director, Co-Project Manager
Buell Hawkins, Chelan County Commissioner
Jeff Wilkens, WVTC Executive Director
Connie Krueger, City of Leavenworth Community Development Director
Dave Honsinger, WSDOT North-Central Planning Manager
Richard Derock, LINK Transit General Manager
- 1:00 Project Update • Jon Pascal
Overview of the project progress and outstanding issues.
- 1:20 Open House & SAG Findings • Marcia Wagoner
Summary of key themes and highlights.
- 1:30 Design & Operational Standards • Jon Pascal
Discuss recommended changes to standards for meeting LOS objectives.
- 2:00 Priority Criteria • Marcia Wagoner
Review, rank and weight SAG-generated criteria for evaluating list of potential projects.
- 2:30 Needs Assessment Approach • Marcia Wagoner
Lead a facilitated discussion to prioritize needs to be evaluated by subarea. Use county-wide and subarea base maps to annotate locations. Summarize findings.
- 3:00 Adjourn



Which Types of Transportation Improvements Are Most Important?

Chelan County Transportation Element Update

Note: Projects often include several improvement types

Improvement Type	Project Example	Illustration
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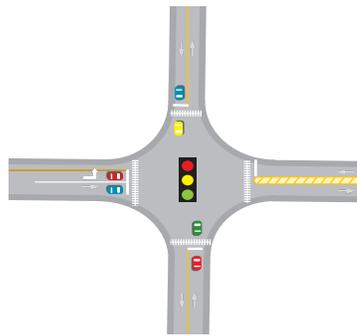
I Intersection Improvements

Install a traffic signal or a roundabout; modify existing traffic signals; and/or add turn pockets at an existing intersection or interchange.

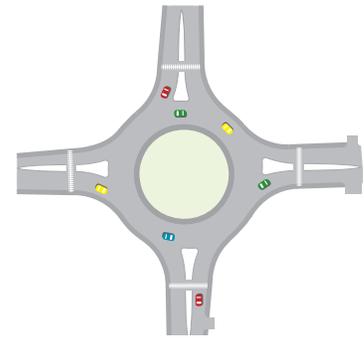
Cost Per Intersection:



SIGNALIZED INTERSECTION:



ROUNDBABOUT:



R Roadway Reconstruction

Widening or adding shoulders, and/or improving the surface and base material.

Cost Per Mile:



BEFORE:



AFTER:



P Non-Motorized Improvements

Construct non-motorized facilities such as sidewalks or shared-use pathways.

Cost Per Mile:



PATHWAYS:



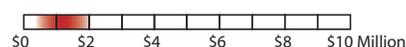
SIDEWALKS:



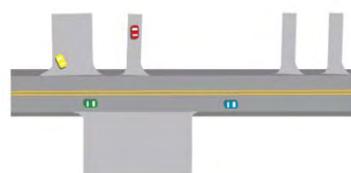
A Access Management

Direct access to and from the roadway through consolidated points along the roadway by limiting driveways to standard widths, consolidating driveways, and controlling where turning movements are made.

Cost Per Mile:



BEFORE:



AFTER:





Which Types of Transportation Improvements Are Most Important?

Chelan County Transportation Element Update

Note: Projects often include several improvement types

Improvement Type	Project Example	Illustration
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T **Transit**
 Provide additional transit service such as new routes or more frequency on an existing route. Provide improved amenities such as shelters or new Park & Ride lots.

Cost Per Item:

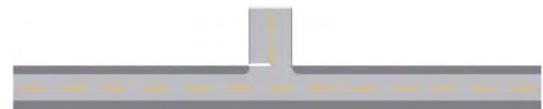


L **Left Turn and Right Turn Lanes**
 Install left turn and right turn pockets at intersections.

Cost Per Item:



BEFORE:



AFTER:



N **New Roadway Connections**
 Construct new roadways and/or extend existing roadways to provide key connections.

Cost Per Mile:



BEFORE:



AFTER:



B **Bicycle Facilities**
 Expand and enhance bicycle facilities such as:

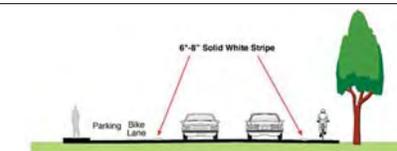
Shared Use Path

Provides a completely separate right of way for the exclusive use of bicycles and pedestrians.



Bike Lane

Provides a striped lane for one-way bike travel on a street or highway.

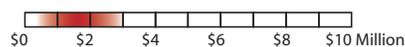


Bike Route Signed Shared Roadway

Provides for shared use with motor vehicle traffic, typically on lower volume roadways.



Cost Per Mile:



LAND USE WORKSHEET

Directions: Review the land use assumptions for the County subareas. Provide any comments or questions regarding the assumptions. For example, if population targets seem low, let us know.

Subarea	Residential (Population) ¹			Commercial/Industrial (1,000 Square Feet) ²				COMMENTS
	Base Year	2025	Growth Rate	2007	2025	Buildout	Growth Rate	
Cashmere/Monitor	3,700	7,400	100%	490	880	890	80%	
Chelan	4,000	6,700	68%	1,300	2,210	7,371	70%	
Entiat	1,000	2,000	100%	No Significant Amount of Unincorporated Commercially Zoned Land				
Leavenworth	2,400	5,100	113%	No Significant Amount of Unincorporated Commercially Zoned Land				
Malaga	3,500	8,300	137%	2,100	3,150	10,000	66%	
Manson	3,600	5,700	58%	170	272	886	60%	
Peshastin/Dryden	1,100	1,600	45%	792	1,980	3,005	150%	
Plain/Lake Wenatchee			12%				12%	
Sunnyslope	3,100	9,100	194%	4,712	7,068	7,852	50%	

1. Based on City and County areas.

2. Only includes estimates for unincorporated areas of the County.



Chelan County Transportation Element Update

DRAFT Meeting Notes

Stakeholder Advisory Group Meeting #2

Wednesday June 4, 2008 • 9:30 – 11:30 pm

Confluence Technology Center, 285 Technology Center Way,
Wenatchee

Attendees:

Richard Emmick	USFS	664-9250
Bob Sheehan	USFS	682-2576
Patrick Walker	CDLT	
Greg Pezoldt	CCPWD	
John Guenther	CCCDD	
Lilith Yanagimachi	CCCD	
Tim Bentz	Cascade School District	
Joe Rumble	Monitor Community Council	
Susan Driver	City of Entiat	
Chuck Garvey	Malaga Council	
John Goodwill	Chelan County PUD	
Kathy Springer	Peshastin Community Council	
Steve Keene	Peshastin Community Council	
Dave Honsinger	WSDOT	
Pat Moore	Pangborn Airport	
Arnold Baker	Chelan Co. Fire District #5,	(509) 687-3222; 670-2775(cell)
Keith Goehner	Chelan County Commissioner	(509) 667-6219
Connie Krueger	Leavenworth Community Development Director	(by phone)
Dwayne Van Epps	Chelan Public Works Director	(video conference)
Craig Gildroy	Chelan Community Development Director	(video conference)
Jon Pascal	Transpo	
Larry Toedtli	Transpo	
Yonnel Gardes	Transpo	
Marcia Wagoner	ReadWagoner	

Purpose: Update the Stakeholder Advisory Group members on progress and findings to date, discuss level of service objectives, review capital costs of various improvements and confirm land use inventory.

Chelan County Community Development Director John Guenther called the Stakeholder Advisory Group Meeting to order at approximately 9:10 AM.

Chelan County Commissioner Hawkins provided a brief synopsis of the stated goals of the Stakeholder Advisory Group and advised members of the aggressive timeline for the Transportation Element to meet its goals by the end of 2008. Commissioner Hawkins noted three key areas:

- Subarea Plans
- Identifying needs
- Viability between subarea plans

The assembled members introduced themselves to the group.

THE TRANSPO GROUP

Project Priority Criteria – Jon Pascal

Jon Pascal from the Transpo Group noted that the group was gathering information on transportation projects in Chelan County and that they were looking at many different factors, which included:

- Land Use
- Development
- Transportation infrastructure
- Potential growth and industrial growth

Mr. Pascal also noted that the Transportation Element was on target for completion of the draft plan by the end of the year.

Mr. Pascal presented a chart showing project priorities. He noted safety issues were the number one concern, other issues included:

- Economic factors
- Costs
- Land use and environmental policies

A discussion ensued regarding safety, emergency response times and evacuation plans. A representative from the Cascade School District stated that maintaining and upgrading roads was a higher priority than some new projects. Other issues discussed:

- Reducing impact on environment
- Looking at project “footprint”

Open House Findings – Marcia Wagener

The Open House forum held on the previous night identified the 3 issues that should be taken in to consideration by the Transportation Element.

1. Maintaining / Upgrading existing roads
2. Pedestrian / Bike trails
3. Safety issues

Level of Service – Larry Toedtli

Mr. Toedtli presented a Powerpoint to the group explaining the level of service on the road systems in Chelan County which included:

- Identification of road types: State, county and city roads.
- Requirements for Developers
- Typically addresses congestion and road safety

Mr. Toedtli also identified the issues concerning roads in Chelan County, which included:

- Daily Traffic volume

- Design speed
- Paved width
- Grade
- Pavement condition

A discussion ensued regarding design elements, critical vehicles and definitions of road standards. Transit and pedestrian issues were also included in the discussion. Other elements discussed:

- Existing industry in the area
- School bus stops
- Connectivity
- Trails

Mr. Toedtli also stated that additional input and comments were welcome. It was also noted that the Community Development Department would be having a series of ongoing information meetings regarding transportation issues throughout the Chelan County area.

Transportation Deficiencies & Improvements to Consider – Jon Pascal

Mr. Pascal presented a handout which listed improvements and menu of choice of projects in the Chelan County area. Items discussed were benefits and costs, transit improvements and subarea key issues.

Land Use Inventory – John Guenther / Groups

John Guenther from the Chelan County Community Development Department outlined key issues in Chelan County and formulation of the Transportation Element, which included:

- Growth in Chelan County in the next 20 years
- Potential areas where growth will occur
- Land Use / Transportation connectivity

Mr. Guenther noted this was a broad based topic but wanted specific ideas and issues explored. He also stated that there were some assumptions taken when dealing with future growth. He also asked for additional input and comment on Land Use in Chelan County.

The assembled members broke into two groups to discuss the Subarea Plans and land use assumptions within Chelan County.

Next Steps – Jon Pascal

Mr. Pascal outlined the timeline for future meetings of the Transportation Element. Next meeting is to be held on August 6th.

Comment Forms Submitted by Stakeholder Members

What are the most important improvement Projects?

- Focus only on Monitor Community. Access to Highway 2/97; rural road quality; alternate road Cashmere - Monitor - Wenatchee; railroad crossings; define agriculture, commercial, residential and other existing zoned areas that will be protected or maintained.
- Roadway Reconstruction - many of the county roads are extremely narrow and often without shoulders. A good example of this would be the N. Dryden Road. In places, it is difficult for two vehicles to pass. Especially when one would be a large vehicle such as a school bus or truck. Safety of course is paramount.
- Manson Subarea. Major issues, "B" & "C" are equally highly important. Issue "D" alternative seasonal route on Boetghe Ave.

How should we improve our transportation system to accommodate population growth?

- Should population growth be determined by the ecological capacity of the area? That's capacity of the potable water, air quality, terrain, infrastructure potential and expectations of the people. This will make the transportation system sync with the population.
- Bring the current county roads up to appropriate standards in terms of width, shoulders, grade, etc.
- The main routes to the school are on grades steeper than 12%

Anything else you'd like to share with us?

- A Couple of questions: (1) Whose on Transpo Steering Committee? Names & affiliations? Please e-mail, (2) Need to install the cost factor benefits of recommendations and where the money comes from in these equations. Also factor in the usability, i.e. winter weather vs. favorable weather for various transportation methods? (3) RR transportation is going to take over much of the intercity (+200 miles) truck traffic in the future. Therefore this needs to be part of this process. BNSF plans to double track their national infrastructure to handle the increased rail traffic.

Land Use Worksheet Comments Received

- Cashmere/Monitor: "Land use underestimated, need alternate routes and modes of travel"
- Leavenworth: "Same as above, but more"
- Malaga: "Land use underestimated, need alternate routes and modes of travel"
- Peshastin/Dryden: "Same as above"
- Plain/Lake Wenatchee: "Same as above"
- Sunnyslope: "Same as above"



Chelan County Transportation Element Update

DRAFT Meeting Notes Steering Committee Meeting #2

Wednesday, June 4, 2008 • 1:00 – 3:00 pm
Confluence Technology Center, 285 Technology Center Way,
Wenatchee

Attendees:

Connie Krueger	Leavenworth Community Development Director
Dave Honsinger	WSDOT / Planning Manager
Jon Pascal	Transpo
Larry Toedtli	Transpo
Yonnel Gaardes	Transpo
Marcia Wagoner	ReadWagoner
Greg Pezoldt	Chelan County Public Works Director
John Guenther	Chelan County Community Development Director
Buell Hawkins	Chelan County Commissioner

The meeting was called to order at approximately 1:10 PM.

Project Update

Introductions were made.

Jon Pascal stated they were five to six months into the project and were on schedule. The process was to collect and understand the data; pull it together into a working framework. Berk & Associates were behind the scenes working the financials. They were putting together revenue forecasts for how the County spent money and how it would look 20 years from now.

Comments were given to the Transpo Group about the previous evening's open house. The exhibits were excellent!

Mr. Guenther stated the adoption of the Comprehensive Plan comes after the public review period is over. The time starts at the 60 day review. The issue is the adoption process. The process and standards are bigger issues. November 19th is the last meeting for the Stakeholders and Steering Committee.

Mr. Guenther noted that \$10,000 will be taken from the Chelan Regional Study grant funding to evaluate transportation issues within the City of Chelan. If the City is at the same level then it will go hand and hand with this project.

Ms. Krueger stated the consultant, Alliance Consulting Group, has some concerns in regards to the Big Y's industrial access. This comes out of the Peshastin Sub-area planning. There needs to be communication between Alliance Consulting Group and Transpo Group.

The community councils will be meeting next week. Next week the sixty (60) day review begins on the Peshastin subarea plan.

THE TRANSPO GROUP

Open House & SAG Findings

Mr. Guenther has been asked to engage the community councils for their feedback. There will be a speaker presentation taken on the road to service groups in the month of June. Information getting out to the community is behind.

Commissioner Hawkins asked if anyone had heard any concerns expressed about the four lane connection to the Interstate 90? Members of the group stated they had not heard much if anything from the public on the subject.

Mr. Guenther asked for more feedback on Entiat trails as there is interaction with farmers.

Mr. Pezoldt commented on the turn out for the open house that took place the previous evening. Attendance was not good.

Ms. Krueger stated there should be a greater regional view along with an access management plan.

Design & Operational Standards

Jon Pascal, from the Transpo Group, stated they were looking at policy direction details and the potential changes to the County LOS standards and concurrency management Program. This was part of their recent review. The focus was on what was not working.

Commissioner Hawkins stated there needs to equitable standards of getting roads up to standards for the developer, the county and the citizens. Presently there was voluntary mitigation with incremental impact.

A power point of SEPA, Impact fees (TIF), Concurrency, and Developer requirements was presented to the group.

What the County has now is a late comers agreement which is a benefit for others developing. What happens is the developer gets to build a portion of the road and finds they can't develop further without a lot of additional investment. However, there are still traffic issues to be resolved or addressed. There is an attitude of enough is enough until we can do more.

Local roads are the main issues, but concurrency does not really address them. Instead, as part of the plan update, some local roads might need to be redefined as collectors. Local roads can't be funded with impact fees. However the County can collect mitigation for them on a voluntary SEPA basis.

Commissioner Hawkins indicated the deal making was not allowing potential developers know right up front what the development costs will be. The developer wants to know the existing deficiencies before getting too far down the road.

Commissioner Hawkins explained the Code of the Wild West was where the developer or property owner got the property at a discount because there was no infrastructure. This conflicts with safety issues. Commissioner Hawkins did not want to get into these types of situations. Control is through access permits. Is it a viable policy? It's a good

tool to have in the tool box. Development should not go through until the road is up to standards. This is a safety issue.

Mr. Honsinger stated it was an issue outside agency boundary.

There should be a list of identified projects. The County should gather impact fees and be the lead.

Ms. Krueger stated local access roads were an issue and safety issues need to be moved forward with regional money. There are different levels of standards for those roads.

Commissioner Hawkins stated there were seven (7) classifications of roads. The main ones were rural County roads and rural urban private.

In most cases the developer studies indicate the road is adequate for the project being done.

Wider roads have more issues. Roads are being scaled back due to affordability. County standards should be more flexible.

Mr. Guenther referenced the Sunnyslope area. He asked the consultants what this project would show for the area. Mr. Guenther indicated that Sunnyslope was a special situation.

Traditional highway methodology will be used, for example, on Easy Street. The concurrency road standard index will be used on all other classified roadways.

It was suggested that a long range vision was needed before beginning on short term solutions. The short term solutions should match the long term plan.

Ms. Krueger stated there were topography constraints to be considered. These areas needed to be identified for future improvements. These might include alternative routes.

The group wanted the best use for the money.

The plan was to 1) continue developing road standard index; 2) determine what the design criteria should be and which should be weighted highest. Commissioner Hawkins stated these should be able to be mitigated so the system doesn't have a fatal flaw; 3) how should "fatal" design flaws be handled? For example should the development be stopped?; 4) what thresholds should be used in evaluation of concurrency i.e. 10 lots or greater?

Mr. Guenther asked where were the deficiencies? It was stated that deficiencies were not necessarily fatal flaws.

The consultant stated the classification of local roads would be looked at.

It was suggested that a tool would be needed to address, for example, short plats in order to come out with proper mitigation. Impact fees could be used under certain circumstances.

The opinion was voiced that concurrency was a long way down the road.

Next Steps

Mr. Guenther asked for a summary and feedback for the direction the group was heading. He suggested bringing this to the Board in two weeks time, June 24th. Mr. Pascal stated he needed the feedback soon. Commissioner Hawkins stated that a meeting at this time could be of use and it would be embraced. The consultants were directed to provide a summary of the direction the group was heading to Mr. Guenther and Mr. Pezoldt for them to present to the Board.

It was stated by one of the stakeholders that land use was underestimated. Mr Guenther noted the Valley was a desirable place to live but some areas, like Sunnyslope, were constrained.

The meeting ended on a positive note with a comment that the power point presentation had a great format for understanding.

The next meeting was set for Wednesday, August 6th.

The meeting was adjourned at 3:00 P.M.



Chelan County Transportation Element Update

DRAFT Meeting Summary

Public Open House #1

Tuesday, June 3, 2008

Confluence Technology Center, 285 Technology Center Way,
Wenatchee

Overview

Chelan County hosted a first project Open House on June 3rd to introduce the public to the update process for the Transportation Element of the Comprehensive Plan. The update is required because the growing population and changing nature of the regional economy require realigning the County's transportation needs with current and projected land use patterns. Approximately 20 people attended the event which included a presentation by the consultants and Chelan County staff and exhibits that described the history, objectives, current conditions and initial observations about transportation issues in Chelan County. Attendees were encouraged to express their priorities on a matrix describing transportation issues in Chelan County in addition to completing comment forms. The public meeting was followed by meetings with the project Stakeholder Advisory Group and Steering Committee on June 4, 2008.

Notification

Community members were notified about the meeting through public service announcements by County Commissioners during their weekly radio programs, notification on the project website and a press release to local media. In addition, an e-mail invitation for the event was sent to all members of the Stakeholder Advisory Group with a request that they forward it to organizations that they represent and to others in their communities and agencies.

Presentation

Jon Pascal from the Transpo Group provided a presentation about the project. Mr. Pascal noted that the project is targeted for completion by the end of the year. He then discussed the plan objectives which are:

- Engage the community in the planning process
- Update the Transportation Element of the Comprehensive Plan
- Establish a fundamental link between County land use and transportation facilities
- Focus on unincorporated areas of the County and links into the cities
- Consider all modes of transportation including motor vehicle, aviation, rail, transit, marine, and non-motorized
- Address future transportation needs over the next 20 years
- Prioritize transportation infrastructure for all modes
- Develop realistic finance and implementation strategies
- Refine the development review process to match community goals
- Better define the level of developer contributions

Marcia Wagoner then talked about the Public Involvement Plan. She discussed how the project focused on the following public components:

- Public Meetings

- Speaker's Bureau
- Stakeholder Advisory Group
- Steering Committee
- Project Web Site
- Media Notices

Mr. Pascal presented a chart showing project priorities. He noted safety issues are usually one of the main concerns of most communities, but other issues primarily fell into one of three categories, which included:

- Economic factors
- Costs
- Land use and environmental policies

Mr. Pascal presented a handout which listed improvements and menu of choice of projects in the Chelan County area. Items discussed were benefits and costs, transit improvements and key issues by subarea.

Finally Mr. Pascal reviewed the major issues that they have heard so far from the community and participating agencies and organizations.

- Traffic growth due to residential development and increased tourism
- Connectivity of/in communities and need for alternative routes
- Issues associated with state highways acting as "main streets" through communities (safety, access, community character)
- Changing demands on County roadways (agricultural to general purpose)
- Improved pedestrian and bicycle facilities
- Funding for the maintenance and preservation of County roadways
- Making sure growth pays for its fair share
- Influence of roadway standards on community character (rural and urban)
- Prioritization of transportation improvements for all modes

Exhibits

Open house exhibits were provided that offered an overview of the project, process and timeline. In addition, an exhibit identified issue areas under economic factors, facilities & services and land use & environmental factors. Participants were asked to note their three top issues on a matrix (results below). Illustrated exhibits on the types of transportation improvements that could be done were on display. Individual exhibits of each of the Subareas (Cashmere/Monitor, Chelan, Entiat, Leavenworth, Malaga, Manson, Peshastin/Dryden, Plain/Lake Weantchee, and Sunnyslope) provided maps, land use assumptions and major issues identified to date for each subarea. Consultants and County staff were available to discuss the exhibits.

Feedback Highlights from Comment Forms

Important improvement projects:

- Multiple comments focused on the need to maintain and improve the roads that already exist in Chelan County. Note was made of the deteriorating conditions from age, weather and irrigation and the importance of ongoing repair.

- Build a sustainable future for the region by focusing transportation investment on supporting social, economic and environmentally sound living in the long term.
- Focus on projects that relieve congestion and improve safety for vehicles, bicycles and pedestrians.
- Develop a regional plan for non-motorized transportation because it is beneficial for travel, tourism and recreation.
- Develop public transportation.
- Maintain the rural area “look and feel”.
- Focus on reducing congestion on state and county highways and providing improved links to Seattle, Spokane and the Tri Cities.
- Be fiscally responsible.
- Needs along Dixie Lane in Malaga.

Transportation system improvements to accommodate population growth:

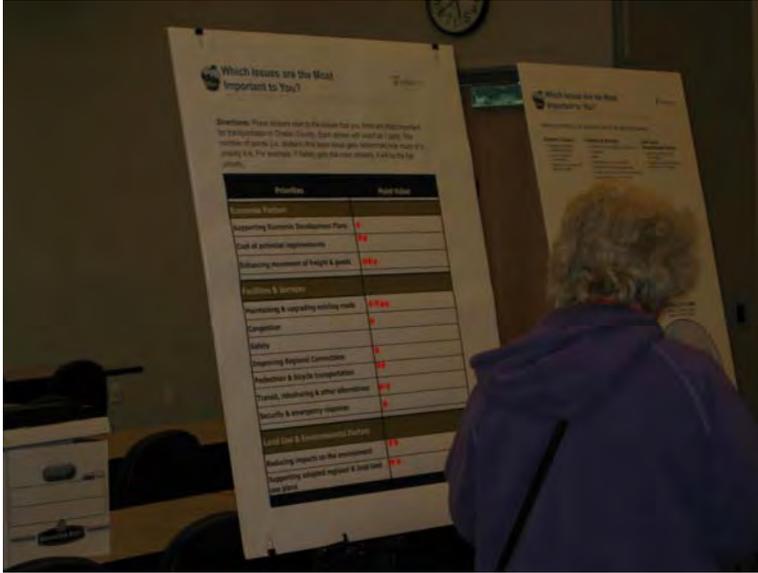
- Build adequate roads and transportation systems to meet projected growth - be aggressive and ahead of the curve and eliminate known problems.
- Make safety a major concern in both area specific and system improvements.
- Focus on development of mass transit, bike lanes and trails, pedestrian trails and sidewalks that provide a variety of choices for mobility.
- Improve travel via air and rail to better connect outside the county.
- Other ideas - smaller business centers scattered around the county to reduce travel distance for basics; standards and cost responsibility for new development in rural communities; investigate bypasses for through traffic.

Other Comments

- Vision a thriving, vital, healthy future and plan to get there.
- Use the best science in highway design and construction to accommodate all modes of transportation.
- Coordinate transportation planning between County and Cities.
- Growth should pay for growth.
- Focus first on what is really needed, then on what is desired.

Which Issues Are Most Important to You?

Defining priorities is an important part of the planning process. Open House attendees were asked to place dots on their top three priorities for the transportation system as shown in the photo below. The top priority was clearly “Maintaining & upgrading existing roads” followed by safety.



At the Stakeholder Advisory Group meeting on the following day, members did the same exercise individually. Their combined responses are shown on the following chart.

Priorities	# of Responses	Likelihood of Being Chosen	Overall Share	Ranking
Economic Factors				
Supporting economic development plans	5	17%	6%	
Cost of potential improvements	6	21%	7%	
Enhancing movement of freight and goods	3	10%	3%	
Facilities & Services				
Maintaining & upgrading existing roads	22	76%	26%	1
Congestion	3	10%	3%	
Safety	13	45%	15%	2
Improving regional connections	2	7%	2%	
Pedestrian & bicycle transportation	10	34%	12%	3
Transit, ride-sharing & other alternatives	5	17%	6%	
Security & emergency response	5	17%	6%	
Land Use and Environmental Factors				
Reducing impacts on the environment	4	14%	5%	
Supporting adopted regional & local land use plans	8	28%	9%	

* Based on input from the June public open house and stakeholder advisory group

Verbatim Comments from Handouts

What are the most important improvement Projects?

- Projects that relieve congestion and improve safety.
- Develop public transportation!
- Pedestrian and vehicle safety in and around Mission View and Sunnyslope Schools. Consider additional signage, lights and crosswalks.
- County Roads need to be evaluated for deteriorating road conditions (i.e roads breaking down from age, weather and irrigation).
- Road repair in Monitor from water installation (Who is responsible? Timeline for repair?).
- The “look and feel” of rural area to be maintained.
- All subarea plans, Malaga area for one.
- 1) Improve and maintain the roads we already have!
- 2) Focus on reducing congestion on state and county highways going through Wenatchee & East Wenatchee.
- 3) Leave the wants and like to have out of the decision making process and focus on what we must have when spending our money.
- Leavenworth, Lake Chelan, Manson, commercial growth & tourism growth plus population growth.
- Develop a regional plan for non-motorized transportation because it’s beneficial for travel, tourism and recreation.
- Develop a thoroughfare plan creating a system of roads to address travel destinations and project volumes.
- Improved transportation links to Seattle, Spokane and possibly the Tri Cities.
- Building sustainable future for our region. Transportation should focus on supporting social, economic and environmentally sound living in the the long term.
- Specific projects: network of bike & pedestrian trails; network of mass transit expanded.
- Dixie Lane needs to be upgraded to a two lane road to accommodate the new developments that will be entering the road system. Also a sidewalk for the safety of pedestrian traffic, especially school children.

How should we improve our transportation system to accommodate population growth?

- Be ahead of the curve, projects should make sure that congestion does not occur, eliminate known areas that are already a problem, or will be a problem in the future. One example is the intersection of the Entiat River Road and Highway 97A.
- Safety should be a major concern, eliminate sight problems at intersections.
- Highway safety designs, and also roadway signage, poles (breakaway) and items that impair vision.
- Improve traffic flow.
- Smaller business centers scattered around the county to reduce travel distance for basics - groceries, fuel, etc.
- Need to look at new development areas in rural communities and how roads need to be “brought up to standard” (who is responsible - county or developer?)
- Pedestrian and bike facilities.
- Is there anything that can be done to construct roads that bypass cities and towns? This would eliminate a lot of the traffic in the cities that are just passing through with no intention of stopping!

- Fix and improve what we already have.
- More access to Link, specifically more routes to and from Wenatchee.
- Build adequate roads and other transportation systems to address projected population growth. Be aggressive!
- Improve travel opportunities via rail and air. Make it easy to connect to other parts of the US.
- Focus on development of mass transit, bike lanes/trails, pedestrian trails and sidewalks.
- Protect environmental amenities plus functions/services as transportation infrastructure is planned and implemented.
- Newcomers come for the environmental amenities plus are used to use of mass transit, bikes, pedestrian infrastructure - accommodate future population.

Anything else you'd like to share with us?

- Be proactive, plan ahead, utilize best science in highway design and construction, such as wider shoulders to accommodate bike riders. The Entiat River road is becoming a roadway that is getting a large increase in bike riders.
- The county is getting major subdivisions that are having a major impact on roads. I believe that contractors/developers should be the ones paying for improvements that they will need. Growth pay for growth! The cost of growth should not be paid by those already living in an area where major developments are going to be placed.
- Multiple access to all communities.
- County planners working regularly with the cities.
- Any upkeep of W. Monitor Bridge needs to have the community needs (harvest, etc.) considered.
- How to make bicycle riders more responsible for safety of rider and driver.
- The County of Chelan needs to go to impact fees and to do an all traffic fee.
- Funding is very tight - I feel the focus should be what is actually needed and then if we have money left - we could do something for trails, bike paths and non-motorized uses.
- Transportation element must take into account land use plans, economic development plans, etc.
- Don't oil outside white line. (no need to oil and gravel the shoulder)
- Anyone working and living inside city limits should be able to go to work without using their car.
- Vision a thriving, vital, healthy future and plan to get there!
- All people I represent want Malaga to stay rural. Please protect our life style here.

Verbatim Comments from Notes on Boards

These are comments from both the public open house and stakeholder meetings. The comments have been summarized by subarea.

- Specify projected growth in all sub-area plans – 5 year growth projections & 20 year growth.

Manson

- Storm water management and impact on road standards.
- Issue C is highly valued! Follow existing High Voltage power line from Chelan to Manson.

Leavenworth

- Need to evaluate seasonal use on Ski Hill, Titus, Icicle Road, East Leavenworth Road
- Bike lane on E. Leavenworth Rd.
- Benton Street is used as Bypass to downtown highway corridor. High speed/high traffic concerns.
- North Road development needs consideration.
- Little to no safe routes to school.

Peshastin

- Railroad underpass – Derby cut-off, widen/parking pedestrian on Main Street.

Entiat

- Narrow ROW width along Entiat River Road. Utility infrastructure close to traveled road.
- Additional ROW needed for future utility expansion to meet growth in Entiat Valley.
- Future desire for signalized intersection/crosswalk development at Cammack or Wisdom.
- Long range plan for Railroad from Tonasket to Wenatchee – do commuter service.

Plain

- Specify 12% growth projection – 20 years?
- Chelan PUD – 20 year comp plan – build now 115 kv transmission line from Sunitch Canyon to Plain substation. Requires significant ROW negotiations.

Manson

- Safety at 9% grade at Raise (?) and corner.
- Alternate route for locals.
- Map school routes – look at grades and alternative routes – change grade on item G - short distance 200' to 300'.

Chelan

- Chelan North Shore and South Shore – high aesthetic pressure from property owners for utilities. Narrow ROW, mostly overhead – utilities. Clear zone issues and high cost for conversion to underground.
- Item F - Consider beginning alternate route from SR 150 & US 97A to Manson along High Voltage transmission line route with a few spurs tapping down to North Shore Road.

Sunnyslope

- School safety – school/easy intersection.

Malaga

- Slide area – needs Major Road. Improvement for traffic during Fruit Harvest. Stemitt Creek Road.

Cashmere

- Chelan PUD taking ownership of Cashmere's electrical system in 2009.

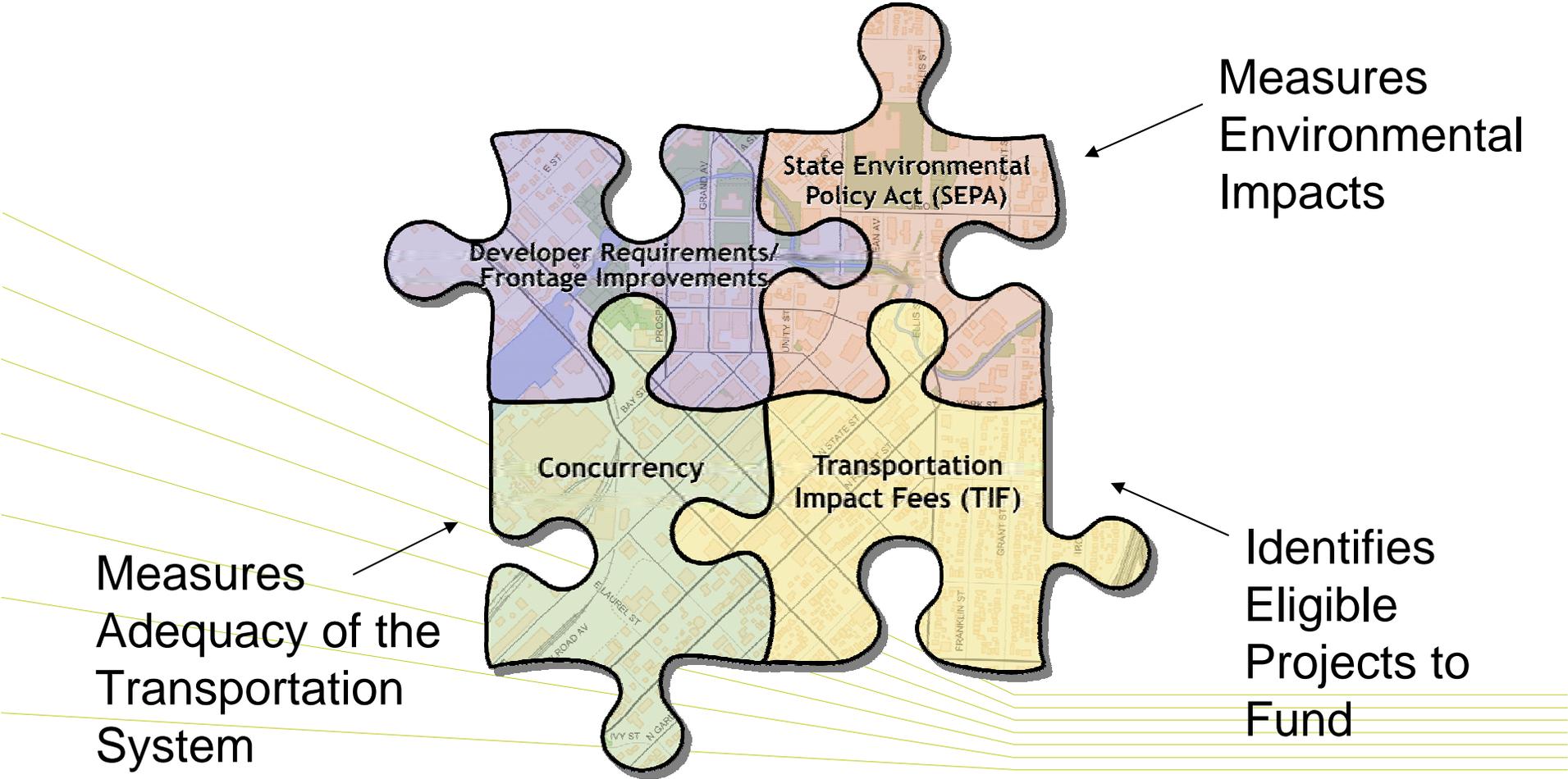
Potential Changes to the County's Concurrency Management Program & LOS Standards

Steering Committee
June 4, 2008

What are LOS Standards?

- Level of Service (LOS) measures the performance of the transportation system
- Could be measured by level of congestion, travel speeds, and/or comfort and convenience
- LOS standards for County roads are set by the County
- WSDOT and the RTPO set LOS standards for state highways

How is LOS Applied in the Development Review Process?



Measures Adequacy of the Transportation System

Measures Environmental Impacts

Identifies Eligible Projects to Fund

What is Concurrency?

- GMA requirement
- Adequate transportation system or a financial commitment to provide the improvements within 6 years
- Measured with level of service (LOS) standards
- Requirement for development approval
- County must prohibit development if the LOS is expected to fall below the adopted standard



What are the Differences between Concurrency and SEPA?

- LOS standards are applied for concurrency management and SEPA review
- It is possible to have different LOS standards for concurrency and SEPA
- Concurrency focuses on the adequacy of the transportation system
- SEPA review focuses on environmental impacts and required mitigations

What is the County's Existing Level of Service?

- The adopted standard is LOS D for County arterials and collectors
- Typically evaluated based on the level of congestion at intersections or along specific roadway segments
- Currently no County roads are out of compliance
- Few County roads are expected to be out of compliance within the 20-year planning horizon



What have been the Outcomes of the Existing LOS Methodology?

- New developments can occur without improvements to the transportation system
- No financial support from developers to upgrade the transportation system

What is a Potential Solution?

- Setting LOS standards that are better tailored to the Comprehensive Plan objectives
- Recognizing that deficiencies on County roads are not about congestion, but primarily about roadways not meeting current standards
- Setting LOS based on whether or not road segments meet County road design standards would better measure deficiencies

How would the Development Review Process Change?

- Focus various review processes on different elements
- SEPA – Review impacts to safety, access, and operations (LOS C for rural and LOS D for urban)
- Concurrency – Measure the adequacy of the roadway based on road standards

Evaluation Criteria				
Mechanism	Review Element	SAFETY & ACCESS	ROADWAY/ INTERSECTION OPERATIONS	ROAD STANDARD INDEX
	SEPA	X	X	
	CONCURRENCY			X

What is the Proposed Concurrency LOS Method?

- Based on how well a roadway segment meets the established design standards (road standard index)
- Rated design elements include:
 - Daily Traffic Volume
 - Design Speed
 - Paved Width
 - Roadway Grade
 - Pavement Condition
- Need to define what is acceptable/deficient

How is the Roadway Index Measured?

ASSUMPTIONS

- Rural Minor Collector Classification
- Every Road Segment Starts with 100 Points

Design Criteria	Deductions			"Fatal" Score	Weight (out of 100%)
	0 Points (Exceeds Standard)	-10 Points (Near Standard)	-20 Points (Below Standard)		
Daily Traffic Volumes	<3,000	3,000 – 6,000	>6,000	>10,000	20%
Design Speed (mph)	>44	44 - 30	<30	<25	10%
Paved Width (ft)	>39	39 - 32	<32	<28	20%
Roadway Grade (%)	<6	6 - 8	>8	>12	30%
Pavement Condition (PCI)	>75	75 - 60	<60	<40	20%

How are the Standards Applied?

Assume a Rural Minor Collector

Existing Paved Width

30'

40'

Standard Paved Width

**Results in minus 20 points
for being below standard**

* Example Roadway with estimated widths for demonstration purposes only

What Items Do We Need Feedback On?

- Should we continue developing the road standard index?
- What design criteria should be weighted highest?
- How should “fatal” design flaws be handled (i.e. should all development be stopped)?
- What threshold should be used in the evaluation of concurrency (e.g. 10 lots or greater)?



Chelan County Update for the Transportation Element of the Comprehensive Plan

Review of Level of Service Standards – PRELIMINARY DRAFT FOR DISCUSSION

The purpose of this summary is to support discussion on a potential revision of level of service (LOS) standards. The intent of this preliminary document is to introduce the purpose of level of service standards, the objectives the County would like to achieve with level of service standards, and explore in broad terms some potential changes in the methods used by the County to measure levels of service.

What are LOS Standards and What are they Used For?

Level of service is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. Transportation level of service can typically be measured by criteria such as level of congestion, travel times or speeds, volume of traffic compared to capacity, frequency of transit service, comfort and convenience, or safety. LOS standards can be based on roadway sections or on intersections.

Under Washington State law, LOS standards are applied in two areas: SEPA review process and concurrency management. It is possible to have different LOS standards for SEPA review and concurrency management.

LOS Standards are part of the mandatory elements of the County's Comprehensive Plan as required by the Growth Management Act (RCW 36.70A.070). The GMA indicates that the transportation element shall include "level of service standards for all locally owned arterials and transit routes to serve as a gauge to judge performance of the system. These standards should be regionally coordinated". The transportation element needs to identify specific actions and requirements for bringing into compliance locally owned transportation facilities or services that operate or will operate under the established level of service standard.

Public agencies are responsible for defining how they want to measure level of service. The GMA directs that these standards should be coordinated regionally for local arterials and for highways of

How do LOS Standards Work with Concurrency?

Under GMA, the County must adopt and enforce an ordinance that prohibits development approval if the development causes the LOS on a County-owned facility to decline below the adopted standard unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. Concurrency for transportation facilities shall mean within six years from the date of approval of the development. Highways of Statewide Significance, such as US 2 and US 97A, are statutorily exempt from the concurrency requirement. The Legislature did not specifically address concurrency for state-owned transportation facilities that are not of statewide significance, such as SR 150.

How do LOS Standards work with SEPA?

The State Environmental Policy Act (SEPA), RCW Chapter 43.21 C, requires governmental agencies to consider the environmental impacts of a proposal before making decisions. As part of the environmental review process, transportation impact analyses (TIA) may be required to document a project's transportation impacts. A TIA typically estimates traffic volumes that a proposed project would

generate, and compares the operating conditions of nearby intersections or roadway segments with and without the additional traffic. LOS standards as adopted in the Transportation Element of the Comprehensive Plan are used to identify whether the traffic generated would fall within adopted LOS standards for intersections and roadways serving the proposed project and site

What Are the County's Objectives in Updating its LOS Standards?

The County's current LOS standard is defined by the volume of traffic and available capacity of the facilities. While this approach is appropriate in densely populated areas where transportation facilities are at or near capacity, it may not provide a meaningful measurement of LOS in most of Chelan County where the roadway system operates well below capacity. As a result of implementing this approach, the County may not be getting the roadway improvements that are needed to support growth and the County's Comprehensive Plan.

Depending on how the LOS standards are defined, achieving concurrency or SEPA may require different types of improvements ranging from constructing physical improvements (e.g., wider travel lanes or shoulders, additional travel lanes, intersection improvements, or traffic signals) to implementing travel demand management techniques (e.g., improved transit service, rideshare programs, or staggered shift times for larger employers). Land use policy changes may be another way to address LOS deficiencies in areas where demand has outpaced the ability of existing facilities to accommodate the increased traffic volumes.

Within Chelan County, the need for road improvements is based primarily on safety issues related to narrow roads and poor geometry (sharp curves, steep hills), pavement conditions, the need for all-weather surfacing of roadways subject to seasonal closures or weight restrictions, the need for hard surfacing of gravel roads, the replacement of structurally deficient or functionally obsolete bridges, and the need for improving pedestrian facilities.

The main objectives for revising the County's LOS standard could be as follows:

- Meet all GMA requirements;
- Support the goals and policies of the Transportation Element;
- Help the process of prioritization of transportation investments;
- Implement needed transportation improvements caused by new development;
- Be reflective of the differences between different subareas and road types;
- Be reflective of the need of alternative modes (non-motorized and transit);
- Be based on accepted standards and methodologies;
- Balance staff level of effort with anticipated benefits.

What are some Possible Options to Revise the County's LOS Standards?

The consultant team identified three possible concepts for measuring level of service, including the current method and two alternative methods. These are just broad concepts at this stage and are primarily intended to provide a starting point for discussion. It is expected that these concepts may be modified to better meet the County's objectives as we move forward. Each option is briefly described below, and a preliminary assessment of each option is also presented.

Option A – Roadway Volume to Capacity Ratio (Existing System)

Under this option, LOS is measured by the volume to capacity ratio to determine if the roadway is adequate.

Description:

- As defined in the existing Transportation Element (February 2000)
- Defines LOS based on volume/capacity ratio
- Follows TRB's Highway Capacity Manual
- Establishes level of service D as the minimum standard
- Recognizes that LOS standards for State routes (both HSS and HRS) are "C" for rural regional arterials and "D" for urban regional arterials.

Assessment:

- Based on this criteria, no deficiencies were identified for existing conditions (in the 2000 plan)
- Based on this criteria, no deficiencies were expected within the 10-year forecasting timeframe (in the 2000 plan)
- Only 5 intersections within the County are expected to operate at LOS D by 2028 according to the latest RTPO level of service analysis; no intersection is expected to operate at LOS E or F; all intersections expected to operate at LOS D are on State Highways, including four intersections along US 2 and the intersection of SR 150 with Columbia Street.
- Uses a traditional approach
- Easy to implement
- May not be appropriate for rural areas, where congestion is not an issue
- Does not contribute to generate developer mitigation. In most (or all) cases, the analysis concludes that there is no adverse impact on transportation and therefore no improvements are required.

Option B – Roadway Conditions and Operations (1997 Transportation Plan – Never Adopted)

Under this option, LOS is measured by a weighted combination of condition and operation factors. A LOS threshold value determines which roadway sections are deficient and which ones are adequate.

Description:

- Approach initially proposed in the County 1997 Draft Transportation Plan
- Developed by BWR based on input from Community Councils and the Technical Resource Team (TRT)
- Proposed LOS standards apply to regionally significant County roads (arterials and collectors) outside the Wenatchee Area
- In the Wenatchee area, the LOS is measured as defined in the Wenatchee Valley transportation plan
- Introduces the concept of a condition LOS and an operation LOS
- The condition of the roadway represents 60% of the rating and the roadway operations represents 40%

- For condition LOS, road segments are rated based on five criteria: meet design standard; surface condition; driving characteristics; maintenance level and accidents.
- For operation LOS, road segments are rated based on four criteria: weight restrictions; lane capacity; presence of large vehicles; presence of non-motorized users.
- County roadway system was evaluated based on this method in 1997, using a combination of historical data and a drive-by survey. The process resulted in the identification of 21 “deficient” roadway segments that were in need for improvement.

Assessment:

- Provides a methodology to prioritize deficient roadways in order to optimize investments
- Was not adopted as part of the County’s Comprehensive Plan
- Rating system may appear to be subjective and open to interpretation
- Method is data intensive, requires significant efforts to rank all County facilities, and then monitor the performance of the system over time
- Difficult to implement as part of SEPA and development review

Option C – Roadway Design and Function (Proposed System)

Under this option, LOS would be measured differently for UGA areas, LAMRIDs, and rural areas. In the Wenatchee metropolitan area, LOS could continue to be measured by the volume to capacity ratio. Outside of that area, LOS could reflect whether or not the existing design and features of the roadway meet the intended function of the roadway.

Description:

- New approach suggested by Transpo
- Would apply traditional (congestion based) LOS standards within the Wenatchee metropolitan area
- Outside the Wenatchee area, LOS would be based on whether or not road sections meet the design standards. The rating would be established based on how well design criteria are met.
- County road standards would be used for the evaluation. Within urban growth boundaries, city standards (when available) could be used.
- Design elements to be rated include typical daily volumes, pavement widths, roadway grade, design speeds, and pavement condition.
- This option could also support the introduction of LOS standards for transit services, although the regional transit LOS should probably be set by Link Transit.

Assessment:

- Combines some elements of Options A and B, as well as new elements
- Meets GMA requirements
- Less data intensive than Option B
- Focus on addressing the real issues
- Needs more work to refine the concept
- Potentially more prone to generate developer mitigation than Option A
- Likely best accomplished as part of the concurrency management system, with the SEPA process still focusing on the typical intersection and roadway capacity LOS methodology.



Chelan County Transportation Element Update

Agenda • County Commission Meeting #1
Tuesday, August 5, 2008 • 1:30

Purpose Update on project progress and discuss major policy items.

- 1:30 Project Team Introductions • John Guenther / Greg Pezoldt
- 1:35 Project Overview & Schedule • John Guenther / Greg Pezoldt
Overview of project and key milestones.
Attached materials for review: (1) Project schedule
- 1:40 Summary of Public Feedback • John Guenther
Overview of the public outreach efforts and summary of the key issues that have been discussed. Q & A.
Attached materials for review: (2) Public involvement plan, (3) Public open house summary, (4) Stakeholder meeting notes, and (5) Community meeting notes
- 2:00 Updates to the Goals and Policies • Jon Pascal
Review recommended updates to the transportation goals and policies. Q & A.
Key questions to consider:
 - *Are you comfortable with the proposed updates?*
 - *What other items should be considered?**Attached materials for review: (6) Summary of major changes to the goals and policies, (7) Draft goals and policies, and (8) Adopted goals and policies*
- 2:20 Draft Financial Analysis • Jon Pascal
Discuss results of the draft baseline funding analysis performed by Berk & Associates. Q& A. Key questions to consider:
 - *Any recommended changes to the baseline assumptions?*
 - *Which potential funding mechanisms should be evaluated more closely?**Attached materials for review: (9) Draft memo summarizing the results of the baseline financial analysis*
- 2:45 Preliminary Capital Projects • Jon Pascal
Discuss preliminary improvement project list. Q & A. Key questions to consider:
 - *Which projects are of highest priority?*
 - *What projects would you like more detail on?**Attached materials for review: (10) A "preliminary" draft project list and (11) maps by subarea will be provided by Monday, August 4th.*
- 3:30 Adjourn

OTHER BACKGROUND MATERIAL PROVIDED IN PACKET

1. Overview of the proposed changes to LOS standards
Attached materials for review: (12) Memo to the commission explaining the proposed changes to the LOS standards, (13) Concept paper that defines LOS and possible ways to measure it, (14) Presentation provided to the steering committee on LOS
2. Subarea issues identification and future land use assumptions.
Attached materials for review: (15) Maps by subarea summarizing the major transportation issues and land use assumptions



Chelan County Transportation Element Update

Agenda • Stakeholder Advisory Group Meeting #3

Wednesday, August 6, 2008 • 9:30 – 11:30 pm

Confluence Technology Center, 285 Technology Center Way, Wenatchee

- Purpose Update the Stakeholder Advisory Group members on progress to-date, review results of project priority exercise and community outreach efforts, discuss financial analysis results, and review preliminary project list.
- 9:30 Welcome and Introductions • John Guenther
Round robin introductions and welcoming of new attendees.
- 9:40 Project Update • Jon Pascal
Overview of the project progress. Q & A
- 9:50 Outreach Efforts & Project Priorities • Marcia Wagoner
Summary of comments heard, key themes and highlights from community outreach efforts. Review final rankings of project priorities. Q & A
- 10:00 Financial Analysis • Eric Natali
Discuss results of the draft baseline funding analysis performed by Berk & Associates. Review other funding mechanisms that could be considered. Q & A
- 10:45 Preliminary Capital Projects • Jon Pascal
Review travel forecasting results. Discuss preliminary improvement project list. Q & A
- 11:25 Next Steps • Marcia Wagoner
Brief review of work to be accomplished over next few months. Confirm meeting schedule.
- 11:30 Adjourn



Chelan County Transportation Element Update

Agenda • Steering Committee Meeting #3

Wednesday, August 6, 2008 • 1:00 – 3:00 pm

Confluence Technology Center, 285 Technology Center Way, Wenatchee

- Purpose Update on project progress and discuss major policy items.
- Members Greg Pezoldt, Chelan County Public Works Director, Co-Project Manager
John Guenther, Chelan County Planning Director, Co-Project Manager
Buell Hawkins, Chelan County Commissioner
Jeff Wilkens, WVTC Executive Director
Connie Krueger, City of Leavenworth Community Development Director
Dave Honsinger, WSDOT North-Central Planning Manager
Richard Derock, LINK Transit General Manager
- 1:00 Project Update • Jon Pascal
Overview of the project progress and outstanding issues.
- 1:10 SAG Meeting Highlights • Marcia Wagoner
Summary of key outcomes and discussions.
- 1:20 Financial Analysis Discussion • Eric Natali
Discuss results of the draft baseline funding analysis performed by Berk & Associates. Key questions to discuss:
- *Any recommended changes to the baseline assumptions?*
 - *Which potential funding mechanisms should be evaluated more closely?*
- 2:10 LOS Standards Update • Larry Toedtli
Recap of the direction provided by the steering committee and County Commissioners. Review the results of example case studies on how the proposed modifications would impact development in Sunnyslope & Malaga. Key questions to discuss:
- *Based on the results, are there modifications that should be considered to the preliminary standards?*
 - *How should the LOS revisions be moved forward as part of the Plan?*
- 2:40 Travel Forecasts & Preliminary Capital Projects • Jon Pascal
Review travel forecasting process and results. Discuss preliminary improvement project list. Key questions to discuss:
- *Are you comfortable with the process and the results?*
 - *What projects would you like more detail on?*
- 3:00 Adjourn



Which Issues Are the Most Important to You?

Chelan County Transportation Element Update

Defining priorities is an important part of the planning process.

Economic Factors

- Supporting economic development plans
- Cost of potential improvements
- Enhancing movement of freight & goods

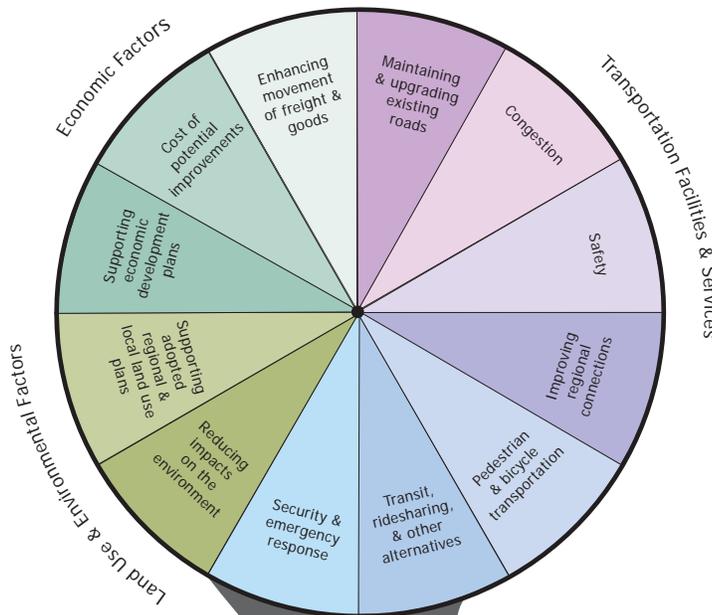
Facilities & Services

- Maintaining & upgrading existing roads
- Congestion
- Safety
- Improving regional connections
- Pedestrian & bicycle transportation
- Transit, ridesharing, & other alternatives.
- Security & emergency response

Land Use & Environmental Factors

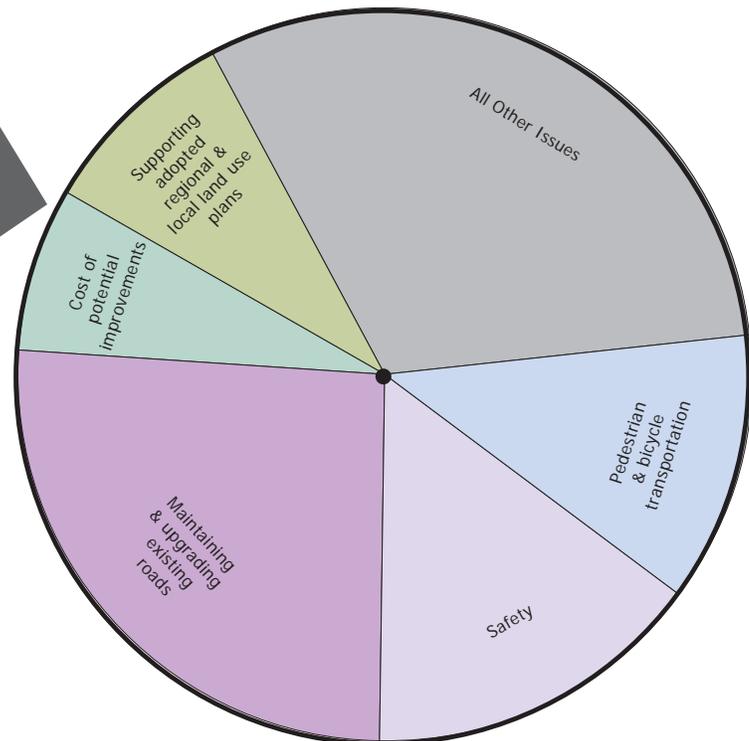
- Reducing impacts on the environment
- Supporting adopted regional and local land use plans

ISSUES TO BE CONSIDERED



PRIORITIES FOR CHELAN COUNTY

Based on input from the June 2008 Public Open House and Stakeholder Advisory Group.



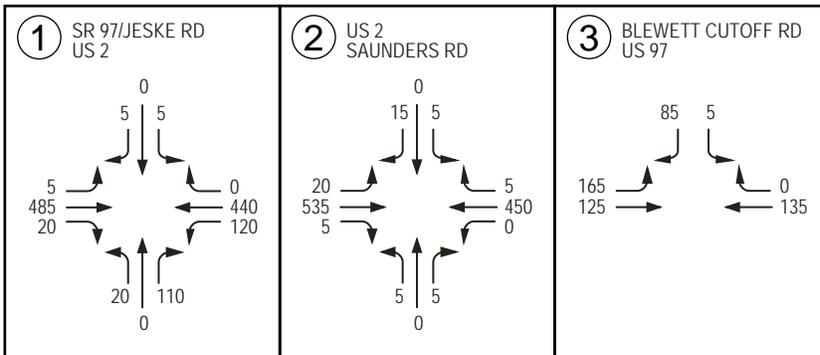
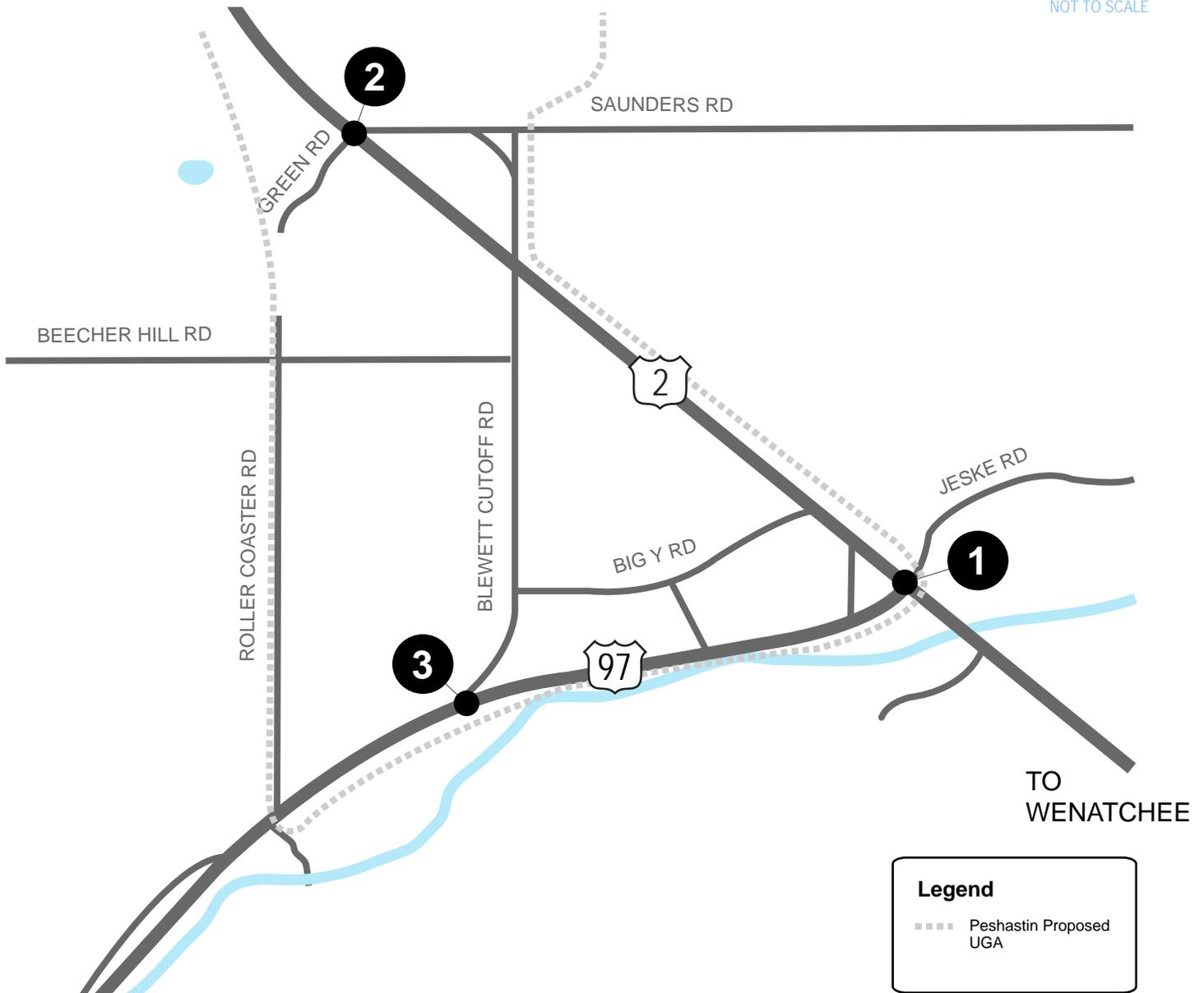


Which Issues are the Most Important to You?

Chelan County Transportation Element Update

Priorities	Overall Share
Economic Factors	
Supporting Economic Development Plans	6%
Cost of potential improvements	7%
Enhancing movement of freight & goods	3%
Facilities & Services	
Maintaining & upgrading existing roads	26%
Congestion	3%
Safety	15%
Improving Regional Connections	2%
Pedestrian & bicycle transportation	12%
Transit, ridesharing & other alternatives	6%
Security & emergency response	6%
Land Use & Environmental Factors	
Reducing impacts on the environment	5%
Supporting adopted regional & local land use plans	9%

TO
LEAVENWORTH



2004 Estimated PM Peak Hour Volumes (Existing Interchange)

Chelan County Transportation Plan

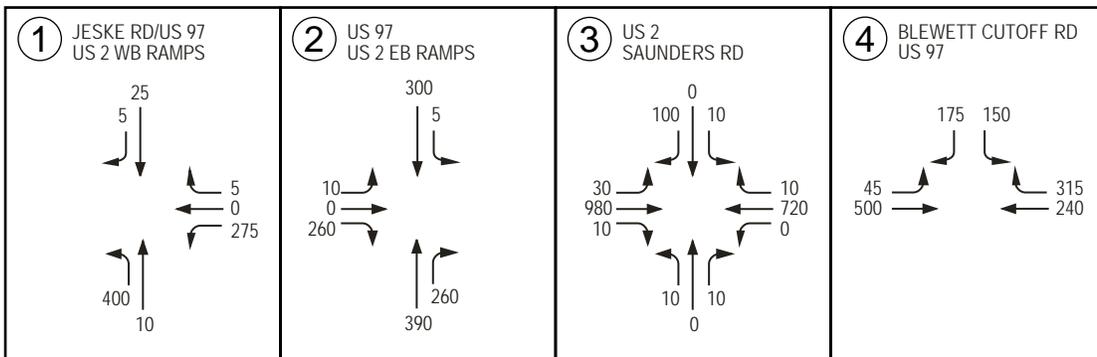
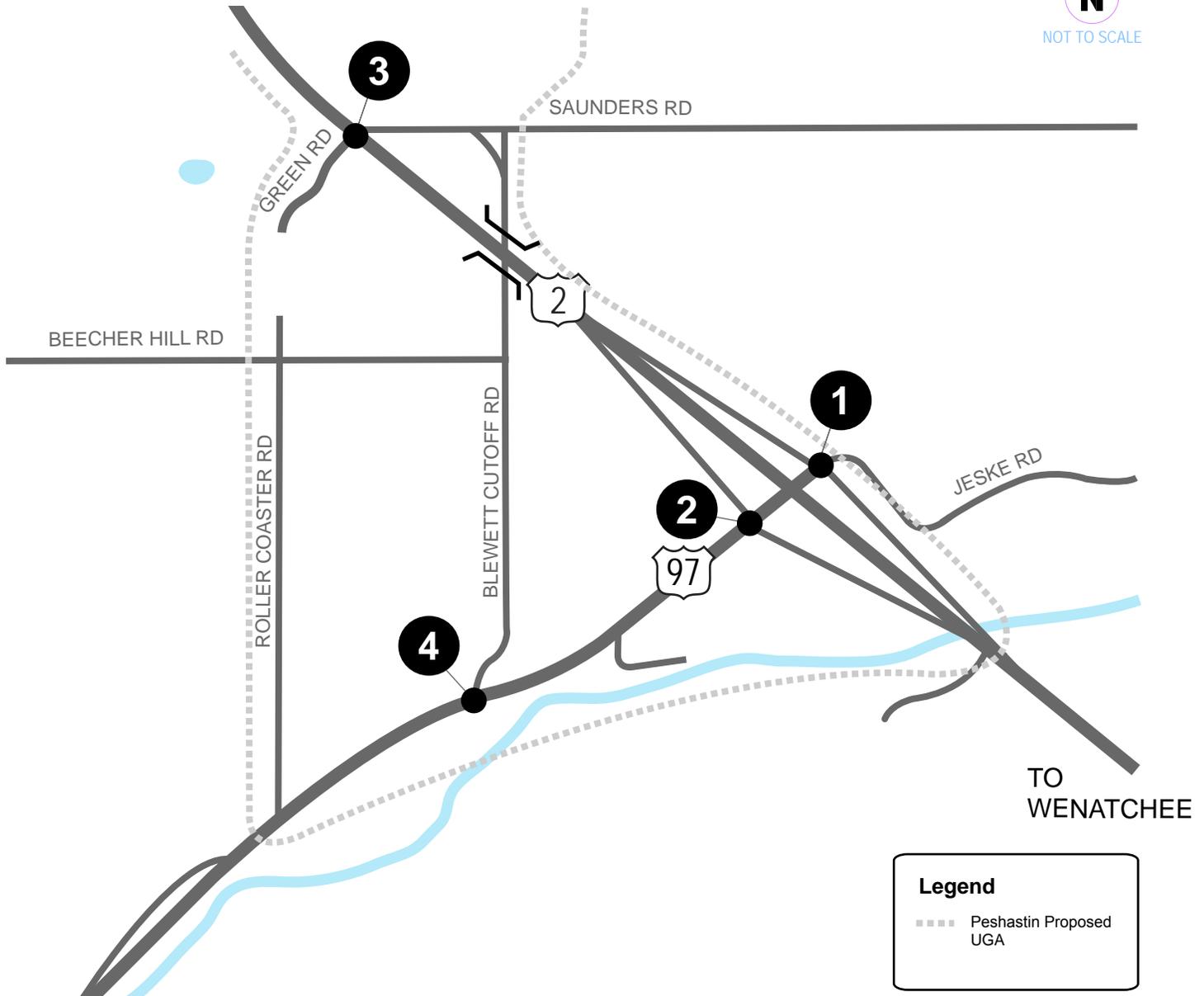
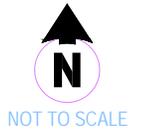
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FIGURE

1

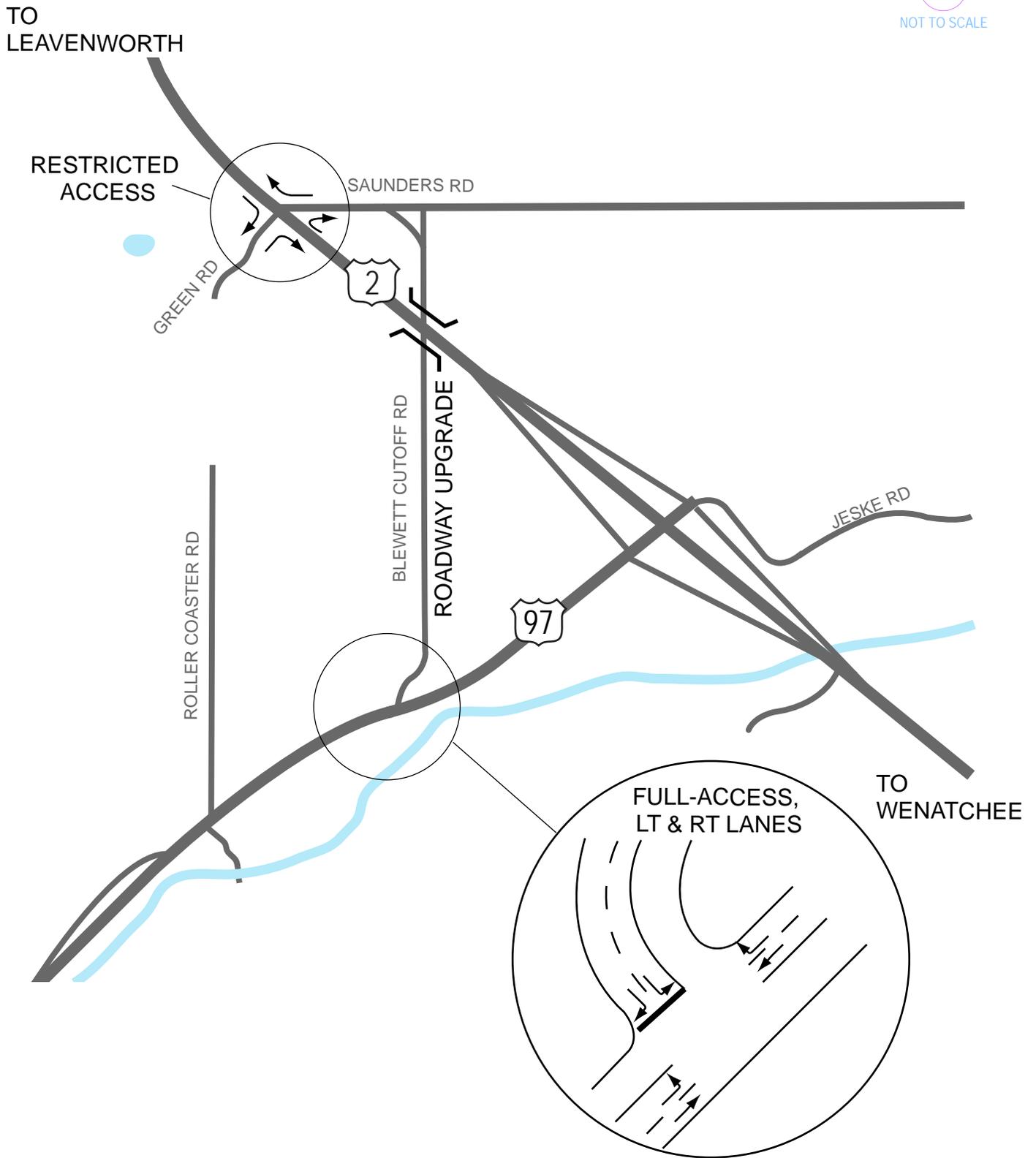
TO
LEAVENWORTH



2028 Estimated PM Peak Hour Volumes (New Interchange)

FIGURE

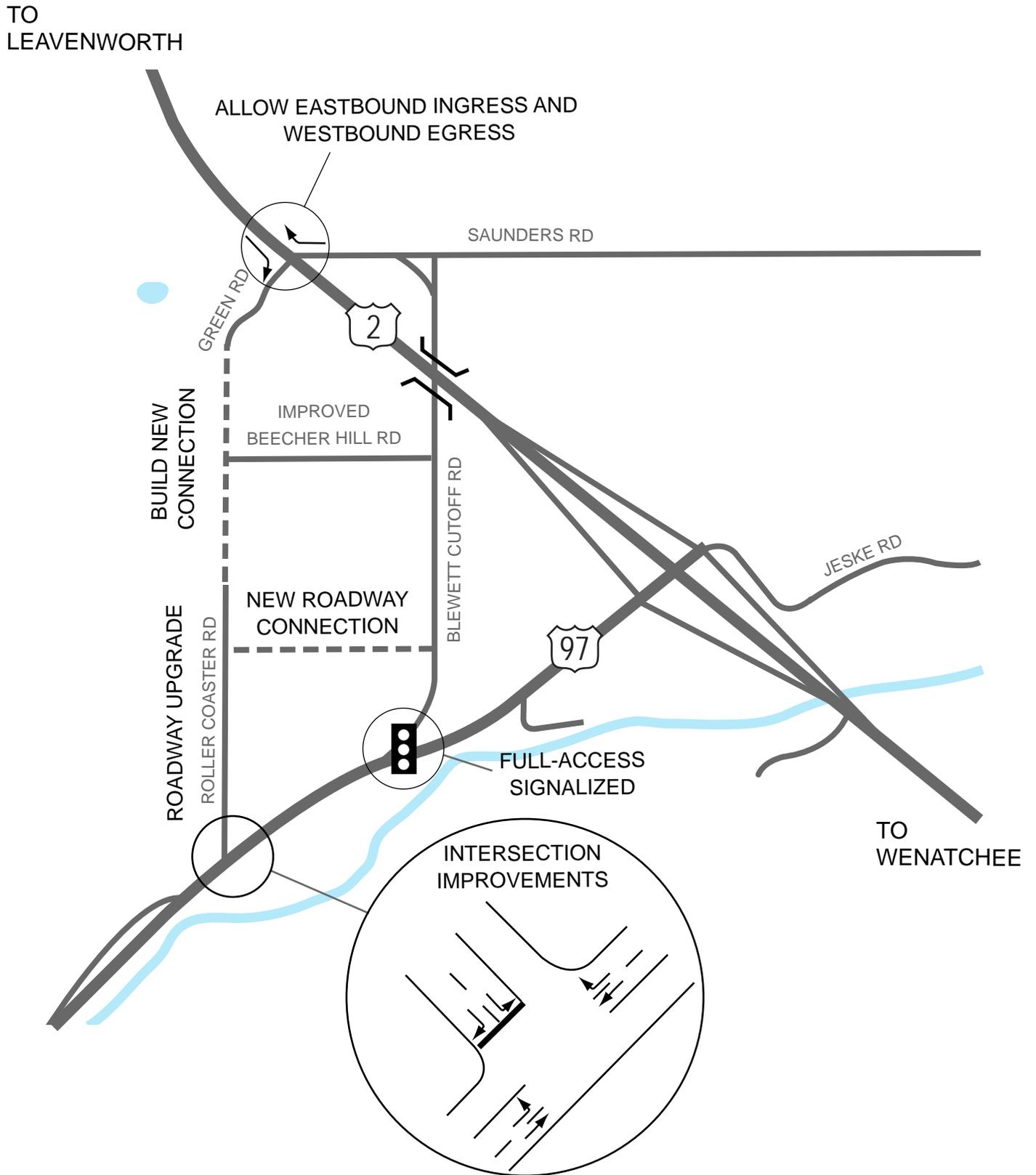
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Proposed Medium-Term Improvements

Chelan County Transportation Plan

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Proposed Long-Term Improvements

Chelan County Transportation Plan

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Chelan County Transportation Element Update

Agenda • Stakeholder Advisory Group Meeting #4

Wednesday, October 1, 2008 • 9:30 – 11:30 pm

Confluence Technology Center, 285 Technology Center Way, Wenatchee

- Purpose Update the Stakeholder Advisory Group members on progress to-date, review proposed modifications to County LOS standards, discuss funding strategies, and review prioritized project list.
- 9:30 Welcome and Introductions • Buell Hawkins
Round robin introductions and welcoming of new attendees.
- 9:35 Project Update & Outreach Efforts • Marcia Wagoner & Jon Pascal
Overview of the project progress. Summary of comments heard, key themes and highlights from community outreach efforts. Q & A
- 9:40 Prioritized Capital Project List • Jon Pascal
Address comments and questions regarding the prioritized improvement project list. Q & A
- 10:25 Funding Strategies • Morgan Shook
Discuss potential funding strategies to address County maintenance and capital needs. Q & A
- 11:05 County LOS Standards & Development Review Process • Larry Toedtli
Provide overview of proposed modifications to the County's LOS standards and revisions to the development review process. Q & A
- 11:25 Next Steps • Marcia Wagoner
Brief review of work to be accomplished over next few months. Confirm next meeting date.
- 11:30 Adjourn



Chelan County Transportation Element Update

Agenda • Steering Committee Meeting #4

Wednesday, October 1, 2008 • 1:00 – 3:00 pm

Confluence Technology Center, 285 Technology Center Way, Wenatchee

Purpose Update on project progress and discuss major funding and development review items.

Members Greg Pezoldt, Chelan County Public Works Director, Co-Project Manager
John Guenther, Chelan County Planning Director, Co-Project Manager
Buell Hawkins, Chelan County Commissioner
Jeff Wilkens, WVTC Executive Director
Connie Krueger, City of Leavenworth Community Development Director
Dave Honsinger, WSDOT North-Central Planning Manager
Richard Derock, LINK Transit General Manager

1:00 Project Update & Meeting Highlights • Jon Pascal & Marcia Wagoner
Overview of the project progress and summary of key outcomes and discussions from SAG and public meetings.

1:15 Funding Strategies • Morgan Shook
Discuss potential funding strategies to address County maintenance and capital needs. Q & A

2:15 County LOS Standards & Development Review Process • Larry Toedtli
Discuss proposed modifications to the County's LOS standards and revisions to the development review process. Q & A

3:00 Adjourn



What is the County's Transportation Funding Outlook?



Chelan County Transportation Element Update

Project Funding Categories

A

Maintenance & Operations



Types of Projects

- Paving/Chip Sealing
- Snow Plowing
- Emergency Repairs
- Bridge Repairs
- Guardrails/Sign Replacement
- Staffing

B

Reconstruction of Existing Facilities/ Pedestrian & Bicycle Enhancements



Types of Projects

- Roadway Reconstruction
- Shoulder Widening
- New Trails/Sidewalks
- Safety Enhancements
- Bridge Replacement/Rehabilitation

C

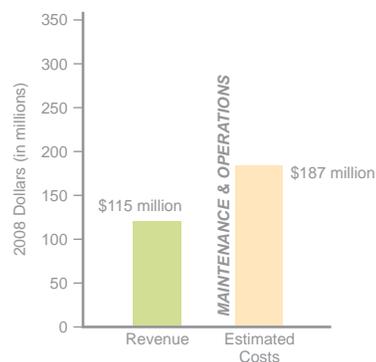
New or Upgraded Facilities to Support New Development



Types of Projects

- New Roadways
- Roadway Widening
- Frontage Improvements
- Traffic Control Improvements

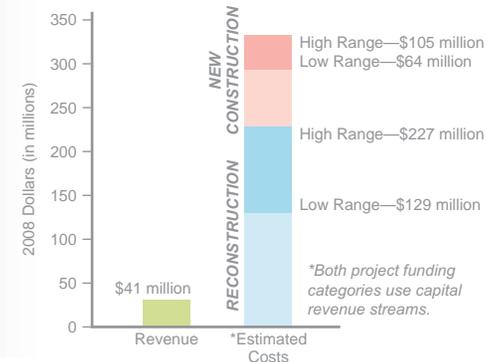
Funding Snapshot » Estimated revenues and costs over the next 20 years (2008-2028)



Ballpark cost estimates have been prepared for projects shown on the County's transportation project list. A low and a high value have been assumed to account for unknown costs at this level of project concepts. The costs will be refined once project priorities have been finalized.

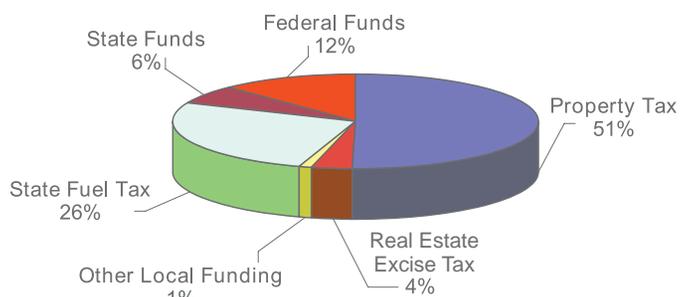
Projects have been grouped into three tiers. The tiers can be related to funding as defined below:

- **Tier 1** Projects that have the greatest chance of being funded with existing resources.
- **Tier 2** Projects only possible with implementation of additional funding strategies.
- **Tier 3** Projects not likely to be funded in the next 20 years.



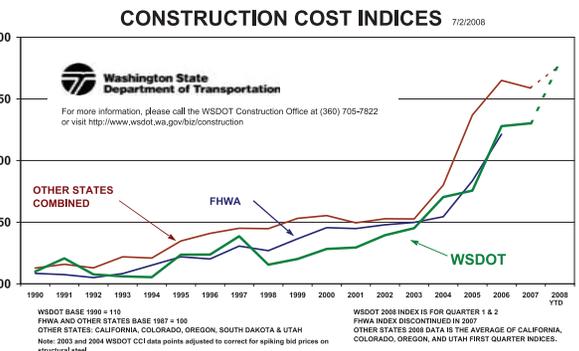
New or Upgraded	
	Low to High
• Tier 1	\$13 - \$21
• Tier 2	\$36 - \$61
• Tier 3	\$15 - \$23
Total	\$64 - \$105 million
Reconstruction & Ped/Bike	
	Low to High
• Tier 1	\$34 - \$53
• Tier 2	\$31 - \$54
• Tier 3	\$64 - \$120
Total	\$129 - \$227 million

Where do the revenues come from?



What items contribute to the funding shortfall?

- Fewer grant dollars are available than in the past, and are increasingly competitive to obtain.
- Initiative 747 decreased the purchasing power of the property tax by restricting revenue growth below the rate of inflation.
- The state gas tax is declining due to the increasing price of fuel (leading to less driving) and more fuel efficient vehicles.
- The cost of construction labor and materials (such as asphalt) have increased significantly in the last few years and are expected to continue to out pace revenues (see WSDOT construction cost index graph at right).





Ideas to Address the County's Transportation Funding Shortfall



Chelan County Transportation Element Update

Background

Without additional funding, the County will not have funds to maintain the existing transportation system. This would include basic maintenance activity such as patching potholes or plowing snow. Additional funding strategies need to be evaluated to maintain what we have, but also to implement the high priority capital improvements. **Any funding alternative would take voter or County Commission approval to enact.**

Who Benefits	Funding Alternatives	Potential Revenues	Likely Implementation Area	Project Categories
<p>Who would benefit from improvements and therefore have a responsibility to share in the cost?</p> <p>All Users</p> 	<ul style="list-style-type: none"> County Road Levy Bonds with Levy Lift Transportation Benefit District (Unincorporated Chelan County) Local Improvement District 	<p>How would the funding be collected and how much could be generated?</p> <ul style="list-style-type: none"> A \$100 a year property tax increase on a \$250,000 house could generate \$3 million a year in revenues. A \$80 a year property tax increase on a \$250,000 house could pay for \$30 million in bonds. \$20 vehicle registration fee could generate \$3 million a year A voter approved 0.2% sale tax increase could generate \$700,000 a year A \$80 a year property tax increase on a \$250,000 house could pay for \$30 million in bonds If a LID funded \$1 million worth of improvements and there were 100,000 square feet of commercial square footage in the district, a property owner with 10,000 square feet of commercial space might be assessed an additional \$100,000 at \$10/sqft. 	<p>Countywide</p> <p>Countywide</p> <p>Countywide</p> <p>Subarea or Project Based</p>	<p>What types of projects would typically be included as part of each funding strategy?</p> <p>A </p> <p>A  B </p> <p>A  B  C </p> <p>B </p>
<p>New Development</p> 	<ul style="list-style-type: none"> Transportation Benefit District Local Improvement District Impact Fees Planned Action Ordinance Late-comer Agreements 	<ul style="list-style-type: none"> \$20 vehicle registration fee could generate \$3 million a year A voter approved 0.2% sale tax increase could generate \$700,000 a year A \$80 a year property tax increase on a \$250,000 house could pay for \$30 million in bonds If a LID funded \$1 million worth of improvements and there were 100,000 square feet of commercial square footage in the district, a property owner with 10,000 square feet of commercial space might be assessed an additional \$100,000 at \$10/sqft. For every \$1,000 in impact fee, the county could likely generate \$8 million dollars in revenue over the next 20 years (based on 8,000 new homes in the unincorporated areas of the county). The amount of revenue generated will be tied to the amount of impact generated by development. These agreements allow property owners who have paid for capital improvements to recover a portion of the costs from other property owners in the area who later develop property that will benefit from those improvements. 	<p>Subarea</p> <p>Subarea or Project Based</p> <p>Countywide (different fees by subarea)</p> <p>Subarea</p> <p>Project Based</p>	<p>B  C </p> <p>B  C </p> <p>B  C </p> <p>C </p>



Possible Chelan-Manson Alternate Route Alignments



Chelan County Transportation Element Update

For Discussion Purposes Only





Chelan County Transportation Element Update

Agenda • Stakeholder Advisory Group Meeting #5

Wednesday, November 19, 2008 • 9:30 – 11:30 pm

Confluence Technology Center, 285 Technology Center Way, Wenatchee

Purpose Update the Stakeholder Advisory Group members on draft plan preparation, and review recommended funding and implementation strategies and updates to the goals and policies.

- 9:30 Welcome and Introductions • Buell Hawkins
Round robin introductions and welcoming of new attendees.
- 9:35 Project Update • Jon Pascal
Overview of the draft plan preparation and remaining tasks. Q & A
- 9:45 Funding & Implementation Strategies • Larry Toedtli
Present recommended funding and implementation strategies. Discuss mitigation requirements and development of administrative guidelines. Q & A
- 10:40 Goals & Policies • Jon Pascal
Discuss recommended updates to goals and policies. Q & A
- 11:25 Next Steps • Jon Pascal
Review expected timeline for release of draft plan and opportunities for further comment.
- 11:30 Adjourn

Appendix B

TRANSPORTATION PROJECT LIST AND PRIORITIES

APPENDIX B

Identification of Projects and Priorities

A detailed project list is provided as Attachment A of Appendix B. The lists are much more detailed than those listed in Chapter 8 of the Transportation Element.

Frequently Asked Questions about the Project Lists and Priorities

What is the purpose of the project list and maps?

To further summarize and provide additional details regarding the transportation projects identified in Chapter 8 of the Transportation Element.

How are the projects organized?

Projects that will likely be lead by Chelan County are listed first, then WSDOT, then the Cities of Leavenworth and Chelan, and finally LINK Transit.

How was the list developed?

The projects have been compiled from the State Highway System Plan, Chelan County TIP, City of Chelan TIP, Wenatchee Valley Transportation Council TIP, Regional Transportation Plan, Sunnyslope Long-range Subarea Plan, US 2/97 Corridor Safety Study, Greater Wenatchee Bicycle Association Master Plan, North Central RTPO Ped/Bike Plan, County Parks & Recreation Plan, LINK Transit Development Plan, LINK TIP, Leavenworth TIP, Leavenworth Comprehensive Plan, discussions with the Stakeholder Advisor Group and Steering Committee, and input from the public at the open house and community meetings. Other projects have been identified as part of the Transportation Element technical work program and based on the County's level of service standards.

Why are City of Leavenworth and City of Chelan projects listed?

The Cities of Leavenworth and Chelan are participating in the process financially. Leavenworth is updated their Transportation Element at the same time as the County, and a regional planning study was conducted for the Chelan area. Both of these projects were included in the overall update of the County Transportation Element. Therefore, specific projects are listed for those communities.

Why are no projects listed for the Cities of Cashmere, Entiat, or Wenatchee?

See previous response. The projects shown are generally for areas of unincorporated Chelan County. The primary focus of the Transportation Element is to provide a transportation plan to direct future transportation investments in areas the County is responsible for, or within Cities that are participating in the planning effort. The Transportation Element accounted for other agency projects and explains how it is consistent with projects within the other Cities.

How were the projects prioritized?

A rating system was developed to categorize each transportation improvement project into a tier. The general considerations for assigning priorities and the point system were as follows:

- Projects with lower costs received higher priority because they are more likely to be funded through existing capital revenue streams. The point scoring system gave 10 points to projects estimated to cost less than \$1 million, 5 points to projects between \$1 million and \$3 million, and no points to projects exceeding \$3 million.
- Projects that address the County's top three priorities were given higher priority. The top three priorities are maintaining and upgrading existing roads, safety, and pedestrian and bicycle transportation. The point scoring system gave 4 points for each top priority directly addressed by a given project.
- Projects on facilities that serve more users (either now or in the future) were given higher priority to reflect the fact that more people will benefit from these improvements. The point scoring system gave 10 points to projects improving (or creating) a facility with a high level of use, 5 points for facilities with a moderate level of use, and no points for facilities that serve only a limited amount of users.

The Tier groups were determined by summing the points received by each project. Tier I projects are those with 19 points or more; Tier II projects are those that received between 14 and 18 points; Tier III projects received 13 points or less.

The following table provides some examples of the application of this rating system.

Table 1. Example Rating System Application

Project	Description	Cost	Rating Criteria			Total Points	Tier
			Cost	Priorities	Use		
A	Roadway upgrades and new sidewalks in UGA	\$900,000	10	8	10	28	I
B	Intersection safety enhancement on local road	\$300,000	10	4	0	14	II
C	Bridge rehabilitation on minor collector	\$8,000,000	0	8	5	13	III

SOURCE: Transpo Group 2008

Project A gets a total of 28 points: 10 for cost (less than \$1 million), 8 for priorities (roadway upgrade and non-motorized facilities) and 10 for level of use (UGA area). Project A would be included in Tier I.

Project B gets a total of 14 points: 10 for cost (less than \$1 million), and 4 for priorities (safety). Project B would be included in Tier II.

Project C gets a total of 13 points: 8 for priorities (roadway upgrade and safety) and 5 for level of use (moderate level of traffic volume). Project C would be included in Tier III.

Chelan County Transportation Element
CHELAN COUNTY TRANSPORTATION PROJECT LIST

Project Type	MAP ID	Project Title	Subarea	Project Description	Source	Cost (\$1,000s)	Comments	Priority Tier	Impact Fee Eligible Projects
New Roadway Construction	CC-R1	Corridor Study - Alternative route between Manson and Chelan	Chelan Manson	Evaluate the feasibility and identify the corridor footprint of an alternate route between Manson and Chelan.	Community Visioning & Stakeholder Advisory Group discussions	\$300		I	✓
	CC-R2	Alternative route between Manson and Chelan	Chelan Manson	Construct an alternate route between Manson and Chelan. Primary focus will be on the corridor segment between Winesap Road and Boyd Road.	Community Visioning & Stakeholder Advisory Group discussions Identified need based on future growth	\$49,280	Likely to be built in segments as development occurs.	III	✓
	CC-R3	Titus Road to Chumstick Highway Connector	Leavenworth	New collector road between Titus Road and Chumstick Highway to provide improved access and circulation to the North Leavenworth area.	NCW RTIP 2008-2013 Planned Projects 2002 City Comp Plan	\$1,960	Proposed route alignments have been identified by property owners / developers.	I	✓
	CC-R4	Leavenworth north-south connector	Leavenworth	New north-south road (unnamed) between Village View Drive and Titus Loop Road.	2002 Comp Plan T-7	\$1,520	Likely to be completed by new development	III	
	CC-R5	Bainard Road/Searles Road connection (Saturday Avenue extension)	Malaga	New connection between W. Malaga Rd and Searles Rd / Saturday Ave to provide for improved circulation and access to the area south of Dixie Lane.	Malaga Community Council	\$3,250	Likely to be completed by new development	III	
	CC-R6	Malaga new east-west connection	Malaga	New east-west connection just south of Malaga-Alcoa Hwy between the western and eastern ends of West Malaga Road.	Malaga Community Council	\$6,480	Likely to be completed by new development	III	
	CC-R7	East-west collector between Roller Coaster Rd and Blewett Cutoff Rd	Peshastin	Construct new roadway to serve proposed UGA commercial/residential areas west of new interchange.	Stakeholder Advisory Group discussions	\$1,240	Likely the be built by new development	III	
	CC-R8	North-south collector between Green Rd and Rollercoaster Rd	Peshastin	Construct new collector arterial to serve proposed UGA commercial/residential areas west of new interchange.	Stakeholder Advisory Group discussions	\$1,050	Likely the be built by new development	III	
Roadway Improvement	CC-R9	North-south connection using new US 2 underpass - Blewett Cut-off Road	Peshastin	Upgrade underpass connection being built by WSDOT for agricultural uses to County roadway standards at the US 2 / 97 interchange. Upgrade Blewett Cut-off Road.	Identified through forecasting process	\$2,620		II	✓
	CC-R10	Bergstrasse Road/Detillion Road connector	Leavenworth	Upgrade road between Ski Hill Drive and Titus Road	2002 Comp Plan Transportation Map NCW RTIP 2008-2013 Planned Projects	\$2,130		II	✓
	CC-R11	Union Valley Road	Chelan	Widen, grade, drain, add base and top course, and pave from City Limits to Cagle Gulch Rd.	Chelan Co. 2008-11 w/ CN in 2009	\$2,360	Submitted as part of 2009 economic stimulus package	II	✓
	CC-R12	Boyd Road	Chelan	Construct/widen shoulders, construct sidewalks in UGA, upgrade base material, and pave between City limits and Wapato Butte Road.	Stakeholder Advisory Group discussions	\$3,030		I	✓
	CC-R13	Entiat River Road	Entiat	Widen/improve shoulders	Stakeholder Advisory Group discussions	\$1,030		II	
	CC-R14	Eagle Creek Road	Leavenworth	Grade, drain, widen, minor horizontal realignment, add base and top course, and pave along 1.5 mile stretch starting at Chumstick Hwy. Widening pavement from 22 ft to 26 ft.	Chelan Co. 2008-11 w/ CN in 2011	\$3,520	Currently in design	I	
	CC-R16	North Road	Leavenworth	Construct/widen shoulders, improve horizontal curves, signage, and safety between Fox Rd and Nibblelink Rd (north connection).	Stakeholder Advisory Group discussions	\$9,800		I	✓
	CC-R17	E. Leavenworth Road	Leavenworth	Construct/widen shoulders, improve horizontal curves, safety, and reconstruct roadway between UGA limits and Dempsey Rd	Leavenworth Transportation Steering Committee	\$4,410	Subgrade is questionable	II	✓

Chelan County Transportation Element
CHELAN COUNTY TRANSPORTATION PROJECT LIST

Project Type	MAP ID	Project Title	Subarea	Project Description	Source	Cost (\$1,000s)	Comments	Priority Tier	Impact Fee Eligible Projects
Roadway Improvement	CC-R18	E. Leavenworth Road	Leavenworth	Construct/widen shoulders and reconstruct roadway between Dempsey Rd and Icicle Rd	Leavenworth Transportation Steering Committee	\$4,180	Subgrade is questionable	II	✓
	CC-R20	Dixie Lane	Malaga	Road upgrades, shoulder widening, sidewalks.	Stakeholder Advisory Group discussions Community Council Input	\$2,440		I	✓
	CC-R21	West Malaga Road	Malaga	Improved shoulders and new turn lanes.	Stakeholder Advisory Group discussions Community Council Input	\$2,740		I	✓
	CC-R22	Stemilt Loop Road	Malaga	Spot improvements to construct/widen shoulders, improve vertical/horizontal curves, signage, and reconstruct roadway	Discussions with County staff	\$6,720	Identification of spot improvements will occur when funding is available	III	
	CC-R25	Boetzkes Avenue	Manson	Evaluate the feasibility of truck bypass to avoid segment of Manson Blvd.	Stakeholder Advisory Group discussions	\$30		I	
	CC-R26	Ford Street	Manson	Construct/widen shoulders and reconstruct roadway between Manson Blvd and Washington Street	Stakeholder Advisory Group discussions Manson Community Council	\$1,380		I	✓
	CC-R27	Ivan Morse Road	Manson	Construct/widen shoulders, improve horizontal curves and safety between Wapato Lake Road and Kinsey Road.	Stakeholder Advisory Group discussions	\$1,570		II	✓
	CC-R28	Winesap Road	Manson	Construct/widen shoulders, improve horizontal curves and safety, upgrade base material, and pave between SR 150 and Chapman Road.	Stakeholder Advisory Group discussions	\$1,330		II	✓
	CC-R29	Totem Pole Road	Manson	Roadway improvements, such as pavement, base, shoulder widths and sidewalks between Wapato Way and Banks Avenue.	Manson Community Meeting	\$5,180		III	✓
	CC-R30	Red Apple Road	Monitor	Widen, add base and top course, and pave	Stakeholder Advisory Group discussions	\$1,760	Likely condition of new development	III	
	CC-R31	Sleep Hollow Road / E Richared Road - Improve route between Monitor and Wenatchee	Monitor	Improve alternate roadway between Monitor and Wenatchee south of US 2/97 along Sleepy Hollow Road. Upgrade existing County roadways including shoulder widening, signage, base material, and new pavement.	Stakeholder Advisory Group discussions	\$8,780	Study completed by the County in April 2005 to identify the necessary upgrades to the local roadway system	III	✓
	CC-R32	Kelly Road/Zager Road	Monitor	Widen, add base and top course, and pave between Monitor Orchard Road and approximately 0.60 miles north of Barden James Road	Concurrency Management Program	\$880	Currently 16 ft wide	II	
	CC-R33	North Road	Peshastin	Construct/widen shoulders, improve horizontal curves, signage, and safety between Nibblelink Rd (north connection) and Main St.	Stakeholder Advisory Group discussions	\$2,520		I	✓
	CC-R34	Beecher Hill Road	Peshastin	Improve existing roadway to serve proposed UGA commercial/residential areas west of new interchange between Rollercoaster Road and Blewett Cutoff Road.	Stakeholder Advisory Group discussions	\$1,110		II	✓

Chelan County Transportation Element
CHELAN COUNTY TRANSPORTATION PROJECT LIST

Project Type	MAP ID	Project Title	Subarea	Project Description	Source	Cost (\$1,000s)	Comments	Priority Tier	Impact Fee Eligible Projects
Roadway Improvement	CC-R35	Rollercoaster Road	Peshastin	Improve existing roadway to serve proposed UGA commercial/residential areas west of new interchange between Beecher Hill Road and US 97.	Stakeholder Advisory Group discussions	\$2,130		II	✓
	CC-R36	Larson Road	Peshastin	Local street in need of urban upgrades to serve expected growth in the Peshastin UGA.	Discussions with County staff	\$1,080	Support development in proposed UGA	III	
	CC-R37	Ludwig Hill Road	Peshastin	Local street in need of urban upgrades to serve expected growth in the Peshastin UGA.	Discussions with County staff	\$820	Support development in proposed UGA	II	
	CC-R39	Chumstick Highway	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between Spromberg Canyon Rd to Camp Road.	Discussions with County staff	\$6,380	Improves conditions for bicyclists	III	
	CC-R40	Chiwawa Loop III	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between south of Wendig Lane and east of Meadow Creek Rd.	Discussions with County staff	\$5,070		III	
	CC-R41	Chumstick Highway	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between Camp Road and Beaver Valley Road.	Discussions with County staff	\$10,290	Improves conditions for bicyclists	III	
	CC-R42	Knowles Road	Sunnyslope	Widen, grade, drain, install storm water system, add base and top course, and pave with HMA from School Street to Rolling Hills Lane.	Chelan Co. 2008-11 w/ CN in 2009	\$2,920		I	✓
	CC-R43	American Fruit Road	Sunnyslope	Reconstruct - Overlay and add sidewalks or pathway	Regional Transp Plan 2005-2025 Project Priorities; Sunnyslope Long Range Plan	\$3,600	County has \$100K in funding	II	✓
	CC-R44	Easy Street	Sunnyslope	Upgrade Easy Street to urban standards, road widening, safety improvements, non-motorized facilities between future WSDOT interchange and SR 2/97.	Sunnyslope Long Range Plan	\$9,490		I	✓
	CC-R45	School Street	Sunnyslope	Improve pedestrian facilities and provide traffic calming south of Easy Street. Widen shoulders.	Sunnyslope Long Range Plan	\$1,660		I	✓
	CC-R46	Rolling Hills Road	Sunnyslope	Widen, add base and top course, and pave from Knowles Road to Burch Mountain Road.	Identified through forecasting process	\$1,830	Support development in proposed UGA	II	✓
	CC-R47	Lower Sunnyslope Road	Sunnyslope	Widen/construct shoulders east of School Street to west of Sleepy Hollow.	Regional Transp Plan 2005-2025 Project Priorities	\$1,810		II	✓
	CC-R48	Number One Canyon Road	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks within the UGA.	Foothills Development Potential Traffic Analysis (2008)	\$940		II	✓
	CC-R49	Squilchuck Road	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks within the UGA.	Foothills Development Potential Traffic Analysis (2008)	\$3,360		III	✓
	CC-R51	McKittrick Street	Wenatchee UGA	Reconstruct and upgrade to urban standards between Western Avenue and Pershing Street; new storm, sewer, sidewalks and illumination.	Regional Transp Plan 2005-2025 Project Priorities	\$930		II	✓
CC-R52	Walnut Street	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks between Western Avenue and Rogers Drive.	Regional Transp Plan 2005-2025 Project Priorities	\$3,900		III	✓	

Chelan County Transportation Element
CHELAN COUNTY TRANSPORTATION PROJECT LIST

Project Type	MAP ID	Project Title	Subarea	Project Description	Source	Cost (\$1,000s)	Comments	Priority Tier	Impact Fee Eligible Projects
Bridges	CC-B1	West Cashmere (Goodwin Road) Bridge	Cashmere	Rehabilitate/replace aged bridge	Stakeholder Advisory Group discussions	\$15,500		III	
	CC-B2	Old Monitor Road Bridge	Monitor	Rehabilitate aged bridge	Stakeholder Advisory Group discussions	\$4,500	County has received partial funding with it being completed in 2009	III	
	CC-B3	Monitor Main Street Bridge	Monitor	Rehabilitate/replace aged bridge	Stakeholder Advisory Group discussions	\$15,700		III	
	CC-B4	Old Peshastin Bridge	Peshastin	Replace or rehabilitate bridge. Should include pedestrian facility improvements or separate trail bridge.	Stakeholder Advisory Group discussions	\$14,200	Could include building a separate trail bridge	II	
	CC-B5	New Bridge across Wenatchee River	Peshastin	Construct a new bridge to provide access to the Port industrial area on the north side of the Wenatchee River.	Port of Chelan	\$10,160	Port completed feasibility study in May 2005 completed by RH2 Consultants. Would occur as part of Mill Site redevelopment.	III	
Intersections	CC-11	Yaksum Canyon Rd / Coates Rd	Cashmere	Sight distance improvements	Discussions with County staff	\$190		II	
	CC-12	Binder Rd / Yaksum Canyon Rd	Cashmere	Sight distance and traffic control improvements	Discussions with County staff	\$280		II	
	CC-13	Chumstick Highway / North Road	Leavenworth	Intersection safety improvements, could include signage, illumination, re-alignment, and channelization improvements.	Stakeholder Advisory Group discussions	\$280		I	✓
	CC-14	W. Malaga Rd / McEldowney Rd	Malaga	Sight distance and intersection geometry improvements.	Malaga Community Council	\$190	Tight turning radius for trucks	I	✓
	CC-15	Washington St / Banks Ave	Manson	Traffic control, signage, and intersection geometry improvements, as well as safety and sight distance improvements.	Manson Community Council	\$280		I	✓
	CC-17	Kelly Rd / Barden James Rd	Monitor	Improve safety by reconstructing intersection to eliminate 'Y' intersection and create a 'T' intersection	Discussions with County staff	\$100	Likely to be completed by County Public Works Staff	I	
	CC-18	Monitor Main Street at-grade railroad crossing	Monitor	Improve alignments, illumination, safety enhancements.	Stakeholder Advisory Group discussions	\$240	Grade separation has been evaluated but is not feasible at this location without substantial property impacts and ROW needs	II	
	CC-19	Main Street / Peshastin Rd	Peshastin	Illumination, signage, and traffic control improvements.	Stakeholder Advisory Group discussions	\$280	Needs to evaluate a range of solutions to improve safety	I	✓
	CC-110	School Street / Easy Street	Sunnyslope	Install roundabout or traffic signal, widen intersection, and improve channelization and signage to accommodate expected traffic growth.	Regional Transp Plan 2005-2025 Project Priorities & Sunnyslope Long Range Plan	\$1,010	Future location of multi-modal hub	II	✓
	CC-111	Knowles Road / School Street	Sunnyslope	Intersection safety and traffic control improvements.	Sunnyslope Long Range Plan	\$240		I	✓
	CC-112	Easy Street / Peters Street	Sunnyslope	Install roundabout or traffic signal, widen intersection, and improve channelization and signage to accommodate expected traffic growth.	Identified through forecasting process	\$1,010		II	✓
	CC-113	Easy Street / Penny Road	Sunnyslope	Install additional turn lanes to accommodate expected traffic growth.	Identified through forecasting process	\$570		I	✓
	CC-114	Lower Sunnyslope / School St / Penny St	Sunnyslope	Traffic control, signage, and intersection geometry improvements	Discussions with County staff	\$280		II	
	CC-115	Easy Street / Crestview Road	Sunnyslope	Install additional turn lanes to accommodate expected traffic growth.	Identified through forecasting process	\$240	LOS F in 2028	I	✓

Chelan County Transportation Element
CHELAN COUNTY TRANSPORTATION PROJECT LIST

Project Type	MAP ID	Project Title	Subarea	Project Description	Source	Cost (\$1,000s)	Comments	Priority Tier	Impact Fee Eligible Projects
Non-Motorized Improvements	CC-NM1	Sunset Highway	Cashmere	Improve pedestrian and bicycle facilities on Sunset Highway from City limits to UGA limits.	Community Visioning Process	\$3,750		III	
	CC-NM2	Pioneer Avenue	Cashmere	Improve pedestrian and bicycle facilities on Pioneer Avenue from Evergreen Dr to UGA limits.	Community Visioning Process	\$1,790		II	
	CC-NM3	Binder Road/Olive Street	Cashmere	Improve pedestrian and bicycle facilities on Binder Road/Olive Street from Rank Road to Tigner Road.	Community Visioning Process	\$2,700		III	
	CC-NM4	Mission Creek Road	Cashmere	Improve pedestrian and bicycle facilities on Mission Creek Road from City limits to Binder Road.	Community Visioning Process	\$690		II	
	CC-NM5	Wescott Drive	Cashmere	Improve pedestrian and bicycle facilities from Pioneer Avenue to Sunset Highway.	Discussions with County staff	\$2,700		III	
	CC-NM6	Evergreen Drive	Cashmere	Improve pedestrian and bicycle facilities from Pioneer Avenue to Sunset Highway.	Discussions with County staff	\$1,860		III	
	CC-NM7	Chumstick Highway	Leavenworth	Complete missing sidewalks between City limits and North Road.	Stakeholder Advisory Group discussions	\$570		I	
	CC-NM8	Ski Hill Drive	Leavenworth	Improve shoulders, illumination, signage, and provide traffic calming along Ski Hill Drive from City limits to Titus Rd.	County Parks & Recreation Plan Leavenworth Steering Committee	\$1,720		II	✓
	CC-NM9	Titus Road	Leavenworth	Improve shoulders, illumination, signage, and provide traffic calming along Titus Rd from City limits to Ski Hill Dr.	County Parks & Recreation Plan Leavenworth Steering Committee	\$2,710		II	✓
	CC-NM10	Bainard Road	Malaga	Provide enhanced pedestrian facilities from Dixie Lane to Saturday Avenue.	Malaga Community Council	\$420		I	
	CC-NM11	Green Avenue / Hill Street	Manson	Construct sidewalk on Green Avenue from Totem Poll Road to Hill Street and on Hill Street from Green Avenue to Totem Pole Road.	Manson Community Council	\$1,260		II	
	CC-NM12	Main Street / Peshastin Road	Peshastin	Complete missing sidewalk segments	Peshastin Community Council	\$480		I	
	CC-NM13	Knowles Road	Sunnyslope	Construct sidewalk on Knowles Road from American Fruit Road to Lombard.	North Central RTPO - Bicycle and Pedestrian Projects	\$530		I	
	CC-NM14	Penny Road	Sunnyslope	Construct sidewalk on Penny Road from Easy Street to Euclid Avenue.	North Central RTPO - Bicycle and Pedestrian Projects	\$510		I	
	CC-NM16	Euclid Avenue	Sunnyslope	Construct sidewalk on Euclid Avenue from Penny Road to US 97A.	North Central RTPO - Bicycle and Pedestrian Projects	\$860	WSDOT currently completing a segment	I	
	CC-NM17	Peters Street	Sunnyslope	Construct sidewalk on Peters Street from Burch Mountain Road to Ohme Garden Road	Chelan County 2008/2011 TIP	\$620		I	
	CC-NM18	Cordell Avenue	Sunnyslope	Construct sidewalk on Cordell Avenue from Lower Sunnyslope Road to Easy Street.	North Central RTPO - Bicycle and Pedestrian Projects	\$480		II	
	CC-NM29	Okanogan Avenue / Circle Street	Wenatchee UGA	Construct sidewalk on Okanogan Avenue between Circle Street and City limit, and Circle Street between Miller Street and Okanogan Avenue.	Regional Transp Plan 2005-2025 Project Priorities	\$1,560	Cost adjusted to account for only the UGA section (1/4 of total project)	III	
CC-NM31	S. Wenatchee Avenue	Wenatchee UGA	Construct sidewalk on S. Wenatchee Avenue between Boodry Street and City limit.	Regional Transp Plan 2005-2025 Project Priorities	\$870	Cost adjusted to account for only the UGA section (1/2 of total project)	I		

Chelan County Transportation Element
CHELAN COUNTY TRANSPORTATION PROJECT LIST

Project Type	MAP ID	Project Title	Subarea	Project Description	Source	Cost (\$1,000s)	Comments	Priority Tier	Impact Fee Eligible Projects
Trails	CC-NM19	Tichenal Road Connection	Cashmere	Provide pedestrian/bicycle connection between Tichenal Rd to Old Monitor Rd	County Parks & Recreation Plan	\$270	Would provide connection just south of US 2 / 97 corridor	I	
	CC-NM20	Valley Trail - Dryden to Cashmere	Cashmere	Identify ROW and construct trail between Dryden and Cashmere.	North Central RTPO - Bicycle and Pedestrian Projects	\$1,940		III	
	CC-NM21	Valley Trail - Cashmere to Monitor	Cashmere Monitor	Identify ROW and construct trail between Cashmere and Monitor.	North Central RTPO - Bicycle and Pedestrian Projects	\$1,460		II	
	CC-NM22	Chelan Lakeside Trail - Phase 1	Chelan	New trail from Lake Chelan State Park to City limits.	County Parks & Recreation Plan	\$2,080		III	
	CC-NM23	South Lakeshore Drive Chelan Lake Shore Trail - Phase 2	Chelan	Widen shoulders, provide pedestrian improvements between 25-mile Creek State Park to Lake Chelan State Park.	County Parks & Recreation Plan Stakeholder Advisory Group	\$8,770		III	
	CC-NM24	Wenatchee Foothills Trail	Wenatchee UGA	This particular trail is well through the planning stages and is prepared to receive funding for acquisition and development.	County Parks & Recreation Plan	N/A	Trails Plan complete in 2007 by City of Wenatchee	I	
	CC-NM25	Valley Trail - Leavenworth to Peshastin	Leavenworth Peshastin	Identify ROW and construct trail between Leavenworth and Peshastin.	North Central RTPO - Bicycle and Pedestrian Projects	\$1,460		I	
	CC-NM26	North Shore Pathway	Manson	Trail from Manson to Chelan along SR 150.	North Central RTPO - Bicycle and Pedestrian Projects	\$2,210	Coordinate with WSDOT project WS-R3	III	
	CC-NM27	Valley Trail - Monitor to Wenatchee	Monitor Sunnyslope	Identify ROW and construct trail between Monitor and Wenatchee. Could include use of irrigation canal.	North Central RTPO - Bicycle and Pedestrian Projects	\$2,280		I	
	CC-NM28	Valley Trail - Peshastin to Dryden	Peshastin	Identify ROW and construct trail between Peshastin and Dryden.	North Central RTPO - Bicycle and Pedestrian Projects	\$1,010	Does not include cost for trail bridge across the Wenatchee River	III	
Waterborne	CC-W1	Lake Chelan water taxi service	Chelan	For tourism and recreation	Stakeholder Advisory Group discussions		Currently provided by the Lady of the Lake		
	CC-W2	Ferry service across the Columbia River in Entiat	Entiat	Ferry service - For emergency management, recreation and tourism development.	Stakeholder Advisory Group discussions				
	CC-W3	New water taxi service between Lake Chelan State Park and Manson	Manson	For tourism, recreation, and economic development	FTA Grant Application FY 2008				

**Chelan County Transportation Element
STATE HIGHWAY PROJECTS**

Project Type	MAP ID	Project Title	Subarea	Project Description	Source	Comments
New Roadway	WS-R1	US 2 Bypass through Leavenworth	Leavenworth	Construct bypass to reroute traffic away from congested business center. Identified as a Tier III Solution in the Highways Systems Plan.	2007-2026 Highway System Plan	Recommend removing from long-term plans
	WS-R3	SR 150 Roadway Widening	Chelan, Manson	Widen SR 150 for left turn lanes or two-way left turn lanes where needed and feasible throughout the corridor	SR 150 Route Development Plan	
Intersection/Interchange	WS-R4	US 2 Signal Improvements	Leavenworth	Adaptive signal management and ITS solutions. Identified as a Tier I Solution in the Highways Systems Plan.	2007-2026 Highway System Plan	
	WS-R5	US 2 Pedestrian Underpass	Leavenworth	Provide a grade separated pedestrian undercrossing in the vicinity of City Hall.	2007-2026 Highway System Plan	
	WS-R6	US 2 Preliminary Design Study	Leavenworth	Evaluate feasibility and refine the list of possible intersection improvements, including construction of roundabouts, within the city limits.	Leavenworth Steering Committee	
	WS-R7	US 2 - Access Management	Peshastin	Access management treatments to adjoining properties and construction of a two-way center left-turn lane.	Discussions with WSDOT	
	WS-R8	SR 150 Shoulder Widening	Manson	Widen shoulders to 4 ft. minimum in the vicinity of Rocky Point	SR 150 Route Development Plan	
	WS-R9	US 2 & SR 285/N Wenatchee Alternative Corridor - Pre Design	Sunnyslope	Corridor Study of North Wenatchee Avenue	2008-2011 STIP	Funded through WVTC
	WS-11	East Cashmere Diamond Interchange	Cashmere	Diamond interchange east of the Red Apple Road/Old Monitor Road intersection with frontage road connections via Titchnal Way to Cottage/Cottlets Avenue	US 2/97 Corridor Safety Study	
WS-12	Goodwin Road Bridge Replacement	Cashmere	New grade separated crossing of US 2/97 approximately one-quarter mile west of the existing Goodwin Road/Hay Canyon Road intersection. This may be considered the first phase of a new diamond interchange.	US 2/97 Corridor Safety Study		
WS-13	US 2 / 97 Sunnyslope Interchange - Pre Design	Sunnyslope	Congestion Relief Study.	2008-2011 STIP		
WS-14	US 2 Sunnyslope Interchange	Sunnyslope	Possible new interchange west of School Street.	US 2 School St. to Odabashian Bridge Route Development Plan		
WS-15	US 2 / Easy Street overcrossing	Sunnyslope	Grade separation at Easy Street. Tier III solution	US 2 School St. to Odabashian Bridge Route Development Plan 2007-2026 Highway System Plan		
WS-16	US 2 / Aplets Way	Cashmere	Intersection improvements.	Stakeholder Advisory Group discussions		
WS-17	US 2 / Cottlets Way	Cashmere	Intersection improvements.	Stakeholder Advisory Group discussions		
WS-18	SR 150 / Boyd Road	Chelan	Traffic signal or roundabout when warranted.	Stakeholder Advisory Group discussions		
WS-19	US 97A / Ohme Garden Road	Sunnyslope	Install traffic signal.	WSDOT		

**Chelan County Transportation Element
STATE HIGHWAY PROJECTS**

Project Type	MAP ID	Project Title	Subarea	Project Description	Source	Comments
Intersection/Interchange	WS-I10	SR 150 / Chelan Falls Road	Chelan	Provide turn lanes.	Discussions with WSDOT	
	WS-I11	US 97A / Apple Acres Road	Chelan	Provide turn lanes.	Discussions with WSDOT	
	WS-I12	US 97A / Howard Flats Road	Chelan	Provide turn lanes.	Discussions with WSDOT	
	WS-I13	US 97A / SR 150	Chelan	Turn lanes, improved channelization, and traffic control, when warranted.	Discussions with WSDOT	
	WS-I14	US 2 / Chumstick Highway	Leavenworth	Improve intersection, including evaluation of a roundabout.	Stakeholder Advisory Group discussions	
	WS-I15	US 2 / Mill Street	Leavenworth	Traffic control improvements to address future LOS deficiencies.	Leavenworth Steering Committee	
	WS-I16	US 2 / Ski Hill Drive	Leavenworth	Traffic control improvements to address future LOS deficiencies.	Leavenworth Steering Committee	
	WS-I17	US 2 / Icicle Road	Leavenworth	Traffic control and gateway improvements.	Stakeholder Advisory Group discussions Leavenworth Steering Committee	
	WS-I18	US 2 / E Leavenworth Road	Leavenworth	Intersection safety and traffic control improvements. Improve sight distance by elevating intersecting segment of E. Leavenworth Rd.	Stakeholder Advisory Group discussions Leavenworth Steering Committee	
	WS-I19	US 2 / Riverbend Drive	Leavenworth	Improve intersection, including evaluation of a roundabout.	Stakeholder Advisory Group discussions Leavenworth Steering Committee	
	WS-I20	US 2 east of Leavenworth Road	Leavenworth	New intersection and traffic control to provide access to future development in the Riverbend area.		
	WS-I21	US 97 / Rollercoaster Road	Peshastin	Intersection improvements, including traffic control when warranted.	UGA Traffic Analysis	To support buildout of the Peshastin UGA.
	WS-I22	US 97 / Blewett Cut-off Road	Peshastin	Intersection improvements, including traffic control when warranted.	UGA Traffic Analysis	To support buildout of the Peshastin UGA.
WS-I23	US 2/97 Short Term Intersection Improvements	Cashmere, Monitor	Short term intersection improvements (restriping left-turn pockets, adding pavement for right-turn lanes or pockets, adding illumination) as identified in the US 2/97 Corridor Safety Study (June 2002)	US 2/97 Corridor Safety Study		
Non-Motorized	WS-NM1	SR 150	Manson	Construct missing sidewalk segments within the Manson UGA.	North Central RTPO - Bicycle and Pedestrian Projects	
	WS-NM2	US 2 Wenatchee River Bridge	Leavenworth	Provide wider cantilevered pathway for non-motorized users on each side.	Leavenworth Steering Committee	
	WS-NM4	Sunnyslope Connection to Apple Capital Loop Trail	Sunnyslope	Provide a connection from Euclid Avenue to Easy Street paralleling the south side of US 2.	North Central RTPO - Bicycle and Pedestrian Projects Stakeholder Advisory Group discussions	

Chelan County Transportation Element
CITY OF LEAVENWORTH TRANSPORTATION PROJECT LIST

Project Type	MAP ID	Project Title	Project Description	Source	Cost (\$1,000s)	Comments/Justification
New Roadway	L-R1	Pine Street Extension	Construct a new road - connector from Fir Street to Chumstick Highway. Close the Fir/Cedar/Chumstick Highway intersection.	NCW RTIP 2008-2013 Planned Projects	\$810	Provides improved access to the northern residential areas and addresses safety and vehicle queuing issues at the Cedar Street / Chumstick Highway intersection by increasing the distance from US 2.
	L-R2	Cone Street	Construct connector from Cedar Street to Pine Street.	NCW RTIP 2008-2013 Planned Projects	\$420	This project would likely be completed when property is redeveloped and continues to build out the grid street system within the City.
	L-R3	Mine Street north to Wheeler Avenue	Construct a new road - connector from Mine Street to Wheeler Avenue.	2002 Comp Plan T-7	\$940	This project would likely be implemented by new development to provide increased access and circulation in the area. It would provide an alternate connection to Ski Hill Drive to allow local property owners a way to avoid anticipated LOS deficiencies at the Mine Street intersection with US 2.
	L-R5	New streets in Riverbend Area	Construct new secondary arterial and collector streets in the Riverbend Area.	2002 Comp Plan T-7	\$3,450	New streets would be constructed by new development to support improved access and circulation in the area. The new streets would be completed at the same time a new intersection is created with US 2 to allow for an alternative access point to the area and reduce likely impacts to Riverbend Drive.
Roadway/Intersection Improvements	L-R6	8th Street Reconstruction	Reconstruct roadway, curb replacement, pave sidewalk, illumination from Front Street to Main Street.	NCW RTIP 2008-2013 Planned Projects Downtown Master Plan	\$870	The project will improve failing pavement and provide enhanced pedestrian and parking facilities to support economic development in the downtown.
	L-R7	Front Street Reconstruction	Reconstruct road, sidewalks, illumination, storm sewer, watermain replacement from Division Street to 14th Street.	NCW RTIP 2008-2013 Planned Projects Downtown Master Plan	\$2,600	The project will improve failing pavement and provide enhanced pedestrian and parking facilities to support economic development in the downtown.
	L-R8	Front Street Reconstruction	Reconstruct roadway, curb and gutter, sidewalk, illumination from 8th Street to Division Street.	NCW RTIP 2008-2013 Planned Projects Downtown Master Plan	\$2,480	The project will improve failing pavement and provide enhanced pedestrian and parking facilities to support economic development in the downtown.
	L-R9	Front Street Reconstruction	US 2 at Gustav's to 8th Street - Reconstruct roadway, replace sidewalks, illumination.	Comp Plan App C	\$1,970	The project will improve failing pavement and provide enhanced pedestrian and parking facilities to support economic development in the downtown.
	L-R10	Division Street Reconstruction	Reconstruct road, sidewalks, curb & gutter, street illumination from Front Street to 200' south of Commercial.	NCW RTIP 2008-2013 Planned Projects Downtown Master Plan	\$740	The project will improve failing pavement and provide enhanced pedestrian and parking facilities to support economic development in the downtown.
	L-R11	Ski Hill Drive Reconstruction (US 2 to Pine Street)	Repair base material and asphalt overlay. Construct missing sidewalk locations between US 2 and City limits.	NCW RTIP 2008-2013 Planned Projects Downtown Master Plan	\$2,640	This project will provide needed pedestrian facilities along with addressing poor pavement conditions. The pedestrian facilities are needed because they provide the missing connection between the sidewalks along US 2 and the wide shoulders within the UGA heavily used by local residents as a primary recreational route.

Chelan County Transportation Element
CITY OF LEAVENWORTH TRANSPORTATION PROJECT LIST

Project Type	MAP ID	Project Title	Project Description	Source	Cost (\$1,000s)	Comments/Justification
	L-R12	Pine Street Upgrade (Ski Hill Drive to Fir Street)	Repair base material and asphalt overlay. Construct sidewalk along south side of roadway.	2003 Capital Facilities 20-Year Project List (Comp Plan)	\$3,180	This project will provide needed pedestrian facilities along with addressing failed pavement conditions. The pedestrian facilities are needed because this a route used by school children and one of the only east-west routes within the City. The project should evaluate feasibility of making the corridor one-way.
	L-R13	Commercial Street/10th Street Reconstruction	Reconstruct roadway, curb and gutter, sidewalk, illumination from 9th St to Division St and Front St to Commercial St.	NCW RTIP 2008-2013 Planned Projects Downtown Master Plan	\$1,330	The project will improve failing pavement and provide enhanced pedestrian and parking facilities to support economic development in the downtown.
	L-R14	Commercial Street Reconstruction	Reconstruct road, sidewalks, illumination, storm sewer, watermain replacement from 3rd Street to 8th Street.	NCW RTIP 2008-2013 Planned Projects Downtown Master Plan	\$2,950	The project will improve failing pavement and provide enhanced pedestrian and parking facilities to support economic development in the downtown.
Non-Motorized & Railroad	L-NM1	Icicle Station Trail	Trail connecting Leavenworth to new Amtrak station. Would use portions of old railroad ROW now owned by Chelan PUD. Part of the Leavenworth to Wenatchee Trail.	City of Leavenworth	\$1,330	City currently designing/evaluating the trail which will allow for pedestrian and bicycle connections to the train station to avoid visitors from needing a vehicle.
	L-NM2	Icicle Station	Design Icicle Station on North Road	WVTC 2008-2013 Regional TIP in the financially constrained project list	\$850	City currently designing/constructing the station to provide alternative travel choices and promote economic development and tourism.

Chelan County Transportation Element
CITY OF CHELAN TRANSPORTATION PROJECT LIST

Project Type	MAP ID	Project Title	Project Description	Source	Comments
Bridge	C-B1	Woodin Avenue Bridge	Add advanced signage to bridge approaches to advise of pedestrian traffic and crossing on bridge at both ends of bridge approach. May include enhanced street lighting or in-pavement flashing lights.	WVTC 2008-2013 Regional TIP in the financially constrained project list Downtown Circulation Enhancement Study	
Road	C-R1	Union Valley Road	Widen, grade, drain, add base and top course, and pave from Gibson Avenue to City Limits.		
	C-R2	Boyd Road	Construct/widen shoulders, construct sidewalks, upgrade base material, and pave.		
Intersection Improvement	C-I1	SR 150 / Columbia Street	Signalize intersection and restripe intersection approaches. Add dedicated EB left-turn lane. Right-of-way will be required. Includes modifications to Columbia Street.	Chelan 2008-2013 TIP Downtown Circulation Enhancement Study	Construction expected in 2008
	C-I2	Johnson Avenue (SR 150) / Emerson Street	Construct single-lane roundabout with pedestrian refuge islands and center display. Provide pedestrian bulb-outs, crosswalk treatments, and advanced signage.	WVTC 2008-2013 Regional TIP in the financially constrained project list Downtown Circulation Enhancement Study	
	C-I3	Johnson Ave (SR 150) / Sanders Street	Construct single-lane roundabout with EB to SB slip lane. May require some right-of-way. Include pedestrian refuge islands, pedestrian bulb-outs, crosswalk treatments, advanced signage, and center display.	NCW RTIP 2008-2013 Planned Projects Downtown Circulation Enhancement Study	
	C-I4	Park Road (SR 150) / Gibson Avenue	Stripe exclusive SB and WB left-turn lanes. May require additional pavement and elimination of parking along Gibson Avenue.	NCW RTIP 2008-2013 Planned Projects Downtown Circulation Enhancement Study	
	C-I5	Webster Avenue (SR97A) / Woodin Avenue	Stripe exclusive SB left-turn lane. Add advanced signage.	NCW RTIP 2008-2013 Planned Projects Downtown Circulation Enhancement Study	
	C-I6	Saunders Street (SR97A) / Woodin Avenue (SR 150)	Upgrade traffic signal. Provide and stripe NB and SB left-turn protected/permissive phasing. Restripe pavement to add new NB right-turn lane.	NCW RTIP 2008-2013 Planned Projects Downtown Circulation Enhancement Study	
	C-I7	Woodin Avenue / Columbia Street	Provide median refuge along Woodin Avenue for the SB left-turn movement from Columbia Street. Will require the removal of several parking spaces along Woodin Avenue. Restripe and add channelization and advanced signage to accommodate median refuge.	NCW RTIP 2008-2013 Planned Projects Downtown Circulation Enhancement Study	
	C-I8	SR 150 / No See Um Road	Construct turn lanes and improve sight distance on SR 150 at No See Um Road.	2008-2011 STIP NCW RTIP 2008-2013 Planned Projects Downtown Circulation Enhancement Study	
	C-I9	US 97A / Farnham Street	Relocate intersection and construct center left-turn lanes	SR 150 Route Development Plan	
Non-Motorized	C-NM1	Park Road (SR 150) & Gibson Avenue Pedestrian Safety Improvements	Provide pedestrian improvements including construction of overhead and side arm signals with advanced LED signage.	NCW RTIP 2008-2013 Planned Projects Downtown Circulation Enhancement Study	
	C-NM2	Park Road (SR 150) & Nixon Avenue Pedestrian Safety Improvements	Provide pedestrian improvements including construction of overhead and side arm signals with advanced LED signage.	NCW RTIP 2008-2013 Planned Projects Downtown Circulation Enhancement Study	
	C-NM3	Bradley Street Pedestrian Improvements	Provide pedestrian improvements including; construction of overhead and side arm signals with advanced LED signage at intersection with US 97A; curb ramps and sidewalks between Woodin Avenue and Sayles Avenue.	NCW RTIP 2008-2013 Planned Projects Downtown Circulation Enhancement Study	
	C-NM4	Lakeside Trail	Construct multi-use trail. Off-Street trail between Gibson Ave and Old Woodin Avenue Bridge; on street- trail with sidewalks, curb ramps, stairways, and landings on east side of street between Old Woodin Avenue Bridge and Webster Avenue (SR 97A).	NCW RTIP 2008-2013 Planned Projects Downtown Circulation Enhancement Study	

Chelan County Transportation Element
TRANSIT PROJECTS

Project Type	MAP ID	Project Title	Subarea	Project Description	Source	Comments
Transit	LT-1	Rural Commuter Route to Chelan - Wenatchee and Leavenworth	Leavenworth	Expand service	LINK 2008-2013 TIP	
	LT-2	Ardenvoir to Chelan	Entiat	Provide service	LINK 2008-2013 TIP	
	LT-3	Mobility Coordinator	Regional	New staff	LINK 2008-2013 TIP	
	LT-4	Expanded service in Leavenworth	Leavenworth	Weekend service identified as a priority by the community	LINK 2008-2013 TIP Transit Development Plan 2008-2015	
	LT-5	High Capacity Transit	Wenatchee	Investigate and develop high capacity transit concepts for the urbanized core of the greater Wenatchee area	LINK Transit Development Plan 2008-2013	
	LT-6	ADA/Pedestrian Improvements	Regional	Bus stop and accessibility upgrades to meet ADA requirements	LINK Transit Development Plan 2008-2013	
	LT-7	Evaluate Feasibility of Additional Park & Ride Facilities	Regional	Study additional park & ride locations throughout the County (Leavenworth, Sunnyslope, Chelan, etc.)	LINK	Will be completed by end of 2008
	LT-8	Implement Sunday Service	Regional	2006-2025	Regional Transp Plan 2005-2025 Project Priorities	
	LT-9	Leavenworth Park & Ride	Leavenworth	Construct additional park & ride location in Leavenworth	LINK	
	LT-10	Leavenworth Bus Stops	Leavenworth	Locate and construct bus stops throughout the Leavenworth area.	LINK	
	LT-11	Entiat Bus Stops	Entiat	Locate and construct bus stops along Entiat River Road.	LINK	
	LT-12	Intensify transit service in Central Sunnyslope	Sunnyslope	Multimodal hub near intersection of School Street / Easy Street	Sunnyslope Long Range Plan	

Appendix C

PROJECT COSTS AND METHODOLOGY

Chelan Unit Cost Assumptions

SELECT UNIT COSTS

These costs are applied selectively on a per project basis

	Cost(\$)/LF/Side		
Bike Facilities	\$30.00		
Parking Lanes	\$70.00		
Curb/Gutter	\$20.00		
Sidewalks	\$40.00	Storm Water Collection	Storm Water Treatment
Urban Drainage	\$90.00	\$70.00	\$20.00
Rural Drainage	\$35.00	Assume open ditch with curb line catch basins every 150 feet	
Lighting	\$50.00		
Shoulders	\$50.00		

BASE UNIT COSTS

These costs represent roughly 70 percent of the total unit costs.

Project Type	Cost(\$)/LF/Lane	Pavement Section	Utility Adjustments	Landscape	Driveway Restoration	Traffic Control	Striping and Signing	Clearing & Grubbing	Milling	Edge Adjustments	Irrigation	Fence Restoration	Illumination	Signage
New Roadway	\$160	\$80	\$5	\$30	\$10	\$5	\$2	\$2	\$0	\$5	\$15	\$5	\$0	\$0
Major Widening	\$175	\$65	\$5	\$30	\$10	\$10	\$2	\$2	\$5	\$20	\$15	\$10	\$0	\$0
Minor Widening/Reconstruction	\$170	\$65	\$5	\$30	\$10	\$10	\$2	\$2	\$0	\$20	\$15	\$10	\$0	\$0
Non-Motorized Improvements	\$77	\$0	\$0	\$30	\$10	\$10	\$0	\$2	\$0	\$0	\$15	\$10	\$0	\$0
Trail	\$42	\$40	\$0	\$0	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0
Intersection Geometry	\$197	\$65	\$5	\$30	\$0	\$10	\$2	\$0	\$5	\$20	\$0	\$0	\$50	\$10
Overlay	\$77	\$65	\$0	\$0	\$0	\$5	\$2	\$0	\$5	\$0	\$0	\$0	\$0	\$0
Functional Classification Factor														
Rural Major Collector	0.8													
Rural Minor Collector	0.6													
Rural Local Access	0.4													
Urban Minor Arterial	1													
Urban Collector	1													
Urban Local Access	1													
Trail	1													
State Highway	1.1													
Miscellaneous Cost Factors														
New Roadway	0%													
Major Widening	0%													
Minor Widening/Reconstruction	0%													
Non-Motorized Improvements	0%													
Engineering Cost Factor (%)	15%													
Mobilization Cost Factor (%)	5%													
Contingency Cost Factor (%)	25%													
Overlay	0%													
Intersection Geometry	0%													
Trail	0%													

COST ADJUSTMENTS

Fixed cost adjustments for intersection and/or other improvements.

Intersection/Other

Improvements	Cost(\$)/Project	
Install Traffic Signal	\$200,000	Costs usually range from \$125,000 to \$200,000
Traffic Signal Upgrades	\$225,000	Left-turn lane construction usually requires relocation of mast arms and new signal installation.
Two-Lane Roundabout	\$275,000	
One-Lane Roundabout	\$150,000	
Traffic Control Upgrades	\$30,000	
Bridges		
2-Lane Bridge	\$6,250,000	or \$300 per sq ft about 500 foot bridge with 12 foot lanes, 6 foot shoulders, 3 foot sidewalks
Rail Crossings		
At Grade Rail Crossing - Minor	\$300,000	2/3 lane roadway assume \$500 per linear ft of track per track. Plus \$150,000 - \$300,000 for hardware and pre-emptive devices
At Grade Rail Crossing - Major	\$400,000	4/5 lane roadway assume \$500 per linear ft of track per track. Plus \$150,000 - \$300,000 for hardware and pre-emptive devices
Rail Crossing Consolidation	\$65,000	\$100 per sq ft
Grade Separated Rail Crossing	\$4,000,000	\$150 per sq ft

Chelan Roadway Costs

ROADWAY COSTS - Base and Select				Base Roadway Costs						Select Roadway Costs								Total					
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Base Roadway Costs (\$/LF/Lane)	Project Length (LF)	New Lanes	Base Roadway Costs Sub-Total (\$)	Curb/Gutter	Urban Drainage	Rural Drainage	Sidewalks	Bike Facilities	Shoulders	Lighting	Select Roadway Costs (\$/LF)	Project Length (LF)	Base Roadway Costs Sub-Total (\$)	Total Unfactored Roadway Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Roadway Costs (\$)
CC-R2	Alternative route between Manson and Chelan	Chelan Manson	Construct an alternate route between Manson and Chelan. Primary focus will be on the corridor segment between Wine Sap Road and Boyd Road.	New Roadway	State highway	\$175	61,354	2	\$21,531,272	0	0	2	0	0	2	0	\$170	30,677	\$5,215,090	\$26,746,362	15%	5%	\$32,095,634
CC-R3	Titus Road to Chumstick Highway Connector	Leavenworth	New collector road between Titus Road and Chumstick Highway to provide improved access and circulation to the North Leavenworth area.	New Roadway	Urban Collector	\$160	1,954	2	\$623,261	2	2	0	2	0	0	1	\$350	1,954	\$683,760	\$1,307,021	15%	5%	\$1,568,425
CC-R4	Leavenworth north-south connector	Leavenworth	New north-south road (unnamed) between Village View Drive and Titus Loop Road.	New Roadway	Urban Collector	\$160	1,954	2	\$623,261	1	1	0	1	0	0	1	\$200	1,954	\$390,720	\$1,013,981	15%	5%	\$1,216,777
CC-R5	Bainard Road/Searles Road connection (Saturday Avenue extension)	Malaga	New connection between W. Malaga Rd and Searles Rd / Saturday Ave to provide for improved circulation and access to the area south of Dixie Lane.	New Roadway	Rural Local Access	\$64	5,966	2	\$761,389	1	1	1	1	0	1	0	\$235	5,966	\$1,402,104	\$2,163,493	15%	5%	\$2,596,191
CC-R6	Malaga new east-west connection	Malaga	New east-west connection just south of Malaga-Alcoa Hwy between the western and eastern ends of West Malaga Road.	New Roadway	Rural Minor Collector	\$96	10,138	2	\$1,940,531	1	1	1	1	0	1	0	\$235	10,138	\$2,382,336	\$4,322,867	15%	5%	\$5,187,440
CC-R7	East-west collector between Roller Coaster Rd and Blewett Cutoff Rd	Peshastin	Construct new roadway to serve proposed UGA commercial/residential areas west of new interchange.	New Roadway	Urban Collector	\$160	1,373	2	\$437,967	1	1	1	1	0	1	1	\$285	1,373	\$391,248	\$829,215	15%	5%	\$995,058
CC-R8	North-south collector between Green Rd and Rollercoaster Rd	Peshastin	Construct new collector arterial to serve proposed UGA commercial/residential areas west of new interchange.	New Roadway	Urban Collector	\$160	1,162	2	\$370,587	1	1	1	1	0	1	1	\$285	1,162	\$331,056	\$701,643	15%	5%	\$841,972
CC-R9	North-south connection using new US 2 underpass - Blewett Cut-off Road	Peshastin	Upgrade underpass connection being built by WSDOT for agricultural uses to County roadway standards at the US 2 / 97 interchange. Upgrade Blewett Cut-off Road.	Minor Widening/Reconstruction	Urban Collector	\$170	2,798	2	\$948,752	1	1	1	1	0	1	1	\$285	2,798	\$797,544	\$1,746,296	15%	5%	\$2,095,556
CC-R10	Bergtstrasse Road/Deftilion Road connector	Leavenworth	Upgrade road between Ski Hill Drive and Titus Road	Minor Widening/Reconstruction	Urban Local Access	\$170	2,587	2	\$877,149	1	1	0	0	0	1	1	\$210	2,587	\$543,312	\$1,420,461	15%	5%	\$1,704,553
CC-R11	Union Valley Road	Chelan	Widen, grade, drain, add base and top course, and pave from City Limits to Cagle Gulch Rd.	Minor Widening/Reconstruction	Rural Minor Collector	\$102	6,600	2	\$1,342,574	0	0	1	0	0	0	0	\$35	6,600	\$231,000	\$1,573,574	15%	5%	\$1,888,289
CC-R12	Boyd Road	Chelan	Construct/widen shoulders,construct sidewalks in UGA, upgrade base material, and pave between City limits and Wapato Butte Road.	Minor Widening/Reconstruction	Rural Major Collector	\$136	3,907	2	\$1,059,739	2	2	0	2	0	2	0	\$400	2,407	\$962,800	\$2,022,539	15%	5%	\$2,427,046
CC-R13	Entiat River Road	Entiat	Widen/improve shoulders	Minor Widening/Reconstruction	Rural Major Collector	\$136	6,864	0	\$0	0	0	0	0	0	2	0	\$100	6,864	\$686,400	\$686,400	15%	5%	\$823,680

Chelan Roadway Costs

ROADWAY COSTS - Base and Select				Base Roadway Costs					Select Roadway Costs								Total						
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Base Roadway Costs (\$/LF/Lane)	Project Length (LF)	New Lanes	Base Roadway Costs Sub-Total (\$)	Curb/Gutter	Urban Drainage	Rural Drainage	Sidewalks	Bike Facilities	Shoulders	Lighting	Select Roadway Costs (\$/LF)	Project Length (LF)	Base Roadway Costs Sub-Total (\$)	Total Unfactored Roadway Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Roadway Costs (\$)
CC-R15	North Road	Leavenworth	Reconstruct large culvert, grade, drain, add base and top course, and pave from Chumstick Highway to Fox Rd.	Minor Widening/Reconstruction	Rural Major Collector	\$136	2,851	2	\$773,323	0	0	1	0	0	0	0	\$35	2,851	\$99,785	\$873,108	15%	5%	\$1,047,729
CC-R16	North Road	Leavenworth	Construct/widen shoulders, improve horizontal curves, signage, and safety between Fox Rd and Nibblelink Rd (north connection).	Overlay	Rural Major Collector	\$62	8,184	1	\$505,822	0	0	0	0	0	2	0	\$100	8,184	\$818,400	\$1,324,222	15%	5%	\$1,589,066
CC-R17	E. Leavenworth Road	Leavenworth	Construct/widen shoulders, improve horizontal curves, safety, and reconstruct roadway between UGA limits and Dempsey Rd	Minor Widening/Reconstruction	Rural Major Collector	\$136	7,920	2	\$2,148,119	0	0	0	0	0	2	0	\$100	7,920	\$792,000	\$2,940,119	15%	5%	\$3,528,143
CC-R18	E. Leavenworth Road	Leavenworth	Construct/widen shoulders and reconstruct roadway between Dempsey Rd and Icicle Rd	Minor Widening/Reconstruction	Rural Major Collector	\$136	7,498	2	\$2,033,552	0	0	0	0	0	2	0	\$100	7,498	\$749,800	\$2,783,352	15%	5%	\$3,340,023
CC-R19	Mission Ridge Road	Malaga	Construct retaining wall as part of FHWA Western lands project which includes 4.3 miles of roadway reconstruction and upgrades.	Minor Widening/Reconstruction	Rural Minor Collector	\$102	23,971	2	\$4,876,230	0	0	0	0	0	0	0	\$0	0	\$0	\$4,876,230	15%	5%	\$5,851,476
CC-R20	Dixie Lane	Malaga	Road upgrades, shoulder widening, sidewalks.	Overlay	Rural Local Access	\$31	5,227	2	\$323,073	1	1	0	1	0	2	0	\$250	5,227	\$1,306,750	\$1,629,823	15%	5%	\$1,955,788
CC-R21	West Malaga Road	Malaga	Improved shoulders and new turn lanes.	Minor Widening/Reconstruction	Rural Major Collector	\$136	17,054	0	\$0	0	0	0	0	0	2	0	\$100	17,054	\$1,705,400	\$1,705,400	15%	5%	\$2,046,480
CC-R22	Stemilt Loop Road	Malaga	Spot improvements to construct/widen shoulders, improve vertical/horizontal curves, signage, and reconstruct roadway	Overlay	Rural Minor Collector	\$46	46,517	2	\$4,312,539	0	0	0	0	0	2	0	\$100	46,517	\$4,651,700	\$8,964,239	15%	5%	\$10,757,086
CC-R23	Manson Boulevard Phase II	Manson	Grade, install storm water drainage systems, widen, construct retaining wall systems, add base and top course, and pave between Boetzkes Avenue and Pedoi Street.	Major Widening	Urban Collector	\$175	2,640	2	\$921,452	0	2	0	0	0	2	0	\$280	2,050	\$574,000	\$1,495,452	15%	5%	\$1,794,543
CC-R24	Quetilquason Road Drainage Project	Manson	Construct storm drainage system between Wapato Way and Chelan View.	Minor Widening/Reconstruction	Urban Local Access	\$170	1,742	1	\$295,366	0	2	0	0	0	0	0	\$180	1,742	\$313,560	\$608,926	15%	5%	\$730,712
CC-R25	Boetzkes Avenue	Manson	Evaluate the feasibility of truck bypass to avoid segment of Manson Blvd.	New Roadway	Urban Local Access	\$160	2,957	2	\$943,314	0	0	0	0	0	0	0	\$0	0	\$0	\$943,314	15%	5%	\$1,131,976
CC-R26	Ford Street	Manson	Construct/widen shoulders and reconstruct roadway between Manson Blvd and Washington Street	Minor Widening/Reconstruction	Rural Local Access	\$68	3,907	2	\$529,869	0	0	0	0	0	2	0	\$100	3,907	\$390,700	\$920,569	15%	5%	\$1,104,683

Chelan Roadway Costs

ROADWAY COSTS - Base and Select				Base Roadway Costs					Select Roadway Costs									Total					
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Base Roadway Costs (\$/LF/Lane)	Project Length (LF)	New Lanes	Base Roadway Costs Sub-Total (\$)	Curb/Gutter	Urban Drainage	Rural Drainage	Sidewalks	Bike Facilities	Shoulders	Lighting	Select Roadway Costs (\$/LF)	Project Length (LF)	Base Roadway Costs Sub-Total (\$)	Total Unfactored Roadway Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Roadway Costs (\$)
CC-R28	Wine Sap Road	Manson	Construct/widen shoulders, improve horizontal curves and safety, upgrade base material, and pave between SR 150 and Chapman Road.	Minor Widening/Reconstruction	Rural Minor Collector	\$102	4,382	1	\$445,735	0	0	0	0	0	2	0	\$100	4,382	\$438,200	\$883,935	15%	5%	\$1,060,722
CC-R29	Totem Pole Road	Manson	Roadway improvements, such as pavement, base, shoulder widths and sidewalks between Wapato Way and Banks Avenue.	New Roadway	Urban Local Access	\$160	6,230	2	\$1,987,696	1	1	1	1	0	1	0	\$235	6,230	\$1,464,050	\$3,451,746	15%	5%	\$4,142,096
CC-R30	Red Apple Road	Monitor	Widen, add base and top course, and pave	New Roadway	Rural Local Access	\$64	9,187	2	\$1,172,404	0	0	0	0	0	0	0	\$0	0	\$0	\$1,172,404	15%	5%	\$1,406,885
CC-R31	Sleep Hollow Road / E Richared Road - Improve route between Monitor and Wenatchee	Monitor	Improve alternate roadway between Monitor and Wenatchee south of US 2/97 along Sleepy Hollow Road. Upgrade existing County roadways including shoulder widening, signage, base material, and new pavement.	Major Widening	Rural Minor Collector	\$105	18,110	2	\$3,792,697	0	0	0	0	0	2	0	\$100	18,110	\$1,811,000	\$5,603,697	15%	5%	\$6,724,436
CC-R32	Kelly Road/Zager Road	Monitor	Widen, add base and top course, and pave between Monitor Orchard Road and approximately 0.60 miles north of Barden James Road	New Roadway	Rural Local Access	\$64	4,594	2	\$586,202	0	0	0	0	0	0	0	\$0	0	\$0	\$586,202	15%	5%	\$703,442
CC-R33	North Road	Peshastin	Construct/widen shoulders, improve horizontal curves, signage, and safety between Nibblelink Rd (north connection) and Main St.	Overlay	Rural Major Collector	\$62	10,402	1	\$642,883	0	0	0	0	0	2	0	\$100	10,402	\$1,040,200	\$1,683,083	15%	5%	\$2,019,700
CC-R34	Beecher Hill Road	Peshastin	Improve existing roadway to serve proposed UGA commercial/residential areas west of new interchange between Rollercoaster Road and Blewitt Cutoff Road.	Minor Widening/Reconstruction	Urban Collector	\$170	1,373	2	\$465,426	1	1	0	1	0	0	1	\$200	1,373	\$274,560	\$739,986	15%	5%	\$887,983
CC-R35	Rollercoaster Road	Peshastin	Improve existing roadway to serve proposed UGA commercial/residential areas west of new interchange between Beecher Hill Road and SR 97.	Minor Widening/Reconstruction	Urban Collector	\$170	2,640	2	\$895,049	1	1	0	1	0	0	1	\$200	2,640	\$528,000	\$1,423,049	15%	5%	\$1,707,659
CC-R36	Larson Road	Peshastin	Local street in need of urban upgrades to serve expected growth in the Peshastin UGA.	Minor Widening/Reconstruction	Urban Collector	\$170	1,954	1	\$331,168	1	1	0	1	0	1	0	\$200	1,954	\$390,800	\$721,968	15%	5%	\$866,362
CC-R37	Ludwig Hill Road	Peshastin	Local street in need of urban upgrades to serve expected growth in the Peshastin UGA.	Minor Widening/Reconstruction	Urban Collector	\$170	1,478	1	\$250,614	1	1	0	1	0	1	0	\$200	1,478	\$295,600	\$546,214	15%	5%	\$655,457
CC-R38	Chiwawa Loop II	Plain	Grade, drain, construct retaining walls, mitigate wetland impacts, add base and top course, and pave from south of Wendig Lane to Beaver Valley Road.	New Roadway	Rural Major Collector	\$128	15,629	1	\$1,994,434	0	0	1	0	0	1	0	\$85	15,629	\$1,328,465	\$3,322,899	15%	5%	\$3,987,479
CC-R39	Chumstick Highway	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between Spromberg Canyon Rd to Camp Road.	Minor Widening/Reconstruction	Rural Major Collector	\$136	21,120	1	\$2,864,158	0	0	0	0	0	1	0	\$50	21,120	\$1,056,000	\$3,920,158	15%	5%	\$4,704,190

Chelan Roadway Costs

ROADWAY COSTS - Base and Select				Base Roadway Costs						Select Roadway Costs								Total					
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Base Roadway Costs (\$/LF/Lane)	Project Length (LF)	New Lanes	Base Roadway Costs Sub-Total (\$)	Curb/Gutter	Urban Drainage	Rural Drainage	Sidewalks	Bike Facilities	Shoulders	Lighting	Select Roadway Costs (\$/LF)	Project Length (LF)	Base Roadway Costs Sub-Total (\$)	Total Unfactored Roadway Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Roadway Costs (\$)
CC-R41	Chumstick Highway	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between Camp Road and Beaver Valley Road.	Minor Widening/Reconstruction	Rural Major Collector	\$136	35,165	1	\$4,768,824	0	0	0	0	0	1	0	\$50	35,165	\$1,758,250	\$6,527,074	15%	5%	\$7,832,488
CC-R42	Knowles Road	Sunnyslope	Widen, grade, drain, install storm water system, add base and top course, and pave with HMA from School Street to Rolling Hills Lane.	New Roadway	Urban Collector	\$160	4,752	2	\$1,516,040	0	1	0	0	0	0	0	\$90	4,752	\$427,680	\$1,943,720	15%	5%	\$2,332,464
CC-R43	American Fruit Road	Sunnyslope	Reconstruct - Overlay and add sidewalks or pathway	Minor Widening/Reconstruction	Urban Collector	\$170	4,910	2	\$1,664,792	1	1	0	1	0	0	0	\$150	4,910	\$736,500	\$2,401,292	15%	5%	\$2,881,550
CC-R44	Easy Street	Sunnyslope	Upgrade Easy Street to urban standards, road widening, safety improvements, non-motorized facilities between future WSDOT interchange and SR 2/97.	Minor Widening/Reconstruction	Urban Minor Arterial	\$170	7,920	2	\$2,685,148	2	2	0	2	2	0	2	\$460	7,920	\$3,643,200	\$6,328,348	15%	5%	\$7,594,018
CC-R45	School Street	Sunnyslope	Improve pedestrian facilities and provide traffic calming south of Easy Street. Widen shoulders.	Non-Motorized Improvements	Urban Collector	\$77	2,218	0	\$0	2	2	0	2	0	2	2	\$500	2,218	\$1,109,000	\$1,109,000	15%	5%	\$1,330,800
CC-R46	Rolling Hills Road	Sunnyslope	Widen, add base and top course, and pave from Knowles Road to Burch Mountain Road.	New Roadway	Urban Local Access	\$160	5,808	1	\$926,469	0	0	0	0	0	1	0	\$50	5,808	\$290,400	\$1,216,869	15%	5%	\$1,460,242
CC-R47	Lower Sunnyslope Road	Sunnyslope	Widen/construct shoulders east of School Street to west of Sleepy Hollow.	Minor Widening/Reconstruction	Rural Major Collector	\$136	5,122	1	\$694,558	0	0	0	0	0	2	0	\$100	5,122	\$512,200	\$1,206,758	15%	5%	\$1,448,110
CC-R48	Number One Canyon Road	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks within the UGA.	Minor Widening/Reconstruction	Urban Collector	\$170	1,000	1	\$169,517	2	2	0	2	2	0	2	\$460	1,000	\$460,000	\$629,517	15%	5%	\$755,420
CC-R49	Squilchuck Road	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks within the UGA.	Minor Widening/Reconstruction	Urban Collector	\$170	2,800	2	\$949,295	2	2	0	2	2	0	2	\$460	2,800	\$1,288,000	\$2,237,295	15%	5%	\$2,684,754
CC-R51	McKittrick Street	Wenatchee UGA	Reconstruct and upgrade to urban standards between Western Avenue and Pershing Street; new storm, sewer, sidewalks and illumination.	Minor Widening/Reconstruction	Urban Collector	\$170	1,350	0	\$0	2	2	0	2	2	0	2	\$460	1,350	\$621,000	\$621,000	15%	5%	\$745,200
CC-R52	Walnut Street	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks between Western Avenue and Rogers Drive.	Minor Widening/Reconstruction	Urban Collector	\$170	3,256	2	\$1,103,894	2	2	0	2	2	0	2	\$460	3,256	\$1,497,760	\$2,601,654	15%	5%	\$3,121,985
CC-B1	West Cashmere (Goodwin Road) Bridge	Cashmere	Rehabilitate/replace aged bridge	New Roadway	Rural Major Collector	\$128	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0

Chelan Roadway Costs

ROADWAY COSTS - Base and Select				Base Roadway Costs						Select Roadway Costs									Total				
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Base	Project	New	Base	Curb/Gutter	Urban Drainage	Rural Drainage	Sidewalks	Bike Facilities	Shoulders	Lighting	Select	Project	Base	Total Unfactored Roadway Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Roadway Costs (\$)
						Roadway Costs (\$/LF/Lane)	Length (LF)	Lanes	Roadway Costs Sub-Total (\$)								Roadway Costs (\$/LF)	Length (LF)	Roadway Costs Sub-Total (\$)				
CC-B2	Old Monitor Road Bridge	Monitor	Rehabilitate aged bridge	New Roadway	Rural Minor Collector	\$96	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-B3	Monitor Main Street Bridge	Monitor	Rehabilitate/replace aged bridge	New Roadway	Rural Major Collector	\$128	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-B4	Old Peshastin Bridge	Peshastin	Replace or rehabilitate bridge. Should include pedestrian facility improvements or separate trail bridge.	New Roadway	Rural Major Collector	\$128	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-B5	New Bridge across Wenatchee River	Peshastin	Construct a new bridge to provide access to the Port industrial area on the north side of the Wenatchee River.	New Roadway	Rural Major Collector	\$128	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-I1	Yaksum Canyon Rd / Coates Rd	Cashmere	Sight distance improvements	Intersection Geometry Improvements	Rural Major Collector	\$158	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-I2	Binder Rd / Yaksum Canyon Rd	Cashmere	Sight distance and traffic control improvements	Intersection Geometry Improvements	Urban Collector	\$197	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-I3	Chumstick Highway / North Road	Leavenworth	Intersection safety improvements, could include signage, illumination, re-alignment, and channelization improvements.	Intersection Geometry Improvements	Urban Collector	\$197	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-I4	W. Malaga Rd / McEldowney Rd	Malaga	Sight distance and intersection geometry improvements.	Intersection Geometry Improvements	Rural Major Collector	\$158	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-I5	Washington St / Banks Ave	Manson	Traffic control, signage, and intersection geometry improvements, as well as safety and sight distance improvements.	Intersection Geometry Improvements	Urban Collector	\$197	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-I6	Green Avenue / Roses Avenue	Manson	Intersection safety and sight distance improvements at Green Ave / Roses Ave.	Intersection Geometry Improvements	Urban Collector	\$197	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-I7	Kelly Rd / Barden James Rd	Monitor	Improve safety by reconstructing intersection to eliminate 'Y' intersection and create a 'T' intersection	Intersection Geometry Improvements	Urban Collector	\$197	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-I8	Monitor Main Street at grade railroad crossing	Monitor	Improve alignments, illumination, safety enhancements.	Intersection Geometry Improvements	Urban Collector	\$197	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-I9	Main Street / Peshastin Rd	Peshastin	Illumination, signage, and traffic control improvements.	Intersection Geometry Improvements	Urban Collector	\$197	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0

Chelan Roadway Costs

ROADWAY COSTS - Base and Select				Base Roadway Costs					Select Roadway Costs									Total					
				Project Type	Roadway Class	Base Roadway Costs (\$/LF/Lane)	Project Length (LF)	New Lanes	Base Roadway Costs Sub-Total (\$)	Curb/Gutter	Urban Drainage	Rural Drainage	Sidewalks	Bike Facilities	Shoulders	Lighting	Select Roadway Costs (\$/LF)	Project Length (LF)	Base Roadway Costs Sub-Total (\$)	Total Unfactored Roadway Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Roadway Costs (\$)
Project	Project Name	Project Limits	Project Description																				
CC-110	School Street / Easy Street	Sunnyslope	Install roundabout or traffic signal, widen intersection, and improve channelization and signage to accommodate expected traffic growth.	Intersection Geometry Improvements	Urban Collector	\$197	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-111	Knowles Road / School Street	Sunnyslope	Intersection safety improvements.	Intersection Geometry Improvements	Urban Collector	\$197	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-112	Easy Street / Peters Street	Sunnyslope	Install roundabout or traffic signal, widen intersection, and improve channelization and signage to accommodate expected traffic growth.	Intersection Geometry Improvements	Urban Collector	\$197	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-113	Easy Street / Penny Road	Sunnyslope	Install additional turn lanes to accommodate expected traffic growth.	Intersection Geometry Improvements	Urban Collector	\$197	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-114	Lower Sunnyslope / School St / Penny St	Sunnyslope	Traffic control, signage, and intersection geometry improvements	Intersection Geometry Improvements	Urban Collector	\$197	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-115	Easy Street / Crestview Road	Sunnyslope	Install additional turn lanes to accommodate expected traffic growth.	Intersection Geometry Improvements	Urban Collector	\$197	0	0	\$0	0	0	0	0	0	0	0	\$0	0	\$0	\$0	15%	5%	\$0
CC-NM1	Sunset Highway	Cashmere	Improve pedestrian and bicycle facilities on Sunset Highway from City limits to UGA limits.	Non-Motorized Improvements	Urban Minor Arterial	\$77	5,438	0	\$0	2	2	0	2	2	0	2	\$460	5,438	\$2,501,480	\$2,501,480	15%	5%	\$3,001,776
CC-NM2	Pioneer Avenue	Cashmere	Improve pedestrian and bicycle facilities on Pioneer Avenue from Evergreen Dr to UGA limits.	Non-Motorized Improvements	Urban Minor Arterial	\$77	2,587	0	\$0	2	2	0	2	2	0	2	\$460	2,587	\$1,190,020	\$1,190,020	15%	5%	\$1,428,024
CC-NM3	Binder Road/Olive Street	Cashmere	Improve pedestrian and bicycle facilities on Binder Road/Olive Street from Rank Road to Tigner Road.	Non-Motorized Improvements	Urban Collector	\$77	3,907	0	\$0	2	2	0	2	2	0	2	\$460	3,907	\$1,797,220	\$1,797,220	15%	5%	\$2,156,664
CC-NM4	Mission Creek Road	Cashmere	Improve pedestrian and bicycle facilities on Mission Creek Road from City limits to Binder Road.	Non-Motorized Improvements	Urban Minor Arterial	\$77	1,003	0	\$0	2	2	0	2	2	0	2	\$460	1,003	\$461,380	\$461,380	15%	5%	\$553,656
CC-NM5	Wescott Drive	Cashmere	Improve pedestrian and bicycle facilities from Pioneer Avenue to Sunset Highway.	Non-Motorized Improvements	Urban Collector	\$77	3,907	0	\$0	2	2	0	2	2	0	2	\$460	3,907	\$1,797,220	\$1,797,220	15%	5%	\$2,156,664
CC-NM6	Evergreen Drive	Cashmere	Improve pedestrian and bicycle facilities from Pioneer Avenue to Sunset Highway.	Non-Motorized Improvements	Urban Minor Arterial	\$77	2,693	0	\$0	2	2	0	2	2	0	2	\$460	2,693	\$1,238,780	\$1,238,780	15%	5%	\$1,486,536
CC-NM7	Chumstick Highway	Leavenworth	Complete missing sidewalks between City limits and North Road.	Non-Motorized Improvements	Urban Minor Arterial	\$77	1,267	0	\$0	2	2	0	2	0	0	\$300	1,267	\$380,100	\$380,100	15%	5%	\$456,120	

Chelan Roadway Costs

ROADWAY COSTS - Base and Select				Base Roadway Costs						Select Roadway Costs						Total Unfactored Roadway Cost (\$), Engineering Cost Factor (%), Mobilization Cost Factor (%), Total Roadway Costs (\$)							
				Project Type	Roadway Class	Base Roadway Costs (\$/LF/Lane)	Project Length (LF)	New Lanes	Base Roadway Costs Sub-Total (\$)	Curb/Gutter	Urban Drainage	Rural Drainage	Sidewalks	Bike Facilities	Shoulders					Lighting	Select Roadway Costs (\$/LF)	Project Length (LF)	Base Roadway Costs Sub-Total (\$)
Project	Project Name	Project Limits	Project Description																				
CC-NM8	Ski Hill Drive	Leavenworth	Improve shoulders, illumination, signage, and provide traffic calming along Ski Hill Drive from City limits to Titus Rd.	Minor Widening/Reconstruction	Urban Collector	\$170	4,594	0	\$0	1	1	0	1	0	1	1	\$250	4,594	\$1,148,500	\$1,148,500	15%	5%	\$1,378,200
CC-NM9	Titus Road	Leavenworth	Improve shoulders, illumination, signage, and provide traffic calming along Titus Rd from City limits to Ski Hill Dr.	Minor Widening/Reconstruction	Urban Collector	\$170	7,234	0	\$0	1	1	0	1	0	1	1	\$250	7,234	\$1,808,500	\$1,808,500	15%	5%	\$2,170,200
CC-NM10	Bainard Road	Malaga	Provide enhanced pedestrian facilities from Dixie Lane to Saturday Avenue.	Non-Motorized Improvements	Rural Local Access	\$31	1,848	0	\$0	1	1	0	1	0	0	0	\$150	1,848	\$277,200	\$277,200	15%	5%	\$332,640
CC-NM11	Green Avenue / Hill Street	Manson	Construct sidewalk on Green Avenue from Totem Pole Road to Hill Street and on Hill Street from Green Avenue to Totem Pole Road.	Non-Motorized Improvements	Urban Local Access	\$77	5,597	0	\$0	1	1	0	1	0	0	0	\$150	5,597	\$839,550	\$839,550	15%	5%	\$1,007,460
CC-NM12	Main Street / Peshastin Road	Peshastin	Complete missing sidewalk segments	Non-Motorized Improvements	Rural Major Collector	\$62	1,056	0	\$0	2	2	0	2	0	0	0	\$300	1,056	\$316,800	\$316,800	15%	5%	\$380,160
CC-NM13	Knowles Road	Sunnyslope	Construct sidewalk on Knowles Road from American Fruit Road to Lombard.	Non-Motorized Improvements	Urban Collector	\$77	2,376	0	\$0	1	1	0	1	0	0	0	\$150	2,376	\$356,400	\$356,400	15%	5%	\$427,680
CC-NM14	Penny Road	Sunnyslope	Construct sidewalk on Penny Road from Easy Street to Euclid Avenue.	Non-Motorized Improvements	Urban Minor Arterial	\$77	2,270	0	\$0	1	1	0	1	0	0	0	\$150	2,270	\$340,500	\$340,500	15%	5%	\$408,600
CC-NM15	Peters Street	Sunnyslope	Construct sidewalk on Peters Street from School Street to Easy Street.	Non-Motorized Improvements	Urban Local Access	\$77	2,323	0	\$0	2	2	0	2	0	0	0	\$300	2,323	\$696,900	\$696,900	15%	5%	\$836,280
CC-NM16	Euclid Avenue	Sunnyslope	Construct sidewalk on Euclid Avenue from Penny Road to US 97A.	Non-Motorized Improvements	Urban Collector	\$77	1,901	0	\$0	2	2	0	2	0	0	0	\$300	1,901	\$570,300	\$570,300	15%	5%	\$684,360
CC-NM17	Peters Street	Sunnyslope	Construct sidewalk on Peters Road from Easy Street to Ohme Garden Road	Non-Motorized Improvements	Urban Local Access	\$77	1,373	0	\$0	2	2	0	2	0	0	0	\$300	1,373	\$411,900	\$411,900	15%	5%	\$494,280
CC-NM18	Cordell Avenue	Sunnyslope	Construct sidewalk on Cordell Avenue from Lower Sunnyslope Road to Easy Street.	Non-Motorized Improvements	Urban Minor Arterial	\$77	2,112	0	\$0	1	1	0	1	0	0	0	\$150	2,112	\$316,800	\$316,800	15%	5%	\$380,160
CC-NM29	Okanogan Avenue / Circle Street	Wenatchee UGA	Construct sidewalk on Okanogan Avenue between Circle Street and City limit, and Circle Street between Miller Street and Okanogan Avenue.	Non-Motorized Improvements	Urban Local Access	\$77	3,457	0	\$0	2	2	0	2	0	0	0	\$300	3,457	\$1,037,100	\$1,037,100	15%	5%	\$1,244,520
CC-NM31	S. Wenatchee Avenue	Wenatchee UGA	Construct sidewalk on S. Wenatchee Avenue between Boodry Street and City limit.	Non-Motorized Improvements	Urban Local Access	\$77	1,935	0	\$0	2	2	0	2	0	0	0	\$300	1,935	\$580,500	\$580,500	15%	5%	\$696,600

Chelan Roadway Costs

ROADWAY COSTS - Base and Select				Base Roadway Costs						Select Roadway Costs									Total				
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Base Roadway Costs (\$/LF/Lane)	Project Length (LF)	New Lanes	Base Roadway Costs Sub-Total (\$)	Curb/Gutter	Urban Drainage	Rural Drainage	Sidewalks	Bike Facilities	Shoulders	Lighting	Select Roadway Costs (\$/LF)	Project Length (LF)	Base Roadway Costs Sub-Total (\$)	Total Unfactored Roadway Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Roadway Costs (\$)
CC-NM20	Valley Trail - Dryden to Cashmere	Cashmere	Identify ROW and construct trail between Dryden and Cashmere.	Trail	Trail	\$42	30,600	1	\$1,292,850	0	0	0	0	0	0	0	\$0	0	\$0	\$1,292,850	15%	5%	\$1,551,420
CC-NM21	Valley Trail - Cashmere to Monitor	Cashmere Monitor	Identify ROW and construct trail between Cashmere and Monitor.	Trail	Trail	\$42	23,000	1	\$971,750	0	0	0	0	0	0	0	\$0	0	\$0	\$971,750	15%	5%	\$1,166,100
CC-NM22	Chelan Lakeside Trail - Phase 1	Chelan	New trail from Lake Chelan State Park to City limits.	Trail	Trail	\$42	32,789	1	\$1,385,335	0	0	0	0	0	0	0	\$0	0	\$0	\$1,385,335	15%	5%	\$1,662,402
CC-NM23	South Lakeshore Drive Chelan Lake Shore Trail - Phase 2	Chelan	Widen shoulders, provide pedestrian improvements between 25-mile Creek State Park to Lake Chelan State Park.	Minor Widening/Reconstruction	Rural Major Collector	\$136	58,450	0	\$0	0	0	0	0	0	2	0	\$100	58,450	\$5,845,000	\$5,845,000	15%	5%	\$7,014,000
CC-NM24	Wenatchee Foothills Trail	Wenatchee UGA	This particular trail is well through the planning stages and is prepared to receive funding for acquisition and development.	Trail	Trail	\$42	36,000	1	\$1,521,000	0	0	0	0	0	0	0	\$0	0	\$0	\$1,521,000	15%	5%	\$1,825,200
CC-NM25	Valley Trail - Leavenworth to Peshastin	Leavenworth Peshastin	Identify ROW and construct trail between Leavenworth and Peshastin.	Trail	Trail	\$42	23,000	1	\$971,750	0	0	0	0	0	0	0	\$0	0	\$0	\$971,750	15%	5%	\$1,166,100
CC-NM26	North Shore Pathway	Manson	Trail from Manson to Chelan along SR 150.	Trail	Trail	\$42	34,900	1	\$1,474,525	0	0	0	0	0	0	0	\$0	0	\$0	\$1,474,525	15%	5%	\$1,769,430
CC-NM27	Valley Trail - Monitor to Wenatchee	Monitor Sunnyslope	Identify ROW and construct trail between Monitor and Wenatchee. Could include use of irrigation canal.	Trail	Trail	\$42	36,000	1	\$1,521,000	0	0	0	0	0	0	0	\$0	0	\$0	\$1,521,000	15%	5%	\$1,825,200
CC-NM28	Valley Trail - Peshastin to Dryden	Peshastin	Identify ROW and construct trail between Peshastin and Dryden.	Trail	Trail	\$42	16,000	1	\$676,000	0	0	0	0	0	0	0	\$0	0	\$0	\$676,000	15%	5%	\$811,200
CC-W1	Lake Chelan water taxi service	Chelan	For tourism and recreation	N/A	N/A	N/A	0	0	---	0	0	0	0	0	0	0	\$0	0	\$0	---	---	---	---
CC-W2	Ferry service across the Columbia River in Entiat	Entiat	Ferry service - For emergency management, recreation and tourism development.	N/A	N/A	N/A	0	0	---	0	0	0	0	0	0	0	\$0	0	\$0	---	---	---	---
CC-W3	New water taxi service between Lake Chelan State Park and Manson	Manson	For tourism, recreation, and economic development	N/A	N/A	N/A	0	0	---	0	0	0	0	0	0	0	\$0	0	\$0	---	---	---	---

Chelan Intersection Costs

INTERSECTION COSTS - Turn Lane and Hardware				Turn Lane Costs						Hardware Costs						
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Project Length (ft)	New Turn Lanes	Cost (\$/LF/Lane)	Turn Lane Cost Sub-Total (\$)	Intersection Improvement 1	Quantity 1	Hardware Cost Sub-Total (\$)	Total Unfactored Intersection Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Intersection Improvement Costs (\$)
CC-R1	Corridor Study - Alternative route between Manson and Chelan	Chelan Manson	Evaluate the feasibility and identify the corridor footprint of an alternate route between Manson and Chelan.	N/A	Rural Major Collector	0	0	\$0	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R2	Alternative route between Manson and Chelan	Chelan Manson	Construct an alternate route between Manson and Chelan. Primary focus will be on the corridor segment between Wine Sap Road and Boyd Road.	New Roadway	State highway	0	0	\$175	\$0	Traffic Signal Upgrades	4	\$900,000	\$900,000	15%	5%	\$1,080,000
CC-R3	Titus Road to Chumstick Highway Connector	Leavenworth	New collector road between Titus Road and Chumstick Highway to provide improved access and circulation to the North Leavenworth area.	New Roadway	Urban Collector	0	0	\$160	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R4	Leavenworth north-south connector	Leavenworth	New north-south road (unnamed) between Village View Drive and Titus Loop Road.	New Roadway	Urban Collector	0	0	\$160	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R5	Bainard Road/Searles Road connection (Saturday Avenue extension)	Malaga	New connection between W. Malaga Rd and Searles Rd / Saturday Ave to provide for improved circulation and access to the area south of Dixie Lane.	New Roadway	Rural Local Access	0	0	\$64	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R6	Malaga new east-west connection	Malaga	New east-west connection just south of Malaga-Alcoa Hwy between the western and eastern ends of West Malaga Road.	New Roadway	Rural Minor Collector	0	0	\$96	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R7	East-west collector between Roller Coaster Rd and Blewett Cutoff Rd	Peshastin	Construct new roadway to serve proposed UGA commercial/residential areas west of new interchange.	New Roadway	Urban Collector	0	0	\$160	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R8	North-south collector between Green Rd and Rollercoaster Rd	Peshastin	Construct new collector arterial to serve proposed UGA commercial/residential areas west of new interchange.	New Roadway	Urban Collector	0	0	\$160	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R9	North-south connection using new US 2 underpass - Blewett Cut-off Road	Peshastin	Upgrade underpass connection being built by WSDOT for agricultural uses to County roadway standards at the US 2 / 97 interchange. Upgrade Blewett Cut-off Road.	Minor Widening/Reconstruction	Urban Collector	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R10	Bergtstrasse Road/Detillion Road connector	Leavenworth	Upgrade road between Ski Hill Drive and Titus Road	Minor Widening/Reconstruction	Urban Local Access	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R11	Union Valley Road	Chelan	Widen, grade, drain, add base and top course, and pave from City Limits to Cagle Gulch Rd.	Minor Widening/Reconstruction	Rural Minor Collector	0	0	\$102	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R12	Boyd Road	Chelan	Construct/widen shoulders, construct sidewalks in UGA, upgrade base material, and pave between City limits and Wapato Butte Road.	Minor Widening/Reconstruction	Rural Major Collector	0	0	\$136	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R13	Entiat River Road	Entiat	Widen/improve shoulders	Minor Widening/Reconstruction	Rural Major Collector	0	0	\$136	\$0	N/A	0	\$0	\$0	15%	5%	\$0

Chelan Intersection Costs

INTERSECTION COSTS - Turn Lane and Hardware				Turn Lane Costs						Hardware Costs			Total Intersection Improvement Costs (\$)			
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Project Length (ft)	New Turn Lanes	Cost (\$/LF/Lane)	Turn Lane Cost Sub-Total (\$)	Intersection Improvement 1	Quantity 1	Hardware Cost Sub-Total (\$)	Total Unfactored Intersection Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Intersection Improvement Costs (\$)
CC-R14	Eagle Creek Road	Leavenworth	Grade, drain, widen, minor horizontal realignment, add base and top course, and pave along 1.5 mile stretch starting at Chumstick Hwy. Widening pavement from 22 ft to 26 ft.	Minor Widening/Reconstruction	Rural Major Collector	0	0	\$136	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R15	North Road	Leavenworth	Reconstruct large culvert, grade, drain, add base and top course, and pave from Chumstick Highway to Fox Rd.	Minor Widening/Reconstruction	Rural Major Collector	0	0	\$136	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R16	North Road	Leavenworth	Construct/widen shoulders, improve horizontal curves, signage, and safety between Fox Rd and Nibblelink Rd (north connection).	Overlay	Rural Major Collector	0	0	\$62	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R17	E. Leavenworth Road	Leavenworth	Construct/widen shoulders, improve horizontal curves, safety, and reconstruct roadway between UGA limits and Dempsey Rd	Minor Widening/Reconstruction	Rural Major Collector	0	0	\$136	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R18	E. Leavenworth Road	Leavenworth	Construct/widen shoulders and reconstruct roadway between Dempsey Rd and Icicle Rd	Minor Widening/Reconstruction	Rural Major Collector	0	0	\$136	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R19	Mission Ridge Road	Malaga	Construct retaining wall as part of FHWA Western lands project which includes 4.3 miles of roadway reconstruction and upgrades.	Minor Widening/Reconstruction	Rural Minor Collector	0	0	\$102	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R20	Dixie Lane	Malaga	Road upgrades, shoulder widening, sidewalks.	Overlay	Rural Local Access	0	0	\$31	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R21	West Malaga Road	Malaga	Improved shoulders and new turn lanes.	Minor Widening/Reconstruction	Rural Major Collector	150	6	\$136	\$122,052	N/A	0	\$0	\$122,052	15%	5%	\$146,463
CC-R22	Stemilt Loop Road	Malaga	Spot improvements to construct/widen shoulders, improve vertical/horizontal curves, signage, and reconstruct roadway	Overlay	Rural Minor Collector	0	0	\$46	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R23	Manson Boulevard Phase II	Manson	Grade, install storm water drainage systems, widen, construct retaining wall systems, add base and top course, and pave between Boetzkes Avenue and Pedoi Street.	Major Widening	Urban Collector	0	0	\$175	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R24	Quetilquason Road Drainage Project	Manson	Construct storm drainage system between Wapato Way and Chelan View.	Minor Widening/Reconstruction	Urban Local Access	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R25	Boetzkes Avenue	Manson	Evaluate the feasibility of truck bypass to avoid segment of Manson Blvd.	New Roadway	Urban Local Access	0	0	\$160	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R26	Ford Street	Manson	Construct/widen shoulders and reconstruct roadway between Manson Blvd and Washington Street	Minor Widening/Reconstruction	Rural Local Access	0	0	\$68	\$0	N/A	0	\$0	\$0	15%	5%	\$0

Chelan Intersection Costs

INTERSECTION COSTS - Turn Lane and Hardware				Turn Lane Costs						Hardware Costs			Total Intersection Costs			
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Project Length (ft)	New Turn Lanes	Cost (\$/LF/Lane)	Turn Lane Cost Sub-Total (\$)	Intersection Improvement 1	Quantity 1	Hardware Cost Sub-Total (\$)	Total Unfactored Intersection Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Intersection Improvement Costs (\$)
CC-R27	Ivan Morse Road	Manson	Construct/widen shoulders, improve horizontal curves and safety between Wapato Lake Road and Kinsey Road.	Overlay	Rural Local Access	0	0	\$31	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R28	Wine Sap Road	Manson	Construct/widen shoulders, improve horizontal curves and safety, upgrade base material, and pave between SR 150 and Chapman Road.	Minor Widening/Reconstruction	Rural Minor Collector	0	0	\$102	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R29	Totem Pole Road	Manson	Roadway improvements, such as pavement, base, shoulder widths and sidewalks between Wapato Way and Banks Avenue.	New Roadway	Urban Local Access	0	0	\$160	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R30	Red Apple Road	Monitor	Widen, add base and top course, and pave	New Roadway	Rural Local Access	0	0	\$64	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R31	Sleep Hollow Road / E Richared Road - Improve route between Monitor and Wenatchee	Monitor	Improve alternate roadway between Monitor and Wenatchee south of US 2/97 along Sleepy Hollow Road. Upgrade existing County roadways including shoulder widening, signage, base material, and new pavement.	Major Widening	Rural Minor Collector	0	0	\$105	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R32	Kelly Road/Zager Road	Monitor	Widen, add base and top course, and pave between Monitor Orchard Road and approximately 0.60 miles north of Barden James Road	New Roadway	Rural Local Access	0	0	\$64	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R33	North Road	Peshastin	Construct/widen shoulders, improve horizontal curves, signage, and safety between Nibblelink Rd (north connection) and Main St.	Overlay	Rural Major Collector	0	0	\$62	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R34	Beecher Hill Road	Peshastin	Improve existing roadway to serve proposed UGA commercial/residential areas west of new interchange between Rollercoaster Road and Blewitt Cutoff Road.	Minor Widening/Reconstruction	Urban Collector	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R35	Rollercoaster Road	Peshastin	Improve existing roadway to serve proposed UGA commercial/residential areas west of new interchange between Beecher Hill Road and SR 97.	Minor Widening/Reconstruction	Urban Collector	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R36	Larson Road	Peshastin	Local street in need of urban upgrades to serve expected growth in the Peshastin UGA.	Minor Widening/Reconstruction	Urban Collector	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R37	Ludwig Hill Road	Peshastin	Local street in need of urban upgrades to serve expected growth in the Peshastin UGA.	Minor Widening/Reconstruction	Urban Collector	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R38	Chiwawa Loop II	Plain	Grade, drain, construct retaining walls, mitigate wetland impacts, add base and top course, and pave from south of Wendig Lane to Beaver Valley Road.	New Roadway	Rural Major Collector	0	0	\$128	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R39	Chumstick Highway	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between Spromberg Canyon Rd to Camp Road.	Minor Widening/Reconstruction	Rural Major Collector	0	0	\$136	\$0	N/A	0	\$0	\$0	15%	5%	\$0

Chelan Intersection Costs

INTERSECTION COSTS - Turn Lane and Hardware				Turn Lane Costs						Hardware Costs			Total Intersection Costs			
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Project Length (ft)	New Turn Lanes	Cost (\$/LF/Lane)	Turn Lane Cost Sub-Total (\$)	Intersection Improvement 1	Quantity 1	Hardware Cost Sub-Total (\$)	Total Unfactored Intersection Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Intersection Improvement Costs (\$)
CC-R40	Chiwawa Loop III	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between south of Wendig Lane and east of Meadow Creek Rd.	Minor Widening/Reconstruction	Rural Major Collector	0	0	\$136	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R41	Chumstick Highway	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between Camp Road and Beaver Valley Road.	Minor Widening/Reconstruction	Rural Major Collector	0	0	\$136	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R42	Knowles Road	Sunnyslope	Widen, grade, drain, install storm water system, add base and top course, and pave with HMA from School Street to Rolling Hills Lane.	New Roadway	Urban Collector	0	0	\$160	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R43	American Fruit Road	Sunnyslope	Reconstruct - Overlay and add sidewalks or pathway	Minor Widening/Reconstruction	Urban Collector	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R44	Easy Street	Sunnyslope	Upgrade Easy Street to urban standards, road widening, safety improvements, non-motorized facilities between future WSDOT interchange and SR 2/97.	Minor Widening/Reconstruction	Urban Minor Arterial	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R45	School Street	Sunnyslope	Improve pedestrian facilities and provide traffic calming south of Easy Street. Widen shoulders.	Non-Motorized Improvements	Urban Collector	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R46	Rolling Hills Road	Sunnyslope	Widen, add base and top course, and pave from Knowles Road to Burch Mountain Road.	New Roadway	Urban Local Access	0	0	\$160	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R47	Lower Sunnyslope Road	Sunnyslope	Widen/construct shoulders east of School Street to west of Sleepy Hollow.	Minor Widening/Reconstruction	Rural Major Collector	0	0	\$136	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R48	Number One Canyon Road	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks within the UGA.	Minor Widening/Reconstruction	Urban Collector	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R49	Squilchuck Road	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks within the UGA.	Minor Widening/Reconstruction	Urban Collector	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R51	McKittrick Street	Wenatchee UGA	Reconstruct and upgrade to urban standards between Western Avenue and Pershing Street; new storm, sewer, sidewalks and illumination.	Minor Widening/Reconstruction	Urban Collector	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-R52	Walnut Street	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks between Western Avenue and Rogers Drive.	Minor Widening/Reconstruction	Urban Collector	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-B1	West Cashmere (Goodwin Road) Bridge	Cashmere	Rehabilitate/replace aged bridge	New Roadway	Rural Major Collector	0	0	\$128	\$0	N/A	0	\$0	\$0	15%	5%	\$0

Chelan Intersection Costs

INTERSECTION COSTS - Turn Lane and Hardware				Turn Lane Costs						Hardware Costs			Total Intersection Improvement Costs			
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Project Length (ft)	New Turn Lanes	Cost (\$/LF/Lane)	Turn Lane Cost Sub-Total (\$)	Intersection Improvement 1	Quantity 1	Hardware Cost Sub-Total (\$)	Total Unfactored Intersection Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Intersection Improvement Costs (\$)
CC-B2	Old Monitor Road Bridge	Monitor	Rehabilitate aged bridge	New Roadway	Rural Minor Collector	0	0	\$96	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-B3	Monitor Main Street Bridge	Monitor	Rehabilitate/replace aged bridge	New Roadway	Rural Major Collector	0	0	\$128	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-B4	Old Peshastin Bridge	Peshastin	Replace or rehabilitate bridge. Should include pedestrian facility improvements or separate trail bridge.	New Roadway	Rural Major Collector	0	0	\$128	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-B5	New Bridge across Wenatchee River	Peshastin	Construct a new bridge to provide access to the Port industrial area on the north side of the Wenatchee River.	New Roadway	Rural Major Collector	0	0	\$128	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-11	Yaksum Canyon Rd / Coates Rd	Cashmere	Sight distance improvements	Intersection Geometry Improvements	Rural Major Collector	200	4	\$158	\$126,253	N/A	0	\$0	\$126,253	15%	5%	\$151,503
CC-12	Binder Rd / Yaksum Canyon Rd	Cashmere	Sight distance and traffic control improvements	Intersection Geometry Improvements	Urban Collector	200	4	\$197	\$157,816	Traffic Control Upgrades	1	\$30,000	\$187,816	15%	5%	\$225,379
CC-13	Chumstick Highway / North Road	Leavenworth	Intersection safety improvements, could include signage, illumination, realignment, and channelization improvements.	Intersection Geometry Improvements	Urban Collector	200	4	\$197	\$157,816	Traffic Control Upgrades	1	\$30,000	\$187,816	15%	5%	\$225,379
CC-14	W. Malaga Rd / McEldowney Rd	Malaga	Sight distance and intersection geometry improvements.	Intersection Geometry Improvements	Rural Major Collector	200	4	\$158	\$126,253	N/A	0	\$0	\$126,253	15%	5%	\$151,503
CC-15	Washington St / Banks Ave	Manson	Traffic control, signage, and intersection geometry improvements, as well as safety and sight distance improvements.	Intersection Geometry Improvements	Urban Collector	200	4	\$197	\$157,816	Traffic Control Upgrades	1	\$30,000	\$187,816	15%	5%	\$225,379
CC-16	Green Avenue / Roses Avenue	Manson	Intersection safety and sight distance improvements at Green Ave / Roses Ave.	Intersection Geometry Improvements	Urban Collector	200	4	\$197	\$157,816	N/A	0	\$0	\$157,816	15%	5%	\$189,379
CC-17	Kelly Rd / Barden James Rd	Monitor	Improve safety by reconstructing intersection to eliminate "Y" intersection and create a "T" intersection	Intersection Geometry Improvements	Urban Collector	300	8	\$197	\$473,447	Traffic Control Upgrades	1	\$30,000	\$503,447	15%	5%	\$604,137
CC-18	Monitor Main Street at-grade railroad crossing	Monitor	Improve alignments, illumination, safety enhancements.	Intersection Geometry Improvements	Urban Collector	200	4	\$197	\$157,816	N/A	0	\$0	\$157,816	15%	5%	\$189,379
CC-19	Main Street / Peshastin Rd	Peshastin	Illumination, signage, and traffic control improvements.	Intersection Geometry Improvements	Urban Collector	200	4	\$197	\$157,816	Traffic Control Upgrades	1	\$30,000	\$187,816	15%	5%	\$225,379

Chelan Intersection Costs

INTERSECTION COSTS - Turn Lane and Hardware				Turn Lane Costs						Hardware Costs			Total Intersection Costs			
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Project Length (ft)	New Turn Lanes	Cost (\$/LF/Lane)	Turn Lane Cost Sub-Total (\$)	Intersection Improvement 1	Quantity 1	Hardware Cost Sub-Total (\$)	Total Unfactored Intersection Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Intersection Improvement Costs (\$)
CC-110	School Street / Easy Street	Sunnyslope	Install roundabout or traffic signal, widen intersection, and improve channelization and signage to accommodate expected traffic growth.	Intersection Geometry Improvements	Urban Collector	200	12	\$197	\$473,447	Install Traffic Signal	1	\$200,000	\$673,447	15%	5%	\$808,137
CC-111	Knowles Road / School Street	Sunnyslope	Intersection safety improvements.	Intersection Geometry Improvements	Urban Collector	200	4	\$197	\$157,816	N/A	0	\$0	\$157,816	15%	5%	\$189,379
CC-112	Easy Street / Peters Street	Sunnyslope	Install roundabout or traffic signal, widen intersection, and improve channelization and signage to accommodate expected traffic growth.	Intersection Geometry Improvements	Urban Collector	200	12	\$197	\$473,447	Install Traffic Signal	1	\$200,000	\$673,447	15%	5%	\$808,137
CC-113	Easy Street / Penny Road	Sunnyslope	Install additional turn lanes to accommodate expected traffic growth.	Intersection Geometry Improvements	Urban Collector	200	4	\$197	\$157,816	Traffic Signal Upgrades	1	\$225,000	\$382,816	15%	5%	\$459,379
CC-114	Lower Sunnyslope / School St / Penny St	Sunnyslope	Traffic control, signage, and intersection geometry improvements	Intersection Geometry Improvements	Urban Collector	200	4	\$197	\$157,816	Traffic Control Upgrades	1	\$30,000	\$187,816	15%	5%	\$225,379
CC-115	Easy Street / Crestview Road	Sunnyslope	Install additional turn lanes to accommodate expected traffic growth.	Intersection Geometry Improvements	Urban Collector	200	4	\$197	\$157,816	N/A	0	\$0	\$157,816	15%	5%	\$189,379
CC-NM1	Sunset Highway	Cashmere	Improve pedestrian and bicycle facilities on Sunset Highway from City limits to UGA limits.	Non-Motorized Improvements	Urban Minor Arterial	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM2	Pioneer Avenue	Cashmere	Improve pedestrian and bicycle facilities on Pioneer Avenue from Evergreen Dr to UGA limits.	Non-Motorized Improvements	Urban Minor Arterial	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM3	Binder Road/Olive Street	Cashmere	Improve pedestrian and bicycle facilities on Binder Road/Olive Street from Rank Road to Tigner Road.	Non-Motorized Improvements	Urban Collector	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM4	Mission Creek Road	Cashmere	Improve pedestrian and bicycle facilities on Mission Creek Road from City limits to Binder Road.	Non-Motorized Improvements	Urban Minor Arterial	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM5	Wescott Drive	Cashmere	Improve pedestrian and bicycle facilities from Pioneer Avenue to Sunset Highway.	Non-Motorized Improvements	Urban Collector	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM6	Evergreen Drive	Cashmere	Improve pedestrian and bicycle facilities from Pioneer Avenue to Sunset Highway.	Non-Motorized Improvements	Urban Minor Arterial	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM7	Chumstick Highway	Leavenworth	Complete missing sidewalks between City limits and North Road.	Non-Motorized Improvements	Urban Minor Arterial	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0

Chelan Intersection Costs

INTERSECTION COSTS - Turn Lane and Hardware				Turn Lane Costs						Hardware Costs			Total Intersection Costs			
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Project Length (ft)	New Turn Lanes	Cost (\$/LF/Lane)	Turn Lane Cost Sub-Total (\$)	Intersection Improvement 1	Quantity 1	Hardware Cost Sub-Total (\$)	Total Unfactored Intersection Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Intersection Improvement Costs (\$)
CC-NM8	Ski Hill Drive	Leavenworth	Improve shoulders, illumination, signage, and provide traffic calming along Ski Hill Drive from City limits to Titus Rd.	Minor Widening/Reconstruction	Urban Collector	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM9	Titus Road	Leavenworth	Improve shoulders, illumination, signage, and provide traffic calming along Titus Rd from City limits to Ski Hill Dr.	Minor Widening/Reconstruction	Urban Collector	0	0	\$170	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM10	Bainard Road	Malaga	Provide enhanced pedestrian facilities from Dixie Lane to Saturday Avenue.	Non-Motorized Improvements	Rural Local Access	0	0	\$31	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM11	Green Avenue / Hill Street	Manson	Construct sidewalk on Green Avenue from Totem Poll Road to Hill Street and on Hill Street from Green Avenue to Totem Pole Road.	Non-Motorized Improvements	Urban Local Access	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM12	Main Street / Peshastin Road	Peshastin	Complete missing sidewalk segments	Non-Motorized Improvements	Rural Major Collector	0	0	\$62	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM13	Knowles Road	Sunnyslope	Construct sidewalk on Knowles Road from American Fruit Road to Lombard.	Non-Motorized Improvements	Urban Collector	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM14	Penny Road	Sunnyslope	Construct sidewalk on Penny Road from Easy Street to Euclid Avenue.	Non-Motorized Improvements	Urban Minor Arterial	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM15	Peters Street	Sunnyslope	Construct sidewalk on Peters Street from School Street to Easy Street.	Non-Motorized Improvements	Urban Local Access	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM16	Euclid Avenue	Sunnyslope	Construct sidewalk on Euclid Avenue from Penny Road to US 97A.	Non-Motorized Improvements	Urban Collector	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM17	Peters Street	Sunnyslope	Construct sidewalk on Peters Road from Easy Street to Ohme Garden Road	Non-Motorized Improvements	Urban Local Access	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM18	Cordell Avenue	Sunnyslope	Construct sidewalk on Cordell Avenue from Lower Sunnyslope Road to Easy Street.	Non-Motorized Improvements	Urban Minor Arterial	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM29	Okanogan Avenue / Circle Street	Wenatchee UGA	Construct sidewalk on Okanogan Avenue between Circle Street and City limit, and Circle Street between Miller Street and Okanogan Avenue.	Non-Motorized Improvements	Urban Local Access	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM31	S. Wenatchee Avenue	Wenatchee UGA	Construct sidewalk on S. Wenatchee Avenue between Boodry Street and City limit.	Non-Motorized Improvements	Urban Local Access	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0

Chelan Intersection Costs

INTERSECTION COSTS - Turn Lane and Hardware				Turn Lane Costs						Hardware Costs			Total Intersection Costs			
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Project Length (ft)	New Turn Lanes	Cost (\$/LF/Lane)	Turn Lane Cost Sub-Total (\$)	Intersection Improvement 1	Quantity 1	Hardware Cost Sub-Total (\$)	Total Unfactored Intersection Cost (\$)	Engineering Cost Factor (%)	Mobilization Cost Factor (%)	Total Intersection Improvement Costs (\$)
CC-NM19	Tichenal Road Connection	Cashmere	Provide pedestrian/bicycle connection between Tichenal Rd to Old Monitor Rd	Non-Motorized Improvements	Urban Collector	0	0	\$77	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM20	Valley Trail - Dryden to Cashmere	Cashmere	Identify ROW and construct trail between Dryden and Cashmere.	Trail	Trail	0	0	\$42	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM21	Valley Trail - Cashmere to Monitor	Cashmere Monitor	Identify ROW and construct trail between Cashmere and Monitor.	Trail	Trail	0	0	\$42	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM22	Chelan Lakeside Trail - Phase 1	Chelan	New trail from Lake Chelan State Park to City limits.	Trail	Trail	0	0	\$42	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM23	South Lakeshore Drive Chelan Lake Shore Trail - Phase 2	Chelan	Widen shoulders, provide pedestrian improvements between 25-mile Creek State Park to Lake Chelan State Park.	Minor Widening/Reconstruction	Rural Major Collector	0	0	\$136	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM24	Wenatchee Foothills Trail	Wenatchee UGA	This particular trail is well through the planning stages and is prepared to receive funding for acquisition and development.	Trail	Trail	0	0	\$42	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM25	Valley Trail - Leavenworth to Peshastin	Leavenworth Peshastin	Identify ROW and construct trail between Leavenworth and Peshastin.	Trail	Trail	0	0	\$42	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM26	North Shore Pathway	Manson	Trail from Manson to Chelan along SR 150.	Trail	Trail	0	0	\$42	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM27	Valley Trail - Monitor to Wenatchee	Monitor Sunnyslope	Identify ROW and construct trail between Monitor and Wenatchee. Could include use of irrigation canal.	Trail	Trail	0	0	\$42	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-NM28	Valley Trail - Peshastin to Dryden	Peshastin	Identify ROW and construct trail between Peshastin and Dryden.	Trail	Trail	0	0	\$42	\$0	N/A	0	\$0	\$0	15%	5%	\$0
CC-W1	Lake Chelan water taxi service	Chelan	For tourism and recreation	N/A	N/A	0	0	---	---	N/A	0	---	---	---	5%	---
CC-W2	Ferry service across the Columbia River in Entiat	Entiat	Ferry service - For emergency management, recreation and tourism development.	N/A	N/A	0	0	---	---	N/A	0	---	---	---	5%	---
CC-W3	New water taxi service between Lake Chelan State Park and Manson	Manson	For tourism, recreation, and economic development	N/A	N/A	0	0	---	---	N/A	0	---	---	---	5%	---

Chelan Other Improvement Costs

OTHER IMPROVEMENT COSTS								
Project	Project Name	Project Limits	Project Description	Other Improvement 1	Quantity 1	Other Improvement 2	Quantity 2	Total Other Improvement Costs (\$)
CC-R1	Corridor Study - Alternative route between Manson and Chelan	Chelan Manson	Evaluate the feasibility and identify the corridor footprint of an alternate route between Manson and Chelan.	N/A	0	N/A	0	\$0
CC-R2	Alternative route between Manson and Chelan	Chelan Manson	Construct an alternate route between Manson and Chelan. Primary focus will be on the corridor segment between Wine Sap Road and Boyd Road.	2-Lane Bridge	1	N/A	0	\$6,250,000
CC-R3	Titus Road to Chumstick Highway Connector	Leavenworth	New collector road between Titus Road and Chumstick Highway to provide improved access and circulation to the North Leavenworth area.	N/A	0	N/A	0	\$0
CC-R4	Leavenworth north-south connector	Leavenworth	New north-south road (unnamed) between Village View Drive and Titus Loop Road.	N/A	0	N/A	0	\$0
CC-R5	Bainard Road/Searles Road connection (Saturday Avenue extension)	Malaga	New connection between W. Malaga Rd and Searles Rd / Saturday Ave to provide for improved circulation and access to the area south of Dixie Lane.	N/A	0	N/A	0	\$0
CC-R6	Malaga new east-west connection	Malaga	New east-west connection just south of Malaga-Alcoa Hwy between the western and eastern ends of West Malaga Road.	N/A	0	N/A	0	\$0
CC-R7	East-west collector between Roller Coaster Rd and Blewett Cutoff Rd	Peshastin	Construct new roadway to serve proposed UGA commercial/residential areas west of new interchange.	N/A	0	N/A	0	\$0
CC-R8	North-south collector between Green Rd and Rollercoaster Rd	Peshastin	Construct new collector arterial to serve proposed UGA commercial/residential areas west of new interchange.	N/A	0	N/A	0	\$0
CC-R9	North-south connection using new US 2 underpass - Blewett Cut-off Road	Peshastin	Upgrade underpass connection being built by WSDOT for agricultural uses to County roadway standards at the US 2 / 97 interchange. Upgrade Blewett Cut-off Road.	N/A	0	N/A	0	\$0
CC-R10	Bergstrasse Road/Detillion Road connector	Leavenworth	Upgrade road between Ski Hill Drive and Titus Road	N/A	0	N/A	0	\$0
CC-R11	Union Valley Road	Chelan	Widen, grade, drain, add base and top course, and pave from City Limits to Cagle Gulch Rd.	N/A	0	N/A	0	\$0
CC-R12	Boyd Road	Chelan	Construct/widen shoulders,construct sidewalks in UGA, upgrade base material, and pave between City limits and Wapato Butte Road.	N/A	0	N/A	0	\$0
CC-R13	Entiat River Road	Entiat	Widen/improve shoulders	N/A	0	N/A	0	\$0
CC-R14	Eagle Creek Road	Leavenworth	Grade, drain, widen, minor horizontal realignment, add base and top course, and pave along 1.5 mile stretch starting at Chumstick Hwy. Widening pavement from 22 ft to 26 ft.	N/A	0	N/A	0	\$0
CC-R15	North Road	Leavenworth	Reconstruct large culvert, grade, drain, add base and top course, and pave from Chumstick Highway to Fox Rd.	At Grade Rail Crossing - Minor	1	N/A	0	\$300,000
CC-R16	North Road	Leavenworth	Construct/widen shoulders, improve horizontal curves, signage, and safety between Fox Rd and Nibblelink Rd (north connection).	2-Lane Bridge	1	N/A	0	\$6,250,000
CC-R17	E. Leavenworth Road	Leavenworth	Construct/widen shoulders, improve horizontal curves, safety, and reconstruct roadway between UGA limits and Dempsey Rd	N/A	0	N/A	0	\$0
CC-R18	E. Leavenworth Road	Leavenworth	Construct/widen shoulders and reconstruct roadway between Dempsey Rd and Icicle Rd	N/A	0	N/A	0	\$0

Chelan Other Improvement Costs

OTHER IMPROVEMENT COSTS								
Project	Project Name	Project Limits	Project Description	Other Improvement 1	Quantity 1	Other Improvement 2	Quantity 2	Total Other Improvement Costs (\$)
CC-R19	Mission Ridge Road	Malaga	Construct retaining wall as part of FHWA Western lands project which includes 4.3 miles of roadway reconstruction and upgrades.	N/A	0	N/A	0	\$0
CC-R20	Dixie Lane	Malaga	Road upgrades, shoulder widening, sidewalks.	N/A	0	N/A	0	\$0
CC-R21	West Malaga Road	Malaga	Improved shoulders and new turn lanes.	N/A	0	N/A	0	\$0
CC-R22	Stemilt Loop Road	Malaga	Spot improvemetns to construct/widen shoulders, improve vertical/horizontal curves, signage, and reconstruct roadway	N/A	0	N/A	0	\$0
CC-R23	Manson Boulevard Phase II	Manson	Grade, install storm water drainage systems, widen, construct retaining wall systems, add base and top course, and pave between Boetzkes Avenue and Pedoi Street.	N/A	0	N/A	0	\$0
CC-R24	Quetilquasoon Road Drainage Project	Manson	Construct storm drainage system between Wapato Way and Chelan View.	N/A	0	N/A	0	\$0
CC-R25	Boetzkes Avenue	Manson	Evaluate the feasibility of truck bypass to avoid segment of Manson Blvd.	N/A	0	N/A	0	\$0
CC-R26	Ford Street	Manson	Construct/widen shoulders and reconstruct roadway between Manson Blvd and Washington Street	N/A	0	N/A	0	\$0
CC-R27	Ivan Morse Road	Manson	Construct/widen shoulders, improve horizontal curves and safety between Wapato Lake Road and Kinsey Road.	N/A	0	N/A	0	\$0
CC-R28	Wine Sap Road	Manson	Construct/widen shoulders, improve horizontal curves and safety, upgrade base material, and pave between SR 150 and Chapman Road.	N/A	0	N/A	0	\$0
CC-R29	Totem Pole Road	Manson	Roadway improvements, such as pavement, base, shoulder widths and sidewalks between Wapato Way and Banks Avenue.	N/A	0	N/A	0	\$0
CC-R30	Red Apple Road	Monitor	Widen, add base and top course, and pave	N/A	0	N/A	0	\$0
CC-R31	Sleep Hollow Road / E Richared Road - Improve route between Monitor and Wenatchee	Monitor	Improve alternate roadway between Monitor and Wenatchee south of US 2/97 along Sleepy Hollow Road. Upgrade existing County roadways including shoulder widening, signage, base material, and new pavement.	At Grade Rail Crossing - Minor	1	N/A	0	\$300,000
CC-R32	Kelly Road/Zager Road	Monitor	Widen, add base and top course, and pave between Monitor Orchard Road and approximately 0.60 miles north of Barden James Road	N/A	0	N/A	0	\$0
CC-R33	North Road	Peshastin	Construct/widen shoulders, improve horizontal curves, signage, and safety between Nibblelink Rd (north connection) and Main St.	N/A	0	N/A	0	\$0
CC-R34	Beecher Hill Road	Peshastin	Improve existing roadway to serve proposed UGA commercial/residential areas west of new interchange between Rollercoaster Road and Blewitt Cutoff Road.	N/A	0	N/A	0	\$0
CC-R35	Rollercoaster Road	Peshastin	Improve existing roadway to serve proposed UGA commercial/residential areas west of new interchange between Beecher Hill Road and SR 97.	N/A	0	N/A	0	\$0
CC-R36	Larson Road	Peshastin	Local street in need of urban upgrades to serve expected growth in the Peshastin UGA.	N/A	0	N/A	0	\$0

Chelan Other Improvement Costs

OTHER IMPROVEMENT COSTS								
Project	Project Name	Project Limits	Project Description	Other Improvement 1	Quantity 1	Other Improvement 2	Quantity 2	Total Other Improvement Costs (\$)
CC-R37	Ludwig Hill Road	Peshastin	Local street in need of urban upgrades to serve expected growth in the Peshastin UGA.	N/A	0	N/A	0	\$0
CC-R38	Chiwawa Loop II	Plain	Grade, drain, construct retaining walls, mitigate wetland impacts, add base and top course, and pave from south of Wendig Lane to Beaver Valley Road.	N/A	0	N/A	0	\$0
CC-R39	Chumstick Highway	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between Sromberg Canyon Rd to Camp Road.	At Grade Rail Crossing - Major	1	N/A	0	\$400,000
CC-R40	Chiwawa Loop III	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between south of Wendig Lane and east of Meadow Creek Rd.	N/A	0	N/A	0	\$0
CC-R41	Chumstick Highway	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between Camp Road and Beaver Valley Road.	At Grade Rail Crossing - Major	1	N/A	0	\$400,000
CC-R42	Knowles Road	Sunnyslope	Widen, grade, drain, install storm water system, add base and top course, and pave with HMA from School Street to Rolling Hills Lane.	N/A	0	N/A	0	\$0
CC-R43	American Fruit Road	Sunnyslope	Reconstruct - Overlay and add sidewalks or pathway	N/A	0	N/A	0	\$0
CC-R44	Easy Street	Sunnyslope	Upgrade Easy Street to urban standards, road widening, safety improvements, non-motorized facilities between future WSDOT interchange and SR 2/97.	N/A	0	N/A	0	\$0
CC-R45	School Street	Sunnyslope	Improve pedestrian facilities and provide traffic calming south of Easy Street. Widen shoulders.	N/A	0	N/A	0	\$0
CC-R46	Rolling Hills Road	Sunnyslope	Widen, add base and top course, and pave from Knowles Road to Burch Mountain Road.	N/A	0	N/A	0	\$0
CC-R47	Lower Sunnyslope Road	Sunnyslope	Widen/construct shoulders east of School Street to west of Sleepy Hollow.	N/A	0	N/A	0	\$0
CC-R48	Number One Canyon Road	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks within the UGA.	N/A	0	N/A	0	\$0
CC-R49	Squilchuck Road	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks within the UGA.	N/A	0	N/A	0	\$0
CC-R51	McKittrick Street	Wenatchee UGA	Reconstruct and upgrade to urban standards between Western Avenue and Pershing Street; new storm, sewer, sidewalks and illumination.	N/A	0	N/A	0	\$0
CC-R52	Walnut Street	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks between Western Avenue and Rogers Drive.	N/A	0	N/A	0	\$0
CC-B1	West Cashmere (Goodwin Road) Bridge	Cashmere	Rehabilitate/replace aged bridge	2-Lane Bridge	1	N/A	0	\$6,250,000
CC-B2	Old Monitor Road Bridge	Monitor	Rehabilitate aged bridge	2-Lane Bridge	1	N/A	0	\$6,250,000
CC-B3	Monitor Main Street Bridge	Monitor	Rehabilitate/replace aged bridge	2-Lane Bridge	1	N/A	0	\$6,250,000

Chelan Other Improvement Costs

OTHER IMPROVEMENT COSTS								
Project	Project Name	Project Limits	Project Description	Other Improvement 1	Quantity 1	Other Improvement 2	Quantity 2	Total Other Improvement Costs (\$)
CC-B4	Old Peshastin Bridge	Peshastin	Replace or rehabilitate bridge. Should include pedestrian facility improvements or separate trail bridge.	2-Lane Bridge	1	N/A	0	\$6,250,000
CC-B5	New Bridge across Wenatchee River	Peshastin	Construct a new bridge to provide access to the Port industrial area on the north side of the Wenatchee River.	2-Lane Bridge	1	N/A	0	\$6,250,000
CC-11	Yaksum Canyon Rd / Coates Rd	Cashmere	Sight distance improvements	N/A	0	N/A	0	\$0
CC-12	Binder Rd / Yaksum Canyon Rd	Cashmere	Sight distance and traffic control improvements	N/A	0	N/A	0	\$0
CC-13	Chumstick Highway / North Road	Leavenworth	Intersection safety improvements, could include signage, illumination, re-alignment, and channelization improvements.	N/A	0	N/A	0	\$0
CC-14	W. Malaga Rd / McEldowney Rd	Malaga	Sight distance and intersection geometry improvements.	N/A	0	N/A	0	\$0
CC-15	Washington St / Banks Ave	Manson	Traffic control, signage, and intersection geometry improvements, as well as safety and sight distance improvements.	N/A	0	N/A	0	\$0
CC-16	Green Avenue / Roses Avenue	Manson	Intersection safety and sight distance improvements at Green Ave / Roses Ave.	N/A	0	N/A	0	\$0
CC-17	Kelly Rd / Barden James Rd	Monitor	Improve safety by reconstructing intersection to eliminate 'Y' intersection and create a 'T' intersection	N/A	0	N/A	0	\$0
CC-18	Monitor Main Street at-grade railroad crossing	Monitor	Improve alignments, illumination, safety enhancements.	N/A	0	N/A	0	\$0
CC-19	Main Street / Peshastin Rd	Peshastin	Illumination, signage, and traffic control improvements.	N/A	0	N/A	0	\$0
CC-110	School Street / Easy Street	Sunnyslope	Install roundabout or traffic signal, widen intersection, and improve channelization and signage to accommodate expected traffic growth.	N/A	0	N/A	0	\$0
CC-111	Knowles Road / School Street	Sunnyslope	Intersection safety improvements.	N/A	0	N/A	0	\$0
CC-112	Easy Street / Peters Street	Sunnyslope	Install roundabout or traffic signal, widen intersection, and improve channelization and signage to accommodate expected traffic growth.	N/A	0	N/A	0	\$0
CC-113	Easy Street / Penny Road	Sunnyslope	Install additional turn lanes to accommodate expected traffic growth.	N/A	0	N/A	0	\$0
CC-114	Lower Sunnyslope / School St / Penny St	Sunnyslope	Traffic control, signage, and intersection geometry improvements	N/A	0	N/A	0	\$0
CC-115	Easy Street / Crestview Road	Sunnyslope	Install additional turn lanes to accommodate expected traffic growth.	N/A	0	N/A	0	\$0
CC-NM1	Sunset Highway	Cashmere	Improve pedestrian and bicycle facilities on Sunset Highway from City limits to UGA limits.	N/A	0	N/A	0	\$0

Chelan Other Improvement Costs

OTHER IMPROVEMENT COSTS

Project	Project Name	Project Limits	Project Description	Other Improvement 1	Quantity 1	Other Improvement 2	Quantity 2	Total Other Improvement Costs (\$)
CC-NM2	Pioneer Avenue	Cashmere	Improve pedestrian and bicycle facilities on Pioneer Avenue from Evergreen Dr to UGA limits.	N/A	0	N/A	0	\$0
CC-NM3	Binder Road/Olive Street	Cashmere	Improve pedestrian and bicycle facilities on Binder Road/Olive Street from Rank Road to Tigner Road.	N/A	0	N/A	0	\$0
CC-NM4	Mission Creek Road	Cashmere	Improve pedestrian and bicycle facilities on Mission Creek Road from City limits to Binder Road.	N/A	0	N/A	0	\$0
CC-NM5	Wescott Drive	Cashmere	Improve pedestrian and bicycle facilities from Pioneer Avenue to Sunset Highway.	N/A	0	N/A	0	\$0
CC-NM6	Evergreen Drive	Cashmere	Improve pedestrian and bicycle facilities from Pioneer Avenue to Sunset Highway.	N/A	0	N/A	0	\$0
CC-NM7	Chumstick Highway	Leavenworth	Complete missing sidewalks between City limits and North Road.	N/A	0	N/A	0	\$0
CC-NM8	Ski Hill Drive	Leavenworth	Improve shoulders, illumination, signage, and provide traffic calming along Ski Hill Drive from City limits to Titus Rd.	N/A	0	N/A	0	\$0
CC-NM9	Titus Road	Leavenworth	Improve shoulders, illumination, signage, and provide traffic calming along Titus Rd from City limits to Ski Hill Dr.	N/A	0	N/A	0	\$0
CC-NM10	Bainard Road	Malaga	Provide enhanced pedestrian facilities from Dixie Lane to Saturday Avenue.	N/A	0	N/A	0	\$0
CC-NM11	Green Avenue / Hill Street	Manson	Construct sidewalk on Green Avenue from Totem Pole Road to Hill Street and on Hill Street from Green Avenue to Totem Pole Road.	N/A	0	N/A	0	\$0
CC-NM12	Main Street / Peshastin Road	Peshastin	Complete missing sidewalk segments	N/A	0	N/A	0	\$0
CC-NM13	Knowles Road	Sunnyslope	Construct sidewalk on Knowles Road from American Fruit Road to Lombard.	N/A	0	N/A	0	\$0
CC-NM14	Penny Road	Sunnyslope	Construct sidewalk on Penny Road from Easy Street to Euclid Avenue.	N/A	0	N/A	0	\$0
CC-NM15	Peters Street	Sunnyslope	Construct sidewalk on Peters Street from School Street to Easy Street.	N/A	0	N/A	0	\$0
CC-NM16	Euclid Avenue	Sunnyslope	Construct sidewalk on Euclid Avenue from Penny Road to US 97A.	N/A	0	N/A	0	\$0
CC-NM17	Peters Street	Sunnyslope	Construct sidewalk on Peters Road from Easy Street to Ohme Garden Road	N/A	0	N/A	0	\$0
CC-NM18	Cordell Avenue	Sunnyslope	Construct sidewalk on Cordell Avenue from Lower Sunnyslope Road to Easy Street.	N/A	0	N/A	0	\$0
CC-NM29	Okanogan Avenue / Circle Street	Wenatchee UGA	Construct sidewalk on Okanogan Avenue between Circle Street and City limit, and Circle Street between Miller Street and Okanogan Avenue.	N/A	0	N/A	0	\$0

Chelan Other Improvement Costs

OTHER IMPROVEMENT COSTS								
Project	Project Name	Project Limits	Project Description	Other Improvement 1	Quantity 1	Other Improvement 2	Quantity 2	Total Other Improvement Costs (\$)
CC-NM31	S. Wenatchee Avenue	Wenatchee UGA	Construct sidewalk on S. Wenatchee Avenue between Boodry Street and City limit.	N/A	0	N/A	0	\$0
CC-NM19	Tichenal Road Connection	Cashmere	Provide pedestrian/bicycle connection between Tichenal Rd to Old Monitor Rd	N/A	0	N/A	0	\$0
CC-NM20	Valley Trail - Dryden to Cashmere	Cashmere	Identify ROW and construct trail between Dryden and Cashmere.	N/A	0	N/A	0	\$0
CC-NM21	Valley Trail - Cashmere to Monitor	Cashmere Monitor	Identify ROW and construct trail between Cashmere and Monitor.	N/A	0	N/A	0	\$0
CC-NM22	Chelan Lakeside Trail - Phase 1	Chelan	New trail from Lake Chelan State Park to City limits.	N/A	0	N/A	0	\$0
CC-NM23	South Lakeshore Drive Chelan Lake Shore Trail - Phase 2	Chelan	Widen shoulders, provide pedestrian improvements between 25-mile Creek State Park to Lake Chelan State Park.	N/A	0	N/A	0	\$0
CC-NM24	Wenatchee Foothills Trail	Wenatchee UGA	This particular trail is well through the planning stages and is prepared to receive funding for acquisition and development.	N/A	0	N/A	0	\$0
CC-NM25	Valley Trail - Leavenworth to Peshastin	Leavenworth Peshastin	Identify ROW and construct trail between Leavenworth and Peshastin.	N/A	0	N/A	0	\$0
CC-NM26	North Shore Pathway	Manson	Trail from Manson to Chelan along SR 150.	N/A	0	N/A	0	\$0
CC-NM27	Valley Trail - Monitor to Wenatchee	Monitor Sunnyslope	Identify ROW and construct trail between Monitor and Wenatchee. Could include use of irrigation canal.	N/A	0	N/A	0	\$0
CC-NM28	Valley Trail - Peshastin to Dryden	Peshastin	Identify ROW and construct trail between Peshastin and Dryden.	N/A	0	N/A	0	\$0
CC-W1	Lake Chelan water taxi service	Chelan	For tourism and recreation	N/A	0	N/A	0	---
CC-W2	Ferry service across the Columbia River in Entiat	Entiat	Ferry service - For emergency management, recreation and tourism development.	N/A	0	N/A	0	---
CC-W3	New water taxi service between Lake Chelan State Park and Manson	Manson	For tourism, recreation, and economic development	N/A	0	N/A	0	---

Chelan Project Cost Summary

TOTAL PROJECT COST SUMMARY

Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Roadway Costs (\$)	Intersection Costs (\$)	Other Costs (\$)	Total Unfactored Project Cost (\$)	Contingency Cost Factor (%)	Total Project Costs (\$)
CC-R1	Corridor Study - Alternative route between Manson and Chelan	Chelan Manson	Evaluate the feasibility and identify the corridor footprint of an alternate route between Manson and Chelan.	N/A	Rural Major Collector	\$0	\$0	\$0	\$0	0%	\$300,000
CC-R2	Alternative route between Manson and Chelan	Chelan Manson	Construct an alternate route between Manson and Chelan. Primary focus will be on the corridor segment between Wine Sap Road and Boyd Road.	N/A	Rural Major Collector	\$32,095,634	\$1,080,000	\$6,250,000	\$39,425,634	25%	\$49,282,042
CC-R3	Titus Road to Chumstick Highway Connector	Leavenworth	New collector road between Titus Road and Chumstick Highway to provide improved access and circulation to the North Leavenworth area.	New Roadway	Urban Collector	\$1,568,425	\$0	\$0	\$1,568,425	25%	\$1,960,531
CC-R4	Leavenworth north-south connector	Leavenworth	New north-south road (unnamed) between Village View Drive and Titus Loop Road.	New Roadway	Urban Collector	\$1,216,777	\$0	\$0	\$1,216,777	25%	\$1,520,971
CC-R5	Bainard Road/Searles Road connection (Saturday Avenue extension)	Malaga	New connection between W. Malaga Rd and Searles Rd / Saturday Ave to provide for improved circulation and access to the area south of Dixie Lane.	New Roadway	Rural Local Access	\$2,596,191	\$0	\$0	\$2,596,191	25%	\$3,245,239
CC-R6	Malaga new east-west connection	Malaga	New east-west connection just south of Malaga-Alcoa Hwy between the western and eastern ends of West Malaga Road.	New Roadway	Rural Minor Collector	\$5,187,440	\$0	\$0	\$5,187,440	25%	\$6,484,300
CC-R7	East-west collector between Roller Coaster Rd and Blewett Cutoff Rd	Peshastin	Construct new roadway to serve proposed UGA commercial/residential areas west of new interchange.	New Roadway	Urban Collector	\$995,058	\$0	\$0	\$995,058	25%	\$1,243,822
CC-R8	North-south collector between Green Rd and Rollercoaster Rd	Peshastin	Construct new collector arterial to serve proposed UGA commercial/residential areas west of new interchange.	New Roadway	Urban Collector	\$841,972	\$0	\$0	\$841,972	25%	\$1,052,465
CC-R9	North-south connection using new US 2 underpass - Blewett Cut-off Road	Peshastin	Upgrade underpass connection being built by WSDOT for agricultural uses to County roadway standards at the US 2 / 97 interchange. Upgrade Blewett Cut-off Road.	Minor Widening/Reconstruct	Urban Collector	\$2,095,556	\$0	\$0	\$2,095,556	25%	\$2,619,445
CC-R10	Bergtstrasse Road/Deillion Road connector	Leavenworth	Upgrade road between Ski Hill Drive and Titus Road	Minor Widening/Reconstruct	Urban Local Access	\$1,704,553	\$0	\$0	\$1,704,553	25%	\$2,130,691
CC-R11	Union Valley Road	Chelan	Widen, grade, drain, add base and top course, and pave from City Limits to Cagle Gulch Rd.	Minor Widening/Reconstruct	Rural Minor Collector	\$1,888,289	\$0	\$0	\$1,888,289	25%	\$2,360,361
CC-R12	Boyd Road	Chelan	Construct/widen shoulders, construct sidewalks in UGA, upgrade base material, and pave between City limits and Wapato Butte Road.	Minor Widening/Reconstruct	Rural Major Collector	\$2,427,046	\$0	\$0	\$2,427,046	25%	\$3,033,808
CC-R13	Entiat River Road	Entiat	Widen/improve shoulders	Minor Widening/Reconstruct	Rural Major Collector	\$823,680	\$0	\$0	\$823,680	25%	\$1,029,600

Chelan Project Cost Summary

TOTAL PROJECT COST SUMMARY

Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Roadway Costs (\$)	Intersection Costs (\$)	Other Costs (\$)	Total Unfactored Project Cost (\$)	Contingency Cost Factor (%)	Total Project Costs (\$)
CC-R14	Eagle Creek Road	Leavenworth	Grade, drain, widen, minor horizontal realignment, add base and top course, and pave along 1.5 mile stretch starting at Chumstick Hwy. Widening pavement from 22 ft to 26 ft.	Minor Widening/Reconstruct	Rural Major Collector	\$2,813,370	\$0	\$0	\$2,813,370	25%	\$3,516,712
CC-R15	North Road	Leavenworth	Reconstruct large culvert, grade, drain, add base and top course, and pave from Chumstick Highway to Fox Rd.	Minor Widening/Reconstruct	Rural Major Collector	\$1,047,729	\$0	\$300,000	\$1,347,729	25%	\$3,270,000
CC-R16	North Road	Leavenworth	Construct/widen shoulders, improve horizontal curves, signage, and safety between Fox Rd and Nibblelink Rd (north connection).	Overlay	Rural Major Collector	\$1,589,066	\$0	\$6,250,000	\$7,839,066	25%	\$9,798,833
CC-R17	E. Leavenworth Road	Leavenworth	Construct/widen shoulders, improve horizontal curves, safety, and reconstruct roadway between UGA limits and Dempsey Rd	Minor Widening/Reconstruct	Rural Major Collector	\$3,528,143	\$0	\$0	\$3,528,143	25%	\$4,410,178
CC-R18	E. Leavenworth Road	Leavenworth	Construct/widen shoulders and reconstruct roadway between Dempsey Rd and Icicle Rd	Minor Widening/Reconstruct	Rural Major Collector	\$3,340,023	\$0	\$0	\$3,340,023	25%	\$4,175,029
CC-R19	Mission Ridge Road	Malaga	Construct retaining wall as part of FHWA Western lands project which includes 4.3 miles of roadway reconstruction and upgrades.	Minor Widening/Reconstruct	Rural Minor Collector	\$5,851,476	\$0	\$0	\$5,851,476	25%	\$26,000
CC-R20	Dixie Lane	Malaga	Road upgrades, shoulder widening, sidewalks.	Overlay	Rural Local Access	\$1,955,788	\$0	\$0	\$1,955,788	25%	\$2,444,735
CC-R21	West Malaga Road	Malaga	Improved shoulders and new turn lanes.	Minor Widening/Reconstruct	Rural Major Collector	\$2,046,480	\$146,463	\$0	\$2,192,943	25%	\$2,741,178
CC-R22	Sternilt Loop Road	Malaga	Spot improvements to construct/widen shoulders, improve vertical/horizontal curves, signage, and reconstruct roadway	Overlay	Rural Minor Collector	\$10,757,086	\$0	\$0	\$10,757,086	25%	\$13,446,358
CC-R23	Manson Boulevard Phase II	Manson	Grade, install storm water drainage systems, widen, construct retaining wall systems, add base and top course, and pave between Boetzkes Avenue and Pedoi Street.	Major Widening	Urban Collector	\$1,794,543	\$0	\$0	\$1,794,543	25%	\$2,610,000
CC-R24	Quetilquason Road Drainage Project	Manson	Construct storm drainage system between Wapato Way and Chelan View.	Minor Widening/Reconstruct	Urban Local Access	\$730,712	\$0	\$0	\$730,712	25%	\$330,000
CC-R25	Boetzkes Avenue	Manson	Evaluate the feasibility of truck bypass to avoid segment of Manson Blvd.	New Roadway	Urban Local Access	\$1,131,976	\$0	\$0	\$1,131,976	25%	\$30,000
CC-R26	Ford Street	Manson	Construct/widen shoulders and reconstruct roadway between Manson Blvd and Washington Street	Minor Widening/Reconstruct	Rural Local Access	\$1,104,683	\$0	\$0	\$1,104,683	25%	\$1,380,854

Chelan Project Cost Summary

TOTAL PROJECT COST SUMMARY

Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Roadway Costs (\$)	Intersection Costs (\$)	Other Costs (\$)	Total Unfactored Project Cost (\$)	Contingency Cost Factor (%)	Total Project Costs (\$)
CC-R27	Ivan Morse Road	Manson	Construct/widen shoulders, improve horizontal curves and safety between Wapato Lake Road and Kinsey Road.	Overlay	Rural Local Access	\$1,252,421	\$0	\$0	\$1,252,421	25%	\$1,565,526
CC-R28	Wine Sap Road	Manson	Construct/widen shoulders, improve horizontal curves and safety, upgrade base material, and pave between SR 150 and Chapman Road.	Minor Widening/Reconstruct	Rural Minor Collector	\$1,060,722	\$0	\$0	\$1,060,722	25%	\$1,325,902
CC-R29	Totem Pole Road	Manson	Roadway improvements, such as pavement, base, shoulder widths and sidewalks between Wapato Way and Banks Avenue.	New Roadway	Urban Local Access	\$4,142,096	\$0	\$0	\$4,142,096	25%	\$5,177,620
CC-R30	Red Apple Road	Monitor	Widen, add base and top course, and pave	New Roadway	Rural Local Access	\$1,406,885	\$0	\$0	\$1,406,885	25%	\$1,758,606
CC-R31	Sleep Hollow Road / E Richared Road - Improve route between Monitor and Wenatchee	Monitor	Improve alternate roadway between Monitor and Wenatchee south of US 2/97 along Sleepy Hollow Road. Upgrade existing County roadways including shoulder widening, signage, base material, and new pavement.	Major Widening	Rural Minor Collector	\$6,724,436	\$0	\$300,000	\$7,024,436	25%	\$8,780,545
CC-R32	Kelly Road/Zager Road	Monitor	Widen, add base and top course, and pave between Monitor Orchard Road and approximately 0.60 miles north of Barden James Road	New Roadway	Rural Local Access	\$703,442	\$0	\$0	\$703,442	25%	\$879,303
CC-R33	North Road	Peshastin	Construct/widen shoulders, improve horizontal curves, signage, and safety between Nibblelink Rd (north connection) and Main St.	Overlay	Rural Major Collector	\$2,019,700	\$0	\$0	\$2,019,700	25%	\$2,524,625
CC-R34	Beecher Hill Road	Peshastin	Improve existing roadway to serve proposed UGA commercial/residential areas west of new interchange between Rollercoaster Road and Blewitt Cutoff Road.	Minor Widening/Reconstruct	Urban Collector	\$887,983	\$0	\$0	\$887,983	25%	\$1,109,979
CC-R35	Rollercoaster Road	Peshastin	Improve existing roadway to serve proposed UGA commercial/residential areas west of new interchange between Beecher Hill Road and SR 97.	Minor Widening/Reconstruct	Urban Collector	\$1,707,659	\$0	\$0	\$1,707,659	25%	\$2,134,574
CC-R36	Larson Road	Peshastin	Local street in need of urban upgrades to serve expected growth in the Peshastin UGA.	Minor Widening/Reconstruct	Urban Collector	\$866,362	\$0	\$0	\$866,362	25%	\$1,082,952
CC-R37	Ludwig Hill Road	Peshastin	Local street in need of urban upgrades to serve expected growth in the Peshastin UGA.	Minor Widening/Reconstruct	Urban Collector	\$655,457	\$0	\$0	\$655,457	25%	\$819,321
CC-R38	Chiwawa Loop II	Plain	Grade, drain, construct retaining walls, mitigate wetland impacts, add base and top course, and pave from south of Wendig Lane to Beaver Valley Road.	New Roadway	Rural Major Collector	\$3,987,479	\$0	\$0	\$3,987,479	25%	\$3,900,000
CC-R39	Chumstick Highway	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between Spromberg Canyon Rd to Camp Road.	Minor Widening/Reconstruct	Rural Major Collector	\$4,704,190	\$0	\$400,000	\$5,104,190	25%	\$6,380,238

Chelan Project Cost Summary

TOTAL PROJECT COST SUMMARY

Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Roadway Costs (\$)	Intersection Costs (\$)	Other Costs (\$)	Total Unfactored Project Cost (\$)	Contingency Cost Factor (%)	Total Project Costs (\$)
CC-R40	Chiwawa Loop III	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between south of Wendig Lane and east of Meadow Creek Rd.	Minor Widening/Reconstruct	Rural Major Collector	\$4,053,778	\$0	\$0	\$4,053,778	25%	\$5,067,223
CC-R41	Chumstick Highway	Plain	Construct/widen shoulders, improve horizontal curves, signage, safety, and reconstruct roadway between Camp Road and Beaver Valley Road.	Minor Widening/Reconstruct	Rural Major Collector	\$7,832,488	\$0	\$400,000	\$8,232,488	25%	\$10,290,611
CC-R42	Knowles Road	Sunnyslope	Widen, grade, drain, install storm water system, add base and top course, and pave with HMA from School Street to Rolling Hills Lane.	New Roadway	Urban Collector	\$2,332,464	\$0	\$0	\$2,332,464	25%	\$2,915,579
CC-R43	American Fruit Road	Sunnyslope	Reconstruct - Overlay and add sidewalks or pathway	Minor Widening/Reconstruct	Urban Collector	\$2,881,550	\$0	\$0	\$2,881,550	25%	\$3,601,938
CC-R44	Easy Street	Sunnyslope	Upgrade Easy Street to urban standards, road widening, safety improvements, non-motorized facilities between future WSDOT interchange and SR 2/97.	Minor Widening/Reconstruct	Urban Minor Arterial	\$7,594,018	\$0	\$0	\$7,594,018	25%	\$9,492,523
CC-R45	School Street	Sunnyslope	Improve pedestrian facilities and provide traffic calming south of Easy Street. Widen shoulders.	Non-Motorized Improvement	Urban Collector	\$1,330,800	\$0	\$0	\$1,330,800	25%	\$1,663,500
CC-R46	Rolling Hills Road	Sunnyslope	Widen, add base and top course, and pave from Knowles Road to Burch Mountain Road.	New Roadway	Urban Local Access	\$1,460,242	\$0	\$0	\$1,460,242	25%	\$1,825,303
CC-R47	Lower Sunnyslope Road	Sunnyslope	Widen/construct shoulders east of School Street to west of Sleepy Hollow.	Minor Widening/Reconstruct	Rural Major Collector	\$1,448,110	\$0	\$0	\$1,448,110	25%	\$1,810,138
CC-R48	Number One Canyon Road	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks within the UGA.	Minor Widening/Reconstruct	Urban Collector	\$755,420	\$0	\$0	\$755,420	25%	\$944,275
CC-R49	Squilchuck Road	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks within the UGA.	Minor Widening/Reconstruct	Urban Collector	\$2,684,754	\$0	\$0	\$2,684,754	25%	\$3,355,942
CC-R51	McKittrick Street	Wenatchee UGA	Reconstruct and upgrade to urban standards between Western Avenue and Pershing Street; new storm, sewer, sidewalks and illumination.	Minor Widening/Reconstruct	Urban Collector	\$745,200	\$0	\$0	\$745,200	25%	\$931,500
CC-R52	Walnut Street	Wenatchee UGA	Upgrade to urban standards, widen and add sidewalks between Western Avenue and Rogers Drive.	Minor Widening/Reconstruct	Urban Collector	\$3,121,985	\$0	\$0	\$3,121,985	25%	\$3,902,482
CC-B1	West Cashmere (Goodwin Road) Bridge	Cashmere	Rehabilitate/replace aged bridge	New Roadway	Rural Major Collector	\$0	\$0	\$6,250,000	\$6,250,000	25%	\$7,812,500

Chelan Project Cost Summary

TOTAL PROJECT COST SUMMARY

Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Roadway Costs (\$)	Intersection Costs (\$)	Other Costs (\$)	Total Unfactored Project Cost (\$)	Contingency Cost Factor (%)	Total Project Costs (\$)
CC-B2	Old Monitor Road Bridge	Monitor	Rehabilitate aged bridge	New Roadway	Rural Minor Collector	\$0	\$0	\$6,250,000	\$6,250,000	25%	\$7,812,500
CC-B3	Monitor Main Street Bridge	Monitor	Rehabilitate/replace aged bridge	New Roadway	Rural Major Collector	\$0	\$0	\$6,250,000	\$6,250,000	25%	\$7,812,500
CC-B4	Old Peshastin Bridge	Peshastin	Replace or rehabilitate bridge. Should include pedestrian facility improvements or separate trail bridge.	New Roadway	Rural Major Collector	\$0	\$0	\$6,250,000	\$6,250,000	25%	\$7,812,500
CC-B5	New Bridge across Wenatchee River	Peshastin	Construct a new bridge to provide access to the Port industrial area on the north side of the Wenatchee River.	New Roadway	Rural Major Collector	\$0	\$0	\$6,250,000	\$6,250,000	25%	\$7,812,500
CC-I1	Yaksum Canyon Rd / Coates Rd	Cashmere	Sight distance improvements	Intersection Geometry Impro	Rural Major Collector	\$0	\$151,503	\$0	\$151,503	25%	\$189,379
CC-I2	Binder Rd / Yaksum Canyon Rd	Cashmere	Sight distance and traffic control improvements	Intersection Geometry Impro	Urban Collector	\$0	\$225,379	\$0	\$225,379	25%	\$281,724
CC-I3	Chumstick Highway / North Road	Leavenworth	Intersection safety improvements, could include signage, illumination, re-alignment, and channelization improvements.	Intersection Geometry Impro	Urban Collector	\$0	\$225,379	\$0	\$225,379	25%	\$281,724
CC-I4	W. Malaga Rd / McEldowney Rd	Malaga	Sight distance and intersection geometry improvements.	Intersection Geometry Impro	Rural Major Collector	\$0	\$151,503	\$0	\$151,503	25%	\$189,379
CC-I5	Washington St / Banks Ave	Manson	Traffic control, signage, and intersection geometry improvements, as well as safety and sight distance improvements.	Intersection Geometry Impro	Urban Collector	\$0	\$225,379	\$0	\$225,379	25%	\$281,724
CC-I6	Green Avenue / Roses Avenue	Manson	Intersection safety and sight distance improvements at Green Ave / Roses Ave.	Intersection Geometry Impro	Urban Collector	\$0	\$189,379	\$0	\$189,379	25%	\$236,724
CC-I7	Kelly Rd / Barden James Rd	Monitor	Improve safety by reconstructing intersection to eliminate "Y" intersection and create a "T" intersection	Intersection Geometry Impro	Urban Collector	\$0	\$604,137	\$0	\$604,137	25%	\$100,000
CC-I8	Monitor Main Street at-grade railroad crossing	Monitor	Improve alignments, illumination, safety enhancements.	Intersection Geometry Impro	Urban Collector	\$0	\$189,379	\$0	\$189,379	25%	\$236,724
CC-I9	Main Street / Peshastin Rd	Peshastin	Illumination, signage, and traffic control improvements.	Intersection Geometry Impro	Urban Collector	\$0	\$225,379	\$0	\$225,379	25%	\$281,724

Chelan Project Cost Summary

TOTAL PROJECT COST SUMMARY

Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Roadway Costs (\$)	Intersection Costs (\$)	Other Costs (\$)	Total Unfactored Project Cost (\$)	Contingency Cost Factor (%)	Total Project Costs (\$)
CC-110	School Street / Easy Street	Sunnyslope	Install roundabout or traffic signal, widen intersection, and improve channelization and signage to accommodate expected traffic growth.	Intersection Geometry Impro	Urban Collector	\$0	\$808,137	\$0	\$808,137	25%	\$1,010,171
CC-111	Knowles Road / School Street	Sunnyslope	Intersection safety improvements.	Intersection Geometry Impro	Urban Collector	\$0	\$189,379	\$0	\$189,379	25%	\$236,724
CC-112	Easy Street / Peters Street	Sunnyslope	Install roundabout or traffic signal, widen intersection, and improve channelization and signage to accommodate expected traffic growth.	Intersection Geometry Impro	Urban Collector	\$0	\$808,137	\$0	\$808,137	25%	\$1,010,171
CC-113	Easy Street / Penny Road	Sunnyslope	Install additional turn lanes to accommodate expected traffic growth.	Intersection Geometry Impro	Urban Collector	\$0	\$459,379	\$0	\$459,379	25%	\$574,224
CC-114	Lower Sunnyslope / School St / Penny St	Sunnyslope	Traffic control, signage, and intersection geometry improvements	Intersection Geometry Impro	Urban Collector	\$0	\$225,379	\$0	\$225,379	25%	\$281,724
CC-115	Easy Street / Crestview Road	Sunnyslope	Install additional turn lanes to accommodate expected traffic growth.	Intersection Geometry Impro	Urban Collector	\$0	\$189,379	\$0	\$189,379	25%	\$236,724
CC-NM1	Sunset Highway	Cashmere	Improve pedestrian and bicycle facilities on Sunset Highway from City limits to UGA limits.	Non-Motorized Improvement	Urban Minor Arterial	\$3,001,776	\$0	\$0	\$3,001,776	25%	\$3,752,220
CC-NM2	Pioneer Avenue	Cashmere	Improve pedestrian and bicycle facilities on Pioneer Avenue from Evergreen Dr to UGA limits.	Non-Motorized Improvement	Urban Minor Arterial	\$1,428,024	\$0	\$0	\$1,428,024	25%	\$1,785,030
CC-NM3	Binder Road/Olive Street	Cashmere	Improve pedestrian and bicycle facilities on Binder Road/Olive Street from Rank Road to Tigner Road.	Non-Motorized Improvement	Urban Collector	\$2,156,664	\$0	\$0	\$2,156,664	25%	\$2,695,830
CC-NM4	Mission Creek Road	Cashmere	Improve pedestrian and bicycle facilities on Mission Creek Road from City limits to Binder Road.	Non-Motorized Improvement	Urban Minor Arterial	\$553,656	\$0	\$0	\$553,656	25%	\$692,070
CC-NM5	Wescott Drive	Cashmere	Improve pedestrian and bicycle facilities from Pioneer Avenue to Sunset Highway.	Non-Motorized Improvement	Urban Collector	\$2,156,664	\$0	\$0	\$2,156,664	25%	\$2,695,830
CC-NM6	Evergreen Drive	Cashmere	Improve pedestrian and bicycle facilities from Pioneer Avenue to Sunset Highway.	Non-Motorized Improvement	Urban Minor Arterial	\$1,486,536	\$0	\$0	\$1,486,536	25%	\$1,858,170
CC-NM7	Chumstick Highway	Leavenworth	Complete missing sidewalks between City limits and North Road.	Non-Motorized Improvement	Urban Minor Arterial	\$456,120	\$0	\$0	\$456,120	25%	\$570,150

Chelan Project Cost Summary

TOTAL PROJECT COST SUMMARY

Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Roadway Costs (\$)	Intersection Costs (\$)	Other Costs (\$)	Total Unfactored Project Cost (\$)	Contingency Cost Factor (%)	Total Project Costs (\$)
CC-NM8	Ski Hill Drive	Leavenworth	Improve shoulders, illumination, signage, and provide traffic calming along Ski Hill Drive from City limits to Titus Rd.	Minor Widening/Reconstruct	Urban Collector	\$1,378,200	\$0	\$0	\$1,378,200	25%	\$1,722,750
CC-NM9	Titus Road	Leavenworth	Improve shoulders, illumination, signage, and provide traffic calming along Titus Rd from City limits to Ski Hill Dr.	Minor Widening/Reconstruct	Urban Collector	\$2,170,200	\$0	\$0	\$2,170,200	25%	\$2,712,750
CC-NM10	Bainard Road	Malaga	Provide enhanced pedestrian facilities from Dixie Lane to Saturday Avenue.	Non-Motorized Improvement	Rural Local Access	\$332,640	\$0	\$0	\$332,640	25%	\$415,800
CC-NM11	Green Avenue / Hill Street	Manson	Construct sidewalk on Green Avenue from Totem Poll Road to Hill Street and on Hill Street from Green Avenue to Totem Pole Road.	Non-Motorized Improvement	Urban Local Access	\$1,007,460	\$0	\$0	\$1,007,460	25%	\$1,259,325
CC-NM12	Main Street / Peshastin Road	Peshastin	Complete missing sidewalk segments	Non-Motorized Improvement	Rural Major Collector	\$380,160	\$0	\$0	\$380,160	25%	\$475,200
CC-NM13	Knowles Road	Sunnyslope	Construct sidewalk on Knowles Road from American Fruit Road to Lombard.	Non-Motorized Improvement	Urban Collector	\$427,680	\$0	\$0	\$427,680	25%	\$534,600
CC-NM14	Penny Road	Sunnyslope	Construct sidewalk on Penny Road from Easy Street to Euclid Avenue.	Non-Motorized Improvement	Urban Minor Arterial	\$408,600	\$0	\$0	\$408,600	25%	\$510,750
CC-NM15	Peters Street	Sunnyslope	Construct sidewalk on Peters Street from School Street to Easy Street.	Non-Motorized Improvement	Urban Local Access	\$836,280	\$0	\$0	\$836,280	25%	\$1,045,350
CC-NM16	Euclid Avenue	Sunnyslope	Construct sidewalk on Euclid Avenue from Penny Road to US 97A.	Non-Motorized Improvement	Urban Collector	\$684,360	\$0	\$0	\$684,360	25%	\$855,450
CC-NM17	Peters Street	Sunnyslope	Construct sidewalk on Peters Road from Easy Street to Ohme Garden Road	Non-Motorized Improvement	Urban Local Access	\$494,280	\$0	\$0	\$494,280	25%	\$617,850
CC-NM18	Cordell Avenue	Sunnyslope	Construct sidewalk on Cordell Avenue from Lower Sunnyslope Road to Easy Street.	Non-Motorized Improvement	Urban Minor Arterial	\$380,160	\$0	\$0	\$380,160	25%	\$475,200
CC-NM29	Okanogan Avenue / Circle Street	Wenatchee UGA	Construct sidewalk on Okanogan Avenue between Circle Street and City limit, and Circle Street between Miller Street and Okanogan Avenue.	Non-Motorized Improvement	Urban Local Access	\$1,244,520	\$0	\$0	\$1,244,520	25%	\$1,555,650
CC-NM31	S. Wenatchee Avenue	Wenatchee UGA	Construct sidewalk on S. Wenatchee Avenue between Boodry Street and City limit.	Non-Motorized Improvement	Urban Local Access	\$696,600	\$0	\$0	\$696,600	25%	\$870,750

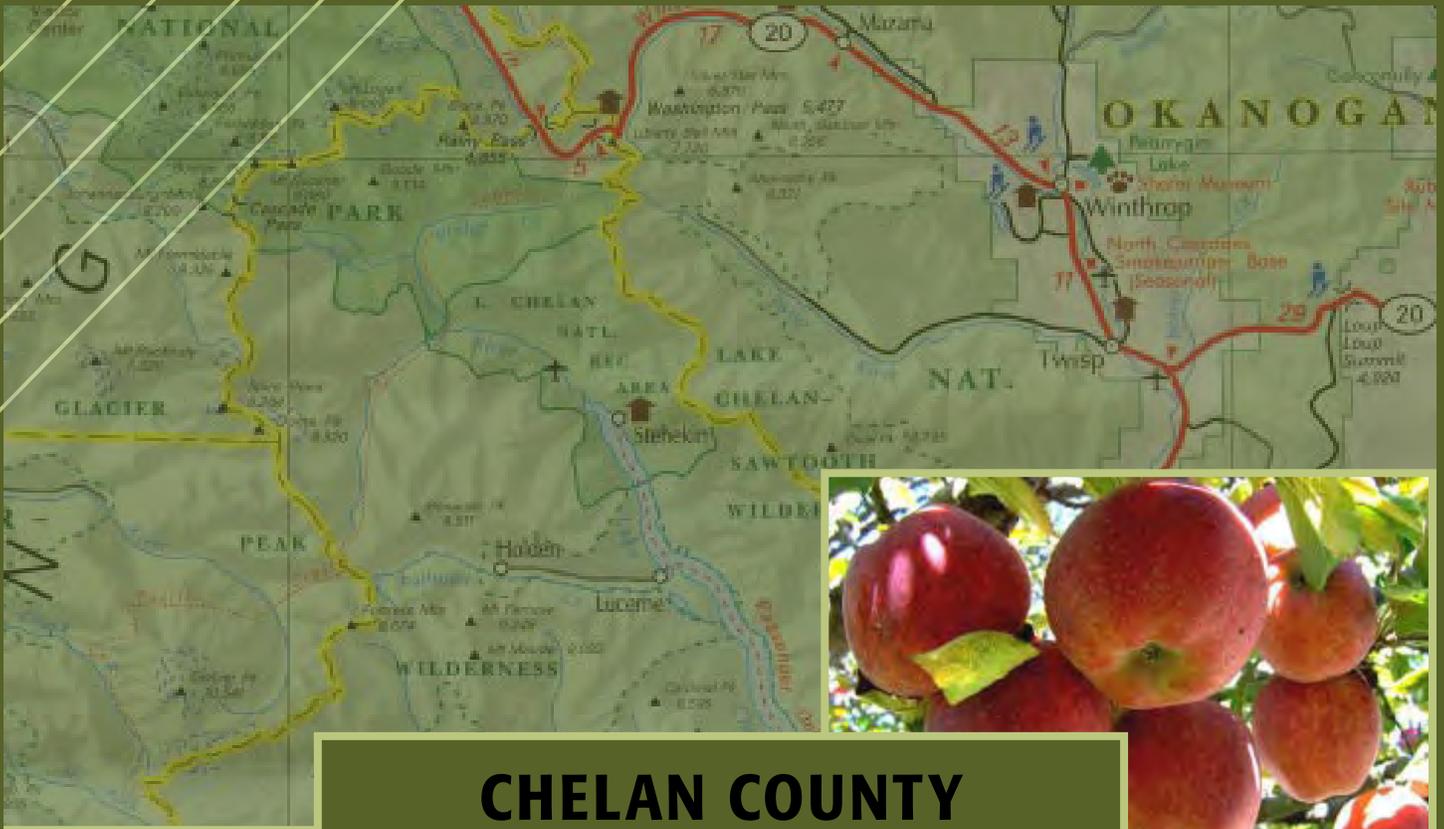
Chelan Project Cost Summary

TOTAL PROJECT COST SUMMARY

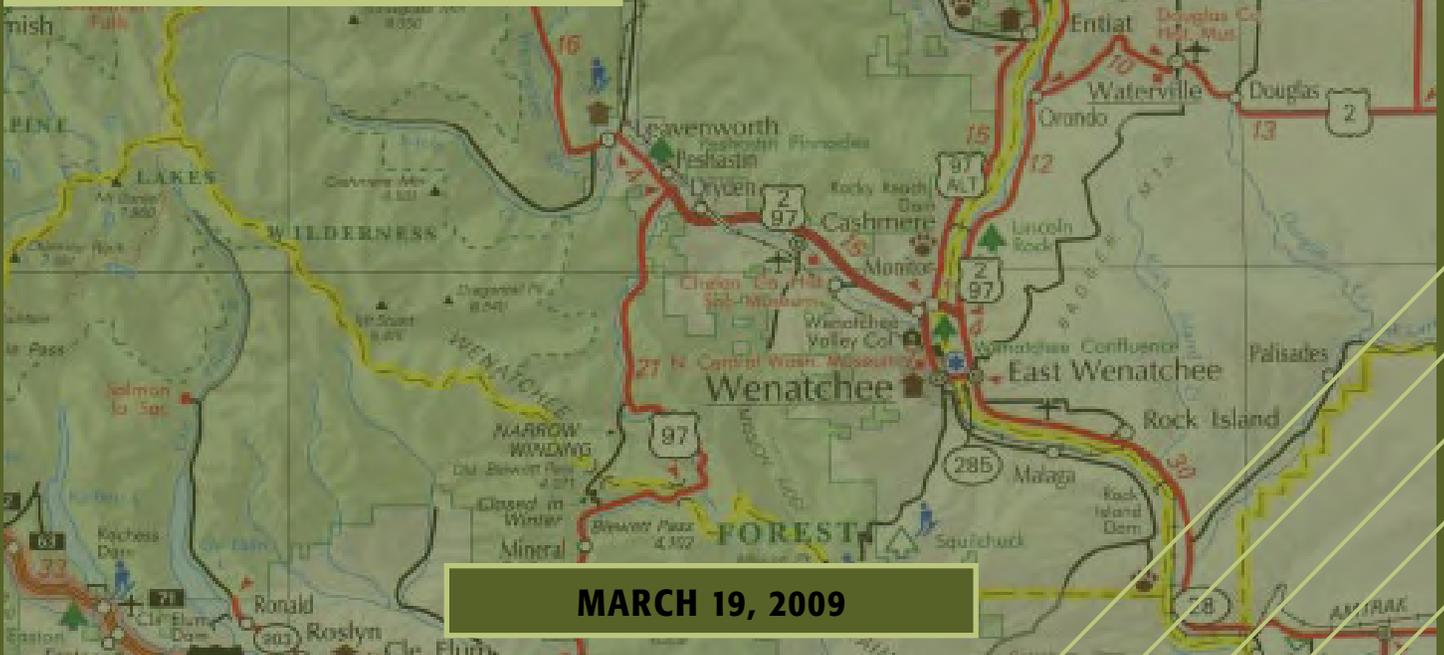
Project	Project Name	Project Limits	Project Description	Project Type	Roadway Class	Roadway Costs (\$)	Intersection Costs (\$)	Other Costs (\$)	Total Unfactored Project Cost (\$)	Contingency Cost Factor (%)	Total Project Costs (\$)
CC-NM19	Tichenal Road Connection	Cashmere	Provide pedestrian/bicycle connection between Tichenal Rd to Old Monitor Rd	Non-Motorized Improvement	Urban Collector	\$212,856	\$0	\$0	\$212,856	25%	\$266,070
CC-NM20	Valley Trail - Dryden to Cashmere	Cashmere	Identify ROW and construct trail between Dryden and Cashmere.	Non-Motorized Improvement	Urban Collector	\$1,551,420	\$0	\$0	\$1,551,420	25%	\$1,939,275
CC-NM21	Valley Trail - Cashmere to Monitor	Cashmere Monitor	Identify ROW and construct trail between Cashmere and Monitor.	Trail	Trail	\$1,166,100	\$0	\$0	\$1,166,100	25%	\$1,457,625
CC-NM22	Chelan Lakeside Trail - Phase 1	Chelan	New trail from Lake Chelan State Park to City limits.	Trail	Trail	\$1,662,402	\$0	\$0	\$1,662,402	25%	\$2,078,003
CC-NM23	South Lakeshore Drive Chelan Lake Shore Trail - Phase 2	Chelan	Widen shoulders, provide pedestrian improvements between 25-mile Creek State Park to Lake Chelan State Park.	Non-Motorized Improvement	Urban Collector	\$7,014,000	\$0	\$0	\$7,014,000	25%	\$8,767,500
CC-NM24	Wenatchee Foothills Trail	Wenatchee UGA	This particular trail is well through the planning stages and is prepared to receive funding for acquisition and development.	Non-Motorized Improvement	Urban Collector	\$1,825,200	\$0	\$0	\$1,825,200	25%	\$2,281,500
CC-NM25	Valley Trail - Leavenworth to Peshastin	Leavenworth Peshastin	Identify ROW and construct trail between Leavenworth and Peshastin.	Non-Motorized Improvement	Urban Collector	\$1,166,100	\$0	\$0	\$1,166,100	25%	\$1,457,625
CC-NM26	North Shore Pathway	Manson	Trail from Manson to Chelan along SR 150.	Non-Motorized Improvement	Urban Collector	\$1,769,430	\$0	\$0	\$1,769,430	25%	\$2,211,788
CC-NM27	Valley Trail - Monitor to Wenatchee	Monitor Sunnyslope	Identify ROW and construct trail between Monitor and Wenatchee. Could include use of irrigation canal.	Non-Motorized Improvement	Urban Collector	\$1,825,200	\$0	\$0	\$1,825,200	25%	\$2,281,500
CC-NM28	Valley Trail - Peshastin to Dryden	Peshastin	Identify ROW and construct trail between Peshastin and Dryden.	Trail	Trail	\$811,200	\$0	\$0	\$811,200	25%	\$1,014,000
CC-W1	Lake Chelan water taxi service	Chelan	For tourism and recreation	N/A	N/A	---	---	---	---	---	---
CC-W2	Ferry service across the Columbia River in Entiat	Entiat	Ferry service - For emergency management, recreation and tourism development.	N/A	N/A	---	---	---	---	---	---
CC-W3	New water taxi service between Lake Chelan State Park and Manson	Manson	For tourism, recreation, and economic development	N/A	N/A	---	---	---	---	---	---

Appendix D

TRANSPORTATION FUNDING REPORT



CHELAN COUNTY TRANSPORTATION FUNDING REPORT



MARCH 19, 2009



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CHELAN COUNTY TRANSPORTATION FUNDING REPORT

Executive Summary

PROJECT PURPOSE AND APPROACH

The purpose of this analysis is to examine Chelan County's funding situation as it seeks to build, replace, and maintain its transportation system. The County's significant growth has impacted the transportation needs in the County and made necessary an update of the County's Transportation Element. This update and the funding strategies will address the project areas of maintenance, administration, and facilities construction while incorporating the County's transportation funding goals as identified in Stakeholder and community meetings:

- Reserve regional funding sources for the preservation, maintenance, and operation of existing County-wide transportation facilities
- Direct funding sources to specific projects (or categories of projects) that best relate the costs of those projects to their primary beneficiaries
- Require new development to pay its fair share of expanding/upgrading transportation facilities in the County

In order to determine available funding for transportation expenditures, this analysis examines current County revenues and past trends in County transportation expenditures to estimate future funding needs. The Report then outlines potential strategies for increasing County funding and assesses each option's revenue impact and feasibility.

CURRENT COUNTY FUNDING

There are six main sources of revenues available for transportation projects in Chelan County: property tax; real estate excise tax (REET); local funding, such as permit fees; state fuel tax; state funds, primarily grants; and federal funds. **Exhibit ES-1** shows the Baseline revenue projections for each source over the 20-year study period. Each source is shown to decline in real terms due to the rate of inflation, with a total projected revenue of approximately \$171 million.

Exhibit ES-1: Chelan County Baseline Transportation Revenue Summary – 2008\$

Baseline	Total 2008-2012	Total 2013-2017	Total 2018-2022	Total 2023-2027	Total 2008-2027
Estimated Future Revenues					
Property Tax	\$ 27,259,254	\$ 25,034,259	\$ 22,145,149	\$ 19,589,460	\$ 94,028,121
REET	\$ 1,869,232	\$ 1,573,843	\$ 1,325,134	\$ 1,115,727	\$ 5,883,935
Other Local Fundi	\$ 384,359	\$ 414,064	\$ 446,064	\$ 480,538	\$ 1,725,026
State Fuel Tax	\$ 11,852,481	\$ 10,750,725	\$ 9,751,383	\$ 8,844,935	\$ 41,199,524
State Funds	\$ 2,782,071	\$ 2,523,461	\$ 2,288,891	\$ 2,076,125	\$ 9,670,547
Federal Funds	\$ 8,624,408	\$ 3,673,661	\$ 3,332,173	\$ 3,022,428	\$ 18,652,671
Total Estimated Available F	\$ 52,771,805	\$ 43,970,013	\$ 39,288,793	\$ 35,129,214	\$ 171,159,825

Source: Berk & Associates, 2008

Note: numbers may not add to total due to rounding

Exhibit ES-2 shows the projected transportation maintenance costs over the 20-year study period. Total costs are expected to be approximately \$187 million. Some funds are not available for maintenance expenses, including most grant funds, REET funds, and matching funds for grants. This leaves \$131 million available for maintenance compared to an estimated cost of \$187 million for the

Chelan County Transportation Funding Report Executive Summary

study period, resulting in an estimated \$56 million shortfall to cover maintenance costs. This also leaves only \$40 million available for capital projects, and those dollars are heavily dependent upon grant awards (**Exhibit ES-3**).

Exhibit ES-2: Chelan County Transportation Maintenance Cost Projections – 2008\$

Chelan Co - Trend	Total 2008-2012	Total 2013-2017	Total 2018-2022	Total 2023-2027	Total 2008-2027
Estimated Maintenance & Operations Expenditures					
Maintenance	\$ 31,238,954	\$ 34,543,110	\$ 38,158,826	\$ 42,153,008	\$ 146,093,898
Administration	\$ 7,036,099	\$ 7,953,199	\$ 8,989,836	\$ 10,161,590	\$ 34,140,724
Facilities Construction & Maintenance	\$ 1,278,221	\$ 1,597,873	\$ 1,757,277	\$ 1,932,583	\$ 6,565,953
Total Estimated Costs	\$ 38,275,052	\$ 42,496,309	\$ 47,148,662	\$ 52,314,599	\$ 186,800,575

Source: Berk & Associates, 2008

Note: numbers may not add to total due to rounding

Exhibit ES-3: Estimated Shortfall in Capital and Maintenance Revenues – 2008\$

Baseline	Total 2008-2027
Estimated Future Revenues	\$ -
Property Tax	\$ 94,028,121
REET	\$ 5,883,935
Other Local Funding	\$ 1,725,026
State Fuel Tax	\$ 41,199,524
State Funds	\$ 9,670,547
Federal Funds	\$ 18,652,671
Total Estimated Available Revenues	\$ 171,159,825
Capital Only Funds	
REET	\$ 5,883,935
State Funds (Grants)	\$ 9,670,547
Federal Funds (Grants)	\$ 18,652,671
Est. minimum match for grants (20%)	\$ 6,000,000
Total Available for Capital	\$ 40,207,154
Total Available for Maintenance	\$ 130,952,671
Projected Maintenance Costs	\$ 186,800,575
Projected Maintenance Shortage	\$ (55,847,904)

Source: Berk & Associates, 2008

FUNDING STRATEGIES

Chelan County has several strategy options for addressing the transportation funding shortfall and meeting the funding goals identified above:

- **Make the Road Levy a Sustainable Long-Term Funding Source.** This can be done by using the Road Levy's "banked capacity" to fund projects in the short-term (which the County has elected to do in the 2009 budget) and by securing a voter-approved levy lid lift in the long-term to allow the levy to keep up with the rate of inflation and population growth.
- **Create a New Transportation Revenue Source – Transportation Benefit District.** A Transportation Benefit District may be established for the construction and operation of improvements to County roadways and for the reconstruction and upgrade of existing facilities, pedestrian and bicycle enhancements, or other regionally significant projects. Once established, the District has the authority to levy additional sales and use tax or motor vehicle license renewal fees to fund transportation projects.
- **Develop a Set of Growth-Related Funding Sources.** In order to ensure that new development helps pay for the growing demands on transportation, the County may implement Transportation Impact Fees, Planned Action Ordinances, and Latecomer Agreements.

CHELAN COUNTY TRANSPORTATION FUNDING REPORT

Table of Contents

- 1.0 Introduction..... 1
- 2.0 Transportation Revenue Projections..... 2
- 3.0 Transportation Maintenance Cost Projections..... 6
- 4.0 The Funding Gap..... 8
- 5.0 Strategies and Recommendations 9
- Appendix A: Potential Funding Alternatives..... 13

1.0 INTRODUCTION

1.1 Project Purpose

The purpose of this analysis is to examine Chelan County's funding situation as it seeks to build, replace, and maintain its transportation system. The County's significant growth has impacted the transportation needs in the County and made necessary an update of the County's Transportation Element. This update will result in a list of project priorities, particularly in unincorporated urban growth areas (UGAs) and local areas of more intense rural development (LAMRIDs) to be included in the 20-year planning period (2008-2027). The following analysis addresses the current revenues available for funding transportation expenditures, as well as strategies to meet any shortfalls.

1.2 Background

Based on the planning process that has included community visioning & Stakeholder Advisory Group discussions, the County has identified a broad range of transportation projects. Many of these projects can be distinguished by type:

- Maintenance and operations
- Reconstruction of existing facilities, and pedestrian and bicycle enhancements
- New or upgraded facilities to support new development

As the County develops a long-term funding solution to its transportation needs, it must balance multiple goals. Over the course of the planning process, three planning principles emerged that sought to guide future funding strategies:

- Reserve regional funding sources for the preservation, maintenance, and operation of existing County-wide transportation facilities
- Direct funding sources to specific projects (or categories of projects) that best relate the costs of those projects to their primary beneficiaries
- Require new development to pay its fair share of expanding/upgrading transportation facilities in the County

In addition, any funding strategy must balance those goals against developing a system of sustainable revenue sources that are feasible for the County to implement. This is even more pressing given the limited means counties have at their disposal for raising revenue. Over the past ten years, a combination of statewide initiatives and legislative actions has altered the landscape for local governments. The most sweeping changes have revolved around voters' decisions to (1) end the Motor Vehicle Excise Tax and (2) create strict limits on the growth of property taxes.

Across Washington State, the effect of these actions has varied by jurisdiction. Cities and local service providers, like counties, are facing increasing difficulty given their reliance on the two items listed above. Washington's counties are different from cities and special service districts in fundamental ways. These differences are brought into stark relief by considering the interplay of four factors:

- 1) Counties face strict limits on their taxing authority;
- 2) Counties are heavily reliant on property taxes (whose purchasing power is eroding due to I-747, explained in Section 2.3);
- 3) Counties face a long list of regional service obligations that are mandated by the state; and

- 4) Counties have a complex set of relationships with multiple constituencies
 - a. They collect *regional taxes* and provide *regional services* for all constituents in the county; and,
 - b. They collect *local taxes* and provide *local services* to unincorporated areas.

Given this combination of factors, Washington’s counties have found themselves squeezed between two positions. They have a long list of service obligations that are non-negotiable, they face structural erosion in their most important revenue source, and they have few statutory options for securing new revenue streams. As they look to the future, Washington’s counties face a fundamental, structural challenge—a challenge that will become increasingly unmanageable over time. Chelan County is no exception and this larger systemic issue is at the core of their long-term transportation funding issues.

2.0 TRANSPORTATION REVENUE PROJECTIONS

2.1 Approach

The projections in this analysis are based on a review of historical data in the County’s Public Works budget, as well as reports from the Washington State Department of Transportation (WSDOT) showing the County’s historical expenditures and revenues used for transportation funding. Funds were examined by revenue stream.

2.2 Summary of Baseline Projections

Based on revenue projections, approximately \$171 million will be available for transportation funding during the planning horizon. Due to statutory restrictions in funding, \$131 million is available for maintenance and operations leaving approximately \$40 million available for the reconstruction of existing facilities or development of new facilities.

There are six main sources of revenues available for transportation projects in Chelan County: property tax; real estate excise tax (REET); local funding, such as permit fees; state fuel tax; state funds, primarily grants; and federal funds. Each will be described in more detail below.

Exhibit 1 below shows the total Baseline revenue projections over the 20-year study period in five-year increments. These revenues are displayed in inflation-adjusted 2008 dollars. The table shows that there is an overall decline in the funds available for transportation in Chelan County, with each revenue stream not keeping up with the rate of inflation.

Exhibit 1: Chelan County Baseline Transportation Revenue Summary – 2008\$

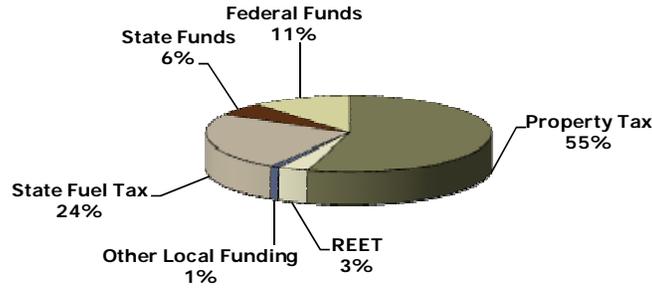
Baseline	Total 2008-2012	Total 2013-2017	Total 2018-2022	Total 2023-2027	Total 2008-2027
Estimated Future Revenues					
Property Tax	\$ 27,259,254	\$ 25,034,259	\$ 22,145,149	\$ 19,589,460	\$ 94,028,121
REET	\$ 1,869,232	\$ 1,573,843	\$ 1,325,134	\$ 1,115,727	\$ 5,883,935
Other Local Fundi	\$ 384,359	\$ 414,064	\$ 446,064	\$ 480,538	\$ 1,725,026
State Fuel Tax	\$ 11,852,481	\$ 10,750,725	\$ 9,751,383	\$ 8,844,935	\$ 41,199,524
State Funds	\$ 2,782,071	\$ 2,523,461	\$ 2,288,891	\$ 2,076,125	\$ 9,670,547
Federal Funds	\$ 8,624,408	\$ 3,673,661	\$ 3,332,173	\$ 3,022,428	\$ 18,652,671
Total Estimated Available F	\$ 52,771,805	\$ 43,970,013	\$ 39,288,793	\$ 35,129,214	\$ 171,159,825

Source: Berk & Associates, 2008

Note: numbers may not add to total due to rounding

Exhibit 2 below shows the expected distribution of the total projected revenues across the six revenue sources over the study period.

Exhibit 2: Chelan County Projected Transportation Revenue Distribution



Source: Berk & Associates, 2008

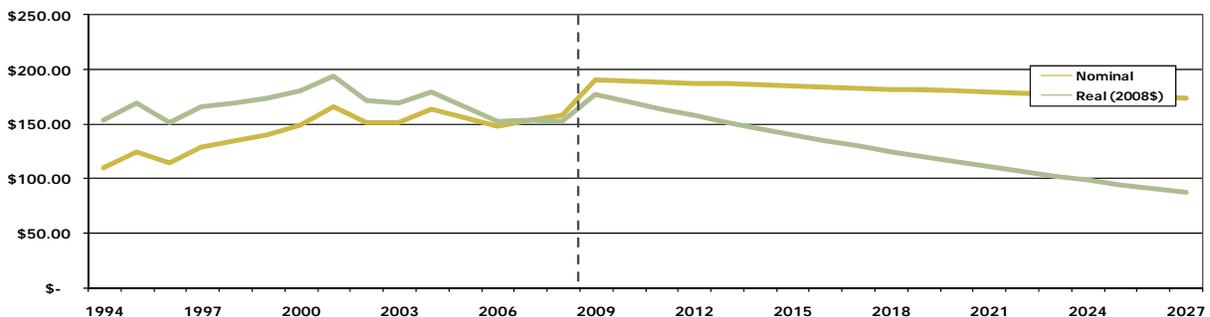
2.3 Property Tax Revenues

As evident in **Exhibit 2** above, property tax revenues through the County Road Levy make up the majority (55%) of available funds for transportation projects. However, with the passage of Initiative 747, which restricts property tax increases at 1%, lower than the estimated 3.5% rate of inflation, those funds are diminishing. Cities and counties are seeing a decline in total property tax purchasing power as a result of the I-747 cap. Up to 2008, the County had not used its entire legal limit, leaving it with some banked capacity. For its 2009 budget, the County has elected to use its banked capacity and levy the entire legal limit.¹

The amount of property tax collected through the Road Levy in Chelan County has been declining on a per capita basis at approximately 0.2% annually. In order to maintain this 1% increase limit as population increases, the per capita decline assumed in the future is 0.5%.

Exhibit 3 below shows per capita property tax for transportation in both nominal and “real” inflation-adjusted dollars. Historical data is shown to the left of the dotted line, and future projections to the right. The decline in per capita revenues since the institution of I-747 in 2001 is evident particularly in the inflation-adjusted numbers shown by the green line.

Exhibit 3: Chelan County Per Capita Baseline Projections - Property Tax for Transportation



Source: Berk & Associates, 2008

¹ While the County has the discretion to collect less than the full legal limit, it is assumed it will continue to collect the full legal limit of the Road Levy because of unmet need in maintenance and operation obligations.

2.4 General Fund Revenues

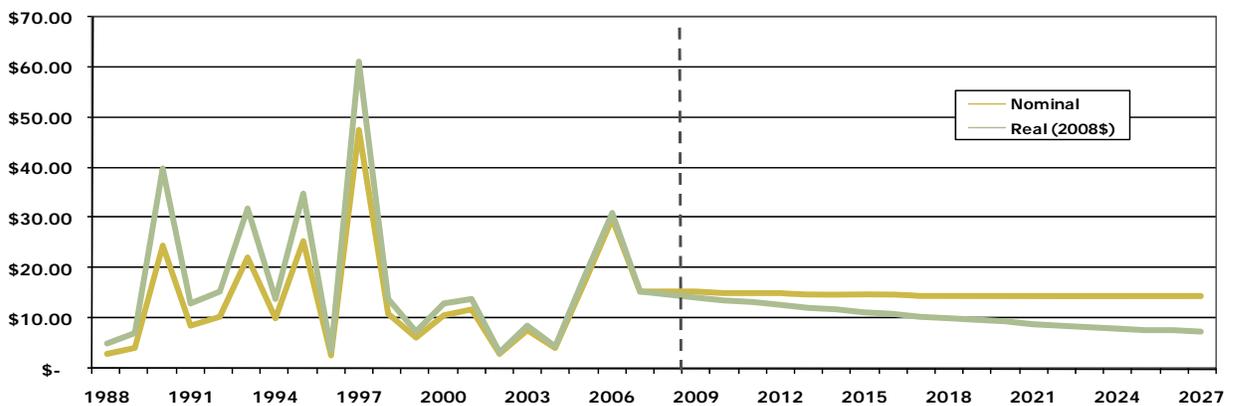
Historically the County's General Fund contributions to transportation capital have been sporadic. There has been no contribution since 2001. We are currently projecting no General Fund contributions in the future. The County may choose to contribute General Funds for particular projects, but given the recent history there is no basis on which to assume a reliable stream of General Fund dollars for transportation.

2.5 Other Local Funding

These dollars include REET funds, Leasehold Excise Taxes, Road Permits, payments in lieu of taxes, and others. Since 2005 the County has made a standing contribution of REET funds towards transportation. A \$400,000 annual commitment has been assumed into the future. Because these funds are not increasing to account for population growth or inflation, "real" per capita dollars are declining over time.

The remaining other funds in this category were approximately \$2.33 per capita in 2007 and \$2.40 in 2008. It is assumed that this per capita level of funding will continue into the future, increasing at the rate of inflation. **Exhibit 4** below shows per capita dollars in this category. It is evident in the green line that the inflation-adjusted per capita dollars are declining over time. Because total REET contributions are remaining constant in nominal dollars while population increases, the nominal per capita dollars (shown in the yellow line) are also decreasing very slightly over time.

**Exhibit 4: Chelan County Per Capita Baseline Projections –
Other Local Funds for Transportation**

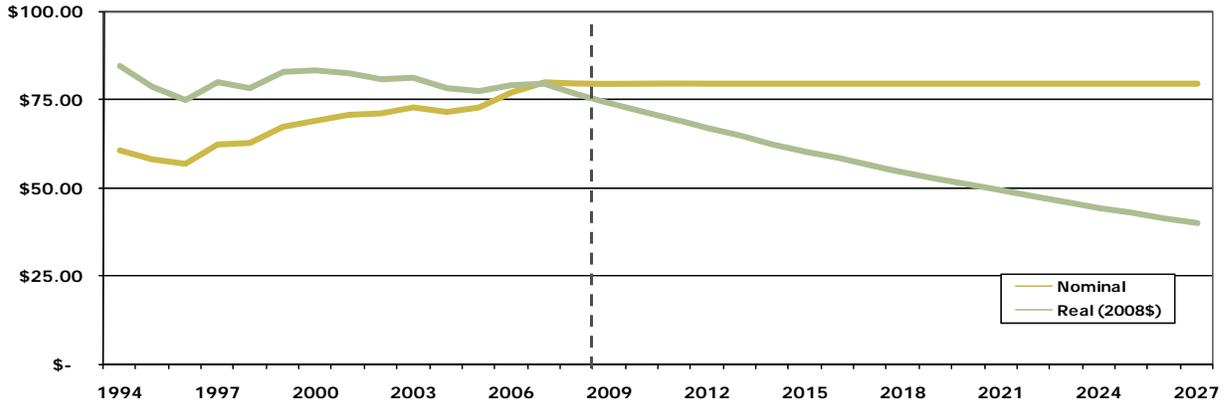


Source: Berk & Associates, 2008

2.6 State Motor Vehicle Fuel Tax

Although historical per capita fuel tax dollars have been increasing in nominal numbers, when adjusted for inflation it is clear that per capita revenues have been declining over time. This trend is becoming more pronounced in very recent history due to large increases in the price of gasoline. Taking into account the recent shift in behavior, we assume in this analysis that per capita spending will remain constant on a nominal basis, therefore decreasing in real dollars at the rate of inflation annually. **Exhibit 5** below shows the historical and projected data in real and nominal dollars.

Exhibit 5: Chelan County Per Capita Baseline Projections – State Fuel Tax



Source: Berk & Associates, 2008

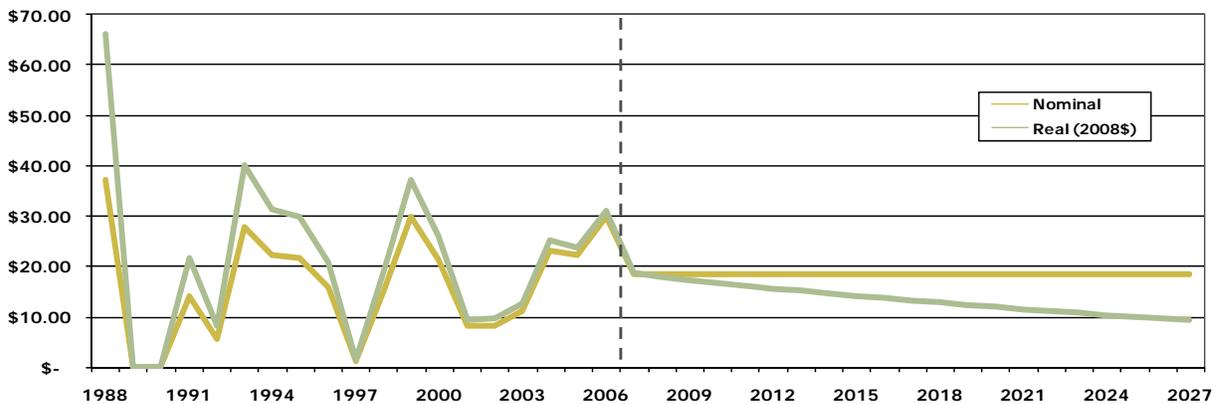
2.7 State Funds

This category is primarily state grants, but also includes the Reforestation Harvest Tax received by the County. State grants are primarily funded through the state Motor Vehicle Fuel Tax. As discussed above, revenues generated from the purchase of gasoline are declining over time, and are expected to do so more dramatically in the near future, leading to fewer available grant dollars. In addition, with the institution of Initiative 747, all state jurisdictions are seeing a decline in a significant source of general revenue. This is causing a higher demand for grant funding and greater competition between jurisdictions.

Since 1988, Chelan County has averaged \$18.62 per capita in state funds when adjusting for inflation. For this analysis we have assumed that the County will continue to receive this level of funding on a nominal basis, leading to a decline in “real” revenues at the rate of inflation.

Historical funding and future projections are shown in **Exhibit 6** below for state grants. Because these dollars are largely project-based, the projections shown here are likely to be higher than actual in some years, and lower in others.

Exhibit 6: Chelan County Per Capita Baseline Projections – State Funds



Source: Berk & Associates, 2008

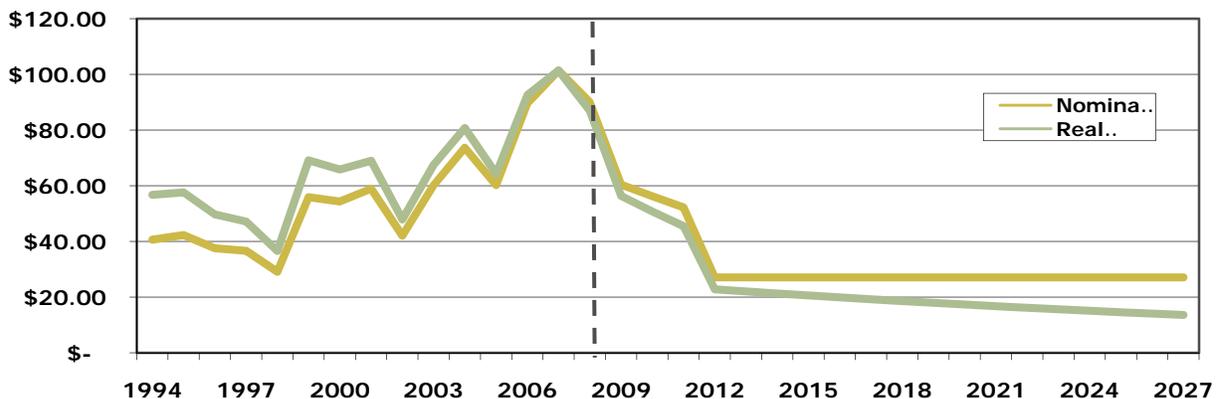
2.8 Federal Funds

These funds include both federal grant revenues and the Federal Forest Yield regularly received by Chelan County. Historically, the Federal Forest Yield program had been funded through Federal timber sales. Recent revenue from this source has been sharply curtailed as the volume of timber sold annually from most of the Federal lands has decreased. In 2008, funding for this program was reauthorized until FY 2011 when the program will end. The Secure Rural Schools and Community Self-Determination Act of 2000, of which the Forest Yield Program is a part, is currently being lobbied in Congress for a reauthorization. Given this uncertainty, the analysis assumes 100% of estimated funding for 2008 with a 10% reduction for the following four years, with a final program year of 2011.

The federal grant portion of these funds has been treated similar to state grants. The average per capita grant revenues received by Chelan County have been \$29.68 annually, when adjusted for inflation. We have assumed this number to continue in nominal dollars into the future, causing real grant revenues to decline at the rate of inflation.

Exhibit 7 below shows the per capita funds expected from the combination of the Federal Forest Yield program (through 2012) and federal grant dollars.

Exhibit 7: Chelan County Per Capita Baseline Projections – Federal Funds



Source: Berk & Associates, 2008

3.0 TRANSPORTATION MAINTENANCE COST PROJECTIONS

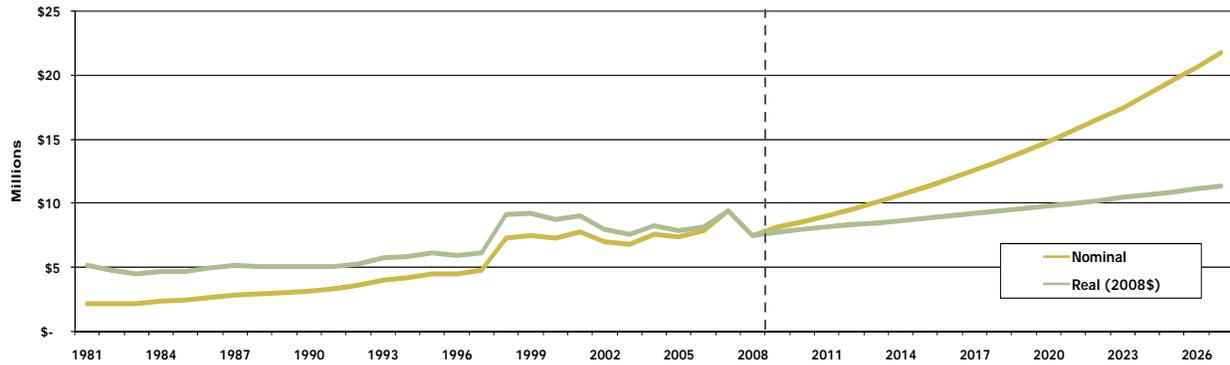
3.1 Approach

Data for this analysis comes from a review of the County’s historical Public Works budgets, detailing transportation maintenance and operations expenditures by category. The three main categories of expenditures by the County that emerged during the review are maintenance, administration, and facilities construction, and are included in this analysis.

3.2 Total Baseline Cost Projections

Exhibit 8 and 9 summarize the baseline cost projections for the three main expenditure categories for transportation maintenance and operations for the County (Maintenance, Administration, and Facilities Construction & Maintenance). These projections have been adjusted for inflation and are shown in 2008 dollars.

Exhibit 8: Chelan County Baseline Cost Projections



Source: Berk & Associates, 2008

Exhibit 9: Chelan County Transportation Maintenance Cost Projections – 2008\$

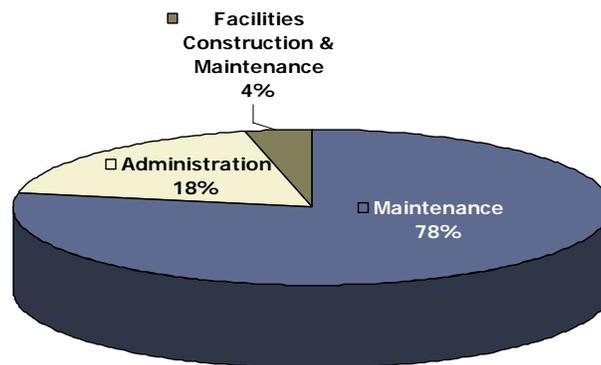
Chelan Co - Trend	Total 2008-2012	Total 2013-2017	Total 2018-2022	Total 2023-2027	Total 2008-2027
Estimated Maintenance & Operations Expenditures					
Maintenance	\$ 31,238,954	\$ 34,543,110	\$ 38,158,826	\$ 42,153,008	\$ 146,093,898
Administration	\$ 7,036,099	\$ 7,953,199	\$ 8,989,836	\$ 10,161,590	\$ 34,140,724
Facilities Construction & Maintenance	\$ 1,278,221	\$ 1,597,873	\$ 1,757,277	\$ 1,932,583	\$ 6,565,953
Total Estimated Costs	\$ 38,275,052	\$ 42,496,309	\$ 47,148,662	\$ 52,314,599	\$ 186,800,575

Source: Berk & Associates, 2008

Note: numbers may not add to total due to rounding

Exhibit 10 below shows the distribution of total projected maintenance and operations costs over the study period.

Exhibit 10: Chelan County Projected Transportation Maintenance Cost Distribution (Primary Categories - Based on Historical Trend)



Source: Berk & Associates, 2008

3.3 Maintenance Costs

Since 1981, per capita maintenance costs have been increasing in the County by 4.0% annually, which is more rapid than the inflation rate of 3.5% (implicit price deflator rate). This leads to the County having to use a larger portion of its funds each year to fund transportation maintenance. For this analysis we have assumed that maintenance costs as a whole will continue to increase at the historical rate of 4.0% per capita.

3.4 Administration Costs

The second-largest category of expenditure for transportation maintenance and operations is administration. These costs have historically been increasing at a per capita rate of approximately 4.5% annually. For this analysis we have assumed that this per capita rate will continue in the future.

3.5 Facilities Construction and Maintenance Costs

Chelan County also spends money on building new transportation facilities and maintaining those facilities each year. To account for occasional large expenditures in this category due to the building of a new facility, the average per capita expenditure of \$9.00 annually (adjusted for inflation) was used for future years. Because larger expenditures are project-based this is likely to overstate costs in some years and understate them in others. Historical expenditures have also generally been increasing at 3.9% annually, which was used for future cost growth.

4.0 THE FUNDING GAP

When comparing total available revenues for transportation capital and maintenance with expected maintenance costs over the 20-year study period, revenues fall short of paying for just the estimated maintenance costs, before even considering capital project costs. This makes sense when considering that the main revenues used for transportation are increasing at a relatively slow rate, while costs are increasing more quickly over time. Although spending is currently balanced, the increase in costs begins to outpace the increase in revenues in the very near term.

As discussed earlier, the total estimated transportation revenues for the study period are approximately \$171 million. These revenues are the total available for all capital and maintenance needs for the County for the next 20 years. However, some funds are not available for maintenance expenses, including most grant funds, REET funds, and matching funds for grants. The estimated \$30 million in grants, therefore, must not be counted towards maintenance costs, as well as \$6 million in REET funds and an estimated minimum of \$6 million in matching funds for grants. This leaves \$131 million available for maintenance compared to an estimated cost of \$187 million for the study period, resulting in an estimated \$56 million shortfall to cover maintenance costs. This also leaves only \$40 million available for capital projects, and those dollars are heavily dependent upon grant awards.

Exhibit 11 below helps to illustrate the imbalance in revenues and maintenance costs.

Exhibit 11: Estimated Shortfall in Transportation Capital and Maintenance Revenues

Baseline	Total 2008-2027
Estimated Future Revenues	\$ -
Property Tax	\$ 94,028,121
REET	\$ 5,883,935
Other Local Funding	\$ 1,725,026
State Fuel Tax	\$ 41,199,524
State Funds	\$ 9,670,547
Federal Funds	\$ 18,652,671
Total Estimated Available Revenues	\$ 171,159,825
Capital Only Funds	
REET	\$ 5,883,935
State Funds (Grants)	\$ 9,670,547
Federal Funds (Grants)	\$ 18,652,671
Est. minimum match for grants (20%)	\$ 6,000,000
Total Available for Capital	\$ 40,207,154
Total Available for Maintenance	\$ 130,952,671
Projected Maintenance Costs	\$ 186,800,575
Projected Maintenance Shortage	\$ (55,847,904)

Source: Berk & Associates, 2008

In order to bring maintenance costs in balance with projected revenues, as well as having funds available for capital projects, the County has a few options:

- Reduce levels of service for transportation maintenance
- Find ways of reducing costs for the maintenance performed
- Be aggressive in pursuing state and federal transportation grants where the County is competitive
- Consider policy changes that would increase future revenues and available funding. Specific mechanisms will be described in more detail in the following section.

5.0 STRATEGIES AND RECOMMENDATIONS

5.1 Approach and Framework

In order to assess the funding alternatives described in this Section, they must be evaluated in terms of the planning principles and goals of Chelan County, as well as their feasibility. The funding alternatives are screened across by how broadly the project benefits transportation facility users. The planning principles under this approach seek to:

- Direct funding sources to specific projects (or categories of projects) that best relate the costs of those projects to their primary beneficiaries
- Reserve regional funding sources for constructing, maintaining, and operating transportation facilities of county-wide significance
- Have new development pay its fair share of expanding/upgrading transportation facilities in the county

5.2 Strategies for Bridging the Funding Gap

In order to increase funding for transportation projects, the County should adopt an approach that:

- 1) Embraces the three planning principles identified above;
- 2) Addresses the need to preserve and maintain the existing transportation facilities by focusing on the sustainability of the County's major transportation revenue source; and
- 3) Creates new revenue sources available to fund new transportation projects.

Strategy #1: Make the Road Levy a Sustainable Long-Term Funding Source

Counties are dependent on the Road Levy to fund their transportation needs, and unlike other general service providers, cannot rely on growth in other revenue sources to off-set declines. Counties generally do not have statutory authority to levy new taxes. And, unlike special service districts, counties have a much more complex relationship with their constituencies as identified above.

The value of the Road Levy for the County is unmatched by any other revenue source. Since the passage of I-747, the County has seen the real per-capita value of the Road Levy decline at a rate of 3.2%. From a fiscal sustainability perspective, the County cannot allow the largest component of their transportation funding to decline in value relative to the rate of growth of their basic transportation needs. The County has a strong argument, if not difficult, to make to its constituents that they will need to restore the value of the Road Levy to levels that will sustain their base transportation needs; or choose, through their political processes, to reduce levels of services. The Road Levy can be addressed through two mechanisms:

- In the short-term, using the "banked capacity" in the Road Levy to increase transportation funding. The County currently has a total of approximately \$1.1 million in banked capacity that it could use with Commission discretion. For the 2009 budget year, the County Commission is acting to use it's the entire amount of its banked capacity.
- In the long-term, the County will need to secure a levy lid lift, or a series of lifts (with majority approval from voters in the county). Likewise, the amount of the levy lift will need to be sized to the amount of need. The County may choose either temporary or permanent levy lid lifts; however, given the ongoing needs, a voted permanent lift would be the preferable mechanism (voted on by unincorporated residents).

Funding Recommendation. The County should fund the additional preservation, maintenance, and operation needs from making the Road Levy a sustainable revenue source – leveraging grants and other local funding to maximize its value. The Road Levy may also need to support additional transportation needs outside of maintenance and operations to meet its other obligations (i.e. regional projects, share of impact fee projects, etc).

The Road Levy may not exceed \$2.25 per every \$1,000 of assessed value. The County's levy rate in 2007 was \$1.48 and declined to \$1.27 in 2008. An increase of the real per-capita value of the Road Levy at a rate of only 2% could generate an additional \$20 million over the planning period (2008\$). Under this scenario, the total levy would grow at a rate matching general inflation (3.5%).

Berk's previous projection sized the amount of maintenance and operations needs at approximately \$187 million over the 20 year planning period with a potential funding gap of \$56 million. The County would likely need to consider raising the levy to a level to meet its funding needs or choose not to fund all projects. In order to close the projected maintenance and operations funding gap, the Road Levy would need to grow at an approximate annual rate of 4.5% through levy lid lifts over the

planning horizon (the original estimate assumed annual growth rate of 1.5% based on historical trends).

Strategy #2: Create a New Transportation Revenue Source – Transportation Benefit District

In an effort to create a new revenue source suitable to funding new transportation facilities, the County may wish to create a Transportation Benefit District (TBD). A TBD may be established for the construction and operation of improvements to county roadways. The TBD may be used for the reconstruction and upgrade of existing facilities, pedestrian and bicycle enhancements, or other regionally significant projects.

While the County may create the TBD for just the unincorporated portions of the County, it may be beneficial to partner with the local incorporated jurisdictions through interlocal agreements on project funding. This may be desirable on three accounts:

- A county that creates a TBD (using the \$20 vehicle fee) must first attempt to impose a countywide fee to be shared with cities by interlocal agreement. If an interlocal agreement cannot be reached, the county is then authorized to create a TBD and impose the fee – but only in the unincorporated portions of the county.
- The County is increasingly home to regional tourist activities centered in Leavenworth, Wenatchee, and Chelan. These areas generate large volumes of taxable retail sales – sales that represent the spending of many individuals not living in Chelan County, but nonetheless whose activities strain the County’s transportation network. Tapping this out-of-county revenue source will help off-set their impacts.
- The County’s role as a local and regional service provider for transportation facilities supports these areas and commerce that takes place there.

Regardless of whether a County-wide TBD is feasible in the short-term, the County should pursue (at a minimum) a strategy to implement a TBD for the unincorporated areas.

Funding Recommendation. The County should fund the reconstruction and upgrade of existing facilities, as well as pedestrian and bicycle enhancements through the creation of a TBD. While the TBD allows for an array of funding options, including a property tax levy, it is suggested that the County TBD institute some combination of the following types of fees:

- **Sales and Use Tax.** Up to 0.2% with voter approval for up to 10 years – unless reauthorized by voters. A voter approved 0.2% sales tax increase could generate approximately \$700,000 per year for the unincorporated areas. Assuming a 2% rate of growth in the value of taxable retail sales collected, the 0.2% sales tax could generate an additional \$8.6 million over the planning period (2008\$). This number grows to \$37 million if the entire county is included in the TBD.
- **Motor Vehicle License Renewal Fee.** Up to \$100 annually, with voter approval – a jurisdiction may impose a \$20 fee without voter approval. A County Commission enacted \$20 vehicle license renewal fee could generate approximately \$0.6 million per year in the unincorporated areas. Assuming a 1% rate of growth in the number of licensed vehicles, a \$20 renewal fee could generate an additional \$8 million over the planning period (2008\$). This number grows to \$18 million if the entire County is included in the TBD. These figures revenues would be larger if the County pursued the levy of higher fees – up to a \$100 (with the required public vote).

Current projects for capital restricted revenues are estimated at \$40 million and the estimated need for these projects is anywhere from \$150 to \$291 million – leaving a gap of \$109 to \$250 million. The TBD could fund anywhere from \$8 million (\$20 fee in unincorporated areas) to \$140 million depending on the combination and magnitude of funding options pursued (countywide \$100 fee and 0.2% sales tax).

Strategy #3: Develop a Set of Growth-Related Funding Sources

Due to the expected shortfall in projected transportation funding revenue, it is imperative that new development pay its fair share of expanding/upgrading transportation facilities in the county. Along those lines, the County should enact a set of growth specific funding sources that can address – in part – the funding of these projects. By doing so, these funding sources can relate the costs of those projects to their primary beneficiaries (e.g. the residents and businesses living in these areas).

Funding Recommendation. The County should establish a set of growth related revenue mechanisms that account for new development impact on the transportation system. It can do this by instituting a County-wide transportation impact fee, and using the State Environmental Policy Act (SEPA) and developer mitigation for projects serving new growth.

For projects that are on the existing network, but where development may trigger new demands for facilities, the County should impose a County-wide transportation impact fee to account for those impacts. **Transportation impact fees** may be charged for development of specific transportation projects shown to be directly associated with new development. Impact fees may not be used to correct existing deficiencies. The imposing jurisdiction must also contribute funds to the included projects, which by statute cannot be funded 100% through impact fees. The fees are calculated based on a development's expected impact on the road system and the need for transportation improvements. Generally, this is done by basing the fees on the number of vehicle trips a development is expected to generate and each trip's proportional impact of the transportation improvement projects (alternatively can be charged on a per unit basis). Since these fees are contingent on impact, they can vary by jurisdiction of subareas of the county. The County will need to conduct a rate study to determine the fee to be charged on the projected 8,000 units of residential development and commercial development expected in the County over the planning period.

The County should also use planned action ordinances and/or Latecomer agreements for more locally-bound project needs. **Planned Actions** are a project specific action under the State Environmental Protection Act, in which an Environmental Impact Statement designates, by ordinance, those types of projects to be considered Planned Actions – spelling out mitigation measures that will be applied. These can be used to resolve existing deficiencies identified in the environmental review. These types of action are appropriate for small areas expecting a specific type of development and are located within an Urban Growth Area.

Latecomer Agreements allow property owners who have paid for capital improvements to recover a portion of the costs from other property owners in the area who later develop property that will benefit from those improvements. The period of collection may not exceed 15 years and is based on a pro rata share of the construction and contract administration costs of the particular project. The city or county must outline an area subject to the charges by determining which properties would require similar improvements. The improvement must be required for property development by city or county ordinance in order for the reimbursements to be assessed.

APPENDIX A: POTENTIAL FUNDING ALTERNATIVES

The following select funding alternatives are available to Chelan County to generate revenue for transportation projects. Each alternative has a brief description followed by a discussion of the potential revenue impacts.

1.0 TRANSPORTATION BENEFIT DISTRICT

A Transportation Benefit District (TBD) may be established for the construction and operation of improvements to county roadways. The following types of fees may be imposed:

- **Sales and Use Tax.** Up to 0.2% with voter approval for up to 10 years – unless reauthorized by voters
- **Motor Vehicle License Renewal Fee.** Up to \$100 annually, with voter approval – a jurisdiction may impose a \$20 fee without voter approval
- **Excess Property Tax Levies.** One-year maintenance and operation with voter approval or multi-year for general obligation bonds
- **Transportation impact fees on commercial and industrial buildings** (residential buildings are excluded). Commercial or industrial projects would receive a credit if a transportation impact had already been imposed in the county
- **Latecomer Agreements.** Latecomer Agreements allow property owners who have paid for capital improvements to recover a portion of the costs from other property owners in the area who later develop property that will benefit from those improvements.

Potential Revenue Impacts

Sales and Use Tax. A voter approved 0.2% sales tax increase could generate approximately \$700,000 per year. For example, a purchase of a television costing \$1,000 would be assessed an additional \$2 in sales tax under this scenario.

Vehicle License Renewal Fee. A commission enacted \$20 vehicle license renewal fee could generate approximately \$1.5 million per year. A voter approved \$100 fee could generate approximately \$3 million per year.

Excess Levies. A voter approved excess levy could generate funds dedicated to the repayment of general obligation bonds. These proposals to voters are typically presented in terms of a total dollar amount and the levy rate is determined by the assessed value in the district. For example, on a \$30 million voted excess levy, a single family home valued at \$250,000 would likely pay an additional \$80 per year in property taxes to retire the bonds.

2.0 IMPACT FEES

Impact fees may be charged for development of specific transportation projects shown to be directly associated with new development. Impact fees may not be used to correct existing deficiencies. The imposing jurisdiction must also contribute funds to the included projects, which by statute cannot be funded 100% through impact fees.

Potential Revenue Impacts. The goal of calculating traffic impact fees is to create fees based on a development's expected impact on the road system and the need for transportation improvements. Generally, this is done by basing the fees on the number of vehicle trips a development is expected to generate and each trip's proportional cost of the transportation improvement projects (alternatively can be charged on a per unit basis). Since these fees are contingent on impact, they can vary by jurisdiction. For example, for every \$1,000 in impact fees, \$8 million in revenue could be generated over the next 20 years, based on 8,000 new residential units expected to be built in unincorporated Chelan County.

3.0 LOCAL IMPROVEMENT DISTRICTS/ROAD IMPROVEMENT DISTRICT

Any jurisdiction may form a local improvement district (LID) and levy a special assessment on properties within the LID that would benefit from the improvement. These improvements include streets, parking facilities, park boulevards, and other public places along with local transportation systems, such as buses and railways, and the facilities necessitated by these systems. A city may levy a tax on the property within an area that will benefit from a specific capital project.

Road Improvement Districts are similar to LIDs, except they are specifically limited to road improvements in unincorporated areas. The County would initiate any RID funding program. Property owners that will benefit from the improvements would be assessed a special benefit assessment based on a proportionate levels determined during the formation of the district. This special benefit assessment would be used is paid by the property owned annually and typically over time (described in the formation petition). The County would have discretion in its financial contribution to the projects overall costs.

Potential Revenue Impacts. A LID/RID's special benefit assessment is determined during its formation and is assessed relative to the benefits the users derive from the improvements. For example, a LID in a commercial area funding right-of-way improvements might charge on the basis of commercial building square footage. If the LID funded \$1 million of improvements and there were 100,000 square feet of commercial square footage in the district, a property owner with 10,000 square feet of shop space might be assessed an additional \$100,000 (\$10/sqft).

4.0 ROAD LEVY

Every county in Washington State is eligible to collect a property tax road levy for the construction and maintenance of county roads and bridges. The levy may not exceed \$2.25 per every \$1000 of assessed value. The County's levy rate in 2007 was \$1.48. An increase of the levy rate would need to be passed by voters, since it would exceed the 1% cap on property tax increases.

Potential Revenue Impacts. A levy lid lift of the County's road levy from the current \$1.48, if approved by voters, would potentially generate a significant amount of revenue. For example, a \$0.50 increase to the County's road levy could generate approximately \$3.5 million a year. A single family home valued at \$250,000 would likely pay an additional \$125 a year in property taxes.

5.0 BONDS SUPPORTED WITH A LEVY LID LIFT

The County Commission may choose to pass a councilmanic bond up to their legal limit, which can provide funding through debt, but does not increase revenue. The County may also go to the public for a voter-approved bond with a levy lid lift. With approval, this provides funding through debt and also gives authority to increase property tax rates thereby increasing available revenue to pay the debt service.

Potential Revenue Impacts. A voter approved levy lid lift designated to pay back general obligation bond proceeds could generate additional funds. For example, on a \$30 million voted excess levy backed by a levy lid lift, a single family home valued at \$250,000 would likely pay an additional \$80 a year in property taxes to retire the bonds.

6.0 PLANNED ACTION ORDINANCE

Planned Actions are a project specific action under the State Environmental Protection Act in which an Environmental Impact Statement designates, by ordinance, those types of projects to be considered Planned Actions – spelling out mitigation measures that will be applied. This type of action is appropriate for small areas expecting a specific type of development.

Potential Revenue Impacts. A feature of a Planned Action is the level of flexibility and specificity that it may prescribe as mitigation for a development within a Planned Action area.

7.0 LATECOMER AGREEMENTS

Latecomer Agreements allow property owners who have paid for capital improvements to recover a portion of the costs from other property owners in the area who later develop property that will benefit from those improvements. The period of collection may not exceed 15 years and is based on a pro rata share of the construction and contract administration costs of the particular project. The city or county must outline an area subject to the charges by determining which properties would require similar improvements. The improvement must be required for property development by city or county ordinance in order for the reimbursements to be assessed.

Potential Revenue Impacts. Latecomer agreements are typically done on a pro rate share of the project cost plus administrative fees. For example, if a block-long installed sidewalk cost a builder \$45,000 to construct, adjacent developments that benefit from the sidewalk contract to reimburse the original owner \$15,000 to cover the cost of the improvement.

Appendix E

CONCURRENCY MANAGEMENT PROGRAM

DRAFT

TRANSPORTATION CONCURRENCY MANAGEMENT PROGRAM

Prepared for:

Chelan County



December 2009

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Table of Contents

What are LOS standards and what are they used for?	1
What are the County's objectives in updating its LOS standards?.....	1
What is the framework for the concurrency LOS standards and review program?	2
How would a proposed development be evaluated for concurrency?	2
What are the steps in evaluating County roadways for concurrency?	3
Where should the concurrency LOS threshold be set?	7
Which roadway segments would be at or below the recommended LOS threshold?	8
How does the concurrency program relate to implementation of County transportation improvements?	9
How would site specific issues be resolved?.....	9

Transportation Concurrency Management Program

The intent of this document is to summarize and describe the County's roadway level of service standards and how they will be used to implement the transportation concurrency management program.

What are LOS standards and what are they used for?

Level of service is a qualitative measure describing the operating conditions for a given transportation facility such as a roadway or intersection. Transportation level of service can typically be measured by criteria such as level of congestion, travel times or speeds, volume of traffic compared to capacity, frequency of transit service, comfort and convenience, or safety. LOS standards can be based on roadway sections or on intersections.

Under Washington State law, LOS standards are applied in two areas: SEPA review process and concurrency management. It is possible to have different LOS standards and methodology for SEPA review and concurrency management.

LOS Standards are part of the mandatory elements of the County's Comprehensive Plan as required by the Growth Management Act (RCW 36.70A.070). The GMA indicates that the transportation element shall include "level of service standards for all locally owned arterials and transit routes to serve as a gauge to judge performance of the system. These standards should be regionally coordinated". The transportation element needs to identify specific actions and requirements for bringing into compliance locally owned transportation facilities or services that operate or will operate under the established level of service standard.

Public agencies are responsible for defining how they want to measure level of service. The GMA directs that these standards should be coordinated regionally for local arterials and for highways of regional significance.

What are the County's objectives in updating its LOS standards?

The County's previous concurrency LOS standard was defined by the volume of traffic and available capacity of the facilities. While this approach is typically appropriate in densely populated areas where transportation facilities are at or near capacity, it does not provide a meaningful measurement of LOS in most of unincorporated Chelan County where the roadway system operates well below capacity. Under the previous approach, the County was not receiving the roadway improvements that were needed to support growth and the County's Comprehensive Plan.

Depending on how the LOS standards are defined, achieving concurrency or mitigating SEPA impacts could require different types of improvements ranging from constructing physical improvements (e.g., wider travel lanes or shoulders, additional travel lanes, intersection improvements, or traffic signals) to implementing travel demand management techniques (e.g., improved transit service, rideshare programs, or staggered shift times for larger employers). Land use policy changes are another way to address LOS deficiencies in areas where demand might outpace the ability of existing facilities to accommodate the increase in traffic volumes.

The main objectives for the new County concurrency LOS standard is as follows:

- Meet all GMA requirements;
- Support the goals and policies of the Transportation Element;
- Help the process of prioritization of transportation investments;
- Implement needed transportation improvements to support new development;
- Be reflective of the differences between different subareas and road types;
- Be reflective of the need of alternative modes (non-motorized and transit);
- Be based on accepted standards and methodologies;
- Balance staff level of effort with anticipated benefits.

What is the framework for the concurrency LOS standards and review program?

Because of the types of transportation systems' issues and needs in Chelan County, the focus of the concurrency level of service system is on the ability of arterial, collector, and local roadways to adequately serve the volume and type of traffic. The key elements that will be considered for the proposed concurrency level of service and evaluation program include:

- Functional Classification
- Pavement Width versus Average Daily Traffic Volumes
- Pavement Condition
- Roadway Grade (and Vehicle Types)
- Availability of Pedestrian Facilities

Each roadway segment, as defined in the County's current road inventory, is assigned an initial score of 100. Based on its current condition, the score is adjusted downward for conditions that are below the County's desired standard for that criterion. The exception would be for the availability of pedestrian facilities which would add to the score for that roadway segment. The scoring of these criteria is described below.

The resulting score for each roadway segment would be compared to the minimally acceptable rating of 50 points¹. If a roadway segment scores 50 or more points, it would be deemed adequate in terms of meeting the County's Concurrency LOS. If the score is below 50, then the facility would be deemed unacceptable in terms of concurrency.

How would a proposed development be evaluated for concurrency?

As a development application is proposed, the County requires a concurrency evaluation. The concurrency evaluation is used to determine if each roadway that would be "impacted" by the proposed development meets the minimally acceptable score. A detailed summary of the concurrency review process is provided in Appendix F of the Transportation Element.

To complete the evaluation, the applicant provides estimates of the daily trip generation, distribution and assignment of the traffic generated by the proposed development. The results of this step is then reviewed by County staff and used to define which roadway segments need to be evaluated for concurrency.

A minimum impact greater than 10 daily trips is used to determine those roadway segments that should be part of the concurrency evaluation. This is roughly equivalent to the impact of two single-family houses. Any development proposals generating 10 or less daily trips would not be subject to concurrency and would advance to the development review stage.

¹ Recommended LOS threshold based on an analysis of existing roadway data obtained from Chelan County.

For all roadway segments that would be impacted by more than 10 daily trips from the proposed application, the applicant would need to confirm that the roadway segments meet the minimally acceptable score, including the traffic generated by the new development.

The concurrency evaluation would be conducted by the applicant (or their consultant). The evaluation would use County data, as available. Where County data are not available or thought to be out-of-date, the applicant would be requested to provide it through applicable engineering studies.

In order to meet concurrency, all County roadway segments impacted by more than 10 project trips per day need to have a rating score of 50 or higher. If a development passes the concurrency evaluation, it could still be conditioned or denied for transportation impacts under SEPA. These could include safety or site-specific operational impacts of the development. The applicant also will need to implement on-site and adjacent frontage improvements per the County's Road Standards.

Chelan County will not be able to approve development applications that do not pass the concurrency evaluation, unless a financial commitment is in place for improvements or strategies to resolve the specific deficiency(s) within six years. If an application does not pass the concurrency evaluation, the applicant could consider the following actions:

- Amend the application to reduce the project impacts to below the 10 daily trip threshold.
- Apply transportation demand management to reduce the impacts.
- Phase the project to meet concurrency.
- Provide mitigation to resolve the LOS deficiency, such as widening the roadway pavement, providing pedestrian facilities, enhancing pavement conditions, or reducing grade impacts.
- Withdraw the application and resubmit when concurrency can be obtained.
- Ask for a reconsideration based on updated data.
- Appeal the determination.

What are the steps in evaluating County roadways for concurrency?

The concurrency system for Chelan County focuses on the adequacy of the existing roadway system to accommodate additional traffic due to new growth. Several factors are identified as the key determinants of the adequacy of the roadways to accommodate growth. These include:

- Pavement width
- Pavement condition
- Roadway grade
- Availability of pedestrian facilities

Although not a stand-alone criterion, the functional classification of the roadway enters into the rating system. Higher classification roadways are expected to be able to carry higher volumes of traffic, which is directly considered in the pavement width criterion.

Roadways in urban areas also are different than roads in rural areas. Urban areas may have a denser roadway network, compared to a rural area. Urban roadways also tend to have a higher volume of travel using transit, pedestrian, and bicycle modes of travel. The urban and

rural designation is consistent with the County's Road Standards and is applied to the pavement width, pedestrian facility, and road grade criteria.

The following summarizes the steps in completing the concurrency evaluation and determining the LOS rating for County road segments. Attachment A includes the associated tables to conduct the concurrency evaluation.

Step 1 Identify County roadway segment and existing functional classification

Chelan County has a detailed inventory of all of its roadways. The County has segmented the roadways based on traffic volumes, travel patterns, locations of intersecting roadways and other criteria. Each roadway segment is classified based on its desired function, per the Road Standards. The classifications for rural areas include major collectors, minor collectors, and a hierarchy of local access roads. Classifications within the urban areas of unincorporated Chelan County include urban collectors and a hierarchy of urban local access streets.

The first step in rating a roadway segment for the concurrency evaluation is to define the beginning and end points of the segment from the inventory and the functional classification. These data are already defined through the County's road log.

Step 2 Determine existing roadway characteristics

The concurrency evaluation for each road segment builds directly from the condition of the existing roadways. Inventory data for each segment are available through the County road log. The County road log includes data on:

- Functional classification
- Average Daily Traffic (ADT) volumes
- Pavement width
- Surface type
- Pavement condition

The data provide the bulk of the information needed for the concurrency evaluation. The roadway grade and the availability/type of any pedestrian facilities are not included in the existing inventory. These data will need to be estimated or measured in the field by the applicant. It is likely other data in the road log may be out-of-date and will need to be re-evaluated in the field by the applicant.

Step 3 Determine average daily traffic volumes and pavement width deductions

Ideally, all roadways in the County would fully meet the County's adopted road standards. However, based on how the roadway system was developed, many existing roadways have pavement widths that are below the desired standard.

The ability of a roadway segment to function efficiently and safely also depends on the volume of traffic. As traffic volumes increase, there is a higher potential for conflicts or friction as traffic in opposite directions pass each other. There is also a higher potential for vehicles to have different travel speeds, resulting in drivers choosing to pass other vehicles, such as trucks, in the same direction. Additional pavement width also provides for adequate shoulders that could be used by pedestrians and bicyclists.

No deductions are assigned for roadway segments that meet the County's Road Standards for that functional classification. When the pavement width is less than the desired standard, the roadway will not operate as efficiently or safely due to the increased potential for "friction" between vehicles and other modes such as pedestrians and bicyclists. Therefore, the narrower the pavement width, for a given volume of traffic, the greater the point deduction for the concurrency evaluation. When the width of pavement is less than 20 feet and carries higher volumes of traffic, it would receive a deduction of 50 points. This effectively states that the roadway should not be considered adequate for accommodating additional traffic growth. The cut-off for the 50-point deduction depends on the classification of the roadway and whether it is in an urban or rural area.

Similarly, as traffic volumes increase, on a roadway segment with less than the desired pavement width, the ability of the roadway to operate safely and efficiently decreases. Therefore, the point deductions increase as the volumes increase for a given width of roadway.

Step 4 Determine pavement condition deductions

Poor pavement condition along a road segment also can result in reduced efficiency and decreased safety. If roadways are breaking apart, drivers need to use more caution, which can reduce overall travel speeds for some drivers compared to the posted speed limit. Other drivers may not slow down as much and may try to pass slower vehicles. Poor pavement condition also can increase maintenance needs and costs.

Adding more traffic to a roadway with poor pavement condition will further the deterioration and increase the potential need for major maintenance on the roadway.

Chelan County maintains a Pavement Condition Index (PCI) for all of its roadways. The PCI is based on items, such as pavement cracking and rutting, using nationally accepted criteria. The PCI uses a score of 0 to 100. As shown on Step 4 in Attachment A, the lower the PCI, the higher the deduction for the road segment as part of the concurrency evaluation. The largest deduction is 25 points for PCIs less than 50.

The PCIs will change over time depending on the timing and type of maintenance or capital projects along the roadway. The changes in traffic volumes and percentage of heavy vehicles also can affect the rate of deterioration of a roadway segment's pavement.

Step 5 Determine pedestrian facility credits

The County's roadway system serves more than just automobiles and trucks. It also serves as the major system for pedestrian and bicycle travel. Much of the County's road system has limited, dedicated pedestrian facilities such as pathways or sidewalks. These types of facilities help separate pedestrians from the vehicular traffic, thereby improving safety and increasing the potential use of other travel modes. Where sidewalks or separate pathways are not available, people typically walk along the roadway shoulders (if available) or in the travel way. Paved shoulders better serve the transportation function for pedestrians (and bicyclists) compared to gravel shoulders. However paved shoulders do not receive a credit as they have been accounted for as a measurement of total paved width under Step 3.

Unlike the other criteria, the pedestrian facility evaluation element adds points to the concurrency evaluation. As areas of unincorporated Chelan County develop at higher densities and traffic volumes increase, pedestrian safety is reduced without additional facilities to provide increased separation between pedestrians from vehicles.

The credits take into account the level of facility that is provided along the roadway and whether the roadway is in a designated urban area, limited area of more intense rural development (LAMRID), or rural area. Separated sidewalks or pathways receive more credit compared to five-foot wide gravel shoulders in a rural area. Gravel pathways in an urban area or LAMRID receive no credit as the standard is a sidewalk. Facilities less than five-feet wide receive no credit points because anything less than five-feet does not meet the minimum width identified in the County's Road Standards.

Step 6 *Determine roadway grade deductions*

The grade of a roadway can affect the ability of a facility to safely and efficiently serve travel. Grades can affect the operating speed of individual vehicles which in turn increases the variation in travel speeds. Variations in travel speeds can increase the potential for crashes. As noted in AASHTO "the more a vehicle deviates from the average speed, the greater its chances of becoming involved in a crash." (p. 239, AASHTO, 2004).

While the absolute maximum grade can affect travel speeds, operation, and safety along a roadway, AASHTO design guidelines indicate that the length of grade is also important. The length of the grade affects the overall reduction in travel speeds and the variation in speeds. For purposes of simplifying the concurrency review process, the County will apply the grade criteria based on the steepest extended grade along a roadway segment of 500 feet or more

For the concurrency evaluation, two alternative grade evaluations were prepared. An option labeled "6A" in the attached table takes into account a series of different factors such as roadway classification, type of terrain, and mix of vehicles. Another option titled "6B" simplified the grade evaluations significantly. The options are defined as follows:

Option 6A

Roadway Classification

Design standards for grade are typically based on the functional classification of the roadway. For all roads, Chelan County references the maximum grade as 12 percent. However, when designing roadways, grade criteria are typically based on AASHTO. Rural and urban collectors have different grade criteria, with urban collectors typically allowed to have somewhat steeper grades. AASHTO does not differentiate between minor or major rural collector designations, so the criteria for grade is the same for both rural collector classifications. AASHTO further defines grades for local streets. The AASHTO design values consider type of terrain in the grade criteria, as discussed below.

Type of Terrain

AASHTO defines design criteria in terms of the general type of terrain that the roadway traverses. The three terrain categories as per AASHTO include: Level, Rolling, and Mountainous. The terrain classifications pertain to the overall characteristics of the roadway corridor. Roads in valleys or passes of mountainous areas that have all the characteristics of roads traversing flat or rolling terrain should be classified as flat or rolling. In rolling terrain, trucks reduce their speeds below those of passenger cars on some sections of roadway. Mountainous terrain is responsible for some truck operation at crawl speeds. In cases where the terrain classification is in question, the County Engineer shall make the final decision. The general categories are defined as follows:

- **Flat (or Level) Terrain** – Highway sight distances, as governed by both horizontal and vertical restrictions, are generally long or can be made to be so without

construction difficulty or major expense. The slope of the existing terrain is from 0% to and including 5%.

- **Rolling Terrain** – Natural slopes consistently rise above and fall below the road or street grade, and occasional steep slopes offer some restriction to normal horizontal and vertical roadway alignment. The slope of the existing terrain is from 5% to and including 15%.
- **Mountainous Terrain** – Longitudinal and transverse changes in the elevation of the ground with respect to the road or street are abrupt, and benching and side hill excavation are frequently needed to obtain acceptable horizontal and vertical alignment. The slope of the existing terrain exceeds 15%.

For the County's concurrency evaluation, each roadway is classified as one of these categories. The terrain category is used along with the actual grade, and the relative vehicle mix to establish a score adjustment for the grade criterion.

Mix of Vehicle Types

Grades have less impact on roadways that primarily serve passenger cars because these vehicles can more readily retain their speed compared to larger vehicles. Therefore, the mix of vehicles is considered in the evaluation of the grade criteria for the concurrency evaluation.

Three categories of vehicle mix are used in the evaluation. The classifications are based on the percentage of daily traffic volumes on a roadway that are classified as class 4 or higher by the Federal Highway Administration (FHWA). This FHWA classification range includes all types of heavy vehicles, such as buses and trucks. The concurrency categories are defined as follows:

- Low – Daily traffic volumes on roadway include 3 percent or fewer trucks, buses, or other heavy vehicles.
- Medium – Daily traffic volumes on roadway include 3 to 8 percent trucks, bus, or other heavy vehicles.
- High – Daily traffic volumes on roadways include more than 8 percent trucks, buses, or other heavy vehicles.

Option 6B

For all roads, Chelan County references the maximum grade as 12 percent. Roadways were divided up by classification, with collector roadways having higher standards than local access roadways as noted above for roadways with greater than a 12 percent grade. For roadway segments over 12 percent grade, significant deductions take place in determining the LOS value. Lesser deductions then occur for roadways over 6 percent grade. No deductions in grade are made for roadway segments that are less than 6 percent grade.

Where should the concurrency LOS threshold be set?

Section 365-195-510 of the Washington Administrative Code (WAC) notes that:

“Levels of service should be set to reflect realistic expectations consistent with the achievement of growth aims. Setting such levels too high could, under some regulatory strategies, result in no growth. As a deliberate policy, this would be contrary to the act.”

Basically, the service standard threshold needs to be set to support the land use plan within the horizon year of the plan. GMA does not require all areas to be “concurrent” at any given time, but the level of service standards should be able to be achieved with the anticipated

growth and identified transportation improvements and strategies. If the plan cannot meet the concurrency standards, then the County would need to reassess the LOS standard, the land use plan, and/or transportation financing strategies.

Establishing the minimum score for a roadway segment to be considered acceptable is a key part of the concurrency program. The score needs to be considered in terms of the scoring criteria, as summarized in Attachment A. As an example, should Chelan County consider a rural minor collector without any significant grades as being acceptable if it serves 1,000 vehicles per day (vpd) but is only 24-feet wide and has a pavement condition in the range of 60 points? If the same road has a 10-percent grade should it still be acceptable?

Setting the threshold score too high could result in a range of County roadways being out of compliance on day one of the proposed program. This would require the County to deny new developments, including those that are consistent with the land use element, unless funding was available and identified to resolve the deficiencies within six years. Setting the standard too high also would limit the eligibility of some roadway improvement costs for consideration in a transportation impact fee (TIF) program.

Setting the standard too low could result in too much traffic on inadequate roadways. This could increase safety or operational problems. The increased traffic also would increase the need for maintenance, which would affect the overall funding strategy by shifting funds from other projects.

Based on the range of criteria, a preliminary scoring of County roadways was developed. The preliminary scoring only considered currently available data from the County's road log. Because the road log does not include data for grades or availability of pedestrian facilities, those criteria were not included in the preliminary scoring. The preliminary scoring was only used to identify a benchmark, or starting point, for implementing the concurrency program.

Based on the review of the criteria scoring system and the preliminary scores based on the road log data, a score of 50 points is the threshold for the concurrency program. Roadway segments scoring less than 50 points would be deemed to be "not adequate" for accommodating additional growth traffic, until improvements were made by the County, developer, or another party.

Roadway segments with a score of 50 or more would be deemed adequate based on concurrency. However, the roadway segment may have safety or other operational needs that would be defined as part of the SEPA review, as discussed below.

Which roadway segments would be at or below the recommended LOS threshold?

A handful of roadways were selected by the BoCC to be further evaluated using the new concurrency methodology. County public works staff evaluated each of the roadways in the field to determine existing physical characteristics. The results of the ratings were somewhat dependent on how grade and heavy vehicles were measured. If Option 6B was used, there would be no existing deficiencies, but several roadways near the 50 point threshold. If Option 6A was used, there would be a few roadways not meeting the 50 point standard. These roadways would include Stemilt Loop Road and Dixie Lane in Malaga, and Green Avenue in Manson. The roadways not meeting the standard are known issues to County public works staff and could likely be addressed through inexpensive shoulder and pavement improvements. The results using both rating Options to measure grade are provided in Attachment B.

How does the concurrency program relate to implementation of County transportation improvements?

Concurrency, as defined under GMA, is not a funding or implementation program. In its basic form it simply is used to determine the adequacy of the transportation system to accommodate new growth.

Some agencies allow developers to propose mitigation to resolve concurrency deficiencies. The proposed Chelan County concurrency management program allows developers to mitigate their concurrency impacts. This could be through modifying the application so it meets the concurrency thresholds for all locations impacted by greater than 10 daily trips generated by the proposed developments. Alternatively, an applicant could propose to fund and/or construct improvements on the deficient road segment. These could be adding pavement width such as road shoulders, resolving a grade issue, chip sealing or otherwise improving the pavement condition, or adding pedestrian facilities. In this manner, concurrency can help supplement the County's improvement programs.

The concurrency ratings can also be used by the County as part of the process for prioritizing and funding County capital improvements and maintenance. Roadway segments that are below or are approaching the established minimum threshold could be considered as higher priorities in using County funds. The ratings also could be useful in pursuing grants for improvements, especially those which serve economic growth and development per the land use element.

As discussed below, passing concurrency does not allow developers to forgo review and possible mitigation under SEPA. Furthermore, developments also can be required to construct roadway improvements along their frontage and internal to the development.

How would site specific issues be resolved?

As discussed previously, if an applicant passes the concurrency evaluation, the applicant still needs to address safety and site access impacts as part of the State Environmental Policy Act (SEPA). SEPA is identified under RCW Chapter 43.21 C and requires governmental agencies to consider the environmental impacts of a proposal before making decisions. As part of the environmental review process, transportation impact analyses (TIA) may be required to document a project's transportation impacts after passing the concurrency evaluation. The County's traffic study guidelines build off the concurrency application and review other potential impacts to intersection operations, safety, roadway horizontal constraints (sharp turns), and other issues that concurrency does not address. The concurrency evaluation is only one component of the development review process, so it needs to work with SEPA, Road Standards, and funding mechanisms to be successful.

ATTACHMENT A

LOS Standards

CHELAN COUNTY CONCURRENCY LOS STANDARDS

STEP 1: Identify County Roadway Segment and Existing Functional Classification

STEP 2: Determine Existing Roadway Characteristics

(ADT, Pavement Width, Grade, Vehicle Types, Pavement Condition, Ped Facilities)

STEP 3: Determine Average Daily Traffic & Pavement Width Deductions

Rural Major Collector					
		Average Daily Traffic (ADT)			
		< 400	400 to 1,500	1,501 to 4,000	> 4,000
Pavement Width (feet)	> 32	0	0	0	0
	26 to 32	0	0	-20	-30
	20 to 25	0	-20	-30	-40
	17 to 20	-30	-50	-50	-50
	< 17	-50	-50	-50	-50

Rural Minor Collector				
		Average Daily Traffic (ADT)		
		< 400	400 to 1,500	> 1,500
Pavement Width (feet)	> 32	0	0	0
	26 to 32	0	-10	-20
	20 to 25	-10	-20	-30
	17 to 20	-30	-50	-50
	< 17	-50	-50	-50

Rural Local Access				
		Average Daily Traffic (ADT)		
		< 400	400 to 1,500	> 1,500
Pavement Width (feet)	> 28	0	0	-10
	24 to 28	0	-10	-20
	20 to 23	-10	-20	-30
	17 to 20	-30	-50	-50
	< 17	-50	-50	-50

CHELAN COUNTY CONCURRENCY LOS STANDARDS

Urban Collector				
		Average Daily Traffic (ADT)		
		< 1,500	1,500 to 4,000	> 4,000
Pavement Width (feet)	> 44	0	0	0
	36 to 44	0	-10	-20
	28 to 35	-10	-20	-30
	< 28	-20	-30	-50

Urban Local Access				
		Average Daily Traffic (ADT)		
		< 400	400 to 1,500	> 1,500
Pavement Width (feet)	> 37	0	0	-10
	31 to 37	0	-10	-20
	26 to 30	-10	-20	-30
	< 26	-30	-40	-50

STEP 4: Determine Pavement Condition Deductions

All County Roadways	
Pavement Condition Index (PCI)	Deduction
> 84	0
70 to 84	-5
50 to 69	-15
< 50	-25

STEP 5: Determine Pedestrian Facility Credits

Type of Facility	Urban / LAMRID	Rural
	Credit	
Separated Sidewalk or Paved Pathway	15	15
Sidewalk	10	10
Unpaved Gravel Surface	0	5

* Minimum 5-foot wide surface is necessary to obtain a credit

CHELAN COUNTY CONCURRENCY LOS STANDARDS

STEP 6: Determine Roadway Grade Deductions

OPTION 6A				
Rural Collector				
	Type of Terrain*	Range of Grades (%)		
	Mountainous	< 5	5 to 10	> 10
	Rolling	< 4	4 to 9	> 9
	Level	< 3	3 to 7	> 7
Level of Non-Auto Vehicle	Low	0	-10	-20
	Medium	-10	-20	-30
	High	-20	-30	-50

OPTION 6B			
Classification	Range of Grades (%)		
	< 6	6 to 12	> 12
Collector	0	-10	-40
Local Access	0	-10	-30

Urban Collector				
	Type of Terrain*	Range of Grades (%)		
	Mountainous	< 6	6 to 12	> 12
	Rolling	< 4	4 to 10	> 10
	Level	< 3	3 to 9	> 9
Level of Non-Auto Vehicle	Low	0	-10	-20
	Medium	-10	-20	-30
	High	-20	-30	-50

NOTE:
 The grade criteria (Step 6) has been broken into two possible options. Option 6A is what was originally proposed. Option 6B is a simplified version, focusing more on the maximum grade as stated in the County development standards.

Local Access (Rural and Urban)				
	Type of Terrain*	Range of Grades (%)		
	Mountainous	< 6	6 to 12	> 12
	Rolling	< 4	4 to 9	> 9
	Level	< 3	3 to 7	> 7
Level of Non-Auto Vehicle	Low	0	-10	-20
	Medium	-10	-20	-30
	High	-20	-30	-50

* Per AASHTO

STEP 7: Calculate Total Score

ATTACHMENT B

Example Roadway Ratings

CHELAN COUNTY ROADWAY SEGMENT RATINGS - OPTION 6A

#	County Road #	Road Name	Road Log Data									LOS Deductions/Credits					LOS Score
			Func Class	From MP	To MP	Length (miles)	PCI	ADT	Pavement Width (ft)	Grade (%)	Heavy Vehicle (%)	Initial Score	ADT / Paved Width	PCI	Pedestrian Facility	Grade/Heavy Vehicle	
175	93300	CHIWAWA LP RD	7	0.00	0.70	0.70	100	440	30	1.6	12	100	0	0	0	-20	80
176	93300	CHIWAWA LP RD	7	0.70	1.41	0.70	100	440	30	3.2	12	100	0	0	0	-20	80
177	93300	CHIWAWA LP RD	7	1.41	2.11	0.70	100	440	30	1.6	12	100	0	0	0	-20	80
178	93300	CHIWAWA LP RD	7	2.11	2.19	0.08	100	440	30	1.2	12	100	0	0	0	-20	80
179	93300	CHIWAWA LP RD	7	2.19	2.82	0.63	100	440	30	0.6	12	100	0	0	0	-20	80
180	93300	CHIWAWA LP RD	7	2.82	3.45	0.63	100	440	30	0.3	12	100	0	0	0	-20	80
181	93300	CHIWAWA LP RD	7	3.45	3.99	0.54	98	440	24	6.0	12	100	-20	0	0	-30	50
182	93300	CHIWAWA LP RD	7	3.99	4.57	0.58	93	440	24	2.9	12	100	-20	0	0	-20	60
183	93300	CHIWAWA LP RD	7	4.57	5.45	0.88	97	370	24	0.6	24	100	0	0	0	-20	80
184	93300	CHIWAWA LP RD	7	5.45	6.32	0.88	95	370	24	0.5	24	100	0	0	0	-20	80
185	93300	CHIWAWA LP RD	7	6.32	7.20	0.88	93	370	24	2.7	24	100	0	0	0	-20	80
186	93300	CHIWAWA LP RD	7	7.20	8.20	1.00	96	370	42	0.7	24	100	0	0	0	-20	80
187	93300	CHIWAWA LP RD	7	8.20	8.63	0.43	95	370	42	0.9	24	100	0	0	0	-20	80
282	19060	DIXIE LN	9	0.00	0.81	0.81	32	512	25	0.2	7	100	-10	-25	0	-10	55
283	19060	DIXIE LN	9	0.81	1.31	0.50	17	41	22	0.4	13	100	-10	-25	0	-20	45
425	53680	GREEN AVE	9	0.00	0.09	0.09	49	62	22	4.1	9	100	-10	-25	0	-30	35
427	53090	GREEN AVE	9	0.00	0.38	0.38	65	458	21	4.7	6	100	-20	-15	0	-20	45
429	53090	GREEN AVE	9	0.38	1.01	0.63	65	458	22	3.3	6	100	-20	-15	0	-10	55
430	53090	GREEN AVE	9	1.01	1.78	0.77	65	500	20	4.3	4	100	-20	-15	0	-20	45
431	53090	GREEN AVE	9	1.78	2.53	0.75	65	290	21	0.9	9	100	-10	-15	0	-20	55
432	53090	GREEN AVE	9	2.53	3.28	0.75	65	290	23	0.6	9	100	-10	-15	0	-20	55
	53090	GREEN AVE	9	3.28	3.84	0.56	65	180	21	0.3	11	100	-10	-15	0	-20	55
670	95200	MANSON BLVD	7	0.00	0.58	0.58	100	1,347	32	3.6	11	100	0	0	0	-20	80
671	95200	MANSON BLVD	7	0.58	0.68	0.10	100	1,347	32	6.6	11	100	0	0	0	-30	70
672	95200	MANSON BLVD	7	0.68	1.01	0.33	100	716	32	2.6	6	100	0	0	0	-10	90
673	95200	MANSON BLVD	7	1.01	1.79	0.78	100	716	32	1.5	6	100	0	0	0	-10	90
	95200	MANSON BLVD	7	1.79	2.95	1.16	100	716	28	0.9	6	100	0	0	0	-10	90
674	95200	MANSON BLVD	7	2.95	3.62	0.67	55	159	28	3.7	6	100	0	-15	0	-10	75
675	95200	MANSON BLVD	7	3.62	4.17	0.55	90	195	21	1.9	15	100	0	0	0	-20	80
676	95200	MANSON BLVD	7	4.17	4.27	0.10	100	181	24	0.9	7	100	0	0	0	-10	90
870	29150	PIONEER AVE	7	0.00	0.49	0.49	68	1,232	25	1.4	4	100	-20	-15	0	-10	55
871	29150	PIONEER AVE	8	0.49	1.01	0.52	71	1,232	25	2.9	4	100	-20	-5	0	-10	65
872	29150	PIONEER AVE	8	1.01	1.52	0.52	76	880	25	3.7	5	100	-20	-5	0	-10	65
873	29150	PIONEER AVE	9	1.52	2.34	0.82	0	880	25	1.0	5	100	-10	-25	0	-10	55
874	29150	PIONEER AVE	9	2.34	3.16	0.82	0	880	25	2.7	5	100	-10	-25	0	-10	55
875	29150	PIONEER AVE	9	3.16	3.35	0.19	0	880	25	4.2	5	100	-10	-25	0	-10	55
876	26500	PIONEER WY	9	0.00	0.27	0.27	48	363	21	4.2	6	100	-10	-25	0	-10	55
877	94200	PIONEER WY	8	0.99	1.37	0.38	80	659	23	0.7	6	100	-20	-5	0	-10	65
1059	14450	STEMILT LP RD	8	0.00	0.07	0.07	37	178	21	2.7	19	100	-10	-25	0	-20	45
1060	14450	STEMILT LP RD	8	0.07	0.92	0.85	54	178	20	5.3	19	100	-10	-15	0	-30	45
1061	14450	STEMILT LP RD	8	0.92	1.76	0.85	47	178	21	5.8	19	100	-10	-25	0	-30	35
1062	14450	STEMILT LP RD	8	1.76	2.61	0.85	36	178	21	2.4	19	100	-10	-25	0	-20	45

CHELAN COUNTY ROADWAY SEGMENT RATINGS - OPTION 6A

#	County Road #	Road Name	Func Class	From MP	To MP	Length (miles)	PCI	ADT	Pavement Width (ft)	Grade (%)	Heavy Vehicle (%)	Initial Score	ADT / Paved Width	PCI	Pedestrian Facility	Grade/Heavy Vehicle	LOS Score
1063	14450	STEMILT LP RD	8	2.61	3.45	0.85	20	178	21	4.3	19	100	-10	-25	0	-20	45
1064	14450	STEMILT LP RD	8	3.45	4.30	0.85	22	97	21	7.2	15	100	-10	-25	0	-30	35
1065	14450	STEMILT LP RD	8	4.30	5.15	0.85	31	97	20	4.0	15	100	-10	-25	0	-20	45
1066	14450	STEMILT LP RD	8	5.15	5.92	0.77	19	97	21	2.2	15	100	-10	-25	0	-20	45
1067	14450	STEMILT LP RD	8	5.92	6.69	0.77	20	97	21	2.3	15	100	-10	-25	0	-20	45
1068	14450	STEMILT LP RD	8	6.69	7.41	0.72	77	117	22	5.5	15	100	-10	-5	0	-30	55
1069	14450	STEMILT LP RD	8	7.41	8.14	0.72	93	117	24	5.3	15	100	-10	0	0	-30	60
1070	14450	STEMILT LP RD	8	8.14	8.81	0.67	77	117	24	5.8	15	100	-10	-5	0	-30	55

LEGEND

	Segment not meeting concurrency standard	less < 50
	Segment approaching concurrency standard	between 50 and 65
	Segment above concurrency standard	greater than 65

CHELAN COUNTY ROADWAY SEGMENT RATINGS - OPTION 6B

#	County Road #	Road Name	Road Log Data									LOS Deductions/Credits					LOS Score
			Func Class	From MP	To MP	Length (miles)	PCI	ADT	Pavement Width (ft)	Grade (%)	Heavy Vehicle (%)	Initial Score	ADT / Paved Width	PCI	Pedestrian Facility	Grade	
175	93300	CHIWAHA LP RD	7	0.00	0.70	0.70	100	440	30	1.6	12	100	0	0	0	0	100
176	93300	CHIWAHA LP RD	7	0.70	1.41	0.70	100	440	30	3.2	12	100	0	0	0	0	100
177	93300	CHIWAHA LP RD	7	1.41	2.11	0.70	100	440	30	1.6	12	100	0	0	0	0	100
178	93300	CHIWAHA LP RD	7	2.11	2.19	0.08	100	440	30	1.2	12	100	0	0	0	0	100
179	93300	CHIWAHA LP RD	7	2.19	2.82	0.63	100	440	30	0.6	12	100	0	0	0	0	100
180	93300	CHIWAHA LP RD	7	2.82	3.45	0.63	100	440	30	0.3	12	100	0	0	0	0	100
181	93300	CHIWAHA LP RD	7	3.45	3.99	0.54	98	440	24	6	12	100	-20	0	0	0	80
182	93300	CHIWAHA LP RD	7	3.99	4.57	0.58	93	440	24	2.9	12	100	-20	0	0	0	80
183	93300	CHIWAHA LP RD	7	4.57	5.45	0.88	97	370	24	0.6	24	100	0	0	0	0	100
184	93300	CHIWAHA LP RD	7	5.45	6.32	0.88	95	370	24	0.5	24	100	0	0	0	0	100
185	93300	CHIWAHA LP RD	7	6.32	7.20	0.88	93	370	24	2.7	24	100	0	0	0	0	100
186	93300	CHIWAHA LP RD	7	7.20	8.20	1.00	96	370	42	0.7	24	100	0	0	0	0	100
187	93300	CHIWAHA LP RD	7	8.20	8.63	0.43	95	370	42	0.9	24	100	0	0	0	0	100
282	19060	DIXIE LN	9	0.00	0.81	0.81	32	512	25	0.2	7	100	-10	-25	0	0	65
283	19060	DIXIE LN	9	0.81	1.31	0.50	17	41	22	0.4	13	100	-10	-25	0	0	65
425	53680	GREEN AVE	9	0.00	0.09	0.09	49	62	22	4.1	9	100	-10	-25	0	0	65
427	53090	GREEN AVE	9	0.00	0.38	0.38	65	458	21	4.7	6	100	-20	-15	0	0	65
429	53090	GREEN AVE	9	0.38	1.01	0.63	65	458	22	3.3	6	100	-20	-15	0	0	65
430	53090	GREEN AVE	9	1.01	1.78	0.77	65	500	20	4.3	4	100	-20	-15	0	0	65
431	53090	GREEN AVE	9	1.78	2.53	0.75	65	290	21	0.9	9	100	-10	-15	0	0	75
432	53090	GREEN AVE	9	2.53	3.28	0.75	65	290	23	0.6	9	100	-10	-15	0	0	75
	53090	GREEN AVE	9	3.28	3.84	0.56	65	180	21	0.3	11	100	-10	-15	0	0	75
670	95200	MANSON BLVD	7	0.00	0.58	0.58	100	1,347	32	3.6	11	100	0	0	0	0	100
671	95200	MANSON BLVD	7	0.58	0.68	0.10	100	1,347	32	6.6	11	100	0	0	0	-10	90
672	95200	MANSON BLVD	7	0.68	1.01	0.33	100	716	32	2.6	6	100	0	0	0	0	100
673	95200	MANSON BLVD	7	1.01	1.79	0.78	100	716	32	1.5	6	100	0	0	0	0	100
	95200	MANSON BLVD	7	1.79	2.95	1.16	100	716	28	0.9	6	100	0	0	0	0	100
674	95200	MANSON BLVD	7	2.95	3.62	0.67	55	159	28	3.7	6	100	0	-15	0	0	85
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871	29150	PIONEER AVE	8	0.49	1.01	0.52	71	1,232	25	2.9	4	100	-20	-5	0	0	75
872	29150	PIONEER AVE	8	1.01	1.52	0.52	76	880	25	3.7	5	100	-20	-5	0	0	75
873	29150	PIONEER AVE	9	1.52	2.34	0.82	0	880	25	1	5	100	-10	-25	0	0	65
874	29150	PIONEER AVE	9	2.34	3.16	0.82	0	880	25	2.7	5	100	-10	-25	0	0	65
875	29150	PIONEER AVE	9	3.16	3.35	0.19	0	880	25	4.2	5	100	-10	-25	0	0	65
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1061	14450	STEMILT LP RD	8	0.92	1.76	0.85	47	178	21	5.8	19	100	-10	-25	0	0	65
1062	14450	STEMILT LP RD	8	1.76	2.61	0.85	36	178	21	2.4	19	100	-10	-25	0	0	65

CHELAN COUNTY ROADWAY SEGMENT RATINGS - OPTION 6B

#	County Road #	Road Name	Func Class	From MP	To MP	Length (miles)	PCI	ADT	Pavement Width (ft)	Grade (%)	Heavy Vehicle (%)	Initial Score	ADT / Paved Width	PCI	Pedestrian Facility	Grade	LOS Score
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1064	14450	STEMILT LP RD	8	3.45	4.30	0.85	22	97	21	7.2	15	100	-10	-25	0	-10	55
1065	14450	STEMILT LP RD	8	4.30	5.15	0.85	31	97	20	4.0	15	100	-10	-25	0	0	65
1066	14450	STEMILT LP RD	8	5.15	5.92	0.77	19	97	21	2.2	15	100	-10	-25	0	0	65
1067	14450	STEMILT LP RD	8	5.92	6.69	0.77	20	97	21	2.3	15	100	-10	-25	0	0	65
1068	14450	STEMILT LP RD	8	6.69	7.41	0.72	77	117	22	5.5	15	100	-10	-5	0	0	85
1069	14450	STEMILT LP RD	8	7.41	8.14	0.72	93	117	24	5.3	15	100	-10	0	0	0	90
1070	14450	STEMILT LP RD	8	8.14	8.81	0.67	77	117	24	5.8	15	100	-10	-5	0	0	85

LEGEND

	Segment not meeting concurrency standard	less < 50
	Segment approaching concurrency standard	between 50 and 65
	Segment above concurrency standard	greater than 65

Appendix F

CONCURRENCY REVIEW & TRAFFIC STUDY GUIDELINES

APPENDIX F

Concurrency Review & Traffic Impact Study Guidelines

Chelan County requires that development applications meet the County’s requirements related to transportation system impacts and improvements. The County’s Comprehensive Plan and associated Development Regulations set forth the minimum standards for approval of a development application. The requirements cover four elements:

- Transportation Concurrency (if adopted, as proposed)
- State Environmental Policy Act (SEPA)
- Road Standards
- Transportation Impact Fees (if adopted, as proposed)

These review elements are interrelated and build from the basic development application information used to estimate the new traffic generated from a development. The traffic generation information is used to determine if the proposed application meets the County’s concurrency requirements and the potential for adverse traffic impacts under SEPA. The trip generation information also is directly tied to defining the transportation impact fee for the development application.

Attachment A illustrates the transportation-related development review process for Chelan County. The initial phase reviews the application under the County’s Transportation Concurrency requirements. The concurrency review is used to determine if the roadways serving the development meet minimally acceptable performance standards. Concurrency must be able to be achieved prior to review of the development project under SEPA and County Road Standards. Following approval of concurrency and determination that the application meets SEPA and County Road Standards requirements, the application would be considered by the Board of County Commissioners (BOCC) for approval and associated conditions, if applicable. Payment of a Transportation Impact Fee (TIF) may be a requirement of final approval. Potential credits against the TIF may be available to the extent an applicant is required to dedicate right-of-way or construct improvements included in the TIF program as a condition of approval.

Applicability

These Traffic Impact Study (TIS) Guidelines provide a step-by-step process for Chelan County’s development review related to the transportation system. As shown in Table 1, an applicant may not be required to complete all steps of the TIS Guidelines depending on the number of new daily trips estimated to be generated by the proposed development. The County Engineer may, however, override the threshold guidelines for preparation of a TIS in order to address specific potential impacts of a development application. The County Engineer also will consider prior applications and potential for cumulative traffic impacts in establishing the scope for a TIS for a specific development application.

Table 1. General TIS Steps Required based on Daily Traffic Generation

TIS Type	Traffic Generation	Example	Sections to be Completed ¹
I	Ten or fewer daily vehicle trips	1 additional single-family lot	1
II	11 to 199 daily vehicle trips	2 to 199 single-family lots	1, 2, 3
III	200 or more daily trips	200 or more single-family lots	1, 2, 3, 4

1. The County Engineer can modify the steps to be completed based on specific issues and/or potential for cumulative impacts that should be addressed. Per Section 15.30.920(3), the County Engineer shall provide a written explanation for the reasons for changes to the traffic study.

Step 1 — Project Information and Trip Generation

The applicant shall provide the County Engineer, or the engineer's designee, with a summary of the project, which generally includes the following:

- A narrative description of the project
- Location (vicinity map and site plan)
- Type and size of development (number of residential units and/or square footage of building)
- Proposed access locations (including proposed sight distances at access/egress locations)
- Phasing and timing of development
- Horizon year (year of completion and projected full occupancy/build-out)
- Average Daily Traffic (ADT) and PM peak hour trip generation (AM, noon, or school peak may also apply as directed by the County Engineer), if applicable. Trip generation shall be based on the current edition of *Trip Generation*, Institute of Transportation Engineers (ITE) and the ITE Trip Generation Handbook, unless otherwise approved by the County. Assumptions and methodology for internal, link-diverted or pass-by trips must be provided, if applicable.
- Graphic showing distribution and assignment of daily trips for developments estimated to generate more than 10 vehicle trips per day.

Step 2 — Scoping Meeting

The applicant will schedule a meeting with the County Engineer, or the Engineer's designee, to review the project information from Step 1 and define the scope and methodologies of the traffic study, if required. If feasible, the TIS scoping meeting should be scheduled as part of, or in conjunction with, a pre-application meeting as provided for in Chapter 14.08 of the Chelan County Code. For relatively simple development applications, the meetings may be able to be conducted via telephone or email.

The scoping meeting will establish the initial parameters for the traffic study including:

- Approval, or modification, of trip generation
- Approval, or modification, of traffic distribution percentages and assignment routes
- Background growth rates (non-project specific)
- Background or "Pipeline" development projects
- Study area roadways and intersections
- Concurrency road segments and applicable data
- Study methodologies

Step 3—Concurrency Evaluation

For all developments generating 10 or more daily vehicle trips, the applicant will prepare a concurrency evaluation. The concurrency evaluation will summarize the information from Steps 1 and 2. The following outlines preparation of the concurrency evaluation by the applicant and review by Chelan County.

A. Applicant Concurrency Evaluation.

- The applicant is required to show that each public roadway segment under Chelan County's jurisdiction which would be impacted by 10 or more daily project vehicle trips, would meet the minimally acceptable concurrency rating score. The County will provide any existing data for impacted road segments and data on background traffic growth (per Step 2). The

applicant will supplement the existing data with more recent information, if necessary. If no data exists regarding a specific roadway segment, the applicant is responsible for collecting such data.

The evaluation will take into account the following traffic components:

- Existing daily traffic
 - Background (non-project specific) growth rates
 - Traffic associated with background, or “pipeline” developments
 - Project traffic
- The concurrency evaluation shall be presented to the County Engineer (or designee) in a brief report or memorandum with a tabular summary showing impacted road segments, project traffic, and concurrency scoring data, and a concurrency assessment for the applications.
 - The County Engineer can determine the concurrency evaluation for some project-impacted road segments based on recent concurrency evaluations prepared, or previously reviewed and approved, by Chelan County, as defined in the scoping meeting. Project traffic impacts on these segments should still be documented to support future concurrency evaluations and reviews.

B. Chelan County Review of Concurrency Evaluation.

- The County Engineer (or designee) will review the concurrency evaluation analysis. If the County Engineer (or designee) determines that there are corrections needed to the evaluation, the applicant will be notified accordingly.
- If any of the impacted road segments do not meet the minimally acceptable concurrency rating, then the County Engineer (or designee) will notify the applicant of such finding. The applicant and County Engineer (or designee) will discuss possible strategies that may be able to resolve the concurrency impacts of the project.
 - Amend the application to reduce the project impacts to below the 10 daily trip threshold.
 - Apply transportation demand management strategies to reduce the impacts.
 - Phase the project to meet concurrency.
 - Provide mitigation to resolve the concurrency deficiency, such as widening the roadway pavement, providing pedestrian facilities, enhancing pavement conditions, or reducing grade impacts.
 - Withdraw the application and resubmit when concurrency can be obtained.
 - Ask for a reconsideration based on updated data.
 - Appeal the determination.

C. Concurrency Approval

- If all impacted road segments are shown to exceed the minimally acceptable concurrency score, then the County Engineer (or designee) will approve concurrency for the application and issue a certificate of concurrency.
- If acceptable concurrency mitigation is defined, then the County Engineer (or designee) will issue the certificate of concurrency with the identified conditions of approval. The concurrency mitigation and conditions of approval will be carried forward with the formal development application and associated review processes.

D. Concurrency Denial

- If acceptable concurrency mitigation is not agreed to by the County and applicant, then the County Engineer (or designee) will provide the applicant a denial of concurrency. The applicant may appeal the denial of concurrency, as outlined in Chapter 15.80 of the Chelan County Code.

Step 4 — Traffic Impact Study for SEPA and Road Standards Evaluation

Following approval of the concurrency evaluation (with or without requirements for concurrency mitigation), some developments will be required to prepare a traffic impact study (TIS). The TIS will address potential transportation impacts of the project under SEPA. It also will address compliance with road standards per the Chelan County Development Standards (Chapter 15.30 of the Chelan County Code). The TIS will build from the project information and scoping meeting outlined in Steps 1 and 2, as well as the concurrency evaluation in Step 3.

Chapter 15.30.940.960 of the Chelan County Code provides specific requirements for the TIS, which are summarized as follows:

A. Site Access Roadways/Driveways

- On-site circulation and connections to other properties and roadways
- Cross-sections of roadways, showing dimensions. Location of adjacent access driveways or roadways near the project access locations also shall be depicted
- Sight distance requirements and adequacy (per Chelan County requirements)
- Level of service analysis for intersection(s)
- Channelization evaluation
- Vehicle storage/queuing analysis
- Traffic control warrants
- Accident analysis (only required for access to arterials and collectors, unless otherwise directed by the County)

B. Existing and Forecast Traffic Volumes

- Provide existing intersection turning movement counts for study time periods (traffic volumes should be less than one year old, unless otherwise approved by the County). The weekday PM peak hour shall be used unless otherwise defined during scoping meeting or per Chapter 15.30.940.
- Future peak-hour intersection turning movement volumes without project traffic based on:
 - Annual background traffic growth factor/rates (cite source/methodology per scoping meeting)
 - Background or “pipeline” traffic from other future development projects (provided by County per scoping meeting)
- Forecast peak hour turning movements for with-project conditions based on trip generation, distribution, and assignments per scoping meeting.

C. Level of Service Analysis

Level of service analyses shall be based on the current edition of *Highway Capacity Manual*, Transportation Research Board, and related software, or methods approved by County. The following criteria should be used in the analysis:

- Evaluate arterial/arterial or arterial/collector intersections impacted by 20 or more peak-hour project trips (or as otherwise identified by the County).

- Evaluate existing and future conditions with and without project (other planned developments impacting study area must be factored into the Level of Service [LOS] calculations).
- Assumptions/variations to standard analysis default values shall be noted and justification provided for their use.
- Attach LOS calculation sheets.
- Compare the resulting future with-project LOS to the County's adopted LOS D standard for intersections in Urban Growth Areas (UGAs) or LOS C for intersections in rural areas, including Limited Area of More Intensive Rural Development (LAMIRDs).

D. Safety Analysis

Each TIS shall include an evaluation of safety impacts on adjacent roadways and other travel modes. The evaluation should address existing and potential for future safety impacts including, but not limited to, the following:

- Traffic volumes and composition
- Roadway geometry and grades (including horizontal and vertical curve deficiencies)
- Intersection operations and controls
- Pavement condition
- Drainage
- Sight distance restrictions/clear zones
- Pedestrian and bicycle travel
- Truck traffic and turn radii
- Snow routes

E. Other Travel Modes

The TIS shall include an evaluation of impacts on and potential improvements to other travel modes that serve the site. These may include, but are not limited to, the following:

- Fixed-Route Transit
- Demand, or Dial-a-Ride Transit
- School Bus
- Pedestrian
- Bicycle
- Equestrian

F. Emergency Service Access

As directed by the County Engineer (or designee), the TIS shall include an assessment of emergency service access to the project.

G. Mitigation Recommendations

The TIS should include recommendations to mitigate project impacts consistent with Chelan County Design Standards. Mitigation may include construction of, or contribution toward, improvements to roadways, intersections, non-motorized facilities, traffic controls, transit, and others, as appropriate. Payment of a transportation impact fee, if applicable, also shall be noted.

H. TIS Report

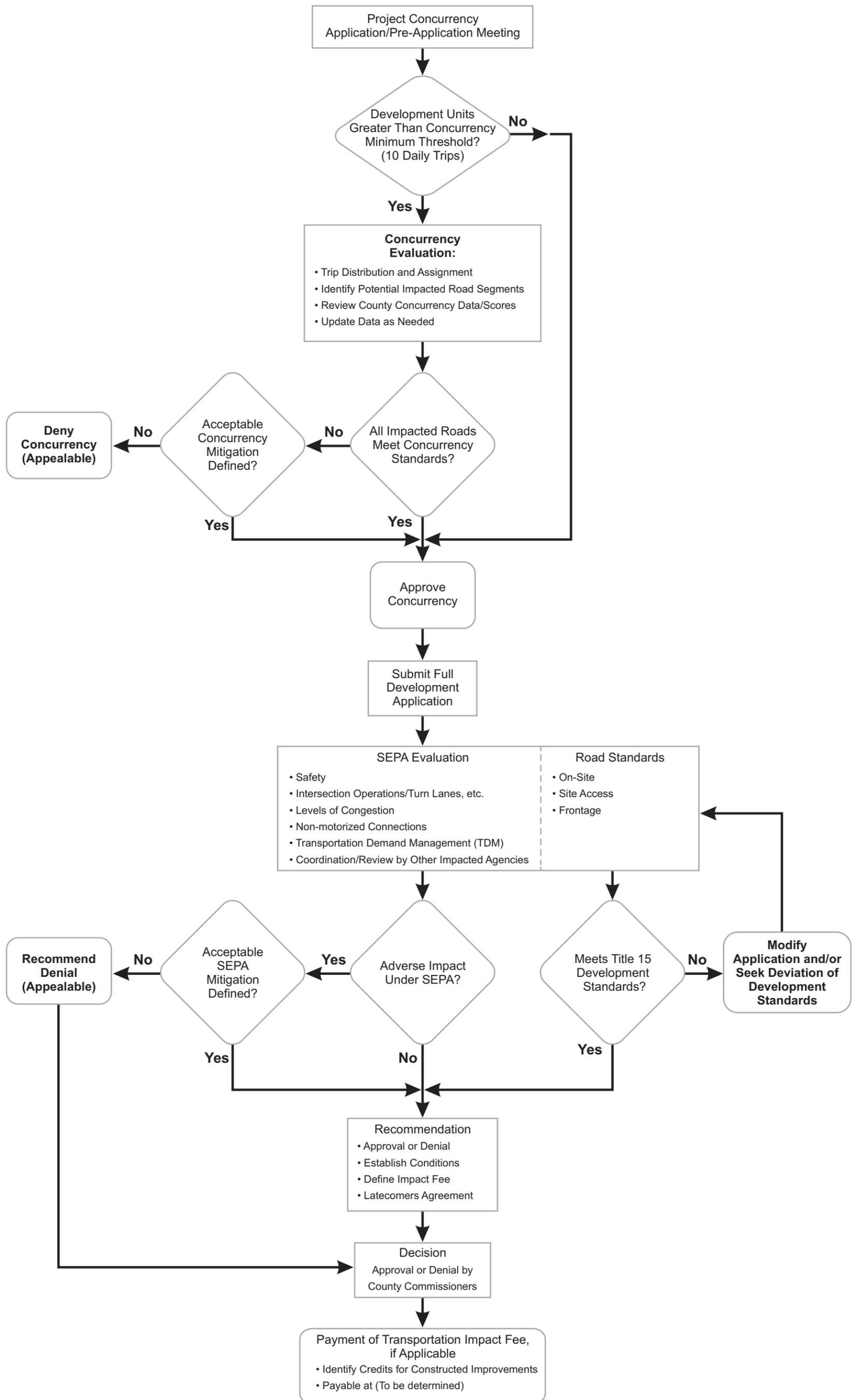
The applicant shall submit the complete Traffic Impact Study to the County Engineer (or designee) at the same time of the submission of an application for the proposed development to the County community development department, per Chapter 14.08 of the Chelan County Code.

The report shall generally be formatted per the outline in Attachment B. The completed report shall be stamped by a professional engineer that prepared or directly supervised the TIS.

I. Chelan County Review

The County Engineer (or designee) will review the TIS for accuracy and completeness per the requirements of Chapter 15.30 of the Chelan County Code. The County Engineer (or designee) will make a determination of completeness of the study within twenty-eight (28) days of submission. If the TIS is deemed incomplete, the County Engineer (or designee) shall identify in writing the specific requirements, needs, and additional information needed to complete the TIS, consistent with County regulations.

If the study is deemed complete, the County will use it and its findings in establishing potential mitigation needs and conditions of approval for the development application, including the appropriate transportation impact fee, if applicable.



Transportation Development Review and Mitigation Flow Chart

Attachment B

Traffic Impact Study Report Outline

The following information shall be included in each traffic impact study report:

1. Cover sheet (include name and location of project, applicant, engineer and date).
2. Engineer's stamp and signature.
3. Table of contents.
4. Scope and purpose.
5. Description of Proposed Development Project.
 - A. Type of development.
 - B. Size of development.
 - C. Location map, including depiction of major streets and intersections in the study area.
 - D. Site plan, including proposed driveways, streets, parking facilities, and internal circulation for vehicles, pedestrians, and bicyclists.
6. Description of the Project Setting.
 - A. Description and map of the existing roadway system within project site and surrounding area.
 - B. Description and map of the location and routes of nearest public transit system servicing the project.
 - C. Description and map showing the location and routes of the nearest bicycle and pedestrian facilities serving the project.
7. Summary of Study Area Existing Conditions.
 - A. Map of study area with ADT of major roads, streets, and intersections.
 - B. Map of study area with weekday and weekend (if applicable) peak hour turning movements.
 - C. Table of existing a.m., p.m. and weekend peak hour levels of service.
 - D. Geometric deficiencies for roadways in the study area.
 - E. Structural condition of roads in the study area.
 - F. Accident rate analysis for the study area.
 - G. Traffic control devices in the study area.
 - H. Roadside safety elements in the study area.
8. Summary of Cumulative Conditions.
 - A. Map of study area with ADT of major roads and streets.
 - B. Map of study area with weekday and weekend (if applicable) peak hour turning movements.
 - C. Table of existing a.m., p.m., and weekend peak hour levels of service.
 - D. Geometric deficiencies in the study area.
 - E. Accident rate analysis for the study area.
 - F. Traffic control devices in the study area.
 - G. Roadside safety elements in the study area.
9. Summary of Cumulative Plus Project Conditions.
 - A. Map of study area with ADT of major roads and streets.
 - B. Map of study area with weekday and weekend peak hour turning movements.
 - C. Table of existing a.m., p.m., and weekend peak hour levels of service.
 - D. Geometric deficiencies in the study area.
 - E. Accident rate analysis for the study area.
 - F. Traffic control devices in the study area.
 - G. Roadside safety elements in the study area.
10. Transit analysis.
11. Parking analysis.
12. Site access analysis.

13. Bicycle and pedestrian analysis.
14. Findings and Recommendations.
 - A. Summary table of peak hour levels of service.
 - B. Findings for development impacts or for no development impacts on levels of service.
 - C. Findings for cumulative development impacts on levels of service.
 - D. Findings of needed improvements.
 - E. Proposed mitigation recommendations.
 - F. Recommended mitigation for roadway geometric deficiencies.
 - G. Recommendations for financing of mitigation measures, including proportionate share recommendations.
 - H. Other recommendations.
15. Appendix.
 - A. Explanation of analysis methods used in the traffic impact study.
 - B. Raw turn data movement counts.
 - C. Level of service calculation worksheets.
 - D. Other information provided. (Res. 2008-130 [part], 8/26/08)

Appendix G

INTERSECTION LOS SUMMARY TABLES

Table 1. 2008 Existing & 2028 Future Intersection PM Peak Hour Levels of Service Comparison – Leavenworth

Intersection	2008 RTPO Existing LOS ¹	2008 Average Weekday			2008 Average Summer Weekday			2028 RTPO Future LOS	2028 Average Weekday			2028 Average Summer Weekday		
		LOS ²	Delay ²	V/C ⁴ or WM ⁵	LOS	Delay	V/C or WM		LOS	Delay	V/C or WM	LOS	Delay	V/C or WM
SR 2/ Riverbend Dr ⁶	A	B	10.2	0.42	B	11.1	0.49	A	B (C)	19 (33)	0.78 (1.06)	C (F)	35 (97)	0.90 (1.27)
SR 2/ E Leavenworth Rd ⁶	-	C	24.9	SB	D	31.3	NB	-	F (A)	>200 (10)	NB/SB (0.90)	F (D)	>200 (37)	NB/SB (1.09)
SR 2/ Chumstick Hwy ⁶	C	C	27.4	0.47	C	30.4	0.56	D	D (D)	53 (55)	0.95 (1.14)	F (F)	82 (125)	1.05 (1.41)
SR 2/ Evans St	B	C	21.4	0.41	C	23.0	0.49	C	C	32	0.67	D	42	0.78
SR 2/ Front St	A	A	8.3	WBL	A	8.6	WBL	A	A	10	WB	B	11	WBL
SR 2/ Ski Hill Dr	A	C	17.1	SB	C	22.0	SB	B	F	>200	SB	F	>200	SB
SR 2/ Mill St	-	B	13.6	SB	C	15.9	NB	-	F	57	SB	F	170	SB
SR 2/ Icicle Rd	A	C	18.1	NBL	C	22.7	NBL	A	F	67	NBL	F	187	NBL
Cedar St/ Chumstick Hwy	-	B	12.3	EB	B	13.9	EB	-	E	37	EB	F	105	EB
North Rd/ Chumstick Hwy	-	A	9.9	WB	B	10.2	WB	-	B	14	WB	C	16	WB
Pine St/ Titus Rd	-	A	7.6	-	A	7.8	-	-	A	9	-	A	9	-
Leavenworth Rd/ Icicle Rd	-	A	8.9	WB	A	9.0	WB	-	B	11	WB	B	11	WB

1. LOS taken from North Central RTPO intersection analysis spreadsheet.
2. Level of service, based on 2000 Highway Capacity Manual methodology.
3. Average delay in seconds per vehicle.
4. Volume-to-capacity ratio reported for signalized intersections.
5. Worst movement reported for unsignalized intersections.
6. Intersections also analyzed as roundabouts under 2028 conditions; roundabout LOS provided in parentheses.

Table 2. 2008 Existing & 2028 Future PM Peak Hour Levels of Service Comparison – Sunnyslope

Intersection	2008 RTPO	2008 Average Weekday			2028 RTPO	2028 Average Weekday		
	Existing LOS ¹	LOS ²	Delay ²	V/C ⁴ or WM ⁵	Future LOS	LOS	Delay	V/C or WM
SR 2/ Lower Sunnyslope Rd	A	F	80.9	SB	A	F	>200	NB/SB
SR 2/ School St	A	F	125.8	SB	A	F	>200	SB
SR 2/ Easy St	C	C	27.9	0.52	D	F	173	1.36
Easy St/ Crestview St	-	A	9.8	SB	-	F	58	SB
Easy St/ School St	-	B	11.7	NB	-	F	>200	NB/SB
Peters St/ Easy St	-	C	15.8	WB	-	F	>200	EB/WB
Penny Rd/ Easy St	-	B	13.1	0.45	-	F	>200	1.42
Penny Rd/ Cordell Ave	-	C	21.9	0.29	-	C	23	0.76
School St/ Lower Sunnyslope Rd	-	A	8.6	WB	-	A	9	WB
Melody Lane/ School St	-	A	9.6	WB	-	B	14	WB
School St/ Peters St	-	A	9.1	WB	-	B	12	WB
Knowles Rd/ School St	-	A	8.7	EB	-	A	10	EB
Peters St/ Birch Mountain	-	A	9.0	SB	-	B	15	SB
Peters St/ Ohme Garden Rd	-	A	8.8	WB	-	B	10	WB
Ohme Garnde Rd/ SR 97A	-	F	78.0	WB	-	F	>200	EB/WB

1. LOS taken from North Central RTPO intersection analysis spreadsheet.
2. Level of service, based on 2000 Highway Capacity Manual methodology.
3. Average delay in seconds per vehicle.
4. Volume-to-capacity ratio reported for signalized intersections.
5. Worst movement reported for unsignalized intersections.

Table 3. 2008 Existing & 2028 Future PM Peak Hour Levels of Service Comparison – Chelan

Intersection	2008 RTPO	2008 Average Weekday			2008 Average Summer Weekday			2028 RTPO	2028 Average Weekday			2028 Average Summer Weekday		
	Existing LOS ¹	V/C ⁴ or			V/C or			Future LOS	V/C or			V/C or		
	LOS ²	Delay ³	WM ⁵	LOS	Delay	WM	LOS	Delay	WM	LOS	Delay	WM		
Johnson Ave/ Columbia St	A	C	19.4	-	D	27.7	-	D	D	43.1	1.02	E	76.3	1.19

1. LOS taken from North Central RTPO intersection analysis spreadsheet.
2. Level of service, based on 2000 Highway Capacity Manual methodology.
3. Average delay in seconds per vehicle.
4. Volume-to-capacity ratio reported for signalized intersections.
5. Worst movement reported for unsignalized intersections.

North Central RTPO Regional Intersection Level of Service

Current Level of Service	2018 LOS	2028 LOS	Milepost Marker	Highway	Intersection/Junction	Nearest City	County	No. of Accidents
B	C	C	8.25	SR 150	Woodin Avenue/SR 97	Chelan	Chelan	0
A	B	D	7.97	SR 150	Columbia Street	Chelan	Chelan	9
A	A	A	1.54	SR 150	Wapato Lake Road/Mill Road (Casino)	Manson	Chelan	3
A	A	A	6.16	SR 150	Boyd Road	Chelan	Chelan	2
A	A	A	6.26	SR 150	Dietrich Road	Chelan	Chelan	1
A	A	A	6.95	SR 150	No Seeum Road	Chelan	Chelan	2
A	A	B	7.58	SR 150	Gibson Avenue/City Park	Chelan	Chelan	4
A	A	A	9.08	SR 150	SR 97 Alternate	Chelan	Chelan	2
A	A	A	10.20	SR 150	Willmorth Road	Chelan	Chelan	0

Current Level of Service	2018 LOS	2028 LOS	Milepost Marker	Highway	Intersection/Junction	Nearest City	County	No. of Accidents
A	A	A	12.06	SR 150	SR 97A	Chelan	Chelan	0
			5.85	SR 150	Monte Carlo Drive/Key Lane (Brewery)	Chelan	Chelan	1
			6.40	SR 150	Granite Ridge Drive	Chelan	Chelan	0
			7.30	SR 150	Spader Bay Road/Parkview Drive	Chelan	Chelan	4
			7.64	SR 150	Nixon Avenue/City Park	Chelan	Chelan	2
			8.09	SR 150	Emerson Street	Chelan	Chelan	1
			8.18	SR 150	Johnson/Sanders Street	Chelan	Chelan	6
			11.63	SR 150	Chelan Falls Road	Chelan	Chelan	1
A	A	A	0.00	SR 207	SR 2	Unincorporated	Chelan	2
A	A	A	4.38	SR 207	Chiwawa Loop Road	Unincorporated	Chelan	0
			3.56	SR 207	Lake Wenatchee State Park	Unincorporated	Chelan	0
			3.79	SR 207	Beaver Valley Road	Unincorporated	Chelan	0
A	A	A	15.02	SR 971 (Navarre Coulee Road)	SR 97A	Chelan	Chelan	1
A	A	A	0.00	SR 971 (Navarre Coulee Road)	SR 97A	Chelan	Chelan	0
NA	NA	NA	9.13	SR 971 (Navarre Coulee Road)	Lake Chelan State Park	Chelan	Chelan	0
			8.47	SR 971 (Navarre Coulee Road)	Ridgeview Drive	Chelan	Chelan	0
C	C	D	119.13	US 2	Easy Street (signalized)	Sunnyslope Area	Chelan	29

Current Level of Service	2018 LOS	2028 LOS	Milepost Marker	Highway	Intersection/Junction	Nearest City	County	No. of Accidents
B	C	D	115.14	US 2	Main Street/Easy Street	Monitor	Chelan	20
B	C	C	99.89	US 2	Evans Street/Ninth Street (signalized)	Leavenworth	Chelan	9
C	C	D	100.29	US 2	Front Street/Chumstick Hwy (signalized)	Leavenworth	Chelan	17
B	C	D	111.09	US 2	Aplets Way/Nahahum Canyon Road (signalized)	Cashmere	Chelan	18
B	C	D	111.98	US 2	Cotlets Way/Nahahum Canyon Road (signalized)	Cashmere	Chelan	21
A	B	C	106.07	US 2	Alice Avenue	Dryden	Chelan	3
B	B	C	103.65	US 2	Main Street (signalized)	Peshastin	Chelan	19
A	A	A	99.05	US 2	Icicle Road	Leavenworth	Chelan	1
A	A	B	99.51	US 2	Ski Hill Drive/Third Street	Leavenworth	Chelan	8
A	A	A	99.65	US 2	Front Street	Leavenworth	Chelan	1
A	A	A	100.67	US 2	Riverbend Road (signalized)	Leavenworth	Chelan	9
A	A	A	103.95	US 2	Green Road, Saunders Road	Peshastin	Chelan	5
A	A	A	104.16	US 2	Dog House Road	Peshastin	Chelan	6
A	A	A	104.72	US 2	SR 97	Peshastin	Chelan	28
A	A	B	105.16	US 2	Deadman Hill Road/Saunders Road (new signal?)	Dryden	Chelan	17
A	B	B	106.49	US 2	Dryden Avenue	Dryden	Chelan	17
A	A	B	110.13	US 2	Goodwin Road	Cashmere	Chelan	12
A	A	A	112.59	US 2	Old Monitor Road	Cashmere	Chelan	6
A	A	B	113.21	US 2	North Red Apple Road	Cashmere	Chelan	3
A	A	A	117.31	US 2	Lower Sunnyslope Road	Sunnyslope	Chelan	10

Current Level of Service	2018 LOS	2028 LOS	Milepost Marker	Highway	Intersection/Junction	Nearest City	County	No. of Accidents
A	A	A	118.46	US 2	School Street	Sunnyslope	Chelan	11
A	A	A	81.89	US 2	Nason Creek Rest Area	Unincorporated	Chelan	0
A	A	A	84.75	US 2	SR207/Winton Road	Coles Corner	Chelan	0
NA	NA	NA	119.77	US 2	Euclid Avenue On/Off Ramps	Wenatchee	Chelan	9
			99.26	US 2	Mill Street	Leavenworth	Chelan	0
			100.52	US 2	East Leavenworth Road	Leavenworth	Chelan	1
A	A	B	185.02	US 97	SR 2	Wenatchee	Chelan	1
A	C	C	234.20	US 97A	Woodin Avenue/SR 150 (signalized)	Chelan	Chelan	12
A	C	C	233.60	US 97A	Woodin Avenue	Chelan	Chelan	4
A	A	A	200.47	US 97A	Ohme Garden Rd/Warehouse Rd	Unincorporated	Chelan	5
A	A	A	214.41	US 97A	Hagen Street	Entiat	Chelan	4
A	A	A	214.79	US 97A	Entiat City Park/Shearson Street	Entiat	Chelan	2
A	A	A	230.43	US 97A	Lakeshore Road/SR 971	Chelan	Chelan	3
A	A	A	232.15	US 97A	Johnson Place (park access)	Chelan	Chelan	1
A	A	A	233.91	US 97A	Farnham Street	Chelan	Chelan	1
A	A	A	235.03	US 97A	Sr 150	Chelan	Chelan	3
A	A	A	235.44	US 97A	Isenhart Road (WalMart-new signal)	Chelan	Chelan	1
A	A	A	237.81	US 97A	Airport Road/Apple Acre Drive	Chelan	Chelan	4
A	A	A	214.29	US 97A	Entiat River Road	Entiat	Chelan	0
A	A	A	232.25	US 97A	Center Street (park & ride)	Chelan	Chelan	0
A	A	A	239.64	US 97A	SR 97	Chelan	Chelan	0
			203.74	US 97A	Rocky Reach Dam Road	Unincorporated	Chelan	0

Current Level of Service	2018 LOS	2028 LOS	Milepost Marker	Highway	Intersection/Junction	Nearest City	County	No. of Accidents
			207.00	US 97A	Tilly Lane	Entiat	Chelan	0
			215.52	US 97A	Lakeshore Drive/Shearon Ave	Entiat	Chelan	0
			216.01	US 97A	Risk Street	Entiat	Chelan	0
			216.30	US 97A	Wisdom Avenue	Entiat	Chelan	0
			229.33	US 97A	Bear Mountain Ranch Road (sub-division under construction)	Chelan	Chelan	0
			233.83	US 97A	First Street at Chelan School (crosswalk signal)	Chelan	Chelan	0
			234.29	US 97A	Bradley Avenue	Chelan	Chelan	4
			234.38	US 97A	Navarre Street (Elementary School)	Chelan	Chelan	3
			234.70	US 97A	N Clifford Street	Chelan	Chelan	4

Appendix H

REFERENCE MATERIAL LIST

APPENDIX H

List of Reference Material

- Chelan County. *Chelan County Comprehensive Plan. 2000, Amended 2007.*
- Chelan County. *Comprehensive Parks and Recreation Plan.* October 2007.
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- Transportation Engineering Northwest. *Red Cliff Estates – Traffic Impact Study (For Torrence Engineering)*. October 2007.
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Appendix I

SUBAREA ISSUES & TRAFFIC FORECASTS

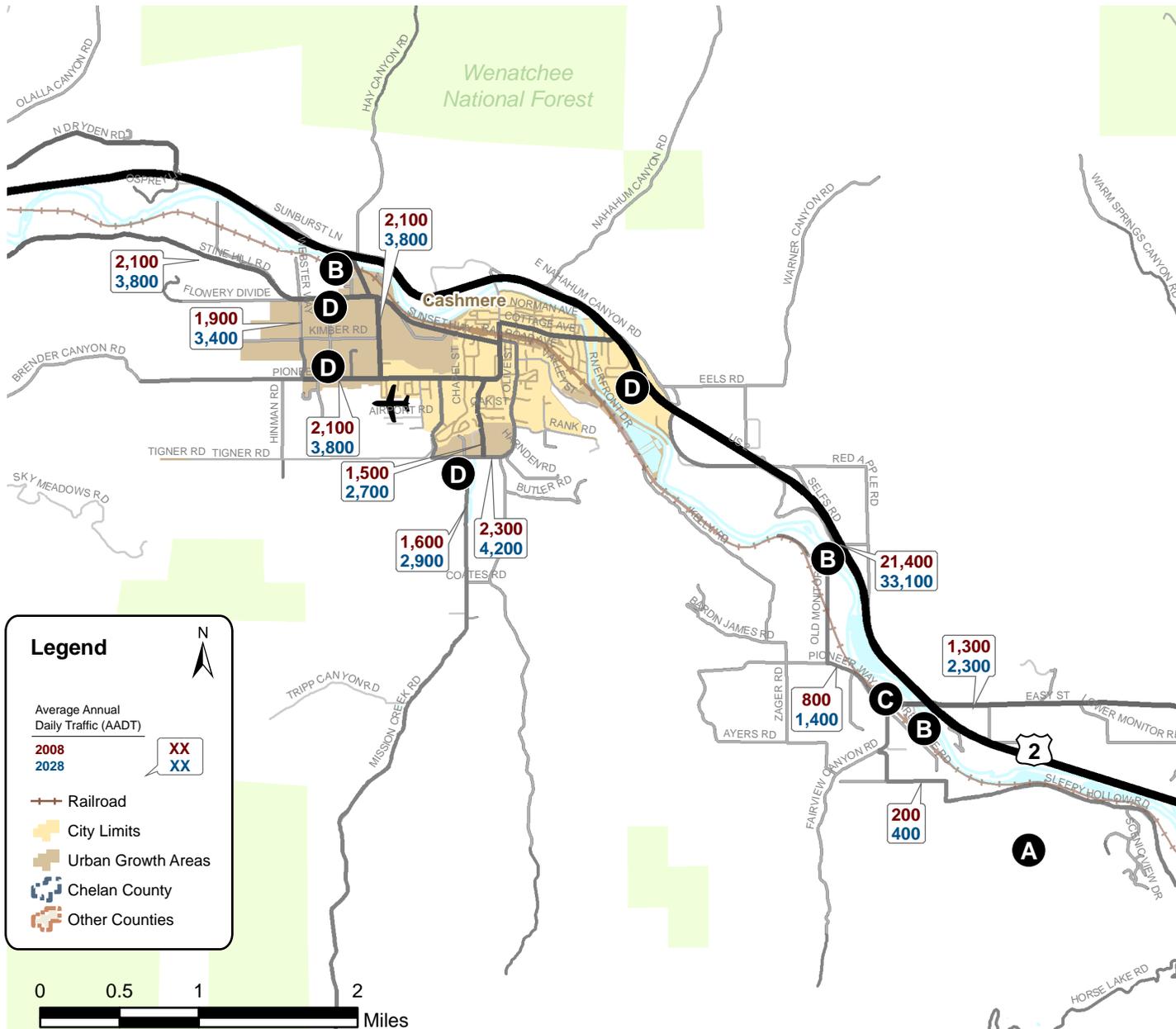


Key Transportation Issues and Travel Forecasts

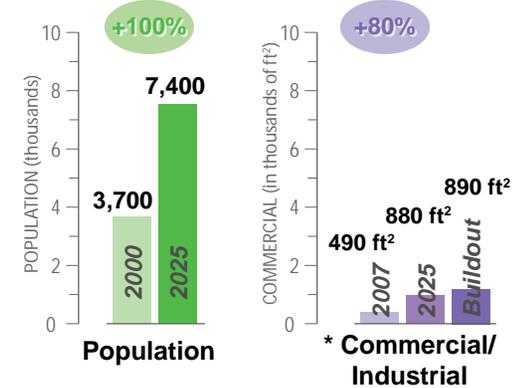
Cashmere/Monitor Subarea



Chelan County Transportation Element Update



LAND USE ASSUMPTIONS



Source: City of Cashmere Comprehensive Plan, Amended January 2008

* Estimates for unincorporated areas only

Key Issues Identified

- A** Explore alternate road between Cashmere/Monitor and Wenatchee
- B** Bridge rehabilitation: Goodwin Rd, Old Monitor Rd, Monitor Main St.
- C** Monitor Main St. railroad crossing: improved safety and operations
- D** Pedestrian and bicycle facilities in Cashmere: Mission Creek, Sunset, Pioneer, connection between Tree Top and Tichenal Way

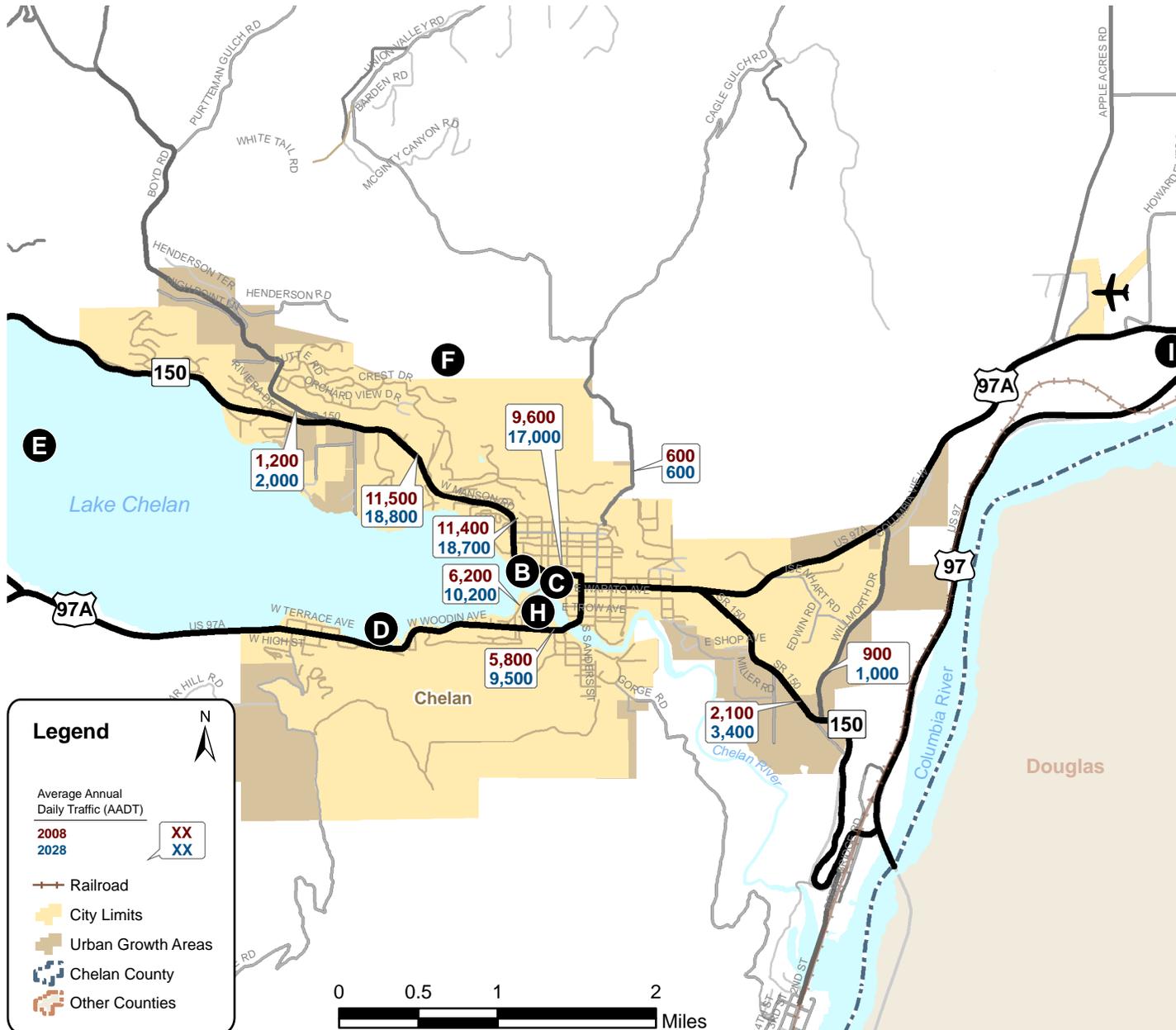


Key Transportation Issues and Travel Forecasts

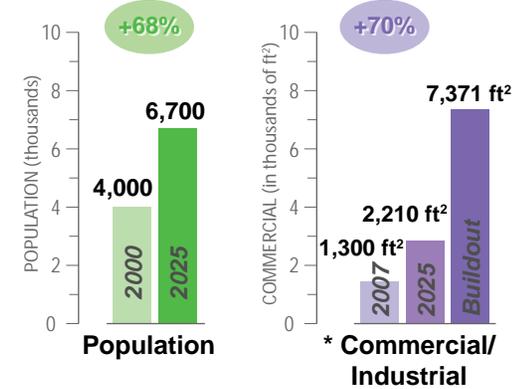
Chelan Subarea



Chelan County Transportation Element Update



LAND USE ASSUMPTIONS



Source: City of Chelan Comprehensive Plan, Amended 2001

* Estimates for unincorporated areas only

Key Issues Identified

- A** Impacts of growth in the Manson area on City roadways.
- B** Reduction of lanes along SR 150 (Manson Highway) in the downtown area.
- C** Intersection operations at SR 150/ Columbia Street.
- D** Implementation of a lake side trail and creation of a pedestrian-friendly environment.
- E** Additional water transportation – such as service between the south shore and north shore in Manson.
- F** The need for an alternative route between Manson and Chelan.
- G** Summer traffic from increased tourism and recreation.
- H** Woodin Avenue Bridge is narrow and a potential hazard for wide vehicles, bikes and pedestrians.
- I** Access to parcels along the Columbia River

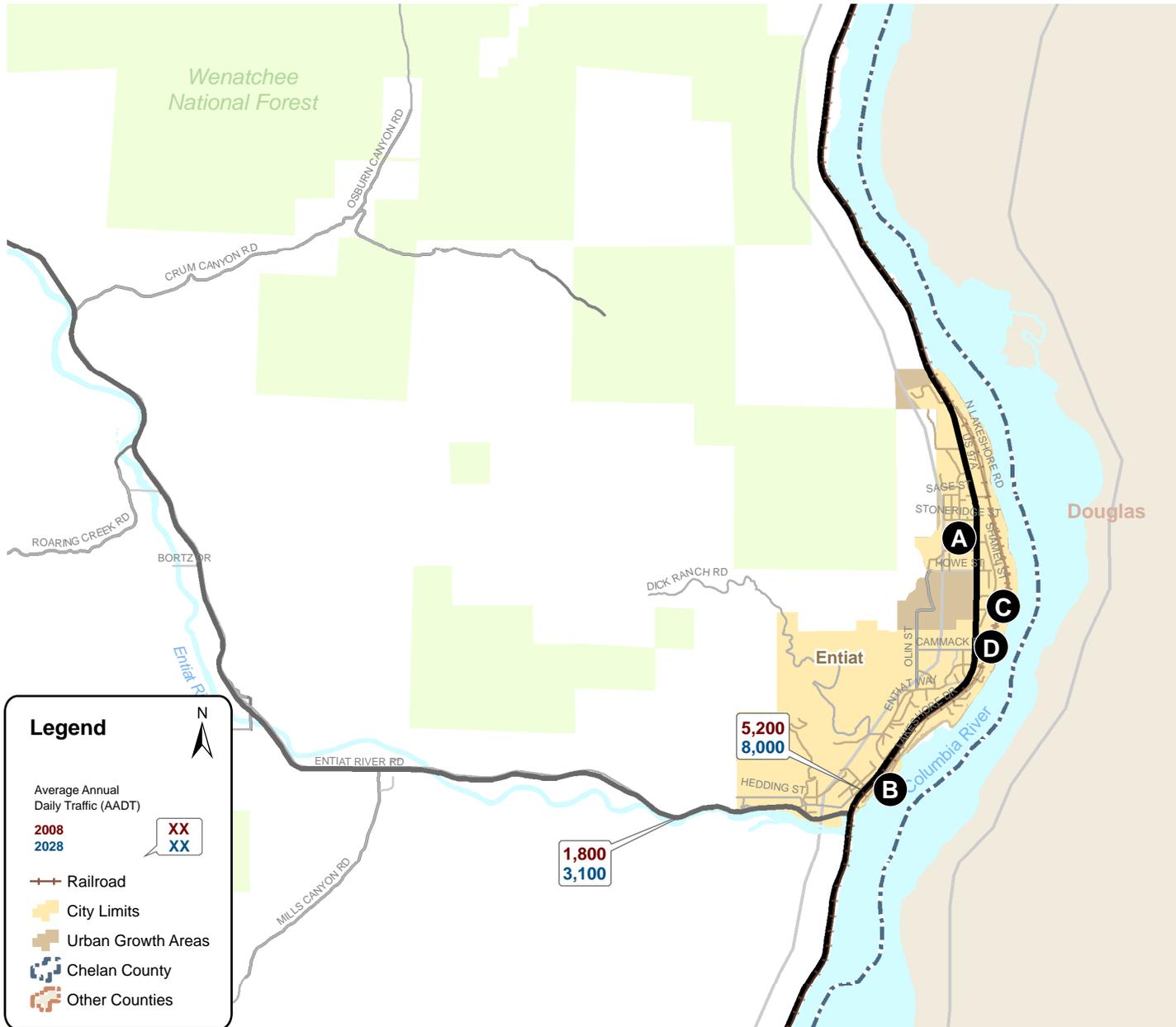


Key Transportation Issues and Travel Forecasts

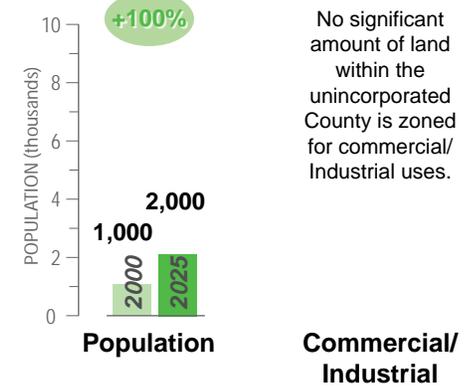
Entiat Subarea



Chelan County Transportation Element Update



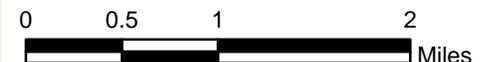
LAND USE ASSUMPTIONS



Source: 2007 City of Entiat Comprehensive Land Use Plan

Key Issues Identified

- A** Highway 97A issues such as speeds, pedestrian crossings, traffic control, safety access, and lighting.
- B** Safety at the US 97A / Hagen St River Rd intersection.
- C** Railroad tracks perceived as a barrier to pedestrians and bicyclists.
- D** Waterfront development and trail





Key Transportation Issues and Travel Forecasts

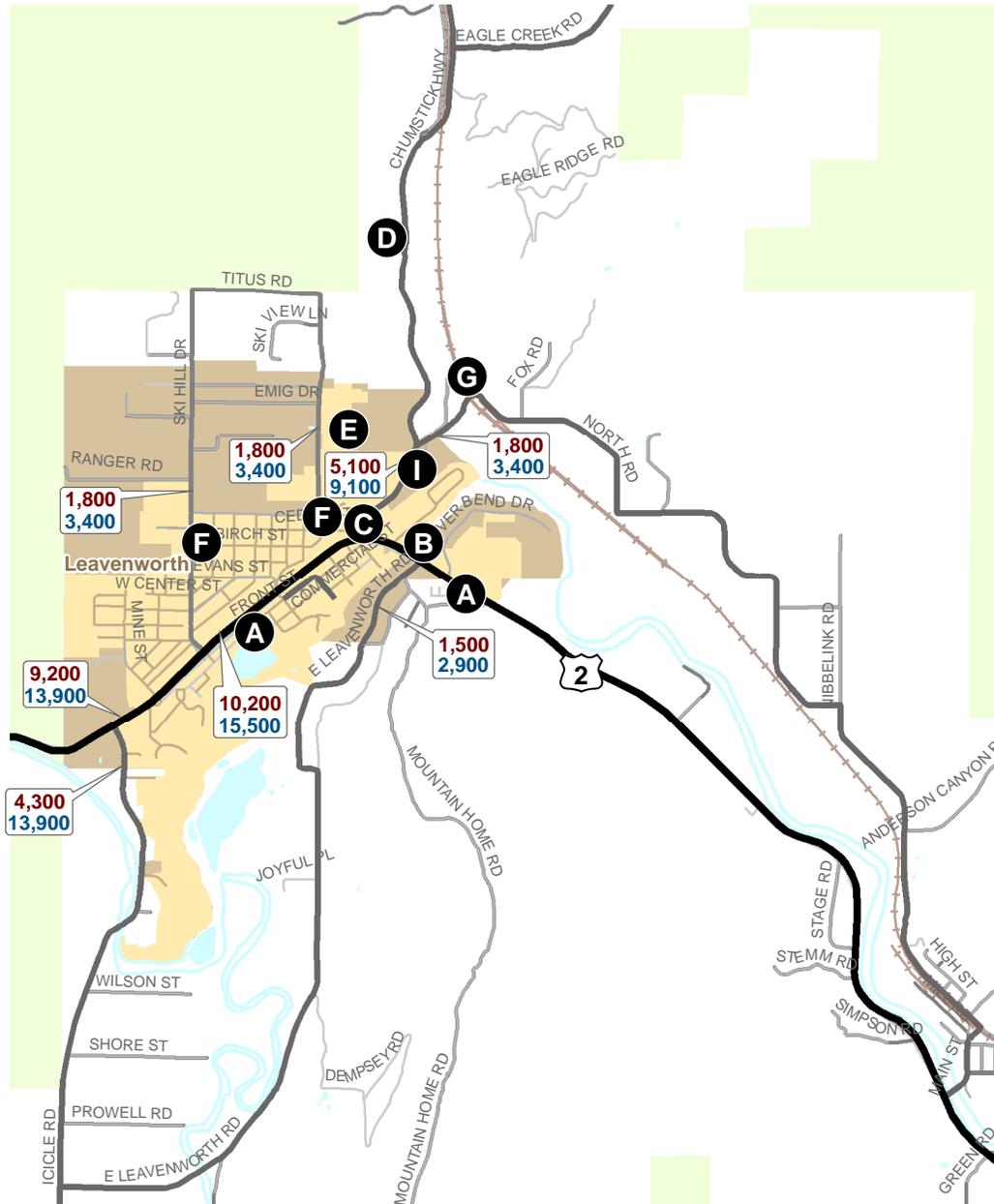
Leavenworth Subarea



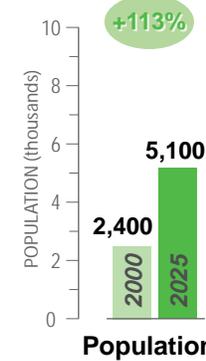
Chelan County Transportation Element Update

Key Issues Identified

- A** Congestion, speeds, pedestrian crossings, turn lanes, signals/traffic control, safety, access, and lighting along Highway 2.
- B** Operational and safety needs at the Highway 2 / E Leavenworth Road intersection.
- C** Proximity between Pine Street and Highway 2 intersections along Chumstick Highway.
- D** Impacts to Chumstick Highway from Tumwater canyon closures and detours.
- E** East-west roadway connectivity in the UGA, especially possible new Titus Road and Spring Street extensions. Constraints due to wetlands and soils.
- F** Pedestrian and bicycle facilities and connections, such as inadequate shoulders along Ski Hill Drive and Pine Street within the City.
- G** Connections to the new Amtrak station.
- H** The need for additional transit service on weekends.
- I** Potential need to reduce speed limits near school.



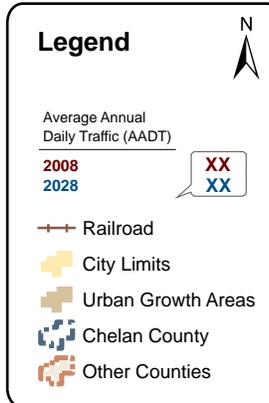
LAND USE ASSUMPTIONS



No significant amount of commercial or industrial growth is assumed in the unincorporated areas of the county.

Commercial/Industrial

Source: Leavenworth Comprehensive Plan, August 2003

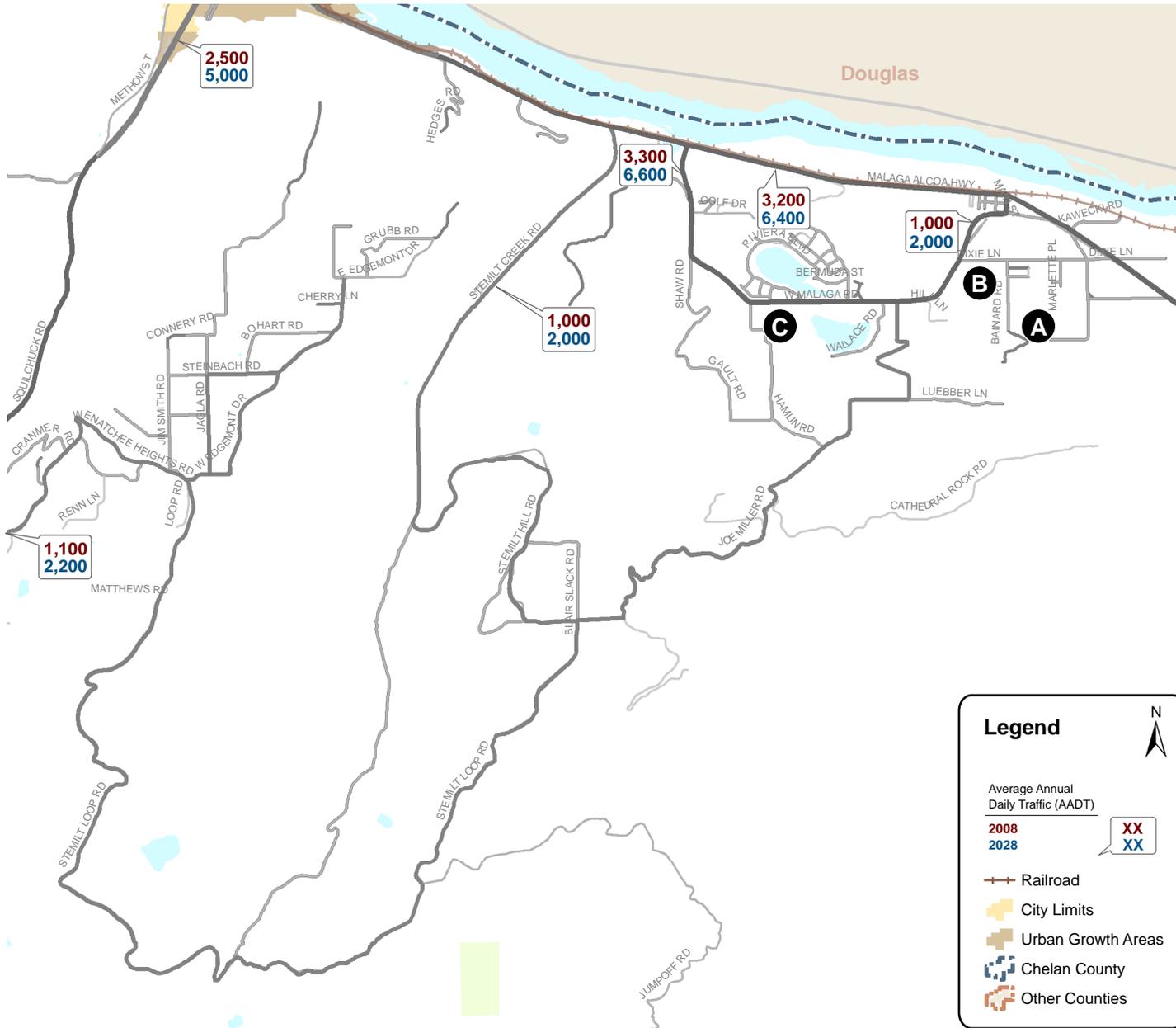




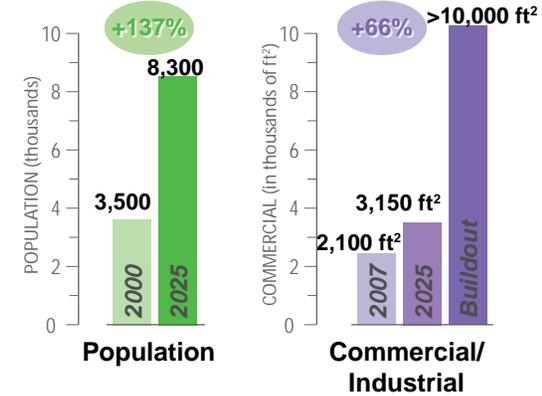
Key Transportation Issues and Travel Forecasts

Malaga Subarea

Chelan County Transportation Element Update



LAND USE ASSUMPTIONS



Source: Malaga Vision Plan, August 2006 and Discussions With County Staff

Key Issues Identified

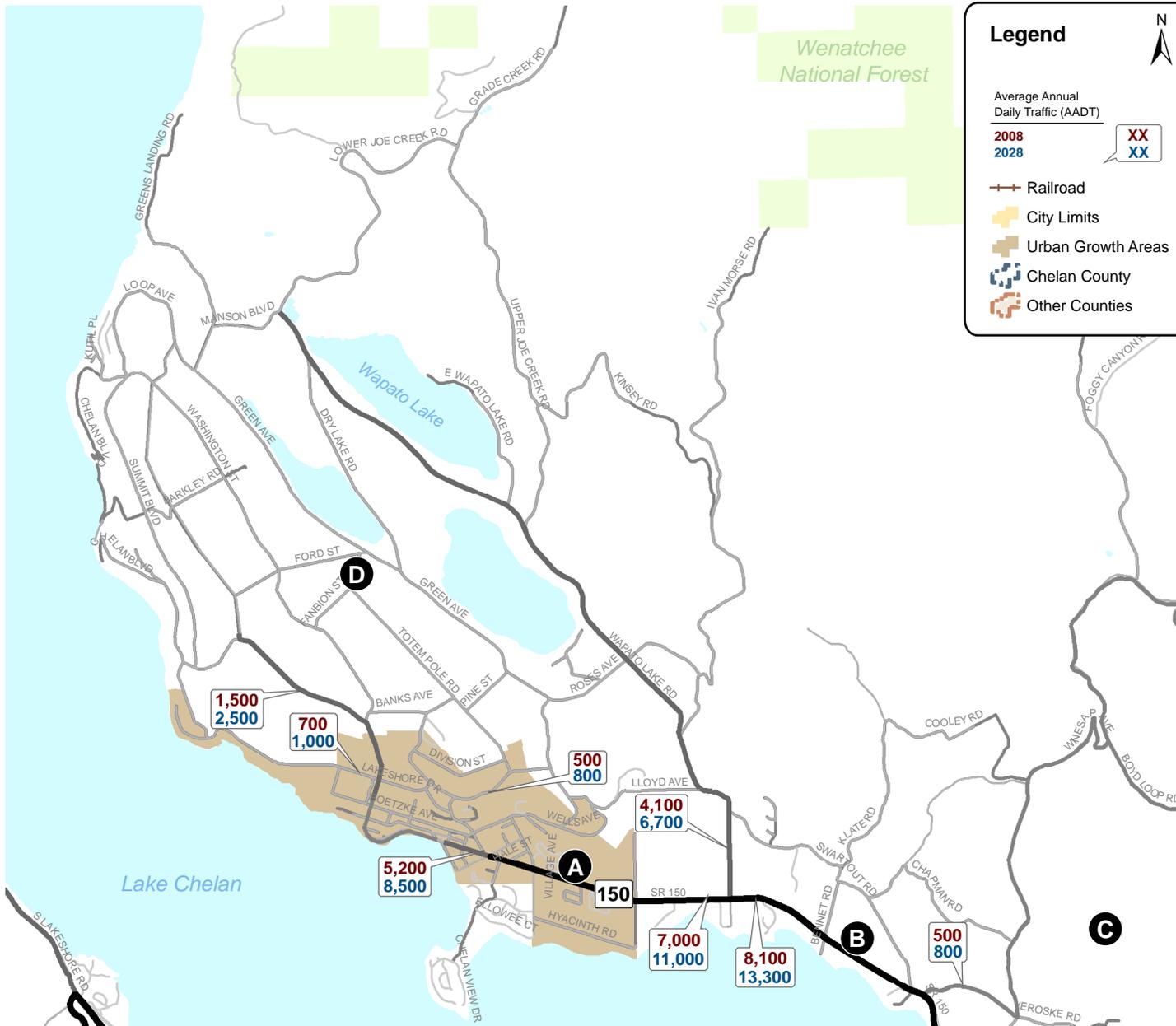
- A** Dixie Lane roadway upgrades, shoulder widening, sidewalks
- B** Improved shoulders and new turn lanes on W. Malaga Rd
- C** Additional local circulation roadways



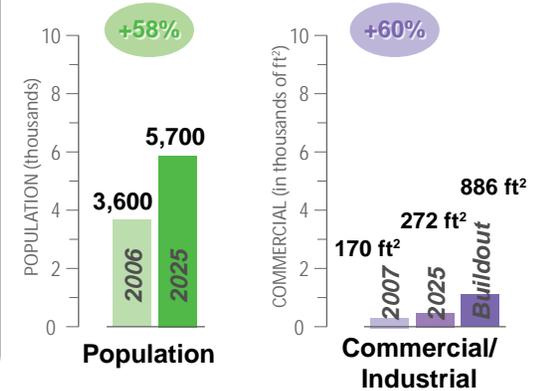
Key Transportation Issues and Travel Forecasts

Manson Subarea

Chelan County Transportation Element Update



LAND USE ASSUMPTIONS



Source: Draft Manson Subarea Plan, March 2008 and Discussions with County Staff

Key Issues Identified

- A** Speeds, pedestrian crossings, traffic control, and safety along SR 150 and Manson Boulevard.
- B** Congestion along SR 150 related to increased tourism.
- C** The need for an alternative route between Manson and Chelan.
- D** Safety concerns on farm-to-market routes in and around Manson.



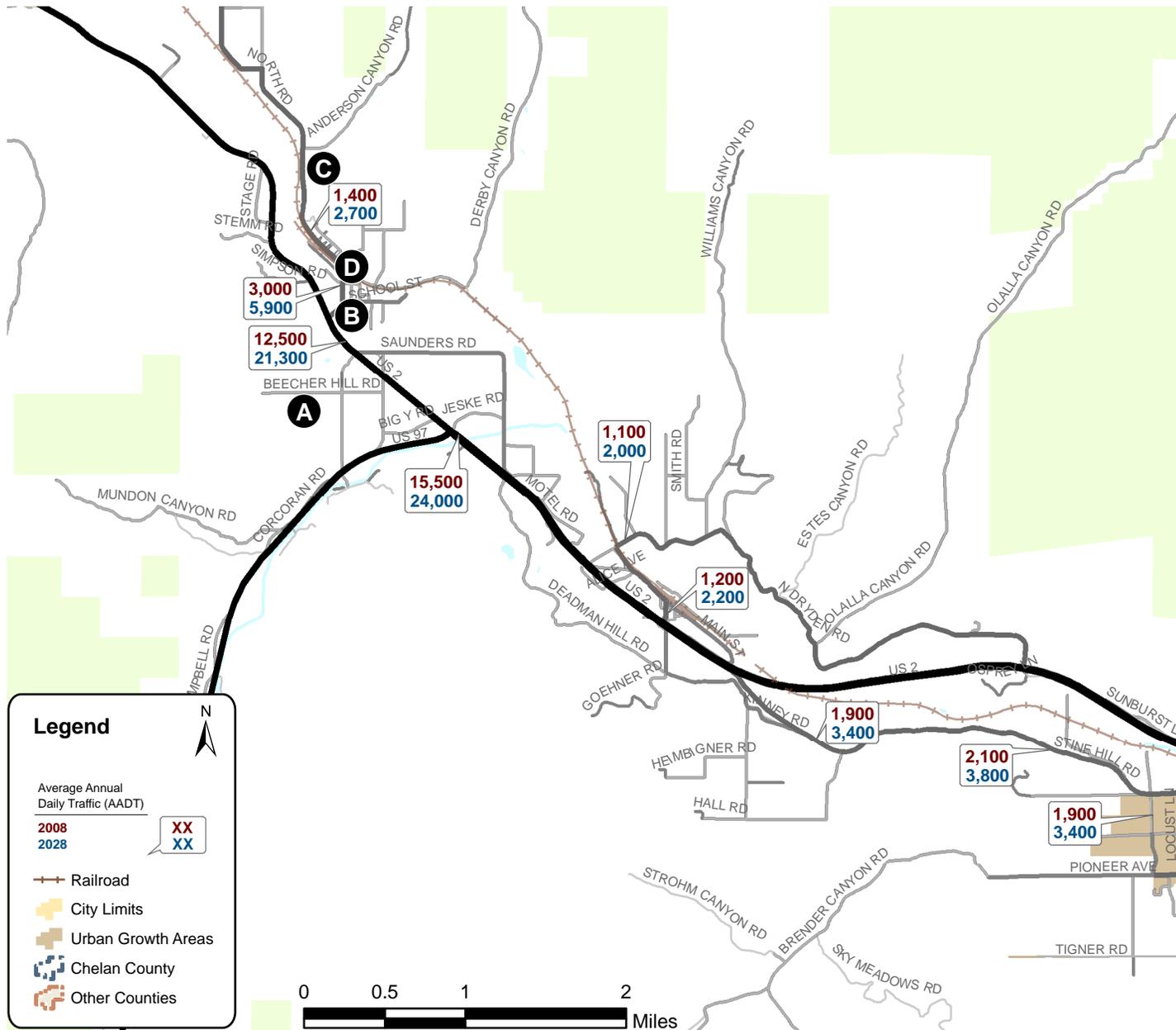


Key Transportation Issues and Travel Forecasts

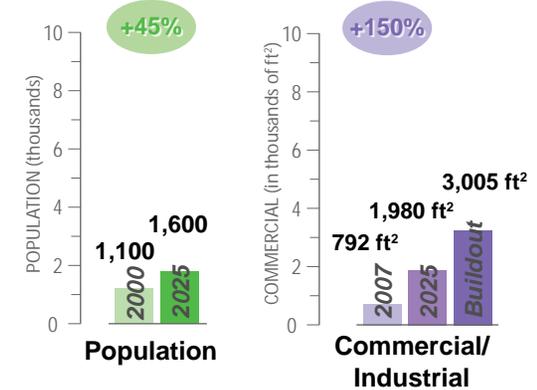
Peshastin/Dryden Subarea



Chelan County Transportation Element Update



LAND USE ASSUMPTIONS



Source: Draft Peshastin Subarea Study, March 2008 and Discussions with County Staff

Key Issues Identified

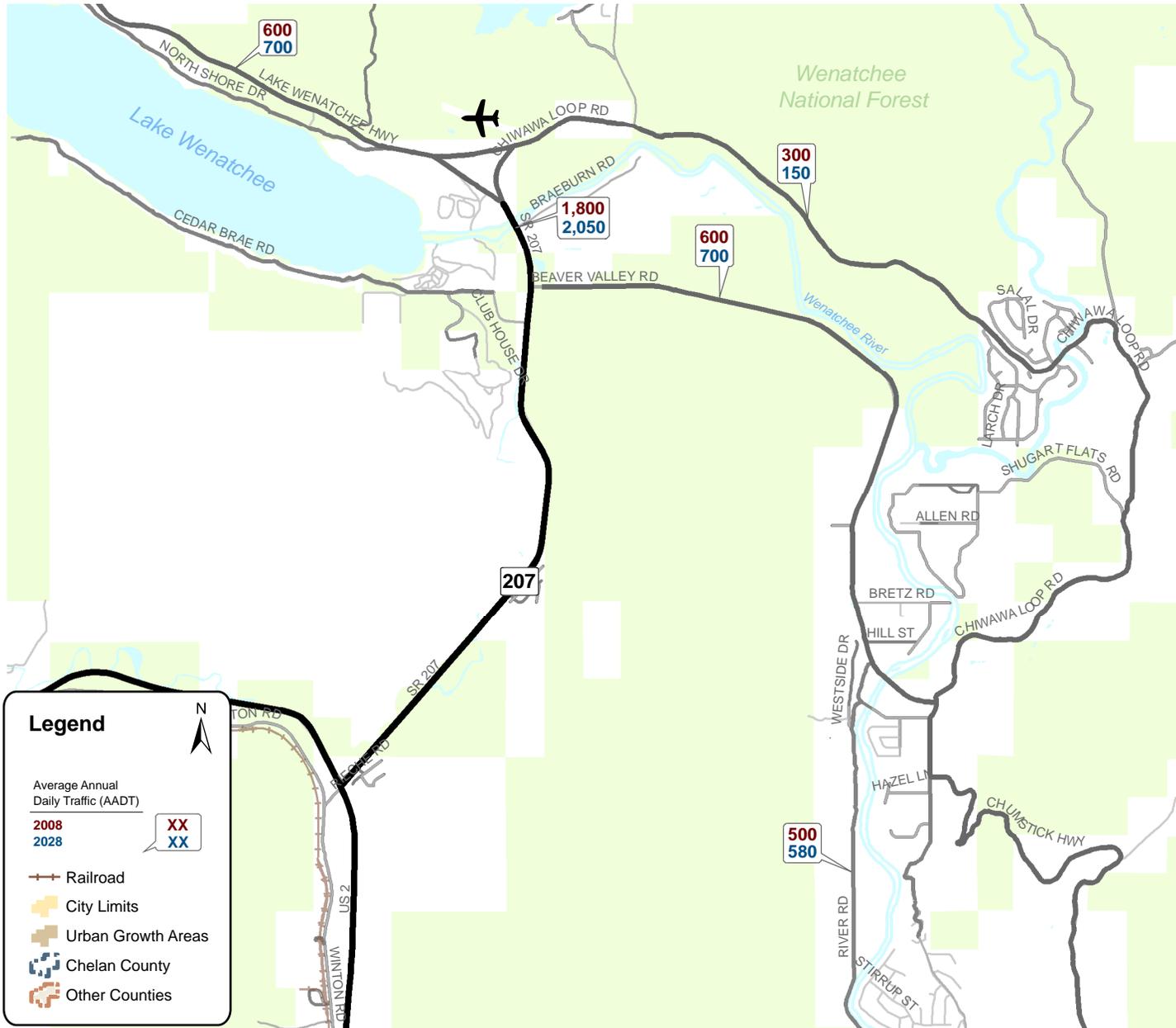
- A** Circulation and access improvements in the proposed UGA:
 - Intersection Improvements at SR 97/Blewett Cutoff Rd
 - New connection between Green Rd and Rollercoaster Rd
 - Roadway upgrades on Blewett Cutoff Rd, Beecher Hill Rd, Rollercoaster Rd and Green Rd
- B** Old Peshastin Bridge rehabilitation and sidewalks/trail
- C** North Road/Main Street: improve roadway and widen shoulders
- D** Main St/ Peshastin Rd intersection: illumination and signage improvements



Key Transportation Issues and Travel Forecasts

Plain/Lake Wenatchee Subarea

Chelan County Transportation Element Update



LAND USE ASSUMPTIONS

A 12% growth rate over 20 years was assumed for population and commercial / industrial uses in this area. This represents less than 0.5% growth a year.

Population **Commercial/Industrial**

Source: Discussions with County Staff

Key Projects Identified

- A** Chumstick Hwy issues such as vehicle speeds and improved roadway infrastructure.
- B** The need for improved pedestrian facilities, such as trails.





Key Transportation Issues and Travel Forecasts

Sunnyslope Subarea

Chelan County Transportation Element Update

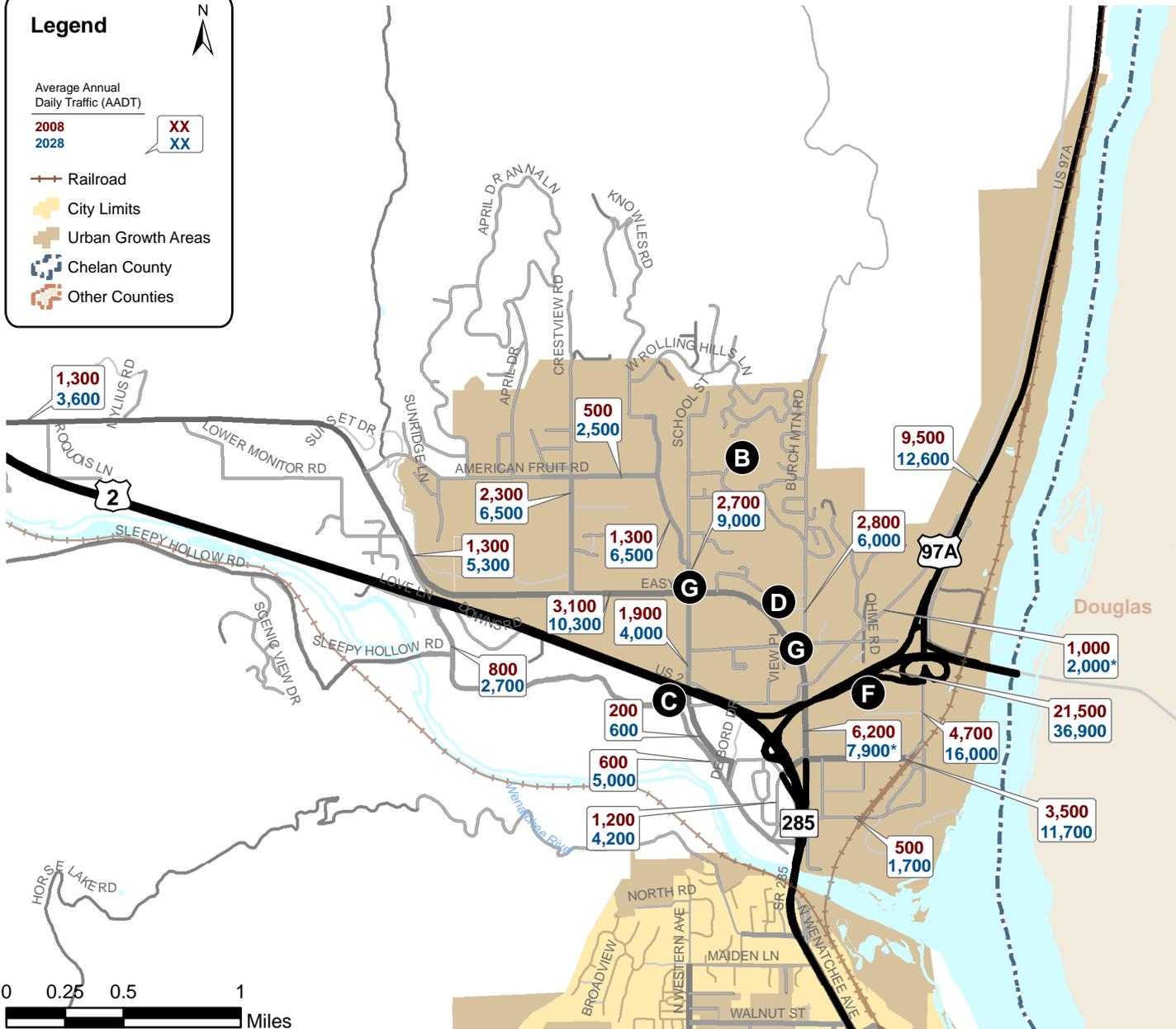


Legend

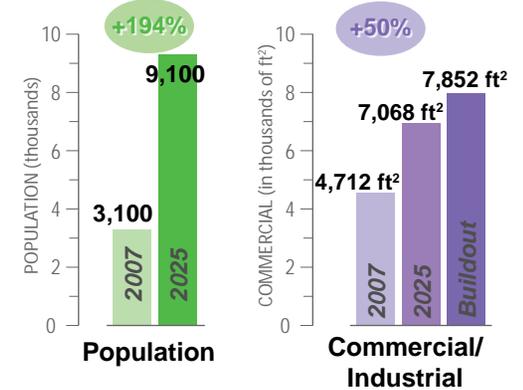
Average Annual Daily Traffic (AADT)

2008	XX
2028	XX

- Railroad
- City Limits
- Urban Growth Areas
- Chelan County
- Other Counties



LAND USE ASSUMPTIONS



Source: Draft Sunnyslope Subarea Plan, January 2007 and Discussions With County Staff

Key Issues Identified

- A** Identification of future transportation needs to support additional growth.
- B** The lack of east-west roadway connectivity.
- C** The need for a new US 2 interchange.
- D** The future footprint of Easy Street to handle the expected increase in traffic.
- E** Improved pedestrian/bicycle facilities.
- F** Overall access and circulation, and connections across Highway 2/97 and between Wenatchee.
- G** Future intersection operations and traffic control.

